1339053

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November 17, 2000

003-3979

Ms. Juanitta Bader Clem, P.E
England-Thims & Miller, Inc.
14775 St. Augustine Road
Jacksonville, Florida 32258

RE: RECORD DOCUMENTATION REPORT FOR GEOSYNTHETIC QUALITY ASSURANCE OF CONSTRUCTION OF PHASE IIIC THIRD CONSTRUCTION INCREMENT TRAIL RIDGE LANDFILL, BALDWIN, FLORIDA

33628

Dear Ms. Clem:

Golder Associates Inc. (Golder) is pleased to submit to England-Thims & Miller, Inc. (ETM) 12 copies of the enclosed report documenting the construction quality assurance (CQA) monitoring of the installation of the geosynthetic components of the double liner system for Phase IIIC of the Trail Ridge Landfill located in Baldwin, Florida. This report is submitted to ETM on behalf of Trail Ridge Landfill, Inc. and the City of Jacksonville.

The enclosed report contains a narrative describing the installation procedures employed by the contractors and the CQA monitoring performed by Golder, and contains copies of the geosynthetic manufacturers' quality control certificates, the results of geosynthetic materials conformance and geomembrane seam destructive laboratory testing, summary tables of the field CQA data recorded by Golder personnel during geomembrane liner installation, and record panel layout drawings of the completed secondary and primary geomembrane liner.

We appreciate the opportunity to work with you on this project. If you have any questions or comments, please do not hesitate to call.

Very truly yours,

GOLDER ASSOCIATES INC.

Francis T. Adams, P.E.
Senior Project Manager

FTA:mlb

Enclosure

SW

ENGLAND, THIMS & MILLER, INC.
14775 St. Augustine Road
Jacksonville, Florida 32258

Tel (904) 642-8990 Fax (904) 646-9485

LETTER OF TRANSMITTAL

TO: Mary Nogas, P. E.
Solid Waste Section
Dept. of Environmental Protection
7825 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256

DATE: December 8, 2000 | JOB NO: 00-79

RE: Trail Ridge Landfill - 3rd Construction Increment

WE ARE SENDING YOU: [X] Attached [ ] Under separate cover via:

[ ] Shop Drawings [ ] Prints [ ] Plans [ ] Specifications [ ] Copy of letter

COPIES	DESCRIPTION
2	Trail Ridge Landfill Phase IIIC – Construction Completion Report (Quality Assurance and
	Quality Control Documentation)

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DEC 08 2000
STATE OF FLORIDA
DEPT. OF ENV. PROTECTION
NORTHEAST DISTRICT-JAX

THESE ARE TRANSMITTED: -

[ ] For your use [x] For review and comment
[ ] As requested [ ] Other For Signatures

REMARKS:

Mary, these are the additional copies for the referenced project. If you have any questions, please feel free To give me a call.

CC:

SIGNED: Francis Dayao

Francis Dayao, P. E.

Golder Associates Inc.
8933 Western Way, Suite 12
Jacksonville, FL USA 32256
Telephone (904) 363-3430
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RECORD DOCUMENTATION
REPORT FOR

GEOSYNTHETIC QUALITY ASSURANCE OF CONSTRUCTION OF PHASE IIIC THIRD CONSTRUCTION INCREMENT TRAIL RIDGE LANDFILL BALDWIN, FLORIDA

Submitted to:

England-Thims & Miller, Inc.
14775 St. Augustine Road
Jacksonville, Florida 32258

On Behalf of:

Trail Ridge Landfill, Inc.
5110 U.S. Highway 301
Baldwin, Florida 32234
and
City of Jacksonville

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DEPT. OF ENV. PROTECTION
NORTHEAST DISTRICT-JAX

DISTRIBUTION:

12 Copies - England-Thims & Miller, Inc.
2 Copies - Golder Associates Inc.

November 2000

003-3979

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1.0 INTRODUCTION

1.1 Background

Golder Associates Inc. (Golder) was retained by England-Thims & Miller, Inc. (ETM) on behalf of Trail Ridge Landfill, Inc. and the City of Jacksonville to provide construction quality assurance (CQA) services during the installation of the geosynthetic components of the double liner system for Phase IIIC at the Trail Ridge Landfill located in Baldwin, Florida. A map showing the location of the Trail Ridge Landfill is presented in Figure 1. The landfill phasing plan, which indicates the location of Phase IIIC within the landfill, is included as Figure 2.

The main components of construction monitored by Golder are listed as follows:

- The completed surface of the compacted clay subbase;
- Installation of the 60-mil (nominal) thick smooth high density polyethylene (HDPE) secondary geomembrane liner;
- Installation of the secondary HDPE geonet and the six-ounce per square yard (oz/yd^2) (nominal) nonwoven geotextile;
- Installation of the bentonite mat (referred to hereinafter as the geosynthetic clay liner (GCL));
- Installation of the 60-mil (nominal) thick smooth HDPE primary geomembrane liner;
- Installation of the primary geonet and the 16-oz/yd^2 (nominal) nonwoven geotextile;
- Placement of the protective sand blanket;
- Installation of the leachate collection system including the sump;
- Installation of the leachate control flap along the southern limit of Phase IIIC;
- Installation of the stormwater control flap running north to south along the western limit of Phase IIIC; and
- Placement of the first lift of clay in the anchor trench along the eastern limit of Phase IIIC.

The scope of services provided by Golder included monitoring the installation of liner system components listed above, documentation of the work, sampling and laboratory testing of the geosynthetic materials manufactured for the project for conformance with the physical property

requirements of the project specifications, observation and documentation of field non-destructive testing of geomembrane seams, laboratory destructive testing of geomembrane seams, and preparation of the record documentation, which is the subject of this report.

This report includes a description of the project and the activities observed by Golder during the installation of the liner system for Phase IIIC. Descriptions of the installation activities and the CQA services provided by Golder are presented in Sections 3 and 4 of this report and generally follow the actual sequence of construction.

1.2 Project Description

The project involved the construction of approximately 8.7 acres of double lined disposal area. Phases IIIC is rectangular in shape and is located to the south of Phase IIIB which was constructed in 1996. The design provides a containment system that consists of, from bottom to top:

- 6-inch (nominal) thick compacted clay subbase having a hydraulic conductivity of 1×10^{-7} centimeters per second (cm/sec) or less;
- 60-mil (nominal) thick smooth HDPE secondary geomembrane liner;
- HDPE geonet (Poly-Net® PN-3000) secondary leachate collection layer;
- Secondary 6-oz/yd^2 (nominal) nonwoven geotextile (GEOTEX 701);
- Geosynthetic clay liner (GCL) (Bentofix®);
- 60-mil (nominal) thick smooth HDPE primary geomembrane liner;
- HDPE geonet (Poly-Net® PN-3000) primary leachate collection layer;
- Primary 16-oz/yd^2 (nominal) nonwoven geotextile (GEOTEX 1751); and
- 24-inch thick (minimum) protective sand blanket.

The compacted clay subbase, geomembrane, geonet, and geotextile components are designed to tie into the existing liner system of Phase IIIB to the north of Phase IIIC. The liner system terminates at Station 80+35N along the southern perimeter of Phases IIIC for tie-in with future Phase VA and along the western perimeter at Station 113+85E for tie-in with future Phase

IVC. The liner system terminates in an anchor trench along the eastern limit of Phase IIIC. The north and south halves of Phase IIIC are constructed with a slope of 2.67 and 2.0 percent, respectively, towards the east-west axis bisecting the length of Phase IIIC. The floor of Phase IIIC is graded to direct leachate flow to a central leachate collection trench which runs along the east-west axis of Phase IIIC. Flow is conveyed through an 8-inch diameter SDR-11 HDPE perforated pipe wrapped in aggregate installed within the collection trench. The trench slopes in an eastward direction from the western limit of Phase IIIC to a sump area located at the east end of Phase IIIC. A 24-inch diameter SDR-11 HDPE riser pipe is installed between the secondary and primary geomembrane liners in the sump, and extends up the eastern side slope to the edge of the disposal area, allowing for the extraction of liquid from the secondary leachate collection system. A 24-inch diameter SDR-11 HDPE riser pipe is installed above the primary geomembrane liner in the sump, and extends up the eastern side slope to the edge of the disposal area, allowing for the extraction of liquid from the primary leachate collection system. Pumps installed in the riser pipes are designed to pump leachate to holding tanks at the existing leachate storage, pumping, and containment area located east of Phase IA.

1.3 Scope of Services

The services provided by Golder included observation, documentation, and laboratory testing during the installation of the geosynthetic components of the liner system for Phase IIIC. This report documents the CQA services provided during the observation of the completed surface of the compacted clay subbase; installation of the secondary HDPE geomembrane liner, geonet, 6-oz/yd^2 nonwoven geotextile, GCL, primary HDPE geomembrane liner, geonet, and 16-oz/yd^2 nonwoven geotextile; placement of the protective sand blanket; installation of the leachate collection system and sumps; installation of the HDPE geomembrane leachate control flap along the southern limit of Phase IIIC; installation of the HDPE geomembrane stormwater control flap running north to south along the western limit of Phase IIIC; and placement of the first lift of clay in the anchor trench along the eastern limit of Phase IIIC.

During the construction of Phase IIIC, the Golder CQA team consisted of the Certifying Engineer, Resident Engineer, and up to three Geosynthetic Monitors. A list of Golder personnel present during construction of Phase IIIC liner system is presented in Appendix A.

The services provided by Golder during this project were conducted in accordance with the following documents:

- "Quality Assurance Manual for the Installation of Lining Systems," prepared by Waste Management, Inc. (WMI), dated August, 1997 (referred to hereinafter as the "QAM");
- "Trail Ridge Landfill, Project Specific Addenda To Quality Assurance Manual," prepared by ETM, as approved by the Florida Department of Environmental Protection (FDEP);
- Specifications entitled "Trail Ridge Landfill, 3rd Construction Increment, Phases IIIC, IVC & VA, VB, VC & VD, Section 13100 Liner System," prepared by ETM, released for Construction, May 24, 2000;
- Construction Drawings entitled "Trail Ridge Landfill, 3rd Increment, Phases IIIC, IVC, VA, VB, VC & VD for Trail Ridge Landfill, Inc., Duval County, Florida," Sheet Nos. 1 through 32 and E-1 through E-2, dated March 3, 2000, released for Construction, May 24, 2000.

The above documents are collectively referred to hereinafter as the "project specifications."

2.0 SPECIFICATION MODIFICATION

Subsequent to performing the laboratory transmissivity testing of the secondary liner system, the specifications were modified on the minimum physical property requirements for the 6-oz/yd^2 nonwoven geotextile listed in Part 8.1 of Section 13100 (Liner System) of the Technical Specifications. A copy of revised Part 8.1 of Section 13100, dated June 28, 2000, is included in Appendix B.

During construction, Serrot requested a modification to the Quality Control testing frequency from once per 50,000 square feet to once per 90,000 square feet for index and performance testing. A request was submitted to the FDEP on August 23, 2000 to revise Quality Control testing from once per 50,000 square feet to once per 90,000 square feet for all testing (both index testing and performance testing). Approval was obtained from FDEP in a letter dated August 25, 2000, and is included in Appendix B.

3.0 CONSTRUCTION OVERVIEW

3.1 Project Participants

The parties involved in the construction of the double composite liner system for Phase IIIC, include:

- City of Jacksonville, Florida, as the Owner;
- Trail Ridge Landfill, Inc., as the Operator of the facility;
- England-Thims, & Miller, Inc. (ETM), as the Design Engineer and overall CQA Consultant;
- R.B. Baker Construction, Inc. (Baker), as General Contractor;
- Serrot International, Inc. (Serrot), as the Geosynthetics Installer;
- Law-Gibb Group (Law), as the CQA Consultant and Certifying Engineer for the soil component installation; and
- Golder Associates Inc. (Golder), as the CQA Consultant and Certifying Engineer for the geosynthetic component installation.

3.2 Completion of Subbase Surface

Completion of the compacted clay subbase surface began in Phase IIIC during the week of August 23, 2000. The earthworks construction was monitored by Law for compliance with the project specifications. Golder and Serrot observed the final surface prior to the deployment of secondary geomembrane liner for compliance with the surface preparation requirements of the project specifications. The sequence for clay subbase and liner system installation was from west to east up to the east anchor berm and including the sump.

Photo 1 of Plate 1 shows work along the Phase IIIB tie-in area. Photo 2 of Plate 1 shows the status of the liner system in the Phase IIIC sump area as of October 5, 2000. Photo 17 of Plate 9 shows the status of the liner system in Phase IIIC as of October 2, 2000.

3.3 Secondary Geomembrane Liner Installation

The secondary geomembrane liner installation began on August 23, 2000 and was substantially completed on October 2, 2000. The secondary geomembrane liner consists of 60-mil (nominal) thick smooth HDPE geomembrane manufactured by Serrot. An estimated 404,976 square feet (final plan area) of secondary geomembrane liner was installed by Serrot in Phase IIIC. Deployment of the geomembrane was accomplished with the use of a rubber tire Lull and Honda tractors, and was supplemented by manual labor. Photo 3 of Plate 2 shows deployment of the secondary geomembrane liner by a Honda tractor.

The secondary geomembrane was installed in panels generally running north to south across the entire phase and east to west over the side slopes along the eastern perimeter of Phase IIIC. The existing weld between the primary and secondary geomembrane liner around the exposed edges of Phase IIIB was cut in accordance with the construction drawings prior to tie-in of the secondary geomembrane liner between Phases IIIB/IIIC. The secondary geomembrane liner along the north side of Phase IIIC was continuously welded to the existing secondary geomembrane liner along the south side of Phase IIIB. Photo 4 of Plate 2 shows the secondary geomembrane tie-in between Phases IIIB and IIIC.

3.4 Secondary Geonet Installation

The secondary geonet installation for Phase IIIC was carried out as sections of the secondary geomembrane liner were completed. The secondary geonet consists of Poly-Net® PN-3000 manufactured by Serrot. An estimated 396,280 square feet (final plan area) of secondary geonet was installed by Serrot in Phase IIIC. Deployment of the geonet was typically accomplished by the use of a Honda tractor and hand labor and panels were tied together in compliance with the project specifications. The secondary geonet was installed in panels generally running north to south across the entire floor of Phase IIIC and east to west over the side slopes along the eastern perimeter of Phase IIIC. The secondary geonet along the north side of Phase IIIC was continuously tied to the existing secondary geonet along the south side of Phase IIIB. Three extra layers of geonet were installed in the bottom of the leachate collection trench and in the sump of Phase IIIC, in accordance with the construction drawings.

Photo 5 of Plate 3 shows the three additional layers of geonet in the bottom of the leachate collection trench and in the sump of Phase IIIC.

3.5 Secondary Geotextile Installation

The secondary geotextile installation for Phase IIIC was carried out as sections of the secondary geonet were completed. The secondary geotextile consists of GEOTEX 701, which is a 6-oz/yd^2 (nominal) nonwoven, needle-punched, polypropylene geotextile manufactured by Synthetic Industries. An estimated 378,173 square feet (final plan area) of secondary geotextile was installed by Serrot in Phase IIIC. Deployment of the geotextile was typically accomplished by hand labor, and seams were continuously sewn in compliance with the project specifications. The secondary geotextile was installed in panels generally running north to south across the entire phase and east to west over the side slopes along the eastern perimeter of Phase IIIC. The secondary geotextile along the north side of Phase IIIC was overlapped approximately two feet to the secondary geotextile along the south side of Phase IIIB.

3.6 Geosynthetic Clay Liner Installation

The GCL installation for Phase IIIC was carried out as sections of the secondary geotextile were completed and the primary geomembrane was ready for installation. The GCL consists of Bentofix® manufactured by Bentofix Technologies, Inc. Installation of the GCL occurred in conjunction with the primary geomembrane liner installation to minimize the potential for hydration of the bentonite. The GCL was deployed up to the existing Phase IIIB limits along the north side of Phase IIIC per the construction drawings. An estimated 393,630 square feet (final plan area) of GCL was installed by Serrot in Phase IIIC. The GCL was typically deployed by means of a low ground pressure trailer towed by a Honda tractor. Photo 6 of Plate 3 shows deployment procedures of the GCL using the Honda tractor and trailer. Hand labor was used to position the panels in place to provide the required overlap of 6 inches. The GCL was installed in panels generally running north to south across the entire phase and east to west over the side slopes along the eastern perimeter of Phase IIIC. The GCL installed at the north side of Phase IIIC was overlapped approximately one foot over the existing GCL along the south side of Phase IIIB.

3.7 Primary Geomembrane Liner Installation

The primary geomembrane liner installation began in Phase IIIC on September 1, 2000 and was substantially completed on October 6, 2000. The primary geomembrane liner consists of 60-mil (nominal) thick smooth HDPE geomembrane manufactured by Serrot. An estimated 396,355 square feet (final plan area) of primary geomembrane liner was installed by Serrot in Phase IIIC. Deployment of the geomembrane was accomplished with the use of a Honda tractor, and supplemented by manual labor. The primary geomembrane was installed in panels generally running north to south across the entire phase and east to west over the side slope along the eastern limit of Phase IIIC. The primary geomembrane liner along the north side of Phase IIIC was continuously welded to the existing primary geomembrane liner along the south side of Phase IIIB.

The primary geomembrane liner was extrusion welded to the secondary geomembrane liner along the eastern perimeter of Phase IIIC, along the western limit, and along the southern limit. The welds along the western and southern perimeter of Phase IIIC will be removed when the liner system for future Phase IVC and future Phase VA are constructed, respectively.

3.8 Primary Geonet Installation

The primary geonet installation for Phase IIIC was carried out as sections of the primary geomembrane liner were completed. The primary geonet consists of Poly-Net® PN-3000 manufactured by Serrot. An estimated 381,331 square feet (final plan area) of primary geonet was installed by Serrot in Phase IIIC. Deployment of the geonet was typically accomplished by hand labor, and panels were tied together in compliance with the project specifications. The primary geonet was installed in panels generally running north to south across the entire phase and east to west over the side slope along the eastern limit of Phase IIIC. The primary geonet along the north side of Phase IIIC was continuously tied to the existing primary geonet along the south side of Phase IIIB.

3.9 Primary Geotextile Installation

The primary geotextile installation for Phase IIIC was carried out as sections of the primary geonet were completed. The primary geotextile consists of GEOTEX 1751, which is a 16-oz/yd^2 (nominal) nonwoven, needle-punched, polypropylene geotextile manufactured by Synthetic Industries. An estimated 379,753 square feet (final plan area) of primary geotextile was installed by Serrot in Phase IIIC. Deployment of the geotextile was typically accomplished by hand labor, and seams were continuously sewn in compliance with the project specifications. The primary geotextile was installed in panels generally running north to south across the entire phase and east to west over the side slopes along the eastern perimeter of Phase IIIC. The primary geotextile along the north side of Phase IIIC was continuously overlapped approximately two feet over the existing primary geotextile along the south side of Phase IIIB.

3.10 Protective Sand Blanket and Leachate Collection System Installation

A 2-foot thick (minimum) protective sand layer was placed by Baker over the primary geotextile in accordance with the construction drawings. The sand layer extends over the completed sump area in Phase IIIC and up the eastern side slope to the edge of the clay anchor berm. Photo 7 of Plate 4 shows placement of the protective sand blanket in Phase IIIC.

An 8-inch diameter HDPE SDR-11 perforated pipe was installed above the primary 16-oz/yd^2 nonwoven geotextile in the leachate collection trench along the east-west axis of Phases IIIC. Two extra layers of 16-oz/yd^2 nonwoven geotextile were installed along the trench below the pipe. Gravel backfill consisting of American Association of State, Highway, and Transportation Officials (AASHTO) No. 3 coarse aggregate was placed in the trench around and above the pipe to a minimum height of six inches as measured above the top of the pipe. Photo 8 of Plate 4 shows the welding apparatus for butt fusion welding the 8-inch diameter HDPE pipe. The top layer of geotextile was overlapped a minimum of two feet over the gravel backfill and an additional layer of 16-oz/yd^2 nonwoven geotextile was placed over the completed leachate collection trench in accordance with the construction drawings. An 8-inch diameter cast iron gate valve (resilient seat) was installed along the leachate collection pipe approximately five feet west of the stormwater control flap in Phase IIIC.

A prefabricated 3.5-foot wide by 3-foot long by 1/2-inch thick piece of HDPE flat stock was installed under the gate valve within the leachate collection trench. An 8-inch diameter HDPE "tee" and vertical riser pipe were installed in the leachate collection pipe just west of the gate valve to allow for temporary extraction of collected stormwater until the adjacent phase becomes active.

A sump was constructed at the east end of the leachate collection trench at the inside toe of slope of the eastern anchor berm of Phase IIIC. The approximate dimensions of the sump bottom are 12 feet wide (east-west) by 22 feet long (north-south). The secondary geomembrane liner was installed continuously through the sump. Photo 9 of Plate 5 shows the secondary liner installation in the Phase IIIC sump. A layer of GCL and an extra layer of 60-mil thick HDPE geomembrane were then installed in the secondary sump and were extended at least two feet beyond the top of the sump. Photo 10 of Plate 5 shows the layer of GCL above the secondary geomembrane liner in the Phase IIIC sump. The edges of the extra layer of geomembrane were extrusion welded to the secondary geomembrane liner in accordance with the construction drawings. The secondary geonet was then installed continuously through the sump and three extra layers of geonet were installed in the northern section (primary collection area) in accordance with the construction drawings. Three layers of 16-oz/yd^2 nonwoven geotextile were placed over the secondary geonet in the southern portion of the sump (secondary collection area) and a 24-inch diameter SDR-11 HDPE (secondary) riser pipe was installed approximately two feet from the southern edge of the sump bottom. A 4-foot square piece of 60-mil HDPE geomembrane rub sheet was placed beneath the elbow of the 24-inch diameter SDR-11 HDPE riser pipe. The pipe continues up the anchor berm side slope to the edge of the lined area in accordance with the construction drawings. The area around the pipe was backfilled with AASHTO No. 3 coarse aggregate to cover an area approximately 12 feet square on the southern portion of the sump floor to a depth approximately level with the surrounding cell floor grades at the top of the sump. The three layers of 16-oz/yd^2 geotextile were then folded over the aggregate backfill and overlapped at least two feet.

Following installation of the secondary riser pipe, aggregate backfill, and overlapping of the extra layer of 16-oz/yd^2 nonwoven geotextile, the secondary 6-oz/yd^2 geotextile, GCL, and primary geomembrane liner were installed continuously through the sump. A layer of GCL and an extra layer of 60-mil thick HDPE geomembrane were then installed in the primary sump

and were extended at least two feet beyond the top of the sump. The edges of the extra layer of geomembrane were extrusion welded to the primary geomembrane liner in accordance with the construction drawings. The primary geonet and primary 16-oz/yd^2 geotextile were then installed continuously through the sump.

Two additional layers of 16-oz/yd^2 geotextile were placed in the northern portion (primary collection area) of the sump and a 24-inch diameter SDR-11 HDPE riser pipe was installed approximately five feet from the northern edge of the sump bottom. A 4-foot square piece of 60-mil HDPE geomembrane rub sheet was placed beneath the elbow of the 24-inch diameter SDR-11 HDPE riser pipe. The 8-inch diameter SDR-11 HDPE perforated leachate collection pipe was connected to the 24-inch diameter riser pipe using a "T" fitting and then continues up the slope as a solid pipe for clean-out purposes. The 24-inch diameter riser pipe also continues up the anchor berm side slope to the edge of the lined area in accordance with the construction drawings. The area around the pipes were backfilled with AASHTO No. 3 coarse aggregate to cover an area approximately 10 feet by 12 feet on the northern portion of the sump floor to a depth approximately level with the surrounding cell floor grades at the top of the sump. The two extra 16-oz/yd^2 geotextile layers were then folded over the aggregate backfill and overlapped at least two feet. An additional layer of 16-oz/yd^2 geotextile was then placed over the primary sump area in accordance with the construction drawings.

A liner boot was installed at the penetration of the 24-inch diameter HDPE secondary riser pipe through the primary geomembrane liner near the top of the eastern side slope. The boot consisted of a 60-mil thick HDPE geomembrane sleeve wrapped around the pipe and extrusion welded to a 60-mil HDPE geomembrane "skirt", which in turn was extrusion welded to the primary geomembrane liner. The boot was sealed to the pipe by injecting silicone caulking under the end of the HDPE sleeve. A 60-mil thick HDPE geomembrane rub sheet was placed around the sleeve. The rub sheet and boot were then clamped to the pipe by three 3/4-inch wide stainless steel bands with neoprene gaskets. The primary 16-oz/yd^2 geotextile was also extended round the secondary riser pipe in a similar fashion. The geotextile was wrapped around the pipe and extended beyond the edge of the secondary geomembrane liner boot. The geotextile was then clamped to the pipe by three 3/4-inch wide stainless steel bands with neoprene gaskets in accordance with the construction drawings.

The extra layers of 16-oz/yd^2 geotextile were extended around the 24-inch diameter HDPE primary riser pipe similar to the HDPE boot around the secondary riser pipe. The geotextile was wrapped around the pipe and extended beyond the edge and clamped to the pipe by three 3/4-inch wide stainless steel bands.

Photos 11 through 14 of Plates 6 and 7 show installation of the various components of the sump in Phase IIIC.

3.11 Anchor Berm Construction

A compacted clay anchor berm was constructed along the eastern limit of Phase IIIC. Golder observed placement of the first lift of clay to ensure that the geosynthetic layers were not damaged as a result of this procedure. Monitoring of this operation was carried out by Golder between October 11 and October 28, 2000. Monitoring of placement of subsequent lifts of clay, as well as all field and laboratory testing of the entire clay anchor berm, was conducted by Law. Photo 15 of Plate 8 shows the anchor trench backfilled with clay material.

3.12 Leachate and Stormwater Control Flap Installation

A leachate control flap consisting of 60-mil thick HDPE geomembrane were extrusion welded to the primary geomembrane liner along the east-west ridge between Phases IIIC/VA. The liner system was extended approximately 25 feet south of the leachate control flap (the ridge at Station 80+60N) between Phases IIIC/VA into future Phase VA in accordance with the construction drawings. The flap was a minimum of five feet high and was installed in a vertical position within the protective sand blanket during sand placement.

A stormwater control flap consisting of 60-mil thick HDPE geomembrane was extrusion welded to the primary geomembrane liner at one location running north to south along Station 114+00E.

A liner boot was installed at the penetration of the primary leachate collection pipe through the stormwater control flap. The boot consisted of a 60-mil thick HDPE geomembrane sleeve wrapped around the pipe and extrusion welded to a 60-mil HDPE geomembrane "skirt", which

in turn was extrusion welded to the stormwater control flap. The boot was sealed to the pipe by injecting silicone caulking under the end of the HDPE sleeve. A 60-mil thick HDPE geomembrane rub sheet was placed around the sleeve. The rub sheet and boot were clamped to the pipe by three 1/2-inch wide stainless steel bands with neoprene gaskets.

The stormwater control flap was installed vertically within the protective sand blanket and extended an additional 23 feet for placement over the stormwater control berm. The berm construction was not monitored as part of Golders' scope of services. However, Golder personnel inspected the flap after placement onto the stormwater control berm and monitored repair of defects by Serrot.

The approximate location of the leachate and stormwater control flaps are shown on the primary geomembrane liner record panel layout drawing in Figure 3. Photos 16 of Plate 8 shows installation of the leachate control flap.

4.0 GEOSYNTHETIC INSTALLATION MONITORING

The CQA monitoring services provided by Golder included:

- Sample procurement and conformance testing of the geosynthetic materials, including HDPE geomembrane, geonet, geotextiles, and GCL;
- Review of the geosynthetic manufacturers' quality control (QC) certificates;
- Observation, along with Serrot, of the completed surface of the compacted clay subbase prior to secondary geomembrane liner installation;
- Visual examination and documentation of primary and secondary geomembrane panels during deployment;
- Observation and documentation of geomembrane trial seams and evaluation of the test results;
- Observation and documentation of both the fusion and extrusion welded geomembrane seams and seaming procedures;
- Observation and documentation of geomembrane seam non-destructive continuity testing;
- Performance of geomembrane seam laboratory destructive strength testing and evaluation of test results;
- Observation and documentation of geomembrane, geonet, geotextile, and GCL installation;
- Observation and documentation of the primary protective sand blanket placement;
- Observation and documentation of the leachate collection system construction, including installation of the HDPE leachate collection pipes, coarse aggregate backfill, gate valve, stormwater riser pipes, and extra layers of geonet and geotextile in the leachate collection trench;
- Observation and documentation of the installation of geonet layers, geotextile layers, 24-inch diameter HDPE side slope riser pipes, 8-inch diameter leachate clean-out riser pipe, and aggregate backfill in the secondary and primary sumps of Phase IIIC;
- Observation of the installation of the leachate and stormwater control flaps in Phase IIIC; and
- Observation and documentation of the placement of the initial lift of clay in the anchor trench along the eastern perimeter of Phase IIIC.

Detailed descriptions of each of the above monitoring duties are presented in the following sections. Copies of geosynthetic materials inventory spreadsheet, geosynthetic manufacturers' QC certifications, laboratory conformance test results, field CQA data spreadsheets, logs, and summaries, and geomembrane seam laboratory destructive test results for the geosynthetic components of the Phase IIIC liner system are included in Appendices C through L.

4.1 Material Conformance Testing

Conformance samples of the geosynthetic materials installed in the liner system of Phase IIIC were obtained by Golder directly from the manufacturing plant prior to delivery of material to the site. Golder conducted an inventory of the geosynthetic materials as they were received at the site. The roll lists were provided to Golder prior to conformance sampling so that representative samples of the produced materials could be obtained in accordance with the sampling frequency requirements of the project specifications. Lists of the roll numbers of the delivered materials are presented in Appendix C. The project specifications require a minimum sampling frequency of one conformance sample per 100,000 square feet of material for geomembrane, geonet, geotextiles, and GCL. In addition, the project specifications require a minimum sampling frequency of one conformance sample per 250,000 square feet of GCL material for hydraulic conductivity testing. To date, a total of 41 conformance samples of geomembrane, 29 conformance samples of geonet, nine conformance samples of secondary (6-oz/yd^2) geotextile, nine conformance samples of primary (16-oz/yd^2) geotextile, and 11 conformance samples of GCL were obtained from the manufacturing plant. The conformance sampling was carried out consistent with the requirements outlined in the project specifications.

All samples were shipped to Golder's geosynthetic materials testing laboratory in Atlanta, Georgia for conformance testing. The tests were performed in accordance with the standard test procedures defined by the American Society for Testing and Materials (ASTM) as required by the project specifications. Summary tables of the material conformance test results for the geosynthetics materials delivered to the site are presented in Appendix D.

4.1.1 Geomembrane

All 41 conformance samples of geomembrane passed the applicable physical/mechanical property requirements of Section 13100 of the Technical Specifications.

4.1.2 Geonet

All 29 conformance samples of geonet passed the applicable physical/mechanical property requirements of Section 13100 of the Technical Specifications.

4.1.3 Secondary Geotextile

All nine conformance samples of secondary (6-oz/yd^2) geotextile passed the applicable physical/mechanical property requirements of Section 13100 of the Technical Specifications.

4.1.4 Primary Geotextile

All nine primary (16 oz/yd^2) geotextile conformance samples met or exceeded the minimum physical property requirements for all samples.

4.1.5 Geosynthetic Clay Liner

The GCL conformance samples met or exceeded the minimum physical property requirements for all samples except for one of the initial 11 samples. Golder obtained additional samples from rolls produced just prior to and immediately after the failing roll until passing test results were obtained for the property which initially failed. After passing results were obtained to bound the failure in both directions, all failing rolls, as well as the next passing roll in the "after" direction (higher roll number relative to the initial failed roll), were rejected, in accordance with the procedures listed in Section 13.4.3 of the QAM. A total of two rolls (4,650 ft^2) were rejected for use following these procedures and were segregated from acceptable rolls for removal from the site.

4.2 Manufacturers' Quality Control Certification Review

The manufacturers' QC Certificates for the geosynthetic materials delivered to the site for Phase IIIC were submitted to Golder for review subject to the project specifications. The review indicated that the QC test results shown on the final QC certificates received from the manufacturers in all cases meet or exceed the minimum physical/mechanical property requirements listed in the project specifications. Copies of the manufacturers' certificates and QC test results for the geomembrane resin, geomembrane rolls, geonet resin, geonet rolls, secondary (6-oz/yd^2) geotextile rolls, primary (16-oz/yd^2) geotextile rolls, GCL rolls, and geomembrane welding rod resin are presented in Appendix E.

Tables 1 through 5 of Appendix C present summaries of inventory and eligibility status for the rolls of geomembrane, geonet, secondary (6-oz/yd^2) geotextile, primary (16-oz/yd^2) geotextile, and GCL, respectively, delivered to the site. Eligibility status is based on conformance and manufacturers' QC test results.

4.3 Geomembrane Installation Monitoring

4.3.1 Geomembrane Deployment Monitoring

Prior to deployment of the secondary geomembrane panels, Serrot submitted Certificates of Acceptance of Soil Surface, copies of which are presented in Appendix F. The term "soil surface" utilized in the certificates refers to the completed surface of the compacted clay subbase.

During and immediately after deployment of each geomembrane panel, the sheet was visually examined by Golder personnel to ensure that the method of deployment did not cause damage to the geomembrane or any underlining materials. This process included observation of geomembrane panel placement, panel alignment, panel overlap with adjacent panels, panel surface quality, and panel identification (roll and panel number assignment).

Golder assigned each geomembrane panel a unique panel number corresponding to the order in which it was deployed. The secondary geomembrane liner panels are designated S-1 to S-100 in Phase IIIC. The primary geomembrane liner panels are designated P-1 to P-93 in

Phase IIIC. The panels of the extra layer of geomembrane installed in the Phase IIIC secondary sump are designated SRS-1 to SRS-3. The panels of the extra layer of geomembrane installed in the primary sump are designated PRS-1 and PRS-2.

Following deployment, sand bags were used to temporarily anchor the outermost edges of the last geomembrane panels installed each day until adjacent panels were installed and permanently seamed. The record secondary and primary geomembrane liner panel layout drawing for Phase IIIC is presented on Figure 3.

Defects resulting from manufacturing, shipping, or deployment were repaired in accordance with the project specifications. Summaries of the geomembrane panel deployment monitoring logs are presented in Appendix G.

4.3.2 Geomembrane Trail Seam Test Monitoring

Geomembrane trial seams were made by Serrot technicians to monitor each seaming apparatus and operator under ambient site conditions. Trial seams were made on remnant pieces of geomembrane and were performed prior to field seaming operations each day (typically in the morning) and again at mid-day (typically after lunch). Serrot tested a minimum of two specimens from each trial seam for peel adhesion (peel) failure mode and strength.

The strength criteria for peel specimens stipulated by the project specifications are that specimens shall yield at a strength equal to or greater than 90 pounds per inch (ppi) for fusion seams and 78 ppi for extrusion seams.

Trial seaming and testing were observed and documented by Golder personnel. Summaries of the trial seam test results for both fusion and extrusion methods are presented in Appendix H. Figures depicting the codes used to classify the failure modes for both fusion and extrusion seam test specimens are included in Appendix H.

4.3.3 Geomembrane Seam Monitoring

The principal seaming method employed by Serrot was the dual hot wedge fusion process. Serrot also used hand-held extrusion welders to make repairs, to reconstruct failed fusion seams, and to weld seams that were too short or irregular, or that were in locations of difficult access for the fusion welder.

Golder field monitors observed and documented seaming operations on a full-time basis. Monitoring during seaming included observation of the seam area for cleanliness and absence of moisture and the monitoring of welding machine temperatures. All seams were observed for visual quality and seam completion. Observed imperfections were marked by either a Serrot technician or a Golder field monitor and were subsequently repaired by Serrot. Seaming information recorded by Golder included seam number, seam section, ambient temperature, approximate start time, seaming device, seaming technician, pre-heat set or machine speed, digital set and indicator temperatures of the wedge or barrel nozzle, approximate welding length, and destructive sample number (if applicable). Summaries of the fusion and extrusion seam monitoring data are presented in Appendix I.

4.3.4 Geomembrane Non-Destructive Seam Continuity Test Monitoring

All seams and repairs were non-destructively tested for continuity by the installer using the air pressure method for double track fusion seams and the vacuum box method for extrusion seams.

Golder observed the testing procedures and documented the results of all non-destructive continuity testing. At locations where the continuity testing indicated a leak, repairs were made and retested until passing results were obtained in accordance with the project specifications. Each repair was assigned a unique number to facilitate data tracking and location of all repairs. Monitoring and documentation of defects and associated repairs are summarized in Appendix J. Summaries of non-destructive test results for seams and repairs are contained in Appendix K.

4.3.5 Geomembrane Destructive Seam Strength Testing

Destructive seam strength testing was performed by Golder in accordance with the project specifications with a specified minimum average frequency of one test per 500 linear feet of completed seam. For each destructive test sample, two specimens were removed from each end of the sample and tested in the field by Serrot for failure mode and strength. If one or more of the specimens failed testing in the field, the entire sample was considered a failure and no laboratory testing of the failed field sample was conducted. Retesting and repair procedures outlined in the QAM would then be followed. If all specimens passed field testing, the entire sample was cut out by Serrot. Each destructive sample was divided into three sections: one section was retained by Trail Ridge Landfill, Inc. for archiving, the second section was utilized for laboratory testing by Golder, and the third was retained by Serrot. Laboratory samples were shipped to Golders' geosynthetic materials testing laboratory in Atlanta, Georgia for testing in accordance with project specifications.

In the laboratory, each destructive sample was divided into ten 1-inch wide specimens, five for bonded seam strength (shear) testing and five for peel adhesion (peel) testing. For double track fusion samples, both tracks were tested for peel adhesion, resulting in ten peel specimen test results for each fusion sample. The specified acceptance criteria for shear tests was that at least four of the five specimens must have yield strengths greater than or equal to 120 ppi, with failure not extending more than 10 percent into the weld. The criteria for peel tests was that at least four of the five specimens must have peel strengths greater than 90 ppi for fusion welds, and 78 ppi for extrusion welds, with failure not extending more than 10 percent into the weld. In the event of failure of either of these criteria, the destructive sample was considered a failure in accordance with the project specifications.

Fusion seam destructive samples were given the designations "DSF" and "DPF" for secondary and primary geomembrane liners, respectively. Extrusion seam destructive samples were given the designations "DSX" and "DPX" for secondary and primary geomembrane liners, respectively. Summaries of the destructive test results are presented in Appendix L. Figures depicting the codes used to classify the failure modes for test specimens are included in Appendix L. The approximate locations of the destructive test samples are shown on Figure 3.

During secondary and primary geomembrane liner installation in Phases IIIC, a total of 78 destructive samples were obtained from approximately 37,089 linear feet of completed fusion seams, resulting in a sampling frequency of one test per 476 linear feet of fusion welding. All fusion seam destructive samples met or exceeded the minimum destructive test pass criteria specified in the QAM.

In addition, a total of 14 extrusion destructive samples were obtained from extrusion seams and/or repairs. All 14 extrusion seam destructive samples met or exceeded the minimum destructive test pass criteria specified in the QAM.

4.3.6 Geomembrane Repair Monitoring

Defects on the geomembrane liners were repaired by Serrot in accordance with the project specifications. Golder assigned each observed defect a unique alphanumeric code to ensure tracking of both the repair and the subsequent non-destructive test performed by Serrot. Summaries of defect/repair logs prepared by Golder field personnel are included in Appendix J.

Some limited areas of the primary geomembrane liner in Phase IIIC required cutting to remove hydrated GCL. After removal and replacement of the hydrated GCL, the primary geomembrane liner was repaired and tested in accordance with the specifications.

While welding the primary geomembrane to the secondary geomembrane along the southern perimeter of Phase IIIC, five sections were left unwelded to act as temporary vents to relieve air pressure between the liners during placement of the protective sand blanket in Phase IIIC. These sections were not welded at the completion of the protective sand blanket placement in Phase IIIC since the liner system installation for Phase VA was in progress and was expected to be completed within 30 to 60 days of the date of this report. During construction of Phase VA, the entire primary to secondary weld along the south perimeter of Phase IIIC will be removed to tie-in the secondary and primary geomembrane liners between Phases IIIC and VA. Because the subject weld is located on the south side of the ridge (high point) between Phases IIIC and VA and the adjacent grade slopes to the south towards the center of Phase VA, stormwater will flow away from these vents, and any liquids between the geomembrane liners in Phase IIIC

would be contained by the secondary geomembrane liner within the ridge line between these phases.

The approximate locations of all major repairs are indicated on Figure 3.

4.4 Geonet Installation Monitoring

The CQA monitoring performed by Golder during the installation of the secondary and primary geonet layers consisted of:

- Visual examination of panel quality;
- Monitoring of panel overlap; and
- Monitoring of panel joining.

Geonet panels were visually examined for any damage which might have occurred during transport and deployment. Damaged areas were repaired by patching in accordance with the project specifications. Adjacent panels of geonet were overlapped a minimum of four inches along the sides of the roll length and one foot at the end of the roll. The panels were joined with nylon cable ties spaced approximately five feet apart along the sides of the roll and six inches apart across the end of the roll. Patches extended one foot beyond the damaged area and were secured with ties approximately six inches on center. Three extra layers of geonet were placed in the leachate collection trench and the primary sump and tied to the secondary geonet a minimum of every five feet.

4.5 Geotextile Installation Monitoring

The CQA monitoring performed by Golder during the installation of the secondary (6-oz/yd^2) and primary (16-oz/yd^2) nonwoven geotextile layers consisted of:

- Visual examination of panel quality;
- Monitoring of panel overlap; and
- Monitoring of panel sewing.

Geotextile panels were visually examined for any damage which might have occurred during transport and deployment. The geotextile was installed by Serrot with a nominal three inch overlap. All adjacent geotextile panels were sewn together in accordance with the project specifications, except for the Phase IIIB/IIIC secondary and primary tie-in seams which were overlapped a minimum of two feet.

4.6 Geosynthetic Clay Liner Installation Monitoring

The CQA monitoring performed by Golder during the installation of the GCL layer consisted of:

- Visual observation of panel quality; and
- Monitoring of individual panel overlaps.

GCL panels were visually examined for damage which may have occurred during transport and deployment. Adjacent panels were overlapped a minimum of six inches along the sides of the roll and 12 inches along the end of the roll. Damaged areas were repaired by placing a patch extending a least 24 inches beyond the damaged area. The observation of the panel quality included visual monitoring to determine if hydration of the bentonite occurred.

In accordance with the requirements in the project specifications, Serrot performed repairs in isolated areas where hydration of the GCL was observed, prior to placement of the primary geomembrane. As noted in Section 4.3.6, several areas of hydrated GCL required removal and replacement after installation of the primary geomembrane liner in Phase IIIC. The removal of the hydrated GCL and material replacement was monitored by Golder.

4.7 Protective Sand Blanket Installation Monitoring

After completion of the primary (16-oz/yd^2) geotextile installation, Baker proceeded with the placement of the protective sand blanket. Placement of this layer began with construction of a minimum three foot thick temporary haul road into Phase IIIC from the south side. Sand was hauled into Phase IIIC along the haul road by dump trucks. The sand was spread to the design thickness of two feet by a low ground pressure bulldozers.

Full-time monitoring of the protective sand blanket placement and leachate collection system trench construction was carried out by Golder between October 9 and November 6, 2000. Monitoring of the protective sand blanket placement consisted of visual observation only to ensure that the geosynthetic layers were not damaged during sand placement. Field and laboratory testing of the protective sand blanket material was conducted by Law.

4.8 Leachate Collection System Installation Monitoring

The CQA monitoring provided by Golder during the installation of the leachate collection system trench and sump consisted of:

- Visual observation for damage to underlying geosynthetics materials;
- Visual observation of HDPE pipe welds; and
- Visual observation of geotextile, pipe and aggregate installation.

Golder noted no damage to the underlying geosynthetics in the leachate collection system trench and sump. Extra layers of geotextile were placed around the aggregate and overlapped in accordance with the construction drawings and project specifications.

4.9 Anchor Berm Construction Monitoring

Upon completion of geosynthetic materials installation, Baker placed a lift of clay in the anchor trench along the eastern perimeter of Phase IIIC. Golder monitored placement of this first lift to ensure that the underlying geosynthetic layers were not damaged during this operation. The CQA monitoring performed by Golder during the placement of the first lift of clay into the anchor trench consisted of:

- Visual observation for damage to underlying geosynthetics materials; and
- Visual observation for damage to the exposed secondary riser pipe.

Golder noted no damage to the underlying geosynthetics or exposed riser pipe during placement of the first lift of clay for the anchor berm along the eastern perimeter of Phase IIIC.

Monitoring of placement of subsequent lifts of clay, as well as all field and laboratory testing of the entire clay anchor berm, was conducted by Law.

4.10 Leachate and Stormwater Control Flap Installation Monitoring

The CQA monitoring provided by Golder during the installation of the leachate and stormwater control flaps in Phase IIIC consisted of:

- Visual observation of vacuum testing of the extrusion weld of the flap to the primary geomembrane liner;
- Visual observation for damage to underlying geosynthetics materials; and
- Visual observation of placement of the flap within the protective sand blanket and over the stormwater control berm.

Golder noted no damage to the underlying geosynthetics along the leachate and stormwater control flaps installed in Phase IIIC. Some small defects on the flaps were observed during installation and were repaired in accordance with the project specifications.

5.0 CERTIFICATION

Golder was retained by ETM to provide CQA services during the installation of the geosynthetic components for the liner system for Phase IIIC at the Trail Ridge Landfill in Baldwin, Florida. These services included the quality assurance monitoring, documenting, and testing of the items listed below:

- Observation of the completed surface of the compacted clay subbase;
- Installation of the 60-mil HDPE secondary geomembrane liner;
- Installation of the secondary geonet and the secondary (6-oz/yd^2) nonwoven geotextile;
- Installation of the geosynthetic clay liner (bentonite mat);
- Installation of the 60-mil HDPE primary geomembrane liner;
- Installation of the primary geonet and the primary (16-oz/yd^2) nonwoven geotextile;
- Placement of the protective sand blanket;
- Installation of the leachate collection system and sumps;
- Installation of the leachate control flap running east-west along the southern ridge at Station 80+60N of Phase IIIC;
- Installation of the stormwater control flap running north-south along Station 114+00E of Phase IIIC; and
- Placement of the first lift of clay in the anchor trench along the eastern perimeter of Phase IIIC.

Based on the field observations, laboratory field test results, and the data presented herein, it is the professional opinion of Golder that the geosynthetic components of the liner system for Phase IIIC of the Trail Ridge Landfill were installed in substantial conformance with project specifications as referenced herein.

GOLDER ASSOCIATES INC.

Michael Bracci
Project Engineer

Francis J. Adams, P.E.
Senior Project Manager
Florida P.E. License No. 46417

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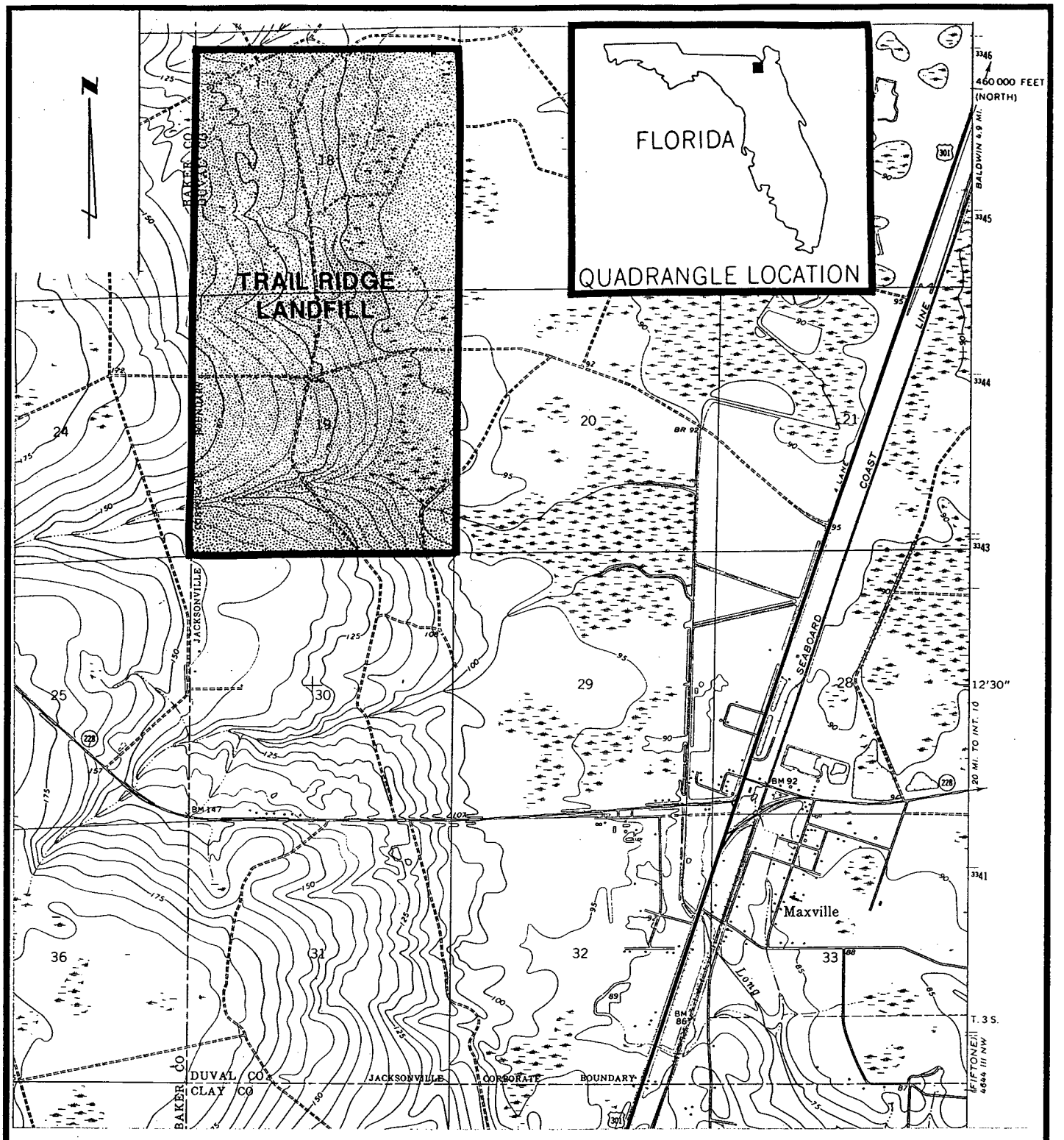


REFERENCE:

USGS QUADRANGLE, 7.5 MINUTE SERIES, TOPOGRAPHIC MAP MAXVILLE QUADRANGLE.

1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 KILOMETER

CONTOUR INTERVAL 5 FEET
DATUM IS MEAN SEA LEVEL

JACKSONVILLE, FLORIDA

Golder Associates

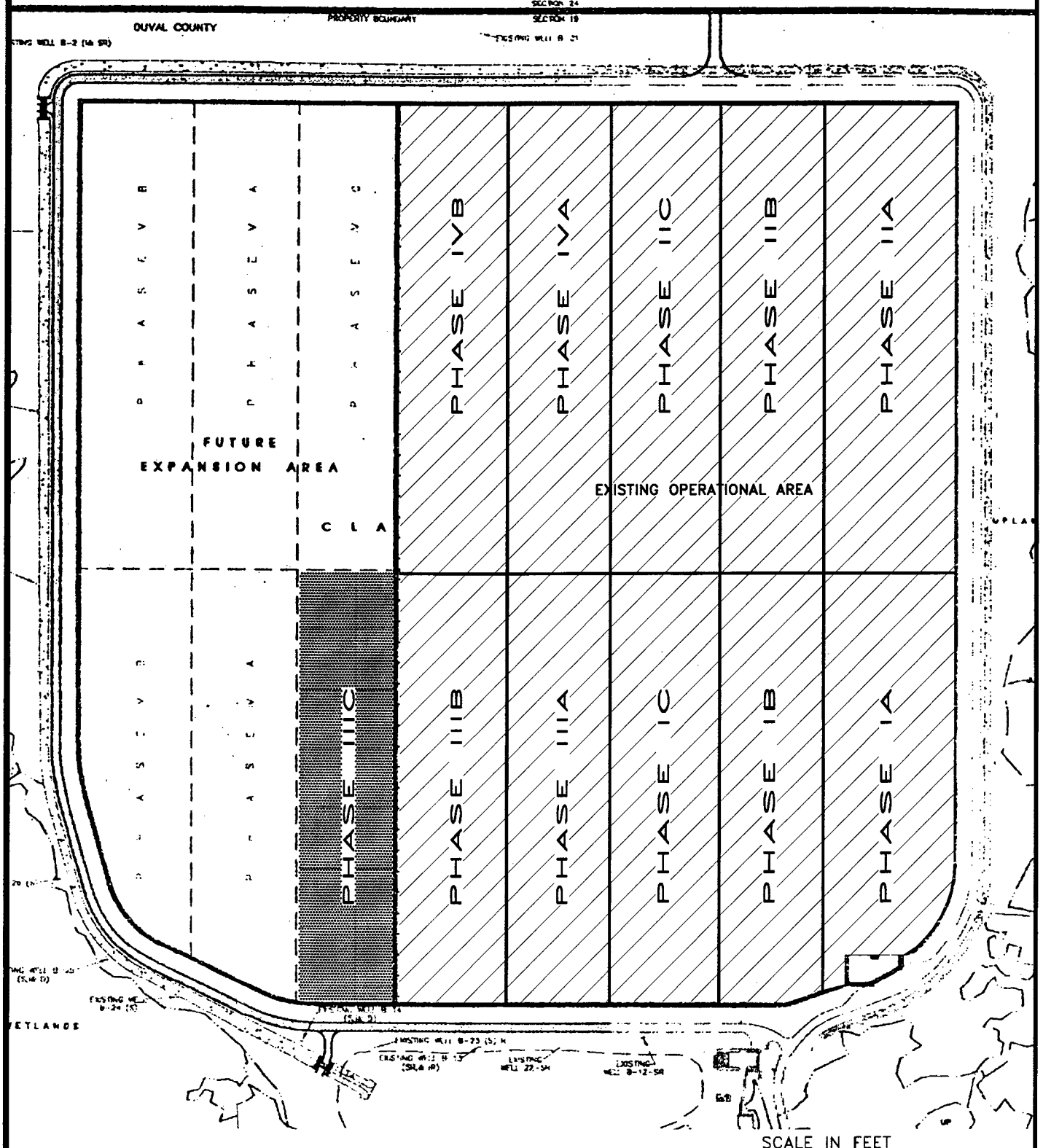
TITLE

SITE LOCATION MAP

CLIENT/PROJECT

ETM/TRAIL RIDGE PHASES
IIIC, IVC, VA, VB, VC, AND VD/FL

DRAWN	GMS	DATE	10/31/00	JOB NO.	003-3979
CHECKED	MLB	SCALE	AS SHOWN	DWG NO.	39790 REV. NO.
REVIEWED	[illegible]	FILE NO.	003-3979	SUBTITLE	FIGURE NO. 1



REFERENCE:

1. FIGURE TAKEN FROM ENGLAND THIMS & MILLER, INC. DESIGN PACKAGE: DRAWING NO. 3; RELEASED 3/31/95.

JACKSONVILLE, FLORIDA

Golder Associates

TITLE

LANDFILL PHASING PLAN

CLIENT/PROJECT

ETM/TRAIL RIDGE PHASES
IIIC, IVC, VA, VB, VC, AND VD/FL

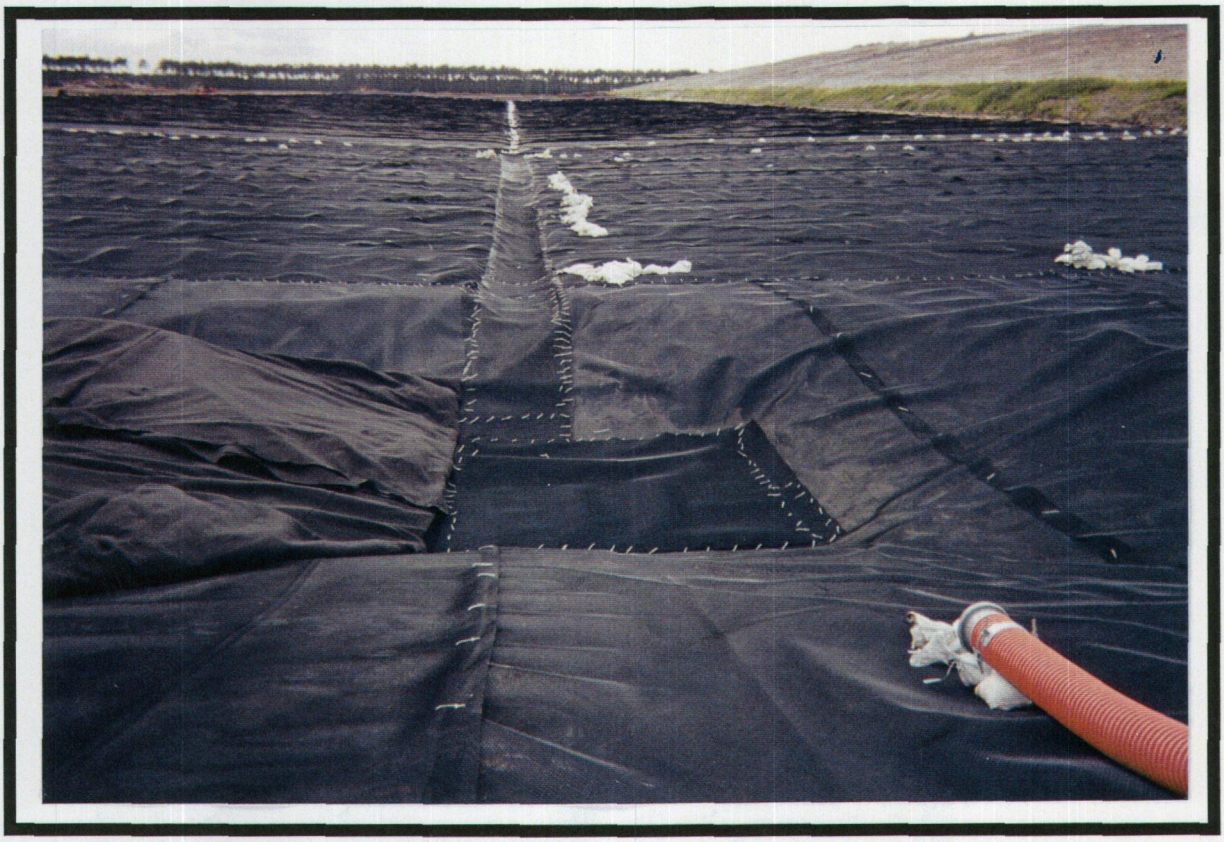
DRAWN	GMS	DATE	11/16/00	JOB NO.	003-3979
CHECKED	MLB	SCALE	AS SHOWN	DWG NO.	3979N
REVIEWED	JJC	FILE NO.	003-3979	SUBTITLE	REV. NO.
					FIGURE NO. 2

PHOTOGRAPH NO. 1
Phase IIIB Geosynthetic Layers Folded Back to Achieve an Adequate Clay Tie-In

PHOTOGRAPH NO. 2
Overview of Liner System as of October 5, 2000

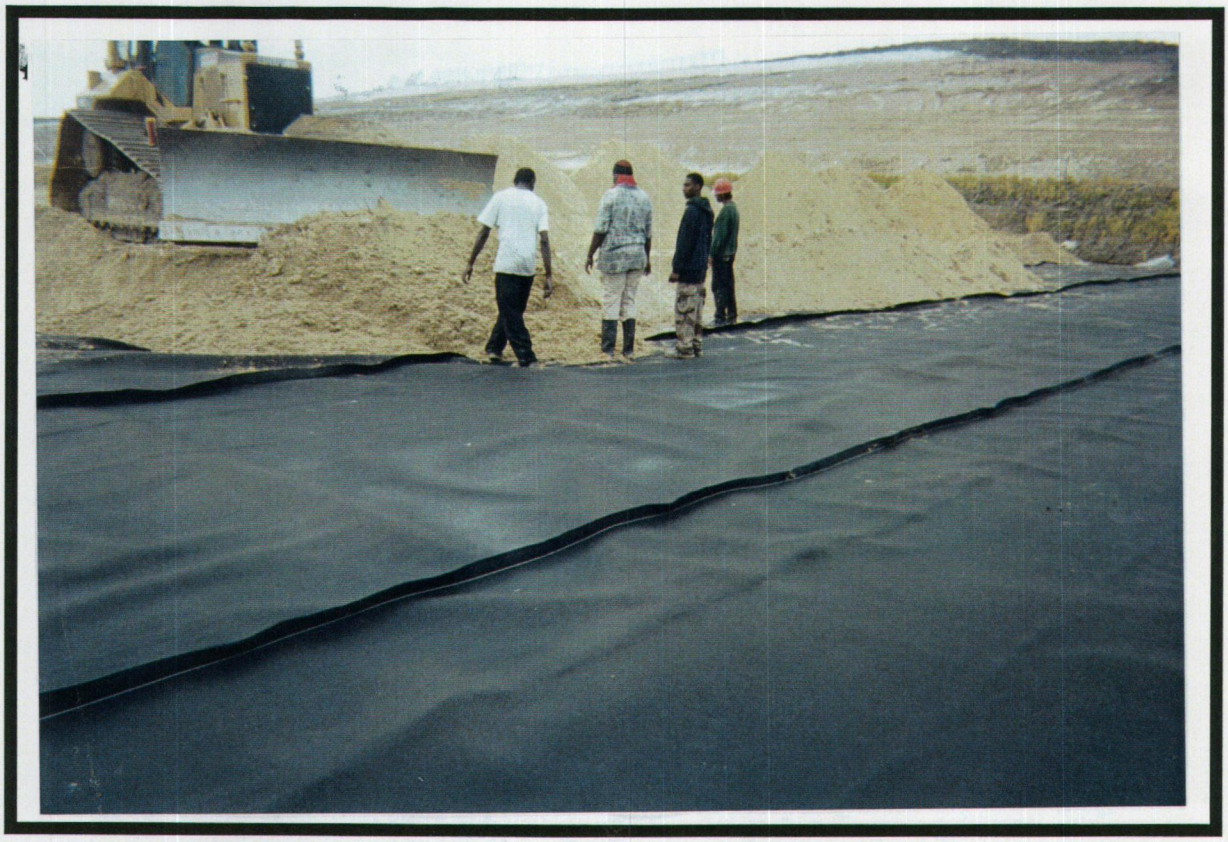
PHOTOGRAPH NO. 3
Deployment of the Secondary Geomembrane Liner Using a Honda Tractor

PHOTOGRAPH NO. 4
Secondary Geomembrane Tie-In Between Phases IIIB and IIIC



PHOTOGRAPH NO. 5
Three Additional Layers of Geonet in the Bottom of the Leachate Collection Trench and in the Sump of Phase IIIC

PHOTOGRAPH NO. 6
Deployment Procedures of the GCL Using the Honda Tractor and Trailer



PHOTOGRAPH NO. 7
Placement of the Protective Sand Blanket in Phase IIIC

PHOTOGRAPH NO. 8
Welding of the 8-inch Diameter HDPE Leachate Collection Pipe

PHOTOGRAPH NO. 9
Secondary Liner Installation in the Phase IIIC Sump

PHOTOGRAPH NO. 10
Extra Layer of GCL Below the Secondary Geomembrane Rub Sheet

PHOTOGRAPH NO. 11
Backfilling the Secondary Riser Pipe with AASHTO #3 Stone Using a Concrete Bucket

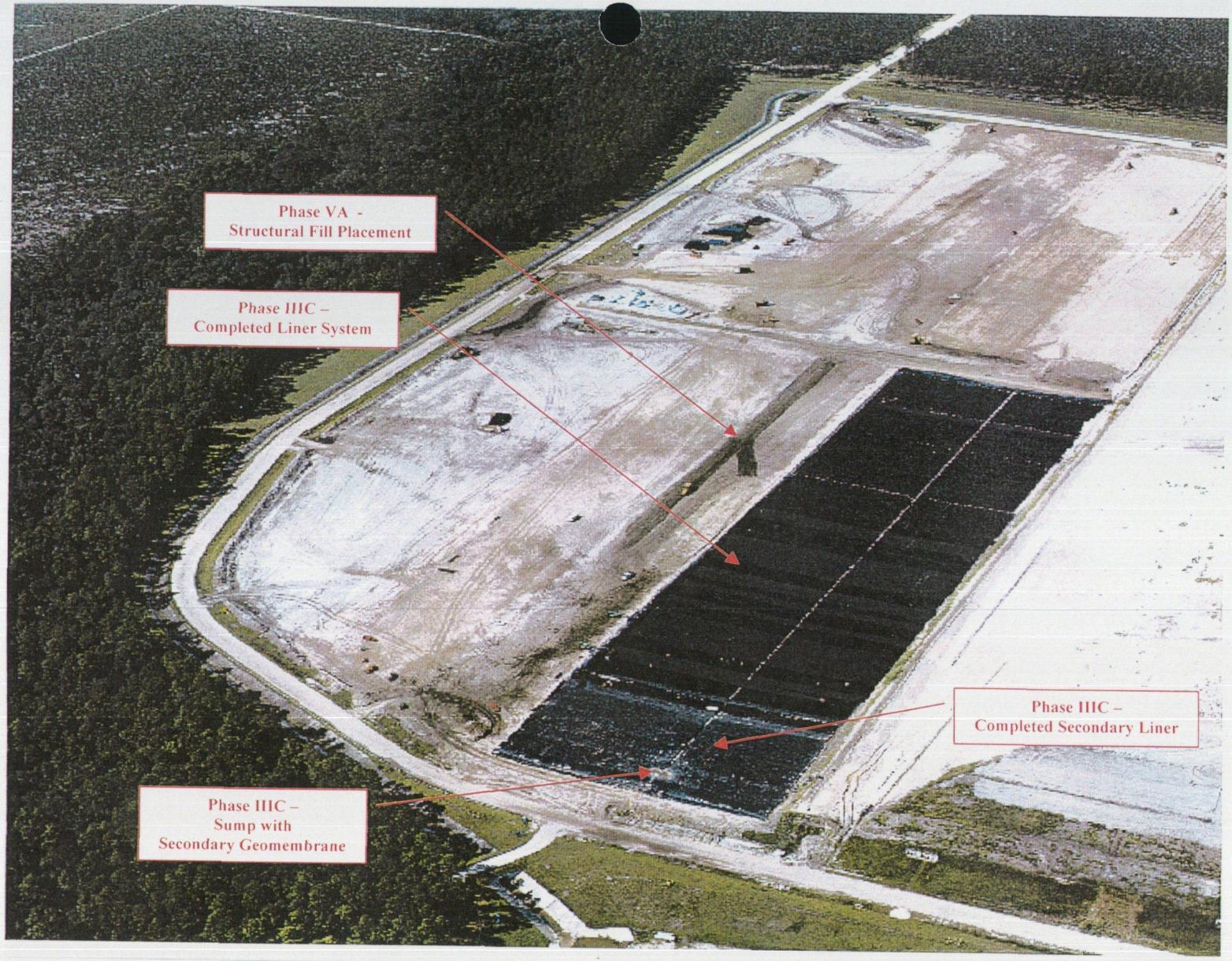
PHOTOGRAPH NO. 12
Baker Preparing Clay Surface for Secondary Geomembrane in Sump

PHOTOGRAPH NO. 13
Primary Geomembrane "Boot" Around the Secondary Riser Pipe

PHOTOGRAPH NO. 14
Installation of the Primary Riser Pipe in the Phase IIIC Sump

PHOTOGRAPH NO. 15
Anchor Trench Backfilled with Clay Material on East Berm of Phase IIIC

PHOTOGRAPH NO. 16
Leachate Control Flap Welded to the Primary Geomembrane



PHOTOGRAPH 17
Liner System Installation as of October 2, 2000. Secondary Geomembrane Installation is Complete

APPENDIX A

Listing of Golder and Serrot Site Personnel

TABLE A-1
LIST OF PERSONNEL AND INITIALS
TRAIL RIDGE LANDFILL
PHASES IIIC
BALDWIN, FLORIDA

GOLDER ASSOCIATES INC.

NAME	INITIALS	TITLE
Francis T. Adams	FTA	Project Manager/Certifying Engineer
Fabien Benavente	CFB	Assistant Project Manager
Michael L. Bracci	MLB	Resident Engineer
Sue Lee	SL	Geosynthetics Monitor
Shawn Casey	SC	Geosynthetics Monitor
Matt Maguire	MM	Geosynthetics Monitor
Vince Domey	VD	Geosynthetics Monitor
Kim Godfry	KG	Geosynthetics Monitor

England-Thims & Miller, Inc.

William Davidson	WD	Construction Manager/General CQA Monitor

SERROTT INTERNATIONAL

NAME	TECH. I.D. NO.	TITLE
Don Butler	2344	Superintendent
Steve Phimmala	2067	Foreman
Somkhith Siri	2385	Technician
Makhala Siri	2245	Technician
Sonsanith Thammavongsa	2985	QC Technician
Phengkeo Hatsavongsa	2151	Technician
Chhoeuth Ouk	2897	Technician
Khamphang Sinakone	2392	Technician
Tony Sivilay	2173	Technician
Jennifer Sivilay	2174	Technician
Domthavy Arounpradith	2323	Technician
Bounphene Chindavong	2257	Technician
Bouthana Arounpradith	2322	Technician
Linthong Sengphachanh	7534	Technician
Malaithong Keoprauseuth	7535	Technician
Jock Koy	2160	Superintendent
John Somkhith	2177	Technician
Phouangsone Thavikham	2994	Technician
Kikec Souryachak	2300	Technician
Hem Inthamath	2223	Technician
Oune Vongphakdy	2808	Technician
Nimith Vorachak	7536	Technician

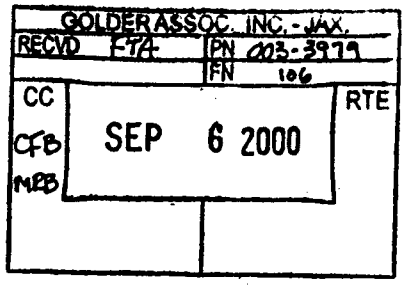
F/N: O:\COMMON\GCS\PROJECTS\003-3979\REPORTS\personn.xls

APPENDIX B

Approved Specification Changes

England-Thims & Miller, Inc.
ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS

August 31, 2000



Principals
James E. England, P.E., C.E.O.
Douglas C. Miller, P.E., President
N. Hugh Mathews, P.E., Exec., V.P.
Joseph A. Tarver, Exec., V.P.
Juanitta Bader Clem, P.E., V.P.
Jeffrey A. Crammond, P.E., V.P.
Scott A. Wild, P.E., P.S.M., V.P.

Mr. Chuck Cameron
R. B. Baker Construction, Inc.
9235 Busch Drive
Jacksonville, Florida 32218

Reference: Trail Ridge Landfill
Third Construction Increment
ET&M No. E00-79

Dear Mr. Cameron:

In a letter to you dated July 28, 2000 that you transmitted to us on August 1, 2000, Serrot International, Inc. requested that the Quality Control testing frequency be revised. They requested that it be revised from once per 50,000 square feet (SF) to once per 90,000 SF for index testing and once per 540,000 SF for performance testing.

We agreed to request a revision to the Quality Control testing from once per 50,000 square feet (SF) to once per 90,000 SF for all testing (both index testing and performance testing) and submitted the request to the Department of Environmental Protection on August 23, 2000. On August 25, 2000, we received the attached approval from the Department of Environmental Protection. Please see the attached Geotextile Section of the Project Specific Addenda (pages 12 and 13), as revised on August 23, 2000.

If you have any additional questions, please do not hesitate to contact me.

Sincerely,

ENGLAND, THIMS & MILLER, INC.

Juanitta Bader Clem

Juanitta Bader Clem, P.E.
Vice President

Attachment

cc: Greg Mathes w/attachment
Chris Pearson w/attachment

14775 ST. AUGUSTINE RD. • JACKSONVILLE, FL 32258 • TEL: (904) 642-8990 • FAX: (904) 646-9485

Department of Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

David B. Struhs
Secretary

August 25, 2000

CERTIFIED - RETURN RECEIPT

Ms. Juanitta Clem, Vice President
England, Thims, and Miller, Inc.
3131 St. Johns Bluff Road
Jacksonville, Florida 32246

Dear Ms. Clem:

Trail Ridge Landfill
FDEP Permit Number 0013493-002-SC
Quality Control Testing of Geotextile Material
Duval County - Solid Waste

The Department has reviewed your letter, received August 24, 2000, and concurs with your request to revise the Project Specific Addenda to the Quality Assurance Manual for the subject project. The quality control testing of the Geotextile material may be performed at a frequency of once per 90,000 square feet (SF), in lieu of once per 50,000 SF, as provided in the Project Specific Addenda.

Sincerely,

Stephen C. Garvey

Stephen C. Garvey, P. E.
Solid Waste Engineer

SCG:ml

cc: Greg Mathes
Chris Pearson

in accordance with Section 9.10A of the CQA Plan. Continued damage attributed to ATV use shall be grounds for discontinuing further utilization of ATVs on the geosynthetic layers.

9.8.2A-2.e. Replace "the maximum permissible pressure differential as outlined in the project specifications" with "3 psi".

9.9.2A-1. Replace "A minimum frequency of one test location per 1000 ft (305 m)" with "A minimum frequency of one test location per 500 ft (150 m)".

9.9.4A Replace "The sample for laboratory testing shall be 12 in. (0.3 m) wide by 30 in. (0.8 m) long" with "The sample for laboratory testing shall be 12 in. (0.3 m) wide by 42 in. (1.1 m) long".

9.9.4A-3 Add: "3. One 12 in. wide x 12 in. long (0.3 m x 0.3 m) portion for geomembrane installer."

9.10.3A-1d Add "This repair procedure is subject to QAE approval on a case by case basis, shall only be used when the excess flap is at least 1.5 inches, and shall be limited to a length of 110 feet."

D. GEOTEXTILES

The lining system shall include two geotextiles. The followings revisions shall be made to Section 10 of the "Quality Assurance Guidance Document for the Installation of Lining Systems" (WMI, August 1997) with regard to the geotextiles.

10.2 Delete the first paragraph in its entirety and replace with the following:

"The Geosynthetic QAE or his designee will conduct a plant visit during the manufacture of the geotextiles for the project. The purpose for the plant visit is to review the manufacturing process and the quality control procedures conducted by the manufacturer, and to obtain conformance samples of the material for independent laboratory testing in accordance with this CQA Plan."

"The Geosynthetic QAE or his designee will mobilize to the plant at the start-up of each production run to monitor the manufacture of the material. The manufacturer will provide a schedule of material production to the Geosynthetic QAE at least one week prior to production to allow sufficient time for mobilization. The manufacturer shall cooperate fully with the Geosynthetic QAE or his designee to allow for implementation of the MQA requirements of the CQA Plan."

Delete the last paragraph in its entirety and insert the following:

Conformance samples will be obtained by the Geosynthetic QAE or his designee at the manufacturing plant in accordance with Section 10.4. Samples may be obtained as the rolls are cut from the production line to minimize sampling time. Samples will only be shipped to the independent testing laboratory after initial review indicates that the manufacturer's internal QC test results are acceptable. The Geosynthetic QAE will arrange for shipping to the laboratory. The manufacturer will fully cooperate with the Geosynthetic QAE and assist with sampling as needed.

10.3-4.e. Add "e. Grab Elongation (ASTM D4632)"

10.3-4.f. Add "f. Burst Strength (ASTM D3786)"

10.3-4.g. Add "g. Apparent Size Opening (ASTM D4751)"

10.3-4.h. Add "h. Permittivity (ASTM D4491)"

10.3-4.3. Replace "10,000 lbs" with ~~"50,000 ft^2"~~ "90,000 ft^2".

10.3-4 Add "5. Batch number" and "6. Date of manufacture" to the manufacturer's roll identification information.

10.4 Replace entire section as follows: "Conformance testing of geotextile will be conducted by an independent laboratory selected by the Geosynthetic QAE. The laboratory will be accredited by the Geosynthetics Accreditation Institute (GAI) for the specific tests to be performed. The results of the conformance testing shall be reviewed by the Geosynthetic QAE and compared to the Project Specifications. Any nonconformance will be the basis of rejection of the material by the Geosynthetic QAE."

10.4.2 Delete columns that differentiate between different geotextiles. All tests listed shall be performed.

10.5 At the beginning of Section 10.5, add the following: "The Contractor shall transport, unload, store, and load geotextile rolls in accordance with the requirements listed in Section 9.5.3A."

10.5-5 Add: "6. Manual labor is the preferred method of deployment of geotextile. The use of supplemental mechanical equipment and/or vehicles, such as low ground pressure all terrain vehicles (ATVs), shall be subject to approval by the Geosynthetic QAE. ATV utilization shall be subject to the requirements in listed in Section 9.6.4A."

England-Thims & Miller, Inc.

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FAX TRANSMITTAL LETTER

To: GOLDER ASSOCIATES

FROM: FRANCIS DAYAO ATTN: FABIAN DENAVENT

FAX: _____ PHONE: 642-8990 DATE: 7/21/00 TIME: 9:11

NUMBER OF PAGES (INCLUDING COVER SHEET): 2

RE: TRAIL RIDGE LF (LINER SYSTEM SPECS.)

PROJECT NO.: 00-079-1

MESSAGE: FABIAN, ATTACHED IS A COPY OF THE REVISED SPECS. SENT OUT TO THE CONTRACTOR, TRLF INC., CITY OF JAX, GOLDER AND LAW on JUNE 28, 2000. FOR GOLDER'S COPY, I SENT IT TO FRANK ADAMS. ANYWAY, IF YOU NEED ANYTHING ELSE, PLS. GIVE ME A CALL.

THANKS!

FRANCIS

IF YOU HAVE NOT RECEIVED THE TOTAL NUMBER OF PAGES NOTED ABOVE, HAVE DIFFICULTY READING THIS DOCUMENT, OR IF YOU HAVE ANY QUESTIONS OR COMMENTS, PLEASE CALL US IMMEDIATELY.

14775 St Augustine Road • Jacksonville, Florida 32258 • (904) 642-8990 • Fax (904) 646-9485

8.0 GEOTEXTILES

8.1 Geotextile - 6 oz./yd^2

The 6 oz./yd^2 geotextile shall have the following physical properties:

PROPERTY	TEST METHOD	UNIT	QUALIFIER	VALUE
Mass Per Unit Area	ASTM D5261	oz/yd^2	minimum	5.7
Grab Tensile Strength[1]	ASTM D4632	lbs	minimum	180
Grab Elongation[1]	ASTM D4632	%	minimum	50
Trapezoid Tear Strength	ASTM D4533	lbs	minimum	60
Puncture Resistance	ASTM D4833	lbs	minimum	80
Mullen Burst Strength	ASTM D3786	psi	minimum	275
Water Flow Rate	ASTM D4491	gpm/ft^2	minimum	25
Permittivity	ASTM D4491	sec^{-1}	minimum	0.33
Apparent Opening Size (AOS)	ASTM D4751	mm sieve size	maximum minimum	0.212 70
Ultra Violet Resistance	ASTM D4355	%	minimum	70

1 Machine direction (MD) and cross machine direction (CMD)

Prior to the installation of any geotextile, the manufacturer shall submit the Quality Control Certifications in accordance with the Quality Assurance Guidance Document. All conformance test results shall be reviewed and accepted or rejected by the Geosynthetic QAE, prior to deployment of the geotextile.

The geotextile shall be installed in accordance with the manufacturer's recommendations and the Quality Assurance Guidance Document.

APPENDIX C

Geosynthetic Materials Inventories

SECTION C-1

Geomembrane

TABLE 1
60-MIL HDPE GEOMEMBRANE
ROLL INVENTORY AND ACCEPTABILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOMEMBRANE ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL			REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT	
1st Set														
YES	1912075	8100495	460	23.0	7/20/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912076	8100495	460	23.0	7/20/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912077	8100495	460	23.0	7/20/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912078	8100495	460	23.0	7/20/00	8/7/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912079	8100495	460	23.0	7/20/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912080	8100495	460	23.0	7/20/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912081	8100495	460	23.0	7/20/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912082	8100495	460	23.0	7/20/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912083	8100495	460	23.0	7/20/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912084	8100495	460	23.0	7/20/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912085	8100495	460	23.0	7/20/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912086	8100495	460	23.0	7/21/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912087	8100495	460	23.0	7/21/00	8/7/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912093	8100495	460	23.0	7/21/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912094	8100495	460	23.0	7/21/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912095	8100495	460	23.0	7/21/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912096	8100495	460	23.0	7/21/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912097	8100495	460	23.0	7/21/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912098	8100495	460	23.0	7/21/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912099	8100495	460	23.0	7/21/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912100	8100495	460	23.0	7/21/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912113	8100495	460	23.0	7/23/00	8/7/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912114	8100495	460	23.0	7/23/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912115	8100495	460	23.0	7/23/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912116	8100495	460	23.0	7/23/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912117	8100495	460	23.0	7/23/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912118	8100495	460	23.0	7/23/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912119	8100495	460	23.0	7/23/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912120	8100495	460	23.0	7/23/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912121	8100495	460	23.0	7/23/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912122	8100495	460	23.0	7/23/00	8/7/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	

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ROLL INVENTORY AND ACCEPTABILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
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ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOMEMBRANE ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL			REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT	
YES	1912123	8100495	460	23.0	7/23/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912124	8100495	460	23.0	7/23/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912125	8100495	460	23.0	7/23/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912126	8100495	460	23.0	7/23/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912127	8100495	460	23.0	7/24/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912128	8100495	460	23.0	7/24/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912129	8100495	460	23.0	7/24/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912130	8100495	460	23.0	7/24/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912131	8100495	460	23.0	7/24/00	8/7/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912132	8100495	460	23.0	7/24/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912133	8100495	460	23.0	7/24/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912134	8100495	460	23.0	7/24/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912135	8100495	460	23.0	7/24/00	8/7/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
2nd Set														
YES	1912247	8191187	490	23.0	7/29/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912248	8191187	460	23.0	7/29/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912249	8191187	460	23.0	7/29/00	8/14/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912250	8191187	460	23.0	7/29/00	8/12/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912251	8191187	460	23.0	7/29/00	8/12/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912253	8191187	460	23.0	7/29/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912254	8191187	460	23.0	7/29/00	8/12/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912255	8191187	460	23.0	7/29/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912256	8191187	460	23.0	7/29/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912257	8191187	460	23.0	7/29/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912258	8191187	460	23.0	7/29/00	8/14/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912259	8191187	460	23.0	7/29/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912260	8191187	460	23.0	7/29/00	8/12/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912261	8191187	460	23.0	7/29/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912262	8191187	460	23.0	7/30/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912263	8191187	460	23.0	7/30/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912264	8191187	460	23.0	7/30/00	8/12/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912265	8191187	460	23.0	7/30/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	

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			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT	
YES	1912266	8191187	460	23.0	7/30/00	8/12/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912267	8191187	460	23.0	7/30/00	8/14/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912268	8191187	460	23.0	7/30/00	8/12/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912269	8191187	460	23.0	7/30/00	8/12/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912270	8191187	460	23.0	7/30/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912271	8191187	460	23.0	7/30/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912272	8191187	460	23.0	7/30/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912273	8191187	460	23.0	7/30/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912274	8191187	460	23.0	7/30/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912275	8191187	460	23.0	7/30/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912276	8191187	460	23.0	7/30/00	8/14/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912277	8191187	460	23.0	7/30/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912278	8191187	460	23.0	7/30/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912279	8191187	460	23.0	7/30/00	8/12/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912280	8191187	460	23.0	7/30/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912281	8191187	460	23.0	7/30/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912282	8191187	460	23.0	7/30/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912283	8191187	460	23.0	7/30/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912284	8191187	460	23.0	7/30/00	8/12/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912285	8191187	460	23.0	7/30/00	8/14/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912286	8191187	460	23.0	7/30/00	8/14/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
3rd set														
YES	1912395	8191187	460	23.0	8/3/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912409	8100513	460	23.0	8/4/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912410	8100513	460	23.0	8/4/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912411	8100513	460	23.0	8/4/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912412	8100513	460	23.0	8/4/00	9/5/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912413	8100513	460	23.0	8/4/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912414	8100513	460	23.0	8/4/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912416	8100513	460	23.0	8/4/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912417	8100513	460	23.0	8/4/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912418	8100513	460	23.0	8/4/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	

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			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT	
YES	1912419	8100513	460	23.0	8/4/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912420	8100513	460	23.0	8/4/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912421	8100513	460	23.0	8/4/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912422	8100513	460	23.0	8/5/00	9/5/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912423	8100513	460	23.0	8/5/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912424	8100513	460	23.0	8/5/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912425	8100513	460	23.0	8/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912426	8100513	460	23.0	8/5/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912427	8100513	460	23.0	8/5/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912428	8100513	460	23.0	8/5/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912429	8100513	460	23.0	8/5/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912430	8100513	460	23.0	8/5/00	9/5/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912431	8100513	460	23.0	8/5/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912432	8100513	460	23.0	8/5/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912433	8100513	460	23.0	8/5/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912434	8100513	460	23.0	8/5/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912435	8100513	460	23.0	8/5/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912436	8100513	460	23.0	8/5/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912437	8100513	460	23.0	8/5/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912438	8100513	460	23.0	8/5/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912439	8100513	460	23.0	8/5/00	9/5/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912440	8100513	460	23.0	8/5/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912441	8100513	460	23.0	8/5/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912442	8100513	460	23.0	8/5/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912443	8100513	460	23.0	8/5/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912444	8100513	460	23.0	8/5/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912445	8100513	460	23.0	8/5/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912446	8100513	460	23.0	8/5/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912447	8100513	460	23.0	8/5/00	9/5/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912448	8100513	460	23.0	8/5/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912449	8100860	460	23.0	8/5/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912450	8100860	460	23.0	8/5/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912451	8100860	460	23.0	8/5/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	

TABLE 1
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TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOMEMBRANE ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL			REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT	
YES	1912452	8100860	460	23.0	8/6/00	9/5/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912453	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912454	8100860	460	23.0	8/6/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912455	8100860	460	23.0	8/6/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912456	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912457	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912458	8100860	460	23.0	8/6/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912459	8100860	360	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912460	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912461	8100860	460	23.0	8/6/00	9/5/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912462	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912463	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912464	8100860	460	23.0	8/6/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912465	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912466	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912467	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912468	8100860	460	23.0	8/6/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912469	8100860	460	23.0	8/6/00	9/5/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912470	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912471	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912472	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912473	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912474	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912475	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912476	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912477	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912478	8100860	460	23.0	8/6/00	9/5/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912479	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912480	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912481	8100860	460	23.0	8/6/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912482	8100860	460	23.0	8/6/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912483	8100860	460	23.0	8/7/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912484	8100860	460	23.0	8/7/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	

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TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOMEMBRANE ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL			REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT	
YES	1912485	8100860	260	23.0	8/7/00	9/6/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912486	8100860	460	23.0	8/7/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912487	8100860	460	23.0	8/7/00	9/5/00	YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912488	8100860	460	23.0	8/7/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912489	8100860	460	23.0	8/7/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912490	8100860	460	23.0	8/7/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912491	8100860	460	23.0	8/7/00	9/5/00	-	-	YES	PASS	PHILLIPS	PASS	PASS	
4th Set														
YES	1912927	8100863	460	23.0	8/24/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912928	8100863	460	23.0	8/24/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912929	8100863	460	23.0	8/24/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912930	8100863	460	23.0	8/24/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912931	8100863	460	23.0	8/24/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912932	8100863	460	23.0	8/24/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912933	8100863	460	23.0	8/24/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912934	8100863	460	23.0	8/24/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912935	8100863	460	23.0	8/24/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912936	8100863	460	23.0	8/24/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912937	8100863	460	23.0	8/24/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912938	8100863	460	23.0	8/24/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912939	8100863	460	23.0	8/24/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912940	8100863	460	23.0	8/24/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912941	8100863	460	23.0	8/24/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912942	8100863	460	23.0	8/24/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912943	8100863	460	23.0	8/24/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912944	8100863	460	23.0	8/25/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912945	8100863	460	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912946	8100874	460	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912947	8100874	480	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912948	8100874	460	23.0	8/25/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912950	8100874	460	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912951	8100874	460	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	

TABLE 1
60-MIL HDPE GEOMEMBRANE
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TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOMEMBRANE ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL			REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT	
YES	1912952	8100874	460	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912953	8100874	460	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912954	8100874	460	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912955	8100874	460	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912956	8100874	460	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912957	8100874	460	23.0	8/25/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912958	8100874	460	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912959	8100874	460	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912960	8100874	460	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912961	8100874	460	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912962	8100874	460	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912963	8100874	460	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912964	8100874	460	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912965	8100874	460	23.0	8/25/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912966	8100874	460	23.0	8/25/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912967	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912968	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912969	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912970	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912971	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912972	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912973	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912974	8100874	460	23.0	8/26/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912975	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912976	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912977	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912978	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912979	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912980	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912981	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912982	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912983	8100874	460	23.0	8/26/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912984	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	

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ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOMEMBRANE ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL			REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT	
YES	1912985	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912986	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912987	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912988	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912989	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912990	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912991	8100874	460	23.0	8/26/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912992	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912993	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912994	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912995	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912996	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912997	8100874	460	23.0	8/26/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912998	8100874	460	23.0	8/27/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1912999	8100874	460	23.0	8/27/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913000	8100874	460	23.0	8/27/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913001	8100874	460	23.0	8/27/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913002	8100874	460	23.0	8/27/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913003	8100874	460	23.0	8/27/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913004	8100874	460	23.0	8/27/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913005	8100874	460	23.0	8/27/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913006	8100874	460	23.0	8/27/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913007	8100866	460	23.0	8/27/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913008	8100866	460	23.0	8/27/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913009	8100866	460	23.0	8/27/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913010	8100866	460	23.0	8/27/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
5th Set														
YES	1913205	8100871	460	23.0	9/4/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913207	8100871	460	23.0	9/4/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913208	8100871	460	23.0	9/4/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913209	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913210	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	

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			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT	
YES	1913211	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913212	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913213	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913214	8100871	460	23.0	9/4/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913215	8100871	460	23.0	9/4/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913216	8100871	460	23.0	9/4/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913217	8100871	460	23.0	9/4/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913218	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913219	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913220	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913221	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913222	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913223	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913224	8100871	460	23.0	9/5/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913225	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913226	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913227	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913228	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913229	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913230	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913231	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913232	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913233	8100871	460	23.0	9/5/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913234	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913235	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913236	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913237	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913238	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913239	8100871	460	23.0	9/5/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913240	8100873	460	23.0	9/6/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913241	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913242	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913243	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	

TABLE 1
60-MIL HDPE GEOMEMBRANE
ROLL INVENTORY AND ACCEPTABILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOMEMBRANE ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL			REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT	
YES	1913244	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913245	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913246	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913247	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913248	8100873	460	23.0	9/6/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913250	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913251	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913253	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913254	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913255	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913256	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913257	8100873	460	23.0	9/6/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913258	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913259	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913260	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913261	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913262	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913263	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913264	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913265	8100873	460	23.0	9/6/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913266	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913267	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913268	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913269	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913270	8100873	460	23.0	9/6/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913271	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913272	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913273	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913274	8100873	460	23.0	9/7/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913275	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913276	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913277	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913278	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	

TABLE 1
60-MIL HDPE GEOMEMBRANE
ROLL INVENTORY AND ACCEPTABILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOMEMBRANE ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL			REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT	
YES	1913279	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913280	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913281	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913282	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913283	8100873	460	23.0	9/7/00		YES	PASS	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913284	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913285	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913286	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913287	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913288	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913289	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	
YES	1913290	8100873	460	23.0	9/7/00		-	-	YES	PASS	PHILLIPS	PASS	PASS	

SECTION C-2

Geonet

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
1st Set											
YES	4021738	4197	07/19/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021739	4197	07/19/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021740	4197	07/19/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021741	4197	07/19/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021742	4197	07/19/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021743	4197	07/19/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021744	4197	07/19/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021745	4197	07/19/00	07/31/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021746	4197	07/19/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021747	4197	07/19/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021748	4197	07/19/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021749	4197	07/19/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021750	4197	07/19/00	08/01/00	YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4021751	4197	07/19/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021752	4197	07/19/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021753	4197	07/19/00	08/01/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021754	4197	07/19/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021755	4197	07/19/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021756	4197	07/19/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021757	4197	07/19/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021758	4197	07/19/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021759	4197	07/19/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021760	4197	07/19/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021761	4197	07/19/00	07/31/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021762	4197	07/19/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021763	4197	07/19/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021764	4197	07/19/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021765	4197	07/19/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021766	4197	07/19/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021767	4197	07/20/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4021768	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021769	4197	07/20/00	07/31/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021770	4197	07/20/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021771	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021772	4197	07/20/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021773	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021774	4197	07/20/00	07/31/00	YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4021775	4197	07/20/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021776	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021777	4197	07/20/00	07/31/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021778	4197	07/20/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021779	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021780	4197	07/20/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021781	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021782	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021783	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021784	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021785	4197	07/20/00	07/31/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021786	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021787	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021788	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021789	4197	07/20/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021790	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021791	4197	07/20/00	07/31/00	YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4021792	4197	07/20/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021793	4197	07/20/00	07/28/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021794	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021795	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021796	4197	07/20/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021797	4197	07/20/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021798	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4021801	4197	07/20/00	07/31/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021802	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021803	4197	07/20/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021804	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021805	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021806	4197	07/20/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021807	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021808	4197	07/20/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021809	4197	07/20/00	07/31/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021810	4197	07/20/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021811	4197	07/20/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021812	4197	07/20/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021813	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021814	4197	07/20/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021815	4197	07/20/00	07/31/00	YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4021816	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021817	4197	07/20/00	07/31/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021818	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021819	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021820	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021821	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021822	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021823	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021824	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021825	4197	07/20/00	07/31/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021826	4197	07/20/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021827	4197	07/20/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021828	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021829	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021830	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021831	4197	07/20/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4021832	4197	07/20/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021833	4197	07/20/00	08/02/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021834	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021835	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021836	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021837	4197	07/20/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021838	4197	07/20/00	07/31/00	YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4021839	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021840	4197	07/20/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021841	4197	07/20/00	08/01/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021842	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021843	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021844	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021845	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021846	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021847	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021848	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021849	4197	07/20/00	08/02/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021850	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021851	4197	07/20/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021852	4197	07/20/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021853	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021854	4197	07/20/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021855	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021856	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021857	4197	07/20/00	07/31/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021858	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021859	4197	07/20/00	07/28/00	YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4021860	4197	07/20/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021861	4197	07/20/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021862	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4021863	4197	07/20/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021864	4197	07/20/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021865	4197	07/21/00	07/31/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021866	4197	07/21/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021867	4197	07/21/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021868	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021869	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021870	4197	07/21/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021871	4197	07/21/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4021872	4197	07/21/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021873	4197	07/21/00	07/31/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021874	4197	07/21/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021875	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021876	4197	07/21/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4021877	4197	07/21/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021878	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021879	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021880	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021881	4197	07/21/00	07/28/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021882	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021883	4197	07/21/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021884	4197	07/21/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021885	4197	07/21/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021886	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021887	4197	07/21/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021888	4197	07/21/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4021889	4197	07/21/00	08/01/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021890	4197	07/21/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4021891	4197	07/21/00		YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4021892	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021893	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4021894	4197	07/21/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021895	4197	07/21/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021896	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021897	4197	07/21/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021898	4197	07/21/00	10/16/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021899	4197	07/21/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4021900	4197	07/21/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4021901	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021902	4197	07/21/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021903	4197	07/21/00	08/01/00	YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4021904	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021905	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021906	4197	07/21/00	08/01/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021907	4197	07/21/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4021908	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021909	4197	07/21/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4021910	4197	07/21/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021911	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021912	4197	07/21/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021913	4197	07/21/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021914	4197	07/21/00	07/28/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021915	4197	07/21/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021916	4197	07/21/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021917	4197	07/21/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021918	4197	07/21/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021919	4197	07/21/00	07/31/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021920	4197	07/21/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021921	4197	07/21/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021922	4197	07/21/00	07/31/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021923	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021924	4197	07/21/00	07/31/00	YES	PASS	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4021925	4197	07/21/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021926	4197	07/21/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021927	4197	07/21/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021928	4197	07/21/00	07/28/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021929	4197	07/21/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021930	4197	07/21/00	07/31/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4021931	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021932	4197	07/21/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021933	4197	07/21/00	08/02/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021934	4197	07/21/00	08/01/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4021935	4197	07/21/00	07/28/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
2nd Set											
YES	4022532	4204	07/29/00		-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022533	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022534	4204	07/29/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022535	4204	07/29/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022536	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022537	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022538	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022539	4204	07/29/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022540	4204	07/29/00		-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022541	4204	07/29/00	08/10/00	YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4022542	4204	07/29/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022543	4204	07/29/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022544	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022545	4204	07/29/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022546	4204	07/29/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022547	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022548	4204	07/29/00		-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022549	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4022550	4204	07/29/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022551	4204	07/29/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022552	4204	07/29/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022553	4204	07/29/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022554	4204	07/29/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022555	4204	07/29/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022556	4204	07/29/00		-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022557	4204	07/29/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022558	4204	07/29/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022559	4204	07/29/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022560	4204	07/29/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022561	4204	07/29/00	08/10/00	YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4022562	4204	07/29/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022563	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022564	4204	07/29/00		-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022565	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022566	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022567	4204	07/29/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022568	4204	07/29/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022569	4204	07/29/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022570	4204	07/29/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022571	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022572	4204	07/29/00		-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022573	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022574	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022575	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022576	4204	07/29/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022577	4204	07/29/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022578	4204	07/29/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022579	4204	07/29/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022580	4204	07/29/00	08/10/00	-	-	YES	PASS	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4022581	4204	07/29/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022582	4204	07/29/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022583	4204	07/29/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022584	4204	07/29/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022585	4204	07/29/00	08/10/00	YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4022586	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022587	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022588	4204	07/29/00		-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022589	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022590	4204	07/29/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022591	4204	07/29/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022592	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022593	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022594	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022595	4204	07/29/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022596	4204	07/29/00	08/11/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022597	4204	07/29/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022598	4204	07/29/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022599	4204	07/29/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022600	4204	07/29/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022601	4204	07/29/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022602	4204	07/29/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022603	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022604	4204	07/29/00	10/16/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022605	4204	07/29/00	08/10/00	YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4022606	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022607	4204	07/29/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022608	4204	07/29/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022609	4204	07/29/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022610	4204	07/29/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022611	4204	07/29/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
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ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4022612	4204	07/29/00	08/09/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022613	4204	07/29/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022614	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022615	4204	07/30/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022616	4204	07/30/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022617	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022618	4204	07/30/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022619	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022620	4204	07/30/00	08/10/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022621	4204	07/30/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022622	4204	07/30/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022623	4204	07/30/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022624	4204	07/30/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022625	4204	07/30/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022626	4204	07/30/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022627	4204	07/30/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022628	4204	07/30/00	08/10/00	YES	PASS	YES	PASS	TOTAL FINA	YES	PASS
YES	4022629	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022630	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022631	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022632	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022633	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022634	4204	07/30/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022635	4204	07/30/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022636	4204	07/30/00	08/10/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022637	4204	07/30/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022638	4204	07/30/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022639	4204	07/30/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022640	4204	07/30/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022641	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022642	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4022643	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022644	4204	07/30/00	08/09/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022645	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022646	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022647	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022648	4204	07/30/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022649	4204	07/30/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022650	4204	07/30/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022651	4204	07/30/00		YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4022652	4204	07/30/00	08/11/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022653	4204	07/30/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022654	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022655	4204	07/30/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022656	4204	07/30/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022657	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022658	4204	07/30/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022659	4204	07/30/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022660	4204	07/30/00	08/09/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022661	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022662	4204	07/30/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022663	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022664	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022665	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022666	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022667	4204	07/30/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022668	4204	07/30/00	08/09/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022669	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022670	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022671	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022672	4204	07/30/00	08/10/00	YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4022673	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4022674	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022675	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022676	4204	07/30/00	08/09/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022677	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022678	4204	07/30/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022679	4204	07/30/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022680	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022681	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022682	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022683	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022684	4204	07/30/00	08/09/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022685	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022686	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022687	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022688	4204	07/30/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022689	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022690	4204	07/30/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022691	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022692	4204	07/30/00	10/16/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022693	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022694	4204	07/30/00	08/10/00	YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4022695	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022696	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022697	4204	07/30/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022698	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022699	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022700	4204	07/30/00	10/16/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022701	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022702	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022703	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022704	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4022705	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022707	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022708	4204	07/30/00		-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022709	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022710	4204	07/30/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022711	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022712	4204	07/30/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022713	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022714	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022715	4204	07/31/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022716	4204	07/31/00		YES	PASS	YES	PASS	TOTAL FINA	YES	PASS
YES	4022717	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022718	4204	07/31/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022719	4204	07/31/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022720	4204	07/31/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022721	4204	07/31/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022722	4204	07/31/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022723	4204	07/31/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022724	4204	07/31/00	10/16/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022725	4204	07/31/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022726	4204	07/31/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022727	4204	07/31/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022728	4204	07/31/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022729	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022730	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022731	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022732	4204	07/31/00		-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022733	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022734	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022735	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022736	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4022737	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022738	4204	07/31/00	08/10/00	YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4022739	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022740	4204	07/31/00		-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022741	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022742	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022743	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022744	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022745	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022746	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022747	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022748	4204	07/31/00		-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022749	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022750	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022751	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022752	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022753	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022754	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022755	4204	07/31/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022756	4204	07/31/00	08/10/00	YES	PASS	YES	PASS	TOTAL FINA	YES	PASS
YES	4022757	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022758	4204	07/31/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022759	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022760	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022761	4204	07/31/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022762	4204	07/31/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022763	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022764	4204	07/31/00	08/10/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022765	4204	07/31/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022766	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022767	4204	07/31/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4022768	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022769	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022770	4204	07/31/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022771	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022772	4204	07/31/00	08/09/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022773	4204	07/31/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022774	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022775	4204	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022776	4204	07/31/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022777	4204	07/31/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022778	4204	07/31/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022779	4204	07/31/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022780	4204	07/31/00		-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022781	4204	07/31/00	08/10/00	YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4022782	4204	07/31/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022783	4204	07/31/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022784	4204	07/31/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022785	4211	07/31/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022786	4211	07/31/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022787	4211	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022788	4211	07/31/00	08/10/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022789	4211	07/31/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022790	4211	07/31/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022791	4211	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022792	4211	07/31/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022793	4211	07/31/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022794	4211	07/31/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022795	4211	07/31/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022796	4211	07/31/00	08/10/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022797	4211	07/31/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022798	4211	07/31/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
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ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4022799	4211	07/31/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022800	4211	07/31/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022801	4211	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022802	4211	07/31/00	08/11/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022803	4211	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022804	4211	07/31/00	08/10/00	YES	PASS	YES	PASS	TOTAL FINA	YES	PASS
YES	4022805	4211	07/31/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022806	4211	07/31/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022807	4211	07/31/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022808	4211	07/31/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022809	4211	08/01/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022810	4211	08/01/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022811	4211	08/01/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022812	4211	08/01/00	08/10/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022813	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022814	4211	08/01/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022815	4211	08/01/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022816	4211	08/01/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022817	4211	08/01/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022818	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022819	4211	08/01/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022820	4211	08/01/00	08/09/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022821	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022822	4211	08/01/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022823	4211	08/01/00	08/10/00	YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4022824	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022825	4211	08/01/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022826	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022827	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022828	4211	08/01/00		-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022829	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4022830	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022831	4211	08/01/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022832	4211	08/01/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022833	4211	08/01/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022834	4211	08/01/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022835	4211	08/01/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022836	4211	08/01/00	08/09/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022837	4211	08/01/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022838	4211	08/01/00	08/10/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022839	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022840	4211	08/01/00		YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4022841	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022842	4211	08/01/00	08/14/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022843	4211	08/01/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022844	4211	08/01/00	08/10/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022845	4211	08/01/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022846	4211	08/01/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022847	4211	08/01/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022848	4211	08/01/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022849	4211	08/01/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022850	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022851	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022852	4211	08/01/00	10/16/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
3rd Set											
YES	4022854	4211	08/01/00		-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022855	4211	08/01/00	10/16/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022856	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022857	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022858	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022859	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4022860	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022861	4211	08/01/00	10/16/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022862	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022863	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022864	4211	08/01/00		YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4022865	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022866	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022867	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022868	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022869	4211	08/01/00	10/16/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022870	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022871	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022872	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022873	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022874	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022875	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022876	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022877	4211	08/01/00	10/16/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022878	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022879	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022880	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022881	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022882	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022883	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022884	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022885	4211	08/01/00	10/16/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022886	4211	08/01/00		YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4022887	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022888	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022889	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022890	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4022891	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022892	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022893	4211	08/01/00	10/16/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022894	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022895	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022896	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022897	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022898	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022899	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022900	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022901	4211	08/01/00		-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022902	4211	08/01/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022903	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022904	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022905	4211	08/01/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022906	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022907	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022908	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022909	4211	08/02/00		YES	PASS	YES	PASS	TOTAL FINA	YES	PASS
YES	4022910	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022911	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022912	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022913	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022914	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022915	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022916	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022917	4211	08/02/00	10/16/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022918	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022919	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022920	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022921	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS

TABLE 2
HDPE GEONET ROLL
INVENTORY AND ELIGIBILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEONET ROLL QUALITY CONTROL		POLYETHYLENE RESIN QUALITY CONTROL		
					SAMPLE	RESULT	CERT.	RESULT	SUPPLIER	CERT.	RESULT
YES	4022922	4211	08/02/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022923	4211	08/02/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022924	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022925	4211	08/02/00	10/16/00	-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022926	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022927	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022928	4211	08/02/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022929	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022930	4211	08/02/00	10/16/00	YES	PASS	-	-	TOTAL FINA	YES	PASS
YES	4022931	4211	08/02/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022932	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022933	4211	08/02/00		-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022934	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022935	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022936	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022937	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022938	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022939	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022940	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022941	4211	08/02/00		-	-	YES	PASS	TOTAL FINA	YES	PASS
YES	4022942	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022943	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022944	4211	08/02/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022945	4211	08/02/00	10/16/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022946	4211	08/02/00		-	-	-	-	TOTAL FINA	YES	PASS
YES	4022947	4211	08/02/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022948	4211	08/02/00	08/09/00	-	-	-	-	TOTAL FINA	YES	PASS
YES	4022949	4211	08/02/00	08/09/00	YES	PASS	YES	PASS	TOTAL FINA	YES	PASS

SECTION C-3

Geotextile - 6-Ounce

TABLE 3
GEOTEX 701 6-OZ/SY NONWOVEN GEOTEXTILE
INVENTORY AND ACCEPTABILITY STATUS SUMMARY
TRAIL RIDGE LANDFILL - PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	LOT NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOTEXTILE ROLL QUALITY CONTROL		REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	
YES	B852022A	80320	300	15	3/21/00	9/16/00	-	-	-	-	
YES	B852068A	80320	300	15	3/21/00		-	-	-	-	
YES	B852071A	80320	300	15	3/21/00		-	-	-	-	
YES	B852085A	80320	300	15	3/21/00	8/21/00	-	-	-	-	
YES	B852091A	80320	300	15	3/21/00	8/21/00	-	-	-	-	
YES	B852093A	80320	300	15	3/21/00		-	-	-	-	
YES	B852097A	80320	300	15	3/21/00	8/21/00	-	-	-	-	
YES	B852098A	80320	300	15	3/21/00	8/21/00	-	-	-	-	
YES	B852113A	80320	300	15	3/21/00	8/21/00	-	-	-	-	
YES	B852114A	80320	300	15	3/21/00	9/16/00	-	-	-	-	
YES	B852118A	80320	300	15	3/21/00	8/21/00	YES	PASS	-	-	
YES	B852125A	80320	300	15	3/21/00	9/16/00	-	-	YES (2)	PASS	
YES	B852129A	80320	300	15	3/21/00	9/16/00	-	-	-	-	
YES	B852131A	80320	300	15	3/21/00	8/21/00	-	-	-	-	
YES	B852137A	80320	300	15	3/21/00		-	-	-	-	
YES	B852138A	80320	300	15	3/21/00	8/21/00	-	-	-	-	
YES	B852143A	80320	300	15	3/21/00	8/21/00	-	-	YES (2)	PASS	
YES	B852145A	80320	300	15	3/21/00		-	-	YES (3)	PASS	
YES	B842147A	80320	300	15	3/21/00	8/21/00	-	-	-	-	
YES	B852149A	80320	300	15	3/21/00	8/21/00	-	-	-	-	
YES	B852151A	80320	300	15	3/21/00	8/21/00	-	-	-	-	
YES	B852153A	80320	300	15	3/21/00	8/21/00	-	-	-	-	
YES	B852168A	80320	300	15	3/21/00	9/16/00	-	-	-	-	
YES	B852175A	80320	300	15	3/21/00	9/16/00	-	-	-	-	
YES	B852177A	80320	300	15	3/21/00	8/21/00	-	-	YES (2)	PASS	
YES	B852182A	80320	300	15	3/21/00		-	-	-	-	
YES	B852193A	80320	300	15	3/21/00	8/21/00	-	-	-	-	

TABLE 3
GEOTEX 701 6-OZ/SY NONWOVEN GEOTEXTILE
INVENTORY AND ACCEPTABILITY STATUS SUMMARY
TRAIL RIDGE LANDFILL - PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	LOT NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOTEXTILE ROLL QUALITY CONTROL		REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	
YES	B852195A	80320	300	15	3/25/00	8/21/00	-	-	YES (1)	PASS	
YES	B852196A	80320	300	15	3/25/00	8/21/00	-	-	-	-	
YES	B852220A	80320	300	15	3/25/00		-	-	-	-	
YES	B852223A	80320	300	15	3/25/00	9/16/00	-	-	-	-	
YES	B852227A	80320	300	15	3/25/00		-	-	-	-	
YES	B852228A	80320	300	15	3/25/00	8/21/00	-	-	-	-	
YES	B852229A	80320	300	15	3/25/00	9/16/00	YES	PASS	-	-	
YES	B852292A	80320	300	15	3/25/00		-	-	-	-	
YES	B852419A	80320	300	15	3/25/00		-	-	-	-	
YES	B852797A	80321	300	15	3/25/00	8/21/00	-	-	YES (2)	PASS	
YES	B852801A	80321	300	15	3/25/00		-	-	-	-	
YES	B852803A	80321	300	15	3/25/00	8/21/00	-	-	-	-	
YES	B852804A	80321	300	15	3/25/00	9/19/00	-	-	-	-	
YES	B852818A	80321	300	15	3/25/00		-	-	-	-	
YES	B852830A	80321	300	15	3/25/00	9/16/00	-	-	-	-	
YES	B852834A	80321	300	15	3/25/00	8/21/00	-	-	-	-	
YES	B852836A	80321	300	15	3/25/00	8/21/00			-	-	
YES	B852859A	80321	300	15	3/25/00	8/21/00	-	-	-	-	
YES	B852860A	80321	300	15	3/25/00	8/21/00	-	-	YES (1)	PASS	
YES	B852863A	80321	300	15	3/25/00	9/16/00	-	-	-	-	
YES	B852864A	80321	300	15	3/25/00	9/19/00	-	-	-	-	
YES	B852871A	80321	300	15	3/25/00	8/21/00	-	-	-	-	
YES	B852888A	80321	300	15	3/25/00	9/16/00	-	-	-	-	
YES	B852900A	80321	300	15	3/25/00	8/21/00	-	-	YES (3)	PASS	
YES	B852902A	80321	300	15	3/25/00	8/21/00	-	-	-	-	
YES	B852906A	80321	300	15	3/25/00	8/21/00	-	-	-	-	
YES	B852908A	80321	300	15	3/25/00	8/21/00	-	-	-	-	
YES	B852911A	80321	300	15	3/25/00	8/21/00	YES	PASS	-	-	

TABLE 3
GEOTEX 701 6-OZ/SY NONWOVEN GEOTEXTILE
INVENTORY AND ACCEPTABILITY STATUS SUMMARY
TRAIL RIDGE LANDFILL - PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	LOT NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOTEXTILE ROLL QUALITY CONTROL		REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT	RESULT	
YES	B852936A	80321	300	15	3/26/00	8/21/00	-	-	YES (2)	PASS	
YES	B852937A	80321	300	15	3/26/00	9/16/00	-	-	-	-	
YES	B852938A	80321	300	15	3/26/00	8/21/00	-	-	-	-	
YES	B852951A	80321	300	15	3/26/00	8/21/00	-	-	-	-	
YES	B852952A	80321	300	15	3/26/00	9/16/00	-	-	-	-	
YES	B852953A	80321	300	15	3/26/00	9/16/00	-	-	-	-	
YES	B852954A	80321	300	15	3/26/00	8/21/00	-	-	YES (2)	PASS	
YES	B852955A	80321	300	15	3/26/00	8/21/00	-	-	-	-	
YES	B852956A	80321	300	15	3/26/00	9/16/00	-	-	-	-	
YES	B852957A	80321	300	15	3/26/00	9/16/00	-	-	-	-	
YES	B852959A	80321	300	15	3/26/00	8/21/00	-	-	-	-	
YES	B852960A	80321	300	15	3/26/00	8/21/00	-	-	-	-	
YES	B852961A	80321	300	15	3/26/00	8/21/00	-	-	YES (2)	PASS	
YES	B852962A	80321	300	15	3/26/00	9/16/00	-	-	-	-	
YES	B852963A	80321	300	15	3/26/00	9/16/00	-	-	-	-	
YES	B852964A	80321	300	15	3/26/00		-	-	-	-	
YES	B852965A	80321	300	15	3/26/00	9/19/00	YES	PASS	-	-	
YES	B852966A	80321	300	15	3/26/00	9/16/00	-	-	YES (2)	PASS	
YES	B852967A	80321	300	15	3/26/00		-	-	-	-	
YES	B852968A	80321	300	15	3/26/00	9/19/00	-	-	-	-	
YES	B852969A	80321	300	15	3/26/00		-	-	-	-	
YES	B852974A	80321	300	15	3/26/00	9/19/00	-	-	-	-	
YES	B852975A	80321	300	15	3/26/00	9/16/00	-	-	-	-	
YES	B852976A	80321	300	15	3/26/00	8/21/00	-	-	-	-	
YES	B852977A	80321	300	15	3/26/00	9/16/00	-	-	YES (2)	PASS	
YES	B852978A	80321	300	15	3/26/00	8/21/00	-	-	-	-	
YES	B852979A	80321	300	15	3/26/00	8/21/00	-	-	-	-	
YES	B852980A	80321	300	15	3/26/00	9/16/00	-	-	-	-	

TABLE 3
GEOTEX 701 6-OZ/SY NONWOVEN GEOTEXTILE
INVENTORY AND ACCEPTABILITY STATUS SUMMARY
TRAIL RIDGE LANDFILL - PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	LOT NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOTEXTILE ROLL QUALITY CONTROL		REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	
YES	B852981A	80321	300	15	3/26/00	9/16/00	-	-	-	-	
YES	B852982A	80321	300	15	3/26/00	9/19/00	-	-	-	-	
YES	B852983A	80321	300	15	3/26/00	9/16/00	-	-	YES (2)	PASS	
YES	B852984A	80321	300	15	3/26/00	9/16/00	-	-	-	-	
YES	B852985A	80321	300	15	3/26/00	8/21/00	-	-	-	-	
YES	B852986A	80321	300	15	3/26/00		-	-	-	-	
YES	B852987A	80321	300	15	3/26/00	9/19/00	-	-	-	-	
YES	B852988A	80321	300	15	3/26/00	8/21/00	-	-	-	-	
YES	B852989A	80321	300	15	3/26/00	9/19/00	-	-	YES (2)	PASS	
YES	B852990A	80321	300	15	3/27/00		-	-	YES (1)	PASS	
YES	B852991A	80321	300	15	3/27/00	9/16/00	-	-	-	-	
YES	B852992A	80321	300	15	3/27/00	9/16/00	-	-	-	-	
YES	B852993A	80321	300	15	3/27/00	9/16/00	-	-	-	-	
YES	B852994A	80321	300	15	3/27/00	8/21/00	-	-	-	-	
YES	B852995A	80321	300	15	3/27/00	8/21/00	-	-	YES (2)	PASS	
YES	B852996A	80321	300	15	3/27/00	8/21/00	-	-	-	-	
YES	B852997A	80321	300	15	3/27/00	8/21/00	-	-	-	-	
YES	B852998A	80321	300	15	3/27/00	9/16/00	-	-	-	-	
YES	B852999A	80321	300	15	3/27/00	9/16/00	YES	PASS	-	-	
YES	B853000A	80321	300	15	3/27/00	9/16/00	-	-	YES (3)	PASS	
YES	B853001A	80321	300	15	3/27/00	8/21/00	-	-	YES (2)	PASS	
YES	B853002A	80321	300	15	3/27/00	8/21/00	-	-	-	-	
YES	B853003A	80321	300	15	3/27/00	9/16/00	-	-	-	-	
YES	B853004A	80321	300	15	3/27/00	8/21/00	-	-	-	-	
YES	B853005A	80321	300	15	3/27/00	9/16/00	-	-	-	-	
YES	B853006A	80321	300	15	3/27/00	9/16/00	-	-	-	-	
YES	B853007A	80321	300	15	3/27/00	9/16/00	-	-	YES (2)	PASS	
YES	B853008A	80321	300	15	3/27/00	9/16/00	-	-	-	-	

TABLE 3
GEOTEX 701 6-OZ/SY NONWOVEN GEOTEXTILE
INVENTORY AND ACCEPTABILITY STATUS SUMMARY
TRAIL RIDGE LANDFILL - PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	LOT NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOTEXTILE ROLL QUALITY CONTROL		REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	
YES	B853027A	80321	300	15	3/27/00		-	-	-	-	
YES	B853030A	80321	300	15	3/27/00	8/21/00	-	-	YES (1)	PASS	
YES	B853039A	80321	300	15	3/27/00		-	-	-	-	
YES	B853168A	80321	300	15	3/27/00		-	-	-	-	
YES	B853221A	80322	300	15	3/28/00	9/19/00	-	-	YES (2)	PASS	
YES	B853222A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853223A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853224A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853225A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853226A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853227A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853228A	80322	300	15	3/28/00		-	-	-	-	
YES	B853229A	80322	300	15	3/28/00	9/16/00	-	-	YES (2)	PASS	
YES	B853230A	80322	300	15	3/28/00	9/16/00	YES	PASS	YES (1)	PASS	
YES	B853231A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853232A	80322	300	15	3/28/00	8/21/00	-	-	-	-	
YES	B853239A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853240A	80322	300	15	3/28/00	9/16/00	-	-	YES (1)	PASS	
YES	B853241A	80322	300	15	3/28/00	8/21/00	-	-	YES (2)	PASS	
YES	B853242A	80322	300	15	3/28/00	8/21/00	-	-	-	-	
YES	B853243A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853244A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853245A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853246A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853247A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853248A	80322	300	15	3/28/00	8/21/00	-	-	YES (2)	PASS	
YES	B853249A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853250A	80322	300	15	3/28/00	8/21/00	-	-	YES (1)	PASS	

TABLE 3
GEOTEX 701 6-OZ/SY NONWOVEN GEOTEXTILE
INVENTORY AND ACCEPTABILITY STATUS SUMMARY
TRAIL RIDGE LANDFILL - PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	LOT NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOTEXTILE ROLL QUALITY CONTROL		REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	
YES	B853251A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853252A	80322	300	15	3/28/00	9/19/00	-	-	-	-	
YES	B853253A	80322	300	15	3/28/00		-	-	YES (2)	PASS	
YES	B853257A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853258A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853261A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853278A	80322	300	15	3/28/00	9/16/00	-	-	-	-	
YES	B853279A	80322	300	15	3/28/00	9/19/00	-	-	-	-	
YES	B853280A	80324	300	15	3/29/00	9/19/00	YES	PASS	YES (2)	PASS	
YES	B853282A	80324	300	15	3/29/00	9/19/00	-	-	-	-	
YES	B853283A	80324	300	15	3/29/00	9/19/00	-	-	-	-	
YES	B853290A	80324	300	15	3/29/00	8/21/00	-	-	YES (1)	PASS	
YES	B853291A	80324	300	15	3/29/00	8/21/00	-	-	-	-	
YES	B853292A	80324	300	15	3/29/00	8/21/00			-	-	
YES	B853295A	80324	300	15	3/29/00	8/21/00	-	-	-	-	
YES	B853297A	80324	300	15	3/29/00	9/16/00	-	-	YES (2)	PASS	
YES	B853298A	80324	300	15	3/29/00	9/16/00	-	-	-	-	
YES	B853299A	80324	300	15	3/29/00	9/16/00	-	-	-	-	
YES	B853313A	80324	300	15	3/29/00		-	-	-	-	
YES	B853319A	80324	300	15	3/29/00		-	-	-	-	
YES	B853373A	80324	300	15	3/29/00	9/16/00	-	-	-	-	
YES	B853374A	80324	300	15	3/30/00	9/16/00	-	-	YES (2)	PASS	
YES	B853375A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853376A	80324	300	15	3/30/00	9/16/00	-	-	-	-	
YES	B853377A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853378A	80324	300	15	3/30/00	9/19/00	-	-	-	-	
YES	B853381A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853382A	80324	300	15	3/30/00	8/21/00	-	-	YES (2)	PASS	

TABLE 3
GEOTEX 701 6-OZ/SY NONWOVEN GEOTEXTILE
INVENTORY AND ACCEPTABILITY STATUS SUMMARY
TRAIL RIDGE LANDFILL - PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	LOT NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOTEXTILE ROLL QUALITY CONTROL		REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	
YES	B853385A	80324	300	15	3/30/00	9/19/00	-	-	-	-	
YES	B853388A	80324	300	15	3/30/00		-	-	-	-	
YES	B853389A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853390A	80324	300	15	3/30/00	9/16/00	-	-	YES (1)	PASS	
YES	B853392A	80324	300	15	3/30/00		-	-	-	-	
YES	B853393A	80324	300	15	3/30/00	8/21/00	YES	PASS	YES (2)	PASS	
YES	B853394A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853395A	80324	300	15	3/30/00		-	-	-	-	
YES	B853396A	80324	300	15	3/30/00		-	-	-	-	
YES	B853397A	80324	300	15	3/30/00		-	-	-	-	
YES	B853398A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853399A	80324	300	15	3/30/00	9/16/00	-	-	YES (2)	PASS	
YES	B853401A	80324	300	15	3/30/00		-	-	-	-	
YES	B853402A	80324	300	15	3/30/00		-	-	-	-	
YES	B853403A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853404A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853405A	80324	300	15	3/30/00	8/21/00	-	-	YES (2)	PASS	
YES	B853406A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853409A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853411A	80324	300	15	3/30/00	9/16/00	-	-	-	-	
YES	B853412A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853414A	80324	300	15	3/30/00	8/21/00	YES	PASS	-	-	
YES	B853415A	80324	300	15	3/30/00	9/19/00	-	-	YES (2)	PASS	
YES	B853416A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853418A	80324	300	15	3/30/00		-	-	-	-	
YES	B853419A	80324	300	15	3/30/00	8/21/00			-	-	
YES	B853424A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853425A	80324	300	15	3/30/00		-	-	-	-	

TABLE 3
GEOTEX 701 6-OZ/SY NONWOVEN GEOTEXTILE
INVENTORY AND ACCEPTABILITY STATUS SUMMARY
TRAIL RIDGE LANDFILL - PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	LOT NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOTEXTILE ROLL QUALITY CONTROL		REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	
YES	B853426A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853428A	80324	300	15	3/30/00		-	-	YES (2)	PASS	
YES	B853429A	80324	300	15	3/30/00	9/16/00	-	-	-	-	
YES	B853435A	80324	300	15	3/30/00		-	-	-	-	
YES	B853444A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853445A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853447A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853464A	80324	300	15	3/30/00	8/21/00	-	-	-	-	
YES	B853466A	80324	300	15	3/30/00		-	-	-	-	
YES	B853467A	80324	300	15	3/30/00	8/21/00	-	-	-	-	

Notes:

(1) Roll tested for Mass, Tensile, Elongation, Trapezoidal Tear, Burst, and Puncture.

(2) Roll tested for AOS and Permittivity.

(3) Roll tested for both (1) and (2).

SECTION C-4

Geotextile - 16-Ounce

TABLE 4
GEOTEX 1751 16-OZ/SY NONWOVEN GEOTEXTILE
ROLL INVENTORY AND ACCEPTABILITY STATUS SUMMARY
TRAIL RIDGE LANDFILL - PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	LOT NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOTEXTILE ROLL QUALITY CONTROL		REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	
YES	5206049A	51323	300	15	5/22/00	9/7/00	-	-	-	-	
YES	5206050A	51323	300	15	5/22/00	9/16/00	-	-	-	-	
YES	5206051A	51323	300	15	5/22/00		-	-	-	-	
YES	5206052A	51323	300	15	5/22/00	9/11/00	-	-	-	-	
YES	5206053A	51323	300	15	5/22/00	9/7/00	-	-	-	-	
YES	5206054A	51323	300	15	5/22/00	9/7/00	-	-	-	-	
YES	5206056A	51323	300	15	5/22/00	9/11/00	-	-	-	-	
YES	5206058A	51323	300	15	5/22/00	9/18/00	-	-	-	-	
YES	5206059A	51323	300	15	5/22/00	9/7/00	-	-	-	-	
YES	5206060A	51323	300	15	5/22/00	9/16/00	-	-	YES (1)	PASS	
YES	5206062A	51323	300	15	5/22/00	9/16/00	-	-	YES (2)	PASS	
YES	5206063A	51323	300	15	5/22/00	9/7/00	-	-	-	-	
YES	5206064A	51323	300	15	5/22/00	9/18/00	-	-	-	-	
YES	5206065A	51323	300	15	5/22/00	9/18/00	-	-	-	-	
YES	5206066A	51323	300	15	5/22/00	9/16/00	-	-	-	-	
YES	5206067A	51323	300	15	5/22/00	9/18/00	-	-	-	-	
YES	5206068A	51323	300	15	5/22/00	9/11/00	-	-	-	-	
YES	5206070A	51323	300	15	5/22/00	9/7/00	-	-	YES (1)	PASS	
YES	5206072A	51323	300	15	5/22/00	9/11/00	-	-	-	-	
YES	5206073A	51323	300	15	5/22/00	9/16/00	-	-	-	-	
YES	5206074A	51323	300	15	5/22/00	9/7/00	-	-	-	-	
YES	5206075A	51323	300	15	5/22/00	9/16/00	-	-	YES (2)	PASS	
YES	5206076A	51323	300	15	5/22/00	9/11/00	-	-	-	-	
YES	5206077A	51323	300	15	5/22/00	9/7/00	YES	PASS	-	-	
YES	5206078A	51323	300	15	5/22/00	9/11/00	-	-	-	-	
YES	5206080A	51323	300	15	5/22/00	9/16/00	-	-	YES (1)	PASS	
YES	5206081A	51323	300	15	5/22/00	9/16/00	-	-	-	-	
YES	5206082A	51323	300	15	5/22/00		-	-	-	-	
YES	5206084A	51323	300	15	5/22/00	9/18/00	-	-	-	-	

TABLE 4
GEOTEX 1751 16-OZ/SY NONWOVEN GEOTEXTILE
ROLL INVENTORY AND ACCEPTABILITY STATUS SUMMARY
TRAIL RIDGE LANDFILL - PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	LOT NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOTEXTILE ROLL QUALITY CONTROL		REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	
YES	5206085A	51323	300	15	5/22/00		-	-	-	-	
YES	5206086A	51323	300	15	5/22/00		-	-	-	-	
YES	5206087A	51323	300	15	5/22/00	9/11/00	-	-	-	-	
YES	5206088A	51323	300	15	5/22/00		-	-	YES (2)	PASS	
YES	5206089A	51323	300	15	5/22/00	9/16/00	-	-	-	-	
YES	5206090A	51323	300	15	5/22/00	9/7/00	-	-	-	-	
YES	5206093A	51323	300	15	5/22/00	9/7/00	-	-	-	-	
YES	5206095A	51323	300	15	5/22/00	9/7/00	-	-	-	-	
YES	5206097A	51323	300	15	5/22/00	9/11/00	-	-	-	-	
YES	5206098A	51323	300	15	5/22/00	9/7/00	-	-	-	-	
YES	5206100A	51323	300	15	5/22/00		-	-	-	-	
YES	5206103A	51323	300	15	5/22/00	9/11/00	-	-	-	-	
YES	5206105A	51323	300	15	5/22/00	8/21/00	-	-	-	-	
YES	5206106A	51323	300	15	5/22/00	9/11/00	-	-	-	-	
YES	5206107A	51323	300	15	5/22/00	9/11/00	-	-	YES (2)	PASS	
YES	5206108A	51323	300	15	5/22/00	9/11/00	-	-	-	-	
YES	5206109A	51323	300	15	5/22/00	9/11/00	-	-	-	-	
YES	5206111A	51323	300	15	5/22/00	9/18/00	-	-	-	-	
YES	5206112A	51323	300	15	5/22/00	8/21/00	-	-	-	-	
YES	5206113A	51323	300	15	5/22/00	9/7/00	-	-	-	-	
YES	5206116A	51323	300	15	5/22/00	9/7/00	-	-	-	-	
YES	5206117A	51323	300	15	5/22/00	8/21/00	-	-	-	-	
YES	5206119A	51323	300	15	5/22/00	8/21/00	-	-	-	-	
YES	5206120A	51323	300	15	5/22/00	8/21/00	-	-	YES (1)	PASS	
YES	5206121A	51323	300	15	5/22/00	9/18/00	-	-	-	-	
YES	5206122A	51325	300	15	5/24/00	8/21/00	-	-	YES (2)	PASS	
YES	5206124A	51325	300	15	5/24/00	9/7/00	-	-	-	-	
YES	5206126A	51325	300	15	5/24/00	9/18/00	-	-	-	-	
YES	5206127A	51325	300	15	5/24/00	8/21/00	YES	PASS	-	-	

TABLE 4
GEOTEX 1751 16-OZ/SY NONWOVEN GEOTEXTILE
ROLL INVENTORY AND ACCEPTABILITY STATUS SUMMARY
TRAIL RIDGE LANDFILL - PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	LOT NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOTEXTILE ROLL QUALITY CONTROL		REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	
YES	5206128A	51325	300	15	5/24/00	8/21/00	-	-	-	-	
YES	5206129A	51325	300	15	5/24/00	8/21/00	-	-	-	-	
YES	5206130A	51325	300	15	5/24/00	9/7/00	-	-	-	-	
YES	5206131A	51325	300	15	5/24/00	8/21/00	-	-	-	-	
YES	5206134A	51325	300	15	5/24/00	9/18/00	-	-	-	-	
YES	5206135A	51325	300	15	5/24/00		-	-	-	-	
YES	5206136A	51325	300	15	5/24/00	9/7/00	-	-	-	-	
YES	5206137A	51325	300	15	5/24/00	9/11/00	-	-	-	-	
YES	5206140A	51325	300	15	5/24/00	9/18/00	-	-	YES (1)	PASS	
YES	5206141A	51325	300	15	5/24/00	9/7/00	-	-	YES (2)	PASS	
YES	5206142A	51325	300	15	5/24/00	9/11/00	-	-	-	-	
YES	5206147A	51325	300	15	5/24/00		-	-	-	-	
YES	5206148A	51325	300	15	5/24/00	9/18/00	-	-	-	-	
YES	5206160A	51325	300	15	5/24/00	9/7/00	-	-	-	-	
YES	5206162A	51325	300	15	5/24/00	9/11/00	-	-	-	-	
YES	5206169A	51325	300	15	5/24/00	9/7/00	YES	PASS	-	-	
YES	5206170A	51325	300	15	5/24/00	9/11/00	-	-	-	-	
YES	5206174A	51325	300	15	5/24/00	9/11/00	-	-	-	-	
YES	5206183A	51325	300	15	5/24/00	9/11/00	-	-	-	-	
YES	5206185A	51325	300	15	5/24/00	8/21/00	-	-	-	-	
YES	5206187A	51325	300	15	5/24/00		-	-	-	-	
YES	5206189A	51325	300	15	5/24/00	8/21/00	-	-	YES (2)	PASS	
YES	5206190A	51325	300	15	5/24/00		-	-	YES (1)	PASS	
YES	5206193A	51325	300	15	5/24/00	9/18/00	-	-	-	-	
YES	5206195A	51325	300	15	5/24/00	9/18/00	-	-	-	-	
YES	5206204A	51325	300	15	5/24/00	9/7/00	-	-	-	-	
YES	5206213A	51325	300	15	5/24/00		-	-	-	-	
YES	5206214A	51325	300	15	5/24/00	9/7/00	-	-	-	-	
YES	5206215A	51325	300	15	5/24/00	9/18/00	-	-	-	-	

TABLE 4
GEOTEX 1751 16-OZ/SY NONWOVEN GEOTEXTILE
ROLL INVENTORY AND ACCEPTABILITY STATUS SUMMARY
TRAIL RIDGE LANDFILL - PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	LOT NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOTEXTILE ROLL QUALITY CONTROL		REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	
YES	5206216A	51325	300	15	5/24/00	9/11/00	-	-	-	-	
YES	5206217A	51325	300	15	5/24/00		-	-	-	-	
YES	5206219A	51325	300	15	5/24/00	9/11/00	-	-	-	-	
YES	5206220A	51325	300	15	5/24/00	9/7/00	-	-	YES (2)	PASS	
YES	5206221A	51325	300	15	5/24/00	9/18/00	-	-	-	-	
YES	5206222A	51325	300	15	5/24/00	9/7/00	-	-	-	-	
YES	5206224A	51325	300	15	5/24/00	9/7/00	-	-	-	-	
YES	5206225A	51325	300	15	5/24/00	9/7/00	-	-	-	-	
YES	5206235A	51325	300	15	5/24/00		-	-	-	-	
YES	5206263A	51325	300	15	5/24/00		-	-	-	-	
YES	5206264A	51325	300	15	5/24/00		-	-	-	-	
YES	5206265A	51325	300	15	5/24/00	9/11/00	-	-	-	-	
YES	5206268A	51325	300	15	5/24/00	9/11/00	-	-	-	-	
YES	5206269A	51325	300	15	5/24/00	9/11/00	YES	PASS	-	-	
YES	5206270A	51325	300	15	5/24/00	9/7/00	-	-	-	-	
YES	5206271A	51325	300	15	5/24/00	9/11/00	-	-	-	-	
YES	5206272A	51325	300	15	5/24/00	9/11/00	-	-	-	-	
YES	5206273A	51325	300	15	5/24/00	9/11/00	-	-	-	-	
YES	5206274A	51325	300	15	5/24/00		-	-	-	-	
YES	5206275A	51325	300	15	5/24/00	9/11/00	-	-	-	-	
YES	5206276A	51325	300	15	5/24/00	9/11/00	-	-	-	-	
YES	5206277A	51325	300	15	5/24/00	9/11/00	-	-	-	-	
YES	5206278A	51325	300	15	5/24/00	9/7/00	-	-	-	-	
YES	5206279A	51325	300	15	5/24/00	9/7/00	-	-	-	-	
YES	5206280A	51325	300	15	5/26/00	9/11/00	-	-	YES (1)	PASS	
YES	5206281A	51325	300	15	5/26/00	9/7/00	-	-	YES (2)	PASS	
YES	5206282A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206283A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206284A	51325	300	15	5/26/00	8/21/00	-	-	-	-	

TABLE 4
GEOTEX 1751 16-OZ/SY NONWOVEN GEOTEXTILE
ROLL INVENTORY AND ACCEPTABILITY STATUS SUMMARY
TRAIL RIDGE LANDFILL - PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	LOT NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOTEXTILE ROLL QUALITY CONTROL		REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	
YES	5206285A	51325	300	15	5/26/00	9/18/00	-	-	-	-	
YES	5206287A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206288A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206289A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206290A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206291A	51325	300	15	5/26/00	9/11/00	YES	PASS	-	-	
YES	5206292A	51325	300	15	5/26/00		-	-	-	-	
YES	5206293A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5206294A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5206295A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206296A	51325	300	15	5/26/00	9/11/00	-	-	YES (2)	PASS	
YES	5206297A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5207298A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5206299A	51325	300	15	5/26/00		-	-	-	-	
YES	5206300A	51325	300	15	5/26/00	9/11/00	-	-	YES (3)	PASS	
YES	5206301A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5206302A	51325	300	15	5/26/00	9/18/00	-	-	-	-	
YES	5206303A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5206304A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206305A	51325	300	15	5/26/00		-	-	-	-	
YES	5206306A	51325	300	15	5/26/00		-	-	-	-	
YES	5206307A	51325	300	15	5/26/00	9/18/00	-	-	-	-	
YES	5206308A	51325	300	15	5/26/00		-	-	-	-	
YES	5206309A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5206310A	51325	300	15	5/26/00	9/11/00	-	-	YES (1)	PASS	
YES	5206311A	51325	300	15	5/26/00		-	-	-	-	
YES	5206312A	51325	300	15	5/26/00	9/18/00	-	-	-	-	
YES	5206313A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5206314A	51325	300	15	5/26/00	9/11/00	-	-	-	-	

TABLE 4
GEOTEX 1751 16-OZ/SY NONWOVEN GEOTEXTILE
ROLL INVENTORY AND ACCEPTABILITY STATUS SUMMARY
TRAIL RIDGE LANDFILL - PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	LOT NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOTEXTILE ROLL QUALITY CONTROL		REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	
YES	5206316A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206317A	51325	300	15	5/26/00	8/21/00	YES	PASS	-	-	
YES	5206318A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206319A	51325	300	15	5/26/00		-	-	YES (2)	PASS	
YES	5206321A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5206322A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206323A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206324A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206325A	51325	300	15	5/26/00		-	-	-	-	
YES	5206326A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206327A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206328A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206329A	51325	300	15	5/26/00	9/18/00	-	-	-	-	
YES	5206330A	51325	300	15	5/26/00	9/11/00	-	-	YES (3)	PASS	
YES	5206331A	51325	300	15	5/26/00	9/18/00	-	-	-	-	
YES	5206332A	51325	300	15	5/26/00		-	-	-	-	
YES	5206333A	51325	300	15	5/26/00	9/11/00	YES	PASS	-	-	
YES	5206334A	51325	300	15	5/26/00	9/18/00	-	-	-	-	
YES	5206335A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206336A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206337A	51325	300	15	5/26/00		-	-	-	-	
YES	5206338A	51325	300	15	5/26/00	9/18/00	-	-	-	-	
YES	5206339A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206340A	51325	300	15	5/26/00	9/11/00	-	-	YES (3)	PASS	
YES	5206341A	51325	300	15	5/26/00	9/18/00	-	-	YES (2)	PASS	
YES	5206342A	51325	300	15	5/26/00	9/18/00	-	-	-	-	
YES	5206343A	51325	300	15	5/26/00	9/18/00	-	-	-	-	
YES	5206344A	51325	300	15	5/26/00		-	-	-	-	
YES	5206345A	51325	300	15	5/26/00	9/18/00	-	-	-	-	

TABLE 4
GEOTEX 1751 16-OZ/SY NONWOVEN GEOTEXTILE
ROLL INVENTORY AND ACCEPTABILITY STATUS SUMMARY
TRAIL RIDGE LANDFILL - PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	LOT NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOTEXTILE ROLL QUALITY CONTROL		REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	
YES	5206346A	51325	300	15	5/26/00		-	-	-	-	
YES	5206347A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5206348A	51325	300	15	5/26/00	9/18/00	-	-	-	-	
YES	5206349A	51325	300	15	5/26/00	9/18/00	-	-	-	-	
YES	5206350A	51325	300	15	5/26/00	9/18/00	-	-	-	-	
YES	5206351A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5206352A	51325	300	15	5/26/00	9/11/00	-	-	YES (2)	PASS	
YES	5206353A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206355A	51325	300	15	5/26/00		-	-	-	-	
YES	5206356A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206358A	51325	300	15	5/26/00	9/18/00	-	-	-	-	
YES	5206359A	51325	300	15	5/26/00	9/18/00	-	-	-	-	
YES	5206372A	51325	300	15	5/26/00	9/16/00	YES	PASS	-	-	
YES	5206374A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5206379A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206380A	51325	300	15	5/26/00	9/11/00	-	-	YES (1)	PASS	
YES	5206381A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206382A	51325	300	15	5/26/00		-	-	-	-	
YES	5206385A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5206394A	51325	300	15	5/26/00		-	-	-	-	
YES	5206395A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5206414A	51325	300	15	5/26/00	9/18/00	-	-	-	-	
YES	5206415A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5206423A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5206427A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5206438A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206449A	51325	300	15	5/26/00	8/21/00	-	-	-	-	
YES	5206452A	51325	300	15	5/26/00	9/11/00	-	-	-	-	
YES	5206461A	51325	300	15	5/26/00	8/21/00	-	-	-	-	

TABLE 4
GEOTEX 1751 16-OZ/SY NONWOVEN GEOTEXTILE
ROLL INVENTORY AND ACCEPTABILITY STATUS SUMMARY
TRAIL RIDGE LANDFILL - PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	LOT NO.	ROLL DIMENSIONS (FT)		MANU-FACTURE DATE	DELIVERY DATE	CONFORMANCE TESTING		GEOTEXTILE ROLL QUALITY CONTROL		REMARKS
			LENGTH	WIDTH			SAMPLE	RESULT	CERT.	RESULT	
YES	5206464A	51325	300	15	5/26/00	9/7/00	-	-	-	-	
YES	5206487A	51325	300	15	5/26/00	9/7/00	-	-	-	-	
YES	5206495A	51325	300	15	5/26/00	9/7/00	YES	PASS	-	-	
YES	5206529A	51325	300	15	5/26/00		-	-	-	-	

Notes:

(1) Roll tested for Mass, Tensile, Elongation, Trapezoidal Tear, Burst, and Puncture.

(2) Roll tested for AOS and Permittivity.

(3) Roll tested for both (1) and (2).

SECTION C-5

Geosynthetic Clay Liner

TABLE 5
BENTOFIX® GEOSYNTHETIC CLAY LINER
ROLL INVENTORY AND ACCEPTABILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	ROLL DIMENSIONS (FT)		CONFORMANCE TESTING		BENTOFIX ROLL QUALITY CONTROL		REMARKS
					LENGTH	WIDTH	SAMPLE	RESULT	CERT.	RESULT	
1st Set											
YES	04632	B0071502	7/15/00	8/14/00	150	15.5	YES (4)	PASS	YES (3)	PASS	Accepted - QC cert for Roll #04632
YES	04633	B0071502	7/15/00	8/14/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #04633 and Roll #04632 (hyd cond)
YES	04635	B0071502	7/15/00	8/15/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #04635 and Roll #04632 (hyd cond)
YES	04636	B0071502	7/15/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04635 and Roll #04632 (hyd cond)
YES	04638	B0071502	7/15/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04635 and Roll #04632 (hyd cond)
YES	04639	B0071502	7/15/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04641 and Roll #04632 (hyd cond)
YES	04641	B0071502	7/15/00	8/14/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #04641 and Roll #04632 (hyd cond)
YES	04643	B0071502	7/15/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04641 and Roll #04632 (hyd cond)
YES	04644	B0071502	7/15/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04641 and Roll #04632 (hyd cond)
YES	04645	B0071502	7/15/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04641 and Roll #04632 (hyd cond)
YES	04646	B0071502	7/15/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04649 and Roll #04632 (hyd cond)
YES	04647	B0071502	7/15/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04649 and Roll #04632 (hyd cond)
YES	04649	B0071502	7/15/00	8/15/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #04649 and Roll #04632 (hyd cond)
YES	04650	B0071502	7/15/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04649 and Roll #04632 (hyd cond)
YES	04652	B0071502	7/15/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04649 and Roll #04632 (hyd cond)
YES	04653	B0071502	7/15/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04654 and Roll #04632 (hyd cond)
YES	04654	B0071502	7/15/00	8/15/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #04654 and Roll #04632 (hyd cond)
YES	04655	B0071502	7/15/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04654 and Roll #04632 (hyd cond)
YES	04656	B0071502	7/15/00	8/14/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #04656 and Roll #04632 (hyd cond)
YES	04657	B0071502	7/15/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04656 and Roll #04632 (hyd cond)
YES	04658	B0071502	7/15/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04656 and Roll #04632 (hyd cond)
YES	04659	B0071502	7/15/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04656 and Roll #04632 (hyd cond)
YES	04660	B0071502	7/15/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04656 and Roll #04632 (hyd cond)
YES	04661	B0071502	7/15/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04656 and Roll #04632 (hyd cond)
YES	04662	B0071502	7/15/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04664 and Roll #04672 (hyd cond)

TABLE 5
BENTOFIX® GEOSYNTHETIC CLAY LINER
ROLL INVENTORY AND ACCEPTABILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	ROLL DIMENSIONS (FT)		CONFORMANCE TESTING		BENTOFIX ROLL QUALITY CONTROL		REMARKS
					LENGTH	WIDTH	SAMPLE	RESULT	CERT.	RESULT	
YES	04663	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04664 and Roll #04672 (hyd cond)
YES	04664	B0071502	7/16/00	8/15/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #04664 and Roll #04672 (hyd cond)
YES	04665	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04664 and Roll #04672 (hyd cond)
YES	04667	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04664 and Roll #04672 (hyd cond)
YES	04668	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04669 and Roll #04672 (hyd cond)
YES	04669	B0071502	7/16/00	8/14/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #04669 and Roll #04672 (hyd cond)
YES	04671	B0071502	7/16/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04669 and Roll #04672 (hyd cond)
YES	04672	B0071502	7/16/00	8/14/00	150	15.5	-	-	YES (3)	PASS	Accepted - QC cert for Roll #04672
YES	04676	B0071502	7/16/00	8/15/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #04676 and Roll #04672 (hyd cond)
YES	04677	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04676 and Roll #04672 (hyd cond)
YES	04679	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04680 and Roll #04672 (hyd cond)
YES	04680	B0071502	7/16/00	8/15/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #04680 and Roll #04672 (hyd cond)
YES	04681	B0071502	7/16/00	8/15/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #04681 and Roll #04672 (hyd cond)
YES	04682	B0071502	7/16/00	8/14/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #04682 and Roll #04672 (hyd cond)
YES	04683	B0071502	7/16/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04682 and Roll #04672 (hyd cond)
YES	04685	B0071502	7/16/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04682 and Roll #04672 (hyd cond)
YES	04686	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04682 and Roll #04672 (hyd cond)
YES	04687	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04682 and Roll #04672 (hyd cond)
YES	04688	B0071502	7/16/00		150	15.5	-	-	-	-	Accepted - QC cert for Roll #04682 and Roll #04672 (hyd cond)
YES	04689	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04695 and Roll #04672 (hyd cond)
YES	04690	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04695 and Roll #04672 (hyd cond)
YES	04691	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04695 and Roll #04672 (hyd cond)
YES	04693	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04695 and Roll #04672 (hyd cond)
YES	04695	B0071502	7/16/00	8/15/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #04695 and Roll #04672 (hyd cond)
YES	04700	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04695 and Roll #04672 (hyd cond)
YES	04701	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04695 and Roll #04672 (hyd cond)

TABLE 5
BENTOFIX® GEOSYNTHETIC CLAY LINER
ROLL INVENTORY AND ACCEPTABILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	ROLL DIMENSIONS (FT)		CONFORMANCE TESTING		BENTOFIX ROLL QUALITY CONTROL		REMARKS
					LENGTH	WIDTH	SAMPLE	RESULT	CERT.	RESULT	
YES	04702	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04705 and Roll #04672 (hyd cond)
YES	04703	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04705 and Roll #04672 (hyd cond)
YES	04704	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04705 and Roll #04672 (hyd cond)
YES	04705	B0071502	7/16/00	8/14/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #04705 and Roll #04672 (hyd cond)
YES	04706	B0071502	7/16/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04705 and Roll #04672 (hyd cond)
YES	04707	B0071502	7/16/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04705 and Roll #04672 (hyd cond)
YES	04708	B0071502	7/16/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04710 and Roll #04672 (hyd cond)
YES	04709	B0071502	7/16/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04710 and Roll #04672 (hyd cond)
YES	04710	B0071502	7/16/00	8/14/00	150	15.5	YES (5)	PASS	YES (1)	PASS	Accepted - QC cert for Roll #04710 and Roll #04672 (hyd cond)
YES	04711	B0071502	7/16/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04710 and Roll #04672 (hyd cond)
YES	04712	B0071502	7/16/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04710 and Roll #04672 (hyd cond)
YES	04713	B0071502	7/16/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04710 and Roll #04672 (hyd cond)
YES	04714	B0071502	7/16/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04710 and Roll #04672 (hyd cond)
YES	04715	B0071502	7/16/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04710 and Roll #04672 (hyd cond)
YES	04717	B0071502	7/16/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04710 and Roll #04672 (hyd cond)
YES	04718	B0071502	7/16/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04710 and Roll #04672 (hyd cond)
YES	04719	B0071502	7/16/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04710 and Roll #04672 (hyd cond)
YES	04720	B0071502	7/16/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04710 and Roll #04672 (hyd cond)
YES	04721	B0071502	7/16/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #04710 and Roll #04672 (hyd cond)
2nd Set											
YES	07570	B0080902	8/9/00	8/15/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07570 and Roll #07582 (hyd cond)
YES	07571	B0080902	8/9/00	8/16/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07571 and Roll #07582 (hyd cond)
YES	07572	B0080902	8/9/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07571 and Roll #07582 (hyd cond)
YES	07573	B0080902	8/9/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07571 and Roll #07582 (hyd cond)
YES	07574	B0080902	8/9/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07571 and Roll #07582 (hyd cond)
YES	07577	B0080902	8/9/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07582

TABLE 5
BENTOFIX® GEOSYNTHETIC CLAY LINER
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TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	ROLL DIMENSIONS (FT)		CONFORMANCE TESTING		BENTOFIX ROLL QUALITY CONTROL		REMARKS
					LENGTH	WIDTH	SAMPLE	RESULT	CERT.	RESULT	
YES	07581	B0080902	8/9/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07582
YES	07582	B0080902	8/9/00	8/15/00	150	15.5	YES (4)	PASS	YES (3)	PASS	Accepted - QC cert for Roll #07582
YES	07583	B0080902	8/9/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07582
YES	07584	B0080902	8/9/00	8/15/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07584 and Roll #07582 (hyd cond)
YES	07585	B0080902	8/9/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07584 and Roll #07582 (hyd cond)
YES	07587	B0080902	8/9/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07584 and Roll #07582 (hyd cond)
YES	07588	B0080902	8/9/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07584 and Roll #07582 (hyd cond)
YES	07589	B0080902	8/9/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07590 and Roll #07582 (hyd cond)
YES	07590	B0080902	8/9/00	8/15/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07590 and Roll #07582 (hyd cond)
YES	07591	B0080902	8/9/00	8/16/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07591 and Roll #07582 (hyd cond)
YES	07592	B0080902	8/9/00	8/16/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07592 and Roll #07582 (hyd cond)
YES	07593	B0080902	8/9/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07592 and Roll #07582 (hyd cond)
YES	07595	B0080902	8/9/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07592 and Roll #07582 (hyd cond)
YES	07596	B0080902	8/9/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07598 and Roll #07582 (hyd cond)
YES	07597	B0080902	8/9/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07598 and Roll #07582 (hyd cond)
YES	07598	B0080902	8/9/00	8/16/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07598 and Roll #07582 (hyd cond)
YES	07599	B0080902	8/9/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07598 and Roll #07582 (hyd cond)
YES	07600	B0080902	8/9/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07598 and Roll #07582 (hyd cond)
YES	07601	B0080902	8/9/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07598 and Roll #07582 (hyd cond)
YES	07602	B0080902	8/9/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07606 and Roll #07582 (hyd cond)
YES	07603	B0080902	8/9/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07606 and Roll #07582 (hyd cond)
YES	07604	B0080902	8/9/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07606 and Roll #07582 (hyd cond)
YES	07605	B0080902	8/9/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07606 and Roll #07582 (hyd cond)
YES	07606	B0080902	8/9/00	8/16/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07606 and Roll #07582 (hyd cond)
YES	07607	B0080902	8/9/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07606 and Roll #07630 (hyd cond)
YES	07608	B0080902	8/9/00	8/21/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07608 and Roll #07630 (hyd cond)

TABLE 5
BENTOFIX® GEOSYNTHETIC CLAY LINER
ROLL INVENTORY AND ACCEPTABILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	ROLL DIMENSIONS (FT)		CONFORMANCE TESTING		BENTOFIX ROLL QUALITY CONTROL		REMARKS
					LENGTH	WIDTH	SAMPLE	RESULT	CERT.	RESULT	
YES	07609	B0080902	8/9/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07608 and Roll #07630 (hyd cond)
YES	07610	B0080902	8/9/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07608 and Roll #07630 (hyd cond)
YES	07611	B0080902	8/9/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07608 and Roll #07630 (hyd cond)
YES	07612	B0080902	8/9/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07608 and Roll #07630 (hyd cond)
YES	07613	B0080902	8/9/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07608 and Roll #07630 (hyd cond)
YES	07614	B0080902	8/9/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07618 and Roll #07630 (hyd cond)
YES	07615	B0080902	8/9/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07618 and Roll #07630 (hyd cond)
YES	07616	B0080902	8/9/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07618 and Roll #07630 (hyd cond)
YES	07617	B0080902	8/9/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07618 and Roll #07630 (hyd cond)
YES	07618	B0080902	8/9/00	8/22/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07618 and Roll #07630 (hyd cond)
YES	07619	B0080902	8/9/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07618 and Roll #07630 (hyd cond)
YES	07622	B0080902	8/9/00	8/15/00	150	15.5	YES (5)	PASS	YES (1)	PASS	Accepted - QC cert for Roll #07622 and Roll #07630 (hyd cond)
YES	07623	B0080902	8/9/00	8/21/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07623 and Roll #07630 (hyd cond)
YES	07624	B0080902	8/9/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07623 and Roll #07630 (hyd cond)
YES	07625	B0080902	8/9/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07626 and Roll #07630 (hyd cond)
YES	07626	B0080902	8/9/00	8/22/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07626 and Roll #07630 (hyd cond)
YES	07627	B0080902	8/9/00	8/16/00	150	15.5	-	-	YES(1)	PASS	Accepted - QC cert for Roll #07627 and Roll #07630 (hyd cond)
YES	07628	B0080902	8/10/00	8/14/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07628 and Roll #07630 (hyd cond)
YES	07629	B0080902	8/10/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07628 and Roll #07630 (hyd cond)
YES	07630	B0080902	8/10/00	8/14/00	150	15.5	-	-	YES (2)	PASS	Accepted - QC cert for Roll #07630 and Roll #07630 (hyd cond)
YES	07632	B0080902	8/10/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07630 and Roll #07630 (hyd cond)
YES	07633	B0080902	8/10/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07630 and Roll #07630 (hyd cond)
YES	07634	B0080902	8/10/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07630 and Roll #07630 (hyd cond)
YES	07635	B0080902	8/10/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07638 and Roll #07630 (hyd cond)
YES	07636	B0080902	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07638 and Roll #07630 (hyd cond)
YES	07637	B0080902	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07638 and Roll #07630 (hyd cond)

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ROLL INVENTORY AND ACCEPTABILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	ROLL DIMENSIONS (FT)		CONFORMANCE TESTING		BENTOFIX ROLL QUALITY CONTROL		REMARKS
					LENGTH	WIDTH	SAMPLE	RESULT	CERT	RESULT	
YES	07638	B0080902	8/10/00	8/14/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07638 and Roll #07630 (hyd cond)
YES	07640	B0080902	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07638 and Roll #07630 (hyd cond)
YES	07641	B0080902	8/10/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07644 and Roll #07630 (hyd cond)
YES	07642	B0080902	8/10/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07644 and Roll #07630 (hyd cond)
YES	07643	B0080902	8/10/00	8/14/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07644 and Roll #07630 (hyd cond)
YES	07644	B0080902	8/10/00	8/16/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07644 and Roll #07630 (hyd cond)
YES	07645	B0080902	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07644 and Roll #07630 (hyd cond)
YES	07646	B0080902	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07644 and Roll #07630 (hyd cond)
YES	07647	B0080902	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07649 and Roll #07630 (hyd cond)
YES	07649	B0080902	8/10/00	8/21/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07649 and Roll #07630 (hyd cond)
YES	07650	B0080902	8/10/00	8/16/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07650 and Roll #07630 (hyd cond)
YES	07651	B0080902	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07650 and Roll #07630 (hyd cond)
YES	07652	B0080902	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07653 and Roll #07630 (hyd cond)
YES	07653	B0080902	8/10/00	8/15/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07653 and Roll #07630 (hyd cond)
YES	07654	B0080902	8/10/00	8/16/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07654 and Roll #07630 (hyd cond)
YES	07657	B0081002	8/10/00	8/17/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07657 and Roll #07671 (hyd cond)
YES	07658	B0081002	8/10/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07657 and Roll #07671 (hyd cond)
YES	07659	B0081002	8/10/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07657 and Roll #07671 (hyd cond)
YES	07660	B0081002	8/10/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07657 and Roll #07671 (hyd cond)
YES	07661	B0081002	8/10/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07657 and Roll #07671 (hyd cond)
YES	07662	B0081002	8/10/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07666 and Roll #07671 (hyd cond)
YES	07664	B0081002	8/10/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07666 and Roll #07671 (hyd cond)
YES	07665	B0081002	8/10/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07666 and Roll #07671 (hyd cond)
YES	07666	B0081002	8/10/00	8/16/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07666 and Roll #07671 (hyd cond)
YES	07667	B0081002	8/10/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07666 and Roll #07671 (hyd cond)
YES	07668	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07666 and Roll #07671 (hyd cond)

TABLE 5
BENTOFIX® GEOSYNTHETIC CLAY LINER
ROLL INVENTORY AND ACCEPTABILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	ROLL DIMENSIONS (FT)		CONFORMANCE TESTING		BENTOFIX ROLL QUALITY CONTROL		REMARKS
					LENGTH	WIDTH	SAMPLE	RESULT	CERT	RESULT	
YES	07669	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07671
YES	07671	B0081002	8/10/00	8/17/00	150	15.5	-	-	YES (3)	PASS	Accepted - QC cert for Roll #07671
YES	07673	B0081002	8/10/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07671
YES	07674	B0081002	8/10/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07676 and Roll #07671 (hyd cond)
YES	07675	B0081002	8/10/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07676 and Roll #07671 (hyd cond)
YES	07676	B0081002	8/10/00	8/16/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07676 and Roll #07671 (hyd cond)
YES	07677	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07676 and Roll #07671 (hyd cond)
YES	07678	B0081002	8/10/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07676 and Roll #07671 (hyd cond)
YES	07679	B0081002	8/10/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07676 and Roll #07671 (hyd cond)
YES	07681	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07676 and Roll #07671 (hyd cond)
YES	07682	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07687 and Roll #07671 (hyd cond)
YES	07683	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07687 and Roll #07671 (hyd cond)
YES	07685	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07687 and Roll #07671 (hyd cond)
YES	07686	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07687 and Roll #07671 (hyd cond)
YES	07687	B0081002	8/10/00	8/16/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07687 and Roll #07671 (hyd cond)
YES	07689	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07687 and Roll #07671 (hyd cond)
YES	07690	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07692 and Roll #07671 (hyd cond)
YES	07692	B0081002	8/10/00	8/16/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07692 and Roll #07671 (hyd cond)
YES	07693	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07692 and Roll #07671 (hyd cond)
YES	07694	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07692 and Roll #07671 (hyd cond)
YES	07695	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07697 and Roll #07715 (hyd cond)
YES	07696	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07697 and Roll #07715 (hyd cond)
YES	07697	B0081002	8/10/00	8/15/00	150	15.5	YES (4)	PASS	YES (1)	PASS	Accepted - QC cert for Roll #07697 and Roll #07715 (hyd cond)
YES	07699	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07697 and Roll #07715 (hyd cond)
YES	07700	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07703 and Roll #07715 (hyd cond)
YES	07703	B0081002	8/10/00	8/16/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07703 and Roll #07715 (hyd cond)

TABLE 5
BENTOFIX® GEOSYNTHETIC CLAY LINER
ROLL INVENTORY AND ACCEPTABILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	ROLL DIMENSIONS (FT)		CONFORMANCE TESTING		BENTOFIX ROLL QUALITY CONTROL		REMARKS
					LENGTH	WIDTH	SAMPLE	RESULT	CERT.	RESULT	
YES	07704	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07703 and Roll #07715 (hyd cond)
YES	07706	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07708 and Roll #07715 (hyd cond)
YES	07707	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07708 and Roll #07715 (hyd cond)
YES	07708	B0081002	8/10/00	8/15/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07708 and Roll #07715 (hyd cond)
YES	07709	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07708 and Roll #07715 (hyd cond)
YES	07710	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07708 and Roll #07715 (hyd cond)
YES	07711	B0081002	8/10/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07708 and Roll #07715 (hyd cond)
YES	07712	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07715
YES	07713	B0081002	8/10/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07715
YES	07714	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07715
YES	07715	B0081002	8/10/00	8/15/00	150	15.5	YES (5)	PASS	YES (3)	PASS	Accepted - QC cert for Roll #07715
YES	07716	B0081002	8/10/00	8/16/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07716 and Roll #07715 (hyd cond)
YES	07717	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07716 and Roll #07715 (hyd cond)
YES	07718	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07716 and Roll #07715 (hyd cond)
YES	07720	B0081002	8/10/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07716 and Roll #07715 (hyd cond)
YES	07721	B0081002	8/10/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07716 and Roll #07715 (hyd cond)
YES	07722	B0081002	8/10/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07716 and Roll #07715 (hyd cond)
YES	07724	B0081002	8/10/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07716 and Roll #07715 (hyd cond)
YES	07725	B0081002	8/10/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07716 and Roll #07715 (hyd cond)
YES	07726	B0081002	8/10/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07727	B0081002	8/10/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07728	B0081002	8/10/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07729	B0081002	8/10/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07730	B0081002	8/10/00	8/15/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07731	B0081002	8/11/00	8/16/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07732	B0081002	8/11/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)

TABLE 5
BENTOFIX® GEOSYNTHETIC CLAY LINER
ROLL INVENTORY AND ACCEPTABILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	ROLL DIMENSIONS (FT)		CONFORMANCE TESTING		BENTOFIX ROLL QUALITY CONTROL		REMARKS
					LENGTH	WIDTH	SAMPLE	RESULT	CERT.	RESULT	
YES	07733	B0081002	8/11/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07734	B0081002	8/11/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07736	B0081002	8/11/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07737	B0081002	8/11/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07738	B0081002	8/11/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07739	B0081002	8/11/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07740	B0081002	8/11/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07741	B0081002	8/11/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07742	B0081002	8/11/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07743	B0081002	8/11/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07745	B0081002	8/11/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07746	B0081002	8/11/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07747	B0081002	8/11/00	8/16/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07731 and Roll #07715 (hyd cond)
YES	07748	B0081112	8/13/00	8/21/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07748 and Roll #07756 (hyd cond)
YES	07749	B0081112	8/13/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07748 and Roll #07756 (hyd cond)
YES	07750	B0081112	8/13/00	8/22/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07750 and Roll #07756 (hyd cond)
YES	07751	B0081112	8/13/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07750 and Roll #07756 (hyd cond)
YES	07752	B0081112	8/13/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07750 and Roll #07756 (hyd cond)
YES	07753	B0081112	8/13/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07750 and Roll #07756 (hyd cond)
YES	07755	B0081112	8/13/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07750 and Roll #07756 (hyd cond)
YES	07756	B0081112	8/13/00	8/22/00	150	15.5	-	-	YES (2)	PASS	Accepted - QC cert for Roll #07761 and Roll #07756 (hyd cond)
YES	07757	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07761 and Roll #07756 (hyd cond)
YES	07758	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07761 and Roll #07756 (hyd cond)
YES	07759	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07761 and Roll #07756 (hyd cond)
YES	07761	B0081112	8/13/00	8/17/00	150	15.5	YES (5)	PASS	YES (1)	PASS	Accepted - QC cert for Roll #07761 and Roll #07756 (hyd cond)
YES	07762	B0081112	8/13/00	8/22/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07762 and Roll #07756 (hyd cond)

TABLE 5
BENTOFIX® GEOSYNTHETIC CLAY LINER
ROLL INVENTORY AND ACCEPTABILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	ROLL DIMENSIONS (FT)		CONFORMANCE TESTING		BENTOFIX ROLL QUALITY CONTROL		REMARKS
					LENGTH	WIDTH	SAMPLE	RESULT	CERT.	RESULT	
YES	07763	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07762 and Roll #07756 (hyd cond)
YES	07765	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07762 and Roll #07756 (hyd cond)
YES	07766	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07762 and Roll #07756 (hyd cond)
YES	07767	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07770 and Roll #07756 (hyd cond)
YES	07768	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07770 and Roll #07756 (hyd cond)
YES	07769	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07770 and Roll #07756 (hyd cond)
YES	07770	B0081112	8/13/00	8/22/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07770 and Roll #07756 (hyd cond)
YES	07771	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07770 and Roll #07756 (hyd cond)
YES	07773	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07770 and Roll #07756 (hyd cond)
YES	07774	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07776 and Roll #07756 (hyd cond)
YES	07775	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07776 and Roll #07756 (hyd cond)
YES	07776	B0081112	8/13/00	8/22/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07776 and Roll #07792 (hyd cond)
YES	07777	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07776 and Roll #07792 (hyd cond)
YES	07778	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07776 and Roll #07792 (hyd cond)
YES	07779	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07776 and Roll #07792 (hyd cond)
YES	07781	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07784 and Roll #07792 (hyd cond)
YES	07782	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07784 and Roll #07792 (hyd cond)
YES	07783	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07784 and Roll #07792 (hyd cond)
YES	07784	B0081112	8/13/00	8/17/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07784 and Roll #07792 (hyd cond)
YES	07785	B0081112	8/13/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07784 and Roll #07792 (hyd cond)
YES	07786	B0081112	8/13/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07784 and Roll #07792 (hyd cond)
YES	07787	B0081112	8/13/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07784 and Roll #07792 (hyd cond)
YES	07788	B0081112	8/13/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07784 and Roll #07792 (hyd cond)
YES	07789	B0081112	8/13/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07792
YES	07790	B0081112	8/13/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07792
YES	07791	B0081112	8/13/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07792

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BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	ROLL DIMENSIONS (FT)		CONFORMANCE TESTING		BENTOFIX ROLL QUALITY CONTROL		REMARKS
					LENGTH	WIDTH	SAMPLE	RESULT	CERT.	RESULT	
YES	07792	B0081112	8/14/00	8/17/00	150	15.5	-	-	YES (3)	PASS	Accepted - QC cert for Roll #07792
YES	07793	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07792
YES	07794	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07795 and Roll #07792 (hyd cond)
YES	07795	B0081112	8/14/00	8/17/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07795 and Roll #07792 (hyd cond)
YES	07796	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07795 and Roll #07792 (hyd cond)
YES	07797	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07795 and Roll #07792 (hyd cond)
YES	07798	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07804 and Roll #07792 (hyd cond)
YES	07799	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07804 and Roll #07792 (hyd cond)
YES	07800	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07804 and Roll #07792 (hyd cond)
YES	07801	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07804 and Roll #07792 (hyd cond)
YES	07802	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07804 and Roll #07792 (hyd cond)
YES	07803	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07804 and Roll #07792 (hyd cond)
YES	07804	B0081112	8/14/00	8/17/00	150	15.5	YES (4)	PASS	YES (1)	PASS	Accepted - QC cert for Roll #07804 and Roll #07792 (hyd cond)
YES	07805	B0081112	8/14/00	8/17/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07805 and Roll #07792 (hyd cond)
YES	07806	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07805 and Roll #07792 (hyd cond)
YES	07807	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07805 and Roll #07792 (hyd cond)
YES	07808	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07805 and Roll #07792 (hyd cond)
YES	07809	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07805 and Roll #07792 (hyd cond)
YES	07810	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07813 and Roll #07792 (hyd cond)
YES	07811	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07813 and Roll #07792 (hyd cond)
YES	07812	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07813 and Roll #07792 (hyd cond)
YES	07813	B0081112	8/14/00	8/17/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07813 and Roll #07792 (hyd cond)
YES	07814	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07813 and Roll #07792 (hyd cond)
YES	07815	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07813 and Roll #07792 (hyd cond)
YES	07816	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07813 and Roll #07792 (hyd cond)
YES	07818	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07820 and Roll #07792 (hyd cond)

TABLE 5
BENTOFIX® GEOSYNTHETIC CLAY LINER
ROLL INVENTORY AND ACCEPTABILITY STATUS
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	ROLL DIMENSIONS (FT)		CONFORMANCE TESTING		BENTOFIX ROLL QUALITY CONTROL		REMARKS
					LENGTH	WIDTH	SAMPLE	RESULT	CERT.	RESULT	
YES	07819	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07820 and Roll #07792 (hyd cond)
YES	07820	B0081112	8/14/00	8/17/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07820 and Roll #07792 (hyd cond)
YES	07822	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07822 and Roll #07792 (hyd cond)
YES	07823	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07820 and Roll #07792 (hyd cond)
YES	07824	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07820 and Roll #07792 (hyd cond)
YES	07825	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07820 and Roll #07792 (hyd cond)
YES	07826	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07831 and Roll #07792 (hyd cond)
YES	07827	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07831 and Roll #07792 (hyd cond)
YES	07828	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07831 and Roll #07792 (hyd cond)
YES	07829	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07831 and Roll #07792 (hyd cond)
YES	07830	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07831 and Roll #07792 (hyd cond)
YES	07831	B0081112	8/14/00	8/17/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07831 and Roll #07792 (hyd cond)
YES	07832	B0081112	8/14/00	8/17/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07831 and Roll #07792 (hyd cond)
YES	07912	B0081502	8/15/00	8/21/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07912 and Roll #07933 (hyd cond)
YES	07913	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07912 and Roll #07933 (hyd cond)
YES	07914	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07912 and Roll #07933 (hyd cond)
YES	07916	B0081502	8/15/00		150	15.5	-	-	-	-	Accepted - QC cert for Roll #07918 and Roll #07933 (hyd cond)
YES	07917	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07918 and Roll #07933 (hyd cond)
YES	07918	B0081502	8/15/00	8/22/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07918 and Roll #07933 (hyd cond)
YES	07919	B0081502	8/15/00		150	15.5	-	-	-	-	Accepted - QC cert for Roll #07918 and Roll #07933 (hyd cond)
YES	07920	B0081502	8/15/00		150	15.5	-	-	-	-	Accepted - QC cert for Roll #07918 and Roll #07933 (hyd cond)
YES	07921	B0081502	8/15/00		150	15.5	-	-	-	-	Accepted - QC cert for Roll #07918 and Roll #07933 (hyd cond)
YES	07922	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07918 and Roll #07933 (hyd cond)
YES	07923	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07918 and Roll #07933 (hyd cond)
YES	07924	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07918 and Roll #07933 (hyd cond)
YES	07925	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07933

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BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	ROLL DIMENSIONS (FT)		CONFORMANCE TESTING		BENTOFIX ROLL QUALITY CONTROL		REMARKS
					LENGTH	WIDTH	SAMPLE	RESULT	CERT.	RESULT	
YES	07926	B0081502	8/15/00		150	15.5	-	-	-	-	Accepted - QC cert for Roll #07933
YES	07927	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07933
YES	07928	B0081502	8/15/00		150	15.5	-	-	-	-	Accepted - QC cert for Roll #07933
YES	07929	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07933
YES	07930	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07933
YES	07931	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07933
YES	07933	B0081502	8/15/00	8/22/00	150	15.5	YES (5)	PASS	YES (3)	PASS	Accepted - QC cert for Roll #07933
YES	07934	B0081502	8/15/00	8/21/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07934 and Roll #07933 (hyd cond)
YES	07935	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07934 and Roll #07933 (hyd cond)
YES	07936	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07937 and Roll #07933 (hyd cond)
YES	07937	B0081502	8/15/00	8/22/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07937 and Roll #07933 (hyd cond)
YES	07939	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07937 and Roll #07933 (hyd cond)
YES	07941	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07937 and Roll #07933 (hyd cond)
YES	07942	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07937 and Roll #07933 (hyd cond)
YES	07943	B0081502	8/15/00		150	15.5	-	-	-	-	Accepted - QC cert for Roll #07937 and Roll #07933 (hyd cond)
YES	07944	B0081502	8/15/00		150	15.5	-	-	-	-	Accepted - QC cert for Roll #07951 and Roll #07933 (hyd cond)
YES	07945	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07951 and Roll #07933 (hyd cond)
YES	07946	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07951 and Roll #07933 (hyd cond)
YES	07947	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07951 and Roll #07933 (hyd cond)
YES	07948	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07951 and Roll #07933 (hyd cond)
YES	07949	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07951 and Roll #07933 (hyd cond)
YES	07951	B0081502	8/15/00	8/21/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07951 and Roll #07933 (hyd cond)
YES	07952	B0081502	8/15/00	8/22/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07952 and Roll #07933 (hyd cond)
YES	07953	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07954 and Roll #07933 (hyd cond)
YES	07954	B0081502	8/15/00	8/22/00	150	15.5	YES (4)	PASS	YES (1)	PASS	Accepted - QC cert for Roll #07954 and Roll #07973 (hyd cond)
YES	07955	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07954 and Roll #07973 (hyd cond)

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BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	ROLL DIMENSIONS (FT)		CONFORMANCE TESTING		BENTOFIX ROLL QUALITY CONTROL		REMARKS
					LENGTH	WIDTH	SAMPLE	RESULT	CERT.	RESULT	
YES	07956	B0081502	8/15/00	8/21/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07956 and Roll #07973 (hyd cond)
YES	07957	B0081502	8/15/00	8/22/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07957 and Roll #07973 (hyd cond)
YES	07959	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07957 and Roll #07973 (hyd cond)
YES	07960	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07957 and Roll #07973 (hyd cond)
YES	07961	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07957 and Roll #07973 (hyd cond)
YES	07962	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07964 and Roll #07973 (hyd cond)
YES	07963	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07964 and Roll #07973 (hyd cond)
YES	07964	B0081502	8/15/00	8/22/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07964 and Roll #07973 (hyd cond)
YES	07965	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07964 and Roll #07973 (hyd cond)
YES	07966	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07964 and Roll #07973 (hyd cond)
YES	07967	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07969 and Roll #07973 (hyd cond)
YES	07968	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07969 and Roll #07973 (hyd cond)
YES	07969	B0081502	8/15/00	8/21/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07969 and Roll #07973 (hyd cond)
YES	07970	B0081502	8/15/00	8/22/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07970 and Roll #07973 (hyd cond)
YES	07971	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07970 and Roll #07973 (hyd cond)
YES	07972	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07970 and Roll #07973 (hyd cond)
YES	07973	B0081502	8/15/00	8/21/00	150	15.5	-	-	YES (2)	PASS	Accepted - QC cert for Roll #07970 and Roll #07973 (hyd cond)
YES	07974	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07970 and Roll #07973 (hyd cond)
YES	07975	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07970 and Roll #07973 (hyd cond)
YES	07976	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07970 and Roll #07973 (hyd cond)
YES	07978	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07970 and Roll #07973 (hyd cond)
YES	07979	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07970 and Roll #07973 (hyd cond)
YES	07980	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07970 and Roll #07973 (hyd cond)
YES	07981	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07993 and Roll #07973 (hyd cond)
YES	07982	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07993 and Roll #07973 (hyd cond)
YES	07983	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07993 and Roll #07973 (hyd cond)

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BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	ROLL DIMENSIONS (FT)		CONFORMANCE TESTING		BENTOFIX ROLL QUALITY CONTROL		REMARKS
					LENGTH	WIDTH	SAMPLE	RESULT	CERT.	RESULT	
YES	07988	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07993 and Roll #07973 (hyd cond)
YES	07989	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07993 and Roll #07973 (hyd cond)
YES	07991	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07993 and Roll #07973 (hyd cond)
YES	07992	B0081502	8/15/00	8/21/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07993 and Roll #07973 (hyd cond)
YES	07993	B0081502	8/15/00	8/22/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07993 and Roll #07973 (hyd cond)
YES	07994	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07993 and Roll #07973 (hyd cond)
YES	07995	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07993 and Roll #07973 (hyd cond)
YES	07997	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07993 and Roll #07973 (hyd cond)
YES	07998	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07999 and Roll #07973 (hyd cond)
YES	07999	B0081502	8/15/00	8/22/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #07999 and Roll #07973 (hyd cond)
YES	08000	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #07999 and Roll #07973 (hyd cond)
YES	08001	B0081502	8/15/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #08002 and Roll #07973 (hyd cond)
YES	08002	B0081502	8/15/00	8/22/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #08002 and Roll #07973 (hyd cond)
YES	08003	B0081702	8/17/00	8/22/00	150	15.5	-	-	YES (1)	PASS	Accepted - QC cert for Roll #08003 and Roll #08005 (hyd cond)
YES	08004	B0081702	8/17/00	8/22/00	150	15.5	YES *	PASS	-	-	Accepted - QC cert for Roll #08003 and Roll #08005 (hyd cond)
NO	08005	B0081702	8/17/00	8/22/00	150	15.5	YES (4)	FAIL	YES (2)	PASS	ROLL REJECTED
NO	08006	B0081702	8/17/00	8/22/00	150	15.5	YES *	PASS	YES (1)	PASS	ROLL REJECTED
YES	08007	B0081702	8/17/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #08006 and Roll #08005 (hyd cond)
YES	08008	B0081702	8/17/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #08006 and Roll #08005 (hyd cond)
YES	08009	B0081702	8/17/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #08006 and Roll #08005 (hyd cond)
YES	08010	B0081702	8/17/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #08006 and Roll #08005 (hyd cond)
YES	08011	B0081702	8/17/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #08006 and Roll #08005 (hyd cond)
YES	08012	B0081702	8/17/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #08006 and Roll #08005 (hyd cond)
YES	08013	B0081702	8/17/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #08006 and Roll #08005 (hyd cond)
YES	08014	B0081702	8/17/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #08006 and Roll #08005 (hyd cond)
YES	08016	B0081702	8/17/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #08006 and Roll #08005 (hyd cond)

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BALDWIN, FLORIDA

ACCEPT-ABILITY STATUS	ROLL NO.	BATCH NO.	MANU-FACTURE DATE	DELIVERY DATE	ROLL DIMENSIONS (FT)		CONFORMANCE TESTING		BENTOFIX ROLL QUALITY CONTROL		REMARKS
					LENGTH	WIDTH	SAMPLE	RESULT	CERT.	RESULT	
YES	08017	B0081702	8/17/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #08006 and Roll #08005 (hyd cond)
YES	08018	B0081702	8/17/00	8/22/00	150	15.5	-	-	-	-	Accepted - QC cert for Roll #08006 and Roll #08005 (hyd cond)
NO	98322	B0060602	6/7/00	8/17/00	150	15.5	-	-	YES (3)	PASS	Accepted - QC cert for Roll #98322
NO	98323	B0060602	6/7/00	8/17/00	150	15.5	YES (4)	PASS	YES (1)	PASS	Accepted - QC cert for Roll #98323 and Roll # 98322(hyd cond)
NO	06795	B0081102	-	0816/00	150	15.5	-	-	-	-	ROLL REJECTED

NOTES:
(1) QC test result provided for swell index, fluid loss, and moisture content of the bentonite and mass per unit area, moisture content, peel strength, and grab strength for the finished product.
(2) QC test result provided for hydraulic conductivity.
(3) QC test result provided for both (1) and (2).
(4) Conformance tests include bentonite content, mositure content, and hydraulic conductivity.
(5) Conformance tests include bentonite content, and moisture content.
* Roll sampled to bound a failing conformance test result.

APPENDIX D

Material Conformance Test Results

SECTION D-1

Geomembrane

SUMMARY OF SMOOTH GEOMEMBRANE CONFORMANCE TEST RESULTS

ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

TEST DESCRIPTION	REFERENCE VALUE	SAMPLE NUMBER 1912078	1912087	1912113	1912122	1912131	1912249	1912258	1912267	1912276	1912285
THICKNESS (mils) ASTM D5199	>=60	63.8	64.1	62.3	61.7	61.7	62.6	62.2	62.1	63.2	64.1
PUNCTURE RESISTANCE (lbs) ASTM D4833	>=108	138.9	136.7	137.1	136.3	135.2	132.5	134.2	130.4	135.0	133.1
DENSITY (g/cc) ASTM D1505	>=0.940	0.947	0.947	0.946	0.946	0.946	0.946	0.948	0.946	0.946	0.947
CARBON BLACK CONTENT (%) ASTM D4218	2 - 3	2.61	2.49	2.53	2.55	2.61	2.40	2.75	2.64	2.68	2.65
CARBON BLACK DISPERSION ASTM D5596	1, 2 or 3	1	1	1	1	1	1	1	1	1	1
STRENGTH AT YIELD (ppi)	>=126	172.5	154.2	164.9	169.9	163.4	162.5	167.5	151.5	166.9	155.9
MD/TD (1)	>=126	172.5	158.2	161.6	156.6	161.1	163.4	166.7	170.2	165.4	168.1
ASTM D638											
STRENGTH AT BREAK (ppi)	>=228	254.8	253.8	268.8	270.3	255.0	279.1	258.3	279.7	294.9	290.2
MD/TD (1)	>=228	250.1	259.8	246.0	247.1	251.1	298.1	291.0	295.6	302.0	283.9
ASTM D638											
ELONGATION AT YIELD (%)	>=12	16.8	16.8	17.4	17.3	17.6	20.6	20.0	20.1	18.6	19.3
MD/TD (1)	>=12	17.4	16.5	15.4	17.7	19.0	19.2	18.4	17.4	17.4	18.5
ASTM D638											
ELONGATION AT BREAK (%)	>=700	714	721	743	746	717	785	724	784	825	811
MD/TD (1)	>=700	741	777	743	742	752	887	869	869	886	846
ASTM D638											

(1) MD/TD corresponds to Machine Direction / Transverse Direction.

memsum

JULY 2000

SUMMARY OF SMOOTH GEOMEMBRANE CONFORMANCE TEST RESULTS

ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

003-3979

TEST DESCRIPTION	REFERENCE VALUE	SAMPLE NUMBER 1912412	1912422	1912430	1912439	1912447	1912452	1912461	1912469	1912478	1912487
THICKNESS (mils) ASTM D5199	>=60	62.0	62.2	62.0	61.3	61.7	60.9	61.5	61.6	60.9	61.0
PUNCTURE RESISTANCE (lbs) ASTM D4833	>=108	133.4	138.1	133.1	133.7	130.1	132.5	134.8	133.9	137	132.1
DENSITY (g/cc) ASTM D1505	>=0.940	0.945	0.945	0.945	0.945	0.945	0.946	0.946	0.946	0.945	0.945
CARBON BLACK CONTENT (%) ASTM D4218	2 - 3	2.48	2.47	2.53	2.42	2.42	2.45	2.64	2.49	2.58	2.46
CARBON BLACK DISPERSION ASTM D5596	1, 2 or 3	1	1	1	1	1	1	1	1	1	1
STRENGTH AT YIELD (ppi)	>=126	163.3	163.6	147.8	163.5	163.5	162.0	154.4	163.5	143.8	161.5
MD/TD (1)	>=126	168.4	166.1	148.4	168.3	169.1	168.0	158.9	171.2	148.2	165.7
ASTM D638											
STRENGTH AT BREAK (ppi)	>=228	267.9	266.8	258.3	254.0	271.4	261.1	258.2	278.3	243.6	265.8
MD/TD (1)	>=228	293.6	282.6	266.6	286.2	308.0	290.4	299.0	286.2	249.6	282.1
ASTM D638											
ELONGATION AT YIELD (%)	>=12	17.8	17.6	20.6	17.3	16.5	16.7	18.3	16.9	17.0	16.5
MD/TD (1)	>=12	16.7	16.2	17.9	16.0	14.7	15.5	16.8	15.4	15.7	16.2
ASTM D638											
ELONGATION AT BREAK (%)	>=700	757	749	742	730	764	752	730	794	746	762
MD/TD (1)	>=700	881	846	821	866	927	886	906	869	817	868
ASTM D638											

(1) MD/TD corresponds to Machine Direction / Transverse Direction.

memsum

SUMMARY OF SMOOTH GEOMEMBRANE CONFORMANCE TEST RESULTS

ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

TEST DESCRIPTION	REFERENCE VALUE	SAMPLE NUMBER 1912928	1912935	1912944	1912948	1912957	1912966	1912974	1912983	1912991	1913000
THICKNESS (mils) ASTM D5199	>=60	61.7	62.5	62.7	61.4	61.2	62.9	61.6	62.1	60.4	61.9
PUNCTURE RESISTANCE (lbs) ASTM D4833	>=108	130.3	138.4	135.7	134.3	136.3	138.7	134.2	133.3	136.8	133.4
DENSITY (g/cc) ASTM D1505	>=0.940	0.945	0.945	0.946	0.946	0.946	0.946	0.946	0.945	0.946	0.946
CARBON BLACK CONTENT (%) ASTM D4218	2 - 3	2.49	2.54	2.54	2.59	2.48	2.67	2.45	2.46	2.62	2.75
CARBON BLACK DISPERSION ASTM D5596	1, 2 or 3	1	1	1	1	1	1	1	1	1	1
STRENGTH AT YIELD (ppi)	>=126	153.6	159.7	160.6	154.9	158.5	159.1	156.1	160.9	156.9	155.2
MD/TD (1) ASTM D638	>=126	161.1	163.4	165.4	160.7	164.4	167.1	160.4	164.1	161.5	160.8
STRENGTH AT BREAK (ppi)	>=228	288.3	276.5	279.2	272.7	276.3	277.4	262.3	288.5	276.6	266.3
MD/TD (1) ASTM D638	>=228	289.5	274.6	282.7	290.5	303.6	294.8	279.4	274.6	282.0	294.0
ELONGATION AT YIELD (%)	>=12	18.8	18.8	18.2	17.5	18.1	18.0	17.2	17.4	18.3	17.3
MD/TD (1) ASTM D638	>=12	16.8	16.5	16.6	16.5	16.7	16.3	16.0	16.3	16.5	16.1
ELONGATION AT BREAK (%)	>=700	823	775	775	779	778	776	747	795	790	754
MD/TD (1) ASTM D638	>=700	880	829	836	874	902	871	845	816	867	879

(1) MD/TD corresponds to Machine Direction / Transverse Direction.

memsum

SEPTEMBER 2000

SUMMARY OF SMOOTH GEOMEMBRANE CONFORMANCE TEST RESULTS

ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

003-3979

TEST DESCRIPTION	REFERENCE VALUE	SAMPLE NUMBER 1913007	1913207	1913215	1913224	1913233	1913240	1913240R	1913248	1913257	1913265
THICKNESS (mils) ASTM D5199	>=60	61.9	60.7	60.2	60.0	61.5	59.7	61.1	61.2	61.6	61.5
PUNCTURE RESISTANCE (lbs) ASTM D4833	>=108	138.5	131.6	131.7	134.0	130.8	131.2	-	133.3	135.2	133.3
DENSITY (g/cc) ASTM D1505	>=0.940	0.946	0.944	0.944	0.944	0.943	0.944	-	0.944	0.945	0.943
CARBON BLACK CONTENT (%) ASTM D4218	2 - 3	2.64	2.47	2.38	2.35	2.48	2.50	-	2.38	2.56	2.29
CARBON BLACK DISPERSION ASTM D5596	1, 2 or 3	1	1	1	1	1	1	-	1	1	1
STRENGTH AT YIELD (ppi)	>=126	159.0	163.7	162.3	163.6	162.5	163.2	-	168.3	161.7	169.5
MD/TD (1)	>=126	165.1	168.4	166.2	164.1	170.3	168.1	-	172.0	165.4	170.6
ASTM D638											
STRENGTH AT BREAK (ppi)	>=228	279.8	247.7	273.5	248.2	259.5	249.3	-	257.5	254.8	271.8
MD/TD (1)	>=228	303.2	234.8	262.1	246.8	240.6	241.3	-	246.9	256.0	258.4
ASTM D638											
ELONGATION AT YIELD (%)	>=12	17.1	17.7	17.4	17.1	17.0	17.1	-	17.2	18.8	17.6
MD/TD (1)	>=12	16.8	16.5	16.0	16.1	15.2	15.5	-	16.8	17.0	15.6
ASTM D638											
ELONGATION AT BREAK (%)	>=700	796	704	772	704	732	714	-	709	717	748
MD/TD (1)	>=700	899	729	809	760	736	743	-	748	772	788
ASTM D638											

(1) MD/TD corresponds to Machine Direction / Transverse Direction.

memsum

SUMMARY OF SMOOTH GEOMEMBRANE CONFORMANCE TEST RESULTS

ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

TEST DESCRIPTION	REFERENCE VALUE	SAMPLE NUMBER 1913274	1913283	-	-	-	-	-	-	-	-
THICKNESS (mils) ASTM D5199	>=60	61.8	61.5	-	-	-	-	-	-	-	-
PUNCTURE RESISTANCE (lbs) ASTM D4833	>=108	131.9	135.5	-	-	-	-	-	-	-	-
DENSITY (g/cc) ASTM D1505	>=0.940	0.945	0.943	-	-	-	-	-	-	-	-
CARBON BLACK CONTENT (%) ASTM D4218	2 - 3	2.47	2.35	-	-	-	-	-	-	-	-
CARBON BLACK DISPERSION ASTM D5596	1, 2 or 3	1	1	-	-	-	-	-	-	-	-
STRENGTH AT YIELD (ppi)	>=126	167.3	163.9	-	-	-	-	-	-	-	-
MD/TD (1) ASTM D638	>=126	172.1	168.8	-	-	-	-	-	-	-	-
STRENGTH AT BREAK (ppi)	>=228	260.6	259.7	-	-	-	-	-	-	-	-
MD/TD (1) ASTM D638	>=228	242.6	240.0	-	-	-	-	-	-	-	-
ELONGATION AT YIELD (%)	>=12	17.6	17.2	-	-	-	-	-	-	-	-
MD/TD (1) ASTM D638	>=12	16.3	15.6	-	-	-	-	-	-	-	-
ELONGATION AT BREAK (%)	>=700	720	727	-	-	-	-	-	-	-	-
MD/TD (1) ASTM D638	>=700	736	733	-	-	-	-	-	-	-	-

(1) MD/TD corresponds to Machine Direction / Transverse Direction.

memsum

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912078

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	69.3	1	150.6	130.0
2.	64.5	1	148.4	131.9
3.	67.9	1	147.0	129.2
4.	57.5	1	140.9	128.5
5.	58.1	1	143.9	127.7
6.	69.7	1	142.0	
7.	63.9	1	143.3	
8.	69.6	1	145.1	
9.	59.5	1	142.8	
10.	58.4	1	131.7	
AVG	63.8	1	138.9	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.947	2.62
2.	0.947	2.60
3.	0.948	
AVG	0.947	2.61

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	190.2	191.5	16.9	17.9	286.3	245.3	738	682
2.	175.1	178.4	16.1	17.9	261.7	246.1	728	709
3.	179.9	183.2	17.4	16.9	278.5	296.6	753	821
4.	160.0	151.3	16.1	17.0	236.5	215.5	710	706
5.	157.2	158.1	17.7	17.5	210.9	246.9	642	785
AVG	172.5	172.5	16.8	17.4	254.8	250.1	714	741

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912087

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	64.9	1	146.1	129.0
2.	63.6	1	145.9	130.8
3.	66.0	1	148.1	130.4
4.	66.4	1	136.1	126.7
5.	67.6	1	135.8	128.5
6.	66.2	1	135.7	
7.	64.0	1	142.6	
8.	65.4	1	142.0	
9.	58.5	1	140.3	
10.	58.6	1	131.9	
AVG	64.1	1	136.7	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.947	2.50
2.	0.947	2.48
3.	0.947	
AVG	0.947	2.49

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	164.0	170.0	16.6	15.9	268.0	254.0	724	726
2.	155.0	163.0	16.6	17.2	289.0	259.0	796	759
3.	161.0	164.0	16.9	16.6	238.0	267.0	673	763
4.	146.0	147.0	16.6	15.8	252.0	256.0	751	820
5.	145.0	147.0	17.4	16.9	222.0	263.0	661	818
AVG	154.2	158.2	16.8	16.5	253.8	259.8	721	777

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912113

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	62.0	1	145.3	135.4
2.	60.2	1	136.1	136.5
3.	65.1	1	138.5	138.7
4.	61.3	1	134.7	135.5
5.	60.7	1	137.3	136.3
6.	61.6	1	137.7	
7.	61.6	1	137.2	
8.	60.9	1	137.6	
9.	66.0	1	135.9	
10.	63.2	1	133.3	
AVG	62.3	1	137.1	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.58
2.	0.946	2.47
3.	0.946	
AVG	0.946	2.53

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	164.1	158.0	16.7	16.2	249.8	263.0	705	794
2.	162.7	158.0	17.5	14.1	280.2	225.0	775	711
3.	174.9	175.0	17.8	15.3	280.1	289.0	743	814
4.	163.2	156.0	17.8	14.4	239.3	229.0	688	703
5.	159.5	161.0	17.3	17.3	294.5	224.0	805	692
AVG	164.9	161.6	17.4	15.4	268.8	246.0	743	743

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912122

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	59.6	1	143.6	128.1
2.	61.9	1	146.1	134.0
3.	63.5	1	139.8	136.8
4.	62.0	1	138.5	137.7
5.	62.8	1	142.5	135.3
6.	65.6	1	134.1	
7.	60.8	1	135.2	
8.	62.2	1	127.2	
9.	60.3	1	130.5	
10.	58.6	1	135.1	
AVG	61.7	1	136.3	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.57
2.	0.946	2.53
3.	0.946	
AVG	0.946	2.55

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	176.0	156.3	17.4	18.4	252.8	228.1	704	703
2.	170.6	157.7	16.5	17.0	271.3	244.6	755	730
3.	179.2	164.9	16.7	18.7	297.7	273.9	781	789
4.	166.1	151.9	17.7	15.7	271.7	267.3	747	801
5.	157.7	152.3	18.0	18.7	258.1	221.6	744	685
AVG	169.9	156.6	17.3	17.7	270.3	247.1	746	742

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912131

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	60.6	1	141.5	131.3
2.	63.8	1	142.6	129.7
3.	63.9	1	144.6	127.6
4.	62.4	1	136.6	128.3
5.	57.7	1	135.9	127.1
6.	61.2	1	136.6	
7.	63.9	1	139.9	
8.	65.4	1	136.8	
9.	60.9	1	136.1	
10.	57.6	1	133.5	
AVG	61.7	1	135.2	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.947	2.64
2.	0.946	2.57
3.	0.946	
AVG	0.946	2.61

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	166.1	165.6	17.4	20.4	245.0	295.4	698	857
2.	166.7	155.0	18.2	19.4	261.3	281.3	729	839
3.	161.6	174.1	17.9	19.1	258.8	246.3	709	717
4.	170.1	162.0	17.7	18.1	271.6	234.2	754	710
5.	152.6	148.9	16.9	18.1	238.2	198.1	693	634
AVG	163.4	161.1	17.6	19.0	255.0	251.1	717	752

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912249

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	64.2	1	133.1	131.3
2.	62.1	1	129.6	129.6
3.	62.9	1	136.8	132.1
4.	58.4	1	133.3	132.3
5.	65.2	1	134.8	132.5
6.	62.5	1	132.0	
7.	64.9	1	129.8	
8.	62.5	1	135.0	
9.	59.1	1	134.3	
10.	64.6	1	130.8	
AVG	62.6	1	132.5	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.42
2.	0.946	2.37
3.	0.946	
AVG	0.946	2.40

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	167.7	169.8	20.5	19.3	285.3	306.6	765	903
2.	174.5	158.2	20.2	18.3	283.2	301.2	774	873
3.	156.2	171.2	20.3	19.7	286.7	301.5	828	893
4.	154.7	158.1	21.2	19.2	276.7	270.2	806	865
5.	159.5	159.8	20.8	19.3	263.4	311.0	754	901
AVG	162.5	163.4	20.6	19.2	279.1	298.1	785	887

AUGUST 2000

003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912258

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	60.9	1	137.9	133.7
2.	62.2	1	132.8	129.9
3.	63.2	1	137.4	135.0
4.	59.8	1	134.4	130.6
5.	66.6	1	137.1	133.2
6.	59.2	1	133.8	
7.	61.6	1	132.9	
8.	63.2	1	135.4	
9.	60.2	1	133.9	
10.	65.1	1	135.7	
AVG	62.2	1	134.2	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.948	2.73
2.	0.948	2.76
3.	0.947	
AVG	0.948	2.75

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	164.4	166.5	20.0	18.1	281.2	281.7	789	875
2.	167.0	182.0	20.1	19.1	251.6	323.0	705	905
3.	162.3	167.6	20.6	18.1	270.6	303.8	782	887
4.	164.7	158.9	19.7	19.0	192.5	264.1	559	803
5.	178.9	158.5	19.6	17.9	295.4	282.4	783	877
AVG	167.5	166.7	20.0	18.4	258.3	291.0	724	869

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912267

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	62.6	1	126.9	125.4
2.	62.1	1	133.3	131.5
3.	57.9	1	137.3	134.3
4.	65.2	1	129.9	127.2
5.	63.0	1	133.7	130.8
6.	61.4	1	130.3	
7.	61.5	1	126.9	
8.	63.4	1	135.6	
9.	59.2	1	130.1	
10.	64.3	1	123.5	
AVG	62.1	1	130.4	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.64
2.	0.946	2.64
3.	0.946	
AVG	0.946	2.64

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	158.4	165.7	18.7	17.5	288.1	309.4	787	909
2.	143.7	162.7	20.3	17.1	272.2	291.1	782	896
3.	155.2	171.8	20.2	17.5	287.1	308.5	783	892
4.	145.5	171.8	21.0	17.5	264.3	286.3	783	842
5.	154.6	179.1	20.3	17.6	287.0	282.8	786	804
AVG	151.5	170.2	20.1	17.4	279.7	295.6	784	869

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912276

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	63.9	1	134.7	134.3
2.	61.6	1	140.4	132.7
3.	63.2	1	132.0	138.1
4.	59.3	1	135.6	134.2
5.	65.8	1	136.8	130.0
6.	64.2	1	134.6	
7.	62.4	1	133.2	
8.	63.8	1	139.7	
9.	62.3	1	137.3	
10.	65.9	1	131.9	
AVG	63.2	1	135.0	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.65
2.	0.946	2.71
3.	0.947	
AVG	0.946	2.68

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	166.0	171.1	18.4	16.5	298.6	296.6	825	861
2.	165.5	162.7	18.5	17.7	299.8	302.1	844	888
3.	170.3	166.5	18.8	16.9	307.7	302.3	844	880
4.	163.1	155.5	18.2	17.7	280.3	291.5	813	900
5.	169.6	171.4	18.9	18.3	288.2	317.5	798	902
AVG	166.9	165.4	18.6	17.4	294.9	302.0	825	886

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912285

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	62.1	1	125.5	135.1
2.	63.2	1	135.8	133.0
3.	65.7	1	135.5	138.4
4.	63.2	1	132.3	134.3
5.	62.4	1	136.8	129.6
6.	64.6	1	131.3	
7.	62.7	1	135.9	
8.	65.9	1	131.0	
9.	63.1	1	136.7	
10.	68.1	1	125.7	
AVG	64.1	1	133.1	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.69
2.	0.947	2.60
3.	0.947	
AVG	0.947	2.65

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	164.2	172.7	19.0	18.9	300.1	302.2	811	862
2.	151.3	163.7	19.9	18.3	289.9	287.7	816	842
3.	155.9	167.4	19.4	18.4	295.5	285.3	810	865
4.	155.1	175.0	18.6	18.4	293.0	275.5	819	812
5.	152.8	161.8	19.8	18.5	272.5	269.0	799	849
AVG	155.9	168.1	19.3	18.5	290.2	283.9	811	846

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912412

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	62.2	1	134.5	136.2
2.	62.0	1	134.1	134.6
3.	60.7	1	133.4	127.6
4.	61.4	1	137.3	127.9
5.	64.3	1	136.4	128.1
6.	63.7	1	136.1	
7.	63.2	1	135.5	
8.	63.3	1	132.1	
9.	59.6	1	132.2	
10.	59.7	1	135.3	
AVG	62.0	1	133.4	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.945	2.49
2.	0.946	2.46
3.	0.945	
AVG	0.945	2.48

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	163.9	171.7	17.7	16.5	257.1	273.7	731	849
2.	163.4	169.2	18.8	16.0	259.9	313.7	726	933
3.	169.3	172.4	17.5	17.2	290.5	283.7	806	827
4.	166.0	171.1	17.0	17.2	280.6	314.8	774	908
5.	153.7	157.7	18.0	16.7	251.5	282.1	750	888
AVG	163.3	168.4	17.8	16.7	267.9	293.6	757	881

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912422

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	61.5	1	140.5	136.7
2.	60.6	1	140.6	137.2
3.	60.5	1	140.1	132.9
4.	60.0	1	138.3	132.6
5.	65.3	1	140.2	131.7
6.	65.3	1	138.0	
7.	63.3	1	144.8	
8.	63.4	2	143.4	
9.	61.2	1	138.7	
10.	61.3	1	135.4	
AVG	62.2	1	138.1	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.945	2.42
2.	0.945	2.52
3.	0.945	
AVG	0.945	2.47

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	159.5	162.1	17.1	15.8	256.7	283.0	746	891
2.	157.9	162.8	17.4	16.1	256.4	303.0	733	919
3.	170.6	171.8	17.7	16.3	284.6	310.8	769	893
4.	168.7	166.9	17.7	16.3	278.9	249.0	763	741
5.	161.3	166.7	17.9	16.6	257.6	267.2	735	788
AVG	163.6	166.1	17.6	16.2	266.8	282.6	749	846

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912430

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	62.1	1	133.5	128.2
2.	61.3	1	137.2	135.1
3.	63.7	1	133.4	129.5
4.	63.1	1	140.8	137.0
5.	60.3	1	132.7	129.0
6.	61.6	1	128.3	
7.	60.3	1	133.7	
8.	63.5	1	133.4	
9.	63.2	1	136.5	
10.	61.3	1	127.6	
AVG	62.0	1	133.1	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.945	2.52
2.	0.945	2.53
3.	0.945	
AVG	0.945	2.53

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	149.4	148.2	20.3	18.1	248.5	277.7	709	858
2.	154.5	154.1	19.0	20.3	285.3	306.8	799	906
3.	149.6	152.9	23.1	20.4	257.5	285.7	727	862
4.	154.3	140.0	21.2	15.2	279.4	232.0	772	732
5.	131.0	147.0	19.1	15.6	221.0	231.0	703	745
AVG	147.8	148.4	20.6	17.9	258.3	266.6	742	821

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912439

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	61.1	1	137.4	136.3
2.	60.7	1	133.5	135.4
3.	60.6	1	132.1	130.2
4.	60.2	1	135.5	133.6
5.	63.5	1	133.6	130.5
6.	63.7	1	133.9	
7.	62.7	1	133.4	
8.	62.3	1	133.0	
9.	59.5	1	131.3	
10.	58.7	1	136.1	
AVG	61.3	1	133.7	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.43
2.	0.945	2.41
3.	0.945	
AVG	0.945	2.42

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	162.8	167.8	16.9	15.5	259.9	276.1	743	853
2.	163.1	168.9	17.4	16.8	273.1	281.0	770	860
3.	169.4	176.3	17.4	16.3	258.7	306.7	730	892
4.	165.5	169.7	18.2	16.3	221.8	316.7	648	931
5.	156.7	159.0	16.6	15.3	256.3	250.6	761	794
AVG	163.5	168.3	17.3	16.0	254.0	286.2	730	866

AUGUST 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912447

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	62.8	1	130.7	130.7
2.	62.7	1	131.0	130.5
3.	58.3	1	130.8	126.1
4.	60.6	2	129.3	125.1
5.	62.8	1	129.7	124.7
6.	63.1	1	128.6	
7.	61.0	1	135.3	
8.	61.1	1	132.6	
9.	62.0	1	134.0	
10.	62.2	1	131.8	
AVG	61.7	1	130.1	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.945	2.38
2.	0.945	2.45
3.	0.945	
AVG	0.945	2.42

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	162.3	168.3	15.9	14.3	259.1	303.5	731	931
2.	156.9	161.7	16.9	14.5	268.7	301.8	775	946
3.	171.2	177.0	17.2	14.5	297.2	323.5	803	938
4.	168.9	171.9	15.9	15.5	274.5	328.0	765	949
5.	158.4	166.4	16.7	14.8	257.3	283.4	746	869
AVG	163.5	169.1	16.5	14.7	271.4	308.0	764	927

AUGUST 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912452

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	62.6	1	130.3	131.1
2.	61.1	1	131.6	134.1
3.	58.6	1	128.1	130.7
4.	60.5	1	134.5	130.6
5.	62.3	1	133.9	133.6
6.	62.5	1	134.1	
7.	63.0	1	133.4	
8.	61.9	1	133.7	
9.	58.0	1	132.9	
10.	58.9	1	134.6	
AVG	60.9	1	132.5	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.945	2.45
2.	0.946	2.45
3.	0.946	
AVG	0.946	2.45

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	159.4	168.6	16.6	15.5	252.2	294.9	735	907
2.	162.4	167.9	16.8	15.7	267.0	245.5	752	766
3.	167.2	173.9	16.6	15.0	246.9	298.1	706	884
4.	165.8	170.9	17.1	15.5	272.9	328.0	766	966
5.	155.1	158.9	16.6	16.0	266.4	285.6	800	910
AVG	162.0	168.0	16.7	15.5	261.1	290.4	752	886

AUGUST 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912461

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	63.0	1	135.2	128.5
2.	62.4	1	139.5	133.3
3.	62.4	1	140.9	136.3
4.	61.9	1	136.1	135.4
5.	63.6	1	134.7	131.2
6.	63.5	1	131.8	
7.	61.1	1	133.0	
8.	61.3	1	137.4	
9.	57.1	1	136.9	
10.	58.5	1	132.1	
AVG	61.5	1	134.8	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.59
2.	0.946	2.68
3.	0.946	
AVG	0.946	2.64

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	155.4	160.0	18.0	15.9	260.6	264.8	749	807
2.	160.0	166.8	18.3	16.9	278.8	318.6	766	932
3.	156.2	156.8	18.1	17.3	271.2	309.8	763	926
4.	158.6	161.4	18.7	17.9	253.0	312.8	698	939
5.	142.0	149.6	18.2	16.2	227.2	288.8	674	928
AVG	154.4	158.9	18.3	16.8	258.2	299.0	730	906

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912469

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	63.5	1	137.3	131.1
2.	64.5	1	137.7	131.3
3.	58.6	1	137.2	130.7
4.	64.6	1	136.3	130.7
5.	62.7	1	135.4	128.6
6.	62.0	1	134.1	
7.	63.6	1	135.7	
8.	58.1	1	135.2	
9.	59.1	1	136.3	
10.	58.8	1	130.9	
AVG	61.6	1	133.9	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.49
2.	0.946	2.48
3.	0.945	
AVG	0.946	2.49

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	170.1	176.0	15.9	15.3	279.8	276.3	774	824
2.	156.9	163.5	16.7	14.8	268.6	247.6	788	801
3.	172.6	181.4	17.5	14.8	296.1	321.8	804	926
4.	164.6	172.5	17.2	16.6	288.5	307.6	818	910
5.	153.3	162.4	17.2	15.6	258.5	277.8	786	886
AVG	163.5	171.2	16.9	15.4	278.3	286.2	794	869

AUGUST 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912478

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	59.3	1	141.4	133.2
2.	62.9	1	144.8	135.4
3.	60.2	1	141.6	133.0
4.	60.3	1	139.9	136.4
5.	61.8	1	136.9	130.8
6.	62.8	1	136.5	
7.	59.6	1	137.9	
8.	59.5	1	135.7	
9.	62.9	1	136.9	
10.	59.9	1	134.9	
AVG	60.9	1	137.0	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.945	2.55
2.	0.945	2.60
3.	0.946	
AVG	0.945	2.58

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	149.0	140.0	17.1	14.8	276.0	296.0	826	944
2.	145.0	149.0	17.0	15.5	234.0	259.0	716	850
3.	148.0	148.0	17.1	16.5	274.0	249.0	838	820
4.	144.0	156.0	15.7	16.5	220.0	238.0	664	765
5.	133.0	148.0	17.9	15.3	214.0	206.0	684	707
AVG	143.8	148.2	17.0	15.7	243.6	249.6	746	817

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912487

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	62.4	1	131.7	133.5
2.	62.9	1	129.7	131.7
3.	63.7	1	132.2	131.8
4.	62.0	1	131.7	131.9
5.	57.4	1	132.0	129.7
6.	57.6	1	129.3	
7.	64.0	1	133.9	
8.	63.4	1	133.7	
9.	58.4	1	135.0	
10.	58.1	1	133.4	
AVG	61.0	1	132.1	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.44
2.	0.945	2.47
3.	0.945	
AVG	0.945	2.46

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	163.5	174.0	15.4	15.6	251.7	279.7	711	839
2.	154.6	158.9	16.2	15.8	251.9	279.3	741	896
3.	166.1	168.4	15.9	16.1	299.9	301.3	847	904
4.	168.3	170.9	18.2	16.8	272.5	260.7	750	780
5.	155.1	156.1	16.7	16.8	253.2	289.7	759	919
AVG	161.5	165.7	16.5	16.2	265.8	282.1	762	868

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912928

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	62.7	1	129.7	131.7
2.	62.1	1	134.2	129.2
3.	63.7	1	138.1	132.3
4.	63.3	2	131.6	126.4
5.	62.8	1	126.8	124.0
6.	64.9	1	130.9	
7.	58.5	1	130.5	
8.	58.8	1	135.4	
9.	59.3	1	128.9	
10.	60.8	1	124.1	
AVG	61.7	1	130.3	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.43
2.	0.945	2.55
3.	0.945	
AVG	0.945	2.49

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	151.3	151.3	19.6	16.8	287.8	263.4	841.1	845.6
2.	149.5	157.2	17.8	16.1	284.7	305.1	851.2	943.0
3.	158.5	164.7	18.6	17.9	300.5	280.7	850.3	847.4
4.	153.7	162.8	18.6	16.3	287.4	293.6	793.5	874.1
5.	155.0	169.6	19.6	16.8	281.2	304.6	776.5	891.6
AVG	153.6	161.1	18.8	16.8	288.3	289.5	823	880

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912935

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	61.3	1	140.7	139.4
2.	64.6	1	141.3	139.2
3.	63.1	1	138.9	142.1
4.	60.4	1	135.2	133.7
5.	63.2	1	132.5	133.7
6.	61.6	1	144.2	
7.	63.7	1	143.6	
8.	63.3	1	140.8	
9.	60.1	1	135.6	
10.	63.7	1	134.6	
AVG	62.5	1	138.4	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.57
2.	0.945	2.50
3.	0.945	
AVG	0.945	2.54

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	156.1	160.1	18.8	17.0	277.1	297.6	784.4	897.9
2.	160.7	165.1	18.3	17.5	288.4	232.2	807.4	704.9
3.	161.1	165.3	19.6	16.2	287.2	251.9	796.1	757.5
4.	157.3	158.8	17.5	15.9	250.2	281.4	705.1	873.7
5.	163.3	167.7	19.8	15.7	279.4	309.7	780.4	912.4
AVG	159.7	163.4	18.8	16.5	276.5	274.6	775	829

SEPTEMBER 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912944

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	61.2	1	136.5	133.7
2.	63.1	1	135.4	135.7
3.	60.2	1	136.3	138.4
4.	62.8	1	134.1	137.9
5.	66.4	1	135.5	134.0
6.	66.4	1	136.7	
7.	62.9	1	137.0	
8.	63.6	1	136.8	
9.	59.9	1	137.2	
10.	60.5	1	130.7	
AVG	62.7	1	135.7	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.54
2.	0.946	2.53
3.	0.945	
AVG	0.946	2.54

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	158.5	168.1	17.8	16.7	273.4	312.1	763.1	920.5
2.	158.4	166.0	18.3	15.9	277.3	274.5	774.6	820.5
3.	164.4	171.2	18.8	17.4	295.2	278.0	801.5	800.3
4.	163.6	165.2	18.3	17.4	287.5	253.3	797.5	747.8
5.	157.9	156.3	17.6	15.7	262.8	295.5	735.8	892.5
AVG	160.6	165.4	18.2	16.6	279.2	282.7	775	836

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912948

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	59.2	1	130.8	132.8
2.	60.4	1	130.9	134.2
3.	60.5	1	129.7	132.0
4.	59.8	1	130.0	133.3
5.	64.3	1	137.2	141.5
6.	65.2	1	135.4	
7.	62.7	1	139.0	
8.	62.0	1	138.1	
9.	60.1	1	135.6	
10.	59.9	1	134.1	
AVG	61.4	1	134.3	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.58
2.	0.946	2.60
3.	0.946	
AVG	0.946	2.59

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	144.0	155.8	17.7	16.3	250.0	276.0	733.2	857.0
2.	150.7	161.1	17.5	15.8	298.2	320.1	873.1	946.7
3.	168.0	169.2	18.0	17.6	265.9	274.9	713.2	800.1
4.	158.0	160.4	17.7	16.9	279.1	310.1	789.5	925.6
5.	153.9	157.1	16.5	15.8	270.2	271.2	788.0	840.9
AVG	154.9	160.7	17.5	16.5	272.7	290.5	779	874

SEPTEMBER 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912957

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	60.2	1	140.8	138.6
2.	59.8	1	137.9	135.7
3.	60.3	1	134.9	134.6
4.	60.7	1	137.3	132.3
5.	64.2	1	136.9	132.5
6.	63.9	1	134.4	
7.	61.9	1	135.0	
8.	62.1	1	135.8	
9.	59.4	1	134.2	
10.	59.5	1	142.9	
AVG	61.2	1	136.3	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.46
2.	0.946	2.50
3.	0.945	
AVG	0.946	2.48

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	152.2	160.3	18.5	16.7	275.3	323.5	769.7	981.4
2.	159.0	161.4	17.7	17.3	249.9	294.6	722.7	888.4
3.	166.1	171.6	18.5	17.0	308.1	314.9	835.0	897.7
4.	158.7	166.7	17.7	16.7	275.9	301.9	781.7	885.9
5.	156.5	161.9	18.2	16.0	272.5	283.1	782.2	857.9
AVG	158.5	164.4	18.1	16.7	276.3	303.6	778	902

SEPTEMBER 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912966

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	60.8	1	146.3	136.3
2.	61.8	1	141.9	136.8
3.	65.8	1	143.2	140.0
4.	63.6	1	139.1	134.6
5.	61.6	1	138.0	134.4
6.	60.5	1	136.4	
7.	62.4	1	136.4	
8.	64.3	1	139.9	
9.	62.1	1	134.4	
10.	66.3	1	143.0	
AVG	62.9	1	138.7	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.947	2.59
2.	0.946	2.74
3.	0.946	
AVG	0.946	2.67

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	152.3	169.5	18.7	14.9	266.5	269.8	757.1	819.9
2.	157.4	168.2	18.2	16.7	273.8	321.8	768.3	945.3
3.	168.6	179.0	18.2	16.0	307.9	326.4	816.3	914.2
4.	159.7	164.1	18.2	17.5	282.5	308.8	799.0	907.1
5.	157.7	154.6	16.9	16.2	256.2	247.3	740.3	766.2
AVG	159.1	167.1	18.0	16.3	277.4	294.8	776	871

SEPTEMBER 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912974

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	60.5	1	146.6	136.0
2.	60.5	1	140.2	131.9
3.	62.6	1	139.9	129.3
4.	62.5	1	134.9	128.1
5.	65.5	1	132.7	129.2
6.	64.2	1	136.1	
7.	60.2	1	133.5	
8.	59.9	1	132.5	
9.	60.0	1	132.3	
10.	59.6	1	130.3	
AVG	61.6	1	134.2	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.43
2.	0.946	2.47
3.	0.945	
AVG	0.946	2.45

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	152.4	160.0	17.5	15.6	277.2	304.2	787.1	921.3
2.	160.5	165.0	17.7	15.3	242.2	292.6	674.0	863.6
3.	164.2	168.4	15.4	16.4	270.9	286.3	750.6	835.0
4.	152.2	155.2	17.0	16.9	264.3	217.9	774.6	684.3
5.	151.2	153.4	18.2	15.9	257.1	295.8	747.0	921.9
AVG	156.1	160.4	17.2	16.0	262.3	279.4	747	845

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912983

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	64.3	1	141.6	130.5
2.	65.0	1	141.0	132.6
3.	63.3	1	130.0	132.5
4.	62.5	1	127.8	129.9
5.	63.2	1	127.9	128.5
6.	59.9	1	129.0	
7.	62.1	1	138.0	
8.	61.6	2	141.0	
9.	59.0	1	137.9	
10.	60.0	1	131.5	
AVG	62.1	1	133.3	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.945	2.48
2.	0.945	2.44
3.	0.945	
AVG	0.945	2.46

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	166.7	175.3	16.9	15.7	284.8	325.5	768.6	923.8
2.	160.8	165.7	18.2	15.5	294.2	256.0	813.7	770.3
3.	162.4	165.1	16.7	16.0	291.3	276.0	801.7	812.7
4.	156.4	158.8	18.4	16.2	301.1	240.1	819.5	736.0
5.	158.2	155.7	16.7	18.0	271.3	275.6	771.8	836.3
AVG	160.9	164.1	17.4	16.3	288.5	274.6	795	816

SEPTEMBER 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1912991

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	59.2	1	141.8	136.4
2.	59.3	1	138.2	134.8
3.	60.1	1	140.4	132.7
4.	60.5	2	138.8	134.2
5.	63.8	1	138.3	133.0
6.	63.8	1	136.1	
7.	60.1	1	137.0	
8.	59.5	1	133.6	
9.	59.1	1	134.2	
10.	58.4	1	141.9	
AVG	60.4	1	136.8	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.62
2.	0.946	2.62
3.	0.945	
AVG	0.946	2.62

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	147.8	156.3	18.8	16.4	257.2	264.8	745.2	848.8
2.	161.3	160.6	18.8	16.9	294.5	296.5	816.9	899.6
3.	165.6	173.8	19.6	17.0	280.8	296.8	778.4	865.3
4.	156.1	158.6	17.3	16.4	276.4	269.4	804.6	836.6
5.	153.6	158.0	17.0	15.9	274.1	282.4	803.4	884.4
AVG	156.9	161.5	18.3	16.5	276.6	282.0	790	867

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1913000

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	60.0	1	128.7	133.6
2.	60.2	1	128.9	133.8
3.	61.1	1	129.8	132.1
4.	61.0	1	137.2	130.6
5.	65.8	1	136.1	127.6
6.	63.8	1	133.9	
7.	63.9	1	140.9	
8.	62.1	2	139.0	
9.	61.2	1	135.6	
10.	59.8	1	132.5	
AVG	61.9	1	133.4	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.82
2.	0.946	2.68
3.	0.945	
AVG	0.946	2.75

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	149.7	163.3	17.8	16.1	244.9	295.8	708.9	893.4
2.	153.0	162.9	17.8	16.1	262.4	311.2	742.2	928.7
3.	162.9	166.3	17.5	15.8	294.0	298.8	808.7	865.8
4.	155.0	158.9	16.8	15.8	301.8	315.8	859.6	934.1
5.	155.4	152.8	16.8	16.6	228.6	248.4	650.1	771.6
AVG	155.2	160.8	17.3	16.1	266.3	294.0	754	879

SEPTEMBER 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1913007

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	61.8	1	144.4	137.4
2.	63.7	1	139.7	143.9
3.	61.2	1	137.5	135.5
4.	62.6	1	137.3	135.7
5.	62.7	1	137.7	133.3
6.	64.1	1	135.5	
7.	60.1	1	141.4	
8.	63.1	1	140.7	
9.	60.4	1	139.7	
10.	59.5	1	138.4	
AVG	61.9	1	138.5	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.946	2.64
2.	0.946	2.63
3.	0.946	
AVG	0.946	2.64

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	170.5	174.1	15.6	16.4	306.1	282.2	883.9	819.3
2.	153.0	166.0	16.2	16.9	278.4	311.8	799.9	926.9
3.	165.1	174.1	17.4	17.4	296.4	316.5	819.9	915.8
4.	157.2	158.9	18.2	16.6	247.8	301.3	718.0	893.3
5.	149.1	152.2	18.0	16.6	270.1	304.4	757.7	940.9
AVG	159.0	165.1	17.1	16.8	279.8	303.2	796	899

SEPTEMBER 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1913207

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	62.0	2	139.7	129.2
2.	61.5	1	140.2	131.5
3.	61.2	1	134.7	127.2
4.	58.1	2	131.0	129.2
5.	59.1	2	130.2	127.2
6.	62.5	1	132.7	
7.	61.3	1	134.5	
8.	61.2	1	129.5	
9.	59.5	2	130.7	
10.	60.4	1	127.2	
AVG	60.7	1	131.6	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.945	2.47
2.	0.944	2.47
3.	0.944	
AVG	0.944	2.47

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	161.0	163.4	16.6	17.7	233.8	229.1	678.5	739.5
2.	155.6	163.4	16.8	16.4	234.0	227.6	697.3	729.2
3.	167.1	172.0	17.3	15.4	266.8	235.3	757.9	713.8
4.	164.1	171.4	18.4	17.2	258.1	240.5	719.5	727.5
5.	170.5	171.9	19.6	15.7	245.9	241.3	665.1	734.5
AVG	163.7	168.4	17.7	16.5	247.7	234.8	704	729

SEPTEMBER 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1913215

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	65.4	1	138.5	128.2
2.	60.0	1	139.0	132.5
3.	60.5	1	133.7	128.0
4.	60.0	1	132.7	127.5
5.	58.5	1	132.2	129.5
6.	61.0	2	129.5	
7.	60.4	2	133.0	
8.	60.8	1	128.2	
9.	57.5	1	131.0	
10.	58.2	1	132.2	
AVG	60.2	1	131.7	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.944	2.39
2.	0.944	2.37
3.	0.944	
AVG	0.944	2.38

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	159.7	164.1	16.3	15.6	245.5	277.0	700.1	880.5
2.	167.7	172.8	17.6	16.6	275.5	235.8	765.5	718.9
3.	158.2	162.7	17.9	16.4	281.9	288.9	819.8	893.8
4.	156.7	165.5	17.4	15.4	264.0	230.1	765.1	716.3
5.	169.3	165.8	17.6	16.1	300.5	278.5	811.8	837.3
AVG	162.3	166.2	17.4	16.0	273.5	262.1	772	809

SEPTEMBER 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1913224

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	60.0	2	137.2	127.7
2.	60.9	1	139.2	134.0
3.	61.1	1	136.2	130.2
4.	59.1	1	135.7	131.7
5.	59.4	1	137.7	133.7
6.	59.3	1	129.5	
7.	61.9	1	134.7	
8.	61.4	1	131.2	
9.	57.8	1	134.0	
10.	59.5	1	137.0	
AVG	60.0	1	134.0	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.945	2.34
2.	0.944	2.35
3.	0.943	
AVG	0.944	2.35

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	163.9	161.7	17.2	17.1	258.6	244.8	737.0	768.3
2.	166.4	157.9	17.7	15.5	244.8	232.8	704.0	743.6
3.	166.2	170.1	17.2	15.3	254.2	267.2	723.2	789.1
4.	165.4	167.4	16.7	15.8	240.1	250.3	668.8	756.6
5.	156.2	163.6	16.9	16.8	243.4	238.7	688.3	742.6
AVG	163.6	164.1	17.1	16.1	248.2	246.8	704	760

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1913233

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	62.5	1	138.5	123.0
2.	61.2	1	138.5	131.2
3.	62.5	1	133.7	129.0
4.	60.6	1	132.2	128.2
5.	59.2	1	130.5	125.7
6.	62.5	1	129.0	
7.	60.9	1	134.7	
8.	62.5	1	131.2	
9.	62.5	1	125.7	
10.	61.0	1	131.5	
AVG	61.5	1	130.8	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.943	2.50
2.	0.943	2.46
3.	0.942	
AVG	0.943	2.48

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	153.1	169.0	17.6	14.8	256.7	234.4	714.9	717.1
2.	160.6	164.9	16.1	15.0	253.1	225.6	721.8	712.4
3.	165.6	171.9	16.9	15.3	266.9	234.7	747.3	718.8
4.	163.2	171.8	17.4	15.8	241.0	254.4	704.0	774.0
5.	169.9	173.8	16.9	15.3	279.8	253.8	771.6	756.9
AVG	162.5	170.3	17.0	15.2	259.5	240.6	732	736

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1913240

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	60.3	1	125.7	128.7
2.	60.1	1	137.7	134.7
3.	60.5	1	133.2	132.5
4.	60.2	2	130.7	126.5
5.	58.8	1	135.5	129.0
6.	59.2	2	129.5	
7.	60.5	1	133.0	
8.	61.4	1	129.7	
9.	58.1	1	130.7	
10.	57.4	1	130.7	
AVG	59.7	1	131.2	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.944	2.49
2.	0.944	2.51
3.	0.943	
AVG	0.944	2.50

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	162.7	164.9	17.2	14.9	250.3	240.0	722.8	754.4
2.	168.2	162.1	17.4	15.1	246.5	235.8	701.0	749.4
3.	156.3	173.1	14.6	16.4	244.8	247.3	718.1	740.7
4.	166.1	170.1	19.0	14.9	256.2	238.5	719.0	723.9
5.	162.6	170.1	17.4	16.2	248.5	244.7	709.0	745.7
AVG	163.2	168.1	17.1	15.5	249.3	241.3	714	743

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1913240R

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	59.4	-	-	-
2.	63.0	-	-	-
3.	60.7	-	-	-
4.	60.2	-	-	-
5.	62.2	-	-	-
6.	59.8	-	-	
7.	60.0	-	-	
8.	60.7	-	-	
9.	63.1	-	-	
10.	62.2	-	-	
AVG	61.1	0	0.0	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	-	-
2.	-	-
3.	-	
AVG	0.000	0.00

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	-	-	-	-	-	-	-	-
2.	-	-	-	-	-	-	-	-
3.	-	-	-	-	-	-	-	-
4.	-	-	-	-	-	-	-	-
5.	-	-	-	-	-	-	-	-
AVG	0.0	0.0	0.0	0.0	0.0	0.0	0	0

SEPTEMBER 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1913248

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	61.8	1	139.2	126.2
2.	61.8	1	139.5	133.5
3.	61.4	1	134.0	131.0
4.	59.5	1	130.5	129.7
5.	59.3	1	132.2	127.5
6.	62.5	1	135.0	
7.	61.8	1	134.5	
8.	60.9	1	136.0	
9.	61.5	1	135.5	
10.	61.8	1	135.5	
AVG	61.2	1	133.3	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.945	2.37
2.	0.944	2.39
3.	0.944	
AVG	0.944	2.38

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	163.4	170.6	16.4	16.5	254.6	258.6	713.7	792.0
2.	168.5	169.1	16.2	18.3	261.0	248.6	716.5	764.9
3.	168.4	174.4	17.7	16.0	264.6	248.6	738.9	742.5
4.	170.4	173.1	19.0	16.5	258.6	232.8	705.0	703.0
5.	170.6	172.8	16.7	16.5	248.7	245.9	668.7	738.0
AVG	168.3	172.0	17.2	16.8	257.5	246.9	709	748

SEPTEMBER 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
SAMPLE NUMBER: 1913257

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	63.6	1	135.2	136.7
2.	61.1	1	134.0	128.2
3.	62.7	1	136.5	133.2
4.	60.8	1	138.0	137.0
5.	60.3	1	137.2	128.0
6.	64.5	1	136.5	
7.	61.1	1	136.7	
8.	62.6	1	138.5	
9.	59.0	1	137.0	
10.	60.4	1	135.5	
AVG	61.6	1	135.2	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.945	2.57
2.	0.945	2.54
3.	0.945	
AVG	0.945	2.56

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	163.9	167.8	19.0	15.6	238.5	229.5	676.5	707.9
2.	159.1	150.0	19.2	17.6	247.9	241.3	727.1	754.9
3.	158.5	167.8	18.6	17.1	261.2	281.8	738.5	822.9
4.	165.3	169.7	18.7	16.4	270.1	266.7	722.8	798.9
5.	161.6	171.7	18.7	18.2	256.5	260.8	721.8	775.8
AVG	161.7	165.4	18.8	17.0	254.8	256.0	717	772

SEPTEMBER 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT COA/FL
SAMPLE NUMBER: 1913265

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	62.5	1	133.7	128.7
2.	61.8	1	137.2	132.0
3.	62.6	2	134.5	129.7
4.	60.9	1	139.5	129.7
5.	59.6	1	135.0	132.5
6.	62.0	2	131.0	
7.	62.6	1	134.5	
8.	63.5	1	133.2	
9.	59.1	1	133.7	
10.	60.4	1	135.2	
AVG	61.5	1	133.3	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.944	2.28
2.	0.943	2.30
3.	0.943	
AVG	0.943	2.29

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	174.2	168.5	16.6	15.0	258.8	243.6	717.4	756.9
2.	163.4	176.0	18.1	16.0	267.5	238.8	751.8	719.1
3.	169.9	167.2	19.1	15.0	274.4	285.2	753.4	879.8
4.	165.3	170.3	16.8	16.6	257.6	237.9	715.8	730.2
5.	174.9	170.8	17.6	15.6	300.9	286.6	802.4	856.2
AVG	169.5	170.6	17.6	15.6	271.8	258.4	748	788

SEPTEMBER 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT COA/FL
SAMPLE NUMBER: 1913274

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	63.5	1	133.0	129.7
2.	61.0	1	135.7	134.2
3.	62.6	1	133.0	130.5
4.	62.3	2	131.7	131.2
5.	60.4	1	130.0	128.0
6.	64.6	1	130.2	
7.	61.2	2	134.5	
8.	62.5	1	131.2	
9.	59.8	1	134.0	
10.	60.5	1	131.2	
AVG	61.8	1	131.9	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.945	2.48
2.	0.945	2.45
3.	0.945	
AVG	0.945	2.47

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	165.1	169.3	18.0	14.8	240.3	232.5	687.0	729.7
2.	169.8	171.8	17.0	16.6	253.4	248.8	693.6	752.4
3.	163.3	172.0	17.9	16.9	254.2	243.9	715.5	740.0
4.	170.8	174.6	17.9	17.1	273.6	247.1	745.6	737.0
5.	167.6	172.6	17.4	16.3	281.5	240.9	755.8	718.9
AVG	167.3	172.1	17.6	16.3	260.6	242.6	720	736

SEPTEMBER 2000 003-3979

GEOMEMBRANE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT COA/FL
SAMPLE NUMBER: 1913283

	THICKNESS (mils)	CARBON BLACK DISPERSION (rating)	PUNCTURE RESISTANCE (lbs)	
1.	61.8	1	142.0	133.5
2.	60.0	1	138.7	133.5
3.	62.0	1	137.0	134.7
4.	61.2	1	137.0	136.5
5.	61.8	2	136.2	135.0
6.	62.2	1	131.7	
7.	60.8	1	133.2	
8.	62.4	1	132.0	
9.	60.3	1	135.5	
10.	62.5	1	135.7	
AVG	61.5	1	135.5	

	DENSITY (g/cc)	CARBON BLACK CONTENT (%)
1.	0.944	2.31
2.	0.943	2.39
3.	0.942	
AVG	0.943	2.35

	YIELD STRENGTH (lb/in. width)		ELONGATION AT YIELD (%)		BREAK STRENGTH (lb/in. width)		ELONGATION AT BREAK (%)	
	MD	TD	MD	TD	MD	TD	MD	TD
1.	166.0	173.5	16.8	16.4	245.8	206.7	703.4	645.1
2.	158.7	167.3	16.3	16.9	253.1	228.4	723.1	715.9
3.	164.4	168.9	16.8	15.9	256.2	262.9	697.1	787.0
4.	165.3	167.2	18.4	15.1	261.1	244.0	714.0	740.8
5.	165.2	167.1	17.9	13.8	282.4	257.8	797.7	777.7
AVG	163.9	168.8	17.2	15.6	259.7	240.0	727	733

SECTION D-2

Geonet

JULY 2000

SUMMARY OF 5135 SP GEONET CONFORMANCE TEST RESULTS
ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

003-3979

TEST DESCRIPTION	REFERENCE VALUE	ROLL DESIGNATION 4021750	4021774	4021791	4021815	4021838	4021859	4021891	4021903	4021924	4022864
THICKNESS (in) ASTM D5199	>=200	225.5	231.8	230.4	236.0	234.7	223.2	232.4	231.3	229.8	231.9
DENSITY (g/cc) ASTM D1505	>=0.940	0.950	0.950	0.951	0.951	0.950	0.951	0.952	0.951	0.952	0.949
MASS PER UNIT AREA (oz/yd^2) ASTM D5261	>=23.0	29.3	30.2	30.0	30.4	30.5	29.4	29.6	30.2	29.9	30.6
TRANSMISSIVITY (m^2/sec) ASTM D4716	>=1.0E-03	1.5E-03	1.6E-03	1.3E-03	1.5E-03	1.6E-03	1.5E-03	1.7E-03	1.7E-03	1.7E-03	1.7E-03

NETSUM

SUMMARY OF 5135 SP GEONET CONFORMANCE TEST RESULTS

ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

TEST DESCRIPTION	REFERENCE VALUE	ROLL DESIGNATION									
		4022886	4022909	4022930	4022949	-	-	-	-	-	-
THICKNESS (in) ASTM D5199	>=200	237.3	240.7	232.1	224.4	-	-	-	-	-	-
DENSITY (g/cc) ASTM D1505	>=0.940	0.949	0.949	0.950	0.949	-	-	-	-	-	-
MASS PER UNIT AREA (oz/yd^2) ASTM D5261	>=23.0	31.1	30.1	31.4	28.9	-	-	-	-	-	-
TRANSMISSIVITY (m^2/sec) ASTM D4716	>=1.0E-03	1.7E-03	2.1E-03	1.9E-03	2.0E-03	-	-	-	-	-	-

NETSUM

AUGUST 2000

003-3979

SUMMARY OF 5135 GEONET CONFORMANCE TEST RESULTS

ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

TEST DESCRIPTION	REFERENCE VALUE	ROLL DESIGNATION 4022541	4022561	4022585	4022605	4022628	4022651	4022672	4022694	4022716	4022738
THICKNESS (in) ASTM D5199	>=200	226.4	228.9	225.3	210.0	219.6	221.4	208.7	216.0	218.0	216.0
DENSITY (g/cc) ASTM D1505	>=0.940	0.949	0.951	0.948	0.950	0.949	0.949	0.949	0.949	0.949	0.948
MASS PER UNIT AREA (oz/yd^2) ASTM D5261	>=23.0	25.2	25.5	25.8	24.8	24.9	25.7	24.6	24.3	24.2	25.3
TRANSMISSIVITY (m^2/sec) ASTM D4716	>=1.0E-03	1.5E-03	1.5E-03	1.5E-03	1.5E-03	1.2E-03	1.2E-03	1.3E-03	1.2E-03	1.2E-03	1.2E-03

NETSUM

SUMMARY OF 5135 GEONET CONFORMANCE TEST RESULTS

ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

TEST DESCRIPTION	REFERENCE VALUE	ROLL DESIGNATION 4022756	4022781	4022804	4022823	4022840	-	-	-	-	-
THICKNESS (in) ASTM D5199	>=200	218.5	222.2	206.4	218.3	207.2	-	-	-	-	-
DENSITY (g/cc) ASTM D1505	>=0.940	0.949	0.949	0.949	0.949	0.948	-	-	-	-	-
MASS PER UNIT AREA (oz/yd^2) ASTM D5261	>=23.0	24.8	24.8	24.1	25.6	24.3	-	-	-	-	-
TRANSMISSIVITY (m^2/sec) ASTM D4716	>=1.0E-03	1.5E-03	1.5E-03	1.1E-03	1.5E-03	1.4E-03	-	-	-	-	-

NETSUM

JULY 2000 003-3979

GEONET TEST RESULTS

PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT COA/FL
PROJECT NUMBER: 003-3979

ROLL DESIGNATION: 4021750

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	228.3	0.951	28.75	1.52E-03
2.	234.4	0.950	30.74	1.55E-03
3.	225.2	0.950	30.22	
4.	220.9		27.73	
5.	216.1		26.86	
6.	215.0		27.21	
7.	228.3		28.07	
8.	225.6		29.93	
9.	230.3		31.67	
10.	230.7		31.65	
AVG	225.5	0.950	29.3	1.5E-03

ROLL DESIGNATION: 4021774

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	238.2	0.949	29.40	1.70E-03
2.	234.3	0.951	31.36	1.54E-03
3.	229.9	0.951	29.19	
4.	218.1		27.06	
5.	228.3		28.38	
6.	222.0		29.35	
7.	235.4		32.83	
8.	237.4		31.86	
9.	237.8		31.34	
10.	236.2		30.96	
AVG	231.8	0.950	30.2	1.6E-03

JULY 2000 003-3979

GEONET TEST RESULTS

PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT COA/FL
PROJECT NUMBER: 003-3979

ROLL DESIGNATION: 4021791

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	222.8	0.951	28.67	1.39E-03
2.	220.5	0.951	29.84	1.11E-03
3.	223.2	0.951	28.23	
4.	227.2		27.90	
5.	237.0		29.21	
6.	235.8		31.57	
7.	236.3		32.53	
8.	233.9		31.39	
9.	234.6		30.60	
10.	232.7		30.44	
AVG	230.4	0.951	30.0	1.3E-03

ROLL DESIGNATION: 4021815

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	239.4	0.951	31.63	1.78E-03
2.	232.3	0.951	31.74	1.29E-03
3.	227.6	0.951	31.26	
4.	228.3		30.85	
5.	240.2		30.53	
6.	238.2		30.81	
7.	236.6		28.84	
8.	237.8		28.26	
9.	240.9		29.39	
10.	239.0		30.85	
AVG	236.0	0.951	30.4	1.5E-03

JULY 2000 003-3979

GEONET TEST RESULTS

PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
PROJECT NUMBER: 003-3979

ROLL DESIGNATION: 4021838

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	229.9	0.951	29.79	1.41E-03
2.	224.4	0.950	28.43	1.78E-03
3.	231.1	0.950	29.52	
4.	237.8		30.31	
5.	231.9		30.10	
6.	237.8		30.75	
7.	239.0		32.05	
8.	242.1		32.82	
9.	244.1		31.78	
10.	229.1		29.65	
AVG	234.7	0.950	30.5	1.6E-03

ROLL DESIGNATION: 4021859

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	229.5	0.952	30.15	1.57E-03
2.	222.4	0.951	30.17	1.46E-03
3.	218.9	0.951	28.67	
4.	217.7		27.32	
5.	218.5		27.96	
6.	228.7		29.38	
7.	224.4		30.18	
8.	226.4		30.97	
9.	224.4		29.80	
10.	221.3		29.31	
AVG	223.2	0.951	29.4	1.5E-03

JULY 2000 003-3979

GEONET TEST RESULTS

PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT COA/FL
PROJECT NUMBER: 003-3979

ROLL DESIGNATION: 4021891

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	230.3	0.952	28.33	1.93E-03
2.	231.5	0.952	28.22	1.48E-03
3.	227.2	0.952	31.61	
4.	227.6		30.80	
5.	250.0		28.83	
6.	226.0		28.71	
7.	234.6		29.63	
8.	241.7		30.52	
9.	229.9		30.87	
10.	225.2		28.96	
AVG	232.4	0.952	29.6	1.7E-03

ROLL DESIGNATION: 4021903

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	235.4	0.951	29.11	1.82E-03
2.	232.3	0.951	28.83	1.65E-03
3.	227.2	0.951	28.96	
4.	226.0		29.09	
5.	223.6		29.25	
6.	225.6		29.67	
7.	232.3		30.30	
8.	237.4		32.14	
9.	239.4		32.99	
10.	233.9		31.40	
AVG	231.3	0.951	30.2	1.7E-03

JULY 2000 003-3979

GEONET TEST RESULTS

PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
PROJECT NUMBER: 003-3979

ROLL DESIGNATION: 4021924

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	220.1	0.952	31.04	1.61E-03
2.	221.3	0.952	30.32	1.76E-03
3.	216.1	0.952	31.22	
4.	223.2		32.54	
5.	232.7		31.32	
6.	229.5		28.97	
7.	240.9		29.62	
8.	239.8		27.95	
9.	237.0		29.28	
10.	237.8		26.96	
AVG	229.8	0.952	29.9	1.7E-03

ROLL DESIGNATION: 4022864

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	240.6	0.950	30.51	1.77E-03
2.	228.3	0.949	30.14	1.65E-03
3.	232.7	0.949	30.38	
4.	231.5		30.69	
5.	235.4		30.86	
6.	227.6		31.71	
7.	229.9		31.35	
8.	230.7		30.49	
9.	232.3		29.70	
10.	230.3		30.36	
AVG	231.9	0.949	30.6	1.7E-03

AUGUST 2000 003-3979

GEONET TEST RESULTS

PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT COA/FL
PROJECT NUMBER: 003-3979

ROLL DESIGNATION: 4022886

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	231.9	0.949	31.79	1.75E-03
2.	242.9	0.949	32.03	1.72E-03
3.	243.3	0.949	31.73	
4.	244.1		30.84	
5.	242.9		30.20	
6.	236.6		29.68	
7.	226.8		31.59	
8.	234.3		31.53	
9.	232.7		31.09	
10.	237.0		30.40	
AVG	237.3	0.949	31.1	1.7E-03

ROLL DESIGNATION: 4022909

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	233.1	0.949	33.07	2.05E-03
2.	241.3	0.949	31.42	2.08E-03
3.	228.7	0.949	29.78	
4.	252.4		29.70	
5.	234.3		30.31	
6.	239.0		31.02	
7.	238.2		29.90	
8.	237.4		28.51	
9.	250.0		27.67	
10.	252.8		29.76	
AVG	240.7	0.949	30.1	2.1E-03

GEONET TEST RESULTS

PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
PROJECT NUMBER: 003-3979

ROLL DESIGNATION: 4022930

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	224.8	0.950	30.58	1.96E-03
2.	222.0	0.950	30.98	1.88E-03
3.	234.3	0.950	32.26	
4.	236.2		32.01	
5.	235.0		32.36	
6.	228.3		32.94	
7.	237.4		32.41	
8.	239.8		31.39	
9.	230.3		30.16	
10.	232.7		28.72	
AVG	232.1	0.950	31.4	1.9E-03

ROLL DESIGNATION: 4022949

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	230.7	0.949	28.77	1.94E-03
2.	229.1	0.950	28.08	2.04E-03
3.	223.2	0.949	28.29	
4.	220.1		29.68	
5.	217.7		29.90	
6.	227.2		28.79	
7.	226.0		27.64	
8.	223.6		28.09	
9.	222.0		30.18	
10.	224.8		30.07	
AVG	224.4	0.949	28.9	2.0E-03

AUGUST 2000 003-3979

GEONET TEST RESULTS

PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT COA/FL
PROJECT NUMBER: 003-3979

ROLL DESIGNATION: 4022541

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	224.4	0.949	22.83	1.53E-03
2.	215.0	0.949	27.11	1.46E-03
3.	222.0	0.949	26.01	
4.	231.0		25.88	
5.	222.0		25.83	
6.	228.3		25.51	
7.	229.1		23.94	
8.	231.9		24.69	
9.	231.1		25.17	
10.	229.1		25.22	
AVG	226.4	0.949	25.2	1.5E-03

ROLL DESIGNATION: 4022561

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	229.5	0.952	23.06	1.53E-03
2.	223.6	0.951	25.53	1.40E-03
3.	237.8	0.950	24.86	
4.	205.9		24.20	
5.	235.4		26.03	
6.	245.7		26.32	
7.	219.7		26.56	
8.	238.6		26.26	
9.	225.2		26.58	
10.	227.2		25.53	
AVG	228.9	0.951	25.5	1.5E-03

GEONET TEST RESULTS

PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
PROJECT NUMBER: 003-3979

ROLL DESIGNATION: 4022585

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	227.6	0.949	26.85	1.62E-03
2.	221.3	0.948	25.86	1.47E-03
3.	223.2	0.948	25.40	
4.	229.1		25.11	
5.	228.3		26.19	
6.	233.9		27.42	
7.	227.6		26.03	
8.	225.2		25.20	
9.	216.9		24.80	
10.	220.1		25.51	
AVG	225.3	0.948	25.8	1.5E-03

ROLL DESIGNATION: 4022605

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	212.6	0.949	26.54	1.54E-03
2.	217.3	0.950	26.79	1.36E-03
3.	206.3	0.950	26.63	
4.	205.5		24.82	
5.	201.6		23.89	
6.	205.5		23.43	
7.	204.3		23.17	
8.	204.7		23.56	
9.	220.9		24.45	
10.	221.7		24.91	
AVG	210.0	0.950	24.8	1.5E-03

AUGUST 2000 003-3979

GEONET TEST RESULTS

PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT COA/FL
PROJECT NUMBER: 003-3979

ROLL DESIGNATION: 4022628

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	215.4	0.949	26.01	1.31E-03
2.	214.2	0.949	26.08	1.00E-03
3.	210.6	0.949	26.58	
4.	216.9		26.89	
5.	216.9		27.45	
6.	216.8		23.37	
7.	201.6		22.77	
8.	226.8		22.20	
9.	236.6		23.39	
10.	239.8		24.64	
AVG	219.6	0.949	24.9	1.2E-03

ROLL DESIGNATION: 4022651

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	217.3	0.950	24.86	1.21E-03
2.	211.8	0.949	26.10	1.26E-03
3.	222.4	0.948	26.06	
4.	228.3		27.03	
5.	229.5		26.72	
6.	229.1		25.62	
7.	226.8		26.25	
8.	219.7		25.09	
9.	215.7		25.04	
10.	213.4		24.47	
AVG	221.4	0.949	25.7	1.2E-03

AUGUST 2000 003-3979

GEONET TEST RESULTS

PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT COA/FL
PROJECT NUMBER: 003-3979

ROLL DESIGNATION: 4022672

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	204.7	0.949	24.38	1.38E-03
2.	200.8	0.949	24.53	1.29E-03
3.	216.1	0.949	25.75	
4.	216.5		25.08	
5.	209.8		23.34	
6.	208.3		23.12	
7.	211.4		24.97	
8.	207.5		25.92	
9.	207.5		23.81	
10.	204.3		25.35	
AVG	208.7	0.949	24.6	1.3E-03

ROLL DESIGNATION: 4022694

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	216.9	0.949	24.16	1.13E-03
2.	212.6	0.949	24.75	1.33E-03
3.	211.8	0.949	25.24	
4.	222.0		24.91	
5.	213.8		23.92	
6.	217.7		23.63	
7.	215.0		22.70	
8.	216.5		24.53	
9.	220.5		25.17	
10.	213.4		24.23	
AVG	216.0	0.949	24.3	1.2E-03

AUGUST 2000 003-3979

GEONET TEST RESULTS

PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT COA/FL
PROJECT NUMBER: 003-3979

ROLL DESIGNATION: 4022716

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	237.8	0.949	24.36	1.23E-03
2.	231.9	0.949	24.27	1.25E-03
3.	231.5	0.948	25.33	
4.	235.8		25.81	
5.	207.9		24.64	
6.	207.1		23.61	
7.	212.6		22.59	
8.	203.1		22.53	
9.	201.6		24.22	
10.	210.6		24.25	
AVG	218.0	0.949	24.2	1.2E-03

ROLL DESIGNATION: 4022738

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	207.5	0.948	24.69	1.15E-03
2.	203.1	0.948	26.03	1.26E-03
3.	212.6	0.949	26.79	
4.	219.7		27.36	
5.	215.4		25.84	
6.	216.9		25.02	
7.	221.7		24.64	
8.	223.2		25.20	
9.	220.5		24.33	
10.	219.3		23.34	
AVG	216.0	0.948	25.3	1.2E-03

AUGUST 2000 003-3979

GEONET TEST RESULTS

PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT COA/FL
PROJECT NUMBER: 003-3979

ROLL DESIGNATION: 4022756

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	224.4	0.949	26.65	1.69E-03
2.	219.7	0.949	24.76	1.40E-03
3.	223.2	0.949	25.88	
4.	222.0		26.39	
5.	224.0		25.11	
6.	208.7		22.17	
7.	215.0		22.75	
8.	213.4		23.65	
9.	216.1		25.06	
10.	218.1		25.17	
AVG	218.5	0.949	24.8	1.5E-03

ROLL DESIGNATION: 4022781

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	214.6	0.949	24.53	1.68E-03
2.	215.4	0.949	24.67	1.38E-03
3.	223.6	0.949	26.61	
4.	222.4		25.30	
5.	218.5		24.12	
6.	246.1		25.39	
7.	225.6		25.20	
8.	224.8		25.37	
9.	216.1		23.83	
10.	214.6		23.23	
AVG	222.2	0.949	24.8	1.5E-03

AUGUST 2000 003-3979

GEONET TEST RESULTS

PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT COA/FL
PROJECT NUMBER: 003-3979

ROLL DESIGNATION: 4022804

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	203.9	0.949	24.76	1.29E-03
2.	210.2	0.950	25.39	9.54E-04
3.	211.0	0.949	24.64	
4.	206.7		25.15	
5.	202.0		23.63	
6.	201.6		23.23	
7.	204.3		22.53	
8.	206.3		23.96	
9.	210.6		24.71	
10.	207.5		22.70	
AVG	206.4	0.949	24.1	1.1E-03

ROLL DESIGNATION: 4022823

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	228.0	0.949	26.50	1.15E-03
2.	207.1	0.949	27.87	1.79E-03
3.	205.5	0.949	26.52	
4.	212.2		25.79	
5.	216.5		24.93	
6.	219.3		24.67	
7.	223.2		24.67	
8.	224.4		23.91	
9.	224.8		22.75	
10.	222.4		27.98	
AVG	218.3	0.949	25.6	1.5E-03

AUGUST 2000 003-3979

GEONET TEST RESULTS

PROJECT NAME: ETM/TRAILRIDGE 3RD INCREMENT CQA/FL
PROJECT NUMBER: 003-3979

ROLL DESIGNATION: 4022840

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	200.3	0.948	25.59	1.35E-03
2.	205.1	0.948	26.06	1.47E-03
3.	202.8	0.948	26.37	
4.	207.1		25.35	
5.	199.2		24.09	
6.	197.6		22.28	
7.	217.7		22.64	
8.	211.4		22.92	
9.	215.7		23.70	
10.	214.6		23.85	
AVG	207.2	0.948	24.3	1.4E-03

ROLL DESIGNATION:

	THICKNESS (mils)	DENSITY (g/cc)	MASS/AREA (oz/yd²)	TRANSMISSIVITY (m²/sec)
1.	-	-	-	-
2.	-	-	-	-
3.	-	-	-	
4.	-		-	
5.	-		-	
6.	-		-	
7.	-		-	
8.	-		-	
9.	-		-	
10.	-		-	
AVG	0.0	0.000	0.0	0.0

SECTION D-3

Geotextile - 6-Ounce

JULY 2000

SUMMARY OF GEOTEXTILE (6 OUNCE) CONFORMANCE TEST RESULTS

ETM
TRAIL RIDGE 3RD INCREMENT CQA
FLORIDA

003-3979

TEST DESCRIPTION	REFERENCE VALUE	ROLL DESIGNATION 2118A	2229A	2911A	2965A	2999A	3230A	3280A	3393A	3414A	-
GRAB STRENGTH (lbs)	=>180	194.9	208.6	185.7	192.1	191.0	199.7	217.7	225.3	209.8	-
MD/TD (1)	=>180	205.2	245.6	204.2	239.8	198.8	218.3	250.3	194.2	220.0	-
ASTM D4632											
GRAB ELONGATION	=>50	59	61	56	58	57	54	58	53	52	-
(%)	=>50	68	77	76	72	71	63	65	61	63	-
ASTM D4632											
TRAPEZOIDAL TEAR STRENGTH	=>60	75.6	83.9	77.6	78.5	72.6	78.9	84.5	87.3	76.9	-
(lbs) MD/TD (1)	=>60	97.4	102.7	84.9	100.9	83.8	87.3	102.0	90.9	92.8	-
ASTM D4533											
MASS/UNIT AREA (oz/yd^2)	=>5.7	6.6	7.0	6.6	6.6	6.7	7.1	7.5	7.3	6.9	-
ASTM D5261											
PUNCTURE STRENGTH (lbs)	=>80	101.8	112.9	112.8	114.7	113.5	124.1	123.4	121.8	122.7	-
ASTM D4833											
APPARENT OPENING SIZE (mm)	<=0.212	0.150	0.180	0.180	0.145	0.125	0.150	0.150	0.180	0.145	-
(U.S. SIEVE NO.)	=>70	100	80	80	100	120	100	100	80	100	-
ASTM D4751											
PERMITTIVITY (sec-1)	=>0.33	2.13	1.94	2.15	2.13	-	-	2.01	2.03	-	-
PERMEABILITY (cm/sec) (2)	-	0.45	0.39	0.45	0.40	-	-	0.42	0.40	-	-
FLOW RATE ($gal/min/ft^2$)	=>25	159.0	144.8	160.7	159.2	-	-	150.0	151.5	-	-
ASTM D 4491											

(1) MD/TD corresponds to Machine Direction / Transverse Direction.
(2) Permeability calculated by multiplying measured thickness by permittivity.

TESTSUM

JULY 2000 003-3979

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT COA/FL
ROLL DESIGNATION: 2118A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.150	2.22	6.38
2.	0.150	2.00	5.98
3.	0.150	2.21	6.62
4.	0.150	2.07	6.53
5.	0.150		6.64
6.			6.86
7.	0.150	2.13	6.86
8.			6.49
9.	EQUIVALENT	PERMEABILITY	FLOW RATE 7.17
10.	SIEVE SIZE		6.33
AVG	100	0.45	159.0 6.6

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	174.7	221.7	55.6	68.3	75.0	111.0	98.6	112.3
2.	173.6	174.8	60.3	56.1	72.0	105.0	108.3	126.2
3.	209.5	205.6	64.7	66.2	68.8	102.0	103.8	105.3
4.	182.3	213.6	54.2	70.7	82.3	105.5	135.9	106.6
5.	233.3	209.7	61.5	80.3	75.5	113.5	101.6	76.9
6.	222.5	237.0	56.8	79.1	67.0	96.8	72.7	
7.	182.3	215.3	60.4	76.5	83.3	91.0	85.4	
8.	206.7	206.8	57.4	62.2	83.8	90.0	95.6	
9.	207.9	210.3	62.2	66.6	55.0	82.5	96.5	
10.	155.7	157.6	55.5	54.5	93.5	76.3	101.7	
AVG	194.9	205.2	59	68	75.6	97.4	101.8	

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT COA/FL
ROLL DESIGNATION: 2229A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.180	1.80	6.84
2.	0.180	2.05	6.88
3.	0.180	2.01	6.73
4.	0.180	1.88	7.61
5.	0.180		6.86
6.			7.39
7.	0.180	1.94	7.02
8.			7.15
9.	EQUIVALENT	PERMEABILITY FLOW RATE	6.79
10.	SIEVE SIZE		6.69
AVG	80	0.39 144.8	7.0

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	231.8	269.8	67.3	67.8	74.3	106.7	102.1	120.2
2.	172.9	267.2	60.3	68.4	68.0	110.7	116.3	136.3
3.	222.1	236.1	63.1	62.5	85.3	97.3	98.0	94.5
4.	224.0	252.5	65.2	71.4	86.3	100.7	119.0	99.8
5.	238.3	219.1	59.6	81.1	96.0	100.0	124.9	95.6
6.	217.4	249.7	61.9	74.7	83.5	99.8	117.0	
7.	206.4	238.8	61.2	111.4	79.3	102.7	122.0	
8.	209.4	244.3	55.8	101.6	87.5	97.8	91.3	
9.	183.4	255.4	56.8	73.6	82.3	94.5	157.3	
10.	180.1	223.4	60.2	61.0	96.3	117.2	98.9	
AVG	208.6	245.6	61	77	83.9	102.7	112.9	

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT COA/FL
ROLL DESIGNATION: 2911A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.180	2.14	6.55
2.	0.180	2.07	6.64
3.	0.180	2.05	6.07
4.	0.180	2.33	6.69
5.	0.180		6.73
6.			7.22
7.	0.180	2.15	6.77
8.			6.84
9.	EQUIVALENT	PERMEABILITY	FLOW RATE 6.31
10.	SIEVE SIZE		6.38
AVG	80	0.45	160.7 6.6

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	190.1	201.2	56.9	64.2	83.5	86.5	118.0	100.8
2.	182.3	211.1	61.8	67.2	79.3	95.3	96.6	104.6
3.	194.1	222.4	58.7	75.5	93.3	90.0	108.9	121.6
4.	205.1	224.2	59.6	70.1	76.8	96.0	114.8	117.9
5.	225.0	243.9	58.1	108.0	80.5	85.0	127.1	98.2
6.	197.6	206.3	50.5	126.7	91.5	75.8	104.3	
7.	141.5	181.0	46.3	62.8	64.3	76.8	102.8	
8.	146.5	174.4	47.9	65.3	72.0	79.8	129.4	
9.	175.1	172.2	56.3	57.0	65.0	86.8	117.8	
10.	200.1	205.1	63.5	64.5	70.3	77.3	129.4	
AVG	185.7	204.2	56	76	77.6	84.9	112.8	

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT COA/FL
ROLL DESIGNATION: 2965A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.150	2.07	6.15
2.	0.150	2.12	6.49
3.	0.150	2.13	6.47
4.	0.125	2.19	6.38
5.	0.150		6.29
6.			7.35
7.	0.145	2.13	7.28
8.			6.66
9.	EQUIVALENT	PERMEABILITY	6.38
10.	SIEVE SIZE		6.49
AVG	100	0.40	6.6

	FLOW RATE
	159.2

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	199.7	253.4	67.1	67.6	80.3	98.3	104.4	115.6
2.	182.6	247.0	51.7	66.9	69.8	94.0	107.0	101.1
3.	181.7	230.7	61.4	64.5	74.5	98.5	96.4	128.5
4.	188.5	229.0	57.6	72.7	74.3	108.0	113.6	128.4
5.	231.5	208.5	60.3	76.2	80.0	104.7	126.1	118.9
6.	209.0	257.9	56.1	80.4	82.0	98.5	113.1	
7.	204.4	234.4	56.1	63.3	82.8	92.5	104.7	
8.	188.9	256.9	57.6	65.8	84.5	114.5	113.6	
9.	173.8	243.0	60.7	63.5	81.0	102.5	113.6	
10.	160.7	237.0	51.0	102.2	76.3	97.3	135.0	
AVG	192.1	239.8	58	72	78.5	100.9	114.7	

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT COA/FL
ROLL DESIGNATION: 2999A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.125	-	6.97
2.	0.125	-	6.53
3.	0.125	-	6.57
4.	0.125	-	7.21
5.	0.125		6.58
6.			6.95
7.	0.125	0.00	6.86
8.			6.44
9.	EQUIVALENT	PERMEABILITY FLOW RATE	6.55
10.	SIEVE SIZE		6.04
AVG	120	- -	6.7

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	193.8	196.9	59.1	70.9	78.0	74.5	94.5	113.9
2.	161.0	213.3	52.1	76.1	79.8	88.5	115.9	139.3
3.	191.1	176.8	53.0	62.5	83.5	75.8	104.8	116.6
4.	218.4	189.6	57.9	69.8	61.0	95.0	98.3	123.9
5.	223.4	203.4	55.6	82.3	62.5	79.3	107.0	121.4
6.	202.5	192.8	60.9	79.6	70.5	94.3	89.0	
7.	172.3	213.6	53.2	73.5	78.3	94.5	139.3	
8.	183.0	213.7	56.2	65.2	76.3	75.5	115.6	
9.	175.3	191.8	55.3	60.8	61.3	76.0	98.0	
10.	188.8	196.0	66.1	64.3	74.8	84.3	124.7	
AVG	191.0	198.8	57	71	72.6	83.8	113.5	

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GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT CQA/FL
ROLL DESIGNATION: 3230A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.150	-	6.82
2.	0.150	-	7.10
3.	0.150	-	7.24
4.	0.150	-	7.28
5.	0.150		6.99
6.			6.57
7.	0.150	0.00	7.61
8.			6.79
9.	EQUIVALENT	PERMEABILITY FLOW RATE	7.39
10.	SIEVE SIZE		7.22
AVG	100	- -	7.1

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	179.3	232.6	54.2	67.2	72.3	90.3	113.4	139.3
2.	201.1	221.2	54.9	60.7	63.3	90.8	117.4	133.6
3.	203.5	213.2	57.1	57.4	93.0	81.5	136.1	116.3
4.	214.2	238.1	54.1	70.7	65.5	86.5	99.2	122.9
5.	245.2	206.3	55.4	67.0	89.3	88.5	112.7	133.9
6.	188.9	187.3	47.9	64.3	94.5	79.5	127.5	
7.	185.9	227.7	51.3	63.2	59.5	79.0	105.2	
8.	233.0	184.4	55.0	54.5	81.8	85.0	148.2	
9.	163.9	233.2	60.6	61.7	84.5	93.5	129.0	
10.	182.0	238.8	47.9	60.1	85.0	98.3	126.4	
AVG	199.7	218.3	54	63	78.9	87.3	124.1	

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT COA/FL
ROLL DESIGNATION: 3280A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.150	1.89	7.10
2.	0.150	1.75	7.43
3.	0.150	2.16	8.18
4.	0.150	2.22	7.54
5.	0.150		7.75
6.			8.47
7.	0.150	2.01	7.01
8.			7.21
9.	EQUIVALENT	PERMEABILITY FLOW RATE	7.26
10.	SIEVE SIZE		7.44
AVG	100	0.42 150.0	7.5

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	204.7	246.7	57.9	60.6	63.3	85.8	132.1	129.0
2.	191.5	229.4	57.8	58.9	71.5	115.2	110.3	130.9
3.	170.6	246.6	51.0	63.7	82.0	99.3	112.6	124.5
4.	240.5	234.2	56.3	65.4	86.0	94.0	133.7	127.1
5.	274.9	231.4	57.9	75.4	76.0	92.5	166.5	99.2
6.	247.0	280.7	58.3	77.3	93.5	115.7	111.1	
7.	217.4	249.3	52.3	62.5	100.2	102.0	122.9	
8.	199.3	254.0	61.6	61.4	97.5	111.5	124.4	
9.	217.7	262.5	60.6	59.9	86.0	96.0	98.0	
10.	213.2	268.3	62.2	61.2	89.3	108.5	128.1	
AVG	217.7	250.3	58	65	84.5	102.0	123.4	

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT CQA/FL
ROLL DESIGNATION: 3393A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.180	1.89	7.39
2.	0.180	2.34	6.46
3.	0.180	1.81	7.26
4.	0.180	2.06	6.55
5.	0.180		8.80
6.			8.30
7.	0.180	2.03	8.16
8.			7.55
9.	EQUIVALENT	PERMEABILITY	FLOW RATE 6.69
10.	SIEVE SIZE		6.00
VG	80	0.40	151.5 7.3

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	265.9	189.0	46.2	64.7	108.5	92.3	133.7	104.1
2.	200.3	180.3	45.1	70.7	107.7	82.8	118.1	118.0
3.	174.5	234.4	51.9	64.7	121.5	62.8	120.4	91.4
4.	200.0	161.8	54.5	49.6	55.0	85.0	148.8	106.4
5.	227.5	187.7	53.3	55.3	69.8	95.0	166.5	113.1
6.	194.8	206.2	50.3	53.8	49.3	70.3	125.6	
7.	195.2	161.6	66.9	51.6	67.3	87.3	135.0	
8.	178.7	172.6	48.0	50.5	81.0	113.0	123.1	
9.	211.0	216.8	52.5	64.8	96.5	119.7	106.0	
10.	405.2	231.9	60.3	82.8	116.5	101.0	116.8	
AVG	225.3	194.2	53	61	87.3	90.9	121.8	

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT COA/FL
ROLL DESIGNATION: 3414A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.150	-	7.26
2.	0.150	-	6.84
3.	0.125	-	6.53
4.	0.150	-	7.06
5.	0.150		6.64
6.			6.79
7.	0.145	0.00	6.77
8.			7.39
9.	EQUIVALENT	PERMEABILITY FLOW RATE	6.69
10.	SIEVE SIZE		7.26
VG	100	- -	6.9

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	181.2	207.5	72.1	59.4	64.8	94.3	130.0	85.7
2.	184.3	243.6	50.6	62.5	78.0	91.0	153.1	93.9
3.	221.7	204.0	49.5	60.1	67.0	98.8	132.9	115.6
4.	168.9	214.2	41.9	56.1	68.5	80.0	173.2	68.6
5.	276.0	238.8	52.3	72.3	93.3	89.5	121.4	131.2
6.	192.5	235.6	51.2	69.5	80.5	110.2	137.6	
7.	202.0	208.3	45.4	66.2	81.5	82.8	129.1	
8.	218.8	201.7	51.7	57.7	86.5	71.8	140.9	
9.	240.5	213.6	49.0	61.8	83.0	96.8	111.4	
10.	211.9	232.8	55.7	64.1	65.8	113.2	116.5	
AVG	209.8	220.0	52	63	76.9	92.8	122.7	

SECTION D-4

Geotextile - 16-Ounce

SUMMARY OF GEOTEXTILE (16 OUNCE) CONFORMANCE TEST RESULTS

ETM
TRAIL RIDGE 3RD INCREMENT CQA
FLORIDA

TEST DESCRIPTION	REFERENCE VALUE	ROLL DESIGNATION 6077A	6127A	6169A	6269A	6291A	6291A R	6317A	6333A	6372A	6495A
GRAB STRENGTH (lbs)	=>400	437.7	406.0	488.5	528.2	399.2	422.8	455.1	696.6	454.6	458.0
MD/TD (1)	=>400	755.8	735.1	803.6	776.9	658.2	-	753.8	413.0	725.9	749.7
ASTM D4632											
GRAB ELONGATION	=>50	81	87	81	91	73	82	84	84	80	81
(%)	=>50	73	73	75	96	67	-	74	83	81	71
ASTM D4632											
TRAPEZOIDAL TEAR STRENGTH	=>150	175.6	174.2	196.9	208.0	172.5	-	190.1	178.8	191.4	195.7
(lbs) MD/TD (1)	=>150	330.2	317.5	330.2	321.4	288.4	-	352.5	334.0	317.2	303.3
ASTM D4533											
MASS/UNIT AREA (oz/yd^2)	=>16	18.0	17.5	17.9	19.6	17.9	-	18.1	18.1	18.6	18.3
ASTM D5261											
PUNCTURE STRENGTH (lbs)	=>195	296.6	280.5	311.8	299.2	305.4	-	300.9	285.9	285.5	318.3
ASTM D4833											
APPARENT OPENING SIZE (mm)	<=0.70	0.093	0.087	0.100	0.090	0.090	-	0.090	0.090	0.084	0.090
(U.S. SIEVE NO.)	=>100	140	170	140	170	170	-	170	170	170	170
ASTM D4751											
PERMITTIVITY (sec-1)	=>0.53	-	-	-	-	-	-	-	-	-	-
PERMEABILITY (cm/sec) (2)	=>0.25	-	-	-	-	-	-	-	-	-	-
FLOW RATE ($gal/min/ft^2$)	=>40	-	-	-	-	-	-	-	-	-	-
ASTM D 4491											

(1) MD/TD corresponds to Machine Direction / Transverse Direction.
(2) Permeability calculated by multiplying measured thickness by permittivity.

TESTSUM

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT CQA/FL
ROLL DESIGNATION: 6077A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.090	-	16.30
2.	0.090	-	18.56
3.	0.090	-	19.66
4.	0.090	-	19.63
5.	0.106		18.66
6.			17.12
7.	0.093	0.00	17.43
8.			17.59
9.	EQUIVALENT	PERMEABILITY FLOW RATE	17.70
10.	SIEVE SIZE		17.27
AVG	140	- -	18.0

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	381.1	758.4	76.6	71.2	155.5	274.2	299.5	299.7
2.	431.4	805.9	78.1	73.1	181.2	352.5	344.7	309.3
3.	427.2	867.4	77.0	75.9	172.0	297.5	291.5	283.5
4.	462.5	712.7	83.5	71.1	177.2	294.0	318.5	325.4
5.	461.7	824.2	80.1	78.8	174.5	351.0	250.6	272.1
6.	494.0	695.0	82.6	74.2	183.7	372.2	311.0	
7.	415.8	751.7	82.1	72.8	169.5	342.5	290.3	
8.	454.0	741.5	81.7	70.0	218.2	338.7	253.7	
9.	416.6	723.0	83.5	72.8	181.2	327.7	300.7	
10.	432.2	678.4	85.4	68.8	143.2	351.5	298.1	
AVG	437.7	755.8	81	73	175.6	330.2	296.6	

JULY 2000 003-3979

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT CQA/FL
ROLL DESIGNATION: 6127A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.075	-	15.93
2.	0.090	-	17.47
3.	0.090	-	17.36
4.	0.090	-	17.76
5.	0.090		16.22
6.			17.70
7.	0.087	0.00	17.43
8.			16.97
9.	EQUIVALENT	PERMEABILITY FLOW RATE	20.10
10.	SIEVE SIZE		18.20
AVG	170	- -	17.5

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	443.1	803.0	88.2	75.1	182.5	325.5	225.0	247.9
2.	381.1	673.3	93.6	69.9	185.7	356.5	259.9	274.4
3.	429.1	756.0	88.6	74.5	174.0	371.5	273.0	270.1
4.	420.8	658.3	84.9	73.9	168.0	302.0	304.3	347.1
5.	437.7	667.4	84.9	68.3	160.0	259.7	250.5	280.8
6.	394.0	726.4	96.0	70.6	171.0	306.2	305.6	
7.	370.7	764.6	95.4	73.7	179.7	372.0	244.4	
8.	390.1	752.5	75.8	71.1	162.5	295.5	291.9	
9.	389.9	712.5	81.2	74.3	172.2	271.0	325.2	
10.	403.2	836.8	83.5	78.5	186.2	315.5	307.0	
AVG	406.0	735.1	87	73	174.2	317.5	280.5	

JULY 2000 003-3979

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT COA/FL
ROLL DESIGNATION: 6169A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.106	-	17.81
2.	0.106	-	18.71
3.	0.090	-	18.60
4.	0.090	-	17.69
5.	0.106		17.21
6.			17.16
7.	0.100	0.00	18.27
8.			17.98
9.	EQUIVALENT	PERMEABILITY	FLOW RATE 17.56
10.	SIEVE SIZE		18.14
AVG	140	-	- 17.9

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	479.7	879.2	82.6	75.9	178.0	291.5	313.8	303.8
2.	496.4	906.6	84.7	69.7	202.5	325.2	308.5	285.5
3.	437.7	836.2	74.9	75.8	199.0	326.7	317.2	292.8
4.	498.3	801.1	81.8	71.0	179.7	345.5	344.0	327.2
5.	549.8	863.6	79.1	82.0	206.2	373.7	301.5	331.9
6.	540.1	660.4	76.1	74.6	189.5	290.2	294.5	
7.	470.6	678.7	79.0	71.5	212.2	329.0	317.3	
8.	447.1	796.2	80.5	77.2	206.7	344.0	326.3	
9.	491.5	776.1	88.0	74.6	184.7	309.7	316.4	
10.	473.8	838.1	86.6	74.4	210.7	366.0	295.6	
AVG	488.5	803.6	81	75	196.9	330.2	311.8	

JULY 2000 003-3979

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT COA/FL
ROLL DESIGNATION: 6269A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.090	-	20.34
2.	0.090	-	18.95
3.	0.090	-	19.28
4.	0.090	-	19.35
5.	0.090		19.48
6.			19.83
7.	0.090	0.00	19.64
8.			19.70
9.	EQUIVALENT SIEVE SIZE	PERMEABILITY	FLOW RATE 20.03
10.			19.72
AVG	170	-	- 19.6

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	493.7	857.4	91.1	61.6	224.5	334.0	337.4	287.1
2.	458.4	713.8	77.7	119.5	205.7	360.7	317.2	302.8
3.	534.5	821.2	89.7	123.5	216.5	294.2	317.3	298.3
4.	572.6	771.0	118.0	74.8	244.7	360.7	307.0	341.3
5.	568.1	620.9	86.0	72.5	203.0	265.2	278.5	337.0
6.	616.1	754.4	85.4	104.4	204.7	328.5	259.2	
7.	589.3	831.9	98.1	143.9	192.5	354.0	208.5	
8.	501.7	787.4	79.8	73.5	181.7	278.7	280.0	
9.	498.5	767.2	83.7	76.7	194.5	324.0	298.8	
10.	449.5	844.0	104.4	106.3	212.5	313.7	317.0	
AVG	528.2	776.9	91	96	208.0	321.4	299.2	

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT COA/FL
ROLL DESIGNATION: 6291A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.090	-	18.05
2.	0.090	-	17.89
3.	0.090	-	17.45
4.	0.090	-	17.19
5.	0.090		16.75
6.			18.73
7.	0.090	0.00	18.88
8.			18.14
9.	EQUIVALENT	PERMEABILITY FLOW RATE	18.13
10.	SIEVE SIZE		17.59
AVG	170	- -	17.9

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	381.2	655.3	60.7	52.9	160.2	323.7	344.2	285.4
2.	396.2	710.3	70.6	76.1	170.2	246.2	345.9	303.5
3.	425.2	659.9	78.5	62.3	173.5	259.5	317.4	281.3
4.	420.3	690.5	73.1	71.0	153.2	357.5	303.6	291.4
5.	456.9	609.9	71.3	72.1	181.5	285.5	297.0	318.1
6.	387.4	718.9	78.3	66.9	202.0	309.0	309.7	
7.	411.8	626.0	71.5	61.5	160.7	290.2	323.5	
8.	428.2	707.1	77.2	66.3	169.7	261.2	255.8	
9.	343.0	607.0	84.1	65.2	174.2	287.5	309.7	
10.	342.1	597.3	64.2	74.2	180.0	263.2	294.1	
AVG	399.2	658.2	73	67	172.5	288.4	305.4	

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT COA/FL
ROLL DESIGNATION: 6291A R

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	-	-	-
2.	-	-	-
3.	-	-	-
4.	-	-	-
5.	-		-
6.			-
7.	0.000	0.00	-
8.			-
9.	EQUIVALENT	PERMEABILITY FLOW RATE	-
10.	SIEVE SIZE		-
AVG	0	- -	0.0

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	415.2	-	77.1	-	-	-	-	-
2.	411.0	-	75.3	-	-	-	-	-
3.	403.7	-	80.3	-	-	-	-	-
4.	358.2	-	73.0	-	-	-	-	-
5.	487.5	-	85.0	-	-	-	-	-
6.	463.7	-	101.3	-	-	-	-	
7.	397.5	-	82.7	-	-	-	-	
8.	413.5	-	85.0	-	-	-	-	
9.	454.0	-	83.3	-	-	-	-	
10.	424.0	-	74.3	-	-	-	-	
AVG	422.8	0.0	82	0	0.0	0.0	0.0	

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT CQA/FL
ROLL DESIGNATION: 6317A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.090	-	17.80
2.	0.090	-	17.47
3.	0.090	-	17.83
4.	0.090	-	17.69
5.	0.090		16.39
6.			19.19
7.	0.090	0.00	18.58
8.			18.89
9.	EQUIVALENT	PERMEABILITY FLOW RATE	18.18
10.	SIEVE SIZE		18.95
AVG	170	- -	18.1

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	454.4	815.0	83.9	77.4	181.5	380.0	258.7	288.3
2.	422.4	698.0	79.9	70.2	174.5	287.0	280.4	349.3
3.	467.1	688.9	88.4	66.2	229.5	334.0	271.4	336.6
4.	473.8	801.6	81.3	77.2	194.7	426.7	284.3	298.0
5.	462.7	790.9	76.5	80.0	219.0	364.5	289.9	287.2
6.	521.3	775.3	81.5	80.1	209.2	359.0	308.5	
7.	462.8	808.6	92.6	77.1	173.0	363.0	324.8	
8.	465.8	699.9	93.5	75.3	181.0	379.0	341.3	
9.	414.4	708.7	82.5	68.8	184.7	344.2	309.4	
10.	406.2	750.6	78.2	72.4	153.5	287.5	285.5	
AVG	455.1	753.8	84	74	190.1	352.5	300.9	

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT COA/FL
ROLL DESIGNATION: 6333A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.090	-	18.55
2.	0.090	-	19.55
3.	0.090	-	18.60
4.	0.090	-	18.78
5.	0.090		18.88
6.			16.74
7.	0.090	0.00	17.67
8.			17.52
9.	EQUIVALENT	PERMEABILITY FLOW RATE	17.49
10.	SIEVE SIZE		16.95
AVG	170	- -	18.1

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	680.5	423.9	81.8	84.5	208.5	353.0	276.5	275.3
2.	726.7	385.8	77.3	83.2	161.5	293.5	317.6	263.6
3.	680.8	410.5	75.0	87.2	178.2	332.0	328.2	303.2
4.	808.6	432.9	86.1	90.5	178.0	328.7	340.7	259.5
5.	809.9	437.3	134.0	83.5	187.7	326.7	302.5	274.4
6.	573.7	469.5	68.8	90.2	196.7	319.7	239.7	
7.	633.8	370.7	85.5	78.8	157.5	347.5	278.7	
8.	661.2	431.3	81.7	86.3	165.5	362.0	272.3	
9.	669.3	376.8	70.1	71.5	194.7	362.5	291.0	
10.	721.9	391.4	75.7	76.1	159.5	314.5	265.5	
AVG	696.6	413.0	84	83	178.8	334.0	285.9	

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GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT COA/FL
ROLL DESIGNATION: 6372A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.090	-	17.87
2.	0.075	-	19.15
3.	0.075	-	19.52
4.	0.090	-	18.93
5.	0.090		18.80
6.			17.47
7.	0.084	0.00	17.63
8.			18.25
9.	EQUIVALENT	PERMEABILITY FLOW RATE	19.46
10.	SIEVE SIZE		18.67
AVG	170	- -	18.6

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	421.6	694.5	80.3	70.2	204.7	297.7	281.1	247.1
2.	383.6	674.4	79.9	63.4	181.5	336.0	325.8	269.9
3.	455.0	776.9	78.2	78.5	158.2	262.5	313.7	294.6
4.	443.5	640.5	73.3	64.8	162.7	285.7	312.2	266.6
5.	459.3	675.7	75.6	67.2	197.2	295.0	316.1	264.4
6.	505.0	755.2	85.5	91.6	173.7	332.5	284.0	
7.	475.0	707.4	78.9	79.1	227.2	325.7	262.8	
8.	494.0	786.3	84.0	121.7	188.5	343.5	260.9	
9.	485.4	779.1	93.3	77.8	219.5	356.2	251.9	
10.	423.1	768.9	75.1	92.2	201.0	337.0	331.9	
AVG	454.6	725.9	80	81	191.4	317.2	285.5	

GEOTEXTILE TEST RESULTS

PROJECT NUMBER: 003-3979
PROJECT NAME: EMT/TRAIL RIDGE 3RD INCREMENT COA/FL
ROLL DESIGNATION: 6495A

	APPARENT OPENING SIZE (mm)	PERMITTIVITY (sec-1)	MASS PER UNIT AREA (oz/yd²)
1.	0.090	-	18.78
2.	0.090	-	19.39
3.	0.090	-	19.04
4.	0.090	-	18.82
5.	0.090		17.63
6.			17.52
7.	0.090	0.00	17.74
8.			18.02
9.	EQUIVALENT	PERMEABILITY	FLOW RATE 17.81
10.	SIEVE SIZE		18.05
VG	170	-	- 18.3

	GRAB STRENGTH (pounds)		GRAB ELONGATION (%)		TRAPEZOIDAL TEAR (pounds)		PUNCTURE STRENGTH (pounds)	
	MD	TD	MD	TD	MD	TD		
1.	462.1	779.6	84.3	71.1	184.0	290.7	313.0	316.6
2.	449.5	834.4	95.0	72.9	186.0	361.5	321.9	316.5
3.	489.7	826.0	76.6	70.3	193.0	312.7	321.9	324.7
4.	417.2	720.5	71.4	69.7	196.0	318.0	277.9	294.2
5.	475.7	796.8	81.9	72.6	180.7	290.2	348.7	313.8
6.	447.6	732.6	78.9	67.9	175.0	302.2	323.1	
7.	458.5	692.9	83.7	67.6	205.2	271.7	291.0	
8.	454.1	682.1	78.0	74.5	214.2	298.2	349.5	
9.	463.0	657.7	73.7	66.2	216.5	284.2	334.2	
10.	462.7	774.2	82.2	73.6	206.0	303.2	327.1	
AVG	458.0	749.7	81	71	195.7	303.3	318.3	

SECTION D-5

Geosynthetic Clay Liner

SUMMARY OF GEOSYNTHETIC CLAY LINER CONFORMANCE TEST RESULTS

ETM
TRAIL RIDGE 3RD INCREMENT CQA
FLORIDA

TEST DESCRIPTION	REFERENCE VALUE	ROLL DESIGNATION									
		04632	04710	07582	07622	07697	07715	07761	07804	07933	07954
BENTONITE CONTENT (lbs/ft²) (1) ASTM D5993	>=0.825	1.04	1.15	1.15	1.11	1.09	1.12	1.02	0.96	1.12	1.08
MOISTURE CONTENT (%) ASTM D2216	<=12	7.4	6.6	8.5	8.1	7.2	6.2	7.2	8.0	8.2	8.3
HYDRAULIC CONDUCTIVITY (cm/sec) ASTM D5084	<=5.0E-09	1.7E-09	-	3.6E-09	-	4.1E-09	-	-	4.1E-09	-	3.3E-09

(1) Average mass per unit area was adjusted to six percent moisture content and excludes the fabric weight.

7101GCL

SUMMARY OF GEOSYNTHETIC CLAY LINER CONFORMANCE TEST RESULTS

ETM
TRAIL RIDGE 3RD INCREMENT CQA
FLORIDA

TEST DESCRIPTION	REFERENCE VALUE	ROLL DESIGNATION									
		08004	08005	08006	98322	-	-	-	-	-	-
BENTONITE CONTENT (lbs/ft²) (1) ASTM D5993	>=0.825	-	1.04	-	1.16	-	-	-	-	-	-
MOISTURE CONTENT (%) ASTM D2216	<=12	-	7.9	-	8.0	-	-	-	-	-	-
HYDRAULIC CONDUCTIVITY (cm/sec) ASTM D5084	<=5.0E-09	4.4E-09	6.5E-09	3.0E-09	4.0E-09	-	-	-	-	-	-

(1) Average mass per unit area was adjusted to six percent moisture content and excludes the fabric weight.

7101GCL

JULY 2000 003-3979

GEOSYNTHETIC CLAY LINER

Project Name: ETM/TRAIL RIDGE 3RD INCREMENT CQA/FL

ROLL DESIGNATION: 04632

	BENTONITE CONTENT (lbs/ft²)	MOISTURE CONTENT (%)	HYDRAULIC CONDUCTIVITY (cm/sec)
1.	0.85	5.7	1.7E-09
2.	1.02	7.7	
3.	1.14	7.9	
4.	1.07	7.7	
5.	1.11	7.8	
AVG	1.04	7.4	1.7E-09

ROLL DESIGNATION: 04710

	BENTONITE CONTENT (lbs/ft²)	MOISTURE CONTENT (%)	HYDRAULIC CONDUCTIVITY (cm/sec)
1.	0.98	6.2	-
2.	1.09	7.2	
3.	1.43	6.5	
4.	1.13	5.7	
5.	1.10	7.2	
AVG	1.15	6.6	-

AUGUST 2000 003-3979

GEOSYNTHETIC CLAY LINER

Project Name: ETM/TRAIL RIDGE 3RD INCREMENT COA/FL

ROLL DESIGNATION: 07582

	BENTONITE CONTENT (lbs/ft²)	MOISTURE CONTENT (%)	HYDRAULIC CONDUCTIVITY (cm/sec)
1.	1.16	8.1	3.6E-09
2.	1.11	10.3	
3.	1.11	7.8	
4.	1.19	8.0	
5.	1.18	8.1	
AVG	1.15	8.5	3.6E-09

ROLL DESIGNATION: 07622

	BENTONITE CONTENT (lbs/ft²)	MOISTURE CONTENT (%)	HYDRAULIC CONDUCTIVITY (cm/sec)
1.	1.11	8.1	-
2.	1.05	8.1	
3.	1.07	8.1	
4.	1.14	8.0	
5.	1.17	8.0	
AVG	1.11	8.1	-

AUGUST 2000 003-3979

GEOSYNTHETIC CLAY LINER

Project Name: ETM/TRAIL RIDGE 3RD INCREMENT COA/FL

ROLL DESIGNATION: 07697

	BENTONITE CONTENT (lbs/ft²)	MOISTURE CONTENT (%)	HYDRAULIC CONDUCTIVITY (cm/sec)
1.	1.12	7.2	4.1E-09
2.	1.15	7.2	
3.	1.01	7.0	
4.	1.04	7.1	
5.	1.12	7.5	
AVG	1.09	7.2	4.1E-09

ROLL DESIGNATION: 07715

	BENTONITE CONTENT (lbs/ft²)	MOISTURE CONTENT (%)	HYDRAULIC CONDUCTIVITY (cm/sec)
1.	1.05	6.1	-
2.	1.10	6.3	
3.	1.17	6.3	
4.	1.15	6.1	
5.	1.11	6.2	
AVG	1.12	6.2	-

AUGUST 2000 003-3979

GEOSYNTHETIC CLAY LINER

Project Name: ETM/TRAIL RIDGE 3RD INCREMENT COA/FL

ROLL DESIGNATION: 07761

	BENTONITE CONTENT (lbs/ft²)	MOISTURE CONTENT (%)	HYDRAULIC CONDUCTIVITY (cm/sec)
1.	1.04	7.3	-
2.	1.09	7.3	
3.	1.01	7.2	
4.	1.00	7.2	
5.	0.96	7.2	
AVG	1.02	7.2	-

ROLL DESIGNATION: 07804

	BENTONITE CONTENT (lbs/ft²)	MOISTURE CONTENT (%)	HYDRAULIC CONDUCTIVITY (cm/sec)
1.	0.93	7.9	4.1E-09
2.	0.94	8.1	
3.	0.97	8.0	
4.	1.01	8.0	
5.	0.93	7.8	
AVG	0.96	8.0	4.1E-09

AUGUST 2000 003-3979

GEOSYNTHETIC CLAY LINER

Project Name: ETM/TRAIL RIDGE 3RD INCREMENT COA/FL

ROLL DESIGNATION: 07933

	BENTONITE CONTENT (lbs/ft²)	MOISTURE CONTENT (%)	HYDRAULIC CONDUCTIVITY (cm/sec)
1.	1.19	8.1	-
2.	1.05	8.2	
3.	1.24	8.2	
4.	0.96	8.2	
5.	1.18	8.2	
AVG	1.12	8.2	-

ROLL DESIGNATION: 07954

	BENTONITE CONTENT (lbs/ft²)	MOISTURE CONTENT (%)	HYDRAULIC CONDUCTIVITY (cm/sec)
1.	1.13	8.2	3.3E-09
2.	1.05	8.4	
3.	1.06	8.4	
4.	1.08	8.3	
5.	1.08	8.4	
AVG	1.08	8.3	3.3E-09

AUGUST 2000 003-3979

GEOSYNTHETIC CLAY LINER

Project Name: ETM/TRAIL RIDGE 3RD INCREMENT CQA/FL

ROLL DESIGNATION: 08004

	BENTONITE CONTENT (lbs/ft²)	MOISTURE CONTENT (%)	HYDRAULIC CONDUCTIVITY (cm/sec)
1.	-	-	4.4E-09
2.	-	-	
3.	-	-	
4.	-	-	
5.	-	-	
AVG	0.00	0.0	4.4E-09

ROLL DESIGNATION: 08005

	BENTONITE CONTENT (lbs/ft²)	MOISTURE CONTENT (%)	HYDRAULIC CONDUCTIVITY (cm/sec)
1.	1.05	7.9	6.5E-09
2.	1.05	7.9	
3.	1.03	7.9	
4.	1.01	7.9	
5.	1.07	7.9	
AVG	1.04	7.9	6.5E-09

SEPTEMBER 2000 003-3979

GEOSYNTHETIC CLAY LINER

Project Name: ETM/TRAIL RIDGE 3RD INCREMENT CQA/FL

ROLL DESIGNATION: 08006

	BENTONITE CONTENT (lbs/ft²)	MOISTURE CONTENT (%)	HYDRAULIC CONDUCTIVITY (cm/sec)
1.	-	-	3.0E-09
2.	-	-	
3.	-	-	
4.	-	-	
5.	-	-	
AVG	0.00	0.0	3.0E-09

ROLL DESIGNATION: 98322

	BENTONITE CONTENT (lbs/ft²)	MOISTURE CONTENT (%)	HYDRAULIC CONDUCTIVITY (cm/sec)
1.	1.24	8.0	4.0E-09
2.	1.28	7.5	
3.	1.05	8.2	
4.	1.17	8.2	
5.	1.07	8.0	
AVG	1.16	8.0	4.0E-09

APPENDIX E

Manufacturer's QC Certificates

SECTION E-1

Geomembrane

SERROT INTERNATIONAL, INC. CERTIFICATE OF QUALITY ASSURANCE

PROJECT NAME: WMI/Trail Ridge LF **JOB #:**10379

MATERIAL TYPE: 60 mil HDPE **SALES ORDER #:** 5135

TEST DESCRIPTION		AVERAGE THICKNESS	MINIMUM THICKNESS	TENSILE @ YIELD	TENSILE @ BREAK	ELONG. @ YIELD	ELONG. @ BREAK	TEAR	PUNCTURE	CARBON BLACK	CARBON BLACK DISPERSION	DENSITY	MELT FLOW INDEX	DIMENSIONAL STABILITY	LOW TEMP. BRITTLENESS	WATER VAPOR TRANSMISSION	STRESS CRACK RESISTANCE
TEST METHOD		D5199	D5199	D638	D638	D638	D638	D1004	D4833	D4218	D5596	D792	D1238	D1204	D746	E96-80	D5397
(modifications)						NSF											App. A
FREQUENCY		Every Roll	Every Roll	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	Batch	Batch	Certified	Certified	Batch
UNITS		mils	mils	ppi	ppi	%	%	lb	lb	%		g/cc	g/10 min	%		g/m2 day	hr
SPECIFICATION		60	54	126	228	12	700	42	108	2.0 - 3.0	Cat. 1 or 2	0.94 min.	<1.0	± 2	-60° C	0.24	>200
ROLL #	LOT/BLEND																
1912075	8100495	64.7	58	158	301	20	859	52	135	2.54	Cat1	0.947	0.203	-0.15	Pass	< 0.24	>200
1912076	8100495	63.5	57	158	301	20	859	52	135	2.54	Cat1	0.947	0.203	-0.15	Pass	< 0.24	>200
1912077	8100495	64.4	58	156	295	20	860	52	135	2.50	Cat1	0.944	0.203	-0.15	Pass	< 0.24	>200
1912078	8100495	63.0	56	156	295	20	860	52	135	2.50	Cat1	0.944	0.203	-0.15	Pass	< 0.24	>200
1912079	8100495	62.4	56	155	293	19	854	52	138	2.50	Cat1	0.944	0.203	-0.15	Pass	< 0.24	>200
1912080	8100495	62.2	56	155	293	19	854	52	138	2.50	Cat1	0.944	0.203	-0.15	Pass	< 0.24	>200
1912081	8100495	61.4	56	161	308	20	880	51	139	2.47	Cat1	0.947	0.203	-0.15	Pass	< 0.24	>200
1912082	8100495	61.9	56	161	308	20	880	51	139	2.47	Cat1	0.947	0.203	-0.15	Pass	< 0.24	>200
1912083	8100495	61.2	55	155	289	20	844	51	137	2.47	Cat1	0.947	0.203	-0.15	Pass	< 0.24	>200
1912084	8100495	60.9	55	155	289	20	844	51	137	2.47	Cat1	0.947	0.203	-0.15	Pass	< 0.24	>200
1912085	8100495	60.8	56	161	305	19	868	52	143	2.59	Cat1	0.946	0.203	-0.15	Pass	< 0.24	>200
1912086	8100495	61.7	56	161	305	19	868	52	143	2.59	Cat1	0.946	0.203	-0.15	Pass	< 0.24	>200
1912087	8100495	61.5	55	154	303	21	863	51	138	2.59	Cat1	0.946	0.203	-0.15	Pass	< 0.24	>200
1912093	8100495	61.5	55	158	304	20	861	51	136	2.52	Cat1	0.943	0.203	-0.15	Pass	< 0.24	>200
1912094	8100495	61.0	54	158	304	20	861	51	136	2.52	Cat1	0.943	0.203	-0.15	Pass	< 0.24	>200
1912095	8100495	60.7	55	152	299	20	862	50	133	2.52	Cat1	0.943	0.203	-0.15	Pass	< 0.24	>200
1912096	8100495	60.7	54	152	299	20	862	50	133	2.52	Cat1	0.943	0.203	-0.15	Pass	< 0.24	>200
1912097	8100495	60.8	55	155	286	19	832	50	136	2.53	Cat1	0.946	0.203	-0.15	Pass	< 0.24	>200
1912098	8100495	60.1	55	155	286	19	832	50	136	2.53	Cat1	0.946	0.203	-0.15	Pass	< 0.24	>200

Certified By: Sheri Johnson

Quality Control Laboratory Supervisor or Manager 7/28/00

SERROT INTERNATIONAL, INC. CERTIFICATE OF QUALITY ASSURANCE

TEST DESCRIPTION		AVERAGE THICKNESS	MINIMUM THICKNESS	TENSILE @ YIELD	TENSILE @ BREAK	ELONG. @ YIELD	ELONG. @ BREAK	TEAR	PUNCTURE	CARBON BLACK	CARBON BLACK DISPERSION	DENSITY	MELT FLOW INDEX	DIMENSIONAL STABILITY	LOW TEMP. BRITTLENESS	WATER VAPOR TRANSMISSION	STRESS CRACK RESISTANCE
TEST METHOD		D5199	D5199	D638	D638	D638	D638	D1004	D4833	D4218	D5596	D792	D1238	D1204	D746	E96-80	D5397
(modifications)						NSF											App. A
FREQUENCY		Every Roll	Every Roll	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	Batch	Batch	Certified	Certified	Batch
UNITS		mils	mils	ppi	ppi	%	%	lb	lb	%		g/cc	g/10 min	%		g/m2 day	hr
SPECIFICATION		60	54	126	228	12	700	42	108	2.0 - 3.0	Cat. 1 or 2	0.94 min.	<1.0	± 2	-60° C	0.24	>200
ROLL #	LOT/BLEND																
1912099	8100495	60.6	55	144	288	20	865	49	133	2.53	Cat1	0.946	0.203	-0.15	Pass	< 0.24	>200
1912100	8100495	60.8	55	144	288	20	865	49	133	2.53	Cat1	0.946	0.203	-0.15	Pass	< 0.24	>200
1912113	8100495	62.3	58	158	294	21	839	51	141	2.39	Cat1	0.943	0.203	-0.15	Pass	< 0.24	>200
1912114	8100495	62.3	58	158	294	21	839	51	141	2.39	Cat1	0.943	0.203	-0.15	Pass	< 0.24	>200
1912115	8100495	61.3	57	151	264	20	765	49	136	2.39	Cat1	0.943	0.203	-0.15	Pass	< 0.24	>200
1912116	8100495	61.4	57	151	264	20	765	49	136	2.39	Cat1	0.943	0.203	-0.15	Pass	< 0.24	>200
1912117	8100495	61.4	57	150	287	19	849	48	134	2.59	Cat1	0.947	0.203	-0.15	Pass	< 0.24	>200
1912118	8100495	61.3	57	150	287	19	849	48	134	2.59	Cat1	0.947	0.203	-0.15	Pass	< 0.24	>200
1912119	8100495	61.0	56	149	289	20	864	48	133	2.59	Cat1	0.947	0.203	-0.15	Pass	< 0.24	>200
1912120	8100495	61.6	57	149	289	20	864	48	133	2.59	Cat1	0.947	0.203	-0.15	Pass	< 0.24	>200
1912121	8100495	61.3	57	150	292	20	856	49	138	2.66	Cat1	0.943	0.203	-0.15	Pass	< 0.24	>200
1912122	8100495	61.7	57	150	292	20	856	49	138	2.66	Cat1	0.943	0.203	-0.15	Pass	< 0.24	>200
1912123	8100495	61.6	58	153	298	19	853	50	132	2.66	Cat1	0.943	0.203	-0.15	Pass	< 0.24	>200
1912124	8100495	61.4	56	153	298	19	853	50	132	2.66	Cat1	0.943	0.203	-0.15	Pass	< 0.24	>200
1912125	8100495	61.5	56	156	285	19	818	50	142	2.60	Cat1	0.946	0.203	-0.15	Pass	< 0.24	>200
1912126	8100495	61.3	56	156	285	19	818	50	142	2.60	Cat1	0.946	0.203	-0.15	Pass	< 0.24	>200
1912127	8100495	61.3	56	154	288	19	822	50	138	2.60	Cat1	0.946	0.203	-0.15	Pass	< 0.24	>200
1912128	8100495	61.2	56	154	288	19	822	50	138	2.60	Cat1	0.946	0.203	-0.15	Pass	< 0.24	>200
1912129	8100495	61.7	56	153	284	18	813	51	139	2.61	Cat1	0.944	0.203	-0.15	Pass	< 0.24	>200
1912130	8100495	61.2	56	153	284	18	813	51	139	2.61	Cat1	0.944	0.203	-0.15	Pass	< 0.24	>200
1912131	8100495	60.8	55	159	284	20	792	52	143	2.61	Cat1	0.944	0.203	-0.15	Pass	< 0.24	>200
1912132	8100495	61.4	57	159	284	20	792	52	143	2.61	Cat1	0.944	0.203	-0.15	Pass	< 0.24	>200

Certified By: Sheri Johnson
Quality Control Laboratory Supervisor or Manager 7/28/00

SERROT INTERNATIONAL, INC. CERTIFICATE OF QUALITY ASSURANCE

TEST DESCRIPTION		AVERAGE THICKNESS	MINIMUM THICKNESS	TENSILE @ YIELD	TENSILE @ BREAK	ELONG. @ YIELD	ELONG. @ BREAK	TEAR	PUNCTURE	CARBON BLACK	CARBON BLACK DISPERSION	DENSITY	MELT FLOW INDEX	DIMENSIONAL STABILITY	LOW TEMP. BRITTLENESS	WATER VAPOR TRANSMISSION	STRESS CRACK RESISTANCE
TEST METHOD		D5199	D5199	D638	D638	D638	D638	D1004	D4833	D4218	D5596	D792	D1238	D1204	D746	E96-80	D5397
(modifications)						NSF											App. A
FREQUENCY		Every Roll	Every Roll	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	Batch	Batch	Certified	Certified	Batch
UNITS		mils	mils	ppi	ppi	%	%	lb	lb	%		g/cc	g/10 min	%		g/m2 day	hr
SPECIFICATION		60	54	126	228	12	700	42	108	2.0 - 3.0	Cat. 1 or 2	0.94 min.	<1.0	± 2	-60° C	0.24	>200
ROLL #	LOT/BLEND																
1912133	8100495	61.1	56	153	280	20	800	51	140	2.51	Cat1	0.946	0.203	-0.15	Pass	< 0.24	>200
1912134	8100495	61.6	56	153	280	20	800	51	140	2.51	Cat1	0.946	0.203	-0.15	Pass	< 0.24	>200
1912135	8100495	61.2	56	161	293	19	833	51	137	2.51	Cat1	0.946	0.203	-0.15	Pass	< 0.24	>200

Certified By: Jeri Johnson
Quality Control Laboratory Supervisor or Manager 7/28/00

SERROT INTERNATIONAL, INC. CERTIFICATE OF QUALITY ASSURANCE

PROJECT NAME: WMI/Trail Ridge LF
JOB #:10379
MATERIAL TYPE: 60 mil HDPE
SALES ORDER #: 5135

TEST DESCRIPTION		AVERAGE THICKNESS	MINIMUM THICKNESS	TENSILE @ YIELD	TENSILE @ BREAK	ELONG. @ YIELD	ELONG. @ BREAK	TEAR	PUNCTURE	CARBON BLACK	CARBON BLACK DISPERSION	DENSITY	MELT FLOW INDEX	DIMENSIONAL STABILITY	LOW TEMP. BRITTLENESS	WATER VAPOR TRANSMISSION	STRESS CRACK RESISTANCE
TEST METHOD		D5199	D5199	D638	D638	D638	D638	D1004	D4833	D4218	D5596	D792	D1238	D1204	D746	E96-80	D5397
(modifications)						NSF											App. A
FREQUENCY		Every Roll	Every Roll	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	Batch	Batch	Certified	Certified	Batch
UNITS		mils	mils	ppi	ppi	%	%	lb	lb	%		g/cc	g/10 min	%		g/m2 day	hr
SPECIFICATION		60	54	126	228	12	700	42	108	2.0 - 3.0	Cat. 1 or 2	0.94 min.	<1.0	± 2	-60° C	0.24	>200
ROLL #	LOT/BLEND																
1912247	8191187	60.6	56	162	303	19	841	51	153	2.41	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912248	8191187	61.4	57	162	303	19	841	51	153	2.41	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912249	8191187	61.5	57	160	293	19	820	51	139	2.31	Cat1	0.943	0.230	-0.18	Pass	< 0.24	>200
1912250	8191187	60.8	56	160	293	19	820	51	139	2.31	Cat1	0.943	0.230	-0.18	Pass	< 0.24	>200
1912251	8191187	61.5	57	155	288	20	821	52	134	2.39	Cat1	0.943	0.230	-0.18	Pass	< 0.24	>200
1912253	8191187	61.7	57	153	293	20	874	50	135	2.63	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912254	8191187	61.2	57	153	293	20	874	50	135	2.63	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912255	8191187	60.8	57	148	298	21	880	49	132	2.80	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912256	8191187	61.3	58	148	298	21	880	49	132	2.80	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912257	8191187	60.9	57	146	291	20	863	49	126	2.62	Cat1	0.944	0.230	-0.18	Pass	< 0.24	>200
1912258	8191187	60.8	56	146	291	20	863	49	126	2.62	Cat1	0.944	0.230	-0.18	Pass	< 0.24	>200
1912259	8191187	60.5	58	146	291	21	859	49	126	2.66	Cat1	0.944	0.230	-0.18	Pass	< 0.24	>200
1912260	8191187	61.0	57	146	291	21	859	49	126	2.66	Cat1	0.944	0.230	-0.18	Pass	< 0.24	>200
1912261	8191187	60.5	55	154	297	19	865	50	136	2.71	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912262	8191187	60.2	55	154	297	19	865	50	136	2.71	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912263	8191187	60.6	56	150	294	20	850	49	135	2.61	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912264	8191187	60.5	56	150	294	20	850	49	135	2.61	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912265	8191187	60.6	57	159	296	19	837	51	141	2.68	Cat1	0.945	0.230	-0.18	Pass	< 0.24	>200
1912266	8191187	60.1	55	159	296	19	837	51	141	2.68	Cat1	0.945	0.230	-0.18	Pass	< 0.24	>200

Certified By: Sheri Johnson
Quality Control Laboratory Supervisor or Manager 8/2/00

SERROT INTERNATIONAL, INC. CERTIFICATE OF QUALITY ASSURANCE

TEST DESCRIPTION		AVERAGE THICKNESS	MINIMUM THICKNESS	TENSILE @ YIELD	TENSILE @ BREAK	ELONG. @ YIELD	ELONG. @ BREAK	TEAR	PUNCTURE	CARBON BLACK	CARBON BLACK DISPERSION	DENSITY	MELT FLOW INDEX	DIMENSIONAL STABILITY	LOW TEMP. BRITTLENESS	WATER VAPOR TRANSMISSION	STRESS CRACK RESISTANCE
TEST METHOD		D5199	D5199	D638	D638	D638	D638	D1004	D4833	D4218	D5596	D792	D1238	D1204	D746	E96-80	D5397
(modifications)						NSF											App. A
FREQUENCY		Every Roll	Every Roll	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	Batch	Batch	Certified	Certified	Batch
UNITS		mils	mils	ppi	ppi	%	%	lb	lb	%		g/cc	g/10 min	%		g/m2 day	hr
SPECIFICATION		60	54	126	228	12	700	42	108	2.0 - 3.0	Cat. 1 or 2	0.94 min.	<1.0	± 2	-60° C	0.24	>200
ROLL #	LOT/BLEND																
1912267	8191187	60.5	55	156	293	19	827	52	138	2.70	Cat1	0.945	0.230	-0.18	Pass	< 0.24	>200
1912268	8191187	61.0	56	156	293	19	827	52	138	2.70	Cat1	0.945	0.230	-0.18	Pass	< 0.24	>200
1912269	8191187	61.0	56	156	288	19	815	51	139	2.62	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912270	8191187	60.8	57	156	288	19	815	51	139	2.62	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912271	8191187	60.6	56	157	306	20	848	52	140	2.53	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912272	8191187	60.3	56	157	306	20	848	52	140	2.53	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912273	8191187	60.4	56	149	303	20	846	51	138	2.50	Cat1	0.945	0.230	-0.18	Pass	< 0.24	>200
1912274	8191187	60.6	56	149	303	20	846	51	138	2.50	Cat1	0.945	0.230	-0.18	Pass	< 0.24	>200
1912275	8191187	60.9	57	149	297	21	845	50	141	2.44	Cat1	0.945	0.230	-0.18	Pass	< 0.24	>200
1912276	8191187	60.5	58	149	297	21	845	50	141	2.44	Cat1	0.945	0.230	-0.18	Pass	< 0.24	>200
1912277	8191187	60.3	56	150	298	19	863	49	146	2.63	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912278	8191187	60.8	57	150	298	19	863	49	146	2.63	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912279	8191187	60.1	57	149	291	20	849	49	142	2.57	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912280	8191187	60.8	57	149	291	20	849	49	142	2.57	Cat1	0.946	0.230	-0.18	Pass	< 0.24	>200
1912281	8191187	60.8	57	146	297	20	880	49	144	2.61	Cat1	0.944	0.230	-0.18	Pass	< 0.24	>200
1912282	8191187	61.1	57	146	297	20	880	49	144	2.61	Cat1	0.944	0.230	-0.18	Pass	< 0.24	>200
1912283	8191187	60.8	57	153	302	20	889	49	141	2.48	Cat1	0.944	0.230	-0.18	Pass	< 0.24	>200
1912284	8191187	60.9	57	153	302	20	889	49	141	2.48	Cat1	0.944	0.230	-0.18	Pass	< 0.24	>200
1912285	8191187	60.9	57	152	293	21	860	49	146	2.59	Cat1	0.943	0.230	-0.18	Pass	< 0.24	>200
1912286	8191187	61.2	57	152	293	21	860	49	146	2.59	Cat1	0.943	0.230	-0.18	Pass	< 0.24	>200

Certified By: Sheri Johnson
Quality Control Laboratory Supervisor or Manager 8/2/00

SERROT INTERNATIONAL, INC. CERTIFICATE OF QUALITY ASSURANCE

PROJECT NAME: WMI/Trail Ridge LF
MATERIAL TYPE: 60 mil HDPE

JOB #:10379
SALES ORDER #: 5135

TEST DESCRIPTION		AVERAGE THICKNESS	MINIMUM THICKNESS	TENSILE @ YIELD	TENSILE @ BREAK	ELONG. @ YIELD	ELONG. @ BREAK	TEAR	PUNCTURE	CARBON BLACK	CARBON BLACK DISPERSION	DENSITY	MELT FLOW INDEX	DIMENSIONAL STABILITY	LOW TEMP. BRITTLENESS	WATER VAPOR TRANSMISSION	STRESS CRACK RESISTANCE
TEST METHOD		D5199	D5199	D638	D638	D638	D638	D1004	D4833	D4218	D5596	D792	D1238	D1204	D746	E96-80	D5397
(modifications)						NSF											App. A
FREQUENCY		Every Roll	Every Roll	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	Batch	Batch	Certified	Certified	Batch
UNITS		mils	mils	ppi	ppi	%	%	lb	lb	%		g/cc	g/10 min	%		g/m2 day	hr
SPECIFICATION		60	54	126	228	12	700	42	108	2.0 - 3.0	Cat. 1 or 2	0.94 min.	<1.0	± 2	-60° C	0.24	>200
ROLL #	LOT/BLEND																
1912395	8100513	61.3	59	151	276	20	799	50	135	2.46	Cat1	0.943	0.336	-0.10	Pass	< 0.24	>200
1912409	8100513	61.7	57	161	283	19	808	51	132	2.63	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912410	8100513	61.3	58	161	283	19	808	51	132	2.48	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912411	8100513	61.7	58	153	275	19	805	50	134	2.48	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912412	8100513	61.6	58	153	275	19	805	50	134	2.56	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912413	8100513	62.0	58	154	277	19	810	50	137	2.41	Cat1	0.946	0.336	-0.10	Pass	< 0.24	>200
1912414	8100513	61.2	57	154	277	19	810	50	137	2.41	Cat1	0.946	0.336	-0.10	Pass	< 0.24	>200
1912416	8100513	60.9	57	145	284	21	840	49	134	2.57	Cat1	0.946	0.336	-0.10	Pass	< 0.24	>200
1912417	8100513	60.3	58	146	281	21	829	49	136	2.38	Cat1	0.944	0.336	-0.10	Pass	< 0.24	>200
1912418	8100513	61.0	58	146	281	21	829	49	136	2.38	Cat1	0.944	0.336	-0.10	Pass	< 0.24	>200
1912419	8100513	60.7	57	152	293	20	848	50	142	2.38	Cat1	0.944	0.336	-0.10	Pass	< 0.24	>200
1912420	8100513	60.8	57	152	293	20	848	50	142	2.38	Cat1	0.944	0.336	-0.10	Pass	< 0.24	>200
1912421	8100513	60.8	57	150	291	20	837	51	142	2.48	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912422	8100513	60.7	57	150	291	20	837	51	142	2.48	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912423	8100513	61.1	58	150	279	21	811	51	144	2.48	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912424	8100513	61.2	57	150	279	21	811	51	144	2.48	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912425	8100513	60.7	57	154	293	20	834	51	137	2.64	Cat1	0.945	0.336	-0.10	Pass	< 0.24	>200
1912426	8100513	60.9	57	154	293	20	834	51	137	2.64	Cat1	0.945	0.336	-0.10	Pass	< 0.24	>200
1912427	8100513	60.8	57	153	285	20	809	51	134	2.64	Cat1	0.945	0.336	-0.10	Pass	< 0.24	>200

Certified By: Sal Sorrini
Quality Control Laboratory Supervisor or Manager 8/9/00

SERROT INTERNATIONAL, INC. CERTIFICATE OF QUALITY ASSURANCE

TEST DESCRIPTION		AVERAGE THICKNESS	MINIMUM THICKNESS	TENSILE @ YIELD	TENSILE @ BREAK	ELONG. @ YIELD	ELONG. @ BREAK	TEAR	PUNCTURE	CARBON BLACK	CARBON BLACK DISPERSION	DENSITY	MELT FLOW INDEX	DIMENSIONAL STABILITY	LOW TEMP. BRITTLENESS	WATER VAPOR TRANSMISSION	STRESS CRACK RESISTANCE
TEST METHOD		D5199	D5199	D638	D638	D638	D638	D1004	D4833	D4218	D5596	D792	D1238	D1204	D746	E96-80	D5397
(modifications)						NSF											App. A
FREQUENCY		Every Roll	Every Roll	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	Batch	Batch	Certified	Certified	Batch
UNITS		mils	mils	ppi	ppi	%	%	lb	lb	%		g/cc	g/10 min	%		g/m2 day	hr
SPECIFICATION		60	54	126	228	12	700	42	108	2.0 - 3.0	Cat. 1 or 2	0.94 min.	<1.0	± 2	-60° C	0.24	>200
ROLL #	LOT/BLEND																
1912428	8100513	60.4	57	153	285	20	809	51	134	2.64	Cat1	0.945	0.336	-0.10	Pass	< 0.24	>200
1912429	8100513	61.2	57	157	296	20	830	51	137	2.42	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912430	8100513	61.3	58	157	296	20	830	51	137	2.42	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912431	8100513	61.1	58	157	283	20	798	51	144	2.42	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912432	8100513	60.9	56	157	283	20	798	51	144	2.42	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912433	8100513	61.0	57	155	287	21	813	52	139	2.46	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912434	8100513	61.8	57	155	287	21	813	52	139	2.46	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912435	8100513	61.4	58	153	286	20	819	50	135	2.46	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912436	8100513	61.1	57	153	286	20	819	50	135	2.46	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912437	8100513	61.0	57	155	285	19	825	50	135	2.59	Cat1	0.947	0.336	-0.10	Pass	<.0.24	>200
1912438	8100513	61.3	57	155	285	19	825	50	135	2.59	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912439	8100513	61.3	57	148	289	20	843	49	130	2.59	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912440	8100513	60.9	56	148	289	20	843	49	130	2.59	Cat1	0.947	0.336	-0.10	Pass	< 0.24	>200
1912441	8100513	61.0	57	143	279	21	831	49	132	2.56	Cat1	0.945	0.336	-0.10	Pass	< 0.24	>200
1912442	8100513	61.1	57	143	279	21	831	49	132	2.56	Cat1	0.945	0.336	-0.10	Pass	< 0.24	>200
1912443	8100513	61.1	57	145	280	20	832	49	135	2.56	Cat1	0.945	0.336	-0.10	Pass	< 0.24	>200
1912444	8100513	61.3	57	145	280	20	832	49	135	2.56	Cat1	0.945	0.336	-0.10	Pass	< 0.24	>200
1912445	8100513	61.1	57	148	279	21	820	50	140	2.51	Cat1	0.946	0.336	-0.10	Pass	< 0.24	>200
1912446	8100513	60.6	56	148	279	21	820	50	140	2.51	Cat1	0.946	0.336	-0.10	Pass	< 0.24	>200
1912447	8100513	60.5	57	146	281	20	833	49	136	2.51	Cat1	0.946	0.336	-0.10	Pass	< 0.24	>200
1912448	8100513	60.3	57	146	281	20	833	49	136	2.51	Cat1	0.946	0.336	-0.10	Pass	< 0.24	>200
1912449	8100860	60.9	57	152	284	21	830	50	140	2.53	Cat1	0.945	0.205	-0.08	Pass	< 0.24	>200

Certified By: Sal Sarrini
Quality Control Laboratory Supervisor or Manager 8/9/00

SERROT INTERNATIONAL, INC. CERTIFICATE OF QUALITY ASSURANCE

TEST DESCRIPTION		AVERAGE THICKNESS	MINIMUM THICKNESS	TENSILE @ YIELD	TENSILE @ BREAK	ELONG. @ YIELD	ELONG. @ BREAK	TEAR	PUNCTURE	CARBON BLACK	CARBON BLACK DISPERSION	DENSITY	MELT FLOW INDEX	DIMENSIONAL STABILITY	LOW TEMP. BRITTLENESS	WATER VAPOR TRANSMISSION	STRESS CRACK RESISTANCE
TEST METHOD		D5199	D5199	D638	D638	D638	D638	D1004	D4833	D4218	D5596	D792	D1238	D1204	D746	E96-80	D5397
(modifications)						NSF											App. A
FREQUENCY		Every Roll	Every Roll	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	Batch	Batch	Certified	Certified	Batch
UNITS		mils	mils	ppi	ppi	%	%	lb	lb	%		g/cc	g/10 min	%		g/m2 day	hr
SPECIFICATION		60	54	126	228	12	700	42	108	2.0 - 3.0	Cat. 1 or 2	0.94 min.	<1.0	± 2	-60° C	0.24	>200
ROLL #	LOT/BLEND																
1912450	8100860	61.1	57	152	284	21	830	50	140	2.53	Cat1	0.945	0.205	-0.08	Pass	< 0.24	>200
1912451	8100860	60.8	57	151	279	20	813	50	130	2.53	Cat1	0.945	0.205	-0.08	Pass	< 0.24	>200
1912452	8100860	60.5	57	151	279	20	813	50	130	2.53	Cat1	0.945	0.205	-0.08	Pass	< 0.24	>200
1912453	8100860	60.4	57	146	281	20	826	50	142	2.34	Cat1	0.947	0.205	-0.08	Pass	< 0.24	>200
1912454	8100860	60.6	57	146	281	20	826	50	142	2.34	Cat1	0.947	0.205	-0.08	Pass	< 0.24	>200
1912455	8100860	60.5	57	152	284	19	832	50	146	2.34	Cat1	0.947	0.205	-0.08	Pass	< 0.24	>200
1912456	8100860	60.2	56	152	284	19	832	50	146	2.34	Cat1	0.947	0.205	-0.08	Pass	< 0.24	>200
1912457	8100860	60.3	56	156	280	19	805	51	146	2.41	Cat1	0.946	0.205	-0.08	Pass	< 0.24	>200
1912458	8100860	60.2	57	156	280	19	805	51	146	2.41	Cat1	0.946	0.205	-0.08	Pass	< 0.24	>200
1912459	8100860	60.7	56	155	270	20	772	50	140	2.41	Cat1	0.946	0.205	-0.08	Pass	< 0.24	>200
1912460	8100860	60.6	57	155	270	20	772	50	140	2.41	Cat1	0.946	0.205	-0.08	Pass	< 0.24	>200
1912461	8100860	60.6	56	156	290	19	812	50	142	2.46	Cat1	0.946	0.205	-0.08	Pass	< 0.24	>200
1912462	8100860	60.2	56	156	290	19	812	50	142	2.46	Cat1	0.946	0.205	-0.08	Pass	< 0.24	>200
1912463	8100860	60.2	56	148	285	21	817	49	147	2.46	Cat1	0.946	0.205	-0.08	Pass	< 0.24	>200
1912464	8100860	60.4	56	148	285	21	817	49	147	2.46	Cat1	0.946	0.205	-0.08	Pass	< 0.24	>200
1912465	8100860	60.8	56	157	291	20	832	51	140	2.60	Cat1	0.946	0.205	-0.08	Pass	< 0.24	>200
1912466	8100860	61.1	56	157	291	20	832	51	140	2.60	Cat1	0.946	0.205	-0.08	Pass	< 0.24	>200
1912467	8100860	60.6	56	146	282	21	825	49	132	2.60	Cat1	0.946	0.205	-0.08	Pass	< 0.24	>200
1912468	8100860	60.5	56	146	282	21	825	49	132	2.60	Cat1	0.946	0.205	-0.08	Pass	< 0.24	>200
1912469	8100860	60.3	56	141	289	21	846	49	137	2.48	Cat1	0.946	0.205	-0.08	Pass	< 0.24	>200
1912470	8100860	60.2	56	141	289	21	846	49	137	2.48	Cat1	0.946	0.205	-0.08	Pass	< 0.24	>200
1912471	8100860	60.6	56	146	281	21	835	48	136	2.40	Cat1	0.946	0.205	-0.08	Pass	< 0.24	>200

Certified By: Sal Sorino
Quality Control Laboratory Supervisor or Manager 8/9/00

SERROT INTERNATIONAL, INC. CERTIFICATE OF QUALITY ASSURANCE

TEST DESCRIPTION		AVERAGE THICKNESS	MINIMUM THICKNESS	TENSILE @ YIELD	TENSILE @ BREAK	ELONG. @ YIELD	ELONG. @ BREAK	TEAR	PUNCTURE	CARBON BLACK	CARBON BLACK DISPERSION	DENSITY	MELT FLOW INDEX	DIMENSIONAL STABILITY	LOW TEMP. BRITTLENESS	WATER VAPOR TRANSMISSION	STRESS CRACK RESISTANCE
TEST METHOD		D5199	D5199	D638	D638	D638	D638	D1004	D4833	D4218	D5596	D792	D1238	D1204	D746	E96-80	D5397
(modifications)						NSF											App. A
FREQUENCY		Every Roll	Every Roll	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	Batch	Batch	Certified	Certified	Batch
UNITS		mils	mils	ppi	ppi	%	%	lb	lb	%		g/cc	g/10 min	%		g/m2 day	hr
SPECIFICATION		60	54	126	228	12	700	42	108	2.0 - 3.0	Cat. 1 or 2	0.94 min.	<1.0	± 2	-60° C	0.24	>200
ROLL #	LOT/BLEND																
1912472	8100860	60.6	57	146	281	21	835	48	136	2.40	Cat1	0.946	0.205	-0.08	Pass	< 0.24	>200
1912473	8100860	60.4	57	144	283	21	850	47	137	2.48	Cat1	0.947	0.205	-0.08	Pass	< 0.24	>200
1912474	8100860	60.4	57	144	283	21	850	47	137	2.48	Cat1	0.947	0.205	-0.08	Pass	< 0.24	>200
1912475	8100860	60.6	57	144	281	21	840	48	137	2.48	Cat1	0.947	0.205	-0.08	Pass	< 0.24	>200
1912476	8100860	61.0	57	144	281	21	840	48	137	2.48	Cat1	0.947	0.205	-0.08	Pass	< 0.24	>200
1912477	8100860	60.7	57	146	286	20	843	48	126	2.44	Cat2	0.948	0.205	-0.08	Pass	< 0.24	>200
1912478	8100860	60.6	56	146	286	20	843	48	126	2.44	Cat2	0.948	0.205	-0.08	Pass	< 0.24	>200
1912479	8100860	60.6	56	152	280	20	830	49	134	2.44	Cat2	0.948	0.205	-0.08	Pass	< 0.24	>200
1912480	8100860	60.5	57	152	280	20	830	49	134	2.44	Cat2	0.948	0.205	-0.08	Pass	< 0.24	>200
1912481	8100860	60.7	56	148	296	20	858	49	144	2.44	Cat1	0.947	0.205	-0.08	Pass	< 0.24	>200
1912482	8100860	60.5	57	148	296	20	858	49	144	2.44	Cat1	0.947	0.205	-0.08	Pass	< 0.24	>200
1912483	8100860	60.6	56	151	288	20	836	51	135	2.44	Cat1	0.947	0.205	-0.08	Pass	< 0.24	>200
1912484	8100860	60.4	56	151	288	20	836	51	135	2.44	Cat1	0.947	0.205	-0.08	Pass	< 0.24	>200
1912485	8100860	60.8	57	156	287	20	825	51	147	2.40	Cat1	0.947	0.205	-0.08	Pass	< 0.24	>200
1912486	8100860	60.4	57	156	287	20	825	51	147	2.40	Cat1	0.947	0.205	-0.08	Pass	< 0.24	>200
1912487	8100860	60.7	56	153	292	19	844	51	142	2.40	Cat1	0.947	0.205	-0.08	Pass	< 0.24	>200
1912488	8100860	60.7	56	153	292	19	844	51	142	2.40	Cat1	0.947	0.205	-0.08	Pass	< 0.24	>200
1912489	8100860	60.1	56	154	286	20	812	52	146	2.43	Cat1	0.945	0.205	-0.08	Pass	< 0.24	>200
1912490	8100860	60.7	57	154	286	20	812	52	146	2.43	Cat1	0.945	0.205	-0.08	Pass	< 0.24	>200
1912491	8100860	61.1	56	157	282	20	809	50	135	2.43	Cat1	0.945	0.205	-0.08	Pass	< 0.24	>200

Certified By: Sal Sarini
Quality Control Laboratory Supervisor or Manager 8/9/00

SERROT INTERNATIONAL, INC. CERTIFICATE OF QUALITY ASSURANCE

PROJECT NAME: WMI/Trail Ridge LF **JOB #:**10379

MATERIAL TYPE: 60 mil HDPE **SALES ORDER #:** 5135

TEST DESCRIPTION		AVERAGE THICKNESS	MINIMUM THICKNESS	TENSILE @ YIELD	TENSILE @ BREAK	ELONG. @ YIELD	ELONG. @ BREAK	TEAR	PUNCTURE	CARBON BLACK	CARBON BLACK DISPERSION	DENSITY	MELT FLOW INDEX	DIMENSIONAL STABILITY	LOW TEMP. BRITTLENESS	WATER VAPOR TRANSMISSION	STRESS CRACK RESISTANCE
TEST METHOD		D5199	D5199	D638	D638	D638	D638	D1004	D4833	D4218	D5596	D792	D1238	D1204	D746	E96-80	D5397
(modifications)						NSF											App. A
FREQUENCY		Every Roll	Every Roll	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	Batch	Batch	Certified	Certified	Batch
UNITS		mils	mils	ppi	ppi	%	%	lb	lb	%		g/cc	g/10 min	%		g/m2 day	hr
SPECIFICATION		60	54	126	228	12	700	42	108	2.0 - 3.0	Cat. 1 or 2	0.94 min.	<1.0	± 2	-60° C	0.24	>200
ROLL #	LOT/BLEND																
1912927	8100863	60.9	57	156	274	20	802	50	137	2.52	Cat1	0.946	0.236	-0.23	Pass	< 0.24	>200
1912928	8100863	60.8	58	156	274	20	802	50	137	2.52	Cat1	0.946	0.236	-0.23	Pass	< 0.24	>200
1912929	8100863	61.1	57	153	285	20	838	48	138	2.43	Cat1	0.949	0.236	-0.23	Pass	< 0.24	>200
1912930	8100863	61.7	57	153	285	20	838	48	138	2.43	Cat1	0.949	0.236	-0.23	Pass	< 0.24	>200
1912931	8100863	60.6	56	151	278	20	837	49	133	2.43	Cat1	0.949	0.236	-0.23	Pass	< 0.24	>200
1912932	8100863	62.6	59	151	278	20	837	49	133	2.57	Cat1	0.949	0.236	-0.23	Pass	< 0.24	>200
1912933	8100863	61.9	59	150	286	20	841	48	131	2.36	Cat1	0.944	0.236	-0.23	Pass	< 0.24	>200
1912934	8100863	61.5	59	150	286	20	841	48	131	2.36	Cat1	0.944	0.236	-0.23	Pass	< 0.24	>200
1912935	8100863	61.8	58	150	281	20	817	49	137	2.36	Cat1	0.944	0.236	-0.23	Pass	< 0.24	>200
1912936	8100863	61.4	59	150	281	20	817	49	137	2.36	Cat1	0.944	0.236	-0.23	Pass	< 0.24	>200
1912937	8100863	61.0	58	152	284	20	833	49	133	2.58	Cat1	0.943	0.236	-0.23	Pass	< 0.24	>200
1912938	8100863	60.2	57	152	284	20	833	49	133	2.58	Cat1	0.943	0.236	-0.23	Pass	< 0.24	>200
1912939	8100863	60.6	58	148	287	20	840	49	133	2.58	Cat1	0.943	0.236	-0.23	Pass	< 0.24	>200
1912940	8100863	60.6	57	148	287	20	840	49	133	2.58	Cat1	0.943	0.236	-0.23	Pass	< 0.24	>200
1912941	8100863	60.4	57	148	280	20	815	49	131	2.63	Cat2	0.944	0.236	-0.23	Pass	< 0.24	>200
1912942	8100863	60.4	58	148	280	20	815	49	131	2.63	Cat2	0.944	0.236	-0.23	Pass	< 0.24	>200
1912943	8100863	60.8	59	160	283	20	817	50	127	2.63	Cat2	0.944	0.236	-0.23	Pass	< 0.24	>200
1912944	8100863	60.8	58	160	283	20	817	50	127	2.63	Cat2	0.944	0.236	-0.23	Pass	< 0.24	>200
1912945	8100863	60.7	57	155	291	20	830	50	137	2.48	Cat1	0.944	0.236	-0.23	Pass	< 0.24	>200

Certified By: Sal Sorrini

Quality Control Laboratory Supervisor or Manager 9/2/00

SERROT INTERNATIONAL, INC. CERTIFICATE OF QUALITY ASSURANCE

TEST DESCRIPTION		AVERAGE THICKNESS	MINIMUM THICKNESS	TENSILE @ YIELD	TENSILE @ BREAK	ELONG. @ YIELD	ELONG. @ BREAK	TEAR	PUNCTURE	CARBON BLACK	CARBON BLACK DISPERSION	DENSITY	MELT FLOW INDEX	DIMENSIONAL STABILITY	LOW TEMP. BRITTLENESS	WATER VAPOR TRANSMISSION	STRESS CRACK RESISTANCE
TEST METHOD		D5199	D5199	D638	D638	D638	D638	D1004	D4833	D4218	D5596	D792	D1238	D1204	D746	E96-80	D5397
(modifications)						NSF											App. A
FREQUENCY		Every Roll	Every Roll	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	Batch	Batch	Certified	Certified	Batch
UNITS		mils	mils	ppi	ppi	%	%	lb	lb	%		g/cc	g/10 min	%		g/m2 day	hr
SPECIFICATION		60	54	126	228	12	700	42	108	2.0 - 3.0	Cat. 1 or 2	0.94 min.	<1.0	± 2	-60° C	0.24	>200
ROLL #	LOT/BLEND																
1912946	8100874	60.9	57	156	261	19	756	50	137	2.66	Cat1	0.944	0.229	-0.18	Pass	< 0.24	>200
1912947	8100874	61.4	59	155	280	19	808	50	142	2.44	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200
1912948	8100874	61.2	59	155	280	19	808	50	142	2.44	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200
1912950	8100874	60.6	58	151	283	20	815	50	139	2.60	Cat1	0.944	0.229	-0.18	Pass	< 0.24	>200
1912951	8100874	61.2	58	153	286	19	838	50	140	2.60	Cat1	0.944	0.229	-0.18	Pass	< 0.24	>200
1912952	8100874	61.1	58	153	286	19	838	50	140	2.60	Cat1	0.944	0.229	-0.18	Pass	< 0.24	>200
1912953	8100874	61.7	58	155	285	20	838	49	135	2.49	Cat1	0.945	0.229	-0.18	Pass	< 0.24	>200
1912954	8100874	61.5	58	155	285	20	838	49	135	2.49	Cat1	0.945	0.229	-0.18	Pass	< 0.24	>200
1912955	8100874	61.1	59	150	288	20	853	49	137	2.49	Cat1	0.945	0.229	-0.18	Pass	< 0.24	>200
1912956	8100874	61.2	57	150	288	20	853	49	137	2.49	Cat1	0.945	0.229	-0.18	Pass	< 0.24	>200
1912957	8100874	60.8	58	153	277	21	823	49	137	2.64	Cat1	0.948	0.229	-0.18	Pass	< 0.24	>200
1912958	8100874	61.4	59	153	277	21	823	49	137	2.64	Cat1	0.948	0.229	-0.18	Pass	< 0.24	>200
1912959	8100874	61.3	59	151	278	19	819	50	127	2.64	Cat1	0.948	0.229	-0.18	Pass	< 0.24	>200
1912960	8100874	61.6	59	151	278	19	819	50	127	2.64	Cat1	0.948	0.229	-0.18	Pass	< 0.24	>200
1912961	8100874	60.2	57	149	285	20	836	50	135	2.38	Cat1	0.948	0.229	-0.18	Pass	< 0.24	>200
1912962	8100874	60.6	58	149	285	20	836	50	135	2.38	Cat1	0.948	0.229	-0.18	Pass	< 0.24	>200
1912963	8100874	60.4	58	151	285	20	839	49	132	2.38	Cat1	0.948	0.229	-0.18	Pass	< 0.24	>200
1912964	8100874	60.8	58	151	285	20	839	49	132	2.38	Cat1	0.948	0.229	-0.18	Pass	< 0.24	>200
1912965	8100874	60.5	57	146	286	20	835	50	136	2.49	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200
1912966	8100874	61.1	58	146	286	20	835	50	136	2.49	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200
1912967	8100874	61.1	58	154	283	19	827	50	138	2.49	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200
1912968	8100874	60.7	58	154	283	19	827	50	138	2.49	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200

Certified By: Sal Sarini

Quality Control Laboratory Supervisor or Manager 9/2/00

SERROT INTERNATIONAL, INC. CERTIFICATE OF QUALITY ASSURANCE

TEST DESCRIPTION		AVERAGE THICKNESS	MINIMUM THICKNESS	TENSILE @ YIELD	TENSILE @ BREAK	ELONG. @ YIELD	ELONG. @ BREAK	TEAR	PUNCTURE	CARBON BLACK	CARBON BLACK DISPERSION	DENSITY	MELT FLOW INDEX	DIMENSIONAL STABILITY	LOW TEMP. BRITTLENESS	WATER VAPOR TRANSMISSION	STRESS CRACK RESISTANCE
TEST METHOD		D5199	D5199	D638	D638	D638	D638	D1004	D4833	D4218	D5596	D792	D1238	D1204	D746	E96-80	D5397
(modifications)						NSF											App. A
FREQUENCY		Every Roll	Every Roll	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	Batch	Batch	Certified	Certified	Batch
UNITS		mils	mils	ppi	ppi	%	%	lb	lb	%		g/cc	g/10 min	%		g/m2 day	hr
SPECIFICATION		60	54	126	228	12	700	42	108	2.0 - 3.0	Cat. 1 or 2	0.94 min.	<1.0	± 2	-60° C	0.24	>200
ROLL #	LOT/BLEND																
1912969	8100874	60.9	58	153	288	20	830	50	140	2.67	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200
1912970	8100874	60.7	58	153	288	20	830	50	140	2.67	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200
1912971	8100874	60.1	56	151	282	20	830	50	144	2.67	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200
1912972	8100874	60.1	57	151	282	20	830	50	144	2.67	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200
1912973	8100874	60.7	58	154	291	20	841	49	143	2.55	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200
1912974	8100874	60.7	58	154	291	20	841	49	143	2.55	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200
1912975	8100874	60.9	58	159	280	19	823	51	144	2.55	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200
1912976	8100874	60.2	57	159	280	19	823	51	144	2.55	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200
1912977	8100874	61.3	58	158	282	20	813	51	130	2.56	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200
1912978	8100874	60.6	58	158	282	20	813	51	130	2.56	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200
1912979	8100874	61.3	58	144	279	20	811	49	143	2.56	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200
1912980	8100874	61.0	58	144	279	20	811	49	143	2.56	Cat1	0.947	0.229	-0.18	Pass	< 0.24	>200
1912981	8100874	60.7	58	146	286	19	833	49	147	2.50	Cat1	0.945	0.229	-0.18	Pass	< 0.24	>200
1912982	8100874	60.6	57	146	286	19	833	49	147	2.50	Cat1	0.945	0.229	-0.18	Pass	< 0.24	>200
1912983	8100874	61.0	58	143	284	20	837	49	131	2.50	Cat1	0.945	0.229	-0.18	Pass	< 0.24	>200
1912984	8100874	61.2	59	143	284	20	837	49	131	2.50	Cat1	0.945	0.229	-0.18	Pass	< 0.24	>200
1912985	8100874	61.2	58	145	287	20	843	50	135	2.59	Cat2	0.944	0.229	-0.18	Pass	< 0.24	>200
1912986	8100874	61.2	58	145	287	20	843	50	135	2.59	Cat2	0.944	0.229	-0.18	Pass	< 0.24	>200
1912987	8100874	61.3	58	150	280	20	839	49	132	2.59	Cat2	0.944	0.229	-0.18	Pass	< 0.24	>200
1912988	8100874	61.6	58	150	280	20	839	49	132	2.59	Cat2	0.944	0.229	-0.18	Pass	< 0.24	>200
1912989	8100874	61.0	58	152	288	20	858	50	122	2.59	Cat1	0.943	0.229	-0.18	Pass	< 0.24	>200
1912990	8100874	61.2	59	152	288	20	858	50	122	2.59	Cat1	0.943	0.229	-0.18	Pass	< 0.24	>200

Certified By: Sal Sarrini
Quality Control Laboratory Supervisor or Manager 9/2/00

SERROT INTERNATIONAL, INC. CERTIFICATE OF QUALITY ASSURANCE

TEST DESCRIPTION		AVERAGE THICKNESS	MINIMUM THICKNESS	TENSILE @ YIELD	TENSILE @ BREAK	ELONG. @ YIELD	ELONG. @ BREAK	TEAR	PUNCTURE	CARBON BLACK	CARBON BLACK DISPERSION	DENSITY	MELT FLOW INDEX	DIMENSIONAL STABILITY	LOW TEMP. BRITTLENESS	WATER VAPOR TRANSMISSION	STRESS CRACK RESISTANCE
TEST METHOD		D5199	D5199	D638	D638	D638	D638	D1004	D4833	D4218	D5596	D792	D1238	D1204	D746	E96-80	D5397
(modifications)						NSF											App. A
FREQUENCY		Every Roll	Every Roll	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	Batch	Batch	Certified	Certified	Batch
UNITS		mils	mils	ppi	ppi	%	%	lb	lb	%		g/cc	g/10 min	%		g/m2 day	hr
SPECIFICATION		60	54	126	228	12	700	42	108	2.0 - 3.0	Cat. 1 or 2	0.94 min.	<1.0	± 2	-60° C	0.24	>200
ROLL #	LOT/BLEND																
1912991	8100874	61.7	59	148	286	20	860	49	137	2.55	Cat1	0.943	0.229	-0.18	Pass	< 0.24	>200
1912992	8100874	60.4	57	148	286	20	860	49	137	2.55	Cat1	0.943	0.229	-0.18	Pass	< 0.24	>200
1912993	8100874	60.4	58	153	287	19	849	50	137	2.35	Cat1	0.949	0.229	-0.18	Pass	< 0.24	>200
1912994	8100874	60.0	57	153	287	19	849	50	137	2.35	Cat1	0.949	0.229	-0.18	Pass	< 0.24	>200
1912995	8100874	60.8	57	157	283	19	833	49	135	2.35	Cat1	0.949	0.229	-0.18	Pass	< 0.24	>200
1912996	8100874	60.5	58	157	283	19	833	49	135	2.35	Cat1	0.949	0.229	-0.18	Pass	< 0.24	>200
1912997	8100874	60.0	57	153	279	20	815	50	139	2.61	Cat1	0.946	0.229	-0.18	Pass	< 0.24	>200
1912998	8100874	60.6	57	153	279	20	815	50	139	2.61	Cat1	0.946	0.229	-0.18	Pass	< 0.24	>200
1912999	8100874	60.7	57	152	266	20	784	50	135	2.61	Cat1	0.946	0.229	-0.18	Pass	< 0.24	>200
1913000	8100874	61.1	58	152	266	20	784	50	135	2.61	Cat1	0.946	0.229	-0.18	Pass	< 0.24	>200
1913001	8100874	60.4	57	158	295	20	845	49	142	2.58	Cat1	0.946	0.229	-0.18	Pass	< 0.24	>200
1913002	8100874	60.5	57	158	295	20	845	49	142	2.58	Cat1	0.946	0.229	-0.18	Pass	< 0.24	>200
1913003	8100874	61.0	57	156	291	19	832	50	139	2.58	Cat1	0.946	0.229	-0.18	Pass	< 0.24	>200
1913004	8100874	60.8	57	156	291	19	832	50	139	2.58	Cat1	0.946	0.229	-0.18	Pass	< 0.24	>200
1913005	8100874	60.9	58	153	281	19	808	50	142	2.53	Cat2	0.945	0.229	-0.18	Pass	< 0.24	>200
1913006	8100874	60.7	57	153	281	19	808	50	142	2.53	Cat2	0.945	0.229	-0.18	Pass	< 0.24	>200
1913007	8100866	60.5	58	152	293	19	830	50	139	2.53	Cat2	0.945	0.217	-0.25	Pass	< 0.24	>200
1913008	8100866	60.6	57	152	293	19	830	50	139	2.53	Cat2	0.945	0.217	-0.25	Pass	< 0.24	>200
1913009	8100866	60.3	57	149	286	20	821	50	138	2.58	Cat2	0.949	0.217	-0.25	Pass	< 0.24	>200
1913010	8100866	60.2	57	149	286	20	821	50	138	2.58	Cat2	0.949	0.217	-0.25	Pass	< 0.24	>200

Certified By: Sal Sarmi
Quality Control Laboratory Supervisor or Manager 9/2/00

SERROT INTERNATIONAL, INC. CERTIFICATE OF QUALITY ASSURANCE

PROJECT NAME: WMI/Trail Ridge LF **JOB #:**10379

MATERIAL TYPE: 60 mil HDPE **SALES ORDER #:** 5135

TEST DESCRIPTION		AVERAGE THICKNESS	MINIMUM THICKNESS	TENSILE @ YIELD	TENSILE @ BREAK	ELONG. @ YIELD	ELONG. @ BREAK	TEAR	PUNCTURE	CARBON BLACK	CARBON BLACK DISPERSION	DENSITY	MELT FLOW INDEX	DIMENSIONAL STABILITY	LOW TEMP. BRITTLENESS	WATER VAPOR TRANSMISSION	STRESS CRACK RESISTANCE
TEST METHOD		D5199	D5199	D638	D638	D638	D638	D1004	D4833	D4218	D5596	D792	D1238	D1204	D746	E96-80	D5397
(modifications)						NSF											App. A
FREQUENCY		Every Roll	Every Roll	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	Batch	Batch	Certified	Certified	Batch
UNITS		mils	mils	ppi	ppi	%	%	lb	lb	%		g/cc	g/10 min	%		g/m2 day	hr
SPECIFICATION		60	54	126	228	12	700	42	108	2.0 - 3.0	Cat. 1 or 2	0.94 min.	<1.0	± 2	-60° C	0.24	>200
ROLL #	LOT/BLEND																
1913205	8100871	60.7	58.0	147	275	19	803	48	145	2.42	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913207	8100871	61.4	59.0	148	279	20	815	47	151	2.42	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913208	8100871	61.4	58.0	148	279	20	815	47	151	2.42	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913209	8100871	61.0	58.0	144	278	20	822	48	152	2.47	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913210	8100871	60.8	57.0	144	278	20	822	48	152	2.47	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913211	8100871	60.5	58.0	148	270	20	789	49	147	2.47	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913212	8100871	61.1	58.0	148	270	20	789	49	147	2.47	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913213	8100871	60.4	58.0	156	270	20	791	49	140	2.38	Cat2	0.946	0.225	-0.15	Pass	< 0.24	>200
1913214	8100871	60.9	58.0	156	270	20	791	49	140	2.38	Cat2	0.946	0.225	-0.15	Pass	< 0.24	>200
1913215	8100871	60.3	58.0	153	274	20	795	49	150	2.38	Cat2	0.946	0.225	-0.15	Pass	< 0.24	>200
1913216	8100871	61.0	58.0	153	274	20	795	49	150	2.38	Cat2	0.946	0.225	-0.15	Pass	< 0.24	>200
1913217	8100871	60.7	58.0	152	280	20	820	48	142	2.40	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913218	8100871	60.0	57.0	152	280	20	820	48	142	2.40	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913219	8100871	60.1	57.0	145	266	20	790	48	139	2.40	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913220	8100871	60.3	58.0	145	266	20	790	48	139	2.40	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913221	8100871	60.6	57.0	148	270	19	805	48	140	2.57	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913222	8100871	60.2	57.0	148	270	19	805	48	140	2.57	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913223	8100871	60.2	58.0	139	277	20	823	47	147	2.57	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913224	8100871	61.0	58.0	139	277	20	823	47	147	2.57	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200

Certified By: Sal Sarini

Quality Control Laboratory Supervisor or Manager 10/6/00

SERROT INTERNATIONAL, INC. CERTIFICATE OF QUALITY ASSURANCE

TEST DESCRIPTION		AVERAGE THICKNESS	MINIMUM THICKNESS	TENSILE @ YIELD	TENSILE @ BREAK	ELONG. @ YIELD	ELONG. @ BREAK	TEAR	PUNCTURE	CARBON BLACK	CARBON BLACK DISPERSION	DENSITY	MELT FLOW INDEX	DIMENSIONAL STABILITY	LOW TEMP. BRITTLENESS	WATER VAPOR TRANSMISSION	STRESS CRACK RESISTANCE
TEST METHOD		D5199	D5199	D638	D638	D638	D638	D1004	D4833	D4218	D5596	D792	D1238	D1204	D746	E96-80	D5397
(modifications)						NSF											App. A
FREQUENCY		Every Roll	Every Roll	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	Batch	Batch	Certified	Certified	Batch
UNITS		mils	mils	ppi	ppi	%	%	lb	lb	%		g/cc	g/10 min	%		g/m2 day	hr
SPECIFICATION		60	54	126	228	12	700	42	108	2.0 - 3.0	Cat. 1 or 2	0.94 min.	<1.0	± 2	-60° C	0.24	>200
ROLL #	LOT/BLEND																
1913225	8100871	60.4	58.0	147	279	19	837	48	145	2.38	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913226	8100871	60.7	58.0	147	279	19	837	48	145	2.38	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913227	8100871	60.7	58.0	149	278	19	826	49	143	2.38	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913228	8100871	60.7	58.0	149	278	19	826	49	143	2.38	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913229	8100871	60.7	58.0	147	272	20	816	48	146	2.37	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913230	8100871	60.3	58.0	147	272	20	816	48	146	2.37	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913231	8100871	60.8	58.0	150	278	20	826	48	142	2.37	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913232	8100871	60.3	58.0	150	278	20	826	48	142	2.37	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913233	8100871	60.4	57.0	148	285	20	850	48	143	2.34	Cat2	0.946	0.225	-0.15	Pass	< 0.24	>200
1913234	8100871	61.3	58.0	148	285	20	850	48	143	2.34	Cat2	0.946	0.225	-0.15	Pass	< 0.24	>200
1913235	8100871	60.4	58.0	154	287	20	836	50	141	2.55	Cat2	0.946	0.225	-0.15	Pass	< 0.24	>200
1913236	8100871	60.9	58.0	154	287	20	836	50	141	2.55	Cat2	0.946	0.225	-0.15	Pass	< 0.24	>200
1913237	8100871	60.9	58.0	154	282	19	820	49	139	2.36	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913238	8100871	61.0	58.0	154	282	19	820	49	139	2.36	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913239	8100871	60.7	58.0	152	289	19	832	50	142	2.36	Cat1	0.946	0.225	-0.15	Pass	< 0.24	>200
1913240	8100873	60.9	58.0	152	289	19	832	50	142	2.36	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913241	8100873	61.0	58.0	150	281	20	811	50	138	2.39	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913242	8100873	61.0	58.0	150	281	20	811	50	138	2.39	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913243	8100873	60.8	58.0	154	285	20	821	50	142	2.39	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913244	8100873	60.5	57.0	154	285	20	821	50	142	2.39	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913245	8100873	61.2	58.0	156	284	20	810	49	146	2.47	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913246	8100873	61.2	58.0	156	284	20	810	49	146	2.47	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200

Certified By: Sal Savini

Quality Control Laboratory Supervisor or Manager 10/6/00

SERROT INTERNATIONAL, INC. CERTIFICATE OF QUALITY ASSURANCE

TEST DESCRIPTION		AVERAGE THICKNESS	MINIMUM THICKNESS	TENSILE @ YIELD	TENSILE @ BREAK	ELONG. @ YIELD	ELONG. @ BREAK	TEAR	PUNCTURE	CARBON BLACK	CARBON BLACK DISPERSION	DENSITY	MELT FLOW INDEX	DIMENSIONAL STABILITY	LOW TEMP. BRITTLENESS	WATER VAPOR TRANSMISSION	STRESS CRACK RESISTANCE
TEST METHOD		D5199	D5199	D638	D638	D638	D638	D1004	D4833	D4218	D5596	D792	D1238	D1204	D746	E96-80	D5397
(modifications)						NSF											App. A
FREQUENCY		Every Roll	Every Roll	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	Batch	Batch	Certified	Certified	Batch
UNITS		mils	mils	ppi	ppi	%	%	lb	lb	%		g/cc	g/10 min	%		g/m2 day	hr
SPECIFICATION		60	54	126	228	12	700	42	108	2.0 - 3.0	Cat. 1 or 2	0.94 min.	<1.0	± 2	-60° C	0.24	>200
ROLL #	LOT/BLEND																
1913247	8100873	60.5	57.0	154	273	19	797	49	148	2.47	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913248	8100873	61.2	58.0	154	273	19	797	49	148	2.47	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913250	8100873	60.0	57.0	154	281	19	817	49	139	2.35	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913251	8100873	60.6	57.0	156	272	19	793	49	148	2.35	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913253	8100873	60.5	56.0	157	274	19	782	49	146	2.39	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913254	8100873	60.4	58.0	157	274	19	782	49	146	2.39	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913255	8100873	61.1	57.0	154	276	19	805	49	147	2.39	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913256	8100873	61.1	57.0	154	276	19	805	49	147	2.39	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913257	8100873	61.0	58.0	157	282	20	801	50	149	2.55	Cat2	0.948	0.224	-0.23	Pass	< 0.24	>200
1913258	8100873	61.4	58.0	157	282	20	801	50	149	2.55	Cat2	0.948	0.224	-0.23	Pass	< 0.24	>200
1913259	8100873	61.5	58.0	148	282	20	807	51	142	2.55	Cat2	0.948	0.224	-0.23	Pass	< 0.24	>200
1913260	8100873	61.4	58.0	148	282	20	807	51	142	2.55	Cat2	0.948	0.224	-0.23	Pass	< 0.24	>200
1913261	8100873	60.8	58.0	147	285	21	821	50	152	2.47	Cat2	0.948	0.224	-0.23	Pass	< 0.24	>200
1913262	8100873	60.7	57.0	147	285	21	821	50	152	2.47	Cat2	0.948	0.224	-0.23	Pass	< 0.24	>200
1913263	8100873	60.6	58.0	151	285	19	820	51	145	2.47	Cat2	0.948	0.224	-0.23	Pass	< 0.24	>200
1913264	8100873	60.3	58.0	151	285	19	820	51	145	2.47	Cat2	0.948	0.224	-0.23	Pass	< 0.24	>200
1913265	8100873	60.4	57.0	157	282	19	822	50	144	2.30	Cat2	0.948	0.224	-0.23	Pass	< 0.24	>200
1913266	8100873	60.2	57.0	157	282	19	822	50	144	2.30	Cat2	0.948	0.224	-0.23	Pass	< 0.24	>200
1913267	8100873	60.4	58.0	159	279	19	804	51	152	2.30	Cat2	0.948	0.224	-0.23	Pass	< 0.24	>200
1913268	8100873	60.4	57.0	159	279	19	804	51	152	2.30	Cat2	0.948	0.224	-0.23	Pass	< 0.24	>200
1913269	8100873	60.2	57.0	148	289	20	832	49	146	2.43	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913270	8100873	60.3	58.0	148	289	20	832	49	146	2.43	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200

Certified By: Sal Sarrino

Quality Control Laboratory Supervisor or Manager 10/6/00

SERROT INTERNATIONAL, INC. CERTIFICATE OF QUALITY ASSURANCE

TEST DESCRIPTION		AVERAGE THICKNESS	MINIMUM THICKNESS	TENSILE @ YIELD	TENSILE @ BREAK	ELONG. @ YIELD	ELONG. @ BREAK	TEAR	PUNCTURE	CARBON BLACK	CARBON BLACK DISPERSION	DENSITY	MELT FLOW INDEX	DIMENSIONAL STABILITY	LOW TEMP. BRITTLENESS	WATER VAPOR TRANSMISSION	STRESS CRACK RESISTANCE
TEST METHOD		D5199	D5199	D638	D638	D638	D638	D1004	D4833	D4218	D5596	D792	D1238	D1204	D746	E96-80	D5397
(modifications)						NSF											App. A
FREQUENCY		Every Roll	Every Roll	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	50,000 SqFt	Batch	Batch	Certified	Certified	Batch
UNITS		mils	mils	ppi	ppi	%	%	lb	lb	%		g/cc	g/10 min	%		g/m2 day	hr
SPECIFICATION		60	54	126	228	12	700	42	108	2.0 - 3.0	Cat. 1 or 2	0.94 min.	<1.0	± 2	-60° C	0.24	>200
ROLL #	LOT/BLEND																
1913271	8100873	60.4	58.0	160	284	19	824	50	156	2.43	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913272	8100873	60.0	57.0	160	284	19	824	50	156	2.43	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913273	8100873	60.8	58.0	147	280	20	816	50	143	2.48	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913274	8100873	60.4	58.0	147	280	20	816	50	143	2.48	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913275	8100873	60.8	59.0	150	286	20	824	50	149	2.48	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913276	8100873	60.4	58.0	150	286	20	824	50	149	2.48	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913277	8100873	60.8	59.0	162	272	18	786	50	145	2.34	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913278	8100873	60.7	59.0	162	272	18	786	50	145	2.34	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913279	8100873	60.6	59.0	147	287	20	814	49	138	2.34	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913280	8100873	61.1	57.0	147	287	20	814	49	138	2.34	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913281	8100873	60.7	58.0	156	281	19	797	49	147	2.50	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913282	8100873	60.8	58.0	156	281	19	797	49	147	2.50	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913283	8100873	61.1	58.0	152	275	19	805	49	148	2.50	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913284	8100873	61.5	59.0	152	275	19	805	49	148	2.50	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913285	8100873	60.8	58.0	152	288	20	838	49	147	2.74	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913286	8100873	60.9	58.0	152	288	20	838	49	147	2.74	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913287	8100873	60.6	58.0	154	286	19	843	49	147	2.74	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913288	8100873	61.3	59.0	154	286	19	843	49	147	2.74	Cat1	0.948	0.224	-0.23	Pass	< 0.24	>200
1913289	8100873	61.0	58.0	153	279	20	814	50	148	2.51	Cat2	0.948	0.224	-0.23	Pass	< 0.24	>200
1913290	8100873	60.6	58.0	153	279	20	814	50	148	2.51	Cat2	0.948	0.224	-0.23	Pass	< 0.24	>200

Certified By: Sal Sarina
Quality Control Laboratory Supervisor or Manager 10/6/00

PHILLIPS CHEMICAL COMPANY
A DIVISION OF PHILLIPS PETROLEUM COMPANY
BOX 792 • PHONE: (713) 476-3666
PASADENA, TEXAS 77501-0792

PHILLIPS PLASTICS RESINS
Houston Chemical Complex

June 07, 2000

KSL# 14575-00

FAX: 702-566-4 45

Serrot Corporation
125 Cassia Way
Henderson, NV 89014

Doug Wells

This letter will certify that the Marlex* resin shown b low, as supplied by Phillips Chemical Company, conforms to c r manufacturing specification.

Type:	HHM TR-305
Lot Number:	8100495
P.O. Number:	
Date Shipped:	06/07/00
Package:	PSPX 1792
Quantity:	182600 LBS.
HLMI Flow Rate,ASTM D1238:	20. G/10 MIN
Density, ASTM D1505:	.938 G/CC
Melt Index, ASTM D1238:	.280 G/10 MIN
Production Date:	04/24/00

Karen S. Lively
Quality Assurance Manager

For COA questions call Connie Buckner, 713-475-3625

* Reg. U.S. Pat. Off.

cc: QA-File-RC

CHEVRON PHILLIPS CHEMICAL COMPANY LP

HOUSTON CHEMICAL COMPLEX
BOX 792 • PHONE: (713) 475-3666
PASADENA, TEXAS 77501-0792

July 04, 2000

KSL# 16989-00

FAX: 702-566-4745

Serrot Corporation
125 Cassia Way
Henderson, NV 89014

Doug Wells

This letter will certify that the Marlex* resin shown below, as supplied by Phillips Chemical Company, conforms to our manufacturing specification.

Type:	HHM TR-305
Lot Number:	8191187
P.O. Number:	
Date Shipped:	07/03/00
Package:	PSPX 2424
Quantity:	180450 LBS.
HLMI Flow Rate,ASTM D1238:	21. G/10 MIN
Density, ASTM D1505:	.938 G/CC
Melt Index, ASTM D1238:	.270 G/10 MIN
Production Date:	08/20/99

Karen S. Lively
Quality Assurance Manager

For COA questions call Connie Buckner, 713-475-3625

* Reg. U.S. Pat. Off.

cc: QA-File-RC

PHILLIPS CHEMICAL COMPANY
A DIVISION OF PHILLIPS PETROLEUM COMPANY
BOX 792 • PHONE: (713) 475-3666
PASADENA, TEXAS 77501-0792

PHILLIPS PLASTICS RESINS
Houston Chemical Complex

June 26, 2000

KSL# 16344-00

FAX: 702-566-4745

Serrot Corporation
125 Cassia Way
Henderson, NV 89014

Doug Wells

This letter will certify that the Marlex* resin shown below, as supplied by Phillips Chemical Company, conforms to our manufacturing specification.

Type:	HHM TR-305
Lot Number:	8100513
P.O. Number:	
Date Shipped:	06/26/00
Package:	PSPX 2444
Quantity:	181300 LBS.
HLMI Flow Rate,ASTM D1238:	20. G/10 MIN
Density, ASTM D1505:	.938 G/CC
Melt Index, ASTM D1238:	.250 G/10 MIN
Production Date:	04/27/00

Karen S. Lively
Quality Assurance Manager

For COA questions call Connie Buckner, 713-475-3625

* Reg. U.S. Pat. Off.

cc: QA-File-RC

Chevron Phillips Chemical Company, LP
1400 Jefferson Road • Pasadena, TX 77501 • 713-475-3666
Houston Chemical Complex

July 06, 2000

KSL# 17229-00

FAX: 702-566-4745

Serrot Corporation
125 Cassia Way
Henderson, NV 89014

Doug Wells

This letter will certify that the Marlex* resin shown below, as supplied by Chevron Phillips Chemical Company, conforms to our manufacturing specification.

Type:	HHM TR-305
Lot Number:	8100860
P.O. Number:	
Date Shipped:	07/06/00
Package:	PSPX 8105
Quantity:	182550 LBS.
HLMI Flow Rate,ASTM D1238:	21. G/10 MIN
Density, ASTM D1505:	.938 G/CC
Melt Index, ASTM D1238:	.250 G/10 MIN
Production Date:	07/05/00

Karen S. Lively
Quality Assurance Manager

For COA questions call Connie Buckner, 713-475-3625

* Reg. U.S. Pat. Off.

cc: QA-File-RC

Chevron Phillips Chemical Company, LP
1400 Jefferson Road • Pasadena, TX 77501 • 713-475-3666
Houston Chemical Complex

July 19, 2000

KSL# 18405-00

FAX: 702-566-4745

Serrot Corporation
125 Cassia Way
Henderson, NV 89014

Doug Wells

This letter will certify that the Marlex* resin shown below, as supplied by Chevron Phillips Chemical Company, conforms to our manufacturing specification.

Type:	HHM TR-305
Lot Number:	8100863
P.O. Number:	
Date Shipped:	07/19/00
Package:	ACFX 97264
Quantity:	183800 LBS.
HLMI Flow Rate,ASTM D1238:	22. G/10 MIN
Density, ASTM D1505:	.937 G/CC
Melt Index, ASTM D1238:	.270 G/10 MIN
Production Date:	07/05/00

Karen S. Lively
Quality Assurance Manager

For COA questions call Connie Buckner, 713-475-3625

* Reg. U.S. Pat. Off.

cc: QA-File-RC

Chevron Phillips Chemical Company, LP
1400 Jefferson Road • Pasadena, TX 77501 • 713-475-3666
Houston Chemical Complex

August 07, 2000

KSL# 20041-00

FAX: 702-566-4745

Serrot Corporation
125 Cassia Way
Henderson, NV 89014

Doug Wells

This letter will certify that the Marlex* resin shown below, as supplied by Chevron Phillips Chemical Company, conforms to our manufacturing specification.

Type:	HHM TR-305
Lot Number:	8100874
P.O. Number:	
Date Shipped:	08/07/00
Package:	PSPX 6932
Quantity:	182700 LBS.
HLMI Flow Rate,ASTM D1238:	20. G/10 MIN
Density, ASTM D1505:	.938 G/CC
Melt Index, ASTM D1238:	.250 G/10 MIN
Production Date:	07/06/00

Karen S. Lively
Quality Assurance Manager

For COA questions call Connie Buckner, 713-475-3625

* Reg. U.S. Pat. Off.

cc: QA-File-RC

Chevron Phillips Chemical Company, LP
1400 Jefferson Road • Pasadena, TX 77501 • 713-475-3666
Houston Chemical Complex

August 07, 2000

KSL# 20042-00

FAX: 702-566-4745

Serrot Corporation
125 Cassia Way
Henderson, NV 89014

Doug Wells

This letter will certify that the Marlex* resin shown below, as supplied by Chevron Phillips Chemical Company, conforms to our manufacturing specification.

Type:	HHM TR-305
Lot Number:	8100866
P.O. Number:	
Date Shipped:	08/07/00
Package:	PSPX 2504
Quantity:	182100 LBS.
HLMI Flow Rate,ASTM D1238:	20. G/10 MIN
Density, ASTM D1505:	.938 G/CC
Melt Index, ASTM D1238:	.250 G/10 MIN
Production Date:	07/05/00

Karen S. Lively
Quality Assurance Manager

For COA questions call Connie Buckner, 713-475-3625

* Reg. U.S. Pat. Off.

cc: QA-File-RC

Chevron Phillips Chemical Company, LP
1400 Jefferson Road • Pasadena, TX 77501 • 713-475-3666
Houston Chemical Complex

August 01, 2000

KSL# 19517-00

FAX: 702-566-4745

Serrot Corporation
125 Cassia Way
Henderson, NV 89014

Doug Wells

This letter will certify that the Marlex* resin shown below, as supplied by Chevron Phillips Chemical Company, conforms to our manufacturing specification.

Type:	HHM TR-305
Lot Number:	8100871
P.O. Number:	
Date Shipped:	08/01/00
Package:	TILX 66017
Quantity:	187850 LBS.
HLMI Flow Rate,ASTM D1238:	20. G/10 MIN
Density, ASTM D1505:	.937 G/CC
Melt Index, ASTM D1238:	.240 G/10 MIN
Production Date:	07/06/00

Karen S. Lively
Quality Assurance Manager

For COA questions call Connie Buckner, 713-475-3625

* Reg. U.S. Pat. Off.

cc: QA-File-RC

Chevron Phillips Chemical Company, LP
1400 Jefferson Road • Pasadena, TX 77501 • 713-475-3666
Houston Chemical Complex

August 15, 2000

KSL# 20869-00

FAX: 702-566-4745

Serrot Corporation
125 Cassia Way
Henderson, NV 89014

Doug Wells

This letter will certify that the Marlex* resin shown below, as supplied by Chevron Phillips Chemical Company, conforms to our manufacturing specification.

Type:	HHM TR-305
Lot Number:	8100873
P.O. Number:	
Date Shipped:	08/15/00
Package:	PSPX 2498
Quantity:	181500 LBS.
HLMI Flow Rate,ASTM D1238:	20. G/10 MIN
Density, ASTM D1505:	.938 G/CC
Melt Index, ASTM D1238:	.250 G/10 MIN
Production Date:	07/06/00

Karen S. Lively
Quality Assurance Manager

For COA questions call Connie Buckner, 713-475-3625

* Reg. U.S. Pat. Off.

cc: QA-File-RC

Serrot International, Inc.

Resin Certificate of Analysis

Customer: RB Baker Construction

Resin Type: HDPE

Project Name: WMI/Trail Ridge, LF

Bill of Lading: To be shipped

I certify, the polyethylene geomembrane for the above identified shipment meets or exceeds Serrot International, Inc's specifications. Testing was performed on each resin blend.

Melt Flow Index was determined according to ASTM D 1238. Density was determined according to ASTM D 1505. Where appropriate, carbon black was determined according to ASTM D 4218. The average test results are listed below.

RESIN PROPERTIES

Blend Number	Melt Flow Index (g/10 min)	Density (g/cc)	Carbon Black Content (%)
4197	0.29	0.951	

RECEIVED
JUL 25 2000
SERROT INTERNATIONAL INC.
BATON ROUGE, LA

	INITIALS	DATE
GEN. MGR.		
PROJECT MGR.	Jon	
OFFICE MGR.		
EST. MGR.		
QC	Trevor	

Jane Allen
Quality Control Manager

7-24-00
Date

This Certification of Analysis shall not be reproduced except in full, without the written approval of the laboratory.

SERROT INTERNATIONAL, INC.

125 Cassia Way
Henderson, NV 89014
(702) 566-8600
(800) 237-1777
Fax: (702) 566-4739
www.serrot.com

August 14, 2000

Mr. Mike Bracci
Golder Associates
8933 Western Way, Suite 12
Jacksonville, FL 32256
Fax: 904-363-3445

Re: Methods for determining the density of plastic

Dear Mr. Bracci:

The two common methods for determining the density of polyethylene geomembranes are ASTM D792, *"Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement"*, and ASTM D1505, *"Standard Test Method for Density of Plastics by the Density-Gradient Technique"*. While both methods report density, D792 utilizes the displacement method and D1505 utilizes a liquid column exhibiting a density gradient.

The interchangeability of the methods is common, and both appear routinely in permits and specifications. For example, the Geosynthetic Institute's specification for HDPE, GM13, lists the density test method as D1505/D792 to clearly identify that either method is acceptable. This interchangeability is also seen in note 1 of D792, which identifies D1505 as an alternate method for density measurement.

If you have any other questions, please contact me at your earliest convenience. I can be reached at 702-566-8600, extension 274.

Sincerely,
Serrot International, Inc.

Ted Fox
Quality Manager

Cc: Jon Edens

SERROT INTERNATIONAL, INC.

125 Cassia Way
Henderson, NV 89014
(702) 566-8600
(800) 237-1777
Fax: (702) 566-4739
www.serrot.com

July 27, 2000

Customer: R B Baker Construction
Project Name: WMI / Trail Ridge LF

Dear Mr. Bracci,

Additive formulations are proprietary; therefore, Serrot International cannot list the exact percentage of additives used in the production of geomembrane. We can, however, provide the following:

Natural Resin	>96.0 %
Additives	<1 %
Carbon Black	2.0 – 3.0 %

With regards to the resin, the information is included with the material certifications in the form of the resin manufacturer's certifications.

If you require further information please contact me at 1-800-237-1777.

Sincerely,
SERROT INTERNATIONAL

Sal Savini
Quality Control Laboratory Manager

SECTION E-2

Geonet

07/17/00

Poly-Net™ Certificate of Analysis

Customer: RB Baker Construction

Number of Rolls Shipped: 106

Project Name: WMI/TrailRidge, LF

Material Code: SH3NNT150STBBP

Project Number: 5135

Bill of Lading: To Be Shipped

We hereby certify that the polyethylene geonet for the above mentioned shipment meets or exceeds Serrot International's specifications, below. Testing, except transmissivity, was performed at least every 40,000 ft. Transmissivity was performed at least once per shift.

Thickness was measured according to ASTM D 5199. Tensiles were determined according to ASTM D 5035, SII modified. Mass per unit area was determined according to ASTM D 5261. Carbon black content was determined according to ASTM 4218. Density was determined according to ASTM D 1505. Transmissivity was determined according to ASTM D 4716, SII modified. Transmissivity is measured in the machine direction between two steel plates one hour after application of the confining pressure. The standard transmissivity testing parameters for Poly-Net ™ are: PN2000 – 2,000 psf/1.0 gradient, PN3000 – 15,000 psf/1.0 gradient, PN3000CN – 4,000 psf/1.0 gradient, and PN5000 – 15,000 psf/1.0 gradient.

GEONET SPECIFICATIONS

	PN-2000	PN-3000	PN-3000CN	PN-5000
Thickness (inches)	0.160	0.200	0.200	0.250
Mass Per Unit Area (lbs/ft^3)	0.100	0.162	0.140	0.200
Tensile Strength (ppi)	30	45	32	50
Density (g/cm^3)	0.940	0.940	0.940	0.940
Carbon Black Content (%)	2.0	2.0	2.0	2.0
Transmissivity (m^3/sec x 10^{-3})	1.0	1.0	1.0	2.0 (1.5*)
Confining Pressure (psf)	2,000	15,000	4,000	15,000

* Some selected HDPE geomembrane sheet resins will achieve lower transmissivity values due to lower modulus. Specifying t he same resin as used in the sheet on a project may limit the PN-5000 to the 1.5 x 10.

A database listing of Mass Per Unit Area, Thickness, Tensile Properties, Density, Carbon Black Content and Transmissivity follows:

Note: Virgin Poly-Net is 100% virgin and contains no reworked plastic.

Serrot International

Jane Allen

Jane Allen
Quality Control Manager

7-24-00
Date

This certification of Analysis shall not be reproduced except in full, without the written approval of the laboratory.
Serrot International, Inc. 320 Innovation Way – Wellford, SC - 29385

Carrot International, Inc.

07/24/2000

Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10⁻³)
4021738-4197	0.2270	71.6	0.2052	2.32	0.965	1.79
4021739-4197	0.2270	71.6	0.2052	2.32	0.965	1.79
4021740-4197	0.2270	71.6	0.2052	2.32	0.965	1.79
4021741-4197	0.2270	71.6	0.2052	2.32	0.965	1.79
4021742-4197	0.2270	71.6	0.2052	2.32	0.965	1.79
4021743-4197	0.2270	71.6	0.2052	2.32	0.965	1.79
4021744-4197	0.2270	71.6	0.2052	2.32	0.965	1.79
4021745-4197	0.2270 *	71.6 *	0.2052 *	2.37 *	0.965 *	1.99 *
4021746-4197	0.2270	71.6	0.2052	2.37	0.965	1.85
4021747-4197	0.2270	71.6	0.2052	2.37	0.965	1.85
4021748-4197	0.2270	71.6	0.2052	2.37	0.965	1.85
4021749-4197	0.2270	71.6	0.2052	2.37	0.965	1.85
4021750-4197	0.2270	71.6	0.2052	2.37	0.965	1.85
4021751-4197	0.2270	71.6	0.2052	2.37	0.965	1.85
4021752-4197	0.2270	71.6	0.2052	2.37	0.965	1.85
4021753-4197	0.2360 *	72.9 *	0.2124 *	2.58 *	0.965 *	1.85 *
4021754-4197	0.2294	72.3	0.2061	2.46	0.961	1.85
4021755-4197	0.2294	72.3	0.2061	2.46	0.961	1.85
4021756-4197	0.2294	72.3	0.2061	2.46	0.961	1.85
4021757-4197	0.2294	72.3	0.2061	2.46	0.961	1.85
4021758-4197	0.2294	72.3	0.2061	2.46	0.961	1.85
4021759-4197	0.2294	72.3	0.2061	2.46	0.961	1.85
4021760-4197	0.2294	72.3	0.2061	2.46	0.961	1.85
4021761-4197	0.2294 *	72.3 *	0.2061 *	2.46 *	0.961 *	2.12 *
4021762-4197	0.2294	71.7	0.2061	2.37	0.961	1.80
4021763-4197	0.2294	71.7	0.2061	2.37	0.961	1.80

NOTE: An astrisk indicates the test was performed on that roll.

Jane Allen
Quality Control Manager

7-24-00
Date

Certification of Analysis shall not be reproduced except in full, without the written approval of the laboratory.

Carrot International, Inc.

07/24/2000

Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10-³)
4021764-4197	0.2294	71.7	0.2061	2.37	0.961	1.80
4021765-4197	0.2294	71.7	0.2061	2.37	0.961	1.80
4021766-4197	0.2294	71.7	0.2061	2.37	0.961	1.80
4021767-4197	0.2294	71.7	0.2061	2.37	0.961	1.80
4021768-4197	0.2294	71.7	0.2061	2.37	0.961	1.80
4021769-4197	0.2345 *	71.7 *	0.2066 *	2.37 *	0.965 *	1.80 *
4021770-4197	0.2345	71.3	0.2066	2.37	0.965	1.71
4021771-4197	0.2345	71.3	0.2066	2.37	0.965	1.71
4021772-4197	0.2345	71.3	0.2066	2.37	0.965	1.71
4021773-4197	0.2345	71.3	0.2066	2.37	0.965	1.71
4021774-4197	0.2345	71.3	0.2066	2.37	0.965	1.71
4021775-4197	0.2345	71.3	0.2066	2.37	0.965	1.71
4021776-4197	0.2345	71.3	0.2066	2.37	0.965	1.71
4021777-4197	0.2362 *	71.3 *	0.2102 *	2.47 *	0.965 *	1.71 *
4021778-4197	0.2357	71.3	0.2076	2.47	0.965	1.61
4021779-4197	0.2357	71.3	0.2076	2.47	0.965	1.61
4021780-4197	0.2357	71.3	0.2076	2.47	0.965	1.61
4021781-4197	0.2357	71.3	0.2076	2.47	0.965	1.61
4021782-4197	0.2357	71.3	0.2076	2.47	0.965	1.61
4021783-4197	0.2357	71.3	0.2076	2.47	0.965	1.61
4021784-4197	0.2357	71.3	0.2076	2.47	0.965	1.61
4021785-4197	0.2357 *	72.7 *	0.2076 *	2.55 *	0.965 *	1.61 *
4021786-4197	0.2343	70.5	0.2046	2.33	0.965	1.61
4021787-4197	0.2343	70.5	0.2046	2.33	0.965	1.61
4021788-4197	0.2343	70.5	0.2046	2.33	0.965	1.61

NOTE: An astrisk indicates the test was performed on that roll.

Jane Allen
Quality Control Manager

7-24-00
Date

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Carrot International, Inc.

07/24/2000

Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10-³)
4021789-4197	0.2343	70.5	0.2046	2.33	0.965	1.61
4021790-4197	0.2343	70.5	0.2046	2.33	0.965	1.61
4021791-4197	0.2343	70.5	0.2046	2.33	0.965	1.61
4021793-4197	0.2343 *	70.5 *	0.2046 *	2.33 *	0.965 *	2.10 *
4021794-4197	0.2343	70.5	0.2046	2.33	0.961	1.64
4021795-4197	0.2343	70.5	0.2046	2.33	0.961	1.64
4021796-4197	0.2343	70.5	0.2046	2.33	0.961	1.64
4021797-4197	0.2343	70.5	0.2046	2.33	0.961	1.64
4021798-4197	0.2343	70.5	0.2046	2.33	0.961	1.64
4021801-4197	0.2365 *	72.4 *	0.2102 *	2.34 *	0.961 *	1.64 *
4021802-4197	0.2353	72.4	0.2086	2.34	0.958	1.64
4021803-4197	0.2353	72.4	0.2086	2.34	0.958	1.64
4021804-4197	0.2353	72.4	0.2086	2.34	0.958	1.64
4021805-4197	0.2353	72.4	0.2086	2.34	0.958	1.64
4021806-4197	0.2353	72.4	0.2086	2.34	0.958	1.64
4021807-4197	0.2353	72.4	0.2086	2.34	0.958	1.64
4021808-4197	0.2353	72.4	0.2086	2.34	0.958	1.64
4021809-4197	0.2353 *	76.2 *	0.2086 *	2.54 *	0.958 *	1.88 *
4021810-4197	0.2353	76.2	0.2086	2.36	0.958	1.88
4021811-4197	0.2353	76.2	0.2086	2.36	0.958	1.88
4021812-4197	0.2353	76.2	0.2086	2.36	0.958	1.88
4021813-4197	0.2353	76.2	0.2086	2.36	0.958	1.88
4021814-4197	0.2353	76.2	0.2086	2.36	0.958	1.88
4021815-4197	0.2353	76.2	0.2086	2.36	0.958	1.88
4021816-4197	0.2353	76.2	0.2086	2.36	0.958	1.88
4021817-4197	0.2371 *	76.9 *	0.2123 *	2.36 *	0.959 *	2.00 *

NOTE: An astrisk indicates the test was performed on that roll.

Jane Allen

Jane Allen
Quality Control Manager

7-24-00

Date

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Serrot International, Inc.

07/24/2000

Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10-³)
4021818-4197	0.2304	74.6	0.2062	2.36	0.959	1.90
4021819-4197	0.2304	74.6	0.2062	2.36	0.959	1.90
4021820-4197	0.2304	74.6	0.2062	2.36	0.959	1.90
4021821-4197	0.2304	74.6	0.2062	2.36	0.959	1.90
4021822-4197	0.2304	74.6	0.2062	2.36	0.959	1.90
4021823-4197	0.2304	74.6	0.2062	2.36	0.959	1.90
4021824-4197	0.2304	74.6	0.2062	2.36	0.959	1.90
4021825-4197	0.2304 *	74.6 *	0.2062 *	2.41 *	0.960 *	1.90 *
4021826-4197	0.2304	74.6	0.2062	2.41	0.960	1.90
4021827-4197	0.2304	74.6	0.2062	2.41	0.960	1.90
4021828-4197	0.2304	74.6	0.2062	2.41	0.960	1.90
4021829-4197	0.2304	74.6	0.2062	2.41	0.960	1.90
4021830-4197	0.2304	74.6	0.2062	2.41	0.960	1.90

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Jane Allen
Quality Control Manager

7-24-00
Date

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Serrot International, Inc. 320 Innovation Way - Wellford, SC - 29385

Carrot International, Inc.

07/24/2000

Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10⁻³)
4021831-4197	0.2304	74.6	0.2062	2.41	0.960	1.90
4021832-4197	0.2304	74.6	0.2062	2.41	0.960	1.90
4021833-4197	0.2378 *	75.1 *	0.2129 *	2.49 *	0.960 *	2.01 *
4021834-4197	0.2339	73.4	0.2100	2.36	0.958	1.89
4021835-4197	0.2339	73.4	0.2100	2.36	0.958	1.89
4021836-4197	0.2339	73.4	0.2100	2.36	0.958	1.89
4021837-4197	0.2339	73.4	0.2100	2.36	0.958	1.89
4021838-4197	0.2339	73.4	0.2100	2.36	0.958	1.89
4021839-4197	0.2339	73.4	0.2100	2.36	0.958	1.89
4021840-4197	0.2339	73.4	0.2100	2.36	0.958	1.89
4021841-4197	0.2339 *	73.4 *	0.2100 *	2.36 *	0.958 *	1.89 *
4021842-4197	0.2318	73.4	0.2093	2.36	0.958	1.60
4021843-4197	0.2318	73.4	0.2093	2.36	0.958	1.60
4021844-4197	0.2318	73.4	0.2093	2.36	0.958	1.60
4021845-4197	0.2318	73.4	0.2093	2.36	0.958	1.60
4021846-4197	0.2318	73.4	0.2093	2.36	0.958	1.60
4021847-4197	0.2318	73.4	0.2093	2.36	0.958	1.60
4021848-4197	0.2318	73.4	0.2093	2.36	0.958	1.60
4021849-4197	0.2318 *	75.6 *	0.2093 *	2.54 *	0.961 *	1.60 *
4021850-4197	0.2318	74.9	0.2093	2.39	0.960	1.60
4021851-4197	0.2318	74.9	0.2093	2.39	0.960	1.60
4021852-4197	0.2318	74.9	0.2093	2.39	0.960	1.60
4021853-4197	0.2318	74.9	0.2093	2.39	0.960	1.60
4021854-4197	0.2318	74.9	0.2093	2.39	0.960	1.60
4021855-4197	0.2318	74.9	0.2093	2.39	0.960	1.60
4021856-4197	0.2318	74.9	0.2093	2.39	0.960	1.60

NOTE: An astrisk indicates the test was performed on that roll.

Jane Allen
Quality Control Manager

7-24-00
Date

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Carrot International, Inc. 320 Innovation Way - Wellford, SC - 29385

Carrot International, Inc.

07/24/2000

Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10-³)
4021857-4197	0.2336 *	74.9 *	0.2114 *	2.39 *	0.960 *	1.61 *
4021858-4197	0.2336	74.4	0.2101	2.39	0.960	1.61
4021859-4197	0.2336	74.4	0.2101	2.39	0.960	1.61
4021860-4197	0.2336	74.4	0.2101	2.39	0.960	1.61
4021861-4197	0.2336	74.4	0.2101	2.39	0.960	1.61
4021862-4197	0.2336	74.4	0.2101	2.39	0.960	1.61
4021863-4197	0.2336	74.4	0.2101	2.39	0.960	1.61
4021864-4197	0.2336	74.4	0.2101	2.39	0.960	1.61
4021865-4197	0.2373 *	74.4 *	0.2101 *	2.51 *	0.961 *	1.84 *
4021866-4197	0.2314	68.8	0.2061	2.51	0.958	1.84
4021867-4197	0.2314	68.8	0.2061	2.51	0.958	1.84
4021868-4197	0.2314	68.8	0.2061	2.51	0.958	1.84
4021869-4197	0.2314	68.8	0.2061	2.51	0.958	1.84
4021870-4197	0.2314	68.8	0.2061	2.51	0.958	1.84
4021871-4197	0.2314	68.8	0.2061	2.51	0.958	1.84
4021872-4197	0.2314	68.8	0.2061	2.51	0.958	1.84
4021873-4197	0.2314 *	68.8 *	0.2061 *	2.60 *	0.958 *	1.85 *
4021874-4197	0.2314	68.8	0.2061	2.60	0.958	1.78
4021875-4197	0.2314	68.8	0.2061	2.60	0.958	1.78
4021876-4197	0.2314	68.8	0.2061	2.60	0.958	1.78
4021877-4197	0.2314	68.8	0.2061	2.60	0.958	1.78
4021878-4197	0.2314	68.8	0.2061	2.60	0.958	1.78
4021879-4197	0.2314	68.8	0.2061	2.60	0.958	1.78
4021880-4197	0.2314	68.8	0.2061	2.60	0.958	1.78
4021881-4197	0.2355 *	72.4 *	0.2063 *	2.66 *	0.962 *	1.78 *

NOTE: An astrisk indicates the test was performed on that roll.

Jane Allen
Quality Control Manager

7-24-00
Date

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Propex International, Inc.

07/24/2000

Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10-³)
4021882-4197	0.2312	72.4	0.2063	2.40	0.960	1.62
4021883-4197	0.2312	72.4	0.2063	2.40	0.960	1.62
4021884-4197	0.2312	72.4	0.2063	2.40	0.960	1.62
4021885-4197	0.2312	72.4	0.2063	2.40	0.960	1.62
4021886-4197	0.2312	72.4	0.2063	2.40	0.960	1.62
4021887-4197	0.2312	72.4	0.2063	2.40	0.960	1.62
4021888-4197	0.2312	72.4	0.2063	2.40	0.960	1.62
4021889-4197	0.2312 *	73.9 *	0.2068 *	2.40 *	0.960 *	1.62 *
4021890-4197	0.2353	73.9	0.2068	2.40	0.960	1.62
4021891-4197	0.2353	73.9	0.2068	2.40	0.960	1.62
4021892-4197	0.2353	73.9	0.2068	2.40	0.960	1.62
4021893-4197	0.2353	73.9	0.2068	2.40	0.960	1.62
4021894-4197	0.2353	73.9	0.2068	2.40	0.960	1.62
4021895-4197	0.2353	73.9	0.2068	2.40	0.960	1.62
4021896-4197	0.2353	73.9	0.2068	2.40	0.960	1.62
4021897-4197	0.2353	73.9	0.2068	2.40	0.960	1.62
4021898-4197	0.2353 *	77.6 *	0.2097 *	2.70 *	0.963 *	1.83 *
4021899-4197	0.2370	77.6	0.2097	2.70	0.962	1.71
4021900-4197	0.2370	77.6	0.2097	2.70	0.962	1.71
4021901-4197	0.2370	77.6	0.2097	2.70	0.962	1.71
4021902-4197	0.2370	77.6	0.2097	2.70	0.962	1.71
4021903-4197	0.2370	77.6	0.2097	2.70	0.962	1.71
4021904-4197	0.2370	77.6	0.2097	2.70	0.962	1.71
4021905-4197	0.2370	77.6	0.2097	2.70	0.962	1.71
4021906-4197	0.2370 *	82.0 *	0.2116 *	2.82 *	0.962 *	1.71 *
4021907-4197	0.2286	73.4	0.2064	2.48	0.962	1.71

NOTE: An astrisk indicates the test was performed on that roll.

Jane Allen
Quality Control Manager

7-24-00
Date

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Carrot International, Inc.

07/24/2000

Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10⁻³)
4021908-4197	0.2286	73.4	0.2064	2.48	0.962	1.71
4021909-4197	0.2286	73.4	0.2064	2.48	0.962	1.71
4021910-4197	0.2286	73.4	0.2064	2.48	0.962	1.71
4021911-4197	0.2286	73.4	0.2064	2.48	0.962	1.71
4021912-4197	0.2286	73.4	0.2064	2.48	0.962	1.71
4021913-4197	0.2286	73.4	0.2064	2.48	0.962	1.71
4021914-4197	0.2286 *	73.4 *	0.2064 *	2.48 *	0.962 *	1.76 *
4021915-4197	0.2266	73.4	0.2064	2.48	0.962	1.76
4021916-4197	0.2266	73.4	0.2064	2.48	0.962	1.76
4021917-4197	0.2266	73.4	0.2064	2.48	0.962	1.76
4021918-4197	0.2266	73.4	0.2064	2.48	0.962	1.76
4021919-4197	0.2266	73.4	0.2064	2.48	0.962	1.76
4021920-4197	0.2266	73.4	0.2064	2.48	0.962	1.76
4021921-4197	0.2366	73.4	0.2064	2.48	0.962	1.76
4021922-4197	0.2366 *	74.6 *	0.2107 *	2.49 *	0.962 *	1.90 *
4021923-4197	0.2302	74.6	0.2064	2.47	0.962	1.69
4021924-4197	0.2302	74.6	0.2064	2.47	0.962	1.69
4021925-4197	0.2302	74.6	0.2064	2.47	0.962	1.69
4021926-4197	0.2302	74.6	0.2064	2.47	0.962	1.69
4021927-4197	0.2302	74.6	0.2064	2.47	0.962	1.69
4021928-4197	0.2302	74.6	0.2064	2.47	0.962	1.69
4021929-4197	0.2302	74.6	0.2064	2.47	0.962	1.69
4021930-4197	0.2302 *	77.1 *	0.2064 *	2.47 *	0.962 *	1.69 *
4021931-4197	0.2281	72.3	0.2064	2.47	0.962	1.69
4021932-4197	0.2281	72.3	0.2064	2.47	0.962	1.69

NOTE: An astrisk indicates the test was performed on that roll.

Jane Allen
Quality Control Manager

7-24-00
Date

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Serrot International, Inc.

07/24/2000

Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10-³)
4021933-4197	0.2281	72.3	0.2064	2.47	0.962	1.69
4021934-4197	0.2281	72.3	0.2064	2.47	0.962	1.69
4021935-4197	0.2281 *	72.3 *	0.2079 *	2.72 *	0.962 *	1.80 *

NOTE: An astrisk indicates the test was performed on that roll.

Jane Allen
Quality Control Manager

7-24-00
Date

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07/24/00

Poly-Net™ Certificate of Analysis

Customer: RB Baker Construction

Number of Rolls Shipped: 231

Project Name: WMI/Trail Ridge, LF

Material Code: SH3NNT150STBBP

Project Number: 5135

Bill of Lading: To be shipped

We hereby certify that the polyethylene geonet for the above mentioned shipment meets or exceeds Serrot International's specifications, below. Testing, except transmissivity, was performed at least every 40,000 ft. Transmissivity was performed at least once per shift.

Thickness was measured according to ASTM D 5199. Tensiles were determined according to ASTM D 5035, SII modified. Mass per unit area was determined according to ASTM D 5261. Carbon black content was determined according to ASTM 4218. Density was determined according to ASTM D 1505. Transmissivity was determined according to ASTM D 4716, SII modified. Transmissivity is measured in the machine direction between two steel plates one hour after application of the confining pressure. The standard transmissivity testing parameters for Poly-Net ™ are: PN2000 – 2,000 psf/1.0 gradient, PN3000 – 15,000 psf/1.0 gradient, PN3000CN – 4,000 psf/1.0 gradient, and PN5000 – 15,000 psf/1.0 gradient.

GEONET SPECIFICATIONS

	PN-2000	PN-3000	PN-3000CN	PN-5000
Thickness (inches)	0.160	0.200	0.200	0.250
Mass Per Unit Area (lbs/ft^3)	0.100	0.162	0.140	0.200
Tensile Strength (ppi)	30	45	32	50
Density (g/cm^3)	0.940	0.940	0.940	0.940
Carbon Black Content (%)	2.0	2.0	2.0	2.0
Transmissivity (m^3/sec x 10^{-3})	1.0	1.0	1.0	2.0 (1.5*)
Confining Pressure (psf)	2,000	15,000	4,000	15,000

* Some selected HDPE geomembrane sheet resins will achieve lower transmissivity values due to lower modulus. Specifying t he same resin as used in the sheet on a project may limit the PN-5000 to the 1.5 x 10.

A database listing of Mass Per Unit Area, Thickness, Tensile Properties, Density, Carbon Black Content and Transmissivity follows:

Note: Virgin Poly-Net is 100% virgin and contains no reworked plastic.

Serrot International

Jane Allen

Jane Allen
Quality Control Manager

8-03-00

Date

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Serrot International, Inc. 320 Innovation Way – Wellford, SC - 29385

Serrot International, Inc.

08/02/2000

Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10-³)
4022532-4204	0.2094 *	62.9 *	0.1663 *	2.56 *	0.962 *	1.36 *
4022533-4204	0.2203	62.9	0.1663	2.48	0.961	1.36
4022534-4204	0.2203	62.9	0.1663	2.48	0.961	1.36
4022535-4204	0.2203	62.9	0.1663	2.48	0.961	1.36
4022536-4204	0.2203	62.9	0.1663	2.48	0.961	1.36
4022537-4204	0.2203	62.9	0.1663	2.48	0.961	1.36
4022538-4204	0.2203	62.9	0.1663	2.48	0.961	1.36
4022539-4204	0.2203	62.9	0.1663	2.48	0.961	1.36
4022540-4204	0.2203 *	65.8 *	0.1758 *	2.48 *	0.961 *	1.36
4022541-4204	0.2167	64.5	0.1733	2.48	0.961	1.36
4022542-4204	0.2167	64.5	0.1733	2.48	0.961	1.36
4022543-4204	0.2167	64.5	0.1733	2.48	0.961	1.36
4022544-4204	0.2167	64.5	0.1733	2.48	0.961	1.36
4022545-4204	0.2167	64.5	0.1733	2.48	0.961	1.36
4022546-4204	0.2167	64.5	0.1733	2.48	0.961	1.36
4022547-4204	0.2167	64.5	0.1733	2.48	0.961	1.36
4022548-4204	0.2167 *	64.5 *	0.1733 *	2.61 *	0.961 *	1.36
4022549-4204	0.2123	63.3	0.1688	2.52	0.961	1.36
4022550-4204	0.2123	63.3	0.1688	2.52	0.961	1.36
4022551-4204	0.2123	63.3	0.1688	2.52	0.961	1.36
4022552-4204	0.2123	63.3	0.1688	2.52	0.961	1.36
4022553-4204	0.2123	63.3	0.1688	2.52	0.961	1.36
4022554-4204	0.2123	63.3	0.1688	2.52	0.961	1.36
4022555-4204	0.2123	63.3	0.1688	2.52	0.961	1.36
4022556-4204	0.2123 *	63.3 *	0.1688 *	2.52 *	0.961 *	1.65 *
4022557-4204	0.2123	63.3	0.1688	2.52	0.958	1.61

NOTE: An astrisk indicates the test was performed on that roll.

Jane Allen

Jane Allen
Quality Control Manager

8-02-00

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Carrot International, Inc.

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Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10⁻³)
4022558-4204	0.2123	63.3	0.1688	2.52	0.958	1.61
4022559-4204	0.2123	63.3	0.1688	2.52	0.958	1.61
4022560-4204	0.2123	63.3	0.1688	2.52	0.958	1.61
4022561-4204	0.2123	63.3	0.1688	2.52	0.958	1.61
4022562-4204	0.2123	63.3	0.1688	2.52	0.958	1.61
4022563-4204	0.2123	63.3	0.1688	2.52	0.958	1.61
4022564-4204	0.2144 *	66.5 *	0.1722 *	2.68 *	0.958 *	1.61
4022565-4204	0.2118	60.8	0.1711	2.42	0.958	1.61
4022566-4204	0.2118	60.8	0.1711	2.42	0.958	1.61
4022567-4204	0.2118	60.8	0.1711	2.42	0.958	1.61
4022568-4204	0.2118	60.8	0.1711	2.42	0.958	1.61
4022569-4204	0.2118	60.8	0.1711	2.42	0.958	1.61
4022570-4204	0.2118	60.8	0.1711	2.42	0.958	1.61
4022571-4204	0.2118	60.8	0.1711	2.42	0.958	1.61
4022572-4204	0.2118 *	60.8 *	0.1711 *	2.42 *	0.961 *	1.61
4022573-4204	0.2118	60.8	0.1711	2.42	0.961	1.61
4022574-4204	0.2118	60.8	0.1711	2.42	0.961	1.61
4022575-4204	0.2118	60.8	0.1711	2.42	0.961	1.61
4022576-4204	0.2118	60.8	0.1711	2.42	0.961	1.61
4022577-4204	0.2118	60.8	0.1711	2.42	0.961	1.61
4022578-4204	0.2118	60.8	0.1711	2.42	0.961	1.61
4022579-4204	0.2118	60.8	0.1711	2.42	0.961	1.61
4022580-4204	0.2161 *	63.9 *	0.1749 *	2.71 *	0.961 *	1.61 *
4022581-4204	0.2159	63.6	0.1749	2.60	0.961	1.50
4022582-4204	0.2159	63.6	0.1749	2.60	0.961	1.50

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Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10⁻³)
4022583-4204	0.2159	63.6	0.1749	2.60	0.961	1.50
4022584-4204	0.2159	63.6	0.1749	2.60	0.961	1.50
4022585-4204	0.2159	63.6	0.1749	2.60	0.961	1.50
4022586-4204	0.2159	63.6	0.1749	2.60	0.961	1.50
4022587-4204	0.2159	63.6	0.1749	2.60	0.961	1.50
4022588-4204	0.2159 *	63.6 *	0.1749 *	2.60 *	0.961 *	1.50
4022589-4204	0.2148	63.6	0.1749	2.60	0.961	1.50
4022590-4204	0.2148	63.6	0.1749	2.60	0.961	1.50
4022591-4204	0.2148	63.6	0.1749	2.60	0.961	1.50
4022592-4204	0.2148	63.6	0.1749	2.60	0.961	1.50
4022593-4204	0.2148	63.6	0.1749	2.60	0.961	1.50
4022594-4204	0.2148	63.6	0.1749	2.60	0.961	1.50
4022595-4204	0.2148	63.6	0.1749	2.60	0.961	1.50
4022596-4204	0.2148 *	64.0 *	0.1756 *	2.61 *	0.961 *	1.50
4022597-4204	0.2148	64.0	0.1756	2.42	0.961	1.50
4022598-4204	0.2148	64.0	0.1756	2.42	0.961	1.50
4022599-4204	0.2148	64.0	0.1756	2.42	0.961	1.50
4022600-4204	0.2148	64.0	0.1756	2.42	0.961	1.50
4022601-4204	0.2148	64.0	0.1756	2.42	0.961	1.50
4022602-4204	0.2148	64.0	0.1756	2.42	0.961	1.50
4022603-4204	0.2148	64.0	0.1756	2.42	0.961	1.50
4022604-4204	0.2174 *	64.7 *	0.1765 *	2.42 *	0.961 *	1.50 *
4022605-4204	0.2126	64.7	0.1746	2.42	0.961	1.25
4022606-4204	0.2126	64.7	0.1746	2.42	0.961	1.25
4022607-4204	0.2126	64.7	0.1746	2.42	0.961	1.25
4022608-4204	0.2126	64.7	0.1746	2.42	0.961	1.25

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Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10⁻³)
4022609-4204	0.2126	64.7	0.1746	2.42	0.961	1.25
4022610-4204	0.2126	64.7	0.1746	2.42	0.961	1.25
4022611-4204	0.2126	64.7	0.1746	2.42	0.961	1.25
4022612-4204	0.2126 *	64.7 *	0.1746 *	2.59 *	0.962 *	1.25
4022613-4204	0.2126	62.2	0.1745	2.59	0.962	1.25
4022614-4204	0.2126	62.2	0.1745	2.59	0.962	1.25
4022615-4204	0.2126	62.2	0.1745	2.59	0.962	1.25
4022616-4204	0.2126	62.2	0.1745	2.59	0.962	1.25
4022617-4204	0.2126	62.2	0.1745	2.59	0.962	1.25
4022618-4204	0.2126	62.2	0.1745	2.59	0.962	1.25
4022619-4204	0.2126	62.2	0.1745	2.59	0.962	1.25
4022620-4204	0.2156 *	62.2 *	0.1745 *	2.76 *	0.964 *	1.25
4022621-4204	0.2156	62.2	0.1745	2.58	0.962	1.25
4022622-4204	0.2156	62.2	0.1745	2.58	0.962	1.25
4022623-4204	0.2156	62.2	0.1745	2.58	0.962	1.25
4022624-4204	0.2156	62.2	0.1745	2.58	0.962	1.25
4022625-4204	0.2156	62.2	0.1745	2.58	0.962	1.25
4022626-4204	0.2156	62.2	0.1745	2.58	0.962	1.25
4022627-4204	0.2156	62.2	0.1745	2.58	0.962	1.25
4022628-4204	0.2177 *	67.1 *	0.1748 *	2.58 *	0.962 *	1.25 *
4022629-4204	0.2130	62.7	0.1739	2.58	0.962	1.25
4022630-4204	0.2130	62.7	0.1739	2.58	0.962	1.25
4022631-4204	0.2130	62.7	0.1739	2.58	0.962	1.25
4022632-4204	0.2130	62.7	0.1739	2.58	0.962	1.25
4022633-4204	0.2130	62.7	0.1739	2.58	0.962	1.25

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Jane Allen

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Quality Control Manager

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Carrot International, Inc. 320 Innovation Way - Wellford, SC - 29385

Carrot International, Inc.

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Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10⁻³)
4022634-4204	0.2130	62.7	0.1739	2.58	0.962	1.25
4022635-4204	0.2130	62.7	0.1739	2.58	0.962	1.25
4022636-4204	0.2130 *	62.7 *	0.1739 *	2.65 *	0.963 *	1.25
4022637-4204	0.2119	59.8	0.1702	2.65	0.963	1.25
4022638-4204	0.2119	59.8	0.1702	2.65	0.963	1.25
4022639-4204	0.2119	59.8	0.1702	2.65	0.963	1.25
4022640-4204	0.2119	59.8	0.1702	2.65	0.963	1.25
4022641-4204	0.2119	59.8	0.1702	2.65	0.963	1.25
4022642-4204	0.2119	59.8	0.1702	2.65	0.963	1.25
4022643-4204	0.2119	59.8	0.1702	2.65	0.963	1.25
4022644-4204	0.2119 *	59.8 *	0.1702 *	2.66 *	0.963 *	1.25
4022645-4204	0.2119	59.8	0.1702	2.66	0.962	1.25
4022646-4204	0.2119	59.8	0.1702	2.66	0.962	1.25
4022647-4204	0.2119	59.8	0.1702	2.66	0.962	1.25
4022648-4204	0.2119	59.8	0.1702	2.66	0.962	1.25
4022649-4204	0.2119	59.8	0.1702	2.66	0.962	1.25
4022650-4204	0.2119	59.8	0.1702	2.66	0.962	1.25
4022651-4204	0.2119	59.8	0.1702	2.66	0.962	1.25
4022652-4204	0.2151 *	62.4 *	0.1745 *	2.79 *	0.962 *	1.37 *
4022653-4204	0.2151	62.4	0.1741	2.56	0.961	1.37
4022654-4204	0.2151	62.4	0.1741	2.56	0.961	1.37
4022655-4204	0.2151	62.4	0.1741	2.56	0.961	1.37
4022656-4204	0.2151	62.4	0.1741	2.56	0.961	1.37
4022657-4204	0.2151	62.4	0.1741	2.56	0.961	1.37
4022658-4204	0.2151	62.4	0.1741	2.56	0.961	1.37
4022659-4204	0.2151	62.4	0.1741	2.56	0.961	1.37

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Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10⁻³)
4022660-4204	0.2171 *	64.8 *	0.1741 *	2.56 *	0.961 *	1.37
4022661-4204	0.2144	64.8	0.1741	2.56	0.960	1.37
4022662-4204	0.2144	64.8	0.1741	2.56	0.960	1.37
4022663-4204	0.2144	64.8	0.1741	2.56	0.960	1.37
4022664-4204	0.2144	64.8	0.1741	2.56	0.960	1.37
4022665-4204	0.2144	64.8	0.1741	2.56	0.960	1.37
4022666-4204	0.2144	64.8	0.1741	2.56	0.960	1.37
4022667-4204	0.2144	64.8	0.1741	2.56	0.960	1.37
4022668-4204	0.2144 *	65.2 *	0.1761 *	2.63 *	0.960 *	1.37
4022669-4204	0.2134	63.5	0.1716	2.60	0.960	1.37
4022670-4204	0.2134	63.5	0.1716	2.60	0.960	1.37
4022671-4204	0.2134	63.5	0.1716	2.60	0.960	1.37
4022672-4204	0.2134	63.5	0.1716	2.60	0.960	1.37
4022673-4204	0.2134	63.5	0.1716	2.60	0.960	1.37
4022674-4204	0.2134	63.5	0.1716	2.60	0.960	1.37
4022675-4204	0.2134	63.5	0.1716	2.60	0.960	1.37
4022676-4204	0.2134 *	63.5 *	0.1716 *	2.60 *	0.962 *	1.44 *
4022677-4204	0.2134	61.6	0.1716	2.60	0.962	1.38
4022678-4204	0.2134	61.6	0.1716	2.60	0.962	1.38
4022679-4204	0.2134	61.6	0.1716	2.60	0.962	1.38
4022680-4204	0.2134	61.6	0.1716	2.60	0.962	1.38
4022681-4204	0.2134	61.6	0.1716	2.60	0.962	1.38
4022682-4204	0.2134	61.6	0.1716	2.60	0.962	1.38
4022683-4204	0.2134	61.6	0.1716	2.60	0.962	1.38
4022684-4204	0.2143 *	61.6 *	0.1741 *	2.67 *	0.962 *	1.38

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Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10-³)
4022685-4204	0.2143	61.6	0.1741	2.56	0.961	1.38
4022686-4204	0.2143	61.6	0.1741	2.56	0.961	1.38
4022687-4204	0.2143	61.6	0.1741	2.56	0.961	1.38
4022688-4204	0.2143	61.6	0.1741	2.56	0.961	1.38
4022689-4204	0.2143	61.6	0.1741	2.56	0.961	1.38
4022690-4204	0.2143	61.6	0.1741	2.56	0.961	1.38
4022691-4204	0.2143	61.6	0.1741	2.56	0.961	1.38
4022692-4204	0.2146 *	63.4 *	0.1754 *	2.56 *	0.961 *	1.38
4022693-4204	0.2136	63.4	0.1730	2.50	0.961	1.38
4022694-4204	0.2136	63.4	0.1730	2.50	0.961	1.38
4022695-4204	0.2136	63.4	0.1730	2.50	0.961	1.38
4022696-4204	0.2136	63.4	0.1730	2.50	0.961	1.38
4022697-4204	0.2136	63.4	0.1730	2.50	0.961	1.38
4022698-4204	0.2136	63.4	0.1730	2.50	0.961	1.38
4022699-4204	0.2136	63.4	0.1730	2.50	0.961	1.38
4022700-4204	0.2136 *	65.9 *	0.1730 *	2.50 *	0.961 *	1.38 *
4022701-4204	0.2136	64.5	0.1730	2.50	0.961	1.12
4022702-4204	0.2136	64.5	0.1730	2.50	0.961	1.12
4022703-4204	0.2136	64.5	0.1730	2.50	0.961	1.12
4022704-4204	0.2136	64.5	0.1730	2.50	0.961	1.12
4022705-4204	0.2136	64.5	0.1730	2.50	0.961	1.12
4022707-4204	0.2136	64.5	0.1730	2.50	0.961	1.12
4022708-4204	0.2187 *	64.5 *	0.1734 *	2.65 *	0.962 *	1.12
4022709-4204	0.2120	64.5	0.1705	2.54	0.961	1.12
4022710-4204	0.2120	64.5	0.1705	2.54	0.961	1.12
4022711-4204	0.2120	64.5	0.1705	2.54	0.961	1.12

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Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft^2)	Carbon Content (%)	Density (g/cm^3)	Transmissivity ($m^2/sec \times 10^{-3}$)
4022712-4204	0.2120	64.5	0.1705	2.54	0.961	1.12
4022713-4204	0.2120	64.5	0.1705	2.54	0.961	1.12
4022714-4204	0.2120	64.5	0.1705	2.54	0.961	1.12
4022715-4204	0.2120	64.5	0.1705	2.54	0.961	1.12
4022716-4204	0.2120 *	65.5 *	0.1705 *	2.54 *	0.961 *	1.12
4022717-4204	0.2120	63.8	0.1705	2.54	0.961	1.12
4022718-4204	0.2120	63.8	0.1705	2.54	0.961	1.12
4022719-4204	0.2120	63.8	0.1705	2.54	0.961	1.12
4022720-4204	0.2120	63.8	0.1705	2.54	0.961	1.12
4022721-4204	0.2120	63.8	0.1705	2.54	0.961	1.12
4022722-4204	0.2120	63.8	0.1705	2.54	0.961	1.12
4022723-4204	0.2120	63.8	0.1705	2.54	0.961	1.12
4022724-4204	0.2200 *	63.8 *	0.1740 *	2.59 *	0.961 *	1.12 *
4022725-4204	0.2118	62.9	0.1710	2.59	0.960	1.12
4022726-4204	0.2118	62.9	0.1710	2.59	0.960	1.12
4022727-4204	0.2118	62.9	0.1710	2.59	0.960	1.12
4022728-4204	0.2118	62.9	0.1710	2.59	0.960	1.12
4022729-4204	0.2118	62.9	0.1710	2.59	0.960	1.12
4022730-4204	0.2118	62.9	0.1710	2.59	0.960	1.12
4022731-4204	0.2118	62.9	0.1710	2.59	0.960	1.12
4022732-4204	0.2118 *	62.9 *	0.1710 *	2.62 *	0.960 *	1.12
4022733-4204	0.2118	62.9	0.1710	2.32	0.960	1.12
4022734-4204	0.2118	62.9	0.1710	2.32	0.960	1.12
4022735-4204	0.2118	62.9	0.1710	2.32	0.960	1.12
4022736-4204	0.2118	62.9	0.1710	2.32	0.960	1.12

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Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10⁻³)
4022737-4204	0.2118	62.9	0.1710	2.32	0.960	1.12
4022738-4204	0.2118	62.9	0.1710	2.32	0.960	1.12
4022739-4204	0.2118	62.9	0.1710	2.32	0.960	1.12
4022740-4204	0.2179 *	69.1 *	0.1759 *	2.32 *	0.962 *	1.12
4022741-4204	0.2178	62.4	0.1741	2.32	0.962	1.12
4022742-4204	0.2178	62.4	0.1741	2.32	0.962	1.12
4022743-4204	0.2178	62.4	0.1741	2.32	0.962	1.12
4022744-4204	0.2178	62.4	0.1741	2.32	0.962	1.12
4022745-4204	0.2178	62.4	0.1741	2.32	0.962	1.12
4022746-4204	0.2178	62.4	0.1741	2.32	0.962	1.12
4022747-4204	0.2178	62.4	0.1741	2.32	0.962	1.12
4022748-4204	0.2178 *	62.4 *	0.1741 *	2.65 *	0.962 *	1.35 *
4022749-4204	0.2167	62.4	0.1739	2.62	0.962	1.35
4022750-4204	0.2167	62.4	0.1739	2.62	0.962	1.35
4022751-4204	0.2167	62.4	0.1739	2.62	0.962	1.35
4022752-4204	0.2167	62.4	0.1739	2.62	0.962	1.35
4022753-4204	0.2167	62.4	0.1739	2.62	0.962	1.35
4022754-4204	0.2167	62.4	0.1739	2.62	0.962	1.35
4022755-4204	0.2167	62.4	0.1739	2.62	0.962	1.35
4022756-4204	0.2167 *	64.4 *	0.1739 *	2.62 *	0.962 *	1.35
4022757-4204	0.2152	59.9	0.1739	2.59	0.961	1.35
4022758-4204	0.2152	59.9	0.1739	2.59	0.961	1.35
4022759-4204	0.2152	59.9	0.1739	2.59	0.961	1.35
4022760-4204	0.2152	59.9	0.1739	2.59	0.961	1.35
4022761-4204	0.2152	59.9	0.1739	2.59	0.961	1.35
4022762-4204	0.2152	59.9	0.1739	2.59	0.961	1.35

NOTE: An astrisk indicates the test was performed on that roll.

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Quality Control Manager

8-02-00
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Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10-³)
4022763-4204	0.2152	59.9	0.1739	2.59	0.961	1.35
4022764-4204	0.2152 *	59.9 *	0.1743 *	2.59 *	0.961 *	1.35
4022765-4204	0.2152	58.7	0.1725	2.39	0.958	1.35
4022766-4204	0.2152	58.7	0.1725	2.39	0.958	1.35
4022767-4204	0.2152	58.7	0.1725	2.39	0.958	1.35
4022768-4204	0.2152	58.7	0.1725	2.39	0.958	1.35
4022769-4204	0.2152	58.7	0.1725	2.39	0.958	1.35
4022770-4204	0.2152	58.7	0.1725	2.39	0.958	1.35
4022771-4204	0.2152	58.7	0.1725	2.39	0.958	1.35
4022772-4204	0.2163 *	58.7 *	0.1725 *	2.39 *	0.958 *	1.51 *
4022773-4204	0.2116	58.7	0.1711	2.39	0.958	1.51
4022774-4204	0.2116	58.7	0.1711	2.39	0.958	1.51
4022775-4204	0.2116	58.7	0.1711	2.39	0.958	1.51
4022776-4204	0.2116	58.7	0.1711	2.39	0.958	1.51
4022777-4204	0.2116	58.7	0.1711	2.39	0.958	1.51
4022778-4204	0.2116	58.7	0.1711	2.39	0.958	1.51
4022779-4204	0.2116	58.7	0.1711	2.39	0.958	1.51
4022780-4204	0.2116 *	58.9 *	0.1711 *	2.40 *	0.958 *	1.51
4022781-4204	0.2095	58.9	0.1711	2.40	0.954	1.51
4022782-4204	0.2095	58.9	0.1711	2.40	0.954	1.51
4022783-4204	0.2095	58.9	0.1711	2.40	0.954	1.51
4022784-4204	0.2095	58.9	0.1711	2.40	0.954	1.51
4022785-4211	0.2095	58.9	0.1711	2.40	0.954	1.51
4022786-4211	0.2095	58.9	0.1711	2.40	0.954	1.51
4022787-4211	0.2095	58.9	0.1711	2.40	0.954	1.51

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Jane Allen
Quality Control Manager

8-02-00
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08/02/2000

Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10⁻³)
4022788-4211	0.2095 *	68.5 *	0.1734 *	2.59 *	0.954 *	1.51
4022789-4211	0.2095	63.6	0.1732	2.59	0.954	1.51
4022790-4211	0.2095	63.6	0.1732	2.59	0.954	1.51
4022791-4211	0.2095	63.6	0.1732	2.59	0.954	1.51
4022792-4211	0.2095	63.6	0.1732	2.59	0.954	1.51
4022793-4211	0.2095	63.6	0.1732	2.59	0.954	1.51
4022794-4211	0.2095	63.6	0.1732	2.59	0.954	1.51
4022795-4211	0.2095	63.6	0.1732	2.59	0.954	1.51
4022796-4211	0.2120 *	63.6 *	0.1732 *	2.64 *	0.958 *	1.74 *
4022797-4211	0.2120	62.8	0.1732	2.59	0.958	1.44
4022798-4211	0.2120	62.8	0.1732	2.59	0.958	1.44
4022799-4211	0.2120	62.8	0.1732	2.59	0.958	1.44
4022800-4211	0.2120	62.8	0.1732	2.59	0.958	1.44
4022801-4211	0.2120	62.8	0.1732	2.59	0.958	1.44
4022802-4211	0.2120	62.8	0.1732	2.59	0.958	1.44
4022803-4211	0.2120	62.8	0.1732	2.59	0.958	1.44
4022804-4211	0.2158 *	62.8 *	0.1740 *	2.59 *	0.958 *	1.44
4022805-4211	0.2158	62.8	0.1737	2.59	0.956	1.44
4022806-4211	0.2158	62.8	0.1737	2.59	0.956	1.44
4022807-4211	0.2158	62.8	0.1737	2.59	0.956	1.44
4022808-4211	0.2158	62.8	0.1737	2.59	0.956	1.44
4022809-4211	0.2158	62.8	0.1737	2.59	0.956	1.44
4022810-4211	0.2158	62.8	0.1737	2.59	0.956	1.44
4022811-4211	0.2158	62.8	0.1737	2.59	0.956	1.44
4022812-4211	0.2173 *	64.5 *	0.1737 *	2.60 *	0.956 *	1.44
4022813-4211	0.2156	63.3	0.1722	2.60	0.956	1.44

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Jane Allen
Quality Control Manager

8-02-00
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Carrot International, Inc.

08/02/2000

Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10⁻³)
4022814-4211	0.2156	63.3	0.1722	2.60	0.956	1.44
4022815-4211	0.2156	63.3	0.1722	2.60	0.956	1.44
4022816-4211	0.2156	63.3	0.1722	2.60	0.956	1.44
4022817-4211	0.2156	63.3	0.1722	2.60	0.956	1.44
4022818-4211	0.2156	63.3	0.1722	2.60	0.956	1.44
4022819-4211	0.2156	63.3	0.1722	2.60	0.956	1.44
4022820-4211	0.2156 *	63.3 *	0.1722 *	2.79 *	0.961 *	1.44 *
4022821-4211	0.2152	62.9	0.1722	2.55	0.961	1.44
4022822-4211	0.2152	62.9	0.1722	2.55	0.961	1.44
4022823-4211	0.2152	62.9	0.1722	2.55	0.961	1.44
4022824-4211	0.2152	62.9	0.1722	2.55	0.961	1.44
4022825-4211	0.2152	62.9	0.1722	2.55	0.961	1.44
4022826-4211	0.2152	62.9	0.1722	2.55	0.961	1.44
4022827-4211	0.2152	62.9	0.1722	2.55	0.961	1.44
4022828-4211	0.2152 *	62.9 *	0.1737 *	2.55 *	0.961 *	1.44
4022829-4211	0.2152	62.4	0.1737	2.55	0.961	1.44
4022830-4211	0.2152	62.4	0.1737	2.55	0.961	1.44
4022831-4211	0.2152	62.4	0.1737	2.55	0.961	1.44
4022832-4211	0.2152	62.4	0.1737	2.55	0.961	1.44
4022833-4211	0.2152	62.4	0.1737	2.55	0.961	1.44
4022834-4211	0.2152	62.4	0.1737	2.55	0.961	1.44
4022835-4211	0.2152	62.4	0.1737	2.55	0.961	1.44
4022836-4211	0.2157 *	62.4 *	0.1743 *	2.82 *	0.963 *	1.44
4022837-4211	0.2128	58.8	0.1727	2.60	0.963	1.44
4022838-4211	0.2128	58.8	0.1727	2.60	0.963	1.44

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Jane Allen
Quality Control Manager

8-02-00
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Carrot International, Inc.

08/03/2000

Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10-³)
4022839-4211	0.2128	58.8	0.1727	2.60	0.963	1.44
4022840-4211	0.2128	58.8	0.1727	2.60	0.963	1.44
4022841-4211	0.2128	58.8	0.1727	2.60	0.963	1.44
4022842-4211	0.2128	58.8	0.1727	2.60	0.963	1.44
4022843-4211	0.2128	58.8	0.1727	2.60	0.963	1.44
4022844-4211	0.2128 *	58.8 *	0.1727 *	2.60 *	0.964 *	1.56 *
4022845-4211	0.2128	58.8	0.1727	2.55	0.959	1.25
4022846-4211	0.2128	58.8	0.1727	2.55	0.959	1.25
4022847-4211	0.2128	58.8	0.1727	2.55	0.959	1.25
4022848-4211	0.2128	58.8	0.1727	2.55	0.959	1.25
4022849-4211	0.2128	58.8	0.1727	2.55	0.959	1.25
4022850-4211	0.2128	58.8	0.1727	2.55	0.959	1.25
4022851-4211	0.2128	58.8	0.1727	2.55	0.959	1.25
4022852-4211	0.2189 *	63.2 *	0.1766 *	2.55 *	0.959 *	1.25 *
4022854-4211	0.2354 *	73.2 *	0.2093 *	2.76 *	0.959 *	1.79 *

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Quality Control Manager

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07/24/00

Poly-Net™ Certificate of Analysis

Customer: RB Baker Construction

Number of Rolls Shipped: 95

Project Name: WMI/Trail Ridge, LF

Material Code: SH3NNT150STBBP

Project Number: 5135SP

Bill of Lading: To be shipped

We hereby certify that the polyethylene geonet for the above mentioned shipment meets or exceeds Serrot International's specifications, below. Testing, except transmissivity, was performed at least every 40,000 ft. Transmissivity was performed at least once per shift.

Thickness was measured according to ASTM D 5199. Tensiles were determined according to ASTM D 5035, SII modified. Mass per unit area was determined according to ASTM D 5261. Carbon black content was determined according to ASTM 4218. Density was determined according to ASTM D 1505. Transmissivity was determined according to ASTM D 4716, SII modified. Transmissivity is measured in the machine direction between two steel plates one hour after application of the confining pressure. The standard transmissivity testing parameters for Poly-Net ™ are: PN2000 – 2,000 psf/1.0 gradient, PN3000 – 15,000 psf/1.0 gradient, PN3000CN – 4,000 psf/1.0 gradient, and PN5000 – 15,000 psf/1.0 gradient.

GEONET SPECIFICATIONS

	PN-2000	PN-3000	PN-3000CN	PN-5000
Thickness (inches)	0.160	0.200	0.200	0.250
Mass Per Unit Area (lbs/ft^3)	0.100	0.162	0.140	0.200
Tensile Strength (ppi)	30	45	32	50
Density (g/cm^3)	0.940	0.940	0.940	0.940
Carbon Black Content (%)	2.0	2.0	2.0	2.0
Transmissivity (m^3/sec x 10^{-3})	1.0	1.0	1.0	2.0 (1.5*)
Confining Pressure (psf)	2,000	15,000	4,000	15,000

* Some selected HDPE geomembrane sheet resins will achieve lower transmissivity values due to lower modulus. Specifying t he same resin as used in the sheet on a project may limit the PN-5000 to the 1.5 x 10.

A database listing of Mass Per Unit Area, Thickness, Tensile Properties, Density, Carbon Black Content and Transmissivity follows:

Note: Virgin Poly-Net is 100% virgin and contains no reworked plastic.

Serrot International

Jane Allen
Quality Control Manager

8-03-00
Date

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Berrot International, Inc.

08/03/2000

Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10⁻³)
4022855-4211	0.2354 *	72.3	0.2093	2.63	0.959	1.79
4022856-4211	0.2354	72.3	0.2093	2.63	0.959	1.79
4022857-4211	0.2354	72.3	0.2093	2.63	0.959	1.79
4022858-4211	0.2354	72.3	0.2093	2.63	0.959	1.79
4022859-4211	0.2354	72.3	0.2093	2.63	0.959	1.79
4022860-4211	0.2354	72.3	0.2093	2.63	0.959	1.79
4022861-4211	0.2389 *	72.3 *	0.2117 *	2.63 *	0.962 *	1.79
4022862-4211	0.2311	72.3	0.2073	2.63	0.960	1.79
4022863-4211	0.2311	72.3	0.2073	2.63	0.960	1.79
4022864-4211	0.2311	72.3	0.2073	2.63	0.960	1.79
4022865-4211	0.2311	72.3	0.2073	2.63	0.960	1.79
4022866-4211	0.2311	72.3	0.2073	2.63	0.960	1.79
4022867-4211	0.2311	72.3	0.2073	2.63	0.960	1.79
4022868-4211	0.2311	72.3	0.2073	2.63	0.960	1.79
4022869-4211	0.2311 *	75.4 *	0.2073 *	2.69 *	0.960 *	1.79
4022870-4211	0.2271	72.1	0.2061	2.29	0.960	1.79
4022871-4211	0.2271	72.1	0.2061	2.29	0.960	1.79
4022872-4211	0.2271	72.1	0.2061	2.29	0.960	1.79
4022873-4211	0.2271	72.1	0.2061	2.29	0.960	1.79
4022874-4211	0.2271	72.1	0.2061	2.29	0.960	1.79
4022875-4211	0.2271	72.1	0.2061	2.29	0.960	1.79
4022876-4211	0.2271	72.1	0.2061	2.29	0.960	1.79
4022877-4211	0.2271 *	72.1 *	0.2061 *	2.29 *	0.961 *	1.87 *
4022878-4211	0.2271	69.0	0.2061	2.29	0.961	1.87
4022879-4211	0.2271	69.0	0.2061	2.29	0.961	1.87

NOTE: An astrisk indicates the test was performed on that roll.

Jane Allen
Quality Control Manager

8-03-00
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08/02/2000

Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10⁻³)
4022880-4211	0.2271	69.0	0.2061	2.29	0.961	1.87
4022881-4211	0.2271	69.0	0.2061	2.29	0.961	1.87
4022882-4211	0.2271	69.0	0.2061	2.29	0.961	1.87
4022883-4211	0.2271	69.0	0.2061	2.29	0.961	1.87
4022884-4211	0.2271	69.0	0.2061	2.29	0.961	1.87
4022885-4211	0.2339 *	69.0 *	0.2109 *	2.50 *	0.961 *	1.87
4022886-4211	0.2295	69.0	0.2098	2.50	0.961	1.87
4022887-4211	0.2295	69.0	0.2098	2.50	0.961	1.87
4022888-4211	0.2295	69.0	0.2098	2.50	0.961	1.87
4022889-4211	0.2295	69.0	0.2098	2.50	0.961	1.87
4022890-4211	0.2295	69.0	0.2098	2.50	0.961	1.87
4022891-4211	0.2295	69.0	0.2098	2.50	0.961	1.87
4022892-4211	0.2295	69.0	0.2098	2.50	0.961	1.87
4022893-4211	0.2295 *	72.3 *	0.2098 *	2.52 *	0.961 *	1.87
4022894-4211	0.2269	72.3	0.2079	2.45	0.959	1.87
4022895-4211	0.2269	72.3	0.2079	2.45	0.959	1.87
4022896-4211	0.2269	72.3	0.2079	2.45	0.959	1.87
4022897-4211	0.2269	72.3	0.2079	2.45	0.959	1.87
4022898-4211	0.2269	72.3	0.2079	2.45	0.959	1.87
4022899-4211	0.2269	72.3	0.2079	2.45	0.959	1.87
4022900-4211	0.2269	72.3	0.2079	2.45	0.959	1.87
4022901-4211	0.2269 *	75.9 *	0.2079 *	2.45 *	0.959 *	1.90 *
4022902-4211	0.2269	75.9	0.2079	2.45	0.959	1.83
4022903-4211	0.2269	75.9	0.2079	2.45	0.959	1.83
4022904-4211	0.2269	75.9	0.2079	2.45	0.959	1.83

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Jane Allen
Quality Control Manager

8-03-00
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08/03/2000

Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10-³)
4022905-4211	0.2269	75.9	0.2079	2.45	0.959	1.83
4022906-4211	0.2269	75.9	0.2079	2.45	0.959	1.83
4022907-4211	0.2269	75.9	0.2079	2.45	0.959	1.83
4022908-4211	0.2269	75.9	0.2079	2.45	0.959	1.83
4022909-4211	0.2318 *	78.5 *	0.2120 *	2.49 *	0.960 *	1.83
4022910-4211	0.2303	75.8	0.2114	2.34	0.954	1.83
4022911-4211	0.2303	75.8	0.2114	2.34	0.954	1.83
4022912-4211	0.2303	75.8	0.2114	2.34	0.954	1.83
4022913-4211	0.2303	75.8	0.2114	2.34	0.954	1.83
4022914-4211	0.2303	75.8	0.2114	2.34	0.954	1.83
4022915-4211	0.2303	75.8	0.2114	2.34	0.954	1.83
4022916-4211	0.2303	75.8	0.2114	2.34	0.954	1.83
4022917-4211	0.2303 *	75.8 *	0.2114 *	2.34 *	0.954 *	1.83
4022918-4211	0.2303	75.8	0.2093	2.34	0.954	1.83
4022919-4211	0.2303	75.8	0.2093	2.34	0.954	1.83
4022920-4211	0.2303	75.8	0.2093	2.34	0.954	1.83
4022921-4211	0.2303	75.8	0.2093	2.34	0.954	1.83
4022922-4211	0.2303	75.8	0.2093	2.34	0.954	1.83
4022923-4211	0.2303	75.8	0.2093	2.34	0.954	1.83
4022924-4211	0.2303	75.8	0.2093	2.34	0.954	1.83
4022925-4211	0.2323 *	79.8 *	0.2093 *	2.59 *	0.961 *	1.83 *
4022926-4211	0.2289	75.1	0.2091	2.59	0.961	1.83
4022927-4211	0.2289	75.1	0.2091	2.59	0.961	1.83
4022928-4211	0.2289	75.1	0.2091	2.59	0.961	1.83
4022929-4211	0.2289	75.1	0.2091	2.59	0.961	1.83
4022930-4211	0.2289	75.1	0.2091	2.59	0.961	1.83

NOTE: An astrisk indicates the test was performed on that roll.

Jane Allen
Quality Control Manager

8-03-00
Date

rtification of Analysis shall not be reproduced except in full, without the written approval of the laboratory.

Carrot International, Inc.

08/03/2000

Poly-Net Testing Results

	Thickness (inches)	MD Tensile (ppi)	Mass per Unit Area (lbs/ft²)	Carbon Content (%)	Density (g/cm³)	Transmissivity (m²/sec x 10-³)
4022931-4211	0.2289	75.1	0.2091	2.59	0.961	1.83
4022932-4211	0.2289	75.1	0.2091	2.59	0.961	1.83
4022933-4211	0.2289 *	75.1 *	0.2091 *	2.64 *	0.962 *	1.83
4022934-4211	0.2289	73.8	0.2090	2.64	0.962	1.83
4022935-4211	0.2289	73.8	0.2090	2.64	0.962	1.83
4022936-4211	0.2289	73.8	0.2090	2.64	0.962	1.83
4022937-4211	0.2289	73.8	0.2090	2.64	0.962	1.83
4022938-4211	0.2289	73.8	0.2090	2.64	0.962	1.83
4022939-4211	0.2289	73.8	0.2090	2.64	0.962	1.83
4022940-4211	0.2289	73.8	0.2090	2.64	0.962	1.83
4022941-4211	0.2319 *	73.8 *	0.2090 *	2.66 *	0.962 *	2.07 *
4022942-4211	0.2310	72.5	0.2062	2.60	0.962	2.06
4022943-4211	0.2310	72.5	0.2062	2.60	0.962	2.06
4022944-4211	0.2310	72.5	0.2062	2.60	0.962	2.06
4022945-4211	0.2310	72.5	0.2062	2.60	0.962	2.06
4022946-4211	0.2310	72.5	0.2062	2.60	0.962	2.06
4022947-4211	0.2310	72.5	0.2062	2.60	0.962	2.06
4022948-4211	0.2310	72.5	0.2062	2.60	0.962	2.06
4022949-4211	0.2310 *	72.5 *	0.2062 *	2.60 *	0.963 *	2.06 *

NOTE: An astrisk indicates the test was performed on that roll.

Jane Allen
Quality Control Manager

8-03-00
Date

Certification of Analysis shall not be reproduced except in full, without the written approval of the laboratory.

SERROT INTERNATIONAL, INC.

Manufacturing Division:
320 Innovation Way
Wellford, SC 29385
(864) 439-5641
Fax: (864) 439-5642

Corporate Office:
125 Cassia Way
Henderson, NV 89014
(702) 566-8600
(800) 237-1777
Fax: (702) 566-4739
www.serrot.com

July 25, 2000

Customer: RB Baker Construction
Project Name: VMI/Trail Ridge, LF

I certify, the PN 3000 to be delivered to the above mentioned project has been extruded from an approved resin. The resin was manufactured at Total Fina, 12212 Port Rd., Bay Port, Texas 77507. The brand name for the resin is Fina 5102, HDPE. Blend number 4197 was used to manufacture the geonet for the above mentioned project. The date of manufacture of blend number 4197 was June 19, 2000.

SERROT INTERNATIONAL, INC.

Jane Allen

Jane Allen
Quality Control Manager

July 26, 2000

Customer R B Baker Construction
Project: WMI/Trail Ridge, LF

I certify, the Fina 5102 HDPE resin used to manufacture the PN 3000 for the above mentioned project contains 99.6% polyethylene and 0.4% other additives.

SERROT INTERNATIONAL, INC.

Jane Allen
Quality Control Manager

TOTALFINA

National Seal Company
Ms. Janie Simpson
3649492698
320 Innovation Way
Wellford SC 29385

SHIPPED TO:
SERROT INTERNATIONAL
320 INNOVATION WAY
STARTEX SC 29385

Quality certificate

Date
06/28/2000
Purchase order item/date
12389
Delivery item/date
80360315 000001 / 06/28/2000
Order item
30196524 000001
Customer number
80119367

4197

Material: Our / Your reference
5102 HIGH DENSITY POLYETHYLENE (422082) /

Please find below test data and pertinent information on Fina HDPE material shipped to your plant.

Batch C1214 **Quantity** 190,550 LB **Railcar** ACFX041717

Characteristic	Unit	Value
~~Melt Index 2.16/190~~	~~g/cc~~	~~0.140~~
Density	g/cc	0.952
Railcar Prefix	-	ACFX
Railcar Number	-	041717

Sincerely,
Carl Scott
Bayport Laboratory Supervisor

TOTALFINA
12212 Port Road
Pasadena, TX 77507

P. O. Box 5010
LaPorte, TX 77572

281-474-6965

Questions? Contact Customer Service at 1-800-344-3462

Serrot International, Inc.

Resin Certificate of Analysis

Customer: RB Baker Construction

Resin Type: HDPE

Project Name: WMI/Trail Ridge, LF

Bill of Lading: To be shipped

I certify, the polyethylene geomembrane for the above identified shipment meets or exceeds Serrot International, Inc's specifications. Testing was performed on each resin blend.

Melt Flow Index was determined according to ASTM D 1238. Density was determined according to ASTM D 1505. Where appropriate, carbon black was determined according to ASTM D 4218. The average test results are listed below.

RESIN PROPERTIES

Blend Number	Melt Flow Index (g/10 min)	Density (g/cc)	Carbon Black Content (%)
4197	0.29	0.951	

RECEIVED
JUL 25 2000
SERROT INTERNATIONAL INC.
BATON ROUGE LA

	INITIALS	DATE
GEN. MGR.		
PROJECT MGR.		
OFFICE MGR.		
TEST. MGR.		
QT		

Jane Allen
Quality Control Manager

7-24-00
Date

This Certification of Analysis shall not be reproduced except in full, without the written approval of the laboratory.
Serrot International, Inc. 320 Innovation Way - Wellford, SC - 29385

FINA

NET

Quality certificate

Date
07/14/2000
Purchase order item/date
12389
Delivery item/date
80368659 000001 / 07/14/2000
Order item
30196528 000001
Customer number
80119367

National Seal Company
Mr. Jeff Morris
864.439.5642
320 Innovation Way
Wellford SC 29385

SHIPPED TO:
SERROT INTERNATIONAL
320 INNOVATION WAY
STARTEX SC 29385

Material: Our / Your reference
5102 HIGH DENSITY POLYETHYLENE (422082) /

Please find below test data and pertinent information on Fina HDPE material shipped to your plant.
Date of manufacture 7-10-00
Batch C1365 **Quantity** 190,400 LB **Railcar** UTCX046627

Characteristic	Unit	Value
Melt Index 2.16/190	g/10 min	0.340
Density	g/cc	0.952
Railcar Prefix	-	UTCX
Railcar Number	-	046627

Sincerely,
Carl Scott
Bayport Laboratory Supervisor

ENTERED 07/17/00

TOTALFINA
12212 Port Road
Pasadena, TX 77507

P. O. Box 5010
LaPorte, TX 77572

281-474-6965

Blend # 4204

Questions? Contact Customer Service at 1-800-344-3462

TOTALFINA

National Seal Company
Mr. Jeff Morris
864.439.5642
320 Innovation Way
Wellford SC 29385

SHIPPED TO:
SERROT INTERNATIONAL
320 INNOVATION WAY
STARTEX SC 29385

Quality certificate

Date
07/17/2000
Purchase order item/date
12389
Delivery item/date
80369357 000001 / 07/17/2000
Order item
30196529 000001
Customer number
80119367

Material: Our / Your reference
5102 HIGH DENSITY POLYETHYLENE (422082) /

Please find below test data and pertinent information on Fina HDPE material shipped to your plant.
Date of manufacture 7-11-00
C1371 **Quantity** 189,450 LB **Railcar** UTCX046593

Characteristic	Unit	Value
Melt Index 2.16/190	g/10 min	0.380
Density	g/cc	0.951
Railcar Prefix	-	UTCX
Railcar Number	-	046593

Sincerely,
Carl Scott
Bayport Laboratory Supervisor

ENTERED 07/17/00

TOTALFINA
12212 Port Road
Pasadena, TX 77507

281-474-6965

P. O. Box 5010
LaPorte, TX 77572

Blend # 4211

Questions? Contact Customer Service at 1-800-344-3462

Serrot International, Inc.

Resin Certificate of Analysis

Customer: RB Baker Construction

Resin Type:HDPE

Project Name: WMI/Trail Ridge, LF

Bill of Lading: To be shipped

Project Number: 5135

I certify, the polyethylene geomembrane for the above identified shipment meets or exceeds Serrot International, Inc's specifications. Testing was performed on each resin blend.

Melt Flow Index was determined according to ASTM D 1238. Density was determined according to ASTM D 1505. Where appropriate, carbon black was determined according to ASTM D 4218. The average test results are listed below.

RESIN PROPERTIES

Blend Number	Melt Flow Index (g/10 min)	Density (g/cc)	Carbon Black Content (%)
4204	0.320	0.950	
4211	0.365	0.950	

Jane Allen
Quality Control Manager

8-03-00
Date

This Certification of Analysis shall not be reproduced except in full, without the written approval of the laboratory.
Serrot International, Inc. 320 Innovation Way - Wellford, SC - 29385

Serrot International, Inc.

Resin Certificate of Analysis

Customer: RB Baker Construction

Resin Type:HDPE

Project Name: WMI/Trail Ridge, LF

Bill of Lading: To be shipped

Project Number: 5135 SP

I certify, the polyethylene geomembrane for the above identified shipment meets or exceeds Serrot International, Inc's specifications. Testing was performed on each resin blend.

Melt Flow Index was determined according to ASTM D 1238. Density was determined according to ASTM D 1505. Where appropriate, carbon black was determined according to ASTM D 4218. The average test results are listed below.

RESIN PROPERTIES

Blend Number	Melt Flow Index (g/10 min)	Density (g/cc)	Carbon Black Content (%)
4211	0.365	0.950	

Jane Allen
Quality Control Manager

8-03-00
Date

This Certification of Analysis shall not be reproduced except in full, without the written approval of the laboratory.
Serrot International, Inc. 320 Innovation Way - Wellford, SC - 29385

SECTION E-3

Geotextile - 6-Ounce

SYNTHETIC INDUSTRIES

Geosynthetic Products Division

8/31/2000

Serrot International LA
Mary Villnurve
7943 Pecue Lane
Baton Rouge LA 70809
BOL PO 12755OD
Ref: Job 10379 Order 00005135 WMI Trail Ridge

This is to certify that Product GEOTEX 701 , a nonwoven polypropylene geotextile produced by Synthetic Industries, will meet the following certifiable minimum average values when tested in accordance with the proper ASTM test methods. A minimum average roll value is calculated as the mean minus two standard deviations, yielding a 97.5 percent confidence level. This geotextile has been continuously inspected for the presence of needles and none were detected.

Physical Property	Test Method	MARV		SI Unit	
Mass Per Unit Area	ASTM D-5261	5.9	oz/yd2	(200.01)	g/m2
Thickness	ASTM D-5199	70	mils	(1.778)	mm
Tensile Strength	ASTM D-4632	180	lbs	(801)	N
Elongation	ASTM D-4632	50	%	50	%
Trapezoidal Tear	ASTM D-4533	75	lbs	(333.75)	N
Mullen Burst	ASTM D-3786	330	psi	(2275.0	kPa
Puncture Strength	ASTM D-4833	100	lbs	(445)	N
A.O.S.	ASTM D-4751	70	Sieve	0.212	mm
Permittivity	ASTM D-4491	1.50	sec-1	1.50	sec-1
Permeability	ASTM D-4491	0.34	cm/sec	0.34	cm/sec
Water Flow Rate	ASTM D-4491	110	gpm/ft2	(4481.917	lpm/m2
UV Resistance	ASTM D-4355	70	%	70	%

Strength Retained after 500 hours exposure in Xenon Arc Weatherometer

Sincerely

Patti Weaver

Patti Weaver
Technical Manager
Geosynthetic Products Division

Seller makes no warranty express or implied concerning the product furnished hereunder other than at the time of delivery it shall be of the quality and specification stated herein. ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS EXPRESSLY EXCLUDED AND TO THE EXTENT THAT IF IT IS CONTRARY TO THE FOREGOING SENTENCE ANY IMPLIED WARRANTY OF MERCHANTABILITY IS EXPRESSLY EXCLUDED. Any recommendations made by the Seller concerning uses or applications of said product are believed reliable and Seller makes no warranty of results to be obtained. If the product does not meet Synthetic Industries current published specifications, and the Customer gives notice to Synthetic Industries before installing the product, then Synthetic Industries will replace the product without charge or refund the purchase price. This Data Sheet supersedes all previous Data Sheets for this style and is subject to change without notice. The effective date for this product data is 2/8/2000

Synthetic Industries, Inc.
4019 Industry Drive • Chattanooga, Tennessee • 37416 • USA
Telephone • 423-899-0444 • Fax • 423-899-7619 • 1-800-621-0444

Synthetic Industries
Individual Roll Data
Bill of Lading: 47568701

PoNumber:
ShipDate:
CustomerNumber:

Roll Number	Style	Mass	Thickness	Tensile		Elongation		Trap Tear		Burst	Puncture
		Osy D5261	mils D5199	MD lbs D4632	CD lbs D4632	MD % D4632	CD % D4632	MD lbs D4533	CD lbs D4533	psi D3786	lbs D4833
B852145A	701	7.0	84	205	220	67	82	118	106	353	104
B852195A	701	7.0	87	198	212	64	78	97		411	132
B852850A	701	7.1	88	197	217	60	77	100	124	406	121
B852900A	701	7.0	82	191	212	69	86	108	127	349	125
B852990A	701	7.9	92	212	240	68	83	98	132	400	131
B853000A	701	7.3	86	200	233	63	81	107	126	387	119
B853030A	701	7.3	88	194	221	68	79	99	121	376	125
B853230A	701	7.3	80	203	212	55	75	116	145	354	132
B853240A	701	7.0	77	202	220	59	80	112	144	406	124
B853250A	701	7.0	76	219	211	61	74	115	139	370	107
B853290A	701	7.6	89	229	231	62	79	104	130	440	127
B853390A	701	6.8	82	221	224	54	78	121	127	420	126

Patti Weaver

Synthetic Industries

AOS AND PERMITTIVITY

All Records

Roll #	Style	AOS	Permittivity
B852125A	701	.212	2.513
B852143A	701	.18	2.276
B852145A	701	.212	2.42
B852177A	701	.18	2.542
B852797A	701	.18	2.68
B852900A	701	.212	2.158
B852936A	701	.18	2.7
B852954A	701	.212	2.68
B852961A	701	.18	2.641
B852966A	701	.18	2.22
B852977A	701	.212	2.41
B852983A	701	.18	1.762
B852989A	701	.18	2.641
B852995A	701	.212	2.858
B853000A	701	.212	1.5
B853001A	701	.212	2.58
B853007A	701	.212	2.8
B853221A	701	.212	2.147
B853229A	701	.212	2.294
B853241A	701	.212	2.998
B853248A	701	.212	2.98
B853253A	701	.212	2.89
B853280A	701	.212	2.99
B853297A	701	.212	1.8
B853374A	701	.18	2.7
B853382A	701	.18	2.99
B853393A	701	.18	2.294
B853399A	701	.18	2.2
B853405A	701	.18	2.2
B853415A	701	.18	2.8
B853428A	701	.18	2.312

Patti Weaver

SECTION E-4

Geotextile - 16-Ounce

SYNTHETIC INDUSTRIES

Geosynthetic Products Division

8/31/2000

Serrot International LA
Mary Villnurve
7943 Pecue Lane
Baton Rouge LA 70809
BOL PO 12755OD
Ref: Job 10379 Order 00005135 WMI Trail Ridge

This is to certify that Product GEOTEX 1751 , a nonwoven polypropylene geotextile produced by Synthetic Industries, will meet the following certifiable minimum average values when tested in accordance with the proper ASTM test methods. A minimum average roll value is calculated as the mean minus two standard deviations, yielding a 97.5 percent confidence level. This geotextile has been continuously inspected for the presence of needles and none were detected.

Physical Property	Test Method	MARV		SI Unit	
Mass Per Unit Area	ASTM D-5261	16.6	oz/yd2	(562.74)	g/m2
Thickness	ASTM D-5199	175	mils	(4.445)	mm
Tensile Strength	ASTM D-4632	395	lbs	(1757.7	N
Elongation	ASTM D-4632	50	%	50	%
Trapezoidal Tear	ASTM D-4533	160	lbs	(712)	N
Mullen Burst	ASTM D-3786	850	psi	(5859.9)	kPa
Puncture Strength	ASTM D-4833	260	lbs	(1157)	N
A.O.S.	ASTM D-4751	100	Sieve	0.15	mm
Permittivity	ASTM D-4491	0.70	sec-1	0.70	sec-1
Permeability	ASTM D-4491	0.27	cm/sec	0.27	cm/sec
Water Flow Rate	ASTM D-4491	50	gpm/ft2	(2037.235	lpm/m2
UV Resistance	ASTM D-4355	70	%	70	%

Strength Retained after 500 hours exposure in Xenon Arc Weatherometer

Sincerely

Patti Weaver
Technical Manager
Geosynthetic Products Division

Seller makes no warranty express or implied concerning the product furnished hereunder other than at the time of delivery it shall be of the quality and specification stated herein. ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS EXPRESSLY EXCLUDED AND TO THE EXTENT THAT IF IT IS CONTRARY TO THE FOREGOING SENTENCE ANY IMPLIED WARRANTY OF MERCHANTABILITY IS EXPRESSLY EXCLUDED. Any recommendations made by the Seller concerning uses or applications of said product are believed reliable and Seller makes no warranty of results to be obtained. If the product does not meet Synthetic Industries current published specifications, and the Customer gives notice to Synthetic Industries before installing the product, then Synthetic Industries will replace the product without charge or refund the purchase price. This Data Sheet supersedes all previous Data Sheets for this style and is subject to change without notice. The effective date for this product data is 3/28/2000

Synthetic Industries, Inc.
4019 Industry Drive • Chattanooga, Tennessee • 37416 • USA
Telephone • 423-899-0444 • Fax • 423-899-7619 • 1-800-621-0444

Synthetic Industries
Individual Roll Data

Bill of Lading: 47568501

PoNumber:
ShipDate:
CustomerNumber:

Roll Number	Style	Mass	Thickness	Tensile		Elongation		Trap Tear		Burst	Puncture
		Osy D5261	mils D5199	MD lbs D4632	CD lbs D4632	MD % D4632	CD % D4632	MD lbs D4533	CD lbs D4533	psi D3786	lbs D4833
5206060A	1751	17.1	196	468	591	103	66	213	383	983	325
5206070A	1751	17.9	200	455	595	100	61	212	429	1040	362
5206080A	1751	19.3	215	490	625	100	61	235	388	1023	340
5206120A	1751	17.0	190	460	588	96	64	209	440	913	301
5206140A	1751	18.4	195	450	545	101	64	236	455	983	319
5206190A	1751	18.2	192	485	619	99	63	239	435	1070	312
5206280A	1751	18.8	211	462	621	96	62	227	311	1033	324
5206300A	1751	18.6	204	475	589	96	62	246	438	940	303
5206310A	1751	17.8	205	463	559	97	59	208	328	1100	298
5206330A	1751	17.5	199	439	567	96	60	207	342	1017	315
5206340A	1751	18.3	208	457	589	99	59	206	352	943	353
5206380A	1751	17.3	202	472	600	96	67	233	382	950	326

Patti Weaver

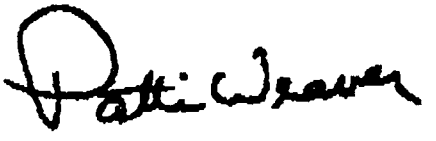
AUG-31-2000 14:51 SI RINGGOLD TECHNI P.03/07

Synthetic Industries

AOS AND PERMITTIVITY

All Records

Roll #	Style	AOS	Permittivity
5206062A	1751	.15	1.533
5206075A	1751	.15	1.597
5206088A	1751	.15	1.634
5206107A	1751	.15	1.274
5206122A	1751	.15	2.235
5206141A	1751	.15	2.183
5206189A	1751	.15	1.965
5206220A	1751	.15	2.22
5206281A	1751	.15	1.473
5206296A	1751	.15	2.19
5206300A	1751	.15	1.615
5206319A	1751	.15	2.4
5206330A	1751	.15	2.438
5206340A	1751	.15	1.8
5206341A	1751	.15	2.014
5206352A	1751	.15	1.304



SECTION E-5

Geosynthetic Clay Liner

BENTOFIX TECHNOLOGIES, INC.

BENTOFIX MANUFACTURING CERTIFICATION

CUSTOMER: SERROT INTERNATIONAL, INC. **DATE:** 07-15-2000

PROJECT: WMI/ TRAIL RIDGE LF **NO.ROLLS:** 70

ORDER/JOB#: 12720OD-5135/10379 **PRODUCT TYPE:** BENTOFIX NS

Bentofix Technologies, Inc. hereby certifies that the Bentofix Geosynthetic Clay Liner purchased and shipped for the above referenced project meets or exceeds Bentofix Technologies, Inc.'s specifications for Bentofix.

The Bentofix product has been continuously inspected for the presence of needles and is certified to be needle free.

The tests listed for the bentonite component have been performed on each batch of bentonite. The Swell Index according to ASTM D5890, the Moisture Content according to ASTM D4643 and the Fluid Loss according to ASTM D5891 were tested at least once per 50,000 square feet.

The tests listed for the finished geocomposite product have been performed at least once every 3,716 sq. mt. [40,000 sq. ft.] for the Bentonite Mass Per Unit Area according to ASTM D5993 and the Grab Tensile/Elongation and Peel Strength according to ASTM D4632.

The tests listed for the finished geocomposite product have been performed at least once every 18,580 sq. mt. [200,000 sq. ft.] for the geotextile components.

The finished geocomposite water permeability was tested at least once every 9,290 sq. mt. [100,000 sq. ft.] according to method ASTM D5084. The Index Flux was tested at least once per week according to ASTM D5887 and meets the required specification of < 1 x 10-8 m3/m2/sec.

The lot and roll numbers for this project are as follows:

LOT# B0071502

ROLL# 04632,04633,04635,04636,04638,04639,04641,04643,04644,04645,04646
04647,04649,04650,04652,04653,04654,04655,04656,04657,04658,04659
04660,04661,04662,04663,04664,04665,04667,04668,04669,04671,04672
04676,04677,04679,04680,04681,04682,04683,04685,04686,04687,04688
04689,04690,04691,04693,04695,04700,04701,04702,04703,04704,04705
04706,04707,04708,04709,04710,04711,04712,04713,04714,04715,04717
04718,04719,04720,04721

KEVIN NEWMAN
Quality Control Manager

07/20/2000
DATE

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L	Roll #	Date Produced	Product	Length	Width	BOL#
B0071502	04632	July 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	

Finished Product

Type	BENTOFIX NS			
Mass	5,388	g/m²	1.101	lbs/ft²
Tensile Strength				
Length	46	Kg	101.20	lbs
Elongation				
Length	95	%		
Peels	10.30	Kg	22.66	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.5	%		

Top Layer

Type	NON-WOVEN			
Layer #	000711205B-1			
Mass	249	g/m²	0.051	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8213452			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	458338			
Montmorillonite	90	%		
Swell Index	24	ml		
Moisture Content	9.1	%		
Moisture Absorption	679	%		
Mass of Bentonite	5,029	g/m²	1.028	lbs/ft²
Fluid Loss	14.0	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot	Roll #	Date Produced	Product	Length	Width	BOL#
B0071502	04633	July 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8534

Finished Product

Type	BENTOFIX NS			
Mass	5,388	g/m²	1.101	lbs/ft²
Tensile Strength				
Length	46	Kg	101.20	lbs
Elongation				
Length	95	%		
Peels	10.30	Kg	22.66	lbs
Permeability	[illegible]-9	cm/s		
Moisture Content	7.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000711205B			
Mass	242	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	822-21			
Mass	110	g/m	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	458338			
Montmorillonite	90	%		
Swell Index	24	ml		
Moisture Content	7.6	%		
Moisture Absorption	29	%		
Mass of Bentonite	5,036	g/m²	1.029	lbs/ft²
Fluid Loss	4.0	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lo[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0071502	04635	July 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8533

Finished Product

Type	BENTOFIX NS			
Mass	5,388	g/m²	1.101	lbs/ft²
Tensile Strength				
Length	46	Kg	101.20	lbs
Elongation				
Length	95	%		
Peels	10.30	Kg	22.66	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.6	%		

Top Layer

Type	NON-WOVEN			
[redacted]yer #	000711205B			
Mass	242	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	822[illegible]211			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	458338			
Montmorillonite	90	%		
Swell Index	24	ml		
Moisture Content	7.6	%		
Moisture Absorption	679	%		
Mass of Bentonite	5,036	g/m²	1.029	lbs/ft²
Fluid Loss	14.0	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot	Roll #	Date Produced	Product	Length	Width	BOL#
B0071502	04641	July 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8535

Finished Product

Type	BENTOFIX NS			
Mass	5,388	g/m²	1.101	lbs/ft²
Tensile Strength				
Length	46	Kg	101.20	lbs
Elongation				
Length	95	%		
Peels	10.30	Kg	22.66	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000711205B			
Mass	242	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8223211			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	458338			
Montmorillonite	90	%		
Swell Index	24	ml		
Moisture Content	7.6	%		
Moisture Absorption	679	%		
Mass of Bentonite	5,036	g/m²	1.029	lbs/ft²
Fluid Loss	14.0	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0071502	04649	July 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8533

Finished Product

Type	BENTOFIX NS			
Mass	5,641	g/m²	1.153	lbs/ft²
Tensile Strength				
Length	48	Kg	105.60	lbs
Elongation				
Length	97	%		
Peels	9.50	Kg	20.90	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000711205B			
Mass	242	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8225075			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	458338			
Montmorillonite	90	%		
Swell Index	24	ml		
Moisture Content	7.6	%		
Moisture Absorption	679	%		
Mass of Bentonite	5,289	g/m²	1.081	lbs/ft²
Fluid Loss	14.0	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0071502	04654	July 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	

Finished Product

Type	BENTOFIX NS			
Mass	5,641	g/m²	1.153	lbs/ft²
Tensile Strength				
Length	48	Kg	105.60	lbs
Elongation				
Length	97	%		
Peels	9.50	Kg	20.90	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.5	%		

Top Layer

Type	NON-WOVEN			
Layer #	000711205B			
Mass	242	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8085008			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	458338			
Montmorillonite	90	%		
Swell Index	24	ml		
Moisture Content	9.1	%		
Moisture Absorption	679	%		
Mass of Bentonite	5,289	g/m²	1.081	lbs/ft²
Fluid Loss	14.0	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot	Roll #	Date Produced	Product	Length	Width	BOL#
B0071502	04656	July 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8534

Finished Product

Type	BENTOFIX NS			
Mass	5,641	g/m²	1.153	lbs/ft²
Tensile Strength				
Length	48	Kg	105.60	lbs
Elongation				
Length	97	%		
Peels	9.50	Kg	20.90	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000711205B			
Mass	242	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8225075			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	458338			
Montmorillonite	90	%		
Swell Index	24	ml		
Moisture Content	7.6	%		
Moisture Absorption	6.39	%		
Mass of Bentonite	5,289	g/m²	1.081	lbs/ft²
Fluid Loss	14.0	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot	Roll #	Date Produced	Product	Length	Width	BOL#
B0071502	04664	July 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8533

Finished Product

Type	BENTOFIX NS			
Mass	5,732	g/m²	1.172	lbs/ft²
Tensile Strength				
Length	52	Kg	114.40	lbs
Elongation				
Length	126	%		
Peels	8.50	Kg	18.70	lbs
Permeability	<5E-9	cm		
Moisture Content	7.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000711205B			
Mass	242	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8225075			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	458338			
Montmorillonite	90	%		
Swell Index	24	ml		
Moisture Content	7.6	%		
Moisture Absorption	679	%		
Mass of Bentonite	5,380	g/m²	1.100	lbs/ft²
Fluid Loss	14.0	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0071502	04669	July 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8534

Finished Product

Type	BENTOFIX NS		
Mass	5,732 g/m²	1.172	lbs/ft²
Tensile Strength			
Length	52 Kg	114.40	lbs
Elongation			
Length	126 %		
Peels	8.50 Kg	18.70	lbs
Permeability	5E-9 cm/s		
Moisture Content	7.6 %		

Top Layer

Type	NON-WOVEN		
Layer #	000 7112058		
Mass	242 g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN		
Layer #	8225075		
Mass	110 g/m²	0.022	lbs/ft²

Bentonite

Mesh	30		
Shipment	458338		
Montmorillonite	90 %		
Swell Index	24 ml		
Moisture Content	7.6 %		
Moisture Absorption	679 %		
Mass of Bentonite	5,370 g/m²	1.100	lbs/ft²
Fluid Loss	13.0 ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0071502	04672	July 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	

Finished Product

Type	BENTOFIX NS			
Mass	5,732	g/m²	1.172	lbs/ft²
Tensile Strength				
Length	52	Kg	114.40	lbs
Elongation				
Length	126	%		
Peels	8.50	Kg	18.70	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.5	%		

Top Layer

Type	NON-WOVEN			
Layer #	000711205B			
Mass	242	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8064416			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	458338			
Montmorillonite	90	%		
Swell Index	24	ml		
Moisture Content	9.1	%		
Moisture Absorption	679	%		
Mass of Bentonite	5,380	g/m²	1.100	lbs/ft²
Fluid Loss	14.0	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot	Roll #	Date Produced	Product	Length	Width	BOL#
B0071502	04676	July 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8530

Finished Product

Type	BENTOFIX NS		
Mass	5,732 g/m²	1.172	lbs/ft²
Tensile Strength			
Length	52 Kg	114.40	lbs
Elongation			
Length	126 %		
Peels	8.50 Kg	18.70	lbs
Permeability	<5E-9 cm/s		
Moisture Content	7.6 %		

Top Layer

Type	NON-WOVEN		
Layer #	000711205B		
Mass	242 g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN		
Layer #	8234379		
Mass	110 g/m²	0.022	lbs/ft²

Bentonite

Mesh	30		
Shipment	458338		
Montmorillonite	90 %		
Swell Index	24 ml		
Moisture Content	7.6 %		
Moisture Absorption	679 %		
Mass of Bentonite	5,380 g/m²	1.100	lbs/ft²
Fluid Loss	14.0 ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot	Roll #	Date Produced	Product	Length	Width	BOL#
B0071502	04680	July 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8530

Finished Product

Type	BENTOFIX NS			
Mass	5.432	g/m²	1.110	lbs/ft²
Tensile Strength				
Length	53	Kg	116.60	lbs
Elongation				
Length	131	%		
Peels	6.90	Kg	15.18	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000711205B			
Mass	242	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8234379			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	458338			
Montmorillonite	90	%		
Swell Index	24	ml		
Moisture Content	7.6	%		
Moisture Absorption	679	%		
Mass of Bentonite	5.080	g/m²	1.038	lbs/ft²
Fluid Loss	14.0	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lo	Roll #	Date Produced	Product	Length	Width	BOL#
B0071502	04681	July 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8533

Finished Product

Type	BENTOFIX NS			
Mass	5,432	g/m²	1.110	lbs/ft²
Tensile Strength				
Length	53	Kg	116.60	lbs
Elongation				
Length	131	%		
Peels	6.90	Kg	15.18	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	0007112058			
Mass	242	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8234379			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	458338			
Montmorillonite	90	%		
Swell Index	24	ml		
Moisture Content	7.6	%		
Moisture Absorption	679	%		
Mass of Bentonite	5,080	g/m²	1.038	lbs/ft²
Fluid Loss	14.0	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lo[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0071502	04682	July 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8534

Finished Product

Type	BENTOFIX NS			
Mass	5,432	g/m²	1.110	lbs/ft²
Tensile Strength				
Length	53	Kg	116.60	lbs
Elongation				
Length	131	%		
Peels	6.90	Kg	15.18	lbs
Permeability	5E-9	m/s		
Moisture Content	7.6	%		

Top Layer

Type	NON-WOVEN			
[redacted]yer #	0007112058			
Mass	242	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	824379			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	458338			
Montmorillonite	90	%		
Swell Index	24	ml		
Moisture Content	7.6	%		
Moisture Absorption	679	%		
Mass of Bentonite	5,080	g/m²	1.038	lbs/ft²
Fluid Loss	14.0	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0071502	04695	July 15, 2000	BENTOFIX NS	150.00	15.5 ft	
				45.72	4.72 m	

Finished Product

Type	BENTOFIX NS			
Mass	5,418	g/m²	1.107	lbs/ft²
Tensile Strength				
Length	53	Kg	116.60	lbs
Elongation				
Length	137	%		
Peels	7.10	Kg	15.62	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.5	%		

Top Layer

Type	NON-WOVEN			
Layer #	000712205B			
Mass	270	g/m²	0.055	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	7975623			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	458338			
Montmorillonite	90	%		
Swell Index	24	ml		
Moisture Content	9.1	%		
Moisture Absorption	679	%		
Mass of Bentonite	5,038	g/m²	1.030	lbs/ft²
Fluid Loss	14.0	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L	Roll #	Date Produced	Product	Length	Width	BOL#
B0071502	04705	July 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8526

Finished Product

Type	BENTOFIX NS			
Mass	5,418	g/m²	1.107	lbs/ft²
Tensile Strength				
Length	53	Kg	116.60	lbs
Elongation				
Length	137	%		
Peels	7.10	Kg	15.62	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000712205B			
Mass	270	g/m²	0.055	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8235791			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	458338			
Montmorillonite	90	%		
Swell Index	24	ml		
Moisture Content	7.6	%		
Moisture Absorption	679	%		
Mass of Bentonite	5,038	g/m²	1.030	lbs/ft²
Fluid Loss	14.0	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L	Roll #	Date Produced	Product	Length	Width	BOL#
B0071502	04710	July 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	

Finished Product

Type	BENTOFIX NS			
Mass	5,397	g/m²	1.103	lbs/ft²
Tensile Strength				
Length	54	Kg	118.80	lbs
Elongation				
Length	115	%		
Peels	10.70	Kg	23.54	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.5	%		

Top Layer

Type	NON-WOVEN			
Layer #	000712205B			
Mass	270	g/m²	0.055	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	7989748			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	458338			
Montmorillonite	90	%		
Swell Index	24	ml		
Moisture Content	9.1	%		
Moisture Absorption	679	%		
Mass of Bentonite	5,017	g/m²	1.025	lbs/ft²
Fluid Loss	14.0	ml		

BENTOFIX TECHNOLOGIES, INC.
MANUFACTURERS OF BENTOFIX

Bentofix Technologies, Inc. hereby certifies that the following test results meet or exceed our specifications for Bentofix and the specifications for WMI/Trail Ridge Landfill.

The Swell Index according to ASTM D5890, the Fluid Loss according to ASTM D5891 and the Moisture Content according to ASTM D4643 were tested at least once per 50,000 square feet.

PROJECT: WMI/TRAIL RIDGE LANDFILL

STYLE: BENTOFIX NS

LOT NUMBER: B0071502

RAILCAR NO.: 458338

SAMPLE NO.	SWELL INDEX (ml)	FLUID LOSS (ml)	MOISTURE CONTENT (%)
1	24	14.0	9.1
2	24	13.6	8.6
3	25	14.2	8.9
4	25	13.8	8.4

KEVIN NEWMAN
Quality Control Manager

07/20/2002
DATE

BENTOFIX TECHNOLOGIES, INC.

BENTOFIX MANUFACTURING CERTIFICATION

CUSTOMER: SERROT INTERNATIONAL, INC. **DATE:** 08-14-2000

PROJECT: WMI/ TRAIL RIDGE LF **NO.ROLLS:** 73

ORDER/JOB#: 12720OD-5135/10379 **PRODUCT TYPE:** BENTOFIX NS

Bentofix Technologies, Inc. hereby certifies that the Bentofix Geosynthetic Clay Liner purchased and shipped for the above referenced project meets or exceeds Bentofix Technologies, Inc.'s specifications for Bentofix.

The Bentofix product has been continuously inspected for the presence of needles and is certified to be needle free.

The tests listed for the bentonite component have been performed on each batch of bentonite. The Swell Index according to ASTM D5890, the Moisture Content according to ASTM D4643 and the Fluid Loss according to ASTM D5891 were tested at least once per 50,000 square feet.

The tests listed for the finished geocomposite product have been performed at least once every 3,716 sq. mt. [40,000 sq. ft.] for the Bentonite Mass Per Unit Area according to ASTM D5993 and the Grab Tensile/Elongation and Peel Strength according to ASTM D4632.

The tests listed for the finished geocomposite product have been performed at least once every 18,580 sq. mt. [200,000 sq. ft.] for the geotextile components.

The finished geocomposite water permeability was tested at least once every 9,290 sq. mt. [100,000 sq. ft.] according to method ASTM D5084. The Index Flux was tested at least once per week according to ASTM D5887 and meets the required specification of < 1 x 10-8 m3/m2/sec.

The lot and roll numbers for this project are as follows:

LOT# B0080902

ROLL# 07570,07571,07572,07573,07574,07577,07581,07582,07583,07584,07585,07587
07588,07589,07590,07591,07592,07593,07595,07596,07597,07598,07599,07600
07601,07602,07603,07604,07605,07606,07607,07608,07609,07610,07611,07612
07613,07614,07615,07616,07617,07618,07619,07622,07623,07624,07625,07626
07627,07628,07629,07630,07632,07633,07634,07635,07636,07637,07638,07640
07641,07642,07643,07644,07645,07646,07647,07649,07650,07651,07652,07653
07654

KEVIN NEWMAN
Quality Control Manager

08/23/2000
DATE

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07570	August 9, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8541

Finished Product

Type	BENTOFIX NS			
Mass	5,585	g/m²	1.141	lbs/ft²
Tensile Strength				
Length	54	Kg	118.80	lbs
Elongation				
Length	104	%		
Peels	7.30	Kg	16.06	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
Layer #	000729205B			
Mass	252	g/m²	0.052	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8253802			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,223	g/m²	1.068	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07571	August 9, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8536

Finished Product

Type	BENTOFIX NS			
Mass	5,585	g/m²	1.141	lbs/ft²
Tensile Strength				
Length	54	Kg	118.80	lbs
Elongation				
Length	104	%		
Peels	7.30	Kg	16.06	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
[redacted]ayer #	000729205B			
Mass	252	g/m²	0.052	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8253802			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,223	g/m²	1.068	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

I	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07582	August 9, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8547

Finished Product

Type	BENTOFIX NS			
Mass	5,656	g/m²	1.156	lbs/ft²
Tensile Strength				
Length	57	Kg	125.40	lbs
Elongation				
Length	114	%		
Peels	10.10	Kg	22.22	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
Layer #	000729205B			
Mass	252	g/m²	0.052	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8253802			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,294	g/m²	1.082	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07584	August 9, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8541

Finished Product

Type	BENTOFIX NS			
Mass	5,656	g/m²	1.156	lbs/ft²
Tensile Strength				
Length	57	Kg	125.40	lbs
Elongation				
Length	114	%		
Peels	10.10	Kg	22.22	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
Layer #	000729205B			
Mass	252	g/m²	0.052	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8253802			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,294	g/m²	1.082	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07590	August 9, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8541

Finished Product

Type	BENTOFIX NS			
Mass	5,395	g/m²	1.103	lbs/ft²
Tensile Strength				
Length	57	Kg	125.40	lbs
Elongation				
Length	99	%		
Peels	8.40	Kg	18.48	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
Layer #	000729205B			
Mass	252	g/m²	0.052	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8233088			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,033	g/m²	1.029	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07591	August 9, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8542

Finished Product

Type	BENTOFIX NS			
Mass	5.395	g/m²	1.103	lbs/ft²
Tensile Strength				
Length	57	Kg	125.40	lbs
Elongation				
Length	99	%		
Peels	8.40	Kg	18.48	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
Layer #	000729205B			
Mass	252	g/m²	0.052	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8233088			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,033	g/m²	1.029	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07592	August 9, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8542

Finished Product

Type	BENTOFIX NS			
Mass	5,395	g/m²	1.103	lbs/ft²
Tensile Strength				
Length	57	Kg	125.40	lbs
Elongation				
Length	99	%		
Peels	8.40	Kg	18.48	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
Layer #	000729205B			
Mass	252	g/m²	0.052	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8233088			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,033	g/m²	1.029	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07598	August 9, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8536

inished Product

Type	BENTOFIX NS			
Mass	5,395	g/m²	1.103	lbs/ft²
Tensile Strength				
Length	57	Kg	125.40	lbs
Elongation				
Length	99	%		
Peels	8.40	Kg	18.48	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

op Layer

Type	NON-WOVEN			
er #	000729205B			
Mass	252	g/m²	0.052	lbs/ft²

ottom Layer

Type	WOVEN			
Layer #	8233088			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,033	g/m²	1.029	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07606	August 9, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8542

Finished Product

Type	BENTOFIX NS			
Mass	5,368	g/m²	1.097	lbs/ft²
Tensile Strength				
Length	48	Kg	105.60	lbs
Elongation				
Length	93	%		
Peels	8.10	Kg	17.82	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
Layer #	000729205B			
Mass	252	g/m²	0.052	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8233088			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,006	g/m²	1.023	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

t #	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07608	August 9, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8567

Finished Product

Type	BENTOFIX NS			
Mass	5,368	g/m²	1.097	lbs/ft²
Tensile Strength				
Length	48	Kg	105.60	lbs
Elongation				
Length	93	%		
Peels	8.10	Kg	17.82	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
Layer #	000729205B			
Mass	252	g/m²	0.052	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8233088			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,006	g/m²	1.023	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lo	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07618	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8568

Finished Product

Type	BENTOFIX NS			
Mass	5,368	g/m²	1.097	lbs/ft²
Tensile Strength				
Length	48	Kg	105.60	lbs
Elongation				
Length	93	%		
Peels	8.10	Kg	17.82	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
Layer #	000807205B-1			
Mass	248	g/m²	0.051	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8249154			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,010	g/m²	1.024	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07622	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8547

Finished Product

Type	BENTOFIX NS			
Mass	5,552	g/m²	1.135	lbs/ft²
Tensile Strength				
Length	52	Kg	114.40	lbs
Elongation				
Length	100	%		
Peels	10.20	Kg	22.44	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
Layer #	000807205B-1			
Mass	248	g/m²	0.051	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8249154			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,194	g/m²	1.062	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07623	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8567

Finished Product

Type	BENTOFIX NS			
Mass	5,552	g/m²	1.135	lbs/ft²
Tensile Strength				
Length	52	Kg	114.40	lbs
Elongation				
Length	100	%		
Peels	10.20	Kg	22.44	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
Layer #	000807205B-1			
Mass	248	g/m²	0.051	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8249154			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,194	g/m²	1.062	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

	Roll #	Date Produced	Product	Length	Width	BOL#
0080902	07626	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8568

hed Product

Type	BENTOFIX NS			
Mass	5,552	g/m²	1.135	lbs/ft²
Tensile Strength				
Length	52	Kg	114.40	lbs
Elongation				
Length	100	%		
Peels	10.20	Kg	22.44	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

ayer

Type	NON-WOVEN			
Lay	000807205B-1			
Mass	248	g/m²	0.051	lbs/ft²

m Layer

Type	WOVEN			
Layer #	8249154			
Mass	110	g/m²	0.022	lbs/ft²

ntonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,194	g/m²	1.062	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07628	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8535

Finished Product

Type	BENTOFIX NS			
Mass	5,552	g/m²	1.135	lbs/ft²
Tensile Strength				
Length	52	Kg	114.40	lbs
Elongation				
Length	100	%		
Peels	10.20	Kg	22.44	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
[redacted]ayer #	000807205B-1			
Mass	248	g/m²	0.051	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8249154			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,194	g/m²	1.062	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07638	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8535

Finished Product

Type	BENTOFIX NS			
Mass	5,487	g/m²	1.121	lbs/ft²
Tensile Strength				
Length	53	Kg	116.60	lbs
Elongation				
Length	94	%		
Peels	8.20	Kg	18.04	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
Layer #	000807205B-1			
Mass	248	g/m²	0.051	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8253734			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,129	g/m²	1.048	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07644	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8536

inished Product

Type	BENTOFIX NS			
Mass	5,487	g/m²	1.121	lbs/ft²
Tensile Strength				
Length	53	Kg	116.60	lbs
Elongation				
Length	94	%		
Peels	8.20	Kg	18.04	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

op Layer

Type	NON-WOVEN			
er #	000807205B-1			
Mass	248	g/m²	0.051	lbs/ft²

ottom Layer

Type	WOVEN			
Layer #	8253734			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,129	g/m²	1.048	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

#	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07649	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8567

Finished Product

Type	BENTOFIX NS			
Mass	5,487	g/m²	1.121	lbs/ft²
Tensile Strength				
Length	53	Kg	116.60	lbs
Elongation				
Length	94	%		
Peels	8.20	Kg	18.04	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
Layer #	000804205B			
Mass	244	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8253734			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,133	g/m²	1.049	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07650	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8542

Finished Product

Type	BENTOFIX NS			
Mass	5,487	g/m²	1.121	lbs/ft²
Tensile Strength				
Length	53	Kg	116.60	lbs
Elongation				
Length	94	%		
Peels	8.20	Kg	18.04	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
Layer #	000804205B			
Mass	244	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8253734			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,133	g/m²	1.049	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07653	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8541

Finished Product

Type	BENTOFIX NS			
Mass	5,487	g/m²	1.121	lbs/ft²
Tensile Strength				
Length	53	Kg	116.60	lbs
Elongation				
Length	94	%		
Peels	8.20	Kg	18.04	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
Layer #	000804205B			
Mass	244	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8253734			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,133	g/m²	1.049	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0080902	07654	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8536

Finished Product

Type	BENTOFIX NS			
Mass	5,418	g/m²	1.107	lbs/ft²
Tensile Strength				
Length	51	Kg	112.20	lbs
Elongation				
Length	97	%		
Peels	7.00	Kg	15.40	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.0	%		

Top Layer

Type	NON-WOVEN			
Layer #	000804205B			
Mass	244	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8253734			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	425163			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	7.0	%		
Moisture Absorption	699	%		
Mass of Bentonite	5,064	g/m²	1.035	lbs/ft²
Fluid Loss	17.6	ml		

BENTOFIX TECHNOLOGIES, INC.
MANUFACTURERS OF BENTOFIX

Bentofix Technologies, Inc. hereby certifies that the following test results meet or exceed our specifications for Bentofix and the specifications for WMI/Trail Ridge Landfill.

The Swell Index according to ASTM D5890, the Fluid Loss according to ASTM D5891 and the Moisture Content according to ASTM D4643 were tested at least once per 50,000 square feet.

PROJECT: **WMI/TRAIL RIDGE LANDFILL**

STYLE: **BENTOFIX NS**

LOT NUMBER: **B0080902**

RAILCAR NO.: **425163**

SAMPLE NO.	SWELL INDEX (ml)	FLUID LOSS (ml)	MOISTURE CONTENT (%)
1	29	17.2	7.8
2	28	17.6	7.0
3	27	17.4	6.4
4	27	17.6	8.0

KEVIN NEWMAN
Quality Control Manager

08/23/2000
DATE

BENTOFIX TECHNOLOGIES, INC.

BENTOFIX MANUFACTURING CERTIFICATION

CUSTOMER: SERROT INTERNATIONAL, INC. **DATE:** 08-14-2000

PROJECT: WMI/ TRAIL RIDGE LF **NO.ROLLS:** 76

ORDER/JOB#: 12720OD-5135/10379 **PRODUCT TYPE:** BENTOFIX NS

Bentofix Technologies, Inc. hereby certifies that the Bentofix Geosynthetic Clay Liner purchased and shipped for the above referenced project meets or exceeds Bentofix Technologies, Inc.'s specifications for Bentofix.

The Bentofix product has been continuously inspected for the presence of needles and is certified to be needle free.

The tests listed for the bentonite component have been performed on each batch of bentonite. The Swell Index according to ASTM D5890, the Moisture Content according to ASTM D4643 and the Fluid Loss according to ASTM D5891 were tested at least once per 50,000 square feet.

The tests listed for the finished geocomposite product have been performed at least once every 3,716 sq. mt. [40,000 sq. ft.] for the Bentonite Mass Per Unit Area according to ASTM D5993 and the Grab Tensile/Elongation and Peel Strength according to ASTM D4632.

The tests listed for the finished geocomposite product have been performed at least once every 18,580 sq. mt. [200,000 sq. ft.] for the geotextile components.

The finished geocomposite water permeability was tested at least once every 9,290 sq. mt. [100,000 sq. ft.] according to method ASTM D5084. The Index Flux was tested at least once per week according to ASTM D5887 and meets the required specification of < 1 x 10-8 m3/m2/sec.

The lot and roll numbers for this project are as follows:

LOT# B0081002

ROLL# 07657,07658,07659,07660,07661,07662,07664,07665,07666,07667,07668,07669
07671,07673,07674,07675,07676,07677,07678,07679,07681,07682,07683,07685
07686,07687,07689,07690,07692,07693,07694,07695,07696,07697,07699,07700
07703,07704,07706,07707,07708,07709,07710,07711,07712,07713,07714,07715
07716,07717,07718,07720,07721,07722,07724,07725,07726,07727,07728,07729
07730,07731,07732,07733,07734,07736,07737,07738,07739,07740,07741,07742
07743,07745,07746,07747

KEVIN NEWMAN
Quality Control Manager

08/23/2000
DATE

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L	Roll #	Date Produced	Product	Length	Width	BOL#
B0081002	07657	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8551

Finished Product

Type	BENTOFIX NS			
Mass	5,451	g/m²	1.114	lbs/ft²
Tensile Strength				
Length	51	Kg	112.20	lbs
Elongation				
Length	93	%		
Peels	7.10	Kg	15.62	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000805205B			
Mass	247	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8242128			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453831-1			
Montmorillonite	90	%		
Swell Index	26	ml		
Moisture Content	8.6	%		
Moisture Absorption	784	%		
Mass of Bentonite	5,094	g/m²	1.041	lbs/ft²
Fluid Loss	9.9	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Roll #	Date Produced	Product	Length	Width	BOL#
B0081002 07666	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8550

Finished Product

Type	BENTOFIX NS			
Mass	5,451	g/m²	1.114	lbs/ft²
Tensile Strength				
Length	51	Kg	112.20	lbs
Elongation				
Length	93	%		
Peels	7.10	Kg	15.62	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000805205B			
Mass	247	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8259983			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453831-1			
Montmorillonite	90	%		
Swell Index	26	ml		
Moisture Content	8.6	%		
Moisture Absorption	784	%		
Mass of Bentonite	5,094	g/m²	1.041	lbs/ft²
Fluid Loss	9.9	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0081002	07671	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8551

Finished Product

Type	BENTOFIX NS			
Mass	5,963	g/m²	1.219	lbs/ft²
Tensile Strength				
Length	51	Kg	112.20	lbs
Elongation				
Length	105	%		
Peels	7.40	Kg	16.28	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000805205B			
Mass	247	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8259983			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453831-1			
Montmorillonite	90	%		
Swell Index	26	ml		
Moisture Content	8.6	%		
Moisture Absorption	784	%		
Mass of Bentonite	5,606	g/m²	1.146	lbs/ft²
Fluid Loss	9.9	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

I	Roll #	Date Produced	Product	Length	Width	BOL#
B0081002	07676	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8550

Finished Product

Type	BENTOFIX NS			
Mass	5,963	g/m²	1.219	lbs/ft²
Tensile Strength				
Length	51	Kg	112.20	lbs
Elongation				
Length	105	%		
Peels	7.40	Kg	16.28	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000805205B			
Mass	247	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8259983			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453831-1			
Montmorillonite	90	%		
Swell Index	26	ml		
Moisture Content	8.6	%		
Moisture Absorption	784	%		
Mass of Bentonite	5,606	g/m²	1.146	lbs/ft²
Fluid Loss	9.9	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0081002	07687	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8550

Finished Product

Type	BENTOFIX NS			
Mass	5,416	g/m²	1.107	lbs/ft²
Tensile Strength				
Length	56	Kg	123.20	lbs
Elongation				
Length	103	%		
Peels	7.30	Kg	16.06	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000805205B			
Mass	247	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8259983			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453831-1			
Montmorillonite	90	%		
Swell Index	26	ml		
Moisture Content	8.6	%		
Moisture Absorption	784	%		
Mass of Bentonite	5,059	g/m²	1.034	lbs/ft²
Fluid Loss	9.9	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0081002	07692	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8548

Finished Product

Type	BENTOFIX NS			
Mass	5,416	g/m²	1.107	lbs/ft²
Tensile Strength				
Length	56	Kg	123.20	lbs
Elongation				
Length	103	%		
Peels	7.30	Kg	16.06	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000805205B			
Mass	247	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8259984			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453831-1			
Montmorillonite	90	%		
Swell Index	26	ml		
Moisture Content	8.6	%		
Moisture Absorption	784	%		
Mass of Bentonite	5,059	g/m²	1.034	lbs/ft²
Fluid Loss	9.9	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0081002	07697	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8547

Finished Product

Type	BENTOFIX NS			
Mass	5,416	g/m²	1.107	lbs/ft²
Tensile Strength				
Length	56	Kg	123.20	lbs
Elongation				
Length	103	%		
Peels	7.30	Kg	16.06	lbs
Permeability	<5E-9	m/s		
Moisture Content	8.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000805205B			
Mass	247	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8259984			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453831-1			
Montmorillonite	90	%		
Swell Index	26	ml		
Moisture Content	8.6	%		
Moisture Absorption	784	%		
Mass of Bentonite	5,059	g/m²	1.034	lbs/ft²
Fluid Loss	9.9	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0081002	07703	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8548

Finished Product

Type	BENTOFIX NS			
Mass	5,498	g/m²	1.124	lbs/ft²
Tensile Strength				
Length	51	Kg	112.20	lbs
Elongation				
Length	100	%		
Peels	9.10	Kg	20.02	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000805205B			
Mass	247	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8259984			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453831-1			
Montmorillonite	90	%		
Swell Index	26	ml		
Moisture Content	8.6	%		
Moisture Absorption	784	%		
Mass of Bentonite	5,141	g/m²	1.051	lbs/ft²
Fluid Loss	9.9	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0081002	07708	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8547

Finished Product

Type	BENTOFIX NS			
Mass	5,498	g/m²	1.124	lbs/ft²
Tensile Strength				
Length	51	Kg	112.20	lbs
Elongation				
Length	100	%		
Peels	9.10	Kg	20.02	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000805205B			
Mass	247	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8248766			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453831-1			
Montmorillonite	90	%		
Swell Index	26	ml		
Moisture Content	8.6	%		
Moisture Absorption	784	%		
Mass of Bentonite	5,141	g/m²	1.051	lbs/ft²
Fluid Loss	9.9	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0081002	07715	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8547

Finished Product

Type	BENTOFIX NS			
Mass	5,575	g/m²	1.139	lbs/ft²
Tensile Strength				
Length	61	Kg	134.20	lbs
Elongation				
Length	96	%		
Peels	10.90	Kg	23.98	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000804205B			
Mass	244	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8248766			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453831-1			
Montmorillonite	90	%		
Swell Index	26	ml		
Moisture Content	8.6	%		
Moisture Absorption	784	%		
Mass of Bentonite	5,221	g/m²	1.067	lbs/ft²
Fluid Loss	9.9	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0081002	07716	August 10, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8548

Finished Product

Type	BENTOFIX NS			
Mass	5,575	g/m²	1.139	lbs/ft²
Tensile Strength				
Length	61	Kg	134.20	lbs
Elongation				
Length	96	%		
Peels	10.90	Kg	23.98	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000804205B			
Mass	244	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8248766			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453831-1			
Montmorillonite	90	%		
Swell Index	26	ml		
Moisture Content	8.6	%		
Moisture Absorption	784	%		
Mass of Bentonite	5,221	g/m²	1.067	lbs/ft²
Fluid Loss	9.9	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

I[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0081002	07731	August 11, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8546

Finished Product

Type	BENTOFIX NS			
Mass	5,575	g/m²	1.139	lbs/ft²
Tensile Strength				
Length	61	Kg	134.20	lbs
Elongation				
Length	96	%		
Peels	10.90	Kg	23.98	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	NONE			
Mass	0	g/m²	0.000	lbs/ft²

Bottom Layer

Type	NON-WOVEN			
Layer #	NONE			
Mass	0	g/m²	0.000	lbs/ft²

Bentonite

Mesh	0			
Shipment	NONE			
Montmorillonite	0	%		
Swell Index	0	ml		
Moisture Content	0.0	%		
Moisture Absorption	0	%		
Mass of Bentonite	5,575	g/m²	1.139	lbs/ft²
Fluid Loss	0.0	ml		

BENTOFIX TECHNOLOGIES, INC.
MANUFACTURERS OF BENTOFIX

Bentofix Technologies, Inc. hereby certifies that the following test results meet or exceed our specifications for Bentofix and the specifications for WMI/Trail Ridge Landfill.

The Swell Index according to ASTM D5890, the Fluid Loss according to ASTM D5891 and the Moisture Content according to ASTM D4643 were tested at least once per 50,000 square feet.

PROJECT: **WMI/TRAIL RIDGE LANDFILL**

STYLE: **BENTOFIX NS**

LOT NUMBER: **B0081002**

RAILCAR NO.: **453831-1**

SAMPLE NO.	SWELL INDEX (ml)	FLUID LOSS (ml)	MOISTURE CONTENT (%)
1	30	12.4	7.4
2	29	9.9	8.6
3	26	9.8	8.0
4	27	11.8	8.2

KEVIN NEWMAN
Quality Control Manager

08/23/2000
DATE

BENTOFIX TECHNOLOGIES, INC.

BENTOFIX MANUFACTURING CERTIFICATION

CUSTOMER: SERROT INTERNATIONAL, INC. **DATE:** 08-21-2000

PROJECT: WMI/ TRAIL RIDGE LF **NO.ROLLS:** 78

ORDER/JOB#: 12720OD-5135/10379 **PRODUCT TYPE:** BENTOFIX NS

Bentofix Technologies, Inc. hereby certifies that the Bentofix Geosynthetic Clay Liner purchased and shipped for the above referenced project meets or exceeds Bentofix Technologies, Inc.'s specifications for Bentofix.

The Bentofix product has been continuously inspected for the presence of needles and is certified to be needle free.

The tests listed for the bentonite component have been performed on each batch of bentonite. The Swell Index according to ASTM D5890, the Moisture Content according to ASTM D4643 and the Fluid Loss according to ASTM D5891 were tested at least once per 50,000 square feet.

The tests listed for the finished geocomposite product have been performed at least once every 3,716 sq. mt. [40,000 sq. ft.] for the Bentonite Mass Per Unit Area according to ASTM D5993 and the Grab Tensile/Elongation and Peel Strength according to ASTM D4632.

The tests listed for the finished geocomposite product have been performed at least once every 18,580 sq. mt. [200,000 sq. ft.] for the geotextile components.

The finished geocomposite water permeability was tested at least once every 9,290 sq. mt. [100,000 sq. ft.] according to method ASTM D5084. The Index Flux was tested at least once per week according to ASTM D5887 and meets the required specification of < 1 x 10-8 m3/m2/sec.

The lot and roll numbers for this project are as follows:

LOT# B0081112

ROLL# 07748,07749,07750,07751,07752,07753,07755,07756,07757,07758,07759,07761
07762,07763,07765,07766,07767,07768,07769,07770,07771,07773,07774,07775
07776,07777,07778,07779,07781,07782,07783,07784,07785,07786,07787,07788
07789,07790,07791,07792,07793,07794,07795,07796,07797,07798,07799,07800
07801,07802,07803,07804,07805,07806,07807,07808,07809,07810,07811,07812
07813,07814,07815,07816,07818,07819,07820,07822,07823,07824,07825,07826
07827,07828,07829,07830,07831,07832

KEVIN NEWMAN
Quality Control Manager

08/23/2000
DATE

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

#	Roll #	Date Produced	Product	Length	Width	BOL#
B0081112	07748	August 11, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8567

Finished Product

Type	BENTOFIX NS			
Mass	5,432	g/m²	1.110	lbs/ft²
Tensile Strength				
Length	56	Kg	123.20	lbs
Elongation				
Length	105	%		
Peels	10.80	Kg	23.76	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.5	%		

Top Layer

Type	NON-WOVEN			
Layer #	000805205B			
Mass	247	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8262250			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453818-1			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	7.5	%		
Moisture Absorption	703	%		
Mass of Bentonite	5,075	g/m²	1.037	lbs/ft²
Fluid Loss	15.2	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0081112	07750	August 11, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8565

Finished Product

Type	BENTOFIX NS			
Mass	5,432	g/m²	1.110	lbs/ft²
Tensile Strength				
Length	56	Kg	123.20	lbs
Elongation				
Length	105	%		
Peels	10.80	Kg	23.76	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.5	%		

Top Layer

Type	NON-WOVEN			
Layer #	000805205B			
Mass	247	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8262250			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453818-1			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	7.5	%		
Moisture Absorption	703	%		
Mass of Bentonite	5,075	g/m²	1.037	lbs/ft²
Fluid Loss	15.2	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0081112	07761	August 13, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8554

Finished Product

Type	BENTOFIX NS			
Mass	5,369	g/m²	1.097	lbs/ft²
Tensile Strength				
Length	59	Kg	129.80	lbs
Elongation				
Length	84	%		
Peels	14.10	Kg	31.02	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.5	%		

Top Layer

Type	NON-WOVEN			
Layer #	000805205B			
Mass	247	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8253419			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453818-1			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	7.5	%		
Moisture Absorption	703	%		
Mass of Bentonite	5,012	g/m²	1.024	lbs/ft²
Fluid Loss	15.2	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lo[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0081112	07762	August 13, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8565

Finished Product

Type	BENTOFIX NS			
Mass	5,369	g/m²	1.097	lbs/ft²
Tensile Strength				
Length	59	Kg	129.80	lbs
Elongation				
Length	84	%		
Peels	14.10	Kg	31.02	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.5	%		

Top Layer

Type	NON-WOVEN			
[redacted]ayer #	000805205B			
Mass	247	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8253419			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453818-1			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	7.5	%		
Moisture Absorption	703	%		
Mass of Bentonite	5,012	g/m²	1.024	lbs/ft²
Fluid Loss	15.2	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0081112	07770	August 13, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8564

Finished Product

Type	BENTOFIX NS			
Mass	5,369	g/m²	1.097	lbs/ft²
Tensile Strength				
Length	59	Kg	129.80	lbs
Elongation				
Length	84	%		
Peels	14.10	Kg	31.02	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.5	%		

Top Layer

Type	NON-WOVEN			
[redacted]yer #	000805205B			
Mass	247	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8253419			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453818-1			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	7.5	%		
Moisture Absorption	703	%		
Mass of Bentonite	5,012	g/m²	1.024	lbs/ft²
Fluid Loss	15.2	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L	Roll #	Date Produced	Product	Length	Width	BOL#
B0081112	07776	August 13, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8564

Finished Product

Type	BENTOFIX NS			
Mass	5,399	g/m²	1.103	lbs/ft²
Tensile Strength				
Length	48	Kg	105.60	lbs
Elongation				
Length	76	%		
Peels	7.00	Kg	15.40	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.5	%		

Top Layer

Type	NON-WOVEN			
Layer #	000804205B			
Mass	244	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8253419			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453818-1			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	7.5	%		
Moisture Absorption	703	%		
Mass of Bentonite	5,045	g/m²	1.031	lbs/ft²
Fluid Loss	15.2	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot#	Roll #	Date Produced	Product	Length	Width	BOL#
B0081112	07784	August 13, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8554

Finished Product

Type	BENTOFIX NS			
Mass	5,399	g/m²	1.103	lbs/ft²
Tensile Strength				
Length	48	kg	105.60	lbs
Elongation				
Length	76	%		
Peels	7.00	Kg	15.40	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.5	%		

Top Layer

Type	NON-WOVEN			
Layer #	000804205B			
Mass	244	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8251613			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453818-1			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	7.5	%		
Moisture Absorption	703	%		
Mass of Bentonite	5,045	g/m²	1.031	lbs/ft²
Fluid Loss	15.2	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0081112	07792	August 14, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8553

Finished Product

Type	BENTOFIX NS			
Mass	5,390	g/m²	1.102	lbs/ft²
Tensile Strength				
Length	55	Kg	121.00	lbs
Elongation				
Length	98	%		
Peels	7.10	Kg	15.62	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.5	%		

Top Layer

Type	NON-WOVEN			
Layer #	000804205B			
Mass	244	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8251613			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453818-1			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	7.5	%		
Moisture Absorption	703	%		
Mass of Bentonite	5,036	g/m²	1.029	lbs/ft²
Fluid Loss	15.2	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot#	Roll #	Date Produced	Product	Length	Width	BOL#
B0081112	07795	August 14, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8554

Finished Product

Type	BENTOFIX NS			
Mass	5,390	g/m²	1.102	lbs/ft²
Tensile Strength				
Length	55	Kg	121.00	lbs
Elongation				
Length	98	%		
Peels	7.10	Kg	15.62	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.5	%		

Top Layer

Type	NON-WOVEN			
Layer #	000804205B			
Mass	244	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8251613			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453818-1			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	7.5	%		
Moisture Absorption	703	%		
Mass of Bentonite	5,036	g/m²	1.029	lbs/ft²
Fluid Loss	15.2	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L	Roll #	Date Produced	Product	Length	Width	BOL#
B0081112	07804	August 14, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8554

Finished Product

Type	BENTOFIX NS			
Mass	5,414	g/m²	1.107	lbs/ft²
Tensile Strength				
Length	56	Kg	123.20	lbs
Elongation				
Length	104	%		
Peels	10.10	Kg	22.22	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.5	%		

Top Layer

Type	NON-WOVEN			
Layer #	000804205B			
Mass	244	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8248767			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453818-1			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	7.5	%		
Moisture Absorption	703	%		
Mass of Bentonite	5,060	g/m²	1.034	lbs/ft²
Fluid Loss	15.2	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0081112	07805	August 14, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8553

Finished Product

Type	BENTOFIX NS			
Mass	5,414	g/m²	1.107	lbs/ft²
Tensile Strength				
Length	56	Kg	123.20	lbs
Elongation				
Length	104	%		
Peels	10.10	Kg	22.22	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.5	%		

Top Layer

Type	NON-WOVEN			
Layer #	000804205B			
Mass	244	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8248767			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453818-1			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	7.5	%		
Moisture Absorption	703	%		
Mass of Bentonite	5,060	g/m²	1.034	lbs/ft²
Fluid Loss	15.2	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L	Roll #	Date Produced	Product	Length	Width	BOL#
B0081112	07813	August 14, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8552

Finished Product

Type	BENTOFIX NS			
Mass	5,414	g/m²	1.107	lbs/ft²
Tensile Strength				
Length	56	Kg	123.20	lbs
Elongation				
Length	104	%		
Peels	10.10	Kg	22.22	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.5	%		

Top Layer

Type	NON-WOVEN			
Layer #	000806205B-1			
Mass	254	g/m²	0.052	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8248767			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453818-1			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	7.5	%		
Moisture Absorption	703	%		
Mass of Bentonite	5.050	g/m²	1.032	lbs/ft²
Fluid Loss	15.2	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0081112	07820	August 14, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8552

Finished Product

Type	BENTOFIX NS			
Mass	5,428	g/m²	1.109	lbs/ft²
Tensile Strength				
Length	50	Kg	110.00	lbs
Elongation				
Length	93	%		
Peels	7.10	Kg	15.62	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.5	%		

Top Layer

Type	NON-WOVEN			
Layer #	000806205B-1			
Mass	254	g/m²	0.052	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8248767			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453818-1			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	7.5	%		
Moisture Absorption	703	%		
Mass of Bentonite	5,064	g/m²	1.035	lbs/ft²
Fluid Loss	15.2	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0081112	07831	August 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8551

Finished Product

Type	BENTOFIX NS			
Mass	5,428	g/m²	1.109	lbs/ft²
Tensile Strength				
Length	50	Kg	110.00	lbs
Elongation				
Length	93	%		
Peels	7.10	Kg	15.62	lbs
Permeability	<5E-9	cm/s		
Moisture Content	7.5	%		

Top Layer

Type	NON-WOVEN			
Layer #	000806205B-1			
Mass	254	g/m²	0.052	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8248767			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453818-1			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	7.5	%		
Moisture Absorption	703	%		
Mass of Bentonite	5,064	g/m²	1.035	lbs/ft²
Fluid Loss	15.2	ml		

BENTOFIX TECHNOLOGIES, INC.
MANUFACTURERS OF BENTOFIX

Bentofix Technologies, Inc. hereby certifies that the following test results meet or exceed our specifications for Bentofix and the specifications for WMI/Trail Ridge Landfill.

The Swell Index according to ASTM D5890, the Fluid Loss according to ASTM D5891 and the Moisture Content according to ASTM D4643 were tested at least once per 50,000 square feet.

PROJECT: **WMI/TRAIL RIDGE LANDFILL**

STYLE: **BENTOFIX NS**

LOT NUMBER: **B0081112**

RAILCAR NO.: **453818-1**

SAMPLE NO.	SWELL INDEX (ml)	FLUID LOSS (ml)	MOISTURE CONTENT (%)
1	27	14.2	6.0
2	26	15.0	6.6
3	25	15.2	7.5
4	26	15.4	7.0

VIN NEWMAN
Quality Control Manager

08/23/2012
DATE

BENTOFIX TECHNOLOGIES, INC.

BENTOFIX MANUFACTURING CERTIFICATION

CUSTOMER: SERROT INTERNATIONAL, INC. **DATE:** 08-15-2000

PROJECT: WMI/ TRAIL RIDGE LF **NO.ROLLS:** 78 Rolls

ORDER/JOB#: 12720OD-5135/10379 **PRODUCT TYPE:** BENTOFIX NS

Bentofix Technologies, Inc. hereby certifies that the Bentofix Geosynthetic Clay Liner purchased and shipped for the above referenced project meets or exceeds Bentofix Technologies, Inc.'s specifications for Bentofix.

The Bentofix product has been continuously inspected for the presence of needles and is certified to be needle free.

The tests listed for the bentonite component have been performed on each batch of bentonite. The Swell Index according to ASTM D5890, the Moisture Content according to ASTM D4643 and the Fluid Loss according to ASTM D5891 were tested at least once per 50,000 square feet.

The tests listed for the finished geocomposite product have been performed at least once every 3,716 sq. mt. [40,000 sq. ft.] for the Bentonite Mass Per Unit Area according to ASTM D5993 and the Grab Tensile/Elongation and Peel Strength according to ASTM D4632.

The tests listed for the finished geocomposite product have been performed at least once every 18,580 sq. mt. [200,000 sq. ft.] for the geotextile components.

The finished geocomposite water permeability was tested at least once every 9,290 sq. mt. [100,000 sq. ft.] according to method ASTM D5084. The Index Flux was tested at least once per week according to ASTM D5887 and meets the required specification of < 1 x 10-8 m3/m2/sec.

The lot and roll numbers for this project are as follows:

LOT# B0081502

ROLL# 07912,07913,07914,07916,07917,07918,07919,07920,07921,07922,07923,07924
07925,07926,07927,07928,07929,07930,07931,07933,07934,07935,07936,07937
07939,07941,07942,07943,07944,07945,07946,07947,07948,07949,07951,07952
07953,07954,07955,07956,07957,07959,07960,07961,07962,07963,07964,07965
07966,07967,07968,07969,07970,07971,07972,07973,07974,07975,07976,07978
07979,07980,07981,07982,07983,07988,07989,07991,07992,07993,07994,07995
07997,07998,07999,08000,08001,08002

KEVIN NEWMAN
Quality Control Manager

08/23/2000
DATE

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L	Roll #	Date Produced	Product	Length	Width	BOL#
B0081502	07912	August 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	

Finished Product

Type	BENTOFIX NS			
Mass	5,415	g/m²	1.107	lbs/ft²
Tensile Strength				
Length	53	Kg	116.60	lbs
Elongation				
Length	107	%		
Peels	8.30	Kg	18.26	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.4	%		

Top Layer

Type	NON-WOVEN			
Layer #	000814205B			
Mass	245	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8249155			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	423590			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	8.4	%		
Moisture Absorption	692	%		
Mass of Bentonite	5,060	g/m²	1.034	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0081502	07918	August 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8571

Finished Product

Type	BENTOFIX NS			
Mass	5,415	g/m²	1.107	lbs/ft²
Tensile Strength				
Length	53	Kg	116.60	lbs
Elongation				
Length	107	%		
Peels	8.30	Kg	18.26	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.4	%		

Top Layer

Type	NON-WOVEN			
Layer #	000814205B			
Mass	245	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8249155			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	423590			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	8.4	%		
Moisture Absorption	692	%		
Mass of Bentonite	5,060	g/m²	1.034	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

I	Roll #	Date Produced	Product	Length	Width	BOL#
B0081502	07933	August 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8569

Finished Product

Type	BENTOFIX NS			
Mass	5,562	g/m²	1.137	lbs/ft²
Tensile Strength				
Length	65	Kg	143.00	lbs
Elongation				
Length	97	%		
Peels	12.10	Kg	26.62	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.4	%		

Top Layer

Type	NON-WOVEN			
Layer #	000814205B			
Mass	245	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8241770			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	423590			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	8.4	%		
Moisture Absorption	692	%		
Mass of Bentonite	5,207	g/m²	1.064	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0081502	07934	August 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8573

Finished Product

Type	BENTOFIX NS			
Mass	5,562	g/m²	1.137	lbs/ft²
Tensile Strength				
Length	65	Kg	143.00	lbs
Elongation				
Length	97	%		
Peels	12.10	Kg	26.62	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.4	%		

Top Layer

Type	NON-WOVEN			
[redacted]ayer #	000814205B			
Mass	245	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8241770			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	423590			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	8.4	%		
Moisture Absorption	692	%		
Mass of Bentonite	5,207	g/m²	1.064	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L	Roll #	Date Produced	Product	Length	Width	BOL#
B0081502	07937	August 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8571

Finished Product

Type	BENTOFIX NS			
Mass	5,562	g/m²	1.137	lbs/ft²
Tensile Strength				
Length	65	Kg	143.00	lbs
Elongation				
Length	97	%		
Peels	12.10	Kg	26.62	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.4	%		

Top Layer

Type	NON-WOVEN			
Layer #	000814205B			
Mass	245	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8241770			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	423590			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	8.4	%		
Moisture Absorption	692	%		
Mass of Bentonite	5,207	g/m²	1.064	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot	Roll #	Date Produced	Product	Length	Width	BOL#
B0081502	07951	August 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8573

Finished Product

Type	BENTOFIX NS			
Mass	5,674	g/m²	1.160	lbs/ft²
Tensile Strength				
Length	59	Kg	129.80	lbs
Elongation				
Length	99	%		
Peels	14.70	Kg	32.34	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.4	%		

Top Layer

Type	NON-WOVEN			
Layer #	000814205B			
Mass	245	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8251612			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	423590			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	8.4	%		
Moisture Absorption	692	%		
Mass of Bentonite	5,319	g/m²	1.087	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

I	Roll #	Date Produced	Product	Length	Width	BOL#
B0081502	07952	August 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8571

Finished Product

Type	BENTOFIX NS			
Mass	5,674	g/m²	1.160	lbs/ft²
Tensile Strength				
Length	59	Kg	129.80	lbs
Elongation				
Length	99	%		
Peels	14.70	Kg	32.34	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.4	%		

Top Layer

Type	NON-WOVEN			
Layer #	000814205B			
Mass	245	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8251612			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	423590			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	8.4	%		
Moisture Absorption	692	%		
Mass of Bentonite	5,319	g/m²	1.087	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0081502	07954	August 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8569

Finished Product

Type	BENTOFIX NS			
Mass	5,403	g/m²	1.104	lbs/ft²
Tensile Strength				
Length	57	Kg	125.40	lbs
Elongation				
Length	96	%		
Peels	9.40	Kg	20.68	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.4	%		

Top Layer

Type	NON-WOVEN			
Layer #	000814205B			
Mass	245	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8251612			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	423590			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	8.4	%		
Moisture Absorption	692	%		
Mass of Bentonite	5,048	g/m²	1.032	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot	Roll #	Date Produced	Product	Length	Width	BOL#
B0081502	07956	August 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8573

Finished Product

Type	BENTOFIX NS			
Mass	5,403	g/m²	1.104	lbs/ft²
Tensile Strength				
Length	57	Kg	125.40	lbs
Elongation				
Length	96	%		
Peels	9.40	Kg	20.68	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.4	%		

Top Layer

Type	NON-WOVEN			
Layer #	000814205B			
Mass	245	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8251612			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	423590			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	8.4	%		
Moisture Absorption	692	%		
Mass of Bentonite	5,048	g/m²	1.032	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L	Roll #	Date Produced	Product	Length	Width	BOL#
B0081502	07957	August 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8571

Finished Product

Type	BENTOFIX NS			
Mass	5,403	g/m²	1.104	lbs/ft²
Tensile Strength				
Length	57	Kg	125.40	lbs
Elongation				
Length	96	%		
Peels	9.40	Kg	20.68	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.4	%		

Top Layer

Type	NON-WOVEN			
Layer #	000814205B			
Mass	245	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8251612			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	423590			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	8.4	%		
Moisture Absorption	692	%		
Mass of Bentonite	5,048	g/m²	1.032	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

L[illegible]	Roll #	Date Produced	Product	Length	Width	BOL#
B0081502	07964	August 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8564

Finished Product

Type	BENTOFIX NS			
Mass	5,403	g/m²	1.104	lbs/ft²
Tensile Strength				
Length	57	Kg	125.40	lbs
Elongation				
Length	96	%		
Peels	9.40	Kg	20.68	lbs
Permeability	5E-9	cm/s		
Moisture Content	8.4	%		

Top Layer

Type	NON-WOVEN			
[illegible]yer #	000812205B-1			
Mass	[illegible]10	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8261297			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	423590			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	8.4	%		
Moisture Absorption	692	%		
Mass of Bentonite	5,053	g/m²	1.033	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0081502	07969	August 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8560

Finished Product

Type	BENTOFIX NS			
Mass	5.674	g/m²	1.160	lbs/ft²
Tensile Strength				
Length	59	Kg	129.80	lbs
Elongation				
Length	99	%		
Peels	14.70	Kg	32.34	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.4	%		

Top Layer

Type	NON-WOVEN			
Layer #	000815205B			
Mass	240	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8261297			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	423590			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	8.4	%		
Moisture Absorption	692	%		
Mass of Bentonite	5.324	g/m²	1.088	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0081502	07970	August 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8564

Finished Product

Type	BENTOFIX NS			
Mass	5,498	g/m²	1.124	lbs/ft²
Tensile Strength				
Length	59	Kg	129.80	lbs
Elongation				
Length	102	%		
Peels	11.60	Kg	25.52	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.4	%		

Top Layer

Type	NON-WOVEN			
Layer #	000815205B			
Mass	240	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8261297			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	423590			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	8.4	%		
Moisture Absorption	692	%		
Mass of Bentonite	5,148	g/m²	1.052	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0081502	07993	August 15, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8569

Finished Product

Type	BENTOFIX NS			
Mass	5,498	g/m²	1.124	lbs/ft²
Tensile Strength				
Length	59	Kg	129.80	lbs
Elongation				
Length	102	%		
Peels	11.60	Kg	25.52	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.4	%		

Top Layer

Type	NON-WOVEN			
Layer #	000815205B			
Mass	240	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8248768			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	423590			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	8.4	%		
Moisture Absorption	692	%		
Mass of Bentonite	5,148	g/m²	1.052	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lo[redacted]	Roll #	Date Produced	Product	Length	Width	BOL#
B0081502	07999	August 17, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8568

Finished Product

Type	BENTOFIX NS			
Mass	5,498	g/m²	1.124	lbs/ft²
Tensile Strength				
Length	59	Kg	129.80	lbs
Elongation				
Length	102	%		
Peels	11.60	Kg	25.52	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.4	%		

Top Layer

Type	NON-WOVEN			
[redacted]yer #	000815205B			
Mass	240	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8248768			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	423590			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	8.4	%		
Moisture Absorption	692	%		
Mass of Bentonite	5,148	g/m²	1.052	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

I	Roll #	Date Produced	Product	Length	Width	BOL#
B0081502	08002	August 17, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8569

Finished Product

Type	BENTOFIX NS			
Mass	5,481	g/m²	1.120	lbs/ft²
Tensile Strength				
Length	55	Kg	121.00	lbs
Elongation				
Length	98	%		
Peels	7.10	Kg	15.62	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.4	%		

Top Layer

Type	NON-WOVEN			
Layer #	000815205B			
Mass	240	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8248768			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	423590			
Montmorillonite	90	%		
Swell Index	25	ml		
Moisture Content	8.4	%		
Moisture Absorption	692	%		
Mass of Bentonite	5,131	g/m²	1.049	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES, INC.
MANUFACTURERS OF BENTOFIX

Bentofix Technologies, Inc. hereby certifies that the following test results meet or exceed our specifications for Bentofix and the specifications for WMI/Trail Ridge Landfill.

The Swell Index according to ASTM D5890, the Fluid Loss according to ASTM D5891 and the Moisture Content according to ASTM D4643 were tested at least once per 50,000 square feet.

PROJECT: **WMI/TRAIL RIDGE LANDFILL**

STYLE: **BENTOFIX NS**

LOT NUMBER: **B0081502**

RAILCAR NO.: **423590**

SAMPLE NO.	SWELL INDEX (ml)	FLUID LOSS (ml)	MOISTURE CONTENT (%)
1	29	12.2	7.2
2	26	15.2	7.9
3	26	15.8	8.4
4	27	15.0	8.2

VIN NEWMAN
Quality Control Manager

08/23/2000
DATE

BENTOFIX TECHNOLOGIES, INC.

BENTOFIX MANUFACTURING CERTIFICATION

CUSTOMER: SERROT INTERNATIONAL, INC. **DATE:** 08-17-2000

PROJECT: WMI/ TRAIL RIDGE LF **NO.ROLLS:** 15

ORDER/JOB#: 12720OD-5135/10379 **PRODUCT TYPE:** BENTOFIX NS

Bentofix Technologies, Inc. hereby certifies that the Bentofix Geosynthetic Clay Liner purchased and shipped for the above referenced project meets or exceeds Bentofix Technologies, Inc.'s specifications for Bentofix.

The Bentofix product has been continuously inspected for the presence of needles and is certified to be needle free.

The tests listed for the bentonite component have been performed on each batch of bentonite. The Swell Index according to ASTM D5890, the Moisture Content according to ASTM D4643 and the Fluid Loss according to ASTM D5891 were tested at least once per 50,000 square feet.

The tests listed for the finished geocomposite product have been performed at least once every 3,716 sq. mt. [40,000 sq. ft.] for the Bentonite Mass Per Unit Area according to ASTM D5993 and the Grab Tensile/Elongation and Peel Strength according to ASTM D4632.

The tests listed for the finished geocomposite product have been performed at least once every 18,580 sq. mt. [200,000 sq. ft.] for the geotextile components.

The finished geocomposite water permeability was tested at least once every 9,290 sq. mt. [100,000 sq. ft.] according to method ASTM D5084. The Index Flux was tested at least once per week according to ASTM D5887 and meets the required specification of < 1 x 10-8 m3/m2/sec.

The lot and roll numbers for this project are as follows:

LOT# B0081702

ROLL# 08003,08004,08005,08006,08007,08008,08009,08010,08011,08012,08013,08014 08016,08017,08018

KEVIN NEWMAN
Quality Control Manager

08/23/2000
DATE

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

I	Roll #	Date Produced	Product	Length	Width	BOL#
B0081702	08003	August 17, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8569

Finished Product

Type	BENTOFIX NS			
Mass	5,386	g/m²	1.101	lbs/ft²
Tensile Strength				
Length	55	Kg	121.00	lbs
Elongation				
Length	93	%		
Peels	9.40	Kg	20.68	lbs
Permeability	<5E-9	cm/s		
Moisture Content	6.9	%		

Top Layer

Type	NON-WOVEN			
Layer #	000815205B			
Mass	240	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8237885			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453623			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	6.9	%		
Moisture Absorption	758	%		
Mass of Bentonite	5,036	g/m²	1.029	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lo	Roll #	Date Produced	Product	Length	Width	BOL#
B0081702	08006	August 17, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8568

Finished Product

Type	BENTOFIX NS			
Mass	5,386	g/m²	1.101	lbs/ft²
Tensile Strength				
Length	55	Kg	121.00	lbs
Elongation				
Length	93	%		
Peels	9.40	Kg	20.68	lbs
Permeability	<5E-9	cm/s		
Moisture Content	6.9	%		

Top Layer

Type	NON-WOVEN			
Layer #	000815205B			
Mass	240	g/m²	0.049	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8237885			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	453623			
Montmorillonite	90	%		
Swell Index	27	ml		
Moisture Content	6.9	%		
Moisture Absorption	758	%		
Mass of Bentonite	5,036	g/m²	1.029	lbs/ft²
Fluid Loss	15.8	ml		

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0060602	98322	June 6, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8554

Finished Product

Type	BENTOFIX NS			
Mass	5,482	g/m²	1.120	lbs/ft²
Tensile Strength				
Length	48	Kg	105.60	lbs
Elongation				
Length	111	%		
Peels	11.30	Kg	24.86	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000605205B-1			
Mass	245	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8166937			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	422882			
Montmorillonite	90	%		
Swell Index	24	ml		
Moisture Content	8.6	%		
Moisture Absorption	736	%		
Mass of Bentonite	5,127	g/m²	1.048	lbs/ft²
Fluid Loss	15.2	ml		

HP Laserjet 3100;

BENTOFIX TECHNOLOGIES INC.

Quality Control Certificate

Lot #	Roll #	Date Produced	Product	Length	Width	BOL#
B0060602	98323	June 6, 2000	BENTOFIX NS	150.00 45.72	15.5 ft 4.72 m	8554

Finished Product

Type	BENTOFIX NS			
Mass	5,579	g/m²	1.140	lbs/ft²
Tensile Strength				
Length	53	Kg	116.60	lbs
Elongation				
Length	131	%		
Peels	11.60	Kg	25.52	lbs
Permeability	<5E-9	cm/s		
Moisture Content	8.6	%		

Top Layer

Type	NON-WOVEN			
Layer #	000605205B-1			
Mass	245	g/m²	0.050	lbs/ft²

Bottom Layer

Type	WOVEN			
Layer #	8166937			
Mass	110	g/m²	0.022	lbs/ft²

Bentonite

Mesh	30			
Shipment	422882			
Montmorillonite	90	%		
Swell Index	24	ml		
Moisture Content	8.6	%		
Moisture Absorption	736	%		
Mass of Bentonite	5,224	g/m²	1.068	lbs/ft²
Fluid Loss	15.2	ml		

BENTOFIX TECHNOLOGIES, INC.
MANUFACTURERS OF BENTOFIX

Bentofix Technologies, Inc. hereby certifies that the following test results meet or exceed our specifications for Bentofix and the specifications for WMI/Trail Ridge Landfill.

The Swell Index according to ASTM D5890, the Fluid Loss according to ASTM D5891 and the Moisture Content according to ASTM D4643 were tested at least once per 50,000 square feet.

PROJECT: **WMI/TRAIL RIDGE LANDFILL**

STYLE: **BENTOFIX NS**

LOT NUMBER: **B0081702**

RAILCAR NO.: **453623**

SAMPLE NO.	SWELL INDEX (ml)	FLUID LOSS (ml)	MOISTURE CONTENT (%)
1	29	12.0	6.8

VIN NEWMAN
Quality Control Manager

08/24/2000
DATE

BENTOFIX TECHNOLOGIES, INC.

Summary Of Triaxal Permeability Test Results

PROJECT: WMI/TRAIL RIDGE LANDFILL

LOT NO.: B0071502 DATE: 07-17-2000

ROLL NO.: 04632 TIME: 9:00 AM

DESCRIPTION: NS PERMEANT: Distilled Water

PHYSICAL PROPERTY DATA

INITIAL HEIGHT (cm): 0.67 FINAL HEIGHT (cm): 0.77

INITIAL AREA (cm^2) : 41.74 FINAL AREA (cm^2) : 41.74

INITIAL WEIGHT (g) : 30.15 FINAL WEIGHT (g) : 45.14

TEST PARAMETERS

CELL PRESSURE (p.s.i.) : 50 HEAD PRESSURE (p.s.i.) : 47

TAIL PRESSURE (p.s.i.) : 45

PERMEABILITY INPUT DATA

FLOW, Q (c.c.) : 1.1650 TIME, t (sec) : 75 600

LENGTH, L (cm) : 0.77

AREA, A (cm^2) : 41.74 HEAD, h (cm) : 140.2

$$K = \frac{Q\ L}{A t h}$$

COMPUTED PERMEABILITY

PERMEABILITY, K = **2.03×10^{-9}** cm/sec @ 20 DEGREES C

TEST PERFORMED BY : JULIE IRVING

BENTOFIX TECHNOLOGIES, INC.

Summary Of Triaxal Permeability Test Results

PROJECT: WMI/TRAIL RIDGE LANDFILL

LOT NO.: B0071502 DATE: 07-17-2000

ROLL NO.: 04672 TIME: 9:30 AM

DESCRIPTION: NS PERMEANT: Distilled Water

PHYSICAL PROPERTY DATA

INITIAL HEIGHT (cm): 0.70 FINAL HEIGHT (cm): 0.78

INITIAL AREA (cm^2) : 41.74 FINAL AREA (cm^2) : 41.74

INITIAL WEIGHT (g) : 29.38 FINAL WEIGHT (g) : 47.81

TEST PARAMETERS

CELL PRESSURE (p.s.i.) : 50 HEAD PRESSURE (p.s.i.) : 47

TAIL PRESSURE (p.s.i.) : 45

PERMEABILITY INPUT DATA

FLOW, Q (c.c.) : 1.740 TIME, t (sec) : 86 400

LENGTH, L (cm) : 0.78

AREA, A (cm^2) : 41.74 HEAD, h (cm) : 140.2

$$K = \frac{Q\ L}{A t h}$$

COMPUTED PERMEABILITY

PERMEABILITY, K = **2.68×10^{-9}** cm/sec @ 20 DEGREES C

TEST PERFORMED BY : JULIE IRVING

BENTOFIX TECHNOLOGIES, INC.

Summary Of Triaxal Permeability Test Results

PROJECT: WMI/TRAIL RIDGE LANDFILL

LOT NO.: B0080902 DATE: 08-10-2000

ROLL NO.: 07582 TIME: 11:30 AM

DESCRIPTION: NS PERMEANT: Distilled Water

PHYSICAL PROPERTY DATA

INITIAL HEIGHT (cm): 0.59 FINAL HEIGHT (cm): 0.60

INITIAL AREA (cm^2) : 78.5 FINAL AREA (cm^2) : 78.5

INITIAL WEIGHT (g) : 64.68 FINAL WEIGHT (g) : 101.70

TEST PARAMETERS

CELL PRESSURE (p.s.i.) : 50 HEAD PRESSURE (p.s.i.) : 47

TAIL PRESSURE (p.s.i.) : 45

PERMEABILITY INPUT DATA

FLOW, Q (c.c.) : 2.225 TIME, t (sec) : 81000

LENGTH, L (cm) : 0.60

AREA, A (cm^2) : 78.5 HEAD, h (cm) : 140.2

$$K = \frac{Q\ L}{A t h}$$

COMPUTED PERMEABILITY

PERMEABILITY, K = **1.50×10^{-9}** cm/sec @ 20 DEGREES C

TEST PERFORMED BY : KAREN BURDEN

BENTOFIX TECHNOLOGIES, INC.

Summary Of Triaxal Permeability Test Results

PROJECT: WMI/TRAIL RIDGE LANDFILL

LOT NO.: B0080902 DATE: 08-10-2000

ROLL NO.: 07630 TIME: 12:00 PM

DESCRIPTION: NS PERMEANT: Distilled Water

PHYSICAL PROPERTY DATA

INITIAL HEIGHT (cm): 0.60 FINAL HEIGHT (cm): 0.65

INITIAL AREA (cm^2) : 78.5 FINAL AREA (cm^2) : 78.5

INITIAL WEIGHT (g) : 64.79 FINAL WEIGHT (g) : 97.33

TEST PARAMETERS

CELL PRESSURE (p.s.i.) : 50 HEAD PRESSURE (p.s.i.) : 47

TAIL PRESSURE (p.s.i.) : 45

PERMEABILITY INPUT DATA

FLOW, Q (c.c.) : 2.545 TIME, t (sec) : 86400

LENGTH, L (cm) : 0.65

AREA, A (cm^2) : 78.5 HEAD, h (cm) : 140.2

$$K = \frac{Q\ L}{Ath}$$

COMPUTED PERMEABILITY

PERMEABILITY, K = **1.74×10^{-9}** cm/sec @ 20 DEGREES C

TEST PERFORMED BY : KAREN BURDEN

BENTOFIX TECHNOLOGIES, INC.

Summary Of Triaxal Permeability Test Results

PROJECT: WMI/TRAIL RIDGE LANDFILL

LOT NO.: B0081002 DATE: 08-11-2000

ROLL NO.: 07671 TIME: 3:30 PM

DESCRIPTION: NS PERMEANT: Distilled Water

PHYSICAL PROPERTY DATA

INITIAL HEIGHT (cm): 0.70 FINAL HEIGHT (cm): 0.75

INITIAL AREA (cm^2) : 41.74 FINAL AREA (cm^2) : 41.74

INITIAL WEIGHT (g) : 32.74 FINAL WEIGHT (g) : 45.28

TEST PARAMETERS

CELL PRESSURE (p.s.i.) : 50 HEAD PRESSURE (p.s.i.) : 47

TAIL PRESSURE (p.s.i.) : 45

PERMEABILITY INPUT DATA

FLOW, Q (c.c.) : 2.370 TIME, t (sec) : 86400

LENGTH, L (cm) : 0.75

AREA, A (cm^2) : 41.74 HEAD, h (cm) : 140.2

$$K = \frac{Q\ L}{A t h}$$

COMPUTED PERMEABILITY

PERMEABILITY, K = **3.52×10^{-9}** cm/sec @ 20 DEGREES C

TEST PERFORMED BY : JULIE IRVING

BENTOFIX TECHNOLOGIES, INC.

Summary Of Triaxal Permeability Test Results

PROJECT: WMI/TRAIL RIDGE LANDFILL

LOT NO.: B0081002 DATE: 08-11-2000

ROLL NO.: 07715 TIME: 3:00 PM

DESCRIPTION: NS PERMEANT: Distilled Water

PHYSICAL PROPERTY DATA

INITIAL HEIGHT (cm): 0.67 FINAL HEIGHT (cm): 0.74

INITIAL AREA (cm^2) : 41.74 FINAL AREA (cm^2) : 41.74

INITIAL WEIGHT (g) : 30.11 FINAL WEIGHT (g) : 43.52

TEST PARAMETERS

CELL PRESSURE (p.s.i.) : 50 HEAD PRESSURE (p.s.i.) : 47

TAIL PRESSURE (p.s.i.) : 45

PERMEABILITY INPUT DATA

FLOW, Q (c.c.) : 1.585 TIME, t (sec) : 81000

LENGTH, L (cm) : 0.74

AREA, A (cm^2) : 41.74 HEAD, h (cm) : 140.2

$$K = \frac{Q\ L}{A t h}$$

COMPUTED PERMEABILITY

PERMEABILITY, K = **2.47×10^{-9}** cm/sec @ 20 DEGREES C

TEST PERFORMED BY : JULIE IRVING

BENTOFIX TECHNOLOGIES, INC.

Summary Of Triaxal Permeability Test Results

PROJECT: WMI/TRAIL RIDGE LANDFILL

LOT NO.: B0081112 DATE: 08-14-2000

ROLL NO.: 07756 TIME: 11:30 AM

DESCRIPTION: NS PERMEANT: Distilled Water

PHYSICAL PROPERTY DATA

INITIAL HEIGHT (cm): 0.62 FINAL HEIGHT (cm): 0.69

INITIAL AREA (cm^2) : 41.74 FINAL AREA (cm^2) : 41.74

INITIAL WEIGHT (g) : 40.22 FINAL WEIGHT (g) : 68.09

TEST PARAMETERS

CELL PRESSURE (p.s.i.) : 50 HEAD PRESSURE (p.s.i.) : 47

TAIL PRESSURE (p.s.i.) : 45

PERMEABILITY INPUT DATA

FLOW, Q (c.c.) : 1.055 TIME, t (sec) : 54000

LENGTH, L (cm) : 0.69

AREA, A (cm^2) : 41.74 HEAD, h (cm) : 140.2

$$K = \frac{Q\ L}{A t h}$$

COMPUTED PERMEABILITY

PERMEABILITY, K = **2.30×10^{-9}** cm/sec @ 20 DEGREES C

TEST PERFORMED BY : KAREN BURDEN

BENTOFIX TECHNOLOGIES, INC.

Summary Of Triaxal Permeability Test Results

PROJECT: WMI/TRAIL RIDGE LANDFILL

LOT NO.: B0081112 DATE: 08-14-2000

ROLL NO.: 07792 TIME: 12:00 PM

DESCRIPTION: NS PERMEANT: Distilled Water

PHYSICAL PROPERTY DATA

INITIAL HEIGHT (cm): 0.64 FINAL HEIGHT (cm): 0.72

INITIAL AREA (cm^2) : 41.74 FINAL AREA (cm^2) : 41.74

INITIAL WEIGHT (g) : 29.11 FINAL WEIGHT (g) : 59.12

TEST PARAMETERS

CELL PRESSURE (p.s.i.) : 50 HEAD PRESSURE (p.s.i.) : 47

TAIL PRESSURE (p.s.i.) : 45

PERMEABILITY INPUT DATA

FLOW, Q (c.c.) : 1.150 TIME, t (sec) : 54000

LENGTH, L (cm) : 0.72

AREA, A (cm^2) : 41.74 HEAD, h (cm) : 140.2

$$K = \frac{Q\ L}{Ath}$$

COMPUTED PERMEABILITY

PERMEABILITY, K = **2.62×10^{-9}** cm/sec @ 20 DEGREES C

TEST PERFORMED BY : KAREN BURDEN

BENTOFIX TECHNOLOGIES, INC.

Summary Of Triaxal Permeability Test Results

PROJECT: WMI/TRAIL RIDGE LANDFILL

LOT NO.: B0081502 DATE: 08-16-2000

ROLL NO.: 07933 TIME: 10:30 AM

DESCRIPTION: NS PERMEANT: Distilled Water

PHYSICAL PROPERTY DATA

INITIAL HEIGHT (cm): 0.67 FINAL HEIGHT (cm): 0.85

INITIAL AREA (cm^2) : 78.5 FINAL AREA (cm^2) : 78.5

INITIAL WEIGHT (g) : 56.21 FINAL WEIGHT (g) : 98.10

TEST PARAMETERS

CELL PRESSURE (p.s.i.) : 50 HEAD PRESSURE (p.s.i.) : 47

TAIL PRESSURE (p.s.i.) : 45

PERMEABILITY INPUT DATA

FLOW, Q (c.c.) : 1.585 TIME, t (sec) : 72000

LENGTH, L (cm) : 0.85

AREA, A (cm^2) : 78.5 HEAD, h (cm) : 140.2

$$K = \frac{Q\ L}{Ath}$$

COMPUTED PERMEABILITY

PERMEABILITY, K = **1.70×10^{-9}** cm/sec @ 20 DEGREES C

TEST PERFORMED BY : JULIE IRVING

BENTOFIX TECHNOLOGIES, INC.

Summary Of Triaxal Permeability Test Results

PROJECT: WMI/TRAIL RIDGE LANDFILL

LOT NO.: B0081502 DATE: 08-16-2000

ROLL NO.: 07973 TIME: 11:00 AM

DESCRIPTION: NS PERMEANT: Distilled Water

PHYSICAL PROPERTY DATA

INITIAL HEIGHT (cm): 0.65 FINAL HEIGHT (cm): 0.83

INITIAL AREA (cm^2) : 78.5 FINAL AREA (cm^2) : 78.5

INITIAL WEIGHT (g) : 56.14 FINAL WEIGHT (g) : 99.37

TEST PARAMETERS

CELL PRESSURE (p.s.i.) : 50 HEAD PRESSURE (p.s.i.) : 47

TAIL PRESSURE (p.s.i.) : 45

PERMEABILITY INPUT DATA

FLOW, Q (c.c.) : 2.440 TIME, t (sec) : 86400

LENGTH, L (cm) : 0.83

AREA, A (cm^2) : 78.5 HEAD, h (cm) : 140.2

$$K = \frac{Q\ L}{Ath}$$

COMPUTED PERMEABILITY

PERMEABILITY, K = **2.13×10^{-9}** cm/sec @ 20 DEGREES C

TEST PERFORMED BY : JULIE IRVING

BENTOFIX TECHNOLOGIES, INC.

Summary Of Triaxal Permeability Test Results

PROJECT: WMI/TRAIL RIDGE LANDFILL

LOT NO.: B0081702 DATE: 08-17-2000

ROLL NO.: 08005 TIME: 3:30 PM

DESCRIPTION: NS PERMEANT: Distilled Water

PHYSICAL PROPERTY DATA

INITIAL HEIGHT (cm): 0.71 FINAL HEIGHT (cm): 0.76

INITIAL AREA (cm^2) : 41.74 FINAL AREA (cm^2) : 41.74

INITIAL WEIGHT (g) : 29.32 FINAL WEIGHT (g) : 57.08

TEST PARAMETERS

CELL PRESSURE (p.s.i.) : 50 HEAD PRESSURE (p.s.i.) : 47

TAIL PRESSURE (p.s.i.) : 45

PERMEABILITY INPUT DATA

FLOW, Q (c.c.) : 1.860 TIME, t (sec) : 86400

LENGTH, L (cm) : 0.76

AREA, A (cm^2) : 41.74 HEAD, h (cm) : 140.2

$$K = \frac{Q\ L}{A t h}$$

COMPUTED PERMEABILITY

PERMEABILITY, K = **2.80×10^{-9}** cm/sec @ 20 DEGREES C

TEST PERFORMED BY : JULIE IRVING

BENTOFIX TECHNOLOGIES, INC.

Summary Of Triaxal Permeability Test Results

PROJECT: WMI/TRAIL RIDGE LANDFILL

LOT NO.: B0060602 DATE: 06-07-2000

ROLL NO.: 98322 TIME: 9:00 AM

DESCRIPTION: NS PERMEANT: Distilled Water

PHYSICAL PROPERTY DATA

INITIAL HEIGHT (cm): 0.71 FINAL HEIGHT (cm): 0.88

INITIAL AREA (cm^2) : 78.5 FINAL AREA (cm^2) : 78.5

INITIAL WEIGHT (g) : 63.02 FINAL WEIGHT (g) : 99.48

TEST PARAMETERS

CELL PRESSURE (p.s.i.) : 50 HEAD PRESSURE (p.s.i.) : 47

TAIL PRESSURE (p.s.i.) : 45

PERMEABILITY INPUT DATA

FLOW, Q (c.c.) : 2.4650 TIME, t (sec) : 84 600

LENGTH, L (cm) : 0.88

AREA, A (cm^2) : 78.5 HEAD, h (cm) : 140.2

$$K = \frac{Q\ L}{A t h}$$

COMPUTED PERMEABILITY

PERMEABILITY, K = 2.33×10^{-9} cm/sec @ 20 DEGREES C

TEST PERFORMED BY : JULIE IRVING

SECTION E-6

Geomembrane Welding Rod

SEP 1 2 2000

SERROT INTERNATIONAL, INC.
BATON RO[illegible]

SERROT INTERNATIONAL, INC.

	INITIALS	DATE
GEN. MGR.		
PROJECT MGR.		
OFFICE MGR.	Mary	
EST. MGR.		
OTHER	Trevor	

Polyethylene Certificate of Analysis

Customer: WMI
Project: Trail Ridge Landfill
Project Number: 5135
Resin Type: Solvay Extrusion Rod

We hereby certify that the polyethylene resin for the above identified shipment meets or exceeds Serrot International, Inc. specifications. Testing was performed on each resin blend.

Melt Flow Index was determined according to ASTM D 1238. Density was determined according to ASTM D 1505. Where appropriate, carbon black was determined according to ASTM D 4218. The average test results are listed below.

RESIN PROPERTIES

Blend Number	Melt Flow Index (g/10 min)	Density (g/cm)	Carbon Black Content (%)
4156	0.233	0.949	2.42

Jane Allen
Quality Control Manager

9-08-00
Date

This Certification of Analysis shall not be reproduced except in full, without the written approval of the laboratory.

Serrot International, Inc. 320 Innovation Way Wellford, SC 29385

APPENDIX F

Subgrade Acceptance Forms

CERTIFICATE OF ACCEPTANCE OF SOIL SURFACE

GEOSYNTHETIC INSTALLER

COMPANY: SERROT INTERNATIONAL
ADDRESS: 7943 PECUE LN.
BATON ROUGE, LA 70809

PROJECT

LOCATION: BALDWIN, FL
PROJECT: 003-3979
OWNER: TRAIL RIDGE LANDFILL, INC

I, the Undersigned, the duly authorized representative of SERROT INTERNATIONAL

do hereby accept the area of soil surface bounded by

113+80 E to 114+50E
80+10 N to 83+40N

and shall be responsible for maintaining its integrity and suitability in accordance with the project specifications from this date to the completion of the installation.

NAME	SIGNATURE	TITLE	DATE
DON BUTLER	Don Butler	Supt.	8-24

CERTIFICATE OF ACCEPTANCE RECEIVED BY QA / QC MANAGER

NAME	SIGNATURE	TITLE	DATE
MICHAEL BRACCI	Michael Bracci	R.E	8/24/00

CERTIFICATE OF ACCEPTANCE RECEIVED BY OWNER

NAME	SIGNATURE	TITLE	DATE
WILLIAM J SAWDON	William J Sawdon	CONST. MGR	8/24/00

GCS FORM: G4
(JUNE 1992)

S.6. #2

CERTIFICATE OF ACCEPTANCE OF SOIL SURFACE

GEOSYNTHETIC INSTALLER

COMPANY Sellot International
ADDRESS 7943 Pecue Ln.
Baton Rouge, LA 70809

PROJECT

LOCATION BALDWIN, FL
PROJECT 003-3979
OWNER TRAIL RIDGE LANDFILL, INC

I, the Undersigned, the duly authorized representative of Sellot International

do hereby accept the area of soil surface bounded by

114+50E to 117+50E
80+10N to 83+40N

and shall be responsible for maintaining its integrity and suitability in accordance with the project specifications from this date to the completion of the installation.

NAME	SIGNATURE	TITLE	DATE
Don Butler	Don Butler	Superintendent	8-25-00

CERTIFICATE OF ACCEPTANCE RECEIVED BY QA / QC MANAGER

NAME	SIGNATURE	TITLE	DATE
Michael Bracci	Michael Bracci	R.E	8/25/00

CERTIFICATE OF ACCEPTANCE RECEIVED BY OWNER

NAME	SIGNATURE	TITLE	DATE
William J Turchin	William J Turchin	Const Mgr.	8-25-00

GCS FORM: G4
(JUNE 1992)

~~4-3~~

CERTIFICATE OF ACCEPTANCE OF SOIL SURFACE

GEOSYNTHETIC INSTALLER		PROJECT	
COMPANY	SERROT INTERNATIONAL	LOCATION	BALDWIN, FL
ADDRESS	7943 PECUE LANE	PROJECT	003-3979
	BATON ROUGE, LA 70809	OWNER	TRAIL RIDGE LANDFILL, INC

I, the Undersigned, the duly authorized representative of SERROT INTERNATIONAL

do hereby accept the area of soil surface bounded by

117+50 E to 120+00 E AND
80+10 N to 83+40 N

and shall be responsible for maintaining its integrity and suitability in accordance with the project specifications from this date to the completion of the installation.

NAME	SIGNATURE	TITLE	DATE
Doug Butler	Doug Butler	Supervisor	8-16.

CERTIFICATE OF ACCEPTANCE RECEIVED BY QA / QC MANAGER

NAME	SIGNATURE	TITLE	DATE
MICHAEL BRACCI	Michael Bracci	R.E.	8/26/00

CERTIFICATE OF ACCEPTANCE RECEIVED BY OWNER

NAME	SIGNATURE	TITLE	DATE
William J Davidson	William J Davidson	CONST. MGR.	8-25-00

GCS FORM: G4
(JUNE 1992)

CERTIFICATE OF ACCEPTANCE OF SOIL SURFACE

GEOSYNTHETIC INSTALLER

COMPANY Sellot International
ADDRESS 7943 Pecue Lane
Baton Rouge, LA 70809

PROJECT

LOCATION BALDWIN, FL
PROJECT 003-3979
OWNER TRAIL RIDGE LANDFILL, INC

I, the Undersigned, the duly authorized representative of Sellot

do hereby accept the area of soil surface bounded by

120+00E to 122+50E
80+10N to 83+40N

and shall be responsible for maintaining its integrity and suitability in accordance with the project specifications from this date to the completion of the installation.

NAME	SIGNATURE	TITLE	DATE
Don Butler	Don Butler	Supervisor	8-29-00

CERTIFICATE OF ACCEPTANCE RECEIVED BY QA / QC MANAGER

NAME	SIGNATURE	TITLE	DATE
Michael Bracci	Michael Bracci	R.E	8/29/00

CERTIFICATE OF ACCEPTANCE RECEIVED BY OWNER

NAME	SIGNATURE	TITLE	DATE
William J Davidson	William J Davidson	const. mgr.	8-29-00

GCS FORM: G4
(JUNE 1992)

CERTIFICATE OF ACCEPTANCE OF SOIL SURFACE

GEOSYNTHETIC INSTALLER

COMPANY Serrot International
ADDRESS 7943 Pecue Lane
Baton Rouge, LA
70809

PROJECT

LOCATION BALDWIN, FL
PROJECT 003-3979
OWNER TRAIL RIDGE LANDFILL, INC

I, the Undersigned, the duly authorized representative of Serrot

do hereby accept the area of soil surface bounded by

122+50E to 124+50E
80+10N to 83+40N

and shall be responsible for maintaining its integrity and suitability in accordance with the project specifications from this date to the completion of the installation.

NAME	SIGNATURE	TITLE	DATE
Don Butler	Don Butler	Superintendent	8-30

CERTIFICATE OF ACCEPTANCE RECEIVED BY QA / QC MANAGER

NAME	SIGNATURE	TITLE	DATE
Michael Bracci	Michael Bracci	RE	8/31/00

CERTIFICATE OF ACCEPTANCE RECEIVED BY OWNER

NAME	SIGNATURE	TITLE	DATE
William J Faulkner	William J Faulkner	Const. Mgr.	8-31-00

GCS FORM: G4
(JUNE 1992)

J.G.# 6

CERTIFICATE OF ACCEPTANCE OF SOIL SURFACE

GEOSYNTHETIC INSTALLER

COMPANY Serrot International
ADDRESS 7943 Pecue Lane
Baton Rouge, LA
70809

PROJECT

LOCATION BALDWIN, FL
PROJECT 003-3979
OWNER TRAIL RIDGE LANDFILL, INC

I, the Undersigned, the duly authorized representative of Serrot

do hereby accept the area of soil surface bounded by

124+50 E to 125+20E
80+30 N to 83+40N

and shall be responsible for maintaining its integrity and suitability in accordance with the project specifications from this date to the completion of the installation.

NAME	SIGNATURE	TITLE	DATE
DON BUTLER	Don Butler	Superintendent	9-26-00

CERTIFICATE OF ACCEPTANCE RECEIVED BY QA / QC MANAGER

NAME	SIGNATURE	TITLE	DATE
MICHAEL BRACCI	Michael Bracci	EE	9/26/00

CERTIFICATE OF ACCEPTANCE RECEIVED BY OWNER

NAME	SIGNATURE	TITLE	DATE
WILLIAM J DAVIDSON	William J Davidson	CONST. MGR	9-26-00

GCS FORM: G4
(JUNE 1992)

CERTIFICATE OF ACCEPTANCE OF SOIL SURFACE

GEOSYNTHETIC INSTALLER

COMPANY Sellot International
ADDRESS 7432 Pecue Lane
Baton Rouge, LA

PROJECT

LOCATION BALDWIN, FL
PROJECT 003-3979
OWNER TRAIL RIDGE LANDFILL, INC

I, the Undersigned, the duly authorized representative of Sellot

do hereby accept the area of soil surface bounded by

125+20E to 125+60E Along 80+30N to 83+40N &

125+60E to 126+35E Along 82+70N to 83+40N

and shall be responsible for maintaining its integrity and suitability in accordance with the project specifications from this date to the completion of the installation.

NAME	SIGNATURE	TITLE	DATE
Don Buttler	Don Butler	Superintendent	9-29-00

CERTIFICATE OF ACCEPTANCE RECEIVED BY QA / QC MANAGER

NAME	SIGNATURE	TITLE	DATE
Michael Bracci	Michael Bracci	R.E	9/29/00

CERTIFICATE OF ACCEPTANCE RECEIVED BY OWNER

NAME	SIGNATURE	TITLE	DATE
William J Davidson	William J Davidson	Const Mgr	9-29-00

GCS FORM: G4
(JUNE 1992)

CERTIFICATE OF ACCEPTANCE OF SOIL SURFACE

S.G. #8

GEOSYNTHETIC INSTALLER		PROJECT	
COMPANY	SERROT INTERNATIONAL	LOCATION	BALDWIN, FL
ADDRESS	7432 Peive Lane	PROJECT	003-3979
	Baton Rouge, LA	OWNER	TRAIL RIDGE LANDFILL, INC

I, the Undersigned, the duly authorized representative of SERROT

do hereby accept the area of soil surface bounded by

125+60E to 126+35E Along 80+30N to 82+70

* Note: ANCHOR TRENCH CLAY HAS TO BE REWORKED FROM 80+30N to 81+80N

and shall be responsible for maintaining its integrity and suitability in accordance with the project specifications from this date to the completion of the installation.

NAME	SIGNATURE	TITLE	DATE
Don Butler	Don Butler	Superintendent	9-29-00

CERTIFICATE OF ACCEPTANCE RECEIVED BY QA / QC MANAGER

NAME	SIGNATURE	TITLE	DATE
MICHAEL BLACK	Michael Black	R.E	9/29/00

CERTIFICATE OF ACCEPTANCE RECEIVED BY OWNER

NAME	SIGNATURE	TITLE	DATE
William Davidson	William Davidson	CONST MGR	9-29-00

GCS FORM: G4
(JUNE 1992)

APPENDIX G

Geomembrane Panel Deployment Logs

SECTION G-1

Secondary

TABLE G-1
GEOMEMBRANE DEPLOYMENT SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

PANEL NUMBER	ROLL NUMBER	DATE DEPLOYED	VISUAL PANEL CONDITION	NOMINAL SHEET OVERLAP (INCHES)	LENGTH (FT.)	AVG. PANEL EDGE THICKNESS (MILS)		QA MON.(1)	REMARKS
						LEAD	TRAIL		
S-1	1912276	08/23/00	OK	5	316	N/A	N/A	SL	
S-2	1912276	08/23/00	OK	5	107	N/A	N/A	SL	
S-3	1912285	08/23/00	OK	5	208	N/A	N/A	SL	
S-4	1912285	08/23/00	OK	5	256	N/A	N/A	SL	
S-5	1912256	08/23/00	OK	5	60	N/A	N/A	SL	
S-6	1912256	08/24/00	OK	5	315	N/A	N/A	SL	
S-7	1912256	08/24/00	OK	5	97	N/A	N/A	SL	
S-8	1912258	08/24/00	OK	5	222	N/A	N/A	SL	
S-9	1912258	08/24/00	OK	5	248	N/A	N/A	SL	
S-10	1912277	08/24/00	OK	5	69	N/A	N/A	SL	
S-11	1912277	08/24/00	OK	5	318	N/A	N/A	SL	
S-12	1912277	08/24/00	OK	5	87	N/A	N/A	SL	
S-13	1912274	08/24/00	OK	5	232	N/A	N/A	SL	
S-14	1912274	08/24/00	OK	5	249	N/A	N/A	SL	
S-15	1912270	08/24/00	OK	5	74	N/A	N/A	SL	
S-16	1912270	08/24/00	OK	5	316	N/A	N/A	SL	
S-17	1912270	08/24/00	OK	5	95	N/A	N/A	SL	
S-18	1912248	08/24/00	OK	5	222	N/A	N/A	SL	
S-19	1912248	08/24/00	OK	5	277	N/A	N/A	SL	
S-20	1912130	08/24/00	OK	5	38	N/A	N/A	SL	
S-21	1912130	08/24/00	OK	5	313	N/A	N/A	SL	
S-22	1912130	08/24/00	OK	5	112	N/A	N/A	SL	
S-23	1912097	08/24/00	OK	5	202	N/A	N/A	SL	
S-24	1912097	08/24/00	OK	5	263	N/A	N/A	SL	
S-25	1912075	08/24/00	OK	5	51	N/A	N/A	SL	
S-26	1912075	08/24/00	OK	5	314	N/A	N/A	SL	
S-27	1912075	08/25/00	OK	5	92	N/A	N/A	SL	
S-28	1912119	08/25/00	OK	5	218	N/A	N/A	SL	
S-29	1912119	08/25/00	OK	5	240	N/A	N/A	SL	
S-30	1912120	08/25/00	OK	5	74	N/A	N/A	SL	
S-31	1912120	08/25/00	OK	5	311	N/A	N/A	SL	
S-32	1912120	08/25/00	OK	5	76	N/A	N/A	SL	
S-33	1912087	08/25/00	OK	5	239	N/A	N/A	SL	
S-34	1912087	08/25/00	OK	5	216	N/A	N/A	SL	
S-35	1912081	08/25/00	OK	5	94	N/A	N/A	SL	
S-36	1912081	08/25/00	OK	5	317	N/A	N/A	SL	
S-37	1912081	08/25/00	OK	5	47	N/A	N/A	SL	
S-38	1912133	08/25/00	OK	5	266	N/A	N/A	SL	
S-39	1912133	08/25/00	OK	5	195	N/A	N/A	SL	
S-40	1912132	08/25/00	OK	5	117	N/A	N/A	SL	
S-41	1912132	08/25/00	OK	5	314	N/A	N/A	SL	
S-42	1912132	08/25/00	OK	5	30	N/A	N/A	SL	
S-43	1912084	08/25/00	OK	5	283	N/A	N/A	SL	
S-44	1912084	08/25/00	OK	5	180	N/A	N/A	SL	
S-45	1912123	08/25/00	OK	5	134	N/A	N/A	SL	
S-46	1912123	08/28/00	OK	5	300	N/A	N/A	SL	
S-47	1912115	08/28/00	OK	5	10	N/A	N/A	SL	
S-48	1912115	08/28/00	OK	5	310	N/A	N/A	SL	
S-49	1912115	08/28/00	OK	5	140	N/A	N/A	SL	
S-50	1912134	08/28/00	OK	5	172	N/A	N/A	SL	
S-51	1912134	08/28/00	OK	5	289	N/A	N/A	SL	
S-52	1912080	08/28/00	OK	5	25	N/A	N/A	SL	
S-53	1912080	08/28/00	OK	5	315	N/A	N/A	SL	
S-54	1912080	08/28/00	OK	5	120	N/A	N/A	SL	

TABLE G-1
GEOMEMBRANE DEPLOYMENT SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

PANEL NUMBER	ROLL NUMBER	DATE DEPLOYED	VISUAL PANEL CONDITION	NOMINAL SHEET OVERLAP (INCHES)	LENGTH (FT.)	AVG. PANEL EDGE THICKNESS (MILS)		QA MON.(1)	REMARKS
						LEAD	TRAIL		
S-55	1912113	08/28/00	OK	5	196	N/A	N/A	SL	
S-56	1912113	08/28/00	OK	5	260	N/A	N/A	SL	
S-57	1912122	08/28/00	OK	5	59	N/A	N/A	SL	
S-58	1912122	08/28/00	OK	5	314	N/A	N/A	SL	
S-59	1912122	08/28/00	OK	5	77	N/A	N/A	SL	
S-60	1912124	08/28/00	OK	5	236	N/A	N/A	SL	
S-61	1912124	08/28/00	OK	5	226	N/A	N/A	SL	
S-62	1912079	08/28/00	OK	5	91	N/A	N/A	SL	
S-63	1912079	08/28/00	OK	5	316	N/A	N/A	SL	
S-64	1912079	08/28/00	OK	5	46	N/A	N/A	SL	
S-65	1912131	08/28/00	OK	5	266	N/A	N/A	SL	
S-66	1912131	08/30/00	OK	5	184	N/A	N/A	MM	
S-67	1912125	08/30/00	OK	5	132	N/A	N/A	MM	
S-68	1912125	08/30/00	OK	5	314	N/A	N/A	MM	
S-69	1912128	08/30/00	OK	5	315	N/A	N/A	MM	
S-70	1912128	08/30/00	OK	5	149	N/A	N/A	MM	
S-71	1912085	08/30/00	OK	5	167	N/A	N/A	MM	
S-72	1912085	08/30/00	OK	5	291	N/A	N/A	MM	
S-73	1912118	08/30/00	OK	5	27	N/A	N/A	MM	
S-74	1912118	08/30/00	OK	5	313	N/A	N/A	MM	
S-75	1912118	08/30/00	OK	5	123	N/A	N/A	MM	
S-76	1912099	08/30/00	OK	5	192	N/A	N/A	MM	
S-77	1912099	08/30/00	OK	5	264	N/A	N/A	MM	
S-78	1912078	08/30/00	OK	5	51	N/A	N/A	MM	
S-79	1912078	08/30/00	OK	5	313	N/A	N/A	MM	
S-80	1912279	09/26/00	OK	6	312	N/A	N/A	SC	
S-81	1912269	09/26/00	OK	6	314	N/A	N/A	SC	
S-82	1912269	09/26/00	OK	6	169	N/A	N/A	SC	
S-83	1912247	09/26/00	OK	6	148	N/A	N/A	SC	
S-84	1912266	09/28/00	OK	5	235	N/A	N/A	SC	
S-85	1912278	09/28/00	OK	5	79	N/A	N/A	SC	
S-86	1912278	09/28/00	OK	5	284	N/A	N/A	SC	
S-87	1912260	09/28/00	OK	5	74	N/A	N/A	SC	
S-88	1912260	09/28/00	OK	5	74	N/A	N/A	SC	
S-89	1912260	09/28/00	OK	5	71	N/A	N/A	SC	
S-90	1912260	09/28/00	OK	5	71	N/A	N/A	SC	
S-91	1912260	09/29/00	OK	5	75	N/A	N/A	SC	
S-92	1912260	09/29/00	OK	5	100	N/A	N/A	SC	
S-93	1912254	09/29/00	OK	5	93	N/A	N/A	SC	
S-94	1912254	09/29/00	OK	5	96	N/A	N/A	SC	
S-95	1912254	09/29/00	OK	5	80	N/A	N/A	SC	
S-96	1912254	09/29/00	OK	5	73	N/A	N/A	SC	
S-97	1912254	09/29/00	OK	5	71	N/A	N/A	SC	
S-98	1912254	09/29/00	OK	5	71	N/A	N/A	SC	
S-99	1912250	09/29/00	OK	5	70	N/A	N/A	SC	
S-100	1912250	09/29/00	OK	5	94	N/A	N/A	SC	
SRS-01	1912250	09/29/00	OK	5	62	N/A	N/A	MLB	
SRS-02	1912250	09/29/00	OK	5	62	N/A	N/A	MLB	
SRS-03	1912250	09/29/00	OK	5	62	N/A	N/A	MLB	

NOTES: (1) Refer to Appendix A for list of Golder and Serrott personnel
N/A = Not Applicable

F/N: SGDS.XLS

SECTION G-2

Primary

TABLE G-2
GEOMEMBRANE DEPLOYMENT SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

PANEL NUMBER	ROLL NUMBER	DATE DEPLOYED	VISUAL PANEL CONDITION	NOMINAL SHEET OVERLAP (INCHES)	LENGTH (FT.)	AVG. PANEL EDGE THICKNESS (MILS)		QA MON.(1)	REMARKS
						LEAD	TRAIL		
P-01	1912117	09/01/00	OK	5	316	N/A	N/A	SL	
P-02	1912117	09/11/00	OK	5	143	N/A	N/A	SL	
P-03	1912082	09/11/00	OK	5	171	N/A	N/A	SL	
P-04	1912082	09/11/00	OK	5	294	N/A	N/A	SL	
P-05	1912116	09/11/00	OK	5	19	N/A	N/A	SL	
P-06	1912116	09/11/00	OK	5	311	N/A	N/A	SL	
P-07	1912116	09/11/00	OK	5	126	N/A	N/A	SL	
P-08	1912094	09/11/00	OK	5	187	N/A	N/A	SL	
P-09	1912094	09/11/00	OK	5	276	N/A	N/A	SL	
P-10	1912127	09/11/00	OK	5	40	N/A	N/A	SL	
P-11	1912127	09/11/00	OK	5	312	N/A	N/A	SL	
P-12	1912127	09/11/00	OK	5	106	N/A	N/A	SL	
P-13	1912114	09/11/00	OK	5	208	N/A	N/A	SL	
P-14	1912114	09/12/00	OK	5	229	N/A	N/A	SL	
P-15	1912263	09/12/00	OK	5	85	N/A	N/A	SL	
P-16	1912263	09/12/00	OK	5	320	N/A	N/A	SL	
P-17	1912263	09/12/00	OK	5	80	N/A	N/A	SL	
P-18	1912280	09/12/00	OK	5	235	N/A	N/A	SL	
P-19	1912280	09/12/00	OK	5	232	N/A	N/A	SL	
P-20	1912261	09/12/00	OK	5	88	N/A	N/A	SL	
P-21	1912261	09/12/00	OK	5	316	N/A	N/A	SL	
P-22	1912261	09/12/00	OK	5	90	N/A	N/A	SL	
P-23	1912281	09/12/00	OK	5	226	N/A	N/A	SL	
P-24	1912281	09/13/00	OK	5	240	N/A	N/A	MLB	
P-25	1912096	09/13/00	OK	5	74	N/A	N/A	MLB	
P-26	1912096	09/13/00	OK	5	315	N/A	N/A	MLB	
P-27	1912096	09/13/00	OK	5	72	N/A	N/A	MLB	
P-28	1912129	09/13/00	OK	5	247	N/A	N/A	MLB	
P-29	1912129	09/13/00	OK	5	213	N/A	N/A	MLB	
P-30	1912257	09/13/00	OK	5	111	N/A	N/A	MLB	
P-31	1912257	09/13/00	OK	5	319	N/A	N/A	MLB	
P-32	1912257	09/13/00	OK	5	57	N/A	N/A	MLB	
P-33	1912249	09/13/00	OK	5	262	N/A	N/A	MLB	
P-34	1912272	09/21/00	OK	6	310	N/A	N/A	SC	
P-35	1912286	09/21/00	OK	6	317	N/A	N/A	SC	
P-36	1912286	09/21/00	OK	6	162	N/A	N/A	SC	
P-37	1912259	09/21/00	OK	6	150	N/A	N/A	SC	
P-38	1912259	09/21/00	OK	6	313	N/A	N/A	SC	
P-39	1912267	09/21/00	OK	6	310	N/A	N/A	SC	
P-40	1912267	09/21/00	OK	6	168	N/A	N/A	SC	
P-41	1912282	09/21/00	OK	6	144	N/A	N/A	SC	
P-42	1912282	09/21/00	OK	6	312	N/A	N/A	SC	
P-43	1912283	09/24/00	OK	5	311	N/A	N/A	SC	
P-44	1912283	09/24/00	OK	5	164	N/A	N/A	SC	
P-45	1912255	09/24/00	OK	5	147	N/A	N/A	SC	
P-46	1912255	09/24/00	OK	5	311	N/A	N/A	SC	
P-47	1912275	09/24/00	OK	5	310	N/A	N/A	SC	
P-48	1912275	09/25/00	OK	5	175	N/A	N/A	SC	
P-49	1912271	09/25/00	OK	5	136	N/A	N/A	SC	
P-50	1912271	09/25/00	OK	5	314	N/A	N/A	SC	
P-51	1912253	09/25/00	OK	5	316	N/A	N/A	SC	
P-52	1912253	09/25/00	OK	5	175	N/A	N/A	SC	
P-53	1912265	09/25/00	OK	5	139	N/A	N/A	SC	
P-54	1912265	09/25/00	OK	5	316	N/A	N/A	SC	

TABLE G-2
GEOMEMBRANE DEPLOYMENT SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

PANEL NUMBER	ROLL NUMBER	DATE DEPLOYED	VISUAL PANEL CONDITION	NOMINAL SHEET OVERLAP (INCHES)	LENGTH (FT.)	AVG. PANEL EDGE THICKNESS (MILS)		QA MON.(1)	REMARKS
						LEAD	TRAIL		
P-55	1912262	09/26/00	OK	5	312	N/A	N/A	SL	
P-56	1912262	09/26/00	OK	5	171	N/A	N/A	SL	
P-57	1912251	09/26/00	OK	5	141	N/A	N/A	SL	
P-58	1912251	09/26/00	OK	5	312	N/A	N/A	SL	
P-59	1912268	09/26/00	OK	5	313	N/A	N/A	SL	
P-60	1912268	09/26/00	OK	5	173	N/A	N/A	SL	
P-61	1912279	09/26/00	OK	5	141	N/A	N/A	SL	
P-62	1912247	09/27/00	OK	5	313	N/A	N/A	SL	
P-63	1912247	09/27/00	OK	5	87	N/A	N/A	SC	
P-64	1912100	09/27/00	OK	5	227	N/A	N/A	SC	
P-65	1912100	09/27/00	OK	5	240	N/A	N/A	SC	
P-66	1912135	09/27/00	OK	5	79	N/A	N/A	SC	
P-67	1912135	09/27/00	OK	5	316	N/A	N/A	SC	
P-68	1912135	09/27/00	OK	5	67	N/A	N/A	SC	
P-69	1912266	09/27/00	OK	5	245	N/A	N/A	SC	
P-70	1912250	10/05/00	OK	5	153	N/A	N/A	CFB	
P-71	1912076	10/05/00	OK	5	157	N/A	N/A	CFB	
P-72	1912076	10/05/00	OK	5	297	N/A	N/A	CFB	
P-73	1912284	10/05/00	OK	5	16	N/A	N/A	CFB	
P-74	1912284	10/05/00	OK	5	311	N/A	N/A	CFB	
P-75	1912284	10/05/00	OK	5	140	N/A	N/A	CFB	
P-76	1912126	10/05/00	OK	5	169	N/A	N/A	CFB	
P-77	1912126	10/05/00	OK	5	287	N/A	N/A	CFB	
P-78	1912264	10/05/00	OK	5	27	N/A	N/A	CFB	
P-79	1912264	10/05/00	OK	5	315	N/A	N/A	CFB	
P-80	1912264	10/06/00	OK	5	95	N/A	N/A	MLB	
P-81	1912452	10/06/00	OK	5	96	N/A	N/A	MLB	
P-82	1912452	10/06/00	OK	5	93	N/A	N/A	MLB	
P-83	1912452	10/06/00	OK	5	93	N/A	N/A	MLB	
P-84	1912452	10/06/00	OK	5	92	N/A	N/A	MLB	
P-85	1912452	10/06/00	OK	5	88	N/A	N/A	MLB	
P-86	1912447	10/06/00	OK	5	90	N/A	N/A	MLB	
P-87	1912447	10/06/00	OK	5	92	N/A	N/A	MLB	
P-88	1912447	10/06/00	OK	5	89	N/A	N/A	MLB	
P-89	1912447	10/06/00	OK	5	91	N/A	N/A	MLB	
P-90	1912447	10/06/00	OK	5	91	N/A	N/A	MLB	
P-91	1912474	10/06/00	OK	5	88	N/A	N/A	MLB	
P-92	1912474	10/06/00	OK	5	88	N/A	N/A	MLB	
P-93	1912474	10/06/00	OK	5	86	N/A	N/A	MLB	
PRS-01	1912474	10/10/100	OK	5	68	N/A	N/A	SL	
PRS-02	1912474	10/10/100	OK	5	68	N/A	N/A	SL	

NOTES: (1) Refer to Appendix A for list of Golder and Serrott personnel.
N/A = Not Applicable

F/N: PGDS.XLS

APPENDIX H

Trial Seam Summaries

SECTION H-1

Fusion Summaries

TABLE H-1
GEOMEMBRANE FUSION TRIAL SEAM SUMMARY
SECONDARY AND PRIMARY GEOMEMBRANE LINERS
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

TRIAL SEAM NUMBER	DATE	TIME	AMBIENT TEMP. (F)	WELDER I.D.		MACH. SPEED	WEDGE TEMP. (C)	QA MON.(1)	RESULTS(2)			REMARKS
				MACH. #	TECH(1)				OUTSIDE PEEL	INSIDE PEEL	STATUS	
TF-01	08/23/00	1305	90	1316	2322	5.0	750	SL	SE1/SE1	SE1/SE1	PASS	
TF-01	08/24/00	735	78	1316	2322	5.0	750	MLB	SE1/SE1	SE1/SE1	PASS	
TF-02	08/24/00	735	78	16034	2174	5.0	750	MLB	AD	-	FAIL	MACHINE NOT USED
TF-03	08/24/00	800	78	16040	2174	5.0	750	MLB	SE1/SE1	SE1/SE1	PASS	
TF-04	08/24/00	1310	92	16040	2174	5.0	750	MLB	SE1/SE1	SE1/SE1	PASS	
TF-05	08/24/00	1315	92	1316	2322	5.0	750	MLB	SE1/SE1	SE1/SE1	PASS	
TF-01	08/25/00	730	78	16040	2174	5.0	750	MLB	SE1/SE1	SE1/SE1	PASS	
TF-02	08/25/00	740	78	1316	2322	5.0	750	MLB	SE1/AD	SE1/-	FAIL	SEE RETEST TF-02R1
TF-02R1	08/25/00	800	78	1316	2322	5.0	750	MLB	SE1/SE1	SE1/SE1	PASS	
TF-03	08/25/00	1330	92	16040	2174	5.0	750	MLB	SE1/SE1	SE1/SE1	PASS	
TF-04	08/25/00	1330	92	1316	2322	5.0	750	MLB	SE1/SE1	SE1/SE1	PASS	
TF-01	08/28/00	1028	90	1316	7534	6.0	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-02	08/28/00	1035	90	16040	2174	4.5	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-03	08/28/00	1320	90	1642	2322	6.0	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-04	08/28/00	1310	90	1316	7534	6.0	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-05	08/28/00	1320	90	16040	2174	6.0	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-01	08/30/00	1400	90	16040	2174	5.0	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-02	08/30/00	1335	90	1642	2322	5.0	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-03	08/30/00	1420	90	1619	7534	5.0	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-01	09/01/00	1320	85	16040	2173	4.5	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-01	09/11/00	1040	80	16040	2174	4.5	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-02	09/11/00	1050	80	1619	7534	5.0	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-03	09/11/00	1320	80	1619	7534	5.0	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-04	09/11/00	1345	85	16040	2174	4.5	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-05	09/11/00	1735	82	1316	2300	5.0	750	MLB	SE1/SE1	SE1/SE1	PASS	
TF-01	09/12/00	1330	80	1619	7534	5.0	750	SL	SE1/SE1	SE1/SE1	PASS	
TF-02	09/12/00	1355	80	16076	2300	4.5	750	SL	SE1/SE1	SE1/SE1	PASS	
TF-03	09/12/00	1400	80	16040	2174	4.5	750	SL	SE1/SE1	SE1/SE1	PASS	
TF-01	09/13/00	1430	95	16040	2174	5.0	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-02	09/13/00	1420	95	1619	7534	5.0	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-03	09/13/00	1420	95	16076	2300	5.0	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-01	09/14/00	1115	85	16040	2174	5.0	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-01	09/21/00	850	80	1642	2322	5.0	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-02	09/21/00	900	80	16040	2174	4.5	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-03	09/21/00	1320	87	1642	2322	5.0	750	MLB	SE1/SE1	SE1/SE1	PASS	
TF-04	09/21/00	1330	87	16040	2174	4.5	750	MLB	SE1/SE1	SE1/SE1	PASS	
TF-01	09/24/00	930	75	1642	7534	5.0	750	SL	SE1/SE1	SE1/SE1	PASS	
TF-02	09/24/00	915	75	16040	2174	4.5	750	SL	SE1/SE1	SE1/SE1	PASS	

TABLE H-1
GEOMEMBRANE FUSION TRIAL SEAM SUMMARY
SECONDARY AND PRIMARY GEOMEMBRANE LINERS
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

TRIAL SEAM NUMBER	DATE	TIME	AMBIENT TEMP. (F)	WELDER I.D.		MACH. SPEED	WEDGE TEMP. (C)	QA MON.(1)	RESULTS(2)			REMARKS
				MACH. #	TECH(1)				OUTSIDE PEEL	INSIDE PEEL	STATUS	
TF-01	09/25/00	1330	85	16040	2174	4.5	750	SL	SE1/SE1	SE1/SE1	PASS	
TF-02	09/25/00	1330	85	1642	7534	5.0	750	SL	SE1/SE1	SE1/SE1	PASS	
TF-01	09/26/00	800	70	16040	2174	4.5	750	SL	SE1/SE1	SE1/SE1	PASS	
TF-02	09/26/00	1100	85	16040	2174	4.5	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-03	09/26/00	1340	85	1642	7534	5.0	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-01	09/27/00	820	70	16040	2174	4.5	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-02	09/27/00	835	70	1642	7534	5.0	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-03	09/27/00	1315	70	16040	2174	5.0	750	SL	SE1/SE1	SE1/SE1	PASS	
TF-01	09/28/00	800	70	16040	2174	4.5	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-02	09/28/00	805	70	1613	7534	4.5	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-01	09/29/00	730	70	16040	2174	5.0	750	SL	SE1/SE1	SE1/SE1	PASS	
TF-02	09/29/00	730	70	1613	7534	4.5	750	SL	SE1/SE1	SE1/SE1	PASS	
TF-03	09/29/00	1245	70	16040	2174	4.5	750	SL	SE1/SE1	SE1/SE1	PASS	
TF-01	10/05/00	840	70	1642	754	5.0	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-02	10/05/00	845	70	16040	2174	4.5	750	SC	SE1/SE1	SE1/SE1	PASS	
TF-03	10/05/00	1245	88	1642	2392	5.0	750	MLB	SE1/SE1	SE1/SE1	PASS	
TF-04	10/05/00	1240	88	16040	2174	4.5	750	MLB	SE1/SE1	SE1/SE1	PASS	
TF-01	10/06/00	1430	90	16040	2174	4.5	750	SL	SE1/SE1	SE1/SE1	PASS	
TF-02	10/06/00	1500	90	1642	2322	5.0	750	SL	SE1/SE1	SE1/SE1	PASS	

NOTES:

(1) Refer to Appendix A for list of Golder and Serrot personnel.

(2) Peel codes are based on modes illustrated in Figure H-1.

F/N: SGFTSS.XLS

SECTION H-2

Extrusion Summaries

TABLE H-2
GEOMEMBRANE EXTRUSION TRIAL SEAM SUMMARY
SECONDARY AND PRIMARY GEOMEMBRANE LINERS
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

TRIAL SEAM NUMBER	DATE	TIME	AMBIENT TEMP. (F)	WELDER I.D. MACH. #	WELDER I.D. TECH(1)	PRE-HEAT	NOZZLE TEMP. (C)	QA MON.(1)	RESULTS(2) PEEL	RESULTS(2) STATUS	REMARKS
TX-01	08/23/00	1500	90	201	2897	200.0	250	MLB	SE3/SE3	PASS	
TX-01	08/24/00	740	78	201	2897	200.0	250	MLB	SE3/SE3	PASS	
TX-02	08/24/00	1325	92	201	2897	200.0	250	MLB	SE3/SE3	PASS	
TX-01	08/25/00	755	78	201	2897	200.0	250	MLB	SE3/SE3	PASS	
TX-02	08/25/00	1325	92	201	2897	200.0	250	MLB	SE3/SE3	PASS	
TX-01	08/26/00	800	78	206	2173	200.0	265	MLB	SE3/SE3	PASS	
TX-02	08/26/00	815	78	201	2897	200.0	250	MLB	SE3/SE3	PASS	
TX-03	08/26/00	1320	90	201	2897	200.0	250	MLB	SE3/SE3	PASS	
TX-04	08/26/00	1315	90	206	2173	200.0	250	MLB	SE3/SE3	PASS	
TX-01	08/28/00	815	78	201	2897	200.0	250	MLB	SE3/SE3	PASS	
TX-02	08/28/00	820	80	312	2223	200.0	250	MLB	SE3/SE3	PASS	
TX-03	08/28/00	850	80	340	7536	200.0	250	MLB	SE3/SE3	PASS	
TX-04	08/28/00	1320	90	201	2897	200.0	250	MLB	SE3/SE3	PASS	
TX-05	08/28/00	1320	90	312	2223	200.0	250	MLB	SE3/SE3	PASS	
TX-06	08/28/00	1320	90	340	7536	200.0	250	MLB	SE3/SE3	PASS	
TX-01	08/29/00	1330	90	312	2223	200.0	250	SC	SE3/SE3	PASS	
TX-01	08/30/00	1400	90	327	2897	200.0	250	SC	SE3/SE3	PASS	
TX-01	08/31/00	820	80	327	2897	200.0	250	SC	SE3/SE3	PASS	
TX-02	08/31/00	900	80	206	2173	200.0	265	SC	SE3/SE3	PASS	
TX-03	08/31/00	1320	90	327	2897	200.0	250	SC	SE3/SE3	PASS	
TX-04	08/31/00	1315	90	206	2173	200.0	265	SC	SE3/SE3	PASS	
TX-01	09/01/00	1325	85	340	2174	200.0	250	SC	SE3/SE3	PASS	
TX-02	09/01/00	1350	85	206	7534	200.0	250	SC	SE3/SE3	PASS	
TX-03	09/01/00	1415	85	327	2897	200.0	250	SC	SE3/SE3	PASS	
TX-01	09/11/00	1030	80	340	7536	200.0	250	SC	SE3/SE3	PASS	
TX-02	09/11/00	1130	82	327	2897	200.0	250	MLB	SE3/SE3	PASS	
TX-03	09/11/00	1320	85	340	7536	200.0	250	SC	SE3/SE3	PASS	
TX-04	09/11/00	1320	85	327	2897	200.0	250	SC	SE3/SE3	PASS	
TX-01	09/12/00	800	80	327	2897	200.0	250	SL	SE3/SE3	PASS	
TX-02	09/12/00	1340	80	327	2897	200.0	250	SL	SE3/SE3	PASS	
TX-03	09/12/00	1400	80	340	7536	200.0	250	SL	SE3/SE3	PASS	
TX-01	09/13/00	1418	95	327	2897	200.0	250	SC	SE3/SE3	PASS	
TX-01	09/14/00	805	80	327	2897	200.0	250	SC	SE3/SE3	PASS	
TX-02	09/14/00	820	80	201	2322	200.0	250	SC	SE3/SE3	PASS	
TX-03	09/14/00	914	80	206	2173	200.0	250	SC	SE3/SE3	PASS	
TX-04	09/14/00	1315	90	327	2897	200.0	250	SC	SE3/SE3	PASS	
TX-05	09/14/00	1315	90	201	2322	200.0	250	SC	SE3/SE3	PASS	
TX-01	09/15/00	1000	80	327	2897	200.0	250	SC	SE3/SE3	PASS	
TX-02	09/15/00	1315	85	327	2897	200.0	250	SC	SE3/SE3	PASS	

TABLE H-2
GEOMEMBRANE EXTRUSION TRIAL SEAM SUMMARY
SECONDARY AND PRIMARY GEOMEMBRANE LINERS
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

TRIAL SEAM NUMBER	DATE	TIME	AMBIENT TEMP. (F)	WELDER I.D.		PRE-HEAT	NOZZLE TEMP. (C)	QA MON.(1)	RESULTS(2)		REMARKS
				MACH. #	TECH(1)				PEEL	STATUS	
TX-01	09/16/00	800	80	327	2897	200.0	250	SC	SE3/SE3	PASS	
TX-02	09/16/00	843	80	201	2323	200.0	250	SC	SE3/SE3	PASS	
TX-01	09/20/00	815	80	312	7534	200.0	250	SC	SE3/SE3	PASS	
TX-02	09/20/00	1210	80	312	7534	200.0	250	SC	SE3/SE3	PASS	
TX-01	09/21/00	1030	80	327	2897	200.0	250	MLB	SE3/SE3	PASS	
TX-02	09/21/00	1330	80	327	2897	200.0	250	MLB	SE3/SE3	PASS	
TX-01	09/23/00	800	80	312	7534	200.0	260	CFB	SE3/SE3	PASS	
TX-02	09/23/00	820	80	327	2897	200.0	260	CFB	SE3/SE3	PASS	
TX-03	09/23/00	815	80	201	2173	200.0	260	CFB	SE3/SE3	PASS	
TX-01	09/24/00	945	75	327	2897	200.0	250	SL	SE3/SE3	PASS	
TX-01	09/25/00	820	80	327	2897	200.0	250	MLB	SE3/SE3	PASS	
TX-02	09/25/00	1355	85	327	2897	200.0	250	SL	SE3/SE3	PASS	
TX-01	09/26/00	811	70	327	2897	200.0	250	SL	SE3/SE3	PASS	
TX-02	09/26/00	1320	85	327	2897	200.0	250	SC	SE3/SE3	PASS	
TX-01	09/27/00	800	70	327	2897	200.0	250	SC	SE3/SE3	PASS	
TX-02	09/27/00	1315	70	327	2897	200.0	250	SL	SE3/SE3	PASS	
TX-03	09/27/00	1415	70	312	7534	200.0	250	SL	SE3/SE3	PASS	
TX-04	09/27/00	1500	70	201	2392	200.0	265	SL	SE3/SE3	PASS	
TX-01	09/28/00	800	70	327	2897	200.0	250	SC	SE3/SE3	PASS	
TX-02	09/28/00	1300	70	327	2897	200.0	250	SC	SE3/SE3	PASS	
TX-01	09/29/00	737	70	327	2897	200.0	250	SL	SE3/SE3	PASS	
TX-02	09/29/00	1020	70	201	2173	200.0	250	SL	SE3/SE3	PASS	
TX-03	09/29/00	1235	70	327	2897	200.0	250	SL	SE3/SE3	PASS	
TX-04	09/29/00	1250	70	312	7534	200.0	250	SL	SE3/SE3	PASS	
TX-05	09/29/00	1409	70	201	2173	200.0	250	SL	SE3/SE3	PASS	
TX-01	10/02/00	815	70	327	2897	200.0	250	SL	SE3/SE3	PASS	
TX-02	10/02/00	1527	70	327	2897	200.0	250	SL	SE3/SE3	PASS	
TX-01	10/03/00	748	70	327	2897	200.0	250	MLB	SE3/SE3	PASS	
TX-01	10/05/00	800	70	327	2897	200.0	250	SC	SE3/SE3	PASS	
TX-02	10/05/00	1255	88	327	2897	200.0	250	MLB	SE3/SE3	PASS	
TX-03	10/05/00	1605	88	201	2173	200.0	250	SC	SE3/SE3	PASS	
TX-04	10/05/00	1630	88	312	2322	200.0	250	SC	SE3/SE3	PASS	
TX-01	10/06/00	745	70	327	2897	200.0	250	SC	SE3/SE3	PASS	
TX-02	10/06/00	1440	90	327	2897	200.0	250	SL	SE3/SE3	PASS	
TX-01	10/07/00	830	70	312	2322	200.0	250	SL	SE3/SE3	PASS	
TX-02	10/07/00	806	70	327	2897	200.0	250	SL	SE3/SE3	PASS	
TX-03	10/07/00	815	70	320	2173	200.0	250	SL	SE3/SE3	PASS	
TX-04	10/07/00	1030	70	201	2323	7.0	250	SL	SE3/SE3	PASS	
TX-05	10/07/00	1310	70	201	2323	7.0	250	MLB	SE3/SE3	PASS	

TABLE H-2
GEOMEMBRANE EXTRUSION TRIAL SEAM SUMMARY
SECONDARY AND PRIMARY GEOMEMBRANE LINERS
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

TRIAL SEAM NUMBER	DATE	TIME	AMBIENT TEMP. (F)	WELDER I.D.		PRE-HEAT	NOZZLE TEMP. (C)	QA MON.(1)	RESULTS(2)		REMARKS
				MACH. #	TECH(1)				PEEL	STATUS	
TX-06	10/07/00	1310	70	327	2897	200.0	250	MLB	SE3/SE3	PASS	
TX-07	10/07/00	1305	70	320	2173	200.0	250	MLB	SE3/SE3	PASS	
TX-08	10/07/00	1320	70	312	2322	200.0	250	MLB	SE3/SE3	PASS	
TX-01	10/09/00	1030	50	327	2897	200.0	250	SL	SE3/SE3	PASS	
TX-02	10/09/00	1325	60	327	2897	200.0	250	SL	SE3/SE3	PASS	
TX-01	10/10/00	745	50	327	2897	200.0	250	SL	SE3/SE3	PASS	
TX-02	10/10/00	1315	65	320	2173	200.0	250	VD	SE3/SE3	PASS	
TX-03	10/10/00	1315	65	312	2322	200.0	250	VD	SE3/SE3	PASS	
TX-04	10/10/00	1315	65	312	2392	200.0	250	VD	SE3/SE3	PASS	
TX-05	10/10/00	1400	68	327	2897	200.0	250	VD	SE3/SE3	PASS	
TX-01	11/04/00	0800	65	320	2897	200.0	250	SC	SE3/SE3	PASS	
TX-01	11/06/00	900	75	320	2897	200.0	250	SC	SE3/SE3	PASS	
TX-01	11/10/00	1300	70	320	2897	200.0	250	SC	SE3/SE3	PASS	
TX-01	11/11/11	0800	65	320	2897	200.0	250	SL	SE3/SE3	PASS	

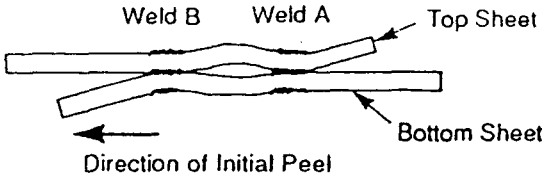
NOTES:

(1) Refer to Appendix A for list of Golder and Serrott personnel.

(2) Peel code is based on modes illustrated in Figure H-2.

F/N: SGETSS.XLS

Schematic of Untested Specimen



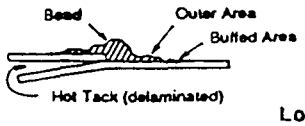
Types of Break	Locus-of-Break Code	Break Description	Classification[a]
	AD	Adhesion failure.	Non-FTB
	BRK	Break in sheeting. Break can be in either top or bottom sheet.	FTB
	SE1	Break at outer edge of seam. Break can be in either top or bottom sheet.	FTB
	SE2	Break at inner edge of seam through both sheets.	FTB
	AD-BRK	Break in first seam after some adhesion failure. Break can be in either the top or bottom sheet.	FTB

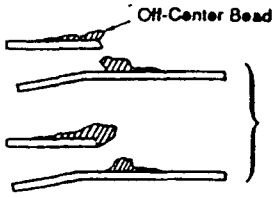
[a] FTB = Film - Tear Bond

Locus-of break codes for dual hot-wedge seams in semicrystalline FML's tested for seam strength in shear and peel modes. In cases where the Weld A fails in adhesion in a peel test, it is recommended that the test be stopped, that the specimen be replaced in the testing machine, and that Weld B be tested by peeling in the direction opposite to that used to Weld A.
REFERENCE: FIGURE A-6, NSF INTERNATIONAL STANDARD 54-1993

Golder Associates JACKSONVILLE, FLORIDA	TITLE: TRIAL SEAM AND DESTRUCTIVE TEST BREAK CODES DUAL HOT WEDGE FUSION WELD				
CLIENT/PROJECT: ETM/TRAIL RIDGE PHASES IIIC, IVC, VA, VB, VC, AND VD/FL	DRAWN: GMS	DATE: 10/31/00	JOB NO.: 003-3979		
	CHECKED: MLB	SCALE: NOT TO SCALE	DWG NO.: 3979L	REV. NO.:	
	REVIEWED: JJR	FILE NO.: 003-3979	SUBTITLE:	FIGURE NO.: H-1	

Schematic of Untested Specimen



Types of Breaks	Locus-of-Break Code	Break Description	Classification[a]
	AD1	Failure in adhesion. Specimens may also delaminate under the bead and break through the thin extruded material in the outer area.	Non-FTB
	AD2	Failure in adhesion.	Non-FTB
	AD-WLD	Break through the fillet. Breaks through the fillet range from breaks starting at the edge of the top sheet to breaks through the fillet after some adhesion failure between the fillet and the bottom sheet.	Non-FTB[b]
	SE1	Break at seam edge in the bottom sheet. Specimens may break anywhere from the bead/outer area edge to the outer area/buffed area edge. (Applicable to shear only).	FTB
	SE2	Break at seam edge in the top sheet. Specimens may break anywhere from bead/outer area edge to the outer area/buffed area edge.	FTB
	SE3	Break at seam edge in the bottom sheet. (Applicable to peel only).	FTB
	BRK1	Break in the bottom sheeting. A "B" in parentheses following the code means the specimen broke in the buffed area. (Applicable to shear only).	FTB
	BRK2	Break in the top sheeting. A "B" in parentheses following the code means the specimen broke in the buffed area.	FTB
	AD-BRK	Break in the bottom sheeting after some adhesion failure between the fillet and the bottom sheet. (Applicable to peel only).	FTB
	HT	Break at the edge of the hot tack for specimens which could not be delaminated in the hot tack.	No Test

[a] FTB = Film - Tear Bond.

[b] Acceptance of AD-WLD breaks may depend on whether test values meet a minimum specification value and not on classification as a FTB or non-FTB break.

Locus-of break codes for filler extrusion weld seams in semi-crystalline FML's tested for seam strength in shear and peel modes.
REFERENCE: FIGURE A-4, NSF INTERNATIONAL STANDARD 54-1993

Golder Associates JACKSONVILLE, FLORIDA	TITLE: TRIAL SEAM AND DESTRUCTIVE TEST BREAK CODES EXTRUSION WELD WITH LEISTER HEAT SEAM				
CLIENT/PROJECT: ETM/TRAIL RIDGE PHASES IIIC, IVC, VA, VB, VC, AND VD/FL	DRAWN: GMS	DATE: 10/31/00	JOB NO.: 003-3979		
	CHECKED: MS	SCALE: NOT TO SCALE	DWG NO.: 3979M	REV. NO.:	
	REVIEWED: JE	FILE NO.: 003-3979	SUBTITLE:	FIGURE NO.: H-2	

APPENDIX I

Geomembrane Seam Summaries

SECTION I-1

Secondary Fusion

TABLE I-1
GEOMEMBRANE FUSION SEAM SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
S- 2 / 3	WEOS TO EEOS	08/23/00	1450	90	SC	1316	2322	750	-	23	-	-
S- 1 / 3	SEOS TO NEOS	08/23/00	1500	90	SC	1316	2322	750	-	209	DSF-01	1A
S- 1 / 2	SEOS TO NEOS	08/23/00	1520	90	SC	1316	2322	750	-	107	-	-
S- 4 / 5	EEOS TO WEOS	08/23/00	1550	90	SC	1316	2322	750	-	23	-	-
S- 3 / 5	SEOS TO NEOS	08/23/00	1552	90	SC	1316	2322	750	-	59	-	-
S- 3 / 4	SEOS TO NEOS	08/23/00	1558	90	SC	1316	2322	750	-	145	DSF-02	2B
S- 2 / 4	SEOS TO NEOS	08/23/00	1610	90	SC	1316	2322	750	-	108	-	-
S- 6 / 8	SEOS TO NEOS	08/24/00	820	80	SC	16040	2174	750	-	222	DSF-03	2C
S- 7 / 8	WEOS TO EEOS	08/24/00	850	80	SC	16040	2174	750	-	23	-	-
S- 6 / 7	SEOS TO NEOS	08/24/00	900	80	SC	16040	2174	750	-	94	-	-
S- 9 / 10	EEOS TO WEOS	08/24/00	910	80	SC	16040	2174	750	-	23	-	-
S- 10 / 11	SEOS TO NEOS	08/24/00	920	80	SC	16040	2174	750	-	69	-	-
S- 9 / 11	SEOS TO NEOS	08/24/00	925	80	SC	16040	2174	750	-	249	DSF-05	2G
S- 12 / 13	WEOS TO EEOS	08/24/00	1010	80	SC	16040	2174	750	-	23	-	-
S- 11 / 13	SEOS TO NEOS	08/24/00	1025	90	SC	16040	2174	750	-	233	-	-
S- 11 / 12	SEOS TO NEOS	08/24/00	1045	90	SC	16040	2174	750	-	87	DSF-06	2I
S- 15 / 16	SEOS TO NEOS	08/24/00	1335	90	SC	16040	2174	750	-	74	-	-
S- 14 / 16	SEOS TO NEOS	08/24/00	-	90	SC	16040	2174	750	-	243	-	-
S- 19 / 20	EEOS TO WEOS	08/24/00	1425	90	SC	16040	2174	750	-	23	-	-
S- 18 / 20	SEOS TO NEOS	08/24/00	1430	90	SC	16040	2174	750	-	38	-	-
S- 18 / 19	SEOS TO NEOS	08/24/00	1440	90	SC	16040	2174	750	-	184	DSF-09	2R
S- 17 / 19	SEOS TO NEOS	08/24/00	-	90	SC	16040	2174	750	-	93	-	-
S- 21 / 23	SEOS TO NEOS	08/24/00	1515	90	SC	16040	2174	750	-	202	-	-
S- 21 / 22	SEOS TO NEOS	08/24/00	1545	90	SC	16040	2174	750	-	112	DSF-10	2W
S- 25 / 26	SEOS TO NEOS	08/24/00	1600	90	SC	16040	2174	750	-	51	-	-
S- 24 / 26	SEOS TO NEOS	08/24/00	1610	90	SC	16040	2174	750	-	263	-	-
S- 5 / 6	SEOS TO NEOS	08/24/00	840	80	SC	1316	2322	750	-	60	-	-
S- 4 / 6	SEOS TO NEOS	08/24/00	845	80	SC	1316	2322	750	-	254	-	-
S- 8 / 10	SEOS TO NEOS	08/24/00	940	80	SC	1316	2322	750	-	69	DSF-04	2F
S- 8 / 9	SEOS TO NEOS	08/24/00	950	80	SC	1316	2322	750	-	154	-	-
S- 7 / 9	SEOS TO NEOS	08/24/00	1010	80	SC	1316	2322	750	-	97	-	-
S- 14 / 15	EEOS TO WEOS	08/24/00	1050	90	SC	1316	2322	750	-	23	-	-
S- 13 / 15	SEOS TO NEOS	08/24/00	1100	90	SC	1316	2322	750	-	74	DSF-07	2P
S- 13 / 14	SEOS TO NEOS	08/24/00	1115	90	SC	1316	2322	750	-	159	-	-
S- 12 / 14	SEOS TO NEOS	08/24/00	1140	90	SC	1316	2322	750	-	89	-	-
S- 17 / 18	WEOS TO EEOS	08/24/00	1340	90	SC	1316	2322	750	-	23	-	-
S- 16 / 18	SEOS TO NEOS	08/24/00	1350	90	SC	1316	2322	750	-	221	DSF-08	2N
S- 16 / 17	SEOS TO NEOS	08/24/00	1430	90	SC	1316	2322	750	-	96	-	-

TABLE I-1
GEOMEMBRANE FUSION SEAM SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
S- 20 / 21	SEOS TO NEOS	08/24/00	1440	90	SC	1316	2322	750	-	36	-	-
S- 19 / 21	SEOS TO NEOS	08/24/00	1450	90	SC	1316	2322	750	-	277	-	-
S- 22 / 23	WEOS TO EEOS	08/24/00	1525	90	SC	1316	2322	750	-	23	-	-
S- 24 / 25	WEOS TO EEOS	08/24/00	1600	90	SC	1316	2322	750	-	23	-	-
S- 23 / 25	SEOS TO NEOS	08/24/00	1605	90	SC	1316	2322	750	-	51	DSF-11	3A
S- 23 / 24	SEOS TO NEOS	08/24/00	1620	90	SC	1316	2322	750	-	152	-	-
S- 22 / 24	SEOS TO NEOS	08/24/00	1640	90	SC	1316	2322	750	-	111	-	-
S- 27 / 28	WEOS TO EEOS	08/25/00	835	80	SC	1316	2322	750	-	23	-	-
S- 29 / 30	EEOS TO WEOS	08/25/00	848	85	SC	1316	2322	750	-	23	-	-
S- 28 / 30	SEOS TO NEOS	08/25/00	855	85	SC	1316	2322	750	-	75	-	-
S- 28 / 29	SEOS TO NEOS	08/25/00	905	85	SC	1316	2322	750	-	145	DSF-13	3F
S- 27 / 29	SEOS TO NEOS	08/25/00	925	85	SC	1316	2322	750	-	92	-	-
S- 31 / 33	SEOS TO NEOS	08/25/00	950	85	SC	1316	2322	750	-	233	-	-
S- 31 / 32	SEOS TO NEOS	08/25/00	-	85	SC	1316	2322	750	-	78	DSF-15	3I
S- 35 / 36	SEOS TO NEOS	08/25/00	1046	85	SC	1316	2322	750	-	95	-	-
S- 34 / 36	SEOS TO NEOS	08/25/00	-	85	SC	1316	2322	750	-	216	-	-
S- 37 / 38	WEOS TO EEOS	08/25/00	1130	85	SC	1316	2322	750	-	23	-	-
S- 38 / 40	SEOS TO NEOS	08/25/00	1400	95	SC	1316	2322	750	-	117	-	-
S- 38 / 39	SEOS TO NEOS	08/25/00	-	95	SC	1316	2322	750	-	150	DSF-17	3Q
S- 37 / 39	SEOS TO NEOS	08/25/00	-	95	SC	1316	2322	750	-	47	-	-
S- 41 / 43	SEOS TO NEOS	08/25/00	1500	95	SC	1316	2322	750	-	283	-	-
S- 41 / 42	SEOS TO NEOS	08/25/00	-	95	SC	1316	2322	750	-	30	DSF-19	3S
S- 44 / 45	WEOS TO EEOS	08/25/00	1550	95	SC	1316	2322	750	-	23	-	-
S- 26 / 28	SEOS TO NEOS	08/25/00	821	80	SC	16040	2174	750	-	218	DSF-12	3D
S- 26 / 27	SEOS TO NEOS	08/25/00	840	85	SC	16040	2174	750	-	92	-	-
S- 30 / 31	SEOS TO NEOS	08/25/00	859	85	SC	16040	2174	750	-	74	-	-
S- 29 / 31	SEOS TO NEOS	08/25/00	910	85	SC	16040	2174	750	-	240	DSF-14	3H
S- 32 / 33	WEOS TO EEOS	08/25/00	945	85	SC	16040	2174	750	-	23	-	-
S- 34 / 35	EEOS TO WEOS	08/25/00	1000	85	SC	16040	2174	750	-	23	-	-
S- 33 / 35	SEOS TO NEOS	08/25/00	1020	85	SC	16040	2174	750	-	94	-	-
S- 33 / 34	SEOS TO NEOS	08/25/00	-	85	SC	16040	2174	750	-	140	-	-
S- 32 / 34	SEOS TO NEOS	08/25/00	-	85	SC	16040	2174	750	-	77	-	-
S- 36 / 38	SEOS TO NEOS	08/25/00	1105	85	SC	16040	2174	750	-	266	DSF-16	3N
S- 36 / 37	SEOS TO NEOS	08/25/00	-	85	SC	16040	2174	750	-	47	-	-
S- 39 / 40	EEOS TO WEOS	08/25/00	1351	95	SC	16040	2174	750	-	23	-	-
S- 40 / 41	SEOS TO NEOS	08/25/00	1400	95	SC	16040	2174	750	-	117	-	-
S- 39 / 41	SEOS TO NEOS	08/25/00	-	95	SC	16040	2174	750	-	195	DSF-18	3R
S- 42 / 43	WEOS TO EEOS	08/25/00	1449	95	SC	16040	2174	750	-	23	-	-
S- 43 / 45	SEOS TO NEOS	08/25/00	-	95	SC	16040	2174	750	-	134	-	-

TABLE I-1
GEOMEMBRANE FUSION SEAM SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
S- 43 / 44	SEOS TO NEOS	08/25/00	-	95	SC	16040	2174	750	-	152	-	-
S- 42 / 44	SEOS TO NEOS	08/25/00	1620	95	SC	16040	2174	750	-	30	-	-
S- 45 / 46	SEOS TO NEOS	08/28/00	1045	90	SC	1316	7534	750	-	132	-	-
S- 44 / 46	SEOS TO NEOS	08/28/00	1110	90	SC	1316	7534	750	-	171	-	-
S- 50 / 52	SEOS TO NEOS	08/28/00	1242	90	SC	1316	7534	750	-	25	-	-
S- 50 / 51	SEOS TO NEOS	08/28/00	-	90	SC	1316	7534	750	-	148	DSF-22	5C
S- 49 / 51	SEOS TO NEOS	08/28/00	-	90	SC	1316	7534	750	-	140	-	-
S- 54 / 55	WEOS TO EEOS	08/28/00	1430	90	SC	1316	7534	750	-	23	-	-
S- 56 / 57	WEOS TO EEOS	08/28/00	1445	90	SC	1316	7534	750	-	23	-	-
S- 57 / 58	SEOS TO NEOS	08/28/00	1450	90	SC	1316	7534	750	-	59	-	-
S- 56 / 58	SEOS TO NEOS	08/28/00	-	90	SC	1316	7534	750	-	260	DSF-25	5G
S- 62 / 63	SEOS TO NEOS	08/28/00	1615	90	SC	1316	7534	750	-	91	-	-
S- 61 / 63	SEOS TO NEOS	08/28/00	1630	90	SC	1316	7534	750	-	226	-	-
S- 46 / 48	SEOS TO NEOS	08/28/00	1100	90	SC	16040	2174	750	-	300	DSF-20	5A
S- 47 / 48	SEOS TO NEOS	08/28/00	-	90	SC	16040	2174	750	-	9	-	-
S- 46 / 47	WEOS TO EEOS	08/28/00	1135	90	SC	16040	2174	750	-	23	-	-
S- 49 / 50	EEOS TO WEOS	08/28/00	1345	90	SC	16040	2174	750	-	23	-	-
S- 51 / 52	EEOS TO WEOS	08/28/00	1355	90	SC	16040	2174	750	-	23	-	-
S- 52 / 53	SEOS TO NEOS	08/28/00	1350	90	SC	16040	2174	750	-	25	-	-
S- 51 / 53	SEOS TO NEOS	08/28/00	-	90	SC	16040	2174	750	-	289	DSF-23	5D
S- 55 / 57	SEOS TO NEOS	08/28/00	1500	90	SC	16040	2174	750	-	59	-	-
S- 55 / 56	SEOS TO NEOS	08/28/00	-	90	SC	16040	2174	750	-	139	-	-
S- 54 / 56	SEOS TO NEOS	08/28/00	-	90	SC	16040	2174	750	-	120	-	-
S- 59 / 60	EEOS TO WEOS	08/28/00	1530	90	SC	16040	2174	750	-	23	DSF-26	5J
S- 60 / 62	SEOS TO NEOS	08/28/00	1610	90	SC	16040	2174	750	-	91	-	-
S- 60 / 61	SEOS TO NEOS	08/28/00	-	90	SC	16040	2174	750	-	147	-	-
S- 59 / 61	SEOS TO NEOS	08/28/00	-	90	SC	16040	2174	750	-	77	-	-
S- 64 / 65	EEOS TO WEOS	08/28/00	1710	90	SC	16040	2174	750	-	23	-	-
S- 48 / 50	SEOS TO NEOS	08/28/00	1355	95	SC	1642	2322	750	-	173	DSF-21	5B
S- 48 / 49	SEOS TO NEOS	08/28/00	1415	95	SC	1642	2322	750	-	142	-	-
S- 53 / 55	SEOS TO NEOS	08/28/00	1435	95	SC	1642	2322	750	-	196	-	-
S- 53 / 54	SEOS TO NEOS	08/28/00	-	95	SC	1642	2322	750	-	120	DSF-24	5F
S- 58 / 60	SEOS TO NEOS	08/28/00	1530	95	SC	1642	2322	750	-	236	-	-
S- 58 / 59	SEOS TO NEOS	08/28/00	-	95	SC	1642	2322	750	-	77	-	-
S- 61 / 62	EEOS TO WEOS	08/28/00	1617	90	SC	1642	2322	750	-	23	-	-
S- 63 / 65	SEOS TO NEOS	08/28/00	-	90	SC	1642	2322	750	-	268	DSF-27	5S
S- 63 / 64	SEOS TO NEOS	08/28/00	1700	90	SC	1642	2322	750	-	46	-	-
S- 65 / 67	SEOS TO NEOS	08/30/00	1445	90	SC	1642	2322	750	-	142	-	-
S- 65 / 66	SEOS TO NEOS	08/30/00	-	90	SC	1642	2322	750	-	133	DSF-29	7B

TABLE I-1
GEOMEMBRANE FUSION SEAM SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
S- 64 / 66	SEOS TO NEOS	08/30/00	-	90	SC	1642	2322	750	-	46	-	-
S- 70 / 71	EEOS TO WEOS	08/30/00	1600	90	SC	1642	2322	750	-	23	-	-
S- 72 / 73	EEOS TO WEOS	08/30/00	1615	90	SC	1642	2322	750	-	23	-	-
S- 71 / 73	SEOS TO NEOS	08/30/00	1620	90	SC	1642	2322	750	-	27	-	-
S- 71 / 72	SEOS TO NEOS	08/30/00	1625	90	SC	1642	2322	750	-	142	-	-
S- 70 / 72	SEOS TO NEOS	08/30/00	-	90	SC	1642	2322	750	-	149	-	-
S- 75 / 76	WEOS TO EEOS	08/30/00	1710	90	SC	1642	2322	750	-	23	DSF-33	7Q
S- 77 / 78	EEOS TO WEOS	08/30/00	1720	90	SC	1642	2322	750	-	23	-	-
S- 78 / 79	SEOS TO NEOS	08/30/00	1730	90	SC	1642	2322	750	-	51	-	-
S- 77 / 79	SEOS TO NEOS	08/30/00	-	90	SC	1642	2322	750	-	264	-	-
S- 66 / 67	EEOS TO WEOS	08/30/00	1445	90	SC	1619	7534	750	-	23	-	-
S- 68 / 69	SEOS TO NEOS	08/30/00	1505	90	SC	1619	7534	750	-	314	DSF-30	7C
S- 73 / 74	SEOS TO NEOS	08/30/00	1645	90	SC	1619	7534	750	-	27	-	-
S- 72 / 74	SEOS TO NEOS	08/30/00	-	90	SC	1619	7534	750	-	291	DSF-32	7I
S- 76 / 78	SEOS TO NEOS	08/30/00	1730	90	SC	1619	7534	750	-	51	-	-
S- 76 / 77	SEOS TO NEOS	08/30/00	-	90	SC	1619	7534	750	-	140	-	-
S- 75 / 77	SEOS TO NEOS	08/30/00	-	90	SC	1619	7534	750	-	123	-	-
S- 67 / 68	SEOS TO NEOS	08/30/00	1445	90	SC	16040	2174	750	-	132	DSF-28	7A
S- 66 / 68	SEOS TO NEOS	08/30/00	-	90	SC	16040	2174	750	-	184	-	-
S- 69 / 71	SEOS TO NEOS	08/30/00	-	90	SC	16040	2174	750	-	165	-	-
S- 69 / 70	SEOS TO NEOS	08/30/00	1600	90	SC	16040	2174	750	-	149	DSF-31	7H
S- 74 / 76	SEOS TO NEOS	08/30/00	1710	90	SC	16040	2174	750	-	192	-	-
S- 74 / 75	SEOS TO NEOS	08/30/00	-	90	SC	16040	2174	750	-	123	-	-
S- 79 / 80	SEOS TO 9C	09/26/00	1425	85	SL	1642	7534	750	-	175	-	-
S- 79 / 80	9D TO NEOS	09/26/00	1435	85	SL	1642	7534	750	-	124	DSF-34	9E
S- 82 / 83	EEOS TO WEOS	09/26/00	1500	85	SL	1642	7534	750	-	23	-	-
S- 81 / 83	SEOS TO NEOS	09/26/00	1515	85	SL	1642	7534	750	-	147	-	-
S- 81 / 82	SEOS TO NEOS	09/26/00	1530	85	SL	1642	7534	750	-	170	-	-
S- 80 / 81	SEOS TO NEOS	09/26/00	1500	85	SL	16040	2174	750	-	314	DSF-35	9I
S- 84 / 85	WEOS TO EEOS	09/28/00	805	70	SC	16040	2174	750	-	23	-	
S- 83 / 85	SEOS TO NEOS	09/28/00	815	70	SC	16040	2174	750	-	79	DSF-36	9M
S- 82 / 84	SEOS TO NEOS	09/28/00	840	70	SC	16040	2174	750	-	169	-	-
S- 83 / 84	SEOS TO NEOS	09/28/00	830	70	SC	16040	2174	750	-	66	-	-
S- 87 / 88	WEOS TO EEOS	09/28/00	900	70	SC	16040	2174	750	-	74	DSF-38	9W
S- 88 / 89	WEOS TO EEOS	09/28/00	1000	70	SC	16040	2174	750	-	71	-	-
S- 89 / 90	SEOS TO NEOS	09/28/00	1010	70	SC	16040	2174	750	-	71	-	-
S- 86 / 90	SEOS TO NEOS	09/28/00	1030	70	SC	16040	2174	750	-	23	-	-
S- 86 / 89	SEOS TO NEOS	09/28/00	1040	70	SC	16040	2174	750	-	23	-	-
S- 86 / 88	SEOS TO NEOS	09/28/00	1045	70	SC	16040	2174	750	-	23	-	-

TABLE I-1
GEOMEMBRANE FUSION SEAM SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
S- 86 / 87	SEOS TO NEOS	09/28/00	1050	70	SC	16040	2174	750	-	23	-	-
S- 85 / 86	SEOS TO NEOS	09/28/00	820	70	SC	1613	7534	750	-	50	DSF-37	9N
S- 84 / 86	SEOS TO NEOS	09/28/00	830	70	SC	1613	7534	750	-	235	-	-
S- 90 / 91	WEOS TO EEOS	09/29/00	750	70	MLB	16040	2174	750	-	71	-	-
S- 92 / 93	WEOS TO EEOS	09/29/00	800	70	MLB	16040	2174	750	-	93	-	-
S- 94 / 95	EEOS TO WEOS	09/29/00	820	70	SL	16040	2174	750	-	80	-	-
S- 96 / 97	EEOS TO WEOS	09/29/00	840	70	SL	16040	2174	750	-	73	-	-
S- 99 / 100	EEOS TO WEOS	09/29/00	900	70	SL	16040	2174	750	-	67	-	-
S- 100 / 10A	WEOS TO EEOS	09/29/00	915	70	SL	16040	2174	750	-	76	DSF-40	10C
S- 100 / 10D	WEOS TO EEOS	09/29/00	925	70	SL	16040	2174	750	-	9	-	-
S- 10A / 10D	SEOS TO NEOS	09/29/00	920	70	SL	16040	2174	750	-	8	-	-
S- 85 / 10D	SEOS TO NEOS	09/29/00	930	70	SL	16040	2174	750	-	8	-	-
S- 85 / 100	SEOS TO NEOS	09/29/00	933	70	SL	16040	2174	750	-	23	-	-
SRS 1 / 2	WEOS TO EEOS	09/29/00	1330	70	SC	16040	2174	750	-	62	-	-
SRS 2 / 3	WEOS TO EEOS	09/29/00	1350	70	SC	16040	2174	750	-	62	-	-
S- 91 / 93	WEOS TO EEOS	09/29/00	745	70	SL	1613	7534	750	-	75	-	-
S- 92 / 94	EEOS TO WEOS	09/29/00	800	70	SL	1613	7534	750	-	96	-	-
S- 95 / 96	EEOS TO WEOS	09/29/00	815	70	SL	1613	7534	750	-	80	-	-
S- 97 / 98	EEOS TO WEOS	09/29/00	830	70	SL	1613	7534	750	-	71	-	-
S- 98 / 99	EEOS TO WEOS	09/29/00	845	70	SL	1613	7534	750	-	70	-	-
S- 86 / 100	EEOS TO WEOS	09/29/00	929	70	SL	1613	7534	750	-	22	DSF-39	10B
S- 86 / 99	SEOS TO NEOS	09/29/00	935	70	SL	1613	7534	750	-	23	-	-
S- 86 / 98	SEOS TO NEOS	09/29/00	936	70	SL	1613	7534	750	-	23	-	-
S- 86 / 97	SEOS TO NEOS	09/29/00	937	70	SL	1613	7534	750	-	23	-	-
S- 86 / 96	SEOS TO NEOS	09/29/00	938	70	SL	1613	7534	750	-	23	-	-
S- 86 / 95	SEOS TO NEOS	09/29/00	939	70	SL	1613	7534	750	-	23	-	-
S- 86 / 94	SEOS TO NEOS	09/29/00	941	70	SL	1613	7534	750	-	23	-	-
S- 86 / 92	SEOS TO NEOS	09/29/00	942	70	SL	1613	7534	750	-	18	-	-
S- 86 / 93	SEOS TO NEOS	09/29/00	943	70	SL	1613	7534	750	-	24	-	-
S- 86 / 91	SEOS TO NEOS	09/29/00	944	70	SL	1613	7534	750	-	15	-	-

NOTES:

(1) Refer to Appendix J for list of Abbreviations

(2) Refer to Appendix A for list of Golder and Serrott personnel

(3) Refer to Appendix L for Destructive Sample Laboratory Testing Results

F/N: SGFSS.XLS

SECTION I-2

Secondary Extrusion

TABLE I-2
GEOMEMBRANE EXTRUSION SEAM SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
S- 1 / NTI	1B TO EEOS	08/23/00	1635	88	MLB	201	2897	250	-	12	-	-
S- 2 / NTI	WEOS TO EEOS	08/24/00	755	80	MLB	201	2897	250	251	23	-	-
S- 4 / NTI	WEOS TO EEOS	08/24/00	805	80	MLB	201	2897	250	249	23	-	-
S- 6 / NTI	WEOS TO EEOS	08/24/00	935	82	MLB	201	2897	250	253	23	-	-
S- 7 / NTI	WEOS TO EEOS	08/24/00	955	84	MLB	201	2897	250	-	23	-	-
S- 9 / NTI	WEOS TO EEOS	08/24/00	1110	86	MLB	201	2897	250	248	23	DSX-01	1N
S- 11 / NTI	WEOS TO EEOS	08/24/00	1130	87	MLB	201	2897	250	251	23	-	-
S- 12 / NTI	WEOS TO EEOS	08/24/00	1410	92	MLB	201	2897	250	-	23	-	-
S- 14 / NTI	WEOS TO EEOS	08/24/00	1450	92	MLB	201	2897	250	-	23	-	-
S- 16 / NTI	WEOS TO EEOS	08/24/00	1515	93	MLB	201	2897	250	-	23	-	-
S- 17 / NTI	WEOS TO EEOS	08/24/00	1605	93	MLB	201	2897	250	-	23	-	-
S- 19 / NTI	WEOS TO EEOS	08/24/00	1620	93	MLB	201	2897	250	249	23	-	-
S- 21 / NTI	1S TO EEOS	08/25/00	810	79	MLB	201	2897	250	249	11	-	-
S- 22 / NTI	WEOS TO EEOS	08/25/00	818	79	MLB	201	2897	250	-	23	-	-
S- 24 / NTI	WEOS TO EEOS	08/25/00	832	79	MLB	201	2897	250	251	23	-	-
S- 26 / NTI	WEOS TO EEOS	08/25/00	915	81	MLB	201	2897	250	-	23	-	-
S- 27 / NTI	WEOS TO EEOS	08/25/00	950	83	MLB	201	2897	250	261	23	-	-
S- 29 / NTI	WEOS TO EEOS	08/25/00	1015	83	MLB	201	2897	250	258	23	-	-
S- 31 / NTI	WEOS TO EEOS	08/25/00	1050	85	MLB	201	2897	250	253	23	-	-
S- 32 / NTI	WEOS TO EEOS	08/25/00	1105	87	MLB	201	2897	250	251	23	-	-
S- 34 / NTI	WEOS TO EEOS	08/25/00	1125	92	MLB	201	2897	250	-	23	-	-
S- 36 / NTI	WEOS TO EEOS	08/25/00	1430	92	MLB	201	2897	250	261	23	-	-
S- 37 / NTI	WEOS TO EEOS	08/25/00	1452	92	MLB	201	2897	250	-	23	-	-
S- 39 / NTI	WEOS TO EEOS	08/25/00	1600	92	MLB	201	2897	250	253	23	-	-
S- 41 / NTI	WEOS TO EEOS	08/25/00	1615	92	MLB	201	2897	250	251	23	-	-
S- 42 / NTI	WEOS TO EEOS	08/26/00	840	78	MLB	201	2897	250	248	23	DSX-02	4G
S- 12 / 13	2H TO 4H	08/26/00	1055	82	MLB	201	2897	250	-	11	-	Extrusion welded flap
S- 22 / 23	WEOS TO EEOS	08/26/00	1340	90	MLB	201	2897	250	251	22	-	Extrusion welded flap
S- 4 / 5	EEOS TO WEOS	08/26/00	900	80	SC	206	2173	265	-	23	-	Extrusion welded flap
S- 10 / 11	1K TO 4F	08/26/00	950	90	SC	206	2173	265	-	5	-	Extrusion welded flap
S- 24 / 25	EEOS TO WEOS	08/26/00	1430	95	SC	206	2173	265	-	23	-	Extrusion welded flap
S- 21 / 23	4I TO 4J	08/26/00	1515	95	SC	206	2173	265	-	8	-	Extrusion welded flap
S- 44 / NTI	WEOS TO EEOS	08/28/00	1100	84	MLB	201	2897	250	251	23	-	-

TABLE I-2
GEOMEMBRANE EXTRUSION SEAM SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
S- 47 / NTI	WEOS TO EEOS	08/28/00	1130	84	MLB	201	2897	250	-	23	-	-
S- 48 / NTI	WEOS TO EEOS	08/28/00	1140	85	MLB	201	2897	250	-	23	-	-
S- 44 / 47	SEOS TO NEOS	08/28/00	1405	91	MLB	201	2897	250	251	10	-	Extrusion welded flap
S- 47 / 48	SEOS TO NEOS	08/28/00	1410	91	MLB	201	2897	250	249	10	-	Extrusion welded flap
S- 49 / NTI	WEOS TO EEOS	08/28/00	1415	91	MLB	201	2897	250	253	23	-	-
S- 51 / NTI	WEOS TO EEOS	08/28/00	1420	91	MLB	201	2897	250	256	23	-	-
S- 53 / NTI	WEOS TO EEOS	08/28/00	1430	91	MLB	201	2897	250	-	23	-	-
S- 54 / NTI	WEOS TO EEOS	08/28/00	1500	91	MLB	201	2897	250	249	23	-	-
S- 56 / NTI	WEOS TO EEOS	08/28/00	1545	91	MLB	201	2897	250	-	23	-	-
S- 58 / NTI	WEOS TO EEOS	08/28/00	1600	91	MLB	201	2897	250	253	23	-	-
S- 59 / NTI	WEOS TO EEOS	08/28/00	1615	91	MLB	201	2897	250	-	23	-	-
S- 61 / NTI	WEOS TO EEOS	08/28/00	1730	90	MLB	201	2897	250	249	23	-	-
S- 63 / NTI	WEOS TO EEOS	08/28/00	1745	90	MLB	201	2897	250	248	23	-	-
S- 64 / NTI	WEOS TO 6' E	08/28/00	1800	90	MLB	201	2897	250	-	6	-	-
S- 29 / 30	EEOS TO WEOS	08/28/00	850	85	MLB	312	2223	250	-	23	-	Extrusion welded flap
S- 39 / 40	EEOS TO WEOS	08/28/00	1100	85	MLB	312	2223	250	251	22	DSX-03 (4Q)	Extrusion welded flap
S- 61 / 62	EEOS TO WEOS	08/29/00	1415	95	SC	312	2223	250	-	23	-	Extrusion welded flap
S- 63 / 64	5X TO NEOS	08/29/00	1600	95	SC	312	2223	250	-	16	-	Extrusion welded flap
S- 64 / NTI	6'E TO EEOS	08/30/00	1430	85	SL	327	2897	250	-	17	-	-
S- 66 / NTI	WEOS TO EEOS	08/30/00	1600	85	SL	327	2897	250	-	23	-	-
S- 68 / NTI	WEOS TO EEOS	08/30/00	1618	85	SL	327	2897	250	-	23	-	-
S- 69 / NTI	WEOS TO EEOS	08/30/00	1630	85	SL	327	2897	250	-	23	-	-
S- 70 / NTI	WEOS TO EEOS	08/30/00	1747	85	SL	327	2897	250	-	23	-	-
S- 72 / NTI	WEOS TO EEOS	08/30/00	1755	85	SL	327	2897	250	-	23	-	-
S- 74 / NTI	WEOS TO EEOS	08/31/00	837	75	SL	327	2897	250	-	23	-	-
S- 75 / NTI	WEOS TO EEOS	08/31/00	850	75	SL	327	2897	250	-	23	-	-
S- 77 / NTI	WEOS TO EEOS	08/31/00	915	75	SL	327	2897	250	-	23	-	-
S- 79 / NTI	WEOS TO 18' E	08/31/00	930	75	SL	327	2897	250	-	18	DSX-05	9A
S- 70 / 72	8C TO NEOS	08/31/00	1130	80	SL	327	2897	250	-	49	-	Extrusion welded flap
S- 75 / 76	7Q TO 7T	08/31/00	1525	80	SL	327	2897	250	-	15	-	Extrusion welded flap
S- 79 / 80	9C TO 9D	09/26/00	1550	85	SC	327	2897	250	-	11	-	Extrusion welded flap
S- 79 / NTI	18' E TO EEOS	09/26/00	1615	85	SC	327	2897	250	-	5	-	-
S- 80 / NTI	WEOS TO EEOS	09/26/00	1625	85	SC	327	2897	250	-	23	-	-
S- 81 / NTI	WEOS TO EEOS	09/26/00	1640	85	SC	327	2897	250	-	23	-	-

TABLE I-2
GEOMEMBRANE EXTRUSION SEAM SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
S- 82 / NTI	WEOS TO EEOS	09/26/00	1650	85	SC	327	2897	250	-	23	-	-
S- 84 / NTI	WEOS TO EEOS	09/28/00	900	70	SC	327	2897	250	-	23	-	-
S- 86 / NTI	WEOS TO EEOS	09/28/00	930	70	SC	327	2897	250	-	23	-	-
S- 87 / NTI	WEOS TO EEOS	09/28/00	1030	70	SC	327	2897	250	-	70	-	-
S- 86 / 92	10J TO SEOS	09/29/00	-	70	SC	327	2897	250	-	1	-	Extrusion welded flap
S- 85 / 10D	NEOS TO SEOS	09/29/00	1025	70	SL	201	2173	250	-	8	-	Extrusion welded flap
S- 98 / 99	10E TO 10H	09/29/00	1045	70	SL	201	2173	250	-	6	-	Extrusion welded flap
S- 86 / 91	8P TO 8N	09/29/00	1310	70	SC	327	2897	250	-	10	-	Extrusion welded flap
SRS 1 / SEC	ENTIRE SEAM	09/29/00	1400	70	SC	327	2897	250	-	108	-	RUBSHEET WELD
SRS 2 / SEC	ENTIRE SEAM	09/29/00	1400	70	SC	201	2173	250	-	46	-	RUBSHEET WELD
SRS 3 / SEC	ENTIRE SEAM	09/29/00	1400	70	SC	312	7534	250	-	108	-	RUBSHEET WELD

NOTES:

(1) Refer to Appendix J for list of Abbreviations

(2) Refer to Appendix A for list of Golder and Serrott personnel

(3) Refer to Appendix L for Destructive Sample Laboratory Testing Results

F/N: SGESS.XLS

SECTION I-3

Primary Fusion

TABLE I-3
GEOMEMBRANE FUSION SEAM SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
P- 1 / 3	SEOS TO NEOS	09/11/00	1120	80	SC	16040	2174	250	-	170	DPF-02	25J
P- 1 / 2	SEOS TO NEOS	09/11/00	-	80	SC	16040	2174	250	-	143	-	-
P- 6 / 8	SEOS TO NEOS	09/11/00	1425	85	SC	16040	2174	250	-	187	-	-
P- 6 / 7	SEOS TO NEOS	09/11/00	1448	85	SC	16040	2174	250	-	126	DPF-04	25W
P- 9 / 10	EEOS TO WEOS	09/11/00	1715	85	SC	16040	2174	250	-	23	-	-
P- 8 / 10	SEOS TO NEOS	09/11/00	1735	85	SC	16040	2174	250	-	40	-	-
P- 8 / 9	SEOS TO NEOS	09/11/00	-	85	SC	16040	2174	250	-	150	-	-
P- 7 / 9	SEOS TO NEOS	09/11/00	-	85	SC	16040	2174	250	-	126	-	-
P- 11 / 13	SEOS TO NEOS	09/11/00	1755	85	SC	1316	2300	250	-	208	DPF-05	25X
P- 11 / 12	SEOS TO NEOS	09/11/00	-	85	SC	1316	2300	250	-	106	-	-
P- 4 / 5	WEOS TO EEOS	09/11/00	1120	80	SC	1619	7534	250	-	23	-	-
P- 3 / 5	SEOS TO NEOS	09/11/00	1130	80	SC	1619	7534	250	-	19	-	-
P- 3 / 4	SEOS TO NEOS	09/11/00	1135	80	SC	1619	7534	250	-	154	DPF-01	25I
P- 2 / 4	SEOS TO NEOS	09/11/00	1150	80	SC	1619	7534	250	-	143	-	-
P- 2 / 3	EEOS TO WEOS	09/11/00	1145	80	SC	1619	7534	250	-	23	-	-
P- 5 / 6	SEOS TO NEOS	09/11/00	1325	85	SC	1619	7534	250	-	19	-	-
P- 4 / 6	SEOS TO NEOS	09/11/00	1330	85	SC	1619	7534	250	-	294	DPF-03	25Q
P- 7 / 8	EEOS TO WEOS	09/11/00	1425	85	SC	1619	7534	250	-	23	-	-
P- 10 / 11	SEOS TO NEOS	09/11/00	-	85	SC	1619	7534	250	-	40	-	-
P- 9 / 11	SEOS TO NEOS	09/11/00	-	85	SC	1619	7534	250	-	276	-	-
P- 12 / 13	WEOS TO EEOS	09/11/00	1805	85	SC	1619	7534	250	-	23	DPF-06	27E
P- 14 / 15	EEOS TO WEOS	09/12/00	1400	85	MLB	1619	7534	750	749	23	-	-
P- 13 / 15	SEOS TO NEOS	09/12/00	1410	85	MLB	1619	7534	750	-	84	-	-
P- 13 / 14	SEOS TO NEOS	09/12/00	1425	85	MLB	1619	7534	750	750	122	-	-
P- 12 / 14	SEOS TO NEOS	09/12/00	1430	85	MLB	1619	7534	750	-	107	-	-
P- 19 / 20	EEOS TO WEOS	09/12/00	1500	85	MLB	1619	7534	750	253	23	-	-
P- 20 / 21	SEOS TO NEOS	09/12/00	1510	85	MLB	1619	7534	750	752	85	-	-
P- 19 / 21	SEOS TO NEOS	09/12/00	1520	85	MLB	1619	7534	750	-	232	DPF-10	27K
P- 22 / 23	SEOS TO NEOS	09/12/00	1535	85	MLB	1619	7534	750	-	23	-	-
P- 16 / 18	SEOS TO NEOS	09/12/00	1430	85	MLB	16076	2300	750	-	235	DPF-08	27G
P- 17 / 18	WEOS TO EEOS	09/12/00	1450	85	MLB	16076	2300	750	-	23	-	-
P- 16 / 17	SEOS TO NEOS	09/12/00	1455	85	MLB	16076	2300	750	-	78	-	-
P- 21 / 23	SEOS TO NEOS	09/12/00	1540	85	MLB	16076	2300	750	-	226	DPF-11	27N
P- 21 / 22	SEOS TO NEOS	09/12/00	1605	85	MLB	16076	2300	750	-	90	-	-

TABLE I-3
GEOMEMBRANE FUSION SEAM SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
P- 15 / 16	SEOS TO NEOS	09/12/00	1415	85	MLB	16040	2174	750	-	87	-	-
P- 14 / 16	SEOS TO NEOS	09/12/00	1430	85	MLB	16040	2174	750	-	229	DPF-07	27F
P- 18 / 20	SEOS TO NEOS	09/12/00	1500	85	MLB	16040	2174	750	-	88	-	-
P- 18 / 19	SEOS TO NEOS	09/12/00	1510	85	MLB	16040	2174	750	-	152	-	-
P- 17 / 19	SEOS TO NEOS	09/12/00	1525	85	MLB	16040	2174	750	-	79	DPF-09	27J
P- 23 / 25	SEOS TO NEOS	09/13/00	1445	95	sc	16040	2174	750	-	74	-	-
P- 23 / 24	SEOS TO NEOS	09/13/00	1500	95	SC	16040	2174	750	-	157	-	-
P- 22 / 24	SEOS TO NEOS	09/13/00	1510	95	SC	16040	2174	750	-	90	-	-
P- 28 / 30	SEOS TO NEOS	09/13/00	1530	95	SC	16040	2174	750	-	111	-	-
P- 28 / 29	SEOS TO NEOS	09/13/00	1545	95	SC	16040	2174	750	-	134	DPF-13	28H
P- 27 / 29	SEOS TO NEOS	09/13/00	-	95	SC	16040	2174	750	-	72	-	-
P- 32 / 33	EEOS TO WEOS	09/13/00	1615	95	SC	16040	2174	750	-	23	-	-
P- 24 / 25	EEOS TO WEOS	09/13/00	1440	95	SC	16076	2300	750	-	23	-	-
P- 26 / 28	SEOS TO NEOS	09/13/00	1515	95	SC	16076	2300	750	-	247	-	-
P- 26 / 27	SEOS TO NEOS	09/13/00	1540	95	SC	16076	2300	750	-	72	-	-
P- 31 / 33	SEOS TO NEOS	09/13/00	1615	95	SC	16076	2300	750	-	262	DPF-14	28K
P- 31 / 32	SEOS TO NEOS	09/13/00	-	95	SC	16076	2300	750	-	57	-	-
P- 25 / 26	SEOS TO NEOS	09/13/00	1459	95	SC	1619	7534	750	-	74	-	-
P- 24 / 26	SEOS TO NEOS	09/13/00	1505	95	SC	1619	7534	750	-	240	DPF-12	28A
P- 27 / 28	WEOS TO EEOS	09/13/00	1535	95	SC	1619	7534	750	-	23	-	-
P- 29 / 30	WEOS TO EEOS	09/13/00	-	95	SC	1619	7534	750	-	23	-	-
P- 30 / 31	SEOS TO NEOS	09/13/00	1555	95	SC	1619	7534	750	-	111	-	-
P- 29 / 31	SEOS TO NEOS	09/13/00	-	95	SC	1619	7534	750	-	213	-	-
P- 6 / 28S	WEOS TO EEOS	09/14/00	-	85	SC	16040	2174	750	-	10	-	-
P- 8 / 28S	WEOS TO EEOS	09/14/00	-	85	SC	16040	2174	750	-	23	-	-
P- 10 / 28S	WEOS TO EEOS	09/14/00	-	85	SC	16040	2174	750	-	23	-	-
P- 11 / 28S	WEOS TO EEOS	09/14/00	-	85	SC	16040	2174	750	-	23	-	-
P- 13 / 28S	WEOS TO EEOS	09/14/00	-	85	SC	16040	2174	750	-	23	-	-
P- 34 / 35	SEOS TO NEOS	09/21/00	1030	80	SL	1642	2322	750	-	310	DPF-16	31H
P- 36 / 37	EEOS TO WEOS	09/21/00	1137	80	SL	1642	2322	750	-	23	-	-
P- 35 / 36	SEOS TO NEOS	09/21/00	1145	80	SL	1642	2322	750	-	162	-	-
P- 38 / 39	SEOS TO NEOS	09/21/00	1455	85	SL	1642	2322	750	-	310	DPF-18	31M
P- 40 / 41	EEOS TO WEOS	09/21/00	1635	85	SL	1642	2322	750	-	23	-	-
P- 41 / 42	SEOS TO NEOS	09/21/00	1720	85	SL	1642	2322	750	-	144	-	-
P- 33 / 34	SEOS TO NEOS	09/21/00	1015	80	SL	16040	2174	750	-	258	DPF-15	31G

TABLE I-3
GEOMEMBRANE FUSION SEAM SUMMARY
PRIMARY GEOMEMBRANE LINER
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BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
P- 32 / 34	SEOS TO NEOS	09/21/00	1055	80	SL	16040	2174	750	-	52	-	-
P- 35 / 37	SEOS TO NEOS	09/21/00	1135	80	SL	16040	2174	750	-	151	-	-
P- 37 / 38	SEOS TO NEOS	09/21/00	1430	85	SL	16040	2174	750	-	150	-	-
P- 36 / 38	SEOS TO NEOS	09/21/00	1455	85	SL	16040	2174	750	-	162	DPF-17	31K
P- 39 / 41	SEOS TO NEOS	09/21/00	1635	85	SL	16040	2174	750	-	144	-	-
P- 39 / 40	SEOS TO NEOS	09/21/00	1658	85	SL	16040	2174	750	-	168	-	-
P- 40 / 42	SEOS TO NEOS	09/21/00	1720	85	SL	16040	2174	750	-	168	DPF-19	31N
P- 44 / 45	EEOS TO WEOS	09/24/00	1035	85	CFB	1642	7524	750	-	23	-	-
P- 43 / 45	SEOS TO NEOS	09/24/00	1040	85	CFB	1642	7524	750	-	147	DPF-20	32E
P- 43 / 44	SEOS TO NEOS	09/24/00	1100	85	CFB	1642	7524	750	-	164	-	-
P- 46 / 47	SEOS TO NEOS	09/24/00	1150	85	CFB	1642	7524	750	-	311	DPF-22	32M
P- 42 / 43	SEOS TO NEOS	09/24/00	1020	85	CFB	16040	2174	750	-	311	-	-
P- 45 / 46	SEOS TO NEOS	09/24/00	1135	85	CFB	16040	2174	750	-	147	DPF-21	32H
P- 44 / 46	SEOS TO NEOS	09/24/00	1150	85	CFB	16040	2174	750	-	164	-	-
P- 47 / 49	SEOS TO NEOS	09/25/00	1400	85	SL	16040	2174	750	-	136	-	-
P- 47 / 48	SEOS TO NEOS	09/25/00	1410	85	SL	16040	2174	750	-	175	DPF-23	34A
P- 50 / 51	SEOS TO NEOS	09/25/00	1440	85	SL	16040	2174	750	-	314	-	-
P- 51 / 53	SEOS TO NEOS	09/25/00	1520	85	SL	16040	2174	750	-	138	DPF-25	34H
P- 51 / 52	SEOS TO NEOS	09/25/00	1540	85	SL	16040	2174	750	-	175	-	-
P- 49 / 50	SEOS TO NEOS	09/25/00	1400	85	SL	1642	7534	750	-	136	-	-
P- 48 / 50	SEOS TO NEOS	09/25/00	1425	85	SL	1642	7534	750	-	175	-	-
P- 48 / 49	EEOS TO WEOS	09/25/00	1415	85	SL	1642	7534	750	-	23	-	-
P- 52 / 53	WEOS TO EEOS	09/25/00	1515	85	SL	1642	7534	750	-	23	-	-
P- 53 / 54	SEOS TO NEOS	09/25/00	1530	85	SL	1642	7534	750	-	139	DPF-24	34G
P- 52 / 54	SEOS TO NEOS	09/25/00	1600	85	SL	1642	7534	750	-	175	-	-
P- 54 / 55	SEOS TO NEOS	09/26/00	845	70	SL	16040	2174	750	-	310	DPF-26	34P
P- 56 / 57	EEOS TO WEOS	09/26/00	930	70	SL	16040	2174	750	-	23	-	-
P- 55 / 57	SEOS TO NEOS	09/26/00	945	70	SL	16040	2174	750	-	141	-	-
P- 55 / 56	SEOS TO NEOS	09/26/00	1005	70	SL	16040	2174	750	-	171	-	-
P- 57 / 58	SEOS TO NEOS	09/26/00	1100	70	SL	16040	2174	750	-	141	DPF-27	34T
P- 56 / 58	SEOS TO NEOS	09/26/00	1120	70	SL	16040	2174	750	-	171	-	-
P- 58 / 59	SEOS TO NEOS	09/26/00	1145	75	SL	16040	2174	750	-	313	DPF-28	34W
P- 59 / 61	SEOS TO NEOS	09/26/00	1415	80	SL	16040	2174	750	-	138	-	-
P- 59 / 60	SEOS TO NEOS	09/26/00	1427	80	SL	16040	2174	750	-	173	-	-
P- 60 / 61	EEOS TO WEOS	09/26/00	1417	80	SL	16040	2174	750	-	23	-	-

TABLE I-3
GEOMEMBRANE FUSION SEAM SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
P- 61 / 62	SEOS TO NEOS	09/27/00	945	70	SL	16040	2174	750	-	141	-	-
P- 60 / 62	SEOS TO NEOS	09/27/00	1000	70	SL	16040	2174	750	-	171	DPF-29	35A
P- 65 / 66	EEOS TO WEOS	09/27/00	1020	70	SL	16040	2174	750	-	23	-	-
P- 64 / 66	SEOS TO NEOS	09/27/00	1040	70	SL	16040	2174	750	-	77	-	-
P- 64 / 65	SEOS TO NEOS	09/27/00	1050	70	SL	16040	2174	750	-	149	-	-
P- 63 / 65	SEOS TO NEOS	09/27/00	1105	70	SL	16040	2174	750	-	87	-	-
P- 67 / 69	SEOS TO NEOS	09/27/00	1400	70	SL	16040	2174	750	-	245	DPF-32	35K
P- 67 / 68	SEOS TO NEOS	09/27/00	1435	70	SL	16040	2174	750	-	67	-	-
P- 68 / 69	EEOS TO WEOS	09/27/00	1430	70	SL	16040	2174	750	-	23	-	-
P- 62 / 64	SEOS TO NEOS	09/27/00	955	70	SL	1642	7534	750	-	224	DPF-30	35D
P- 63 / 64	WEOS TO EEOS	09/27/00	1020	70	SL	1642	7534	750	-	23	-	-
P- 62 / 63	SEOS TO NEOS	09/27/00	1025	70	SL	1642	7534	750	-	87	-	-
P- 66 / 67	SEOS TO NEOS	09/27/00	1110	70	SL	1642	7534	750	-	77	-	-
P- 65 / 67	SEOS TO NEOS	09/27/00	1130	70	SL	1642	7534	750	-	236	DPF-31	35J
P- 69 / 71	SEOS TO NEOS	10/05/00	1310	85	SC	16040	2174	750	-	157	-	-
P- 69 / 70	SEOS TO NEOS	10/05/00	1330	85	SC	16040	2174	750	-	83	-	-
P- 68 / 70	SEOS TO NEOS	10/05/00	1340	85	SC	16040	2174	750	-	67	DPF-33	35Q
P- 73 / 74	SEOS TO NEOS	10/05/00	1400	85	SC	16040	2174	750	-	16	-	-
P- 72 / 74	SEOS TO NEOS	10/05/00	1405	85	SC	16040	2174	750	-	296	-	-
P- 77 / 78	EEOS TO WEOS	10/05/00	1440	85	SC	16040	2174	750	-	23	-	-
P- 76 / 78	SEOS TO NEOS	10/05/00	1500	85	SC	16040	2174	750	-	27	-	-
P- 76 / 77	SEOS TO NEOS	10/05/00	1510	85	SC	16040	2174	750	-	145	DPF-35	35X
P- 75 / 77	SEOS TO NEOS	10/05/00	1525	85	SC	16040	2174	750	-	144	-	-
P- 70 / 71	EEOS TO WEOS	10/05/00	1255	85	SC	1642	2392	750	-	23	-	-
P- 71 / 73	SEOS TO NEOS	10/05/00	1320	85	SC	1642	2392	750	-	16	-	-
P- 72 / 73	EEOS TO WEOS	10/05/00	1310	85	SC	1642	2392	750	-	23	-	-
P- 71 / 72	SEOS TO NEOS	10/05/00	1315	85	SC	1642	2392	750	-	142	-	-
P- 70 / 72	SEOS TO NEOS	10/05/00	1330	85	SC	1642	2392	750	-	154	-	-
P- 75 / 76	EEOS TO WEOS	10/05/00	1400	85	SC	1642	2392	750	-	23	-	-
P- 74 / 76	SEOS TO NEOS	10/05/00	1410	85	SC	1642	2392	750	-	169	DPF-34	35W
P- 74 / 75	SEOS TO NEOS	10/05/00	1410	85	SC	1642	2392	750	-	143	-	-
P- 78 / 79	SEOS TO NEOS	10/05/00	1515	85	SC	1642	2392	750	-	27	-	-
P- 77 / 79	SEOS TO NEOS	10/05/00	1530	85	SC	1642	2392	750	-	286	DPF-36	36Q
P- 81 / 82	WEOS TO EEOS	10/06/00	1540	90	SL	1642	2322	750	-	92	-	-
P- 83 / 84	WEOS TO EEOS	10/06/00	1555	90	SL	1642	2322	750	-	92	-	-

TABLE I-3
GEOMEMBRANE FUSION SEAM SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
P- 85 / 86	WEOS TO EEOS	10/06/00	1621	90	SL	1642	2322	750	-	85	DPF-37	38D
P- 86 / 38C	WEOS TO EEOS	10/06/00	1620	90	SL	1642	2322	750	-	3	-	Covered by 37E
P- 80 / 87	EEOS TO WEOS	10/06/00	1635	90	SL	1642	2322	750	-	92	-	-
P- 88 / 89	EEOS TO WEOS	10/06/00	1640	90	SL	1642	2322	750	-	88	-	-
P- 90 / 91	EEOS TO WEOS	10/06/00	1655	90	SL	1642	2322	750	-	88	-	-
P- 92 / 93	WEOS TO EEOS	10/06/00	1715	90	SL	1642	2322	750	-	86	-	-
P- 79 / 83	SEOS TO NEOS	10/06/00	1800	90	SL	16040	2174	750	-	23	-	-
P- 79 / 84	SEOS TO NEOS	10/06/00	1803	90	SL	16040	2174	750	-	23	-	-
P- 79 / 38C	SEOS TO NEOS	10/06/00	1805	90	SL	16040	2174	750	-	16	-	-
P- 79 / 86	SEOS TO NEOS	10/06/00	1807	90	SL	16040	2174	750	-	23	-	-
P- 80 / 81	WEOS TO EEOS	10/06/00	1510	90	SL	16040	2174	750	-	95	-	-
P- 82 / 83	WEOS TO EEOS	10/06/00	1540	90	SL	16040	2174	750	-	92	-	-
P- 84 / 85	WEOS TO EEOS	10/06/00	1600	90	SL	16040	2174	750	-	88	-	-
P- 85 / 38C	SEOS TO NEOS	10/06/00	1605	90	SL	16040	2174	750	-	16	-	-
P- 87 / 88	EEOS TO WEOS	10/06/00	1635	90	SL	16040	2174	750	-	88	-	-
P- 89 / 90	EEOS TO WEOS	10/06/00	1645	90	SL	16040	2174	750	-	90	-	-
P- 91 / 92	EEOS TO WEOS	10/06/00	1705	90	SL	16040	2174	750	-	88	DPF-38	38G
P- 79 / 93	SEOS TO NEOS	10/06/00	1730	90	SL	16040	2174	750	-	23	-	-
P- 79 / 92	SEOS TO NEOS	10/06/00	1735	90	SL	16040	2174	750	-	23	-	-
P- 79 / 91	SEOS TO NEOS	10/06/00	1738	90	SL	16040	2174	750	-	23	-	-
P- 79 / 90	SEOS TO NEOS	10/06/00	1740	90	SL	16040	2174	750	-	23	-	-
P- 79 / 89	SEOS TO NEOS	10/06/00	1745	90	SL	16040	2174	750	-	23	-	-
P- 79 / 88	SEOS TO NEOS	10/06/00	1748	90	SL	16040	2174	750	-	23	-	-
P- 79 / 87	SEOS TO NEOS	10/06/00	1750	90	SL	16040	2174	750	-	23	-	-
P- 79 / 80	SEOS TO NEOS	10/06/00	1755	90	SL	16040	2174	750	-	23	-	-
P- 79 / 81	SEOS TO NEOS	10/06/00	1757	90	SL	16040	2174	750	-	23	-	-
P- 79 / 82	SEOS TO NEOS	10/06/00	1759	90	SL	16040	2174	750	-	23	-	-
P- PRS-1 / PRS-2	WEOS TO EEOS	10/10/00	1045	55	SL	16040	2174	750	-	68	-	-

NOTES:

(1) Refer to Appendix J for list of Abbreviations

(2) Refer to Appendix A for list of Golder and Serrott personnel

(3) Refer to Appendix L for Destructive Sample Laboratory Testing Results

F/N: PGFSS.XLS

SECTION I-4

Primary Extrusion

TABLE I-4
GEOMEMBRANE EXTRUSION SEAM SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
P- 1 / NTI	WEOS TO EEOS	09/01/00	1510	85	SC	327	2897	250	-	23	-	-
P- 1 / SEC	SEOS TO NEOS	09/01/00	-	85	SC	340	2174	250	-	310	-	Temporary Weld
P- 1 / SEC	WEOS TO EEOS	09/01/00	-	85	SC	206	7534	250	-	23	-	Temporary Weld
P- 1 / 2	26A TO NEOS	09/11/00	1350	87	MLB	327	2897	250	-	1	-	Extrusion welded flap
P- 2 / NTI	WEOS TO EEOS	09/11/00	1351	87	MLB	327	2897	250	-	23	-	-
P- 4 / NTI	WEOS TO EEOS	09/11/00	1410	87	MLB	327	2897	250	-	23	-	-
P- 6 / NTI	WEOS TO EEOS	09/11/00	1420	87	MLB	327	2897	250	-	23	-	-
P- 7 / NTI	WEOS TO EEOS	09/11/00	1505	87	MLB	327	2897	250	-	23	-	-
P- 9 / NTI	WEOS TO EEOS	09/11/00	1745	87	MLB	327	2897	250	-	23	-	-
P- 11 / NTI	WEOS TO EEOS	09/11/00	1800	87	MLB	327	2897	250	-	23	DPX-01	26I
P- 12 / NTI	WEOS TO EEOS	09/11/00	1815	87	MLB	327	2897	250	-	23	-	-
P- 1 / 2	SEOS TO 26B	09/11/00	1345	87	MLB	340	7534	250	-	9	-	Extrusion welded flap
P- 1 / 2	26B TO 25F	09/11/00	1400	87	MLB	340	7534	250	-	8	-	Extrusion welded flap
P- 3 / SEC	WEOS TO EEOS	09/11/00	1520	87	MLB	340	7534	250	-	23	-	Cut out and rewelded
P- 4 / 5	WEOS TO EEOS	09/12/00	1620	80	SL	340	7536	260	-	23	-	Extrusion welded flap
P- 2 / 3	WEOS TO EEOS	09/12/00	1430	80	MLB	340	7536	260	-	23	-	Extrusion welded flap
P- 14 / NTI	WEOS TO EEOS	09/12/00	1515	85	SL	327	2897	250	-	23	-	-
P- 16 / NTI	WEOS TO EEOS	09/12/00	1525	85	SL	327	2897	250	-	23	-	-
P- 17 / NTI	WEOS TO EEOS	09/12/00	1630	85	SL	327	2897	250	-	23	-	-
P- 19 / NTI	WEOS TO EEOS	09/12/00	1645	80	SL	327	2897	250	-	23	-	-
P- 21 / NTI	WEOS TO EEOS	09/12/00	1705	80	SL	327	2897	250	-	23	-	-
P- 22 / NTI	WEOS TO EEOS	09/13/00	1505	95	SL	327	2897	250	-	23	-	-
P- 24 / NTI	WEOS TO EEOS	09/13/00	1520	95	SL	327	2897	250	-	23	-	-
P- 26 / NTI	WEOS TO EEOS	09/13/00	1600	95	SL	327	2897	250	-	23	-	-
P- 27 / NTI	WEOS TO EEOS	0/13/00	1630	95	SL	327	2897	250	-	23	-	-
P- 29 / NTI	WEOS TO EEOS	09/13/00	1657	95	SL	327	2897	250	-	23	-	-
P- 13 / 15	26R TO 27R	09/14/00	920	85	SL	206	2173	250	-	10	-	Extrusion welded flap
P- 8 / SEC	WEOS TO EEOS	09/14/00	1300	90	SL	206	2173	250	-	23	-	Temporary Weld (on 28S)
P- 10 / SEC	WEOS TO EEOS	09/14/00	-	90	SL	206	2173	250	-	23	-	Temporary Weld (on 28S)
P- 11 / SEC	WEOS TO EEOS	09/14/00	-	90	SL	206	2173	250	-	23	-	Temporary Weld (on 28S)
P- 13 / SEC	WEOS TO EEOS	09/14/00	-	90	SL	206	2173	250	-	13	-	Temporary Weld (on 28S)
P- 15 / SEC	WEOS TO EEOS	09/14/00	-	85	MLB	201	2322	250	-	23	-	Temporary Weld
P- 16 / SEC	WEOS TO EEOS	09/14/00	-	85	MLB	201	2322	250	-	23	-	Temporary Weld
P- 18 / SEC	WEOS TO EEOS	09/14/00	-	85	MLB	201	2322	250	-	23	-	Temporary Weld
P- 20 / SEC	WEOS TO EEOS	09/14/00	-	85	MLB	201	2322	250	-	23	-	Temporary Weld
P- 23 / SEC	WEOS TO EEOS	09/14/00	1105	88	MLB	201	2322	250	-	23	-	Temporary Weld
P- 25 / SEC	WEOS TO EEOS	09/14/00	1114	88	MLB	201	2322	250	-	23	-	Temporary Weld

TABLE I-4
GEOMEMBRANE EXTRUSION SEAM SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
P- 26 / SEC	WEOS TO EEOS	09/14/00	1120	88	MLB	201	2322	250	-	23	-	Temporary Weld
P- 28 / SEC	WEOS TO EEOS	09/14/00	1142	88	MLB	201	2322	250	-	23	-	Temporary Weld
P- 30 / SEC	WEOS TO EEOS	09/14/00	1350	88	MLB	201	2322	250	-	23	-	Temporary Weld
P- 24 / 25	WEOS TO EEOS	09/14/00	1520	95	SC	201	2322	250	-	23	-	Extrusion welded flap
P- 29 / 30	28G TO 28J	09/14/00	1525	95	SC	201	2322	250	-	5	-	Extrusion welded flap
P- 31 / NTI	EEOS TO WEOS	09/14/00	830	85	SC	327	2897	250	-	23	-	-
P- 32 / NTI	EEOS TO WEOS	09/14/00	850	85	SC	327	2897	250	-	23	DPX-03	28N
P- 17 / 18	WEOS TO EEOS	09/14/00	1140	85	SC	327	2897	250	-	23	-	Extrusion welded flap
P- 16 / 17	26T TO 30A	09/14/00	1320	85	SC	327	2897	250	-	5	-	Extrusion welded flap
P- 16 / 17	30A TO 29J	09/14/00	-	85	SC	327	2897	250	-	20	-	Extrusion welded flap
P- 23 / 24	30B TO 30C	09/14/00	-	95	SC	327	2897	250	-	8	-	Extrusion welded flap
P- 3 / SEC	WEOS TO EEOS	09/15/00	1100	85	SC	327	2897	250	-	23	-	Temporary Weld
P- 5 / SEC	WEOS TO EEOS	09/15/00	1130	85	SC	327	2897	250	-	23	-	Temporary Weld
P- 6 / SEC	WEOS TO EEOS	09/15/00	1430	90	SC	327	2897	250	-	23	-	Temporary Weld
P- 1 / SWF	SEOS TO NEOS	09/20/00	855	80	SC	312	7534	250	-	327	-	Temporary Weld
P- 34 / NTI	WEOS TO EEOS	09/21/00	1125	82	MLB	327	2897	250	-	23	-	-
P- 35 / NTI	WEOS TO EEOS	09/21/00	1150	82	MLB	327	2897	250	-	23	-	-
P- 36 / NTI	WEOS TO EEOS	09/21/00	1515	87	MLB	327	2897	250	-	23	-	-
P- 38 / NTI	WEOS TO EEOS	09/21/00	1545	87	MLB	327	2897	250	-	23	-	-
P- 39 / NTI	WEOS TO EEOS	09/21/00	1620	87	MLB	327	2897	250	-	ON 30S	-	30S Extension
P- 40 / NTI	WEOS TO EEOS	09/21/00	1640	85	MLB	327	2897	250	-	23	-	-
P- 33 / 34	31W TO 31X	09/23/00	835	80	CFB	312	7534	260	-	14	-	Extrusion welded flap
P- 33 / 34	31S TO 31W	09/23/00	915	80	CFB	201	2173	260	-	30	-	Extrusion welded flap
P- 33 / SEC	WEOS TO EEOS	09/23/00	930	80	CFB	327	2897	260	-	10	-	Temporary Weld
P- 34 / SEC	WEOS TO EEOS	09/23/00	950	80	CFB	327	2897	260	-	23	-	Temporary Weld
P- 35 / SEC	WEOS TO EEOS	09/23/00	1010	80	CFB	327	2897	260	-	23	-	Temporary Weld
P- 37 / SEC	WEOS TO EEOS	09/23/00	1020	80	CFB	327	2897	260	-	23	-	Temporary Weld
P- 38 / SEC	WEOS TO EEOS	09/23/00	1230	85	CFB	327	2897	260	-	23	-	Temporary Weld
P- 39 / SEC	WEOS TO EEOS	09/23/00	1245	85	CFB	327	2897	260	-	23	-	Temporary Weld
P- 41 / SEC	WEOS TO EEOS	09/23/00	1305	85	CFB	327	2897	260	-	23	-	Temporary Weld
P- 42 / SEC	WEOS TO EEOS	09/23/00	1325	85	CFB	327	2897	260	-	23	-	Temporary Weld
P- 42 / NTI	WEOS TO EEOS	09/24/00	1035	85	CFB	327	2897	250	-	23	-	-
P- 43 / NTI	WEOS TO EEOS	09/24/00	1100	85	CFB	327	2897	250	-	23	-	-
P- 44 / NTI	WEOS TO EEOS	09/24/00	1105	85	CFB	327	2897	250	-	23	-	-
P- 46 / NTI	WEOS TO EEOS	09/24/00	1150	85	CFB	327	2897	250	-	23	-	-
P- 47 / NTI	WEOS TO 15' E	09/24/00	1215	85	CFB	327	2897	250	-	15	-	-
P- 43 / SEC	WEOS TO EEOS	09/25/00	915	80	SC	327	2897	250	-	23	-	Temporary Weld
P- 45 / SEC	WEOS TO EEOS	09/25/00	945	80	SC	327	2897	250	-	23	-	Temporary Weld

TABLE I-4
GEOMEMBRANE EXTRUSION SEAM SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
P- 46 / SEC	WEOS TO EEOS	09/25/00	1000	80	SC	327	2897	250	-	23	-	Temporary Weld
P- 47 / SEC	WEOS TO EEOS	09/25/00	1010	80	SC	327	2897	250	-	23	-	Temporary Weld
P- 47 / NTI	8' W TO EEOS	09/25/00	1430	87	MLB	327	2897	250	-	8	-	-
P- 48 / NTI	WEOS TO EEOS	09/25/00	1445	87	MLB	327	2897	250	-	23	-	-
P- 50 / NTI	WEOS TO EEOS	09/25/00	1500	87	MLB	327	2897	250	-	23	-	-
P- 51 / NTI	WEOS TO EEOS	09/25/00	1630	87	SC	327	2897	250	-	23	-	-
P- 52 / NTI	WEOS TO EEOS	09/25/00	1650	87	SC	327	2897	250	-	23	-	-
P- 54 / NTI	WEOS TO EEOS	09/26/00	905	80	SC	327	2897	250	-	23	-	-
P- 55 / NTI	WEOS TO EEOS	09/26/00	915	80	SC	327	2897	250	-	23	-	-
P- 56 / NTI	WEOS TO EEOS	09/26/00	-	80	SC	327	2897	250	-	23	DPX-06	33M
P- 58 / NTI	WEOS TO EEOS	09/26/00	1100	80	SC	327	2897	250	-	23	-	-
P- 59 / NTI	WEOS TO EEOS	09/26/00	1400	80	SC	327	2897	250	-	23	-	-
P- 60 / NTI	WEOS TO EEOS	09/26/00	1410	80	SC	327	2897	250	-	23	-	-
P- 44 / 46	32N TO 32P	09/27/00	820	70	SC	327	2897	250	-	10	-	Extrusion welded flap
P- 46 / 47	32X TO 32W	09/27/00	845	70	SC	327	2897	250	-	10	-	Extrusion welded flap
P- 62 / NTI	WEOS TO EEOS	09/27/00	945	70	SC	327	2897	250	-	23	DPX-07	33S
P- 63 / NTI	WEOS TO EEOS	09/27/00	1010	70	SC	327	2897	250	-	23	-	-
P- 65 / NTI	WEOS TO EEOS	09/27/00	1105	70	SC	327	2897	250	-	23	-	-
P- 67 / NTI	WEOS TO EEOS	09/27/00	1320	70	SC	327	2897	250	-	23	-	-
P- 68 / NTI	WEOS TO EEOS	09/27/00	1330	70	SC	327	2897	250	-	23	-	-
P- 52 / 53	33H TO 34M	09/27/00	1715	70	SC	327	2897	250	-	10	-	Extrusion welded flap
P- 43 / 45	32T TO 32E	09/27/00	1605	70	SL	201	2392	250	-	12	-	Extrusion welded flap
P- 47 / SEC	WEOS TO EEOS	10/02/00	955	70	SL	327	2897	250	-	8	-	Temporary Weld
P- 49 / SEC	WEOS TO EEOS	10/02/00	1005	70	SL	327	2897	250	-	23	-	Temporary Weld
P- 50 / SEC	WEOS TO EEOS	10/02/00	1030	70	SL	327	2897	250	-	23	-	Temporary Weld
P- 53 / SEC	WEOS TO EEOS	10/02/00	1045	70	SL	327	2897	250	-	23	-	Temporary Weld
P- 54 / SEC	WEOS TO EEOS	10/02/00	1050	70	SL	327	2897	250	-	23	-	Temporary Weld
P- 55 / SEC	WEOS TO EEOS	10/02/00	1105	80	SL	327	2897	250	-	23	-	Temporary Weld
P- 57 / SEC	WEOS TO EEOS	10/02/00	1430	80	SL	327	2897	250	-	23	-	Temporary Weld
P- 58 / SEC	WEOS TO EEOS	10/02/00	1435	80	SL	327	2897	250	-	23	-	Temporary Weld
P- 59 / SEC	WEOS TO EEOS	10/02/00	1455	80	SL	327	2897	250	-	20	-	Temporary Weld
P- 61 / SEC	WEOS TO EEOS	10/02/00	1507	80	SL	327	2897	250	-	23	-	Temporary Weld
P- 62 / SEC	WEOS TO EEOS	10/02/00	1600	80	SL	327	2897	250	-	23	-	Temporary Weld
P- 64 / SEC	WEOS TO EEOS	10/02/00	1605	80	SL	327	2897	250	-	23	-	Temporary Weld
P- 66 / SEC	WEOS TO EEOS	10/02/00	1620	80	SL	327	2897	250	-	23	-	Temporary Weld
P- 67 / SEC	WEOS TO EEOS	10/02/00	1635	80	SL	327	2897	250	-	23	-	Temporary Weld
P- 69 / SEC	WEOS TO EEOS	10/02/00	1645	80	SL	327	2897	250	-	23	-	Temporary Weld
P- 70 / NTI	WEOS TO EEOS	10/05/00	1400	90	MLB	327	2897	250	-	23	DPX-8	35T

TABLE I-4
GEOMEMBRANE EXTRUSION SEAM SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
P- 72 / NTI	WEOS TO EEOS	10/05/00	1425	90	MLB	327	2897	250	251	23	-	-
P- 74 / NTI	WEOS TO EEOS	10/05/00	1515	90	MLB	327	2897	250	-	23	-	-
P- 75 / NTI	WEOS TO EEOS	10/05/00	1600	90	MLB	327	2897	250	-	23	-	-
P- 77 / NTI	WEOS TO EEOS	10/05/00	1615	90	MLB	327	2897	250	-	23	-	-
P- 77 / 79	36T TO NEOS	10/05/00	1635	90	MLB	327	2897	250	-	10	-	Extrusion welded flap
P- 79 / NTI	WEOS TO EEOS	10/05/00	1645	90	MLB	327	2897	250	-	23	-	-
P- 72 / 74	36X TO NEOS	10/06/00	935	75	SC	327	2897	250	-	50	-	Extrusion welded flap
P- 72 / 74	36S TO 37B	10/06/00	1030	75	SC	327	2897	250	-	34	-	Extrusion welded flap
P- 80 / WR	38B TO 38H	10/06/00	1615	90	SL	327	2897	250	-	14	-	-
P- 93 / SEC	SEOS TO NEOS	10/07/00	920	70	SL	312	2322	250	-	23	-	-
P- 92 / SEC	SEOS TO NEOS	10/07/00	930	70	SL	312	2322	250	-	23	-	-
P- 91 / SEC	SEOS TO NEOS	10/07/00	943	70	SL	312	2322	250	-	23	-	-
P- 90 / SEC	SEOS TO NEOS	10/07/00	953	70	SL	312	2322	250	-	23	-	-
P- 89 / SEC	SEOS TO NEOS	10/07/00	1020	70	SL	312	2322	250	-	23	-	-
P- 88 / SEC	SEOS TO NEOS	10/07/00	1105	70	MLB	312	2322	250	-	23	-	-
P- 87 / SEC	SEOS TO NEOS	10/07/00	1345	70	MLB	312	2322	250	-	23	-	-
P- 80 / SEC	SEOS TO NEOS	10/07/00	1355	70	MLB	312	2322	250	-	23	-	-
P- 81 / SEC	SEOS TO NEOS	10/07/00	1400	70	MLB	312	2322	250	-	23	-	-
P- 82 / SEC	SEOS TO NEOS	10/07/00	1415	70	MLB	312	2322	250	-	23	-	-
P- 84 / SEC	SEOS TO NEOS	10/07/00	1425	70	MLB	312	2322	250	-	23	-	-
P- 85 / SEC	SEOS TO NEOS	10/07/00	1430	70	MLB	312	2322	250	-	23	-	-
P- 79 / NTI	WEOS TO EEOS	10/07/00	855	70	MLB	327	2897	250	-	6	-	-
P- 86 / NTI	WEOS TO EEOS	10/07/00	900	70	MLB	327	2897	250	-	78	-	-
P- 83 / SEC	SEOS TO NEOS	10/07/00	1405	70	MLB	327	2897	250	-	23	-	-
P- 86 / SEC	SEOS TO NEOS	10/07/00	1450	70	MLB	327	2897	250	-	23	-	-
P- 71 / SEC	WEOS TO EEOS	10/07/00	930	70	SL	320	2173	250	-	23	-	Temporary Weld
P- 73 / SEC	WEOS TO EEOS	10/07/00	946	70	SL	320	2173	250	-	23	-	Temporary Weld
P- 74 / SEC	WEOS TO EEOS	10/07/00	1010	70	SL	320	2173	250	-	23	-	Temporary Weld
P- 76 / SEC	WEOS TO EEOS	10/07/00	1055	70	SL	320	2173	250	-	23	-	Temporary Weld
P- 78 / SEC	WEOS TO EEOS	10/07/00	1100	70	SL	320	2173	250	-	23	-	Temporary Weld
P- 79 / SEC	WEOS TO EEOS	10/07/00	1125	70	SL	320	2173	250	-	23	-	Temporary Weld
P- 93 / SEC	WEOS TO EEOS	10/07/00	1410	70	SL	320	2173	250	-	86	-	Temporary Weld
P- PRS-1 / PRI	EEOS TO WEOS	10/10/00	1400	65	SL	327	2897	250	-	41	-	Rubsheet Weld
P- PRS-1 / PRI	SEOS TO NEOS	10/10/00	1350	65	SL	312	2322	250	-	53	-	Rubsheet Weld
P- PRS-2 / WR	38J TO NEOS	10/10/00	1420	65	SL	312	2322	250	-	6	-	Rubsheet Weld
P- PRS-2 / PRI	WEOS TO EEOS	10/10/00	1400	65	SL	320	2173	250	-	40	-	Rubsheet Weld
P- 92 / LCF	EEOS TO WEOS	10/26/00	1000	65	VD	312	2323	250	-	55	-	
P- 79 / LCF	EEOS TO WEOS	10/26/00	1030	72	VD	312	2323	250	-	23	-	

TABLE I-4
GEOMEMBRANE EXTRUSION SEAM SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
P- 77 / LCF	EEOS TO WEOS	10/26/00	1100	72	VD	312	2323	250	-	23	-	
P- 76 / LCF	EEOS TO WEOS	10/26/00	1130	72	VD	312	2323	250	-	23	-	
P- 74 / LCF	EEOS TO WEOS	10/26/00	1145	75	VD	312	2323	250	-	23	-	
P- 72 / LCF	EEOS TO WEOS	10/26/00	1350	78	VD	312	2323	250	-	23	-	
P- 71 / LCF	EEOS TO WEOS	10/26/00	1400	78	VD	312	2323	250	-	23	-	
P- 69 / LCF	EEOS TO WEOS	10/26/00	1410	78	VD	312	2323	250	-	23	-	
P- 67 / LCF	EEOS TO WEOS	10/26/00	1417	78	VD	312	2323	250	-	23	-	
P- 66 / LCF	EEOS TO WEOS	10/26/00	1422	78	VD	312	2323	250	-	23	-	
P- 64 / LCF	EEOS TO WEOS	10/26/00	1430	78	VD	312	2323	250	-	23	-	
P- 62 / LCF	EEOS TO WEOS	10/26/00	1520	78	VD	312	2323	250	-	23	-	
P- 61 / LCF	EEOS TO WEOS	10/26/00	1526	78	VD	312	2323	250	-	23	-	
P- 59 / LCF	EEOS TO WEOS	10/26/00	1530	78	VD	312	2323	250	-	23	-	
P- 58 / LCF	EEOS TO WEOS	10/26/00	1540	78	VD	312	2323	250	-	23	-	
P- 57 / LCF	EEOS TO WEOS	10/26/00	1550	78	VD	312	2323	250	-	23	-	
P- 55 / LCF	EEOS TO WEOS	10/26/00	1620	78	VD	312	2323	250	-	23	-	
P- 54 / LCF	EEOS TO WEOS	10/26/00	1635	78	VD	312	2323	250	-	23	-	
P- 53 / LCF	EEOS TO WEOS	10/26/00	1645	78	VD	312	2323	250	-	23	-	
P- 51 / LCF	EEOS TO WEOS	10/26/00	1700	78	VD	312	2323	250	-	23	-	
P- 50 / LCF	EEOS TO 11' W	10/26/00	1715	78	VD	312	2323	250	-	11	-	
P- 50 / LCF	12' E TO WEOS	10/27/00	1430	80	VD	312	2323	250	-	12	-	
P- 49 / LCF	EEOS TO WEOS	10/27/00	1440	80	VD	312	2323	250	-	23	-	
P- 47 / LCF	EEOS TO WEOS	10/27/00	1450	80	VD	312	2323	250	-	23	-	
P- 46 / LCF	EEOS TO WEOS	10/27/00	1500	82	VD	312	2323	250	-	23	-	
P- 45 / LCF	EEOS TO WEOS	10/27/00	1510	82	VD	312	2323	250	-	23	-	
P- 43 / LCF	EEOS TO WEOS	10/27/00	1515	82	VD	312	2323	250	-	23	-	
P- 42 / LCF	EEOS TO WEOS	10/27/00	1520	82	VD	312	2323	250	-	23	-	
P- 41 / LCF	EEOS TO WEOS	10/27/00	1620	82	VD	312	2323	250	-	23	-	
P- 39 / LCF	EEOS TO WEOS	10/27/00	1630	82	VD	312	2323	250	-	23	-	
P- 38 / LCF	EEOS TO WEOS	10/27/00	1635	82	VD	312	2323	250	-	23	-	
P- 37 / LCF	EEOS TO WEOS	10/27/00	1645	82	VD	312	2323	250	-	23	-	
P- 35 / LCF	EEOS TO WEOS	10/27/00	1715	80	VD	312	2323	250	-	23	-	
P- 34 / LCF	EEOS TO WEOS	10/27/00	1725	80	VD	312	2323	250	-	23	-	
P- 33 / LCF	EEOS TO WEOS	10/28/00	905	65	VD	312	2323	250	-	23	-	
P- 31 / LCF	EEOS TO WEOS	10/28/00	910	70	VD	312	2323	250	-	23	-	
P- 30 / LCF	EEOS TO WEOS	10/28/00	920	70	VD	312	2323	250	-	23	-	
P- 28 / LCF	EEOS TO WEOS	10/28/00	925	70	VD	312	2323	250	-	23	-	
P- 26 / LCF	EEOS TO WEOS	10/28/00	1005	70	VD	312	2323	250	-	23	-	
P- 25 / LCF	EEOS TO WEOS	10/28/00	1015	70	VD	312	2323	250	-	23	-	

TABLE I-4
GEOMEMBRANE EXTRUSION SEAM SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	SEAM SECTION(1)	DATE	START TIME	AMBIENT TEMP. (F)	QA MON. (2)	WELDER I.D.		WELDING APPARATUS WEDGE TEMP. (C)		WELDED SEAM LENGTH (FT)	DESTRUC. NUMBER (3)	REMARKS
						MACH. #	TECH(2)	DIGITAL SET	INDICATOR			
P- 23 / LCF	EEOS TO WEOS	10/28/00	1020	70	VD	312	2323	250	-	23	-	
P- 21 / LCF	EEOS TO 11' W	10/28/00	1025	75	VD	312	2323	250	-	11	-	
P- 21 / LCF	12' E TO WEOS	10/28/00	900	65	VD	320	2897	250	-	12	-	
P- 20 / LCF	EEOS TO WEOS	10/28/00	905	65	VD	320	2897	250	-	23	-	
P- 18 / LCF	EEOS TO WEOS	10/28/00	915	70	VD	320	2897	250	-	23	-	
P- 16 / LCF	EEOS TO WEOS	10/28/00	925	70	VD	320	2897	250	-	23	-	
P- 15 / LCF	EEOS TO WEOS	10/28/00	935	70	VD	320	2897	250	-	23	-	
P- 13 / LCF	EEOS TO WEOS	10/28/00	945	70	VD	320	2897	250	-	23	-	
P- 11 / LCF	EEOS TO WEOS	10/28/00	955	70	VD	320	2897	250	-	23	-	
P- 10 / LCF	EEOS TO WEOS	10/28/00	1020	70	VD	320	2897	250	-	23	-	
P- 8 / LCF	EEOS TO WEOS	10/28/00	1025	75	VD	320	2897	250	-	23	-	
P- 43 / SWF	LCF TO 25' S	11/04/00	945	70	SC	320	2897	250	-	25	-	Station 120+00E
P- SWF / LCF	BOTTOM TO 4' UP	11/04/00	1000	70	SC	320	2897	250	-	4	-	Station 120+00E
P- 6 / LCF	EEOS TO WEOS	11/10/00	1345	70	CFB	320	2897	250	-	23	-	
P- 4 / LCF	EEOS TO WEOS	11/10/00	1359	70	CFB	320	2897	250	-	23	-	
P- 3 / LCF	EEOS TO 8' W	11/10/00	1410	70	CFB	320	2897	250	-	8	-	
P- 3 / LCF	8' E TO WEOS	11/11/00	825	60	MLB	320	2897	250	-	15	-	
P- 1 / LCF	EEOS TO SWF	11/11/00	835	60	MLB	320	2897	250	-	10	-	
P- 1 / LCF	SWF TO WEOS	11/11/00	845	60	MLB	320	2897	250	-	13	-	
P- SWF / LCF	BOTTOM TO 4' UP	11/11/00	900	60	MLB	320	2897	250	-	4	-	Station 114+00E
P- 4 / SWF	LCF TO 25'S	11/11/00	1050	65	MLB	320	2897	250	-	25	-	Station 114+50E
P- SWF / LCF	BOTTOM TO 4' UP	11/11/00	1115	65	MLB	320	2897	250	-	4	-	Station 114+50E
P- /												

NOTES:

(1) Refer to Appendix J for list of Abbreviations

(2) Refer to Appendix A for list of Golder and Serrott personnel

(3) Refer to Appendix L for Destructive Sample Laboratory Testing Results

(4) Temporary welds will be removed during future construction of Phase VA.

F/N: PGESS.XLS

APPENDIX J

Geomembrane Defect Repair Summaries

SECTION J-1

Secondary Defect Repair Summary

TABLE J-1
GEOMEMBRANE REPAIR SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

DEFECT CODE		SEAM, PANEL OR REPAIR NUMBER	MAPPED LOCATION(1)	DEFECT TYPE(1)	REPAIR SUMMARY						NON-DESTRUCTIVE	
					DATE	TYPE(1)	APPROX. SIZE(3)	WELDER I.D. TECH.(2)	WELDER I.D. MACH.	QA MON.(2)	TEST DATE	QA MON.(2)
1	A	S- 1 / 3	27' N OF SEOS	DSF-01	08/26/00	P	2 X 4	2173	206	SC	08/26/00	SC
1	B	S- 1 / NTI	@ WEOS	IO	08/23/00	P	1 X 10	2897	201	MLB	08/26/00	SC
1	C	S- 1 /	3' S OF NTI AND 10' E OF WEOP	D	08/23/00	P	2 X 2	2897	201	MLB	08/26/00	SC
1	D	S- 1 / 2	INTERSECTION WITH S-3	T	08/26/00	P	2 X 2	2897	201	MLB	08/26/00	SC
1	E	S- 2 / 3	INTERSECTION WITH S-4	T	08/26/00	P	2 X 2	2897	201	MLB	08/26/00	SC
1	F	S- 4 / 5	INTERSECTION WITH S-6	T	08/26/00	P	2 X 2	2173	206	SC	08/26/00	SC
1	G	S- 6 / NTI	11' E OF WEOS	D	08/24/00	P	1 x 1	2897	201	MLB	08/26/00	SC
1	H	S- 6 / 7	INTERSECTION WITH S-8	T	08/26/00	P	15 X 15	2897	201	MLB	08/26/00	SC
1	I	S- 2 / NTI	9' E OF WEOS & 1' N OF NTI	D	08/24/00	P	1 x 1	2897	201	MLB	08/26/00	SC
1	J	S- 2 / NTI	15' E OF WEOS & 1' N OF NTI	D	08/24/00	P	1 x 1	2897	201	MLB	08/26/00	SC
1	K	S- 9 / 10	INTERSECTION WITH S-11	T	08/26/00	P	2 X 2	2173	206	SC	08/26/00	SC
1	M	S- 9 / NTI	4' W OF EEOS & 1' N OF NTI	D	08/24/00	P	1 x 1	2897	201	MLB	08/26/00	SC
1	N	S- 9 / NTI	17' E OF WEOS	DSX-01	08/24/00	P	2 X 5	2897	201	MLB	08/26/00	SC
1	P	S- 14 / 15	INTERSECTION WITH S-16	T	08/26/00	P	2 X 2	2173	206	SC	08/26/00	SC
1	Q	S- 12 / 13	INTERSECTION WITH S-14	T	08/26/00	P	1 X 2	2897	201	MLB	08/26/00	SC
1	R	S- 12 / NTI	12' E OF WEOS & 1' N OF NTI	D	08/24/00	P	1 x 1	2897	201	MLB	08/26/00	SC
1	S	S- 19 / 21	@ NTI	T	08/24/00	P	1 X 16	2897	201	MLB	08/26/00	SC
1	T	S- 23 / 24	INTERSECTION WITH S-25	T	08/26/00	P	2 X 2	2173	206	SC	08/28/00	SC
1	W	S- 24 / 25	INTERSECTION WITH S-26	T	08/26/00	P	2 X 2	2173	206	SC	08/28/00	SC
1	X	S- 24 / NTI	3' W OF EEOS & 1' N OF NTI	D	08/25/00	P	1 X 1	2897	201	MLB	08/26/00	SC
2	A	S- 3 / 4	INTERSECTION WITH S-5	T	08/26/00	P	2 X 2	2173	206	SC	08/26/00	SC
2	B	S- 3 / 4	109' N OF SEOS	DSF-02	08/26/00	P	1 X 4	2173	206	SC	08/26/00	SC
2	C	S- 6 / 8	50' N OF SEOS	DSF-03	08/26/00	P	2 X 4	2173	206	SC	08/26/00	SC
2	D	S- 7 / 8	INTERSECTION WITH S-9	T	08/26/00	P	2 X 2	2897	201	MLB	08/26/00	SC
2	E	S- 8 / 9	INTERSECTION WITH S-10	T	08/26/00	P	2 X 2	2173	206	SC	08/26/00	SC
2	F	S- 8 / 10	22' N OF SEOS	DSF-04	08/26/00	P	2 X 4	2173	206	SC	08/26/00	SC
2	G	S- 9 / 11	99' N OF SEOS	DSF-05	08/26/00	P	2 X 4	2173	206	SC	08/28/00	SC
2	H	S- 11 / 12	INTERSECTION WITH S-13	T	08/26/00	P	1 X 1	2897	201	MLB	08/26/00	SC
2	I	S- 11 / 12	74' N OF SEOS	DSF-06	08/26/00	P	2 X 5	2897	201	MLB	08/26/00	SC
2	J	S- 13 / 14	INTERSECTION WITH S-15	T	08/26/00	P	1X 2	2173	206	SC	08/26/00	SC
2	K	S- 16 / 17	INTERSECTION WITH S-18	T	08/26/00	P	2 X 2	2897	201	MLB	08/26/00	SC
2	M	S- 17 / 18	INTERSECTION WITH S-19	T	08/26/00	P	1 X 1	2897	201	MLB	08/26/00	SC
2	N	S- 16 / 18	28' S OF NEOS	DSF-08	08/26/00	P	2 X 5	2897	201	MLB	08/26/00	SC
2	P	S- 13 / 15	59' N OF SEOS	DSF-07	08/26/00	P	1 X 4	2173	206	SC	08/26/00	SC
2	Q	S- 18 / 19	INTERSECTION WITH S-20	T	08/26/00	P	2 X 2	2173	206	SC	08/26/00	SC

TABLE J-1
GEOMEMBRANE REPAIR SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

DEFECT CODE		SEAM, PANEL OR REPAIR NUMBER	MAPPED LOCATION(1)	DEFECT TYPE(1)	REPAIR SUMMARY						NON-DESTRUCTIVE	
					DATE	TYPE(1)	APPROX. SIZE(3)	WELDER I.D. TECH.(2)	WELDER I.D. MACH.	QA MON.(2)	TEST DATE	QA MON.(2)
2	R	S- 18 / 19	89' N OF SEOS	DSF-09	08/26/00	P	1 X 5	2173	206	SC	08/26/00	SC
2	S	S- 19 / 20	INTERSECTION WITH S-21	T	08/26/00	P	2 X 2	2173	206	SC	08/26/00	SC
2	T	S- 21 / 22	INTERSECTION WITH S-23	T	08/26/00	P	2 X 3	2897	201	MLB	08/28/00	SC
2	W	S- 21 / 22	90' N OF SEOS	DSF-10	08/26/00	P	2 X 2	2173	206	SC	08/28/00	SC
2	X	S- 22 / 23	INTERSECTION WITH S-24	T	08/26/00	P	2 X 4	2897	201	MLB	08/26/00	SC
3	A	S- 23 / 25	8' N OF SEOS	DSF-11	08/26/00	P	2 X 4	2173	206	SC	08/28/00	SC
3	B	S- 26 / 27	INTERSECTION WITH S-28	T	08/28/00	P	2 X 2	7536	340	MLB	08/28/00	SC
3	C	S- 27 / 28	INTERSECTION WITH S-29	T	08/28/00	P	1 X 2	7536	340	MLB	08/28/00	SC
3	D	S- 26 / 28	144' N OF SEOS	DSF-12	08/28/00	P	1 X 5	2223	312	SC	08/28/00	SC
3	E	S- 28 / 29	INTERSECTION WITH S-30	T	08/28/00	P	1 X 5	2223	312	SC	08/28/00	SC
3	F	S- 28 / 29	53' N OF SEOS	DSF-13	08/28/00	P	1 X 5	2223	312	SC	08/28/00	SC
3	G	S- 31 / 32	INTERSECTION WITH S-33	T	08/28/00	P	2 X 3	7536	340	MLB	08/28/00	SC
3	H	S- 29 / 31	10' S OF NEOS	DSF-14	08/28/00	P	2 X 5	2897	201	MLB	08/28/00	SC
3	I	S- 31 / 32	22' S OF NEOS	DSF-15	08/28/00	P	2 X 5	2897	201	MLB	08/28/00	SC
3	J	S- 33 / 34	INTERSECTION WITH S-35	T	08/28/00	P	1 X 2	2223	312	SC	08/28/00	MLB
3	K	S- 34 / 35	INTERSECTION WITH S-36	T	08/28/00	P	1 X 2	2223	312	SC	08/28/00	MLB
3	M	S- 36 / 37	INTERSECTION WITH S-38	T	08/28/00	P	2 X 2	2897	201	MLB	08/28/00	SC
3	N	S- 36 / 38	113' N OF SEOS	DSF-16	08/28/00	P	1 X 5	2223	312	SC	08/28/00	MLB
3	P	S- 38 / 39	INTERSECTION WITH S-40	T	08/28/00	P	2 X 2	2223	312	MLB	08/28/00	MLB
3	Q	S- 38 / 39	17' N OF SEOS	DSF-17	08/28/00	P	2 X 5	2223	312	MLB	08/28/00	MLB
3	R	S- 39 / 41	140' N OF SEOS	DSF-18	08/28/00	P	2 X 5	7536	340	MLB	08/28/00	MLB
3	S	S- 41 / 42	17' N OF SEOS	DSF-19	08/28/00	P	2 X 5	2897	201	MLB	08/28/00	MLB
3	T	S- 41 / 42	INTERSECTION WITH S-43	T	08/28/00	P	2 X 2	2897	201	MLB	08/28/00	MLB
3	W	S- 43 / 44	INTERSECTION WITH S-45	T	08/28/00	P	2 X 2	2223	312	MLB	08/28/00	MLB
3	X	S- 42 / 43	INTERSECTION WITH S-44	T	08/28/00	P	2 X 2	2223	312	MLB	08/28/00	MLB
4	A	S- 26 / NTI	3' E OF WEOS & 1' N OF NTI	D	08/25/00	P	1 X 1	2897	201	MLB	08/26/00	SC
4	B	S- 29 / 30	INTERSECTION WITH S-31	T	08/28/00	P	1 X 3	2223	312	SC	08/28/00	SC
4	C	S- 32 / 33	INTERSECTION WITH S-34	T	08/28/00	P	2 X 3	7536	340	MLB	08/28/00	SC
4	D	S- 39 / 40	INTERSECTION WITH S-41	T	08/28/00	P	2 X 3	2223	312	MLB	08/28/00	MLB
4	E	S- 37 / 38	INTERSECTION WITH S-39	T	08/28/00	P	2 X 3	2897	201	MLB	08/28/00	SC
4	F	S- 10 / 11	5' S OF NEOS	PT	08/26/00	G&W	6"	2245	206	SC	08/26/00	SC
4	G	S- 42 / NTI	14' E OF WEOS	DSX-02	08/26/00	P	2 X 5	2897	201	MLB	08/26/00	SC
4	H	S- 12 / 13	11' E OF WEOS	PT	08/26/00	P	1 X 3	2897	201	MLB	08/26/00	SC
4	I	S- 21 / 23	15' S OF NEOS	PT	08/26/00	P	1 X 1	2173	206	SC	08/28/00	SC
4	J	S- 21 / 23	21' S OF NEOS	PT	08/26/00	P	1 X 1	2173	206	SC	08/28/00	SC
4	K	S- 21 / 23	115' N OF SEOS	PT	08/26/00	P	2 X 4	2245	206	SC	08/26/00	SC

TABLE J-1
GEOMEMBRANE REPAIR SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

DEFECT CODE	SEAM, PANEL OR REPAIR NUMBER	MAPPED LOCATION(1)	DEFECT TYPE(1)	REPAIR SUMMARY						NON-DESTRUCTIVE	
				DATE	TYPE(1)	APPROX. SIZE(3)	WELDER I.D. TECH.(2)	WELDER I.D. MACH.	QA MON.(2)	TEST DATE	QA MON.(2)
4 M	S- 25 / 26	5' S OF NEOS	PT	08/26/00	P	1 X 2	2173	206	SC	08/28/00	SC
4 N	S- 25 /	8' E OF WEOP & 6' S OF NEOP	SI	08/26/00	P	1 X 2	2173	206	SC	08/28/00	SC
4 P	S- 37 / 39	12' N of SEOS	PT	08/28/00	P	1 X 1	2897	201	MLB	08/28/00	SC
4 Q	S- 39 / 40	9' E of WEOS	DSX-03	08/28/00	P	2 X 5	2223	312	MLB	08/28/00	MLB
4 R	S- 44 / 45	INTERSECTION WITH S-46	T	08/28/00	P	2 X 2	2223	312	MLB	08/28/00	MLB
4 S	S- 46 / 47	INTERSECTION WITH S-48	T	08/28/00	P	2 X 2	2223	312	MLB	08/28/00	MLB
4 T	S- 44 / 46	INTERSECTION WITH S-47	T	08/28/00	G&W	1'	2223	312	MLB	08/28/00	MLB
4 W	S- 49 / 50	INTERSECTION WITH S-51	T	08/28/00	P	2 X 2	7536	340	MLB	08/29/00	MLB
4 X	S- 48 / 49	INTERSECTION WITH S-50	T	08/28/00	P	2 X 2	7536	340	MLB	08/29/00	MLB
5 A	S- 46 / 48	86' N of SEOS	DSF-20	08/28/00	P	2 X 5	2223	312	MLB	08/29/00	SC
5 B	S- 48 / 50	50' N of SEOS	DSF-21	08/28/00	P	2 X 5	2223	312	MLB	08/29/00	SC
5 C	S- 50 / 51	65' S of NEOS	DSF-22	08/28/00	P	2 X 5	2223	312	MLB	08/29/00	SC
5 D	S- 51 / 53	156' S of NEOS	DSF-23	08/28/00	P	2 X 5	7536	340	MLB	08/29/00	MLB
5 E	S- 53 / 54	INTERSECTION WITH S-55	T	08/28/00	P	2 X 2	7536	340	MLB	08/30/00	SC
5 F	S- 53 / 54	19' N of SEOS	DSF-24	08/28/00	P	2 X 5	7536	340	MLB	08/30/00	SC
5 G	S- 56 / 58	90' S OF NEOS	DSF-25	08/28/00	P	2 X 5	7536	340	MLB	08/30/00	SC
5 H	S- 54 / 55	INTERSECTION WITH S-56	T	08/28/00	P	2 X 2	7536	340	MLB	08/30/00	SC
5 I	S- 58 / 59	INTERSECTION WITH S-60	T	08/29/00	P	1 X 2	2223	312	SC	08/30/00	SC
5 J	S- 59 / 60	6' W of EEOS	DSF-26	08/29/00	P	1 X 5	2223	312	SC	08/30/00	SC
5 K	S- 55 / 56	INTERSECTION WITH S-57	T	08/28/00	P	2 X 2	2223	312	SC	08/29/00	MLB
5 M	S- 56 / 57	INTERSECTION WITH S-58	T	08/29/00	P	1 X 2	2223	312	SC	08/29/00	MLB
5 N	S- 59 / 60	INTERSECTION WITH S-61	T	08/29/00	P	1 X 2	2223	312	SC	08/30/00	SC
5 P	S- 60 / 61	INTERSECTION WITH S-62	T	08/29/00	P	1 X 2	2223	312	SC	08/29/00	MLB
5 Q	S- 61 / 62	INTERSECTION WITH S-63	T	08/29/00	P	1 X 2	2223	312	SC	08/29/00	MLB
5 R	S- 63 / 64	INTERSECTION WITH S-65	T	08/29/00	P	2 X 2	2223	312	SC	08/30/00	SC
5 S	S- 63 / 65	43' N of SEOS	DSF-27	08/29/00	P	1 X 6	2223	312	SC	08/30/00	SC
5 T	S- 56 / 58	30' N of SEOS	PT	08/29/00	P	1 X 3	2223	312	SC	08/29/00	MLB
5 W	S- 63 / 64	20' N of SEOS	PT	08/29/00	P	1 X 1	2223	312	SC	08/30/00	SC
5 X	S- 63 / 64	10' S of NEOS	PT	08/29/00	G&W	1'	2223	312	SC	08/30/00	SC
6 A	S- 50 / 51	INTERSECTION WITH S-52	T	08/28/00	P	1 X 1	2223	312	SC	08/29/00	SC
6 B	S- 51 / 52	INTERSECTION WITH S-53	T	08/28/00	P	1 X 2	2223	312	SC	08/29/00	SC
6 C	S- 44 / 46	45' S of NEOS	WR	08/28/00	P	2 X 2	7536	340	MLB	08/28/00	MLB
6 D	S- 59 /	1' S of NTI and 6' W of EEOP	D	08/28/00	P	1 X 1	2223	312	MLB	08/30/00	SC
6 E	S- 62 /	13' N OF SEOS, 6' E	SI	08/29/00	P	1 X 2	2223	312	SC	08/30/00	SC
6 F	S- 67 /	100' N OF SEOS, 10' E	MD	08/31/00	P	2 X 2	2897	327	SC	08/31/00	MM
6 G	S- 67 /	106' N OF SEOS, 10' E	MD	08/31/00	P	2 X 2	2897	327	SC	08/31/00	MM

TABLE J-1
GEOMEMBRANE REPAIR SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

DEFECT CODE		SEAM, PANEL OR REPAIR NUMBER	MAPPED LOCATION(1)	DEFECT TYPE(1)	REPAIR SUMMARY						NON-DESTRUCTIVE	
					DATE	TYPE(1)	APPROX. SIZE(3)	WELDER I.D. TECH.(2)	WELDER I.D. MACH.	QA MON.(2)	TEST DATE	QA MON.(2)
6	H	S- 67 /	112' N OF SEOS, 10' E	MD	08/31/00	P	2 X 2	2897	327	SC	08/31/00	MM
6	I	S- 67 /	118' N OF SEOS, 10' E	MD	08/31/00	P	2X 2	2897	327	SC	08/31/00	MM
6	J	S- 67 /	124' N OF SEOS, 10' E	MD	08/31/00	P	2 X 2	2897	327	SC	08/31/00	MM
6	K	S- 67 /	128' N OF SEOS, 10' E	MD	08/31/00	P	2 X 2	2897	327	SC	08/31/00	MM
6	M	S- 65 / 66	40' N OF SEOS, 9' LONG	SI	08/31/00	P	2 X 9	2897	327	SC	09/01/00	SC
6	N	S- 65 / 66	60' N OF SEOS, 10' LONG	SI	08/31/00	2P	2 X 4, 3 X 6	2897	327	SL	08/31/00	SC
6	P	S- 70 /	8' S OF NEOS, 12' E	D	08/31/00	P	1 X 3	2897	327	SL	08/31/00	SL
6	Q	S- 72 /	8' S OF NEOS, 12' E	D	08/31/00	P	1 X 3	2897	327	SL	08/31/00	SL
6	R	S- 69 /	6' S OF NEOS, 12' E	D	08/31/00	P	2 X 3	2897	327	SL	08/31/00	SL
6	S	S- 74 /	6' S OF NEOS, 12' E	D	08/31/00	P	1 X 2	2897	327	SL	09/01/00	SC
6	T	S- 75 /	6' S OF NEOS, 12' E	D	08/31/00	P	1 X 3	2897	327	SL	08/31/00	SL
6	W	S- 77 /	2' S OF NEOS, 12' E	D	08/31/00	P	1 X 2	2897	327	SL	08/31/00	SL
6	X	S- 79 /	2' S OF NEOS, 12' E	D	08/31/00	P	1 X 2	2897	327	SL	08/31/00	SL
7	A	S- 67 / 68	7' S OF NEOS	DSF-28	08/31/00	P	1 X 4	2897	327	SC	08/31/00	MM
7	B	S- 65 / 66	105' N OF SEOS	DSF-29	08/31/00	P	1 X 3	2897	327	SL	08/31/00	SC
7	C	S- 68 / 69	27' N OF SEOS	DSF-30	08/31/00	P	1 X 4	2897	327	SC	08/31/00	MM
7	D	S- 66 / 67	INTERSECTION WITH S-68	T	08/31/00	P	1 X 2	2897	327	SC	08/31/00	MM
7	E	S- 65 / 66	INTERSECTION WITH S-67	T	08/31/00	P	2 X 2	2897	327	SC	08/31/00	MM
7	F	S- 64 / 65	INTERSECTION WITH S-66	T	08/31/00	P	1 X 1	2897	327	SL	08/31/00	SC
7	G	S- 69 / 70	INTERSECTION WITH S-71	T	08/31/00	P	1 X 2	2897	327	SC	08/31/00	MM
7	H	S- 69 / 70	25' S OF NEOS	DSF-31	08/31/00	P	1 X 4	2897	327	SL	08/31/00	MM
7	I	S- 72 / 74	162' N OF SEOS	DSF-32	08/31/00	P	1 X 4	2897	327	SL	08/31/00	MM
7	J	S- 71 / 72	INTERSECTION WITH S-73	T	08/31/00	P	2 X 2	2897	327	SC	08/31/00	MM
7	K	S- 72 / 73	INTERSECTION WITH S-74	T	08/31/00	P	2 X 2	2897	327	SC	08/31/00	MM
7	M	S- 70 / 71	INTERSECTION WITH S-72	T	08/31/00	P	2 X 2	2897	327	SC	08/31/00	MM
7	N	S- 74 / 75	INTERSECTION WITH S-76	T	COVERED BY 7Q							
7	P	S- 70 / 72	30' N OF SEOS	BO	08/31/00	P	7 X 4	2897	327	SL	08/31/00	MM
7	Q	S- 75 / 76	4' E OF WEOS	DSF-33	08/31/00	P	1 X 6	2897	327	SL	08/31/00	MM
7	R	S- 76 / 77	INTERSECTION WITH S-78	T	08/31/00	P	2 X 2	2897	327	SC	08/31/00	MM
7	S	S- 77 / 78	INTERSECTION WITH S-79	T	08/31/00	P	2 X 2	2897	327	SC	08/31/00	MM
7	T	S- 75 / 76	INTERSECTION WITH S-77	T	08/31/00	P	1 X 4	2897	327	SL	08/31/00	MM
7	W	S- 67 / 68	25' N OF SEOS	WS	08/31/00	P	1 X 4	2897	327	SC	08/31/00	MM
7	X	S- 67 / 68	124' N OF SEOS, ON DEFECT 7A	DSX-04	08/31/00	P	2 X 4	2897	327	SC	08/31/00	MM
8	A	S- 77 / 79	180' N OF SEOS	PT	08/31/00	P	2 X 2	2897	327	SL	08/31/00	MM
8	B	S- 70 / 72	60' N OF SEOS	PT	08/31/00	P	1 X 1	2897	327	SL	08/31/00	MM
8	C	S- 70 / 72	90' N OF SEOS	PT	08/31/00	P	1 X 2	2897	327	SL	08/31/00	MM

TABLE J-1
GEOMEMBRANE REPAIR SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

DEFECT CODE		SEAM, PANEL OR REPAIR NUMBER	MAPPED LOCATION(1)	DEFECT TYPE(1)	REPAIR SUMMARY						NON-DESTRUCTIVE	
					DATE	TYPE(1)	APPROX. SIZE(3)	WELDER I.D. TECH.(2)	WELDER I.D. MACH.	QA MON.(2)	TEST DATE	QA MON.(2)
8	D	S- 79 / 80	1' S OF NEOS	D	09/26/00	P	2 X 3	2897	327	SC	09/30/00	SC
8	E	S- 81 /	5' W OF EEOP AND 2' S OF NTI	D	09/26/00	P	1 X 2	2897	327	SC	09/30/00	SC
8	F	S- 82 / 84	43' N OF SEOS	BO	09/28/00	P	2 X 3	2897	327	SC	9/29/00	SL
8	G	S- 86 / 88	INTERSECTION WITH S-89	T	09/28/00	P	1 X 2	2897	327	SC	9/29/00	SL
8	H	S- 86 / 87	INTERSECTION WITH S-88	T	09/28/00	P	1 X 2	2897	327	SC	9/29/00	SL
8	I	S- 87 / NTI	44' E OF WEOS	D	9/28/00	P	1 X 1	2897	327	SC	9/30/00	SC
8	J	S- 87 / NTI	54' E OF WEOS	D	09/28/00	P	1 X 1	2897	327	SC	09/30/00	SC
8	K	S- 85 /	44' N OF SEOP AND 13' E OF WEOP	SI	09/28/00	P	1 X 1	2897	327	SC	9/29/00	SC
8	M	S- 92 / 94	@ SW TOE OF SUMP	BO	09/29/00	P	2 X 2	2897	327	MLB	9/29/00	SL
8	N	S- 86 / 90	INTERSECTION WITH S-91	T	09/29/00	P	2 X 5	2897	327	SL	9/29/00	SL
8	P	S- 86 / 91	INTERSECTION WITH S-93	T	09/29/00	P	1 X 1	2897	327	SL	9/29/00	SL
8	Q	S- 86 / 92	INTERSECTION WITH S-93	T	09/29/00	P	1 X 1	2897	327	SL	9/29/00	SL
8	R	S- 86 / 92	INTERSECTION WITH S-94	T	09/29/00	P	1 X 1	2897	327	SL	9/29/00	SL
8	S	S- 86 / 94	INTERSECTION WITH S-95	T	09/29/00	P	1 X 1	2897	327	SL	9/29/00	SL
8	T	S- 86 / 95	INTERSECTION WITH S-96	T	09/29/00	P	1 X 1	2897	327	SL	9/29/00	SL
8	W	S- 86 / 96	INTERSECTION WITH S-97	T	09/29/00	P	1 X 1	2897	327	SL	9/29/00	SL
8	X	S- 86 / 97	INTERSECTION WITH S-98	T	09/29/00	P	1 X 1	2897	327	SL	9/29/00	SL
9	A	S- 79 / NTI	8' W OF EEOS	DSX-05	08/31/00	P	1 X 3	2897	327	SL	08/31/00	SL
9	B	S- 78 /	6' E OF WEOS, 1' S	D	08/31/00	P	2 X 2	2897	327	SC	08/31/00	MM
9	C	S- 79 / 80	175' N OF SEOS	SI	09/26/00	P	1 X 10	2897	327	SC	09/30/00	SC
9	D	S- 79 / 80	190' N OF SEOS	SI	09/26/00	P	1 X 10	2897	327	SC	09/30/00	SC
9	E	S- 79 / 80	243' N OF SEOS	DSF-34	09/26/00	P	2 X 4	2897	327	SC	09/30/00	SC
9	F	S- 80 /	12' W OF EEOP AND 2' S OF NEOP	D	09/26/00	P	2 X 3	2897	327	SC	09/30/00	SC
9	G	S- 81 /	12' W OF EEOP AND 2' S OF NEOP	D	09/26/00	P	2 X 3	2897	327	SC	9/30/00	SC
9	H	S- 82 /	12' W OF EEOP AND 1' S OF NEOP	D	09/26/00	P	2 X 3	2897	327	SC	9/30/00	SC
9	I	S- 80 / 81	57' N OF SEOS	DSF-35	09/27/00	P	1 X 2	7534	312	SC	9/29/00	SC
9	J	S- 81 / 82	INTERSECTION WITH S-83	T	09/27/00	P	1 X 4	7534	312	SC	9/29/00	SC
9	K	S- 82 / 83	@ EEOS	T	09/28/00	P	1 X 2	2897	327	SC	9/29/00	SC
9	M	S- 83 / 85	17' N OF SEOS	DSF-36	09/29/00	P	2 X 4	2173	201	SL	9/29/00	SL
9	N	S- 85 / 86	20' N OF SEOS	DSF-37	09/28/00	P	1 X 4	2897	327	SC	9/29/00	SC
9	P	S- 83 / 84	INTERSECTION WITH S-85	T	09/28/00	P	1 X 2	2897	327	SC	9/29/00	SC
9	Q	S- 84 / 85	INTERSECTION WITH S-86	T	09/28/00	P	1 X 2	2897	327	SC	9/29/00	SC
9	R	S- /	VOID	-	-	-	-	-	-	-	-	-
9	S	S- 84 /	10' W OF EEOP AND 2' S OF NTI	D	09/28/00	P	1 X 2	2897	327	SC	9/30/00	SC
9	T	S- 86 /	10' W OF EEOP AND 2' S OF NTI	D	09/28/00	P	1 X 2	2897	327	SC	9/30/00	SC
9	W	S- 87 / 88	13' E OF WEOS	DSF-38	09/28/00	P	1 X 5	2897	327	SC	9/29/00	SL

TABLE J-1
GEOMEMBRANE REPAIR SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

DEFECT CODE		SEAM, PANEL OR REPAIR NUMBER	MAPPED LOCATION(1)	DEFECT TYPE(1)	REPAIR SUMMARY						NON-DESTRUCTIVE	
					DATE	TYPE(1)	APPROX. SIZE(3)	WELDER I.D. TECH.(2)	WELDER I.D. MACH.	QA MON.(2)	TEST DATE	QA MON.(2)
9	X	S- 86 / 89	INTERSECTION WITH S-90	T	09/28/00	P	1 X 2	2897	327	SC	9/29/00	SL
10	A	S- 100 /	FROM WEOS TO EEOS (8' WIDE)	EXT	09/29/00	EXT	8 X 70	2174	16040	SL	09/29/00	SL
10	B	S- 86 / 100	9' E OF WEOS	DSF-39	09/29/00	P	2 X 4	2173	201	SL	9/29/00	SL
10	C	S- 100 / 10A	15' E OF WEOS	DSF-40	09/29/00	P	2 X 5	2173	201	SL	9/29/00	SL
10	D	S- 85 / 100	INTERSECTION WITH DEFECT 10A	EXT	09/29/00	EXT	8 X 10	2174	16040	SL	09/29/00	SL
10	E	S- 86 / 98	INTERSECTION WITH S-99	T	09/29/00	P	2 X 2	2173	201	SL	9/29/00	SL
10	F	S- 86 / 99	INTERSECTION WITH S-100	T	09/29/00	P	2 X 4	2173	201	SL	9/29/00	SL
10	G	S- 85 / 86	INTERSECTION WITH S-100	T	09/29/00	P	3 X 3	2173	201	SL	9/29/00	SL
10	H	S- 98 / 99	10' E OF WEOS	BO	09/29/00	P	2 X 4	2173	201	SL	9/29/00	SL
10	I	S- 98 / 99	15' W OF EEOS	BO	09/29/00	P	2 X 4	2173	201	SL	9/29/00	SL
10	J	S- 86 / 92	5' N OF SEOS	BO	09/29/00	P	1 X 4	2897	327	SL	9/29/00	SL
10	K	S- 100 / 10A	INTERSECTION WITH 10D	T	09/29/00	P	2 X 2	2173	201	SL	9/29/00	SL
10	M	S- 85 / 100	INTERSECTION WITH 10D	T	09/29/00	P	2 X 2	2173	201	SL	9/29/00	SL
10	N	SRS 3 / SEC	13' W OF EEOS	VL	10/02/00	G&W	1'	2897	327	SL	10/02/00	MLB
10	P	SRS 2 / 3	30' W OF EEOS	WS	09/29/00	P	2 X 5	7534	312	SC	9/29/00	SL
10	Q	SRS 3 / SEC	20' W OF EEOS	VL	09/29/00	G&W	1'	7534	312	SC	09/30/00	SC
10	R	SRS 3 / SEC	24' W OF EEOS	VL	09/29/00	G&W	1'	7534	312	SC	09/30/00	SC
10	S	S- 79 / 80	ON DEFECT 9D	VL	10/02/00	P	1 X 2	2897	327	SL	10/02/00	MLB
10	T	S- 84 /	ON DEFECT 9S	VL	10/02/00	G&W	1'	2897	327	SL	10/02/00	MLB
10	W	S- 94 /	FROM SRS-3 TO EASTERN LIMIT	SI	10/03/00	2P	4X4, 2X25	2897	327	SL	10/03/00	SC
10	X	S- 95 /	10' N OF SEOP AND IN A.T.	SI	10/05/00	P	2 X 2	2897	327	SC	10/05/00	SC

NOTES:

(1) Refer to Table J-3 for list of repair summary abbreviation codes.

(2) Refer to Appendix A for list of Golder and Serrott personnel.

(3) All dimensions are in feet unless noted otherwise.

F/N:SGRS.XLS

SECTION J-2

Primary Defect Repair Summary

TABLE J-2
GEOMEMBRANE REPAIR SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

DEFECT CODE		SEAM, PANEL OR REPAIR NUMBER			MAPPED LOCATION(1)	DEFECT TYPE(1)	REPAIR SUMMARY						NON-DESTRUCTIVE	
							DATE	TYPE(1)	APPROX. SIZE(s)	WELDER I.D. TECH.(2)	WELDER I.D. MACH.	QA MON.(2)	TEST DATE	QA MON.(2)
25	A	P-	01	/	12 ' E OF WEOS, 1' S	D	09/01/00	P	2 X 3	2897	327	SC	09/15/00	MLB
25	B	P-	01	/	1' E OF WEOS, 240' N	D	09/01/00	P	1 X 2	7534	206	SC	09/15/00	MLB
25	C	P-	01	/	1' E OF WEOS, 185' N	D	09/01/00	P	1 X 2	7534	206	SC	09/15/00	MLB
25	D	P-	01	/	154' N OF SEOP AND FROM EEOP TO WEOP	WB	09/11/00	2P	2 X 3, 1 X 23	7536	340	MLB	09/15/00	MLB
25	E	P-	01	/ 02	INTERSECTION WITH P-03	T	09/11/00	P	2 X 2	7536	340	MLB	09/15/00	MLB
25	F	P-	01	/	190' N OF SEOP AND FROM EEOP TO WEOP	WB	09/11/00	P	1 X 23	7536	340	MLB	09/15/00	MLB
25	G	P-	02	/ 03	INTERSECTION WITH P-04	T	09/11/00	P	3 X 3	7536	340	MLB	09/15/00	MLB
25	H	P-	01	/ 03	6' N OF SEOS	BO	09/11/00	G&W	8'	7536	340	MLB	09/15/00	MLB
25	I	P-	03	/ 04	9' N OF SEOS	DPF-01	09/12/00	P	2 X 5	7536	340	SL	09/15/00	MLB
25	J	P-	01	/ 03	110' N OF SEOS	DPF-02	09/12/00	P	2 X 5	7536	340	SL	09/15/00	MLB
25	K	P-	03	/ 04	INTERSECTION WITH P-05	T	09/12/00	P	1 X 2	7536	340	SL	09/15/00	MLB
25	M	P-	04	/ 05	INTERSECTION WITH P-06	T	09/12/00	P	1 X 2	7536	340	SL	09/15/00	MLB
25	N	P-		/	VOID	-	-	-	-	-	-	-	-	-
25	P	P-	02	/ 04	20' N OF SEOS	BO	09/11/00	P	3 X 3	7536	340	MLB	09/15/00	MLB
25	Q	P-	04	/ 06	144' S OF NEOS	DPF-03	09/12/00	P	2 X 5	7536	340	SL	09/15/00	MLB
25	R	P-	08	/	5' S OF NEOP AND 6'E OF WEOP	D	09/11/00	P	1 X 2	7536	340	MLB	09/15/00	MLB
25	S	P-	08	/	10' S OF NEOP AND 6' E OF WEOP	D	09/11/00	P	1 X 1	7536	340	MLB	09/15/00	MLB
25	T	P-	06	/ 07	INTERSECTION WITH P-08	T	09/11/00	P	1 X 2	7536	340	MLB	09/15/00	MLB
25	W	P-	06	/ 07	36' S OF NEOS	DPF-04	09/14/00	P	1 X 4	2897	327	SC	09/15/00	MLB
25	X	P-	11	/ 13	73' N OF SEOS	DPF-05	09/12/00	P	2 X 5	7536	340	SL	09/15/00	SL
26	A	P-	01	/	3' S OF NEOP AND FROM WEOP TO EEOP	WB	09/11/00	2P	2 X 22, 1 X 4	7536	340	MLB	09/15/00	MLB
26	B	P-	01	/ 02	12' N OF SEOS	IO	09/11/00	P	1 X 5	7536	340	MLB	09/15/00	MLB
26	C	P-	02	/ NTI	11' E OF WEOS	D	09/11/00	P	1 X 3	7536	340	MLB	09/15/00	MLB
26	D	P-	04	/ NTI	10' E OF WEOS	D	09/11/00	P	2 X 3	7536	340	MLB	09/15/00	MLB
26	E	P-	06	/ NTI	1' N OF NTI AND 10' E OF WEOS	D	09/11/00	P	1 X 1	2897	327	MLB	09/15/00	MLB
26	F	P-	06	/ NTI	4' E OF WEOS	D	09/11/00	P	1 X 1	7536	340	MLB	09/15/00	MLB
26	G	P-	11	/ NTI	10' E OF WEOS	D	09/11/00	P	2 X 3	7536	340	MLB	09/15/00	MLB
26	H	P-	12	/ NTI	12' E OF WEOS	D	09/11/00	P	1 X 1	7536	340	MLB	09/15/00	MLB
26	I	P-	11	/ NTI	7' W OF EEOS	DPX-01	09/14/00	P	2 X 4	2897	327	SC	09/15/00	MLB
26	J	P-	11	/ NTI	2' W OF EEOS	D	09/11/00	P	1 X 1	7536	340	MLB	09/15/00	MLB
26	K	P-	14	/	12' W OF EEOP AND 1' S OF NEOP	D	09/12/00	P	2 X 2	2897	327	SL	09/15/00	MLB
26	M	P-	16	/	12' W OF EEOP AND 1' S OF NEOP	D	09/12/00	P	2 X 2	2897	327	SL	09/15/00	SL
26	N	P-	17	/	12' W OF EEOP AND 1' S OF NEOP	D	09/12/00	P	2 X 2	2897	327	SL	09/15/00	SL
26	P	P-	19	/	12' W OF EEOP AND 1' S OF NEOP	D	09/12/00	P	2 X 2	2897	327	SL	09/15/00	SL
26	Q	P-	12	/	60' N OF SEOS, 2' W	D	09/14/00	P	2 X 5	2897	327	SC	09/15/00	MLB

TABLE J-2
GEOMEMBRANE REPAIR SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

DEFECT CODE	SEAM, PANEL OR REPAIR NUMBER	MAPPED LOCATION(1)	DEFECT TYPE(1)	REPAIR SUMMARY						NON-DESTRUCTIVE	
				DATE	TYPE(1)	APPROX. SIZE(5)	WELDER I.D. TECH.(2)	WELDER I.D. MACH.	QA MON.(2)	TEST DATE	QA MON.(2)
26 R	P- 13 / 14	INTERSECTION WITH P-15	T	09/14/00	P	2 X 2	2173	206	SC	09/15/00	SL
26 S	P- 14 / 15	INTERSECTION WITH P-16	T	09/14/00	P	2 X 2	2173	206	SC	09/15/00	SL
26 T	P- 16 / 17	INTERSECTION WITH P-18	T	09/14/00	P	2 X 2	2897	327	SC	09/15/00	SL
26 W	P- 17 / 18	INTERSECTION WITH P-19	T	09/14/00	P	2 X 2	2897	327	SC	09/15/00	SL
26 X	P- 18 / 19	INTERSECTION WITH P-20	T	09/14/00	P	1 X 2	2173	206	SC	09/15/00	SL
27 A	P- 11 / 12	INTERSECTION WITH P-13	T	09/14/00	P	2 X 2	2897	327	SC	09/15/00	SL
27 B	P- 07 / 08	INTERSECTION WITH P-09	T	09/12/00	P	2 X 3	7536	340	SL	09/15/00	MLB
27 C	P- 08 / 09	INTERSECTION WITH P-10	T	09/12/00	P	2 X 3	7536	340	SL	09/15/00	MLB
27 D	P- 09 / 10	INTERSECTION WITH P-11	T	09/12/00	P	2 X 3	7536	340	SL	09/15/00	MLB
27 E	P- 12 / 13	7' E OF WEOS	DPF-06	09/14/00	P	2 X 4	2897	327	SC	09/15/00	SL
27 F	P- 14 / 16	18 ' N OF SEOS	DPF-07	09/14/00	P	2 X 4	2173	206	SC	09/15/00	SL
27 G	P- 16 / 18	50' N OF SEOS	DPF-08	09/14/00	P	2 X 4	2173	206	SC	09/15/00	SL
27 H	P- 19 / 20	INTERSECTION WITH P-21	T	09/14/00	P	1 X 2	2173	206	SC	09/15/00	SL
27 I	P- 12 / 13	INTERSECTION WITH P-14	T	09/14/00	P	2 X 3	2897	327	SC	09/15/00	SL
27 J	P- 17 / 19	50' S OF NEOS	DPF-09	09/14/00	P	1 X 4	2897	327	SC	09/15/00	SL
27 K	P- 19 / 21	20' N OF SEOS	DPF-10	09/14/00	P	2 X 4	2322	201	SC	09/15/00	SL
27 M	P- 13 / 14	65' N OF SEOS	BO	9/1/400	P	2 X 8	2173	206	SC	09/15/00	SL
27 N	P- 21 / 23	26' S OF NEOS	DPF-11	09/14/00	P	1 X 4	2897	327	SC	09/15/00	SL
27 P	P- 21 / 22	INTERSECTION WITH P-23	T	09/14/00	P	2 X 2	2897	327	SC	09/15/00	SL
27 Q	P- 11 / 12	INTERSECTION WITH NTI	T	09/14/00	P	1 X 1	2897	327	SC	09/15/00	MLB
27 R	P- 13 / 15	12' S OF NEOS	BO	09/12/00	P	3 X 9	7536	340	MLB	09/15/00	SL
27 S	P- 16 / 18	183' N OF SEOS	BO	09/14/00	P	2 X 2	2897	327	SC	09/15/00	SL
27 T	P- 21 / NTI	12' E OF WEOS	D	09/12/00	P	1 X 1	2897	327	SL	09/15/00	SL
27 W	P- 22 / NTI	12' E OF WEOS	D	09/13/00	P	2 X 2	2897	327	SL	09/15/00	SL
27 X	P- 13 / 15	ON DEFECT 27R, 12' S OF NEOS	DPX-02	09/12/00	P	2 X 5	7536	340	MLB	09/15/00	SL
28 A	P- 24 / 26	173' N OF SEOS	DPF-12	09/15/00	P	1 X 11	2897	327	SC	09/15/00	SL
28 B	P- 26 / 27	INTERSECTION WITH P-28	T	09/15/00	P	2 X 2	2897	327	SC	09/16/00	SC
28 C	P- 27 / 28	INTERSECTION WITH P-29	T	09/15/00	P	2 X 3	2897	327	SC	09/16/00	SC
28 D	P- 22 / 23	INTERSECTION WITH P-24	T	09/14/00	P	2 X 2	2897	327	SC	09/15/00	SL
28 E	P- 23 / 24	INTERSECTION WITH P-25	T	09/14/00	P	1 X 2	2322	201	SC	09/15/00	SL
28 F	P- 24 / 25	INTERSECTION WITH P-26	T	09/14/00	P	2 X 2	2322	201	SC	09/15/00	SL
28 G	P- 28 / 29	INTERSECTION WITH P-30	T	09/14/00	P	1 X 2	2322	201	SC	09/15/00	SL
28 H	P- 28 / 29	8' N OF SEOS	DPF-13	09/14/00	P	1 X 5	2322	201	SC	09/16/00	SC
28 I	P- 29 / 30	INTERSECTION WITH P-31	T	09/14/00	P	1 X 2	2322	201	SC	09/15/00	SL
28 J	P- 29 / 30	7' E OF WEOS	BO	09/14/00	P	1 X 2	2322	201	SC	09/15/00	SL
28 K	P- 31 / 33	22' N OF SEOS	DPF-14	09/14/00	P	1 X 4	2322	201	SC	09/15/00	SL

TABLE J-2
GEOMEMBRANE REPAIR SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

DEFECT CODE	SEAM, PANEL OR REPAIR NUMBER	MAPPED LOCATION(1)	DEFECT TYPE(1)	REPAIR SUMMARY						NON-DESTRUCTIVE	
				DATE	TYPE(1)	APPROX. SIZE(5)	WELDER I.D. TECH.(2)	WELDER I.D. MACH.	QA MON.(2)	TEST DATE	QA MON.(2)
28 M	P- 31 / 32	INTERSECTION WITH P-33	T	09/15/00	P	2 X 2	2897	327	SC	09/16/00	SC
28 N	P- 32 / NTI	6' E OF WEOS	DPX-03	09/14/00	P	2 X 4	2897	327	SC	09/16/00	SC
28 P	P- 18 / 20	INTERSECTION WITH SEC	T	09/14/00	P	1 x 2	2322	201	SL	09/16/00	MLB
28 Q	P- 16 / 18	@ SEOS	T	09/14/00	P	1 X 1	2322	201	MLB	09/16/00	MLB
28 R	P- 15 / 16	@ SEOS	T	09/14/00	P	1 X 1	2322	201	MLB	09/16/00	MLB
28 S	P- 06 / 13	@ SEOS FROM P-13/15 TO 11' W OF P-6/8	EXT	09/15/00	EXT	2 X 69	2897	327	SC	09/16/00	MLB
28 T	P- 06 / 28S	9' W OF EEOS	FTS	09/15/00	P	1 X 3	2897	327	SC	09/16/00	MLB
28 W	P- 26 / 28	@ SEOS	PT	09/14/00	P	1 X 1	2322	201	MLB	09/16/00	MLB
28 X	P- 28 / SEC	11' E OF WEOS	D	09/14/00	P	1 X 1	2322	201	MLB	09/16/00	MLB
29 A	P- 26 / 28	16' N OF SEOS	BO	09/14/00	P	1 X 2	2322	201	SC	09/15/00	SL
29 B	P- 27 / NTI	12' E OF WEOS	D	09/13/00	P	1 X 1	2897	327	SL	09/15/00	SL
29 C	P- 29 / NTI	12/ E OF WEOS	D	09/13/00	P	2 X 3	2897	327	SL	09/16/00	MLB
29 D	P- 31 / NTI	12' E OF WEOS	D	09/14/00	P	2 X 3	2897	327	SC	09/16/00	SC
29 E	P- 32 / NTI	12' E OF WEOS	D	09/14/00	P	2 X 2	2897	327	SC	09/16/00	SC
29 F	P- 22 / NTI	2' W OF EEOS AND 1' N OF NTI	D	09/13/00	P	1 X 3	2897	327	SL	09/15/00	SL
29 G	P- 27 / NTI	1' W OF EEOS AND 2' N OF NTI	D	09/13/00	P	1 X 2	2897	327	SL	09/15/00	SL
29 H	P- 13 / 14	90' N OF SEOS	PT	09/15/00	P	4 X 22	2897	327	SC	09/15/00	SL
29 I	P- 13 / 14	100' N OF SEOS	PT	COVERED BY 29H						-	-
29 J	P- 16 / 17	40' S OF NEOS	PT	09/14/00	P	1 X 2	2897	327	SC	09/15/00	SL
29 K	P- 30 / SEC	4' E OF WEOS	D	09/14/00	P	1 X 2	2322	201	SL	09/16/00	MLB
29 M	P- 13 / 15	@ SEOS (28S)	T	09/14/00	P	2 X 2	2173	206	SC	09/16/00	MLB
29 N	P- 6 / 8	@ SEOS (28S)	T	09/15/00	P	1 X 2	2897	327	SC	09/16/00	MLB
29 P	P- 8 / 28S	9' W OF EEOS	T	09/15/00	P	1 X 2	2897	327	SC	09/16/00	MLB
29 Q	P- 8 / 10	@ SEOS (28S)	T	09/15/00	P	1 X 2	2897	327	SC	09/16/00	MLB
29 R	P- 10 / 28S	7' W OF EEOS	T	09/15/00	P	1 X 2	2897	327	SC	09/16/00	MLB
29 S	P- 10 / 11	@ SEOS (28S)	T	09/15/00	P	1 X 2	2897	327	SC	09/16/00	MLB
29 T	P- 11 / 13	@ SEOS (28S)	T	09/15/00	P	2 X 2	2897	327	SC	09/16/00	MLB
29 W	P- 5 / 6	@ SEOS	T	09/15/00	P	1 X 2	2897	327	SC	09/16/00	MLB
29 X	P- 23 / 25	@ SEOS	T	09/14/00	P	1 X 2	2322	201	SC	09/16/00	MLB
30 A	P- 16 / 17	4' N OF SEOS	PT	09/15/00	P	1 X 1	2897	327	SC	09/15/00	SL
30 B	P- 23 / 24	103' N OF SEOS	PT	09/14/00	P	1 X 1	2897	327	SC	09/15/00	SL
30 C	P- 23 / 24	108' N OF SEOS	PT	09/14/00	P	1 X 2	2897	327	SC	09/15/00	SL
30 D	P- 23 / 24	118' N OF SEOS	PT	09/14/00	G&W	1'	2897	327	SC	09/15/00	SL
30 E	P- 19 / NTI	12' W OF EEOS, ON DEFECT 26P	VL	09/16/00	G&W	1'	2897	327	SC	09/16/00	MLB
30 F	P- 31 / 33	10' N OF SEOS, ON DEFECT 28K	VL	09/16/00	G&W	1'	2323	201	SC	09/16/00	MLB
30 G	P- 34 / NTI	11' E OF WEOS	D	09/21/00	P	2 X 2	2897	327	MLB	09/23/00	CFB

TABLE J-2
GEOMEMBRANE REPAIR SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

DEFECT CODE		SEAM, PANEL OR REPAIR NUMBER	MAPPED LOCATION(1)	DEFECT TYPE(1)	REPAIR SUMMARY						NON-DESTRUCTIVE	
					DATE	TYPE(1)	APPROX. SIZE(s)	WELDER I.D. TECH.(2)	WELDER I.D. MACH.	QA MON.(2)	TEST DATE	QA MON.(2)
30	H	P- 32 / 34	INTERSECTION WITH NTI	D	09/21/00	P	2 X 2	2897	327	MLB	09/23/00	CFB
30	I	P- 35 / NTI	9' E OF WEOS	D	09/21/00	P	1 X 1	2897	327	MLB	09/23/00	CFB
30	J	P- 35 /	11'E OF WEOP AND 6' S OF NEOP	D	09/21/00	P	2 X 2	2897	327	MLB	09/23/00	CFB
30	K	P- 32 / 33	INTERSECTION WITH P-34	T	09/23/00	P	1 X 1	7534	312	CFB	09/23/00	CFB
30	M	P- 36 /	11' E OF WEOP AND 6' S OF NEOP	D	09/21/00	P	2 X 2	2897	327	MLB	09/23/00	CFB
30	N	P- 38 /	11'E OF WEOP AND 5' S OF NEOP	D	09/21/00	P	1 X 2	2897	327	MLB	09/23/00	CFB
30	P	P- 35 / NTI	3' W OF EEOS	D	09/21/00	P	2 X 2	2897	327	MLB	09/23/00	CFB
30	Q	P- 39 /	10' E OF WEOP AND 5' S OF NEOP	D	09/21/00	P	1 X 2	2897	327	MLB	09/23/00	CFB
30	R	P- 36 /	1' N OF NTI AND 10' W OF EEOP	D	09/21/00	P	1 X 1	2897	327	MLB	09/23/00	CFB
30	S	P- 39 / NTI	FROM EEOS TO WEOS	EXT	09/21/00	P	2 X 23	2897	327	MLB	09/23/00	CFB
30	T	P- 40 /	10' E OF WEOP AND 5' S OF NEOP	D	09/21/00	P	1 X 2	2897	327	MLB	09/23/00	CFB
30	W	P- 39 / NTI	7' E OF WEOS	DPX-05	09/23/00	P	2 X 4	7534	312	CFB	09/23/00	CFB
30	X	P- 39 / 40	@ NEOS	WR	09/21/00	P, G&W	1 X 1, 5	2897	327	MLB	09/23/00	CFB
31	A	P- 19 / 21	18' N OF SEOS	DPX-04	09/14/00	P	1 X 6	2322	201	SC	09/15/00	SL
31	B	P- 13 / 28S	5' W OF EEOS	D	09/15/00	P	1 X 1	2897	327	SC	09/16/00	MLB
31	C	P- 25 / 26	@ SEOS	D	09/16/00	P	1 X 1	2323	201	SC	09/16/00	MLB
31	D	P- /	VOID	-	-	-	-	-	-	-	-	-
31	E	P- 21 / 23	@ SEOS	D	09/16/00	P	1 X 1	2323	201	SC	09/16/00	MLB
31	F	P- 20 / 21	@ SEOS	D	09/16/00	P	1 X 1	2323	201	SC	09/16/00	MLB
31	G	P- 33 / 34	144' N OF SEOS	DPF-15	09/23/00	P	1 X 4	2173	201	CFB	09/23/00	CFB
31	H	P- 34 / 35	123' N OF SEOS	DPF-16	09/23/00	P	1 X 3	2173	201	CFB	09/23/00	CFB
31	I	P- 35 / 36	INTERSECTION WITH P-37	T	09/23/00	P	2 X 2	2173	201	CFB	09/23/00	CFB
31	J	P- 36 / 37	INTERSECTION WITH P-38	T	09/23/00	P	1 X 1	2173	201	CFB	09/23/00	CFB
31	K	P- 36 / 38	13' N OF SEOS	DPF-17	09/23/00	P	1 X 3	2173	201	CFB	09/23/00	CFB
31	M	P- 38 / 39	108' N OF SEOS	DPF-18	09/23/00	P	2 X 4	2173	201	CFB	09/23/00	CFB
31	N	P- 40 / 42	19' N OF SEOS	DPF-19	09/23/00	P	1 X 3	7534	312	CFB	09/23/00	CFB
31	P	P- 39 / 40	INTERSECTION WITH P-41	T	09/23/00	P	1 X 1	2173	201	CFB	09/23/00	CFB
31	Q	P- 40 / 41	INTERSECTION WITH P-42	T	09/23/00	P	2 X 3	2173	201	CFB	09/23/00	CFB
31	R	P- 42 /	12' E OF WEOS, 2' S	D	09/23/00	P	2 X 2	7534	312	CFB	09/23/00	CFB
31	S	P- 33 / 34	160' N OF SEOS	PT	09/23/00	P	1 X 1	2173	201	CFB	09/23/00	CFB
31	T	P- 33 / 34	171' N OF SEOS	D	09/16/00	P	1 X2	2897	327	-	09/23/00	CFB
31	W	P- 33 / 34	190' N OF SEOS	D	09/23/00	P	1 X 1	7534	312	CFB	09/23/00	CFB
31	X	P- 33 / 34	204' N OF SEOS	D	09/16/00	P	1 X2	2897	327	-	09/23/00	CFB
32	A	P- 40 / 42	INTERSECTION WITH NTI	T	09/23/00	P	1 X 1	7534	312	CFB	09/23/00	CFB
32	B	P- 42 / NTI	2' E OF WEOS	CR	09/24/00	P	1 X 1	2897	327	CFB	09/25/00	SC
32	C	P- 43 / 44	INTERSECTION WITH P-45	T	09/27/00	P	2 X 4	2392	201	SL	09/28/00	SL

TABLE J-2
GEOMEMBRANE REPAIR SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

DEFECT CODE		SEAM, PANEL OR REPAIR NUMBER	MAPPED LOCATION(1)	DEFECT TYPE(1)	REPAIR SUMMARY						NON-DESTRUCTIVE	
					DATE	TYPE(1)	APPROX. SIZE(S)	WELDER I.D. TECH.(2)	WELDER I.D. MACH.	QA MON.(2)	TEST DATE	QA MON.(2)
32	D	P- 42 / 43	INTERSECTION WITH NTI	T	09/24/00	G&W	3	2897	327	CFB	09/25/00	SC
32	E	P- 43 / 45	100' N OF SEOS	DPF-20	09/27/00	P	2 X 4	2392	201	SL	09/28/00	SL
32	F	P- 43 /	3' S OF NEOP, 3' E	D	09/24/00	P	2 X 2	2897	327	CFB	09/25/00	SC
32	G	P- 43 / 44	INTERSECTION WITH NTI	T	09/24/00	P	1 X 3	2897	327	CFB	09/28/00	SL
32	H	P- 45 / 46	30' N OF SEOS	DPF-21	09/27/00	P	2 X 4	2392	201	SL	09/28/00	SL
32	I	P- 44 / 46	INTERSECTION WITH NTI	T	09/24/00	G&W	3	2897	327	CFB	09/25/00	SC
32	J	P- 47 /	5' S OF NEOP, 14' E	D	09/24/00	P	1 X 2	2897	327	CFB	09/25/00	SC
32	K	P- 47 /	5' S OF NEOP, 8' E	D	09/24/00	P	1 X 1	2897	327	CFB	09/25/00	SC
32	M	P- 46 / 47	250' N OF SEOS	DPF-22	09/27/00	P	1 X 4	2897	327	SC	09/28/00	SL
32	N	P- 44 / 46	28' N OF SEOS	PT	09/27/00	P	1 X 1	2897	327	SC	09/28/00	SL
32	P	P- 44 / 46	38' N OF SEOS	PT	09/27/00	P	1 X 1	2897	327	SC	09/28/00	SL
32	Q	P- 43 / 45	20' N OF SEOS	PT	09/27/00	P	1 X 2	2392	201	SL	09/28/00	SL
32	R	P- 43 / 45	@ SEOS	T	09/27/00	P	1 X 1	2392	201	SL	09/28/00	SL
32	S	P- 43 / 45	50' N OF SEOS	PT	09/27/00	P	2 X 3	2392	201	SL	09/28/00	SL
32	T	P- 43 / 45	70' N OF SEOS	PT	09/27/00	P	1 X 1	2392	201	SL	09/28/00	SL
32	W	P- 46 / 47	185' N OF SEOS	PT	09/27/00	P	1 X 1	2897	327	MLB	09/28/00	SL
32	X	P- 46 / 47	180' N OF SEOS	PT	09/27/00	P	1 X 1	2897	327	MLB	09/28/00	SL
33	A	P- 43 /	12' E OF WEOS, 1' SOF NTI	D	09/24/00	P	1 X 2	2897	327	CFB	09/25/00	SC
33	B	P- 44 /	12' E OF WEOS, 1' SOF NTI	D	09/24/00	P	1 X 2	2897	327	CFB	09/25/00	SC
33	C	P- 46 /	12' E OF WEOS, 1' SOF NTI	D	09/24/00	P	2 X 3	2897	327	CFB	09/25/00	SC
33	D	P- 46 / NTI	2' W OF EEOS	D	09/24/00	G&W	3	2897	327	CFB	09/25/00	SC
33	E	P- 46 / 47	240' N OF SEOS	BO	09/27/00	P	1 X 4	2897	327	SC	09/28/00	SL
33	F	P- 44 / 45	INTERSECTION WITH P-46	T	09/27/00	P	2 X 2	2392	201	SL	09/28/00	SL
33	G	P- 51 / 52	INTERSECTION WITH P-53	T	09/27/00	P	1 X 1	2897	327	SC	09/28/00	SL
33	H	P- 52 / 53	INTERSECTION WITH P-54	T	09/27/00	P	1 X 3	2897	327	SC	09/28/00	SL
33	I	P- 51 / NTI	6' E OF WEOS	D	09/25/00	P	1 X 4	2897	327	SC	09/26/00	SC
33	J	P- 51 / NTI	8' W OF EEOS	D	09/25/00	P	1 X 2	2897	327	SC	09/26/00	SC
33	K	P- 52 /	12' W AND 2' S OF NTI	D	09/25/00	P	1 X 2	2897	327	SC	09/26/00	SC
33	M	P- 56 / NTI	13' E OF WEOS	DPX-6	09/26/00	P	1 X 4	2897	327	SC	09/27/00	SC
33	N	P- 58 /	10' E OF WEOP, 2' S OF NTI	D	09/26/00	P	1 X 2	2897	327	SC	09/27/00	MLB
33	P	P- 59 /	10' E OF WEOP, 2' S OF NTI	D	09/26/00	P	1 X 2	2897	327	SC	09/27/00	MLB
33	Q	P- 59 / 60	INTERSECTION WITH P-61	T	09/27/00	P	1 X 2	2897	327	SC	09/28/00	SL
33	R	P- 61 /	10' E OF WEOP, 2' S OF NEOP	D	09/27/00	P	1 X 1	2897	327	SC	09/28/00	SL
33	S	P- 62 / NTI	10 ' E OF WEOS	DPX-7	09/27/00	P	1 X 5	2897	327	SC	09/27/00	MLB
33	T	P- 65 /	10' W OF EEOP AND 2' S OF NTI	D	09/27/00	P	1 X 2	2897	327	SC	09/27/00	MLB
33	W	P- 67 /	10' W OF EEOP AND 2' S OF NTI	D	09/27/00	P	1 X 2	2897	327	SC	09/27/00	SC

TABLE J-2
GEOMEMBRANE REPAIR SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

DEFECT CODE	SEAM, PANEL OR REPAIR NUMBER	MAPPED LOCATION(1)	DEFECT TYPE(1)	REPAIR SUMMARY						NON-DESTRUCTIVE	
				DATE	TYPE(1)	APPROX. SIZE(5)	WELDER I.D. TECH.(2)	WELDER I.D. MACH.	QA MON.(2)	TEST DATE	QA MON.(2)
33 X	P- 69 /	10' W OF EEOP AND 2' S OF NTI	D	09/27/00	P	1 X 2	2897	327	SC	09/27/00	SC
34 A	P- 47 / 48	63' N OF SEOS	DPF-23	09/27/00	P	1 X 4	2897	327	SC	09/28/00	SL
34 B	P- 48 /	12' W OF EEOS AND 2' S OF NTI	D	09/25/00	P	1 X 2	2897	327	MLB	09/26/00	SC
34 C	P- 50 /	12' W OF EEOS AND 3' S OF NTI	D	09/25/00	P	1 X 2	2897	327	MLB	09/26/00	SC
34 D	P- 51 /	12' W OF EEOS AND 2' S OF NTI	D	09/25/00	P	1 X 2	2897	327	SC	09/26/00	SC
34 E	P- 47 / 48	INTERSECTION WITH P-49	T	09/27/00	P	2 X 2	2392	201	SL	09/28/00	SL
34 F	P- 48 / 49	INTERSECTION WITH P-50	T	09/27/00	P	2 X 2	2392	201	SL	09/28/00	SL
34 G	P- 53 / 54	62' N OF SEOS	DPF-24	09/27/00	P	1 X 4	7534	312	SC	09/28/00	SL
34 H	P- 51 / 53	54' N OF SEOS	DPF-25	09/27/00	P	2 X 4	2392	201	SL	09/28/00	SL
34 I	P- 50 / 51	196' N OF SEOS	PT	09/27/00	P	1 X 4	2897	327	SC	09/28/00	SL
34 J	P- 50 / 51	5' S OF NTI	PT	09/27/00	G&W	5	2897	327	SC	09/28/00	SL
34 K	P- 54 /	12' W OF EEOS AND 1' S OF NTI	D	09/26/00	P	1 X 2	2897	327	SC	09/26/00	SC
34 M	P- 52 / 53	12' W OF EEOS	PT	09/27/00	P	1 X 2	2897	327	SC	09/28/00	SL
34 N	P- 55 /	12' W OF EEOS AND 2' S OF NTI	D	09/26/00	P	2 X 3	2897	327	SC	09/28/00	SL
34 P	P- 54 / 55	221 ' N OF SEOS	DPF-26	09/27/00	P	1 X 4	7534	312	SC	09/28/00	SL
34 Q	P- 56 /	12' W OF EEOS AND 2' S OF NTI	D	09/26/00	P	1 X 2	2897	327	SC	09/27/00	SC
34 R	P- 55 / 56	INTERSECTION WITH P-57	T	09/27/00	P	1 X 2	2897	327	SC	09/28/00	SL
34 S	P- 56 / 57	INTERSECTION WITH P-58	T	09/27/00	P	1 X 2	2897	327	SC	09/28/00	SL
34 T	P- 57 / 58	56 ' N OF SEOS	DPF-27	09/27/00	P	1 X 4	7534	312	SC	09/28/00	SL
34 W	P- 58 / 59	224' N OF SEOS	DPF-28	09/27/00	P	1 X 4	7534	312	SC	09/28/00	SL
34 X	P- 60 /	12' W OF EEOS AND 1' S OF NTI	D	09/27/00	P	1 X 2	2897	327	SC	09/27/00	MLB
35 A	P- 60 / 62	82' N OF SEOS	DPF-29	09/27/00	P	1 X 4	7534	312	SC	09/28/00	SL
35 B	P- 62 /	12' E OF WEOP AND 3' S OF NEOP	D	09/27/00	P	1 X 2	2897	327	SC	09/27/00	MLB
35 C	P- 63 /	12' E OF WEOP AND 2' S OF NEOP	D	09/27/00	P	1 X 2	2897	327	SC	09/27/00	MLB
35 D	P- 62 / 64	69' N OF SEOS	DPF-30	09/27/00	P	1 X 4	7534	312	SC	09/28/00	SL
35 E	P- 60 / 61	INTERSECTION WITH P-62	T	09/27/00	P	1 X 2	2897	327	SC	09/28/00	SL
35 F	P- 62 / 63	INTERSECTION WITH P-64	T	09/27/00	P	1 X 2	7534	312	SC	09/27/00	SC
35 G	P- 63 / 64	INTERSECTION WITH P-65	T	09/27/00	P	1 X 2	7534	312	SC	09/27/00	SC
35 H	P- 64 / 65	INTERSECTION WITH P-66	T	09/27/00	P	1 X 2	7534	312	SC	09/28/00	SL
35 I	P- 65 / 66	INTERSECTION WITH P-67	T	09/27/00	P	1 X 4	7534	312	SC	09/28/00	SL
35 J	P- 65 / 67	138' N OF SEOS	DPF-31	09/27/00	P	1 X 4	7534	312	SC	09/27/00	SC
35 K	P- 67 / 69	55' N OF SEOS	DPF-32	09/27/00	P	1 X 4	7534	312	SC	09/28/00	SL
35 M	P- 67 / 68	INTERSECTION WITH P-69	T	09/27/00	P	1 X 3	7534	312	SC	09/27/00	SC
35 N	P- 64 /	2' N OF SEOP, 4' W	D	10/02/00	P	1 X 1	2897	327	SL	10/03/00	SC
35 P	P- 68 / 69	INTERSECTION WITH P-70	T	10/05/00	P	1 X 2	2897	327	MLB	10/06/00	SL
35 Q	P- 68 / 70	14' S OF NEOS	DPF-33	10/05/00	P	2 X 6	2897	327	MLB	10/06/00	SL

TABLE J-2
GEOMEMBRANE REPAIR SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

DEFECT CODE		SEAM, PANEL OR REPAIR NUMBER	MAPPED LOCATION(1)	DEFECT TYPE(1)	REPAIR SUMMARY						NON-DESTRUCTIVE	
					DATE	TYPE(1)	APPROX. SIZE(S)	WELDER I.D. TECH.(2)	WELDER I.D. MACH.	QA MON.(2)	TEST DATE	QA MON.(2)
35	R	P- 72 /	2' S OF NEOP AND 10' E	D	10/05/00	P	1 X 2	2897	327	MLB	10/06/00	SL
35	S	P- 68 / 70	@ NEOS	D	10/05/00	P	2 X 5	2897	327	MLB	10/06/00	SL
35	T	P- 70 / NTI	5' E OF WEOS	DPX-8	10/05/00	P	2 X 5	2897	327	MLB	10/06/00	SL
35	W	P- 74 / 76	16' N OF SEOS	DPF-34	10/05/00	P	1 X 5	2322	312	SC	10/06/00	SL
35	X	P- 76 / 77	4' N OF SEOS	DPF-35	10/05/00	P	1 X 5	2322	312	SC	10/06/00	SL
36	A	P- 70 /	11' E OF WEOP AND 5' S	D	10/05/00	P	1 X 2	2897	327	MLB	10/06/00	SL
36	B	P- 70 / 71	5'W OF EEOS	BO	10/05/00	P	1 X 4	2322	312	SC	10/06/00	SL
36	C	P- 69 / 70	INTERSECTION WITH P-71	T	10/05/00	P	1 X 3	2322	312	SC	10/06/00	SL
36	D	P- 70 / 71	INTERSECTION WITH P-72	T	10/05/00	P	1 X 2	2322	312	SC	10/06/00	SL
36	E	P- 71 / 72	INTERSECTION WITH P-73	T	10/05/00	P	2 X 2	2322	312	SC	10/06/00	SL
36	F	P- 72 / 73	INTERSECTION WITH P-74	T	10/05/00	P	2 X 2	2322	312	SC	10/06/00	SL
36	G	P- 74 /	5' S OF NEOP, 12' E	D	10/05/00	P	1 X 2	2897	327	MLB	10/06/00	SL
36	H	P- 75 /	5' S OF NEOP, 12' E	D	10/05/00	P	1 X 2	2897	327	MLB	10/06/00	SL
36	I	P- 74 / 75	INTERSECTION WITH P-76	T	10/05/00	P	1 X 2	2173	201	SC	10/06/00	SL
36	J	P- 75 / 76	INTERSECTION WITH P-77	T	10/05/00	P	1 X 2	2173	201	SC	10/06/00	SL
36	K	P- 77 /	3' S OF NEOP, 3' E	D	10/05/00	P	1 X 1	2897	327	MLB	10/07/00	SL
36	M	P- 74 / 75	30' N OF SEOS	BO	10/05/00	P	1 x 5	2173	201	SC	10/06/00	SL
36	N	P- 76 / 77	INTERSECTION WITH P-78	T	10/05/00	P	2 X 2	2322	312	SC	10/06/00	SL
36	P	P- 77 / 78	INTERSECTION WITH P-79	T	10/05/00	P	2 X 2	2322	312	SC	10/06/00	SL
36	Q	P- 77 / 79	10' N OF SEOS	DPF-36	10/05/00	P	1 X 5	2322	312	SC	10/07/00	SL
36	R	P- 79 /	2' S OF NEOP AND 10' E	D	10/05/00	P	1 X 1	2897	327	MLB	10/07/00	SL
36	S	P- 72 / 74	130' N OF SEOS	PT	10/06/00	P	1 X 2	2897	327	SC	10/07/00	SL
36	T	P- 77 / 79	10' S OF NEOS	D	10/05/00	P	1 X 1	2897	327	MLB	10/06/00	SL
36	W	P- 72 / 74	180' N OF SEOS	PT	10/05/00	P	1 X 2	2173	201	SC	10/06/00	SL
36	X	P- 72 / 74	250' N OF SEOS	PT	10/06/00	P	1 X 2	2897	327	SC	10/06/00	SL
37	A	P- 70 / 72	INTERSECTION WITH NTI	T	10/05/00	P	1 X 2	2897	327	MLB	10/07/00	SL
37	B	P- 72 / 74	170' N OF SEOS	PT	10/06/00	G&W	1	2897	327	SC	10/07/00	SL
37	C	P- 77 / 79	ON DEFECT 36Q	DPX-9	10/06/00	P	1 X 4	2897	327	SC	10/07/00	SL
37	D	P- 79 / 86	INTERSECTION WITH NTI	T	10/07/00	G&W	1	2897	327	SL	10/07/00	SL
37	E	P- 79 / 85	INTERSECTION WITH P-86 AND 38C	T	10/07/00	P	2 X 3	2897	327	SL	10/07/00	SL
37	F	P- 79 / 84	INTERSECTION WITH P-85 AND 38C	T	10/07/00	P	3 X 3	2897	327	MLB	10/07/00	SL
37	G	P- 79 / 83	INTERSECTION WITH P-84	T	10/07/00	P	2 X 2	2897	327	MLB	10/07/00	SL
37	H	P- 79 / 82	INTERSECTION WITH P-83	T	10/07/00	P	1 X 2	2897	327	MLB	10/07/00	SL
37	I	P- 79 / 81	INTERSECTION WITH P-82	T	10/07/00	P	1 X 2	2897	327	MLB	10/07/00	SL
37	J	P- 79 / 80	INTERSECTION WITH P-81	T	10/07/00	P	1 X 2	2897	327	MLB	10/07/00	SL
37	K	P- 79 / 80	INTERSECTION WITH P-87	T	10/07/00	P	1 X 2	2323	201	SL	10/07/00	SL

TABLE J-2
GEOMEMBRANE REPAIR SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

DEFECT CODE		SEAM, PANEL OR REPAIR NUMBER	MAPPED LOCATION(1)	DEFECT TYPE(1)	REPAIR SUMMARY						NON-DESTRUCTIVE	
					DATE	TYPE(1)	APPROX. SIZE(5)	WELDER I.D. TECH.(2)	WELDER I.D. MACH.	QA MON.(2)	TEST DATE	QA MON.(2)
37	M	P- 79 / 87	INTERSECTION WITH P-88	T	10/07/00	P	2 X 2	2323	201	SL	10/07/00	SL
37	N	P- 79 / 88	INTERSECTION WITH P-89	T	10/07/00	P	1 X 1	2323	201	SL	10/07/00	SL
37	P	P- 79 / 89	INTERSECTION WITH P-90	T	10/07/00	P	1 X 1	2323	201	SL	10/07/00	SL
37	Q	P- 79 / 90	INTERSECTION WITH P-91	T	10/07/00	P	1 X 1	2323	201	SL	10/07/00	SL
37	R	P- 79 / 91	INTERSECTION WITH P-92	T	10/07/00	P	1 X 1	2323	201	SL	10/07/00	SL
37	S	P- 79 / 92	INTERSECTION WITH P-93	T	10/07/00	P	1 X 2	2323	201	SL	10/07/00	SL
37	T	P- 79 / NTI	5' W OF EEOS	VL	10/07/00	G&W	1	2897	327	SL	10/07/00	SL
37	W	P- 86 / NTI	30' W OF EEOS	VL	10/07/00	G&W	1	2897	327	SL	10/07/00	SL
37	X	P- 86 / NTI	25' W OF EEOS	VL	10/07/00	G&W	1	2897	327	SL	10/07/00	SL
38	A	P- 70 / 71	ON DEFECT 36B	VL	10/06/00	G&W	1	2897	327	SC	10/07/00	SL
38	B	P- 80 /	3' S OF NEOP AND 35' E OF WEOP	WR	10/06/00	P	3 X 3	2897	327	SL	10/09/00	SL
38	C	P- 85 /	EXTENSION @ WEOP FROM NEOP TO SEOP	EXT	10/07/00	EXT	1 X 23	2174	16040	SL	10/07/00	MLB
38	D	P- 85 / 86	17' E OF WEOS	DPF-37	10/07/00	P	2 X 5	2897	327	MLB	10/07/00	SL
38	E	P- 85 / 86	10' E OF WEOS	BO	10/07/00	P	2 X 2	2897	327	SL	10/07/00	SL
38	F	P- 86 / NTI	8'W OF EEOS	D	10/06/00	P	3 X 7	2897	327	MLB	10/07/00	SL
38	G	P- 91 / 92	39' W OF EEOS	DPF-38	10/07/00	P	2 X 5	2323	201	SL	10/07/00	SL
38	H	P- 80 / 87	38' E OF WEOS	BS	10/10/00	P	12 X 28	2897	327	VD	10/10/00*	VD
38	I	P- 80 / PRS-1	INTERSECTION WITH PRS-2	T	10/10/00	P	2 X 3	2322	312	SL	10/10/00	SL
38	J	P- PRS-2 / WR	6' S OF NEOP, 22' E OF WEOS	D	10/10/00	P	3 X 3	2322	312	SL	10/10/00	SL
38	K	P- 01 / SWF	AT LEACHATE COLLECTION TRENCH	BS	11/06/00	P	3 X 3	2897	320	MLB	11/06/00	MLB
38	M	P- /	NOT USED									
38	N	P- /	NOT USED									
38	P	P- /	NOT USED									
38	Q	P- /	NOT USED									
38	R	P- /	NOT USED									
38	S	P- /	NOT USED									
38	T	P- /	NOT USED									
38	W	P- /	NOT USED									
38	X	P- /	NOT USED									
39	A	P- 79 / 93	@ SEOS	T	10/07/00	P	2 X 2	2173	320	SL	10/07/00	SL
39	B	P- /	NOT USED									
39	C	P- /	NOT USED									
39	D	P- /	NOT USED									
39	E	P- /	NOT USED									
39	F	P- /	NOT USED									
39	G	P- /	NOT USED									

TABLE J-2
GEOMEMBRANE REPAIR SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

DEFECT CODE	SEAM, PANEL OR REPAIR NUMBER	MAPPED LOCATION(1)	DEFECT TYPE(1)	REPAIR SUMMARY						NON-DESTRUCTIVE	
				DATE	TYPE(1)	APPROX. SIZE(5)	WELDER I.D. TECH.(2)	WELDER I.D. MACH.	QA MON.(2)	TEST DATE	QA MON.(2)
39 H	P- /	NOT USED									
39 I	P- /	NOT USED									
39 J	P- /	NOT USED									
39 K	P- /	NOT USED									
39 M	P- /	NOT USED									
39 N	P- /	NOT USED									
39 P	P- /	NOT USED									
39 Q	P- /	NOT USED									
39 R	P- /	NOT USED									
39 S	P- /	NOT USED									
39 T	P- /	NOT USED									
39 W	P- /	NOT USED									
39 X	P- /	NOT USED									

NOTES:

(1) Refer to Table J-3 for list of repair summary abbreviation codes.

(2) Refer to Appendix A for list of Golder and Serrott personnel.

(3) All dimensions are in feet unless noted otherwise.

* Repair was nondestructively tested using the spark test method.

F/N: PGRS.XLS

SECTION J-3

Listing of Repair Summary Abbreviation Codes

TABLE J-3
REPAIR SUMMARY ABBREVIATION CODES
TRAIL RIDGE LANDFILL
PHASES IIIC, IVC, VA, VB, VC, AND VD
BALDWIN, FLORIDA

DEFECT CODE: A unique number and letter combination is given to each defect. There is no correlation between this identification and location in the cell.

MAPPED LOCATION:

@	= at	NTI	= North Tie-In
AT	= Anchor Trench	ETI	= East Tie-In
E	= East	C.T.	= Center Trench
W	= West	SEC	= Secondary Geomembrane
N	= North	PRI	= Primary Geomembrane
S	= South	LCF	= Leachate Control Flap
EEOS	= East End of Seam	SWF	= Stormwater Control Flap
WEOS	= West End of Seam	EEOP	= East End of Panel
NEOS	= North End of Seam	WEOP	= West End of Panel
SEOS	= South End of Seam	NEOP	= North End of Panel
w/	= with	SEOP	= South End of Panel

DEFECT TYPE:

BO	= Burnout
D	= Damage
DP	= Double Patch
DS-01	= Destructive Fusion Sample #01 - Secondary Liner
DSX-01	= Destructive Extrusion Sample #01 - Secondary Liner
DP-01	= Destructive Fusion Sample #01 - Primary Liner
DPX-01	= Destructive Extrusion Sample #01 - Primary Liner
EE	= Earthwork Equipment Damage
EXT	= Extension
FM	= Fishmouth (Wrinkle)
IO	= Insufficient Overlap
FS, FSL	= Failed Seam Length
FTS	= Field Test Strip
CR	= Crease
SI	= Subgrade Irregularity
INT	= Intersection
MD	= Manufacturer/Delivery Damage
PT	= Pressure Test
RAS	= Realigned Seam
RS	= Rubsheet
T	= 3 panel intersection
VL	= Vacuum Leak
WR	= Wrinkle Repair
WS	= Welder Start
BS	= Boot/Skirt
GV	= Gas Vent
WD	= Water Damage

REPAIR TYPE:

P	= Patch
2P	= Double Patch
3P	= Triple Patch
G&W	= Grind and Weld
C	= Cap
EXT	= Extension
RS	= Reconstructed Seam

TECHNICIAN: Serrott International (See Appendix A for Tech. I.D.)
QA MONITOR: Golder Associates Inc. (See Appendix A for Personnel Initials)

F/N: G:\COMMON\GCS\PROJECTS\957-9001\REPORTS\abbrev.xls

APPENDIX K

Non-Destructive Test Results

SECTION K-1

Secondary Pressure Test

TABLE K-1
GEOMEMBRANE PRESSURE TEST SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	DATE	SEGMENT(1)	TIME		PRESSURE		STATUS	QA MON.(2)	REMARKS
			START	FINISH	START	FINISH			
S- 2 / 3	08/23/00	WEOS TO EEOS	1610	1615	35	35	PASS	SL	
S- 1 / 3	08/23/00	NEOS TO SEOS	1610	1615	35	33	PASS	SL	
S- 1 / 2	08/23/00	SEOS TO NEOS	1613	1618	32	32	PASS	SL	
S- 3 / 4	08/23/00	NEOS TO SEOS	1625	1630	35	34	PASS	SL	
S- 2 / 4	08/23/00	SEOS TO NEOS	1635	1640	32	32	PASS	SL	
S- 3 / 5	08/23/00	NEOS TO SEOS	1626	1631	30	29	PASS	SL	
S- 4 / 5	08/23/00	EEOS TO WEOS	-	-	-	-	FAIL	SL	Extrusion welded flap
S- 5 / 6	08/26/00	NEOS TO SEOS	740	745	30	30	PASS	SL	
S- 4 / 6	08/26/00	SEOS TO NEOS	741	746	35	35	PASS	SL	
S- 8 / 10	08/26/00	NEOS TO SEOS	842	847	30	30	PASS	SL	
S- 9 / 10	08/26/00	EEOS TO WEOS	843	848	30	30	PASS	SL	
S- 9 / 11	08/26/00	SEOS TO NEOS	847	852	30	30	PASS	SL	
S- 7 / 8	08/26/00	WEOS TO EEOS	822	827	30	30	PASS	SL	
S- 6 / 7	08/26/00	SEOS TO NEOS	821	826	30	30	PASS	SL	
S- 6 / 8	08/26/00	NEOS TO SEOS	819	824	30	30	PASS	SL	
S- 7 / 9	08/26/00	SEOS TO NEOS	825	830	30	30	PASS	SL	
S- 8 / 9	08/26/00	NEOS TO SEOS	824	829	32	31	PASS	SL	
S- 10 / 11	08/26/00	4F TO SEOS	851	856	30	29	PASS	SL	
S- 10 / 11	08/26/00	4F TO NEOS	-	-	-	-	FAIL	SL	Extrusion welded flap
S- 11 / 12	08/26/00	SEOS TO NEOS	905	910	30	30	PASS	SL	
S- 11 / 13	08/26/00	NEOS TO SEOS	902	907	30	30	PASS	SL	
S- 12 / 14	08/26/00	SEOS TO NEOS	910	915	30	29	PASS	SL	
S- 13 / 14	08/26/00	NEOS TO SEOS	909	914	30	30	PASS	SL	
S- 12 / 13	08/26/00	WEOS TO 4H	-	-	-	-	FAIL	SL	Extrusion welded flap
S- 12 / 13	08/26/00	4H TO EEOS	930	935	30	30	PASS	SL	
S- 15 / 16	08/26/00	NEOS TO SEOS	951	956	30	30	PASS	SL	
S- 14 / 16	08/26/00	SEOS TO NEOS	949	954	30	30	PASS	SL	
S- 13 / 15	08/26/00	NEOS TO SEOS	944	949	30	29	PASS	SL	
S- 14 / 15	08/26/00	WEOS TO EEOS	939	944	30	30	PASS	SL	
S- 18 / 19	08/26/00	SEOS TO NEOS	1010	1015	30	30	PASS	SL	
S- 18 / 20	08/26/00	NEOS TO SEOS	1008	1013	30	30	PASS	SL	
S- 19 / 20	08/26/00	WEOS TO EEOS	1011	1016	30	28	PASS	SL	
S- 19 / 21	08/26/00	SEOS TO NEOS	1016	1021	30	30	PASS	SL	
S- 20 / 21	08/26/00	NEOS TO SEOS	1022	1027	30	30	PASS	SL	
S- 16 / 17	08/26/00	SEOS TO NEOS	1036	1041	30	30	PASS	SL	
S- 16 / 18	08/26/00	NEOS TO SEOS	1037	1042	30	30	PASS	SL	
S- 17 / 18	08/26/00	WEOS TO EEOS	1039	1044	30	30	PASS	SL	
S- 17 / 19	08/26/00	SEOS TO NEOS	1041	1046	30	30	PASS	SL	
S- 21 / 22	08/26/00	SEOS TO NEOS	1106	1111	30	30	PASS	SL	
S- 22 / 23	08/26/00	WEOS TO EEOS	-	-	-	-	FAIL	SL	Extrusion welded flap
S- 22 / 24	08/26/00	SEOS TO NEOS	1111	1116	30	30	PASS	SL	
S- 23 / 24	08/26/00	NEOS TO SEOS	1112	1117	30	28	PASS	SL	
S- 21 / 23	08/26/00	NEOS TO 4I	1130	1135	30	30	PASS	SL	
S- 21 / 23	08/26/00	4I TO 4J	-	-	-	-	FAIL	SL	Extrusion welded flap
S- 21 / 23	08/26/00	4J TO 4K	1142	1147	30	30	PASS	SL	
S- 21 / 23	08/26/00	4K TO SEOS	1425	1430	30	27	PASS	SL	
S- 23 / 25	08/26/00	NEOS TO SEOS	1408	1413	30	27	PASS	SL	
S- 24 / 25	08/26/00	WEOS TO EEOS	-	-	-	-	FAIL	SL	Extrusion welded flap
S- 24 / 26	08/26/00	SEOS TO NEOS	1423	1428	30	30	PASS	SL	
S- 25 / 26	08/26/00	4M TO SEOS	1443	1448	30	27	PASS	SL	
S- 25 / 26	08/26/00	NEOS TO 4M	1422	1427	30	27	PASS	SL	
S- 26 / 28	08/28/00	SEOS TO NEOS	750	755	32	32	PASS	SL	
S- 28 / 30	08/28/00	SEOS TO NEOS	800	805	29	26	PASS	SL	
S- 28 / 29	08/28/00	SEOS TO NEOS	817	822	30	30	PASS	SL	
S- 29 / 30	08/28/00	EEOS TO WEOS	-	-	-	-	FAIL	SL	Extrusion welded flap
S- 30 / 31	08/28/00	NEOS TO SEOS	810	815	30	30	PASS	SL	

TABLE K-1
GEOMEMBRANE PRESSURE TEST SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	DATE	SEGMENT(1)	TIME START	TIME FINISH	PRESSURE START	PRESSURE FINISH	STATUS	QA MON.(2)	REMARKS
S- 29 / 31	08/28/00	SEOS TO NEOS	811	816	32	32	PASS	SL	
S- 31 / 33	0828/00	SEOS TO NEOS	807	812	29	29	PASS	SL	
S- 33 / 35	08/28/00	SEOS TO NEOS	815	820	30	30	PASS	SL	
S- 33 / 34	08/28/00	SEOS TO NEOS	825	830	30	30	PASS	SL	
S- 34 / 35	08/28/00	WEOS TO EEOS	820	825	30	30	PASS	SL	
S- 35 / 36	08/28/00	NEOS TO SEOS	830	835	30	28	PASS	SL	
S- 34 / 36	08/28/00	SEOS TO NEOS	835	840	30	30	PASS	SL	
S- 38 / 40	08/28/00	NEOS TO SEOS	845	850	30	30	PASS	SL	
S- 39 / 40	08/28/00	WEOS TO EEOS	-	-	-	-	FAIL	SL	Extrusion welded flap
S- 36 / 38	08/28/00	SEOS TO NEOS	830	835	32	32	PASS	SL	
S- 40 / 41	08/28/00	NEOS TO SEOS	840	845	30	30	PASS	SL	
S- 39 / 41	08/28/00	SEOS TO NEOS	845	850	30	30	PASS	SL	
S- 38 / 39	08/28/00	SEOS TO NEOS	900	905	30	30	PASS	SL	
S- 41 / 43	08/28/00	NEOS TO SEOS	845	850	30	30	PASS	SL	
S- 43 / 45	08/28/00	NEOS TO SEOS	853	858	30	30	PASS	SL	
S- 44 / 45	08/28/00	WEOS TO EEOS	859	904	30	28	PASS	SL	
S- 43 / 44	08/28/00	SEOS TO NEOS	905	910	30	30	PASS	SL	
S- 37 / 39	08/28/00	SEOS TO 4P	850	855	30	30	PASS	SL	
S- 37 / 39	08/28/00	4P TO NEOS	910	915	30	30	PASS	SL	
S- 41 / 42	08/28/00	SEOS TO NEOS	909	914	30	30	PASS	SL	
S- 42 / 44	08/28/00	SEOS TO NEOS	912	917	30	30	PASS	SL	
S- 42 / 43	08/28/00	EEOS TO WEOS	906	911	30	30	PASS	SL	
S- 37 / 38	08/28/00	WEOS TO EEOS	915	920	30	30	PASS	SL	
S- 36 / 37	08/28/00	SEOS TO NEOS	916	921	30	30	PASS	SL	
S- 32 / 34	08/28/00	SEOS TO NEOS	922	927	30	30	PASS	SL	
S- 32 / 33	08/28/00	EEOS TO WEOS	924	929	30	30	PASS	SL	
S- 31 / 32	08/28/00	SEOS TO 3I	930	935	30	30	PASS	SL	
S- 31 / 32	08/28/00	3I TO NEOS	930	935	30	29	PASS	SL	
S- 26 / 27	08/28/00	SEOS TO NEOS	915	920	29	28	PASS	MLB	
S- 27 / 28	08/28/00	EEOS TO WEOS	920	925	31	31	PASS	MLB	
S- 27 / 29	08/28/00	SEOS TO NEOS	930	935	31	31	PASS	MLB	
S- 45 / 46	08/28/00	SEOS TO NEOS	1420	1425	30	30	PASS	MLB	
S- 44 / 46	08/28/00	SEOS TO 6C	1450	1455	30	30	PASS	MLB	
S- 44 / 46	08/28/00	6C TO NEOS	1452	1457	30	29	PASS	MLB	
S- 46 / 47	08/28/00	WEOS TO EEOS	1455	1500	30	30	PASS	MLB	
S- 46 / 48	08/28/00	NEOS TO SEOS	1500	1505	30	30	PASS	MLB	
S- 48 / 50	08/28/00	NEOS TO SEOS	1510	1515	30	30	PASS	MLB	
S- 48 / 49	08/28/00	SEOS TO NEOS	1510	1515	30	30	PASS	MLB	
S- 49 / 50	08/28/00	WEOS TO EEOS	1520	1525	30	30	PASS	MLB	
S- 50 / 51	08/28/00	NEOS TO SEOS	1525	1530	30	30	PASS	MLB	
S- 49 / 51	08/28/00	SEOS TO NEOS	1530	1535	30	30	PASS	MLB	
S- 50 / 52	08/28/00	SEOS TO NEOS	1535	1540	30	30	PASS	MLB	
S- 51 / 52	08/28/00	WEOS TO EEOS	1545	1550	30	30	PASS	MLB	
S- 52 / 53	08/28/00	SEOS TO NEOS	1550	1555	30	30	PASS	MLB	
S- 51 / 53	08/28/00	SEOS TO NEOS	1555	1600	30	30	PASS	MLB	
S- 53 / 55	08/28/00	SEOS TO NEOS	1605	1610	30	29	PASS	MLB	
S- 55 / 57	08/28/00	SEOS TO NEOS	1630	1635	30	30	PASS	MLB	
S- 57 / 58	08/28/00	SEOS TO NEOS	1635	1640	30	30	PASS	MLB	
S- 55 / 56	08/28/00	SEOS TO NEOS	1635	1640	31	29	PASS	MLB	
S- 56 / 57	08/28/00	WEOS TO EEOS	1645	1650	30	30	PASS	MLB	
S- 54 / 55	08/28/00	WEOS TO EEOS	1610	1615	31	31	PASS	MLB	
S- 54 / 56	08/28/00	SEOS TO NEOS	1710	1715	35	35	PASS	MLB	
S- 53 / 54	08/28/00	SEOS TO NEOS	1715	1720	30	30	PASS	MLB	
S- 56 / 58	08/28/00	NEOS TO 5T	1720	1725	35	35	PASS	SL	
S- 56 / 58	08/28/00	SEOS TO 5T	1740	1745	30	28	PASS	SL	
S- 58 / 60	08/28/00	SEOS TO NEOS	1750	1755	31	31	PASS	SL	
S- 60 / 61	08/29/00	SEOS TO NEOS	1335	1340	32	31	PASS	SL	

TABLE K-1
GEOMEMBRANE PRESSURE TEST SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	DATE	SEGMENT(1)	TIME		PRESSURE		STATUS	QA MON.(2)	REMARKS
			START	FINISH	START	FINISH			
S- 61 / 62	08/29/00	WEOS TO EEOS	-	-	-	-	FAIL	SL	Extrusion welded flap
S- 60 / 62	08/29/00	NEOS TO SEOS	1338	1343	29	28	PASS	SL	
S- 62 / 63	08/29/00	NEOS TO SEOS	1345	1350	30	30	PASS	SL	
S- 61 / 63	08/29/00	SEOS TO NEOS	1345	1350	32	32	PASS	SL	
S- 58 / 59	08/29/00	SEOS TO NEOS	1355	1400	32	32	PASS	SL	
S- 59 / 60	08/29/00	EEOS TO WEOS	1409	1414	32	31	PASS	SL	
S- 59 / 61	08/29/00	SEOS TO NEOS	1356	1401	32	32	PASS	SL	
S- 63 / 64	08/29/00	SEOS TO 5W	1411	1416	30	29	PASS	SL	
S- 64 / 65	08/29/00	WEOS TO EEOS	1411	1416	30	29	PASS	SL	
S- 63 / 65	08/29/00	NEOS TO SEOS	1420	1425	32	32	PASS	SL	
S- 63 / 64	08/29/00	5W TO 5X	1425	1430	30	30	PASS	SL	
S- 63 / 64	08/29/00	5X TO NEOS	-	-	-	-	FAIL	SL	Extrusion welded flap
S- 66 / 67	08/31/00	WEOS TO EEOS	822	827	30	30	PASS	MM	
S- 65 / 67	08/31/00	NEOS TO SEOS	820	825	30	29	PASS	MM	
S- 65 / 66	08/31/00	SEOS TO NEOS	823	828	30	30	PASS	MM	
S- 67 / 68	08/31/00	NEOS TO 7W	835	840	30	30	PASS	MM	
S- 66 / 68	08/31/00	SEOS TO NEOS	834	839	31	31	PASS	MM	
S- 65 / 66	08/31/00	6M TO 6N	846	851	30	29	PASS	MM	
S- 65 / 66	08/31/00	6N TO NEOS	850	855	30	29	PASS	MM	
S- 64 / 66	08/31/00	SEOS TO NEOS	903	908	30	29	PASS	MM	
S- 67 / 68	08/31/00	SEOS TO 7W	915	920	30	30	PASS	MM	
S- 68 / 69	08/31/00	SEOS TO NEOS	927	932	35	35	PASS	MM	
S- 69 / 71	08/31/00	SEOS TO NEOS	930	935	31	31	PASS	MM	
S- 71 / 73	08/31/00	SEOS TO NEOS	935	940	30	30	PASS	MM	
S- 73 / 74	08/31/00	SEOS TO NEOS	936	941	30	29	PASS	MM	
S- 71 / 72	08/31/00	SEOS TO NEOS	940	945	31	31	PASS	MM	
S- 72 / 73	08/31/00	WEOS TO EEOS	943	948	30	30	PASS	MM	
S- 72 / 74	08/31/00	SEOS TO NEOS	946	951	31	31	PASS	MM	
S- 74 / 76	08/31/00	SEOS TO NEOS	950	955	30	30	PASS	MM	
S- 76 / 78	08/31/00	SEOS TO NEOS	953	958	30	28	PASS	MM	
S- 78 / 79	08/31/00	SEOS TO NEOS	957	1002	30	30	PASS	MM	
S- 76 / 77	08/31/00	SEOS TO NEOS	1007	1012	31	31	PASS	MM	
S- 77 / 78	08/31/00	EEOS TO WEOS	1005	1010	30	29	PASS	MM	
S- 77 / 79	08/31/00	SEOS TO 8A	1008	1013	31	31	PASS	MM	
S- 77 / 79	08/31/00	8A TO NEOS	1015	1020	32	30	PASS	MM	
S- 75 / 77	08/31/00	SEOS TO NEOS	1016	1021	30	30	PASS	MM	
S- 75 / 76	08/31/00	EEOS TO WEOS	-	-	-	-	FAIL	MM	Extrusion welded flap
S- 74 / 75	08/31/00	SEOS TO NEOS	1026	1031	30	30	PASS	MM	
S- 70 / 72	08/31/00	7P TO 8B	1034	1039	30	30	PASS	MM	
S- 70 / 72	08/31/00	7P TO 7M	1035	1040	30	29	PASS	MM	
S- 70 / 71	08/31/00	EEOS TO WEOS	1036	1041	30	28	PASS	MM	
S- 69 / 70	08/31/00	SEOS TO NEOS	1046	1051	31	30	PASS	MM	
S- 70 / 72	08/31/00	8B TO 8C	1058	1103	31	31	PASS	MM	
S- 70 / 72	08/31/00	8C TO NEOS	-	-	-	-	FAIL	MM	Extrusion welded flap
S- 79 / 80	09/26/00	SEOS TO 9C	1551	1556	30	28	PASS	SL	
S- 80 / 81	09/26/00	SEOS TO NEOS	1554	1559	32	31	PASS	SL	
S- 81 / 83	09/26/00	SEOS TO NEOS	1607	1612	30	28	PASS	SL	
S- 81 / 82	09/26/00	SEOS TO NEOS	1618	1623	30	30	PASS	SL	
S- 82 / 83	09/26/00	WEOS TOEEOS	1611	1616	30	28	PASS	SL	
S- 79 / 80	09/26/00	9D TO 9E	1645	1650	31	29	PASS	SL	
S- 79 / 80	09/26/00	9E TO NEOS	1700	1705	30	30	PASS	SL	
S- 79 / 80	09/26/00	9C TO 9D	-	-	-	-	FAIL	SL	Extrusion welded flap
S- 83 / 85	09/28/00	SEOS TO NEOS	904	909	30	29	PASS	SL	
S- 85 / 86	09/28/00	NEOS TO SEOS	906	911	30	30	PASS	SL	
S- 84 / 85	09/28/00	WEOS TO EEOS	916	921	31	30	PASS	SL	
S- 83 / 84	09/28/00	SEOS TO NEOS	934	939	31	31	PASS	SL	
S- 82 / 84	09/28/00	SEOS TO 8F	940	945	30	28	PASS	SL	

TABLE K-1
GEOMEMBRANE PRESSURE TEST SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER				DATE	SEGMENT(1)	TIME START	TIME FINISH	PRESSURE START	PRESSURE FINISH	STATUS	QA MON.(2)	REMARKS
S-	82	/	84	09/28/00	8F TO NEOS	950	955	30	30	PASS	SL	
S-	84	/	86	09/28/00	SEOS TO NEOS	958	1003	31	30	PASS	SL	
S-	86	/	88	09/28/00	NEOS TO SEOS	1110	1115	30	30	PASS	SL	
S-	87	/	88	09/28/00	WEOS TO EEOS	1108	1113	30	28	PASS	SL	
S-	86	/	87	09/28/00	SEOS TO NEOS	1115	1120	30	30	PASS	SL	
S-	88	/	89	09/28/00	WEOS TO EEOS	1120	1125	30	30	PASS	SL	
S-	86	/	89	09/28/00	SEOS TO NEOS	1121	1126	30	30	PASS	SL	
S-	89	/	90	09/28/00	WEOS TO EEOS	1133	1138	30	30	PASS	SL	
S-	86	/	90	09/28/00	SEOS TO NEOS	1139	1144	30	30	PASS	SL	
S-	90	/	91	09/29/00	WEOS TO EEOS	850	855	30	30	PASS	MLB	
S-	91	/	93	09/29/00	WEOS TO EEOS	855	900	30	29	PASS	MLB	
S-	92	/	93	09/29/00	WEOS TO EEOS	857	902	30	29	PASS	MLB	
S-	92	/	94	09/29/00	WEOS TO 8M	900	905	30	30	PASS	MLB	
S-	92	/	94	09/29/00	8M TO EEOS	904	909	30	30	PASS	MLB	
S-	94	/	95	09/29/00	EEOS TO WEOS	911	916	30	30	PASS	MLB	
S-	95	/	96	09/29/00	EEOS TO WEOS	916	921	30	29	PASS	MLB	
S-	96	/	97	09/29/00	EEOS TO WEOS	917	922	30	30	PASS	MLB	
S-	97	/	98	09/29/00	EEOS TO WEOS	919	924	30	30	PASS	MLB	
S-	98	/	99	09/29/00	EEOS TO 10I	937	942	30	30	PASS	MLB	
S-	99	/	100	09/29/00	EEOS TO WEOS	939	944	30	30	PASS	MLB	
S-	100	/	10A	09/29/00	EEOS TO WEOS	948	953	30	29	PASS	MLB	
S-	98	/	99	09/29/00	10I TO 10H	945	950	30	30	PASS	MLB	
S-	98	/	99	09/29/00	10H TO WEOS	-	-	-	-	FAIL	MLB	Extrusion welded flap
S-	86	/	100	09/29/00	EEOS TO WEOS	956	1001	30	30	PASS	MLB	
S-	100	/	10D	09/29/00	EEOS TO WEOS	1000	1005	30	28	PASS	MLB	
S-	10A	/	10D	09/29/00	NEOS TO SEOS	1005	1010	30	29	PASS	MLB	
S-	85	/	10D	09/29/00	NEOS TO SEOS	-	-	-	-	FAIL	MLB	Extrusion welded flap
S-	85	/	100	09/29/00	SEOS TO NEOS	1011	1016	31	30	PASS	MLB	
S-	86	/	99	09/29/00	NEOS TO SEOS	1049	1054	30	28	PASS	MLB	
S-	86	/	98	09/29/00	NEOS TO SEOS	1100	1105	30	28	PASS	MLB	
S-	86	/	97	09/29/00	NEOS TO SEOS	1219	1224	30	30	PASS	SL	
S-	86	/	96	09/29/00	SEOS TO NEOS	1224	1229	30	30	PASS	SL	
S-	86	/	95	09/29/00	NEOS TO SEOS	1217	1222	30	29	PASS	SL	
S-	86	/	94	09/29/00	SEOS TO NEOS	1232	1237	30	30	PASS	SL	
S-	86	/	92	09/29/00	10J TO NEOS	1236	1241	30	28	PASS	SL	
S-	86	/	92	09/29/00	10J TO SEOS	-	-	-	-	FAIL	SL	Extrusion welded flap
S-	86	/	93	09/29/00	SEOS TO NEOS	1239	1245	30	30	PASS	SL	
S-	86	/	91	09/29/00	SEOS TO NEOS	-	-	-	-	FAIL	SL	Extrusion welded flap
SRS	1	/	2	09/29/00	WEOS TO EEOS	1350	1355	30	30	PASS	MLB	
SRS	2	/	3	09/29/00	WEOS TO 10P	1352	1357	31	30	PASS	MLB	
SRS	2	/	3	09/29/00	10P TO EEOS	1356	1401	30	30	PASS	MLB	

NOTES:

(1) Refer to Appendix J for list of Abbreviations

(2) Refer to Appendix A for list of Golder and Serrott personnel

F/N: SGPTS.XL

SECTION K-2

Secondary Vacuum Test

TABLE K-2
GEOMEMBRANE VACUUM TEST SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER (3)	DATE	SEGMENT(1)	TECH ID.(2)	QA MON.(2)	RESULT	REMARKS
S- 1 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 2 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 4 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 6 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 7 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 9 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 11 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 12 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 14 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 16 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 17 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 19 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 21 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 22 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 24 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 26 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 27 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 29 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 31 / NTI	08/26/00	WEOS TO EEOS	2322	SC	PASS	-
S- 32 / NTI	08/26/00	WEOS TO EEOS	2245	SC	PASS	-
S- 34 / NTI	08/26/00	WEOS TO EEOS	2245	SC	PASS	-
S- 36 / NTI	08/26/00	WEOS TO EEOS	2245	SC	PASS	-
S- 37 / NTI	08/26/00	WEOS TO EEOS	2245	SC	PASS	-
S- 39 / NTI	08/26/00	WEOS TO EEOS	2245	SC	PASS	-
S- 41 / NTI	08/26/00	WEOS TO EEOS	2245	SC	PASS	-
S- 42 / NTI	08/26/00	WEOS TO EEOS	2245	SC	PASS	-
S- 4 / 5	08/26/00	WEOS TO EEOS	2245	SC	PASS	-
S- 10 / 11	08/26/00	1K TO 4F	2245	SC	PASS	-
S- 12 / 13	08/26/00	2H TO 4H	2245	SC	PASS	-
S- 22 / 23	08/26/00	WEOS TO EEOS	2245	SC	PASS	-
S- 24 / 25	08/28/00	WEOS TO EEOS	2245	SC	PASS	-
S- 21 / 23	08/28/00	4I TO 4J	2245	SC	PASS	-
S- 29 / 30	08/28/00	EEOS TO WEOS	2245	SC	PASS	-
S- 44 / NTI	08/28/00	WEOS TO EEOS	2245	SC	PASS	-
S- 47 / NTI	08/28/00	WEOS TO EEOS	2245	SC	PASS	-
S- 39 / 40	08/28/00	WEOS TO EEOS	2245	SC	PASS	-
S- 44 / 47	08/28/00	SEOS TO NEOS	2245	SC	PASS	-
S- 47 / 48	08/28/00	SEOS TO NEOS	2245	SC	PASS	-
S- 48 / NTI	08/28/00	WEOS TO EEOS	2245	SC	PASS	-
S- 49 / NTI	08/28/00	WEOS TO EEOS	2245	SC	PASS	-
S- 51 / NTI	08/28/00	WEOS TO EEOS	2245	SC	PASS	-
S- 53 / NTI	08/28/00	WEOS TO EEOS	2245	SC	PASS	-
S- 54 / NTI	08/28/00	WEOS TO EEOS	2245	SC	PASS	-
S- 61 / 62	08/29/00	EEOS TO WEOS	2300	SC	PASS	-
S- 63 / 64	08/30/00	5X TO NEOS	2223	SC	PASS	-
S- 56 / NTI	08/30/00	EEOS TO WEOS	2223	SC	PASS	-
S- 63 / NTI	08/30/00	EEOS TO WEOS	2223	SC	PASS	-
S- 61 / NTI	08/30/00	EEOS TO WEOS	2223	SC	PASS	-
S- 59 / NTI	08/30/00	EEOS TO WEOS	2223	SC	PASS	-
S- 58 / NTI	08/30/00	EEOS TO WEOS	2223	SC	PASS	-
S- 70 / 72	08/31/00	8C TO NEOS	2245	MM	PASS	-
S- 64 / NTI	08/31/00	12' EOS TO EEOS	2245	SL	PASS	-
S- 66 / NTI	08/31/00	WEOS TO EEOS	2245	SL	PASS	-
S- 68 / NTI	08/31/00	WEOS TO EEOS	2245	SL	PASS	-
S- 69 / NTI	08/31/00	WEOS TO EEOS	2245	SL	PASS	-

TABLE K-2
GEOMEMBRANE VACUUM TEST SUMMARY
SECONDARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER (3)				DATE	SEGMENT(1)	TECH ID.(2)	QA MON.(2)	RESULT	REMARKS
S-	70	/	NTI	08/31/00	WEOS TO EEOS	2245	SL	PASS	-
S-	72	/	NTI	08/31/00	WEOS TO 2' W OF EEOS	2245	SL	PASS	-
S-	72	/	NTI	08/31/00	2' W OF EEOS TO EEOS	2245	SL	PASS	-
S-	74	/	NTI	08/31/00	WEOS TO EEOS	2245	SL	PASS	-
S-	75	/	NTI	08/31/00	WEOS TO EEOS	2245	SL	PASS	-
S-	77	/	NTI	08/31/00	WEOS TO EEOS	2245	SL	PASS	-
S-	79	/	NTI	08/31/00	WEOS TO EEOS	2245	SL	PASS	-
S-	75	/	76	08/31/00	7Q TO 7T	2245	MM	PASS	-
S-	98	/	99	09/29/00	10E TO 10H	2245	SL	PASS	-
S-	85	/	10D	09/29/00	NEOS TO SEOS	2245	SL	PASS	-
S-	86	/	91	09/29/00	NEOS TO SEOS	2245	SL	PASS	-
SRS	1	/	SEC	09/29/00	NEOS TO SEOS	2245	SL	PASS	-
SRS	2	/	SEC	09/29/00	NEOS TO SEOS	2245	SL	PASS	-
SRS	3	/	SEC	09/29/00	EEOS TO WEOS	2245	SL	PASS	-
SRS	3	/	SEC	09/29/00	SEOS TO NEOS	2245	SL	PASS	-
SRS	3	/	SEC	09/29/00	SEOS TO NEOS	2245	SL	PASS	-
SRS	2	/	SEC	09/29/00	SEOS TO NEOS	2245	SL	PASS	-
SRS	1	/	SEC	09/29/00	SEOS TO NEOS	2245	SL	PASS	-
SRS	1	/	SEC	09/30/00	WEOS TO EEOS	2245	SC	PASS	-
S-	87	/	NTI	09/30/00	EEOS TO WEOS	2245	SC	PASS	-
S-	86	/	NTI	09/30/00	EEOS TO WEOS	2245	SC	PASS	-
S-	84	/	NTI	09/30/00	EEOS TO WEOS	2245	SC	PASS	-
S-	82	/	NTI	09/30/00	EEOS TO WEOS	2245	SC	PASS	-
S-	81	/	NTI	09/30/00	EEOS TO WEOS	2245	SC	PASS	-
S-	80	/	NTI	09/30/00	EEOS TO WEOS	2245	SC	PASS	-
S-	86	/	92	09/29/00	10J TO SEOS	2245	SC	PASS	-
S-	79	/	80	10/02/00	9C TO 9D	2323	MLB	PASS	-

NOTES:

(1) Refer to Appendix J for list of Abbreviations

(2) Refer to Appendix A for list of Golder and Serrott personnel

F/N: SGVTS.XL

SECTION K-3

Primary Pressure Test

TABLE K-3
GEOMEMBRANE PRESSURE TEST SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	DATE	SEGMENT(1)	TIME START	TIME FINISH	PRESSURE START	PRESSURE FINISH	STATUS	QA MON.(2)	REMARKS
P- 1 / 3	09/12/00	25H TO 25D	943	948	32	32	PASS	JA	-
P- 3 / 4	09/12/00	SEOS TO NEOS	945	950	33	33	PASS	SL	-
P- 4 / 5	09/12/00	WEOS TO EEOS	-	-	-	-	-	SL	Extrusion welded flap
P- 3 / 5	09/12/00	NEOS TO SEOS	951	956	31	30	PASS	SL	-
P- 5 / 6	09/12/00	NEOS TO SEOS	1004	1009	30	30	PASS	SL	-
P- 4 / 6	09/12/00	SEOS TO NEOS	955	1000	32	30	PASS	SL	-
P- 1 / 3	09/12/00	25D TO 25E	1007	1012	30	29	PASS	SL	-
P- 1 / 2	09/12/00	25F TO NEOS	1035	1040	34	32	PASS	SL	-
P- 1 / 2	09/12/00	25F TO SEOS	-	-	-	-	FAIL	SL	Extrusion welded flap
P- 2 / 3	09/12/00	WEOS TO EEOS	-	-	-	-	FAIL	SL	Extrusion welded flap
P- 2 / 4	09/12/00	25P TO 25G	1028	1035	30	30	PASS	SL	-
P- 2 / 4	09/12/00	25P TO NEOS	1029	1034	30	30	PASS	SL	-
P- 6 / 7	09/12/00	SEOS TO NEOS	1037	1042	30	30	PASS	SL	-
P- 6 / 8	09/12/00	NEOS TO SEOS	1037	1042	33	33	PASS	SL	-
P- 7 / 9	09/12/00	SEOS TO NEOS	1045	1050	29	29	PASS	SL	-
P- 7 / 8	09/12/00	EEOS TO WEOS	1045	1050	33	33	PASS	SL	-
P- 8 / 9	09/12/00	NEOS TO SEOS	1055	1100	33	32	PASS	SL	-
P- 9 / 10	09/12/00	WEOS TO EEOS	1055	1100	32	32	PASS	SL	-
P- 8 / 10	09/12/00	NEOS TO SEOS	1055	1100	33	32	PASS	SL	-
P- 10 / 11	09/12/00	NEOS TO SEOS	1056	1101	30	30	PASS	SL	-
P- 9 / 11	09/12/00	SEOS TO NEOS	1316	1321	32	31	PASS	SL	-
11 / 12	09/12/00	SEOS TO NEOS	1328	1335	33	32	PASS	SL	-
11 / 13	09/12/00	SEOS TO NEOS	1322	1327	34	33	PASS	SL	-
P- 12 / 13	09/12/00	WEOS TO EEOS	1320	1325	30	30	PASS	SL	-
P- 13 / 15	09/14/00	27R TO SEOS	800	805	30	30	PASS	SL	
P- 13 / 15	09/14/00	27R TO NEOS	-	-	-	-	-	-	Extrusion welded flap
P- 14 / 15	09/14/00	WEOS TO EEOS	814	819	35	33	PASS	SL	
P- 15 / 16	09/14/00	NEOS TO SEOS	821	826	30	30	PASS	SL	
P- 14 / 16	09/14/00	SEOS TO NEOS	830	835	30	27	PASS	SL	
P- 13 / 14	09/14/00	SEOS TO 27M	806	811	30	28	PASS	SL	
P- 13 / 14	09/14/00	27M TO 29H	906	911	30	30	PASS	SL	29H TO 29I Extrusion welded flap
P- 13 / 14	09/14/00	29I TO NEOS	929	934	30	29	PASS	SL	
P- 12 / 14	09/14/00	SEOS TO 26Q	1000	1005	30	30	PASS	SL	
P- 12 / 14	09/14/00	26Q TO NEOS	856	901	30	30	PASS	SL	
P- 16 / 17	09/14/00	SEOS TO 29J	-	-	-	-	-	-	Extrusion welded flap
P- 16 / 18	09/14/00	NEOS TO 27S	1015	1020	30	30	PASS	SL	
P- 17 / 18	09/14/00	WEOS TO EEOS	-	-	-	-	-	-	Extrusion welded flap
P- 16 / 17	09/14/00	29J TO NEOS	1046	1051	30	30	PASS	SL	
P- 17 / 19	09/14/00	SEOS TO NEOS	1049	1054	32	32	PASS	SL	
P- 18 / 19	09/14/00	NEOS TO SEOS	1050	1055	33	33	PASS	SL	
P- 16 / 18	09/14/00	27S TO 27G	1117	1122	30	28	PASS	SL	
P- 16 / 18	09/14/00	27G TO SEOS	1054	1059	30	30	PASS	SL	
P- 18 / 20	09/14/00	26X TO SEOS	1100	1105	30	30	PASS	SL	
P- 19 / 20	09/14/00	WEOS TO EEOS	1100	1105	31	31	PASS	SL	
P- 19 / 21	09/14/00	SEOS TO NEOS	1104	1109	32	32	PASS	SL	
P- 20 / 21	09/14/00	NEOS TO SEOS	1106	1111	34	34	PASS	SL	
P- 11 / 28S	09/14/00	WEOS TO 29T	1324	1329	30	28	PASS	SL	
P- 13 / 28S	09/14/00	WEOS TO EEOS	1312	1317	30	28	PASS	SL	
P- 10 / 28S	09/14/00	29R TO EEOS	1320	1325	30	30	PASS	SL	
P- 10 / 28S	09/14/00	29R TO WEOS	1323	1328	30	28	PASS	SL	
P- 8 / 28S	09/14/00	WEOS TO 29P	1330	1335	30	28	PASS	SL	
8 / 28S	09/14/00	29P TO EEOS	1339	1344	30	30	PASS	SL	
6 / 28S	09/14/00	EEOS TO 28T	1333	1338	30	29	PASS	SL	
P- 23 / 24	09/14/00	SEOS TO 30B	1408	1413	30	30	PASS	SL	
P- 24 / 25	09/14/00	WEOS TO EEOS	-	-	-	-	-	-	Extrusion welded flap

TABLE K-3
GEOMEMBRANE PRESSURE TEST SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	DATE	SEGMENT(1)	TIME		PRESSURE		STATUS	QA MON.(2)	REMARKS
			START	FINISH	START	FINISH			
P- 23 / 25	09/14/00	NEOS TO SEOS	1402	1407	30	30	PASS	SL	
P- 23 / 24	09/14/00	30C TO 30D	1456	1501	30	28	PASS	SL	
P- 21 / 22	09/14/00	SEOS TO NEOS	1432	1437	30	30	PASS	SL	
P- 21 / 23	09/14/00	NEOS TO SEOS	1516	1521	30	30	PASS	SL	
P- 22 / 23	09/14/00	WEOS TO EEOS	1436	1441	30	30	PASS	SL	
P- 22 / 24	09/14/00	SEOS TO NEOS	1453	1458	30	30	PASS	SL	
P- 23 / 24	09/14/00	30D TO NEOS	1508	1513	30	30	PASS	SL	
P- 25 / 26	09/14/00	NEOS TO SEOS	1540	1545	30	30	PASS	SL	
P- 24 / 26	09/14/00	SEOS TO NEOS	1528	1533	30	30	PASS	SL	
P- 26 / 28	09/15/00	29A TO SEOS	745	750	30	30	PASS	SL	
P- 26 / 28	09/15/00	29A TO NEOS	746	751	30	30	PASS	SL	
P- 28 / 29	09/15/00	SEOS TO 28H	804	809	30	30	PASS	SL	
P- 28 / 30	09/15/00	NEOS TO SEOS	805	810	30	30	PASS	SL	
P- 29 / 30	09/15/00	WEOS TO 28J	-	-	-	-	-	SL	Extrusion welded flap
P- 29 / 30	09/15/00	28J TO EEOS	806	811	30	30	PASS	SL	
P- 28 / 29	09/15/00	NEOS TO 28H	820	825	30	30	PASS	SL	
P- 27 / 28	09/15/00	EEOS TO WEOS	835	840	30	30	PASS	SL	
P- 27 / 29	09/15/00	SEOS TO NEOS	821	826	30	30	PASS	SL	
P- 26 / 27	09/15/00	SEOS TO NEOS	840	845	30	30	PASS	SL	
P- 31 / 32	09/15/00	SEOS TO NEOS	853	858	30	30	PASS	SL	
P- 31 / 33	09/15/00	NEOS TO 28K	851	856	30	30	PASS	SL	
P- 32 / 33	09/15/00	WEOS TO EEOS	852	857	30	30	PASS	SL	
P- 30 / 31	09/15/00	NEOS TO SEOS	901	906	30	30	PASS	SL	
P- 29 / 31	09/15/00	SEOS TO NEOS	900	905	30	30	PASS	SL	
P- 31 / 33	09/15/00	28K TO SEOS	911	916	30	30	PASS	SL	
P- 33 / 34	09/23/00	SEOS TO 31S	755	800	30	30	PASS	CFB	
P- 33 / 34	09/23/00	31X TO NEOS	805	810	30	30	PASS	CFB	
P- 33 / 34	09/23/00	31S TO 31X	-	-	-	-	FAIL	CFB	Extrusion welded flap
P- 32 / 34	09/23/00	SEOS TO NEOS	807	812	30	28	PASS	CFB	
P- 34 / 35	09/23/00	20' N OF SEOS TO NEOS	815	820	30	30	PASS	CFB	
P- 35 / 37	09/23/00	SEOS TO NEOS	844	849	30	30	PASS	CFB	
P- 35 / 36	09/23/00	SEOS TO NEOS	843	848	30	30	PASS	CFB	
P- 36 / 37	09/23/00	WEOS TO EEOS	845	850	30	30	PASS	CFB	
P- 37 / 38	09/23/00	SEOS TO NEOS	859	904	30	30	PASS	CFB	
P- 36 / 38	09/23/00	SEOS TO NEOS	852	857	30	30	PASS	CFB	
P- 38 / 39	09/23/00	SEOS TO NEOS	910	915	30	30	PASS	CFB	
P- 34 / 35	09/23/00	SEOS TO 20' N OF SEOS	925	930	30	30	PASS	CFB	
P- 39 / 41	09/23/00	SEOS TO NEOS	949	954	30	30	PASS	CFB	
P- 40 / 41	09/23/00	EEOS TO WEOS	948	953	30	30	PASS	CFB	
P- 39 / 40	09/23/00	SEOS TO NEOS	947	952	30	30	PASS	CFB	
P- 41 / 42	09/23/00	SEOS TO NEOS	1020	1025	30	30	PASS	CFB	
P- 40 / 42	09/23/00	SEOS TO NEOS	1005	1010	30	30	PASS	CFB	
P- 42 / 43	09/25/00	SEOS TO NEOS	800	805	30	30	PASS	SL	
P- 43 / 45	09/25/00	SEOS TO 32Q	805	810	30	30	PASS	SL	
P- 45 / 46	09/25/00	SEOS TO NEOS	807	812	35	35	PASS	SL	
P- 43 / 45	09/25/00	32Q TO 32S	900	905	30	30	PASS	SL	
P- 43 / 45	09/25/00	32S TO 32T	910	915	32	32	PASS	SL	
P- 43 / 45	09/25/00	32T TO 32E	-	-	-	-	-	-	Extrusion welded flap
P- 43 / 45	09/25/00	32E TO NEOS	917	922	32	32	PASS	SL	
P- 44 / 45	09/25/00	WEOS TO EEOS	921	926	32	30	PASS	SL	
P- 43 / 44	09/25/00	SEOS TO NEOS	918	923	32	32	PASS	SL	
P- 44 / 46	09/25/00	SEOS TO 32N	928	933	30	30	PASS	SL	32N TO 32P Extrusion welded flap
P- 44 / 46	09/25/00	32P TO NEOS	930	935	32	32	PASS	SL	
P- 46 / 47	09/25/00	33E TO NEOS	947	952	32	32	PASS	SL	
P- 46 / 47	09/25/00	33E TO 32W	1000	1005	31	31	PASS	SL	
P- 46 / 47	09/25/00	32X TO SEOS	1005	1010	31	31	PASS	SL	32W TO 32X Extrusion welded flap

TABLE K-3
GEOMEMBRANE PRESSURE TEST SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	DATE	SEGMENT(1)	TIME START	TIME FINISH	PRESSURE START	PRESSURE FINISH	STATUS	QA MON.(2)	REMARKS
P- 47 / 49	09/25/00	SEOS TO NEOS	1505	1510	32	32	PASS	SL	
P- 49 / 50	09/25/00	SEOS TO NEOS	1520	1525	30	30	PASS	SL	
P- 47 / 48	09/25/00	SEOS TO NEOS	1531	1536	30	30	PASS	SL	
P- 48 / 49	09/25/00	WEOS TO EEOS	1521	1526	31	29	PASS	SL	
P- 48 / 50	09/25/00	SEOS TO NEOS	1537	1542	30	28	PASS	SL	
P- 50 / 51	09/25/00	SEOS TO 34I	1620	1625	31	28	PASS	SL	
P- 50 / 51	09/25/00	34I TO 34J	1640	1645	30	28	PASS	SL	34J TO NEOS Extrusion welded flap
P- 51 / 52	09/25/00	SEOS TO NEOS	1705	1710	30	29	PASS	SL	
P- 51 / 53	09/25/00	SEOS TO NEOS	1655	1700	30	30	PASS	SL	
P- 52 / 53	09/25/00	WEOS TO 34M	1718	1723	30	27	PASS	SL	
P- 53 / 54	09/25/00	NEOS TO SEOS	1743	1748	32	32	PASS	SL	
P- 52 / 53	09/25/00	34M TO EEOS	-	-	-	-	-	-	Extrusion welded flap
P- 52 / 54	09/25/00	SEOS TO NEOS	1745	1750	32	32	PASS	SL	
P- 54 / 55	09/26/00	SEOS TO NEOS	1000	1005	30	30	PASS	SL	
P- 55 / 56	09/26/00	SEOS TO NEOS	1050	1055	30	30	PASS	SL	
P- 56 / 57	09/26/00	WEOS TO EEOS	1014	1019	30	28	PASS	SL	
P- 55 / 57	09/26/00	NEOS TO SEOS	1030	1035	32	32	PASS	SL	
P- 57 / 58	09/26/00	SEOS TO NEOS	1133	1138	30	28	PASS	SL	
P- 56 / 58	09/26/00	SEOS TO NEOS	1200	1205	32	32	PASS	SL	
P- 58 / 59	09/26/00	SEOS TO NEOS	1345	1350	30	30	PASS	SL	
P- 59 / 61	09/26/00	SEOS TO NEOS	1433	1438	30	29	PASS	SC	
P- 60 / 61	09/26/00	WEOS TO EEOS	1437	1442	30	30	PASS	SC	
59 / 60	09/26/00	SEOS TO NEOS	1515	1520	30	28	PASS	SC	
61 / 62	09/27/00	SEOS TO NEOS	1017	1025	30	30	PASS	MLB	
P- 62 / 64	09/27/00	SEOS TO NEOS	1035	1040	30	29	PASS	MLB	
P- 60 / 62	09/27/00	SEOS TO NEOS	1101	1106	30	30	PASS	MLB	
P- 62 / 63	09/27/00	SEOS TO NEOS	1104	1109	31	30	PASS	MLB	
P- 63 / 64	09/27/00	EEOS TO WEOS	1106	1111	30	29	PASS	MLB	
P- 65 / 66	09/27/00	WEOS TO EEOS	1140	1145	30	29	PASS	MLB	
P- 64 / 65	09/27/00	SEOS TO NEOS	1142	1147	30	28	PASS	MLB	
P- 64 / 66	09/27/00	SEOS TO NEOS	1139	1144	31	31	PASS	MLB	
P- 66 / 67	09/27/00	SEOS TO NEOS	1313	1318	30	30	PASS	MLB	
P- 63 / 65	09/27/00	SEOS TO NEOS	1317	1322	30	30	PASS	MLB	
P- 65 / 67	09/27/00	SEOS TO NEOS	1323	1328	30	29	PASS	MLB	
P- 67 / 69	09/27/00	NEOS TO SEOS	1448	1453	32	32	PASS	SL	
P- 68 / 69	09/27/00	WEOS TO EEOS	1448	1453	32	32	PASS	SL	
P- 67 / 68	09/27/00	SEOS TO NEOS	1500	1505	32	30	PASS	SL	
P- 70 / 72	10/05/00	SEOS TO NEOS	1525	1530	30	30	PASS	CFB	
P- 70 / 71	10/05/00	EEOS TO 36B	1617	1622	32	32	PASS	CFB	
P- 69 / 70	10/05/00	SEOS TO NEOS	1615	1620	30	28	PASS	CFB	
P- 71 / 72	10/05/00	SEOS TO NEOS	1518	1523	30	30	PASS	CFB	
P- 69 / 71	10/05/00	SEOS TO NEOS	1507	1512	30	30	PASS	CFB	
P- 71 / 73	10/05/00	SEOS TO NEOS	1515	1520	30	28	PASS	CFB	
P- 72 / 73	10/05/00	EEOS TO WEOS	1516	1521	30	28	PASS	CFB	
P- 73 / 74	10/05/00	SEOS TO NEOS	1551	1556	30	28	PASS	CFB	
P- 72 / 74	10/05/00	SEOS TO 36S	1602	1607	30	30	PASS	CFB	
P- 70 / 71	10/05/00	WEOS TO 36B	1625	1630	32	29	PASS	CFB	
P- 68 / 70	10/05/00	SEOS TO NEOS	1630	1635	30	29	PASS	CFB	
P- 72 / 74	10/05/00	36W TO 36X	1700	1705	31	30	PASS	CFB	
P- 72 / 74	10/05/00	36X TO NEOS	-	-	-	-	-	-	Extrusion welded flap
P- 75 / 76	10/05/00	EEOS TO WEOS	1702	1707	32	32	PASS	CFB	
P- 74 / 76	10/05/00	SEOS TO NEOS	1702	1707	32	32	PASS	CFB	
74 / 75	10/05/00	SEOS TO 36M	1703	1708	33	32	PASS	CFB	
72 / 74	10/05/00	36W TO 37B	1707	1712	30	29	PASS	CFB	
P- 72 / 74	10/05/00	37B TO 36S	-	-	-	-	-	-	Extrusion welded flap
P- 74 / 75	10/05/00	36M TO NEOS	1714	1719	32	30	PASS	CFB	

TABLE K-3
GEOMEMBRANE PRESSURE TEST SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER	DATE	SEGMENT(1)	TIME		PRESSURE		STATUS	QA MON.(2)	REMARKS
			START	FINISH	START	FINISH			
P- 75 / 77	10/05/00	SEOS TO NEOS	1725	1730	32	31	PASS	CFB	
P- 76 / 77	10/05/00	SEOS TO NEOS	1727	1732	32	32	PASS	CFB	
P- 77 / 79	10/05/00	SEOS TO NEOS	1730	1735	32	32	PASS	CFB	
P- 76 / 78	10/05/00	SEOS TO NEOS	1739	1744	32	30	PASS	CFB	
P- 77 / 78	10/05/00	WEOS TO EEOS	1739	1744	30	30	PASS	CFB	
P- 78 / 79	10/05/00	SEOS TO NEOS	1740	1745	30	28	PASS	CFB	
P- 79 / 93	10/07/00	SEOS TO NEOS	805	810	30	30	PASS	MLB	
P- 92 / 93	10/07/00	WEOS TO EEOS	807	812	30	30	PASS	MLB	
P- 79 / 92	10/07/00	SEOS TO NEOS	809	814	30	30	PASS	MLB	
P- 91 / 92	10/07/00	WEOS TO EEOS	816	821	30	29	PASS	MLB	
P- 79 / 91	10/07/00	SEOS TO NEOS	818	823	30	30	PASS	MLB	
P- 90 / 91	10/07/00	WEOS TO EEOS	824	829	30	30	PASS	MLB	
P- 79 / 90	10/07/00	SEOS TO NEOS	825	830	30	29	PASS	MLB	
P- 89 / 90	10/07/00	WEOS TO EEOS	832	837	30	30	PASS	MLB	
P- 79 / 89	10/07/00	SEOS TO NEOS	843	848	30	29	PASS	MLB	
P- 88 / 89	10/07/00	WEOS TO EEOS	846	851	30	29	PASS	MLB	
P- 79 / 88	10/07/00	SEOS TO NEOS	852	857	30	30	PASS	MLB	
P- 87 / 88	10/07/00	WEOS TO EEOS	855	900	30	29	PASS	MLB	
P- 79 / 87	10/07/00	NEOS TO SEOS	901	906	30	30	PASS	MLB	
P- 80 / 87	10/07/00	WEOS TO 38H	902	907	30	30	PASS	MLB	
P- 80 / 87	10/07/00	38H TO EEOS	918	923	30	30	PASS	MLB	
P- 79 / 80	10/07/00	NEOS TO SEOS	935	940	30	29	PASS	MLB	
80 / 81	10/07/00	WEOS TO EEOS	934	939	30	30	PASS	MLB	
79 / 81	10/07/00	NEOS TO SEOS	943	948	30	29	PASS	MLB	
P- 81 / 82	10/07/00	WEOS TO EEOS	940	945	30	30	PASS	MLB	
P- 79 / 82	10/07/00	NEOS TO SEOS	947	952	30	30	PASS	MLB	
P- 82 / 83	10/07/00	WEOS TO EEOS	948	953	30	30	PASS	MLB	
P- 79 / 83	10/07/00	SEOS TO NEOS	950	955	30	30	PASS	MLB	
P- 83 / 84	10/07/00	WEOS TO EEOS	957	1002	30	30	PASS	MLB	
P- 79 / 84	10/07/00	SEOS TO NEOS	1001	1006	30	30	PASS	MLB	
P- 84 / 85	10/07/00	WEOS TO EEOS	1020	1025	32	32	PASS	MLB	
P- 85 / 38C	10/07/00	SEOS TO NEOS	1017	1022	30	30	PASS	MLB	
P- 79 / 38C	10/07/00	SEOS TO NEOS	1018	1023	30	29	PASS	MLB	
P- 85 / 86	10/07/00	WEOS TO 38E	1021	1026	30	30	PASS	MLB	
P- 79 / 86	10/07/00	NEOS TO SEOS	1022	1027	31	30	PASS	MLB	
P- 85 / 86	10/07/00	38E TO EEOS	1028	1033	30	30	PASS	MLB	
P- PRS-1 / PRS-2	10/10/00	WEOS TO EEOS	1310	1315	31	31	PASS	SL	

NOTES:

(1) Refer to Appendix J for list of Abbreviations

(2) Refer to Appendix A for list of Golder and Serrott personnel

F/N: PGPTS.XLS

SECTION K-4

Primary Vacuum Test

TABLE K-4
GEOMEMBRANE VACUUM TEST SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER (3)	DATE	SEGMENT(1)	TECH ID.(2)	QA MON.(2)	RESULT	REMARKS
P- 4 / 5	09/15/00	WEOS TO EEOS	2322	MLB	PASS	-
P- 1 / 3	09/15/00	25H TO SEOS	2322	MLB	PASS	-
P- 1 / 2	09/15/00	25F TO 26B	2322	MLB	PASS	-
P- 1 / 2	09/15/00	26B TO 25E	2322	MLB	PASS	-
P- 2 / 3	09/15/00	WEOS TO EEOS	2322	MLB	PASS	-
P- 1 / NTI	09/15/00	WEOS TO EEOS	2322	MLB	PASS	-
P- 1 / 2	09/15/00	26A TO NEOS	2322	MLB	PASS	-
P- 2 / NTI	09/15/00	WEOS TO EEOS	2322	MLB	PASS	-
P- 4 / NTI	09/15/00	WEOS TO EEOS	2322	MLB	PASS	-
P- 6 / NTI	09/15/00	WEOS TO EEOS	2322	MLB	PASS	-
P- 7 / NTI	09/15/00	WEOS TO EEOS	2322	MLB	PASS	-
P- 9 / NTI	09/15/00	WEOS TO EEOS	2322	MLB	PASS	-
P- 11 / NTI	09/15/00	WEOS TO EEOS	2322	MLB	PASS	-
P- 12 / NTI	09/15/00	WEOS TO EEOS	2322	MLB	PASS	-
P- 14 / NTI	09/15/00	WEOS TO EEOS	2322	MLB	PASS	-
P- 13 / 15	09/15/00	27R TO 26R	2322	SL	PASS	-
P- 13 / 14	09/15/00	29H TO 29I	2322	SL	PASS	-
P- 16 / 17	09/15/00	26T TO 30A	2322	SL	PASS	-
P- 16 / 17	09/15/00	30A TO 29J	2322	SL	PASS	-
P- 17 / 18	09/15/00	WEOS TO EEOS	2322	SL	PASS	-
P- 23 / 24	09/15/00	30B TO 30C	2322	SL	PASS	-
P- 24 / 25	09/15/00	EEOS TO WEOS	2322	SL	PASS	-
P- 16 / NTI	09/15/00	WEOS TO EEOS	2322	SL	PASS	-
P- 17 / NTI	09/15/00	WEOS TO EEOS	2322	SL	PASS	-
P- 19 / NTI	09/15/00	WEOS TO EEOS	2322	SL	PASS	-
P- 21 / NTI	09/15/00	WEOS TO EEOS	2322	SL	PASS	-
P- 22 / NTI	09/15/00	WEOS TO EEOS	2322	SL	PASS	-
P- 24 / NTI	09/15/00	WEOS TO EEOS	2322	SL	PASS	-
P- 29 / 30	09/15/00	28G TO 28J	2322	SL	PASS	-
P- 26 / NTI	09/15/00	WEOS TO EEOS	2322	SL	PASS	-
P- 27 / NTI	09/15/00	WEOS TO EEOS	2322	SL	PASS	-
P- 29 / NTI	09/15/00	WEOS TO EEOS	2322	SL	PASS	-
P- 30 / SEC	09/16/00	WEOS TO EEOS	2323	MLB	PASS	Temporary weld
P- 28 / SEC	09/16/00	WEOS TO EEOS	2323	MLB	PASS	Temporary weld
P- 26 / SEC	09/16/00	WEOS TO EEOS	2323	MLB	PASS	Temporary weld
P- 25 / SEC	09/16/00	WEOS TO EEOS	2323	MLB	PASS	Temporary weld
P- 23 / SEC	09/16/00	WEOS TO EEOS	2323	MLB	PASS	Temporary weld
P- 20 / SEC	09/16/00	WEOS TO EEOS	2323	MLB	PASS	Temporary weld
P- 18 / SEC	09/16/00	WEOS TO EEOS	2323	MLB	PASS	Temporary weld
P- 16 / SEC	09/16/00	WEOS TO EEOS	2323	MLB	PASS	Temporary weld
P- 15 / SEC	09/16/00	WEOS TO EEOS	2323	MLB	PASS	Temporary weld
P- 13 / SEC	09/16/00	WEOS TO EEOS	2323	MLB	PASS	Temporary weld (on 28S)
P- 11 / SEC	09/16/00	WEOS TO EEOS	2323	MLB	PASS	Temporary weld (on 28S)
P- 10 / SEC	09/16/00	WEOS TO EEOS	2323	MLB	PASS	Temporary weld (on 28S)
P- 8 / SEC	09/16/00	WEOS TO EEOS	2323	MLB	PASS	Temporary weld (on 28S)
P- 6 / SEC	09/16/00	WEOS TO EEOS	2323	MLB	PASS	Temporary weld (on 28S)
P- 32 / NTI	09/16/00	WEOS TO EEOS	2322	SC	PASS	-
P- 31 / NTI	09/16/00	EEOS TO WEOS	2322	SC	PASS	-
P- 5 / SEC	09/16/00	WEOS TO EEOS	2323	MLB	PASS	Temporary weld
P- 3 / SEC	09/16/00	WEOS TO EEOS	2323	MLB	PASS	Temporary weld
P- 1 / SEC	09/16/00	WEOS TO EEOS	2323	MLB	PASS	Temporary weld
P- 1 / SEC	09/19/00	SEOS TO NEOS	2323	SL	PASS	Temporary weld
P- 1 / SWF	09/21/00	SEOS TO NEOS	7534	SC	PASS	Temporary weld
P- 33 / 34	09/23/00	31X TO 31W	2245	CFB	PASS	-
P- 34 / NTI	09/23/00	EEOS TO WEOS	2245	CFB	PASS	-

TABLE K-4
GEOMEMBRANE VACUUM TEST SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER (3)	DATE	SEGMENT(1)	TECH ID.(2)	QA MON.(2)	RESULT	REMARKS
P- 35 / NTI	09/23/00	EEOS TO WEOS	2245	CFB	PASS	-
P- 36 / NTI	09/23/00	EEOS TO WEOS	2245	CFB	PASS	-
P- 38 / NTI	09/23/00	EEOS TO WEOS	2245	CFB	PASS	-
P- 39 / NTI	09/23/00	EEOS TO WEOS	2245	CFB	PASS	On defect 30S
P- 40 / NTI	09/23/00	EEOS TO WEOS	2245	CFB	PASS	-
P- 33 / 34	09/23/00	31W TO 31S	2245	CFB	PASS	-
P- 33 / SEC	09/23/00	WEOS TO EEOS	2245	CFB	PASS	Temporary weld
P- 34 / SEC	09/23/00	WEOS TO EEOS	2245	CFB	PASS	Temporary weld
P- 35 / SEC	09/23/00	WEOS TO EEOS	2245	CFB	PASS	Temporary weld
P- 37 / SEC	09/23/00	WEOS TO EEOS	2245	CFB	PASS	Temporary weld
P- 38 / SEC	09/23/00	WEOS TO EEOS	2245	CFB	PASS	Temporary weld
P- 39 / SEC	09/23/00	WEOS TO EEOS	2245	CFB	PASS	Temporary weld
P- 41 / SEC	09/23/00	WEOS TO EEOS	2245	CFB	PASS	Temporary weld
P- 42 / SEC	09/23/00	WEOS TO EEOS	2245	CFB	PASS	Temporary weld
P- 42 / NTI	09/25/00	WEOS TO EEOS	2245	SC	PASS	-
P- 43 / NTI	09/25/00	WEOS TO EEOS	2245	SC	PASS	-
P- 44 / NTI	09/25/00	WEOS TO EEOS	2245	SC	PASS	-
P- 46 / NTI	09/25/00	WEOS TO EEOS	2245	SC	PASS	-
P- 47 / NTI	09/25/00	WEOS TO EEOS	2245	SC	PASS	-
P- 48 / NTI	09/26/00	WEOS TO EEOS	2245	SC	PASS	-
P- 50 / NTI	09/26/00	WEOS TO EEOS	2245	SC	PASS	-
P- 51 / NTI	09/26/00	WEOS TO EEOS	2245	SC	PASS	-
P- 52 / NTI	09/26/00	WEOS TO EEOS	2245	SC	PASS	-
P- 54 / NTI	09/26/00	WEOS TO EEOS	2245	SC	PASS	-
P- 55 / NTI	09/26/00	WEOS TO EEOS	2245	SC	PASS	-
P- 56 / NTI	09/27/00	WEOS TO EEOS	2245	SC	PASS	-
P- 58 / NTI	09/27/00	WEOS TO EEOS	2245	MLB	PASS	-
P- 59 / NTI	09/27/00	WEOS TO EEOS	2245	MLB	PASS	-
P- 60 / NTI	09/27/00	WEOS TO EEOS	2245	MLB	PASS	-
P- 62 / NTI	09/27/00	WEOS TO EEOS	2245	MLB	PASS	-
P- 63 / NTI	09/27/00	WEOS TO EEOS	2245	MLB	PASS	-
P- 65 / NTI	09/27/00	WEOS TO EEOS	2245	MLB	PASS	-
P- 67 / NTI	09/27/00	WEOS TO EEOS	2245	SC	PASS	-
P- 68 / NTI	09/27/00	WEOS TO EEOS	2245	SC	PASS	-
P- 46 / 47	09/28/00	32X TO 32W	2245	SL	PASS	-
P- 44 / 46	09/28/00	32N TO 32P	2245	SL	PASS	-
P- 50 / 51	09/28/00	34J TO NEOS	2245	SL	PASS	-
P- 43 / 45	09/28/00	32T TO 32E	2245	SL	PASS	-
P- 52 / 53	09/28/00	34M TO 33H	2245	SL	PASS	-
P- 69 / SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P- 67 / SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P- 66 / SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P- 64 / SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P- 62 / SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P- 61 / SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P- 59 / SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P- 58 / SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P- 57 / SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P- 55 / SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P- 54 / SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P- 53 / SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P- 51 / SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P- 50 / SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P- 49 / SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P- 47 / SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P- 46 / SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld

TABLE K-4
GEOMEMBRANE VACUUM TEST SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER (3)				DATE	SEGMENT(1)	TECH ID.(2)	QA MON.(2)	RESULT	REMARKS
P-	45	/	SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P-	43	/	SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P-	42	/	SEC	10/03/00	EEOS TO WEOS	2245	SC	PASS	Temporary weld
P-	69	/	SEC	10/05/00	NEOS TO SEOS	2245	SC	PASS	Temporary weld
P-	77	/	79	10/06/00	36T TO NEOS	2245	SL	PASS	-
P-	70	/	NTI	10/07/00	WEOS TO EEOS	2245	SL	PASS	-
P-	72	/	NTI	10/07/00	WEOS TO EEOS	2245	SL	PASS	-
P-	74	/	NTI	10/07/00	WEOS TO EEOS	2245	SL	PASS	-
P-	75	/	NTI	10/07/00	WEOS TO EEOS	2245	SL	PASS	-
P-	77	/	NTI	10/07/00	WEOS TO EEOS	2245	SL	PASS	-
P-	79	/	NTI	10/07/00	WEOS TO EEOS	2245	SL	PASS	37T
P-	86	/	NTI	10/07/00	WEOS TO EEOS	2245	SL	PASS	37W, 37X
P-	93	/	SEC	10/07/00	SEOS TO NEOS	2245	SL	PASS	-
P-	92	/	SEC	10/07/00	SEOS TO NEOS	2245	SL	PASS	-
P-	91	/	SEC	10/07/00	SEOS TO NEOS	2245	SL	PASS	-
P-	90	/	SEC	10/07/00	SEOS TO NEOS	2245	SL	PASS	-
P-	89	/	SEC	10/07/00	SEOS TO NEOS	2245	SL	PASS	-
P-	88	/	SEC	10/07/00	SEOS TO NEOS	2245	SL	PASS	-
P-	71	/	SEC	10/07/00	WEOS TO EEOS	2245	SL	PASS	Temporary weld
P-	73	/	SEC	10/07/00	WEOS TO EEOS	2245	SL	PASS	Temporary weld
P-	74	/	SEC	10/07/00	WEOS TO EEOS	2245	SL	PASS	Temporary weld
P-	76	/	SEC	10/07/00	WEOS TO EEOS	2245	SL	PASS	Temporary weld
P-	78	/	SEC	10/07/00	WEOS TO EEOS	2245	SL	PASS	Temporary weld
P-	79	/	SEC	10/07/00	WEOS TO EEOS	2245	SL	PASS	Temporary weld
P-	93	/	SEC	10/07/00	WEOS TO EEOS	2245	SL	PASS	Temporary weld
P-	87	/	SEC	10/07/00	SEOS TO NEOS	2245	SL	PASS	-
P-	80	/	SEC	10/07/00	SEOS TO NEOS	2245	SL	PASS	-
P-	81	/	SEC	10/07/00	SEOS TO NEOS	2245	SL	PASS	-
P-	82	/	SEC	10/07/00	SEOS TO NEOS	2245	SL	PASS	-
P-	83	/	SEC	10/07/00	SEOS TO NEOS	2245	SL	PASS	-
P-	84	/	SEC	10/07/00	SEOS TO NEOS	2245	SL	PASS	-
P-	85	/	SEC	10/07/00	SEOS TO NEOS	2245	SL	PASS	-
P-	86	/	SEC	10/07/00	SEOS TO NEOS	2245	SL	PASS	-
P-	72	/	74	10/07/00	36X TO NEOS	2245	SL	PASS	-
P-	72	/	74	10/07/00	36S TO 37B	2245	SL	PASS	-
P-	80	/	WR	10/09/00	38B TO NEOS	2245	SL	PASS	-
P-	PRS-1	/	PRI	10/10/00	EEOS TO WEOS	2245	SL	PASS	-
P-	PRS-2	/	PRI	10/10/00	WEOS TO EEOS	2245	SL	PASS	-
P-	92	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	79	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	77	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	76	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	74	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	72	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	71	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	69	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	67	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	66	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	64	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	62	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	61	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	59	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	58	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	57	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	55	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	54	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-

TABLE K-4
GEOMEMBRANE VACUUM TEST SUMMARY
PRIMARY GEOMEMBRANE LINER
TRAIL RIDGE LANDFILL PHASE IIIC
BALDWIN, FLORIDA

SEAM NUMBER (3)				DATE	SEGMENT(1)	TECH ID (2)	QA MON.(2)	RESULT	REMARKS
P-	53	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	51	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	50	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	49	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	47	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	46	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	45	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	43	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	42	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	41	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	39	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	38	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	37	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	35	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	34	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	33	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	31	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	30	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	28	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	26	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	25	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	23	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	21	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	20	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	18	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	16	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	15	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	13	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	11	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	10	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	8	/	LCF	10/28/00	EEOS TO WEOS	2245	VD	PASS	-
P-	43	/	SWF	11/04/00	LCF TO 25' S	2245	SC	PASS	Station 120+00E
P-	SWF	/	LCF	11/04/00	BOTTOM TO 4' UP	2245	SC	PASS	Station 120+00E
P-	6	/	LCF	11/11/00	WEOS TO EEOS	2245	MLB	PASS	-
P-	4	/	LCF	11/11/00	WEOS TO EEOS	2245	MLB	PASS	-
P-	3	/	LCF	11/11/00	WEOS TO EEOS	2245	MLB	PASS	-
P-	1	/	LCF	11/11/00	WEOS TO SWF	2245	MLB	PASS	-
P-	1	/	LCF	11/11/00	SWF TO EEOS	2245	MLB	PASS	-
P-	SWF	/	LCF	11/11/00	BOTTOM TO 4' UP	2245	MLB	PASS	Station 114+00E
P-	4	/	SWF	11/11/00	LCF TO 25' S	2245	MLB	PASS	Station 114+50E
P-	SWF	/	LCF	11/11/00	BOTTOM TO 4' UP	2245	MLB	PASS	Station 114+50E

NOTES:

(1) Refer to Appendix J for list of Abbreviations
(2) Refer to Appendix A for list of Golder and Serrott personnel
(3) All results are passing with the exceptions noted in the remarks column.
(4) Temporary welds will be removed during future construction of Phase VA.

F/N: PGVT.XLS

APPENDIX L

Destructive Test Results

SECTION L-1

Secondary Fusion

SUMMARY OF DESTRUCTIVE TEST RESULTS
FUSION METHOD

ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

SAMPLE NUMBER	THICKNESS mils (top/bottom)	SHEAR STRENGTH (ppi)	SHEAR BREAK CODE (3)	PEEL (1) STRENGTH (ppi)	PEEL (1) BREAK CODE (3)	PEEL (2) STRENGTH (ppi)	PEEL (2) BREAK CODE (3)	REMARKS
DSF - 1	66.1/66.7	169.2	BRK	117.8	SE 1	125.6	SE 1	
		171.5	BRK	118.3	SE 1	138.8	SE 1	-
		171.0	BRK	117.2	SE 1	131.4	SE 1	
		170.2	BRK	115.7	SE 1	138.5	SE 1	
		171.2	BRK	124.1	SE 1	132.2	SE 1	
DSF - 2	65.8/66.2	170.7	BRK	132.3	SE 1	123.4	SE 1	
		170.7	BRK	125.2	SE 1	134.0	SE 1	-
		171.2	BRK	135.7	SE 1	128.8	SE 1	
		169.2	BRK	124.1	SE 1	128.4	SE 1	
		169.5	BRK	134.3	SE 1	132.0	SE 1	
DSF - 3	65.7/68.0	175.7	BRK	151.1	SE 1	144.9	SE 1	
		177.0	BRK	145.1	SE 1	134.8	SE 1	-
		178.0	BRK	149.2	SE 1	138.9	SE 1	
		178.7	BRK	153.4	SE 1	143.3	SE 1	
		177.2	BRK	143.5	SE 1	131.4	SE 1	
DSF - 4	65.5/64.1	171.5	BRK	104.5	SE 1	116.0	SE 1	
		171.5	BRK	103.9	SE 1	119.7	SE 1	-
		171.0	BRK	115.8	SE 1	111.2	SE 1	
		170.0	BRK	133.9	SE 1	137.6	SE 1	
		168.2	BRK	138.4	SE 1	124.0	SE 1	
DSF - 5	66.0/65.4	168.2	BRK	120.9	SE 1	141.9	SE 1	
		167.9	BRK	107.0	SE 1	137.2	SE 1	
		168.0	BRK	113.2	SE 1	139.2	SE 1	
		169.0	BRK	104.7	SE 1	140.2	SE 1	
		169.7	BRK	130.4	SE 1	141.4	SE 1	
DSF - 6	66.6/66.5	173.1	BRK	130.9	SE 1	122.8	SE 1	
		174.1	BRK	136.5	SE 1	125.1	SE 1	-
		174.0	BRK	129.9	SE 1	136.3	SE 1	
		173.0	BRK	140.1	SE 1	126.5	SE 1	
		173.5	BRK	137.6	SE 1	135.8	SE 1	
DSF - 7	65.9/64.1	171.2	BRK	136.2	SE 1	142.0	SE 1	
		171.2	BRK	130.0	SE 1	138.6	SE 1	-
		171.2	BRK	134.1	SE 1	140.7	SE 1	
		169.8	BRK	131.9	SE 1	139.3	SE 1	
		169.7	BRK	134.2	SE 1	129.5	SE 1	

(1) PEEL (1) represents outer track or top flap.
(2) PEEL (2) represents inner track or bottom flap.
(3) BREAK CODES BASED ON MODES ILLUSTRATED IN ATTACHED FIGURE.

DFSUM

SUMMARY OF DESTRUCTIVE TEST RESULTS
FUSION METHOD
ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

SAMPLE NUMBER	THICKNESS mils (top/bottom)	SHEAR STRENGTH (ppi)	SHEAR BREAK CODE (3)	PEEL (1) STRENGTH (ppi)	PEEL (1) BREAK CODE (3)	PEEL (2) STRENGTH (ppi)	PEEL (2) BREAK CODE (3)	REMARKS
DSF - 8	68.2/67.1	172.5	BRK	150.9	SE 1	136.7	SE 1	
		172.5	BRK	135.8	SE 1	139.2	SE 1	-
		172.7	BRK	133.4	SE 1	82.2	AD-BRK	
		172.7	BRK	115.3	SE 1	130.6	SE 1	
		171.5	BRK	141.1	SE 1	132.6	SE 1	
DSF - 9	66.3/65.8	169.2	BRK	124.1	SE 1	131.9	SE 1	
		166.7	BRK	127.8	SE 1	142.1	SE 1	-
		166.5	BRK	139.8	SE 1	132.2	SE 1	
		167.7	BRK	149.6	SE 1	132.7	SE 1	
		168.7	BRK	137.5	SE 1	124.9	SE 1	
DSF - 10	64.6/66.3	171.5	BRK	129.1	SE 1	131.1	SE 1	
		172.7	BRK	123.4	SE 1	136.0	SE 1	-
		171.2	BRK	135.0	SE 1	131.4	SE 1	
		170.7	BRK	130.6	SE 1	122.4	SE 1	
		168.0	BRK	137.2	SE 1	119.8	SE 1	
DSF - 11	63.8/73.3	168.0	BRK	131.1	SE 1	139.6	SE 1	
		173.0	BRK	144.3	SE 1	111.0	SE 1	-
		171.2	BRK	139.9	SE 1	132.4	SE 1	
		171.0	BRK	135.7	SE 1	147.3	SE 1	
		172.0	BRK	131.0	SE 1	140.5	SE 1	
DSF- 12	66.9/66.4	179.7	BRK	144.2	SE 1	135.3	SE 1	
		180.7	BRK	141.0	SE 1	135.7	SE 1	
		179.7	BRK	137.4	SE 1	137.8	SE 1	
		179.2	BRK	137.8	SE 1	131.4	SE 1	
		177.5	BRK	136.4	SE 1	136.7	SE 1	
DSF - 13	66.4/66.2	172.5	BRK	118.8	SE 1	144.6	SE 1	
		175.0	BRK	119.9	SE 1	144.4	SE 1	-
		175.7	BRK	125.7	SE 1	150.9	SE 1	
		175.2	BRK	121.1	SE 1	144.2	SE 1	
		175.0	BRK	124.7	SE 1	141.2	SE 1	
DSF - 14	66.5/65.0	173.7	BRK	115.0	SE 1	143.5	SE 1	
		173.0	BRK	131.3	SE 1	142.5	SE 1	-
		172.0	BRK	141.9	SE 1	135.9	SE 1	
		171.5	BRK	131.4	SE 1	142.0	SE 1	
		172.2	BRK	117.7	SE 1	144.1	SE 1	

(1) PEEL (1) represents outer track or top flap.
(2) PEEL (2) represents inner track or bottom flap.
(3) BREAK CODES BASED ON MODES ILLUSTRATED IN ATTACHED FIGURE.

DFSUM

SUMMARY OF DESTRUCTIVE TEST RESULTS
FUSION METHOD
ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

SAMPLE NUMBER	THICKNESS mils (top/bottom)	SHEAR STRENGTH (ppi)	SHEAR BREAK CODE (3)	PEEL (1) STRENGTH (ppi)	PEEL (1) BREAK CODE (3)	PEEL (2) STRENGTH (ppi)	PEEL (2) BREAK CODE (3)	REMARKS
DSF - 15	67.2/66.0	172.7	BRK	152.1	SE 1	144.4	SE 1	
		173.5	BRK	148.6	SE 1	128.8	SE 1	-
		169.5	BRK	130.1	SE 1	144.4	SE 1	
		172.5	BRK	148.6	SE 1	145.3	SE 1	
		172.2	BRK	145.8	SE 1	149.7	SE 1	
DSF - 16	64.7/67.4	173.2	BRK	145.4	SE 1	126.0	SE 1	
		174.7	BRK	126.5	SE 1	135.0	SE 1	-
		174.0	BRK	136.1	SE 1	137.0	SE 1	
		174.5	BRK	120.7	SE 1	126.9	SE 1	
		174.2	BRK	130.9	SE 1	139.3	SE 1	
DSF - 17	65.9/66.8	173.1	BRK	142.7	SE 1	124.7	SE 1	
		173.4	BRK	130.1	SE 1	131.8	SE 1	-
		173.5	BRK	133.9	SE 1	137.2	SE 1	
		173.6	BRK	121.4	SE 1	129.6	SE 1	
		174.7	BRK	128.8	SE 1	140.9	SE 1	
DSF - 18	65.1/64.6	170.4	BRK	145.9	SE 1	118.1	SE 1	
		168.5	BRK	116.0	SE 1	108.4	SE 1	-
		168.9	BRK	122.0	SE 1	122.1	SE 1	
		168.0	BRK	118.8	SE 1	111.4	SE 1	
		167.4	BRK	125.2	SE 1	114.9	SE 1	
DSF - 19	66.1/67.3	169.5	BRK	131.4	SE 1	136.4	SE 1	
		168.2	BRK	128.9	SE 1	123.7	AD-BRK	
		169.2	BRK	122.6	SE 1	142.9	SE 1	
		169.5	BRK	131.7	SE 1	130.0	SE 1	
		170.5	BRK	141.9	SE 1	140.7	SE 1	
DSF - 20	66.6/67.9	175.0	BRK	143.2	SE 1	149.1	SE 1	
		175.8	BRK	145.5	SE 1	139.3	SE 1	-
		175.2	BRK	132.7	SE 1	129.7	SE 1	
		174.0	BRK	150.6	SE 1	151.3	SE 1	
		174.6	BRK	144.0	SE 1	144.7	SE 1	
DSF - 21	65.8/66.8	170.7	BRK	140.5	SE 1	146.2	SE 1	
		170.6	BRK	138.7	SE 1	142.5	SE 1	-
		170.3	BRK	124.7	SE 1	140.8	SE 1	
		168.0	BRK	131.3	SE 1	146.8	SE 1	
		169.7	BRK	121.7	SE 1	142.1	SE 1	

(1) PEEL (1) represents outer track or top flap.
(2) PEEL (2) represents inner track or bottom flap.
(3) BREAK CODES BASED ON MODES ILLUSTRATED IN ATTACHED FIGURE.

DFSUM

SUMMARY OF DESTRUCTIVE TEST RESULTS
FUSION METHOD
ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

SAMPLE NUMBER	THICKNESS mils (top/bottom)	SHEAR STRENGTH (ppi)	SHEAR BREAK CODE (3)	PEEL (1) STRENGTH (ppi)	PEEL (1) BREAK CODE (3)	PEEL (2) STRENGTH (ppi)	PEEL (2) BREAK CODE (3)	REMARKS
DSF - 22	65.6/68.3	170.6	BRK	136.9	SE 1	144.2	SE 1	
		171.1	BRK	119.1	SE 1	142.0	SE 1	-
		170.6	BRK	109.1	SE 1	137.2	SE 1	
		171.0	BRK	136.2	SE 1	143.7	SE 1	
		172.6	BRK	127.7	SE 1	105.9	SE 1	
DSF - 23	66.1/70.7	176.6	BRK	142.8	SE 1	135.7	SE 1	
		176.6	BRK	131.2	SE 1	141.3	SE 1	-
		176.1	BRK	132.7	SE 1	137.2	SE 1	
		176.0	BRK	140.1	SE 1	141.4	SE 1	
		175.5	BRK	135.1	SE 1	123.2	SE 1	
DSF - 24	64.6/70.2	175.7	BRK	136.2	SE 1	145.3	SE 1	
		175.7	BRK	135.5	SE 1	152.6	SE 1	-
		175.1	BRK	140.1	SE 1	156.0	SE 1	
		176.0	BRK	132.4	SE 1	150.8	SE 1	
		175.3	BRK	156.2	SE 1	149.7	SE 1	
DSF - 25	63.3/63.6	150.7	BRK	122.4	SE 1	132.9	SE 1	
		150.5	BRK	123.1	SE 1	135.6	SE 1	-
		150.1	BRK	131.2	SE 1	131.5	SE 1	
		152.0	BRK	138.2	SE 1	129.3	SE 1	
		153.0	BRK	135.8	SE 1	132.7	SE 1	
DSF - 26	67.0/60.5	149.9	BRK	129.2	SE 1	136.6	SE 1	
		152.2	BRK	119.0	SE 1	132.6	SE 1	
		151.2	BRK	123.4	SE 1	122.6	SE 1	
		150.4	BRK	122.8	SE 1	123.6	SE 1	
		148.8	BRK	120.3	SE 1	135.0	SE 1	
DSF - 27	64.8/65.4	175.9	BRK	144.1	SE 1	135.2	SE 1	
		174.6	BRK	151.4	SE 1	114.2	SE 1	-
		170.6	BRK	145.2	SE 1	113.7	SE 1	
		170.3	BRK	138.3	SE 1	138.0	SE 1	
		168.4	BRK	143.2	SE 1	137.4	SE 1	
DSF - 28	66.9/64.8	168.5	BRK	141.2	SE 1	121.4	SE 1	
		168.1	BRK	138.8	SE 1	125.5	SE 1	-
		167.6	BRK	134.7	SE 1	111.7	SE 1	
		167.7	BRK	135.1	SE 1	114.3	SE 1	
		167.7	BRK	124.4	SE 1	112.8	SE 1	

(1) PEEL (1) represents outer track or top flap.
(2) PEEL (2) represents inner track or bottom flap.
(3) BREAK CODES BASED ON MODES ILLUSTRATED IN ATTACHED FIGURE.

DFSUM

SUMMARY OF DESTRUCTIVE TEST RESULTS
FUSION METHOD
ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

SAMPLE NUMBER	THICKNESS mils (top/bottom)	SHEAR STRENGTH (ppi)	SHEAR BREAK CODE (3)	PEEL (1) STRENGTH (ppi)	PEEL (1) BREAK CODE (3)	PEEL (2) STRENGTH (ppi)	PEEL (2) BREAK CODE (3)	REMARKS
DSF - 29	65.7/66.8	171.1	BRK	125.5	SE 1	130.8	SE 1	
		170.2	BRK	127.4	SE 1	128.1	SE 1	-
		169.0	BRK	140.2	SE 1	134.4	SE 1	
		168.1	BRK	141.0	SE 1	129.8	SE 1	
		167.3	BRK	131.2	SE 1	136.5	SE 1	
DSF - 30	66.2/67.6	171.4	BRK	125.5	SE 1	143.3	SE 1	
		172.0	BRK	147.0	SE 1	124.3	SE 1	-
		172.5	BRK	128.6	SE 1	136.5	SE 1	
		172.8	BRK	129.6	SE 1	134.2	SE 1	
		172.5	BRK	128.2	SE 1	143.6	SE 1	
DSF - 31	65.4/64.4	172.7	BRK	138.8	SE 1	137.6	SE 1	
		171.9	BRK	139.9	SE 1	136.6	SE 1	-
		170.0	BRK	139.5	SE 1	124.9	SE 1	
		165.7	BRK	132.6	SE 1	129.7	SE 1	
		166.9	BRK	132.9	SE 1	123.8	SE 1	
DSF - 32	63.4/64.7	172.2	BRK	134.0	SE 1	139.6	SE 1	
		172.5	BRK	127.3	SE 1	135.8	SE 1	-
		172.1	BRK	133.2	SE 1	139.3	SE 1	
		171.0	BRK	138.1	SE 1	128.9	SE 1	
		169.7	BRK	131.7	SE 1	124.3	SE 1	
DSF - 33	61.1/61.1	149.6	BRK	126.2	SE 1	139.0	SE 1	
		151.7	BRK	128.0	SE 1	133.2	SE 1	
		152.1	BRK	144.2	SE 1	138.2	SE 1	
		151.6	BRK	144.4	SE 1	130.5	SE 1	
		149.1	BRK	135.9	SE 1	133.0	SE 1	
DSF - 34	65.9/67.7	175.9	BRK	137.3	SE 1	112.9	SE 1	
		176.6	BRK	142.6	SE 1	107.8	SE 1	-
		176.5	BRK	133.5	SE 1	110.1	SE 1	
		175.5	BRK	129.7	SE 1	132.6	SE 1	
		173.5	BRK	132.6	SE 1	122.6	SE 1	
DSF - 35	67.4/67.4	178.8	BRK	131.5	SE 1	132.6	SE 1	
		179.2	BRK	128.9	SE 1	129.2	SE 1	-
		179.6	BRK	116.2	SE 1	137.0	SE 1	
		179.4	BRK	132.1	SE 1	133.9	SE 1	
		169.7	BRK	114.4	SE 1	145.2	SE 1	

(1) PEEL (1) represents outer track or top flap.
(2) PEEL (2) represents inner track or bottom flap.
(3) BREAK CODES BASED ON MODES ILLUSTRATED IN ATTACHED FIGURE.

DFSUM

SUMMARY OF DESTRUCTIVE TEST RESULTS
FUSION METHOD
ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

SAMPLE NUMBER	THICKNESS mils (top/bottom)	SHEAR STRENGTH (ppi)	SHEAR BREAK CODE (3)	PEEL (1) STRENGTH (ppi)	PEEL (1) BREAK CODE (3)	PEEL (2) STRENGTH (ppi)	PEEL (2) BREAK CODE (3)	REMARKS
DSF - 36	63.7/63.8	174.1	BRK	129.9	SE 1	123.1	SE 1	
		174.0	BRK	136.0	SE 1	119.5	SE 1	-
		172.5	BRK	133.6	SE 1	143.8	SE 1	
		173.8	BRK	141.8	SE 1	142.9	SE 1	
		173.5	BRK	140.6	SE 1	134.9	SE 1	
DSF - 37	63.5/63.6	166.8	BRK	126.4	SE 1	130.2	SE 1	
		165.6	BRK	130.0	SE 1	143.1	SE 1	-
		171.0	BRK	129.0	SE 1	117.1	SE 1	
		172.0	BRK	125.8	SE 1	124.9	SE 1	
		163.0	BRK	124.2	SE 1	138.2	SE 1	
DSF - 38	67.3/65.8	174.3	BRK	139.6	SE 1	123.3	SE 1	
		175.5	BRK	141.3	SE 1	132.0	SE 1	-
		176.1	BRK	130.1	SE 1	135.3	SE 1	
		176.4	BRK	130.9	SE 1	140.7	SE 1	
		171.3	BRK	132.9	SE 1	132.0	SE 1	
DSF - 39	66.5/62.1	161.2	SE 1	133.7	SE 1	136.1	SE 1	
		161.7	BRK	124.8	SE 1	133.4	SE 1	-
		162.6	BRK	129.7	SE 1	119.2	SE 1	
		164.8	BRK	137.0	SE 1	136.8	SE 1	
		163.6	BRK	133.5	SE 1	130.2	SE 1	
DSF - 40	67.8/61.4	158.8	BRK	118.7	SE 1	111.2	SE 1	
		162.6	SE 1	118.1	SE 1	115.6	SE 1	
		163.6	BRK	124.6	SE 1	127.7	SE 1	
		163.3	BRK	122.3	SE 1	118.3	SE 1	
		161.5	BRK	122.6	SE 1	129.5	SE 1	
-	-/-	-	-	-	-	-	-	
		-	-	-	-	-	-	-
		-	-	-	-	-	-	
		-	-	-	-	-	-	
		-	-	-	-	-	-	
-	-/-	-	-	-	-	-	-	
		-	-	-	-	-	-	-
		-	-	-	-	-	-	
		-	-	-	-	-	-	
		-	-	-	-	-	-	

(1) PEEL (1) represents outer track or top flap.
(2) PEEL (2) represents inner track or bottom flap.
(3) BREAK CODES BASED ON MODES ILLUSTRATED IN ATTACHED FIGURE.

DFSUM

SECTION L-2

Secondary Extrusion

SUMMARY OF DESTRUCTIVE TEST RESULTS
EXTRUSION METHOD
ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

SAMPLE NUMBER	THICKNESS mils (top/bottom)	SHEAR STRENGTH (ppi)	SHEAR BREAK CODE (1)	PEEL STRENGTH (ppi)	PEEL BREAK CODE (1)	REMARKS
DSX - 01	63.1/59.8	149.7	BRK 1	116.6	SE 3	
		150.5	BRK 1	112.2	SE 3	-
		150.0	BRK 1	118.0	SE 3	
		149.7	BRK 1	116.6	SE 3	
		148.2	BRK 1	124.1	SE 3	
DSX - 02	62.4/61.2	144.2	BRK 1	99.0	SE 3	
		145.2	BRK 1	116.0	SE 3	-
		146.0	BRK 1	104.1	SE 3	
		147.2	BRK 1	113.0	SE 3	
		142.0	SE 2	95.0	SE 3	
DSX - 03	61.5/62.0	152.2	BRK 2	154.7	SE 3	
		150.6	BRK 2	146.7	SE 3	-
		147.2	BRK 2	148.6	SE 3	
		147.7	BRK 2	151.5	SE 3	
		149.5	BRK 1	131.3	SE 3	
DSX - 04	61.5/64.3	148.7	BRK 2	140.1	SE 3	
		145.8	BRK 2	136.4	SE 3	-
		144.1	BRK 2	138.8	SE 3	
		149.7	BRK 2	140.8	SE 3	
		151.5	BRK 2	128.6	SE 3	
DSX - 05	60.4/59.3	146.9	BRK 1	111.4	SE 3	
		146.7	SE 2	71.8	SE 3	-
		149.2	BRK 1	95.0	SE 3	
		151.1	BRK 1	113.6	SE 3	
		148.3	BRK 1	107.8	SE 3	
-	-/-	-	-	-	-	
		-	-	-	-	-
		-	-	-	-	
		-	-	-	-	
		-	-	-	-	
-	-/-	-	-	-	-	
		-	-	-	-	-
		-	-	-	-	
		-	-	-	-	
		-	-	-	-	

(1) BREAK CODES BASED ON MODES ILLUSTRATED IN ATTACHED FIGURE.

DESUM

SECTION L-3

Primary Fusion

SUMMARY OF DESTRUCTIVE TEST RESULTS
FUSION METHOD
ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

SAMPLE NUMBER	THICKNESS mils (top/bottom)	SHEAR STRENGTH (ppi)	SHEAR BREAK CODE (3)	PEEL (1) STRENGTH (ppi)	PEEL (1) BREAK CODE (3)	PEEL (2) STRENGTH (ppi)	PEEL (2) BREAK CODE (3)	REMARKS
DPF - 01	68.1/64.2	173.7	BRK	123.0	SE 1	131.6	SE 1	
		173.7	BRK	127.6	SE 1	127.6	SE 1	-
		174.1	BRK	128.1	SE 1	129.1	SE 1	
		175.3	BRK	131.8	SE 1	122.1	SE 1	
		173.7	BRK	139.8	SE 1	131.7	SE 1	
DPF - 02	69.7/66.7	177.8	BRK	142.9	SE 1	132.0	SE 1	
		177.1	BRK	137.8	SE 1	136.3	SE 1	-
		177.4	BRK	137.2	SE 1	131.0	SE 1	
		175.6	BRK	139.0	SE 1	129.5	SE 1	
		175.5	BRK	140.9	SE 1	118.7	SE 1	
DPF - 03	64.6/66.7	172.3	BRK	140.6	SE 1	124.6	SE 1	
		173.9	BRK	128.1	SE 1	96.5	SE 1	-
		172.5	BRK	142.7	SE 1	123.2	SE 1	
		171.6	BRK	132.7	SE 1	120.6	SE 1	
		170.5	BRK	141.3	SE 1	135.1	SE 1	
DPF - 04	67.2/70.9	174.9	BRK	161.6	SE 1	142.0	SE 1	
		174.4	BRK	139.0	SE 1	140.6	SE 1	-
		175.2	BRK	140.8	SE 1	138.3	SE 1	
		174.0	BRK	141.6	SE 1	144.3	SE 1	
		174.2	BRK	137.0	SE 1	123.6	SE 1	
DPF - 05	66.0/68.7	173.1	BRK	122.4	SE 1	129.2	SE 1	
		171.6	BRK	116.8	SE 1	128.6	SE 1	-
		171.8	BRK	113.0	SE 1	130.8	SE 1	
		170.9	BRK	112.3	SE 1	128.2	SE 1	
		171.0	BRK	113.3	SE 1	119.1	SE 1	
DPF - 06	62.4/64.1	156.5	BRK	145.4	SE 1	127.2	SE 1	
		154.3	BRK	143.4	SE 1	139.6	SE 1	-
		154.7	BRK	135.4	SE 1	134.6	SE 1	
		153.7	BRK	136.6	SE 1	122.6	SE 1	
		152.3	BRK	135.4	SE 1	130.4	SE 1	
DPF - 07	68.7/67.0	174.2	BRK	138.9	SE 1	134.0	SE 1	-
		173.2	BRK	143.2	SE 1	144.7	SE 1	
		173.0	BRK	134.1	SE 1	134.7	SE 1	
		174.0	BRK	141.1	SE 1	121.9	SE 1	
		172.7	BRK	143.7	SE 1	130.0	SE 1	

(1) PEEL (1) represents outer track or top flap.
(2) PEEL (2) represents inner track or bottom flap.
(3) BREAK CODES BASED ON MODES ILLUSTRATED IN ATTACHED FIGURE.

DFSUM

SUMMARY OF DESTRUCTIVE TEST RESULTS
FUSION METHOD
ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

SAMPLE NUMBER	THICKNESS mils (top/bottom)	SHEAR STRENGTH (ppi)	SHEAR BREAK CODE (3)	PEEL (1) STRENGTH (ppi)	PEEL (1) BREAK CODE (3)	PEEL (2) STRENGTH (ppi)	PEEL (2) BREAK CODE (3)	REMARKS
DPF - 08	64.4/63.4	170.5	BRK	142.7	SE 1	138.1	SE 1	
		171.2	BRK	144.9	SE 1	137.2	SE 1	-
		169.3	BRK	146.6	SE 1	112.5	SE 1	
		172.0	BRK	143.7	SE 1	139.6	SE 1	
		170.6	BRK	143.4	SE 1	133.8	SE 1	
DPF - 09	64.6/64.4	177.4	BRK	129.2	SE 1	149.2	SE 1	
		177.0	BRK	135.9	SE 1	130.1	SE 1	-
		178.0	BRK	136.6	SE 1	130.1	SE 1	
		178.5	BRK	142.4	SE 1	127.7	SE 1	
		173.1	BRK	142.4	SE 1	110.9	SE 1	
DPF - 10	65.5/65.0	180.3	BRK	132.0	SE 1	134.0	SE 1	
		179.0	BRK	131.2	SE 1	141.5	SE 1	-
		179.2	BRK	131.7	SE 1	142.0	SE 1	
		179.4	BRK	134.2	SE 1	128.5	SE 1	
		177.4	BRK	121.0	SE 1	124.9	SE 1	
DPF - 11	64.6/65.0	176.9	BRK	123.9	SE 1	147.6	SE 1	
		168.5	BRK	134.9	SE 1	150.5	SE 1	-
		176.0	BRK	138.3	SE 1	142.6	SE 1	
		176.8	BRK	132.6	SE 1	149.7	SE 1	
		169.1	BRK	126.2	SE 1	153.0	SE 1	
DPF - 12	64.3/66.6	177.0	BRK	119.0	SE 1	139.7	SE 1	
		175.9	BRK	119.4	SE 1	147.2	SE 1	-
		175.8	BRK	126.3	SE 1	139.4	SE 1	
		175.2	BRK	124.6	SE 1	137.8	SE 1	
		173.3	BRK	133.4	SE 1	133.5	SE 1	
DPF - 13	64.0/66.4	176.7	BRK	123.5	SE 1	125.1	SE 1	
		176.7	BRK	125.6	SE 1	131.1	SE 1	-
		176.6	BRK	129.3	SE 1	134.4	SE 1	
		175.8	BRK	130.8	SE 1	132.5	SE 1	
		175.1	BRK	135.2	SE 1	130.5	SE 1	
DPF - 14	64.6/64.7	176.0	BRK	119.5	SE 1	130.5	SE 1	-
		177.2	BRK	124.7	SE 1	137.6	SE 1	
		177.0	BRK	121.0	SE 1	138.1	SE 1	
		177.6	BRK	118.5	SE 1	141.5	SE 1	
		177.0	BRK	120.4	SE 1	144.0	SE 1	

(1) PEEL (1) represents outer track or top flap.
(2) PEEL (2) represents inner track or bottom flap.
(3) BREAK CODES BASED ON MODES ILLUSTRATED IN ATTACHED FIGURE.

DFSUM

SUMMARY OF DESTRUCTIVE TEST RESULTS
FUSION METHOD
ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

SAMPLE NUMBER	THICKNESS mils (top/bottom)	SHEAR STRENGTH (ppi)	SHEAR BREAK CODE (3)	PEEL (1) STRENGTH (ppi)	PEEL (1) BREAK CODE (3)	PEEL (2) STRENGTH (ppi)	PEEL (2) BREAK CODE (3)	REMARKS
DPF - 15	67.4/68.5	181.3	BRK	120.6	SE 1	124.3	SE 1	
		180.7	BRK	132.0	SE 1	129.2	SE 1	-
		181.2	BRK	129.5	SE 1	144.0	SE 1	
		181.0	BRK	128.8	SE 1	126.1	SE 1	
		179.5	BRK	130.8	SE 1	131.9	SE 1	
DPF - 16	66.8/67.5	177.0	BRK	148.4	SE 1	132.8	SE 1	
		176.8	BRK	140.6	SE 1	136.8	SE 1	-
		174.9	BRK	134.1	SE 1	136.7	SE 1	
		173.1	BRK	117.5	SE 1	127.9	SE 1	
		172.1	BRK	127.8	SE 1	132.6	SE 1	
DPF - 17	66.0/68.7	183.9	BRK	145.4	SE 1	125.8	SE 1	
		182.5	BRK	137.2	SE 1	129.8	SE 1	-
		181.5	BRK	141.0	SE 1	116.8	SE 1	
		180.3	BRK	119.2	SE 1	109.6	SE 1	
		170.9	BRK	112.5	SE 1	136.9	SE 1	
DPF - 18	67.0/67.0	182.9	BRK	140.0	SE 1	135.3	SE 1	
		183.2	BRK	139.2	SE 1	141.2	SE 1	-
		181.7	BRK	140.4	SE 1	136.3	SE 1	
		179.9	BRK	143.4	SE 1	139.5	SE 1	
		164.7	BRK	144.5	SE 1	147.8	SE 1	
DPF - 19	66.1/67.9	179.4	BRK	123.3	SE 1	133.2	SE 1	
		177.5	BRK	145.7	SE 1	134.2	SE 1	-
		179.4	BRK	139.6	SE 1	129.5	SE 1	
		180.8	BRK	155.6	SE 1	128.6	SE 1	
		164.5	BRK	153.2	SE 1	133.0	SE 1	
DPF - 20	66.7/70.9	181.8	BRK	128.4	SE 1	140.4	SE 1	
		181.5	BRK	135.9	SE 1	146.1	SE 1	-
		180.0	BRK	119.9	SE 1	144.5	SE 1	
		179.5	BRK	134.1	SE 1	143.5	SE 1	
		173.1	BRK	145.0	SE 1	134.2	SE 1	
DPF - 21	68.2/66.1	181.2	BRK	132.2	SE 1	138.6	SE 1	-
		180.7	BRK	124.4	SE 1	134.6	SE 1	
		179.3	BRK	133.4	SE 1	142.3	SE 1	
		179.7	BRK	121.2	SE 1	149.2	SE 1	
		171.6	BRK	135.9	SE 1	132.7	SE 1	

(1) PEEL (1) represents outer track or top flap.
(2) PEEL (2) represents inner track or bottom flap.
(3) BREAK CODES BASED ON MODES ILLUSTRATED IN ATTACHED FIGURE.

DFSUM

SUMMARY OF DESTRUCTIVE TEST RESULTS
FUSION METHOD
ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

SAMPLE NUMBER	THICKNESS mils (top/bottom)	SHEAR STRENGTH (ppi)	SHEAR BREAK CODE (3)	PEEL (1) STRENGTH (ppi)	PEEL (1) BREAK CODE (3)	PEEL (2) STRENGTH (ppi)	PEEL (2) BREAK CODE (3)	REMARKS
DPF - 22	66.1/67.2	176.0	BRK	112.0	SE 1	135.4	SE 1	
		176.2	BRK	112.5	SE 1	116.8	SE 1	-
		176.6	BRK	118.6	SE 1	117.8	SE 1	
		176.9	BRK	130.3	SE 1	133.5	SE 1	
		175.9	BRK	139.2	SE 1	145.3	SE 1	
DPF - 23	66.7/67.3	175.0	BRK	121.9	SE 1	125.8	SE 1	
		175.0	BRK	129.4	SE 1	129.1	SE 1	-
		174.3	BRK	131.5	SE 1	130.3	SE 1	
		173.9	BRK	120.7	SE 1	124.7	SE 1	
		170.1	BRK	131.4	SE 1	128.8	SE 1	
DPF - 24	66.4/66.2	177.5	BRK	147.8	SE 1	132.2	SE 1	
		177.7	BRK	148.7	SE 1	125.0	SE 1	-
		178.8	BRK	143.5	SE 1	133.9	SE 1	
		179.2	BRK	151.7	SE 1	129.5	SE 1	
		176.0	BRK	150.0	SE 1	129.5	SE 1	
DPF - 25	68.5/66.6	177.7	BRK	135.5	SE 1	117.8	SE 1	
		177.6	BRK	121.9	SE 1	120.9	SE 1	-
		178.2	BRK	116.9	SE 1	131.0	SE 1	
		178.9	BRK	136.3	SE 1	119.3	SE 1	
		171.1	BRK	119.1	SE 1	132.5	SE 1	
DPF - 26	67.5/68.0	179.9	BRK	120.3	SE 1	134.5	SE 1	
		180.7	BRK	130.2	SE 1	146.4	SE 1	-
		181.1	BRK	118.8	SE 1	150.8	SE 1	
		179.8	BRK	126.9	SE 1	145.0	SE 1	
		167.3	BRK	120.9	SE 1	149.5	SE 1	
DPF - 27	67.5/67.1	176.3	BRK	147.7	SE 1	122.0	SE 1	
		179.8	BRK	144.7	SE 1	129.2	SE 1	-
		179.0	BRK	141.6	SE 1	133.7	SE 1	
		177.8	BRK	137.3	SE 1	131.1	SE 1	
		177.0	BRK	136.8	SE 1	135.6	SE 1	
DPF - 28	65.1/69.3	177.6	BRK	133.0	SE 1	134.0	SE 1	-
		176.4	BRK	154.3	SE 1	138.8	SE 1	
		176.8	BRK	142.1	SE 1	120.0	SE 1	
		178.0	BRK	140.1	SE 1	126.4	SE 1	
		166.5	BRK	145.2	SE 1	145.9	SE 1	

(1) PEEL (1) represents outer track or top flap.
(2) PEEL (2) represents inner track or bottom flap.
(3) BREAK CODES BASED ON MODES ILLUSTRATED IN ATTACHED FIGURE.

DFSUM

SUMMARY OF DESTRUCTIVE TEST RESULTS
FUSION METHOD
ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

SAMPLE NUMBER	THICKNESS mils (top/bottom)	SHEAR STRENGTH (ppi)	SHEAR BREAK CODE (3)	PEEL (1) STRENGTH (ppi)	PEEL (1) BREAK CODE (3)	PEEL (2) STRENGTH (ppi)	PEEL (2) BREAK CODE (3)	REMARKS
DPF - 29	66.5/70.4	175.1	BRK	142.4	SE 1	144.5	SE 1	
		176.8	BRK	128.0	SE 1	146.5	SE 1	-
		177.1	BRK	128.6	SE 1	144.5	SE 1	
		175.9	BRK	126.2	SE 1	145.9	SE 1	
		174.2	BRK	119.4	SE 1	143.9	SE 1	
DPF - 30	67.6/66.1	176.9	BRK	145.4	SE 1	141.7	SE 1	
		176.4	BRK	141.6	SE 1	139.4	SE 1	-
		176.7	BRK	130.0	SE 1	134.5	SE 1	
		177.2	BRK	126.9	SE 1	127.7	SE 1	
		172.9	BRK	144.9	SE 1	146.2	SE 1	
DPF - 31	62.3/67.0	171.4	BRK	127.5	SE 1	131.0	SE 1	
		171.1	BRK	120.9	SE 1	121.5	SE 1	-
		171.6	BRK	121.4	SE 1	129.6	SE 1	
		171.4	BRK	124.2	SE 1	134.9	SE 1	
		171.1	BRK	128.4	SE 1	118.6	SE 1	
DPF - 32	63.7/66.6	177.6	BRK	134.8	SE 1	124.2	SE 1	
		178.3	BRK	126.4	SE 1	128.8	SE 1	-
		179.1	BRK	137.0	SE 1	118.9	SE 1	
		177.4	BRK	133.0	SE 1	125.6	SE 1	
		176.7	BRK	132.7	SE 1	128.1	SE 1	
DPF - 33	65.0/65.0	171.6	BRK	124.8	SE 1	126.7	SE 1	
		171.6	BRK	127.1	SE 1	135.9	SE 1	-
		172.2	BRK	128.1	SE 1	118.6	SE 1	
		171.0	BRK	118.2	SE 1	125.9	SE 1	
		170.0	BRK	136.0	SE 1	115.8	SE 1	
DPF - 34	65.5/65.7	172.1	BRK	145.2	SE 1	131.8	SE 1	
		173.2	BRK	142.8	SE 1	129.8	SE 1	-
		173.4	BRK	131.4	SE 1	121.1	SE 1	
		173.9	BRK	148.6	SE 1	129.4	SE 1	
		173.1	BRK	139.0	SE 1	120.9	SE 1	
DPF - 35	65.3/68.3	174.5	BRK	145.9	SE 1	117.7	SE 1	-
		176.1	BRK	134.2	SE 1	126.0	SE 1	
		176.3	BRK	147.8	SE 1	135.8	SE 1	
		176.4	BRK	131.9	SE 1	136.1	SE 1	
		175.3	BRK	140.5	SE 1	134.9	SE 1	

(1) PEEL (1) represents outer track or top flap.

(2) PEEL (2) represents inner track or bottom flap.

(3) BREAK CODES BASED ON MODES ILLUSTRATED IN ATTACHED FIGURE.

DFSUM

SUMMARY OF DESTRUCTIVE TEST RESULTS
FUSION METHOD
ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

SAMPLE NUMBER	THICKNESS mils (top/bottom)	SHEAR STRENGTH (ppi)	SHEAR BREAK CODE (3)	PEEL (1) STRENGTH (ppi)	PEEL (1) BREAK CODE (3)	PEEL (2) STRENGTH (ppi)	PEEL (2) BREAK CODE (3)	REMARKS
DPF - 36	67.1/64.7	180.0	BRK	137.9	SE 1	141.0	SE 1	
		178.6	BRK	138.1	SE 1	136.2	SE 1	-
		177.4	BRK	134.5	SE 1	132.7	SE 1	
		176.2	BRK	136.1	SE 1	129.3	SE 1	
		173.8	BRK	139.8	SE 1	116.4	SE 1	
DPF - 37	66.7/62.2	160.0	BRK	133.6	SE 1	127.5	SE 1	
		158.8	BRK	143.6	SE 1	117.7	SE 1	-
		159.4	BRK	140.9	SE 1	131.0	SE 1	
		159.9	BRK	139.4	SE 1	128.3	SE 1	
		159.9	BRK	138.4	SE 1	140.7	SE 1	
DPF - 38	65.2/65.2	174.1	BRK	140.8	SE 1	142.6	SE 1	
		173.0	BRK	109.9	SE 1	140.3	SE 1	-
		172.2	BRK	138.1	SE 1	129.5	SE 1	
		170.5	BRK	133.7	SE 1	140.5	SE 1	
		170.8	BRK	138.8	SE 1	136.4	SE 1	
-	-/-	-	-	-	-	-	-	
		-	-	-	-	-	-	-
		-	-	-	-	-	-	
		-	-	-	-	-	-	
		-	-	-	-	-	-	
-	-/-	-	-	-	-	-	-	
		-	-	-	-	-	-	-
		-	-	-	-	-	-	
		-	-	-	-	-	-	
		-	-	-	-	-	-	
-	-/-	-	-	-	-	-	-	
		-	-	-	-	-	-	-
		-	-	-	-	-	-	
		-	-	-	-	-	-	
		-	-	-	-	-	-	
-	-/-	-	-	-	-	-	-	-
		-	-	-	-	-	-	
		-	-	-	-	-	-	
		-	-	-	-	-	-	
		-	-	-	-	-	-	

(1) PEEL (1) represents outer track or top flap.

(2) PEEL (2) represents inner track or bottom flap.

(3) BREAK CODES BASED ON MODES ILLUSTRATED IN ATTACHED FIGURE.

DFSUM

SECTION L-4

Primary Extrusion

SUMMARY OF DESTRUCTIVE TEST RESULTS
EXTRUSION METHOD
ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

SAMPLE NUMBER	THICKNESS mils (top/bottom)	SHEAR STRENGTH (ppi)	SHEAR BREAK CODE (1)	PEEL STRENGTH (ppi)	PEEL BREAK CODE (1)	REMARKS
DPX - 01	60.3/60.3	144.7	BRK 2	106.8	SE 3	
		140.7	BRK 1	120.1	SE 3	-
		148.0	BRK 1	116.7	SE 3	
		147.5	BRK 1	108.8	SE 3	
		147.7	BRK 2	107.8	SE 3	
DPX - 02	61.5/62.1	150.1	BRK 2	101.3	SE 3	
		150.9	BRK 2	97.2	SE 3	-
		152.6	BRK 2	98.7	SE 3	
		150.8	BRK 2	114.5	SE 3	
		146.9	SE 2	117.5	SE 3	
DPX - 03	60.6/62.1	151.6	BRK 2	120.8	SE 3	
		152.3	BRK 2	147.4	SE 3	-
		151.3	BRK 2	130.0	SE 3	
		150.8	BRK 2	122.5	SE 3	
		148.3	BRK 2	115.5	SE 3	
DPX - 04	62.2/63.2	166.7	BRK 2	105.0	SE 3	
		167.2	BRK 2	101.7	SE 3	-
		166.9	BRK 2	130.3	SE 3	
		167.2	BRK 2	138.9	SE 3	
		165.6	BRK 2	130.2	SE 3	
DPX - 05	63.5/63.1	154.3	BRK 1	146.4	SE 3	
		156.8	BRK 2	147.5	AD 1	-
		158.1	SE 2	152.2	SE 3	
		149.6	BRK 1	116.9	SE 3	
		158.2	BRK 1	119.8	SE 3	
DPX - 06	63.1/64.7	160.7	BRK 2	143.8	SE 3	
		157.7	BRK 2	149.6	SE 3	-
		158.2	BRK 2	154.4	SE 3	
		158.5	BRK 2	153.1	SE 3	
		160.9	BRK 2	155.8	BRK 2	
DPX - 07	61.4/64.5	143.6	SE 2	123.2	SE 3	
		144.8	SE 2	119.6	SE 3	-
		145.7	SE 2	95.5	SE 3	
		145.9	SE 2	97.5	SE 3	
		131.6	SE 2	118.7	SE 3	

(1) BREAK CODES BASED ON MODES ILLUSTRATED IN ATTACHED FIGURE.

DESUM

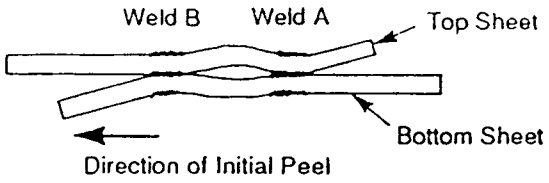
SUMMARY OF DESTRUCTIVE TEST RESULTS
EXTRUSION METHOD
ETM
TRAILRIDGE 3RD INCREMENT CQA
FLORIDA

SAMPLE NUMBER	THICKNESS mils (top/bottom)	SHEAR STRENGTH (ppi)	SHEAR BREAK CODE (1)	PEEL STRENGTH (ppi)	PEEL BREAK CODE (1)	REMARKS
DPX - 08	61.2/62.7	156.9	BRK 2	153.9	SE 3	
		150.6	SE 2	137.1	SE 3	-
		157.3	BRK 2	154.7	SE 3	
		156.4	SE 2	145.7	SE 3	
		136.7	SE 2	133.7	SE 3	
DPX - 09	63.8/65.0	157.1	BRK 2	148.2	SE 3	
		158.8	BRK 2	144.4	SE 3	-
		160.4	BRK 2	137.1	SE 3	
		161.9	BRK 2	143.5	SE 3	
		163.6	BRK 2	146.4	SE 3	
-	-/-	-	-	-	-	
		-	-	-	-	-
		-	-	-	-	
		-	-	-	-	
		-	-	-	-	
-	-/-	-	-	-	-	
		-	-	-	-	-
		-	-	-	-	
		-	-	-	-	
		-	-	-	-	
-	-/-	-	-	-	-	
		-	-	-	-	-
		-	-	-	-	
		-	-	-	-	
		-	-	-	-	
-	-/-	-	-	-	-	
		-	-	-	-	-
		-	-	-	-	
		-	-	-	-	
		-	-	-	-	
-	-/-	-	-	-	-	
		-	-	-	-	-
		-	-	-	-	
		-	-	-	-	
		-	-	-	-	

(1) BREAK CODES BASED ON MODES ILLUSTRATED IN ATTACHED FIGURE.

DESUM

Schematic of Untested Specimen



Types of Break	Locus-of-Break Code	Break Description	Classification[a]
	AD	Adhesion failure.	Non-FTB
	BRK	Break in sheeting. Break can be in either top or bottom sheet.	FTB
	SE1	Break at outer edge of seam. Break can be in either top or bottom sheet.	FTB
	SE2	Break at inner edge of seam through both sheets.	FTB
	AD-BRK	Break in first seam after some adhesion failure. Break can be in either the top or bottom sheet.	FTB

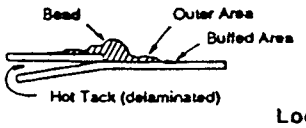
[a] FTB = Film - Tear Bond

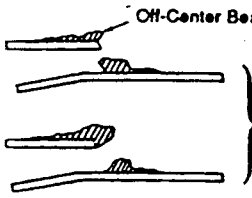
Locus-of break codes for dual hot-wedge seams in semicrystalline FML's tested for seam strength in shear and peel modes. In cases where the Weld A fails in adhesion in a peel test, it is recommended that the test be stopped, that the specimen be replaced in the testing machine, and that Weld B be tested by peeling in the direction opposite to that used to Weld A.

REFERENCE: FIGURE A-6, NSF INTERNATIONAL STANDARD 54-1993

Golder Associates JACKSONVILLE, FLORIDA		TITLE: TRIAL SEAM AND DESTRUCTIVE TEST BREAK CODES DUAL HOT WEDGE FUSION WELD			
CLIENT/PROJECT: ETM/TRAIL RIDGE PHASES IIIC, IVC, VA, VB, VC, AND VD/FL	DRAWN: GMS	DATE: 10/31/00	JOB NO.: 003-3979		
	CHECKED: MCB	SCALE: NOT TO SCALE	DWG NO.: 3979L	REV. NO.:	
	REVIEWED: JJC	FILE NO.: 003-3979	SUBTITLE:	FIGURE NO: L-1	

Schematic of Untested Specimen



Types of Breaks	Locus-of-Break Code	Break Description	Classification[a]
	AD1	Failure in adhesion. Specimens may also delaminate under the bead and break through the thin extruded material in the outer area.	Non-FTB
	AD2	Failure in adhesion.	Non-FTB
	AD-WLD	Break through the fillet. Breaks through the fillet range from breaks starting at the edge of the top sheet to breaks through the fillet after some adhesion failure between the fillet and the bottom sheet.	Non-FTB[b]
	SE1	Break at seam edge in the bottom sheet. Specimens may break anywhere from the bead/outer area edge to the outer area/buffed area edge. (Applicable to shear only).	FTB
	SE2	Break at seam edge in the top sheet. Specimens may break anywhere from bead/outer area edge to the outer area/buffed area edge.	FTB
	SE3	Break at seam edge in the bottom sheet. (Applicable to peel only).	FTB
	BRK1	Break in the bottom sheeting. A "B" in parentheses following the code means the specimen broke in the buffed area. (Applicable to shear only).	FTB
	BRK2	Break in the top sheeting. A "B" in parentheses following the code means the specimen broke in the buffed area.	FTB
	AD-BRK	Break in the bottom sheeting after some adhesion failure between the fillet and the bottom sheet. (Applicable to peel only).	FTB
	HT	Break at the edge of the hot tack for specimens which could not be delaminated in the hot tack.	No Test

[a] FTB = Film - Tear Bond.

[b] Acceptance of AD-WLD breaks may depend on whether test values meet a minimum specification value and not on classification as a FTB or non-FTB break.

Locus-of break codes for filler extrusion weld seams in semi-crystalline FML's tested for seam strength in shear and peel modes.
REFERENCE: FIGURE A-4, NSF INTERNATIONAL STANDARD 54-1993

Golder Associates

JACKSONVILLE, FLORIDA

TITLE

TRIAL SEAM AND DESTRUCTIVE TEST BREAK CODES
EXTRUSION WELD WITH LEISTER HEAT SEAM

CLIENT/PROJECT

ETM/TRAIL RIDGE PHASES
IIIC, IVC, VA, VB, VC, AND VD/FL

DRAWN	GMS	DATE	10/31/00	JOB NO.	003-3979
CHECKED	MLB	SCALE	NOT TO SCALE	DWG NO. 3979M	REV. NO.
REVIEWED	JJR	FILE NO.	003-3979	SUBTITLE	FIGURE NO. L-2

MAP(S)/ PLAN(S)

SCANNED

SEPARATELY