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EPS

Environmental Planning Specialists, Inc.
1936 Bruce B. Downs Blvd. No. 328
Wesley Chapel, Florida 33543
Telephone: (813) 388-1026
www.envplanning.com

October 4, 2010

RECEIVED
OCT 05 2010
DEP Central Dist.

Mr. F. Thomas Lubozynski, P.E.
Solid and Hazardous Waste Program
Florida Department of Environmental Protection (FDEP), Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Re: Cell 7 Certification Report and Financial Assurance Minor Modification Application
J.E.D. Solid Waste Management Facility, Osceola County, Florida
FDEP Permit No's. SC49-0199726-004 & SO49-0199726-005

Dear Mr. Lubozynski:

Submitted herewith are two (2) copies of the certification report (including Record Drawings) for construction of Cell 7 at the J.E.D. Solid Waste Management Facility located in Osceola County, Florida. FDEP form #62-701.900(2) titled *Certification of Construction Completion of a Solid Waste Management Facility*, duly completed and signed, is also attached. A compact disk (CD) containing a PDF of Appendices E through U is included on the back cover of the report and a PDF of the entire report has been included on a CD attached to the inside cover of each report.

Also, included in this submittal are two (2) copies of the Minor Modification Application for Cell 7 Financial Assurance to update the phased financial assurance cost estimate for the JED facility to include Cell 7. A PDF of the Minor Modification Application has been included on a CD attached to the inside cover of each copy of the Application. A check in the amount of $250 has been included with this Minor Modification Application submittal.

On behalf of Omni Waste of Osceola County, LLC (Omni), Environmental Planning Specialists, Inc. (EPS) is requesting that a site inspection for Cell 7 construction completion be scheduled at your earliest convenience. Please contact Mr. Mike Kaiser to schedule a date and time for the inspection.

If you have any questions or need additional information, please do not hesitate to contact the undersigned at (813) 388-1026 or Mike Kaiser with WSI at (904) 673-0446.

Sincerely,

Kirk Wills

Kirk Wills
Senior Engineer

Attachments

Copy: Mike Kaiser, WSI

Florida Department of Environmental Protection
Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, FL 32399-2400

DEP Form # 62-701.900(2)
Form Title Certification of Construction Completion
Effective Date May 19, 1994

DEP Application No. _____
(Filled by DEP)

Certification of Construction Completion of a Solid Waste Management Facility

RECEIVED
OCT 05 2010
DEP Central Dist.

DEP Construction Permit No: SC-49-0199726-004 & 005 County: Osceola

Name of Project: J.E.D. Solid Waste Management Facility

Name of Owner: Omni Waste of Osceola County, LLC (WSI)

Name of Engineer: Environmental Planning Specialists, Inc (EPS)

Type of Project: Construction of Cell 7

Cost: Estimate $ 3 million Actual $ 3 million

Site Design: Quantity: 6,000 ton/day Site Acreage: Cell 7, Approx. 12 Acres

Deviations from Plans and Application Approved by DEP:

No Significant Deviations from the Approved Application and Plans.

Address and Telephone No. of Site: 1501 Omni Way, St. Cloud, Florida 34773
Tel : (407) 981-3720

Name(s) of Site Supervisor: Matt Orr (WSI)

Date Site inspection is requested: As soon as possible

This is to certify that, with the exception of any deviation noted above, the construction of the project has been completed in substantial accordance with the plans authorized by Construction

Permit No. SC-49-0199726-004 & 005 :Dated: March 22, 2007

Date: 4 October 2010

Signature of Professional Engineer

STATE OF FLORIDA PROFESSIONAL ENGINEER No. 51435 LICENSED

Northwest District
160 Governmental Center
Pensacola, FL 32501-5794
850-595-8360

Northeast District
7825 Baymeadows Way, Ste. B200
Jacksonville, FL 32256-7590
904-448-4300

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-894-7555

Southwest District
3804 Coconut Palm Dr.
Tampa, FL 33619
813-744-6100

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33901-3881
941-332-6975

Southeast District
400 North Congress Ave.
West Palm Beach, FL 33401
561-681-6600

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Sincerely,

Kirk Wills
Senior Engineer

Attachments

Copy: Mike Kaiser, WSI

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DEP Application No. _____
(Filled by DEP)

Certification of Construction Completion of a Solid Waste Management Facility

DEP Construction Permit No: SC-49-0199726-004 & 005 County: Osceola

Name of Project: J.E.D. Solid Waste Management Facility

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Name of Engineer: Environmental Planning Specialists, Inc (EPS)

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Date: 4 October 2010

Signature of Professional Engineer

PE54435

Northwest District
160 Governmental Center
Pensacola, FL 32501-5794
850-595-8360

Northeast District
7825 Baymeadows Way, Ste. B200
Jacksonville, FL 32256-7590
904-448-4300

Central District
3319 Maguire Blvd., Ste. 232
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Southwest District
3804 Coconut Palm Dr.
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813-744-6100

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33901-3881
941-332-6975

Southeast District
400 North Congress Ave.
West Palm Beach, FL 33401
561-681-6600

Submitted to:

Florida Department of
Environmental Protection

CERTIFICATION REPORT
CONSTRUCTION OF CELL 7

J.E.D. Solid Waste Management Facility

Osceola County, Florida

Prepared for:

Omni Waste of Osceola County, LLC.
1501 Omni Way
St. Cloud, Florida

Prepared by:

Environmental Planning Specialists, Inc.
1936 Bruce B. Downs Blvd., No. 328
Wesley Chapel, Florida 33543

Project No. JED SWMF (2): Task 03-Cell 7 CQA Report
September 2010

EPS

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Note: Appendices E through U have been included as PDF files on a CD included on the back cover of this report.

1. INTRODUCTION

1.1 Overview

This certification report summarizes the Construction Quality Assurance (CQA) activities performed by Environmental Planning Specialists, Inc. (EPS), Wesley Chapel, Florida during construction of Cell 7 at the J.E.D. Solid Waste Management (JED) facility, a Class I landfill, located in Osceola County, Florida. The JED facility is owned by Omni Waste of Osceola County, LLC, which is a wholly owned subsidiary of Waste Services, Inc. (WSI).

Cell 7 is the third cell to be constructed as part of the Phase 2 development of the JED facility. The CQA activities performed by EPS included monitoring of:

(i) earthwork construction;

(ii) geosynthetics installation;

(iii) leachate management system construction; and

(iv) miscellaneous activities associated with development and ongoing operation of the landfill.

The CQA activities were performed to confirm that the construction materials and procedures were in compliance with the Permits to Construct and Operate SC49-0199726-004 and SO49-0199726-005 and Modifications SC49-0199726-006 and SO49-0199726-007 issued by the Florida Department of Environmental Protection (FDEP), Central District and in accordance with Chapter 62-701, Solid Waste Management Facilities, Florida Administrative Code (FAC).

Cell 7 was constructed in accordance with the above-mentioned Permits and associated permit drawings. This certification report was prepared for Mr. Mike Kaiser of WSI. The report was prepared by Mr. Kirk Wills and was reviewed by Mr. Kenneth W. Cargill, P.E., both with EPS.

1.2 Report Organization

The remainder of the certification report is organized as described below.

- A brief description of the project is provided in Section 2;
- A summary of the CQA program is presented in Section 3;

- A description of the CQA monitoring and testing activities performed during earthwork related construction activities in Cell 7 is provided in Section 4;

- A description of the CQA monitoring and testing activities performed during the geosynthetics installation in Cell 7 is provided in Section 5;

- A description of the CQA monitoring and testing activities performed during construction of the leachate collection system in Cell 7 is provided in Section 6;

- A description of the CQA monitoring and testing performed during miscellaneous construction activities associated with development and ongoing operation of the landfill is provided in Section 7; and

- A summary of the observations resulting from the CQA monitoring and testing activities performed by EPS and a certification statement signed and sealed by a professional engineer registered in the State of Florida are presented in Section 8.

The nuclear moisture/density test logs are included in Appendix A. The geomembrane field logs are provided in Appendix B. Record drawings for the top of the liner subbase layer, top of liner protective layer, leachate collection piping, Cell 7 maintenance road, and the primary and secondary geomembrane panel layouts are included in Appendix C. A photographic log of major construction activities is included in Appendix D. **Appendices E through U have been included with this report as PDF files on a CD included on the back cover of this report.**

2. PROJECT DESCRIPTION

2.1 General

The JED facility is located in eastern Osceola County, Florida, west of highway U.S. 441, approximately 6.5 miles south of Holopaw. The landfill facility is connected to highway U.S. 441 by a 2.86-mile paved access road, which was constructed as part of the overall project site development.

The JED facility site comprises a total of approximately 2,179 acres. The landfill footprint at final build-out is approximately 264 acres and consists of a total of 21 landfill cells that provide available waste capacity for approximately 30 years. The first five-year construction and operation permit for Phase 1 development of the facility was issued by FDEP in October 2002. A five-year construction and operation renewal permit for development of Phases 2 and 3 (FDEP Permit #'s SC49-0199726-004 and SO49-0199726-005) was issued in March 2007. On April 4, 2008, FDEP issued a major modification permit for construction and operation for the vertical expansion of the JED facility (FDEP Permit #'s SC49-0199726-006 and SO49-0199726-007).

Construction of Phase 1 (which included four cells, Cells 1 through 4) in the northern part of the landfill has been completed. Cell 5 was the first cell to be constructed as part of Phase 2 development. Construction of Cell 5 was completed in October 2007. Cell 6 was the second cell to be constructed as part of the Phase 2 development. Construction of Cell 6 was completed in September 2008. Cell 7 is the third (and final) cell to be constructed as part of the Phase 2 development. The footprint of Cell 7 is approximately 12 acres. This report primarily addresses the CQA activities performed during construction of Cell 7.

2.2 Construction Activities

This certification report pertains to CQA monitoring and testing activities performed for construction of Cell 7 and other miscellaneous construction activities. The construction of Cell 7 included earthwork, liner system installation, and leachate collection system construction as indicated in the construction drawings prepared for the construction of Cell 7. The miscellaneous construction activities included construction of perimeter maintenance road (on west side of Cell 7), installation of two storm water drainage structures, extending the landfill perimeter berm (on west side of Cell 7), extending the leachate transmission line, and other miscellaneous construction activities.

The Cell 7 design incorporates a composite liner system and other engineering controls that meet or exceed the requirements of Chapter 62-701, FAC. The Cell 7 liner system consists of the following components (from top to bottom):

- minimum 24-in. (610-mm) thick liner protective soil layer;
- primary geocomposite drainage layer, consisting of a high-density polyethylene (HDPE) geonet with a needle-punched, non-woven geotextile heat bonded to each side, hereafter referred to as primary geocomposite;
- primary liner, consisting of a 60-mil (1.5-mm) thick textured HDPE geomembrane;
- within the sump area a primary geosynthetic clay liner (GCL), consisting of an internally reinforced composite, composed of granular sodium bentonite encapsulated between a needle-punched non-woven geotextile and a woven geotextile;
- secondary geocomposite drainage layer, consisting of a HDPE geonet with a needle-punched, non-woven geotextile heat bonded to each side, hereafter referred to as secondary geocomposite;
- secondary liner, consisting of a 60-mil (1.5-mm) thick textured HDPE geomembrane;
- secondary GCL consisting of an internally reinforced composite, composed of granular sodium bentonite encapsulated between a needle-punched non-woven geotextile and a woven geotextile; and
- minimum 6-in. (152-mm) thick prepared liner subbase.

The Cell 7 leachate collection system consists of the following components:

- one 6-in. (152 mm) nominal diameter HDPE perforated leachate collection pipe surrounded by gravel aggregate and non-woven geotextile filter fabric installed within the center of the cell, in an east-west alignment, dividing the cell in half, as part of the primary leachate collection system;
- one 4-in. (142 mm) nominal diameter HDPE perforated leachate collection pipe surrounded by gravel aggregate and non-woven geotextile filter fabric installed within the center of the cell, in an east-west alignment, dividing the cell in half, as part of the secondary leachate detection system;
- two 24-in. (0.6 m) nominal diameter HDPE primary sump risers and associated section of 24-in. (0.6 m) nominal diameter HDPE perforated leachate sump pipe;

- one 24-in. (0.6 m) nominal diameter HDPE secondary sump riser and associated section of 24-in. (0.6 m) nominal diameter HDPE perforated leachate sump pipe; and

- leachate pumps, piping, valves, and system controls.

3. CONSTRUCTION QUALITY ASSURANCE PROGRAM

3.1 General

The scope of CQA monitoring, testing, and documentation services performed by EPS during the construction of Cell 7 at the JED facility included review of documents, field CQA operations, and preparation of this final certification report which includes record drawings for the liner system. These activities are described in the following sections of this report.

EPS provided the CQA monitoring, testing, and documentation. Geosyntec Consultants were responsible for the original design and construction drawings. A list of personnel involved in construction of Cell 7 at the JED facility is included in Section 3.5 of this report.

The earthwork activities for construction of Cell 7 commenced on March 19, 2010. The installation of the liner system within Cell 7 commenced on April 28, 2010. The placement of the protective soil layer in Cell 7 commenced on June 1, 2010. Construction of Cell 7 (described in this certification report) was completed on August 18, 2010.

3.2 Related Documents

As previously noted, this certification report summarizes the CQA activities performed by EPS during construction of Cell 7 at the JED facility. The CQA activities conducted by EPS were intended to satisfy the requirements of the following documents:

- Renewal permit application entitled "*Renewal Permit Application to Construct and Operate Phases 2 and 3 of the Oak Hammock Disposal Facility*", prepared and submitted by Geosyntec Consultants, Tampa, Florida in September 2006 and approved by the FDEP Central District in March 2007;

- Major modification application entitled "*Major Modification Application for Vertical Expansion of the J.E.D. Solid Waste Management Facility (Phases 1 through 3)"*, prepared and submitted by Geosyntec Consultants, Tampa, Florida in September 2007 and approved by the FDEP Central District in April 2008;

- "*Technical Specifications*", Appendix J of the major modification permit application, dated September 2007;

- "*Construction Quality Assurance (CQA) Plan*", Appendix K of the major modification permit application, dated September 2007;

- Permit renewal drawings entitled *"Oak Hammock Disposal Facility, Phases 2 and 3 Renewal Permit Drawings"*, dated September 2006;

- Vertical expansion permit drawings entitled *"J.E.D. Solid Waste Management Facility, Vertical Expansion Permit Drawings Phases 1 through 3"*, dated September 2007; and

- Construction drawings entitled *"J.E.D. Solid Waste Management Facility, St. Cloud, Florida, Cell 7 Construction"*, dated February 2010, prepared by Geosyntec Consultants, Tampa, Florida.

All of the above documents are hereafter collectively referred to as the CQA Documents in this certification report. During construction, minor deviations were made to these documents to include clarifications to the intent of the design and to accommodate existing site conditions or preferred construction techniques. However, no substantial changes were made to the CQA Documents.

3.3 Field CQA Operations

The following activities were performed as part of EPS's on-site CQA services:

Earthwork:

- collecting samples of soils used as general fill to construct the subgrade and liner subbase in Cell 7 for testing at an off-site geotechnical laboratory;

- collecting samples of soils used for protective soil layer for testing at the off-site geotechnical laboratory;

- reviewing and evaluating geotechnical laboratory test results to ensure compliance with the requirements of the CQA Documents;

- monitoring placement, grading, and compaction of earthwork related construction activities;

- testing in-situ density, moisture content, and percent compaction of earthwork related construction activities to ensure compliance with the requirements of the CQA Documents;

- notifying Contractor of areas that need additional compaction based on failing in-situ tests and re-testing these areas to ensure compliance with the requirements of the CQA Documents; and

- monitoring anchorage of the geosynthetics in the perimeter anchor trenches.

Geosynthetics:

- monitoring delivery, storage, and tracking the inventory of geosynthetic materials delivered for the project;
- coordinating the collection of geosynthetic conformance samples from in-plant sources and forwarding samples to an off-site geosynthetics testing laboratory;
- collecting and reviewing geosynthetic manufacturers' quality control (MQC) certification documents and geosynthetic laboratory conformance test results to verify compliance with the requirements of the CQA Documents;
- monitoring installation of geosynthetic materials in Cell 7 including trial seams, production seaming, nondestructive testing, and repair operations; and
- performing destructive testing of geomembrane seams at the minimum frequency required by the CQA Documents.

Leachate Collection System:

- reviewing quality control (QC) documents of materials used in the leachate collection system, geotechnical laboratory conformance test results on samples of aggregate, and geosynthetic laboratory conformance test results on samples of geotextile filter/separator fabric to verify compliance with the requirements of the CQA Documents; and
- monitoring construction of the leachate collection system in Cell 7.

Miscellaneous Activities:

- monitoring placement, grading, and compaction of limerock base course along the perimeter maintenance road (located on the west side of Cell 7);
- monitoring installation of storm water drainage structures and associated culvert pipes;
- monitoring placement, grading, and compaction of general fill used to construct the landfill perimeter berm;
- monitoring pressure cleaning of the Cell 7 leachate collection system piping; and

- monitoring installation of sump risers, concrete surface pads, leachate pumps, leachate piping and system controls.

During construction activities involving monitoring and/or testing, the observations made and results obtained by EPS CQA personnel were compared with the requirements of the CQA Documents. The construction manager and the appropriate contractor were notified of deficiencies in construction practices and/or materials to ensure appropriate corrective actions are taken. The corrective actions were monitored and/or tested by CQA personnel to ensure compliance with the requirements of the CQA Documents.

3.4 Certification Report and Record Drawings

Record drawings for Cell 7 liner subbase, primary and secondary geomembrane panel layouts, liner protective cover, and the leachate collection and transmission system piping, and this CQA certification report were prepared as the final task of the CQA program for construction of Cell 7. The record drawings are included in Appendix C of this report. This certification report summarizes the CQA monitoring, testing, and documentation activities performed by EPS.

During construction of Cell 7, CQA monitoring and testing activities were documented by CQA personnel in Daily Field Reports and various other forms. In addition, QC certificates for the geosynthetics, other construction materials, and surveyor's data were provided to EPS for review. These and other construction-related documents are maintained by WSI and EPS as part of the project file. Results of CQA monitoring and testing activities that are critical with respect to the satisfactory performance of Cell 7 at the JED facility and protection of the surrounding environment have been summarized in a tabular form and are included in Sections 4 and 5 of this certification report.

3.5 Project Personnel

Major personnel or representatives of the firms involved in the project are as follows:

Owner: Waste Services, Inc.

- Mike Kaiser, VP, Environmental Management, U.S.
- Matt Orr, District Manager
- Keith Lunsford, Facility Technician

CQA Consultant: Environmental Planning Specialists (EPS)
Wesley Chapel, Florida

- Kenneth W. Cargill, P.E., Engineer of Record

- Kirk Wills, CQA / Project Manager
- Joe Terry, CQA Technician

Atlantic Coast Consulting, Inc. (ACC)
Roswell, Georgia

- Kevin Lesley (ACC), Site CQA Manager
- Jason Williams (ACC), CQA Technician
- Drew Roper (ACC), CQA Technician

Earthwork Contractor: ERC General Contracting Services, Inc.,
Winter Garden, Florida

- Jerry Pinder, Project Manager
- Vaden Pollard, Project Superintendent

Geosynthetics Installer: Comanco Environmental Corp., Plant City, Florida

- David Barnett, Project Manager
- Jorge Barrantes, Site Superintendent

Surveyor: Peavey & Associates, Bartow, Florida

- Deborah Peavey, P.S.L., Professional Surveyor

Geotechnical Laboratories: Excel Geotechnical Testing, Roswell, Georgia

- Nader Rad, Ph.D., P.E., Project Manager

SGI Testing Services, LLC, Norcross, Georgia

- Zehong Yuan, Ph.D, P.E., Chief Technical Officer

Geosynthetics Laboratory: TRI/Environmental, Austin, Texas

- Sam Allen, Project Manager

4. CONSTRUCTION QUALITY ASSURANCE - EARTHWORK

4.1 General

EPS monitored earthwork related to construction of Cell 7, the landfill perimeter berm, and other miscellaneous construction activities. Earthwork activities related to Cell 7 included construction of perimeter berm on the west side of Cell 7, construction of intercell berm on the south side of Cell 7, construction of subgrade and 6-inch thick liner subbase, installation of protective soil layer, and anchorage of the geosynthetic components of the composite liner system.

The materials used to construct Cell 7 included general fill and protective soil. General fill was used to construct the perimeter berm, intercell berms, subgrade and 6-in. thick liner subbase in Cell 7, and to anchor the geosynthetics. Protective soil was used for the minimum 2-ft thick protective soil layer over the geosynthetic liner system.

CQA personnel observed the earthwork related construction activities and tested the soils to confirm that the material properties conformed to the CQA Documents, maximum lift thicknesses were not exceeded, and compaction requirements were met. During construction, geotechnical soil tests were performed at an off-site geotechnical laboratory under the supervision of Dr. Nader S. Rad, P.E. The off-site geotechnical laboratory utilized was Excel Geotechnical Testing (EGT), Roswell, Georgia.

4.2 Soil Source and Requirements

The general fill and protective layer soils were obtained from the borrow area on the Bronsons property (Bronsons Borrow Area) located west of the landfill. Representative samples of general fill and protective layer soils were obtained and tested to verify conformance with specified material requirements in the CQA Documents. The geotechnical tests were performed to confirm that the following requirements were met for the general fill and protective layer soils:

- *General Fill:* classified as SW, SP, SW-SM, SW-SC, SP-SM, SP-SC, SM, or SC in accordance with the Unified Soil Classification System (USCS) per ASTM D 2487 and was relatively free of debris, foreign objects, large rock fragments, organic matter, and other deleterious materials. In addition, general fill used as liner subbase in Cell 7 was free of sharp materials or materials larger than 0.5 inches.

- *Protective Layer Soils:* classified as SW, SP, SW-SM, SW-SC, SP-SM, or SP-SC in accordance with the USCS; had maximum particle size of 0.5 inches; typically had fines content of less than 10 percent per ASTM D 1140; and were relatively homogeneous soils free of deleterious materials. Regardless of the classification,

protective layer soil was required to exhibit a hydraulic conductivity no less than 1.0×10^{-3} cm/sec when tested in accordance with ASTM D 2434. It is noted that soils with fines content higher than 10 percent were accepted provided that they met the specified hydraulic conductivity requirements.

A description of the geotechnical tests performed on placed materials and results of these tests are presented below.

4.3 CQA Monitoring and Testing

EPS's CQA personnel monitored the placement and/or compaction of soils as described in Section 3. At times, several earthwork construction operations were conducted simultaneously. When this occurred, the on-site personnel monitored the operations considered most critical to the performance of the landfill liner system. Potentially nonconforming or questionable practices observed by CQA personnel were brought to the attention of the concerned parties for review and correction.

As part of CQA activities, geotechnical testing was performed on the soils used in construction of Cell 7 of the JED facility. Testing was performed at the off-site geotechnical laboratory (EGT).

The following geotechnical tests were performed:

- in-situ nuclear moisture/density tests on compacted lifts of general fill (the tests were performed in accordance with ASTM D 6938);
- in-situ density tests using the drive cylinder method (ASTM D 2937) to compare to the density tests results obtained using the nuclear gauge;
- moisture content tests on general fill in accordance with ASTM D 2216;
- standard Proctor compaction tests on general fill in accordance with ASTM D 698;
- grain-size analysis or fines content determination in accordance with ASTM D 422, ASTM C 136, or ASTM D 1140;
- hydraulic conductivity tests on the protective layer soils in accordance with ASTM D 2434; and
- interface friction tests for the interfaces between general fill and GCL and between protective layer soil and primary drainage geocomposite, as discussed in Section 5.

EPS supplied a CPN Model # MC-3 Portaprobe nuclear gauge (Serial #42273-0) that was used to perform the moisture/density tests. The gauge was calibrated daily prior to use by the "standard count" method. These counts were recorded on a standard count log. The in-situ density tests using the drive cylinder method (ASTM D 2937) were performed periodically and compared with the density test results obtained using the nuclear gauge to ensure that the gauge was functioning properly.

4.4 General Fill

CQA personnel monitored the excavation (from the Bronsons Borrow Area), placement, and compaction of general fill, which was used to construct the Cell 7 perimeter berm, intercell berms, base, 6-in. thick liner subbase, anchorage of geosynthetics and to construct the storm water management berm. Earthwork using general fill consisted of following activities:

- monitoring existing subgrade by CQA personnel to confirm that unsuitable materials were removed;
- proof rolling of subgrade by the contractor to detect soft or loose zones using articulated off-road dump trucks;
- excavating and hauling general fill from, Bronsons Borrow Area, using tracked excavators and articulated off-road dump trucks, respectively;
- placing and spreading general fill in relatively thin lifts using bulldozers;
- compacting general fill using smooth drum rollers;
- scarifying the surface of each compacted lift using tracks of a bulldozer prior to placement and compaction of subsequent lifts; and
- surveying the limits and elevations of the compacted general fill (As-built survey drawings from the surveyor are included in Appendix C).

General fill was required to be compacted to at least 95 percent of the corresponding standard Proctor (ASTM D 698) maximum dry unit weight. The tests performed on compacted general fill materials are discussed below. The CQA laboratory reports for the general fill samples are included in Appendix E.

4.4.1 Standard Proctor Tests

Standard Proctor tests were performed to evaluate the percent compaction from the measured in-situ densities of compacted general fill. Standard Proctor tests were required

to be performed at a minimum frequency of 1 test per 25,000 cubic yards (cyd) of compacted general fill.

Five (5) standard Proctor tests were performed during construction for approximately 110,000 cyd of compacted general fill placed as part of the Cell 7 construction. The actual CQA test frequency of 1 test per 22,000 cyd (approx.) of compacted general fill exceeds the minimum testing frequency required by the CQA Documents. The Standard Proctor tests performed during construction are summarized in Table 4-1 and are graphically presented in Figure 4-1. As noted, the maximum dry unit weight varied from 103.9 to 105.7 pounds per cubic foot (pcf) and the optimum moisture content varied from 13.2 to 15.3 percent.

4.4.2 Density and Percent Compaction

In-situ nuclear moisture/density tests were required to be performed at a frequency of 5 tests per acre per lift for earthwork performed using general fill. If the density test failed to meet the minimum compaction requirements, the contractor reworked and re-compacted the area surrounding the failure and the area was retested by CQA personnel. The procedure was repeated until satisfactory moisture/density test results were obtained at each test location. A handheld GPS was utilized to locate each density test location. These locations were saved as waypoints. These waypoints were used to locate the failing test locations for retesting. At each density test location a pin flag was placed. Green flags were placed where density tests met the project requirements and red flags were placed at the failing test locations. This method allowed the contractor to see where the passing and failing test locations were and to alert them that additional fill could not be placed where red flags were located. The waypoint number was written on all of the red flags for future reference.

Approximately 110,000 cyd of general fill was used to construct Cell 7. The in-situ nuclear moisture/density tests performed to evaluate the compaction of general fill in Cell 7 are presented in Appendix A. A total of 557 nuclear moisture/density tests were performed, which correspond to a CQA test frequency of 1 test per 197 cyd (approx.) of compacted general fill. For reference, a 12 in. thick lift placed over a one (1) acre area would require five (5) moisture/density tests, which corresponds to one (1) moisture density test for every 323 cyd (approx.) placed. The actual test frequency exceeds this minimum testing frequency. As noted, areas corresponding to a failing test were reworked and recompacted by the contractor and retested by the CQA personnel.

4.4.3 Grain Size Analyses and USCS Classification

Grain-size distribution analyses (ASTM D 422) were performed to evaluate the USCS classification (ASTM D 2487) of general fill materials used to construct Cell 7. Grain

size distribution analyses and USCS classification were required to be performed at a minimum frequency of 1 test per 10,000 cyd of compacted general fill.

Eleven (11) grain size distribution analyses and USCS classification were performed during construction for approximately 110,000 cyd of compacted general fill placed as part of the Cell 7 construction. The actual CQA test frequency of 1 test per 10,000 cyd of compacted general fill meets the minimum testing frequency required by the CQA Documents. The grain size distribution analyses and USCS classification performed during construction of Cell 7 are summarized in Table 4-1. As noted, the general fill materials used to construct Cell 7 classified as SP-SM, or SM in accordance with the USCS classification.

4.4.4 Drive Cylinder Tests

In-situ moisture/densities were measured using the drive cylinder method (ASTM D 2937) periodically to verify the moisture/density tests results obtained using the nuclear gauge. A total of twenty-two (22) moisture/densities were measured using the drive cylinder method for the general fill used to construct Cell 7 and are summarized in Table 4-2. A drive cylinder was collected for approximately every 25 nuclear density tests performed, which meets the minimum testing frequency required by the CQA Documents. As noted, the densities measured using the two methods were in general agreement.

4.4.5 Anchorage of Geosynthetics

EPS CQA personnel monitored the method of anchorage for the geosynthetic materials along the perimeter berm (on west side of Cell 7), and the intercell berm between Cell 7 and future Cell 8 (on south side). Along the north and east sides of Cell 7, each layer of geosynthetics was tied into the respective layer of geosynthetics from Cell 5 and Cell 6, respectively. The construction sequence for the anchor trenches was as follows:

- a 2-ft deep by 2-ft wide (minimum) trench was excavated approximately 2 feet from the inside crest of perimeter berm and 6 feet from the inside crest of the intercell berms;
- the geosynthetic components were then placed in and depending upon the material, across the bottom of the anchor trench and ballasted with sandbags; and
- the anchor trench was backfilled with general fill and compacted.

The construction sequence for the tie-in of the geosynthetic layers was as follows:

- a small, low ground pressure, tracked excavator, hand shovels and brooms were used to carefully remove the existing protective cover soil from an approximate 7-ft wide swath along the length of the north and east sides of Cell 7 where the geosynthetic layers of the adjacent existing Cells (i.e., Cells 5 and 6) were to be tied into:

- when the Installer was ready to deploy the secondary GCL along the tie-in area, the existing primary geosynthetic components (primary geocomposite and primary geomembrane) and the secondary geocomposite were cut open and folded back to expose the secondary liner; and

- the similar geosynthetic components from Cell 7 were overlapped, fastened, or welded to the existing adjacent geosynthetic components as shown in detail E3 on Sheet 6 of 17 of the Construction Drawings and as described in Section 5.

4.5 Protective Soil Layer

Protective soil was used to cover the geosynthetic components of the liner system in Cell 7. The minimum thickness of the protective soil layer atop the geosynthetic components of the liner system in Cell 7 was 2 feet.

Sandy soils from the Bronsons Borrow Area were used as protective soil. CQA personnel monitored the placement of the protective soil in Cell 7. The construction sequence of protective soil layer was as follows:

- articulated dump trucks hauled the sandy soils from Bronsons Borrow Area to Cell 7; and

- the sandy soils were placed and spread using low ground pressure bulldozers.

During placement of the protective soil, CQA personnel monitored the contractor's activities to assure that the risk of damage to the underlying geosynthetics was minimized. CQA personnel also confirmed that at least a 2-ft thick layer of sandy soils was maintained over the geosynthetics where the contractor operated the tracked equipment. A minimum 3-ft thick layer of sandy soils was maintained where the articulated off-road dump trucks operated. EPS also reviewed the certified survey for the protective cover soil layer, submitted by the Contractor, to ensure compliance with the project documents.

Grain-size distribution analyses (ASTM D 422), soil classification in accordance with USCS (ASTM D 2487), and hydraulic conductivity (ASTM D 2434) tests were performed on samples of protective soil at the off-site geotechnical laboratory EGT.

Grain-size distribution analyses, soil classification, and hydraulic conductivity tests were performed at a minimum frequency of 1 test per 5,000 cyd of in-place protective soil.

A total of 40,000 cyd (approx.) of protective soil was placed in Cell 7. Nine (9) grain-size distribution analyses (and USCS classification) and hydraulic conductivity tests were performed on the protective layer soils placed in Cell 7. The laboratory test results are presented in Table 4-3. The CQA laboratory reports for the protective soil samples are included in Appendix F. The actual CQA test frequency of 1 test per 4,445 cyd (approx.) for grain-size distribution analyses, USCS classification, and hydraulic conductivity exceeded the minimum testing frequencies required by the CQA Documents. As noted, the measured hydraulic conductivities of protective soil exceeded the minimum hydraulic conductivity of 1.0×10^{-3} cm/sec required by the CQA Documents. It is noted that soils with fines content greater than 10 percent were accepted since the measured hydraulic conductivities exceeded the project requirements.

5. CONSTRUCTION QUALITY ASSURANCE - GEOSYNTHETICS

5.1 General

EPS monitored the installation of the geosynthetic components of the composite liner system in Cell 7, as described in Section 2. At times, several liner system installation operations were conducted simultaneously during Cell 7 construction. When this occurred, the on-site CQA personnel monitored the operations that were considered most critical to the performance of the liner system.

5.2 CQA of Geosynthetic Clay Liner

5.2.1 Conformance Testing and Documentation

A geosynthetic clay liner (GCL) was used in construction of the secondary liner system and primary liner system within the sump area in Cell 7. Bentomat ST GCL used was manufactured by Colloid Environmental Technologies Company (CETCO), Arlington Heights, Illinois. Conformance samples of the GCL were collected (from the rolls produced for the project) by TRI, which coordinated with the manufacturer to collect the CQA samples at CETCO's manufacturing plant. TRI also performed the CQA conformance testing in accordance with the CQA Documents on the samples of the GCL collected.

The MQC certificates and test results and the CQA conformance test results were reviewed by CQA personnel and were found to be in compliance with the CQA Documents. The results of the MQC and CQA conformance tests are summarized in Table 5-1. Table 5-1 also indicates the tests conducted, required test frequencies, and acceptance criteria in accordance with the CQA Documents. The GCL MQC certificates have been included in Appendix G.

It is noted that Table 5-1 is organized with respect to the GCL lot numbers and indicates the roll numbers in each lot of GCL that were sampled and tested as part of the MQC and CQA conformance testing. Each sheet of Table 5-1 also presents the total number of rolls (and square footage) of the GCL received from the respective lot number and also the cumulative number of rolls (and square footage) of the GCL received for the project (to evaluate the MQC and CQA test frequencies for each lot and for the project).

A total of five (5) CQA conformance samples were tested for approximately 576,000 square feet (ft^2) of GCL delivered to the site for installation in Cell 7. The actual CQA test frequency of 1 test per 115,200 ft^2 of GCL exceeded the minimum testing frequency of 1 test per 200,000 ft^2 required by the CQA Documents. As a minimum, one conformance sample was tested during CQA from each lot of GCL supplied for the

project. The CQA laboratory test results for the GCL conformance samples have been included in Appendix H.

The hydraulic conductivity of GCL was tested using deionized water as the permeant fluid during MQC and CQA testing. Comparison studies using deionized water and leachate from the JED facility were performed previously for Cells 1 and 4. It was determined that the measured hydraulic conductivity of GCL using leachate as the permeant fluid was less than the measured hydraulic conductivity of GCL using deionized water as the permeant fluid, i.e., it is conservative to measure the hydraulic conductivity of GCL using deionized water.

5.2.2 Field Monitoring Activities

5.2.2.1 Delivery and On-Site Storage

Upon delivery, GCL rolls were unloaded in an area located south of the Cell 7 construction area (i.e., in future Cell 8 footprint), stacked on an elevated soil berm, and covered with plastic tarps. The rolls were typically transported on site by an off-road forklift equipped with a stinger bar. CQA personnel monitored the delivery, unloading, and storage procedures and observed that the GCL was handled in an appropriate manner. The CQA personnel also compared the roll numbers of the GCL rolls delivered to the manufacturer's bill of lading. An inventory of the rolls delivered for the project was maintained by the CQA personnel. This inventory also includes the rolls that were approved for installation based on MQC and CQA test results and the rolls that were used during construction. Only approved rolls were incorporated into the work.

5.2.2.2 Deployment

Prior to GCL deployment, the installer signed a certificate of acceptance for the liner subbase, which is included in Appendix I of this report. The GCL rolls were lifted using a stinger bar attached to a skid steer w/forklift attachment. The rolls were deployed by inserting a spreader bar attached to a low-ground pressure, track-mounted skid steer vehicle and unrolled. Panels were re-positioned as necessary using laborers.

CQA personnel monitored the deployment of the GCL rolls. During deployment, the CQA personnel checked for the following:

- manufacturing defects;
- damage that may have occurred during shipment, storage, and handling; and
- damage resulting from installation activities.

If any materials were observed to be damaged, the installer was notified and the damaged materials were either discarded or repaired. CQA personnel observed repair locations to verify conformance with the requirements of the CQA Documents.

CQA personnel also periodically monitored the deployment of the GCL as well as its condition after installation to ensure that the installer followed the following procedures:

- the GCL was unrolled and placed in a manner which kept the GCL in sufficient tension to avoid excessive wrinkling and was securely anchored in the anchor trench or ballasted with sand bags;
- the rolls were deployed with the woven geotextile in contact with the geomembrane;
- adjacent GCL panels were overlapped a minimum of 6 inches along the length of the panels and 12 inches along the width of the panels; and
- granular bentonite was added between overlap along the width of panels and repaired areas;
- measures were taken to keep the GCL free of contamination and protected from premature hydration; and
- geomembrane installation immediately followed installation of the GCL.

Any observed holes or tears in the GCL were repaired by the installer by placing a patch of the same material over the hole or tear and at a distance of at least 1 foot beyond the edges of the hole or tear. Granular bentonite was added around the damaged area prior to overlaying the patch material. In areas where premature hydration of the GCL was detected, the GCL was removed and replaced with new material.

5.3 CQA of Textured Geomembrane

5.3.1 Conformance Testing and Documentation

A 60-mil textured HDPE geomembrane was installed as the primary and secondary liners in Cell 7. The 60-mil textured geomembrane, Micro Spike double sided HD, was supplied by AGRU America, Inc, (Agru) Georgetown, South Carolina. Conformance samples of textured geomembrane were collected (from the rolls produced for the project) by TRI, which coordinated with the manufacturer to collect the CQA samples at Agru's manufacturing plant. TRI also performed the CQA conformance testing in accordance with the CQA Documents on the samples of textured geomembrane collected.

The MQC certificates and test results and the CQA conformance test results were reviewed by CQA personnel and were found to be in compliance with the CQA Documents. The results of the MQC and CQA conformance tests are summarized in Tables 5-2A, 5-2B, and 5-2C. Table 5-2A presents the CQA and MQC test results for the textured geomembrane. Table 5-2B presents the MQC test results for the resin used in the manufacture of the geomembrane lots and welding rods used for the project. Table 5-2C presents MQC geomembrane properties for dimensional stability and notched constant tensile load. Tables' 5-2A, 5-2B, and 5-2C summarize the CQA tests performed, the required CQA test frequencies, and the CQA Documents acceptance criteria. The geomembrane MQC certificates have been included in Appendix J.

It is noted that Table 5-2A is organized with respect to the resin lot numbers and indicates the roll numbers from each resin lot that were sampled and tested as part of the MQC and CQA conformance testing. Each sheet of Table 5-2A also presents the total number of rolls (and square footage) of the textured geomembrane received from the respective resin lot number and the cumulative number of rolls (and square footage) of the textured geomembrane received for the project (to evaluate the MQC and CQA test frequencies for each lot and for the project).

A total of twelve (12) CQA conformance samples were tested for approximately 1,161,500 ft^2 of textured geomembrane delivered to the site for installation in Cell 7. The actual CQA test frequency of 1 test per 96,792 ft^2 for the textured geomembrane exceeded the minimum frequency of 1 test per 100,000 ft^2 required by the CQA Documents. As a minimum, one conformance sample was tested during CQA from each resin lot supplied for the project. The CQA laboratory test results for the geomembrane conformance samples have been included in Appendix K.

5.3.2 Field Monitoring Activities

5.3.2.1 Delivery and On-Site Storage

Upon delivery to the site, geomembrane rolls were stored in an area located south of the Cell 7 construction area (i.e., future Cell 8 footprint) and stacked on an elevated soil berm. The rolls were typically transported by an off-road forklift with a spreader bar attachment or using the nylon slings which were attached to each roll. CQA personnel monitored the delivery, unloading, and storage procedures to ensure that the material was handled in an appropriate manner. The CQA personnel also compared the roll numbers of the geomembrane rolls delivered to the manufacturer's bill of lading. An inventory of the rolls delivered for the project was maintained by the CQA personnel. This inventory also includes the rolls that were approved for installation based on MQC and CQA test results and the rolls that were used during construction. Only approved rolls were incorporated into the work.

5.3.2.2 Deployment

The geomembrane rolls were lifted using a spreader bar attached to a track-mounted skid steer vehicle w/forklift attachment. The secondary geomembrane panels were deployed by unrolling the geomembrane rolls using the low-ground pressure, track-mounted skid steer vehicle w/forklift attachment. The track-mounted skid steer was not utilized for deployment of he primary geomembrane panels. These panels were pulled by small, four wheel all terrain vehicles (ATVs) and by laborers from the perimeter of previously deployed geosynthetics in Cell 7. The individual panels were re-positioned as necessary using laborers.

CQA personnel monitored the deployment of each geomembrane panel. During deployment, the CQA personnel checked for the following:

- manufacturing defects;
- damage that may have occurred during shipment, storage, and handling; and
- damage resulting from installation activities, including damage as a consequence of panel placement, seaming operations, or weather.

If any materials were observed to be damaged or deficient, the installer was notified and the damaged materials were either discarded or repaired. CQA personnel observed and documented the repair locations to verify compliance with the CQA Documents. Details of the geomembrane panel placement were recorded by CQA personnel on panel placement logs, which are included in Appendix B of this report.

5.3.2.3 Trial Seams

Prior to production seaming, the installer prepared geomembrane trial seams for each piece of seaming equipment to be used. Additional trial seams were prepared approximately every five hours or when field conditions changed. CQA personnel evaluated the trial seams as follows:

- trial seams were welded under similar conditions as production seaming;
- test strips were cut from the trial seams at random locations with a die press;
- four (4) test strips were tested using a field tensiometer and compared to the passing criteria for the tests, which were as follows:

Fusion

- *Peel tests* - a minimum bonded seam strength of 91 lb/in (inside/outside); and

- *Shear test* - a minimum bonded seam strength of 120 lb/in.

Extrusion

- *Peel test* - a minimum bonded seam strength of 78 lb/in; and
- *Shear test* - a minimum bonded seam strength of 120 lb/in.

If trial welds failed, the machine or welding process was adjusted and a new trial seam was prepared. The new sample was tested to ensure compliance with the above strength requirements. The procedure was repeated, as needed, until passing results were obtained.

Trial seam samples were not archived. Details of the trial seams, including the trial seam test results, are included in Appendix B of this report.

5.3.2.4 Production Seams

Geomembrane production seaming operations were monitored by CQA personnel. The majority of the geomembrane production seams were fabricated using double-track fusion welders. Seam repairs were made using hand-held extrusion welders. Rub sheets were periodically used during production seaming to provide a clean surface to weld over. During or after fabrication, the geomembrane seams were visually examined for workmanship and continuity. Geomembrane seaming logs are included in Appendix B of this report.

5.3.3 Nondestructive Seam Testing

5.3.3.1 Scope

Nondestructive testing of geomembrane seams was monitored by CQA personnel. All geomembrane seams were nondestructively tested for continuity by the installer using the air pressure procedure for double-track fusion seams and the vacuum-box test procedure for extrusion welded seams. Failed air pressure seams, if applicable, were capped and then retested using vacuum-box test methods after determining the failed seam length. Leaks identified using the vacuum-box method were repaired and retested as described in Section 5.3.5.

5.3.3.2 Air Pressure Testing

Accessible double-track fusion seams were nondestructively tested using the air pressure test. The procedure used by the installer for air pressure testing was as follows:

- visually observe the integrity of the annulus of the section of seam being tested and isolating the section by sealing the ends using heat and pressure;
- insert the needle of a pressure test apparatus into the annulus at one end of the seam;
- inflate the annulus to a gauge pressure between 25-30 psi with an air pump and maintain the gauge pressure for at least 5 minutes;
- repair faulty area in accordance with Section 5.3.5 if the pressure loss exceeds 3 psi or if the pressure does not stabilize; and
- confirm airflow through the entire annulus by releasing the air from the seam at the opposite end from where the needle was inserted.

5.3.3.3 Vacuum-Box Testing

The vacuum-box was used by the installer to nondestructively test extrusion seams and repairs. The procedure used by the installer for vacuum testing was as follows:

- wet a strip of seam with a soapy solution;
- place the vacuum-box assembly over the wetted area, close the bleed valve and open the vacuum valve;
- force the box onto the sheet until a vacuum is observed;
- examine the seam through the viewing window for a period of approximately 20 seconds for the occurrence of air bubbles;
- remove the assembly and continue the process over the entire length of the seam; and
- record the location of any leaks.

Nondestructive seam test results for primary and secondary liner in Cell 7 are presented in Appendix B. If nondestructive testing indicated that repairs were necessary, repairs were made in accordance with procedures presented in Section 5.3.5. All repairs were tested using the vacuum-box test procedure.

5.3.4 Destructive Seam Sample Testing

5.3.4.1 Scope

In accordance with the CQA Documents, CQA personnel identified and collected geomembrane seam samples for destructive testing. These samples were tested at the off-site geosynthetics laboratory (TRI).

For a destructive seam sample to be considered as passing, the seam strength criteria described in Section 5.3.2.3 had to be met for at least four out of the five test specimens obtained from the sample. In addition, if one non-FTB failure was observed, the average of the five test specimens had to meet the specified strength criterion.

5.3.4.2 Sampling Procedures

Prior to the removal of the full seam sample, two geomembrane test strips were taken by the installer from either end of the proposed destructive sample. Each strip was peel-tested in the field. If the peel samples exhibited passing results, the adjacent destructive seam sample was removed and tested. At each destructive seam sample location, a test sample measuring approximately 12 inch across the seam and 42 inch along the seam was obtained. The sample was divided into three pieces and distributed to: (i) the off-site geosynthetics laboratory for testing, (ii) the installer, and (iii) the owner as an archive sample.

5.3.4.3 Test Results

Laboratory testing of geomembrane seam samples was performed in accordance with the CQA Documents. For destructive seam testing, five 1-in wide test specimens were removed from the destructive seam sample using a die press. On a calibrated tensiometer, five test specimens were peel-tested for adhesion strength. For fusion seams, peel tests were performed on both the bottom (inside track) and top (outside track) edges. Additionally, five specimens were tested for shear strength. The seam acceptance/rejection criteria described in Sections 5.3.2.3 and 5.3.4.1 were used to evaluate the destructive seam samples.

The destructive seam test results for primary and secondary liners installed in Cell 7 are presented in Tables 5-3A and 5-3B, respectively. The CQA laboratory destructive test results for the primary and secondary liner have been included in Appendix L. For the primary liner installed in Cell 7, sixty-eight (68) destructive seam samples were tested for a total seam length of 28,885 ft (approx.). This corresponds to an approximate sample frequency of 1 per 425 lf of seam. For secondary liner installed in Cell 7, seventy-three (73) destructive seam samples were tested for a total seam length of 26,887 ft (approx.). This corresponds to an approximate sample frequency of 1 per 368 lf of seam. The actual

destructive seam test frequencies exceeded the minimum frequency of 1 per 500 lf of production seams required by the CQA Documents.

A total of 141 destructive seam samples were tested during the installation of the geomembrane liners. Destructive seam samples (DS-15, 44, 44A) initially failed to meet the requirements of the CQA Documents. Destructive sample DS-15 failed the installer's quality control testing, therefore, a lab sample was not sent out for testing. The seams identified by the failing destructive seam sample were tracked in both directions (i.e., seam welded before "B" and after "A" the location of the failing destructive sample) in accordance with the CQA Documents until passing destructive seam samples were achieved. The section of the seam between passing destructive seam samples was capped.

5.3.5 Geomembrane Repairs

The repair procedures presented in this subsection were used by the installer to patch holes and tears, spot-extrude impact damage or other minor defects, and for grinding and extrusion welding small sections of failed fusion seams (if the exposed edge was accessible). In the cases where patches or caps were used to repair the damaged geomembrane (i.e., small holes, tears, or on seams which failed nondestructive or destructive testing), an approximately 12-in. wide capping strip was used.

During the repair or panel tie-in operations, the following procedures were implemented:

- technicians and seaming equipment used were required to pass trial welds;
- patches or caps extended at least 6 in. beyond the edge of the defect and all corners were rounded; and
- repairs were tested using vacuum box and visually observed for continuity.

Repair summary logs prepared by EPS during CQA activities are included in Appendix B of this report. Record drawings illustrating layout of panels, location of seams, destructive samples, and repairs are included in Appendix C.

5.4 CQA of Primary Geocomposite

5.4.1 Conformance Testing and Documentation

The primary geocomposite used was Transnet 330-2-8 manufactured by SKAPS Industry (SKAPS), Commerce, Georgia. The primary geocomposite conformance samples were collected by TRI, which coordinated with the manufacturer to collect the CQA samples at

the SKAPS' manufacturing plant in Commerce, Georgia. TRI also performed the CQA conformance testing on the samples of primary geocomposite collected.

The MQC certificates and test results and the CQA conformance test results were reviewed by CQA personnel and were found to be in compliance with the CQA Documents. The results of the MQC and CQA conformance tests for 238 rolls (568,400 ft^2) of primary geocomposite are summarized in Tables 5-4A, 5-4B, and 5-4C. Table 5-4A presents the CQA and MQC test results for the primary geocomposite rolls produced for the project. Table 5-4B presents the CQA and MQC test results for the geotextile rolls used to manufacture the primary and secondary geocomposite rolls produced for the project. Table 5-4C presents the MQC test results for the geonet rolls used to manufacture the primary geocomposite rolls for the project.

Table 5-4A presents the CQA and MQC test results for the primary geocomposite rolls. Table 5-4A also indicates tests conducted, required test frequencies, and acceptance criteria in accordance with the CQA Documents. A total of four (4) CQA conformance samples were tested for 568,400 ft^2 of primary geocomposite approved for installation in Cell 7. The actual CQA test frequency of 1 test per 142,100 ft^2 (approx.) of the primary geocomposite exceeded the minimum frequency of 1 test per 200,000 ft^2 required by the CQA Documents. As noted in Table 5-4A, a minimum of one conformance sample was tested during CQA from each geocomposite lot. The primary geocomposite MQC certificates are included in Appendix M.

It is noted that during CQA and MQC testing, the transmissivity of the primary geocomposite was measured under compressive stresses of 500 psf for a period of 24 hours, and 15,000 psf for a period of 100 hours. The tests were performed with the primary geocomposite sandwiched between 60-mil textured geomembrane and the soil actually used as part of the protective soil layer. The transmissivity of the primary geocomposite reported in Table 5-4A is the mean transmissivity measured during the 24 and 100-hour tests.

Table 5-4B presents the CQA and MQC test results for the geotextile component of the primary geocomposite rolls approved for the project. Several rolls of primary geocomposite were manufactured from the same roll of geotextile. Approximately 1,136,800 ft^2 of geotextile was used to manufacture the primary geocomposite rolls for the project. As part of the CQA testing, eight (8) geotextile rolls were tested for mass per unit area, grab strength, and trapezoidal tear strength. Apparent opening size and permittivity tests were performed on six (6) geotextile samples. The approximate CQA test frequencies of 1 test per 142,100 ft^2 or 189,467 ft^2 for the geotextile component of the primary geocomposite exceeds the minimum frequencies of 1 test per 200,000 ft^2 or 500,000 ft^2 required by the CQA Documents, for the respective tests.

Table 5-4C presents the MQC test results for the geonet component of the primary geocomposite rolls approved for the project. Nineteen (19) geonet rolls were tested for 600,000 ft^2 of geonet used to manufacture the primary geocomposite for the project. The MQC test frequency of 1 test per 31,580 ft^2 (approx.) for the geonet component of the primary geocomposite rolls exceeded the minimum frequency of 1 test per 100,000 ft^2 required by the CQA Documents. The CQA laboratory test results for the primary geocomposite and geotextile used to manufacture the primary geocomposite have been included in Appendix N.

5.4.2 Field Monitoring Activities

5.4.2.1 Delivery and On-Site Storage

Upon delivery to the site, primary geocomposite rolls were stored in an area located south of the Cell 7 construction area (i.e., future Cell 8 footprint) and stacked on an elevated soil berm. The rolls were typically transported by an off-road forklift. CQA personnel monitored the delivery, unloading, and storage procedures to ensure that the material was handled in an appropriate manner. The CQA personnel also compared the roll numbers of the primary geocomposite rolls delivered to the manufacturer's bill of lading. An inventory of the rolls delivered for the project was maintained by the CQA personnel. This inventory also includes the rolls that were approved for installation based on MQC and CQA test results and the rolls that were used during construction. Only approved rolls were incorporated into the work.

5.4.2.2 Deployment

CQA personnel monitored the deployment of the primary geocomposite for the following:

- manufacturing defects;
- damage that may have occurred during shipment, storage, and handling; and
- damage resulting from installation activities.

If the materials were observed to be damaged, the installer was notified and the damaged materials were either discarded or repaired. CQA personnel observed repair locations to verify conformance with the CQA Documents.

CQA personnel periodically monitored the deployment of the primary geocomposite, as well as its condition after installation, to confirm that the installer took measures to:

- securely anchor the geocomposite in the anchor trench or ballast it with sand bags;
- unroll the geocomposite down the slope (i.e., rolls were aligned perpendicular to the slope contours) in a manner that kept the panel in sufficient tension to avoid excessive wrinkling;
- avoid entrapment of dust, stones, or other objects that would damage or clog the geocomposite;
- avoid damaging the underlying geomembrane during deployment;
- overlap the bottom geotextile edges;
- secure the geonet component of adjacent geocomposite panels with nylon fasteners, installed on a maximum 5-ft spacing on slopes greater than 10 percent and 10-ft on the cell floor and at 1-ft spacing on end seams; and
- overlap and continuously sew the upper geotextile edges.

Any observed holes in the geotextile component of the primary geocomposite were repaired by placing a patch of non-woven geotextile over the hole that extended at least one foot beyond the edge of the hole. These patches were continuously thermally bonded to the undamaged portion of the geocomposite. This method was also used along the tie-in at the toe of the slope and along trimmed panels. Any observed holes or tears in the geonet component of the composite were repaired by the installer by placing a patch of the same material over or under the hole or tear, at least 2-ft beyond the edges of the hole or tear. These patches were secured using nylon fasteners, followed by thermal bonding of the uppermost geotextile of the patch to the undamaged portion of the geocomposite.

5.5 CQA of Secondary Geocomposite

5.5.1 Conformance Testing and Documentation

The secondary geocomposite used was Transnet 270-2-8 manufactured by SKAPS. The secondary geocomposite conformance samples were collected (from the rolls produced for the project) by TRI, which coordinated with the manufacturer to collect the CQA samples at the SKAPS' manufacturing plant in Commerce, Georgia. TRI also performed the CQA conformance testing on the samples of the secondary geocomposite collected. In addition to the rolls purchased for this project, several rolls of geocomposite previously approved for use in the Phase 1 partial closure and Cell 6 were used for the construction of the secondary drainage layer in Cell 7.

The MQC certificates and test results and the CQA conformance test results were reviewed by CQA personnel and were found to be in compliance with the CQA Documents. The results of the MQC and CQA conformance tests results for 155 rolls (428,680 ft^2) are summarized in Tables 5-5A, 5-5B, and 5-5C. Table 5-5A presents the CQA and MQC test results for the secondary geocomposite rolls produced for the project. Table 5-5B presents the CQA and MQC test results for the geotextile rolls used to manufacture the secondary geocomposite rolls for the project. Table 5-5C presents the MQC test results for the geonet rolls used to manufacture the secondary geocomposite rolls for the project. The MQC certificates for the secondary geocomposite samples are included in Appendix O.

Table 5-5A presents the CQA and MQC test results for the secondary geocomposite rolls and CQA test results for the geotextile component of the secondary geocomposite. It includes tests conducted, required test frequencies, and acceptance criteria in accordance with the CQA Documents. A total of three (3) CQA conformance samples were tested for approximately 428,680 ft^2 of secondary geocomposite delivered to the site for installation in Cell 7. The actual CQA test frequency of 1 test per 142,895 ft^2 (approx.) of the secondary geocomposite exceeds the minimum frequency of 1 test per 200,000 ft^2 required by the CQA Documents. As noted in Table 5-5A, a minimum of one conformance sample was tested during CQA from each geocomposite lot.

It is noted that during CQA and MQC testing, the transmissivity of the secondary geocomposite was measured under compressive stresses of 500 psf for 24 hours and 15,000 psf for 100 hours. The tests were performed with the secondary geocomposite sandwiched between a GCL (Bentomat ST) and a 60-mil HDPE textured geomembrane. The transmissivity of the secondary geocomposite reported in Table 5-5A is the mean transmissivity measured during the 24 and 100-hour tests.

Table 5-5B presents the CQA and MQC test results for the geotextile component of the secondary geocomposite rolls approved for the project. Approximately 857,200 ft^2 of geotextile was used to manufacture the secondary geocomposite rolls for the project. Several rolls of secondary geocomposite were manufactured from the same roll of geotextile. As part of the CQA testing, six (6) geotextile rolls were tested for mass per unit area, grab strength, and trapezoidal tear strength. Apparent opening size and permittivity tests were performed on two (2) geotextile samples. The approximate CQA test frequencies of 1 test per 142,870 ft^2 or 428,600 ft^2 for the geotextile component of the secondary geocomposite exceeds the minimum frequencies of 1 test per 200,000 ft^2 or 500,000 ft^2 required by the CQA Documents for the respective tests.

Table 5-5C presents the MQC test results for the geonet component of the secondary geocomposite rolls approved for the project. Several rolls of secondary geocomposite were manufactured from the same roll of geonet. Eleven (11) geonet rolls were tested for

428,600 ft^2 of geonet used to manufacture the secondary geocomposite rolls delivered for the project. The MQC test frequency of 1 test per 38,965 ft^2 (approx.) for the geonet component of the secondary geocomposite exceeded the minimum frequency of 1 test per 100,000 ft^2 required by the CQA Documents. The CQA laboratory test results for the secondary geocomposite conformance samples have been included in Appendix P.

5.5.2 Field Monitoring Activities

5.5.2.1 Delivery and On-Site Storage

Upon delivery to the site, secondary geocomposite rolls were stored in an area located south of the Cell 7 construction area (i.e., future Cell 8 footprint) and stacked on an elevated soil berm. The rolls were typically transported by an off-road forklift. CQA personnel monitored the delivery, unloading, and storage procedures to ensure that the material was handled in an appropriate manner. The CQA personnel also compared the roll numbers of the secondary geocomposite rolls delivered to the manufacturer's bill of lading. An inventory of the rolls delivered for the project was maintained by the CQA personnel. This inventory also includes the rolls that were approved for installation based on MQC and CQA test results and the rolls that were used during construction of Cell 7. Only approved rolls were incorporated into the work.

5.5.2.2 Deployment

CQA personnel monitored the deployment of the secondary geocomposite for the following:

- manufacturing defects;
- damage that may have occurred during shipment, storage, and handling; and
- damage resulting from installation activities.

If the materials were observed to be damaged, the installer was notified and the damaged materials were either discarded or repaired. CQA personnel observed repair locations to verify conformance with the CQA Documents.

CQA personnel periodically monitored the deployment of the secondary geocomposite, as well as its condition after installation, to confirm that the installer took measures to:

- securely anchor the geocomposite in the anchor trench or ballast it with sand bags;

- unroll the geocomposite down the slope (i.e., rolls were aligned perpendicular to the slope contours) in a manner that kept the panel in sufficient tension to avoid excessive wrinkling;

- avoid entrapment of dust, stones, or other objects that would damage or clog the geocomposite;

- avoid damaging the underlying geomembrane during deployment;

- overlap the bottom geotextile edges;

- secure the geonet component of adjacent geocomposite panels with nylon fasteners, installed along the panel at maximum 5-ft spacing on slopes greater than 10 percent and 10-ft spacing on the cell floor, and at 1-ft spacing on end seams; and

- overlap and continuously sew the upper geotextile edges.

Any observed holes in the geotextile component of the secondary geocomposite were repaired by placing a patch of non-woven geotextile over the hole that extended at least one foot beyond the edge of the hole. These patches were continuously thermally bonded to the undamaged portion of the geocomposite. This method was also used along the tie-in at the toe of the slope and along trimmed panels. Any observed holes or tears in the geonet component of the composite were repaired by the installer by placing a patch of the same material over or under the hole or tear, at least 2-ft beyond the edges of the hole or tear. These patches were secured using nylon fasteners, followed by thermal bonding of the uppermost geotextile of the patch to the undamaged portion of the geocomposite.

5.6 CQA of Non-Woven Geotextile

5.6.1 Conformance Testing and Documentation

A non-woven geotextile was used as filter fabric to surround the aggregate in the leachate collection and detection system corridors and as a separator in the leachate Cell 7 sump. The GE-180 8-oz/yd^2, needle-punched, non-woven geotextile was manufactured by SKAPS, Commerce, Georgia. The geotextile conformance sample was collected by TRI, which coordinated with the manufacturer to collect the CQA sample at the SKAPS' manufacturing plant in Commerce, Georgia. TRI also performed the CQA conformance testing on the sample of the non-woven geotextile collected.

The MQC certificates and test results and the CQA conformance test results were reviewed by CQA personnel and were found to be in compliance with the CQA Documents. The results of the MQC and CQA conformance tests are summarized in

Table 5-6. Table 5-6 also indicates the tests that were conducted, the required test frequencies, and the acceptance criteria in accordance with the CQA Documents.

A CQA conformance samples was tested for approximately 54,000 ft^2 of the non-woven geotextile delivered to the site for installation in Cell 7. The actual CQA test frequency of 1 test per 54,000 ft^2 of non-woven geotextile exceeded the minimum testing frequency of 1 test per 100,000 ft^2 required by the CQA Documents. The CQA laboratory test results for the geotextile conformance sample have been included in Appendix Q.

5.6.2 Field Monitoring Activities

5.6.2.1 Delivery and On-Site Storage

Upon delivery to the site, non-woven geotextile rolls were stored in an area located south of the Cell 7 construction area (i.e., future Cell 8 footprint) and stacked on an elevated soil berm. The rolls were typically transported by an off-road forklift. CQA personnel monitored the delivery, unloading, and storage procedures to ensure that the material was handled in an appropriate manner.

5.6.2.2 Deployment

CQA personnel monitored the deployment of the non-woven geotextile rolls for manufacturing defects; damage that may have occurred during shipment, storage, and handling; and damage resulting from installation activities. If any materials were observed to be damaged, the installer was notified and the damaged materials were either discarded or repaired. CQA personnel observed repair locations to verify conformance with the requirements of the CQA Documents.

After deployment of the geotextile, CQA personnel observed that the installer overlapped geotextile panels end-to-end a minimum of 24-in. and continuously sewed the 6-in overlap.

5.7 Interface Friction Testing

As discussed in Section 2, the liner system in Cell 7 consists (from top to bottom) of the protective soil layer, primary geocomposite, primary liner, secondary geocomposite, secondary liner, secondary GCL and prepared subbase. Tests were performed in accordance with the CQA Documents to evaluate the interface shear strength for the various components of the liner system and the internal strength of the GCL. All tests for interface shear strength and the internal strength of the GCL were performed by SGI

The interface shear and the internal strength tests were performed as part of CQA testing. The tests were performed using samples of geosynthetics collected from rolls that were actually installed in Cell 7. The soils for the protective soil layer and liner subbase were obtained from the Bronsons Borrow Area and were similar to the sandy soils used in construction. The following rolls of geosynthetics were used for the CQA interface shear and the internal strength tests:

- GCL – Roll #1424;
- Textured geomembrane –Roll #212472;
- Primary geocomposite – Roll #359510001; and
- Secondary geocomposite – Roll #359520001.

The interfaces between the various components of the liner system and the internal strength of the GCL were tested at normal stresses of 5,000, 10,000, and 15,000 psf. Peak (at small displacement) and residual (at large displacements) shear strengths were measured at each normal stress. The interface shear tests were conducted under wetted/saturated conditions. GCL was soaked and consolidated prior to testing. The following liner system interfaces were tested (from top to bottom):

(1) Protective soil layer / Primary geocomposite / Textured geomembrane / Secondary geocomposite;
(2) Textured geomembrane / Secondary geocomposite / Textured geomembrane / GCL (non-woven side down) / Subbase soil; and
(3) Internal strength of the GCL.

The minimum shear strengths required by the CQA Documents are presented in Table 5-7A. The measured peak and residual shear strengths for all the tests performed are summarized in Table 5-7B. Figures 5-1 and 5-2 present the peak and residual shear strengths, respectively, for the interface shear and the internal strength tests performed. As noted, the measured peak and residual shear strengths exceeded the minimum specification requirements. Initially, the GCL internal shear strength test at the 15,000 psf normal stress was not achieved. This test was re-run and the resultant shear strength met the shear strength requirement. The CQA laboratory interface test results have been included in Appendix S.

6. CONSTRUCTION QUALITY ASSURANCE -- LEACHATE COLLECTION SYSTEM

6.1 General

The leachate management system is comprised of the leachate collection, transmission, and storage systems. The construction of the initial leachate transmission and storage systems for the JED facility was detailed in Cell 1A Certification Report (perimeter pipe and storage ponds). This section only includes CQA activities performed during construction of the leachate collection system in Cell 7 and the extension of the leachate transmission (header) pipe from Cell 5 to the south end of Cell 7.

The leachate collection system in Cell 7 consists of a primary and a secondary leachate collection system and sumps. The primary leachate collection systems included a 6-in diameter SDR 11 HDPE perforated leachate collection pipe surrounded by gravel aggregate and geotextile filter fabric. The secondary system was the same as the primary, except a 4-in SDR 11 HDPE perforated pipe was used. The leachate collection corridor was installed within Cell 7 in an East-West alignment, dividing the cell into two approximate equal areas to reduce the drainage path.

For the primary and secondary leachate collection systems, the leachate collection pipe was provided with two rows of ½-in perforations in the bottom 1/3 of the pipe section. Granular drainage materials meeting the requirements of #5 stone (per ASTM D 448) was used as the gravel aggregate. A #57 stone was specified for use in the leachate collection corridor, but the actual stone used met the gradation of a #5 stone. Although this stone did not meet the gradation requirement, the stone is larger and exceeds the minimum hydraulic conductivity requirement and was approved for use. An 8-oz/yd^2 needle-punched, non-woven geotextile was used as the filter fabric.

Two (2) cleanouts (one for the primary system and one for the secondary system) were installed along the inside slope of the perimeter berm near the sump in Cell 7 to maintain the leachate collection system piping. The primary cleanouts were constructed using 6-in diameter SDR 11 HDPE pipe and were fitted with a blind flange. The secondary cleanouts were constructed similarly, but with 4-in diameter pipe.

The Cell 7 sump included gravel beds covered with geotextile separator fabric and three sump upslope risers. The gravel beds for the primary and secondary sumps were separated by the primary liner system. Granular drainage materials meeting the requirements for #4 stone (per ASTM D 448) were used in the 2.5-ft thick drainage beds. The primary drainage bed was separated from the overlying liner protective layer by an 8-oz/yd^2 needle-punched, non-woven geotextile separator fabric. Two primary and one

secondary sump risers were installed in Cell 7 sump. The sump risers were constructed using 24-in diameter SDR 32.5 HDPE pipe and included a perforated cap at the sump end and a bolted flanged top lid. The horizontal section (or collection segment) of the sump riser pipes were perforated to allow leachate to flow into the pipe. These sump pipes were installed in accordance with the CQA Documents.

The Cell 7 sump area included a primary GCL extending approximately 5-ft out from the limit of the sump.

Leachate from Cell 7 will be collected in the leachate collection system in the central leachate corridor, and will gravity flow to the Cell 7 sump. Leachate will be pumped from the sump risers through the leachate transmission line to the leachate storage area. To control the pumping and transfer of leachate, a sump control panel was installed as part of the leachate system in Cell 7.

EPS's CQA personnel monitored the construction of the leachate collection system within Cell 7, the extension of the leachate transmission header line from Cell 5, and the installation of a new leachate transmission line manhole on the west side of the Cell 7 sump area. The field monitoring and testing activities performed by the CQA personnel during construction of the leachate collection system and the leachate transmission line and manhole are discussed below. After construction of the leachate collection system was complete, the primary collection pipes were pressured cleaned by Florida JetClean, of Lutz, Florida. A letter report from Florida Jetclean verifying the system to be free flowing and not obstructed is included in Appendix T of this report.

6.2 HDPE Pipe

All pipes used in the construction of the leachate collection system were SDR 11 HDPE pipes except for the sump risers, which were constructed using SDR 32.5 HDPE pipes. The MQC certificates for the HDPE pipes were reviewed by the CQA personnel and were found to be in compliance with the requirements of the CQA Documents.

HDPE pipe sections were joined using butt-fusion welding and electro fusion coupler techniques. CQA personnel monitored the butt-fusion welding techniques to ensure that industry-accepted procedures were used during construction. CQA personnel also verified the diameter of and perforation details (size, number of rows, orientation) for the different pipes used in the leachate collection system and monitored the cleaning of all pipes, just prior to installation and after placement of the pipes.

6.3 Granular Drainage Materials

Granular drainage materials meeting the requirements of #5 stone (per ASTM D 448) were used in Cell 7 primary and secondary leachate collection systems. Granular

drainage materials meeting the requirements of #4 stone (per ASTM D 448) were used in the Cell 7 leachate sump area. The #4 and #5 granular drainage materials were supplied by Conrad Yelvington, Florida. The QC certificates and test results were reviewed by CQA personnel and were found to be in compliance with the CQA Documents. The hydraulic conductivity (per ASTM D 2434) of the #5 stone was measured to be 18 cm/sec, which exceeded the CQA Documents requirement of 1 cm/sec. The hydraulic conductivity (per ASTM D 2434) of the #4 stone was measured to be 24 cm/sec, which exceeded the CQA Documents requirement of 10 cm/sec. Carbonate content tests (per ASTM D 3042) were performed on the #5 and #4 stone granular drainage materials during the QC testing. The #5 and #4 stone used in construction of the leachate collection system were found to be almost insoluble (containing less than 0.1% $CaCO_3$). The CQA laboratory test results for the drainage gravel conformance samples have been included in Appendix U.

CQA personnel monitored the placement of the granular drainage material to ensure (i) the underlying geosynthetics were not damaged; (ii) the perforated pipes were properly aligned with perforations facing down and surrounded by the drainage materials and the geotextile; and (iii) the drainage materials were placed in accordance with the requirements of the CQA Documents.

6.4 Pressure Testing

The leachate transmission (header) pipe installed from the south end of Cell 5 to the south end of Cell 7 and the new leachate transmission manhole were pressure tested to detect any leaks or defective pipe joints.

The hydrostatic pressure testing was performed by filling the leachate transmission line segment and pressurizing it. The hydrostatic pressure of 130 psi was maintained for at least 1 hour after an initial 3 hour expansion phase. No drop in the hydrostatic pressure was observed during the 1 hour test period.

6.5 Sump Pumps and Control Panel

Leachate collected in the leachate sumps will be extracted and pumped to the leachate storage area by two 7.5-hp electric EPG model WSDPT 46-2 SurePumps located in the primary sump risers and one 1.5-hp electric EPG model WSDPT 12-2 SurePump located in the secondary sump riser. The pumps are controlled by a control panel located at the Cell 7 sump near the top of the sump risers. The sump pumps and the associated control panel were supplied by EPG Companies, Inc., (EPG), Rogers, Minnesota.

The following tests were performed after installation of the pumps and control system at the Cell 7 sump area by Mr. Keith Lunsford (WSI) to confirm proper operation of the pumps and pump control panel. Mr. Lunsford is the facility's trained leachate system technician, who has received certification from EPG on the operation and maintenance of

EPG pumps and control systems. The sump pumps were tested in place. At the time of testing the sump area was inundated with water from recent precipitation. The primary pumps were used to dewater the sump area. Water was added to the secondary sump riser pipe in order to test the secondary pump. Each pump was connected to a piping assembly containing a pressure gauge, meter valve, and a flow meter. The pumps were turned on and the pressure and flow rate of each pump was recorded. The pressure and flow rate data for each pump was compared to the pump curves provided by EPG;

- Transducer settings were checked to confirm that the pumps and alarms were activating correctly; and

- The installed system components were visually checked for compliance with the requirements of the project documents.

7. CONSTRUCTION QUALITY ASSURANCE - OTHER CONSTRUCTION ACTIVITIES

7.1 Overview

EPS provided CQA monitoring, testing and documentation for miscellaneous activities associated with the development and ongoing operation of the JED facility. The CQA activities included monitoring of:

- construction of Cell 7 perimeter maintenance road; and
- installation of a storm water drainage structures and associated piping.

7.2 Construction of Cell 7 Maintenance Road

Limerock was placed as the base course to construct the perimeter maintenance road (on the west side of Cell 7). A 10-inch thick layer of limerock base course was placed and compacted to construct the Cell 7 maintenance road.

The limerock for the project was supplied by MidCoast Aggregates, in Webster, Florida. CQA personnel periodically monitored the placement and compaction of the limerock base course and ensured compliance with the CQA Documents. The limerock was placed in two lifts, graded and compacted in accordance with the CQA Documents.

7.3 Storm Water Drainage Structures

Two storm water drainage structures (DS-21A and 21B) and associated piping were installed in the perimeter berm on west side of Cell 7 in accordance with Detail 4/3 on Sheet 7 of 17 of the Construction Drawings. The pre-cast concrete storm water drainage structures were manufactured by Atlantic Concrete Products, in Sarasota, Florida. The shop drawings supplied by the manufacturer were reviewed by the CQA personnel and were found to be in compliance with the CQA Documents.

Advanced Drainage Systems, Inc. (ADS) N-12 WT (water tight) corrugated HDPE pipe (18 and 30 inch inside diameter) was used at each drainage structure. The ADS N-12 pipe consists of a smooth wall interior with annular exterior corrugations. The pipes were installed in accordance with the CQA Documents. Two (2) 18 inch corrugated pipes were installed on the north and south sides of each drainage structure to drain storm water collected in the perimeter maintenance road swale. A third 18 inch corrugated was installed on the east side of each structure. This pipe will connect to the storm water downchute pipe which will be installed as part of the closure system for Cell 7, and for the time being was capped. A 30 inch corrugated pipe was used at each drainage

structure to convey water from the drainage structure to the dry retention basin on the west side of Cell 7. A pre-cast concrete headwall was installed at the discharge end of the pipe. The annular space between the pipes and the concrete structures were sealed with non-shrink grout. An 18-inch thick rip rap apron was constructed at the outfall of both drainage structures to dissipate the energy of the outfall and to protect the perimeter berm and storm water berms from erosion. The rip rap consisted of concrete debris rubble placed over an 8 oz/yd^2 non-woven, geotextile fabric.

After installation of the two (2) storm water drainage structures, a 2 by 4 by 5 ft concrete thrust block was poured on the west side of each concrete storm water drainage structure as a counterweight against the force of water flowing into the structure from the 18 inch downchute pipe installed as part of the closure system on the east side of the structures.

8. CONCLUSIONS

Observation of the construction of Cell 7 at the JED facility was performed by EPS during the period of March 19, 2010 to August 18, 2010. During this time, CQA personnel monitored the installation of the following components:

- earthwork (Cell 7 subgrade, liner subbase, intercell berms, sump area, protective soil layer, and miscellaneous earthwork);
- geosynthetics in Cell 7; and
- leachate management system (leachate collection system and leachate sumps in Cell 7, and extension of the leachate transmission system)

During construction of the above components, CQA personnel verified that performance and conformance testing was performed at the frequencies required by the CQA Documents and that the installation met or exceeded the requirements of the CQA Documents. CQA personnel also verified that conditions or materials identified as not conforming to the CQA Plan were replaced, repaired, and/or retested, as described in this report.

The results of the CQA activities undertaken by EPS as described in this report indicate that Cell 7 was constructed in general accordance with the CQA Documents and the solid waste permit issued for the JED facility.

Kirk Wills
CQA/Project Manager

Kenneth W. Cargill, Florida P.E. #54435
CQA Engineer-of-Record 4 October 2010

TABLES

Table 4-1

GRAIN SIZE DISTRIBUTION ANALYSES, USCS CLASSIFICATION, & STANDARD PROCTOR RESULTS FOR GENERAL FILL USED TO CONSTRUCT CELL 7

	PARTICLE SIZE ANALYSIS					SOIL CLASSIFICATION	STANDARD PROCTOR		
TEST STANDARD	ASTM D 422					ASTM D 2847	ASTM D 698		
TESTING FREQUENCY	1 test per 10,000 yd^3					1 test per 10,000 yd^3	1 test per 25,000 yd^3		
TEST RESULTS									
Sample No.	Percent Passing by Weight Through U.S. Standard Sieve					Classification[1]	Optimum Moisture Content (%)	Maximum Dry Density Moisture Content (pcf)	Pass/Fail (P/F)
	No. 10	No. 40	No. 60	No. 100	No. 200				
GF-01	100.0	98.4	86.1	32.4	6.6	SP-SM	13.4	103.9	P
GF-02	100.0	98.0	85.2	33.3	8.7	SP-SM	13.2	105.7	P
GF-03	100.0	98.3	87.6	35.2	10.3	SP-SM	13.2	105.7	P
GF-04	100.0	97.4	81.2	29.9	8.1	SP-SM	15.3	105.3	P
GF-05	100.0	96.5	79.2	27.9	6.4	SP-SM	15.3	105.0	P
GF-06	99.9	97.6	85.1	31.9	7.5	SP-SM	N/A[2]	N/A	P
GF-07	99.8	97.9	86.5	31.9	7.3	SP-SM	N/A	N/A	P
GF-08	100.0	98.3	85.9	32.0	9.8	SP-SM	N/A	N/A	P
GF-09	100.0	98.1	84.7	28.5	9.3	SP-SM	N/A	N/A	P
GF-10	100.0	98.6	86.4	37.5	14.9	SM	N/A	N/A	P
GF-11	99.9	98.3	86.1	33.2	8.8	SP-SM	N/A	N/A	P

Notes:

[1] General fill soils were required to classify as SW, SP, SW-SM, SW-SC, SP-SM, SP-SC, SM or SC.

[2] N/A = Not applicable

Table 4-2

COMPARISON BETWEEN DRIVE CYLINDER AND NUCLEAR GAUGE TEST RESULTS FOR GENERAL FILL USED TO CONSTRUCT CELL 7

DRIVE CYLINDER			NUCLEAR GAUGE			DIFFERENCE (Drive Cylinder - Nuclear Gauge)	
Test No.	Dry Unit Weight (pcf)	Moisture Content (%)	Test No.	Dry Unit Weight (pcf)	Moisture Content (%)	Dry Unit Weight (pcf)	Moisture Content (%)
	ASTM D 2937	ASTM D 2216		ASTM D 2922	ASTM D 3017		
DR-1	109.2	13.3	DT-28	104.3	15.4	4.9	-2.1
DR-2	103.8	15.1	DT-53	100.6	17.6	3.2	-2.5
DR-3	97.4	13.4	DT-75	99.9	17.9	-2.5	-4.5
DR-4	104.1	14.5	DT-100	99.1	12.6	5.0	1.9
DR-5	106.2	14.6	DT-124	100.7	18.5	5.5	-3.9
DR-6	106.4	11.5	DT-149	101.2	14.0	5.2	-2.5
DR-7	98.8	11.7	DT-174	99.6	18.2	-0.8	-6.5
DR-8	105.3	11.7	DT-199	99.8	16.3	5.5	-4.6
DR-9	102.0	12.9	DT-223	99.9	13.2	2.1	-0.3
DR-10	100.6	12.5	DT-258	94.9	15.3	5.7	-2.8
DR-11	111.6	11.9	DT-276	101.0	17.8	10.6	-5.9
DR-12	111.0	12.3	DT-301	101.5	13.5	9.5	-1.2
DR-13	100.3	11.1	DT-325	99.6	14.2	0.7	-3.1
DR-14	98.8	11.1	DT-350	89.2	10.9	9.6	0.2
DR-15	111.4	12.0	DT-375	101.0	14.6	10.4	-2.6
DR-16	107.2	9.8	DT-400	99.1	17.2	8.1	-7.4
DR-17	107.6	9.7	DT-425	95.6	13.0	12.0	-3.3
DR-18	108.3	13.7	DT-445	99.9	16.7	8.4	-3.0
DR-19	99.5	11.9	DT-470	97.5	15.5	2.0	-3.6
DR-20	107.1	13.3	DT-495	99.7	16.4	7.4	-3.1
DR-21	97.9	17.2	DT-520	98.3	20.2	-0.4	-3.0
DR-22	99.8	10.4	DT-545	101.4	14.4	-1.6	-4.0
					Average Difference	**5.0**	**-3.1**

Table 4-3

LABORATORY TEST RESULTS FOR LINER PROTECTIVE SOILS USED TO CONSTRUCT CELL 7

	PARTICLE SIZE ANALYSIS	SOIL CLASSIFICATION	HYDRAULIC CONDUCTIVITY
TEST STANDARD	ASTM D 422/ C 136	ASTM D 2487	ASTM D 2434
TESTING FREQUENCY	1 test per 5,000 yd[3]	1 test per 5,000 yd[3]	1 test per 5,000 yd[3]

TEST RESULTS

Sample ID	Percent Passing No. 200 Sieve (%) [1]	Soil Classification [2]	Hydraulic Conductivity [3] (cm/sec)	Pass/Fail (P/F)
PC-01	6.2	SP-SM	7.7E-03	P
PC-02	5.6	SP-SM	7.1E-03	P
PC-03	6.5	SP-SM	4.8E-03	P
PC-04	6.3	SP-SM	7.5E-03	P
PC-05	4.4	SP	1.4E-02	P
PC-06	7.8	SP-SM	8.2E-03	P
PC-07	13.8	SM	4.7E-03	P
PC-08	8.2	SP-SM	6.7E-03	P
PC-09	7.3	SP-SM	6.6E-03	P

Notes:

[1] Soils with fines content higher than 10% were accepted provided they met the specified hydraulic conductivity requirements.

[2] Liner protective layer soils were required to classify as SW, SP, SW-SM, SW-SC, SP-SM, or SP-SC; other soil classification may be accepted by the Engineer provided the soil meets the hydraulic conductivity requirement.

[3] Required hydraulic conductivity of no less than 1.0×10^{-3} cm/sec.

Table 5-1

CQA AND MQC TEST RESULTS FOR GEOSYNTHETIC CLAY LINER (CETCO)
LOT NO. 201015CV

	CONSTRUCTION QUALITY ASSURANCE (CQA)	MANUFACTURING QUALITY CONTROL (MQC)					
PROPERTY	Hydraulic Conductivity (cm/s)	Bentonite Content (lb/ft^2)	Tensile Grab Strength (ppi)	Peel Strength (ppi)	Bentonite Free Swell (ml/2g)	Bentonite Moisture Content (%)	Hydraulic Conductivity (cm/s)
TEST STANDARD	ASTM D 5887	ASTM D 5993	ASTM D 6768	ASTM D 6496	ASTM D 5890	ASTM D 2216	ASTM D 5887
PROJECT SPECS.	$\leq 5.0 \times 10^{-9}$	≥ 0.75	≥ 23	≥ 2.1	≥ 24	≤ 12	$\leq 5.0 \times 10^{-9}$
TESTING FREQUENCY	1 per 200,000 ft^2 (2)	1 per 40,000 ft^2 (2)			1 per 50 ton (1, 2)		1 per 100,000 ft^2 (2)

ROLL NUMBER	CQA REPORT ID	TEST RESULTS							PASS/FAIL (P/F)	
									CQA	MQC
1424	E2337-32-07	3.3×10^{-9}	0.87	76.0	3.7	26	12	3.04×10^{-9}	P	P
1441			0.91	78.4	4.3	26	12		P	P
1459			0.82	80.7	4.0	26	12	3.26×10^{-9}	P	P
1476			0.85	89.5	3.8	24	12		P	P
1493			0.89	48.1	9.3	24	12	3.17×10^{-9}	P	P
1511	E2337-32-07	3.1×10^{-9}	0.85	56.8	6.3	24	12	3.31×10^{-9}	P	P
1528			0.82	70.4	5.4	25	12	3.05×10^{-9}	P	P
1545			0.84	78.6	3.8	25	12		P	P
1562	E2337-32-07	3.1×10^{-9}	0.84	73.2	4.2	25	12	2.95×10^{-9}	P	P
1579			0.84	79.6	4.7	26	12		P	P
1597	E2337-32-07	3.0×10^{-9}	0.82	82.7	5.2	26	12	2.86×10^{-9}	P	P
1614			0.83	80.0	3.9	26	12		P	P
1632			0.84	44.5	8.8	24	12	2.45×10^{-9}	P	P
1649			0.87	58.0	5.6	24	12		P	P
1666			0.87	70.5	8.8	24	12	2.58×10^{-9}	P	P
1683	E2337-32-07	2.6×10^{-9}	0.84	72.7	6.6	24	12		P	P

Notes:

[1] Manufacturer's testing frequency was accepted for these properties.

[2] A minimum of 1 test per lot was required.

Average Roll Area (150 ft x 15 ft):	2,250	ft^2	**SHEET NO.**	**1**	**of**	**1**
No. of Rolls in Lot:	256		**CUMULATIVE NUMBER OF ROLLS:**	**256**		
Area in Lot:	576,000	ft^2	**CUMULATIVE AREA:**	**576,000**	**ft^2**	

Table 5-2A

CQA AND MQC TEST RESULTS FOR 60-mil TEXTURED GEOMEMBRANE (AGRU)
RESIN LOT NO. 7100247

	CONSTRUCTION QUALITY ASSURANCE (CQA)								MANUFACTURING QUALITY CONTROL (MQC)									
PROPERTY	Thickness (mil)	Density (g/cm^3)	Carbon Black Content (%)	Carbon Black Dispersion	Yield Strength[2] (lb/in)	Break Strength[2] (lb/in)	Yield Elongation[2] (%)	Break Elongation[2] (%)	Thickness[1] (mil)	Density (g/cm^3)	Carbon Black Content (%)	Carbon Black Dispersion	Yield Strength[2] (lb/in)	Break Strength[2] (lb/in)	Yield Elongation[2] (%)	Break Elongation[2] (%)	Tear Resistance[2] (lb)	Puncture Resistance (lb)
TEST STANDARD	ASTM D 5994	ASTM D 1505	ASTM D 1603	ASTM D 5596	ASTM D 6693	ASTM D 6693	ASTM D 6693	ASTM D 6693	ASTM D 5994	ASTM D 1505	ASTM D 1603	ASTM D 5596	ASTM D 6693	ASTM D 6693	ASTM D 6693	ASTM D 6693	ASTM D 1004	ASTM D 4833
PROJECT SPECS.	≥ 60 / 54 [5]	≥ 0.94	2 to 3	See Note 3	≥ 126	≥ 90	≥ 12	≥ 100	≥ 60 / 54 [(5)]	≥ 0.94	2 to 3	See Note 3	≥ 126	≥ 90	≥ 12	≥ 100	≥ 42	≥ 90
TESTING FREQUENCY	1 per 100,000 ft^2 [4]								Every Roll	1 Test per Lot	1 Test per 5 Rolls	1 Test per 10 Rolls	1 Test per 5 Rolls				1 Test per 10 Rolls	1 Test per 10 Rolls

ROLL NUMBER	**CQA REPORT ID**	**TEST RESULTS**								**TEST RESULTS**										**PASS/FAIL (P/F)**	
																				CQA	**MQC**
212500	E2341-10-07	64/60	0.946	2.7	10	154	172	16	450	62/58	0.948	2.64	10	165	190	17.82	482.2	53.97	135.86	P	P
212588										61/57	0.948	2.53	10	154	183	17.93	486.9	57.02	131.05		P
212589	E2341-09-09	63/57	0.944	2.65	10	171	168	16	407	60/57	0.948	2.53	10	160	172	18.72	389.7	49.24	134.26		P
212604										62/58	0.948	2.07	10	162	181	17.84	480.7	53.97	135.86		P
212607										61/57	0.948	2.41	10	160	179	17.84	480.7	53.97	135.86		P
212609	E2341-10-07	63/59	0.946	2.65	10	152	172	17	428	60/56	0.948	2.6	10	159	178	18.50	450.4	54.50	137.42	P	P
212612										61/56	0.948	2.59	10	164	182	18.50	450.4	54.50	137.42		P
212614										61/57	0.948	2.38	10	172	201	17.82	482.8	54.50	137.42		P
212618	E2341-10-07	63/58	0.946	2.62	10	161	182	16	458	62/58	0.948	2.62	10	174	204	17.82	482.8	54.50	137.42	P	P
212621										61/59	0.948	2.77	10	168	200	18.59	515.9	55.23	129.26		P
212723										62/60	0.948	2.59	10	169	201	18.59	515.9	55.23	129.26		P
212724										61/57	0.948	2.67	10	161	184	18.31	468.6	55.23	129.26		P
212727	E2341-10-07	64/59	0.946	2.27	10	158	170	16	428	61/56	0.948	2.25	10	159	182	18.31	468.6	55.23	129.26	P	P
212734										60/56	0.948	2.46	10	167	187	17.09	462.9	56.41	143.52		P
212738										61/56	0.948	2.6	10	171	191	17.09	462.9	56.41	143.52		P
212741										61/57	0.948	2.55	10	158	187	17.91	486.7	53.48	141.59		P
213101	E2341-10-07	63/59	0.948	2.73	10	161	171	16	440	61/58	0.948	2.25	10	158	187	17.91	486.7	53.48	141.59	P	P
213104										60/58	0.948	2.67	10	152	192	16.57	496.9	53.48	141.59		P
213108										60/57	0.948	2.66	10	161	180	18.43	468.8	55.12	136.85		P

Notes:

[1] Thickness was measured for every roll.

[2] Minimum property value in machine direction (MD) and transverse direction (TD).

[3] Project requirements for carbon black dispersion are: 9 of 10 in Category 1 or 2 and all in Category 1,2, or 3. Results are for Category 1 or 2.

[4] A minimum of 1 test per lot was required.

[5] Average / Minimum thickness

Average Roll Area (23 ft x 505 ft): 11,615 ft^2

No. of Rolls in Lot: 51

Area in Lot: 592,365 ft^2

SHEET NO. 1 OF 3

CUMULATIVE NUMBER OF ROLLS: 51

CUMULATIVE AREA: 592,365 ft^2

Table 5-2A (continued)

CQA AND MQC TEST RESULTS FOR 60-mil TEXTURED GEOMEMBRANE (AGRU)
RESIN LOT NO. 7100251

	CONSTRUCTION QUALITY ASSURANCE (CQA)								MANUFACTURING QUALITY CONTROL (MQC)									
PROPERTY	Thickness (mil)	Density (g/cm^3)	Carbon Black Content (%)	Carbon Black Dispersion	Yield Strength[2] (lb/in)	Break Strength[2] (lb/in)	Yield Elongation[2] (%)	Break Elongation[2] (%)	Thickness[1] (mil)	Density (g/cm^3)	Carbon Black Content (%)	Carbon Black Dispersion	Yield Strength[2] (lb/in)	Break Strength[2] (lb/in)	Yield Elongation[2] (%)	Break Elongation[2] (%)	Tear Resistance[2] (lb)	Puncture Resistance (lb)
TEST STANDARD	ASTM D 5994	ASTM D 1505	ASTM D 1603	ASTM D 5596	ASTM D 6693	ASTM D 6693	ASTM D 6693	ASTM D 6693	ASTM D 5994	ASTM D 1505	ASTM D 1603	ASTM D 5596	ASTM D 6693	ASTM D 6693	ASTM D 6693	ASTM D 6693	ASTM D 1004	ASTM D 4833
PROJECT SPECS.	≥ 60 / 54 [5]	≥ 0.94	2 to 3	See Note 3	≥ 126	≥ 90	≥ 12	≥ 100	≥ 60 / 54 [(5)]	≥ 0.94	2 to 3	See Note 3	≥ 126	≥ 90	≥ 12	≥ 100	≥ 42	≥ 90
TESTING FREQUENCY	1 per 100,000 ft^2 [4]								Every Roll	1 Test per Lot	1 Test per 5 Rolls	1 Test per 10 Rolls	1 Test per 5 Rolls				1 Test per 10 Rolls	1 Test per 10 Rolls

ROLL NUMBER	**CQA REPORT ID**	**TEST RESULTS**								**TEST RESULTS**										**PASS/FAIL (P/F)**	
																				CQA	**MQC**
213110	E2341-12-03	64/62	0.947	2.64	10	155	172	16	414	60/57	0.948	2.66	10	161	180	18.43	468.8	55.12	136.85	P	P
213111										60/57	0.948	2.59	10	162	181	18.43	468.8	55.12	136.85		P
213113										61/57	0.948	2.61	10	157	189	18.18	477.6	55.12	136.85		P
213216										62/58	0.948	2.64	10	161	194	18.18	477.6	55.12	136.85		P
213219	E2341-12-03	65/63	0.947	2.71	10	157	166	18	460	62/59	0.948	2.57	10	158	188	16.68	482.4	52.90	135.31	P	P
213223										62/58	0.948	2.57	10	167	198	15.88	474.5	52.90	135.31		P
213228	E2341-13-01	62/59	0.947	2.65	10	153	176	17	422	60/57	0.948	2.52	10	164	187	18.22	465.5	53.22	125.47	P	P
213231										60/56	0.948	2.21	10	164	187	18.22	465.5	53.22	125.47		P
213233										62/57	0.948	2.16	10	156	191	18.98	485.3	53.22	125.47		P
213336	E2341-13-01	64/59	0.942	2.14	10	170	175	18	438	63/58	0.948	2.16	10	157	192	18.98	485.3	53.22	125.47	P	P
213338										61/57	0.948	2.09	10	159	187	17.99	472	55.59	133.76		P
213341										62/58	0.948	2.1	10	160	188	17.99	472	55.59	133.76		P

Notes:

[1] Thickness was measured for every roll.

[2] Minimum property value in machine direction (MD) and transverse direction (TD).

[3] Project requirements for carbon black dispersion are: 9 of 10 in Category 1 or 2 and all in Category 1,2, or 3. Results are for Category 1 or 2.

[4] A minimum of 1 test per lot was required.

[5] Average / Minimum thickness.

Average Roll Area (23 ft x 505 ft): 11,615 ft^2

No. of Rolls in Lot: 33

Area in Lot: 383,295 ft^2

SHEET NO. 2 OF 3

CUMULATIVE NUMBER OF ROLLS: 84

CUMULATIVE AREA: 975,660 ft^2

Table 5-2A (continued)

CQA AND MQC TEST RESULTS FOR 60-mil TEXTURED GEOMEMBRANE (AGRU)
RESIN LOT NO. 8191301

	CONSTRUCTION QUALITY ASSURANCE (CQA)								MANUFACTURING QUALITY CONTROL (MQC)									
PROPERTY	Thickness (mil)	Density (g/cm^3)	Carbon Black Content (%)	Carbon Black Dispersion	Yield Strength[2] (lb/in)	Break Strength[2] (lb/in)	Yield Elongation[2] (%)	Break Elongation[2] (%)	Thickness[1] (mil)	Density (g/cm^3)	Carbon Black Content (%)	Carbon Black Dispersion	Yield Strength[2] (psi)	Break Strength[2] (psi)	Yield Elongation[2] (%)	Break Elongation[2] (%)	Tear Resistance[2] (lb)	Puncture Resistance (lb)
TEST STANDARD	ASTM D 5994	ASTM D 1505	ASTM D 1603	ASTM D 5596	ASTM D 6693	ASTM D 6693	ASTM D 6693	ASTM D 6693	ASTM D 5994	ASTM D 1505	ASTM D 1603	ASTM D 5596	ASTM D 6693	ASTM D 6693	ASTM D 6693	ASTM D 6693	ASTM D 1004	ASTM D 4833
PROJECT SPECS.	≥ 60 / 54 [5]	≥ 0.94	2 to 3	See Note 3	≥ 126	≥ 90	≥ 12	≥ 100	≥ 60 / 54 [(5)]	≥ 0.94	2 to 3	See Note 3	≥ 2170 (130 ppi)	≥ 1200 (72 ppi)	≥ 12	≥ 100	≥ 42	≥ 90
TESTING FREQUENCY	1 per 100,000 ft^2 [4]								Every Roll	1 Test per Lot	1 Test per 5 Rolls	1 Test per 10 Rolls	1 Test per 5 Rolls				1 Test per 10 Rolls	1 Test per 10 Rolls

ROLL NUMBER	CQA REPORT ID	TEST RESULTS								TEST RESULTS										PASS/FAIL (P/F)	
																				CQA	MQC
212472	E2341-09-09	64/59	0.945	2.21	10	176	171	16	437	63/59	0.947	2.46	10	172	178	17.97	445.8	54.89	133.78	P	P
212474										63/57	0.947	2.28	10	169	171	16.78	454.1	54.89	133.78		P
212479										63/57	0.947	2.19	10	164	167	17.91	442.2	57.02	131.05		P
212480	E2341-09-09	64/59	0.945	2.27	10	183	182	17	432	63/58	0.947	2.19	10	164	167	17.91	442.2	57.02	131.05	P	P
212584										61/56	0.947	2.39	10	154	183	17.93	486.9	57.02	131.05		P
212587										63/59	0.947	2.53	10	157	187	17.93	486.9	57.02	131.05		P

Notes:

[1] Thickness was measured for every roll.

[2] Minimum property value in machine direction (MD) and transverse direction (TD).

[3] Project requirements for carbon black dispersion are: 9 of 10 in Category 1 or 2 and all in Category 1,2, or 3. Results are for Category 1 or 2.

[4] A minimum of 1 test per lot was required.

[5] Average / Minimum thickness.

Average Roll Area (23 ft x 505 ft): 11,615 ft^2

No. of Rolls in Lot: 16

Area in Lot: 185,840 ft^2

SHEET NO. 3 **OF** 3

CUMULATIVE NUMBER OF ROLLS: 100

CUMULATIVE AREA: 1,161,500 ft^2

Table 5-2B

MQC TEST RESULTS FOR RESIN USED TO MANUFACTURE TEXTURED GEOMEMBRANE

	Product Name	Supplier Name	Density (g/cm^3)	Melt Index (g/10 min)	Percent of Reclaimed Polymer
TEST STANDARD			ASTM D1505	ASTM D 1238	
PROJECT SPECS.			≥ 0.932	≤ 1.0	0%
TESTING FREQUENCY			1 per Lot		

Geomembrane Lot Number	**TEST RESULTS**					**PASS/FAIL (P/F)**
7100247	Marlex Polyethylene K307 Bulk	Chevron Phillips	0.938	0.23	0%	P
7100251	Marlex Polyethylene K307 Bulk	Chevron Phillips	0.937	0.26	0%	P
8191301	Marlex Polyethylene K307 Bulk	Chevron Phillips	0.938	0.29	0%	P

Table 5-2C

MISCELLANEOUS MQC TEST RESULTS FOR 60-mil TEXTURED GEOMEMBRANE (AGRU)

	Dimensional Stability (%)	Notched Constant Tensile Load (hrs)
TEST STANDARD	ASTM D 1204	ASTM D 5397
PROJECT SPECS.	≤ ± 2	≥ 200
TESTING FREQUENCY	1 per Lot	1 per 400,000

Geomembrane Lot Number	**Geomembrane Roll Number**	**TEST RESULTS**		**PASS/FAIL (P/F)**
7100247	212588-10	-0.65	300	P
7100251	213109-10	-0.43	300	P
8191301	212121-10	N/A	300	P
8191301	212472-10	-0.49	N/A	P

Table 5-3A

DESTRUCTIVE SEAM TEST RESULTS FOR PRIMARY LINER INSTALLED IN CELL 7

Sample No.	Panel No.	Weld Type [1]	Peel Strength [2] (lb/in)										Shear Strength [3] (lb/in)					Failure Type [4]	Pass/Fail (P/F)
			Bottom Peel (inside)					Top Peel (outside)											
DP-1	P1/P2	F	150	140	143	137	148	117	113	110	113	110	158	161	157	160	166	FTB	P
DP-2	P2/P3	F	132	121	126	129	124	109	113	148	132	114	168	164	161	163	158	FTB	P
DP-3	P4/P5	F	130	137	133	135	137	133	133	132	132	130	166	167	166	172	174	FTB	P
DP-4	P5/P6	F	130	120	117	122	114	123	130	129	129	128	168	163	164	170	163	FTB	P
DP-5	P3/P4	F	124	110	125	115	128	127	113	115	130	117	161	159	157	159	160	FTB	P
DP-6	P6/P7	F	126	126	124	120	106	116	106	106	128	112	163	158	157	157	159	FTB	P
DP-7	P7/P8	F	124	126	124	120	118	138	128	128	124	128	155	151	161	157	157	FTB	P
DP-8	P8/P9	F	120	117	116	139	103	117	122	118	106	114	157	160	165	161	163	FTB	P
DP-9	P9/P10	F	128	131	121	131	133	115	122	113	115	118	158	153	160	156	155	FTB	P
DP-10	P10/P11	F	116	120	131	131	126	125	118	125	126	126	161	167	159	160	159	FTB	P
DP-11	P11/P12	F	153	99	157	155	164	131	132	127	110	115	164	168	157	160	155	FTB	P
DP-12	P12/P13	F	134	135	135	128	124	119	130	115	117	110	160	161	157	157	155	FTB	P
DP-13	P13/P14	F	128	127	137	133	122	124	129	124	124	118	156	163	157	160	160	FTB	P
DP-14	P14/P15	F	117	114	126	108	108	122	123	119	118	117	159	156	162	156	160	FTB	P
DP-15	P15/P16	F	113	125	102	130	133	105	108	111	120	106	162	159	157	163	156	FTB	P
DP-16	P16/P17	F	117	111	115	106	104	109	112	116	109	112	155	163	158	159	161	FTB	P
DP-17	P17/P18	F	127	120	117	124	125	120	129	130	120	130	166	163	159	159	160	FTB	P
DP-18	P14/P15	F	132	134	132	131	120	114	118	117	111	110	163	160	159	163	159	FTB	P
DP-19	P13/P14	F	131	128	138	132	128	122	126	116	125	138	161	161	161	171	168	FTB	P
DP-20	P18/P19	F	126	122	122	132	125	115	116	121	123	112	154	156	161	157	160	FTB	P
DP-21	P19/P20	F	128	132	127	126	131	140	134	142	131	143	151	152	153	159	160	FTB	P
DP-22	P20/P21	F	127	118	125	135	134	116	112	126	125	127	158	159	160	165	161	FTB	P
DP-23	P21/P22	F	124	124	116	123	126	119	128	118	120	112	156	164	165	161	160	FTB	P
DP-24	P22/P23	F	129	127	129	137	126	118	124	122	138	119	161	163	156	163	158	FTB	P
DP-25	P23/P24	F	127	123	136	125	111	127	116	133	124	127	158	155	167	162	162	FTB	P
DP-26	P24/P25	F	131	103	105	128	125	118	126	118	133	122	165	164	160	161	160	FTB	P
DP-27	P25/P26	F	119	119	123	123	119	104	105	110	114	104	163	164	162	158	161	FTB	P
DP-28	P23/P24	F	122	103	119	111	99	114	115	117	112	114	165	163	160	171	163	FTB	P
DP-29	P26/P27	F	123	132	113	137	138	113	134	119	130	130	163	161	166	159	160	FTB	P
DP-30	P27/P28	F	118	105	115	116	117	115	122	119	118	121	160	162	157	161	155	FTB	P
DP-31	P27/P28	F	134	114	108	129	116	127	117	120	116	111	161	171	162	162	168	FTB	P
DP-32	P28/P29	F	120	120	120	125	114	109	120	118	108	108	162	163	161	159	161	FTB	P

Notes:

[1] "F" is fusion and "E" is extrusion weld.

[2] Specified peel strength: 91 lb/in for fusion and 78 lb/in for extrusion

[3] Specified shear strength: 120 lb/in for fusion and 120 lb/in for extrusion

[4] "FTB" is Film Tear Bond (with maximum 10 percent seam separation).

Table 5-3A (continued)

DESTRUCTIVE SEAM TEST RESULTS FOR PRIMARY LINER INSTALLED IN CELL 7

Sample No.	Panel No.	Weld Type [1]	Peel Strength [2] (lb/in)										Shear Strength [3] (lb/in)					Failure Type [4]	Pass/Fail (P/F)
			Bottom Peel (inside)					Top Peel (outside)											
DP-33	P29/P30	F	120	121	120	117	119	123	111	126	114	114	158	162	160	165	165	FTB	P
DP-34	P30/P31	F	126	131	127	127	133	120	115	117	118	118	166	162	162	168	164	FTB	P
DP-35	P32/P33	F	127	125	124	123	127	137	141	130	123	119	173	178	168	170	169	FTB	P
DP-36	P31/P32	F	121	126	132	135	117	137	125	141	138	135	168	171	168	166	171	FTB	P
DP-37	P33/P34	F	125	127	124	126	122	134	123	129	121	126	162	162	161	165	165	FTB	P
DP-38	P34/P35	F	115	126	121	118	119	109	119	113	109	114	159	163	158	166	165	FTB	P
DP-39	P35/P36	F	132	133	142	125	131	112	119	137	136	124	161	162	161	167	166	FTB	P
DP-40	P36/P44	F	126	118	120	121	121	117	113	113	118	113	156	159	157	162	163	FTB	P
DP-41	P40/P41	F	129	125	128	126	122	119	112	113	120	114	161	162	163	165	168	FTB	P
DP-42	P52/P53	F	119	122	126	119	120	125	115	113	120	121	171	165	166	166	175	FTB	P
DP-43	P59/P60	F	121	126	123	123	120	128	118	126	123	118	164	167	163	174	174	FTB	P
DP-44	P36/P54	F	119	150	124	124	123	160	160	115	159	116	166	162	160	169	166	FTB	P
DP-45	P70/P71	F	125	126	124	125	122	120	120	118	125	126	163	164	165	165	170	FTB	P
DP-46	P28/P65	F	143	146	149	144	146	144	144	138	142	139	158	158	160	158	166	FTB	P
DP-47	P86/P87	F	129	132	131	131	133	152	155	133	150	146	160	166	163	161	163	FTB	P
DP-48	P96/P97	F	125	134	131	125	126	144	150	155	142	144	170	173	169	166	168	FTB	P
DP-49	P101/P102	F	118	125	125	141	136	116	122	142	119	116	165	163	166	172	168	FTB	P
DP-50	P78/P79	F	118	121	129	122	129	121	115	119	138	125	164	170	163	163	161	FTB	P
DP-51	P84/P85	F	126	126	114	115	118	108	115	117	123	121	153	156	154	162	160	FTB	P
DP-52	P92/P93	F	123	118	126	122	119	119	122	115	122	124	158	160	160	169	165	FTB	P
DP-53	P107/P108	F	123	122	124	122	125	113	116	131	131	120	172	175	164	169	161	FTB	P
DP-54	P109/P110	F	115	135	126	119	123	121	121	128	114	112	166	161	162	164	168	FTB	P
DP-55	P118/P119	F	135	136	130	138	138	156	156	154	152	154	170	171	165	163	168	FTB	P
DP-56	P117/P118	F	126	126	121	133	122	129	111	138	142	145	162	159	161	159	161	FTB	P
DP-57	P118/P125	F	122	121	123	128	123	133	128	142	129	132	162	164	165	172	170	FTB	P
DP-58	P116/P120	F	116	114	134	121	120	109	108	114	124	116	156	161	162	160	159	FTB	P
DP-59	P127/P128	F	136	118	125	129	129	118	117	122	129	114	159	168	163	162	162	FTB	P
DP-60	P126/P137	F	162	150	158	160	153	122	123	123	129	126	165	166	162	164	168	FTB	P
DPX-1	P128/P129	E	--	--	--	--	--	146	145	137	132	140	164	164	165	173	171	FTB	P
DPX-2	P60/P63	E	--	--	--	--	--	159	167	175	156	161	158	157	157	158	162	FTB	P
DPX-3	P101/P105	E	--	--	--	--	--	151	145	169	154	152	163	167	172	168	172	FTB	P
DPX-4	P85/Tie in	E	--	--	--	--	--	109	159	104	125	140	170	174	169	173	171	FTB	P

Notes:

[1] "F" is fusion and "E" is extrusion weld.

[2] Specified peel strength: 91 lb/in for fusion and 78 lb/in for extrusion

[3] Specified shear strength: 120 lb/in for fusion and 120 lb/in for extrusion

[4] "FTB" is Film Tear Bond (with maximum 10 percent seam separation).

Table 5-3A (continued)

DESTRUCTIVE SEAM TEST RESULTS FOR PRIMARY LINER INSTALLED IN CELL 7

Sample No.	Panel No.	Weld Type [1]	Peel Strength [2]										Shear Strength [3] (lb/in)					Failure Type [4]	Pass/Fail (P/F)
			Bottom Peel (inside)					Top Peel (outside)											
DPX-5	P84/Patch	E	--	--	--	--	--	121	146	118	131	129	168	164	161	163	159	FTB	P
DPX-6	P111/Tie in	E	--	--	--	--	--	118	129	120	118	115	152	155	157	154	156	FTB	P
DPX-7	P111/Patch	E	--	--	--	--	--	171	169	179	180	166	169	171	171	178	175	FTB	P
DPX-8	P129/Tie in	E	--	--	--	--	--	150	165	151	152	160	152	150	149	161	162	FTB	P

Notes:

[1] "F" is fusion and "E" is extrusion weld.

[2] Specified peel strength: 91 lb/in for fusion and 78 lb/in for extrusion

[3] Specified shear strength: 120 lb/in for fusion and 120 lb/in for extrusion

[4] "FTB" is Film Tear Bond (with maximum 10 percent seam separation).

Table 5-3B

DESTRUCTIVE SEAM TEST RESULTS FOR SECONDARY LINER INSTALLED IN CELL 7

Sample No.	Panel No.	Weld Type [1]	Peel Strength [2] (lb/in)										Shear Strength [3] (lb/in)					Failure Type [4]	Pass/Fail (P/F)
			Bottom Peel (inside)					Top Peel (outside)											
DS-1	P2/P3	F	126	125	125	127	126	115	131	130	135	128	170	168	170	170	166	FTB	P
DS-2	P4/P5	F	127	130	126	128	124	124	121	126	121	109	170	170	168	169	164	FTB	P
DS-3	P29/P30	F	122	127	121	130	121	118	118	119	128	124	162	163	161	167	166	FTB	P
DS-4	P22/Patch	F	119	117	120	119	119	120	117	108	121	110	161	163	167	162	158	FTB	P
DS-5	P1/P26	F	152	123	126	131	124	141	132	132	137	124	174	169	168	169	172	FTB	P
DS-6	P22/P29	F	129	114	126	128	120	113	118	114	127	114	170	166	169	168	170	FTB	P
DS-7	P29/P30	F	141	146	123	130	131	125	116	122	123	122	165	162	162	165	161	FTB	P
DS-8	P30/P31	F	124	123	120	123	127	134	140	131	130	131	169	168	168	171	167	FTB	P
DS-9	P31/P32	F	124	128	127	131	125	122	125	128	123	122	162	164	163	166	166	FTB	P
DS-10	P32/P33	F	126	126	126	123	125	122	120	120	130	123	164	166	164	168	166	FTB	P
DS-11	P33/P34	F	118	129	117	123	114	125	133	126	141	126	161	161	161	166	162	FTB	P
DS-12	P14/P22	F	119	117	120	109	107	115	147	140	150	106	154	163	164	161	163	FTB	P
DS-13	P10/Patch	F	132	129	131	135	140	155	156	150	152	165	157	160	160	161	159	FTB	P
DS-14	P28/P35	F	129	122	136	130	125	129	123	127	110	130	163	163	164	167	169	FTB	P
DS-15A	P27/P34	F	116	116	116	115	112	117	117	110	106	107	161	165	162	167	166	FTB	P
DS-15B	P27/P34	F	114	116	123	116	125	108	119	124	127	118	163	168	163	160	169	FTB	P
DS-16	P27/P28	F	113	132	118	113	116	128	129	128	116	121	159	162	161	165	164	FTB	P
DS-17	P35/P36	F	120	116	114	106	110	118	110	99	108	120	165	162	164	167	165	FTB	P
DS-18	P46/P47	F	117	117	115	115	114	116	115	113	114	119	163	163	166	162	163	FTB	P
DS-19	P52/P53	F	130	135	126	137	131	131	135	126	131	127	154	155	151	152	156	FTB	P
DS-20	P40/P41	F	137	131	139	131	137	144	121	125	134	111	171	170	169	167	171	FTB	P
DS-21	P61/P62	F	142	144	139	149	148	145	134	145	149	149	159	156	155	155	161	FTB	P
DS-22	P22/P55	F	143	149	149	157	162	130	131	135	135	126	164	164	161	161	162	FTB	P
DS-23	P31/P62	F	152	144	148	141	145	156	149	150	131	143	159	160	158	164	163	FTB	P
DS-24	P69/P70	F	116	116	119	122	121	108	120	97	110	116	160	159	160	162	161	FTB	P
DS-25	P74/P75	F	133	117	115	120	109	115	141	125	127	144	158	157	160	159	161	FTB	P
DS-26	P71/P85	F	116	114	116	123	117	145	163	153	153	150	156	159	158	165	163	FTB	P
DS-27	P85/P89	F	127	109	118	119	121	115	116	119	117	114	153	157	155	162	160	FTB	P
DS-28	P89/P90	F	114	121	124	118	113	119	109	99	127	100	156	158	161	158	162	FTB	P
DS-29	P90/P91	F	126	114	128	123	126	125	124	123	120	123	159	160	161	165	165	FTB	P
DS-30	P91/P92	F	122	125	119	142	133	115	115	124	113	115	154	157	159	160	157	FTB	P
DS-31	P92/P93	F	135	123	95	119	119	118	116	119	116	110	156	157	158	162	160	FTB	P
DS-32	P94/P94	F	129	130	128	136	134	108	113	114	118	103	158	159	156	165	160	FTB	P

Notes:

[1] "F" is fusion and "E" is extrusion weld.

[2] Specified peel strength: 91 lb/in for fusion and 78 lb/in for extrusion

[3] Specified shear strength: 120 lb/in for fusion and 120 lb/in for extrusion

[4] "FTB" is Film Tear Bond (with maximum 10 percent seam separation).

Table 5-3B (continued)

DESTRUCTIVE SEAM TEST RESULTS FOR SECONDARY LINER INSTALLED IN CELL 7

Sample No.	Panel No.	Weld Type [1]	Peel Strength [2] (lb/in)										Shear Strength [3] (lb/in)					Failure Type [4]	Pass/Fail (P/F)
			Bottom Peel (inside)					Top Peel (outside)											
DS-33	P94/P95	F	121	119	122	125	119	121	123	125	124	125	159	162	161	170	167	FTB	P
DS-34	P95/P96	F	119	115	118	125	120	116	125	112	116	110	156	157	158	164	162	FTB	P
DS-35	P96/P97	F	126	126	118	121	128	117	122	117	116	111	161	161	161	169	167	FTB	P
DS-36	P36/P98	F	129	129	115	131	130	125	131	139	109	128	161	166	162	171	164	FTB	P
DS-37	P97/P98	F	129	133	133	132	134	115	119	115	115	109	156	163	157	156	161	FTB	P
DS-38	P61/P99	F	115	118	114	123	115	119	115	117	115	116	166	174	169	170	175	FTB	P
DS-39	P99/P101	F	114	111	111	122	124	116	126	133	132	127	174	190	175	187	182	FTB	P
DS-40	P103/P104	F	126	126	115	124	112	126	106	107	119	110	162	172	169	164	170	FTB	P
DS-41	P101/P103	F	126	112	133	121	122	115	107	114	124	111	170	170	170	174	172	FTB	P
DS-42	P105/P107	F	123	118	114	108	118	109	115	131	140	104	162	165	165	169	163	FTB	P
DS-43	P106/P108	F	118	121	126	124	131	122	118	121	125	111	161	165	162	171	163	FTB	P
DS-44	P108/P110	F	129	114	121	123	117	130	59	56	107	126	159	165	161	164	160	NON-FTB	F
DS-44A	P108/P110	F	119	114	121	135	113	80	83	98	79	99	160	161	165	168	161	NON-FTB	F
DS-44A1	P108/P110	F	123	114	138	127	112	130	124	132	118	117	169	171	180	180	177	FTB	P
DS-44B	P108/P110	F	125	108	127	112	121	120	127	120	114	116	172	174	171	179	178	FTB	P
DS-45	P122/P123	F	124	126	127	125	126	115	118	116	121	118	177	177	173	173	178	FTB	P
DS-46	P121/P122	F	124	117	127	124	126	126	118	120	115	120	166	171	171	172	173	FTB	P
DS-47	P130/P132	F	114	118	117	126	121	117	113	126	123	115	165	165	165	174	169	FTB	P
DS-48	P114/P130	F	116	123	122	135	116	139	122	140	147	124	167	163	161	162	170	FTB	P
DS-49	P110/P135	F	133	126	117	122	125	113	119	122	108	113	173	175	172	179	177	FTB	P
DS-50	P132/P141	F	122	107	117	107	125	110	115	119	115	110	163	165	164	170	169	FTB	P
DS-51	P137/P139	F	124	123	116	125	106	126	120	131	128	119	161	160	162	166	166	FTB	P
DS-52	P141/P143	F	113	133	113	120	108	120	115	127	114	117	165	167	169	176	174	FTB	P
DS-53	P143/P145	F	126	121	124	123	123	108	123	122	120	112	166	170	168	164	166	FTB	P
DS-54	P145/P147	F	98	91	110	104	91	114	110	110	95	109	164	163	167	172	164	FTB	P
DS-55	P146/P149	F	113	107	124	112	126	112	113	112	121	119	159	162	162	170	165	FTB	P
DS-56	P94/P148	F	148	156	148	167	152	143	149	115	157	144	162	163	165	167	168	FTB	P
DS-57	P139/P150	F	126	123	138	128	125	134	122	120	145	121	168	170	171	179	174	FTB	P
DS-58	P154/P155	F	129	124	131	127	133	134	146	137	132	141	171	171	170	175	174	FTB	P
DS-59	P155/P156	F	115	117	119	131	120	140	126	133	125	132	175	174	171	178	179	FTB	P
DS-60	P141/P160	F	110	108	125	129	129	119	100	137	136	113	172	177	173	176	177	FTB	P

Notes:

[1] "F" is fusion and "E" is extrusion weld.

[2] Specified peel strength: 91 lb/in for fusion and 78 lb/in for extrusion

[3] Specified shear strength: 120 lb/in for fusion and 120 lb/in for extrusion

[4] "FTB" is Film Tear Bond (with maximum 10 percent seam separation).

Table 5-3B (continued)

DESTRUCTIVE SEAM TEST RESULTS FOR SECONDARY LINER INSTALLED IN CELL 7

Sample No.	Panel No.	Weld Type [1]	Peel Strength [2]										Shear Strength [3] (lb/in)					Failure Type [4]	Pass/Fail (P/F)
			Bottom Peel (inside)					Top Peel (outside)											
DX-1	P22/Patch	E	--	--	--	--	--	147	144	139	152	144	153	153	153	158	155	FTB	P
DX-2	P23/Tie in	E	--	--	--	--	--	154	129	154	139	139	155	156	157	157	157	FTB	P
DX-3	P10/Tie in	E	--	--	--	--	--	123	110	127	123	119	155	159	158	163	162	FTB	P
DX-4	P20/Tie in	E	--	--	--	--	--	141	145	160	155	157	176	177	174	177	174	FTB	P
DX-5	P42/Tie in	E	--	--	--	--	--	115	141	128	138	139	168	171	172	175	175	FTB	P
DX-6	P38/Patch	E	--	--	--	--	--	102	119	128	151	99	157	162	158	168	164	FTB	P
DX-7	P94/Patch	E	--	--	--	--	--	143	137	139	151	147	166	165	167	164	164	FTB	P
DX-8	P37/Tie in	E	--	--	--	--	--	125	110	102	118	109	162	172	164	165	168	FTB	P
DX-9	P61/Patch	E	--	--	--	--	--	139	135	122	112	117	164	165	171	174	172	FTB	P
DX-10	P96/Patch	E	--	--	--	--	--	133	143	152	146	131	164	169	166	166	165	FTB	P
DX-11	P146/Patch	E	--	--	--	--	--	130	132	145	134	123	157	164	162	167	162	FTB	P
DX-12	P145/Patch	E	--	--	--	--	--	114	134	124	130	121	171	174	163	164	162	FTB	P
DX-13	P130/Patch	E	--	--	--	--	--	134	124	117	117	119	167	168	168	176	169	FTB	P

Notes:

[1] "F" is fusion and "E" is extrusion weld.

[2] Specified peel strength: 91 lb/in for fusion and 78 lb/in for extrusion

[3] Specified shear strength: 120 lb/in for fusion and 120 lb/in for extrusion

[4] "FTB" is Film Tear Bond (with maximum 10 percent seam separation).

Table 5-4A

CQA AND MQC TEST RESULTS FOR PRIMARY GEOCOMPOSITE (SKAPS)

	CONSTRUCTION QUALITY ASSURANCE (CQA)			MANUFACTURING QUALITY CONTROL (MQC)		
PROPERTY	GEOCOMPOSITE			GEOCOMPOSITE		
	Transmissivity (m^2/sec)		Ply Adhesion [1] (lb/in)	Transmissivity (m^2/sec)		Ply Adhesion [1] (lb/in)
TEST STANDARD	ASTM D 4716		ASTM D 7005	ASTM D 4716		ASTM D 7005
PROJECT SPECS.	≥ $1.5x10^{-3}$ at 500 psf	≥ $1.0x10^{-3}$ at 15,000 psf	≥ 1.0	≥ $1.5x10^{-3}$ at 500 psf	≥ $1.0x10^{-3}$ at 15,000 psf	≥ 1.0
TESTING FREQUENCY	1 per 200,000 ft^2 [2]			1 per 100,000 ft^2 [2]		

GEOCOMPOSITE ROLL NUMBER	LOT NO.	TEST RESULTS			TEST RESULTS			PASS/FAIL (P/F)	
								CQA	MQC
359510001	PSPX002052				$2.09x10^{-3}$	$1.19x10^{-3}$	1.3		P
359510003		$5.32x10^{-3}$	$2.43x10^{-3}$	5.4				P	
359510040					$2.12x10^{-3}$	$1.24x10^{-3}$	1.2		P
359510080					$2.07x10^{-3}$	$1.17x10^{-3}$	1.2		P
359510087		$5.04x10^{-3}$	$1.59x10^{-3}$	7.9				P	
359510120					$2.1x10^{-3}$	$1.26x10^{-3}$	1.3		P
359510160					$2.05x10^{-3}$	$1.2x10^{-3}$	1.2		P
359510174		$3.11x10^{-3}$	$1.35x10^{-3}$	3.5				P	
359510200					$2.13x10^{-3}$	$1.29x10^{-3}$	1.3		P
359510240					$2.03x10^{-3}$	$1.16x10^{-3}$	1.2		P
375710001	CEFX53866				$2.11x10^{-3}$		1.3		P
375710002		$4.99x10^{-3}$	$1.96x10^{-3}$	13.4				P	

Notes:

[1] Smaller of top and bottom peel strength.

[2] A minimum of 1 test per lot was required.

Average Roll Area:	2,520	ft^2
Total No. of Rolls:	238	
Total Area of Rolls:	599,760	ft^2

Table 5-4B

CQA AND MQC TEST RESULTS FOR GEOTEXTILE USED TO MANUFACTURE PRIMARY GEOCOMPOSITE (SKAPS)

	CONSTRUCTION QUALITY ASSURANCE (CQA)					MANUFACTURING QUALITY CONTROL (MQC)					
PROPERTY	Mass per Unit Area [1] (oz/yd^2)	Grab Strength [2] (lb)	Trapezoidal Tear Strength [2] (lb)	Apparent Opening Size (mm)	Permittivity (sec^{-1})	Mass per Unit Area (oz/yd^2)	Grab Strength [2] (lb)	Trapezoidal Tear Strength [2] (lb)	Static Puncture Strength (lb/in^2)	Apparent Opening Size (mm)	Permittivity (sec^{-1})
TEST STANDARD	ASTM D 5261	ASTM D 4632	ASTM D 4533	ASTM D 4751	ASTM D 4491	ASTM D 5261	ASTM D 4632	ASTM D 4533	ASTM D 6241	ASTM D 4751	ASTM D 4491
PROJECT SPECS.	≥ 8	≥ 200	≥ 75	≤ 0.21	≥ 0.5	≥ 8	≥ 200	≥ 75	≥ 500	≤ 0.21	≥ 0.5
TESTING FREQUENCY	1 per 200,000 ft^2			1 per 500,000 ft^2		1 per 100,000 ft^2				1 per 250,000 ft^2	

GEOTEXTILE ROLL NUMBER	TEST RESULTS					TEST RESULTS						PASS/FAIL (P/F)
3595.008	8.5	271	120									P
3595.011	8.8	260	111	0.136	1.89	8.21	225	102	677	0.177	1.33	P
3595.023	8.9	261	113	0.133	1.8							P
3595.030	8.6	267	109									P
3595.053	8.5	254	114	0.123	1.83	8.29	230	101	690	0.177	1.37	P
3595.063	8.5	271	108	0.13	1.87							P
3595.066						8.37	225	97	671	0.177	1.37	P
3595.071						8.11	231	105	696	0.177	1.37	P
3595.079						8.35	227	105	696	0.177	1.37	P
3595.089						8.39	229	99	656	0.177	1.37	P
3595.092						8.17	232	103	700	0.177	1.37	P
3595.098						8.56	226	103	700	0.177	1.37	P
3595.100						8.27	235	96	662	0.177	1.31	P
3595.115						8.6	225	100	689	0.177	1.31	P
3595.121						8.19	230	98	677	0.177	1.31	P
3595.127						8.55	227	98	677	0.177	1.31	P
3757.001	8.6	265	112	0.125	1.79	8.42	229	102	672	0.177	1.35	P
3757.002	8.9	266	115	0.104	1.87	8.42	229	102	672	0.177	1.35	P

Notes:

[1] Smaller of top and bottom average mass per unit area.

[2] Smaller value in machine or cross-machine direction.

Table 5-4C

MQC TEST RESULTS FOR GEONET USED TO MANUFACTURE PRIMARY GEOCOMPOSITE (SKAPS)

PROPERTY	Polymer Density (g/cm^3)	Carbon Black Content (%)	Thickness (mil)
TEST STANDARD	ASTM D 1505	ASTM D 1603	ASTM D 5199
PROJECT SPECS.	≥ 0.93	2 to 3	≥ 200
TESTING FREQUENCY	1 per 100,000 ft^2		

GEONET ROLL NUMBER	LOT NO.	TEST RESULTS			PASS/FAIL (P/F)
359510001	PSPX002052	0.957	2.27	313	P
359510015		0.957	2.55	317	P
359510030		0.957	2.35	315	P
359510045		0.957	2.76	319	P
359510060		0.957	2.43	310	P
359510075		0.958	2.66	316	P
359510090		0.957	2.29	312	P
359510105		0.957	2.82	318	P
359510120		0.957	2.37	314	P
359510135		0.958	2.57	320	P
359510150		0.957	2.45	311	P
359510165		0.957	2.78	316	P
359510180		0.957	2.39	313	P
359510195		0.957	2.64	318	P
359510210	PSPX002072	0.957	2.26	315	P
359510225		0.958	2.81	320	P
359510240		0.957	2.47	310	P
375710001	CEFX53866	0.955	27.5	318	P
375710010		0.955	2.61	315	P

Area of Geonet Rolls:		599,760	ft^2
No. of Geonet Rolls Tested:		19	
Test Frequency:	1 per	31,566	ft^2

Table 5-5A

CQA AND MQC TEST RESULTS FOR SECONDARY GEOCOMPOSITE (SKAPS)

	CONSTRUCTION QUALITY ASSURANCE (CQA)			MANUFACTURING QUALITY CONTROL (MQC)		
PROPERTY	GEOCOMPOSITE			GEOCOMPOSITE		
	Transmissivity (m^2/sec)		Ply Adhesion [1] (lb/in)	Transmissivity (m^2/sec)		Ply Adhesion [1] (lb/in)
TEST STANDARD	ASTM D 4716		ASTM D 7005	ASTM D 4716		ASTM D 7005
PROJECT SPECS.	≥ 6.1×10^{-4} at 500 psf	≥ 1.0×10^{-4} at 15,000 psf	≥ 1.0	≥ 6.1×10^{-4} at 500 psf	≥ 1.0×10^{-4} at 15,000 psf	≥ 1.0
TESTING FREQUENCY	1 per 200,000 ft^2 [2]			1 per 100,000 ft^2 [2]		

GEOCOMPOSITE ROLL NUMBER	LOT NO.	TEST RESULTS			TEST RESULTS			PASS/FAIL (P/F)	
								CQA	MQC
359520001	CCBX72741				1.13×10^{-3}	4.19×10^{-4}	1.29		P
359520005		3.22×10^{-3}	1.35×10^{-3}	4.3				P	
359520035					1.23×10^{-3}	4.42×10^{-4}	1.35		P
359520070					1.07×10^{-3}	4.27×10^{-4}	1.71		P
359520093		3.16×10^{-3}	6.48×10^{-4}	4.5				P	
359520105					1.19×10^{-3}	4.44×10^{-4}	2.06		P
359520140					1.11×10^{-3}	4.33×10^{-4}	1.97		P
359520151		3.27×10^{-3}	9.31×10^{-4}	7.1				P	

Notes:

[1] Smaller of top and bottom peel strength.

[2] A minimum of 1 test per lot was required.

Average Roll Area:	2,800	ft^2
Total No. of Rolls:	155	
Total Area of Rolls:	434,000	ft^2

Table 5-5B

CQA AND MQC TEST RESULTS FOR GEOTEXTILE USED TO MANUFACTURE SECONDARY GEOCOMPOSITE (SKAPS)

	CONSTRUCTION QUALITY ASSURANCE (CQA)					MANUFACTURING QUALITY CONTROL (MQC)					
PROPERTY	Mass per Unit Area [1] (oz/yd^2)	Grab Strength [2] (lb)	Trapezoidal Tear Strength [2] (lb)	Apparent Opening Size (mm)	Permittivity (sec^{-1})	Mass per Unit Area (oz/yd^2)	Grab Strength [2] (lb)	Trapezoidal Tear Strength [2] (lb)	Static Puncture Strength (lb/in^2)	Apparent Opening Size (mm)	Permittivity (sec^{-1})
TEST STANDARD	ASTM D 5261	ASTM D 4632	ASTM D 4533	ASTM D 4751	ASTM D 4491	ASTM D 5261	ASTM D 4632	ASTM D 4533	ASTM D 6241	ASTM D 4751	ASTM D 4491
PROJECT SPECS.	≥ 8	≥ 200	≥ 75	≤ 0.21	≥ 0.5	≥ 8	≥ 200	≥ 75	≥ 500	≤ 0.21	≥ 0.5
TESTING FREQUENCY	1 per 200,000 ft^2			1 per 500,000 ft^2		1 per 100,000 ft^2				1 per 250,000 ft^2	

GEOTEXTILE ROLL NUMBER	**TEST RESULTS**					**TEST RESULTS**						**PASS/FAIL (P/F)**
3595.009	8.65	281	106									P
3595.012						8.21	225	102	677	0.177	1.33	P
3595.013	8.63	279	113									P
3595.014						8.21	225	102	677	0.177	1.33	P
3595.016						8.42	233	102	677	0.177	1.33	P
3595.019	8.73	268	110									P
3595.031	8.37	287	111									P
3595.035	8.59	272	107	0.074	1.84	8.46	234	104	681	0.177	1.33	P
3595.044						8.16	228	95	658	0.177	1.33	P
3595.045	8.75	272	108	0.075	1.78	8.53	232	95	658	0.177	1.33	P
3595.052						8.29	230	101	690	0.177	1.37	P
3595.056						8.4	235	101	690	0.177	1.37	P

Notes:

[1] Smaller of top and bottom average mass per unit area.

[2] Smaller value in machine or cross-machine direction.

Table 5-5C

MQC TEST RESULTS FOR GEONET USED TO MANUFACTURE SECONDARY GEOCOMPOSITE (SKAPS)

PROPERTY	Polymer Density (g/cm^3)	Carbon Black Content (%)	Thickness (mil)
TEST STANDARD	ASTM D 1505	ASTM D 1603	ASTM D 5199
PROJECT SPECS.	≥ 0.93	2 to 3	≥ 200
TESTING FREQUENCY	1 per 100,000 ft^2		

GEONET ROLL NUMBER	LOT NO.	TEST RESULTS			PASS/FAIL (P/F)
359520001	CCBX72741	0.953	2.29	265	P
359520015		0.953	2.55	274	P
359520030		0.953	2.36	267	P
359520045		0.953	2.62	272	P
359520060		0.953	2.42	263	P
359520075		0.953	2.53	276	P
359520090		0.953	2.27	269	P
359520105		0.953	2.64	278	P
359520120		0.953	2.33	264	P
359520135		0.953	2.57	273	P
359520150		0.953	2.45	268	P
Area of Geonet Rolls:	434,000	ft^2			
No. of Geonet Rolls Tested:	11				
Test Frequency: 1 per	39,455	ft^2			

Table 5-6

CQA AND MQC TEST RESULTS FOR NON-WOVEN GEOTEXTILE (SKAPS GE-180)

	CONSTRUCTION QUALITY ASSURANCE (CQA)							MANUFACTURING QUALITY CONTROL (MQC)					
PROPERTY	Mass per Unit Area (oz/yd^2)	Grab Strength[1] (lb)	Trapezoidal Tear Strength[1] (lb)	Puncture Strength (lb)	CBR Puncture Strength (lb/in^2)	Apparent Opening Size (mm)	Permittivity (sec^{-1})	Mass per Unit Area (oz/yd^2)	Grab Strength[1] (lb)	Trapezoidal Tear Strength[1] (lb)	Puncture Strength (lb)	Apparent Opening Size (mm)	Permittivity (sec^{-1})
TEST STANDARD	ASTM D 5261	ASTM D 4632	ASTM D 4533	ASTM D 4833	ASTM D 6241	ASTM D 4751	ASTM D 4491	ASTM D 5261	ASTM D 4632	ASTM D 4533	ASTM D 4833	ASTM D 4751	ASTM D 4491
PROJECT SPECS.	≥ 8	≥ 200	≥ 75	≥ 75	≥ 500	≤ 0.21	≥ 0.5	≥ 8	≥ 200	≥ 75	≥ 75	≤ 0.21	≥ 0.5
TESTING FREQUENCY	1 per 100,000 ft^2					1 per 200,000 ft^2		1 per 50,000 ft^2				1 per 100,000 ft^2	

ROLL NUMBER	**CQA REPORT ID**	**CQA TEST RESULTS**							**MQC TEST RESULTS**						**PASS/FAIL (P/F)**	
															CQA	**MQC**
15883.01									8.16	231	100	133	0.177	1.37		P
15883.02	E2341-35-08	8.79	272	109	137	784	0.07	1.48							P	
15883.05									8.57	235	100	133	0.177	1.37		P

Note:
[1] Smaller value in machine or cross-machine direction.

Total No. of Rolls: 6
Total Area of Rolls: 54,000 ft^2

Table 5-7A

MINIMUM INTERFACE SHEAR STRENGTHS REQUIRED BY CONSTRUCTION DOCUMENTS

Normal Stress (psf)	Peak		Residual	
	Shear Strength (psf)	Friction Angle, δ (degree)	Shear Strength (psf)	Friction Angle, δ (degree)
5,000	1,026	11.6	534	6.1
10,000	2,053		1,069	
15,000	3,079		1,603	

Table 5-7B

INTERFACE AND INTERNAL SHEAR STRENGTH RESULTS FROM CONFORMANCE TESTS

Composite Configuration	(1) Protective Layer Soil / Primary Geocomposite / Primary Geomembrane / Secondary Geocomposite		(2) Primary Geomembrane / Secondary Geocomposite / Secondary Geomembrane / GCL (non-woven)		(3) GCL Internal Strength	
Normal Stress (psf)	Peak Shear Strength (psf)	Residual Shear Strength (psf)	Peak Shear Strength (psf)	Residual Shear Strength (psf)	Peak Shear Strength[(1)] (psf)	Residual Shear Strength[(1)] (psf)
5,000	2,059	1,024	2,105	1,010	3,269	619
10,000	3,566	1,915	3,806	1,297	4,661	1,149
15,000	5,424	2,765	5,134	1,805	6,135	1,636

Notes: (1) - Shear strength results for the internal GCL at normal stress of 15,000 psf are from additional test performed.

FIGURES

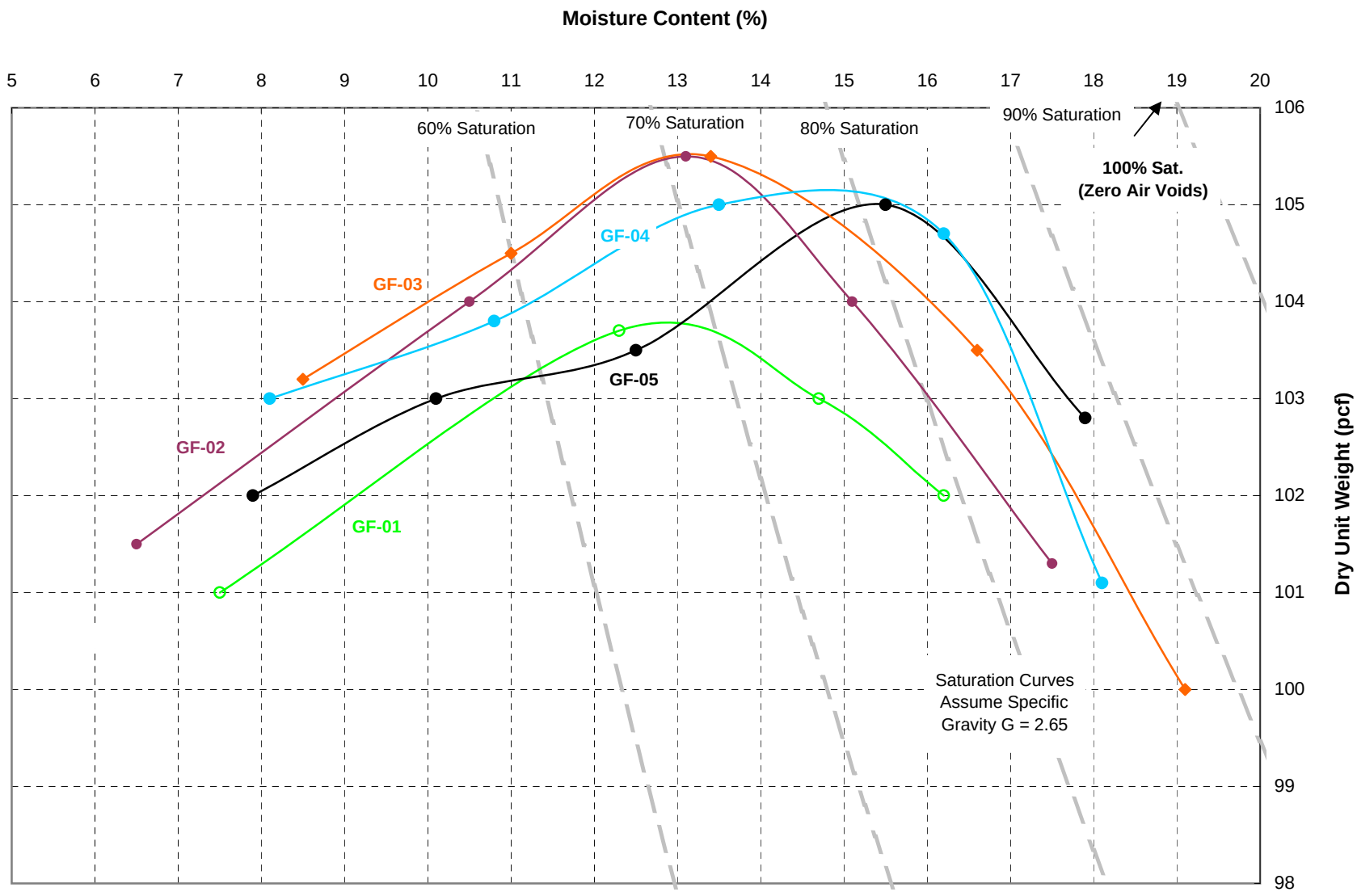


Figure 4-1
Standard Proctor Test Results for General Fill Used to Construct Cell 7

Figure 5-1
<u>Peak</u> Shear Strengths from Conformance Interface Friction Tests

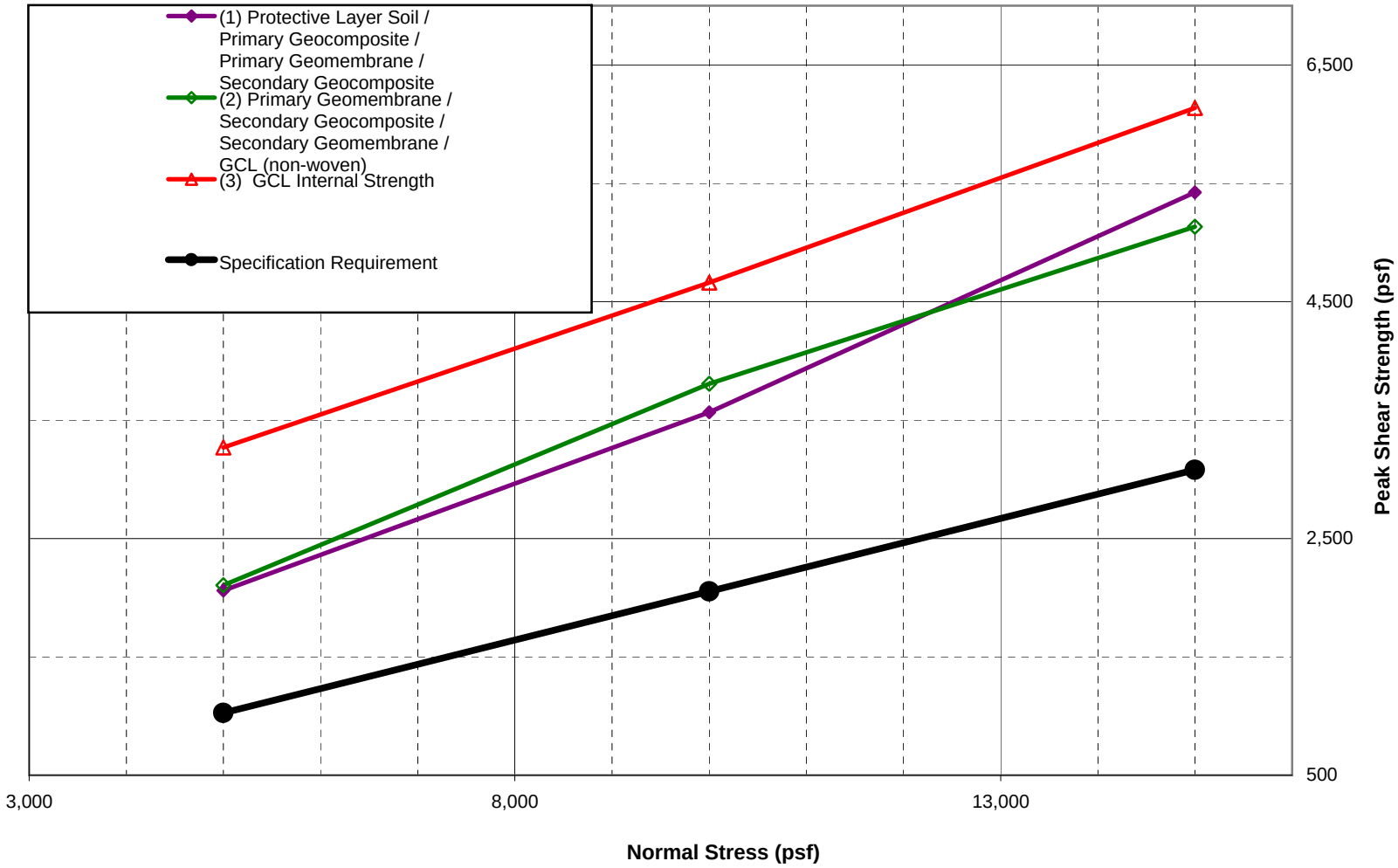
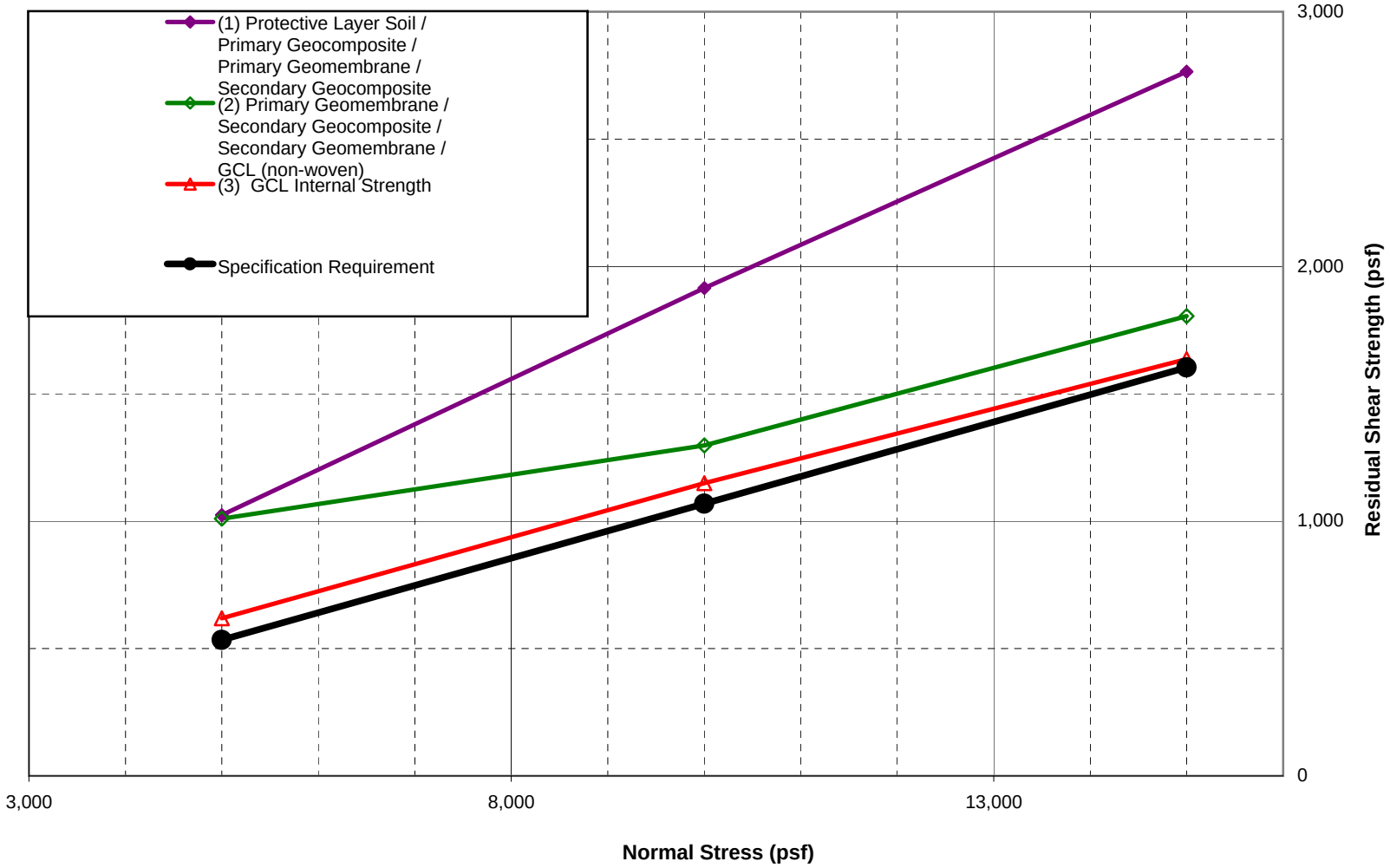


Figure 5-2
<u>Residual</u> Shear Strengths from Conformance Interface Friction Tests



APPENDIX A

FIELD NUCLEAR MOISTURE AND DENSITY TEST LOGS

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 3-23-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

		3-23	3-23	3-24	3-24	3-24	3-24	3-25
TEST NUMBER		DT-1	DT-2	DT-3	DT-4	DT-5	DT-6	DT-7
TEST LOCATION	NORTH	28° 03.645	28° 03.628					
	EAST	81° 05.972	81° 05.846					
TEST ELEVATION OR LIFT		1	1					
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		110.8	107.6	113.0	113.0	111.0	110.1	120.1
MOISTURE (%)		11.5	10.6	12.9	15.0	12.8	12.1	16.2
DRY DENSITY (pcf)		99.3	97.3	100.1	98.2	98.4	98.2	103.3
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1					
MAXIMUM DRY DENSITY (pcf)		103.9	103.9					
OPTIMUM MOISTURE (%)		13.4	13.4					
PERCENT COMPACTION (%)		95.6	93.6					
DIFFERENCE FROM OPTIMUM MOISTURE		-2.1	-2.8					
DENSITY RESULT PASS/FAIL (P/F)		P	F					
MOISTURE RESULT PASS/FAIL (P/F)		P	P					

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45648

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 904

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 3-24-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-3	DT-4	DT-5	DT-6			
TEST LOCATION	NORTH	28° 03.628'	28° 03.631'	28° 03.631	28° 03.628			
	EAST	81° 05.845'	81° 05.852'	81° 05.875	81° 05.886			
TEST ELEVATION OR LIFT		1	1	1	1			
TEST DEPTH		6"	6"	6"	6"			
WET DENSITY (pcf)		113.0	113.0	111.0	110.1			
MOISTURE (%)		12.9	15.0	12.8	12.1			
DRY DENSITY (pcf)		100.1	98.2	98.4	98.2			
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-1	GF-1			
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9			
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.4			
PERCENT COMPACTION (%)		96.3	94.5	94.7	94.5			
DIFFERENCE FROM OPTIMUM MOISTURE		-0.5	+1.6	-0.6	-1.3			
DENSITY RESULT PASS/FAIL (P/F)		P	(F)	(F)	(F)			
MOISTURE RESULT PASS/FAIL (P/F)		P	P	P	P			

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45351

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8888

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 3-25-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-7	DT-8	DT-9	DT-10	DT-11	DT-12	DT-13
TEST LOCATION	NORTH	28° 03.634	28° 03.628	28° 03.710	28° 03.623	28° 03.634	28° 03.631	28° 03.631
	EAST	81° 05.891	81° 05.920	81° 05.858	81° 05.960	81° 05.940	81° 05.972	81° 05.883
TEST ELEVATION OR LIFT		1	1	1	1	1	1	1
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		120.1	116.1	110.1	118.8	114.9	116.4	109.3
MOISTURE (%)		16.2	13.1 ~~13.1~~	8.5	16.9	13.2	13.0	11.7
DRY DENSITY (pcf)		103.3	102.7	101.5	101.6	101.6	103.0	97.9
LABORATORY PROCTOR CURVE NUMBER		GF-2	GF-2	GF-2	GF-2	GF-2	GF-2	GF-1
MAXIMUM DRY DENSITY (pcf)		105.7	105.7	105.7	105.7	105.7	105.7	103.9
OPTIMUM MOISTURE (%)		13.2	13.2	13.2	13.2	13.2	13.2	13.4
PERCENT COMPACTION (%)		97.7	97.2	96.0	96.1	96.1	97.4	94.2
DIFFERENCE FROM OPTIMUM MOISTURE		+3.0	-0.1	-4.7	+3.7	0.0	-0.2	-1.7
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	(F)
MOISTURE RESULT PASS/FAIL (P/F)		P	P			P	P	P

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45493

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 9038

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 3-25-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-14	DT-15	DT 16	DT 17	DT 18	DT 19	DT 20
TEST LOCATION	NORTH	28° 03.640	28° 03.636	28° 03.639	28° 03.640	28° 03.636	28° 03.637	28° 03.714
	EAST	81° 05.981	81° 05.973	81° 05.961	81° 05.944	81° 05.933	81° 05.920	81° 05.855
TEST ELEVATION OR LIFT		1	1	1	1	1	1	2
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		111.8	115.7	117.2	119.7	119.1	117.3	109.4
MOISTURE (%)		10.8	13.9	14.8	15.8	16.6	17.0	8.9
DRY DENSITY (pcf)		101.0	101.6	102.2	103.4	102.1	100.3	100.5
LABORATORY PROCTOR CURVE NUMBER		GF-2	GF-2	GF-2	GF-2	GF-2	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		105.7	105.7	105.7	105.7	105.7	103.9	103.9
OPTIMUM MOISTURE (%)		13.2	13.2	13.2	13.2	13.2	13.4	13.4
PERCENT COMPACTION (%)		95.6	96.1	96.7	97.8	96.6	96.5	96.7
DIFFERENCE FROM OPTIMUM MOISTURE		-2.4	+0.7	+1.6	+2.6	+3.4	+3.6	-4.5
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	(F)	(F)
MOISTURE RESULT PASS/FAIL (P/F)		P	P	P	P	-	-	-

SPECIFICATIONS:

DAILY STANDARD COUNT:

(% STANDARD) / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45493

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 9038

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 3-25-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-21	DT-22	DT-23	DT-24	DT-25	DT-26	DT-27
TEST LOCATION	NORTH	28° 03.646	28° 03.648	28° 03.647	28° 03.646	28° 03.720	28° 03.706	28° 03 660
	EAST	81° 05. 978	81° 05. 967	81° 05. 958	81° 05. 942	81° 05. 858	81° 05. 854	81° 05. 931
TEST ELEVATION OR LIFT		82.5	82.1	82.3	82.5	82.2		90.8
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		114.1	115.3	119.8	119.0	116.1	118.5	112.6
MOISTURE (%)		14.0	13.4	16.6	16.1	12.2	19.9	12.2
DRY DENSITY (pcf)		100.1	101.6	101.1	102.5	103.5	98.6	100.4
LABORATORY PROCTOR URVE NUMBER		GF-1	GF-2	GF-2	GF-2	GF-2	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	105.7	105.7	105.7	105.7	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.2	13.2	13.2	13.2	13.4	13.4
PERCENT COMPACTION (%)		96.3	96.1	95.6	97.0	97.9	94.9	96.6
DIFFERENCE FROM OPTIMUM MOISTURE		+1.4	+0.2	+3.4	+3.1	-1.0	+6.5	-1.2
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	(F)	P
MOISTURE RESULT PASS/FAIL (P/F)		P	P	P	P	P	F	P

SPECIFICATIONS:

DAILY STANDARD COUNT:

(% STANDARD) / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45493

% OF OPTIMUM MOISTURE CONTENT:

MOISTURE COUNT: 9038

CHECKED BY:

DATE:

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 3-25-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT 28	DT 29	DT 30	DT 31	DT 32	DT 33	DT 34
TEST LOCATION	NORTH	28° 03.646	28° 03.631	28° 03.706	28° 03.635	28° 03.643	28° 03.634	28° 03.627
	EAST	81° 05.953	81° 05.983	81° 05.854	81° 05.896	81° 05.894	81° 05.893	81° 05.866
TEST ELEVATION OR LIFT		82.3	1	1	1	1	1	1
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		120.3	112.4	111.3	117.3	112.7	113.1	115.5
MOISTURE (%)		15.4	12.2	10.9	17.0	12.8	12.6	13.5
DRY DENSITY (pcf)		104.3	100.4	100.4	100.2	99.9	100.4	101.8
LABORATORY PROCTOR URVE NUMBER		GF-2	GF-1	GF-1	GF-1	GF-1	GF-1	GF-2
MAXIMUM DRY DENSITY (pcf)		105.7	103.9	103.9	103.9	103.9	103.9	105.7
OPTIMUM MOISTURE (%)		13.2	13.4	13.4	13.4	13.4	13.4	13.2
PERCENT COMPACTION (%)		98.7	96.6	96.6	96.4	96.2	96.6	96.3
DIFFERENCE FROM OPTIMUM MOISTURE		+2.2	-1.2	-2.5	+4.4	-0.6	-0.8	+0.3
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)		—	—	—	—	—	—	—

SPECIFICATIONS:

% STANDARD / MODIFIED PROCTOR: 95%

% OF OPTIMUM MOISTURE CONTENT: _____

DAILY STANDARD COUNT:

DENSITYCOUNT: 45493

MOISTURE COUNT: 9030

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 3-27-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-35	DT-36	DT-37	DT-38	DT-39	DT-40	DT-41
TEST LOCATION	NORTH	28°03.653	28°03.653	28°03.650	28°03.653	28°03.654	28°03.660	28°03.660
	EAST	81°05.979	81°05.968	81°05.956	81°05.945	81°05.936	81°05.984	81°05.971
TEST ELEVATION OR LIFT		1	1	1	1	1	1	1
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		114.2	114.9	121.4	121.2	118.1	119.0	117.4
MOISTURE (%)		12.9	15.0	17.3	18.7	14.7	16.2	17.3
DRY DENSITY (pcf)		101.1	100.0	103.5	102.1	103.0	102.4	100.1
LABORATORY PROCTOR CURVE NUMBER		CF-2	CF-1	CF-2	CF-2	CF-2	CF-2	CF-1
MAXIMUM DRY DENSITY (pcf)		105.7	103.9	105.7	105.7	105.7	105.7	103.9
OPTIMUM MOISTURE (%)		13.2	13.4	13.2	13.2	13.2	13.2	13.4
PERCENT COMPACTION (%)		95.6	96.2	97.9	96.6	97.4	96.9	96.3
DIFFERENCE FROM OPTIMUM MOISTURE		-0.3	+1.6	+4.1	+5.5	+1.5	+3.0	+4.1
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)		P	P	-	F	P	P	-

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 454.78

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 9030

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 3-27-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: _____

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-42	DT-43	DT-44	DT-45	DT-46	DT-47	DT 48
TEST LOCATION	NORTH	28°03.657	28°03.660	28°03.632	28°03.644	28°03.644	28°03.657	28°03.653
	EAST	81°05.962	81°05.945	81°05.855	81°05.854	81°05.851	81°05.852	81°05.861
TEST ELEVATION OR LIFT		1	1	1	1	1	1	1
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		119.5	116.8	121.5	120.4	117.0	118.6	120.2
MOISTURE (%)		17.3	19.5	17.7	20.5	17.0	18.7	18.5
DRY DENSITY (pcf)		101.9	97.8	103.2	99.9	100.0	99.9	101.5
LABORATORY PROCTOR URVE NUMBER		GF-2	GF-1	GF-2	GF-4	GF-1	GF-1	GF-4
MAXIMUM DRY DENSITY (pcf)		105.7	103.9	105.7	105.3	103.9	105.3	105.3
OPTIMUM MOISTURE (%)		13.2	13.4	13.2	15.3	13.4	15.3	15.3
PERCENT COMPACTION (%)		96.4	93.3	97.6	94.9	96.3	94.8	96.4
DIFFERENCE FROM OPTIMUM MOISTURE		+4.1	+6.1	+4.5	+5.2	+4.4	+3.4	+3.2
DENSITY RESULT PASS/FAIL (P/F)		P	(F)	P	(F)	P	(F)	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

(% STANDARD) / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45478

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 9030

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 3-27-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-49	DT 50	DT 51	DT 52	DT 53	DT 54	DT 55
TEST LOCATION	NORTH	28° 03.646	28° 03.641	28° 03.634	28° 03.625	28° 03.632	28° 03.635	28° 03.644
	EAST	81° 05.863	81° 05.863	81° 05.864	81° 05.861	81° 05.860	81° 05.871	81° 05.875
TEST ELEVATION OR LIFT		1	1	1	1	1	1	1
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		115.7	116.6	118.9	120.0	118.3	119.6	116.1
MOISTURE (%)		14.6	14.7	17.6	19.4	17.6	19.7	14.7
DRY DENSITY (pcf)		100.9	101.6	100.6	100.5	100.6	99.9	101.2
LABORATORY PROCTOR URVE NUMBER		GF-1	GF-2	GF-1	GF-4	GF-1	GF-4	GF-2
MAXIMUM DRY DENSITY (pcf)		103.5	105.7	103.5	105.3	103.9	105.3	105.7
OPTIMUM MOISTURE (%)		13.4	13.2	13.4	15.3	13.4	15.3	13.2
PERCENT COMPACTION (%)		97.1	96.1	96.8	96.7	96.8	94.9	95.7
DIFFERENCE FROM OPTIMUM MOISTURE		+1.2	+1.5	+4.2	+4.1	+4.1	+4.4	+1.5
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	(F)	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95% STD.

DENSITYCOUNT: 45478

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 9030

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 3-27-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT 56	DT 57	DT 58	DT 59	DT 60	DT 61	DT 62
TEST LOCATION	NORTH	28° 03.648	28° 03.654	28° 03.646	28° 03.640	28° 03.654	28° 03.626	28° 03.656
	EAST	81° 05.872	81° 05.869	81° 05.828	81° 05.823	81° 05.869	81° 05.831	81° 05.829
TEST ELEVATION OR LIFT		1	1	1	1	1	1	1
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		117.5	114.8	117.7	115.8	115.7	111.7	112.7
MOISTURE (%)		14.2	17.5	16.8	16.4	15.0	13.0	13.8
DRY DENSITY (pcf)		102.9	97.7	100.7	99.5	100.6	98.9	99.0
LABORATORY PROCTOR URVE NUMBER		GF-2	GF-1	GF-1	GF-1	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		105.7	103.8	103.8	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.2	13.4	13.4	13.4	13.4	13.4	13.4
PERCENT COMPACTION (%)		97.4	94.0	96.9	95.8	96.8	96.8	95.3
DIFFERENCE FROM OPTIMUM MOISTURE		+1.0	+4.1	+3.4	+3.0	+2.4	+0.4	+0.4
DENSITY RESULT PASS/FAIL (P/F)		P	F	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: _____

DENSITYCOUNT: _____

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: _____

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-1-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-63	DT-64	DT-65	DT-66	DT-67	DT-68	DT-69
TEST LOCATION	NORTH	28°03.654	28°03.648	28°03.643	28°03.639	28°03.626	28°03.632	28°03.628
	EAST	81°05.839	81°05.836	81°05.831	81°05.833	81°05.890	81°05.891	81°05.835
TEST ELEVATION OR LIFT		82.5	1	1	81.5	1	1	82.0
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		113.2	117.6	113.2	118.8	117.8	117.4	118.0
MOISTURE (%)		13.8	14.0	13.4	15.3	18.0	17.4	17.5
DRY DENSITY (pcf)		99.4	103.1	99.8	103.0	99.9	100.0	100.4
LABORATORY PROCTOR CURVE NUMBER		CF-1	CF-2	CF-1	CF-2	CF4	CF-1	CF-1
MAXIMUM DRY DENSITY (pcf)		103.9	105.7	103.9	105.7	105.3	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.2	13.4	13.2	15.3	13.4	13.4
PERCENT COMPACTION (%)		95.7	97.5	96.1	97.4	94.9	96.2	96.6
DIFFERENCE FROM OPTIMUM MOISTURE		+0.4	+0.8	0.0	+2.1	+3.3	+4.0	+4.1
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	F	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45278

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8995

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-1-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-70	DT-71	DT-72	DT-73	DT-74	DT-75	DT-76
TEST LOCATION	NORTH	28° 03.628	28° 03.634	28° 03.640	28° 03.647	28° 3.639	28° 3.631	28° 3.625
	EAST	81° 05.835	81° 05.838	81° 05.842	81° 05.849	81° 5.851	81° 5 847	81° 5.843
TEST ELEVATION OR LIFT		82.5	2	83.1	2	2	82.8	2
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		119.9	116.2	116.8	118.6	117.7	117.8	119.2
MOISTURE (%)		19.0	13.3	15.6	17.8	16.1	17.9	17.4
DRY DENSITY (pcf)		100.8	102.6	101.1	100.7	101.4	99.9	101.5
LABORATORY PROCTOR JRVE NUMBER		CF-4	CF-2	CF-2	CF-4	CF-4	CF-2	CF-4
MAXIMUM DRY DENSITY (pcf)		105.3	105.7	105.7	105.3	105.3	105.7	105.3
OPTIMUM MOISTURE (%)		15.3	13.2	13.2	15.3	15.3	13.2	15.3
PERCENT COMPACTION (%)		95.7	97.1	95.6	95.6	96.3	94.5	96.4
DIFFERENCE FROM OPTIMUM MOISTURE		+4.3	+0.1	+2.4	+2.5	+0.8	+4.7	+2.1
DENSITY RESULT PASS/FAIL (P/F)		F	P	P	P	P	F	P
MOISTURE RESULT PASS/FAIL (P/F)		F	P	P	P	P	F	P

SPECIFICATIONS:

DAILY STANDARD COUNT:

(%) STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45278

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8995

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-1-20

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: RL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-77	DT 78	DT-79	DT-80	DT 81	DT-82	DT 83
TEST LOCATION	NORTH	28° 3.625	28° 3.629	28° 3.635	28° 3.640	28° 3.651	28° 3.683	28° 3.684
	EAST	81° 5.853	81° 5.856	81° 5.858	81° 5.859	81° 5.925	81° 5.922	81° 5.902
TEST ELEVATION OR LIFT		2	2	2	82.5	2	2	2
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		117.7	112.1	117.7	117.3	116.2	116.0	116.8
MOISTURE (%)		17.4	19.8	19.5	15.4	13.4	11.9	13.4
DRY DENSITY (pcf)		100.4	93.6	98.5	101.9	102.5	103.7	103.0
LABORATORY PROCTOR URVE NUMBER		GF-4	GF-6	GF-4	GF-4	GF-4	GF-2	GF-2
MAXIMUM DRY DENSITY (pcf)		105.3	99.4	105.3	105.3	105.3	105.7	105.7
OPTIMUM MOISTURE (%)		15.3	15.9	15.3	15.3	15.3	13.2	13.2
PERCENT COMPACTION (%)		95.3	94.2	93.5	96.8	97.3	98.2	97.4
DIFFERENCE FROM OPTIMUM MOISTURE		+2.6	+4.1	+4.2	+0.1	-2.1	-1.3	+0.2
DENSITY RESULT PASS/FAIL (P/F)		P	F	F	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)		P	F	F	P	P	P	P

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45278

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8995

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-1-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KC

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-84	DT-85	DT-86	DT-87	DT-88	DT-89	DT-90
TEST LOCATION	NORTH	28° 3.686	28° 3.687	28° 3.681	28° 3.693	28° 3.695	28° 3.694	28° 3.704
	EAST	81° 5.909	81° 5.922	81° 5.921	81° 5.906	81° 5.913	81° 5.919	81° 5.916
TEST ELEVATION OR LIFT		2	2	2	2	2	2	2
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		117.6	112.4	112.5	113.3	117.2	115.8	116.5
MOISTURE (%)		15.7	12.7	11.1	13.3	14.4	20.0	16.8
DRY DENSITY (pcf)		101.6	99.7	101.2	100.0	102.4	96.5	99.7
LABORATORY PROCTOR JRVE NUMBER		GF-2	GF-1	GF-2	GF-1	GF-2	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		105.7	103.9	105.7	103.9	105.7	103.9	103.9
OPTIMUM MOISTURE (%)		13.2	13.4	13.2	13.4	13.2	13.4	13.4
PERCENT COMPACTION (%)		96.1	96.0	95.7	96.2	96.9	92.9	96.0
DIFFERENCE FROM OPTIMUM MOISTURE		+2.5	-0.7	-2.1	-0.1	+1.2	+6.6	+3.4
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	F	P
MOISTURE RESULT PASS/FAIL (P/F)		P	P	P	P	P	F	P

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45278

% OF OPTIMUM MOISTURE CONTENT:

MOISTURE COUNT: 8995

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-2-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-91	DT 92	DT 93	DT 94	DT-95	DT-96	DT-97
TEST LOCATION	NORTH	28°3.706	28°3.693	28°3.684	28°3.685	28°3.686	28°3.694	28°3.699
	EAST	81°5.918	81°5.916	81°5.943	81°5.933	81°5.929	81°5.927	81°5.920
TEST ELEVATION OR LIFT		2	2	2	2	2	2	2
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		116.2	121.2	114.6	116.7	117.3	113.5	115.2
MOISTURE (%)		14.1	18.8	14.0	14.6	16.3	12.2	16.4
DRY DENSITY (pcf)		101.9	102.0	100.5	100.8	100.9	101.2	99.0
LABORATORY PROCTOR JRVE NUMBER		GF-2	GF-4	GF-1	GF-2	GF-2	GF-2	GF-1
MAXIMUM DRY DENSITY (pcf)		105.7	105.3	103.9	105.7	105.7	105.7	103.9
OPTIMUM MOISTURE (%)		13.2	13.3	13.4	13.2	13.2	13.2	13.4
PERCENT COMPACTION (%)		96.4	96.8	96.7	96.3	95.5	95.7	95.3
DIFFERENCE FROM OPTIMUM MOISTURE		+1.1	+3.5	+1.4	+1.4	+3.1	-1.0	+3.0
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 4526B

~~% OF OPTIMUM~~ MOISTURE CONTENT: _____

MOISTURE COUNT: 8991

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-2-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KC

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT 98	DT 99	DT 100	DT 101	DT 102	DT 103	DT 104
TEST LOCATION	NORTH	28° 3.702	28° 3.707	28° 3.709	28° 3.702	28° 3.697	28° 3.690	28° 3.688
	EAST	81° 5.926	81° 5.926	81° 5.934	81° 5.937	81° 5.945	81° 5.949	81° 5.898
TEST ELEVATION OR LIFT		2	2	2	2	2	2	2
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		118.5	116.2	111.6	114.0	113.1	113.8	117.7
MOISTURE (%)		17.3	14.3	12.6	12.9	12.4	14.7	16.2
DRY DENSITY (pcf)		101.1	100.0	99.1	100.9	100.7	99.3	99.9
LABORATORY PROCTOR JRVE NUMBER		GF-1	GF-1	GF-1	GF-1	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.4	13.4	13.4	13.4
PERCENT COMPACTION (%)		97.3	96.2	95.4	97.1	96.9	95.6	96.1
DIFFERENCE FROM OPTIMUM MOISTURE		+4.0	+3.1	-0.8	-0.5	-1.0	+1.3	+2.8
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45268

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8981

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4.2.10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT 105	DT 106	DT 107	DT 108	DT 109	DT 110	DT 111
TEST LOCATION	NORTH	28° 3.684	28° 3.675	28° 3.680	28° 3.675	28° 3.640	28° 3.640	28° 3.648
	EAST	81° 5.900	81° 5.899	81° 5.893	81° 5.909	81° 5.831	81° 5.832	81° 5.837
TEST ELEVATION OR LIFT		6"	6"	6"	6"	6"	6"	6"
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		115.3	115.8	113.9	116.6	95.8	118.7	117.0
MOISTURE (%)		15.4	16.6	12.9	16.4	10.6	15.2	16.6
DRY DENSITY (pcf)		99.9	99.4	100.9	100.1	99.6	103.0	100.3
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-1	GF-1	GF-1	GF-2	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9	103.9	105.7	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.4	13.4	13.2	13.4
PERCENT COMPACTION (%)		96.2	95.7	97.1	96.3	96.1	97.4	96.5
DIFFERENCE FROM OPTIMUM MOISTURE		+2.0	+3.2	-0.5	3.0	-2.8	+2.0	+3.2
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)		~~GF-1~~	~~GF-1~~					

SPECIFICATIONS:

% STANDARD / MODIFIED PROCTOR: 95%

~~% OF OPTIMUM MOISTURE CONTENT:~~

DAILY STANDARD COUNT:

DENSITY COUNT: 45268

MOISTURE COUNT: 8951

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-2-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT 112	DT 113	DT 114	DT 115	DT 116	DT 117	DT 118
TEST LOCATION	NORTH	28° 3.653	28° 3.647	28° 3.639	28° 3.630	28° 3.625	28° 3.632	28° 3.639
	EAST	81° 5.861	81° 5.862	81° 5.862	81° 5.863	81° 5.873	81° 5.872	81° 5.871
TEST ELEVATION OR LIFT								
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		117.0	117.0	119.8	111.3	119.8	118.6	117.7
MOISTURE (%)		13.9	20.3	18.9	9.4	18.8	18.0	17.2
DRY DENSITY (pcf)		102.8	94.7	100.4	101.7	100.9	100.5	100.4
LABORATORY PROCTOR CURVE NUMBER		GF-2	GF-1	GF-1	GF-2	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		105.7	103.9	103.9	105.7	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.2	13.4	13.4	13.2	13.4	13.4	13.4
PERCENT COMPACTION (%)		97.3	96.0	96.6	96.2	97.1	96.7	96.6
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)								
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45268

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8991

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-2-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-119	DT-120	DT-121	DT-122	DT-123	DT-124	DT-125
TEST LOCATION	NORTH	28° 3.647	28° 3.708	28° 3.708	28° 3.681	28° 3.690	28° 3.698	28° 3.709
	EAST	81° 5.872	81° 5.945	81° 5.945	81° 5.957	81° 5.956	81° 5.957	81° 5.956
TEST ELEVATION OR LIFT								
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		118.6	116.1	118.8	113.2	112.1	118.2	116.1
MOISTURE (%)		17.2	17.2	14.4	13.1	13.2	18.5	15.4
DRY DENSITY (pcf)		100.4	101.3	101.5	100.1	99.1	100.7	100.8
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-4	GF-1	GF-1	GF-1	GF-4	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	105.3	103.5	103.5	103.5	105.3	103.9
OPTIMUM MOISTURE (%)		13.4	15.3	13.4	13.4	13.4	15.3	13.4
PERCENT COMPACTION (%)		96.6	96.2	97.7	96.3	95.3	96.9	97.0
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)								
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45268

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8991

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-2-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-126	DT 127	DT 128	DT 129	DT-130	DT-131	DT 132
TEST LOCATION	NORTH	28° 3.700	28° 3.691	28° 3.687	28° 3.692	28° 3.701	28° 3.701	28° 3.637
	EAST	81° 5.863	81° 5.864	81° 5.872	81° 5.871	81° 5.872	81° 5.861	81° 5.885
TEST ELEVATION OR LIFT								
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		119.1	118.1	117.3	115.6	116.7	117.4	115.8
MOISTURE (%)		18.2	18.1	18.1	13.3	14.9	16.4	17.2 (12-2)
DRY DENSITY (pcf)		100.8	100.0	99.4	102.0	101.5	100.9	98.8
LABORATORY PROCTOR CURVE NUMBER		GF-4	GF-1	GF-1	GF-4	GF-4	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		105.3	103.9	103.9	105.3	105.3	103.9	103.9
OPTIMUM MOISTURE (%)		15.3	13.4	13.4	15.3	15.3	13.4	13.4
PERCENT COMPACTION (%)		95.7	96.2	95.7	96.9	95.8	97.1	95.1
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

% STANDARD / MODIFIED PROCTOR: 95%

% OF OPTIMUM MOISTURE CONTENT: _____

DAILY STANDARD COUNT:

DENSITYCOUNT: 45268

MOISTURE COUNT: 8991

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-2-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-133	DT-134	DT-135	DT-136	DT-137	DT-138	DT-139
TEST LOCATION	NORTH	28° 3.647	28° 3.654	28° 3.655	28° 3.643	28° 3.639	28° 3.623	28° 3.627
	EAST	81° 5.882	81° 5.883	81° 5.892	81° 5.893	81° 5.895	81° 5.894	81° 5.907
TEST ELEVATION OR LIFT								
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		112.5	118.4	119.2	117.6	118.7	116.0	119.6
MOISTURE (%)		13.5	14.9	14.7	14.9	17.1	17.0	16.3
DRY DENSITY (pcf)		99.1	103.1	103.1	102.3	101.3	99.2	102.9
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-2	GF-2	GF-2	GF-2	GF-1	GF-2
MAXIMUM DRY DENSITY (pcf)		103.9	105.7	105.7	105.7	105.7	103.9	105.7
OPTIMUM MOISTURE (%)		13.4	13.2	13.2	13.2	13.2	13.4	13.2
PERCENT COMPACTION (%)		95.4	97.5	97.5	96.8	95.8	95.5	97.4
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

% STANDARD / MODIFIED PROCTOR: 95%

% OF OPTIMUM MOISTURE CONTENT:

DAILY STANDARD COUNT:

DENSITYCOUNT: 45268

MOISTURE COUNT: 8991

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-2-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-140	DT-141	DT-142	DT-143	DT-144	DT 145	DT-146
TEST LOCATION	NORTH	28° 3.636	28° 3.646	28° 3.656	28° 3655	28° 3.645	28° 3.637	28° 3.703
	EAST	81° 5.905	81° 5.905	81° 5.901	81° 5.917	81° 5.918	81° 5.918	81° 5.889
TEST ELEVATION OR LIFT								
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		116.4	116.8	117.5	117.2	117.0	115.4	116.3
MOISTURE (%)		14.4	15.8	17.1	15.2	17.4	14.8	15.2
DRY DENSITY (pcf)		101.8	100.8	100.3	101.7	99.8	100.5	101.0
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-1	GF-1	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.4	13.4	13.4	13.4
PERCENT COMPACTION (%)		98.0	97.0	96.5	97.9	96.0	96.7	97.2
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45268

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8991

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4.2.10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-147	DT-148	DT-149	DT-150	DT-151	DT 152	DT 153
TEST LOCATION	NORTH	28°3.696	28°3.686	28°3.674	28°3.678	28°3.679	28°3.683	28°3.696
	EAST	81°5.885	81°5.889	81°5.866	81°5.891	81°5.902	81°5.903	81°5.896
TEST ELEVATION OR LIFT								
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		116.0	114.9	115.3	119.2	117.7	117.8	114.9
MOISTURE (%)		17.0	15.7	14.0	15.0	15.2	14.3	15.3
DRY DENSITY (pcf)		99.2	99.4	101.2	103.7	102.2	103.1	99.7
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-1	GF-2	GF-2	GF-2	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	105.7	105.7	105.7	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.2	13.2	13.2	13.4
PERCENT COMPACTION (%)		95.5	95.7	97.4	98.1	98.4	97.5	96.0
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45268

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8991

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-3-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-154	DT-155	DT-156	DT-157	DT-158	DT-159	DT-160
TEST LOCATION	NORTH	28°3.704	28°3.676	28°3.693	28°3.643	28°3.637	28°3.629	28°3.631
	EAST	81°5.899	81°5.833	81°5.838	81°5.928	81°5.928	81°5.918	81°5.936
TEST ELEVATION OR LIFT		0	1	1	2	2	2	2
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		118.6	118.1	113.6	118.5	116.6	121.3	115.9
MOISTURE (%)		18.9	16.6	12.6	17.5	15.7	17.4	14.8
DRY DENSITY (pcf)		99.8	101.3	100.9	100.9	100.8	103.4	101.0
LABORATORY PROCTOR CURVE NUMBER		GF-4	GF-1	GF-1	GF-1	GF-1	GF-4	GF-1
MAXIMUM DRY DENSITY (pcf)		105.3	103.9	103.9	103.9	103.9	105.3	103.9
OPTIMUM MOISTURE (%)		15.3	13.4	13.4	13.4	13.4	15.3	13.4
PERCENT COMPACTION (%)		94.8	97.5	97.1	97.1	97.0	98.2	97.2
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		(F)	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

(% STANDARD / MODIFIED PROCTOR): 95%

DENSITYCOUNT: 45270

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 9015

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-3-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-161	DT-162	DT-163	DT-164	DT-165	DT-166	DT-167
TEST LOCATION	NORTH	28°3.645	28°3.634	28°3.689	28°3.677	28°3.659	28°3.697	28°3.702
	EAST	81°5.932	81°5.934	81°5.916	81°5.914	81°5.925	81°5.912	81°5.914
TEST ELEVATION OR LIFT		2	2	2	2	2	2	2
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		115.8	117.2	117.1	116.9	114.7	116.6	116.5
MOISTURE (%)		14.0	14.8	15.6	13.2	13.0	13.9	15.9
DRY DENSITY (pcf)		101.6	102.1	101.3	103.3	101.5	102.4	100.6
LABORATORY PROCTOR CURVE NUMBER		CF-2	CF-2	CF-2	CF-2	CF-2	CF-2	CF-1
MAXIMUM DRY DENSITY (pcf)		105.7	105.7	105.7	105.7	105.7	105.7	103.9
OPTIMUM MOISTURE (%)		13.2	13.2	13.2	13.2	13.2	13.2	13.4
PERCENT COMPACTION (%)		96.1	96.6	95.8	97.7	96.0	96.9	96.8
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

(% STANDARD / MODIFIED PROCTOR): 95%

DENSITYCOUNT: 45270

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 9015

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

4-3, 4-5, 10

PROJECT NUMBER: A027.101

DATE OF TEST: 4/3, 4/5, 10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

4-3-10 | 4-5-10

TEST NUMBER		DT-168	DT-169	DT-170	DT-171	DT-172	DT-173	DT-174
TEST LOCATION	NORTH	28° 3.707	28° 3.707	28° 3.693	28° 3.691	28° 3.691	28° 3.691	28° 3.691
	EAST	81° 5.925	81° 5.926	81° 5.939	81° 5.933	81° 5.933	81° 5.933	81° 5.933
TEST ELEVATION OR LIFT		2	2	2	2	1	1	1
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		112.4	115.0	112.8	114.4	108.9	117.0	115.9
MOISTURE (%)		13.8	13.3	11.6	10.2	15.1	11.9	18.2
DRY DENSITY (pcf)		101.1	99.6	102.6	98.9	101.6	103.6	98.6
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-2	GF-2	GF-2	GF-2	GF-4
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	105.7	105.7	105.7	105.7	105.3
OPTIMUM MOISTURE (%)		13.4	13.4	13.2	13.2	13.2	13.2	15.3
PERCENT COMPACTION (%)		97.3	95.9	97.1	93.6	96.1	98.0	94.6
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	(F)	P	P	(F)
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45220, 45304

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 9015, 9010

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-5-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		175	176	177	178	179	180	181
TEST LOCATION	NORTH	28° 3.691	28° 3.691	28° 3.672	28° 3.655	28° 3.659	28° 3.668	28° 3.660
	EAST	81° 5.933	81° 5.933	81° 5.899	81° 5.888	81° 5.877	81° 5.872	81° 5.831
TEST ELEVATION OR LIFT		1	1	1	1	1	1	1
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		118.4	111.0	116.1	119.1	111.4	113.5	114.4
MOISTURE (%)		18.2	10.9	14.5	14.6	11.9	14.1	13.3
DRY DENSITY (pcf)		99.6	100.2	101.4	103.9	99.5	99.5	101.0
LABORATORY PROCTOR CURVE NUMBER		CF-2	CF-1	CF-1	CF-2	CF-1	CF-1	CF-1
MAXIMUM DRY DENSITY (pcf)		105.7	103.9	103.9	105.7	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.2	13.4	13.4	13.2	13.4	13.4	13.4
PERCENT COMPACTION (%)		94.2	96.4	97.6	98.3	95.8	95.8	97.2
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		F	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45304

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 9010

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-5-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-182	DT-183	DT-184	DT-185	DT-186	DT-187	DT-188
TEST LOCATION	NORTH	28°3.628	28°3.635	28°3.637	28°3.627	28°3.645	28°3.645	28°3.639
	EAST	81°5.835	81°5.834	81°5.844	81°5.847	81°5.844	81°5.845	81°5.858
TEST ELEVATION OR LIFT		3	3	3	3	2	2	2
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		113.0	112.7	116.1	114.4	114.3	112.9	111.9
MOISTURE (%)		11.5	11.6	13.1	12.5	11.9	11.2	10.9
DRY DENSITY (pcf)		101.4	101.0	102.7	101.7	102.2	101.6	100.9
LABORATORY PROCTOR CURVE NUMBER		GF-2	GF-2	GF-2	GF-2	GF-2	GF-2	GF-2
MAXIMUM DRY DENSITY (pcf)		105.7	105.7	105.7	105.7	105.7	105.7	105.7
OPTIMUM MOISTURE (%)		13.2	13.2	13.2	13.2	13.2	13.2	13.2
PERCENT COMPACTION (%)		95.9	95.6	97.2	96.2	96.7	96.1	95.5
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45304

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 9010

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-5-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		189	190	191	192	193	194	195
TEST LOCATION	NORTH	28°3.628	28°3.629	28°3.639	28°3.648	28°3.642	28°3.633	28°3.625
	EAST	81°5.860	81°5.873	81°5.871	81°5.871	81°5.885	81°5.889	81°5.880
TEST ELEVATION OR LIFT								
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		112.4	116.8	116.7	116.3	114.5	114.2	113.1
MOISTURE (%)		11.7	15.4	12.2	15.1	13.5	14.9	13.7
DRY DENSITY (pcf)		100.6	101.3	104.0	101.1	100.8	99.4	99.4
LABORATORY PROCTOR CURVE NUMBER		GF-2	GF-2	GF-2	GF-1	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		105.7	105.7	105.7	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.2	13.2	13.0	13.4	13.4	13.4	13.4
PERCENT COMPACTION (%)		95.2	95.8	98.4	97.3	97.0	95.7	95.7
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITY COUNT: 45304

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 9010

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-5-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-196	DT-197	DT-198	DT-199	DT-200	DT-201	DT-202
TEST LOCATION	NORTH	28°3.627	28°3.635	28°3.645	28°3.704	28°3.700	28°3.689	28°3.686
	EAST	81°5.894	81°5.896	81°5.894	81°5.950	81°5.940	81°5.943	81°5.952
TEST ELEVATION OR LIFT								
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		115.5	110.6	113.9	116.0	111.6	113.0	112.2
MOISTURE (%)		13.6	11.1	14.4	16.3	10.1	10.0	18.2
DRY DENSITY (pcf)		101.7	99.5	99.6	99.8	101.4	102.8	94.9
LABORATORY PROCTOR CURVE NUMBER		CF-1	CF-1	CF-1	CF-1	CF-2	CF-2	CF-2
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9	105.7	105.7	105.7
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.4	13.2	13.2	13.2
PERCENT COMPACTION (%)		97.9	95.8	95.9	96.1	95.9	97.3	93.7
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	(F)
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45304

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 9010

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-6-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-203	204	205	206	207	208	209
TEST LOCATION	NORTH	28°3.665	28°3.669	28°3.661	28°3.651	28°3.650	28°3.660	28°3.660
	EAST	81°5.833	81°5.836	81°5.833	81°5.833	81°5.844	81°5.844	81°5.853
TEST ELEVATION OR LIFT		1	1	1	1	1	1	1
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		115.6	120.9	114.7	118.1	118.6	116.9	120.0
MOISTURE (%)		14.6	17.0	14.4	16.3	16.8	17.0	17.6
DRY DENSITY (pcf)		100.9	103.3	100.3	101.5	101.6	99.9	102.1
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-2	GF-1	GF-4	GF-4	GF-1	GF-4
MAXIMUM DRY DENSITY (pcf)		103.9	105.7	103.9	105.3	105.3	103.9	105.3
OPTIMUM MOISTURE (%)		13.4	13.2	13.4	15.3	15.3	13.4	15.3
PERCENT COMPACTION (%)		97.1	97.7	96.5	96.4	96.5	96.2	97.0
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45243

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 9985

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-6-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-210	DT-211	DT-212	DT-213	DT-214	DT-215	DT-216
TEST LOCATION	NORTH	28° 3.667	28° 3.647	28° 3.645	28° 3.653	28° 3.661	28° 3.663	28° 3.656
	EAST	81° 5.844	81° 5.887	81° 5.877	81° 5.875	81° 5.874	81° 5.885	81° 5.887
TEST ELEVATION OR LIFT		1	3	3	3	2	2	2
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		136.6	117.5	116.4	116.5	114.1	117.4	117.4
MOISTURE (%)		13.5	17.6	17.1	13.6	15.0	18.1	17.0
DRY DENSITY (pcf)		100.1	100.0	99.4	102.5	99.2	99.4	100.6
LABORATORY PROCTOR JRVE NUMBER		GF-1	GF-1	GF-1	GF-2	GF-1	GF-2	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	105.7	103.9	105.7	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.2	13.4	13.2	13.4
PERCENT COMPACTION (%)		96.3	96.2	95.7	97.0	95.5	95.7	96.8
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	(F)	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45243

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8985

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-6-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: _____

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-217	DT-218	DT-219	DT-220	DT-221	DT-222	DT-223
TEST LOCATION	NORTH	28°3.665	28°3.658	28°3.651	28°3.637	28°3.631	28°3.623	28°3.684
	EAST	81°5.894	81°5.895	81°5.893	81°5.902	81°5.901	81°5.901	81°5.830
TEST ELEVATION OR LIFT		2	2	2	3	3	3	2
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		116.3	111.5	114.2	114.3	114.7	116.5	113.1
MOISTURE (%)		16.3	11.2	12.1	12.2	12.4	13.5	13.2
DRY DENSITY (pcf)		100.0	100.3	101.9	101.8	102.0	102.6	99.9
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-2	GF-2	GF-2	GF-2	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	105.7	105.7	105.7	105.7	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.2	13.2	13.2	13.2	13.4
PERCENT COMPACTION (%)		96.2	96.5	96.4	96.3	96.5	97.1	96.1
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

% OF OPTIMUM MOISTURE CONTENT: 95

DENSITYCOUNT: 45243

MOISTURE COUNT: 8985

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-6-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KC

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-224	225	226	227	228	229	230
TEST LOCATION	NORTH	28°3.647	28°3.652	28°3.661	28°3.672	28°3.653	28°3.668	28°3.668
	EAST	81°5.834	81°5.826	81°5.828	81°5.832	81°5.838	81°5.844	81°5.852
TEST ELEVATION OR LIFT		2	2	2	2	2	2	2
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		116.5	116.2	121.2	117.5	116.3	115.2	113.9
MOISTURE (%)		12.5	15.9	19.3	16.4	15.8	15.2	12.0
DRY DENSITY (pcf)		103.6	100.3	102.5	100.9	100.5	100.0	101.7
LABORATORY PROCTOR CURVE NUMBER		GF-2	GF-1	GF-2	GF-1	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		105.7	103.9	105.7	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.2	13.4	13.2	13.4	13.4	13.4	13.4
PERCENT COMPACTION (%)		98.0	96.5	97.0	97.1	96.7	96.2	97.8
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

~~% STANDARD~~ / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45243

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8985

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-6-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT 231	DT 232	233	234	235	236	237
TEST LOCATION	NORTH	28° 3.656	28° 3.647	28° 3.662	28° 3.679	28° 3.684	28° 3.683	28° 3.676
	EAST	81° 5.845	81° 5.906	81° 5.907	81° 5.839	81° 5.846	81° 5.856	81° 5.850
TEST ELEVATION OR LIFT		2	2	2	1	1	1	1
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		116.6	117.4	115.5	118.3	117.8	117.9	118.8
MOISTURE (%)		15.5	18.3	15.4	15.7	17.3	15.7	17.6
DRY DENSITY (pcf)		101.0	99.2	100.0	102.3	100.4	101.9	101.0
LABORATORY PROCTOR CURVE NUMBER		CF-1	CF-4	CF-1	CF-2	CF-4	CF-4	CF-4
MAXIMUM DRY DENSITY (pcf)		103.9	105.3	103.9	105.7	105.3	105.3	105.3
OPTIMUM MOISTURE (%)		13.4	15.3	13.4	13.2	15.3	15.3	15.3
PERCENT COMPACTION (%)		97.2	94.2	96.2	96.8	95.3	96.8	95.9
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	(F)	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45243

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8985

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-6-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		DT-238	DT-239	DT-240	DT-241	DT-242	DT-243	DT-244
TEST LOCATION	NORTH	28°3.676	28°3.691	28°3.692	28°3.661	28°3.644	28°3.633	28°3.625
	EAST	81°5.848	81°5.851	81°5.861	81°5.917	81°5.911	81°5.915	81°5.915
TEST ELEVATION OR LIFT		1	1	1	3	3	3	3
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		118.3	115.4	115.4	111.7	117.0	116.8	115.4
MOISTURE (%)		16.6	14.3	12.9	12.4	14.9	18.0	15.8
DRY DENSITY (pcf)		101.5	101.0	102.2	99.4	101.8	98.9	99.7
LABORATORY PROCTOR CURVE NUMBER		GF-2	GF-2	GF-2	GF-1	GF-2	GF	GF-1
MAXIMUM DRY DENSITY (pcf)		105.7	105.7	105.7	103.9	105.7	105.7	103.9
OPTIMUM MOISTURE (%)		13.2	13.2	13.2	13.4	13.2	13.2	13.4
PERCENT COMPACTION (%)		96.0	95.6	96.7	95.7	96.3	93.6	96.0
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	(F)	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

% STANDARD / MODIFIED PROCTOR: 95%

% OF OPTIMUM MOISTURE CONTENT:

DAILY STANDARD COUNT:

DENSITYCOUNT: 45243

MOISTURE COUNT: 8985

CHECKED BY: DATE:

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-6-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		245	246	247	248	249	250	251
TEST LOCATION	NORTH	28° 3.679	28° 3.682	28° 3.685	28° 3.675	28° 3.637	28° 3.702	28° 3.703
	EAST	81° 5.842	81° 5.861	81° 5.846	81° 5.857	81° 5.925	81° 5.842	81° 5.842
TEST ELEVATION OR LIFT		2	2	2	2	3	3	1
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		120.9	117.2	114.9	111.2	120.2	119.7	120.3
MOISTURE (%)		16.5	15.9	12.7	11.4	20.9	17.5	18.7
DRY DENSITY (pcf)		103.8	101.2	102.0	99.8	99.5	101.9	101.4
LABORATORY PROCTOR CURVE NUMBER		GF-4	GF-4	GF-4	GF-1	GF-4	GF-4	GF-4
MAXIMUM DRY DENSITY (pcf)		105.3	105.3	105.3	103.9	105.3	105.3	105.3
OPTIMUM MOISTURE (%)		15.3	15.3	15.3	13.2	15.3	15.3	15.3
PERCENT COMPACTION (%)		98.6	96.1	96.9	96.1	94.5	96.8	96.3
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	F	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

~~% STANDARD~~ / MODIFIED PROCTOR: 95%

~~% OF OPTIMUM~~ MOISTURE CONTENT:

DENSITYCOUNT: 4524 3

MOISTURE COUNT: 8985

CHECKED BY: DATE:

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TEST: 4-6, 4-7, 10

TESTED BY: KL

4-6-2010 | 4-7-2010

TEST NUMBER		252	253	254	255	256	257	258
TEST LOCATION	NORTH	28° 3.703	28° 3.704	28° 3.693	28° 3.692	28° 3.692	28° 3.692	28° 3.644
	EAST	81° 5.854	81° 5.863	81° 5.839	81° 5.849	81° 5.850	81° 5.850	81° 5.940
TEST ELEVATION OR LIFT		1	1	2	2	2		
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		114.5	112.1	115.4	120.1	116.3	114.2	108.4
MOISTURE (%)		14.2	13.8	12.1	14.6	14.7	11.7	15.3
DRY DENSITY (pcf)		100.3	98.5	102.9	104.8	101.4	102.2	94.9
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-2	GF-2	GF-2	GF-2	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	105.7	105.7	105.7	105.7	103.9
OPTIMUM MOISTURE (%)		13.2	13.2	13.4	13.4	13.4	13.4	13.2
PERCENT COMPACTION (%)		96.5	94.8	97.4	99.1	95.9	96.7	91.3
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	(F)	P	P	P	P	(F)
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

(% STANDARD) / MODIFIED PROCTOR: 95%

% OF OPTIMUM MOISTURE CONTENT: _____

DAILY STANDARD COUNT:

DENSITYCOUNT: 45243/45454

MOISTURE COUNT: 8985/8957

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-7-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		259	260	261	262	263	264	265
TEST LOCATION	NORTH	28°3.639	28°3.639	28° 3.651	28° 3.680	28°3.677	28° 3.705	28° 3.702
	EAST	81°5.943	81° 5.957	81° 5.943	81° 5.846	81°5.855	81°5.865	81° 5.846
TEST ELEVATION OR LIFT					3	3	3	3
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		112.9	115.3	110.8	111.3	112.6	116.8	113.7
MOISTURE (%)		13.3	15.4	11.1	11.9	11.4	17.5	15.6
DRY DENSITY (pcf)		99.6	99.9	99.7	99.4	101.1	99.4	98.4
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-1	GF-1	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.2	13.2	13.2	13.2	13.2	13.2	13.2
PERCENT COMPACTION (%)		95.9	96.2	96.0	95.7	97.3	95.7	94.7
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	(F)
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45454

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8987

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-7-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KC

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		266	267	268	269	270	271	272
TEST LOCATION	NORTH	28° 3.692	28° 3.690	28° 3.702	28° 3.633	28° 3.658	28° 3.661	28° 3.647
	EAST	81° 5.846	81° 5.864	81° 5.846	81° 5.854	81° 5.950	81° 5.950	81° 5.956
TEST ELEVATION OR LIFT		3	4		4	3	3	2
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		118.1	119.6	116.4	109.9	109.8	110.9	113.6
MOISTURE (%)		14.6	18.9	15.2	10.2	8.7	11.7	13.5
DRY DENSITY (pcf)		103.0	100.7	101.0	99.8	101.0	99.3	100.1
LABORATORY PROCTOR CURVE NUMBER		GF-4	GF-4	GF-1	GF-1	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		105.3	105.3	103.9	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		15.3	15.3	13.2	13.2	13.2	13.2	13.2
PERCENT COMPACTION (%)		97.8	95.6	97.2	96.0	97.2	95.6	96.3
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

(% STANDARD / MODIFIED PROCTOR): 95%

DENSITYCOUNT: 45454

% OF OPTIMUM MOISTURE CONTENT:

MOISTURE COUNT: 8984

CHECKED BY: DATE:

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-7-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		273	274	275	276	277	278	279
TEST LOCATION	NORTH	28°3.643	28°3.701	28°3.703	28°3.683	28°3.631	28°3.640	28°3.704
	EAST	81°5.961	81°5.867	81°5.844	81°5.865	81°5.885	81°5.874	81°5.867
TEST ELEVATION OR LIFT		2	2	3	3	4	4	3
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		117.3	113.4	120.0	118.9	119.5	116.5	115.1
MOISTURE (%)		13.0	14.2	18.0	17.8	18.2	14.4	13.8
DRY DENSITY (pcf)		103.8	99.3	101.7	101.0	101.1	101.8	101.1
LABORATORY PROCTOR CURVE NUMBER		GF-2	GF-1	GF-4	GF-4	GF-4	GF-2	GF-2
MAXIMUM DRY DENSITY (pcf)		105.7	103.9	105.3	105.3	105.3	105.7	105.7
OPTIMUM MOISTURE (%)		13.2	13.4	15.3	15.3	15.3	13.2	13.2
PERCENT COMPACTION (%)		98.2	95.6	95.9	95.9	96.0	96.3	95.6
DIFFERENCE FROM OPTIMUM MOISTURE		P	P	P	P	P	P	P
DENSITY RESULT PASS/FAIL (P/F)								
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45454

~~% OF OPTIMUM~~ MOISTURE CONTENT: _____

MOISTURE COUNT: 8594

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-7-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		280	281	282	283	284	285	286
TEST LOCATION	NORTH	28° 3.704	28° 3.685	28° 3.689	28° 3.643	28° 3.675	28° 3.704	28° 3.701
	EAST	81° 5.844	81° 5.873	81° 5.849	81° 5.888	81° 5.699	81° 5.863	81° 5.845
TEST ELEVATION OR LIFT		3	3	3	3	4	4	3
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)								
MOISTURE (%)								
DRY DENSITY (pcf)		110.5	118.0	121.6	114.8	105.1	113.2	116.2
LABORATORY PROCTOR CURVE NUMBER		9.1	14.4	20.1	13.1	10.1	13.0	12.7
MAXIMUM DRY DENSITY (pcf)		101.3	103.2	101.3	101.5	95.5	100.2	103.1
OPTIMUM MOISTURE (%)		GF-2	GF-2	GF-4	GF-1	GF-1	GF-1	GF-2
PERCENT COMPACTION (%)		105.7	105.7	105.3	103.9	103.9	103.9	105.7
DIFFERENCE FROM OPTIMUM MOISTURE		13.2	13.2	15.3	13.4	13.4	13.4	13.2
DENSITY RESULT PASS/FAIL (P/F)		95.8	97.6	96.2	97.7	99.9	96.4	97.5
MOISTURE RESULT PASS/FAIL (P/F)						(F)		

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45454

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8994

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-7-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KC

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		287	288	289	290	291	292	293
TEST LOCATION	NORTH	28° 3.634	28° 3.666	28° 3.689	28° 3.690	28° 3.702	28° 3.678	28° 3.675
	EAST	81° 5.820	81° 5.835	81° 5.841	81° 5.862	81° 5.843	81° 5.836	81° 5.699
TEST ELEVATION OR LIFT		3	4	3	4	4	4	4
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		114.5	113.4	116.0	113.7	116.7	115.5	114.3
MOISTURE (%)		11.0	11.2	17.0	11.8	12.9	15.4	14.6
DRY DENSITY (pcf)		103.1	102.0	99.1	101.7	103.3	100.1	99.7
LABORATORY PROCTOR JRVE NUMBER		GF-2	GF-2	GF-1	GF-2	GF-2	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		105.7	105.7	103.9	105.7	105.7	103.9	103.9
OPTIMUM MOISTURE (%)		13.2	13.2	13.4	13.2	13.2	13.4	13.4
PERCENT COMPACTION (%)		97.5	96.5	95.4	96.2	97.7	96.3	96.0
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45454

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 6994

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-7-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		294	295	296	297	298	299	300
TEST LOCATION	NORTH	28°3.662	28°3.651	28°3.638	28°3.668	28°3.672	28°3.704	28°3.693
	EAST	81°5.844	81°5.841	81°5.837	81°5.859	81°5.850	81°5.845	81°5.841
TEST ELEVATION OR LIFT								4
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		109.1	109.0	110.4	111.5	114.4	111.8	114.6
MOISTURE (%)		9.3	10.1	11.3	11.9	13.0	12.9	14.7
DRY DENSITY (pcf)		99.8	99.0	99.2	99.7	101.2	99.1	99.9
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-1	GF-1	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.4	13.4	13.4	13.4
PERCENT COMPACTION (%)		96.0	95.3	95.5	96.0	97.4	95.4	96.2
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45454

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8994

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4/7, 4/8, 10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

		4-7-10			4-8-10			
TEST NUMBER		301	302	303	304	305	306	307
TEST LOCATION	NORTH	28°3.692	28°3.634	28°3.709	28°3.649	28°3.702	28°3.693	28°3.701
	EAST	81°5.862	81°5.850	81°5.902	81°5.861	81°5.861	81°5.891	81°5.846
TEST ELEVATION OR LIFT		3	3					
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		115.3	120.6	112.5	109.4	116.2	111.3	114.7
MOISTURE (%)		13.5	19.8	12.3	9.1	13.8	14.0	15.5
DRY DENSITY (pcf)		101.5	100.7	100.3	99.4	102.2	97.6	99.3
LABORATORY PROCTOR CURVE NUMBER		GF-2	GF-2	GF-1	GF-1	GF-2	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		105.7	105.7	103.9	103.9	105.7	103.9	103.9
OPTIMUM MOISTURE (%)		13.2	13.2	13.4	13.4	13.2	13.4	13.4
PERCENT COMPACTION (%)		96.0	95.3	96.5	95.7	96.7	93.9	95.6
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	(F)	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

(% STANDARD) / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45454, 45470

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8994, 9046

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-8, 4-9, 2010

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

4-8-10 | 4-9-10

TEST NUMBER		308	309	310	311	312	313	314
TEST LOCATION	NORTH	28° 3.653	28° 3.627	28° 3.677	28° 3.651	28° 3.642	28° 3.626	28° 3.642
	EAST	81° 5.876	81° 5.862	81° 5.870	81° 5.904	81° 5.891	81° 5.815	81° 5.820
TEST ELEVATION OR LIFT			4	4	4	4	4	2
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		109.0	111.7	113.4	113.7	115.1	109.2	112.0
MOISTURE (%)		10.8	12.8	13.8	14.8	14.1	10.4	12.0
DRY DENSITY (pcf)		98.3	99.0	99.7	98.8	101.0	98.8	100.1
LABORATORY PROCTOR CURVE NUMBER		6F-1	6F-1	6F-1	6F-1	6F-1	6F-1	6F-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.4	13.4	13.4	13.4
PERCENT COMPACTION (%)		94.5	95.3	95.6	95.1	97.2	95.1	96.3
DIFFERENCE FROM OPTIMUM MOISTURE		5						
DENSITY RESULT PASS/FAIL (P/F)		(F)	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45470, 45105

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 9046, 8893

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-9-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		315	316	317	318	319	320	321
TEST LOCATION	NORTH	28° 3.686	28° 3.763	28° 3.679	28° 3.635	28° 3.638	28° 3.652	28° 3.661
	EAST	81° 5.835	81° 5.847	81° 5.896	81° 5.853	81° 5.870	81° 5.844	81° 5.839
TEST ELEVATION OR LIFT		3	5	5	4	4	4	4
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		112.6	109.7	111.7	115.2	114.9	111.1	113.5
MOISTURE (%)		12.9	10.6	11.7	13.2	16.9	16.2	15.7
DRY DENSITY (pcf)		99.7	99.2	99.9	101.8	100.7	98.8	100.9
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-1	GF-2	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	105.7	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.2	13.4	13.4	13.4
PERCENT COMPACTION (%)		96.0	95.5	96.2	96.3	96.9	95.1	97.1
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45105

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8893

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-9-16

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		322	323	324	325	326	327	328
TEST LOCATION	NORTH	28° 3.653	28° 3.662	28° 3.644	28° 3.641	28° 3.644	28° 3.701	28° 3.674
	EAST	81° 5.872	81° 5.877	81° 5.884	81° 5.914	81° 5.852	81° 5.898	81° 5.845
TEST ELEVATION OR LIFT		4	4	4	4	4	4	4
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		111.4	111.7	113.7	113.7	114.2	113.8	115.2
MOISTURE (%)		11.9	11.5	14.5	14.2	12.7	14.6	15.5
DRY DENSITY (pcf)		99.5	100.2	99.3	99.6	101.4	99.4	99.6
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-1	GF-1	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.4	13.4	13.4	13.4
PERCENT COMPACTION (%)		95.8	96.4	95.6	95.9	97.6	95.7	95.9
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45105

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8893

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-9, 4-10, 2010

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KC

PROJECT LOCATION: Saint Cloud, Florida

		4-9-10		4-10-10				
TEST NUMBER		329	330	331	332	333	334	335
TEST LOCATION	NORTH	28° 3.663	28° 3.657	28° 3.619	28° 3.648	28° 3.658	28° 3.639	28° 3.627
	EAST	81° 5.894	81° 5.915	81° 5.832	81° 5.827	81° 5.844	81° 5.842	81° 5.846
TEST ELEVATION OR LIFT		4	4			5	5	5
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		115.7	113.5	114.0	118.7	116.9	114.0	116.1
MOISTURE (%)		16.6	13.0	13.9	19.4	13.9	14.6	17.0
DRY DENSITY (pcf)		99.2	100.4	100.1	99.4	102.7	99.5	99.2
LABORATORY PROCTOR JRVE NUMBER		GF-1	GF-1	GF-1	GF-2	GF-2	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	105.7	105.7	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.2	13.2	13.4	13.4
PERCENT COMPACTION (%)		95.5	96.6	96.3	94.0	97.2	95.8	95.5
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	(F)	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITY COUNT: 45105, 45257

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8893, 8893

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-10-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		336	337	338	339	340	341	342
TEST LOCATION	NORTH	28° 3.708	28° 3.706	28° 3.709	28° 3.624	28° 3.631	28° 3.706	28° 3.641
	EAST	81° 5.865	81° 5.886	81° 5.868	81° 5.871	81° 5.861	81° 5.886	81° 5.864
TEST ELEVATION OR LIFT		5	5					
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		114.1	108.3	113.0	113.4	112.7	116.3	111.3
MOISTURE (%)		14.8	15.6	11.5	11.1	11.0	13.8	12.1
DRY DENSITY (pcf)		99.4	93.7	101.4	102.0	101.4	102.2	99.3
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF 2	GF-2	GF-2	GF 2	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	105.7	105.7	105.7	105.7	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.2	13.2	13.2	13.2	13.4
PERCENT COMPACTION (%)		95.7	90.2	95.2	96.5	95.9	96.7	95.6
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	(F)	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

~~% STANDARD~~ / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45257

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 6893

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-10-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: RL

PROJECT LOCATION: Saint Cloud, Florida

4-10-10

TEST NUMBER		343	344	345	346	347	348	349
TEST LOCATION	NORTH	28° 3.618	28° 3.618	28° 3.620	28° 3.618	28° 3.618	28° 3.652	28° 3.633
	EAST	81° 5.827	81° 5.822	81° 5.839	81° 5.855	81° 5.869	81° 5.860	81° 5.879
TEST ELEVATION OR LIFT			2	2	2	2	2	2
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		115.0	119.7	116.6	115.8	117.0	118.2	116.8
MOISTURE (%)		14.3	16.6	14.8	16.2	16.6	14.0	16.5
DRY DENSITY (pcf)		100.6	102.7	101.6	99.7	100.3	103.7	100.3
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-2	GF-2	GF-1	GF-1	GF-2	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	105.7	105.7	103.9	103.9	105.7	103.9
OPTIMUM MOISTURE (%)		13.4	13.2	13.2	13.4	13.4	13.2	13.4
PERCENT COMPACTION (%)		96.8	97.2	96.1	96.0	96.5	98.1	96.5
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45757

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8843

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-10, 4-12, 2010

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

		4-10-2010		4-12-2010				
TEST NUMBER		350	351	352	353	354	355	356
TEST LOCATION	NORTH	28° 3.644	28° 3.644	28° 3.620	28° 3.621	28° 3.624	28° 3.622	28° 3.621
	EAST	81° 5.878	81° 5.878	81° 5.822	81° 5.819	81° 5 835	81° 5.857	81° 5.837
TEST ELEVATION OR LIFT				3	3	3	1	1
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		99.0	117.3	115.5	113.5	115.0	112.6	114.6
MOISTURE (%)		10.9	14.2	14.0	13.5	14.1	12.9	13.8
DRY DENSITY (pcf)		89.2	102.8	101.3	100.0	100.8	99.7	101.3
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-1	GF-1	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.4	13.4	13.4	13.4
PERCENT COMPACTION (%)		85.9	98.8	97.5	96.2	97.0	96.0	97.5
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		(F)	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

(% STANDARD) / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45257, 45118

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8893, 8985

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-12-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		357	358	359	360	361	362	363
TEST LOCATION	NORTH	28° 3.621	28° 3.626	28° 3.629	28° 3.618	28° 3.621	28° 3.685	28° 3.676
	EAST	81° 5.937	81° 5.875	81° 5.819	81° 5.831	81° 5.862	81° 5.891	81° 5.868
TEST ELEVATION OR LIFT			4	4	4	5	5	3
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		114.6	115.9	115.6	114.5	112.8	110.8	115.2
MOISTURE (%)		15.9	14.6	14.5	13.7	13.0	10.2	16.3
DRY DENSITY (pcf)		98.9	101.1	101.0	100.8	99.8	100.6	99.1
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-1	GF-1	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.4	13.4	13.4	13.4
PERCENT COMPACTION (%)		95.2	97.3	97.2	97.0	96.1	96.8	95.4
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITY COUNT: 4511B

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8985

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-17-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		364	365	366	367	368	369	370
TEST LOCATION	NORTH	28° 3.624	28° 3.639	28° 3.649	28° 3.626	28° 3.622	28° 3.623	28° 3.620
	EAST	81° 5.822	81° 5.841	81° 5.821	81° 5.855	81° 5.904	81° 5.929	81° 5.835
TEST ELEVATION OR LIFT					3	1	1	
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		112.9	117.0	114.9	118.3	116.1	115.6	114.0
MOISTURE (%)		14.3	12.8	13.4	14.2	14.5	12.3	14.0
DRY DENSITY (pcf)		98.8	103.7	101.3	103.6	101.4	102.9	99.9
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-2	GF-1	GF-2	GF-1	GF-2	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	105.7	103.9	105.7	103.9	105.7	103.9
OPTIMUM MOISTURE (%)		13.4	13.2	13.4	13.2	13.4	13.2	13.4
PERCENT COMPACTION (%)		95.1	98.1	97.5	98.0	97.6	97.4	96.2
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 4511B

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8985

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-12-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		371	372	373	374	375	376	377
TEST LOCATION	NORTH	28° 3.629	28° 3.628	28° 3.646	28° 3.663	28° 3.662	28° 3 622	28° 3.622
	EAST	81° 5.862	81° 5.885	81° 5.827	81° 5.833	81° 5.853	81° 5.899	81° 5.872
TEST ELEVATION OR LIFT		6	5	5	5	5	5	5
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		110.0	109.7	113.7	113.5	115.7	115.7	110.6
MOISTURE (%)		13.0	7.8	14.8	12.1	14.6	14.7	10.8
DRY DENSITY (pcf)		97.4	101.7	99.0	101.3	101.0	101.4	99.7
LABORATORY PROCTOR JRVE NUMBER		GF-1	GF-2	GF-1	GF-1	GF-1	GF-2	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	105.7	103.9	103.9	103.9	105.7	103.9
OPTIMUM MOISTURE (%)		13.4	13.2	13.4	13.4	13.4	13.2	13.4
PERCENT COMPACTION (%)		93.7	96.2	95.3	97.5	97.2	98.8	96.0
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		(F)	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

% STANDARD / MODIFIED PROCTOR: 95%

% OF OPTIMUM MOISTURE CONTENT: _____

DAILY STANDARD COUNT:

DENSITYCOUNT: 45118

MOISTURE COUNT: 8985

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-12-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		378	379	380	381	382	383	384
TEST LOCATION	NORTH	28° 3.622	28° 3.620	28° 3.622	28° 3.621	28° 3.624	28° 3.623	28° 3.623
	EAST	81° 5.859	81° 5.832	81° 5.901	81° 5.821	81° 5.923	81° 5.935	81° 5.959
TEST ELEVATION OR LIFT		5	5	5	5			
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		111.4	113.1	119.4	109.8	110.0	110.9	112.4
MOISTURE (%)		11.6	12.7	14.0	11.6	10.0	11.8	13.4
DRY DENSITY (pcf)		99.8	100.3	103.0	98.4	100.0	99.2	99.1
LABORATORY PROCTOR CURVE NUMBER		CF-1	CF-1	CF-2	CF-1	CF-1	CF-1	CF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	105.7	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.7	13.4	13.4	13.4	13.4
PERCENT COMPACTION (%)		96.1	96.5	97.4	94.7	96.2	95.5	95.4
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	(F)	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

(% STANDARD) / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45118

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8985

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-12, 4-13, 2010

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KC

PROJECT LOCATION: Saint Cloud, Florida

4-12-2010 | 4-13-10

TEST NUMBER		385	386	387	388	389	390	391
TEST LOCATION	NORTH	28° 3.640	28° 3.655	28° 3.675	28° 3 683	28° 3.672	28° 3.624	28° 3.685
	EAST	81° 5. 999	81° 5. 993	81° 5. 992	81° 5. 974	81° 5. 926	81° 5. 984	81° 5. 961
TEST ELEVATION OR LIFT			1	1	1	1	1	1
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		112.0	118.6	115.1	112.3	116.3	116.4	123.6
MOISTURE (%)		13.7	15.8	13.6	11.4	14.5	10.8	16.7
DRY DENSITY (pcf)		98.5	102.4	101.3	100.9	101.6	105.0	105.8
LABORATORY PROCTOR CURVE NUMBER		CF-1	CF-2	CF-2	CF-1	CF-2	CF-2	CF-2
MAXIMUM DRY DENSITY (pcf)		103.9	105.7	105.7	103.9	105.7	105.7	105.7
OPTIMUM MOISTURE (%)		13.4	13.2	13.2	13.4	13.2	13.2	13.2
PERCENT COMPACTION (%)		94.8	96.9	95.8	97.1	96.1	99.3	100.2
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		(F)	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95 %

DENSITY COUNT: 45118, 45210

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8985, 8985

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TEST: 4-13-10

TESTED BY: KL

TEST NUMBER		392	393	394	395	396	397	398
TEST LOCATION	NORTH	28° 3.623	28° 3.626	28° 3.622	28° 3.638	28° 3.642	28° 3.644	28° 3.632
	EAST	81° 5.933	81° 5.978	81° 5.830	81° 5.821	81° 5.837	81° 5.856	81° 5.851
TEST ELEVATION OR LIFT		4	3	1	6	6	6	6
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		109.0	118.6	115.8	118.5	117.4	111.1	107.5
MOISTURE (%)		10.9	17.4	15.6	17.3	13.7	12.9	13.0
DRY DENSITY (pcf)		98.3	101.0	100.2	101.0	103.3	98.4	95.1
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-4	GF-4	GF-4	GF-2	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	105.3	105.3	103.9	105.7	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	15.3	15.3	13.4	13.2	13.4	13.4
PERCENT COMPACTION (%)		94.6	95.9	95.2	97.2	97.7	94.7	91.5
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		(F)	P	P	P	P	(F)	(F)
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

% STANDARD / MODIFIED PROCTOR: 95%

% OF OPTIMUM MOISTURE CONTENT: _____

DAILY STANDARD COUNT:

DENSITYCOUNT: 4521

MOISTURE COUNT: 8985

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-13-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		399	400	401	402	403	404	405
TEST LOCATION	NORTH	28° 3.673	28° 3.632	28° 3.635	28° 3.636	28° 3.632	28° 3.622	28° 3.623
	EAST	81° 5.975	81° 5.851	81° 5.815	81° 5.856	81° 6.824	81° 5.878	81° 5.907
TEST ELEVATION OR LIFT		6	5	7	6	7	6	5
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		104.6	116.1	104.9	107.9	105.9	105.6	114.1
MOISTURE (%)		11.9	17.2	9.2	11.1	10.7	10.3	16.6
DRY DENSITY (pcf)		93.4	99.1	96.0	97.1	95.7	95.8	97.9
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-1	GF-1	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.4	13.4	13.4	13.4
PERCENT COMPACTION (%)		89.9	95.4	92.4	93.5	92.1	92.2	94.2
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		(F)	P	(F)	(F)	(F)	(F)	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

% STANDARD / MODIFIED PROCTOR: 95%

% OF OPTIMUM MOISTURE CONTENT: _____

DAILY STANDARD COUNT:

DENSITYCOUNT: 45210

MOISTURE COUNT: 8985

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-13, 4-14 2010

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

		4-13-10			4-14-10			
TEST NUMBER		406	407	408	408	410	411	412
TEST LOCATION	NORTH	28°3.623	28°3.624	28°3.624	28°3.625	28°3.625	28°3.626	28°3.684
	EAST	81°5.937	81°5.962	81°5.974	81°5.948	81°5.874	81°5.894	81°5.993
TEST ELEVATION OR LIFT		5	4	2	7	7	6	1
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		107.2	117.3	112.0	118.6	119.6	115.6	109.9
MOISTURE (%)		10.0	15.8	13.0	17.2	18.1	18.4	14.3
DRY DENSITY (pcf)		97.4	101.3	99.2	101.1	101.2	97.7	100.4
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-1	GF-1	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.4	13.4	13.4	13.4
PERCENT COMPACTION (%)		93.7	97.5	95.5	97.3	97.4	94.0	96.6
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		(F)	P	P	P	P	(F)	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

% OF OPTIMUM MOISTURE CONTENT:

DENSITYCOUNT: 45210, 45466

MOISTURE COUNT: 8985, 8950

CHECKED BY: DATE:

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-14-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		413	414	415	416	417	418	419
TEST LOCATION	NORTH	28° 3.713	28° 3.643	28° 3.668	28° 3.646	28° 3.663	28° 3.670	28° 3.674
	EAST	81° 5.854	81° 5.991	81° 5.987	81° 5.993	81° 5.994	81° 5.987	81° 5.991
TEST ELEVATION OR LIFT		1	2	3	4	1	1	1
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		116.4	107.8	112.4	112.4	108.5	109.4	112.7
MOISTURE (%)		14.3	12.3	12.4	16.3	13.8	10.6	13.8
DRY DENSITY (pcf)		101.8	96.0	100.0	96.6	95.3	98.9	99.0
LABORATORY PROCTOR CURVE NUMBER		CF-2	CF-1	CF-1	CF-1	CF-1	CF-1	CF-1
MAXIMUM DRY DENSITY (pcf)		105.7	107.5	103.9	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.2	13.4	13.4	13.4	13.4	13.4	13.4
PERCENT COMPACTION (%)		96.3	92.4	96.2	93.0	91.7	95.2	95.3
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	(F)	P	(F)	(F)	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

(% STANDARD) / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 4546

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8950

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-14-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		420	421	422	423	424	425	426
TEST LOCATION	NORTH	28° 3.665	28° 3.664	28° 3.625	28° 3.625	28° 3.624	28° 3.624	28° 3.656
	EAST	81° 5.992	81° 5.997	81° 5.958	81° 5.932	81° 5.904	28° 5.875	81° 5.991
TEST ELEVATION OR LIFT		2	1	2	2	2	3	6
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		111.0	108.	114.9	109.9	112.7	108.0	112.9
MOISTURE (%)		12.4	11.8	11.4	11.2	15.9	13.0	13.3
DRY DENSITY (pcf)		98.7	97.2	103.1	98.8	97.2	95.6	99.6
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-6	GF-2	GF-1	GF-6	GF-6	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	99.4	105.7	103.9	99.4	99.4	103.9
OPTIMUM MOISTURE (%)		13.4	15.9	14.2	13.4	15.9	15.9	13.4
PERCENT COMPACTION (%)		95.0	97.8	97.5	95.1	97.8	96.2	95.9
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45466

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8950

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-14-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: _____

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		427	428	429	430	431	432	433
TEST LOCATION	NORTH	28° 3.649	28° 3.625	28° 3.624	28° 3.624	28° 3.684	28° 3.698	28° 3.623
	EAST	81° 5.996	81° 5.851	81° 5.875	81° 5.899	81° 5.986	81° 5.986	81° 5.931
TEST ELEVATION OR LIFT		6	6	7	3	2	7	7
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		116.5	113.9	115.6	110.8	115.3	109.8	110.5
MOISTURE (%)		17.5	13.6	14.1	15.1	13.8	11.9	12.3
DRY DENSITY (pcf)		99.1	100.3	101.3	99.3	101.3	98.1	98.4
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-1	GF-1	GF-1	GF-6	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9	103.9	99.4	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.4	13.4	15.9	13.4
PERCENT COMPACTION (%)		95.4	96.5	97.5	95.6	97.5	98.7	94.7
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	(F)
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

% OF OPTIMUM MOISTURE CONTENT: _____

DENSITY COUNT: 45466

MOISTURE COUNT: 8950

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-14-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida 4-14-10

TEST NUMBER		434	435	436	437	438	439	440
TEST LOCATION	NORTH	28° 3.625	28° 3.624	28° 3.666	28° 3.684	28° 3.662	28° 3.649	28° 3.688
	EAST	81° 5.964	81° 5.978	81° 5.997	81° 5.995	81° 6.000	81° 6.001	81° 5.986
TEST ELEVATION OR LIFT		6	1	1	2	7	4	4
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		117.1	113.8	118.1	109.4	109.6	112.8	113.4
MOISTURE (%)		17.1	14.2	13.4	13.1	13.0	15.9	15.5
DRY DENSITY (pcf)		100.0	99.7	104.2	96.7	97.0	97.3	98.2
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-2	GF-6	GF-6	GF-6	GF-6
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	105.7	99.4	99.4	99.4	99.4
OPTIMUM MOISTURE (%)		13.4	13.4	13.2	15.9	15.9	15.9	15.9
PERCENT COMPACTION (%)		96.2	96.0	98.6	97.3	97.6	97.9	98.8
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

(% STANDARD / MODIFIED PROCTOR): 95%

DENSITY COUNT: 45466

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8450

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-14-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: _____

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		441	442	443	444	445	446	447
TEST LOCATION	NORTH	28° 3.702	28° 3.686	28° 3.670	28° 3.654	28° 3.634	28° 3.644	28° 3.636
	EAST	81° 5.987	81° 5.995	81° 5.997	81° 5.995	81° 5.991	81° 5.994	81° 6.040
TEST ELEVATION OR LIFT		3	1	2	2	2	3	4
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		110.5	112.9	111.8	112.0	116.6	119.5	110.7
MOISTURE (%)		11.7	12.7	12.9	12.2	16.7	17.1	10.1
DRY DENSITY (pcf)		98.9	100.3	99.0	99.8	99.9	102.0	100.5
LABORATORY PROCTOR CURVE NUMBER		CF-1	CF-1	CF-1	CF-1	CF-1	CF-4	CF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9	103.9	105.3	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.4	13.4	15.3	13.4
PERCENT COMPACTION (%)		95.2	96.5	95.3	96.1	96.2	96.9	96.7
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS: DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95% DENSITYCOUNT: 4546

~~% OF OPTIMUM MOISTURE CONTENT:~~ _____ MOISTURE COUNT: 8950

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-15-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		448	449	450	451	452	453	454
TEST LOCATION	NORTH	28° 3.658	28° 3.685	28° 3.702	28° 3.635	28° 3.657	28° 3.628	28° 3.654
	EAST	81° 5.990	81° 5.988	81° 5.988	81° 5.996	81° 5.997	81° 5.996	81° 5.995
TEST ELEVATION OR LIFT		5	2	3	6	5	5	4
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		109.7	112.4	112.5	110.5	110.0	111.8	116.0
MOISTURE (%)		10.5	12.3	13.1	10.1	11.4	11.1	13.8
DRY DENSITY (pcf)		93.3	100.1	99.5	100.3	98.8	100.4	101.9
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-1	GF-1	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.4	13.4	13.4	13.4
PERCENT COMPACTION (%)		95.6	96.3	95.8	96.5	95.1	96.8	98.1
DIFFERENCE FROM OPTIMUM MOISTURE		P	P	P	P	P	P	P
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 44991

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 4960

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-15-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		455	456	457	458	459	460	461
TEST LOCATION	NORTH	28° 3.684	28° 3.658	28° 3.684	28° 3.684	28° 3.658	28° 3.654	28° 3.654
	EAST	81° 5.993	81° 5.990	81° 5.995	81° 5.993	81° 5.990	81° 5.995	81° 5.995
TEST ELEVATION OR LIFT		4	6	6	5	6	6	7
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		112.5	102.5	116.9	108.8	111.9	110.0	111.6
MOISTURE (%)		11.3	7.5	14.4	9.3	15.8	13.1	13.9
DRY DENSITY (pcf)		101.2	95.0	104.5	99.5	96.1	97.0	97.7
LABORATORY PROCTOR RVE NUMBER		GF-2	GF-1	GF-2	GF-1	GF-6	GF-6	GF-6
MAXIMUM DRY DENSITY (pcf)		105.7	103.9	105.7	103.9	99.4	99.4	99.4
OPTIMUM MOISTURE (%)		13.2	13.4	13.2	13.4	15.9	15.9	15.9
PERCENT COMPACTION (%)		95.7	91.4	98.9	95.8	96.7	97.6	98.3
DIFFERENCE FROM OPTIMUM MOISTURE			(F)					
DENSITY RESULT PASS/FAIL (P/F)		P	(F)	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS: DAILY STANDARD COUNT:

(% STANDARD / MODIFIED PROCTOR): 95% DENSITYCOUNT: 44991

% OF OPTIMUM MOISTURE CONTENT: _____ MOISTURE COUNT: 8960

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-15-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		462	463	464	465	466	467	468
TEST LOCATION	NORTH	28° 3.684	28° 3.658	28° 3.686	28° 3.684	28° 3.702	28° 3.663	28° 3.644
	EAST	81° 5.993	81° 5.990	81° 5.995	81° 5.986	81° 5.988	81° 5.994	81° 5.994
TEST ELEVATION OR LIFT		7	7	7	7	7	7	8
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		110.0	111.8	117.1	107.6	112.2	107.8	111.5
MOISTURE (%)		13.6	14.4	19.5	11.1	14.9	10.8	11.6
DRY DENSITY (pcf)		96.8	97.7	98.0	96.8	97.7	97.2	100.0
LABORATORY PROCTOR CURVE NUMBER		GF-6	GF-6	GF-6	GF-6	GF-6	GF-6	GF-1
MAXIMUM DRY DENSITY (pcf)		99.4	99.4	99.4	99.4	99.4	99.4	103.9
OPTIMUM MOISTURE (%)		15.9	15.9	15.9	15.9	15.9	15.9	13.4
PERCENT COMPACTION (%)		97.4	98.3	98.6	97.4	98.3	97.8	96.2
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 44.991

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8960

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-16-20

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		469	470	471	472	473	474	475
TEST LOCATION	NORTH	28° 3.670	28° 3.646	28° 3.631	28°	28° 3.632	28° 3.625	28° 3.625
	EAST	81° 5.997	81° 5.993	81° 5.991	81°	81° 5.824	81° 5.848	81° 5.879
TEST ELEVATION OR LIFT		8				7	8	8
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		112.1	112.6	114.2	118.1	108.7	116.6	113.1
MOISTURE (%)		13.0	15.5	12.2	15.7	10.0	17.0	12.6
DRY DENSITY (pcf)		99.2	97.5	101.8	102.1	98.8	99.7	100.4
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-2	GF-2	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	105.7	105.7	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.2	13.2	13.4	13.4	13.4
PERCENT COMPACTION (%)		95.5	93.8	96.3	96.6	95.1	96.0	96.6
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	F	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 4528G

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8784

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-16-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: _____

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		476	477	478	479	480	481	482
TEST LOCATION	NORTH	28° 3.662	28° 3.684	28° 3.636	28° 3.662	28° 3.626	28° 3.622	28° 3.613
	EAST	81° 6.000	81° 5.993	81° 6.000	81° 6.000	81° 5.815	81° 5.830	81° 5.992
TEST ELEVATION OR LIFT		2	8	3	3	8	8	1
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		109.5	113.2	120.7	120.4	114.7	114.3	113.2
MOISTURE (%)		14.9	13.4	18.2	18.0	12.8	13.8	13.1
DRY DENSITY (pcf)		95.3	98.8	102.2	102.1	101.6	100.5	100.1
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-4	GF-4	GF-2	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	105.3	105.3	105.7	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	15.3	15.3	13.2	13.4	13.4
PERCENT COMPACTION (%)		91.7	95.1	97.1	97.0	96.1	96.7	96.3
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		(F)	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

(% STANDARD / MODIFIED PROCTOR): 95%

DENSITY COUNT: 4528

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8734

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-16-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		483	484	485	486	487	488	489
TEST LOCATION	NORTH	28° 3.623	28° 3.610	28° 3.658	28° 3.610	28° 3.614	28° 3.654	28° 3.663
	EAST	81° 5.993	81° 5.995	81° 5.990	81° 5.995	81° 5.996	81° 5.995	81° 5.994
TEST ELEVATION OR LIFT		2	3	8	3	4	8	8
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		113.9	107.2	114.6	114.2	117.4	117.2	118.5
MOISTURE (%)		14.0	18.2	15.1	14.9	15.3	15.4	15.8
DRY DENSITY (pcf)		99.9	90.7	99.5	99.4	101.8	101.5	102.3
LABORATORY PROCTOR CURVE NUMBER		CF-1	CF-1	CF-1	CF-1	CF-2	CF-2	CF-2
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9	105.7	105.7	105.7
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.4	13.4	13.2	13.2
PERCENT COMPACTION (%)		96.2	87.3	97.8	95.7	96.3	96.0	96.8
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	(F)	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITY COUNT: 45286

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8784

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-9-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		490	491	492	493	494	495	496
TEST LOCATION	NORTH	28°	28° 3.622	28° 3 584	28° 3 636	28° 3.662	28° 3.584	28° 3.613
	EAST	81°	81° 5. 830	81° 6.001	81° 6.000	81° 6.000	81° 6.001	81° 5.992
TEST ELEVATION OR LIFT		9	9	1	4	4	1	4
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		114.4	114.6	101.7	113.8	119.9	116.0	117.9
MOISTURE (%)		14.1	15.1	16.9	16.8	18.7	16.4	18.3
DRY DENSITY (pcf)		100.4	99.6	94.7	97.5	101.0	99.7	99.7
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-6	GF-6	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	99.4	99.4	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	15.9	15.9	13.4	13.4	13.4
PERCENT COMPACTION (%)		96.6	95.9	95.0	95.7	97.2	96.0	96.0
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 4533 97

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 891.2

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-16-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		497	498	499	500	501	502	503
TEST LOCATION	NORTH	28° 3.623	28° 3.610	28° 3.613	28° 3.636	28° 3.662	28° 3.613	28° 3.623
	EAST	81° 5.993	81° 5.995	81° 5.985	81° 6.000	81° 6.000	81° 5.992	81° 5.993
TEST ELEVATION OR LIFT		5	6	7	5	5	5	6
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		117.1	120.8	115.5	113.7	114.0	112.7	113.7
MOISTURE (%)		17.2	19.3	15.5	14.9	14.4	13.5	14.9
DRY DENSITY (pcf)		99.9	101.2	100.0	99.0	99.6	99.3	99.0
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-4	GF-1	GF-1	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	105.3	103.9	103.9	103.9	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	15.3	13.4	13.4	13.4	13.4	13.4
PERCENT COMPACTION (%)		96.2	96.1	96.2	95.3	95.9	95.6	95.3
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45286

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8784

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-13-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		504	505	506	507	508	509	500
TEST LOCATION	NORTH	28° 3.610	28°	28° 3.608	28° 3.588	28° 3.588	28° 3.662	28° 3.608
	EAST	81° 5.995	81°	81° 5.988	81° 5.992	81° 5.992	81° 6.000	81° 5.988
TEST ELEVATION OR LIFT		7		8	4	3	2	9
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		115.6	117.4	113.0	111.5	111.3	113.9	116.7
MOISTURE (%)		16.3	13.2	12.2	12.5	15.8	10.7	16.0
DRY DENSITY (pcf)		99.4	103.8	100.7	99.1	96.1	102.9	100.6
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-2	GF-1	GF-1	GF-1	GF-2	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	105.7	103.9	103.9	103.9	105.7	103.9
OPTIMUM MOISTURE (%)		13.4	13.2	13.4	13.4	13.4	13.8	13.4
PERCENT COMPACTION (%)		95.7	98.2	96.9	95.4	92.5	97.4	96.8
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	(F)	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

% STANDARD / MODIFIED PROCTOR: 95%

% OF OPTIMUM MOISTURE CONTENT: _____

DAILY STANDARD COUNT:

DENSITYCOUNT: 45397

MOISTURE COUNT: 8512

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-19-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		511	512	513	514	515	516	517
TEST LOCATION	NORTH	28°3.662	28°3.588	28°3.684	28°3.608	28°	28°	28°3.608
	EAST	81°6.000	81°5.992	81°5.993	81°5.988	81°	81°	81°5.988
TEST ELEVATION OR LIFT		7	4	EL 88	10			10
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		116.7	118.7	113.8	111.3	111.4	119.5	118.7
MOISTURE (%)		14.0	17.8	14.0	15.0	12.8	19.0	16.3
DRY DENSITY (pcf)		102.5	97.1	100.5	96.7	98.7	100.7	102.1
LABORATORY PROCTOR CURVE NUMBER		GF-2	GF-6	GF-1	GF-1	GF-1	GF-4	GF-2
MAXIMUM DRY DENSITY (pcf)		105.7	99.4	103.9	103.9	103.9	105.3	105.7
OPTIMUM MOISTURE (%)		13.2	15.9	13.4	13.4	13.4	15.3	13.2
PERCENT COMPACTION (%)		97.0	97.7	96.7	93.1	95.0	95.6	96.6
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	(F)	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45397

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8912

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-13-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KC

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		518	519	520	521	522	523	524
TEST LOCATION	NORTH	28° 3.684						
	EAST	81° 5.993						
TEST ELEVATION OR LIFT		2						3
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		113.4	118.1	118.2	113.8	114.5	111.3	110.1
MOISTURE (%)		13.5	16.2	20.2	15.1	14.7	11.2	12.6
DRY DENSITY (pcf)		99.9	101.6	98.3	98.9	99.9	100.2	97.8
LABORATORY PROCTOR CURVE NUMBER		CF-1	CF-2	CF-1	CF-1	CF-1	CF-1	CF-6
MAXIMUM DRY DENSITY (pcf)		103.9	105.7	103.9	103.9	103.9	103.9	99.4
OPTIMUM MOISTURE (%)		13.4	13.2	13.4	13.4	13.4	13.4	15.9
PERCENT COMPACTION (%)		96.2	96.1	94.6	95.2	96.2	96.4	98.4
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	(F)	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45397

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8912

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TEST: 4-2010

TESTED BY: KL

TEST NUMBER		525	526	527	528	529	530	531
TEST LOCATION	NORTH							
	EAST							
TEST ELEVATION OR LIFT		4	1	1	4	1	2	1
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		110.7	112.1	110.5	117.5	114.5	113.1	112.4
MOISTURE (%)		12.0	11.6	13.9	14.6	15.1	14.4	14.2
DRY DENSITY (pcf)		99.2	100.5	97.1	102.5	99.4	98.9	101.1
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-1	GF-2	GF-1	GF-1	GF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	105.7	103.5	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.2	13.4	13.4	13.4
PERCENT COMPACTION (%)		95.5	96.7	93.5	97.0	95.7	95.2	97.3
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	(F)	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

% STANDARD / MODIFIED PROCTOR: 95%

% OF OPTIMUM MOISTURE CONTENT: _____

DAILY STANDARD COUNT:

DENSITYCOUNT: 45646

MOISTURE COUNT: 8820

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

DATE OF TEST: 4-21-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		532	533	534	535	536	537	538
TEST LOCATION	NORTH							
	EAST							
TEST ELEVATION OR LIFT		2	1				1	
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		114.2	113.6	116.4	112.6	114.4	113.2	115.5
MOISTURE (%)		13.8	15.2	14.1	13.9	14.9	13.5	12.8
DRY DENSITY (pcf)		100.3	98.8	102.0	98.8	99.6	99.7	102.4
LABORATORY PROCTOR RVE NUMBER		CF-1	CF-1	CF-2	CF-1	CF-1	CF-1	CF-2
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	105.7	103.9	103.9	103.9	105.7
OPTIMUM MOISTURE (%)		13.4	13.4	13.2	13.4	13.4	13.4	13.2
PERCENT COMPACTION (%)		96.5	95.1	96.5	95.1	95.9	96.0	96.9
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 45144

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 8945

CHECKED BY: _____

DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-21-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: _____

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		539	540	541	542	543	544	545
TEST LOCATION	NORTH							
	EAST							
TEST ELEVATION OR LIFT		3	1	2	3	4	3	4
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		114.8	113.7	116.2	110.3	116.1	114.9	115.9
MOISTURE (%)		16.1	12.3	11.9	10.7	12.7	15.9	14.4
DRY DENSITY (pcf)		98.9	101.2	103.8	99.7	103.3	99.2	101.4
LABORATORY PROCTOR CURVE NUMBER		CF-1	CF-1	CF-2	CF-1	CF-2	CF-1	CF-1
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	105.7	103.9	105.7	103.9	103.9
OPTIMUM MOISTURE (%)		13.4	13.4	13.2	13.4	13.2	13.4	13.4
PERCENT COMPACTION (%)		95.2	97.4	98.2	96.0	97.7	95.5	97.6
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

% STANDARD / MODIFIED PROCTOR: 95%

% OF OPTIMUM MOISTURE CONTENT: _____

DAILY STANDARD COUNT:

DENSITYCOUNT: 45144

MOISTURE COUNT: 8745

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TEST: 4-22-10

TESTED BY: KL

TEST NUMBER		546	547	548	549	550	551	552
TEST LOCATION	NORTH							
	EAST							
TEST ELEVATION OR LIFT		4	5	5	6			
TEST DEPTH		6"	6"	6"	6"	6"	6"	6"
WET DENSITY (pcf)		113.3	114.6	116.9	110.8	114.0	116.5	117.8
MOISTURE (%)		11.8	14.3	15.1	12.5	14.4	14.1	15.2
DRY DENSITY (pcf)		101.3	100.2	101.6	98.5	99.7	102.0	102.3
LABORATORY PROCTOR CURVE NUMBER		GF-1	GF-1	GF-1	GF-1	GF-1	GF-2	GF-2
MAXIMUM DRY DENSITY (pcf)		103.9	103.9	103.9	103.9	103.9	105.7	105.7
OPTIMUM MOISTURE (%)		13.4	13.4	13.4	13.4	13.4	13.2	13.2
PERCENT COMPACTION (%)		97.5	96.4	97.8	94.8	96.0	96.5	96.8
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	(F)	P	P	P
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

% STANDARD / MODIFIED PROCTOR: 95%

% OF OPTIMUM MOISTURE CONTENT:

DAILY STANDARD COUNT:

DENSITYCOUNT: 44937

MOISTURE COUNT: 8768

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: A027.101 DATE OF TEST: 4-22-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction TESTED BY: KL

PROJECT LOCATION: Saint Cloud, Florida

TEST NUMBER		553	554	555	556	557		
TEST LOCATION	NORTH							
	EAST							
TEST ELEVATION OR LIFT								
TEST DEPTH		6"	6"	6"	6"	6"		
WET DENSITY (pcf)		116.0	112.2	113.6	116.0	111.3		
MOISTURE (%)		13.2	12.1	12.7	12.4	12.7		
DRY DENSITY (pcf)		102.4	100.1	100.8	103.3	98.7		
LABORATORY PROCTOR CURVE NUMBER		GF-2	GF-1	GF-1	GF-2	GF-1		
MAXIMUM DRY DENSITY (pcf)		105.7	103.5	103.5	105.7	103.9		
OPTIMUM MOISTURE (%)		13.2	13.4	13.4	13.2	13.4		
PERCENT COMPACTION (%)		96.9	96.3	97.0	97.7	95.0		
DIFFERENCE FROM OPTIMUM MOISTURE								
DENSITY RESULT PASS/FAIL (P/F)		P	P	P	P	P		
MOISTURE RESULT PASS/FAIL (P/F)								

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 95%

DENSITYCOUNT: 44937

% OF OPTIMUM MOISTURE CONTENT: _____

MOISTURE COUNT: 6768

CHECKED BY: _____ DATE: _____

ATLANTIC COAST CONSULTING, INC

APPENDIX B

GEOMEMBRANE FIELD LOGS

Primrose

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 5/24/2010

DEPLOYMENT MONITOR(S): _____

REVIEWED BY: _____

MATERIAL TYPE: _____

SHEET NUMBER: 1

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																						REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL							
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
1	P-1	212611	503	Y	61	60	61	61	60	61	60	61	60	61													
2	P-2	212481	505	Y	60	61	60	60	61	61	60	60	61	60													
3	P-3	212620	501	Y	61	60	61	61	62	60	61	60	61	60													
4	P-4	212477	493	Y	60	61	60	60	60	61	61	61	60	60													
5	P-5	212480	502'	Y	60	61	61	61	60	60	60	60	61	60													
6	P-6	212621	503'	Y	60	61	62	62	61	62	61	61	61	61													
7	P-7	212591	507'	Y	60	61	61	61	60	61	60	61	60	61													
8	P-8	212588	505'	Y	61	62	61	61	61	60	61	60	60	60													
9	P-9	212592	502'	Y	62	61	61	60	60	60	60	60	61	60													
10	P-10	212585	503'	Y	61	61	61	61	61	60	60	61	61	61													
11	P-11	212586	508'	Y	61	61	60	61	60	61	60	61	60	62													
12	P-12	212726	507	Y	62	61	60	60	60	61	60	60	60	61													
13	P-13	212482	506'	Y	63	62	61	61	60	60	60	60	61	60													
14	P-14	212584	507'	Y	61	62	62	61	60	60	60	60	61	60													
15	P-15	212587	506'	Y	61	61	61	60	61	60	61	60	61	61													
16	P-16	212500	506'	Y	60	61	60	60	60	61	60	61	60	62													
17	P-17	212483	508'	Y	61	60	60	60	61	60	60	60	60	60													
18	P-18	212590	507'	Y	61	60	60	60	60	60	61	60	60	61													
19																											
20																											
21																											
22																											
23																											
24																											
25																											

ATLANTIC COAST CONSULTING, INC

Primm

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 5/25/16

DEPLOYMENT MONITOR(S): _____

REVIEWED BY: _____

MATERIAL TYPE: 60 mil.

SHEET NUMBER: 1

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																						REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL							
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
1	19	212598	505	Y	61	60	60	61	60	61	61	62	61	60													
2	20	212605	507	Y	61	60	61	60	61	60	61	61	62	61													
3	21	212501	505	Y	61	61	60	60	60	60	60	60	60	61													
4	22	212509	501	Y	60	61	60	61	60	60	60	60	60	61													
5	23	212599	500	Y	60	60	60	62	60	61	60	61	61	61													
6	24	212608	507	Y	60	61	60	61	61	60	60	60	60	61													
7	25	212502	508	Y	61	60	61	60	60	61	60	60	61	60													
8	26	212604	504	Y	60	61	60	61	60	61	60	60	60	61													
9	27	212610	507	Y	60	61	60	60	60	61	61	62	61	60													
10	28	212609	507	Y	61	61	61	60	61	60	61	60	61	60													
11	29	213105	508	Y	60	61	60	61	60	60	60	60	61	60													
12	30	212741	505	Y	61	60	60	62	61	60	60	60	61	61													
13	31	212603	504	Y	60	61	60	61	60	60	60	60	60	60													
14																											
15																											
16																											
17																											
18																											
19																											
20																											
21																											
22																											
23																											
24																											
25																											

ATLANTIC COAST CONSULTING, INC

Primary

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 5/26/2010

DEPLOYMENT MONITOR(S):

REVIEWED BY:

MATERIAL TYPE: 60 mil.

SHEET NUMBER: 1

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																					REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL					
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
1	P-32	212607	505'	Y	61	60	60	61	60	60	60	61	60	60											
2	P-33	212731	507'	Y	61	60	60	60	61	60	61	60	61	61											
3	P-34	213108	560	Y	60	60	60	61	60	61	60	60	60	62											
4	P-35	212606	502	Y	62	61	60	60	60	60	60	60	60	61											
5	P-36	212736	500'	Y	61	60	61	61	61	60	60	60	61	60											
6	P-37	212734	75'	Y	60	61	60	61	62	61	60	61	61	62											
7	P-38	"	75'	Y	60	61	60	60	60	60	60	61	61	62											
8	P-39	"	75'	Y	60	61	60	61	61	61	60	60	61	60											
9	P-40	"	75'	Y	61	60	61	61	62	60	61	61	61	60											
10	P-41	"	75'	Y	62	61	60	61	60	60	60	60	60	60											
11	P-42	"	74'	Y	61	60	60	60	60	60	60	61	61	60											
12	P-43	213101	73'	Y	63	61	61	60	60	61	60	60	60	60											
13	P-44	"	73'	Y	61	61	60	60	61	61	60	60	60	60											
14	P-45	"	73'	Y	62	61	61	60	60	60	60	61	61	62											
15	P-46	"	76'	Y	61	60	60	60	61	61	61	62	61	60											
16	P-47	"	48'	Y	62	61	61	61	62	60	61	62	61	60											
17	P-48	"	52'	Y	61	60	60	60	61	60	60	60	60	60											
18	P-49	212734	52'	Y	62	61	60	60	61	60	60	60	60	60											
19	P-50	3101	54'	Y	61	60	60	61	62	60	60	60	61	61											
20	P-51	212738	68	Y	60	60	60	60	60	61	61	62	60	60											
21	P-52	"	68'	Y	60	61	61	61	61	61	60	60	60	60											
22	P-53	"	68	Y	61	60	61	60	62	60	60	61	61	60											
23	P-54	"	68	Y	60	60	61	61	61	60	61	61	61	61											
24	P-55	"	68	Y	60	60	60	61	61	61	60	60	62	62											
25	P-56	"	68	Y	60	60	60	60	61	60	61	61	62	63											

5/26/10

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 5/26/2010

DEPLOYMENT MONITOR(S):

REVIEWED BY:

MATERIAL TYPE: 60 mil.

SHEET NUMBER: 2

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																						REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL							
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
1	P-57	2738	68'	Y	61	60	60	61	60	61	61	60	60	60													
2	P-58	213111	69'	Y	60	60	61	61	61	60	60	61	60	60													
3	P-60	213111	53'	Y	61	60	60	60	62	61	61	62	60	61													
4	P-61	"	45'	Y	60	62	61	60	61	62	60	60	61	61													
5	P-62	"	32'	Y	60	61	61	60	61	61	60	62	61	60													
6	P-63	"	44'	Y	61	61	62	60	60	60	60	61	61	60													
7	P-64	"	87'	Y	62	61	60	60	61	60	61	61	60	60													
8	P-65	"	502	Y	61	60	60	60	60	61	60	60	61	61													
9	P-66	212729	68'	Y	60	60	61	61	60	60	61	61	60	60													
10	P-67	2729	67'	Y	60	61	62	60	61	60	60	62	60	61													
11	P-68	"	68'	Y	60	60	61	60	61	61	60	61	61	60													
12	P-69	"	68'	Y	61	61	62	61	60	60	60	60	60	61													
13	P-70	"	68'	Y	60	61	62	61	61	61	62	61	60	61													
14	P-71	"	70'	Y	60	61	61	61	61	62	62	61	61	60													
15	P-72	3111	71'	Y	60	60	61	61	60	60	62	61	61	61													
16	P-73	"	70	Y	60	60	61	61	62	61	60	60	60	60													
17																											
18																											
19																											
20																											
21																											
22																											
23																											
24																											
25																											

primary

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 6/2/2010

DEPLOYMENT MONITOR(S):

REVIEWED BY:

MATERIAL TYPE:

SHEET NUMBER: 1

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																					REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL					
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
1	P-74	213102	68'	X	60	61	60	61	60	61	60	61	61	60											
2	P-75	"	72'	Y	61	60	61	61	61	61	61	61	60	60											
3	P-76	"	72'	Y	60	60	62	60	60	60	60	61	61	61											
4	P-77	"	72'	Y	61	61	60	61	61	60	62	61	60	60											
5	P-78	"	72'	Y	61	62	61	60	61	61	61	61	60	60											
6	P-79	"	72'	Y	60	61	60	61	62	60	61	62	61	60											
7	P-80	213110	72	Y	60	61	60	61	62	61	60	60	60	61											
8	P-81	"	71	Y	61	60	60	60	61	61	60	61	60	61											
9	P-82	"	71	Y	61	60	60	60	61	62	60	60	60	60											
10	P-83	"	71	Y	60	60	61	60	60	62	60	60	60	61											
11	P-84	"	71	Y	61	60	60	60	61	61	61	60	60	62											
12	P-85		71	Y	61	60	60	60	61	60	61	60	60	60											
13	P-86	"	71	Y	60	61	60	61	60	60	60	61	61	60											
14	P-87	213107	71	Y	61	62	61	61	60	60	60	61	62	61											
15	P-88	"	71	Y	60	61	62	61	60	61	60	61	60	62											
16	P-89	"	316	Y	61	60	61	60	60	60	60	61	60	60											
17	P-90	"	25'	Y	61	60	60	60	60	61	62	61	61	61											
18	P-91	213112	70	Y	61	61	60	61	61	62	62	60	60	62											
19	P-92	"	70	Y	60	60	60	62	62	61	61	60	61	60											
20	P-93	"	71	Y	60	61	60	62	60	61	60	61	62	61											
21	P-94	"	71	Y	61	61	61	61	60	62	61	61	60	61											
22	P-95	"	71	Y	62	60	61	60	60	61	60	61	61	60											
23	P-96	"	70	Y	61	61	60	60	60	61	60	60	61	61											
24	P-97	"	68'	Y	61	62	61	60	60	61	60	60	60	60											
25	P-98	"	65'	Y	61	60	61	61	61	60	61	61	61	61											

Primary

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 6/2/2010

DEPLOYMENT MONITOR(S):

REVIEWED BY:

MATERIAL TYPE:

SHEET NUMBER: 2

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																						REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL							
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
1	P-98	213106	65	Y	60	60	61	60	61	60	61	60	60	61													
2	P-99	213106	64	Y	61	61	60	60	60	60	60	61	60	61													
3	P-100	11	64	Y	60	60	60	61	60	61	60	60	62	60													
4	P-101	3106	64	Y	61	60	60	60	60	62	60	62	61	61													
5	P-102		31	Y	60	60	61	60	61	61	60	60	60	62													
6	P-103		23		60	60	60	61	62	61	61	61	60	61													
7	P-104		8		61	61	60	60	61	62	62	60	60	62													
8	P-105		27		62	61	62	61	60	61	61	62	60	61													
9	P-106		60		61	60	60	61	60	61	61	60	61	62													
10	P-107		60		62	61	61	60	61	62	60	61	60	61													
11	P-108		49		61	62	62	62	60	61	61	62	61	60													
12	P-109		61		60	61	60	61	61	62	62	60	61	60													
13	P-110	212735	62		61	62	60	61	60	61	60	61	60	61													
14	P-111		61		60	60	62	61	61	61	61	61	60	60													
15	P-112		60		61	61	61	62	61	62	60	61	60	61													
16	P-113		60		60	60	60	62	60	60	60	60	61	62													
17	P-114	213112	30	Y	61	61	61	62	61	61	60	61	61	60													
18	P-115	212735	61	Y	60	62	61	61	60	61	61	62	62	64													
19	P-116	11	62		61	60	61	62	61	60	61	60	61	62													
20																											
21																											
22																											
23																											
24																											
25																											

primary

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 6/3/2010

DEPLOYMENT MONITOR(S): _____

REVIEWED BY: _____

MATERIAL TYPE: _____

SHEET NUMBER: 1

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																						REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL						
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
1	P-117	213104	275'	Y	61	60	61	62	61	60	60	60	60	61												
2	P-118	"	190'	Y	60	60	61	61	62	61	60	60	60	61												
3	P-119	213109	35'	Y	61	61	60	60	60	62	60	61	60	61												
4	P-120	213109	68	Y	60	60	60	60	60	61	60	62	61	61												
5	P-121	"	68	Y	60	61	61	60	61	61	62	60	61	62												
6	P-122	"	70	Y	61	62	60	60	60	61	60	61	62	61												
7	P-123	"	50	Y	62	61	61	60	60	60	60	60	61	60												
8	P-124	"	65	Y	61	62	61	60	60	61	61	60	60	60												
9	P-125	"	64	Y	60	60	61	61	60	61	60	60	60	60												
10	P-126	"	60	Y	61	62	62	62	60	62	60	60	62	61												
11	P127	212618	48'	Y	61	61	61	60	61	60	61	60	61	61												
12	P128	"	48	Y	61	61	61	61	60	61	61	61	61	62												
13	P129	"	48	Y	61	62	61	60	60	60	60	61	61	61												
14	P130		48	Y	61	60	61	61	60	61	61	60	60	61												
15	P131		48	Y	62	60	60	60	61	62	61	60	61	60												
16	P132		30	Y	61	60	61	60	60	61	62	61	60	60												
17	P133		10	Y	60	60	60	61	61	62	61	60	60	61												
18	P134		20	Y	61	60	60	61	61	61	60	61	60	60												
19	P135		21	Y	61	61	60	60	60	60	61	60	60	61												
20	P136	↓	125'	Y	62	61	60	60	60	61	61	61	62	61												
21	P137	"	20'	Y	61	61	60	60	60	61	60	61	60	61												
22	P138	"	23	Y	61	62	61	61	60	61	61	60	61	60												
23	P-139	"	80'	Y	61	60	60	60	61	60	60	60	61	60												
24																										
25																										

ATLANTIC COAST CONSULTING, INC

Primary

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 5/24/10

TF - # = FUSION SEAM: ✓

TX - # = EXTRUSION SEAM: ✓

REVIEWED BY: _____

SHEET NUMBER: _____

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE			OUTSIDE PEEL STRENGTH/MODE			SHEAR STRENGTH/MODE			PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
							1	2	3	1	2	3	1	2	3			
TF-1	7:00	A013	HB	70°	10	820	151	122	119	115	130	117	189	193	196	P	DR	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TF-2	07:11	A089	AR	70°	15	830	131	115	142	124	130	124	188	194	190	P	DR	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TF-3	0720	A056	RA	70°	55	800	114	126	123	121	119	127	165	161	157	P	PR	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TF-4	1320	A056	RA	90°	60	820	99	110	100	104	102	119	180	185	188	P	DR	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TF-5	13:33	A013	HB	90°	10	820	117	119	120	125	118	116	180	181	185	P	DR	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TF-6	13:40	A089	AR	90°	15	830	120	119	124	117	115	126	172	177	181	P	DR	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TX-1	1534	A036	TM	90°	460	450	110	102	119				161	166	169	P	DR	
							SE	SE	SE				BrK	BrK	BrK			

Primary

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 5/25/2010

TF - # = FUSION SEAM:

TX - # = EXTRUSION SEAM:

REVIEWED BY:

SHEET NUMBER: 1

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE 1	INSIDE PEEL STRENGTH/MODE 2	INSIDE PEEL STRENGTH/MODE 3	OUTSIDE PEEL STRENGTH/MODE 1	OUTSIDE PEEL STRENGTH/MODE 2	OUTSIDE PEEL STRENGTH/MODE 3	SHEAR STRENGTH/MODE 1	SHEAR STRENGTH/MODE 2	SHEAR STRENGTH/MODE 3	PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
TF-1	0720	A056	RA	72°	60	820	114	134	118	136	116	121	170	171	189	P	DC	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TF-2	0738	A013	HOP	73°	11	820	125	140	127	130	131	128	184	177	172	P	DC	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TF-3	0810	A089	RA	74°	15	830	117	119	121	125	121	123	185	191	181	P	DC	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			

Primary

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 5/26/2010

TF - # = FUSION SEAM: ✓

TX - # = EXTRUSION SEAM: ✓

REVIEWED BY:

SHEET NUMBER:

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE			OUTSIDE PEEL STRENGTH/MODE			SHEAR STRENGTH/MODE			PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
							1	2	3	1	2	3	1	2	3			
TF-1	0727	A056	WE	69°	60	820	113	111	121	124	128	119	190	193	198	P	DR	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TF-2	0733	A089	WE	69°	15	830	126	120	122	113	121	130	177	179	179	P	DR	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TF-3	0800	A013	WED	70°	8	820	120	122	124	118	125	121	175	178	180	P	AR	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TX-1	10:06	A006	AK	80°	/	500	131	128	131				177	179	182	P	AR	
							SE	SE	SE				BrK	BrK	BrK			
TF-4	13:25	A013	AKD	88°	9	820	111	114	113	103	108	112	183	186	180	P	DR	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TF-5	13:40	A056	WE	88°	70	820	112	111	119	107	112	107	171	176	179	P	DR	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TX-2	13:48	A006	AK	90°	/	495	129	133	128				168	176	179	P	AR	
							SE	SE	SE				BrK	BrK	BrK			

ATLANTIC COAST CONSULTING, INC

Primary

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 5/27/10

TF - # = FUSION SEAM: ____

TX - # = EXTRUSION SEAM: ✓

REVIEWED BY: ____

SHEET NUMBER: 1

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE 1	2	3	OUTSIDE PEEL STRENGTH/MODE 1	2	3	SHEAR STRENGTH/MODE 1	2	3	PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
TX-1	0800	A006	SMT	72	✓	480	127	131	134				171	170	176			
							SE	SE	SE				BrK	BrK	BrK	P	DR	
TX-2	0810	A068	EH	72	✓	485	125	127	132				175	177	178			
							SE	SE	SE				BrK	BrK	BrK	P	DR	
TX-3	0820	A036	FM	72	✓	475	131	135	136				176	172	179			
							SE	SE	SE				BrK	BrK	BrK	P	DR	
TX-4	13:15	A036	FM	88°	✓	475	149	139	133				180	184	181			
							SE	SE	SE				BrK	BrK	BrK	P	DR	
TX-5	13:22	A068	JA	88°	✓	485	139	136	149				184	199	195			
							SE	SE	SE				BrK	BrK	BrK	P	DR	

Primary

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 5/28/2010

TF - # = FUSION SEAM: _____

TX - # = EXTRUSION SEAM: ✓

REVIEWED BY: _____

SHEET NUMBER: _____

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE 1	INSIDE PEEL STRENGTH/MODE 2	INSIDE PEEL STRENGTH/MODE 3	OUTSIDE PEEL STRENGTH/MODE 1	OUTSIDE PEEL STRENGTH/MODE 2	OUTSIDE PEEL STRENGTH/MODE 3	SHEAR STRENGTH/MODE 1	SHEAR STRENGTH/MODE 2	SHEAR STRENGTH/MODE 3	PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
T+-1	0742	A036	FM	71°	/	475	112	115	123				180	184	189			
							SE	SE	SE				BRK	BRK	BRK	P	DR	
T+2	0755	A006	AR	72°	/	495	119	128	124				181	182	191			
							SE	SE	SE				BRK	BRK	BRK	P	DR	
T-3	0810	A068	~	72°	/	485	126	131	141				179	186	184			
							SE	SE	SE				BRK	BRK	BRK	P	DR	
Tx-4	1315	A006	CM	90°	/	475	117	120	127				178	183	188			
							SE	SE	SE				BRK	BRK	BRK	P	DR	

Primary

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 6/2/2010

TF - # = FUSION SEAM: ✓

TX - # = EXTRUSION SEAM:

REVIEWED BY:

SHEET NUMBER: 1

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE			OUTSIDE PEEL STRENGTH/MODE			SHEAR STRENGTH/MODE			PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
							1	2	3	1	2	3	1	2	3			
TF-1		A013	HEP	73°	11	820	117	121	128	116	118	122	178	188	191	P	RL	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			
TF-2		A089	AR	73°	15	830	121	118	121	119	121	125	181	185	193	P	RL	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			
TF-3		A089	AR	90°	15	830	115	117	123	119	121	127	188	192	195	P	RL	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			
TF-4		A013	HEP	90°	11	820	119	125	123	117	126	124	187	190	195	P	RL	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			

Primary

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 6/3/2010

TF - # = FUSION SEAM:

TX - # = EXTRUSION SEAM:

REVIEWED BY:

SHEET NUMBER: 1

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE 1	INSIDE PEEL STRENGTH/MODE 2	INSIDE PEEL STRENGTH/MODE 3	OUTSIDE PEEL STRENGTH/MODE 1	OUTSIDE PEEL STRENGTH/MODE 2	OUTSIDE PEEL STRENGTH/MODE 3	SHEAR STRENGTH/MODE 1	SHEAR STRENGTH/MODE 2	SHEAR STRENGTH/MODE 3	PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
TF-1	0649	A089	AR	72°	14	830	109	115	124	110	115	128	173	174	179			
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK	P	DR	
TF-2	700 ~~A013~~	A013	HER	72°	11	820	112	121	128	122	133	128	185	186	188			
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK	P	DC	
TX-1	10:07	A036	FM	80°	475	470	135	148	151				180	181	185			
							SE	SE	SE				BRK	BRK	BRK	P	DC	
TX-2	11:10	A068	MR	89°	/	450	138	150	148				181	180	181			
							SE	SE	SE				BRK	BRK	BRK	P	DC	
TX-3	11:20	A066	LA	88°	/	450	131	141	144				178	181	183			
							SE	SE	SE				BRK	BRK	BRK	P	DR	

Primary

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 6/4/2010

TF - # = FUSION SEAM:

TX - # = EXTRUSION SEAM: ✓

REVIEWED BY:

SHEET NUMBER: 1

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE 1	2	3	OUTSIDE PEEL STRENGTH/MODE 1	2	3	SHEAR STRENGTH/MODE 1	2	3	PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
TX-1	6:50	A006	LA	70	✓	480	137	147	156				199	201	200			
							SE	SE	SE				BrK	BrK	BrK	P	DR	
TX2	7:00	A068	AR	70	✓	450	152	150	159				187	181	194			
							SE	SE	SE				BrK	BrK	BrK	P	DR	
TX-3	7:09	A036	FM	70	✓	470	119	117	119				185	196	231			
							SE	SE	SE				BrK	BrK	BrK	P	DR	
TX-4	13:07	A068	AR	89°	✓	450	144	153	153				178	185	196			
							SE	SE	SE				BrK	BrK	BrK	P	DR	
TX-5	13:20	A006	LA	88°	✓	480	141	148	153				183	185	185			
							SE	SE	SE				BrK	BrK	BrK	P	DR	
TX-6	13:28	A036	FM	88°	✓	480	139	151	148				180	191	193			
							SE	SE	SE				BrK	BrK	BrK	P	DR	

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 6/7/10

TF - # = FUSION SEAM:

TX - # = EXTRUSION SEAM: 2

REVIEWED BY:

SHEET NUMBER:

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE 1	2	3	OUTSIDE PEEL STRENGTH/MODE 1	2	3	SHEAR STRENGTH/MODE 1	2	3	PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
TX-1	0805	A036	FM	74°	/	475°	142	150	161			/	179	188	192	P	DR	
							SE	SE	SE	/	/		BrK	BrK	BrK			
TX-2	13:15	A036	FM	90°	/	475	150	155	160			/	183	185	188	P	DR	
							SE	SE	SE	/	/		BrK	BrK	BrK			

Primary

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 6/8/10

TF - # = FUSION SEAM:

TX - # = EXTRUSION SEAM: ✓

REVIEWED BY:

SHEET NUMBER:

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE			OUTSIDE PEEL STRENGTH/MODE			SHEAR STRENGTH/MODE			PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
							1	2	3	1	2	3	1	2	3			
TX-1	1315	A036	KM	88°	/	475°	141 SE	150 SE	151 SE	/	/	/	181 BrK	185 BrK	193 BrK	P	DK	

primary

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 6/10/2010

TF - # = FUSION SEAM: ✓

TX - # = EXTRUSION SEAM: ✓

REVIEWED BY:

SHEET NUMBER: 1

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE 1	INSIDE PEEL STRENGTH/MODE 2	INSIDE PEEL STRENGTH/MODE 3	OUTSIDE PEEL STRENGTH/MODE 1	OUTSIDE PEEL STRENGTH/MODE 2	OUTSIDE PEEL STRENGTH/MODE 3	SHEAR STRENGTH/MODE 1	SHEAR STRENGTH/MODE 2	SHEAR STRENGTH/MODE 3	PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
TF-1	10:29	A013	AP	82°	10	820	119	109	116	120	119	119	172	180	186	P	DR	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TX-1	13:39	A036	AK	91°	/	500	119	116	128				180	186	180	P	DR	
							SE	SE	SE				BrK	BrK	BrK			

REMARK

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 6-10-10

FUSION SEAM: V

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: 013

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 322

SHEET NUMBER:

P138 P139

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	[redacted]		WEDS	EEDS	1038	H.E.P	9.0	820°	80'	402					
2	P50	P139	EEDS	WEDS	1055	1	1	1	75'	477					
3															
4															
5															
6															
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19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 155'

DESTRUCTIVE LENGTH CARRY - OVER: 477'

ATLANTIC COAST CONSULTING, INC

PRIMARY

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 6-10-10

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: 0809

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 314

SHEET NUMBER:

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	P46	P138	WEOS	EEOS	1130	AR	14	800°	76	390					
2	P36	P138	SEOS	NEOS	13:05	AR	"	"	22	412					
3	P36	P139	"	"	13:12	AR	"	"	22	434					
4															
5															
6															
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20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 120'

DESTRUCTIVE LENGTH CARRY - OVER: 434'

ATLANTIC COAST CONSULTING, INC

PRIMARY A056

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5/25/2010

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A056

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 310

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
1	P18	P19	SEOS	NEOS	0724	MWE	6	820	507'	450/375	DP-20	KL	132' N9		
4 2	P-21	P-22	"	"	0831	"	6	820	510	450/436	DP-23		75' N		
7 3	P25	P26	"	"	0932	"	"	"	500	475/400	DP-27		40' N		
11 4	P-28	P-29	"	"	10:30	"	"	"	507	475/492	DP-32		15' N		
5	P-26	P-29	"	"	0845	"	"	"	/	350/142	DP-40		350'		
6															
7															
8															
9															
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20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 2024

DESTRUCTIVE LENGTH CARRY - OVER: 142

ATLANTIC COAST CONSULTING, INC

PRIMARY A013

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5/25/10

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A013

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 311

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
2 1	P19	P20	SE05	NE05	0733	CHL	11	820	505	450/366	DP-21		139'N		
5 -2	P22	P23	"	"	0835	"	"	820	508	450/424	DP-24		84'N		
8 3	P24	P-25	"	"	0935	"	"	"	500	475/474	DP-26		26'W		
10 4	P27	P-28	"	"	10:23	"	"	"	507'	496/496	DP-30		10'N		
5	P29	P-30	"	"		"	"	"		400/96	DP-31		400'		
13 6	P-30	P-31	"	"	11:16				505'	450/151	DP-34		354'		
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 2525

DESTRUCTIVE LENGTH CARRY - OVER: 151

ATLANTIC COAST CONSULTING, INC

PRIMARY A089

GEOMEMBRANE SEAM LOG

OJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5/25/10

FUSION SEAM:

EXTRUSION SEAM:

MACHINE NUMBER: A089

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 401

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
3 1	P20	P21	SEOS	NEOS	0758	AR	15	830	508'	450/459	DP-22	KL	49'		
6 2	P23	P-24	"	"	0857	"	"	"	500'	475/484	DP-25	KL	16'		
3	P-23	P-24	"	"		"	"	"		400/484	DP-26	KL	400'		
9 4	P-26	P-27	"	"	1000'	"	"	"	503'	450/366	DP-29	KL	137'		
12 5	P-29	P-30	"	"	1044				508	450/424	DP-33	KL	84'		
6															
7															
8															
9															
10															
11															
12															
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14															
15															
16															
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18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 2019

DESTRUCTIVE LENGTH CARRY - OVER: 424

ATLANTIC COAST CONSULTING, INC

A056 Prima

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5/26/10

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A056

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 42

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
1	P-34	P-35	SEOS	NEOS	0727	R.A.	60	820	504'	475/171'	DP-38	KL	373		
5 2	P-37	P-38	EEOS	WEOS	0844	"	60	820	731	244					
6 3	P-38	P-39	"	"	0903	"	"	"	74'	318					
7 4	P-39	P-40	"	"	0913	"	"	"	731	391					
8 5	P40	P41	"	"	0930	"	"	"	761	467/0	DP-41		75'		
9 6	P41	P42	"	"	0945	"	"	"	771	77					
10 7	P-42	P-43	"	"	0958	"	"	"	731	150					
12 8	P-43	P-44	"	"	10:12	"	"	"	721	222					
13 9	P-44	P-45	"	"	10:23	"	"	"	701	242					
15 10	P-45	P-46	"	"	10:38	"	"	"	201	262					
14 11	P-50	P-51	"	"	10:55	"	"	"	681	330					
18 12	P-51	P-52	"	"	11:06	"	"	"	681	348					
19 13	P-52	P-53	"	"	11:15	"	"	"	681	465/1	DP-42		67'		
20 14	P-53	P-54	"	"	11:22	"	"	"	681	69					
22 15	P-55	P-56	"	"	11:32	"	"	"	681	137					
24 16	P56	P-57	"	"	11:43	"	"	"	681	205					
25 17	P 54	P 55	"	"	1148	"	"	"	69	273					
29 18	P-57	P-58	"	"	1310	"	70	820°	69	342					
32 19	P-58	P-59			1316	"	↓	↓	69	411					
38 20	P-59	P-63	EEOS	WOOS	1336	"			12	423					
39 21	P-59	P-60	"	"	1339	"			51	450/29	DP-43		29'		
40 22	P-60	P-63	SEOS	NEOS	1346	"			18	47					
									DAILY TOTAL FOR WELDED SEAM:	1862					
									DESTRUCTIVE LENGTH CARRY - OVER:	47					

ATLANTIC COAST CONSULTING, INC

A ORIG

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5/26/10

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A089

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 424

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1															
-2 2	P-33	P-34	"	"	0727	AR	"	"	505'	425/454	DP-37		3" N		
-3 3	P-35	P-36	"	"	0813	"	15	0300	508	475/481	DP-39		21 N		
4															
5															
6															
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19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 1007

DESTRUCTIVE LENGTH CARRY - OVER: 481

ATLANTIC COAST CONSULTING, INC

A013

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5/26/10

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A013

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 151

SHEET NUMBER: 1

	LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
-4	1	P-32	P-33	SEOS	NEOS	0825	HEP	18	820	450'	450/151	DP35	KL	299		
-11	2	P-31	P-32	"	"	10:05	"	"	"	450	450/299	DP-36	KL	151'		
-16	3	P-47	P-49	SEOS	NEOS	1040	"	"	"	22'	321		KL			
-17	4	P-47	P-48	SEOS	NEOS	1105	"	"	"	22'	343		KL			
-21	5	P-48	P-49	WEOS	NEOS	1125	"	"	"	52'	395		KL			
-23	6	P-36	P-46	NEOS	SEOS	1135	"	10	"	52	447		KL			
-26	7	P-36	P 45	NEOS	SEOS	1301		10	"	22	469		KL			
-27	8	P-36	P 44			1305		"	"	22	475/16	DS-40	KL			
-28	9	P-36	P 43			1308		"	"	22	38		KL			
-30	10	P-36	P 42			1311		"	"	22	60		KL			
-31	11	P-36	P 41			1315		"	"	22	82		KL			
-33	12	P-36	P 40			1317		"	"	22	104		KL			
-34	13	P-36	P-39			1320		"	"	22	126		KL			
-35	14	P-36	P-38			1323		"	"	22	148		KL			
-36	15	P-36	P-37			1325		"	"	22	170		KL			
-37	16	P-36	P-47			1330		"	"	44	214		KL			
-43	17	P-61	P-62			1405		"	"	34	258		KL			
-45	18	P-62	P-63			1412		"	"	5	263		KL			
-46	19	P-61	P-63			1415		"	"	21	284		KL			
-47	20	P-63	P-64			1422				47	331		KL			
	21	P-59	P-64							22	353		KL			
	22	P 58	P-64							18	371		KL			
										DAILY TOTAL FOR WELDED SEAM:	1437					
										DESTRUCTIVE LENGTH CARRY - OVER:			371			

ATLANTIC COAST CONSULTING, INC

PRIMARY A056

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-26-10

FUSION SEAM: ✓

EXTRUSION SEAM:

MACHINE NUMBER: A056

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 47

SHEET NUMBER:

	LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
-41	1	P-60	P-61	E EOS	W EOS	1347	R.A.	7.0	820°	45	92					
-42	2	P-64	P-66	S EOS	N EOS	1400				68	160					
-44	3	P-66	P-67	S EOS	N EOS	1418				68	228					
-48	4	P-67	P-68	S EOS	N EOS	1423				68	296					
-49	5	P-68	P-69			1433				68	364					
-53	6	P-69	P-70			1445				68	432					
-57	7	P-70	P-71			1452				70	475/27	DP-45		43'		
-60	8	P-71	P-72			1502				71	98					
-62	9	P-72	P-73			1510				70	168					
-66	10	P-73	P-64			1520				18	186					
-68	11	P-72	P-65			1522				22	208					
-70	12	P-71	P-65			1524				22	230					
-71	13	P-70	P-65			1526				22	252					
-73	14	P-69	P-66			1528				22	274					
-74	15	P-68	P-65			1530				22	296					
-76	16	P-67	P-65			1532				22	318					
-78	17	P-64	P-65	↓	↓	1535	↓	↓	↓	22	340					
	18															
	19															
	20															
	21															
	22															

DAILY TOTAL FOR WELDED SEAM: 768

DESTRUCTIVE LENGTH CARRY - OVER: 340

ATLANTIC COAST CONSULTING, INC

PRIMARY A0'3

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-26-10

FUSION SEAM:

EXTRUSION SEAM:

MACHINE NUMBER: A013

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 371

SHEET NUMBER:

	LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
-50	1	P36	58	N005	SE05	1438	H.E.R	10	620°	4	375		KL			
-51	2	P-36	57			1440				22	397		KL			
-52	3	P-36	56			1443				22	419		KL			
-54	4	P-36	55			1446				22	441		KL			
-55	5	P-36	54			1449				22	450/13	DP 44	KL	9'		
-56	6	P-36	53			1452				22	35					
-58	7	P-36	52			1458				22	57					
-59	8	P-36	51			1501				22	79					
-61	9	P-36	50			1508				22	101					
-63	10	P-12	P-65			1512				22	123					
-64	11	P-13	P-65			1515				22	145					
-65	12	P-14	P 65			1518				22	167					
-67	13	P-15	P 65			1521				22	189					
-69	14	P-16	P 65			1524				22	211					
-72	15	P-17	P 65			1527				22	233					
-75	16	P-18	P 65			1531				22	255					
-77	17	P-19	P 65			1535				22	277					
-79	18	P-20	P-65			1537				22	299					
-80	19	P-21	P-65			1541				22	321					
-81	20	P-22	P-65			1543				22	343					
-82	21	P-23	P-65			1546				22	365					
-83	22	P-24	P-65			1550				22	387					
										466						

DAILY TOTAL FOR WELDED SEAM:

DESTRUCTIVE LENGTH CARRY - OVER: 387

ATLANTIC COAST CONSULTING, INC

PRIMARY A 3

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-26-10

FUSION SEAM:

EXTRUSION SEAM:

MACHINE NUMBER: A013

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 387

SHEET NUMBER:

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	P-25	P-65	WEDGE	WEDGE	1553	HEP	10.	820°	22	409		KL			
2	P-26	P-65			1555				22	431		KL			
3	P-27	P-65			1558				22	453		KL			
4	P-28	P-65			1601				22	475/0	DP-46	KL			
5	P-29	P-65			1604				22	22		KL			
6	P-30	P-65			1607				22	44		KL			
7	P-33	P-65			1609				22	66		KL			
8	P-34	P-65			1612				22	88		KL			
9	P-35	P-65			1615				22	110		KL			
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 198

DESTRUCTIVE LENGTH CARRY - OVER: 110

ATLANTIC COAST CONSULTING, INC

A013 Primary

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 6/2/10

FUSION SEAM:

EXTRUSION SEAM:

MACHINE NUMBER: A013

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 109

SHEET NUMBER: 2

LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
1	P-96	P-97	SEOS	NEOS	11:15	HEI	11	820	68'	177					
2	P-97	P-98	"	"	11:25	"			65'	242					
3	P-98	P-99	"	"	11:35	"			64'	306					
4	P-99	P-100	"	"	11:40	"			64	370					
5	P-100	P-101	"	"	11:48	"			64	434					
6	P101	P102	"	"	11:56	"			26	460/0	DP-49		24'		
7	P102	P103	EEOS	WEOS	12:05	"			23	23			~~48~~		
8	P103	P104	NEOS	SEOS	12:12	"			8	31					
9	P101	P106	EEOS	WEOS	13:11	"	"	"	12	43					
10	P-89	P100	"	"	13:21	"	"	"	23	66					
11	P-84	P99	"	"	13:39	"	"	"	23	89					
12	P-84	P98	"	"	13:42	"	"	"	23	91					
13	P-88	P-97	"	"	13:52	"	"	"	23	114					
14	"	P-96			13:56					137					
15	"	P-95			14:00					160					
16	"	P-94			14:03					183					
17	"	P-93			14:07					206					
18	"	P-92			14:12					229					
19	"	P-91			14:16					252					
20	"	P-88	↓	↓	14:21	↓	↓	↓	↓	275					
21	P-89	P-107	WEOS	EEOS	14:24	"	"	"	65'	340					
22	P107	P114	"	"	14:30	"	"	"	101	441					

DAILY TOTAL FOR WELDED SEAM: 635

DESTRUCTIVE LENGTH CARRY - OVER: 441

ATLANTIC COAST CONSULTING, INC

primary NU13

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5/2/2017

FUSION SEAM: ✓

EXTRUSION SEAM:

MACHINE NUMBER: A013

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 110

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
1	P73	P74	SEOS	NEOS	7:25	AKP	11	820	68	178					
3	P-74	P-75	"	"	7:38				72'	250					
5	P75	P-76	"	"	0752				72'	322					
7	4 P-76	P-77	"	"	0903				72	394					
9	5 P-77	P-78	"	"	0812				72	466					
14	6 P-86	P-87	"	"	0920				70	475/61	DP-47		9		
16	7 P-87	P-88	"	"	0941				71	132					
25	8 P65	P-86	EEOS	WEOS	1000				23	155					
26	9 P65	P85	"	"	1005				23	178					
27	10 P-65	P84	"	"	10:12				23	201					
28	11 P-65	P-83	"	"	10:20	"	"	"	23	224					
29	12 P-65	P-82	"	"	10:26	"	"	"	23	247					
30	13 P-65	P-81	"	"	10:31	"	"	"	23	270					
31	14 P-65	P-80	"	"	10:35	"	"	"	23	293					
32	15 P-65	P-79	"	"	10:41	"	"	"	23	316					
34	16	P-78			10:46				23	339					
35	17	P-77			10:51				23	362					
37	18	P-76			11:02				23	385					
39	19	P-75			11:09				23	408					
44	20	P74	✓	✓	11:20				23	431					
45	21 P-96	P97	SEOS	NEOS	11:25	"	"	"	28'	475/34	DP-48		44'		
47	22 P-97	P98	"	"	11:32	"	"	"	75.1	109					
									903						
										109					

DAILY TOTAL FOR WELDED SEAM:

DESTRUCTIVE LENGTH CARRY - OVER:

ATLANTIC COAST CONSULTING, INC

primary A099

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 6/2/10

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A089

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 481

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
1	P-78	P-79	SEOS	NEOS	0727	AR	15	830	72	481/72	DP-50		0		
2	P-79	P-86	"	"	0742	"	"	"	72	144					
3	P-80	P-81			0755				71	215					
4	P-81	P-82			0810				71	286					
5	P-82	P-83			0822				71	357					
6	P-83	P-84			0830				71	428					
7	P-84	P-85			0842				71	475/24	DP-51		47'		
8	P-85	P-86			0849				71	95					
9	P-6	P-89	FEOS	WEOS	0930	"	"	"	23	118					
10	P-7	P-89			0932				23	141					
11	P-8				0933				23	164					
12	P-9				0935				23	187					
13	P-10	P-65			0938				23	210					
14	P-11	"			0943				23	233					
15	P-1	P-89	"	"	0945				23	256					
16	P-2	P-89	"	"	0951				22	328					
17	P-3	P-89	"	"	0953	"	"	"	23	351					
18	P-91	P-92	SEOS	NEOS	10:45				70	421					
19	P92	P-93	"	"	10:51				71	475/17	DP-52		54'		
20	P-93	P-94	"	"	11:05				70	87					
21	P-88	P-91	"	"	11:10				70	157					
22	P-94	P-95	"	"	11:13				71	228					

DAILY TOTAL FOR WELDED SEAM: 1128

DESTRUCTIVE LENGTH CARRY - OVER: 228

ATLANTIC COAST CONSULTING, INC

Primary 0089

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 6/2/10

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A089

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 228

SHEET NUMBER: 2

	LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
-42	1	P-95	P-96	SEOS	NEOS	11:15	AR	15	830	71'	299					
-51	2	P105	P106	SEOS	WEOS	11:52	"	"	"	36'	335					
-53	3	P106	P-99	"	"	11:59	"	"	"	67'	402					
-56	4	P89	P107	WEOS	EEOS	12:33				64	466					
-57	5	P107	P108			12:35				65	475/56	DP-53		9'		
-58	6	P108	P109			12:43				63	119					
-59	7	P110	P111			12:45				62	181					
-60	8	P111	P112	↓	↓	12:47	↓	↓	↓	61	242					
-61	9	P102	P104	NEOS	SEOS	12:48	"	"	"	33	275					
-62	10	P104	P105	EEOS	WEOS	12:53	"	"	"	17'	292					
-64	11	P107	P108	WEOS	EEOS	13:15	"	"	"	49	341					
-66	12	P108	P114	NEOS	SEOS	13:22	"	"	"	22'	363					
-67	13	P108	P109	EEOS	WEOS	13:30	"	"	"	49	412					
-68	14	P109	P114	"	"	13:38	"	"	"	7	419					
-71	15	P109	P110	"	"	13:47	"	"	"	65	484/10	DP-54		WEOS		
-75	16	P110	P111	"	"	14:02	"	"	"	68	68					
-79	17	P111	P112	"	"	14:13	"	"	"	68	136					
-83	18	P112	P113	"	"	14:24	"	"	"	67	203					
-85	19	P113	P115	"	"	14:35	"	"	"	65	268					
-86	20	P115	P116	"	"	14:45	"	"	"	60	328					
	21															
	22															
										DAILY TOTAL FOR WELDED SEAM:	1059					
										DESTRUCTIVE LENGTH CARRY - OVER:	324					

ATLANTIC COAST CONSULTING, INC

primary

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 6/3/10

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A099

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 328

SHEET NUMBER:

	LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
-48	1	P89	P90	WEOS	SEOS	10:07	AR	14	830	50'	378					
-49	2	P-3	P90	"	"	10:12	"	"	"	22'	400					
-53	3	P-4	P90	"	"	10:20	"	"	"	22'	422					
-56	4	P-5	P-90	"	"	10:25	"	"	"	22'	444					
-1	5	P116	P120	NEOS	WEOS	0705	AR	14	830	68	485/27	DP-58		41'		
-3	6	P120	P121	"	"	0715	"	"	"	77'	104					
-5	7	P121	P122	"	"	0726	"	"	"	80	184					
-6	8	P122	P123	"	"	0738	"	"	"	58	242					
-9	9	P123	P124	"	"	0751	"	"	"	57	299					
-11	10	P124	P125	"	"	0805	"	"	"	64	363					
-16	11	P125	P126	WEOS	NEOS	0815	"	"	"	66	429					
-19	12	P126	P127	"	"	0827	"	"	"	45	474					
-25	13	P127	P128	"	"	0848	"	"	"	44	485/33	DP-59		11' W		
-31	14	P128	P129	"	"	0912	"	"	"	42	75					
-36	15	P129	P130	"	"	0925	"	"	"	42	117					
-44	16	P130	P131	"	"	0950	"	"	"	43	160					
-46	17	P131	P132	"	"	0958	"	"	"	48	208					
-50	18	P132	P133	"	"	10:12	"	"	"	12	220					
-54	19	P133	P134	"	"	10:20	"	"	"	9	229					
-57	20	P134	P135	SEOS	NEOS	10:30	"	"	"	25	254					
-59	21	P135	P136	"	"	10:36	"	"	"	27	281					
-61	22	P136	P139	"	"	10:47	"	"	"	33	314					
										DAILY TOTAL FOR WELDED SEAM:	956						
										DESTRUCTIVE LENGTH CARRY - OVER:		314				

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 6/3/2010

FUSION SEAM:

EXTRUSION SEAM:

MACHINE NUMBER: A036

REVIEWED BY: KL

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 0

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
1	P-62	TIE-END	WEDGE	EDGE	0805	FM		480	22'	22		DR			
2	P-63	"	"	"	0814	"		480	22	44		KL			
3	P-64	"	"	"	0825	"		"	22'	66		KL			
4	P66	"	"	"	0835	"		"	22'	88		KL			
5	P67	TIE-END			0845			480	22'	110		KL			
6	68	"			0855			"	22'	132		KL			
7	P69	"			0858			"	22'	154		KL			
8	P-70	"			0905			"	22'	176		KL			
9	P-71	"			0912			480	22'	198		KL			
10	P-72	"			0915			"	22'	220		KL			
11	P-73	"			0919			"	22'	242		KL			
12	P-74	"			0930			"	22'	264		KL			
13	P-75	"			0940			480	22'	286		KL			
14	P-76	"			0950			"	22	308		KL			
15	P-77	"			0951			"	22	330		KL			
16	P-78	"			10:12			"	22	352		KL			
17	P-79	"			10:15			480	22	374		KL			
18	P-80	"			10:22			"	22	396		KL			
19	P-81	"			10:30			480	22	418		KL			
20	P-82	"			10:40			"	22	440		KL			
21	P-83	"			10:50			"	22	462		KL			
22	P-84	"			10:58			"	22	484		KL			

DAILY TOTAL FOR WELDED SEAM:

DESTRUCTIVE LENGTH CARRY - OVER: 484

ATLANTIC COAST CONSULTING, INC

A 013

Primary

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 6/3/10

FUSION SEAM:

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A013

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 24

SHEET NUMBER: 2

LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
1	P126	P137	SE05	NE05	10:55	HEP	9	820	22	46/0	DP-60	KL			
2	P128	P137	"	"	11:03	"	"	"	22	22					
3	P136	P138	SE05	NE05	11:15	"	"	"	190	212					
4	P128	P136	"	"	11:22	"	"	"	22	234					
5	P129	P136	"	"	11:30	"	"	"	22	256					
6	P130	P136	"	"	11:33	"	"	"	22	278					
7	P131	P136	"	"	11:35	"	"	"	22	300					
8	P131	P135	"	"	11:43	"	"	"	22	322					
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 344

DESTRUCTIVE LENGTH CARRY - OVER: 322

ATLANTIC COAST CONSULTING, INC

Primary 3/13

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 6/3/10

FUSION SEAM: ✓

EXTRUSION SEAM:

MACHINE NUMBER: A 013

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 441

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
1	P101	P103	NEOS	SEOS	11:57	1	11	820	51'	446					
2	P65	P87	WEOS	ECOS	12:05	"	"	"	22	468					
3	P118	P119	EEOS	WEOS	0703	"	"	"	22	475/15	DP-55		7' N		
4	P117	P119	SEOS	NEOS	07:13	"	"	"	33	48'					
5	P-1	P117	"	"	07:20	"	"	"	300	348					
6	P117	P118	"	"	07:45	"	"	"	330	475/102	DP-56		127' N		
7	P-1	P-138	NEOS	SEOS	07:50	"	"	"	66	169					
8	P110	P-138	"	"	0758	"	"	"	22	191					
9	P111	P138	"	"	0810	"	"	"	22	213					
10	P112	P-138	"	"	0813	"	"	"	22	235					
11	P-1	P113	"	"	0818	"	"	"	22	257					
12	P-1	P115	"	"	0828	"	"	"	22	279					
13	P-1	P116	"	"	0835	"	"	"	22	301					
14	P116	P117	EEOS	WEOS	0843	"	"	"	22	323					
15	P117	P120	NEOS	SEOS	0900	"	"	"	22	345					
16	P117	P121	SEOS	NEOS	0915	"	"	"	22	367					
17	P117	P122	"	"	0921	"	"	"	22	389					
18	P118	P122	WEOS	EEOS	0928	"	"	"	22	411					
19	P118	P123	SEOS	NEOS	0935	"	"	"	22	433					
20	P118	P124	"	"	0942	"	"	"	22	455					
21	P118	P125	"	"	0950	"	"	"	22	479/2	DP-57		20' N		
22	P118	P137	"	"	10:00	"	"	"	22	24					
				DAILY TOTAL FOR WELDED SEAM:					778						
				DESTRUCTIVE LENGTH CARRY - OVER:						24					

ATLANTIC COAST CONSULTING, INC

Primary

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 6/4/2010

FUSION SEAM:

EXTRUSION SEAM: ✓

MACHINE NUMBER: A036

REVIEWED BY: ✓

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 330'

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	P104	TIE-END	NE05	SE05	0710	FM	✓	480	15'	345					
2	P105	↓	↓		0714	↓	✓	480	22'	367					
3	P106				0718		✓	480	22	389					
4	P-89				0726		↓	480	22	411					
5	P-107				0736			480	22	433					
6	P-108				0744			"	22	455					
7	P-109				0752			"	22	477					
8	P110				0803			"	22	495/4	DPX-6				
9	P111				0810			"	22	26					
10	P112				0825			"	22	48					
11	P113				0910			"	22	70					
12	P115				0918			"	22	92					
13	P116				0927			"	22	114					
14	P120				0942	↓	↓	"	22	136					
15															
16															
17															
18															
19															
20															
21															
22		↓	↓												

DAILY TOTAL FOR WELDED SEAM:

DESTRUCTIVE LENGTH CARRY - OVER: 136

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 6/4/2010

FUSION SEAM:

EXTRUSION SEAM: ✓

MACHINE NUMBER: A036

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 484

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	P85	TIE-END	W-E05	E-E05	11:05	FM	/	480	22	484/22	DPX-4				
2	P86	"			11:12		/	480	22	44					
3	P88	"			11:20		/	"	22	66					
4	P91	"			11:30		/	"	22	88					
5	P92	"			11:38		/	480	22	110					
6	P93	"			11:50		/	"	22	132					
7	P94	"			12:10		/	"	22	154					
8	P-95	"			12:18		/	480	22	176					
9	P-96	TIE-END			12:30		/	"	22	198					
10	P-97	"			12:40		/	"	22	220					
11	P-98	"			12:50		/	"	22	242					
12	P-99	"			13:10		/	480	22	264					
13	P-100	"			13:20		/	"	22	286					
14	P-101	"			13:30		/	"	22	308					
15	P-103	"			13:40		/	"	22	330					
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM:

DESTRUCTIVE LENGTH CARRY - OVER: 330

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 6/7/2010

FUSION SEAM:

EXTRUSION SEAM: ✓

MACHINE NUMBER: A036

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 136'

SHEET NUMBER:

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	P121	TIE-END	NEOS	SEOS	0912	FM	✓	480	22	158					
2	P122				0920				22	180					
3	P123				0930				22	202					
4	P124				0939				22	224					
5	P-125				0946				22	246					
6	P-126				0951				22	268					
7	P-127				10:05				22	290					
8	P-128				10:09				22	312					
9	P-129				10:18				22	334					
10	P-130				10:28				22	356					
11	P131				10:39				22	378					
12	P-132				10:45				22	400					
13	P-133	↓	↓	↓	11:01	↓		↓	12'	412					
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM:

DESTRUCTIVE LENGTH CARRY - OVER: 412

ATLANTIC COAST CONSULTING, INC

PRIMARY = A05

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5/24/2010

FUSION SEAM: ✓

EXTRUSION SEAM:

MACHINE NUMBER: A056

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: NEW WEDGE

SHEET NUMBER:

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
3 1	P-3	P-4	SEOS	NEOS	0807	R.A	5.5	800	503'	475/503	DP-5	KL			
6 2	P-6	P-7	"	"	0921	R.A	5.5	800	505'	475/505	DP-6	KL			
9 3	P-9	P-10	"	"	10:30	"	5.5	"	503'	475/503	DP-9	KL			
12 4	P-12	P-13	SEOS	NEOS	11:40	"	5.5	800°	503'	475/114	DP-12	KL			
15 5	P-14	P-15	"	"	13:30	"	6.0	820°	508'	114/508	DP-14	KL			
6	P-14	P-15	"	"		"	"	"		300/308	DP-16	KL			
17 7	P-17	P-18	"	"	14:39	"	"	"	510	400/318	DP-17	KL			
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 3032

DESTRUCTIVE LENGTH CARRY - OVER: 318

ATLANTIC COAST CONSULTING, INC

PRIMARY AC 3

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5/24/2010

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A013

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 240'

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
2 1	P-1	P-2	SE05	NE05	0730	HEP	10	820	503'	240/235	DP-1	KL			
4 2	P-4	P-5	SE05	NE05	0837		11	11	493'	475/253	DP-3	KL			
7 3	P-7	P-8	11	11	0945				502'	475/580	DP-7	KL			
10 4	P-10	P-11	SE05	NE05	1055				503	475/300	DP-10	KL			
14 5	P-13	P-14			13:25		11	820	509	341/476	DP-13	KL			
6	P-13	P-14					11			200/276	DP-19	KL			
16 7	P-16	P-17			1413				510	475/3 11	DP-16				
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 3020

DESTRUCTIVE LENGTH CARRY - OVER: 311

ATLANTIC COAST CONSULTING, INC

Primary 3089

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5/24/2010

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A089

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 0

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	P-2	P-3	SIDE	NEOS	0750	AR	15	830	505'	226/279	DP-2	KL			
2	P-5	P-6	"	"	0910		15	836	507'	475/311	DP-4	KL			
3	P-8	P-9	"	"	10:11		15	"	503'	475/339	DP-8	KL			
4	P-11	P-12	"	"	11:14		15	"	504	475/368	DP-11	KL			
5	P-15	P-14	1	1	1324		16	830°	508	475/401	DP-15	KL			
6															
7															
8															
9															
10															
11															
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15															
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22															

DAILY TOTAL FOR WELDED SEAM: 2527

DESTRUCTIVE LENGTH CARRY - OVER: 401

ATLANTIC COAST CONSULTING, INC

Project X

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 6/10/10

REVIEWED BY:

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
* 1	P-46	P-138	WEOS	EEOS	RW	11:36	11:41	30	30	P		✓	DR	
* 2	P-138	P-137	"	"	"	11:40	11:45	30	30	P		✓	DR	
* 3	P-50	P-139	"	"	"	11:45	11:51	30	30	P		✓	DR	
4	P-139	Tieend	NEOS	SEOS	"	11:51	11:56	30	30	P		✓	DR	
5	P-138	Tieend	"	"	"	11:58	12:03	30	30	P		✓	DR	
* 6	P-36	P-138	SEOS	NEOS	"	13:20	13:25	30	30	P		✓	DR	
* 7	P-36	P-139	"	"	"	13:25	13:30	30	30	P		✓	DR	
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9														
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ATLANTIC COAST CONSULTING, INC

Primary

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5/27/2010

REVIEWED BY:

SHEET NUMBER: 3

	LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
		FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
*	1	P-65	P-68	WEOS	EEOS	AV	10:26	10:31	30	30	P		✓	DR	
*	2	P68	P69	SEOS	NEOS		10:27	10:32	30	29	P		✓		
*	3	P65	P69	WEOS	EEOS		10:30	10:35	30	30	P		✓		
*	4	P69	P70	SEOS	NEOS		10:30	10:35	30	30	P		✓		
*	5	P65	P70	WEOS	EEOS		10:31	10:36	30	30	P		✓		
*	6	P70	P71	SEOS	NEOS		10:31	10:36	30	30	P		✓		
*	7	P65	P71	WEOS	EEOS		10:31	10:36	30	30	P		✓		
*	8	P71	P72	SEOS	NEOS		10:33	10:38	30	30	P		✓		
*	9	P65	P72	WEOS	EEOS		10:37	10:42	30	29	P		✓		
*	10	P72	P73	SEOS	NEOS		10:39	10:44	30	30	P		✓		
*	11	P65	P73	WEOS	EEOS		10:40	10:45	30	30	P		✓		
*	12	P35	P65	WEOS	EEOS		10:46	10:51	30	30	P		✓		
*	13	P-34	P65	"	"		10:46	10:51	30	28	P		✓		
*	14	P-33	P-65	"	"		10:46	10:51	30	30	P		✓		
	15	P-32	P-65	"	"		10:48	10:53	30	30	P		✓		
	16	P-31	P-65	"	"		10:48	10:53	30	30	P		✓		
*	17	P-30	P-65	"	"		10:50	10:55	31	30	P		✓		
*	18	P-29	P-65	"	"		10:50	10:55	30	30	P		✓		
*	19	P-28	P-65	"	"		10:55	11:00	30	30	P		✓		
*	20	P-27	↓	"	"		11:00	11:05	30	30	P		✓		
*	21	P-26		"	"		11:00	11:05	30	30	P		✓		
*	22	P-25	↓	"	"		11:03	11:08	30	30	P		✓		
*	23	P-24	"	"	"		11:10	11:15	30	30	P		✓		
*	24	P-23	"	"	"		11:16	11:21	30	30	P		✓		
*	25	P-22	"	"	"	↓	11:18	11:23	30	30	P		✓	↓	

primary

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5/26/2010

REVIEWED BY:

SHEET NUMBER: 1

	LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
		FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
*	1	P31	P-32	SEOS	WEOS	PM	15:31	15:36	30	30	P		✓	OK	
x	2	P32	P-33	"	"	"	15:33	15:38	30	30	P		✓	DA	
y	3	P-33	P-34	"	"	"	15:35	15:40	30	30	P		✓	DA	
x	4	P-34	P-35	"	"	"	15:35	15:40	30	30	P		✓	DA	
+	5	P-35	P-36	"	"	"	15:45	15:50	30	30	P		✓	DA	
*	6	P-36	P-47	"	"	"	15:53	15:58	30	30	P		✓	DA	
	7	P-49	P-39	"	"	"	15:54	15:59	30	29	P		✓	"	
*	8	P-48	P-49	"	"	"	16:05	16:10	30	30	P		✓	"	
*	9	P-48	P-47	"	"	"	16:07	16:12	30	30	P		✓	"	
	10	P-37	P-48	"	"	"	16:07	16:12	30	30	P		✓	"	
	11	P-37	P-47	"	"	"	16:12	16:17	30	30	P		✓	"	
*	12	P-36	P-37	"	"	"	16:15	16:20	30	30	P		✓	"	
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	25														

Primary

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5/27/10

REVIEWED BY:

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	P-37	P-38	WEOS	EEOS	PV	6:55	7:00	30	30	P		✓	DR	
2	P-36	P-38	SEOS	NEOS	"	7:00	7:05	30	30	P		✓	DR	
3	P-38	P-39	EEOS	WEOS	"	7:03	7:08	30	30	P		✓	DR	
4	P-36	P-39	SEOS	NEOS	"	7:03	7:08	30	28	P		✓		
5	P-39	P-40	EEOS	WEOS	"	7:06	7:11	30	30	P		✓		
6	P-36	P-40	SEOS	NEOS	"	7:06	7:11	30	30	P		✓		
7	P-40	P-41	EEOS	WEOS	"	7:09	7:14	30	30	P		✓		
8	P-36	P-41	SEOS	NEOS	"	7:10	7:15	30	30	P		✓		
9	P-41	P-42	EEOS	WEOS	"	7:11	7:16	30	30	P		✓		
10	P-36	P-42	SEOS	NEOS		7:11	7:16	30	30	P		✓		
11	P-42	P-43	EEOS	WEOS	"	7:14	7:19	30	30	P		✓		
12	P-36	P-43	SEOS	NEOS	"	7:14	7:19	30	30	P		✓		
13	P-43	P-44	EEOS	WEOS	"	7:16	7:21	30	30	P		✓		
14	P-36	P-44	SEOS	NEOS	"	7:17	7:22	30	30	P		✓		
15	P-44	P-45	EEOS	WEOS	"	7:20	7:25	30	30	P		✓		
16	P-36	P-45	SEOS	NEOS	"	7:21	7:26	30	30	P		✓		
17	P-45	P-46	EEOS	WEOS	"	7:23	7:28	30	30	P		✓		
18	P-36	P-46	SEOS	NEOS	"	7:24	7:29	30	30	P		✓		
19	P-36	P-50	WEOS	EEOS	"	8:18	8:23	30	30	P	✓			
20	P-50	P-51	EEOS	WEOS	"	8:20	8:25	30	30	P		✓		
21	P-36	P-51	SEOS	NEOS	"	8:22	8:27	30	30	P		✓		
22	P-51	P-52	EEOS	WEOS	"	8:23	8:28	30	30	P		✓		
23	P-36	P-52	SEOS	NEOS	"	8:25	8:30	30	30	P		✓		
24	P-36	P-53	SEOS	NEOS	"	8:27	8:32	30	30	P		✓		
25	P-52	P-53	EEOS	WEOS	"	8:30	8:35	30	29	P		✓		

primary

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5/27/10

REVIEWED BY:

SHEET NUMBER: 2

	LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
		FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
*	1	P-53	P-54	EEOS	WEOS	AV	0837	0842	30	30	P		✓	DL	
*	2	P-36	P-54	SEOS	NEOS		0837	0842	30	30	P		✓		
*	3	P-54	P-55	EEOS	WEOS		0839	0844	30	30	P		✓		
*	4	P-36	P-55	SEOS	NEOS		0841	0846	30	30	P		✓		
*	5	P-55	P-56	EEOS	WEOS		0900	905	30	30	P		✓		
*	6	P-36	P-56	SEOS	WEOS		0905	910	30	30	P		✓		
*	7	P-56	P-57	EEOS	WEOS		911	916	30	30	P		✓		
*	8	P-36	P-57	SEOS	NEOS		0920	0925	30	30	P		✓		
*	9	P-57	P-58	EEOS	WEOS		0926	0931	30	30	P		✓		
*	10	P58	P-64	SEOS	WEOS		0931	0936	30	30	P		✓		
	11	P36	P-64	WEOS	EEOS		0940	0945	30	30	P		✓		
*	12	P59	P64	SEOS	NEOS		0945	0956	30	24	P		✓		
*	13	P58	P59	EEOS	WEOS		0951	0956	30	30	P		—		
*	14	P59	P60	WEOS	EEOS		0958	10:03	30	30	P		✓		
*	15	P59	P63	WEOS	EEOS		10:05	10:10	30	30	P		✓		
*	16	P60	P61	EEOS	WEOS		10:10	10:15	30	30	P		✓		
*	17	P61	P62	WEOS	EEOS		10:11	10:16	30	30	P		✓		
*	18	P61	P63	SEOS	NEOS		10:12	10:17	30	30	P		✓		
*	19	P62	P63	SEOS	NEOS		10:14	10:19	30	30	P		✓		
*	20	P63	P64	NEOS	SEOS		10:16	10:21	30	30	P		✓		
	21	P64	P65	WEOS	SEOS		10:22	10:27	30	30	P		✓		
*	22	P-65	P-66	WEOS	EEOS		1022	10:27	30	30	P		✓		
*	23	P66	P67	SEOS	NEOS		1023	10:28	30	30	P		✓		
*	24	P65	P67	WEOS	EEOS		10:23	10:28	30	30	P		✓		
*	25	P67	P68	SEOS	WEOS	↓	10:25	10:30	30	30	P		✓	↓	

Primary

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 6/3/10

REVIEWED BY: _____

SHEET NUMBER: 6

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	P-1	P-117	SEOS	NEOS	PV	11:40	11:45	30	30	P ✓		✓	DR	
2	P117	P-119	"	"	"	11:43	11:48	30	29	P		✓	DR	
3	P118	P119	WEOS	SEOS	"	11:45	11:50	30	30	P		✓	DR	
* 4	P119	P136	SEOS	WEOS	"	11:47	11:52	30	30	P		✓	DR	
* 5	P-1	P138	NEOS	SEOS	"	11:50	11:55	30	30	P		✓	DR	
* 6	P120	P138	"	"	"	11:51	11:56	30	30	P		✓	DR	
* 7	P111	P138	"	"	"	13:02	13:07	30	29	P		✓	DR	
* 8	P112	P138	"	"	"	13:05	13:10	30	30	P		✓	DR	
9	P116	P120	SEOS	WEOS	"	13:12	13:17	30	30	P		✓	DR	
10														
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24														
25														

Primary

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 6/3/2010

REVIEWED BY:

SHEET NUMBER: 2

	LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
		FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
*	1	P-85	P-86	SEOS	NEOS	PV	7:22	7:27	30	30	P		✓	DR	
*	2	P-65	P-86	WEOS	EEOS	"	7:25	7:30	30	30	P		✓		
*	3	P86	P87	SEOS	NEOS	"	7:26	7:31	30	29	P		—		
	4	P-65	P-87	WEOS	EEOS	"	7:28	7:33	30	30	P		—		
*	5	P-87	P-88	SEOS	NEOS	"	7:30	7:35	30	30	P		✓		
*	6	P-88	P89	WEOS	EEOS	"	7:32	7:37	30	30	P		—		
*	7	P-88	P-91	SEOS	NEOS	"	7:32	7:37	30	30	P		—		
*	8	P-89	P-91	WEOS	EEOS	"	7:34	7:39	30	30	P		—		
*	9	P-91	P92	SEOS	NEOS	"	7:34	7:39	30	30	P		—		
*	10	P-89	P-92	WEOS	EEOS	"	7:35	7:40	30	29	P		—		
*	11	P-92	P-93	SEOS	NEOS	"	7:37	7:42	30	30	P		—		
*	12	P-89	P-93	WEOS	EEOS	"	7:40	7:45	30	30	P		—		
*	13	P-93	P-94	SEOS	NEOS	"	7:41	7:46	30	30	P		—		
*	14	P-89	P-94	WEOS	EEOS	"	7:43	7:48	30	30	P		—		
*	15	P-94	P95	SEOS	NEOS	"	7:44	7:49	30	30	P		—		
*	16	P-89	P-95	WEOS	EEOS	"	7:46	7:51	30	30	P		—		
*	17	P-95	P-96	SEOS	NEOS	"	7:47	7:52	30	30	P		—		
*	18	P-89	P-96	WEOS	EEOS	"	7:50	7:55	30	30	P		—		
*	19	P-96	P-97	SEOS	NEOS	"	752	7:57	30	29	P		—		
*	20	P-89	P-97	WEOS	EEOS	"	7:52	7:57	30	30	P		—		
*	21	P-97	P-98	SEOS	NEOS	"	7:54	7:59	30	30	P		—		
*	22	P-89	P-98	WEOS	EEOS	"	7:55	8:00	30	30	P		—		
*	23	P-98	P-99	SEOS	NEOS	"	7:55	8:00	30	30	P		—		
*	24	P-89	P99	WEOS	EEOS	"	7:66	8:01	30	30	P		—		
*	25	P-99	P-100	SEOS	NEOS	"	7:57	8:02	30	30	P		—	✓	

primary

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 6/3/10

REVIEWED BY: _____

SHEET NUMBER: 1

	LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
		FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
*	1	P-73	P-74	SEOS	NEOS	PV	6:35	6:40	30	30	P		✓	PV	
	2	P-74	P-75				6:36	6:41	30	30	P		✓		
*	3	P-75	P-76				6:36	6:41	30	30	P		✓		
	4	P-76	P-77				6:38	6:43	30	29	P		✓		
*	5	P-77	P-78				6:40	6:45	30	30	P		✓		
*	6	P-78	P-79				6:41	6:46	30	30	P		✓		
*	7	P-79	P-80	↓	↓		6:43	6:48	30	30	P		✓		
	8	P-74	P-65	WEOS	NEOS		6:43	6:48	30	30	P		✓		
*	9	P-65	P-74	WEOS	NEOS		6:48	6:53	30	30	P		✓		
	10	P-65	P-75				6:50	6:55	30	30	P		✓		
*	11	P-65	P-76				6:51	6:56	30	30	P		✓		
*	12	P-65	P-77				6:52	6:57	30	30	P		✓		
*	13	P-65	P-78				6:52	6:57	30	30	P		✓		
*	14	P-65	P-79				6:53	6:58	30	30	P		✓		
*	15	P-65	P-80	↓	↓		6:55	7:00	30	30	P		✓		
	16	P-80	P-81				6:57	7:02	30	30	P		✓		
*	17	P-65	P-81				7:00	7:05	30	29	P		✓		
*	18	P-81	P-82				7:02	7:07	30	30	P		✓		
*	19	P-65	P-82				7:04	7:09	30	30	P		✓		
*	20	P-82	P-83				7:11	7:16	30	30	P		✓		
*	21	P-65	P-83				7:11	7:16	30	30	P		✓		
*	22	P-83	P-84				7:13	7:18	30	30	P		✓		
*	23	P-65	P-84				7:13	7:18	30	30	P		✓		
*	24	P-84	P-85				7:14	7:19	30	30	P		✓		
*	25	P-65	P-85	↓	↓	↓	7:15	7:20	30	30	P		✓	↓	

Primary

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 6/3/2010

REVIEWED BY:

SHEET NUMBER: 3

	LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
		FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
*	1	P-84	P-100	WEOS	SEOS	PV	8:05	8:10	30	30	P		✓		
	2	P-65	P-84	NEOS	SEOS	"	8:11	8:16	30	30	P		✓		
	3	P-12	P-84	NEOS	SEOS	"	8:13	8:18	30	30	P		✓		
?	4	P-11	P-84	WEOS	EEOS	"	8:15	8:20	30	30	P		✓		
?	5	P-10	P-84	WEOS	EEOS	"	8:17	8:22	30	30	P		✓		
*	6	P-9	P-84	"	"	"	8:20	8:25	30	30	P		✓		
*	7	P-8	P-84	"	"	"	8:20	8:25	30	30	P		✓		
*	8	P-7	P-84	"	"	"	8:21	8:26	30	30	P		✓		
*	9	P-6	P-84	"	"	"	8:22	8:27	30	30	P		✓		
*	10	P-84	P-90	"	"	"	8:25	8:30	30	30	P		✓		
	11	P-5	P-6	NEOS	SEOS	"	8:30	8:35	30	29	P		✓		
*	12	P-5	P-90	WEOS	EEOS	"	8:31	8:36	30	30	P		✓		
*	13	P-4	P-90	"	"	"	8:33	8:38	30	30	P		✓		
*	14	P-3	P-90	"	"	"	8:35	8:40	30	30	P		✓		
	15	P-2	P-90	NEOS	SEOS	"	8:37	8:42	30	30	P		✓		
*	16	P-2	P-84	WEOS	EEOS	"	8:40	8:45	30	30	P		✓		
*	17	P-1	P-84	"	"	"	8:40	8:45	30	29	P		✓		
	18	P-100	P-106	SEOS	NEOS	"	8:43	8:48	30	30	P	✓			
*	19	P-100	P-101	"	"	"	8:45	8:56	30	30	P		✓		
*	20	P-101	P-102	"	"	"	8:45	8:50	30	30	P		✓		
*	21	P-101	P-106	"	"	"	8:47	8:52	30	30	P		✓		
	22	P-101	P-105	"	"	"	8:50	8:55	30	30	P		✓		
	23	P-102	P-105	"	"	"	8:50	8:55	30	30	P		✓		
*	24	P-102	P-103	WEOS	EEOS	"	8:52	8:57	30	30	P		✓		
*	25	P-102	P-104	SEOS	NEOS	"	8:55	9:00	30	29	P		✓		

primary

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 6/3/2010

REVIEWED BY:

SHEET NUMBER: 4

	LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
		FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
*	1	P-104	P105	WEOS	EEOS	PV	9:05	9:10	30	30	P		✓	DK	
*	2	P-105	P-106	EEOS	WEOS	"	9:05	9:10	30	30	P		✓		
*	3	P-89	P-106	EEOS	WEOS	"	9:07	9:12	30	30	P		✓		
*	4	P-89	P-107	WEOS	EEOS	"	9:10	9:15	30	30	P		✓		
	5	P-1	P-107	NEOS	SEOS	"	9:11	9:16	30	30	P		✓		
*	6	P-107	P-108	WEOS	EEOS	"	9:12	9:17	30	30	P		✓		
	7	P1	P-108	NEOS	SEOS	"	9:12	9:17	30	30	P		✓		
*	8	P-107	P-114	WEOS	EEOS	"	9:13	9:18	30	30	P		✓		
	9	P-1	P-114	NEOS	SEOS	"	9:15	9:20	30	30	P		✓		
*	10	P-108	P-114	NEOS	SEOS	"	9:17	9:22	30	30	P		✓		
*	11	P-109	P114	WEOS	EEOS	"	9:20	9:25	30	29	P		✓		
	12	P-1	P-109	NEOS	SEOS	"	9:21	9:26	30	30	P		✓		
*	13	P-109	P-110	WEOS	EEOS	"	9:22	9:27	30	30	P		✓		
	14	P-1	P-110	NEOS	SEOS	"	9:25	9:30	30	30	P		✓		
*	15	P110	P-111	WEOS	EEOS	"	9:26	9:31	30	30	P		✓		
*	16	P-111	P-112	"	"	"	9:30	9:35	30	30	P		✓		
*	17	P112	P113	"	"	"	9:33	9:38	30	30	P		✓		
*	18	P-1	P113	NEOS	SEOS	"	9:35	9:40	30	30	P		✓		
*	19	P113	P115	WEOS	EEOS	"	9:35	9:40	30	30	P		✓		
*	20	P-1	P115	NEOS	SEOS	"	9:37	9:42	30	30	P		✓		
*	21	P-115	P116	WEOS	EEOS	"	9:40	9:45	30	30	P		✓		
*	22	P-1	P-116	NEOS	SEOS	"	9:42	9:47	30	30	P		✓		
*	23	P-116	P-117	"	"	"	9:45	9:50	30	30	P		✓		
	24	P-1	P-117	NEOS	SEOS	"	9:50	9:55	30	29	P		✓		
*	25	P-116	P-126	WEOS	EEOS	"	9:55	10:00	30	30	P		✓	✓	

primary

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 6/3/10

REVIEWED BY:

SHEET NUMBER: 5

	LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
		FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
	1	P116	P117	NEOS	SEOS	PV	10:18	10:23	30	30	P		✓	DZ	
*	2	P117	P120	NEOS	SEOS	"	10:20	10:20	30	30	P		✓		
	3	P120	P121	WEOS	EEOS	"	10:23	10:28	30	30	P		✓		
*	4	P117	P121	NEOS	SEOS	"	10:23	10:28	30	30	P		✓		
*	5	P121	P122	WEOS	EEOS	"	10:25	10:30	30	30	P		✓		
*	6	P117	P122	NEOS	SEOS	"	10:30	10:35	30	30	P		✓		
	7	P122	P123	WEOS	SEOS	"	10:30	10:35	30	29	P		✓		
*	8	P118	P123	NEOS	SEOS	"	10:33	10:38	30	30	P		✓		
*	9	P123	P124	WEOS	SEOS	"	10:35	10:40	30	30	P		✓		
*	10	P117	P118	NEOS	SEOS	"	10:40	10:45	30	30	P		✓		
*	11	P118	P124	NEOS	SEOS	"	10:41	10:46	30	30	P		✓		
*	12	P-124	P125	WEOS	EEOS	"	10:43	10:48	30	30	P		✓		
*	13	P-118	P-125	NEOS	SEOS	"	10:45	10:50	30	30	P		✓		
*	14	P125	P126	WEOS	EEOS	"	10:46	10:51	30	29	P		✓		
	15	P118	P126	NEOS	SEOS	"	10:50	10:55	30	30	P		✓		
*	16	P117	P119	NEOS	SEOS	"	10:55	11:00	30	30	P		✓		
*	17	P118	P119	WEOS	EEOS	"	11:02	11:07	30	30	P		✓		
*	18	P-126	P127	WEOS	EEOS	"	11:10	11:15	30	30	P		✓		
*	19	P127	P128	SEOS	WEOS	"	11:15	11:20	30	30	P		✓	DZ	
*	20	P128	P129	"	"		11:20	11:25	30	30	P		✓		
*	21	P129	P130	"	"		11:20	11:25	30	30	P		✓		
*	22	P131	P132	"	"		11:25	11:30	30	30	P		✓		
*	23	P132	P133	"	"		11:25	11:30	30	30	P		✓		
*	24	P133	P134	"	"		11:25	11:30	30	30	P		✓		
*	25	P134	P135	"	"	✓	11:28	11:33	30	30	P		✓	✓	

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5/24/2010

REVIEWED BY:

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	P-1	P-2	SEOS	NEOS	AC	14:42	14:47	30	30	P		✓	DR	
2	P-2	P-3	"	"	"	14:45	14:50	30	30	P		✓		
3	P-3	P-4	"	"	"	15:05	15:10	30	30	P		✓		
4	P-4	P-5	"	"	"	15:13	15:18	30	29	P		✓		
5	P-5	P-6	"	"	"	15:14	15:19	30	30	P		✓		
6	P-6	P-7	"	"	"	15:22	15:27	30	30	P		✓		
7	P-7	P-8	"	"	"	15:30	15:35	30	30	P		✓		
8	P-8	P-9	"	"	"	15:32	15:37	30	30	P		✓		
9	P-9	P-10	"	"	"	15:40	15:45	30	30	P		✓		
10	P-10	P-11	"	"	"	15:46	15:51	30	30	P		—		
11	P-11	P-12				15:52	15:57	30	30	P		—		
12	P-12	P-13				15:59	16:04	30	30	P		—		
13	P-13	P-14				16:07	16:12	31	31	P		—		
14	P-14	P-15				16:17	16:16	30	30	P		—		
15	P-15	P-16				16:20	16:25	30	30	P		—		
16	P-16	P-17				16:28	16:33	30	30	P		—		
17	P-17	P-18	↓	↓	↓	16:35	16:40	30	30	P		—	✓	
18														
19														
20														
21														
22														
23														
24														
25														

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5/25/2010

REVIEWED BY:

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	P18	P19	SEOS	NEOS	AW	10:35	10:40	31	30	P		✓	DR	
2	P19	P-20				10:37	10:42	30	36	P		✓		
3	P-20	P-21				10:40	10:45	30	30	P		✓		
4	P-21	P-22				10:47	10:52	30	30	P		✓		
5	P-22	P-23				10:55	11:00	30	30	P		✓		
6	P-23	P-24				11:05	11:10	30	30	P		✓		
7	P-24	P-25				11:07	11:13	30	30	P		✓		
8	P-26	P-27				11:15	11:20	30	30	P		✓		
9	P-27	P-28				11:18	11:23	30	30	P		✓		
10	P-28	P-29				11:20	11:25	31	30	P		✓		
11	P-29	P-30				11:25	11:30	30	30	P		✓		
12	P-30	P-31	✓	✓	✓	11:35	11:40	30	30	P		✓	✓	
13														
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Primary

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5/27/10

REVIEWED BY:

SHEET NUMBER: 4

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
* 1	P-21	P-65	WEOS	EEOS	PV	11:21	11:26	30	30	P	✓		PR	
* 2	P-20	P-65	EEOS	WEOS	"	11:21	11:26	30	30	P		✓	PR	
* 3	P-19	P-65	"	"	"	11:22	11:27	30	28	P		✓	"	
* 4	P-18	P-65	"	"	"	11:24	11:29	30	30	P		✓	"	
* 5	P-17	P-65	WEOS	EEOS	"	11:25	11:30	30	30	P		✓	"	
* 6	P-16	P-65	EEOS	WEOS	"	11:27	11:32	30	30	P		✓	OR	
* 7	P-15	P-65	WEOS	EEOS	"	11:30	11:35	30	30	P		✓	DR	
* 8	P14	P-65	EEOS	WEOS	"	11:32	11:37	30	30	P		✓	OR	
* 9	P-13	P-65	WEOS	EEOS	"	11:33	11:38	30	30	P		✓	DR	
* 10	P-12	P-65	EEOS	WEOS	"	11:35	11:40	30	30	P		✓	OR	
11														
12														
13														
14														
15														
16														
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18														
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20														
21														
22														
23														
24														
25														

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 5/27/2010

REVIEWED BY:

SHEET NUMBER: 1

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	24A	PV	N	yes	DR	
2	24B			yes	DR	
3	24C					
4	24D					
5	24E					
6	24F					
7	24G					
8	24H					
9	24I					
10	24J					
11	24K					
12	24M					
13	24N					
14	24Q					
15	24R					
16	24S					
17	24T					
18	24V					
19	24W					
20	24X					
21	25A					
22	25B					
23	25C					
24	25D					
25	25E	↓	↓	↓	↓	

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26	25F	PV	N	yes	DR	
27	25G					
28	25H					
29	25I					
30	25J					
31	25K					
32	25M					
33	25N					
34	25P					
35	25Q					
36	25R					
37	25S					
38	25T					
39	25V					
40	25W					
41	25X					
42	26A					
43	26B					
44	26C					
45	26D					
46	26E					
47	26F					
48	26G					
49	26H	↓	↓	↓	↓	
50	26I					

primary

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 5/27/2010

REVIEWED BY:

SHEET NUMBER: 2

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	26 J	DV	N	Yes	DC	
2	26 K					
3	26 M					
4	26 N					
5	26 P					
6	26 Q					
7	26 R					
8	26 S					
9	26 T					
10	26 V					
11	26 W					
12	26 X					
13	27 A					
14	27 B					
15	27 C					
16	27 D					
17	27 E					
18	27 F					
19	27 G					
20	27 H					
21	27 I					
22	27 J					
23	27 K					
24	27 M	✓	✓	✓	✓	
25	27 N					

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26	27 P	DV	N	Yes	DC	
27	27 Q					
28	27 R					
29	27 S					
30	27 T					
31	27 V					
32	27 W					
33	27 X					
34	28 A					
35	28 B					
36	28 C					
37	28 D					
38	28 E	✓	✓	✓	✓	
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						

ATLANTIC COAST CONSULTING, INC

Primary

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 5/28/2010

REVIEWED BY:

SHEET NUMBER: 1

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	28F	PV	N	YES	DC	
2	28 G	↓	↓	↓	↓	
3	28 H					
4	28 I					
5	28 J					
6	28 K					
7	28 M					
8	28 N					
9	28 P					
10	28 Q					
11	28 R					
12	28 S					
13	28 T					
14	28 V					
15	28 W					
16	28 X					
17	29 A					
18	29 B					
19	29 C					
20	29 D					
21	29 E					
22	29 F					
23	29 G					
24	29 H					
25	29 I	↓	↓	↓	↓	

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26	29 J	PV	N	YES	DC	
27	29 K	↓	↓	↓	↓	
28	29 M					
29	29 N					
30	29 P					
31	29 Q					
32	29 R					
33	29 S					
34	29 T					
35	29 V					
36	29 W					
37	29 X					
38	30 A					
39	30 B					
40	30 C					
41	30 D					
42	30 E					
43	30 F					
44	30 G					
45	30 H	↓	↓	↓	↓	
46						
47						
48						
49						
50						

Primary

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 6/3/2010

REVIEWED BY:

SHEET NUMBER: 1

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	30 I	AV	N	Yes	DC	
2	30 J	↓	↓	↓	↓	
3	30 K					
4	30 M					
5	30 N					
6	30 P					
7	30 Q					
8	30 R					
9	30 S					
10	30 T					
11	30 V					
12	30 W					
13	30 X					
14	33 A					
15	33 B					
16	33 C					
17	33 D					
18	33 E					
19	33 F					
20	33 G					
21	33 H					
22	33 I					
23	33 J					
24	33 K	↓	↓	↓	↓	
25	33 M					

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26	33 N	AV	N	Yes	DC	
27	33 P	↓	↓	↓	↓	
28	33 Q					
29	33 R					
30	33 S					
31	33 T					
32	33 V					
33	33 W					
34	33 X	↓	↓	↓	↓	
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 6/3/2010

REVIEWED BY:

SHEET NUMBER: 1

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	37 A	PW	N	YES	PL	
2	37 B	↓	↓	↓	↓	
3	37 C					
4	37 D					
5	37 E					
6	37 F					
7	37 G					
8	37 H					
9	37 I	↓	↓	↓	↓	
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26						
27						
28						
29						
30						
31						
32						
33						
34						
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37						
38						
39						
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42						
43						
44						
45						
46						
47						
48						
49						
50						

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 6/4/2010

REVIEWED BY:

SHEET NUMBER: 1

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	34 A	PW	N	yes	DR	
2	34 B					
3	34 C					
4	34 D					
5	34 E					
6	34 F					
7	34 G					
8	34 H					
9	34 I					
10	34 J					
11	34 K					
12	34 M					
13	34 N					
14	34 P					
15	34 Q					
16	34 R					
17	34 S					
18	34 T					
19	34 V					
20	34 W					
21	34 X					
22	35 A					
23	35 B					
24	35 C					
25	35 D	↓	↓	↓	✓	

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26	35 E	PW	N	yes	DR	
27	35 F					
28	35 G					
29	35 H					
30	35 I					
31	35 J					
32	35 K					
33	35 M					
34	35 N					
35	35 P					
36	35 Q					
37	35 R					
38	35 S					
39	35 T					
40	35 V					
41	35 W					
42	35 X					
43	36 A					
44	36 B					
45	36 C					
46	36 D					
47	36 E					
48	36 F	✓	✓	✓	✓	
49						
50						

ATLANTIC COAST CONSULTING, INC

primary

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 6/4/2010

REVIEWED BY:

SHEET NUMBER: 2

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	38 A	PV	N	yes		
2	38 B					
3	38 C					
4	38 D					
5	38 E					
6	38 F					
7	38 G					
8	38 H					
9	38 I					
10	38 J					
11	38 K					
12	38 M					
13	38 N					
14	38 P					
15	39 A					
16	39 B					
17	39 C					
18	39 D					
19	39 E					
20	39 F					
21	39 G					
22	39 H					
23	39 I					
24	39 J					
25	39 K	✓	✓	✓	✓	

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26	39 M	PV	N	yes		
27	39 N					
28	39 P					
29	39 Q					
30	39 R					
31	39 S					
32	39 T					
33	39 V					
34	39 W					
35	39 X					
36	40 A					
37	40 B					
38	40 C					
39	40 D					
40	40 E					
41	40 F					
42	40 G					
43	40 H					
44	40 I					
45	40 J					
46	40 K					
47	40 M					
48	40 N					
49	40 P					
50	40 Q	✓	✓	✓	✓	

Primary

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 6/4/2010

REVIEWED BY:

SHEET NUMBER: 3

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	40Q	PV	N	YES	PV	
2	40 R					
3	40 S					
4	40 T					
5	40 V					
6	40 W					
7	40 X					
8	37 J					
9	37 K					
10	37 M					
11	37 N					
12	37 P					
13	37 Q					
14	37 R					
15	37 S					
16	37 T					
17	37 V					
18	37 W					
19	37 X					
20						
21						
22						
23						
24						
25						

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						

PRIMARY

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 24

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	P-1/P-2	235' NEOS	DS-61	5-24-10	KL		5/27	5/27
B	P-2/P-3	226' NEOS	DS-62	5-24-10	KL		"	"
C	P-4/P-5	207' NEOS	DS-63	5-24-10	KL		"	"
D	P5/P6	18' NEOS	DS-64	5-24-10	KL		"	
E	P3/P4	475' NEOS	DS-65	5-24-10	KL		"	
F	P-6/P-7	447' NEOS	DS-66	5-24-10	KL		"	
G	P-7/P-8	198' NEOS	DS-67	5-24-10	KL		"	
H	P-7/P-8	180' NEOS	B.O.	5-24-10	KL		"	
I	P-8/P-9	164' NEOS	DS68	5-24-10	KL		"	
J	P-9/P-10	417' NEOS	DS69	5-24-10	KL		"	
K	P-10/P-11	162' NEOS	DP-10	5-24-10	KL		"	
M	P-11/P-12	136' NEOS	DP-11	5-24-10	KL		"	
N	P-12/P-13	385' NEOS	DP-12	5-24-10	KL		"	
P	P-13/P-14	341' NEOS	DP-13	5-24-10	KL		"	
Q	P-12/P-13	280' N	W.R.	5-24-10	KL		"	5/27
R	P-14/P15	114' N	DP-14	5-24-10	KL		"	
S	P-15/P16	368' N	DP-15	5-24-10	KL		"	
T	P-16/P-17	400' N	DP-16	5-24-10	KL		"	
V	P-17/P-18	400' N	DP-17	5-24-10	KL		"	
W	P-14/P-15	400' N	DP-18	5-24-10	KL		"	
X	P13/P-14	200' N	DP-19	5-25-10	KL		"	

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

Primary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 25

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	P-17 | 18	SEOS | Anchor trench	B.O.	5/25	DR		5/27	5/27
B	P29 | 30	SEOS - 15' North A.T.	B.O.	5/25	DR			
C	P29 | 30	SEOS - 125' N of A.T.	B.O.	5/25	DR			
D	P2 | P3	300 North of SEOS	B.O	5/26	DR			
E	P2 | P3	" "	B.O	5/26	DR			
F	P-3	10' west of 25E	P	5/26	DR			
G	P12 | 13	275' North of SEOS	P	5/26	DR			
H	P47 | 37	WEOS of P-36	P	5/27	DR		5/27	5/27
I	P48 | 49	WEOS of P-47	P	5/27	DR			
J	P47 | 48	SEOS @ P-37	P	"	"			
K	P37-38	WEOS of P-36	P	"	"			
M	P-38 39	" "	P	"	"			
N	P39-40	" "	P	"	"			
P	P41-42	" "	P	"	"			
Q	P42-43	" "	P	"	"			
R	P43-44	" "	P	"	"			
S	P45-46	" "	P	"	"			
T	P50-51	" "	P	"	"			
V	P51-52	" "	P	"	"			
W	P52-53	" "	P	"	"			
X	P53-54	" "	P	"	"			

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

PRIMARY

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 26

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	P-18/19	132'N	DP-20	5-26-10	KL		5/27	5/27
B	P-19/20	139'N	DP-21	5-26-10	KL			
C	P-20/21	49'N	DP-22	5-26-10	KL			
D	P-21/22	75'N	DP-23	5-26-10	KL			
E	P-22/23	30'N	WR	5-26-10	KL			
F	P-22/23	84'N	DP-24	5-26-10	KL			
G	P-23/24	16'N	DP-25	5-26-10	KL			
H	P-24/25	26'N	DP-26	5-26-10	KL			
I	P-25/26	40'N	DP-27	5-26-10	KL			
J	P-23/P-24	400'N	DP-28	5-26-10	KL			
K	P-26/27	137'N	DP-29	5-26-10	KL			
M	P-26/27	11'N	DP-30	5-26-10	KL			
N	P-26/27	400'N	DP-31	5-26-10	KL			
P	P-30/31	275	WR	5-26-10	KL			
Q	P-28/29	15'N	DP-32	5-26-10	KL			
R	P-29/30	84'	DP-33	5-26-10	KL			
S	P-30/31	354'N	DP-34	5-26-10	KL			
T	P-32/33	299'N	DP-35	5-26-10	KL			
V	P-31/32	151'	DP-36	5-26-10	KL			
W	P33/34	51'	DP-37	5-26-10	KL			
X	P-34/35	333N	DP-38	5-26-10	KL			

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

Primary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 27

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	P-35/36	21' N	DP-39	5-27-10	KL		5/27	5/27
B	P-36/44	6' N	DP-40	5-26-10	KL			
C	P-40/P-41	76' EEOS	DP-41	5-26-10	KL			
D	P-52/53	65' N	DP-42	5-26-10	KL			
E	P-59/60	27' W	DP-43	5-26-10	KL			
F	P-54/36	9' S	DP-44	5-27-10	KL			
G	P-29/26Q	P-28/29 10' N	DPX-1	5-27-10	KL			
H	P54-55	EEOS of 55	P	5/27	DR			
I	P55-56	WEOS of P-36	P	"	DR			
J	P-56-57	" "	P	"	DR			
K	P-57/58	EEOS @ P-36	P	"	DR			
M	P36-64	EEOS @ P-58	P	"	DR			
N	P58-59	WEOS at P-64	P	"	DR			
P	P-59-63	" "	P	"	DR			
Q	P60-63	NEOS of P-59	P	"	"			
R	P-70/71	43' N	DP-45	5-27	KL			
S	P-28/65	19' WEOS	DP-46	5-27-10	KL			
T	P60-63	SEOS of P-61		"	DR			
V	P60-63	" "	DPX-2	"	DR			
W	P61-63	NEOS @ P-63	P	5/27	DR			
X	" "	" "	P	5/27	DR			

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 28

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	P-61/62	NEOS (AD) P61	P	5/27	DR		5/27	5/27
B	P62	NEOS (AD) P62	P	"	"			
C	P63	NEOS AT P-63	P	"	"			
D	P63-64	NEOS AT P64	P	"	"			
E	P64-66	NEOS (AD) P66	P	"	"			
F	P-67	NEOS AT P-67	P	5/28	DR		5/28	5/28
G	P67-68	NEOS AT P68	P	"	DR			
H	P-68	NEOS (AD) P68	P	"	DR			
I	P68-69	" " "	P	"	DR			
J	P69-70	NEOS (AD) P-70	P	5/28	DR			
K	P70-71	" " "	P	"	DR			
M	P71-72	" " 71	P	"	DR			
N	P72-73	" " 72	P	5/28	DR			
P	P65-66	NEOS of P-59	P	"	DR		5/28	5/28
Q	P35-65	" of P58	P	"	DR			
R	P34-35	NEOS of P65	P	"	DR			
S	P66-67	NEOS of P-65	P	"	DR			
T	P66-67	25' South of NEOS	P	"	DR			
V	P67-68	NEOS AT P-65	P	"	DR			
W	P68-69	" " "	P	"	DR			
X	P68-70	" " "	P		DR			

DEFECT TYPES

- BO - FUSION WELDER BURN OUT
- CR - CREASE
- D - INSTALLATION DAMAGE
- DS-# - FUSION WELD DESTRUCTIVE
- DX-# - EXTRUSION WELD DESTRUCTIVE
- EXT - LINER EXTENSION
- FM - FISHMOUTH
- FS - FAILED SEAM LENGTH
- IO - INSUFFICIENT OVERLAP
- MD - MANUFACTURER DAMAGE
- PT - PRESSURE TEST CUT
- SI - SOIL SURFACE IRREGULARITY
- T - THREE PANEL INTERSECTION
- VL - VACUUM TEST LEAK
- WR - WRINKLE
- WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

Preliminary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 29

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	P-70-71	NEOS AT P-65	P	5/28	DR		5/28	5/28
B	P70-72	" " "	P	"	"			
C	P72-73	" " "	P	5/28	DR			
D	P33-34	SEOS AT P-65	P	5/28	DR			
E	P-32-33	" " "	P	"	"			
F	P-32	" " "	P	5/28	DR			
G	P-31-32	" " "	P	"	"			
H	P-27-28	" " "	P	5/28	DR			
I	P-27	" " "	P	"	"			
J	P-26-27	" " "	P	"	"			
K	P-25-26	" " "	P	5/28	DR			
M	P-24-25	" " "	P	5/28	DR			
N	P-23-24	" " "	P	5/28	DR		5/28	5/28
P	P-23	" " "	P	5/28	DR			
Q	P-22-23	" " "	P	"	DR			
R	P-22	" " "	P	"	DR			
S	P-22	" " "	P	"	DR			
T	P21-22	" " "	P	"	DR			
V	P-20-21	" " "	P	"	DR			
W	P19-20	" " "	P	5/28	DR			
X	P18-19	" " "	P	5/28	DR			

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 30

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	P-17-18	SCOS at P-65	P	5/28	DR		5/28	5/28
B	P-16-17	" "	"	"				
C	P-15-16	" "	P	"				
D	P-14-15	" "	"	5/28				
E	P-13-14	" "	P	"				
F	P-12-13	" "	"	"				
G	P-11-12	" "	P	"				
H	P65-99	P-12 intersect	+	6/3	DR			
I	P73-74	NROS at P-65	P	"			6/3	6/3
J	P74-75		P					
K	P75-76		P					
M	P76-77		P					
N	P77-78		P					
P	P-78-79		P					
Q	P-79-80		P					
R	P-80-81		P					
S	P81-82		P					
T	P82-83		P					
V	P-83-84		P					
W	P84-85		P					
X	P-85-86		P					

DEFECT TYPES

- BO - FUSION WELDER BURN OUT
- CR - CREASE
- D - INSTALLATION DAMAGE
- DS-# - FUSION WELD DESTRUCTIVE
- DX-# - EXTRUSION WELD DESTRUCTIVE
- EXT - LINER EXTENSION
- FM - FISHMOUTH
- FS - FAILED SEAM LENGTH
- IO - INSUFFICIENT OVERLAP
- MD - MANUFACTURER DAMAGE
- PT - PRESSURE TEST CUT
- SI - SOIL SURFACE IRREGULARITY
- T - THREE PANEL INTERSECTION
- VL - VACUUM TEST LEAK
- WR - WRINKLE
- WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 32

DEFECT CODE	DEFECT LOCATION		DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
	SEAM, PANEL OR REPAIR	LOCATION DESCRIPTION						
A								
B								
C								
D								
E								
F								
G								
H								
I								
J								
K								
M								
N								
P								
Q								
R								
S								
T								
V								
W								
X								

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

primary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 33

DEFECT CODE	DEFECT LOCATION		DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
	SEAM, PANEL OR REPAIR	LOCATION DESCRIPTION						
A	P86-87	NEOS of P65	P	6/3	DK		6/3	6/3
B	P87-88	NEOS(COR) P-65	P					
C	P-88-91	NEOS of P89	P					
D	P-91-92		P					
E	P-92-93		P					
F	P-93-94		P					
G	P-94-95		P					
H	P-95-96		P					
I	P-96-97		P					
J	P-97-98		P					
K	P98-99		P					
M	P99-100		P					
N	P100-106	NEOS AT P89	P				6/3	6/3
P	P101-106	NEOS of P100	P					
Q	P105-106	NEOS AT P101	P					
R	P101-102	SEOS AT P105	P					
S	P-102-105	NEOS AT 104	P					
T	P-104-105	SEOS AT 104-105	P					
V	P102-103	NEOS AT P-104	P					
W	P103-106	NEOS AT P-101	P					
X	P101	5' EAST OF NEOS	P					

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

primary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 34

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	P-10-11	SEOS AT P89	P	6/4	DR		6/4	6/4
B	P-9-10	SEOS AT P89	P		DR			
C	P-8-9	" "	P		DR			
D	P-7-8	" "	P		DR			
E	P-6-7	" "	P		DR			
F	P-5-6	" "	P		DR			
G	P-89-90	" "	P		DR			
H	P 3-4	NEOS AT P-90	P		DR			
I	P-2-3	EEOS AT P-90	P		DR			
J	P-2-90	SEOS AT P89	P		DR			
K	P111/112/113	REOS P-1	P	6/3	DR			
M	P-33-32	10' South OF 34N	P	6/4	DR		6/4	6/4
N	P33-30	10' North OF 34M	P	6/4	DR			
P	P-73	NEOS AT P-73	P					
Q	P73-74	NEOS AT P74	P					
R	P-74-75	" "	P					
S	P-75-76	" " P75	P					
T	P76-77	" " P76	P					
V	P-77	" AT P77	P					
W	P-78	2' East of 34V	P					
X	P-78-79	NEOS AT P-78	P					

DEFECT TYPES

- BO - FUSION WELDER BURN OUT
- CR - CREASE
- D - INSTALLATION DAMAGE
- DS-# - FUSION WELD DESTRUCTIVE
- DX-# - EXTRUSION WELD DESTRUCTIVE
- EXT - LINER EXTENSION
- FM - FISHMOUTH
- FS - FAILED SEAM LENGTH
- IO - INSUFFICIENT OVERLAP
- MD - MANUFACTURER DAMAGE
- PT - PRESSURE TEST CUT
- SI - SOIL SURFACE IRREGULARITY
- T - THREE PANEL INTERSECTION
- VL - VACUUM TEST LEAK
- WR - WRINKLE
- WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 35

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	P-79-80	NEOS AT P-80	P	6/4	DL		6/4	6/4
B	P-80	5' North of 35B	P					
C	P-80	5' South of 35B	P					
D	P-80-81	NEOS of P-80	P					
E	P81/T.E.	P-81 AT T.E. END	P					
F	P81-82	NEOS of "	P					
G	P-82	" " T.E.	P					
H	P82-83	SEOS AT T.E. END	P					
I	P-83	SEOS AT T.E. END	P					
J	P83-84	SEOS OF T.E.	P					
K	P-84	" "	P					
M	P84-85	" "	P					
N	P-85-86	" "	P					
P	P-86	SEOS OF T.E.	P					
Q	P86-87	" "	P					
R	P87	" "	P					
S	P87-88	" "	P					
T	P-88	" "	P					
V	P-88-91	" "	P					
W	P-91	2' FROM NEOS	P					
X	P91-92	SEOS OF T.E. END	P	↓	↓		↓	↓

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 34

DEFECT CODE	DEFECT LOCATION		DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
	SEAM, PANEL OR REPAIR	LOCATION DESCRIPTION						
A	P-124	550' @ T.E.	P	6/7	DR		6/4	6/4
B	P-123	550' AT T.E.	P	"	"			
C	P-122/123	" "	P	"	"			
D	P121-122	" " "	P	6/7	DR			
E	P-120-121	550' AT T.E.	P	6/7	DR			
F	P-123-124	" "	P	"	"			
G								
H								
I								
J								
K								
M								
N								
P								
Q								
R								
S								
T								
V								
W								
X								

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101 REVIEWED BY: _____

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida SHEET NUMBER: 37

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	P 11-12	SEOS AT P 89	P	6/4	DH		6/3	6/7
B	P-10	" " "	P				"	
C	P-6	" " "	P				"	
D	P5-6	TIE-END AT P-90	P				"	
E	P-4-5	" " "	P				"	
F	P-4	5' EAST OF 37E	P				"	
G	P.1-2	TIE SEOS OF P-89	P				"	
H	P1-107	" " "	P				"	
I	P 99-100	10' North of 33M	P				"	
J	P.105-106	5' west of 37K	P				6/4	
K	P105-106	WEOS AT Tie END	P				"	
M	P1-117	SEOS AT P-1	P				6/4	
N	P133-134	" AT P-134	P				"	
P	P-132-133	SEOS OF P 134	P				"	
Q	P131-132	P 134-135 NEOS	P				"	
R	P131-135	NEOS OF P 136	P				"	
S	P130-131	" "	P				"	
T	P-118-119	WEOS AT P-136	P				"	
V	P 118-119	EEOS AT P 117	P				"	
W	P129-130	EEOS AT P136	P				"	
X	P128-129	" "	P	↓	↓		"	↓

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101 REVIEWED BY: _____

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida SHEET NUMBER: 38

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	P127-128	EEOS (AT) P-136	P	6/4	DR		6/4	6/4
B	P-127-136	NEOS OF P-126	P	"	DR			
C	P118-136	P126-137 SEOS CORR	P	"	"			
D	P125-126	P118/137-NEOS	P	"	DR			
E	P124-125	EEOS OF P118	P	"	DR			
F	P-123-124	" "	P	"	"			
G	P118-123	SEOS OF P122	P	"	DR			
H	P118-122	SEOS OF P117	P	"	"			
I	P121-122	" " "	P	"	"			
J	P120-121	" " "	P	"	DR			
K	P117-120	SEOS OF P116	P	"	DR			
M	P116-117	(P117 & P1) EEOS	P		DR			
N	P85/ TIE IN	10' EEOS	DPX-4	6-4-10	KL		6/4	6/4
P	P85/31I	TAKEN FROM 31 I	DPX-5	6-4-10	KL		"	"
Q	111 TIE IN	ADJACENT TO P110	DPX-6	6-7-10	KL		6-8	6-8
R	111	CREST OF SLOPE	DPX-7	6-7-10	KL		6-8	6-8
S								
T								
V								
W								
X								

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101 REVIEWED BY: _____

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida SHEET NUMBER: 39

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	P108-109	EEOS of P-1	P	6/4	DR		6/4	6/4
B	P108-114	NEOS of P-109	P	"	DR			
C	P107-108	EEOS of P-1	P	6/4	DR			
D	P108-114	NEOS of P-107	P	"	DR			
E	P-89-106	EEOS T.E.	P	6/7	DR			
F	P-89-107	" "	P	"	DR			
G	P 107	6' south of 39F	P	6/7	DR			
H	P107	10' " " "	P	6/7	DR			
I	P107-108	REOS T.E. END	P	6/7	DR			
J	P108-109	" "	P	6/7	DR			
K	P-109-110	" "	P	6/7	DR			
M	P-110	1' WEST of T.E. END	P	6/7	DR			
N	P110-111	EEOS AT T.E.	P	6/7	DR			
P	P-111	6' south of 39N	P	"	DR			
Q	P-111-112	EEOS AT T.E.	P	"	DR			
R	P112	EEOS AT T.E 39Q	P	"	DR			
S	P112-113	EEOS AT T.E.	P	"	DR			
T	P113	10' WEST OF EEOS T.E.	P	"	DR			
V	P113-115	EEOS AT T.E.	P	6/7	DR			
W	P115-116	EEOS AT "	P	"	DR			
X	P116	7' South of 39W	P	"	DR			

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

Primary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 40

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	P-111	EEOS AT T.E. END	P	6/7	DR		6/4	6/4
B	P-113	" " "	P	"	DR		"	"
C	P-115	" " 5' South 38E	P	"	DR		"	"
D	P116-120	" " AT T.E.	P	"	DR		"	"
E	P-133	S.E. - Tie-end	P	"	DR			
F	P132-133	EEOS AT T.E.	P	6/7	DR			
G	P-132	" " "	P	"	DR			
H	P131-132	EEOS AT T.E.	P	6/7	DR			
I	P-131	" "	P	6/7	DR			
J	P130-131	" "	P	"	DR			
K	P130	" "	P	"	DR			
M	P129-130	" "	P	"	DR			
N	P-129	" "	P	"	DR			
P	P-128-129	" "	P	"	DR			
Q	P-128	" "	P	"	DR			
R	P-127-128	" "	P	"	DR			
S	P-127	" "	P	"	DR			
T	P-126-127	" "	P	"	DR			
V	P-126	" "	P	"	DR			
W	P-125-126	" "	P	"	DR			
X	P-125	" "	P	"	DR			

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

Primary

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5/26/10

REVIEWED BY:

SHEET NUMBER: 1

MACHINE NUMBER: A006

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: Ø

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	25F	10:15	P	AK	2x3	10	10		BK	
2	24E	10:23	P	"	5x3	16	26			
3	24F	10:31	P		2x7	18	44			
4	24G	11:35	P		2x6	16	60			
5	24H	11:42	B.O.		2x4	12	72			
6	24I	11:58	P		7x2	18	90			
7	24J	12:02	P		7x2	18	108			
8	24K	12:40	P		6x2	16	124			
9	24M	13:03	P		2x7	18	142			
10	24N	13:12	P		2x6	16	158			
11	24P	13:19	P		2x5	14	172			
12	24W	13:30	P		2x7	18	190			
13	24X	13:40	P		2x6	16	206			
14	24R	13:48	P		2x6	16	222			
15	24S	13:58	P		2x5	14	236			
16	24T	14:15	P		2x5	14	250			
17	24V	14:20	P		2x5	14	264			
18	26A	14:25	P		2x6	16	280			
19	26B	14:34	P		2x5	14	294			
20	26C	14:44	P		2x6	16	310			
21	26D	14:56	P		2x5	14	324			
22	26E	15:00	P		2x4	12	336			
23	26F	15:08	P		2x5	14	350			
24	26G	15:18	P		2x4	12	362			
25	26H	15:27	P		2x5	14	376			
26	26I	15:38	P		2x4	12	388			
27	26J	15:45	P		2x7	18	406			
28	26K	15:53	P		2x7	18	424			
29	26M	16:02	P		2x5	14	438			
30	26N	16:10	P		2x6	16	454			

DAILY TOTAL FOR WELDED SEAM: 454 ✓

DESTRUCTIVE LENGTH CARRY - OVER: 454

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

primary

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5/27/10

REVIEWED BY:

SHEET NUMBER: 1

MACHINE NUMBER: A036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: Ø

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	26W	0758	P	FM	2x6	16	16	DP-37	PE	
2	27A	0810	P		2x4	12	28			
3	25H	0817	P		2x2	8	36			
4	25I	0822	P		2x1	6	42			
5	25J	0827	P		2x1	6	48			
6	25K	0834	P		2x1	6	54			
7	25M	0841	P		2x1	6	60			
8	25N	0850	P		2x1	6	66			
9	27C	0856	P		8x2	20	86	DP-41		
10	25P	0901	P		1x2	6	92			
11	25Q	0905	P		1x2	6	98			
12	25R	0912	P		1x2	6	104			
13	27B	0918	P		2x7	18	122			
14	25S	0928	P		1x2	6	128			
15	26T	0940	P		2x5	14	142	DP-35		
16	26P	0948	P		2x3	10	152			
17	26X	10:00	P		2x4	12	164			
18	25T	10:12	P		1x2	6	170			
19	25V	10:27	P		1x2	6	176			
20	25W	10:34	P		1x2	6	182			
21	25X	10:40	P		1x7	6	188			
22	27D	10:51	P		1x4	16	198			
23	27H	10:59	P		2x2	8	206			
24	27I	11:05	P		1x1	4	210			
25	27J	11:15	P		1x2	6	216			
26	27K	11:23	P		2x6	16	232			
27	27M	11:31	P		2x2	8	240			
28	27N	11:34	P		2x1	6	246			
29	27P	11:40	P		1x2	6	252			
30	27Q	11:45	P		2x2	8	260			

DAILY TOTAL FOR WELDED SEAM: 260

DESTRUCTIVE LENGTH CARRY - OVER: 260

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5/27/10

REVIEWED BY: KL

SHEET NUMBER: 2

MACHINE NUMBER: A036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 260'

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	27T	11:57	P	Fm	5x7	24	284'/0			
2	27E	13:05	P	Fm	2x5	14	14			
3	27V	13:10	P	Fm	2x4	12	26			
4	27W	14:00	P	"	1x2	6	32			
5	27X	14:10	P	"	1x2	6	38			
6	28A	14:15	P	"	1x2	6	44			
7	28B	14:20	P	"	1x2	6	50			
8	28C	14:35	P	"	1x2	6	56			
9	28D	14:48	P	"	1x3	8	64			
10	28E	15:02	P	"	1x2	6	70			
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

DAILY TOTAL FOR WELDED SEAM: 94

DESTRUCTIVE LENGTH CARRY - OVER: 70

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

primary

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5/28/2010

REVIEWED BY:

SHEET NUMBER: 1

MACHINE NUMBER: A00C

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 14

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	29N	1320	P	[illegible]	2x3	10	24			
2	29P	1455	P	"	2x4	12	36			
3	29Q	15:20	P	"	2x5	14	50			
4	29R	15:22	P	"	1x1	4	54			
5	29S	1525	P	"	1x2	6	60			
6	29T	15:27	P	"	1x2	6	66			
7	29V	15:34	P	"	2x2	8	74			
8	29W	15:38	P	"	2x2	8	82			
9	29X	15:45	P	"	2x3	10	92			
10	30A	16:05	P	"	1x2	6	98			
11	30B	16:17	P	"	1x1	4	102			
12	30C	16:30	P	"	1x2	6	108			
13	30D	16:48	P	"	2x3	10	118			
14	30E	17:05	P	"	2x2	8	126			
15	30F	17:15	P	"	2x5	14	140			
16	30G	17:28	P	"	2x4	8	148			
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

DAILY TOTAL FOR WELDED SEAM: 134

DESTRUCTIVE LENGTH CARRY - OVER: 148

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5/28/2010

REVIEWED BY:

SHEET NUMBER: 1

MACHINE NUMBER: A036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 70

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	28F	0718	P	FM	1x9	20	90		DR	
2	28G	0725	P	FM	1x2	6	96			
3	28H	0731	P	"	1x2	6	102			
4	28I	0740	P	"	1x7	16	118			
5	28J	0750	P	"	2x10	24	142			
6	28K	0810	P	"	1x2	6	148			
7	28M	0815	P	"	1x2	6	154			
8	28N	0823	P	"	2x3	10	164			
9	27R	0835	P	"	2x5	14	178			
10	28P	847	P	"	2x3	10	188			
11	28Q	0855	P	"	1x2	6	194			
12	28R	0905	P	"	1x2	6	200			
13	28S	0915	P	"	1x2	6	206			
14	28T	0920	P	"	2x1	6	212			
15	28V	0931	P	"	2x2	8	220			
16	28W	0940	P	"	1x2	6	226			
17	28X	0955	P	"	1x2	6	232			
18	27S	10:11	P	"	2x4	12	244			
19	29A	10:20	P	"	1x2	6	250			
20	29B	10:30	P	"	3x2	10	260			
21	29C	10:40	P	"	2x2	8	268			
22	29D	10:50	P	"	2x1	6	274			
23	29E	10:59	P	"	2x8	16	290			
24	29F	11:10	P	"	1x1	4	294			
25	29G	11:15	P	"	2x1	6	300			
26	29H	11:20	P	"	3x3	12	312			
27	29I	11:29	P	"	2x5	14	326			
28	29J	11:35	P	"	2x3	10	336			
29	29K	11:42	P	"	2x4	12	348			
30	29M	11:53	P	"	2x12	28	376		↓	

DAILY TOTAL FOR WELDED SEAM: 306

DESTRUCTIVE LENGTH CARRY - OVER: 376

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 6-3-10

REVIEWED BY:

SHEET NUMBER: __ __

MACHINE NUMBER: A 068

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: NEW @ PRIMARY

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	37A	0710	P	AR	2x2	8	8			
2	37B	0718	P	AR	2x4	12	20			
3	37C	0725	P	"	2x2	8	28			
4	37D	0735	P	"	2x1	6	34			
5	37E	0742	P	"	2x5	14	48			
6	37F	0749	P	"	1x2	6	54			
7	37G	0758	P	"	1x2	6	60			
8	37H	0812	P	"	1x2	18	68			
9	37I	0825	P	"	3x3	12	80			
10	30L	0830	P	"	5x3	16	96			
11	30J	0835	P	"	2x1	6	102			
12	30K	0845	P	"	2x2	8	110			
13	30M	0851	P	"	2x1	6	116			
14	30N	0900	P	"	1x2	6	122			
15	30P	0910	P	"	2x2	8	130			
16	30Q	0917	P	"	2x1	6	136			
17	30R	0925	P	"	2x1	6	142			
18	30S	0937	P	"	2x2	8	150			
19	30T	0945	P	"	2x1	6	156			
20	30V	0952	P	"	2x2	8	164			
21	30W	1000	P	"	1x1	4	168			
22	30X	10:07	P	"	1x2	6	174			
23	33A	10:15	P	"	4x4	16	190			
24	33B	10:26	P	"	6x3	18	208			
25	30H	10:40	P	"	6x3	18	226			
26	33C	10:50	P	"	9x3	20	250			
27	33D	10:59	P	"	1x2	6	256			
28	33E	11:10	P	"	10x2	24	280			
29	33F	11:16	P	"	1x2	6	286			
30	33G	11:25	P	"	1x2	6	292			

DAILY TOTAL FOR WELDED SEAM: 292

DESTRUCTIVE LENGTH CARRY - OVER: 292

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 6-4-10

REVIEWED BY: KL

SHEET NUMBER: 1

MACHINE NUMBER: A 036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 376

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	34M	0900	P	FM	2x6	16	392		DR	
2	34N	0908	P	FM	10x3	26	418		DR	
3	34P	0918	P	FM	20x3	46	464		DR	
4	34Q	0925	P	"	2x1	6	470		DR	
5	31E	0933	P	FM	2x4	12	482/0	DPx-5	KL	
6	345	0938	P	"	2x1	6	6		DR	
7	34T	0945	P	"	2x2	8	14			
8	34V	0955	P	"	4x3	14	28			
9	34W	10:03	P	"	1x2	6	34			
10	34X	10:12	P	"	1x2	6	40			
11	35A	10:18	P		1x2	6	46			
12	35B	10:25	P		2x2	8	54			
13	35C	10:29	P		2x2	8	62			
14	35D	10:30	P		2x6	16	78			
15	35E	10:38	P		1x2	6	84			
16	35F	10:45	P		1x2	6	90			
17	35G	10:52	P		1x2	6	96			
18	35H	10:58	P		1x1	4	100			
19	35I	11:05	P		2x1	6	106			
20	35J	11:11	P		2x1	6	112			
21	35K	11:15	P		1x2	6	118			
22	35M	11:19	P		1x2	6	124			
23	35N	11:25	P		1x2	6	130			
24	35P	11:29	P		1x2	6	136			
25	35Q	11:32	P		2x1	6	142			
26	35R	11:35	P		2x1	6	148			
27	35S	11:38	P		2x2	8	156			
28	35T	11:42	P		2x1	6	162			
29	35V	11:45	P		2x2	8	170			
30	35W	11:55	P		2x1	6	176			

DAILY TOTAL FOR WELDED SEAM: 282

DESTRUCTIVE LENGTH CARRY - OVER: 176

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 6-4-10

REVIEWED BY: KL

SHEET NUMBER: 2

MACHINE NUMBER: A036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 176

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	35X	12:03	P	PM	1x2	6	182			
2	34	12:12	P	"	1x2	6	188			
3	24A	15:40	P		1x5	12	200			
4	24B	15:45	P		1x4	10	210			
5	250	15:52	P		2x2	8	218			
6	25E	16:00	P		2x3	6	224			
7	25F	16:08	P		2x5	10	234			
8	24C	16:15	P		2x4	12	246			
9	31E	16:22	P	"	2x4	12	258			
10	31F	16:28		"	2x4	12	270			
11	31G	16:35		"	2x4	12	282			
12	31H	16:44		"	2x4	12	294			
13	31I	16:52		"	2x4	12	306			
14	31J	17:05			2x4	12	318			
15	31M	17:12			2x4	12	330			
16	31N	17:20			2x4	12	342			
17	31P	17:28			2x4	12	354			
18	31R	17:38			2x4	12	366			
19	31S	17:45			2x2	8	374			
20	31T	17:52			1x2	6	380			
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

DAILY TOTAL FOR WELDED SEAM: 214

DESTRUCTIVE LENGTH CARRY - OVER: 380

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

PRIMARY

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 6/4/10

REVIEWED BY:

SHEET NUMBER: 1

MACHINE NUMBER: A-006

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 148

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	37M	0712	P	LA	2x2	8	22			
2	37N	0729	P	"	4x3	14	37			
3	37P	0744	P	"	2x4	12	49			
4	37Q	0805	P	"	4x2	12	61			
5	37R	0820	P	"	5x3	16	77			
6	37S	0825	P	"	1x2	6	83			
7	37T	0837	P	"	2x2	8	91			
8	37W	0845	P	"	2x2	8	99			
9	37X	0853	P	"	1x2	6	105			
10	38A	0910	P	"	1x2	6	111			
11	38B	0921	P	"	4x3	14	125			
12	38C	0925	P	"	6x3	18	143			
13	38D	0935	P	"	5x3	16	159			
14	38E	0943	P		2x2	8	168			
15	38F	10:10	P		1x2	6	174			
16	38G	10:25	P		2x2	8	182			
17	38H	10:38	P		4x3	14	196			
18	38I	10:44	P		10x3	26	222			
19	38J	11:15	P		2x3	10	232	PP#58		
20	38K	11:27	P		4x3	14	246			
21	38M	11:38	P		7x3	20	266			
22	31W	13:02	P	"	5x2	14	280			
23										
24										
25										
26										
27										
28										
29										
30										

DAILY TOTAL FOR WELDED SEAM: 264

DESTRUCTIVE LENGTH CARRY - OVER:

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

primary

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101 DATE OF REPAIR: 6/4/10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction REVIEWED BY:

PROJECT LOCATION: Saint Cloud, Florida SHEET NUMBER:

MACHINE NUMBER: A068

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 151'

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	39A	11:45	P	AR	1x2	3	154			
2	39B	11:52	P	"	3x5	16	170			
3	39C	11:58	P	"	3x4	14	184			
4	39D	12:05	P	"	1x2	6	190			
5	39E	13:00	P	"	2x4	12	202			
6	39F	13:05	P	"	1x1	4	206			
7	39F	13:10	P	"	2x1	6	212			
8	39G	13:15	P	"	2x1	6	218			
9	39H	13:19	P	"	2x1	6	224			
10	39I	13:19	P		2x1	6	230			
11	39J	13:25	P		1x1	4	234			
12	39K	13:32	P		2x4	12	246			
13	39M	13:40	P		3x4	14	260			
14	39N	13:47	P		1x1	4	264			
15	39P	13:55	P		3x5	16	280			
16	39Q	13:58	P		1x2	6	286			
17	39R	14:05	P		4x3	14	300			
18	39S	14:10	P		1x2	6	306			
19	39T	14:15	P		3x3	12	318			
20	39V	14:20	P		1x2	6	324			
21	39W	14:26	P		2x1	6	330			
22	39X	14:31	P	↓	1x1	4	334			
23	40A	14:35	P	"	1x1	4	338			
24	40B	14:41	P	"	1x1	4	342			
25	40C	14:48	P	"	2x1	6	348			
26	40D	14:52	P	"	1x1	4	352			
27	24Q	14:58	P	"	1x2	6	358			
28				"						
29										
30										

DAILY TOTAL FOR WELDED SEAM: 207

DESTRUCTIVE LENGTH CARRY - OVER: 358

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

primary

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 6/4

REVIEWED BY:

SHEET NUMBER:

MACHINE NUMBER: A068

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 2921

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	33J	12:35	P	AM	2x1	6	298			
2	33R	12:40	P	"	2x2	8	306			
3	33M	12:45	P	"	2x2	8	314			
4	33N	12:48	P	"	4x3	14	328			
5	30H	12:54	P	"	6x4	20	348			
6	34A	1:00	P	"	2x2	4	352			
7	34B	13:08	P	"	2x1	6	358			
8	34C	13:15	P	"	2x1	6	364			
9	34D	13:22	P	"	2x2	8	372			
10	34E	13:30	P	"	2x1	6	378			
11	34F	13:34	P	"	2x4	16	394			
12	34G	13:39	P	"	2x3	10	404			
13	34H	13:45	P	"	2x3	10	414			
14	34I	13:54	P	"	1x2	6	420			
15	34J	14:04	P	"	5x2	14	434			
16	34K	14:12	P	"	3x2	10	444			
17	33P	0912	P	"	6x4	24	468			
18	33Q	0928	P	"	2x4	12	475/5	DPX-3	KL	P-105/106
19	33R	0945	P	"	2x5	14	19			
20	33W	10:00	P	"	2x2	8	27			
21	37S	10:11	P	"	2x5	14	41			
22	37K	10:20	P	"	2x2	8	49			
23	38N	10:48	P	"	7x1	6	55			
24	38P	10:55	P	"	2x2	8	63			
25	38Q	11:05	P	"	5x3	16	79			
26	38R	11:12	P	"	4x2	12	91			
27	38S	11:18	P	"	4x3	14	105			
28	38T	11:25	P	"	6x2	16	121			
29	38W	11:32	P	"	5x3	16	137			
30	38X	11:38	P	"	4x3	14	151			

DAILY TOTAL FOR WELDED SEAM: 334

DESTRUCTIVE LENGTH CARRY - OVER: 151

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

Arthur J

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 6/7/2010

REVIEWED BY: _____

SHEET NUMBER: 1

MACHINE NUMBER: A036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 380

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	40A	~~15:05~~	P	FM	1X2	6	390			
2	40B	~~15:10~~	P	"	2X2	8	394			
3	40C	~~15:15~~	P	"	1X2	6	400			
4	40D	~~15:15~~	P	"	1X3	8	408			
5	40E	0940	P	FM	7X2	18	426/0	DPX-7		
6	40F	0947	P		1X1	4	4			
7	40G	0954	P		1X1	4	8			
8	40H	10:12	P		1X2	6	14			
9	40I	10:20	P		1X1	4	18			
10	40J	10:25	P		1X1	4	22			
11	40K	10:35	P		2X2	8	30			
12	40M	10:46	P		2X1	6	36			
13	40N	10:51	P		1X2	6	42			
14	40P	00:56	P		1X2	6	48			
15	40Q	11:05	P		1X2	6	54			
16	40R	11:12	P		1X2	6	60			
17	40S	11:18	P		1X2	6	66			
18	40T	11:26	P		1X1	4	70			
19	40V	11:34	P		1X2	6	76			
20	40W	11:45	P		1X2	6	82			
21	40X	11:48	P		1X2	6	88			
22	31V	11:58	P		2X1	6	94			
23	36A	12:02	P		1X2	6	100			
24	36B	13:07	P		1X2	6	106			
25	36C	13:15	P		1X2	6	112			
26	36D	13:22	P		2X2	8	120			
27	36E	13:29	P		1X2	6	126			
28	36F	13:42	P		1X2	6	132			
29										
30										

DAILY TOTAL FOR WELDED SEAM: 178

DESTRUCTIVE LENGTH CARRY - OVER: 132

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

SECONDARY

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 4/28/10

DEPLOYMENT MONITOR(S): JW / K

REVIEWED BY:

MATERIAL TYPE: 60 MIL HDPE MICROSPIKE

SHEET NUMBER: 1 OF 1

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																					REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL						
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
1	S-1	2475	52	Y	60	60	60	62	61	62	63	62	60	62											
2	S-2		51	Y	61	61	60	60	61	60	62	62	62	61											
3	S-3		52	Y	60	61	60	60	62	62	60	60	61	62											
4	S-4		52	Y	63	62	62	60	60	60	61	62	62	60											
5	S-5		52	Y	60	61	60	62	61	60	60	62	61	60											
6	S-6		51	Y	62	62	60	62	60	62	60	61	61	61											
7	S-7		50	Y	63	62	60	62	62	60	61	61	62	60											
8	S-8		51	Y	64	61	62	62	62	60	61	61	60	60											
9	S-9	3338	51	Y	62	60	60	62	61	61	60	60	60	60											
10	S-10		50	Y	63	63	62	62	63	62	61	61	62	61											
11	S-11		51	Y	60	61	60	61	61	60	60	62	62	60											
12	S-12		49	Y	60	60	61	61	62	61	62	60	60	60											
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ATLANTIC COAST CONSULTING, INC

13,700 SqFt

Secondary

SECONDARY

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 4/29/10

DEPLOYMENT MONITOR(S): JW / K

REVIEWED BY:

MATERIAL TYPE: 60 MIL HDPE MICROSPIKE

SHEET NUMBER: 1 OF 1

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																						REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL							
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
1	S-13	3339	51	Y	60	60	62	61	61	60	60	60	61	62													
2	S-14	3338	52	Y	61	61	61	60	61	62	61	61	61	60													
3	S-15	3338	52	Y	60	62	62	60	60	62	60	60	61	62													
4	S-16	3338	52	Y	60	62	62	62	60	61	61	61	60	60													
5	S-17	3338	51	Y	60	62	62	61	61	61	60	61	61	61													
6	S-18	2477	49	Y	60	60	61	62	62	60	60	61	62	61													
7	S-19	2477	49	Y	61	60	60	60	61	62	61	61	61	61													
8	S-20	2477	49	Y	61	60	61	62	61	60	60	60	62	62													
9	S-21	2477	49	Y	62	60	62	62	62	60	60	61	62	62													
10	S-22	3341	497	Y	60	60	61	61	60	60	61	61	61	61													
11	S-23	2477	46	Y	60	60	60	61	61	60	60	60	61	60													
12	S-24	2477	25	Y	61	61	60	61	60	60	62	62	61	61													
13	S-25	2477	11	Y	62	62	61	61	61	61	60	60	61	61													
14	S-26	2477	32	Y	61	61	60	60	60	62	61	62	61	61													
15	~~S-27~~	~~2477~~	~~5x111~~	Y	~~61~~	~~61~~	~~60~~	~~61~~	~~61~~	~~61~~	~~60~~	~~60~~	~~60~~	~~61~~													
16	~~S-28~~	~~2477~~	6x153	Y	~~60~~	~~61~~	~~61~~	~~60~~	~~60~~	~~61~~	~~62~~	~~62~~	~~61~~	~~60~~													
17	S-29	2475	495	Y	60	60	61	62	62	62	60	60	62	60													
18	S-30	3336	495	Y	60	60	62	62	61	60	61	61	60	61													
19																											
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ATLANTIC COAST CONSULTING, INC

2055

APPROX 46,200 SQ FT

SECONDARY

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 4/30/10

DEPLOYMENT MONITOR(S): JW/K

REVIEWED BY:

MATERIAL TYPE: 60 mil

SHEET NUMBER: 1 OF 1

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																						REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL							
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
1	S31	2473	497	Y	60	62	63	62	62	60	60	62	60	61												
2	S32	2476	501	Y	61	62	60	60	60	61	61	61	60	60												
3	S-33	2479	495	Y	60	60	62	60	62	61	60	60	61	60												
4	S-34	3339	497	Y	61	60	61	61	61	61	60	61	61	60												
5																										
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1990
44,700 SqFT

SECONDARY

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

MATERIAL TYPE: 60 mil

DATE OF DEPLOYMENT: 5/3/10

DEPLOYMENT MONITOR(S): JW

REVIEWED BY:

SHEET NUMBER: 1 OF

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																						REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL							
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
1	S-27	3227	501	Y	60	60	60	61	61	60	61	61	62	60												
2	S-28	3229	505	Y	61	61	60	61	60	61	62	62	61	61												
3	S 35	3340	503	Y	60	60	60	60	60	61	60	61	61	60												
4	S-36	3233	501	Y	60	60	61	61	61	60	61	62	61	61												
5	S-37	478	500	Y	61	62	61	61	61	61	60	60	60	61												
6																										
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ATLANTIC COAST CONSULTING, INC

Secondary

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 5/6/10

DEPLOYMENT MONITOR(S): JW / KL

REVIEWED BY:

MATERIAL TYPE: Micro-Spike 60 mil

SHEET NUMBER: 1 OF

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																						REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL							
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
1	S-38	2473	47	Y	60	60	60	62	62	61	61	60	60	60													
2	S-39	2473	47	Y	61	61	61	62	62	62	60	60	60	61													
3	S-40	2473	48	Y	60	60	61	61	61	60	60	60	60	60													
4	S-41	2478	47	Y	60	60	60	61	61	62	60	60	60	60													
5	S-42	2478	48	Y	60	61	61	61	60	60	60	60	60	60													
6	S-43	2473	50	Y	60	60	60	61	61	61	60	60	61	62													
7	S-44	2478	50	Y	61	60	61	61	61	60	61	62	61	61													
8	S-45	2473	50	Y	62	61	61	61	61	61	61	61	61	61													
9	S-46	3223	50	Y	60	60	60	61	60	61	60	60	60	60													
10	S-47	3223	51	Y	60	60	61	61	60	61	61	61	60	60													
11	S-48	3223	49	Y	60	60	61	61	61	60	61	60	60	60													
12	S-49	3223	50	Y	61	60	60	61	62	60	61	61	61	60													
13	S-50	3223	49	Y	60	61	62	62	61	61	60	61	61	61													
14	S-51	3223	49	Y	60	60	60	61	62	60	60	60	61	61													
15	S-52	3223	27	Y	60	60	61	61	60	60	61	61	60	60													
16	S-53	3223	25	Y	61	61	62	61	61	60	61	60	61	61													
17	S-54	3223	45	Y	61	61	60	60	60	61	61	61	62	61													
18	S-55	3232	401	Y	60	61	61	61	60	60	60	61	60	60													
19	S-56	3232	95	Y	60	60	60	60	61	60	61	62	62	61													
20	S-57	9374	300	Y	61	60	60	60	60	61	61	61	60	60													
21	58	9374	110	Y	62	61	60	61	61	62	62	61	61	60													
22	59	3228	64	Y	60	60	60	61	61	61	60	60	60	60													
23	60	3234	234	Y	60	61	61	61	61	61	61	61	60	60													
24	61	3234	263	Y	61	61	61	62	62	61	61	61	62	62													
25	62	3231	147	N	61	60	60	61	61	60	60	60	60	60													

SECONDARY

SECONDARY

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 5/7/10

DEPLOYMENT MONITOR(S):

REVIEWED BY: JW

MATERIAL TYPE: 60 MIL HDPE MICROSPIKE

SHEET NUMBER: 1 OF

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																						REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL							
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
1	63	3231	33	Y	60	60	60	61	61	61	61	60	60	60													
2	64	3231	33	Y	61	61	61	60	60	61	62	62	61	61													
3	65	3231	33	Y	60	60	60	61	61	61	62	62	62	61													
4	66	3231	33	Y	60	60	61	61	60	60	60	60	60	60													
5	S-67	3231	33	Y	60	60	60	60	60	61	61	61	60	60													
6	S-68	3231	33	Y	61	61	60	60	60	61	60	61	60	60													
7	S-69	3231	33	Y	62	60	60	61	61	60	60	61	61	60													
8	S-70	3231	33	Y	60	61	60	61	60	61	60	60	60	60													
9	S-71	3231	32	Y	61	60	61	60	62	61	61	61	61	60													
10	S-72	3337	33	Y	60	61	61	62	61	60	60	60	60	61													
11	S-73	3337	33	Y	61	62	61	60	61	60	62	61	61	60													
12	S-74	3337	32	Y	61	60	62	60	61	60	60	60	61	60													
13	S-75	3337	33	Y	61	60	60	61	62	60	60	61	61	60													
14	S-76	3337	33	Y	60	60	61	61	61	60	61	62	61	61													
15	S-77	3337	33	Y	60	60	61	60	61	60	60	60	60	60													
16	S-78	3337	33	Y	60	61	61	60	60	61	60	60	61	61													
17	S-79	3337	33	Y	61	61	61	61	62	63	61	60	60	61													
18	S-80	3337	33	Y	60	60	62	60	61	62	63	62	62	61													
19	S-81	3337	32	Y	61	60	60	61	62	61	60	61	61	61													
20	S-82	3337	31	Y	62	61	60	61	62	61	60	60	60	61													
21	S-83	3337	33	Y	60	61	60	61	61	61	60	61	60	61													
22	S-84	3337	33	Y	61	62	60	62	61	60	60	61	60	60													
23	S-85	3335	50	Y	60	60	60	61	61	60	60	60	60	60													
24	S-86	3337	10	Y	60	61	60	61	60	61	61	60	60	61													
25	S-87	3231	10 x 12	Y	60	61	62	61	60	62	61	61	61	62													

Secondary

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 5/10/10

DEPLOYMENT MONITOR(S):

REVIEWED BY:

MATERIAL TYPE: 60 MIL HDPE MICRO SPIKE

SHEET NUMBER: 1 of

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																						REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL							
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
1	S-89	2593	501	Y	60	60	61	60	60	60	61	61	60	61													
2	S-90	2615	501	Y	60	60	61	60	61	61	62	60	61	61													
3	S-91	2614	502	Y	60	60	62	60	60	60	60	61	62	61													
4	S 92	2594	501	Y	60	61	62	60	60	61	60	60	61	61													
5	S-93	2503	503	Y	61	62	60	60	61	60	60	60	62	61													
6	S 94	3115	501	Y	61	61	61	60	61	60	63	62	61	62													
7	S 95	2616	500	Y	60	60	61	60	60	60	61	60	61	61													
8	S 96	3113	501	Y	60	60	60	60	61	61	61	60	60	60													
9	S-88	21323	500	Y	61	60	61	60	60	61	62	61	60	61													
10																											
11																											
12																											
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ATLANTIC COAST CONSULTING, INC

Scan Day

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 5/6/10

DEPLOYMENT MONITOR(S): JW

REVIEWED BY:

MATERIAL TYPE: 60 MIL HDPE MICROSPIKE

SHEET NUMBER: 1 of 1

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																						REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL							
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
1	S-97	3211	501	Y	61	60	60	61	60	61	62	60	61	60													
2	S-98	2612	502	Y	60	61	60	60	60	61	61	60	60	60													
3	S-99	9243	425	Y	61	61	61	60	60	60	60	61	60	61													
4	S-100	2725	8	Y	60	60	62	60	60	60	61	61	61	60													
5	S-101	2725	441	Y	61	60	60	60	60	62	62	61	62	61													
6	S-102	2725	59	Y	61	60	60	60	61	61	60	60	60	61													
7	S-103	3230	383	Y	61	61	60	60	60	61	61	60	60	62													
8	S-104	2724	323	Y	62	60	61	60	61	61	61	60	61	60													
9	S-105	3230	116	Y	61	61	61	60	61	60	61	62	60	60													
10	S-106	"	164	Y	61	61	61	60	60	60	61	61	61	60													
11	S-107	2619	286	Y	60	62	60	61	61	61	62	61	61	60													
12	S-108	2619	217	Y	60	61	62	60	60	60	60	60	60	60													
13	S-109	2723	153	Y	60	62	61	60	61	61	61	61	61	60													
14	S-110	2723	340	Y	60	60	61	61	60	61	60	60	61	60													
15	S-111	"	37	Y	60	61	61	61	61	60	60	60	60	62													
16																											
17																											
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24																											
25																											

ATLANTIC COAST CONSULTING, INC

SECONDARY

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 5/12/2010

DEPLOYMENT MONITOR(S): JW

REVIEWED BY:

MATERIAL TYPE: 60 mil.

SHEET NUMBER: 1 of 1

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																						REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL							
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
1	112	209478		Y	61	60	61	62	61	60	60	62	61	60												
2	113	209478		Y	60	61	60	61	60	61	61	60	60	61												
3	114	209478		Y	61	60	61	62	61	62	62	61	61	60												
4	115	209478		Y	62	60	60	61	60	61	60	61	60	60												
5	116	213114		Y	61	60	61	62	60	61	61	61	60	61												
6	117	213114		Y	61	60	61	62	61	62	61	60	60	60												
7	118	213114		Y	60	61	60	61	60	61	61	61	60	61												
8	119	213114		Y	61	61	62	62	60	60	60	60	61	61												
9	120	213114		Y	61	60	61	61	61	61	60	60	62	62												
10	121	213114		Y	60	61	60	61	60	62	61	61	61	61												
11	122	213114		Y	61	62	61	61	60	61	62	61	60	60												
12	123	213114		Y	61	61	60	61	60	61	61	61	62	61												
13	124	213114		Y	61	61	61	60	61	62	62	61	61	60												
14	125	213114		Y	62	60	61	61	60	61	61	60	61	60												
15	126	213114		Y	61	60	60	61	60	61	60	61	62	60												
16	127	213114		Y	61	61	61	62	61	62	61	61	61	60												
17	128	213114		Y	62	61	62	60	61	60	62	61	62	60												
18	129	213217		Y	61	62	62	61	61	62	61	62	61	61												
19	130	213217		Y	61	61	60	62	61	62	61	60	61	62												
20	131	213217		Y	60	60	60	61	60	61	62	61	60	61												
21	132	213217		N	61	62	61	60	60	61	61	61	60	61												
22	133	213224		Y	60	62	61	60	61	61	61	61	60	61												
23	134	213224		Y	61	61	62	61	62	61	61	61	61	60												
24	135	213224		Y	61	60	61	60	61	61	60	60	60	61												
25	136	213225		Y	60	61	60	61	60	61	61	61	62	61												

Second

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 5/12/2010

DEPLOYMENT MONITOR(S): JW

REVIEWED BY: _____

MATERIAL TYPE: 60 mil.

SHEET NUMBER: 2 of 2

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																					REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL					
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
1	137	213225		✓	60	61	60	61	62	61	60	61	61	62											
2	138	213226		✓	61	61	61	62	63	61	62	61	62	61											
3	139	213226		✓	62	60	61	61	60	61	60	61	62	61											
4																									
5																									
6																									
7																									
8																									
9																									
10																									
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24																									
25																									

ATLANTIC COAST CONSULTING, INC

Secondary

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 5-15-10

DEPLOYMENT MONITOR(S): KL

REVIEWED BY:

MATERIAL TYPE: 60 mil Micro-spike

SHEET NUMBER: 1

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS LEAD 1	2	3	4	5	LEFT SIDE 1	2	3	4	5	RIGHT SIDE 1	2	3	4	5	TRAIL 1	2	3	4	5	REMARKS
1	140	213226		✓	61	60	61	62	61	61	61	61	61	60											
2	142	213218		✓	61	60	60	60	60	60	60	60	60	60											
3	143	213221		✓	62	61	61	61	61	61	60	61	60	61											
4	144	213221		✓	60	61	60	61	61	62	61	61	61	62											
5	145	212613		✓	60	60	61	60	60	61	62	62	61	61											
6	146	212613		✓	61	60	60	60	61	61	61	62	60	60											
7	147	213220		✓	61	61	60	60	61	60	61	61	61	61											
8	148	213220		✓	61	62	60	61	60	61	60	61	60	60											
9	149	213222		✓	60	60	61	61	61	61	60	61	61	60											
10	150	213220		✓	61	61	61	60	61	60	61	60	60	62											
11	151	213220		✓	61	62	61	61	60	61	61	60	61	61											
12	152	213217		✓	61	60	60	61	61	60	61	60	61	62											
13																									
14																									
15																									
16																									
17																									
18																									
19																									
20																									
21																									
22																									
23																									
24																									
25																									

ATLANTIC COAST CONSULTING, INC

Second

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF DEPLOYMENT: 5-15-10

DEPLOYMENT MONITOR(S): KL

REVIEWED BY:

MATERIAL TYPE: 60 mil Smooth Spike

SHEET NUMBER:

LINE NUMBER	PANEL NUMBER	MATERIAL ROLL NUMBER	DEPLOYED LENGTH (L.F.)	OBSERVED PANEL OVERLAP	PANEL THICKNESS MEASUREMENTS																						REMARKS
					LEAD					LEFT SIDE					RIGHT SIDE					TRAIL							
					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
1	153	213223		Y	61	60	61	62	61	61	61	60	61	60												
2	154	213223		Y	61	60	60	61	61	61	60	60	60	61												
3	155	213223		Y	60	61	61	61	61	60	61	60	61	60												
4	156	213223		Y	61	61	60	62	60	61	61	61	62	61												
5	157	213223		Y	60	61	60	61	62	61	60	60	62	62												
6	158	213219		Y	61	60	61	60	61	60	61	60	61	61												
7	159	213219		Y	60	60	60	61	60	60	61	60	60	60												
8	160	213219		Y	61	61	60	60	61	60	62	61	61	60												
9	161	213219		Y	61	61	60	61	61	62	61	62	61	61												
10	162	213219		Y	61	60	60	60	60	60	61	61	62	62												
11	163	213219		Y	61	61	61	61	61	61	62	61	61	61												
12	164	213220		Y	60	60	61	60	60	61	60	60	61	61												
13	165	212617		Y	61	60	60	61	61	60	60	60	62	60												
14	166	212617		Y	61	60	61	60	61	60	60	61	60	61												
15																										
16																										
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SECONDARY

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 4/28/10

TF - # = FUSION SEAM: ✓

TX - # = EXTRUSION SEAM:

REVIEWED BY:

SHEET NUMBER: 1 OF 1

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE			OUTSIDE PEEL STRENGTH/MODE			SHEAR STRENGTH/MODE			PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
							1	2	3	1	2	3	1	2	3			
TF-1	1453	A089	AR	80	13	800	117	111	116	117	128	119	165	172	178	P	JW	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			
TF-2	1506	A042	HP	80	11	800	119	114	126	115	116	120	166	166	174	P	JW	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			
TF-3	1650	A042	HP	79	10	800	122	138	144	132	122	127	139	160	166	P	JW	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			

✓ Secondary

SECONDARY

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 4/29/10

TF - # = FUSION SEAM: ✓

TX - # = EXTRUSION SEAM: ✓

REVIEWED BY:

SHEET NUMBER: 1 OF

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE 1	INSIDE PEEL STRENGTH/MODE 2	INSIDE PEEL STRENGTH/MODE 3	OUTSIDE PEEL STRENGTH/MODE 1	OUTSIDE PEEL STRENGTH/MODE 2	OUTSIDE PEEL STRENGTH/MODE 3	SHEAR STRENGTH/MODE 1	SHEAR STRENGTH/MODE 2	SHEAR STRENGTH/MODE 3	PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
TF-1	0850	A042	HP	63°	11	800	138 SE	143 SE	142 SE	132 SE	129 SE	145 SE	182 BRK	180 BRK	183 BRK	P	JW	
TF-2	0900	A089	AR	63°	15	800	121 SE	127 SE	133 SE	123 SE	118 SE	121 SE	170 BRK	171 BRK	177 BRK	P	JW	
TF-3	1042	A042	HP	72°	10	800	149 SE	148 SE	132 SE	125 SE	126 SE	140 SE	189 BRK	194 BRK	196 BRK	P	JW	
TF-4	1352	↓	↓	80	10	800	121 SE	143 SE	138 SE	125 SE	127 SE	117 SE	169 BRK	184 BRK	177 BRK	P	JW	
TF-5	1359	↓	↓	80	11	800	120 SE	144 SE	138 SE	136 SE	140 SE	139 SE	189 BRK	188 BRK	180 BRK	P	JW	
TF-6	1406	↓	↓	80	10	800	130 SE	141 SE	140 SE	134 SE	140 SE	146 SE	188 BRK	197 BRK	191 BRK	P	JW	
TF-7	1452	A089	AR	81	18	800	119 SE	106 SE	125 SE	129 SE	126 SE	130 SE	194 BRK	196 BRK	198 BRK	P	JW	
TX-1	1700	A036	FM	80	—	450/465	119 SE	120 SE	139 SE				179 BRK	186 BRK	188 BRK	P	JW	
TX-2	1830	A006	HP	90	-	500/300	140 SE	141 SE	146 SE				190 BRK	194 BRK	188 BRK	P	JW	

✓ Secondary

SECONDARY

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 4/30/10

TF - # = FUSION SEAM: ✓

TX - # = EXTRUSION SEAM: ✓

REVIEWED BY:

SHEET NUMBER: 1 OF

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE			OUTSIDE PEEL STRENGTH/MODE			SHEAR STRENGTH/MODE			PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
							1	2	3	1	2	3	1	2	3			
TF-1	0817	A089	AR	69	15	800	140	121	128	131	121	132	183	182	186	P	JW	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			
TF-2	0906	A042	HP	70°	10	800	139	121	139	142	113	127	179	182	183	P	JW	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			
TX-1	1149	A036	FM	80°	—	440/495	133	144	137			✓	164	166	177	P	JW	
							SE	SE	SE	✓			BRK	BRK	BRK			
TX-2	1426	A006	AR	80°	—	400/500	147	124	129			✓	179	186	184	P	JW	
							SE	SE	SE	✓			BRK	BRK	BRK			

SECONDARY

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 5/1/10

TF - # = FUSION SEAM: _____

TX - # = EXTRUSION SEAM: ✓

REVIEWED BY: _____

SHEET NUMBER: 1 OF

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE 1	INSIDE PEEL STRENGTH/MODE 2	INSIDE PEEL STRENGTH/MODE 3	OUTSIDE PEEL STRENGTH/MODE 1	OUTSIDE PEEL STRENGTH/MODE 2	OUTSIDE PEEL STRENGTH/MODE 3	SHEAR STRENGTH/MODE 1	SHEAR STRENGTH/MODE 2	SHEAR STRENGTH/MODE 3	PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
TX-1	0728	A006	HP	72°	—	500 / 400	140	152	152				158	162	159	P	JW	
							SE	SE	SE				BRK	BRK	BRK			
TX-2	0740	A036	FM	72°	—	490 / 495	130	132	122				187	183	158	P	JW	
							SE	SE	SE				BRK	BRK	BRK			

ATLANTIC COAST CONSULTING, INC

Second

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 5/3/10

TF - # = FUSION SEAM:

TX - # = EXTRUSION SEAM:

REVIEWED BY:

SHEET NUMBER: 1 OF

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE 1	2	3	OUTSIDE PEEL STRENGTH/MODE 1	2	3	SHEAR STRENGTH/MODE 1	2	3	PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
TF-1	0827	A042	HP	70°	10	800	124	124	122	100	106	108	169	171	174	P	JW	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			
TF-2	0907	A089	AR	75°	16	800	112	122	123	118	128	121	183	180	188	P	JW	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			
TF-3	1011	A042	HP	77°	9	800	116	109	121	110	112	109	179	171	176	P	JW	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			
TF 4	1356	A089	AR	89°	15	800	108	118	127	99	105	124	180	171	179	P	JW	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			
Tx-1	1612	A036	FM	91°	/	495/490	144	148	145				153	157	159	P	JW	
							SE	SE	SE	/			BRK	BRK	BRK			

✓ Second

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 5/4/10

TF - # = FUSION SEAM: _____

TX - # = EXTRUSION SEAM: ✓

REVIEWED BY: _____

SHEET NUMBER: 1 OF

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE 1	2	3	OUTSIDE PEEL STRENGTH/MODE 1	2	3	SHEAR STRENGTH/MODE 1	2	3	PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
TX-1	0842	A036	FM	77°	—	480/475	124	123	121				171	174	175	P	JW	
							SE	SE	SE				BRK	BRK	BRK			
TX-2	1350	A089	"	90°	—	480/475	118	121	128				181	183	186	P	JW	
							SE	SE	SE				BRK	BRK	BRK			

ATLANTIC COAST CONSULTING, INC

✓ Secondary

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 5/6/10

TF - # = FUSION SEAM: ✓

TX - # = EXTRUSION SEAM: ✓

REVIEWED BY:

SHEET NUMBER: 1 OF

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE 1	2	3	OUTSIDE PEEL STRENGTH/MODE 1	2	3	SHEAR STRENGTH/MODE 1	2	3	PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
TF-1	0830	A042	HP	79°	9	800	120 SE	117 SE	120 SE	102 SE	120 SE	115 SE	174 BRK	178 BRK	176 BRK	P	JW	
TF-2	0842	A035	RA	79°	10	820	126 SE	124 SE	114 SE	120 SE	118 SE	124 SE	176 BRK	178 BRK	180 BRK	P	JW	
TF-3	0852	A089	AR	79°	15	800	122 SE	126 SE	125 SE	120 SE	131 SE	112 SE	177 BRK	179 BRK	186 BRK	P	JW	
TF-4	1017	A042	HP	81°	9	800	114 SE	100 SE	113 SE	143 SE	126 SE	123 SE	161 BRK	169 BRK	174 BRK	P	JW	
TF-5	1024	A089	AR	81°	14	800	129 SE	130 SE	128 SE	131 SE	138 SE	140 SE	180 BRK	181 BRK	186 BRK	P	JW	
TF-6	1450	A089	AR	91°	16	80	100 SE	114 SE	109 SE	110 SE	107 SE	112 SE	177 BRK	178 BRK	176 BRK	P	JW	
TX-1	1448	A036	FM	90°	—	495/480	133 SE	143 SE	129 SE				194 BRK	186 BRK	180 BRK	P	JW	

ATLANTIC COAST CONSULTING, INC

Second

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 5/10/10

TF - # = FUSION SEAM: ✓

TX - # = EXTRUSION SEAM:

REVIEWED BY:

SHEET NUMBER: 1 of 1

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE			OUTSIDE PEEL STRENGTH/MODE			SHEAR STRENGTH/MODE			PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
							1	2	3	1	2	3	1	2	3			
TF-1	0939	A038	HP	78°	10	800	123	126	119	126	118	112	184	188	189	P	JW	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			
TF-2	1009	A089	AR	80°	15	800	122	121	113	129	107	130	178	179	184	P	JW	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			
TF-3	1100	A042	RA	81°	55	820	117	117	123	109	116	123	179	175	170	P	JW	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			
TF-4	1404	A089	AR	90°	15	800	119	121	123	119	125	117	179	186	183	P	JW	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			
TF-5	1415	A038	HP	91°	10	800	118	119	122	115	124	125	190	188	184	P	JW	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 5/11/10

TF - # = FUSION SEAM: ✓

TX - # = EXTRUSION SEAM: ✓

REVIEWED BY:

SHEET NUMBER: 1

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE 1	2	3	OUTSIDE PEEL STRENGTH/MODE 1	2	3	SHEAR STRENGTH/MODE 1	2	3	PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
TX-1	7:09	A036	FM	74°	/	480	117	123	126				164	169	174	P	DR	
							SE	SE	SE				BRK	BRK	BRK			
TF-1	8:00	A089	AR	79°	15	800	123	129	118	114	121	127	176	172	173	P	DR	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			
TX-2	13:07	A036	FM	87°	/	480	141	125	130				189	199	181	P	DR	
							SE	SE	SE				BRK	BRK	BRK			
TF-2	13:30	A089	AR	88°	15	820	117	124	125	115	121	128	181	192	185	P	DR	
							SE	SE	SE	SE	SE	SE	BRK	BRK	BRK			

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 5/14/2010

TF - # = FUSION SEAM: ✓

TX - # = EXTRUSION SEAM: ✓

REVIEWED BY:

SHEET NUMBER: 1

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE			OUTSIDE PEEL STRENGTH/MODE			SHEAR STRENGTH/MODE			PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
							1	2	3	1	2	3	1	2	3			
TF-1	0830	A013	HEP	72°	17	800	117	121	124	125	121	122	178	179	180	P	JW	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TF-2	0844	A089	AR	70°	15	830	119	127	125	120	117	119	192	194	195	P	JW	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TF-3	13:22	A089	AR	85°	15	830	118	120	121	117	119	125	181	183	185	P	JW	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TF4	13:30	A013	HEP	85°	9	800	120	125	122	118	120	125	188	192	195	P	JW	
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK			
TX-1	15:57	A036	FM	88°	480	475	131	133	128				180	178	184	P	JW	
							SE	SE	SE				BrK	BrK	BrK			

Seamboss ✓

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF TRIAL SEAM: 5/15/2010

TF - # = FUSION SEAM: ✓

TX - # = EXTRUSION SEAM: ✓

REVIEWED BY:

SHEET NUMBER: 1

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELDING TECH.	AMBIENT AIR TEMP.	MACHINE SPEED	TEMP. SETTING	INSIDE PEEL STRENGTH/MODE 1	2	3	OUTSIDE PEEL STRENGTH/MODE 1	2	3	SHEAR STRENGTH/MODE 1	2	3	PASS OR FAIL	CQA MONITOR'S INITIALS	REMARKS OR COMMENTS
TF-1	0843	A013	HKP	70°	9	820	119	121	125	121	126	130	177	178	183			
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK	P	JW	
TF-2	0853	A089	AK	72°	16	810	120	122	120	118	119	120	183	188	192			
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK	P	JW	
TX-1	10:27	A036	FM	79°	475	470	112	122	125	119			188	191	195			
							SE	SE	SE				BrK	BrK	BrK	P	JW	
TF-3	13:05	A013	HKP	85°	9	820	118	125	131	115	118	125	183	191	190			
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK	P	JW	
TF-4	13:10	A089	AK	86°	16	810	116	119	125	122	125	121	193	194	196			
							SE	SE	SE	SE	SE	SE	BrK	BrK	BrK	P	JW	

SECONDARY

SECONDARY 089 WEDGE

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: G003.106

PROJECT TITLE: JEA Facility - Cell 7 construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 4-28-10

FUSION SEAM: ✓ Fusion

EXTRUSION SEAM: _____

MACHINE NUMBER: WE-A089

REVIEWED BY: _____

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: _____

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S-1	S-2	SEOS	N TIE IN	15:25	A.R	16' P.M	800°	51'	51		KL		4/29	JW
2	S-2	S-3	SEOS	N TIE IN	15:35	"	"	"	52'	81/22	DS-1	KL			JW
3	S-5	S-6	SEOS	N-TIE IN	16:00	"	"	"	53'	75		KL			JW
4	S-6	S-7	"	"	15:43	"	"	"	53'	128		KL			JW
5	S-7	S-8	"	"	15:53	"	"	"	53'	181		KL			JW
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 262

DESTRUCTIVE LENGTH CARRY - OVER: 181

ATLANTIC COAST CONSULTING, INC

042 EDGE

SECONDARY

SECONDARY

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 4-28-10

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: WEA-042

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 0

SHEET NUMBER: 1 OF 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S-3	S-4	SEOS	N. TIE N	15:31	HE.P	11 F.P.M	800°	52'	52		KL		4/29	JW
2	S-4	S-5	"	"	15:42	HE.P.	"	"	52'	30/22	DS-2	KL		"	JW
3	S-8	S-9	"	"	15:52	"	"	"	53'	75		KL		"	JW
4	S-9	S-10	"	"	16:00	"	"	"	53'	128		KL		"	JW
5	S-10	S-11	"	"	16 10	"	"	"	53'	181		KL		"	JW
6	S-11	S-12	"	"	1622	"	"	"	53'	234		KL		"	JW
7	S-1	TIE N	EEOS	WEOS	1645	"	"	"	22'	256		KL		"	JW
8	S-2	TIE N	"	"	1650	"	"	"	22'	278		KL		"	JW
9	S-3	TIE N	"	"	1654	"	"	"	22'	300		KL		"	JW
10	S-4	TIE N	"	"	1701	"	"	"	22'	322		KL		"	JW
11	S-5	TIE N	"	"	1711	"	"	"	22'	344		KL		"	JW
12	S-6	TIE N	"	"	1716	"	"	"	22'	366		KL		"	JW
13	S-7	TIE N	"	"	1721	"	"	"	22'	388		KL		"	JW
14	S-8	TIE IN	"	"	1728	"	"	"	22'	410		KL		"	JW
15	S-9	TIE IN	"	"	1736	"	"	"	22'	432		KL		"	JW
16	S-10	TIE IN	"	"	1740	"	"	"	22'	450/2	DS-3	KL		"	JW
17	S-11	TIE N	"	"	1745	"	"	"	22'	24				"	JW
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 550'

DESTRUCTIVE LENGTH CARRY - OVER: 24

ATLANTIC COAST CONSULTING, INC

042 WEDGE

SECONDARY

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 4-29-10

FUSION SEAM:

EXTRUSION SEAM:

MACHINE NUMBER: WEA 042

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 24'

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S12	S-13	SEOS	T.IN	0954	H.E.P	11.F.P.M	900°	48	72				4/29	JW
2	S-13	S-14			0900				51	123					
3	S-14	S-15			0913				52	175					
4	S-15	S-19			0922				48	223					
5	S-12	TIE IN			0950				22	245					
6	S13	TIE IN			0954				22	267					
7	S14	TIE IN			1000				22	289					
8	S15	TIE IN			1004				22	311					
9	S16	TIE IN			1008				22	333					
10	S17	TIE IN			1012				22	355					
11	S18	TIE IN			1021				22	377					
12	S19	TIE IN			1024				22	399					
13	S20	TIE IN			1027				22	421					
14	S21	TIE IN			1031				18	439					
15	S22	S-13	SEOS	WEOS	1336				22	461					
16	S-22	S-14			1341				22	475/8	DS-12				
17	S-22	S-15			1343				22	30					
18	S-22	S-16			1346				22	52					
19	S-22	S-17			1348				22	74					
20	S-22	S-18			1352				22	96					
21	S-22	S-19			1355				22	118					
22	S-22	S-20	SEOS	WEOS	1418				12	130				4/29	JW
									DAILY TOTAL FOR WELDED SEAM:						
									DESTRUCTIVE LENGTH CARRY - OVER:	130					

ATLANTIC COAST CONSULTING, INC

SECONDARY WEDGE

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 4-29-10

FUSION SEAM:

EXTRUSION SEAM:

MACHINE NUMBER: WEA 042

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 130

SHEET NUMBER: 2

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S-23	2D	NEOS	SEOS	1422	H.E.R	N FPM	900°	8	138				CAD	JW
2	S-22	2D	WEOS	EEOS	1424				149	287					
3	S-1	2D	EEOS	WEOS	1435				21	308					
4	S-2	2D	EEOS	WEOS	1514				22	330					
5	S-3	2D			1520				22	352					
6	S-4	2D			1523				22	374					
7	S-5	2D			1525				22	396					
8	S-6	2E			1528				22	418					
9	S-7	2E			1533				22	440					
10	S-8	2E			1535				22	462					
11	S-9	2E	↓	↓	1538	↓	↓	↓	22	484					
12	S10	2E			1541				22	485/19	DS-13				
13	S11	2E			1544				22	41					
14	S12	2E			1547				22	63					
15	S-27	S-26			1550				18	81					
16	S-24	S-26			1553				19	100				4/29	JW
17	S-24	S-25	↓	↓	1556	↓	↓	↓	16	116				↓	↓
18	S22	2E	↓	↓	1612				121	237					
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM:

DESTRUCTIVE LENGTH CARRY - OVER: 237

ATLANTIC COAST CONSULTING, INC

SECONDARY

0989 WEDGE

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 4-29-10

FUSION SEAM: — FUSION

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: WE A089

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 181

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S14	S15	SEOS	TIE N	0850	A.R.	18 FPM	800°	51	232		KL		4/29	JW
2	S-15	S-16	1	1	0857	1	1	1	50	282		KL			JW
3	S-16	S-17	1	1	0905	1	1	1	50	332		KL			JW
4	S19	S20	1	1	0927	1	1	1	48	380		KL			JW
5	S20	S21	1	1	0935	1	1	1	50	430		KL			JW
6	S1	S-26	1	1	14:43	1	1	1	49	430/8	DS-5	KL			JW
7	S-25	S-26	1	1	1449	1	1	1	19	27		KL			JW
8	S-24	S-23	1	1	1500	1	1	1	32	59		KL			JW
9	S-22	S-23	NEOS	SEOS	1512	1	1	1	57	116		KL			JW
10	S-22	S-24	1	1	15:30	1	1	1	501	475/142	DS-6	KL	359 W		JW
11	S-29	S-30	1	1	1613	1	1	1	480	476/147		K	333' W		JW
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 1386

DESTRUCTIVE LENGTH CARRY - OVER: 147

ATLANTIC COAST CONSULTING, INC

1386' TOTAL

0889 SECONDARY WEDGE

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 4-30-10

FUSION SEAM: ✓ Fusion

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: WE A089

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 147

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S-30	S-31	@EOS	W&OS	0845	AR	15 FPM	900°	490	475/162	DS-B	KL	328'W		
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 490

DESTRUCTIVE LENGTH CARRY - OVER: 162

ATLANTIC COAST CONSULTING, INC

DHT Welds

SECONDARY

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 4-30-10

FUSION SEAM:

EXTRUSION SEAM:

MACHINE NUMBER: WEA 042

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 237

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S-31	S-32	EEOS	WEOS	0902	HE.P	10 FPM	900°	497	475/359	DS-9	KL	359	4/30	JCW
2	S-32	S-33	EEOS	WEOS	1029	1	1	1	499	475/383	DS-10	KL	337 W	"	"
3	S-33	S-34	EEOS	WEOS	1130	1	1	1	488	475/296	DS-11	KL	64' W	"	"
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 1484

DESTRUCTIVE LENGTH CARRY - OVER: 296

ATLANTIC COAST CONSULTING, INC

SECONDARY 036

SECONDARY

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 4/30/10

FUSION SEAM:

EXTRUSION SEAM: ✓

MACHINE NUMBER: FM - A 036 EXTRUSION

REVIEWED BY: ✓

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 0

SHEET NUMBER: 1 OF 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	26	TIE IN NORTH	EEOS	13'	1145	FM	—	440/495	13'	0		JW		5/1	JW
2	25	N TIE IN	WEOS	5P	1200		—		3'	16		JW		5/1	JW
3	25	4	5P	15' SOUTH	1215		—		15'	31		JW		5/1	JW
4	29	E TIE IN	SEOS	5R	1330		—		6'	37		JW		5/1	JW
5	29	"	5R	NEOS	1335		—		9'	46		JW		5/1	JW
6	22	"	SEOS	5T	1346		—		10'	56		JW		5/1	JW
7	22	"	5T	NEOS	1354		—		9'	65		JW		5/1	JW
8	23	"	SEOS	5W	1406		—		10'	75		JW		5/1	JW
9	23	"	5W	NEOS	1417		—		12'	81/6	DX-2	JW		5/1	JW
10	24	"	SEOS	5X	1430		—		10'	16		JW		5/1	JW
11	24	"	5X	NEOS	1443		—		11'	27		JW		5/1	JW
12	25	"	15' SOUTH	SEOS	1445		—		10	37		JW		5/1	JW
13	30	"	NEOS	6A	1557		—		8'	45		JW		5/1	JW
14	30	"	6A	SEOS	1607		—		11'	56		JW		5/1	JW
15	31	"	NEOS	6D	1618		—		7'	63		JW		5/1	JW
16	31	"	6D	SEOS	1630		—		9'	72		JW		5/1	JW
17	32	"	NEOS	6F	1636		—		8'	80		JW		5/1	JW
18	32	"	6F	SEOS	1642		—		12'	92		JW		5/1	JW
19	33	"	NEOS	6I	1650		—		7'	99		JW		5/1	JW
20	33	"	6I	SEOS	1709		—		13'	112		JW		5/1	JW
21	34	"	NEOS	6K	1714		—		7'	119		JW		5/1	JW
22															
					DAILY TOTAL FOR WELDED SEAM:				200						
					DESTRUCTIVE LENGTH CARRY - OVER:					119					

ATLANTIC COAST CONSULTING, INC

Second Day 2 Wedge

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-3-10

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: 4-042

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 296

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S34	S27	E EDS	W EDS	0844	H.E.P	10 FPM	800°	503	475/324	DS-15	KL			JW
2	S35	S36	E EDS	W EDS	11:55	1	1	1	429	475/278	DS-17	KL			"
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 932

DESTRUCTIVE LENGTH CARRY - OVER: 278

ATLANTIC COAST CONSULTING, INC

089 WEDGE
SECONDARY

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101
PROJECT TITLE: J.E.D. Facility - Cell 7 Construction
PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-3-10
FUSION SEAM: ✓ FUSION
EXTRUSION SEAM:
REVIEWED BY:
MACHINE NUMBER: DR- A089
DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 162
SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S27	S28	EEOS	WEOS	0907	AR	16 FPM	800°	499	475/1810	DS-16	KL			
2	S-26	S-35	EEOS	WEOS	1033	1	1	1	503	475/214	DS-14	KL			
3	S 35	S-37	EEOS	WEOS	1231	1	1	1	71	285		KL			
4	S36	S-37	NEOS	SEOS	1247	1	1	1	22	307		KL			
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 1095
DESTRUCTIVE LENGTH CARRY - OVER: 307

ATLANTIC COAST CONSULTING, INC

SECONDARY USG

SECONDARY

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5/4/10

FUSION SEAM:

EXTRUSION SEAM: EXT

MACHINE NUMBER: A036

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 119

SHEET NUMBER: 1 of

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	35	TIE IN	SEOS	7I	1120	FM	A036	480/475	12'	131		JW		5/5	JW
2	35	"	7I	NEOS	1126	"			5'	136		JW		5/5	JW
3	28	"	SEOS	7K	1132	"	"		16'	152		JW		5/5	JW
4	28	"	7K	NEOS	1143	"	"		5'	157		JW		5/5	JW
5	27	"	SEOS	7N	1157	"	"		14'	171		JW		5/5	JW
6	27	"	7N	NEOS	1205	"	"		6'	177		JW		5/5	JW
7	34	"	SEOS	6K	1310	"	"		13'	190		JW		5/5	JW
8	CAP	TIE IN	S12	S15	1430	"	"		163	353		JW		5/5	JW
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 234

DESTRUCTIVE LENGTH CARRY - OVER: 353

566 FT

ATLANTIC COAST CONSULTING, INC

SECONDARY 089

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-6-10

FUSION SEAM: Fusion

EXTRUSION SEAM:

MACHINE NUMBER: A-089

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 307

SHEET NUMBER:

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S41	S42	SEOS	NEOS	0915	AR.	15 FPM	800°	51	358		KL			
2	S42	S43	SEOS	NEOS	0923	"	"	"	51	409		KL			
3	S43	S44	"	"	0940	"	"	"	57	461		KL			
4	S51	S41	"	"	1006	"	"	"	11	472		KL			
5	52	54	"	"	1009	"	"	"	18	485/5	DS 19	KL			
6	53	54	"	"	1011	"	"	"	26	31		KL			
7	S55	S56	EEOS	WEOS	11:25	"	"	"	103	134		KL			
8	56	57	SEOS	NEOS	1150	"	"	"	22	156		KL			
9	55	57	EEOS	WEOS	1155	"	"	"	300	456		KL			
10	61	62	SEOS	NEOS	1432	"	"	"	22	475/3	DS-21	KL			
11	60	62	EEOS	WEOS	1440	"	16 FPM	800	145	148		KL			
12	60	61	"	"	1451	"	"	"	89	237		KL			
13	61	59	"	"	1500	"	"	"	64	301		KL			
14	580	61	"	"	1510	"	"	"	109	410		KL			
15	44	54	"	"	1515	"	"	"	52	462		KL			
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 1115

DESTRUCTIVE LENGTH CARRY - OVER: 462

ATLANTIC COAST CONSULTING, INC

SECONDARY 042 WEDGE

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-6-10

FUSION SEAM: FUSION

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A-042

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 278

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S21	S39	SEOS	NEOS	0853	H.E.P.	9 FPM	600°	48	326		KL		5/6	JCW
2	S38	S39	SEOS	NEOS	0902	1	1	1	49	375		KL		11	
3	S39	S40	1	1	0915	1	1	1	50	425		KL		11	
4	S40	S41	1	1	0925	1	1	1	51	476/0	DS-20	KL		11	
5	S51	S52	1	1	0950	1	1	1	37	37		KL		11	
6	S52	S53	EEOS	WEOS	0940	1	1	1	33	70		KL		11	
7	S20	S55	EEOS	WEOS	1130	1	1	1	9	79		KL		11	
8	S21	S55	1	1	1132	1	1	1	21	100		KL		11	
9	S38	S55	1	1	1137	1	1	1	22	122		KL		11	
10	S39	55	1	1	1140	1	1	1	22	144		KL		11	
11	40	55	1	1	1143	1	1	1	22	166		KL		11	
12	41	55	1	1	1148	1	1	1	22	188		KL		11	
13	42	55	1	1	1152	1	1	1	22	210		KL		11	
14	43	55	1	1	1154	1	1	1	22	232		KL		11	
15	44	55	1	1	1157	1	1	1	22	254		KL		11	
16	45	55	1	1	1200	1	1	1	22	276		KL		11	
17	46	55	1	1	1203	1	1	1	22	298		KL		11	
18	47	55	1	1	1205	1	1	1	22	320		KL		11	
19	48	55	1	1	1208	1	1	1	22	342		KL		11	
20	49	55	1	1	1210	1	1	1	22	364		KL		11	
21	50	55	1	1	1215	1	1	1	22	386		KL		11	
22	51	55	↓	↓	1219	↓	↓	↓	13	399		KL		11	
									597						

DAILY TOTAL FOR WELDED SEAM:

DESTRUCTIVE LENGTH CARRY - OVER: 399

ATLANTIC COAST CONSULTING, INC

SECONDARY

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-6-10

FUSION SEAM: Fusion

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: 042

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 399

SHEET NUMBER: 2

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	54	55	EEOS	WEOS	1222	HEP	9.0	900	51	450		KL		5/6	JW
2	29	56	SEOS	NEOS	1333	HEP	9.0	1	22	472		KL		5/6	
3	22	55	SEOS	NEOS	1340	1	1	1	22	475/19	DS 22	KL		11	
4	58	59	NEOS	SEOS	1410	1	1	1	22	41		KL		5/3	
5	59	60	SEOS	NEOS	1420	1	1	1	22	63		KL		5/3	
6	29	60	EEOS	WEOS	1440	1	1	1	7	70		KL		5/6	
7	56	60	EEOS	WEOS	1442	1	1	1	95	165		KL		5/3	
8	57	60	1	1	1450	1	1	1	126	291		KL		5/3	
9	57	59	1	1	1504	1	1	1	64	355		KL		5/3	
10	57	58	1	1	1520	1	1	1	110	465		KL		11	
11	31	62	SEOS	NEOS	1535	1	1	1	22	475/12	DS 23	KL	10' NEOS	4/30	
12	30	60	1	1	1540	1	1	1	22	34		KL			
13	[illegible]														
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 505

DESTRUCTIVE LENGTH CARRY - OVER: 34

ATLANTIC COAST CONSULTING, INC

SECONDARY 036

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5/6/10

FUSION SEAM:

EXTRUSION SEAM: EXT

MACHINE NUMBER: A036

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 353

SHEET NUMBER: 1 OF 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S-20	S-21	EEOS	WEOS											
2	S-21		EEOS	WEOS	1430	FM	—	495/480	20	373		JW		5-7-10	JW
3	S-38		EEOS	WEOS	1447		—		20	393				5-7-10	JW
4	S-39		EEOS	WEOS	1500		—		20	413					JW
5	S-40		EEOS	WEOS	1512		—		20	433					JW
6	SL-41		EEOS	WEOS	1533		—		20	453					JW
7	S-42		EEOS	WEOS	1600		—		20	458/15	DX-5	JW			JW
8															
9															
10															
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12															
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16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 120

DESTRUCTIVE LENGTH CARRY - OVER: 15

ATLANTIC COAST CONSULTING, INC

SECONDARY

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-6-10

FUSION SEAM: Fusion

EXTRUSION SEAM:

MACHINE NUMBER: A038

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: —

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S45	S46	SEOS	NEOS	0905	RA	5.0	820°	50	~~50~~		KL			
2	S46	S47	NEOS	SEOS	0917	"	"	"	49	95/4	DS-18	KL			
3	S47	S48	SEOS	NEOS	0926	"	"	"	49	53		KL			
4	S49	S49	SEOS	NEOS	0941	"	"	"	49	102		KL			
5	S49	S50	"	"	0955	"	"	"	48	150		KL			
6	S50	S-51	"	"	1010	"	"	"	48	198		KL KL			
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 393

DESTRUCTIVE LENGTH CARRY - OVER: 198

ATLANTIC COAST CONSULTING, INC

SECONDARY

0924
4 DGE

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-7-10

FUSION SEAM: Fusion

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A089

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 467

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	69	70	SEDS	NEDS	0917	AR	15 FPM	800	33	475/20	DS-24	KL			
2	70	71	"	"	0929	"	"	"	33	53		KL			
3	71	72	"	"	0937	"	"	"	34	87		KL			
4	79	80	"	"	0955	"	"	"	33	120		KL			
5	80	81	"	"	0958	"	"	"	34	154		KL			
6	81	82	↓	↓	1009	"	"	"	34	188		KL			
7	63	88	SEDS	NEDS	1130	"	"	"	33	221		KL			
8	87	88	SEDS	NEDS	1135	"	"	"	12	233		KL			
9	86	87	EEDS	WEDS	1140	"	"	"	8	241		KL			
10	86	88	EEDS	WEDS	1147	"	"	"	29	270		KL			
11	72	73	SEDS	NEDS	1042	"	"	"	33	303		KL			
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 316

DESTRUCTIVE LENGTH CARRY - OVER: 303

72/73 1042

ATLANTIC COAST CONSULTING, INC

Secondary 038 wedge

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-7-10

FUSION SEAM: Fusion

EXTRUSION SEAM:

MACHINE NUMBER: A038

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 198

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	63	64	SEOS	NEOS	0845	HEP	9 FPM	900°	33	231		KL			
2	64	65			0900	1	1	1	33	264		KL			
3	65	66			0910				34	298		KL			
4	66	67			0915				33	331		KL			
5	67	68			0917				33	364		KL			
6	68	69			0921				34	398		KL			
7	73	74			0930				33	431		KL			
8	74	75			0940				33	464		KL			
9	75	76			0948				34	475/03	DS-25	KL			
10	76	77			0954				34	57		KL			
11	77	78			1000				33	90		KL			
12	78	79			1007				33	123		KL			
13	83	83			1016				33	156		KL			
14	83	84			1020				33	189		KL			
15	83	85			1111				22	211		KL			
16	82	85			1114				22	233		KL			
17	81	85			1119				22	255		KL			
18	80	85			1121				22	277		KL			
19	79	85			1124				22	299		KL			
20	78	85			1126				22	321		KL			
21	77	85			1131				22	343		KL			
22	76	85			1133				22	365		KL			
					DAILY TOTAL FOR WELDED SEAM:				642						
					DESTRUCTIVE LENGTH CARRY - OVER:					365					

ATLANTIC COAST CONSULTING, INC

0768

SECONDARY

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-7-10

FUSION SEAM: Fusion

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A038

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 365

SHEET NUMBER: 2

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	75	85	S205	N205	1136	H.E.D	8.0	900°	22	387		KL			
2	74	85			1139				22	409		KL			
3	73	85			1141				22	431		KL			
4	72	85			1144				22	453		KL			
5	71	85			1147				22	475/0	DS-26	KL			
6	70	85			1149				22	22		KL			
7	69	85			1151				22	44		KL			
8	68	85			1155				22	66		KL			
9	67	85			1158				22	88		KL			
10	66	85			1200				22	110		KL			
11	65	85			1202				22	132		KL			
12	64	85			1204				22	154		KL			
13	63	85			1309				22	176		KL			
14	85	86	↓	↓	1313	↓	↓	↓	26	202		KL			
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 312

DESTRUCTIVE LENGTH CARRY - OVER: 202

ATLANTIC COAST CONSULTING, INC

SECONDARY USD

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5/10/12

FUSION SEAM:

EXTRUSION SEAM: EXT

MACHINE NUMBER: A 036

REVIEWED BY: JW ✓

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 234

SHEET NUMBER: 1 OF 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S-87	S' TIE-IN	SEOS	NEOS	1523	FM	—		10	244		JW		5/12	JW
2	S-86		SEOS	NEOS	1532		—		20	264		JW		5/12	JW
3	S-85		SEOS	NEOS	1553		—		20	284		JW		5/12	JW
4	S-89		SEOS	NEOS	1610		—		21	305		JW		5/12	JW
5	S-90		SEOS	NEOS	1620		—		20	325		JW		5/12	JW
6	S-91		SEOS	NEOS	1637		—		20	345		JW		5/12	JW
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 111

DESTRUCTIVE LENGTH CARRY - OVER: 345

ATLANTIC COAST CONSULTING, INC

SECONDARY 050

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-10 2010

FUSION SEAM: Fusion

EXTRUSION SEAM:

MACHINE NUMBER: A-038

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 202

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S-05	S-09	W05	E05	1033	H.E.P	11 FPM	800°	496	475/223	DS 27	KL			
2	S-91	S-92	W05	E05	1122	1	1	1	499	475/247	DS-30	KL			
3	S-93	S-94	W05	E05	1408	1	1	1	491	475/253	DS 32	KL			
4															
5															
6															
7															
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DAILY TOTAL FOR WELDED SEAM: 1476

DESTRUCTIVE LENGTH CARRY - OVER: 253

ATLANTIC COAST CONSULTING, INC

SECONDARY

Secondary 084

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: MAY ~~April~~ 10 2010

FUSION SEAM: Fusion

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A-089

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 303

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S89	S90	WEDGE	DEDGE	1039	AR	15 FPM	800°	500	475/308	DS 29	KL			
2	S-92	S93	WEDGE	DEDGE	1137	1	1	1	493	475/346	DS 31	KL			
3	S94	S95	WEDGE	DEDGE	1421	1	1	1	473	475/344	DS 33	KL			
4															
5															
6															
7															
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DAILY TOTAL FOR WELDED SEAM: 1466

DESTRUCTIVE LENGTH CARRY - OVER: 344

ATLANTIC COAST CONSULTING, INC

SECONDARY

047

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-10-10

FUSION SEAM: Fusion

EXTRUSION SEAM:

MACHINE NUMBER: A042

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 34

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S-90	S91	WEOS	EEOS	1105	R-A	55	820	493	475/52	DS-29	KL		5/10	KL
2	S-95	S-94	WEOS	EEOS	1441	1	1	1	487	475/64	DS34	KL		11	11
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
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16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 980

DESTRUCTIVE LENGTH CARRY - OVER: 64

ATLANTIC COAST CONSULTING, INC

SECONDARY U36

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5/11/10

FUSION SEAM:

EXTRUSION SEAM: EXT

REVIEWED BY:

MACHINE NUMBER: A036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 345

SHEET NUMBER: 1 OF 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S-92	E TIE IN	SEOS	NEOS	1721	FM	—		20	365		JW		5/12	JW
2	S-93				1735	FM	—		20	385		JW		5/12	JW
3	S-94				0805		—		20	405		JW		5/12	JW
4	S-95				0821		—		21	426		JW		5/12	JW
5	S-96				0837		—		20	446		JW		5/12	JW
6	S-97				0853		—		20	466		JW		5/12	JW
7	S-98				0915		—		20	486		JW		5/12	JW
8	S-37	↓	↓	↓	0930		—		20	490/16	DX-8	JW		5/12	JW
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 161

DESTRUCTIVE LENGTH CARRY - OVER: 14

ATLANTIC COAST CONSULTING, INC

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-11-10

FUSION SEAM: Fusion

EXTRUSION SEAM:

MACHINE NUMBER: A038

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 253

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S 98	S 36	53'E	EEOS	0815	H.E.P	11	800	424	475/207	DS-36	KL	223'E		
2	S-98	S-37	WEOS	EEOS	0941	"	"	"	68	220		KL			
3	S 62	S 99	EEOS	WEOS	1130	"	"	"	144	414		KL			
4	S 61	S99	EEOS	WEOS	1146	"	"	"	260	475/199	DS38	KL	114		
5	101	102	EEOS	WEOS	1406	"	"	"	54	253		KL			
6	101	103	EEOS	WEOS	1414	"	"	"	371	475/149	DS41	KL	377		
7	102	103	SEOS	NEOS	1439	"	"	"	22	171		KL			
8	27	106	EEOS	WEOS	1613	"	"	"	6	177		KL			
9	104	106	EEOS	WEOS	1616	"	"	"	154	336		KL			
10	104	107	EEOS	WEOS	1634	"	"	"	162	498		KL			
11	105	107	EEOS	WEOS	1654	"	"	"	111	475/134	DS42	KL	37		
12	28	106	SEOS	NEOS	1735	"	"	"	22	156		KL			
13	35	108	SEOS	NEOS	1738	"	"	"	22	178		KL			
14	36	110	SEOS	NEOS	1750	"	"	"	22	200		KL			
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 1847

DESTRUCTIVE LENGTH CARRY - OVER: 200

ATLANTIC COAST CONSULTING, INC

SECONDARY 089 EMS

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-11-10

FUSION SEAM: Fusion

EXTRUSION SEAM:

MACHINE NUMBER: A 089

REVIEWED BY:

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 344

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	S96	S97	WEOS	EEOS	0836	A.R	15	900°	496	475/367	DS-35	KL			
2	S97	S98	WEOS	EEOS	1020		13	900°	492	475/384	DS-37	KL	108'		
3	S-99	S100	SEOS	NEOS	1130		14	900°	22	406		KL			
4	S-99	S-101	WEOS	EEOS	1140		14		409	485/330	DS-39	KL	491'		
5	S-33	S101	SEOS	NEOS	1352				22	352		KL			
6	S-32	S-100	SEOS	NEOS	1357				22	374		KL			
7	S34	S102	SEOS	NEOS	1405				22	396		KL			
8	102	104	EEOS	WEOS	1509				59	59		KL			
9	103	104	EEOS	WEOS	1514				256	475/236	DS 40	KL	20'		
10	103	105	EEOS	WEOS	1530				113	349		KL			
11	104	105	SEOS	NEOS	1536				22	371		KL			
12	S36	110	SEOS	NEOS	1540				22	393		KL			
13	106	107	SEOS	NEOS	1608				22	415		KL			
14	27	104	SEOS	NEOS	1601				22	437		KL			
15	106	108	EEOS	WEOS	1634				164	475/126	DS-43	KL	38'		
16	107	108	EEOS	WEOS	1647				51	177		KL			
17	107	109	EEOS	WEOS	1700				151	328		KL			
18	108	109	SEOS	NEOS	1656				22	350		KL			
19	108	110	EEOS	WEOS	1732				218	475/93	DS-44	KL	125'		
20	109	110	EEOS	WEOS	1741				114	207		KL	125'		
21	109	111	EEOS	WEOS	1744				33	240		KL			
22	110	111	SEOS	NEOS	1756				22	262		KL			
									DAILY TOTAL FOR WELDED SEAM:						
									2778						
									DESTRUCTIVE LENGTH CARRY - OVER:						
										262					

ATLANTIC COAST CONSULTING, INC

HSP A013 WEDGE Secondary

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-14-10

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A-013

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: NEW WEDGE

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
1	S-84	S-112	SEOS	NEOS	0835	H.E.P	9.0	820°	33	33		KL		5/15	JW
2	S112	S113			0845				34	67		KL		"	
3	S113	S114			0854				35	102		KL		"	
4	S114	S115			0903				35	137		KL		"	
5	122	123			0915				35	165/7	DS-45	KL	29'N	5/18	
6	123	124			0922				35	40		KL		"	
7	124	125			0930				34	76		KL		"	
8	126	126			0945				35	111		KL		"	
9	129	130	WEOS	EEOS	1035				22	133		KL		"	
10	128	16N			1019				22	155		KL		"	
11	6N	130			1039				22	177		KL		"	
12	127	130			1042				22	199		KL		"	
13	126	130			1045				22	221		KL		"	
14	125	130			1048				22	243		KL		"	
15	124	130			1051				22	265		KL		"	
16	123	130			1053				22	287		KL		"	
17	122	130			1056				22	309		KL		"	
18	121	130			1059				22	331		KL		"	
19	120	130			1100				22	353		KL		5/15	
20	119	130			1105				22	375		KL		"	
21	118	130			1108				22	397		KL		"	
22	117	130			1111				22	419		KL		"	✓
									594						

DAILY TOTAL FOR WELDED SEAM:

DESTRUCTIVE LENGTH CARRY - OVER: 419

ATLANTIC COAST CONSULTING, INC

Secondary M 013
HE

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-14-10

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY: [signature] ✓

MACHINE NUMBER: A013

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 419

SHEET NUMBER: 2

LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
1	116	130	WEOS	EEOS	1114	H.E.P	8.0	820°	22	441		KL		5/15	JW
2	115	130			1117				22	463		KL		"	
3	114	130			1119				22	475/10	DS48	KL	10'E	"	
4	113	130			1122				22	32		KL		"	
5	112	130			1125				22	54		KL		"	
6	584	130			1128				22	76		KL		"	
7	585	130	SEOS	NEOS	1140				22	98		KL		"	
8	89	131	SEOS	NEOS	1324				22	120		KL		"	
9	133	134	EEOS	WEOS	1324		9.0		83	203		KL		"	
10	107	133	EEOS	WEOS	1350		9.0		81	284		KL		"	
11	111	134	SEOS	NEOS	1415		9.0		22	306		KL		"	
12	109	133	SEOS	NEOS	1419		9.0		22	328		KL		"	
13	134	135	WEOS	EEOS	1445		9.0		84	412		KL		"	
14	135	111	WEOS	EEOS	1425		9.0		35	447		KL		"	
15	135	110	WEOS	EEOS	1500				190	475/162	DS49	KL	28'	"	
16	136	110	WEOS	EEOS	1530				146	308		KL		"	
17	135	136	WEOS	EEOS	1525				22	330		KL		5/15	
18	136	98	SEOS	NEOS	1555				22	352		KL		"	
19	137	139?	WEOS	EEOS	1603				334	475/211	DS51	KL	123	"	
20	138	139	WEOS	EEOS	1645				35	246		KL		"	
21	138	97	SEOS	NEOS	1658				22	268		KL		5/15	
22												KL		"	✓

DAILY TOTAL FOR WELDED SEAM: 1274

DESTRUCTIVE LENGTH CARRY - OVER: 268

ATLANTIC COAST CONSULTING, INC

WEDGE

SECONDARY

A089

A.R.

WEDGE

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-14-16

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY: ✓

MACHINE NUMBER: A 089

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 262

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
1	5115	116	SEOS	NEOS	0850	AR	17.0	900	34	296		KL			
2	116	117	〃	〃	0859	〃	〃	〃	35	331		KL			
3	117	118	5' N	NEOS	0905	〃	〃	〃	29	359		KL			
4	118	119	SEOS	〃	0910	〃	〃	〃	35	394		KL			
5	119	120	〃	〃	0915	〃	〃	〃	35	429		KL			
6	120	121	〃	〃	0920	〃	〃	〃	35	464		KL			
7	121	122	〃	〃	0925	〃	〃	〃	35	475/24	DS-46	KL	11' N		
8	126	127	〃	〃	0930	〃	〃	〃	34	58		KL			
9	127	128	〃	〃	0941	〃	〃	〃	32	90		KL			
10	128	129	〃	〃	1014	〃	〃	〃	32	122		KL			
11	130	132	WEOS	EEOS		〃	〃	〃	402	475/441	DS-47	KL	353'		
12	130	131	WEOS	EEOS	1115	〃	〃	〃	21	70		KL			
13	131	132	SEOS	NEOS	1120	〃	〃	〃	22	92		KL			
14	135	137	WEOS	EEOS	1540	〃	18.0	900°	211	303		KL			
15	136	137	WEOS	EEOS	1553	〃	〃	〃	125	428		KL			
16	136	138	WEOS	EEOS	1604	〃	〃	〃	30	458		KL			
17	137	138	SEOS	NEOS	1610	〃	〃	〃	22	480		KL			
18	132	141	WEOS	EEOS	16210	〃	〃	〃	334	485/329	DS 50	KL	5'		
19	132	140	WEOS	NEOS	1645	〃	〃	〃	68	397		KL			
20	131	140	WEOS	EEOS	1650	〃	〃	〃	18	415		KL			
21	140	90	SEOS	NEOS	1656	〃	15.0	900	22	437		KL			
22	140	141	SEOS	NEOS	1700	〃	15.0	900	22	459		KL			
									1632						

DAILY TOTAL FOR WELDED SEAM:

DESTRUCTIVE LENGTH CARRY - OVER: 459

ATLANTIC COAST CONSULTING, INC

SECONDARY VOL

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-15-10

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A0909

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 459

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
1	143	145	WEOS	EEOS	0933	AR	16.0	810°	166	475/150	DS-53	KL	16' E		
2	143	144	WEOS	EEOS	0944				88	238		KL			
3	144	145	SEOS	NEOS	0956				22	260		KL			
4	142	144	WEOS	EEOS	0952				144	404		KL			
5	92	144	SEOS	NEOS	1005				22	426		KL			
6	145	147	WEOS	EEOS	1022				74	475/25	DS 54	KL	49'		
7	146	147	SEOS	NEOS	1014				22	47		KL			
8	145	146	WEOS	EEOS	1028				95	142		KL			
9	144	146	WEOS	EEOS	1034				225	367		KL			
10	93	144	WEOS	EEOS	1050				7	374		KL			
11	93	146	SEOS	NEOS	1055				22	396		KL			
12	95	150	SEOS	NEOS	1152				22	418		KL			
13	95	149	WEOS	EEOS	1155				22	440		KL			
14	94	148	SEOS	NEOS	1200				22	460/2	DS-56	KL	20' N		
15	149	151	WEOS	EEOS	1207				96	98		KL			
16	150	151	WEOS	NEOS	1223				96	194		KL			
17	149	150	WEOS	EEOS					276	470		KL			
18	155	156	WEOS	EEOS	1527				205	475/80	DS 59	KL	5' E		
19	156	157	WEOS	EEOS	1535				84	164		KL			
20	157	158	WEOS	EEOS	1539				85	249		KL			
21	158	159	WEOS	EEOS	1554				83	332		KL			
22	159	160	WEOS	EEOS	1602				83	415		KL			
									DAILY TOTAL FOR WELDED SEAM:	1841					
									DESTRUCTIVE LENGTH CARRY - OVER:	415					

ATLANTIC COAST CONSULTING, INC

SECONDARY 0884

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-15-10

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY:

MACHINE NUMBER: A084

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 415

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	160	161	WEOS	EEOS	1610	A.L	10	810	80	485/12	DS40	KL	70' EEOS		
2	161	162	WEOS	EEOS	1619	〃	〃	〃	81	93		KL			
3	162	163	WEOS	EEOS	1630	〃	〃	〃	80	173		KL			
4	163	164	WEOS	EEOS	1650	〃	〃	〃	37	210		KL			
5	164	165	SEOS	NEOS	1653	〃	〃	〃	14	224		KL			
6	162	165	WEOS	SEOS	1656	〃	〃	〃	4	228		KL			
7	162	166	WEOS	SEOS	1703	〃	〃	〃	21	249		KL			
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 314

DESTRUCTIVE LENGTH CARRY - OVER: 249

ATLANTIC COAST CONSULTING, INC

HDP A 013 SEAM POINT

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-15-10

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY: ✓

MACHINE NUMBER: A013

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 109

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	APPROX. TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CQA MONITOR
1	132	161	S&S	N&S	16:54	HDP	9.0	820	18	127		KL		5/18	JW
2	141	160	"	"	16:55				5	132				5/18	
3	141	160			16:58				10	150				"	
4	143	160			17:05				5	155				"	
5	143	159			17:08				10	173				"	
6	145	159			17:15				5	178				"	
7	145	158			17:21				18	196				"	
8	147	158			17:25				4	200				"	
9	147	157			17:28				18	218				"	
10	149	157			17:35				4	222				"	
11	149	156			17:42				18	240				"	
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

DAILY TOTAL FOR WELDED SEAM: 131

DESTRUCTIVE LENGTH CARRY - OVER: 240

ATLANTIC COAST CONSULTING, INC

SECOND DAILY — A 013 WEDGE — HEP.

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF SEAMING: 5-15-10

FUSION SEAM: ✓

EXTRUSION SEAM:

REVIEWED BY: ✓

MACHINE NUMBER: A013

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 268

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		APPROX. START TIME	WELDING TECH.	MACHINE SPEED	MACHINE TEMP.	APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUCTIVE NUMBER	CQA MONITOR INITIALS	REMARKS	NON-DESTRUCTIVE	
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT										TEST DATE	CQA MONITOR
1	141	143	WEDGE	EEDGE	0905	HEP	90	820°	207	475/55	DS 57	KL	207'	5/18	JW
2	141	142	WEDGE	EEDGE	0950				74	189				5/15	
3	142	143	SEDGE	NEDGE	0938				22	151				5/18	
4	140	142	WEDGE	EEDGE	0958				78	229				"	
5	140	91	WEDGE	EEDGE	1000				5	234				5/15	
6	142	91	SEDGE	NEDGE	1002				22	256				"	
7	147	149	WEDGE	EEDGE	1019				74	330				5/18	
8	146	149	WEDGE	EEDGE	1026				301	475/156	DS 55		145	"	
9	146	148	WEDGE	EEDGE	1029				22	178				"	
10	148	149	SEDGE	NEDGE	1118				22	200				"	
11	139	150	WEDGE	EEDGE	1119				371	475/96	DS 57		275	"	
12	96	139	SEDGE	NEDGE	1200				22	118				"	
13	135	153	WEDGE	EEDGE	1517				91	209				"	
14	150	155	SEDGE	NEDGE	1616				20	229				"	
15	139	154	SEDGE	NEDGE	1622				20	249				"	
16	137	153	SEDGE	NEDGE	1627				20	269				"	
17	153	154	WEDGE	EEDGE	1532				91	360				"	
18	154	155	WEDGE	EEDGE	1545				400	400/148	DS 58			"	
19	164	165	SEDGE	NEDGE	1600				14	62				"	
20	163	165	SEDGE	NEDGE	1608				24	86				"	
21	130	162	SEDGE	NEDGE	1630				18	104		✓		"	
22	133	162	SEDGE	NEDGE	1643				5	109				"	✓
									DAILY TOTAL FOR WELDED SEAM:						
									1466						
									DESTRUCTIVE LENGTH CARRY - OVER:						
										109					

ATLANTIC COAST CONSULTING, INC

SECONDARY

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 4/29/10

REVIEWED BY:

SHEET NUMBER: 1 of 4

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	10	11	SEOS	NEOS	OV	1012	1017	30	30	P		✓	JW	
2	9	10	SEOS	NEOS	OV	1009	1014	30	30	P		✓	JW	
3	11	12	SEOS	3A	OV	1013	1018	30	30	P	✓		JW	
4	11	12	3A	NEOS	OV	1020	1025	30	30	P		✓	JW	
5	8	9	SEOS	NEOS	OV	1037	1042	30	30	P		✓	JW	
6	7	8	SEOS	NEOS	OV	1040	1045	30	30	P		✓	JW	
7	6	7	SEOS	NEOS	OV	1047	1052	30	30	P		✓	JW	
8	5	6	SEOS	NEOS	OV	1050	1055	30	30	P		✓	JW	
9	4	5	SEOS	NEOS	OV	1101	1106	30	30	P		✓	JW	
10	3	4	SEOS	NEOS	OV	1109	1114	30	30	P		✓	JW	
11	2	3	SEOS	NEOS	OV	1105	1110	30	30	P		✓	JW	
12	1	2	SEOS	NEOS	OV	1111	1116	30	30	P		✓	JW	
13	1	TIE/IN	1C	EEOS	OV	1120	1125	30	30	P	✓		JW	
14	1	TIE IN	1C	WEOS	OV	1121	1126	30	30	P		✓	JW	
15	2	TIE IN	EEOS	1D	OV	1122	1127	30	30	P	✓		JW	
16	2	TIE IN	1D	WEOS	OV	1126	1131	30	30	P		✓	JW	
17	3		EEOS	1G	OV	1128	1133	30	30	P	✓		JW	
18	3		1G	WEOS	OV	1130	1135	30	30	P		✓	JW	
19	4		EEOS	1J	OV	1132	1137	30	30	P	✓		JW	
20	4		1J	WEOS	OV	1135	1140	30	30	P		✓	JW	
21	5		EEOS	1M	OV	1137	1142	30	28	P	✓		JW	
22	5		1M	WEOS	OV	1140	1145	30	30	P		✓	JW	
23	6		EEOS	1P	OV	1143	1148	30	30	P	✓		JW	
24	6		1P	WEOS	OV	1146	1151	30	30	P		✓	JW	
25	7		EEOS	1I	OV	1147	1152	30	30	P	✓		JW	

SECONDARY

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 4/29/10

REVIEWED BY:

SHEET NUMBER: 2 OF 4

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	7	TIE IN	1I	WEOS	OV	1149	1154	30	30	P		✓	JW	
2	8	↓	EEOS	1S	OV	1248	1253	30	30	P	✓		JW	
3	8	↓	1S	WEOS	OV	1250	1255	30	30	P		✓	JW	
4	9	↓	EEOS	1A	OV	1251	1256	30	30	P	✓		JW	
5	9	↓	2A	WEOS	OV	1254	1259	30	30	P		✓	JW	
6	10	↓	EEOS	1W	OV	1306	1311	30	30	P	✓		JW	
7	10	↓	1W	WEOS	OV	1307	1312	30	30	P		✓	JW	
8	11	↓	EEOS	2B	OV	1309	1314	30	30	P	✓		JW	
9	11	↓	2B	WEOS	OV	1311	1316	30	30	P		✓	JW	
10	12	TIE IN	EEOS	3B	OV	1313	1318	30	30	P	✓		JW	
11	12	TIE IN	3B	WEOS	OV	1315	1320	30	30	P		✓	JW	
12	13	TIE IN	EEOS	3D	OV	B17	1222	30	30	P	✓		JW	
13	13	TIE-IN	3D	WEOS	OV	1320	1325	30	30	P		✓	JW	
14	12	13	NEOS	SEOS	OV	1322	1327	30	30	P		✓	JW	
15	13	14	NEOS	SEOS	OV	1325	1330	30	30	P		✓	JW	
16	14	TIE IN	3G	WEOS	OV	1326	1331	30	30	P		✓	JW	
17	14	15	NEOS	SEOS	OV	1340	1345	30	30	P		✓	JW	
18	15	TIE IN	EEOS	3I	OV	1346	1351	30	30	P	✓		JW	
19	15	↓	3I	WEOS	OV	1351	1356	30	30	P		✓	JW	
20	16	↓	EEOS	3K	OV	1353	1358	30	30	P	✓		JW	
21	15	16	NEOS	SEOS	OV	1359	1404	30	30	P		✓	JW	
22	16	TIE IN	3K	WEOS	OV	1401	1406	30	30	P		✓	JW	
23	16	17	NEOS	SEOS	OV	1403	1408	30	30	P		✓	JW	
24	17	TIE IN	EEOS	3N	OV	1406	1411	30	30	P	✓		JW	
25	17	TIE IN	3N	WEOS	OV	1408	1413	30	30	P		✓	JW	

Secondary

SECONDARY

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 4/29/10

REVIEWED BY:

SHEET NUMBER: 3 OF 4

LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	QC TECH. INITIALS	DURATION START TIME	DURATION FINISH TIME	PRESSURE INITIAL PRESSURE	PRESSURE FINAL PRESSURE	RESULTS PASS OR FAIL	SEAM COMPLETED NO	SEAM COMPLETED YES	CQA MONITOR INITIALS	REMARKS
1	17	18	NEOS	SEOS	OV	1412	1417	30	30	P		✓	JW	
2	18	TIE IN	EEOS	3Q	OV	1413	1418	30	30	P		✓	JW	
3	18	TIE IN	3Q	WEOS	OV	1415	1420	30	30	P		✓	JW	
4	18	19	NEOS	SEOS	OV	1418	1423	30	29	P		✓	JW	
5	19	TIE IN	3S	WEOS	OV	1419	1424	30	30	P		✓	JW	
6	19	20	NEOS	SEOS	OV	1422	1427	30	30	P		✓	JW	
7	3T	3V	EEOS	WEOS	OV	1432	1437	30	30	P		✓	JW	19/20
8	20	21	NEOS	WEOS	OV	1429	1434	30	30	P		✓	JW	
9	20	22	EEOS	WEOS	OV	1439	1444	30	30	P		✓	JW	
10	19	22	WEOS	EEOS	OV	1443	1448	30	28	P		✓	JW	
11	18	22	WEOS	EEOS	OV	1448	1453	30	30	P		✓	JW	
12	17	22	WEOS	EEOS	OV	1454	1459	30	30	P		✓	JW	
13	16	22	WEOS	EEOS	OV	1500	1505	30	30	P		✓	JW	
14	15	22	WEOS	EEOS	OV	1503	1508	30	30	P		✓	JW	
15	14	22	WEOS	EEOS	OV	1507	1512	30	30	P		✓	JW	
16	13	22	WEOS	EEOS	OV	1509	1514	30	30	P		✓	JW	
17	22	2E	WEOS	EEOS	OV	1515	1520	30	30	P		✓	JW	
18	22	20	WEOS	EEOS	OV	1520	1525	30	30	P		✓	JW	
19	22	2D	WEOS	EEOS	OV	1535	1540	30	30	P		✓	JW	
20	23	2D	SEOS	NEOS	OV	1533	1538	32	30	P		✓	JW	
21	1	26	SEOS	NEOS	OV	1541	1546	30	30	P		✓	JW	
22	23	24	WEOS	EEOS	OV	1544	1549	30	30	P		✓	JW	
23	25	26	SEOS	NEOS	OV	1551	1556	30	30	P		✓	JW	
24	1	2D	EEOS	WEOS	OV	1600	1605	30	30	P		✓	JW	
25	2	2D	EEOS	WEOS	OV	1611	1616	30	30	P		✓	JW	

SECONDARY

SECONDARY

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 4/29/10

REVIEWED BY:

SHEET NUMBER: 4 OF 4

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	23	26	SEOS	NEOS	OV	1616	1621	30	30	P		✓	JW	
2	24	26	SEOS	NEOS	OV	1619	1624	30	30	P		✓	JW	
3	24	25	SEOS	NEOS	OV	1625	1630	30	30	P		✓	JW	
4	3	2D	EEOS	WEOS	OV	1631	1636	30	30	P		✓	JW	
5	4	2D	EEOS	WEOS	OV	1636	1641	30	30	P		✓	JW	
6	5	2D	EEOS	WEOS	OV	1640	1645	30	30	P		✓	JW	
7	6	2D	EEOS	WEOS	OV	1644	1649	30	30	P		✓	JW	
8	7	2D	EEOS	WEOS	OV	1648	1653	30	30	P		✓	JW	
9	27	2E	NEOS	SEOS	OV	1656	1701	30	30	P		✓	JW	
10	8	2E	EEOS	WEOS	OV	1704	1709	30	30	P		✓	JW	
11	9	2E	EEOS	WEOS	OV	1705	1710	30	30	P		✓	JW	
12	10	2E	EEOS	WEOS	OV	1714	1719	30	30	P		✓	JW	
13	11	2E	EEOS	WEOS	OV	1715	1720	30	30	P		✓	JW	
14	12	2E	EEOS	WEOS	OV	1716	1721	30	30	P		✓	JW	
15	22	29	EEOS	5D	OV	1734	1739	30	30	P		✓	JW	
16	22	29	5C	WEOS	OV	1736	1741	30	30	P		✓	JW	
17	29	30	WEOS	EEOS	OV	1800	1805	30	29	P		✓	JW	
18														
19														
20														
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23														
24														
25														

Second

Secondary

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 4/30/10

REVIEWED BY: _____

SHEET NUMBER: 1 OF 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	S30	S31	EEOS	WEOS	OV	1151	1156	31	31	P		✓	JW	
2	S31	S32	EEOS	WEOS	OV	1153	1158	31	31	P		✓	JW	
3	S32	S 33	EEOS	WEOS	OV	1205	1210	30	30	P		✓	JW	
4	S33	S34	EEOS	WEOS	OV	1316	1321	30	30	P		✓	JW	
5	31	62	SEOS	NEOS	OV	1323	1328	30	30	P		✓	JW	
6	30	60	4	4	OV	1335	1341	30	30	P		✓	JW	
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SEAM 1

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5/3/10

REVIEWED BY:

SHEET NUMBER: 1 OF

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	27	34	6R	EEOS	OV	1007	1012	30	30	P	✓		JW	
2	27	34	6R	6V	OV	1053	1058	30	30	P	✓		JW	
3	27	34	6V	2Q	OV	1113	1118	30	30	P	✓		JW	
4	27	34	2Q	6T	OV	1131	1136	30	30	P	✓		JW	
5	27	28	6S	WEOS	OV	1103	1109	30	30	P	✓		JW	
6	27	28	6S	EEOS	OV	1119	1124	30	30	P		✓	JW	
7	27	34	6T	WEOS	OV	1125	1130	30	30	P		✓	JW	
8	283	35	WEOS	EEOS	OV	1140	1145	30	3	P		✓	JW	
9	35	36	2R	EEOS	OV	1352	1357	30	30	P	✓		JW	
10	35	36	2R	WEOS	OV	1352	1357	30	30	P		✓	JW	
11	36	37	NEOS	SEOS	OV	1401	1406	30	30	P		✓	JW	
12	35	37	WEOS	EEOS	OV	1402	1407	30	30	P		✓	JW	
13	58	59	NEOS	SEOS	OV	1403	1405	30	30	P		✓	JW	
14	59	60	SEOS	NEOS	OV	1407	1413	30	30	P		✓	JW	
15	56	60	SEOS	WEOS	OV	1417	1423	30	30	P		✓	JW	
16	57	60	EEOS	WEOS	OV	1425	1428	30	29	P		✓	JW	
17	57	59	"	"	OV	1431	1434	30	30	P		✓	JW	
18	57	58	"	"	OV	1436	1439	30	30	P		✓	JW	
19														
20														
21														
22														
23														
24														
25														

SECONDARY

SECONDARY

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5/6/10

REVIEWED BY:

SHEET NUMBER: 1 OF 1

LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	QC TECH. INITIALS	DURATION START TIME	DURATION FINISH TIME	PRESSURE INITIAL PRESSURE	PRESSURE FINAL PRESSURE	RESULTS PASS OR FAIL	SEAM COMPLETED NO	SEAM COMPLETED YES	CQA MONITOR INITIALS	REMARKS
1	S-21	S-38	SEOS	NEOS	OV	0931	0936	30	30	P		✓	JW	
2	S-38	S-39	SEOS	6X	OV	0934	0939	30	30	P	✓		JW	
3	S-38	S-39	6X	NEOS	OV	0944	0949	30	30	P		✓	JW	
4	S-39	S-40	SEOS	NEOS	OV	0941	0946	30	30	P		✓	JW	
5	S-40	S-41	SEOS	NEOS	OV	0949	0954	30	30	P		✓	JW	
6	S-41	S-42	SEOS	NEOS	OV	0957	0958	30	30	P		✓	JW	
7	S-42	S-43	SEOS	NEOS	OV	1010	1015	30	30	P		✓	JW	
8	S-43	S-44	SEOS	NEOS	OV	1012	1017	30	30	P		✓	JW	
9	S-44	S-45	SEOS	NEOS	OV	1019	1024	30	29	P		✓	JW	
10	S-45	S-46	SEOS	NEOS	OV	1023	1028	30	30	P		✓	JW	
11	S-46	S-47	SEOS	NEOS	OV	1026	1031	30	30	P		✓	JW	
12	S-47	S48	SEOS	NEOS	OV	1035	1040	30	30	P		✓	JW	
13	S-48	S-49	SEOS	NEOS	OV	1041	1046	30	30	P		✓	JW	
14	S-49	S-50	SEOS	NEOS	OV	1051	1056	30	30	P		✓	JW	
15	S-50	S-51	SEOS	NEOS	OV	1053	1058	30	30	P		✓	JW	
16	S-51	S-54	SEOS	NEOS	OV	1054	1059	30	30	P		✓	JW	
17	S-51	S-52	SEOS	NEOS	OV	1057	1102	30	30	P		✓	JW	
18	S-52	S54	SEOS	NEOS	OV	1103	1108	30	30	P		✓	JW	
19	S-53	S-54	EEOS	WEOS	OV	1103	1108	30	30	P		✓	JW	
20	S-52	S-53	SEOS	NEOS	OV	1109	1114	30	30	P		✓	JW	
21	S-20	S-55	EEOS	WEOS	OV	1313	1318	30	30	P		✓	JW	
22	S-21	S-55	EEOS	WEOS	OV	1310	1324	30	30	P		✓	JW	
23	S-38	S-55	EEOS	WEOS	OV	1318	1323	30	28	P		✓	JW	
24	S-55	S-56	EEOS	WEOS	OV	1324	1329	30	30	P	✓		JW	
25	S-39	S-55	EEOS	WEOS	OV	1322	1327	30	30	P		✓	JW	

Secondary

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5/6/10

REVIEWED BY:

SHEET NUMBER: 2 of

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	40	S-55	EEOS	WEOS	OV	1330	1335	30	30	P		✓	JW	
2	S-41	S-55	EEOS	WEOS	OV	1332	1337	30	30	P		✓	JW	
3	S-55	S-56	70	WEOS	OV	1340	1345	30	30	P		✓	JW	
4	S-42	S-55	EEOS	WEOS	OV	1342	1347	30	30	P		✓	JW	
5	S-43	S-55	EEOS	WEOS	OV	1343	1348	30	30	P		✓	JW	
6	S-44	S-55	EEOS	WEOS	OV	1346	1351	30	30	P		✓	JW	
7	S-45	S-55	EEOS	WEOS	OV	1349	1353	30	30	P		✓	JW	
8	S-46	S-55	EEOS	WEOS	OV	1349	1354	30	30	P		✓	JW	
9	S-47	S-55	EEOS	WEOS	OV	1351	1356	30	30	P		✓	JW	
10	S-48	S-55	EEOS	WEOS	OV	1353	1358	30	30	P		✓	JW	
11	S-49	S-55	EEOS	WEOS	OV	1357	1402	30	30	P		✓	JW	
12	S-50	S-55	EEOS	WEOS	OV	1359	1404	30	30	P		✓	JW	
13	S-51	S-55	EEOS	WEOS	OV	1402	1407	30	30	P		✓	JW	
14	S-54	S-55	EEOS	WEOS	OV	1403	1408	30	30	P		✓	JW	
15	S-22	S-55	SEOS	NEOS	OV	1417	1422	30	30	P		✓	JW	
16	S 29	S-56	NEOS	SEOS	OV	1416	1421	30	30	P		✓	JW	
17	S29	S-60	EEOS	WEOS	OV	15:54	1559	30	30	P		✓	JW	
18	S30	S-60	NEOS	SEOS	OV	1555	1600	30	30	P		✓	JW	
19	S31	S62	NEOS	SEOS	OV	1556	1601	30	30	P		✓	JW	
20														
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Second "F"

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: ~~5~~ 5/9/10

REVIEWED BY: _____

SHEET NUMBER: 1 of 1

LINE NUMBER	SEAM NUMBER FIRST PANEL	SEAM NUMBER SECOND PANEL	SEAM SECTION START POINT	SEAM SECTION FINISH POINT	QC TECH. INITIALS	DURATION START TIME	DURATION FINISH TIME	PRESSURE INITIAL PRESSURE	PRESSURE FINAL PRESSURE	RESULTS PASS OR FAIL	SEAM COMPLETED NO	SEAM COMPLETED YES	CQA MONITOR INITIALS	REMARKS
1	S-85	S-86	WEDS	EEDS	OV	1013	1018	30	30	P		✓	JW	
2	S-88	S-63	NEDS	SEDS	OV	1015	1020	30	30	P		✓	JW	
3	S-63	S-85	EEDS	11M	OV	1022	1027	30	30	P	✓		JW	
4	S-63	S-85	11M	WEDS	OV	1025	1030	30	29	P		✓	JW	
5	S-86	S-88	WEDS	EEDS	OV	1028	1033	30	30	P		✓	JW	
6	S-63	S-64	NEDS	SEDS	OV	1029	1034	30	30	P		✓	JW	
7	S86	S-87	WEDS	EEDS	OV	1034	1039	30	30	P		✓	JW	
8	S64	S-85	EEDS	WEDS	OV	1044	1049	30	30	P		✓	JW	
9	S64	S-65	NEDS	SEDS	OV	1042	1047	30	30	P		✓	JW	
10	S-65	S-85	EEDS	WEDS	OV	1046	1051	30	30	P		✓	JW	
11	S-65	S-66	NEDS	SEDS	OV	1049	1054	30	30	P		✓	JW	
12	S-66	S-67	NEDS	SEDS	OV	1053	1058	30	30	P		✓	JW	
13	S 67	S 85	EEDS	WEDS	OV	1053	1058	30	30	P		✓	JW	
14	S66	S85	WEDS	EEDS	OV	1054	1059	30	30	P		✓	JW	
15	S-67	S-68	NEDS	SEDS	OV	1104	1109	30	30	P		✓	JW	
16	S 68	S-85	EEDS	WEDS	OV	1104	1109	30	30	P		✓	JW	
17	S 68	S 69	NEDS	SEDS	OV	1105	1110	30	29	P		✓	JW	
18	S 69	S 85	EEDS	WEDS	OV	1115	1120	30	30	P		✓	JW	
19	S 69	S 70	NEDS	SEDS	OV	1117	1122	30	30	P		✓	JW	
20	S 70	S 85	EEDS	WEDS	OV	1117	1122	30	30	P		✓	JW	
21	S-70	S-71	NEDS	SEDS	OV	1127	1132	30	29	P		✓	JW	
22	S-71	S-85	EEDS	WEDS	OV	1127	1132	30	30	P		✓	JW	
23	S-71	S-72	NEDS	SEDS	OV	1128	1133	30	28	P		✓	JW	
24	S-72	S-85	WEDS	EEDS	OV	1144	1149	30	28	P		✓	JW	
25	S 72	S-73	NEDS	SEDS	OV	1140	1145	30	30	P		✓	JW	

ATLANTIC COAST CONSULTING, INC

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29

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5/10/10

REVIEWED BY:

SHEET NUMBER: 1 of 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	S-91	S-92	WEOS	EEOS	OV	1415	1420	30	30	P		✓	JW	
2	S-92	S-93	WEOS	12P	OV	1431	1436	30	30	P	✓		JW	
3	S-92	S-93	12P	EEOS	OV	1437	1442	30	30	P		✓	JW	
4	S-93	S-94	EEOS	WEOS	OV	1514	1519	30	29	P		✓	JW	
5	S-94	S-95	EEOS	12Q	OV	1514	1519	30	30	P	✓		JW	
6	S-94	S-95	12Q	12R	OV	1525	1530	30	30	P	✓		JW	
7	S-94	S-95	12R	WEOS	OV	1525	1530	30	30	P		✓	JW	
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ATLANTIC COAST CONSULTING, INC

Second

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5/10/10

REVIEWED BY:

SHEET NUMBER: 2 OF 2

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	S-73	S-85	EEOS	WEOS	OV	1136	1141	30	30	P		✓	JW	
2	S-73	S-74	NEOS	SEOS	OV	1142	1147	30	30	P		✓	JW	
3	S-74	S-85	EEOS	WEOS	OV	1146	1151	30	30	P		✓	JW	
4	S-74	S-75	NEOS	SEOS	OV	1155	12	30	30	P		✓	JW	
5	S-75	S-85	EEOS	WEOS	OV	1155	12	30	30	P		✓	JW	
6	S-75	S-76	NEOS	SEOS	OV	1156	1201	30	30	P		✓	JW	
7	S-76	S-77	NEOS	SEOS	OV	1205	1210	30	30	P		✓	JW	
8	S-76	S-85	EWEOS	EEOS	OV	1205	1210	30	30	P		✓	JW	
9	S-77	S-85	EEOS	WEOS	OV	1205	1210	30	30	P		✓	JW	
10	S-77	S-78	NEOS	SEOS	OV	1323	1328	30	30	P		✓	JW	
11	S-78	S-85	EEOS	WEOS	OV	1323	1328	30	30	P		✓	JW	
12	S-78	S-79	NEOS	SEOS	OV	1324	1329	30	30	P		✓	JW	
13	S-79	S-85	EEOS	WEOS	OV	1329	1334	30	30	P		✓	JW	
14	S-79	S80	NEOS	SEOS	OV	1332	1337	30	30	P		✓	JW	
15	S-80	S-85	EEOS	WEOS	OV	1331	1336	30	29	P		✓	JW	
16	S80	S81	NEOS	SEOS	OV	1335	1340	30	30	P		✓	JW	
17	S-81	S-85	EEOS	WEOS	OV	1337	1342	30	30	P		✓	JW	
18	S-81	S-82	NEOS	SEOS	OV	1339	1344	30	30	P		✓	JW	
19	S-82	S-85	EEOS	WEOS	OV	1341	1346	30	30	P		✓	JW	
20	S-82	S-83	NEOS	SEOS	OV	1342	1347	30	30	P		✓	JW	
21	S-83	S-85	EEOS	WEOS	OV	1345	1350	30	30	P		✓	JW	
22	S-83	S-84	NEOS	SEOS	OV	1346	1351	30	30	P		✓	JW	
23	S-85	S-89	WEOS	EEOS	OV	1400	1405	30	29	P		✓	JW	
24	S-89	S-90	WEOS	EEOS	OV	1401	1406	30	30	P		✓	JW	
25	S-90	S-91	WEOS	EEOS	OV	1414	1419	30	30	P		✓	JW	

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5/11/10

REVIEWED BY:

SHEET NUMBER: 1 of 2

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	S95	S-96	8W	EEOS	OV	1331	1336	30	30	P	✓		JW	
2	S95	S-96	8W	14H	OV	1331	1336	30	30	P	✓		JW	
3	S-96	S-97	EEOS	8X	OV	1336	1341	30	30	P	✓		JW	
4	S-97	S-98	EEOS	WEOS	OV	1339	1344	30	30	P		✓	JW	
5	S-37	S-98	EEOS	13C	OV	1340	1345	30	30	P	✓		JW	
6			13J	13C	OV	1347	1352	30	30	P	✓		JW	
7			13J	13A	OV	1347	1352	30	30	P	✓		JW	
8			13E	WEOS	OV	1351	1356	30	30	P		✓	JW	
9			13E	13A	OV	1354	1359	30	30	P	✓		JW	
10	S-96	S-97	8X	WEOS	OV	1355	1400	30	30	P		✓	JW	
11	S-95	S-96	14H	WEOS	OV	1356	1401	30	29	P		✓	JW	
12	S-32	S-100	SEOS	NEOS	OV	1415	1420	30	29	P		✓	JW	
13	S-33	S-101	SEOS	NEOS	OV	1415	1420	30	28	P		✓	JW	
14	S-34	S-102	SEOS	NEOS	OV	1423	1428	30	30	P		✓	JW	
15	S-101	S-100	EEOS	WEOS	OV	1426	1431	30	29	P		✓	JW	
16	S-99	S-100	SEOS	NEOS	OV	1458	1503	30	30	P			✓	
17	S-62	S-99	EEOS	WEOS	OV	1444	1449	30	30	P	✓		JW	
18	S-99	S-101	EEOS	WEOS	OV	1454	1459	30	29	P		✓	JW	
19	S-101	S-102	EEOS	WEOS	OV	1508	1513	30	30	P		✓	JW	
20	S-102	S-103	NEOS	SEOS	OV	1509	1514	30	30	P		✓	JW	
21	S-101	S-103	EEOS	SEOS	OV	1518	1523	30	30	P			JW	
22	S-61	S-99	EEOS	WEOS	OV	1523	1528	30	30	P		✓	JW	
23	S103	S 104	WEOS	EEOS	OV	1633	1638	30	30	P		✓	JW	
24	S104	S 105	NEOS	SEOS	OV	1633	1638	30	30	P		✓	JW	
25	S103	S 105	EEOS		OV	1633	1638	30	30	P	✓		JW	

Second of

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5/11/10

REVIEWED BY:

SHEET NUMBER: 2 OF

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	S-103	S-105		WEDS	OV	1639	1644	30	29	P		✓	JW	
2	S-104	S-27	SEDS	NEDS	OV	1649	1654	30	30	P		✓	JW	
3	S-102	S-104	EEDS	WEDS	OV	1649	1654	30	30	P		✓	JW	
4	S-104	S-106	EEDS	WEDS	OV	1659	1704	30	30	P			JW	
5	S-27	S-106	WEDS	EEDS	OV	1700	1705	30	29	P		✓	JW	
6	S-106	S-108	EEDS	WEDS	OV	1710	1715	30	29	P			JW	
7	S-106	S-107	NEDS	SEDS	OV	1716	1721	30	30	P		✓	JW	
8	S-107	S-108	EEDS	WEDS	OV	1716	1721	30	30	P		✓	JW	
9	S-107	S-109	EEDS	WEDS	OV	1722	1727	30	30	P		✓	JW	
10	S-108	S-109	NEDS	SEDS	OV	1722	1727	30	30	P		✓	JW	
11	S-104	S-107	WEDS	EEDS	OV	1731	1736	30	30	P		✓	JW	
12	S-105	S-107	EEDS	WEDS	OV	1731	1736	30	30	P		✓	JW	
13	S-110	S-111	NEDS	SEDS	OV	1737	1742	30	30	P		✓	JW	
14	S-28	S-106	SEDS	NEDS	OV	1750	1755	30	30	P		✓	JW	
15	S-35	S-108	NEDS	SEDS	OV	1750	1755	30	30	P		✓	JW	
16	S-108	S-110	EEDS	WEDS	OV	1756	1801	30	30	P		✓	JW	
17	S-36	S-110	NEDS	SEDS	OV	1755	1800	30	30	P		✓	JW	
18	S-109	S-110	WEDS	EEDS	OV	1804	1809	30	30	P		✓	JW	
19	S-109	S-111	EEDS	WEDS	OV	1804	1809	30	30	P		✓	JW	
20														
21														
22														
23														
24														
25														

SECONDARY

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5-15-10

REVIEWED BY:

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	135	137	WEOS	EEOS	DV	0837	0837	30	30	P		✓	KL	
2	110	135	WEOS	EEOS		0833	0838	30	30	"		✓		
3	135	136	NEOS	SEOS		0858	0903	30	30	"	✓			
4	110	136	WEOS	EEOS		0858	0903	30	30	"		✓		
5	137	138	NEOS	SEOS		0906	0911	30	30	"	✓			
6	136	138	WEOS	EEOS		0906	0911	30	30	"		✓		
7	136	137	EEOS	WEOS		0916	0923	30	30	P	✓			
8	138	97	NEOS	SEOS		0924	0929	30	30	"		✓	KL	
9	138	139	EEOS	WEOS		0926	0931	30	30	"		✓		
10	137	139	EEOS	171		0933	0938	30	30	"		✓		
11	137	139	171	WEOS		0937	0942	30	30	"		✓		
12	130	405	SEOS	NEOS		1012	1017	30	30	"		✓		
13	130	84	EEOS	WEOS		1012	1017	30	30	"	✓			
14	131	89	SEOS	NEOS		1018	1023	30	30	"	✓			
15	131	130	EEOS	WEOS		1018	1023	30	30	P		✓		
16	131	140	WEOS	EEOS		1029	1034	30	30	"		✓		
17	131	132	NEOS	SEOS		1029	1034	30	30	"		✓		
18	140	90	NEOS	SEOS		1032	1047	30	30	"		✓		
19	140	91	EEOS	WEOS		1032	1047	30	30	"		✓		
20	142	91	SEOS	NEOS		1045	1050	30	30	"		✓		
21	84	112	NEOS	SEOS		1106	1111	30	30	"		✓		
22	112	130	EEOS	WEOS		1106	11:11	30	30	"		✓		
23	112	113	NEOS	SEOS		1112	1117	30	30	P		✓		
24	113	130	EEOS	WEOS		1112	1117	30	30	"		✓		
25	113	114	NEOS	SEOS		1120	1125	30	30	"		✓	✓	

Second Day

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5-15-10

REVIEWED BY:

SHEET NUMBER: 2

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	114	130	EEOS	WEOS	OV	1120	1125	30	30	P		✓	DR	
2	114	115	SEOS	NEOS	"	1129	1134	30	30	P		✓	"	
3	115	130	EEOS	WEOS	"	1129	1134	30	29	P		✓	"	
4	115	116	SEOS	NEOS	"	1137	1142	30	30	P		✓	"	
5	116	130	EEOS	WEOS	"	1137	1142	30	30	P		✓	"	
6	116	117	SEOS	NEOS	"	1146	1151	30	30	P		✓	"	
7	117	130	EEOS	WEOS	"	1146	1151	30	30	P		✓	"	
8	117	118	SEOS	NEOS	"	1152	1157	30	29	P		✓	"	
9	118	130	EEOS	WEOS	"	1152	1157	30	30	P		✓	"	
10	116	119	SEOS	NEOS	"	1159	1204	30	30	P		✓	DR	
11	119	130	EEOS	WEOS	"	1159	1203	30	30	"		✓	"	
12	119	120	SEOS	NEOS	"	1205	1210	30	30	"		✓	"	
13	120	130	EEOS	WEOS	"	1205	1210	30	30	"		✓	"	
14	120	121	SEOS	NEOS	"	1255	1300	30	30	"		✓	"	
15										"				
16	142	141	EEOS	WEOS	"	1053	1058	30	29	"		—	"	
17	140	141	SEOS	NEOS	"	1053	1058	30	30	"		✓	DR	
18	132	140	EEOS	WEOS	"	1059	1104	30	30	"		✓	"	
19	132	141	EEOS	WEOS	"	1059	1104	30	30	"		✓	"	
20														
21														
22														
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24														
25														

SECONDARY

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5/18/2016

REVIEWED BY:

SHEET NUMBER: 1

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	142	144	EEOS	WEOS	DR	7:51	7:56	30	30	P		✓	DR	
2	92	144	SEOS	NEOS	"	7:51	7:56	30	30	P		✓	"	
3	93	144	WEOS	EEOS	"	7:52	7:57	30	30	P		✓	"	
4	93	146	SEOS	NEOS	"	7:53	7:58	30	30	P		✓	"	
5	144	146	EEOS	WEOS		7:59	8:04	30	30	P		✓	"	
6	146	148	WEOS	EEOS		7:59	8:04	30	30	P		✓	"	
7	148	149	SEOS	NEOS		8:05	8:10	30	30	P		✓	"	
8	146	149	EEOS	WEOS		8:05	8:10	31	31	P	✓		"	
9	148	150	WEOS	EEOS		8:07	8:12	31	31	P		✓	"	
10	149	150	EEOS	WEOS		8:08	8:13	31	31	P	✓		"	
11	139	150	EEOS	WEOS		8:13	8:18	30	30	P	✓		"	30'
12	96	139	SEOS	NEOS		8:25	8:30	30	30	P		✓	"	
13	95	148	WEOS	EEOS		8:26	8:31	30	30	P		✓	"	
14	95	150	SEOS	NEOS		8:27	8:32	30	30	P		✓	"	
15	149	150	EEOS	WEOS		8:39	8:44	30	30	P	✓		"	50'
16	149	151	EEOS	WEOS		8:41	8:46	30	30	P	✓		"	60'
17	142	143	NEOS	SEOS		8:45	8:50	30	30	P		✓	"	
18	144	145	SEOS	NEOS		9:05	9:10	30	30	P		✓	"	
19	143	145	EEOS	WEOS		9:08	9:13	30	30	P		✓	"	
20	145	146	EEOS	WEOS		9:10	9:15	30	30	P		✓	"	
21	146	147	SEOS	NEOS		9:11	9:16	30	30	P		✓	"	
22	147	149	EEOS	WEOS		9:15	9:20	30	30	P		✓	"	
23	149	145	EEOS	WEOS		9:18	9:23	30	30	P		✓	"	
24	150	151	WEOS	EEOS	"	10:10	10:15	30	30	P		✓	"	
25	149	151	WEOS	EEOS	"	10:11	10:16	30	30	P		✓	"	

SECOND DAY

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5/18/2010

REVIEWED BY:

SHEET NUMBER: 2

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	150	155	SEOS	NEOS	DR	10:12	10:17	30	30	P	✓		DR	
2	154	155	EEOS	WEOS		10:13	10:18	30	30	P		✓	DR	
3	139	154	SEOS	NEOS		10:15	10:20	30	30	P		✓	DR	
4	149	156	NEOS	SEOS		10:17	10:22	30	29	P		✓	DR	
5	147	149	WEOS	EEOS		10:19	10:24	30	28	P		✓	DR	
6	147	157	NEOS	SEOS		10:20	10:25	30	29	P		✓	DR	
7	147	158	NEOS	SEOS		10:21	10:26	31	29	P		✓	DR	
8	157	158	EEOS	WEOS		10:22	10:27	30	30	P		✓	DR	
9	147	145	WEOS	EEOS		10:24	10:29	30	30	P		✓	DR	
10	145	158	NEOS	SEOS		10:26	10:31	29	29	P		✓	DR	
11	143	160	NEOS	SEOS		10:28	10:33	30	30	P		✓	DR	
12	158	159	EEOS	WEOS		10:30	10:35	30	30	P		✓	DR	
13	143	159	NEOS	SEOS		10:32	10:37	30	29	P		✓	DR	
14	159	160	EEOS	WEOS		10:34	10:39	30	30	P		✓	DR	
15	143	159	NEOS	SEOS		10:35	10:40	30	29	P		✓	DR	
16	141	160	NEOS	SEOS		10:38	10:43	30	30	P		✓	DR	
17	141	161	NEOS	SEOS		10:42	10:47	30	29	P	✓		DR	
18	160	161	EEOS	WEOS		10:45	10:50	30	30	P		✓	DR	
19	132	141	WEOS	EEOS		10:47	10:52	30	30	P		✓	DR	
20	132	161	NEOS	SEOS		10:52	10:57	30	30	P		✓	DR	
21	132	162	NEOS	SEOS		10:57	11:02	30	30	P		✓	DR	
22	130	132	WEOS	EEOS		11:00	11:05	30	30	P		✓	DR	
23	130	162	NEOS	SEOS		11:03	11:08	30	30	P		✓	DR	
24	162	163	EEOS	WEOS		11:05	11:16	30	30	P		✓	DR	
25	163	164	EEOS	WEOS	✓	11:12	11:17	30	30	P		✓	DR	

Sheet 3

GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF PRESSURE TEST: 5/18/2010

REVIEWED BY:

SHEET NUMBER: 3

LINE NUMBER	SEAM NUMBER		SEAM SECTION		QC TECH. INITIALS	DURATION		PRESSURE		RESULTS PASS OR FAIL	SEAM COMPLETED		CQA MONITOR INITIALS	REMARKS
	FIRST PANEL	SECOND PANEL	START POINT	FINISH POINT		START TIME	FINISH TIME	INITIAL PRESSURE	FINAL PRESSURE		NO	YES		
1	163	165	NEOS	SEOS	DR	11:20	11:25	30	29	P		✓	OK	
2	164	165	FEOS	WEOS		11:26	11:31	31	30	P		✓		
3	165	166	NEOS	SEOS		11:27	11:32	30	30	P	✓			
4	162	166	WEOS	FEOS		11:30	11:35	30	30	P		✓		
5	129	166	SEOS	NEOS		11:32	11:37	30	30	P		✓		
6	128	129	SEOS	NEOS		11:33	11:38	31	30	"		✓		
7	114	130	SEOS	NEOS		11:35	11:40	30	29	"		✓		
8	129	130	WEOS	FEOS		11:36	11:41	30	30	"		✓		
9	128	166	WEOS	FEOS		11:37	11:42	30	30	"		✓		
10	130	166	WEOS	EEOS		11:40	11:45	30	30	"		✓		
11	128	129	NEOS	SEOS		11:41	11:46	30	30	"		✓		
12	127	128	NEOS	SEOS		11:43	11:48	30	30	"		✓		
13	127	130	WEOS	EEOS		11:44	11:49	30	30	"		✓		
14	126	127	NEOS	SEOS		11:46	11:50	30	30	P		✓		
15	126	130	WEOS	EEOS		11:48	11:53	31	30	P		✓		
16	125	126	NEOS	SEOS		11:50	11:55	30	30	P		✓		
17	125	130	WEOS	EEOS		11:52	11:57	30	30	P		✓		
18	124	125	NEOS	SEOS		11:53	11:58	30	30	P		✓		
19	124	130	WEOS	SEOS		11:55	12:00	30	30	P		✓		
20	123	124	NEOS	SEOS		11:58	12:03	30	30	P		✓		
21	123	130	WEOS	EEOS		12:02	12:07	30	30	P		✓		
22	122	123	NEOS	EEOS		13:10	13:15	30	30	P		✓		
23	122	130	WEOS	EEOS		13:15	13:20	30	30	P		✓		
24	121	122	NEOS	SEOS	✓	13:23	13:28	31	30	P		✓	✓	
25	121	130	WEOS	EEOS		13:30	13:35	30	31	P		✓		

SECONDARY

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 4/29/20

REVIEWED BY:

SHEET NUMBER: 1

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	2D	LA	N	Yes	JW	
2	2E	LA	N	YES	JW	
3						
4						
5						
6						
7						
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25						

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26						
27						
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SECONDARY

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TES: 5/1/2010

REVIEWED BY:

SHEET NUMBER: 1

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	1A	LA	N	yes	JW	
2	1B	↓	↓	↓	↓	
3	1C	↓	↓	↓	↓	
4	1D	↓	↓	↓	↓	
5	1E	↓	↓	↓	↓	
6	1F	↓	↓	↓	↓	
7	1G	↓	↓	↓	↓	
8	1H	↓	↓	↓	↓	
9	1I	↓	↓	↓	↓	
10	1J	↓	↓	↓	↓	
11	1K	↓	↓	↓	↓	
12	1M	↓	↓	↓	↓	
13	1N	↓	↓	↓	↓	
14	1P	↓	↓	↓	↓	
15	1Q	↓	↓	↓	↓	
16	1R	↓	↓	↓	↓	
17	1S	↓	↓	↓	↓	
18	1T	↓	↓	↓	↓	
19	1V	↓	↓	↓	↓	
20	2A	↓	↓	↓	↓	
21	2B	↓	↓	↓	↓	
22	2F	↓	↓	↓	↓	
23	2G	↓	↓	↓	↓	
24	2H	↓	↓	↓	↓	
25	2I	↓	↓	↓	↓	

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26	2J	LA	N	Yes	JW	
27	2K	↓	↓	↓	↓	
28	2M	↓	↓	↓	↓	
29	2N	↓	↓	↓	↓	
30	2P	↓	↓	↓	↓	
31	3X	↓	↓	↓	↓	
32	4A	↓	↓	↓	↓	
33	4B	↓	↓	↓	↓	
34	4C	↓	↓	↓	↓	
35	4D	↓	↓	↓	↓	
36	4E	↓	↓	↓	↓	
37	4F	↓	↓	↓	↓	
38	4G	↓	↓	↓	↓	
39	4H	↓	↓	↓	↓	
40	4I	↓	↓	↓	↓	
41	4J	↓	↓	↓	↓	
42	4K	↓	↓	↓	↓	
43	4M	↓	↓	↓	↓	
44	4N	↓	↓	↓	↓	
45	4P	↓	↓	↓	↓	
46	4Q	↓	↓	↓	↓	
47	4R	↓	↓	↓	↓	
48	4S	↓	↓	↓	↓	
49	4T	↓	↓	↓	↓	
50	4V	↓	↓	↓	↓	

ATLANTIC COAST CONSULTING, INC

SECONDARY

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 5/1/2016

REVIEWED BY:

SHEET NUMBER: 2

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	4W	LA	N	YES	JW	
2	4X	"	"	"	"	
3	5A					
4	5B					
5	5C					
6	5D					
7	5E					
8	5F					
9	5G					
10	5H					
11	5I					
12	5J					
13	5K					
14	5M					
15	5N					
16	5P					
17	5Q					
18	5R					
19	5S					
20	5T					
21	5V					
22	5W					
23	5X					
24	6A					
25	6B					

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26	6C	LA	N	YES	JW	
27	6D					
28	6E					
29	6F					
30	6G					
31	6H					
32	6I					
33	6J					
34	6K					
35	6M					
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SECOND. 1

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 5/5/2010

REVIEWED BY: _____

SHEET NUMBER: 1

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	1W	LA	N	Yes	JW	
2	1X					
3	2C					
4	2Q					
5	2R					
6	2S					
7	2T					
8	2V					
9	2W					
10	2X					
11	3A					
12	3B					
13	3C					
14	3D					
15	3E					
16	3F					
17	3G					
18	3H					
19	3I					
20	3J					
21	3K					
22	3M					
23	3N					
24	3P					
25	3Q					

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26	3R	LA	N	Yes	JW	
27	3S					
28	3T					
29	3V					
30	6N					
31	6P					
32	6Q					
33	6R					
34	6S					
35	6T					
36	6V					
37	6W					
38	6X					
39	7A					
40	7B					
41	7C					
42	7D					
43	7E					
44	7F					
45	7G					
46	7H					
47	7I					
48	7J					
49	7K					
50	7M					

ATLANTIC COAST CONSULTING, INC

SECONDARY

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 5/5/2010

REVIEWED BY:

SHEET NUMBER: 2

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	7N	LA	N	YES	JW	
2	7P	"	N	"	"	
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
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21						
22						
23						
24						
25						

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26						
27						
28						
29						
30						
31						
32						
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SECONDARY

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 5/12/2010

REVIEWED BY:

SHEET NUMBER: 1

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	6X	CA	N	YES	JW	
2	7Q					
3	7R					
4	7S					
5	7T					
6	7V					
7	7W					
8	7X					
9	8A					
10	8B					
11	8C					
12	8D					
13	8E					
14	8F					
15	8G					
16	8H					
17	8I					
18	8J					
19	8K					
20	8M					
21	8N					
22	8P					
23	8Q					
24	8R					
25	8S	↓	↓	↓	↓	

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26	8T	CA	N	YES	JW	
27	8V					
28	8W					
29	8X					
30	9A					
31	9B					
32	9C					
33	9D					
34	9E					
35	9F					
36	9G					
37	9H					
38	9I					
39	9J					
40	9K					
41	9M					
42	9N					
43	9P					
44	9Q					
45	9R					
46	9S					
47	9T					
48	9V					
49	9W	↓	↓	↓	↓	
50	9X					

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GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 5/12/2010

REVIEWED BY:

SHEET NUMBER: 2

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	10A	LA	N	YES	JW	
2	10B	↓	↓	↓	↓	
3	10C					
4	10D					
5	10E					
6	10F					
7	10G					
8	10H					
9	10I					
10	10J					
11	10K					
12	10M					
13	10N					
14	10P					
15	10Q					
16	10R					
17	10S					
18	10T					
19	10V					
20	10W					
21	10X					
22	11A					
23	11B					
24	11C					
25	11D	↓	↓	↓	↓	

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26	11E	LA	N	YES	JW	
27	11F	↓	↓	↓	↓	
28	11G					
29	11H					
30	11I					
31	11J					
32	11K					
33	11M					
34	11N					
35	11P					
36	11Q					
37	11R					
38	11S					
39	11T					
40	11V					
41	11W					
42	11X					
43	12A					
44	12B					
45	12C					
46	12D					
47	12E					
48	12F					
49	12G					
50	12H	↓	↓	↓	↓	

BNDARY

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 5/12/2010

REVIEWED BY:

SHEET NUMBER: 3

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	12I	LA	N	Yes	JW	
2	12J	↓	↓	↓	↓	
3	12K					
4	12M					
5	12N					
6	12P					
7	12Q					
8	12R					
9	12S					
10	12T					
11	12V					
12	12W					
13	12X					
14	13N					
15	13P					
16	13Q					
17	13R					
18	13S					
19	13T					
20	13V					
21	14A					
22	14B					
23	14C					
24	14D					
25	14E	↓	↓	↓	↓	

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26	14F	LA	N	Yes	JW	
27	14G	↓	↓	↓	↓	
28	14H					
29	14I					
30	14J					
31	14K					
32	14M					
33	14N					
34	14P					
35	14Q					
36	14R					
37	14S					
38	14T					
39	14V					
40	14W					
41	14X					
42	15A					
43	15B					
44	15C					
45	15D					
46	15E					
47	15F					
48	15G					
49	15H					
50	15I	↓	↓	↓	↓	

5 WPARY

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 5/12/2010

REVIEWED BY:

SHEET NUMBER: 4

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	15 J	LA	N	yes	JCW	
2	15 K					
3	15 M					
4	15 N					
5	15 P					
6	15 Q					
7	15 R					
8	15 S					
9	15 T					
10	15 V					
11	16 A					
12	16 B					
13	16 C					
14	16 D					
15	16 E					
16	16 F					
17	16 G					
18	16 H					
19	16 I					
20						
21						
22						
23						
24						
25						

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26						
27						
28						
29						
30						
31						
32						
33						
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42						
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45						
46						
47						
48						
49						
50						

SECONDARY

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 5/14/2010

REVIEWED BY:

SHEET NUMBER: 1

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	13 A	LA	N	yes	JW	
2	13 B					
3	13 C					
4	13 D					
5	13 E					
6	13 F					
7	13 G					
8	13 H					
9	13 I					
10	13 J					
11	13 K					
12	13 M					
13	17 A					
14	17 B					
15	17 C					
16	17 D					
17	17 E					
18	17 F					
19	17 G					
20	17 H					
21	17 I					
22	17 J					
23	17 K					
24	17 M					
25	17 N					

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26	17 P	LA	N	YES	JW	
27	17 Q					
28	17 R					
29	17 S					
30	17 T					
31	17 V					
32	17 W					
33	17 Y					
34						
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ATLANTIC COAST CONSULTING, INC

5 SNDARY

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 5/18/2010

REVIEWED BY:

SHEET NUMBER: 1

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	13W	LA	N	YES	DR	
2	13X					
3	16Q					
4	18A					
5	18B					
6	18C					
7	18D					
8	18E					
9	18F					
10	18G					
11	18H					
12	18I					
13	18J					
14	18K					
15	18m					
16	18N					
17	18P					
18	18Q					
19	18R					
20	18S					
21	18T					
22	18V					
23	18W					
24	18X					
25	19A					

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26	19B	LA	N	YES	DR	
27	19C					
28	19D					
29	19E					
30	19F					
31	19G					
32	19H					
33	19I					
34	19J					
35	19K					
36	19m					
37	19N					
38	19P					
39	19Q					
40	19R					
41	19S					
42	19T					
43	19V					
44	19W					
45	19X					
46	21T					
47	21V					
48	21W					
49	21X					
50	22K					

Sc DIARY

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 5/18/2010

REVIEWED BY: _____

SHEET NUMBER: 2

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	22A	LA	✓	YES	QA	
2	22B	↓	↓	↓	↓	
3	22C					
4	22D					
5	22E					
6	22F					
7	22G					
8	22H	↓	↓	↓	↓	
9						
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24						
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LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26						
27						
28						
29						
30						
31						
32						
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49						
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Secondary

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 5/19/2010

REVIEWED BY:

SHEET NUMBER: 1

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	16 J	LA	N	YES	DR	
2	16 K					
3	16 M					
4	16 N					
5	16 P					
6	19 W					
7	19 X					
8	20 A					
9	20 B					
10	20 C					
11	20 D					
12	20 E					
13	20 F					
14	20 G					
15	20 H					
16	20 I					
17	20 J					
18	20 K					
19	20 M					
20	20 N					
21	20 P					
22	20 Q					
23	20 R					
24	20 S					
25	20 T					

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26	20 W	LA	N	YES	DR	
27	20 X					
28	21 A					
29	21 B					
30	21 C					
31	21 D					
32	21 E					
33	21 F					
34	21 G					
35	21 H					
36	21 I					
37	21 J					
38	21 K					
39	21 M					
40	21 N					
41	21 P					
42	21 Q					
43	21 R					
44	21 S					
45	22 I					
46	22 J					
47	22 M					
48	22 N					
49	22 P					
50	22 Q					

Secondary

GEOMEMBRANE REPAIR VACUUM TEST LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF VACUUM TEST: 5/19/2010

REVIEWED BY: _____

SHEET NUMBER: 2

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
1	22R	LA	N	YES	DR	
2	22S	↓	↓	↓	↓	
3	22T	↓	↓	↓	↓	
4	22V	↓	↓	↓	↓	
5	22W	↓	↓	↓	↓	
6	22X	↓	↓	↓	↓	
7	23A	↓	↓	↓	↓	
8	23B	↓	↓	↓	↓	
9	23C	↓	↓	↓	↓	
10	23D	↓	↓	↓	↓	
11	23E	↓	↓	↓	↓	
12	23F	↓	↓	↓	↓	
13	23G	↓	↓	↓	↓	
14	23H	↓	↓	↓	↓	
15	23I	↓	↓	↓	↓	
16	23J	↓	↓	↓	↓	
17	23K	↓	↓	↓	↓	
18	23M	↓	↓	↓	↓	
19	23N	↓	↓	↓	↓	
20	23P	↓	↓	↓	↓	
21	23Q	↓	↓	↓	↓	
22	23R	↓	↓	↓	↓	
23						
24						
25						

LINE NUMBER	DEFECT CODE	QC TECH. INITIALS	OBSERVED DEFECTS	REPAIR COMPLETED YES OR NO	CQA MONITOR INITIALS	REMARKS
26						
27						
28						
29						
30						
31						
32						
33						
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ATLANTIC COAST CONSULTING, INC

SECONDARY 006

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 4-29-10

REVIEWED BY:

SHEET NUMBER: 1

MACHINE NUMBER: AO-06

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 0

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	4 I	1748	P	H.E.P	2x3	10	10		KL	
2	4-J	1811	P	H.E.P	2x5	14	24		KL	
3	2-H	1813	P	"	1x1	4	28		KL	
4	4N	1820	P	"	4x4	16	44		KL	
5	4P	1830	P	"	3x4	14	58		KL	
6	4K	1841	P	"	3x4	14	72		KL	
7	4M	1854	P	✓	4x5	18	90		KL	
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
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24										
25										
26										
27										
28										
29										
30										

DAILY TOTAL FOR WELDED SEAM: 90

DESTRUCTIVE LENGTH CARRY - OVER: 90

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

(SECONDARY) 036

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101 DATE OF REPAIR: 4/29/10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction REVIEWED BY:

PROJECT LOCATION: Saint Cloud, Florida SHEET NUMBER: 1 OF 1

MACHINE NUMBER: FM — A 036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG:

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	1C	1655	P	FM	3.5x3.5	14	14		KL	
2	1E	1700	P	1	2x2	8	22		KL	
3	1D	1707	P		4x2	12	34		KL	
4	1F	1712	P		2x3	10	44		KL	
5	1G	17:17	P		1x3	8	52		KL	
6	1-H	1722	P		3x3	12	64		KL	
7	1-A	1728	P		2x6	16	80		KL	
8	1J	1735	P		3x3	12	92		KL	
9	1K	1739	P		2x3	10	102		KL	
10	1M	1750	P		2x3	10	112		KL	
11	1N	1755	P		2x4	12	124		KL	
12	1B	1745	P		2x6	12	136		KL	
13	1P	1857	P		2x4	10	146		KL	
14	1Q	1900	P		2x2	8	154		KL	
15	1I	1903	P		2x3	10	164		KL	
16	1R	1906	P		2x3	10	174		KL	
17	1S	1911	P		2x2	8	182		KL	
18	1T	1913	P	↓	2x4	12	200		KL	
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

DAILY TOTAL FOR WELDED SEAM: 200

DESTRUCTIVE LENGTH CARRY - OVER: 200

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

Secondary 006

SECONDARY

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 4-30-10

REVIEWED BY: [signature]

SHEET NUMBER: 1

MACHINE NUMBER: AR-A006

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 90

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	2M	1357	P	AR	2x5	14	104		KL	
2	2N	1417	P	1	2x5	14	118		KL	
3	2P	1427	P	1	2x5	14	132		KL	
4	4Q	1435	P	1	3x5	16	148		KL	
5	2F	1443	P	1	2x5	14	162		KL	
6	4R	1450	P	1	2x2	8	170		KL	
7	4S	1456	P	1	2x2	8	178		KL	
8	5G	1459	P	1	1x7	16	194		KL	
9	4T	1504	P	1	3x3	12	206		KL	
10	5-F	1510	P	1	1x12	26	219/13	DX-3	KL	
11	4V	1530	P	1	3x4	14	27		KL	
12	2K	1536	P	1	3x5	16	43		KL	
13	4H	1544	P		2x2	8	51		KL	
14	4W	1553	P		2x3	10	61		JW	
15	4X	1603	P		2x3	10	71		JW	
16	5A	1610	P		2x3	10	81		JW	
17	5D	1615	P		2x2	8	89		JW	
18	5C	1618	P		3x5	16	105		JW	
19	5B	1639	P		2x3	10	115		JW	
20	4G	1648	P		8x8	32	147		JW	
21	4F	1658	P	✓	2x2	8	155		JW	
22										
23										
24										
25										
26										
27										
28										
29										
30										

DAILY TOTAL FOR WELDED SEAM: 384

DESTRUCTIVE LENGTH CARRY - OVER: 155

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

SECONDARY

Secondary 036

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 4/30/1

REVIEWED BY:

SHEET NUMBER: 1 OF 1

MACHINE NUMBER: FM A036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 200

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	5E	1058	P	FM	2x2	8	208		JW	
2	5H	1102	P		2x2	8	216		JW	
3	2A	1106	P		2x3	10	226		JW	
4	2D/1V	1113	P		3x9	24	250		JW	
5	5K	1155	P		2x2	8	258		JW	
6	5P	1208	P		1x1	4	262		JW	
7	5Q	1320	P		3x6	18	265/15	DX-1	JW	
8	5R	1334	P		2x2	8	23		JW	
9	5S	1341	P		2x3	10	33		JW	
10	5T	1349	P		1x1	4	37		JW	
11	5V	1402	P		2x4	12	49		JW	
12	5W	1412	P		1x1	4	53		JW	
13	5N	1424	P		2x3	10	63		JW	
14	5X	1437	P		1x1	4	67		JW	
15	5M	1450	P		1x2	6	73		JW	
16	6A	1604	P		1x1	4	77		JW	
17	6B	1612	P		2x2	8	85		JW	
18	6C	1622	P		2x2	8	93		JW	
19	6D	1626	P		1x1	4	97		JW	
20	6E	1635	P		2x3	10	107		JW	
21	6F	1638	P		1x1	4	111		JW	
22	6G	1647	P		1x1	4	115		JW	
23	6H	1701	P		1x1	4	119		JW	
24	6I	1707	P		1x1	4	123		JW	
25	6J	1712	P		1x1	4	127		JW	
26	6K	1717	P	↓	1x1	4	131		JW	
27										
28										
29										
30										

DAILY TOTAL FOR WELDED SEAM: 196

DESTRUCTIVE LENGTH CARRY - OVER: 131

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

SECONDARY

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101 DATE OF REPAIR: 5/1

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction REVIEWED BY: [signature]

PROJECT LOCATION: Saint Cloud, Florida SHEET NUMBER: 1 of 1

MACHINE NUMBER: 006

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 155

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	4E	0745	P	AR	3x4	14	169		JW	
2	4D	0747	P		2x2	8	177		JW	
3	4C	0755	P		2x3	10	187		JW	
4	4B	0800	P		2x2	8	195		JW	
5	4A	0806	P		2x2	8	203		JW	
6	3X	0812	P		2x2	8	211		JW	
7	6Q	1015	P	AR	2x5	14	225		JW	
8										
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11										
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DAILY TOTAL FOR WELDED SEAM:						70				
DESTRUCTIVE LENGTH CARRY - OVER:							225			

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

Secondary 036

SECONDARY

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5/1

REVIEWED BY:

SHEET NUMBER: 1 of 1

MACHINE NUMBER: A 036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 131

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	6M	0849	P	FM	2X2	8	139		JW	
2	6N	1045	P	↓	2X5	14	153		JW	
3	6P	1055	P	↓	2X5	14	167		JW	
4										
5										
6										
7										
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30										
DAILY TOTAL FOR WELDED SEAM:						36				
DESTRUCTIVE LENGTH CARRY - OVER:							167			

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

SECONDARY 034

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101 DATE OF REPAIR: 5-3-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction REVIEWED BY:

PROJECT LOCATION: Saint Cloud, Florida SHEET NUMBER: 1

MACHINE NUMBER: A036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 167

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	7B	1415	P	FM	3x6	18	185			DS-13
2	7A	1420	P	FM	3x6	18	203			DS-12
3	2S	1520	P	1	2x10	24	227			SAME AS 2T
4	6R	1533	P	1	2x8	20	247			
5	6S	1553	P	1	2x4	12	259			
6	6V	1600	P	1	2x2	8	267			
7	7E	1543	P	1	2x6	16	283			
8	2Q	1606	P	1	1x1	4	287			
9	7G	1611	P	1	2x5	14	301			
10	7C	1623	P	1	2x12	28	329			
11	6T	1630	P	1	2x3	10	339			
12										
13										
14										
15										
16										
17										
18										
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21										
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24										
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26										
27										
28										
29										
30										

DAILY TOTAL FOR WELDED SEAM: 172

DESTRUCTIVE LENGTH CARRY - OVER: 339

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

FM-36 Secondary

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101 DATE OF REPAIR: 5-4-10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction REVIEWED BY:

PROJECT LOCATION: Saint Cloud, Florida SHEET NUMBER: 1

MACHINE NUMBER: A-036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 339

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	7F	0830	P	FM	2x10	24	363		KL	DS-17
2	7D	0837	P	FM	2x6	16	379		KL	
3	2W	0845	P	FM	3x5	16	395		KL	
4	7H	1141	P	FM	2x2	8	403		JW	
5	7I	1125	P	FM	2x2	8	411		JW	
6	7J	1130	P		3x3	12	423		JW	
7	7K	1144	P		2x2	8	431		JW	
8	7M	1148	P		1x1	4	435		JW	
9	7N	1157	P		1x1	4	439		JW	
10	7P	1253	P	↓	2x2	8	447		JW	
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DAILY TOTAL FOR WELDED SEAM: 108

DESTRUCTIVE LENGTH CARRY - OVER: 447

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

FM 36 Secondary

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5/6/10

REVIEWED BY:

SHEET NUMBER: 1 OF 1

MACHINE NUMBER: A036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 447

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	10B	1445	P	FM	2x4	12	459		JW	
2	10C	1457	P		2x4	12	471		JW	
3	6X	1518	P		2x4	12	477-1/6	DX-6	JW	
4	10D	1511	P		1x1	4	10		JW	
5	10E	1525	P		1x1	4	14		JW	
6	10-F	1522	P		1x1	4	18		JW	
7	8C	1540	P		2x5	14	32		JW	
8	10-G	1553	P		1x1	4	36		JW	
9	10H	1558	P		1x1	4	40		JW	
10	10J	1607	D		1x1	4	44		JW	
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DAILY TOTAL FOR WELDED SEAM: 74

DESTRUCTIVE LENGTH CARRY - OVER: 44

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

HM 36
Seam Orig

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101 DATE OF REPAIR: 5/7/10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction REVIEWED BY:

PROJECT LOCATION: Saint Cloud, Florida SHEET NUMBER: 1 of 2

MACHINE NUMBER: 036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 44

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	10K	0919	P	FM	2x2	8	52		JW	
2	10M	0929	P		1x1	4	56		JW	
3	10N	0936	P		1x1	4	60		JW	
4	10P	0942	P		2x2	8	68		JW	
5	10Q	0952	P		1x1	4	72		JW	
6	10R	0956	P		1x4	4	76		JW	
7	10T	1015	P		1x1	4	80		JW	
8	10V	1023	P		2x2	8	88		JW	
9	10W	1033	P		2x2	8	96		JW	
10	10X	1045	P		1x4	4	100		JW	
11	11A	1058	P		1x1	4	104		JW	
12	11B	1108	P		1x1	4	108		JW	
13	11C	1119	P		1x1	4	112		JW	
14	11D	1125	P		1x1	4	116		JW	
15	11E	1135	P		1x1	4	120		JW	
16	11F	1141	P		1x1	4	124		JW	
17	11G	1145	P		1x1	4	128		JW	
18	11H	1151	P		2x3	10	138		JW	
19	11I	1156	P		1x1	4	142		JW	
20	11J	1202	P		1x1	4	146		JW	
21	8-B	1323	P		2x5	14	160		JW	
22	7R	1327	P		2x2	8	168		JW	
23	7S	1358	P		2x3	10	178		JW	
24	10S	1407	P		2x6	16	194		JW	
25	10I	1418	P		2x5	14	208		JW	
26	7T	1436	P		2x4	12	220		JW	
27	7V	1440	P		2x3	10	230		JW	
28	7W	1445	P		2x2	8	238		JW	
29	7X	1450	P		2x3	10	248		JW	
30	8E	1459	P		2x5	14	262		JW	
					DAILY TOTAL FOR WELDED SEAM:	218				
					DESTRUCTIVE LENGTH CARRY - OVER:		262			

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

FM 36
Seaward

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5/7/10

REVIEWED BY:

SHEET NUMBER: 2 of 2

MACHINE NUMBER: A 036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 262

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	9S	1525	P	FM	2x2	8	270		JW	
2	9T	1532	P	"	2x2	8	278		JW	
3	9V	1535	P	"	2x2	8	286		JW	
4	9R	1542	P	"	2x2	8	294		JW	
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DAILY TOTAL FOR WELDED SEAM: 32

DESTRUCTIVE LENGTH CARRY - OVER: 294

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

FM 036 Secondary

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101 DATE OF REPAIR: 5/10/10

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction REVIEWED BY: _____

PROJECT LOCATION: Saint Cloud, Florida SHEET NUMBER: 1 of 1

MACHINE NUMBER: A036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 294

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	12T	1530	P	FM	1x1	4	298		JW	
2	12V	1540	P		1x1	4	302		JW	
3	12W	1550	P		1x3	8	310		JW	
4	12X	1600	P		1x1	4	314		JW	
5	14A	1607	P		2x2	8	322		JW	
6	14B	1619	P		1x1	4	326		JW	
7	14C	1627	P		1x1	4	330		JW	
8	14D	1635	P	↓	1x1	4	334		JW	
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DAILY TOTAL FOR WELDED SEAM: 40

DESTRUCTIVE LENGTH CARRY - OVER: 334

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

Secondary FM 036

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5/11/10

REVIEWED BY:

SHEET NUMBER: 1 of

MACHINE NUMBER: A036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 334

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	14E	0737	P	FM	1X1	4	338		JW	
2	11P	0741	P	FM	2x2	8	346		JW	
3	11K	0756	P	FM	2X5	14	360		JW	
4	11M	0801	P	FM	1X3	8	368		JW	
5	11N	0808	P	FM	2x2	8	376		JW	
6	11Q	0834	P	FM	2X2	8	384		JW	
7	11R	0839	P	FM	1X3	8	392		JW	
8	11S	0845	P	FM	2x2	8	400		JW	
9	8P	0928	P	FM	2X6	16	416		JW	
10	12P	0934	P	FM	2X2	8	424		JW	
11	8S	0946	P	FM	2x6	16	440	DS-32	JW	
12	12Q	0958	P	FM	2X6	16	456		JW	
13	12R	1008	P	FM	1X1	4	460		JW	
14	8V	1017	P	FM	2X5	14	467/7	DX 7	JW	D1
15	8R	1027	P	FM	2X5	14	21	DS-31	JW	
16	8Q	1034	P	FM	2X5	14	35	DS 30	JW	
17	8N	1042	P	FM	2X5	14	49	DS 29	JW	
18	8M	1048	P	FM	2X5	14	63		JW	
19	11T	1055	P	FM	1X2	6	69		JW	
20	11V	1059	P	FM	2X2	8	77		JW	
21	14G	1105	P	FM	1X3	8	85		JW	
22	11W	1108	P	FM	1X1	4	89		JW	
23	8I	1113	P	FM	2X5	14	103		JW	
24	11X	1123	P	FM	2X2	8	111		JW	
25	8K	1127	P	FM	2X5	14	125		JW	
26	8H	1137	P	FM	3X5	16	141		JW	
27	14I	1145	P	FM	1X1	4	145		JW	
28	12B	1158	P	FM	1X1	4	149		JW	
29	12A	1202	P	FM	1X1	4	153		JW	
30	12C	1210	P	FM	1X1	.4	157		JW	
					DAILY TOTAL FOR WELDED SEAM:	290				
					DESTRUCTIVE LENGTH CARRY - OVER:		157			

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

fm 036
Secondary

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5/11/10

REVIEWED BY:

SHEET NUMBER: 2 of

MACHINE NUMBER: A 036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 157

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	12D	1216	P	FM	1x1	4	161		JW	
2	8J	1318	P	FM	2x5	14	175		JW	
3	12 E	1328	P	FM	1x1	4	179		JW	
4	12 F	1333	P	FM	1x1	4	183		JW	
5	12 G	1337	P	FM	1x1	4	187			
6	12H	1342	P	FM	1x1	4	191			
7	12I	1353	P	FM	1x1	4	195			
8	12J	1357	P	FM	1x1	4	199			
9	12K	1400	P	FM	1x1	4	203			
10	12M	1405	P	FM	2x2	8	211			
11	14J	1410	P	FM	2x5	14	225			
12	14F	1431	P	FM	2x5	14	239			
13	14K	1713	P	FM	1x1	4	243		JW	
14	14M	1719	P	FM	1x1	4	247		JW	
15	14N	1726	P	FM	1x1	4	251		JW	
16	14P	1733	P	FM	1x1	4	255		JW	
17	14Q	1740	P	FM	1x1	4	259		JW	
18	14R	1750	P	FM	1x1	4	263		JW	
19										
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DAILY TOTAL FOR WELDED SEAM:

DESTRUCTIVE LENGTH CARRY - OVER: 263

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

006
Secondary

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5/12/10

REVIEWED BY:

SHEET NUMBER: 1 of 1

MACHINE NUMBER: AV06

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 225

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	15T	1030	P		2x2	8	233		JW	
2	13S	1045	P		2x5	14	247		JW	
3	13R	1101	P		2x4	12	259		JW	
4	13T	1120	P		2x4	12	271		JW	
5	15S	1142	P		3x3	12	283		JW	
6	15R	1158	P		2x2	8	291		JW	
7	15Q	1212	P		1x1	4	295		JW	
8	15N	1228	P		2x4	12	307		JW	
9	15P	1305	P		3x3	12	319		JW	
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DAILY TOTAL FOR WELDED SEAM: 94

DESTRUCTIVE LENGTH CARRY - OVER: 319

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

Secondary

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5-12-10

REVIEWED BY:

SHEET NUMBER:

MACHINE NUMBER: A-068

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 0

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	13X	0854	P	A.R	3x12	30	30		KL	
2	16A	0902	P	"	2x4	12	42		KL	
3	16B	0909	P	"	4x4	16	58		KL	
4	16C	0913	P	"	3x3	12	70		KL	
5	16D	0934	P	"	3x10	26	96		KL	
6	16E	0944	P	"	3x10	26	122		KL	
7	16F	0957	P	"	3x3	12	134		KL	
8	16G	1001	P	"	3x6	18	152		KL	
9	16H	1021	P	"	16x3, 3x4	50	202		KL	
10	16I	1032	P	"	4x8	24	226		KL	Same as 86
11	16J	1054	P	"	4x4	16	242		KL	
12										
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DAILY TOTAL FOR WELDED SEAM: 242

DESTRUCTIVE LENGTH CARRY - OVER: 242

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

FM 0.36
Secondary

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5/12/10

REVIEWED BY:

SHEET NUMBER: 1 of

MACHINE NUMBER: A 036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 263

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	14S	0812	P	FM	1x1	4	267		JW	
2	14T	0819	P	FM	1x1	4	271		JW	
3	8T	0823	P	FM	2x2	8	279		JW	
4	14V	0837	P	FM	1x1	4	283			
5	14W	0841	P	FM	1x1	4	287			
6	14X	0851	P	FM	1x1	4	291			
7	15A	0905	P	FM	1x1	4	295			
8	15B	0912	P	FM	1x1	4	299			
9	15C	0923	P	FM	1x1	4	303			
10	15D	0928	P	FM	1x1	4	307			
11	15-E	0945	P	FM	1x2	6	313			
12	15F	1029	P	FM	2x5	14	327			
13	9A	1059	P	FM	2x3	10	337			
14	9B	1107	P	FM	2x6	16	353			
15	9C	1111	P	FM	2x2	8	361			
16	9D	1115	P	FM	1x2	6	367			
17	9E	1120	P	FM	1x2	6	373			
18	9F	1124	P	FM	1x2	6	379			
19	9G	1130	P	FM	2x4	12	391			
20	9H	1136	P	FM	1x2	6	397			
21	7Q	1147	P	FM	2x6	16	413			
22	9Q	1155	P	FM	2x4	12	425			
23	15G	1200	P	FM	2x5	14	439			
24	8D	1307	P	FM	3x6	18	457			
25	9W	1312	P	FM	2x2	8	465			
26	13N	1323	P	FM	2x5	14	472/7	DX-9		1347
27	13P	1334	P	FM	2x5	14	21			
28	15I	1339	P	FM	2x2	8	29			
29	15J	1347	P	FM	2x2	8	37			
30.	13Q	1353	P	FM	3x4	14	51			

DAILY TOTAL FOR WELDED SEAM:

DESTRUCTIVE LENGTH CARRY - OVER: 51

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

FM 036
Secondary

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5/12/10

REVIEWED BY: [signature]

SHEET NUMBER: 2 of 2

MACHINE NUMBER: 036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 51

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	13V	1407	P	FM	2x5	14	65		JW	
2	13W	1418	P	FM	2x5	14	79		JW	
3	15K	1424	P	FM	2x2	8	87		JW	
4	15M	1430	P	FM	2x2	8	95		JW	
5	15H	1437	P	FM	2x4	12	107		JW	
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DAILY TOTAL FOR WELDED SEAM: 56

DESTRUCTIVE LENGTH CARRY - OVER: 107

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

FM 036
SECONDARY

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101
PROJECT TITLE: J.E.D. Facility - Cell 7 Construction
PROJECT LOCATION: Saint Cloud, Florida
DATE OF REPAIR: 5-14-10
REVIEWED BY:
SHEET NUMBER: 1
MACHINE NUMBER: A-036
DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 107

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	17B	1315	P	FM	12x2	28	135		KL	
2	17C	1321	P		1x1	4	139		KL	
3	17E	1328	P		6x8	28	167		KL	2 PATCHES
4	15V	1340	P		3x5	16	183		KL	
5	17D	1347	P		6x8	28	211		KL	
6	17F	1402	P		2x5	14	225		KL	
7	17G	1409	P		3x12	30	255		KL	ADJACENT
8	17A	1417	P		2x6	16	271		KL	PATCH
9	13G	1425	P		4x5, 2x2	26	297		KL	
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
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28										
29										
30.										

DAILY TOTAL FOR WELDED SEAM: 190

DESTRUCTIVE LENGTH CARRY - OVER: 297

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

SECONDARY

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5-15-10

REVIEWED BY:

SHEET NUMBER: 1

MACHINE NUMBER: A036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 297

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	17A	1031	P	FM	3X6	18	315			DS-49
2	17K	1024	P		2x2	8	323			
3	17J	1040	P		2x5	14	337			DS51
4	17I	1045	P		2x2	8	345			
5	17P	11:10	P		3x4	14	359			
6	17Q	11:16	P		2x5	14	373			
7	17R	1139	P		3x4	14	387			
8	17S	1309	P		2x10	64	450/1	DX-10		
9	17T	1344	P		2x10	24	25			
10	17V	1350	P		3x6, 6x6	42	67			
11	17W	1423	P		3x4, 5x5	34	101			
12	12N	1519	P		4x4	16	117			
13	18A	1529	P		5x7	24	141			
14	18B	1535	P		3x3	12	153			
15	18C	1545	P		3x4	14	167			
16	18D	1554	P		2x4	12	179			
17	18E	1602	P		3x3	12	191			
18	18F	1605	P		2x2	8	199			
19	18T	1733	P		2x2, 5x3	24	223			
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30.										

DAILY TOTAL FOR WELDED SEAM:

DESTRUCTIVE LENGTH CARRY - OVER: 223

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

SECONDARY

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5-18

REVIEWED BY:

SHEET NUMBER: 1

MACHINE NUMBER: A 004

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 319

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	21T	1300		SMT	1x1	4	323			
2	21V	1425		"	2x4	12	335			
3	21W	1428		"	1x5	12	347			
4	21X	1443		"	3x3	12	359			
5	22K	1415			7x6	14	373			
6	22E	1430			1x1	4	377			
7	22F	1435			1x1	4	381			
8	18M	1440			2x4	12	385/8	DX-12		from DS-54
9	22A	1448			1x1	4	12			
10	22B	1450			2x2	8	20			
11	22C	1455			2x2	8	28			
12	22D	1459			1x1	4	32			
13	22G	1500			1x1	4	36			
14	22H	1503			2x2	8	44			
15										
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22										
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24										
25										
26										
27										
28										
29										
30.										

DAILY TOTAL FOR WELDED SEAM: 110

DESTRUCTIVE LENGTH CARRY - OVER: 44

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

SECONDARY

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5/18/19

REVIEWED BY:

SHEET NUMBER: 1

MACHINE NUMBER: A036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 223

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	13W	8:15	P	FM	20x2	44'	267	44A		
2	13W	8:28	P		8x2	20'	287	44B		
3	18V	9:55	P		2x75	150	437			CAPPED A-B
4	18P	13:46	P		2x6	16'	453			
5	19A	13:56	P		3x6	18'	450 31	DX-11		
6	19B	14:04	P		1x2	6'	27'			
7	19C	14:10	P		1x2	6'	33'			
8	19D	14:16	P		2x3	10'	43'			
9	19E	14:18	T		1x2	6'	49'			
10	19F	14:23	P		1x1	3'	52'			
11	19G	14:30	P		2x4	12'	64'			(12X) SAME
12	18N	14:40	P		2x6	16'	80'			
13	19H	14:54	P		2x5	14'	94'			
14	19I	15:02	P		2x5	14	108'			
15	19J	15:12	P		2x5	14'	122'			
16	17S	15:20	P		2x8	20'	142'			
17	18S	15:30	P		2x4	12'	154'			
18	19K	15:38	P		2x8	20'	174'			
19	19M	15:45	P		1x2	6'	180'			
20	19N	15:55	P		3x4	14'	194'			
21	19P	16:00	T		2x4	12	206'			
22	19Q	16:15	T		3x8	22'	228'			
23	RQ	16:20	P		2x3	10'	238'			DS-56
24	19R	16:30	T		3x10'	26	264			
25	19S	16:40	P		2x2	8'	272'			
26	19T	16:46	P		2x2	8'	280'			
27	19V	16:50	T		2x6	16'	296			
28	21T	1724	T		1x1	4	300			
29	21V	1727	T		2x4	12	312			
30	21W	1733	T		1x5	12	324			
					DAILY TOTAL FOR WELDED SEAM:	551				
					DESTRUCTIVE LENGTH CARRY - OVER:		324			

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

SECONDARY 036

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5-18-10

REVIEWED BY: JV

SHEET NUMBER: 2

MACHINE NUMBER: A036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 324

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	18G	1605	P	FM	1x1	4	328			
2	18H	1610	P		1x3	8	336			
3	18I	1623	P		1x1	4	340			
4	18J	1634	P		2x4	12	352			
5	16Q	1657	P		2x4	12	364			
6	18W	1703	P		1x1	4	368			
7	21Q	1710	P		2x2	8	376			
8	21R	1717	P		3x6	18	394			
9	21S	1721	P		1x1	4	398			
10										
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27										
28										
29										
30										

DAILY TOTAL FOR WELDED SEAM: 74

DESTRUCTIVE LENGTH CARRY - OVER: 398

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

Secondary liner

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5-19-10

REVIEWED BY: [signature]

SHEET NUMBER: 1

MACHINE NUMBER: A-006

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 44

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	20A	0810	P	A.R.	1x1	4	48		KL	
2	20S	0800	P	1	1x2	6	54		KL	
3	20B	0815	P	1	2x2	8	62		KL	
4	20C	0820	P		1x1	4	66		KL	
5	20D	0830	P		2x2	8	74		KL	
6	20E	0840	P		1x1	4	78		KL	
7	16.5	0845	P		3x4	14	92		KL	Same 20R
8	20R	0850	P		1x1	4	96		KL	
9	20S	0830	P		1x2	6	102		KL	
10	20T	0945	P		2x3	10	112		KL	
11	20V	0950	P		1x2	6	118		KL	
12	20W	0954	P		2x2	8	126		KL	
13	20X	0958	P		2x1	6	132		KL	
14	21A	10:00	P		2x1	6	138		KL	
15	21B	10:04	P		2x2	8	146		KL	
16	21C	10:05	P		2x1	6	152		KL	
17	21D	10:10	P		2x2	8	160		KL	
18	21E	10:15	P		2x2	8	168		KL	
19	23N	16:50	P		2x4	12	180		KL	DS44A-1
20	23Q	16:55	P	"	2x1	6	186		DR	
21	23R	17:15	P	"	2x2	8	194		DR	
22										
23										
24										
25										
26										
27										
28										
29										
30.										

DAILY TOTAL FOR WELDED SEAM: 136

DESTRUCTIVE LENGTH CARRY - OVER: 180

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

068 Secondary

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5-19-10

REVIEWED BY:

SHEET NUMBER: 1

MACHINE NUMBER: 068

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 242

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	22I	8:20	P	HEP	1x2	6'	248'		DC	
2	22J	0823	P		1x2	6'	254			
3	22M	0839	P		1x2	6'	260'			
4	22N	0842	P		1x2	6'	266'			
5	17H	0850	P		2x4	12	278'			
6	22P	0853	P		1x2	6'	284			
7	22Q	0915	P		1x2	6'	290			
8	21P	0920	P		2x3	10'	300			
9	21N	0930	P		7x2	18'	318'			
10	22L	0933	P		1x2	6'	324			
11	22S	0936	P		3x2	10'	334			
12	22V	0940	P		8x5	26'	360			
13	22T	0954	P		2x4	12	372			
14	22W	1023	P		4x2	12	384			
15	22X	1040	P		3x2	10	394			
16	23A	1053	P		2x2	8	402			
17	23B	1100	P		2x2	8	410			
18	23C	1110	P		1x3	8	418			
19	23D	1123	P		2x3	10	428			
20	23E	1130	P		2x4	12	440			
21	23F	1140	P		1x3	8	448			
22	23G	1151	P		1x3	8	456			
23	23H	1155	P		2x3	10	466			
24	23M	340	P		2x4	12	472/6			
25	23I	3:50	P		2x6	16	22			
26	23J	16:10	P		2x5	14	36			DS-59
27										
28										
29										
30.										

DAILY TOTAL FOR WELDED SEAM:

DESTRUCTIVE LENGTH CARRY - OVER: 36

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

KY 036

SECONDARY

GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

DATE OF REPAIR: 5-19-10

REVIEWED BY:

SHEET NUMBER: 1

MACHINE NUMBER: A-036

DESTRUCTIVE CARRY - OVER FROM PREVIOUS LOG: 398

LINE NUMBER	DEFECT CODE	APPROX. TIME OF WELD	TYPE OF REPAIR	QC TECH. INITIALS	APPROX. DIMENSION OF WELD	APPROX. LINEAR FT. WELDED	LENGTH FROM PREVIOUS DESTRUCTIVE	DESTRUC. NUMBER	CQA MONITOR INITIALS	REMARKS
1	19W	0816	P	FM	2x2	8	406		KL	
2	19X	0822	P		3x3	12	418		KL	
3	16P	0829	P		3x4	14	432/10	DX13	KL	OFF DS47
4	16M	0902	P		2x5	14	14		KL	
5	16K	0857	P		2x4	12	26		KL	
6	20H	0851	P		2x2	8	34		KL	
7	20G	0841	P		1x1	4	38		KL	
8	20F	0845	P		2x2	8	46		KL	
9	20J	0914	P		2x2	8	54		KL	
10	20I	0927	P		2x2	8	62		KL	
11										
12										
13										
14										
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17										
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21										
22										
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25										
26										
27										
28										
29										
30										

DAILY TOTAL FOR WELDED SEAM:

DESTRUCTIVE LENGTH CARRY - OVER: 62

REPAIR TYPES : P = PATCH, C = CAP, G&W = GRIND & WELD, RS = RECONSTRUCTED SEAM

ATLANTIC COAST CONSULTING, INC

(SECONDARY)

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027-101
PROJECT TITLE: S.E.D. Facility-Cell 7 Cont.
PROJECT LOCATION: SAINT CLOUD, FL.
REVIEWED BY: _____
SHEET NUMBER: 1

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	S-2/S-3	S-2/S-3 @ 30' SEOS	DS-1	4-28-10	KL		4-29-10	5/1
B	S-4/S-5	S4/S-5 @ 30' SEOS	DS 2	4-28-10	KL		4-29-10	5/1
C	P-1/TIE N	17' WEOS	T	4-28-10	KL	CAPPED	4-29-10	5/1
D	P-2/TIE N	18' WEOS	T	4-28-10	KL		4-29-10	5/1
E	S-1/S-2	NEOS + TIE N	T	4-28-10	KL		4-29-10	5/1
F	S-2/S-3	NEOS + TIE N	T	4-28-10	KL		4-29-10	5/1
G	S-3/TIE N	17' WEOS	T		KL		4-29-10	5/1
H	S-3/S-4	NEOS + TIE IN	T		KL		4-29-10	5/1
I	S-I/TIE N	17' WEOS	T		KL		4-29-10	5/1
J	S-4/TIE N	17' WEOS	T		KL		4-29-10	5/1
K	S-4/S-5	NEOS + TIE IN	T		KL		4-29-10	5/1
M	S5/TIE N	17' WEOS	T		KL		4-29-10	5/1
N	S5/S-6	NEOS + TIE IN	T		KL		4-29-10	5/1
P	S-6/TIE N	17' WEOS	T		KL		4-29-10	5/1
Q	S-6/S-7	NEOS + TIE IN	T		KL		4-29-10	5/1
R	S7/S-8	NEOS + TIE IN	T		KL		4-29-10	5/1
S	S8/TIE N	17' WEOS	T		KL		4-29-10	5/1
T	S-8/S-9	NEOS + TIE N	T	4-28	KL		4-29-10	5/1
V	S9/S-10	NEOS + TIE N	T	4-28	KL		4/30/10	5/1
W	S10/TIE N	17' WEOS	T	4-28	KL	CAPPED	5/1	5/5
X	S10/S-11	NEOS + TIE N	T	4-28	KL	CAPPED	5/1	5/5

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

(SECONDARY)

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 2

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	S9/TIE N	17' WEDS	T	4-29-10	KL	CAPPED	4/30	5/1
B	S11/TIE N	17 WEDS	T		KL	CAPPED	5/1	5/1
C	S12/S13	NEOS & TIE N	T		KL	CAPPED	5/1	5/5
D	S22 +	S7,6,5,4,3,2,1	IO		KL	CAPPED	4/30	4/29
E	S22 +	S-8,9,10,11,12.	IO		KL	CAPPED	4/29	4/29
F	S-22/2D	78' WEDS	DS4		KL	TAKEN FROM 2D	4/30/10	5/1
G	S-1/S2D	40' NEOS	DS-5		KL	CAPPED NORTH SLOPE	5/1	5/1
H	S1-2D	EEOS	D		KL		4/29/10	5/1
I	S22/S-29	359' WEDS	DS6		KL		5/1/10	5/1
J	S-29/S-30	333' WEDS	DS-7		KL		5/1/10	5/1
K	S-30/S31	328' WEDS	DS-8	4-30-10	KL		4/30/10	5/1
M	S-31/32	110' WEDS	DS-9	4-30-10	KL		4/30/10	5/1
N	S-32/33	88' WEDS	DS10	4-30-10	KL		4/30/10	5/1
P	S-33/34	64' WEDS	DS-11	4-30-10	KL		4/30/10	5/1
Q	27/34	258' W OF EEOS	PT	5/3	JW		5/3	5/5
R	35/36	315' W OF EEOS	PT	5/3	JW		5/3	5/5
* S	36/37	NEOS	T	5/3	JW		5/3	5/5
* T	35/37	7FT E OF WEOS	PT	5/3	JW		5/3	5/5
V	B 27/34	266' W OF EEOS	DS15A	5/3	JW		5/3	5/5
W	27/34	320' W OF EEOS	DS15B	5/3	JW		5/4	5/5
X	27/34	310' W OF EEOS	PT	5/3	JW		5/3	5/5

* COMBINED INTO ONE REPAIR

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

Secondary

SECONDARY

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 3

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	11/12	11' N OF SEOS	BO	4/29	JW		5/5	5/5
B	S-12	NEOP 10' WEST OF SEAM 11/12	T	4/29	JW	CAPPED	5/5	5/5
C	12/13	NEOS / TIE-IN	T	4/29	JW		5/5	5/5
D	S-13	NEOP 10 W OF SEAM 12/13	T	4/29	JW		5/5	5/5
E	13/14	NEOS / TIE-IN	T	4/29	JW		5/5	5/5
F	S-14	NEOP 4 W OF SEAM 13/14	BO	4/29	JW		5/5	5/5
G	S-14	NEOP 10 W OF SEAM 13/14	T	4/29	JW		5/5	5/5
H	14/15	NEOS / N TIE IN	T		JW		5/5	5/5
I	S 15	NEOP 7' WEST OF SEAM 14/15	T		JW		5/5	5/5
J	15/16	NEOS / N TIE IN	T		JW		5/5	5/5
K	S-16	NEOP 6' W. OF SEAM 16/15	T		JW		5/5	5/5
M	16/17	NEOS / N TIE-IN	T		JW		5/5	5/5
N	S-17	NEOP 6' W. OF SEAM 16/17	T		JW		5/5	5/5
P	17/18	NEOS / N' TIE-IN	T		JW		5/5	5/5
Q	S-18	NEOP 5' W. OF SEAM 17/18	T		JW		5/5	5/5
R	COMBINED	NEOS	T		JW		5/5	5/5
S	18/19		T		JW		5/5	5/5
T	19/20	NEOS / N' TIE IN	T		JW		5/5	5/5
V	20/21	NEOS / TIE IN	T	4/29	JW		5/5	5/5
W	20/22/	NEOS 22	T	4/29	JW		5/12	5/12
X	19/20/22	SEOS 19/20	T	4/29	JW		5/1	5/1

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

Secondary

SECONDARY

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 4

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	18/19/22	SEOS 18/19	T	4/29	JW		5/1	5/1
B	17/18/22	SEOS 17/18	T		JW		5/1	5/1
C	16/17/22	SEOS 16/17	T		JW		5/1	5/1
D	15/16/22	SEOS 15/16	T		JW		5/1	5/1
E	14/15/22	SEOS 14/15	T		JW		5/1	5/1
F	13/14/22	SEOS 13/14	T		JW		4/30	5/1
G	12/13/22	SEOS 12/13	T		JW		4/30	5/1
H	27/27/28	SEOS 27/28	T		JW		4/30	5/1
I	22/23/27	WEOS 22/23	T		JW		4/29	5/1
J	1/23/26/1	SEOS 1/26	T		JW		4/29	5/1
K	1/2	SEOS	T		JW		4/29	5/1
M	2/3	SEOS	T		JW		4/29	5/1
N	23/24/26	SEOS 23/24	T		JW		4/29	5/1
P	24/25/26	SEOS 24/25	T		JW		4/29	5/1
Q	3/4/27	SEOS 3/4	T		JW		4/30	5/1
R	4/5/27	SEOS 4/5	T		JW		4/30	5/1
S	5/6/27	SEOS 5/6	T		JW		4/30	5/1
T	6/7/27	SEOS 6/7	T		JW		4/30	5/1
V	7/8/27/28	SEOS 7/8	T		JW		4/30	5/1
W	8/9/29	SEOS 8/9	T		JW		4/30	5/1
X	9/10/29	SEOS 9/10	T		JW		4/30	5/1

DEFECT TYPES

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CR - CREASE
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DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

Secondary

Secondary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 5

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	10/11	SEOS 10/11	T	4/29	JW		4/30	5/1
B	11/12	SEOS 11/12	T		JW		4/30	5/1
C	22/29	286' W of EEOS	BO		JW		4/30	5/1
D	22/29	279' W of EEOS	BO		JW		4/30	5/1
E	8/9	19' N of SEOS	BO	4/30	JW		4/30	5/1
F	5-22	209' W of EEOP	D		JW		4/30	5/1
G	5-22	193' W of EEOP	D		JW		4/30	5/1
H	9/TIE-IN NORTH	9' W OF SEAM 8/9	DX3A		JW	CAPPED	4/30	5/1
I	10/NORTH TIE-IN	3' E OF SEAM 10/11	DX3B		JW	CAPPED	5/1	5/1
J	1/26/NORTH TIE IN	NEOS 1/26	T		JW	CAPPED	5/1	5/1
K	25/26	NEOS	T		JW		4/30	5/1
M	24/25	NEOS	T		JW		4/30	5/1
N	23/24	NEOS	T		JW		4/30	5/1
P	25/TIE IN NORTH	NEOP 4' E OF SEAM 25/26	T		JW		4/30	5/1
Q	29/30	EEOS	T		JW		4/30	5/1
R	29/TIE E IN	EEOP 9' S OF SEAM 22/29	T		JW		4/30	5/1
S	22/29	EEOS	T		JW		4/30	5/1
T	22/TIE E IN	EEOP 9' SO OF SEAM 22/23	J		JW		4/30	5/1
V	22/23	EEOS	T		JW		4/30	5/1
W	23/E TIE IN	EEOP 10' N OF SEAM 22/23	T		JW		4/30	5/1
X	24/E TIE IN	EEOP 10' N OF SEAM 23/24	T		JW		4/30	5/1

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
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FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

Secondary

SECONDARY

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 6

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	30	EEOP 11' N OF SEAM 30/31	T	4/30	JW		4/30	5/1
B	30/31	EEOS	T	4/30	JW		4/30	5/1
C	S31	EEOP 6' SOUTH OF SEAM 30/31	CR	4/30	JW		4/30	5/1
D	S31	EEOP 8' So. of SEAM 30/31	T	4/30	JW		4/30	5/1
E	31/32	EEOS	T	4/30	JW		4/30	5/1
F	S32	EEOP 8'S of SEAM 31/32	T	4/30	JW		4/30	5/1
G	32/32	EEOS	T	4/30	JW		4/30	5/1
H	S33	EEOP 3'S OF SEAM 32/33	D	4/30	JW		4/30	5/1
I	S33	EEOP 7'S of SEAM 32/33	T	4/30	JW		4/30	5/1
J	33/34	EEOS	T	4/30	JW		4/30	5/1
K	34	EEOP 7' So of SEAM 33/34	T	4/30	JW		4/30	5/1
M	26	NEOP 4' EAST OF SEAM 1/26	T	5/1	JW		5/1	5/1
N	23/E T16/1N	NEOP 23 6'S OF SEAM 23/24	DX-2	5/1	JW		5/1	5/5
P	29/SQ	NEOP @ SEAM 29/30	DX-1	5/1	JW		5/1	5/5
Q	22/SF	109' W OF NEOP	DX-3	5/1	JW		5/1	5/5
R	27/34	77' W OF EEOS	BO	5/3	JW		5/3	5/5
S	27/28	141' W OF EEOS	BO	5/3	JW		5/3	5/5
T	27/34	300' W OF EEOS	BO	5/3	JW		5/3	5/5
V	27/34	246' W OF EEOS	PT	5/3	JW		5/3	5/5
W	20/CAP	NEOP 3' W of SEAM 19/20	DX-4	5/5	JW		5/5	5/5
X	S38/S39	20'S OF NEOS	BO	5/6	JW		5/6	5/12

DEFECT TYPES

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FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

Secondary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 7

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	S14/S22	12' WEDS	DS-12	5-1-10	KL		5/3	5/5
B	S-10/2E	15' WEDS	DS13	51-10	KL		5/3	5/5
C	S34/S27	300' WEDS	DS-15	5-3-10	KL		5/3	5/5
D	S27/S28	313' WEDS	DS16	5-3-10	KL		5/4	5/5
E	S26/S35	289' WEDS	DS14	5-3-10	KL		5/3	5/5
F	S35/S36	272' WEDS	DS-17	5-3-10	KL		5/4	
G	S34/S27	285 WEDS	D	5-3-10	KL		5/3	✓
H	S35/37	EEDS	T	5/4/10	JW		5/4	5/5
I	S 35	EEDP 5' S OF NEDS 28/35	T	5/4/10	JW		5/4	5/5
J	S 29/S35	EEDS	T	5/4/10	JW		5/4	5/5
K	S 28	EEDP @ TRN 5' S OF SEAM 27/28	T	5/4/10	JW		5/4	5/5
M	S27/S28	EEDS	T	5/4/10	JW		5/4	5/5
N	S 27	6' EEDP 6' S OF SEAM 27/34	T	5/4/10	JW		5/4	5/5
P	S27/34	EEDS	T	5/4/10	JW		5/4	5/5
Q	S56/S57	NEDS	T	5/6/10	JW		5/12	5/12
R	S52/54	EEDS	T	5/6/10	JW		5/7	
S	S51/52	SEDS	T	5/6/10	JW		5/7	
T	S-54/55	EEDS	T	5/6/10	JW		5/7	
V	S-50/51	SEDS	T	5/6	JW		5/7	
W	S-49/50	SEDS	T	5/6	JW		5/7	
X	S-49/49	SEDS	T	5/6	JW		5/7	✓

DEFECT TYPES

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FM - FISHMOUTH
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MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

Secondary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 8

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	S-46/47	SEOS 5'	DS-18	5-6-10	KL		5/7	5/12
B	S52/53	15' SEOS	DS-19	5-6-10	KL		5/7	
C	S40/41	50' NEOS	DS20	5-6-10	KL		5/6	
D	S61/62	3' NEOS	DS-21	5-6-10	KL		5/12	
E	S57/58	38' EEOS	BO	5-6-10	KL		5/7	
F	S-22/55	3' NEOS	DS-22	5-6-10	KL		↓	
G	S-31/62	10' NEOS	DS-23	5-6-10	KL		↓	
H	S70/71	SEOS	BO	5-7-10	KL		5/11	
I	S69/70	NEOS 28'	DS24	5-10-10	KL		5/11	
J	S74/75	NEOS 18'	DS25	5-10-10	KL		5/11	
K	S71/85	EEOS@22	DS26	5-10-10	KL		5/11	
M	S85/89	273' EEOS	DS27	5-10-10	KL		5/11	
N	S89/S90	172' EEOS	DS28	5-10-10	KL		5/11	
P	S90/91	441' EEOS	DS-29	5-10-10	KL		5/11	
Q	S91/92	252' EEOS	DS-30	5-10-10	KL		5/11	
R	S92/93	147' EEOS	~~DS31~~	5-10-10	KL		5/11	
S	S93/94	228' EEOS	DS-32	5-10-10	KL		5/11	
T	S-94	478 EEOS	D	5-10-10	KL		5/12	
V	S94/95	129' E	DS33	5-10-10	KL		5/11	
W	S95/96	423' EEOS	DS 34	5-10-10	KL		5/11	
X	S96/97	139' EOS	DS-35	5-11-10	KL		5/12	↓

DEFECT TYPES

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DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

Secondary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 9

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	S 47/48	SEOS	T	5/6	JW		5/12	5/12
B	S 46/47	SEOS	T	5/6	JW		5/12	
C	S 45/46	SEOS	T	5/6	JW		5/12	
D	S 44/45	SEOS	T	5/6	JW		5/12	
E	S 43/44	SEOS	T	5/6	JW		5/12	
F	S 42/43	SEOS	T	5/6	JW		5/12	
G	S 41/42	SEOS	T	5/6	JW		5/12	
H	S 40/41	SEOS	T	5/6	JW		5/12	
I	S 39/40	SEOS	T	5/6	JW		5/12	
J	S 38/39	SEOS	T	5/6	JW		5/12	
K	S 21/38	SEOS	T	5/6	JW		5/12	
M	S 20/21	SEOS	T	5/6	JW		5/12	
N	S 55/56	EEOS	T	5/6	JW		5/12	5/12
P	S 56/60	EEOS	T	5/6	JW		5/12	"
Q	S 56/57	SEOS	T	5/6	JW		5/12	5/12
R	S 59/60	NEOS	T	5/6	JW		5/7	"
S	S 58/59	NEOS	T	5/6	JW		5/7	"
T	S 58/59	SEOS	T	5/6	JW		5/7	"
V	S 59/60	SEOS	T	5/6	JW		5/7	"
W	S 61/62	SEOS	T	5/6	JW		5/12	5/12
X	S 29/60	EEOS	T	5/6	JW		5/12	"

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
ID - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

Secondary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 10

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	S-21/N TIE IN	NEOS 2' W OF SEAM S-20/21	T	5/9	JW		5/5	5/12
B	S-21/S-38	NEOS	T	5/9	JW		5/6	5/12
C	S-38/S-39	NEOS	T	5/9	JW		5/6	5/12
D	S-39/S-40	NEOS	T	5/9	JW		5/6	5/12
E	S-40	NEOP 3'E OF SEAM S-40/S-41	T	5/9	JW		5/6	5/12
F	S-40/S-41	NEOS	T	5/9	JW		5/6	5/12
G	S-41	NEOP 4'E OF SEAM S-41/S42	T	5/9	JW		5/6	5/12
H	S-41/S-42	NEOS	T	5/9	JW		5/6	5/12
I	S-42	NEOP 6'W of SEAM S-41/S-42	DX-4	5/9	JW		5/7	5/12
J	S-42	NEOP 4'E OF SEAM S-42/S-43	T	5/9	JW		5/6	5/12
K	S-42/S-43	NEOS	T	5/9	JW		5/7	5/12
M	S-43/S-44	NEOS	T	5/9	JW		5/7	5/12
N	S-44	NEOP 5'E OF SEAM S-44/S45	T	5/9	JW		5/7	5/12
P	S44/S-45	NEOS	T	5/9	JW		5/7	5/12
Q	S-45	NEOP 6'E OF SEAM	T	5/9	JW		5/7	5/12
R	S-45/S-46	NEOS	T	5/9	JW		5/7	5/12
S	S-46	NEOP 3'W OF SEAM S-45/S-46	D	5/9	JW		5/7	5/12
T	S-46	NEOP 6'E OF SEAM S-46/S-47	T	5/9	JW		5/7	5/12
V	S-46/S-47	NEOS	T	5/9	JW		5/7	5/12
W	S-47/S-48	NEOS	T	5/9	JW		5/7	5/12
X	S-48/S49	NEOS	T	5/9	JW		5/7	5/12

DEFECT TYPES

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FM - FISHMOUTH
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MD - MANUFACTURER DAMAGE
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SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

Seam Dwg

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 11

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	S-49	NEOP 8' E OF SEAM S-49/S-50	T	5/9	JW		5/7	5/12
B	S-49/S-50	NEOS	T	5/9	JW		5/7	5/12
C	S-50	NEOP 8' E OF SEAM S-50/S-51	T	5/9	JW		5/7	5/12
D	S-50/S-51	NEOS	T	5/9	JW		5/7	5/12
E	S-51	NEOP 8' E OF SEAM S-51/S-52	T	5/9	JW		5/7	5/12
F	S-51/S-52	NEOS	T	5/9	JW		5/7	5/12
G	S-52	NEOP 9' E OF SEAM S-52/S-53	T	5/9	JW		5/7	5/12
H	S-52/S-53	NEOS	T	5/9	JW		5/7	5/12
I	S-53	NEOP 5' W OF SEAM S-52/S-53	BO	5/9	JW		5/7	5/12
J	S-53	NEOP 11' W OF SEAM S-52/S-53	BO	5/9	JW		5/7	5/12
K	S-63/S-88	NEOS	T	5/9	JW		5/11	5/12
M	S-63	NEOP 6' E OF SEAM S63/S64	BO	5/9	JW		5/11	5/12
N	S63/S64	NEOS	T	5/9	JW		5/11	5/12
P	S87/S88	NEOS	T	5/9	JW		5/11	5/12
Q	S64/S65	NEOS	T	5/9	JW		5/11	5/12
R	S-65/S-66	NEOS	T	5/9	JW		5/11	5/12
S	S66/S-67	NEOS	T	5/9	JW		5/11	5/12
T	S67/S-68	NEOS	T	5/9	JW		5/11	5/12
V	S68/S69	NEOS	T	5/9	JW		5/11	5/12
W	S69/S-70	NEOS	T	5/9	JW		5/11	5/12
X	S-70/S71	NEOS	T	5/9	JW		5/11	5/12

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

Secondary

SECONDARY

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 12

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	S-71/S-72	NEOS	T	5/10	JW		5/11	5/12
B	S-72/S-73	NEOS	T	5/10	JW		5/11	5/12
C	S-73/S-74	NEOS	T	5/10	JW		5/11	5/12
D	S-74/S-75	NEOS	T	5/10	JW		5/11	5/12
E	S-75/S-76	NEOS	T	5/10	JW		5/11	5/12
F	S-76/S-77		T	5/10	JW		5/11	5/12
G	S-77/S-78		T	5/10	JW		5/11	5/12
H	S-78/S-79		T	5/10	JW		5/11	5/12
I	S-79/S-80		T	5/10	JW		5/11	5/12
J	S-80/S-81		T	5/10	JW		5/11	5/12
K	S-81/S-82		T	5/10	JW		5/11	5/12
M	S-82/S-83	NEOS	T	5/10	JW		5/11	5/12
N	S-83/S-84	NEOS	T	5/10	JW		5/11	5/12
P	S-92/S-93	130' W of EEOS	PT	5/10	JW		5/11	5/12
Q	S-94/S-95		PT	5/10	JW		5/11	5/12
R	S-94/S-95		PT	5/10	JW		5/11	5/12
S	6X/S-38	DX-6 @ 6X	DX6	5/10	JW		5/11	5/12
T	S-86/S-87	EEOS	T	5/10	JW		5/10	5/12
V	S-86	EEOP 6'S of SEAM S-85/S-86	T	5/10	JW		5/10	5/12
W	S-85/S-86	EEOS	T	5/10	JW		5/10	5/12
X	S-85	EEOP 6' S of SEAM S-85/S-89	T	5/10	JW		5/10	5/12

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

Secondary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 13

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	S-36/98	222' EEOS	DS36	5-11-10	KL		5/14	5/14
B	S-37	CREST OF SLOPE 13' IN	D	5-11-10	KL			
C	S36/S37	SEOS ↓ S98	T	5-11-10	KL			
D	S36/98	281' EEOS	D	5-11-10	KL			
E	S36/98	190' EEOS	WR	5-11-10	KL			
F	S36/98	170' EEOS	B.O.	5-11-10	KL			
G	S36/98	53'	WR/FM	5-11-10	KL	STOP/START + 2 CUTS	5/14	5/14
H	S36/98	109 EEOS	D	5-11-10	KL	~~5 CUTS 10' STRETCH~~		
I	S36/98	300' EEOS	D	5-11-10	KL	5 CUTS 10' STRETCH		
J	S36/98	368 EEOS	B.O	5-11-10	KL			
K	S36/98	376 EEOS	D	5-11-10	KL	4' TAPE/CUT		
M	S98/98	108' EEOS	DS37	5-11-10	KL			
N	S61/99	116' WEOS	DS38	5-11-10	KL		5/12	5/12
P	S99/106	79' WEOS	DS39	5-11-10	KL		"	"
Q	S102/104	79' WEOS	DS40	5-11-10	KL		"	"
R	S103/105	20' W	BO	5-11-10	KL		"	
S	S101/103	277' WEOS	DS41	5-11-10	KL		"	
T	S105/107	31' W	DS42	5-11-10	KL		"	
V	S106/108	38' W	DS43	5-11-10	KL		5/14	5/12
W	108/110	125' W	DS44	5-12-10	KL		5/18	5/18
X	108/110	EEOS ↓ S-36	T	5-12-10	KL		5/12	"

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

Secondary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 14

DEFECT CODE	DEFECT LOCATION		DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
	SEAM, PANEL OR REPAIR	LOCATION DESCRIPTION						
A	S85/S89	EEOS	T	5/10	JW		5/10	5/12
B	S-89/S-90	EEOS	T	5/10	JW		5/10	5/12
C	S90	EEOP	T	5/10	JW		5/10	5/12
D	S90/S-91	EEOS	T	5/10	JW		5/10	5/12
E	S87/S-88	@ SEOS	BO	5/10	JW		5/11	5/12
F	S94/DS-33	@ DS 33	DX-7	5/11	JW		5/11	5/12
G	S69/S85	4' E OF SEAM S69/S70	BO	5/11	JW		5/11	5/12
H	S95/S-96	47' E OF WEOS	BO	5/11	JW		5/11	5/12
I	S73/S-74	SEOS 4' N OF SEOS	BO	5/11	JW		5/11	5/12
J	S-81/S-82	SEOS	BO	5/11	JW		5/11	5/12
K	S-91/E TIE IN	EEOP 8'S OF SEAM S-91/S-92	T	5/11	JW		5/11	5/12
M	S91/S-92	EEOS	T	5/11	JW		5/11	5/12
N	S-92	EEOP 8'S OF SEAM S-92/S-93	T	5/11	JW		5/11	5/12
P	S-92/S-93	EEOS	T	5/11	JW		5/11	5/12
Q	S-93	EEOP 8'S OF SEAM S-93/S-94	T	5/11	JW		5/11	5/12
R	S-93/S-94	EEOS	T	5/11	JW		5/11	5/12
S	S-94	EEOP 10'S OF SEAM S-94/S-95	T	5/12	JW		5/12	5/12
T	S-94/S-95	EEOS	T	5/12	JW		5/12	5/12
V	S95/S-96	EEOS	T	5/12	JW		5/12	5/12
W	S-96	EEOP 10'S OF SEAM S-96/S-97	T	5/12	JW		5/12	5/12
X	S96/S-97	EEOS	T	5/12	JW		5/12	5/12

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SIL - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

Seam Dump

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 15

DEFECT CODE	DEFECT LOCATION		DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
	SEAM, PANEL OR REPAIR	LOCATION DESCRIPTION						
A	S-97	EEOP 10'S OF SEAM S-97/S-98	T	5/12	JW		5/12	5/12
B	S-97/S-98	EEOS	T	5/12	JW		5/12	5/12
C	S-98	EEOP 10'S OF SEAM S-98/S-37	T	5/12	JW		5/12	5/12
D	S-98/S-37	EEOS	T	5/12	JW		5/12	5/12
E	S-37	EEOP	T	5/12	JW		5/12	5/12
F	S-37	EEOP 5' N OF SEAM S-37/S-98	DX-9	5/12	JW	DX-8	5/12	5/12
G	S56/S-57	55' W OF EEOS	PT	5/12	JW		5/12	
H	S-61/S-99	@ DS 38	DX-9	5/12	JW		5/12	
I	S102/S-103	NEOS	T	5/12	JW		5/12	
J	S102/S-103	SEOS	T	5/12	JW		5/12	
K	S-106/S-107	SEOS	T	5/12	JW		5/12	5/12
M	S-106/S-107	NEOS	T	5/12	JW		5/12	5/12
N	S108/S109	NEOS	T	5/12	JW		5/12	5/12
P	S-108/S-109	SEOS	T	5/12	JW		5/12	
Q	S-110/S-111	NEOS	T	5/12	JW		5/12	
R	S-104/S-105	SEOS	T	5/12	JW		5/12	
S	S-104/S-105	NEOS	T	5/12	JW		5/12	
T	S133/S-134	17'W OF EEOS	WR	5/14	JW		5/12	✓
V	132/141	2721 SEOS	P	5/19	KL		5/19	5-12
W				5				
X								

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SIL - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

15 ✓

Secondary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 16

DEFECT CODE	DEFECT LOCATION		DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
	SEAM, PANEL OR REPAIR	LOCATION DESCRIPTION						
A	S-106/108	EEOS ↓ S75	T	5-12-10	KL		5-12-10	5-12-10
B	S106/106	NEOS ↓ S27	T	5-12-10	KL		5-12-10	5-12-10
C	S27/104	SEOS ↓S-106	T	5-12-10	KL		5-12-10	5-12-10
D	S34/102	SEOS ↓ S-104	T	5-12-10	KL		5-12-10	5-12-10
E	S33/101	SEOS ↓ S-102	T	5-12-10	KL		5-12-10	5-12-10
F	S33/101	NEOS ↓ 100	T	5-12-10	KL		5-12-10	5-12-10
G	S-99/100	SEOS ↓ 101	T	5-12-10	KL		5-12-10	5-12-10
H	S-31/62	SEOS	T	5-12-10	KL		5-12-10	5-12-10
I	S-31/62	NEOS	BG	5-12-10	KL	SAME @ BG	5-12-10	5-12-10
J	S117/118	SEOS 5'	CR	5-14-10	KL		5/19	5/19
K	S122/123	28' NEOS	DS-45	5-14-10	KL		5/19	5/19
M	S121/122	11' N	DS46	5-14-10	KL		5/19	5/19
N	S-128	32' NEOS (CAPPED)	IO	5-14-10	KL	CAPPED END	5/19	"
P	S130/132	353' EEOS	DS47	5-14-10	KL		5/19	5/19
Q	S114/130	10' EEOS	DS48	5-14-10	KL		5/18	5/18
R								
S								
T								
V								
W								
X								

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

SECONDARY

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 17

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	S110/135	28' EOOS	DS-49	5-14-10	KL		5/14	5/14
B	S134/135	20' West of 15 V	D	5/14-10		Sump	5-14-10	5/14
C	S134	5' N.E of 17-B	D	5-14-10		Sump	5-14-10	5/14
D	S135	70' EOOS 8'W	D	5-14-10		Sump	5-14-10	5/14
E	S134	Toe of Riser Trench	D	5-14-10		Sump	5-14-10	5/14
F	S134	N.E. Corner	D	5-14-10			5-14-10	5/14
G	133/134	↓ 109	T	5-14-10			5-14-10	5/14
H	132/141	5' start of Seam E.	DS50	5-15-10			5/19	5/14
I	137/139	146' E	B.O.	5-15-10			5-15-10	
J	137/139	123' E	DS-51	5-15-10			5-15-10	
K	110/111	↓ 135	T	5-15-10			5-15-10	
M	135/136	↓ 110	T	5-15-10			5-15-10	
N	135/136	↓ 137	T	5-15-10			5-15-10	
P	137/138	↓ 139	T	5-15-10			5-15-10	
Q	138/137	↓ 136	T	5-15-10			5-15-10	
R	136/138	↓ 97	T	5-15-10			5-15-10	
S	138/139	↓ 96	T	5-15-10			5/15	
T	109/133	↓ NOOS 109	T	5-15-10			5-15-10	
V	135	S.E. corner sump	WR	5-15-10			5/15	
W	135	S.W. Corner	WR	5-15-10			5/15	
X	141/143	207' EOOS	DS-52	5-15-10			11	

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 18

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	130/131	EEOS @ 85	T	5-15-10	KL		5/15	5/18
B	131/132	SEOS @ 130	T	5-15-10	KL		5/15	
C	132/141	EEOS @ 89	T	5-15-10	KL		5/15	
D	140/90	NEOS @ 91	T	5-15-10	KL		5/15	
E	142/91	SEOS @ 140	T	5-15-10	KL		5/15	
F	131/132	NEOS @ 140	T	5-15-10	KL		5/15	
G	84/112	NEOS @ 130	T	5-15-10	KL		5/15	
H	83/84	SEOS ANC. TRENCH	BO	5-15-10	KL		5/18	5/18
I	112/113	NEOS @ 130	T	5-15-10	KL		5/18	
J	113/114	NEOS @ 130	T	5-15-10	KL		5/18	
K	143/145	16' E	DS-53	5-15-10	KL		5/18	
M	145/147	49' E	DS-54	5-15-10	KL	(DX-10)	5/18	5/18
N	144/146	78' E	BO	5-15-10	KL		5/18	5/18
P	146/149	145' E	DS-55	5-15-10	KL		5/18	5/18
Q	94/148	20' NEOS	DS-56	5-15-10	KL		5/18	5/18
R	139/150	275' EEOS	DS-57	5-15-10	KL			
S	S96/175	138/139 EEOS @ 175	DX-10	5-18-10	KL	DX-10	5/18	5/18
T	S98/136	NEOS @ 110	T	5-18-10	KL		5/15	5/18
V	S109/DS-44	CAPPED 108/110	FS	5-18-10	KL		5/18	5/18
W	114/115	NEOS @ 130	T	"	"		"	"
X	145/147	@ DS-54	DX-12	"	"	FROM DS54	"	"

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

Secondary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 19

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	144/145	NEOS @ 146	T	5/18	DR		5/18	5/18
B	144/145	NEOS @ 143	P	5/18	DR		5/18	
C	144/143	SEOS @ 144	P	5/18	DR		"	
D	142/143	NEOS @ 142/143	P	"	"		"	
E	141/142/143	SEOS @ 141	P	"	"		"	
F	143	2' North of 19E	P	"	"		"	
G	141/143	SEOS @ 143	P	"	"		"	
H	149/150	SEOS @ 150	P	"	"		"	
I	139/150	NEOS @ 150	P	"	"		"	
J	149/150	SEOS @ 150	P	"	"		"	
K	95-150/96/149	NEOS - corr of 96	T	"	"		"	
M	148-149/150	SEOS @ 150	P	"	"		"	
N	148-149/150/95	NEOS @ 148	T	"	"		"	
P	148/149	NEOS @ 146	T	"	"		"	
Q	94/148	SEOS @ 95	T	"	"		"	
R	94/148/93	NEOS @ 93	T	"	"		"	
S	93-146/144	NEOS @ 144	P	"	"		"	
T	93/92-144	SEOS @ 93	P	"	"		"	
V	91-142	NEOS @ 142	T	"	"		"	
W	140-141	NEOS @ 140	P	5/19	"		5/19	5/19
X	140-141	SEOS @ 140	P	"	"		5/19	"

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

Secondary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 20

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	115/116	NEOS @ 130	P	5/19	DR		5/19	5/19
B	116/117	NEOS @ 130	P					
C	117/118							
D	118/119							
E	119/120							
F	120/121							
G	121/122							
H	122/123							
I	123/124							
J	124/125							
K	125/126							
M	126/127							
N	113/114	SEOS @ 113	P	"	"			
P	114/115	SEOS @ 114	P	"	"			
Q	116/117	SEOS @ 116	"	"	"			
R	117/118	SEOS @ 117	P	"	"			
S	115/116	SEOS @ 115	P	"	"			
T	118/119	SEOS @ 118	P	"	"			
V	119/120	SEOS @ 119	P	"	"			
W	120/121	SEOS @ 120	P	"	"			
X	121/122	SEOS @ 121	P	"	"			

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

Sheet No. 7

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 21

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	122/123	SEOS @ 122	P	5/19	DL		5/19	5/19
B	123/124	SEOS @ 123						
C	124/125	SEOS @ 124						
D	125/126	SEOS @ 125						
E	126/127	SEOS @ 126						
F	127/128	SEOS @ 127						
G	127/128	3' North of (21F)						
H	128/129	SEOS @ 128						
I	129/166	SEOS @ 129						
J	166/165	SEOS @ 166						
K	127/128	NEOS @ 127	T	5/19	DL			
M	128-129-	SEOS @ 130	T	"	"			
N	129/166	SEOS @ 130	T	"	"			
P	162/163	EEOS @ 162	T	"	"			
Q	135/153	Toe of slope	P	5/19	DL		5/18	5/19
R	137/153	NEOS of 137-153	P	"	"		5/18	5/19
S	153/154	EEOS of 137	P	"	"		"	5/19
T	137/139	WEOS of 137 + 139	P	"	"		5/18	5/19
V	154/155	WEOS of 139 + 150	P	"	"			
W	155/150	SEOS of 150 + 155	P	"	"			
X	156/149	WEOS of 149	P	"	"			

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

Secondary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 22

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	156/157	EEOS @ 156	P	5/19	DL		5/18	5/18
B	147-149	EEOS @ 157	P					
C	157-158	EEOS @ 157	P					
D	145/147	WEOS @ 145	P					
E	146-147	NEOS @ 146	P					
F	146-147	SEOS @ 146	P					
G	158/159	EEOS @ 158	"					
H	143/145	WEOS @ 143	P					
I	159/160	WEOS @ 143	P				5/19	5/19
J	141/143	WEOS @ 160	P				5/19	5/19
K	149/150	NEOS @ 150	P				5/18	5/18
M	160-161	EEOS @ 160	P				5/19	5/19
N	132/141	EEOS @ 160	P				"	"
P	161-162	EEOS @ 161	P				"	"
Q	130-132	WEOS @ 130	P				"	"
R	165-166	NEOS @ 165	P				"	"
S	163-165	NEOS @ 163	P				"	"
T	164-165	SEOS @ 164	P					
V	163-164	EEOS @ 163	P					
W	163-164	WEOS @ 163	P					
X	160-161	WEOS @ 160	P					

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
ID - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

Secondary

GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: A027.101

PROJECT TITLE: J.E.D. Facility - Cell 7 Construction

PROJECT LOCATION: Saint Cloud, Florida

REVIEWED BY: _____

SHEET NUMBER: 23

DEFECT CODE	DEFECT LOCATION: SEAM, PANEL OR REPAIR	DEFECT LOCATION: LOCATION DESCRIPTION	DEFECT TYPE	DATE LOGGED	CQA MONITOR INITIALS	REMARKS	REPAIR DATE	TEST DATE
A	159/160	WEDS @ 159	P	5/19	DR		5/19	5/19
B	158-159	WEDS @ 158	P	"	"		"	"
C	157-158	WEDS @ 157	P	"	"		"	"
D	156-157	WEDS @ 156	P	"	"		"	"
E	155-156	WEDS @ 155	P	"	"		"	"
F	154-155	WEDS @ 154	P	"	"		"	"
G	153-154	WEDS @ 153	P	"	"		"	"
H	135-153	WEDS @ 135	P	"	"		"	"
I	154-155	40' WEDS	DS-58	"	"			
J	155-156	5' WEDS -	DS-59	"	"			
K	160-161	70' WEDS -	DS-60	"	"			
M	160-161	70' WEDS	"	"	"		"	"
N	108-110	10' AFTER DS44A	DS-44A-1	"	"		5/19	5/19
P	137-141	272' WEDS	D	5/19	DR		5/19	5/19
Q	5-56-57	WEDS	T	5/19	DR		5/19	5/19
R	5-56-60	98' WEDS	B.O.	5/19	"		"	"
S								
T								
V								
W								
X								

DEFECT TYPES

BO - FUSION WELDER BURN OUT
CR - CREASE
D - INSTALLATION DAMAGE
DS-# - FUSION WELD DESTRUCTIVE
DX-# - EXTRUSION WELD DESTRUCTIVE
EXT - LINER EXTENSION
FM - FISHMOUTH
FS - FAILED SEAM LENGTH
IO - INSUFFICIENT OVERLAP
MD - MANUFACTURER DAMAGE
PT - PRESSURE TEST CUT
SI - SOIL SURFACE IRREGULARITY
T - THREE PANEL INTERSECTION
VL - VACUUM TEST LEAK
WR - WRINKLE
WS - WELDER RESTART

ATLANTIC COAST CONSULTING, INC

APPENDIX C-1

AS-BUILT SURVEY DRAWINGS
FROM SURVEYOR

AS-BUILT SURVEY

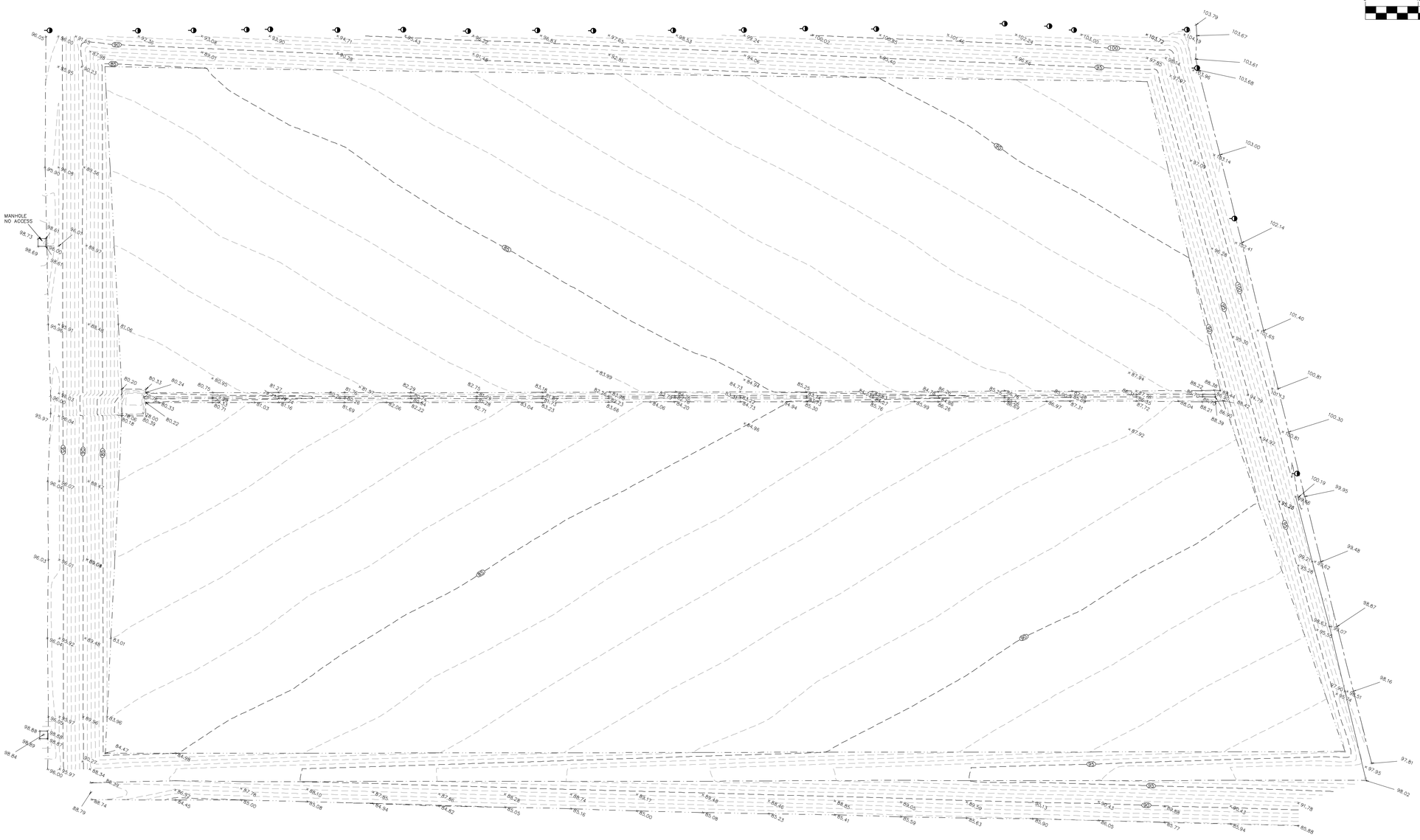
LEGEND:

NO.	NUMBER
ELEV.	ELEVATION
x73.35	ASBUILT SPOT ELEVATION – SUBGRADE
LB	LICENCE BUSINESS
95	ASBUILT SUBGRADE CONTOUR (5 FOOT INTERVAL)
	ASBUILT SUBGRADE CONTOUR (1 FOOT INTERVAL)
	TOE OF SLOPE
	TOP OF SLOPE
	EXISTING LINER MARKER
	ASBUILT LINER TIE-IN

GRAPHIC SCALE

0' 40 60 80 120

1 inch = 40 ft.



NO.	DATE	REVISION

THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

FILE NAME: 113-JED-Holipaw-subbase

Drawn By: DLP
Party Chief: DR
Field Book:
Page:

PEAVEY
& ASSOCIATES SURVEYING & MAPPING PA
FLORIDA BUSINESS NUMBER 7779
690 ALICE PLACE
BARTOW, FL 33830
PHONE:863-738-4960

CLIENT:
ERC GENERAL CONTRACTOR
890 Carter Road Suite 170
Winter Garden, Fl 34787

ASBUILT SURVEY - TOP OF LINER SUBBASE
CELL 7 CONSTRUCTION
J.E.D. SOLID WASTE MANGEMENT FACILITY
1501 OMNI WAY ST. CLOUD, FL

DEBORAH L. PEAVEY, P.S.M.
FLORIDA REGISTRATION NUMBER 6345
FLORIDA BUSINESS NUMBER 7779

7/3/2010
SURVEY DATE

SCALE	DRAWING NO.
1"=40'	173
PROJECT NO.	SHEET
113	1 OF 3

AS-BUILT SURVEY

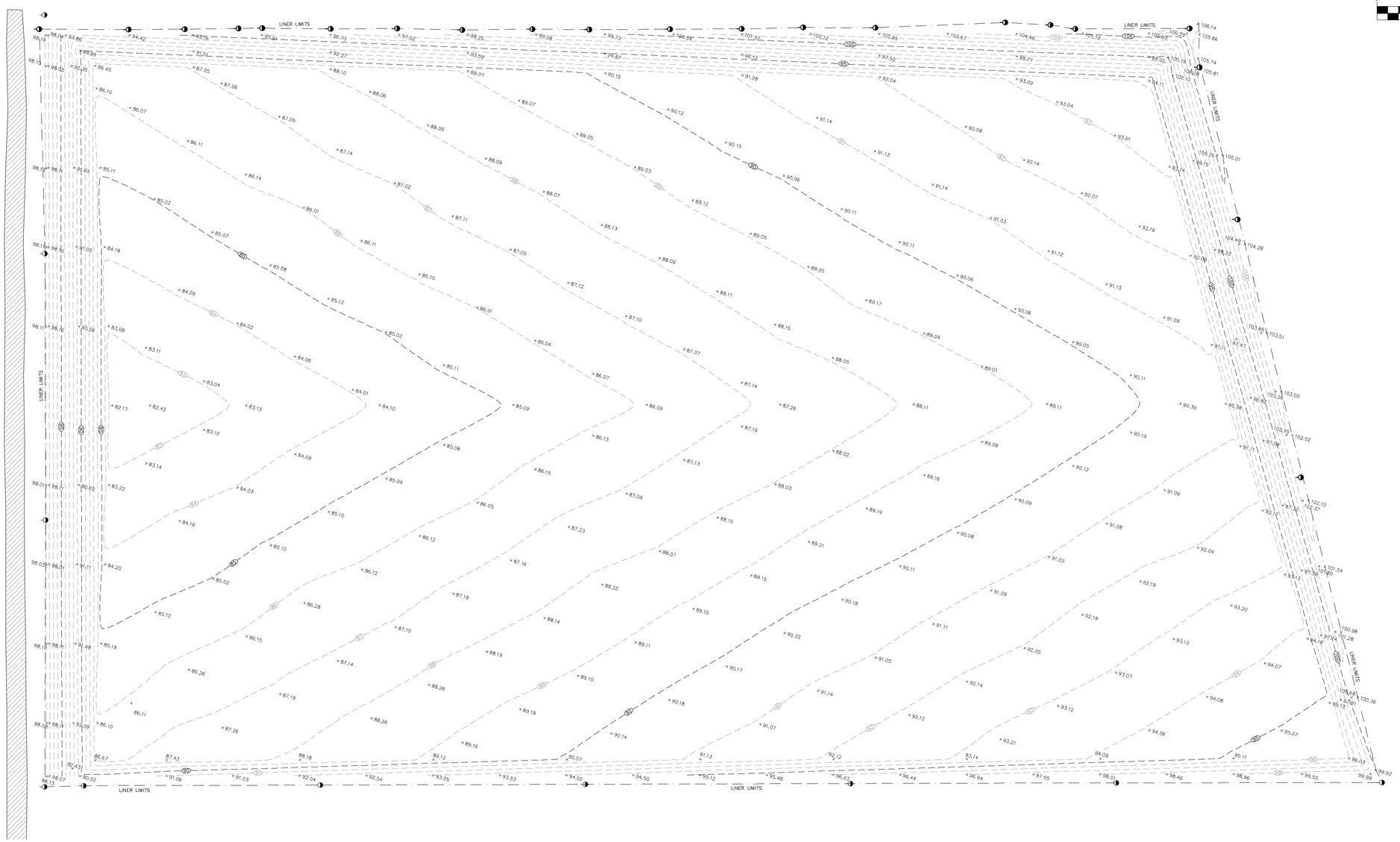
LEGEND:

NO.	NUMBER
ELEV.	ELEVATION
x 73.35	ASBUILT SPOT ELEVATION – FINAL COVER
LB	LICENCE BUSINESS
	ASBUILT FINAL COVER CONTOUR (5 FOOT INTERVAL)
	ASBUILT FINAL COVER CONTOUR (1 FOOT INTERVAL)
	TOE OF SLOPE
	TOP OF SLOPE
	LINER MARKER
	ASBUILT LIMEROCK
	LIMITS OF LINER

GRAPHIC SCALE

0' 40 60 80 120

1 inch = 40 ft.



NO.	DATE	REVISION

THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

Drawn By: DLP
Party Chief: DR
Field Book:
Page:
FILE NAME: 113-JED-Holipaw-sand

PEAVEY
& ASSOCIATES SURVEYING & MAPPING PA
FLORIDA BUSINESS NUMBER 7779
690 ALICE PLACE
BARTOW, FL 33830
PHONE: 863-738-4960

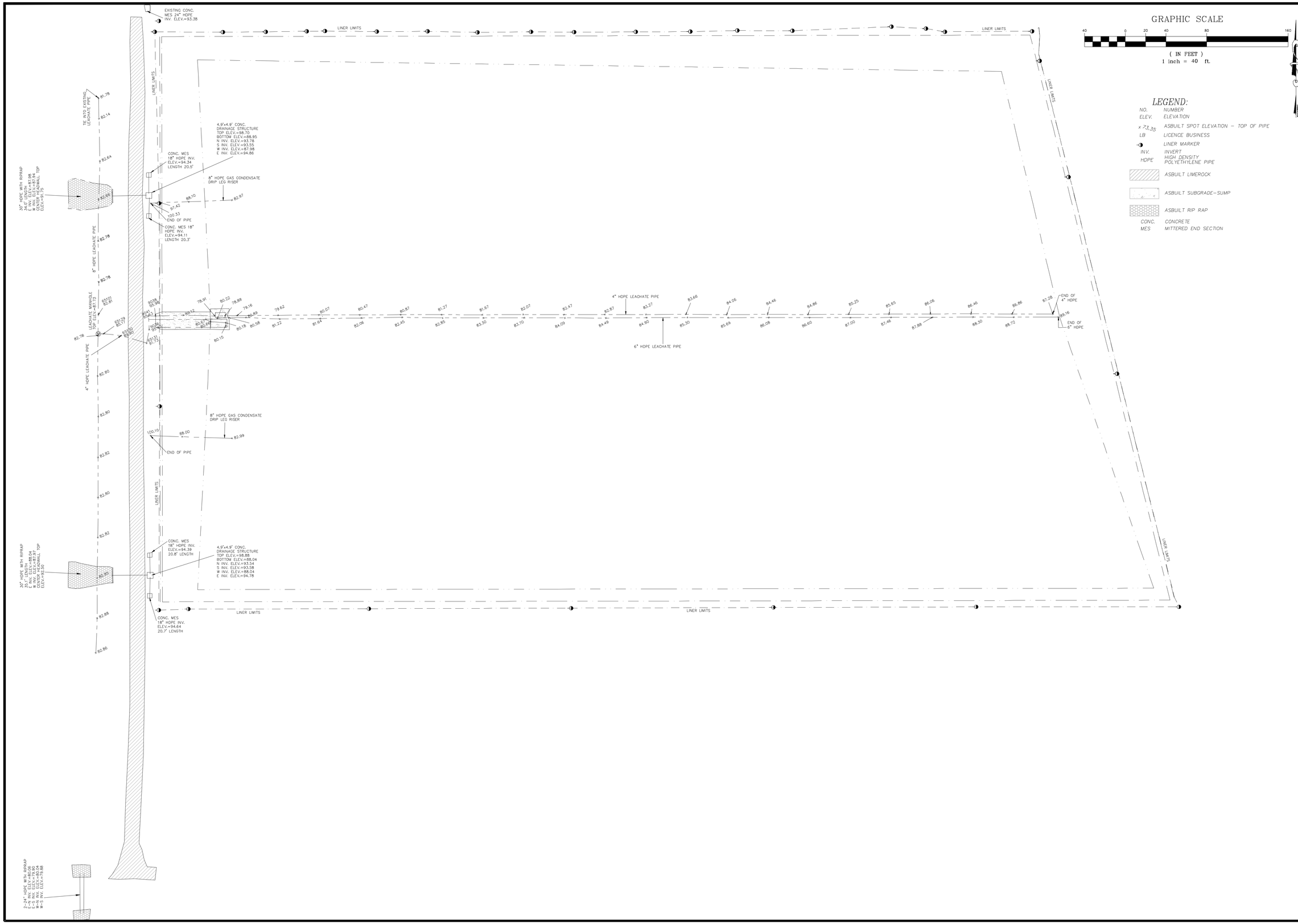
CLIENT:
ERC GENERAL CONTRACTOR
890 Carter Road Suite 170
Winter Garden, Fl 34787

ASBUILT SURVEY-TOP OF PROTECTIVE COVER
CELL 7 CONSTRUCTION
J.E.D. SOLID WASTE MANGEMENT FACILITY
1501 OMNI WAY ST. CLOUD, FL

DEBORAH L. PEAVEY, P.S.M.
FLORIDA REGISTRATION NUMBER 6345
FLORIDA BUSINESS NUMBER 7779

7/3/2010
SURVEY DATE

SCALE	DRAWING NO.
1"=40'	173
PROJECT NO.	SHEET
113	2 OF 3



NO.	DATE	REVISION

THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

FILE NAME: 113–JED–Holipaw–PIPES

Drawn By: DLP
Party Chief: DR
Field Book:
Page:

PEAVEY
& ASSOCIATES SURVEYING & MAPPING PA
FLORIDA BUSINESS NUMBER 7779
690 ALICE PLACE
BARTOW, FL 33830
PHONE: 863–738–4960

CLIENT:
ERC GENERAL CONTRACTOR
890 Carter Road Suite 170
Winter Garden, Fl 34787

ASBUILT SURVEY OF LEACHATE SYSTEM & STORMWATER SYSTEM CELL 7 J.E.D. SOLID WASTE MANGEMENT FACILITY 1501 OMNI WAY ST. CLOUD, FL

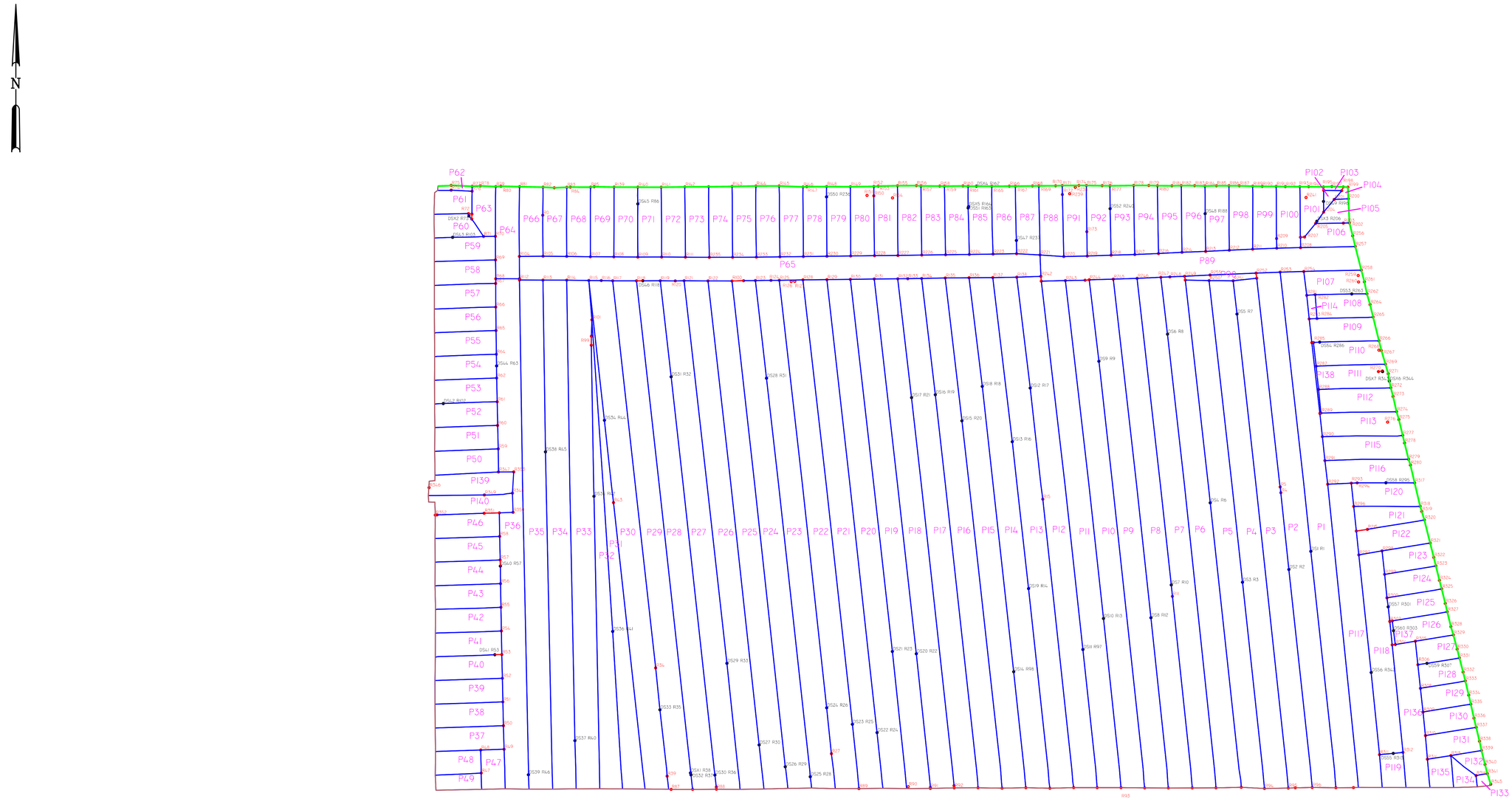
DEBORAH L. PEAVEY, P.S.M.
FLORIDA REGISTRATION NUMBER 6345
FLORIDA BUSINESS NUMBER 7779

6/20/2010
SURVEY DATE

SCALE	DRAWING NO.
1"=40'	713
PROJECT NO.	SHEET
113	3 OF 3

APPENDIX C-2

AS-BUILT LINER PANEL LAYOUT DRAWINGS



PLOT SCALE: 1" = 50'
PROJECT NO.: 03103981

LEGEND

P PANEL NUMBER	—	CAP
R REPAIR NUMBER	○	PATCH
DT DESTRUCTIVE TEST NUMBER	○	DESTRUCTIVE TEST
	═	EXTRUSION WELD

Liner As-Built Survey provided by Comanco Environmental Corporation

EPS
EPS is about the business of the environment.SM
Environmental Planning Specialists, Inc.
900 Ashwood Parkway, Suite 350
Atlanta, GA 30338
Phone: (404) 315-9113
Fax: (404) 315-8509

DES			DATE: August 2010
DRN			
CHK			
REV			
APP			
PROJ MGR	KW	08/10	
OPER			

J.E.D Solid Waste Management Facility
Osceola County, Florida

Cell 7 Construction
Primary Geomembrane Panel
As-Built Drawing

FIGURE
1

LEGEND

P	PANEL NUMBER	——	CAP
R	REPAIR NUMBER	○	PATCH
DT	DESTRUCTIVE TEST NUMBER	○	DESTRUCTIVE TEST
		——	EXTRUSION WELD

Liner As-Built Survey provided by Comanco Environmental Corporation

EPS

EPS is about the business of the environment.[SM]

Environmental Planning Specialists, Inc.
900 Ashwood Parkway, Suite 350
Atlanta, GA 30338
Phone: (404) 315-9113
Fax: (404) 315-8509

DES		
DRN		
CHK		
REV		
APP		
PROJ MGR	KW	08/2010
OPER		

DATE: August 2010

J.E.D. Solid Waste Management Facility
Osceola County, Florida

Cell 7 Construction
Secondary Geomembrane Panel
As-Built Drawing

FIGURE 1

APPENDIX D

PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 1 Date: March 17, 2010 Direction: East Comments: Cell 7 area prior to construction activities.	
Photograph No. 2 Date: March 17, 2010 Direction: North Comments: West side of Cell 7 area prior to construction activities.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 3 Date: March 17, 2010 Direction: Northeast Comments: Surveyor performing baseline survey.	
Photograph No. 4 Date: April 27, 2010 Direction: East Comments: Grading of Cell 7 liner subbase layer.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 5 Date: May 1, 2010 Direction: North Comments: Water truck utilized to maintain moisture content in the liner subbase layer.	
Photograph No. 6 Date: April 27, 2010 Direction: East Comments: Excavation of the secondary leachate collection corridor. GPS utilized to verify grades as excavation progresses.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 7 Date: April 7, 2010 Direction: Northwest Comments: Excavation to expose liner tie-in area along south side of Cell 5.	
Photograph No. 8 Date: April 7, 2010 Direction: West Comments: Excavation to expose liner tie-in area along south side of Cell 5.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 9 Date: April 13, 2010 Direction: North Comments: Cell 6 geosynthetics exposed along east side of Cell 7.	
Photograph No. 10 Date: April 13, 2010 Direction: East Comments: Cell 5 geosynthetics exposed along north side of Cell 7.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 11 Date: April 13, 2010 Direction: South Comments: Front end loader utilized to unload rolls of geomembrane liner.	
Photograph No. 12 Date: April 13, 2010 Direction: South Comments: Rolls of geomembrane liner stored on elevated earthen berm.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 13 Date: April 13, 2010 Direction: Northeast Comments: Truckload of GCL delivered to the site.	
Photograph No. 14 Date: April 13, 2010 Direction: South Comments: Rolls of GCL staged on an elevated earthen berm.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 15 Date: April 14, 2010 Direction: South Comments: Rolls of GCL covered with a tarp.	
Photograph No. 16 Date: April 14, 2010 Direction: Northeast Comments: Truckload of geocomposite delivered to the site.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 17 Date: April 14, 2010 Direction: Southeast Comments: Front end loader utilized to unload truckload of geocomposite.	
Photograph No. 18 Date: April 14, 2010 Direction: Southwest Comments: Rolls of geocomposite staged on elevated earthen berm.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 19 Date: April 24, 2010 Direction: Northeast Comments: Installation of secondary GCL and liner in the northeast corner of Cell 7.	
Photograph No. 20 Date: May 1, 2010 Direction: North Comments: Rolls of GCL staged within Cell 7 are covered with a blue tarp.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 21 Date: May 3, 2010 Direction: West Comments: Deployment of secondary GCL on the east side of Cell 7.	
Photograph No. 22 Date: May 10, 2010 Direction: South Comments: Skid steer with spreader bar utilized for deployment of GCL.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 23 Date: May 4, 2010 Direction: West Comments: Excavation of anchor trench along the Cell 7/Cell 8 intercell berm.	
Photograph No. 24 Date: May 7, 2010 Direction: West Comments: Deployment of secondary GCL on south side of Cell 7.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 25 Date: May 10, 2010 Direction: West Comments: Deployment of secondary GCL. Worker cutting panel off of GCL roll.	
Photograph No. 26 Date: May 10, 2010 Direction: Northwest Comments: Workers positioning GCL panel for correct overlap.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 27 Date: May 10, 2010 Direction: N/A Comments: Powdered bentonite applied along end seam of GCL panel.	
Photograph No. 28 Date: May 10, 2010 Direction: Southwest Comments: Deployment of secondary geomembrane within Cell 7.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 29 Date: April 29, 2010 Direction: West Comments: Deployment of secondary geomembrane on Cell 5/Cell 7 intercell berm.	
Photograph No. 30 Date: May 7, 2010 Direction: N/A Comments: Hand work for final excavation of Cell 7 secondary sump area.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 31 Date: May 10, 2010 Direction: East Comments: View of Cell 7 sump area prior to deployment of geosynthetics.	
Photograph No. 32 Date: May 10, 2010 Direction: East Comments: Cell 7 sump area lined with GCL.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 33 Date: May 10, 2010 Direction: West Comments: Deployment of geomembrane adjacent to Cell 7 sump area.	
Photograph No. 34 Date: May 10, 2010 Direction: East Comments: View showing progression of the geosynthetics installation within Cell 7.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 35 Date: May 10, 2010 Direction: West Comments: Installation of secondary GCL on south side of Cell 7.	
Photograph No. 36 Date: May 18, 2010 Direction: West Comments: Deployment of primary geomembrane liner on south side of Cell 7 & surveying for as-built drawing.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 37 Date: May 4, 2010 Direction: South Comments: Fusion welding of adjacent geomembrane panels.	
Photograph No. 38 Date: May 4, 2010 Direction: N/A Comments: Air pressure testing of completed fusion welded seam.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 39	
Date: May 4, 2010	
Direction: N/A	
Comments: Extrusion welding primary and secondary geomembranes together in anchor trench.	
Photograph No. 40	
Date: May 4, 2010	
Direction: N/A	
Comments: Preparation of extrusion weld trial seam.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 41 Date: May 4, 2010 Direction: N/A Comments: Grinding along edge of patch prior to extrusion welding.	
Photograph No. 42 Date: May 4, 2010 Direction: North Comments: Extrusion welding of patch repair where a destructive seam sample was removed.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 43 Date: May 5, 2010 Direction: N/A Comments: Vacuum box testing of completed extrusion welded repair.	
Photograph No. 44 Date: May 5, 2010 Direction: N/A Comments: Worker marking patch that repair passed non-destructive vacuum box testing.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 45 Date: May 4, 2010 Direction: West Comments: Worker using blower to clean off the liner tie in area along north side of Cell 7.	
Photograph No. 46 Date: May 4, 2010 Direction: East Comments: Worker using blower to clean off geocomposite panel deployed in the secondary leachate collection corridor.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 47	
Date: May 4, 2010	
Direction: N/A	
Comments: Joining sections of 4 inch perforated pipe for secondary LCS. Perforations lined up prior to welding.	
Photograph No. 48	
Date: May 12, 2010	
Direction: East	
Comments: Water truck utilized to flush out pipes prior to installation.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 49 Date: May 7, 2010 Direction: Southwest Comments: Off-road truck utilized to transport drainage gravel to the leachate collection corridor.	
Photograph No. 50 Date: May 7, 2010 Direction: West Comments: Excavator utilized to place drainage gravel over secondary leachate collection pipe.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 51 Date: May 5, 2010 Direction: East Comments: Workers using rakes and shovels to distribute and level off drainage gravel in the secondary leachate collection corridor.	
Photograph No.52 Date: May 5, 2010 Direction: East Comments: The pipe elevations are checked by surveyor prior to placement of the drainage gravel.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 53 Date: May 5, 2010 Direction: East Comments: Construction of secondary leachate collection system.	
Photograph No. 54 Date: May 5, 2010 Direction: South Comments: Worker wrapping geotextile over the secondary leachate collection system.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 55 Date: May 7, 2010 Direction: West Comments: Workers sewing geotextile over secondary leachate collection system.	
Photograph No. 56 Date: May 7, 2010 Direction: East Comments: Deployment of secondary geocomposite on south side of Cell 7.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 57 Date: May 11, 2010 Direction: Southwest Comments: Workers positioning geocomposite panel for correct overlap.	
Photograph No. 58 Date: May 11, 2010 Direction: N/A Comments: Geonet component of geocomposite secured with nylon zip ties.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 59 Date: May 11, 2010 Direction: West Comments: Workers sewing upper geotextile component of geocomposite.	
Photograph No. 60 Date: May 19, 2010 Direction: East Comments: Deployment of primary geomembrane on south side of Cell 7.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 61 Date: May 12, 2010 Direction: West Comments: Installation of secondary 24 inch diameter sump and upslope riser pipe	
Photograph No. 62 Date: May 12, 2010 Direction: West Comments: Placement of #4 stone in the Cell 7 secondary sump area.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

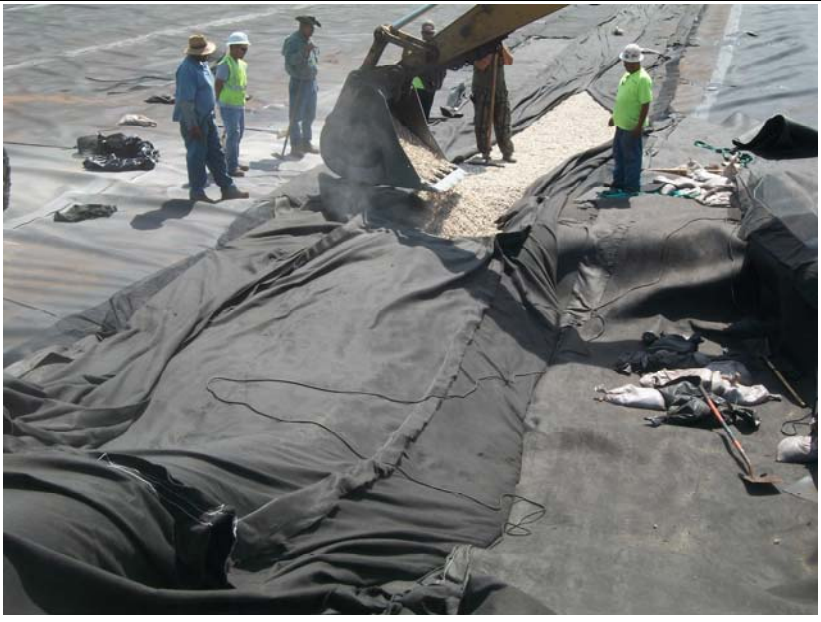
Photograph No. 63 Date: May 28, 2010 Direction: North Comments: Sewing of upper geotextile component of primary geocomposite.	
Photograph No. 64 Date: June 28, 2010 Direction: East Comments: Construction of the primary leachate collection corridor.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 65 Date: June 28, 2010 Direction: West Comments: Construction of the primary leachate collection corridor.	
Photograph No. 66 Date: May 20, 2010 Direction: East Comments: Placement of drainage gravel in the secondary leachate collection corridor adjacent to sump area.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 67 Date: June 1, 2010 Direction: East Comments: Construction of access ramp into Cell 7 for protective cover placement.	
Photograph No. 68 Date: June 1, 2010 Direction: East Comments: Construction of access ramp into Cell 7 for protective cover placement.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 69 Date: June 1, 2010 Direction: Northwest Comments: Placement of protective cover in Cell 7.	
Photograph No. 70 Date: June 1, 2010 Direction: North Comments: Dozer pushing protective cover in Cell 7. Worker walking out wrinkles.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 71 Date: June 1, 2010 Direction: East Comments: Dozer pushing protective cover in Cell 7. Worker walking out wrinkles.	
Photograph No. 72 Date: June 22, 2010 Direction: North Comments: Dozer pushing protective cover up the Cell 5/Cell 7 intercell berm.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 73	
Date: July 6, 2010	
Direction: Northeast	
Comments: Final grading of protective cover within Cell 7 using dozer with GPS.	

Photograph No. 74	
Date: June 15, 2010	
Direction: North	
Comments: Compaction of general fill in anchor trench and Cell 7 leachate sump piping.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 75 Date: June 17, 2010 Direction: North Comments: Compaction of general fill in Anchor trench and beneath Cell 7 concrete pad.	
Photograph No. 76 Date: June 28, 2010 Direction: North Comments: Construction of concrete pad at Cell 7 sump area.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 77 Date: June 28, 2010 Direction: South Comments: Pouring of concrete slab at the Cell 7 sump area.	
Photograph No. 78 Date: June 10, 2010 Direction: West Comments: Thermal butt fusion of leachate transmission pipe to the manhole on west side of Cell 7.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 79 Date: June 10, 2010 Direction: N/A Comments: Leachate transmission manhole and transmission pipe on west side of Cell 7.	
Photograph No. 80 Date: June 10, 2010 Direction: Northwest Comments: Compaction of general fill around leachate transmission manhole on wets side of Cell 7.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 81 Date: June 15, 2010 Direction: West Comments: Installation of electrical cable from the power pole with transformer to Cell 7 control panel.	
Photograph No. 82 Date: June 22, 2010 Direction: East Comments: Geotextile separator deployed beneath footprint of the rip rap apron.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 83 Date: June 22, 2010 Direction: East Comments: Placement of rip rap apron at outfall of storm water drainage structure on west side of Cell 7.	
Photograph No. 84 Date: July 22, 2010 Direction: North Comments: Cell 7 control panel/and sump riser piping.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 85 Date: July 6, 2010 Direction: South Comments: Florida Jetclean pressure cleaning Cell 7 leachate collection pipes.	
Photograph No. 86 Date: June 30, 2010 Direction: South Comments: Placement of sod on the western side of the Cell 7 perimeter berm.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 87 Date: August 10, 2010 Direction: South Comments: Cell 7 sump riser pipes and leachate piping.	
Photograph No. 88 Date: August 10, 2010 Direction: Northeast Comments: View of Cell 7 control panel and electrical switches.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 89 Date: August 10, 2010 Direction: West Comments: View of Cell 7/Cell 8 intercell berm.	
Photograph No. 90 Date: August 10, 2010 Direction: Northwest Comments: View of completed Cell 7.	

PHOTOGRAPHIC LOG

Client: Omni Waste of Osceola County, LLC

Project Name: Cell 7 Construction

Project Location: J.E.D. Solid Waste Management Facility, Osceola County, Florida

Photograph No. 91 Date: August 10, 2010 Direction: North Comments: Cell 7 perimeter maintenance road and storm water drainage structure.	
Photograph No. 92 Date: August 10, 2010 Direction: East Comments: Cell 5/Cell 7 intercell berm.	