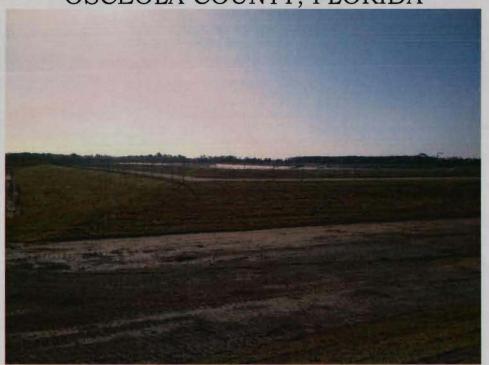
FINAL CERTIFICATION REPORT JED LEACHATE STORAGE FACILITY RELOCATION

JED SOLID WASTE MANAGEMENT FACILITY OSCEOLA COUNTY, FLORIDA



PREPARED FOR:

OMNI WASTE OF OSCEOLA COUNTY, LLC 1501 OMNI WAY ST. CLOUD, FLORIDA 34773 Tel: (407) 981-3720

PREPARED BY:

BRANTLEY ENGINEERING, LLC 13933 TREE LOFT ROAD MILTON, GEORGIA 30004 Tel: (678) 427-2533





Submitted: April 12, 2013

Volume (2 of 2)

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APPENDIX A
Listing of CQA Monitoring and Installation Personnel

Section 1
Brantley Engineering, LLC



Listing of Construction Quality Assurance Monitoring Personnel

JED Leachate Storage Facility Relocation

Name	Initials	Title
Allan Brantley, PE	ASB	Certifying Engineer
Sam Nejad, PE	SMN	Sr. Project Manager
Chris Johnson	CSJ	Sr. QA Monitor

Section 2 Comanco Environmental Corporation



Project Superintendent

Arnulfo Martinez

Arnulfo has 13 years of experience in the supervision of the installation and seaming of a variety of synthetic liners and components in a wide range of industry applications. He has extensive experience in the on site supervision of safety, quality control, and all required documentation. In addition to his supervisory experience Arnulfo also has actual hands on installation experience which far exceed all of the requirements to be qualified as a Leadman, Quality Control Technician and Master Seamer. As the on site COMANCO Superintendent he is also responsible for the direct, day to day, on site safety management of the crew.

Recent Projects: Citrus County Mosaic Projects Orange County

Components installed

☑ HDPE (Textured and Smooth)
☑ LLDPE (Textured and Smooth)
☑ Super Grip Drain Liner
☑ XR-5
☑ Polypropylene
☑ PVC
☑ Geotextiles
☑ Geonets
☑ Geocomposite
☑ GCL
☑ Pipe Boots
☑ Batten Systems
☑ HDPE Sumps

Applications



Master Seamer

Sarbelio Mendez

Sarbelio has 10 years of experience in the installation and seaming of a variety of synthetic liners and components. A Master Seamer qualification requires a minimum of five million square feet of actual hands on geomembrane welding experience. Sarbelio is familiar with all currently utilized welding techniques, welder set-up / maintenance, safety and installation procedures. He is also familiar with and has experience with detail work including pipe boots, sumps, batten seals, and other miscellaneous appurtenances. He is also qualified to assist in training of Geomembrane Welders.

Components installed 🖂	Applications M
∠ LLDPE (Textured and Smooth ∠ LLDPE (Textured and Smooth)	□ Landfill Caps
Super Grip Drain Liner	∠ Leachate Ponds
X XR-5	☑ Wastewater Treatment Ponds
Nolypropylene	Potable Water Reservoirs
□ PVC	
☑ Geotextiles	∠ Leach Pads
☑ Geonets	Process Ponds
☑ Geocomposite	☐ Tank Liners
⊠ GCL	Cut Off Trench
Pipe Boots	
☑ Batten Systems ☑ HDPE Sumps	
☐ HDPE Sumps	



Master Seamer Bersain Velasquez

Bersain has 6 years of experience in the installation and seaming of a variety of synthetic liners and components. A Master Seamer qualification requires a minimum of five million square feet of actual hands on geomembrane welding experience. Bersain is familiar with all currently utilized welding techniques, welder set-up / maintenance, safety and installation procedures. He is also familiar with and has experience with detail work including pipe boots, sumps, batten seals, and other miscellaneous appurtenances. He is also qualified to assist in training of Geomembrane Welders.

Components installed X	Applications 🔀
MHDPE (Textured and Smooth) LLDPE (Textured and Smooth) LLDPE (Textured and Smooth) Super Grip Drain Liner XR-5 Polypropylene PVC Geotextiles Geonets Geocomposite GCL Pipe Boots Batten Systems HDPE Sumps	Landfill Cells ☐ Landfill Caps ☐ Leachate Ponds ☐ Wastewater Treatment Pond ☐ Potable Water Reservoirs ☐ Evaporation Ponds ☐ Leach Pads ☐ Process Ponds ☐ Tank Liners ☐ Cut Off Trench ☐ Methane Barriers ☐ Tank Farm ☐ Floating Covers



Quality Control Technician

Carlos Lopez Gomez

Carlos has 8 years of experience in the installation and seaming of a variety of synthetic liners and components. Carlos is familiar with all current field welding techniques, installation testing and documentation requirements. He has experience and training for the execution of and documentation required for on the site testing, QC and safety procedures. He is also qualified to assist in training of Welders, Installers and QC Technicians.

Carlos is fluent in both English and Spanish.

Components installed	Applications 🖂
HDPE (Textured and Smooth) LLDPE (Textured and Smooth Super Grip Drain Liner XR-5 Polypropylene PVC Geotextiles Geonets Geocomposite GCL Pipe Boots Batten Systems HDPE Sumps	Landfill Cells Landfill Caps Leachate Ponds Wastewater Treatment Ponds Potable Water Reservoirs Evaporation Ponds Leach Pads Process Ponds Tank Liners Cut Off Trench Methane Barriers Tank Farm Floating Covers



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Geosynthetics Installer

Roberto Fernandez

Roberto has 4 years of experience in installation of a variety of geosynthetic liners and components and has successfully completed over 1 million square feet of liner installation. He is qualified to set-up and operate equipment to include the following machines: Vacuum box, hand held hot air, and sewing. As part of his ongoing task training he is allowed to operate the wedge welder, extrusion welder, and air testing equipment under the direct supervision of a Comanco Superintendent, Master Seamer, or Quality Control Technician. He is familiar with all currently utilized safety procedures.

Components Installed 🔀	<u>Applications</u>
□ LLDPE (Textured and Smooth □ LLDPE (Textured and Smooth)	□ Landfill Caps
Super Grip Drain Liner	□ Leachate Ponds
☐ XR-5	☑ Wastewater Treatment Ponds
☐ Polypropylene	Potable Water Reservoirs
PVC PVC	Evaporation Ponds
☐ Geotextiles	∠ Leach Pads
☐ Geonets	□ Process Ponds
☐ Geocomposite	☐ Tank Liners
⊠ GCL	Cut Off Trench
□ Pipe Boots	
☐ HDPE Sumps	☐ Floating Covers



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Heavy Equipment Operator

Misael Barrera

Misael has 5 years of experience in operating heavy equipment during the installation of a variety of geosynthetic liners and components. He is qualified to operate equipment to include the following machines: dozer, loader, excavator, forklift, skid steer, haul truck, water truck, and crawler. He is familiar with all currently utilized safety procedures.

Components Installed 🔀	Applications 🔀
	∠ Landfill Cells
□ LLDPE (Textured and Smooth □	∠ Landfill Caps
Super Grip Drain Liner	∠Leachate Ponds
☐ XR-5	
□ Polypropylene	□ Potable Water Reservoirs
⊠ PVC	
☐ Geotextiles	∠ Leach Pads
⊠ Geonets	☐ Process Ponds
☐ Geocomposite	☐ Tank Liners
⊠ GCL	□ Cut Off Trench □
□ Pipe Boots	
☐ Batten Systems	
☐ HDPE Sumps	☐ Floating Covers



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Geosynthetics Installer

Marcelo Garcia

Marcelo has 2 years of experience in installation of a variety of geosynthetic liners and components and has successfully completed over 1 million square feet of liner installation. He is qualified to set-up and operate equipment to include the following machines: Vacuum box, hand held hot air, and sewing. As part of his ongoing task training he is allowed to operate the wedge welder, extrusion welder, and air testing equipment under the direct supervision of a Comanco Superintendent, Master Seamer, or Quality Control Technician. He is familiar with all currently utilized safety procedures.

Components Installed 🔀	Applications 🔀
 ☑ HDPE (Textured and Smooth) ☐ LLDPE (Textured and Smooth) ☐ Super Grip Drain Liner ☐ XR-5 ☐ Polypropylene ☑ PVC ☑ Geotextiles ☐ Geonets ☑ Geocomposite ☐ GCL ☑ Pipe Boots ☑ Batten Systems ☐ HDPE Sumps 	 ☑ Landfill Cells ☑ Landfill Caps ☑ Leachate Ponds ☑ Wastewater Treatment Ponds ☑ Potable Water Reservoirs ☑ Evaporation Ponds ☑ Leach Pads ☑ Process Ponds ☑ Tank Liners ☐ Cut Off Trench ☐ Methane Barriers ☐ Tank Farm ☐ Floating Covers



Geosynthetics Installer

Manuel Solis

Manuel has 3 years of experience in the installation and seaming of a variety of synthetic liners and components. Manuel is qualified to set-up and operate equipment to include the following machines: Vacuum box, hand held hot air, wedge welder, extrusion, and air testing equipment under the direct supervision of a COMANCO Superintendent, Master Seamer or Quality Control Technician. He is familiar with all currently, installation and safety procedures

Components installed 🖂	Applications 🔀
	□ Landfill Cells
LLDPE (Textured and Smooth	🔯 Landfill Caps
Super Grip Drain Liner	□ Leachate Ponds
☐ XR-5	
Polypropylene	Potable Water Reservoirs
☐ PVC	Evaporation Ponds
☐ Geotextiles	∠ Leach Pads
☐ Geonets	☐ Process Ponds
☐ Geocomposite	☐ Tank Liners
⊠ GCL	□ Cut Off Trench □
☐ Batten Systems	⊠ Tank Farm
☐ HDPE Sumps	☐ Floating Covers



Master Seamer

Jose Luis Palestiano

Jose has 7 years of experience in the installation and seaming of a variety of synthetic liners and components. A Master Seamer qualification requires a minimum of five million square feet of actual hands on geomembrane welding experience. Jose is familiar with all currently utilized welding techniques, welder set-up / maintenance, safety and installation procedures. He is also familiar with and has experience with detail work including pipe boots, sumps, batten seals, and other miscellaneous appurtenances. He is also qualified to assist in training of Geomembrane Welders.

Components Installed 🔀	<u>Applications ⊠</u>
	□ Landfill Cells
☑ LLDPE (Textured and Smooth	∠ Landfill Caps
Super Grip Drain Liner	∠ Leachate Ponds
□ Polypropylene	Potable Water Reservoirs
⊠ PVC	
☐ Geotextiles	∠ Leach Pads
☐ Geonets	Process Ponds
Geocomposite ☐	
⊠ GCL	□ Cut Off Trench □
GCL Pipe Boots	
⊠ Batten Systems	
HDPE Sumps	⊠ Floating Covers



Geosynthetics Installer

Andres Hernandez

Andres has 5 years of experience in the installation and seaming of a variety of synthetic liners and components. Andres is qualified to set-up and operate equipment to include the following machines: Vacuum box, hand held hot air, wedge welder, extrusion, and air testing equipment under the direct supervision of a COMANCO Superintendent, Master Seamer or Quality Control Technician. He is familiar with all currently, installation and safety procedures

Components installed \boxtimes	Applications 🛛
	 ☑ Landfill Cells ☑ Landfill Caps ☑ Leachate Ponds ☑ Wastewater Treatment Ponds ☑ Potable Water Reservoirs ☑ Evaporation Ponds ☑ Leach Pads ☐ Process Ponds ☑ Tank Liners ☑ Cut Off Trench ☑ Methane Barriers ☐ Tank Farm ☐ Floating Covers
	



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Geosynthetics Installer

Alejandro Losa

Alejandro has 6 months of experience in installation of a variety of geosynthetic liners and components and has successfully completed over 1 million square feet of liner installation. He is qualified to set-up and operate equipment to include the following machines: Vacuum box, hand held hot air, and sewing. As part of his ongoing task training he is allowed to operate the wedge welder, extrusion welder, and air testing equipment under the direct supervision of a Comanco Superintendent, Master Seamer, or Quality Control Technician. He is familiar with all currently utilized safety procedures.

Components Installed 🔀	Applications 🖂
	Landfill Cells
LLDPE (Textured and Smooth	🔯 Landfill Caps
Super Grip Drain Liner	☐Leachate Ponds
☐ Polypropylene	☐ Potable Water Reservoirs
☐ PVC	Evaporation Ponds
☐ Geotextiles	Leach Pads
Geonets	☐ Process Ponds
☐ Geocomposite	☐ Tank Liners
⊠ GCL	Cut Off Trench
□ Pipe Boots	
☐ Batten Systems	☐ Tank Farm
☐ HDPE Sumps	☐ Floating Covers



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Geosynthetics Installer

Nicolas Virgen Rubio

Nicolas has 9 years of experience in installation of a variety of geosynthetic liners and components and has successfully completed over 1 million square feet of liner installation. He is qualified to set-up and operate equipment to include the following machines: Vacuum box, hand held hot air, and sewing. As part of his ongoing task training he is allowed to operate the wedge welder, extrusion welder, and air testing equipment under the direct supervision of a Comanco Superintendent, Master Seamer, or Quality Control Technician. He is familiar with all currently utilized safety procedures.

Components Installed 🛛	Applications 🔀
Components Installed HDPE (Textured and Smooth) LLDPE (Textured and Smooth) Super Grip Drain Liner XR-5 Polypropylene PVC Geotextiles Geonets Geocomposite GCL	Applications Landfill Cells Landfill Caps Leachate Ponds Wastewater Treatment Ponds Potable Water Reservoirs Evaporation Ponds Leach Pads Process Ponds Tank Liners Cut Off Trench
☑ Pipe Boots☑ Batten Systems☑ HDPE Sumps	☑ Methane Barriers☑ Tank Farm☑ Floating Covers



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Heavy Equipment Operator Gonzalo Lopez

Gonzalo has 5 years of experience in operating heavy equipment during the installation of a variety of geosynthetic liners and components. He is qualified to operate equipment to include the following machines: dozer, loader, excavator, forklift, skid steer, haul truck, water truck, and crawler. He is familiar with all currently utilized safety procedures.

Components Installed 🛛	Applications 🛛
□ LLDPE (Textured and Smooth	□ Landfill Caps
Super Grip Drain Liner	∠Leachate Ponds
☐ XR-5	
□ Polypropylene	Potable Water Reservoirs
⊠ PVC	
☐ Geotextiles	∠ Leach Pads
☐ Geonets	Process Ponds
☐ Geocomposite	
⊠ GCL	Cut Off Trench
☑ Pipe Boots	
☐ Batten Systems	☐ Tank Farm
☐ HDPE Sumps	☐ Floating Covers



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Geosynthetics Installer

Bonifilio Lopez

Bonifilio has 3 years of experience in installation of a variety of geosynthetic liners and components and has successfully completed over 1 million square feet of liner installation. He is qualified to set-up and operate equipment to include the following machines: Vacuum box, hand held hot air, and sewing. As part of his ongoing task training he is allowed to operate the wedge welder, extrusion welder, and air testing equipment under the direct supervision of a Comanco Superintendent, Master Seamer, or Quality Control Technician. He is familiar with all currently utilized safety procedures.

Components Installed 🛛	Applications 🛛
	□ Landfill Cells
	∠ Landfill Caps
Super Grip Drain Liner	∠Leachate Ponds
☐ XR-5	
☐ Polypropylene	Potable Water Reservoirs
☐ Geotextiles	☐ Leach Pads
☐ Geonets	Process Ponds
☐ Geocomposite	
⊠ GCL	□ Cut Off Trench
□ Pipe Boots	
	☐ Tank Farm
☐ HDPE Sumps	☐ Floating Covers

APPENDIX B Pre-Construction Soils Laboratory Testing Results

Section 1
General Fill



November 2, 2012

Allan Brantley, PE
President
BRANTLEY ENGINEERING, LLC
13933 Tree Loft Road
Milton, Georgia 30004
abrantley@brantleyeng.com

RE:

Brantley Field-Lab Testing Report - October 2012

AMEC Project No. 300751

Dear Mr. Brantley:

Please find attached the laboratory test results completed in accordance with the American Society for Testing and Materials (ASTM) and project specifications. As requested AMEC Environment & Infrastructure, Inc. completed the following testing:

- Ten Standard Proctor (ASTM D698) tests, one for each of the ten samples (P1 through P10).
- Twenty-four Grain Size (ASTM D422) tests, two for each of the ten samples and one additional grain size on P4, P5, P8, and P9.
- One Hydraulic Conductivity (ASTM D2434) test on sample P2.

Please do not hesitate to contact us if you have any further questions regarding the information provided.

Sincerely,

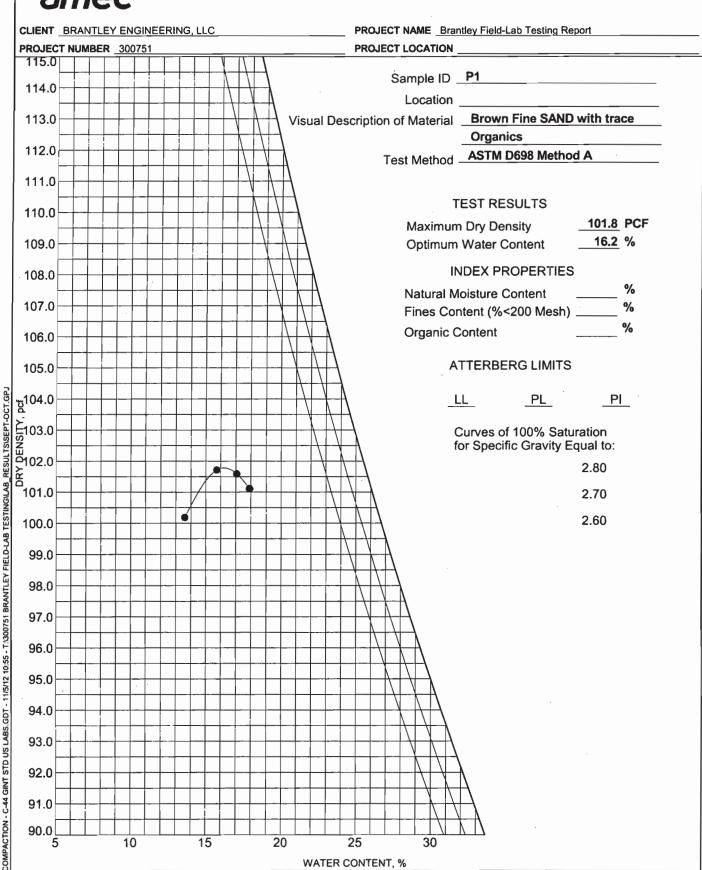
Ricardo C. Kiriakidis L., P.E. Geotechnical Project Manager Florida License No. 70602

rk/dl

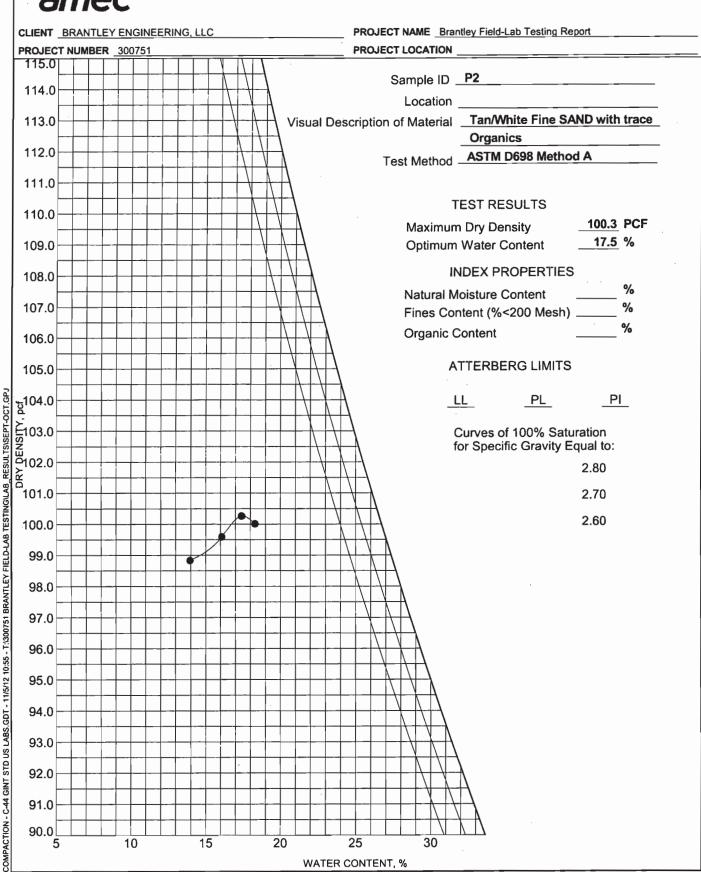
attachments via e-mail

AMEC
Environment & Infrastructure
2000 E. Edgewood Drive, Suite 215
Lakeland, Florida
USA 33803
Tel (863) 667-2345
Fax (863) 667-2662

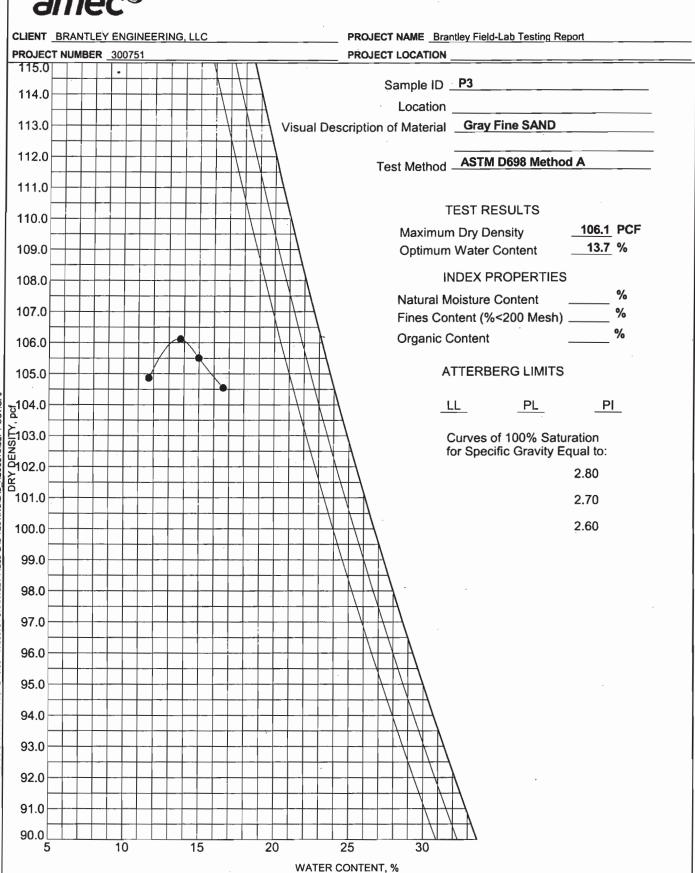




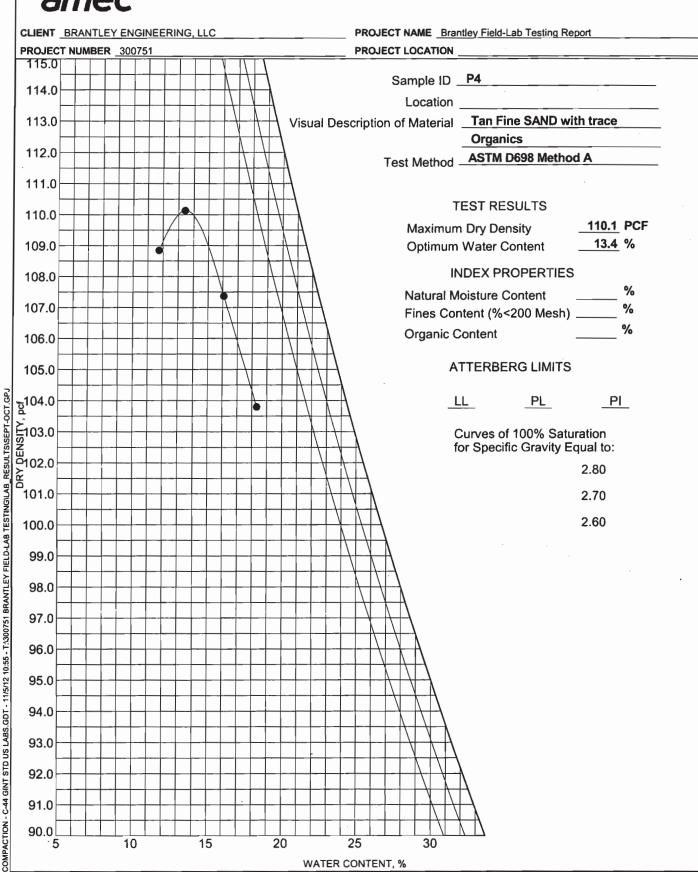




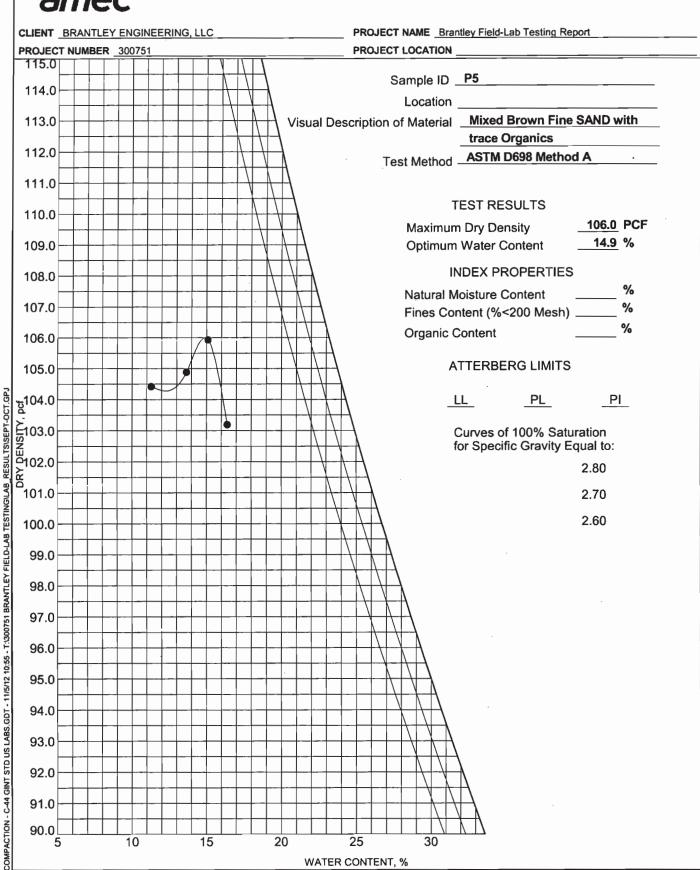




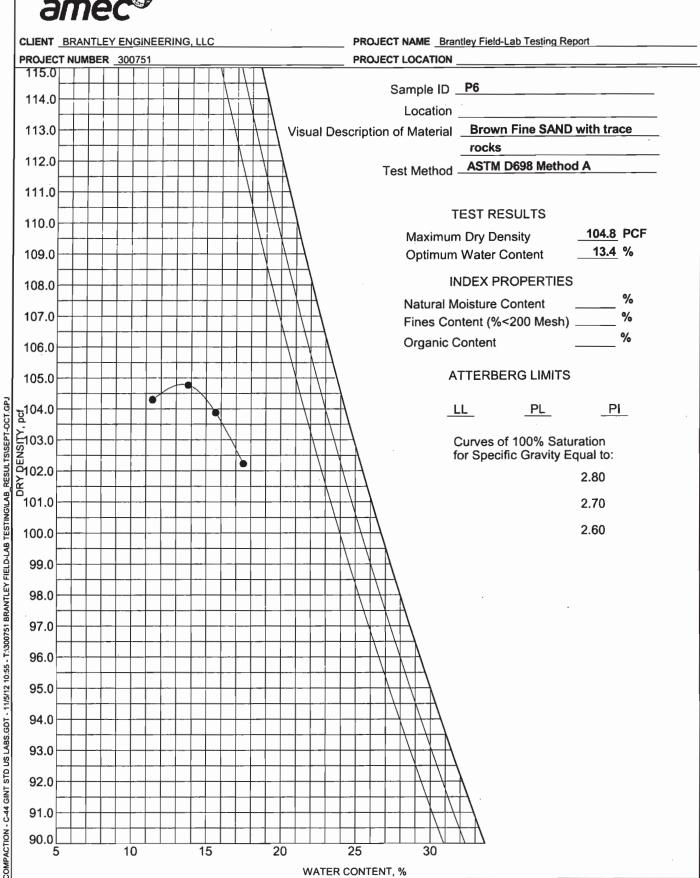




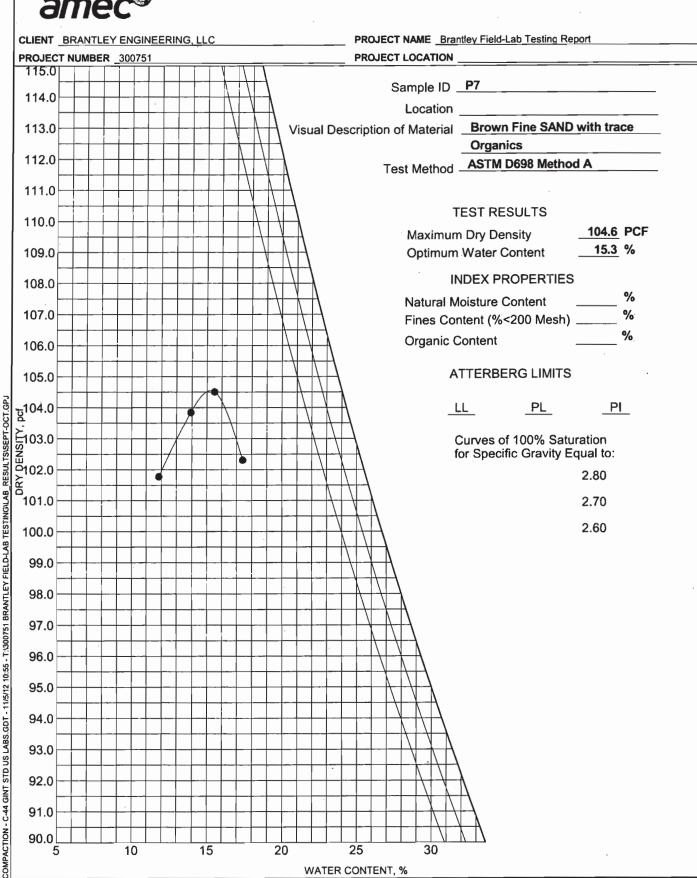










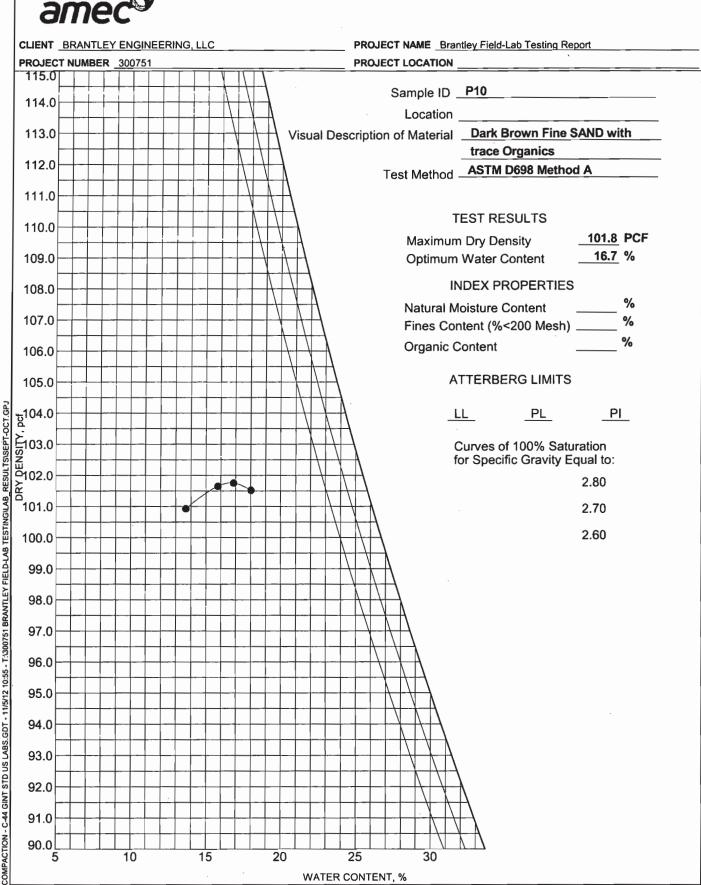


MOISTURE-DENSITY RELATIONSHIP CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT NUMBER 300751 PROJECT LOCATION 115.0 Sample ID P8 114.0 Location Visual Description of Material Grayish-Brown Fine SAND with 113.0 trace Organics 112.0 Test Method ASTM D698 Method A 111.0 **TEST RESULTS** 110.0 _101.4 PCF Maximum Dry Density 16.2 % 109.0 Optimum Water Content INDEX PROPERTIES 108.0 Natural Moisture Content 107.0 % Fines Content (%<200 Mesh) % Organic Content 106.0 ATTERBERG LIMITS 105.0 0.4.0 0.201 0.201 0.1.0 COMPACTION - C-44 GINT STD US LABS.GDT - 11/5/12 10:55 - T:300751 BRANTLEY FIELD-LAB TESTINGILAB, RESULTSISEPT-OCT.GF LL PL PI Curves of 100% Saturation for Specific Gravity Equal to: 2.80 2.70 2.60 100.0 99.0 98.0 97.0 96.0 95.0 94.0 93.0 92.0 91.0 10 15 20 25 30

WATER CONTENT, %

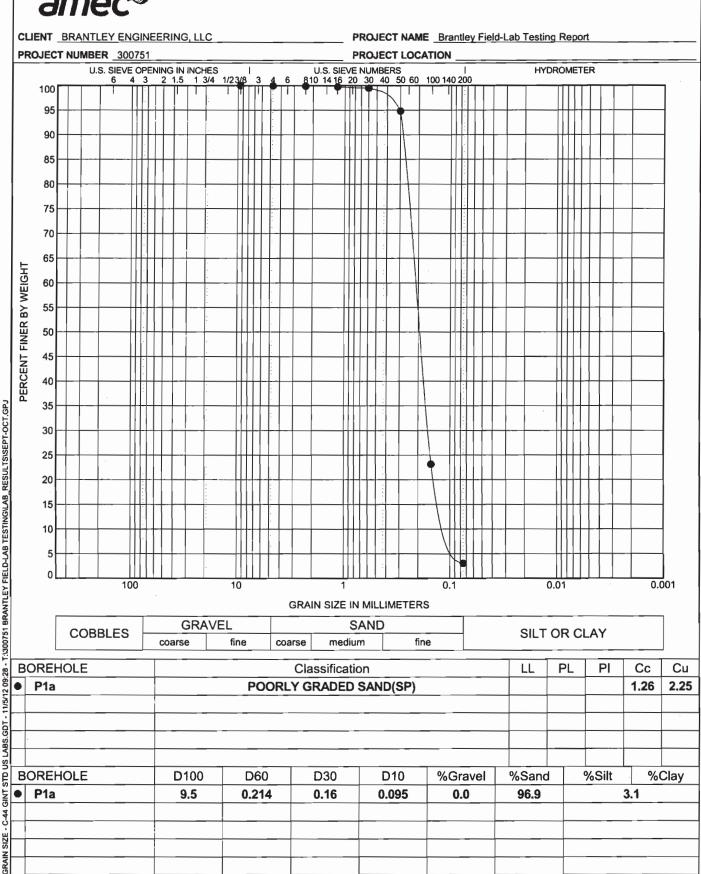
CT Number







GRAIN SIZE DISTRIBUTION



GRAIN SIZE DISTRIBUTION

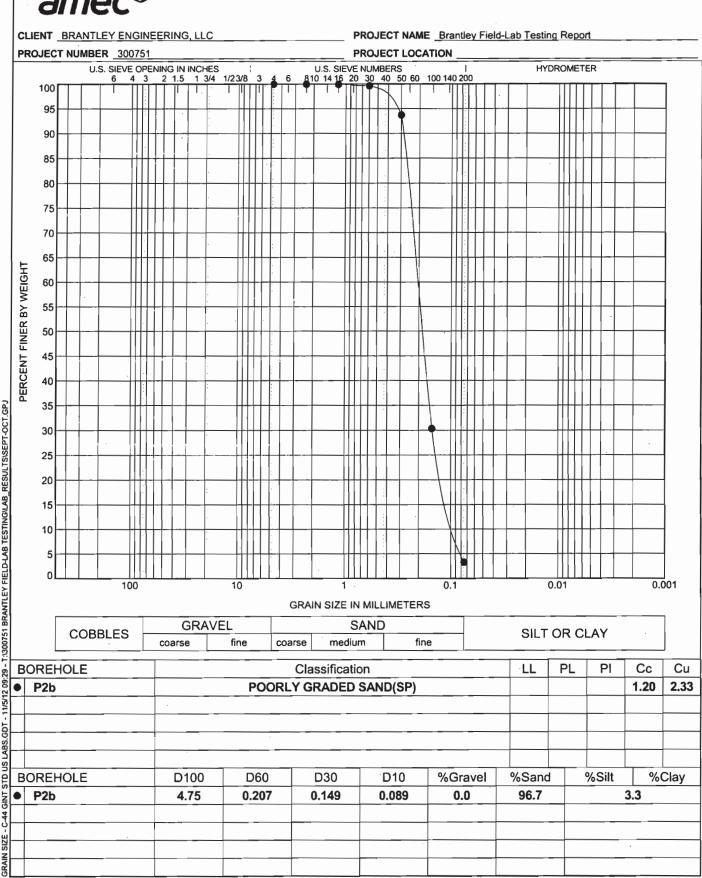
CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT NUMBER 300751 PROJECT LOCATION U.S. SIEVE OPENING IN INCHES 6 4 3 2 1.5 1 3/4 1/23/8 3 4 6 U.S. SIEVE NUMBERS | 810 14 16 20 30 40 50 60 100 140 200 HYDROMETER 100 95 90 85 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 - T:\300751 BRANTLEY FIELD-LAB TESTING\LAB_RESULTS\SEPT-OCT.GP, 30 25 20 15 10 0.01 0.001 100 10 **GRAIN SIZE IN MILLIMETERS GRAVEL** SAND SILT OR CLAY **COBBLES** coarse coarse medium PL Cu **BOREHOLE** Classification LL Cc • P1b POORLY GRADED SAND(SP) 1.25 2.29 BOREHOLE D100 D60 D30 D10 %Gravel %Sand %Silt %Clay P1b 2.36 0.211 0.156 0.092 0.0 96.9 3.1

GRAIN SIZE DISTRIBUTION

CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT NUMBER 300751 PROJECT LOCATION U.S. SIEVE OPENING IN INCHES U.S. SIEVE NUMBERS HYDROMETER 810 14 16 20 30 40 50 60 100 140 200 2 1.5 1 3/4 1/23/8 3 100 95 90 85 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 GINT STD US LABS.GDT - 1/15/12 09:28 - T.\(300751 BRANTLEY FIELD-LAB TESTING\(LAB_RESULTS\)SEPT-OCT.GP. 30 25 20 15 10 0.01 0.001 **GRAIN SIZE IN MILLIMETERS GRAVEL** SAND **COBBLES** SILT OR CLAY medium coarse fine coarse fine **BOREHOLE** LL PL Cu Classification Cc • P2a POORLY GRADED SAND(SP) 1.11 2.30 D100 BOREHOLE D60 D30 D10 %Gravel %Sand %Silt %Clay P2a 4.75 0.205 0.142 0.089 0.0 97.3 2.7

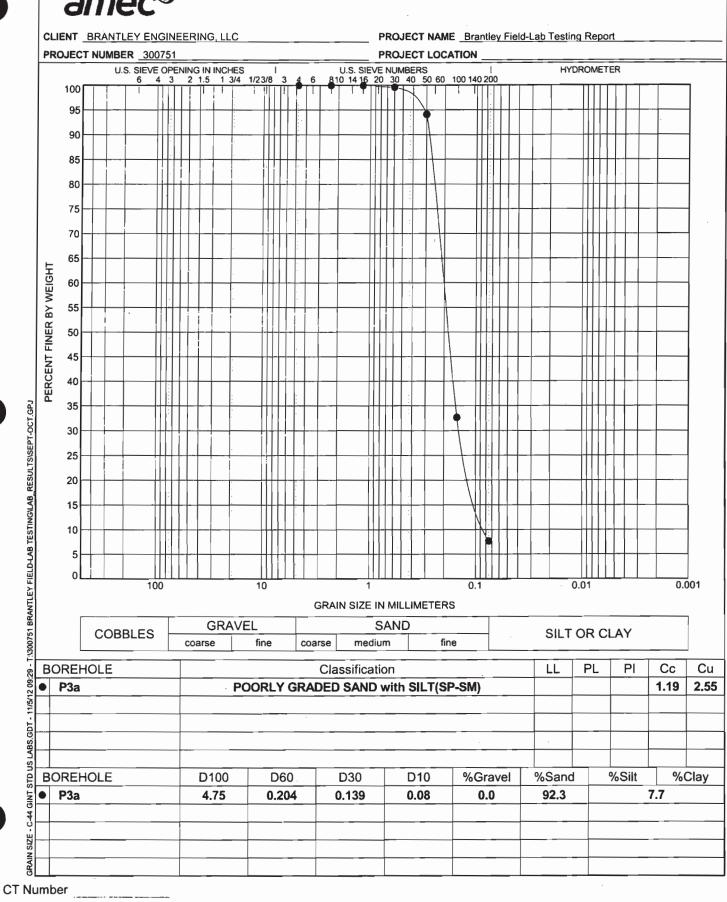
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GRAIN SIZE DISTRIBUTION



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GRAIN SIZE DISTRIBUTION

CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT NUMBER 300751 PROJECT LOCATION HYDROMETER U.S. SIEVE OPENING IN INCHES | 6 4 3 2 1.5 1 3/4 1/23/8 3 U.S. SIEVE NUMBERS | 1 810 14 16 20 30 40 50 60 100 140 200 100 95 90 85 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 - T.1300751 BRANTLEY FIELD-LAB TESTINGILAB RESULTSISEPT-OCT.GP. 30 25 20 15 10 0.01 0.001 **GRAIN SIZE IN MILLIMETERS** GRAVEL SAND SILT OR CLAY COBBLES medium coarse fine coarse Cu **BOREHOLE** LL PL Ы Сс Classification 1.29 2.46 ● P3b POORLY GRADED SAND with SILT(SP-SM) D60 D30 D10 %Gravel %Sand %Silt %Clay **BOREHOLE** D100 94.0 • P3b 4.75 0.208 0.15 0.084 0.0 6.0 SIZE GRAIN

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GRAIN SIZE DISTRIBUTION

CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT NUMBER 300751 PROJECT LOCATION U.S. SIEVE NUMBERS | 1 810 14 16 20 30 40 50 60 100 140 200 HYDROMETER U.S. SIEVE OPENING IN INCHES ! 6 4 3 2 1.5 1 3/4 1/23/8 100 95 90 85 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 30 25 20 15 10 0.001 **GRAIN SIZE IN MILLIMETERS** GRAVEL SAND SILT OR CLAY **COBBLES** medium coarse coarse **BOREHOLE** Classification LL PL Ы Cc Cu SILTY SAND(SM) • P4a **BOREHOLE** D60 D30 D10 %Gravel %Sand %Silt %Clay D100 • P4a 9.51 0.142 0.092 0.0 83.9 16.1

CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT NUMBER 300751 **PROJECT LOCATION** U.S. SIEVE OPENING IN INCHES 6 4 3 2 1.5 1 3/4 1/23/8 3 U.S. SIEVE NUMBERS | 810 14 16 20 30 40 50 60 100 140 200 HYDROMETER 100 95 90 85 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 30 25 20 3300751 BRANTLEY FIELD-LAB TESTINGILAB 15 10 5 0.01 0.001 10 **GRAIN SIZE IN MILLIMETERS GRAVEL** SAND SILT OR CLAY **COBBLES** coarse coarse medium Ы Cu **BOREHOLE** LL PL Сс Classification • P4b SILTY SAND(SM) **BOREHOLE** D100 D60 D30 D10 %Gravel %Sand %Silt %Clay • P4b 4.75 0.129 0.089 0.0 84.0 16.0

CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT NUMBER 300751 PROJECT LOCATION U.S. SIEVE OPENING IN INCHES 6 4 3 2 1.5 1 3/4 1/23/8 HYDROMETER U.S. SIEVE NUMBERS | 1 810 14 16 20 30 40 50 60 100 140 200 100 95 90 85 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 30 25 20 15 10 0.001 0.01 **GRAIN SIZE IN MILLIMETERS GRAVEL** SAND SILT OR CLAY **COBBLES** medium coarse coarse **BOREHOLE** LL PL PI Cc Cu Classification GDT - 11/5/12 09:30 ● P4c SILTY SAND(SM) %Silt %Clay D10 %Gravel %Sand **BOREHOLE** D100 D60 D30 85.1 14.9 • P4c 9.5 0.139 0.092 0.0



CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT NUMBER 300751 PROJECT LOCATION U.S. SIEVE OPENING IN INCHES | 6 4 3 2 1.5 1 3/4 1/23/8 3 HYDROMETER 100 95 90 85 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 GRAIN SIZE - C-44 GINT STD US LABS.GDT - 11/5/12 09:34 - T:300751 BRANTLEY FIELD-LAB TESTINGILAB_RESULTSISEPT-OCT.GP. 30 25 20 15 10 0.01 0.001 **GRAIN SIZE IN MILLIMETERS** GRAVEL SAND SILT OR CLAY COBBLES medium coarse coarse **BOREHOLE** LL PL Classification Cc. Cu 1.29 • P5a POORLY GRADED SAND(SP) 2.34 **BOREHOLE** D30 %Gravel D100 D60 D10 %Sand %Silt %Clay • P5a 4.75 0.218 0.162 0.093 0.0 95.5 4.5

CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT LOCATION PROJECT NUMBER 300751 U.S. SIEVE NUMBERS 1 810 14 16 20 30 40 50 60 100 140 200 U.S. SIEVE OPENING IN INCHES | 6 4 3 2 1.5 1 3/4 1/23/8 3 HYDROMETER 100 95 90 85 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 300751 BRANTLEY FIELD-LAB TESTINGILAB RESULTSISEPT-OCT.GP 25 20 15 10 0.001 10 **GRAIN SIZE IN MILLIMETERS GRAVEL** SAND SILT OR CLAY **COBBLES** coarse medium LL PL Cu **BOREHOLE** Classification Сс • P5b POORLY GRADED SAND(SP) 1.25 2.24 **BOREHOLE** D100 D60 D30 D10 %Gravel %Sand %Silt %Clay • P5b 4.75 0.223 0.167 0.1 0.0 96.2 3.8

amec PROJECT NAME Brantley Field-Lab Testing Report CLIENT BRANTLEY ENGINEERING, LLC PROJECT NUMBER 300751 PROJECT LOCATION U.S. SIEVE OPENING IN INCHES 6 4 3 2 1.5 1 3/4 U.S. SIEVE NUMBERS 810 14 16 20 30 40 50 60 100 140 200 HYDROMETER 1 3/4 1/23/8 3 100 95 90 85 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 LABS.GDT - 11/5/12 09:35 - T:\300751 BRANTLEY FIELD-LAB TESTING\LAB_RESULTS\SEPT-OCT.GP, 30 25 20 15 10 0.001 0.01 **GRAIN SIZE IN MILLIMETERS GRAVEL** SAND COBBLES SILT OR CLAY coarse medium fine coarse fine **BOREHOLE** LL PLСс Cu Classification P5c POORLY GRADED SAND(SP) 1.28 2.33 GINT STD US **BOREHOLE** D100 D30 %Gravel %Silt %Clay D60 D10 %Sand P₅c 4.75 0.219 0.163 0.094 0.0 95.8 4.2 **GRAIN SIZE**

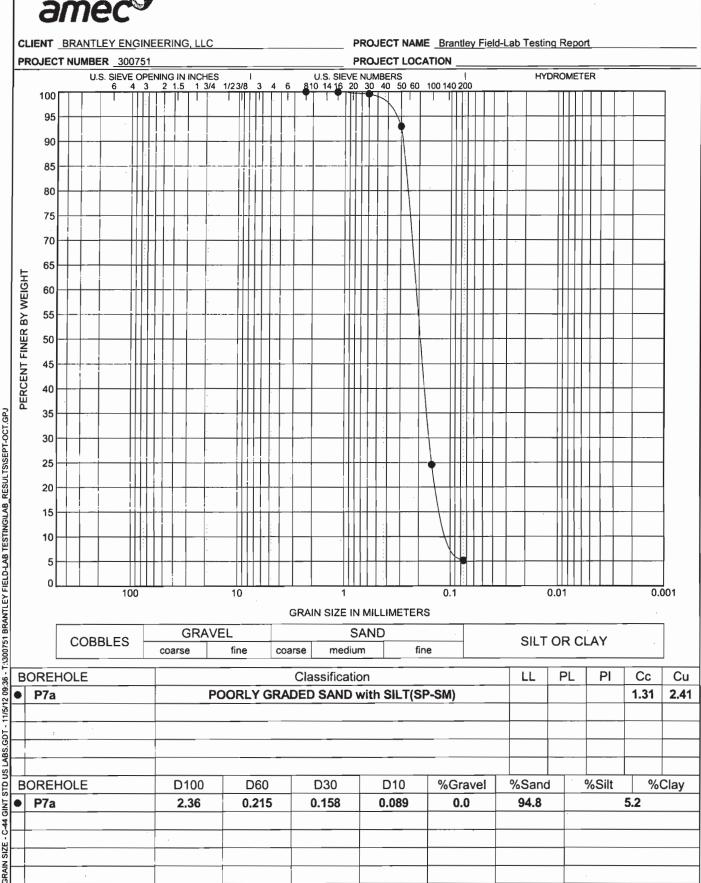
amec[©] CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT NUMBER 300751 PROJECT LOCATION U.S. SIEVE OPENING IN INCHES | 6 4 3 2 1.5 1 3/4 1/23/8 3 U.S. SIEVE NUMBERS | 1 810 14 16 20 30 40 50 60 100 140 200 HYDROMETER 100 95 90 85 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 30 25 20 15 10 5 0.01 0.001 **GRAIN SIZE IN MILLIMETERS GRAVEL** SAND SILT OR CLAY **COBBLES** coarse fine coarse medium PL**BOREHOLE** LL Сс Cu Classification P6a POORLY GRADED SAND with SILT(SP-SM) 1.31 2.50 **BOREHOLE** D100 D60 D30 D10 %Gravel %Sand %Silt %Clay P6a 4.75 0.208 0.083 0.0 93.4 6.6 0.15



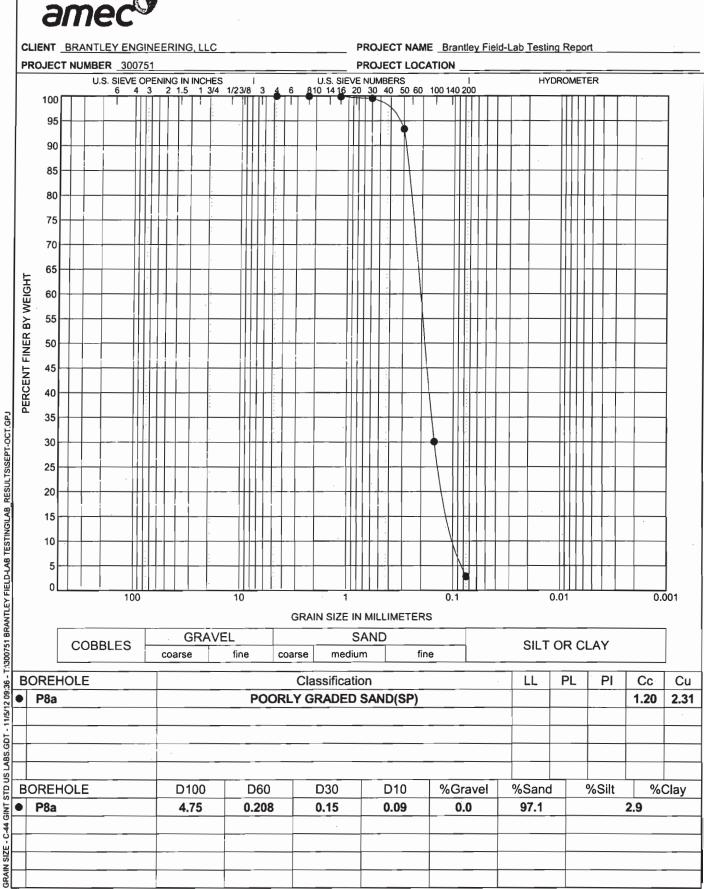
CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT NUMBER 300751 PROJECT LOCATION U.S. SIEVE OPENING IN INCHES | 6 4 3 2 1.5 1 3/4 1/23/8 3 U.S. SIEVE NUMBERS | 810 14 16 20 30 40 50 60 100 140 200 HYDROMETER 100 95 90 85 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 LABS.GDT - 11/5/12 09:35 - T:\300751 BRANTLEY FIELD-LAB TESTING\LAB_RESULTS\SEPT-OCT.GP, 30 25 20 15 10 100 10 0.01 0.001 **GRAIN SIZE IN MILLIMETERS GRAVEL** SAND **COBBLES** SILT OR CLAY coarse coarse medium **BOREHOLE** LL PL Ы Classification Сс Cu ● P6b POORLY GRADED SAND with SILT(SP-SM) 1.30 2.47 **BOREHOLE** D100 D60 D30 D10 %Gravel %Sand %Silt %Clay P6b 4.75 0.208 0.151 0.085 0.0 94.0 6.0

amec

GRAIN SIZE DISTRIBUTION



CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT NUMBER 300751 PROJECT LOCATION U.S. SIEVE OPENING IN INCHES | 6 4 3 2 1.5 1 3/4 1/23/8 3 HYDROMETER 100 95 90 85 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 - T:\300751 BRANTLEY FIELD-LAB TESTING\LAB_RESULTS\SEPT-OCT.GP. 30 25 20 15 10 0.01 0.001 10 **GRAIN SIZE IN MILLIMETERS** GRAVEL SAND **COBBLES** SILT OR CLAY coarse coarse medium **BOREHOLE** Classification LL PL PΙ Сс Cu ● P7b POORLY GRADED SAND(SP) 1.30 2.38 GRAIN SIZE - C-44 GINT STD US **BOREHOLE** D100 D60 D30 %Gravel %Sand %Silt %Clay D10 P7b 4.75 0.0 95.3 4.7 0.216 0.16 0.091



CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT NUMBER 300751 PROJECT LOCATION U.S. SIEVE OPENING IN INCHES 6 4 3 2 1.5 1 3/4 1/23/8 U.S. SIEVE NUMBERS | 1810 14 16 20 30 40 50 60 100 140 200 HYDROMETER 100 95 90 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 ABS.GDT - 11/5/12 09:37 - T:3300751 BRANTLEY FIELD-LAB TESTINGLAB RESULTSISEPT-OCT.GP. 30 25 20 15 10 0.01 0.001 **GRAIN SIZE IN MILLIMETERS** GRAVEL SAND COBBLES SILT OR CLAY coarse medium fine coarse **BOREHOLE** Classification LL PL Ы Сс Cu ● P8b POORLY GRADED SAND(SP) 1.21 2.32 SIZE - C-44 GINT STD US **BOREHOLE** %Clay D100 D60 D30 D10 %Gravel %Sand %Silt P8b 4.75 0.209 0.151 0.09 0.0 96.9 3.1 GRAIN

amec CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT NUMBER 300751 PROJECT LOCATION U.S. SIEVE OPENING IN INCHES 6 4 3 2 1.5 1 3/4 1/23/8 U.S. SIEVE NUMBERS | 810 14 16 20 30 40 50 60 100 140 200 HYDROMETER 100 95 90 85 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 - T.3300751 BRANTLEY FIELD-LAB TESTINGILAB RESULTSISEPT-OCT.GP. 30 25 20 15 10 0.001 0.01 **GRAIN SIZE IN MILLIMETERS GRAVEL** SAND SILT OR CLAY **COBBLES** coarse medium coarse **BOREHOLE** PL Ы Cu Classification LL Cc 1.27 2.43 ● P8c POORLY GRADED SAND with SILT(SP-SM) **BOREHOLE** D100 %Gravel D60 D30 D10 %Sand %Silt %Clay 4.75 P8c 0.209 0.151 0.086 0.0 94.7 5.3

CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT NUMBER 300751 PROJECT LOCATION U.S. SIEVE OPENING IN INCHES 6 4 3 2 1.5 1 3/4 1/23/8 3 HYDROMETER U.S. SIEVE NUMBERS 810 14 16 20 30 40 50 60 100 140 200 100 95 90 85 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 - 11/5/12 09:37 - T:\300751 BRANTLEY FIELD-LAB TESTING\LAB_RESULTS\SEPT-OCT.GP, 30 25 20 15 0.01 0.001 **GRAIN SIZE IN MILLIMETERS GRAVEL** SAND SILT OR CLAY **COBBLES** coarse coarse medium **BOREHOLE** LL PL Сс Cu Classification P9a 1.27 2.28 POORLY GRADED SAND(SP) GINT STD US LABS.GDT D10 BOREHOLE D100 D60 D30 %Gravel %Sand %Silt %Clay • P9a 4.75 0.212 0.0 96.6 3.4 0.159 0.093 GRAIN

amec®

GRAIN SIZE DISTRIBUTION

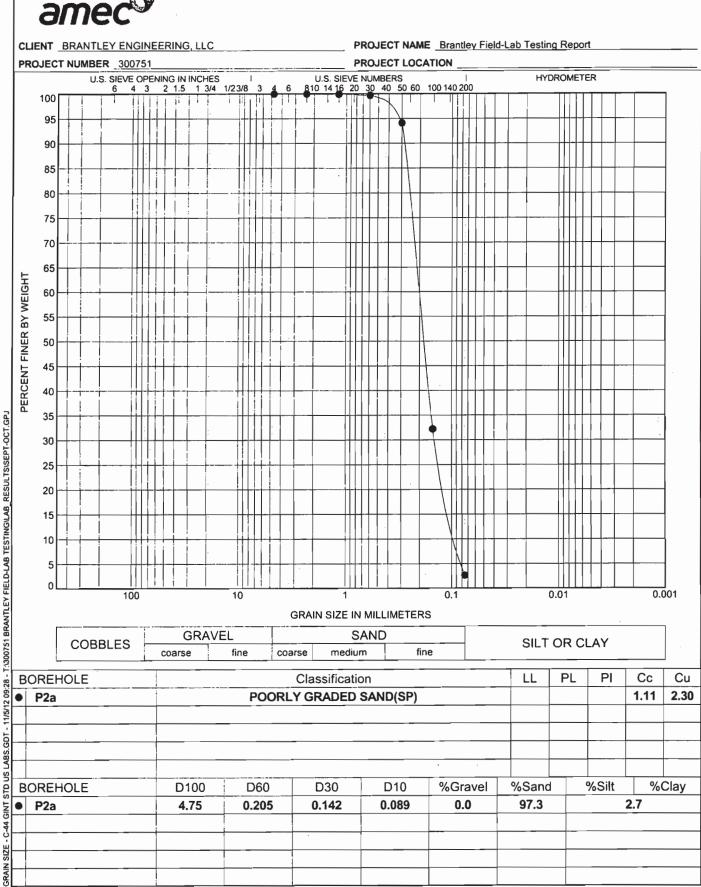
CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT NUMBER 300751 PROJECT LOCATION U.S. SIEVE NUMBERS | 1 810 14 16 20 30 40 50 60 100 140 200 U.S. SIEVE OPENING IN INCHES 6 4 3 2 1.5 1 3/4 1/23/8 3 HYDROMETER 100 95 90 85 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 T:\300751 BRANTLEY FIELD-LAB TESTING\LAB RESULTS\SEPT-OCT.GP. 30 25 20 15 10 5 10 0.01 0.001 **GRAIN SIZE IN MILLIMETERS GRAVEL** SAND **COBBLES** SILT OR CLAY coarse fine coarse medium fine **BOREHOLE** Classification LL PL Ы Сс Cu .GDT - 11/5/12 09:38 • P9c POORLY GRADED SAND(SP) 1.25 2.16 **BOREHOLE** D100 D60 D30 D10 %Gravel %Sand %Silt %Clay 4.75 0.0 96.1 P9c 0.221 0.168 0.103 3.9

CT Number

CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT NUMBER 300751 PROJECT LOCATION U.S. SIEVE NUMBERS | 1810 14 16 20 30 40 50 60 100 140 200 U.S. SIEVE OPENING IN INCHES 6 4 3 2 1.5 1 3/4 1/23/8 HYDROMETER 100 95 85 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 - T:300751 BRANTLEY FIELD-LAB TESTINGILAB_RESULTSISEPT-OCT.GP. 30 25 20 15 10 5 0.01 0.001 **GRAIN SIZE IN MILLIMETERS** GRAVEL SAND SILT OR CLAY **COBBLES** coarse fine coarse medium **BOREHOLE** LL PLЫ Cu Classification Сс 1.27 2.28 POORLY GRADED SAND(SP) ● P10b %Gravel %Sand %Silt %Clay **BOREHOLE** D100 D60 D30 D10 P10b 4.75 0.0 96.5 3.5 0.213 0.159 0.094

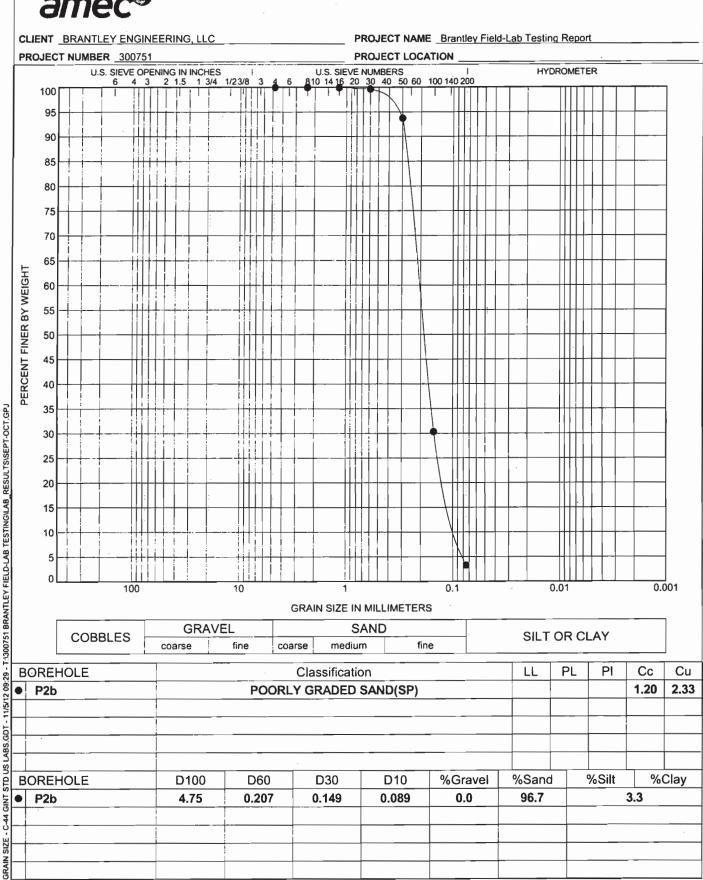
amec CLIENT BRANTLEY ENGINEERING, LLC PROJECT NAME Brantley Field-Lab Testing Report PROJECT NUMBER 300751 PROJECT LOCATION U.S. SIEVE OPENING IN INCHES | 6 4 3 2 1.5 1 3/4 1/23/8 3 HYDROMETER U.S. SIEVE NUMBERS 810 14 16 20 30 40 50 60 100 140 200 100 95 90 85 80 75 70 65 PERCENT FINER BY WEIGHT 60 55 50 45 40 35 LABS.GDT - 11/5/12 09:38 - T:\300751 BRANTLEY FIELD-LAB TESTING\LAB_RESULTS\SEPT-OCT.GP, 30 25 20 15 10 0.01 0.001 **GRAIN SIZE IN MILLIMETERS GRAVEL** SAND SILT OR CLAY **COBBLES** coarse medium coarse **BOREHOLE** LL PLЫ Сс Cu Classification • P10a 1.25 2.24 POORLY GRADED SAND(SP) **BOREHOLE** %Gravel %Sand %Silt %Clay D100 D60 D30 D10 97.2 ● P10a 4.75 0.213 0.159 0.095 0.0 2.8 **GRAIN**

Section 2 Protective Cover



amec[©]

GRAIN SIZE DISTRIBUTION





REPORT OF SOIL PERMEABILITY TESTING

Project:

Brantley-Osceola

Project Number:

300751

Client

Brantley Engineering, LLC

Date Completed:

October 29, 2012

P-2

The sample was oven dried and poured into the permeameter, dry, loose. The sample was tested for permeability and the results are outlined below.

Sample Information:

Dia. (in.)	4.08		Length (in) 4.59		Weight (gr)	1455	
Wet Density	(pcf)	92.1	Moisture Content (%)	0.3	Dry Dens	sity (pcf)	91.8

Test Parameters

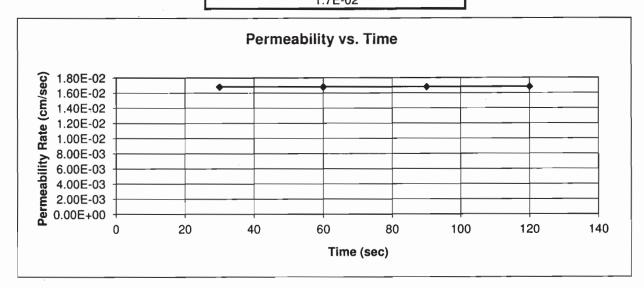
Test Method Used:

ASTM D-2434

Permeant Fluid:

Tap water

Permeability Rate 1.7E-02



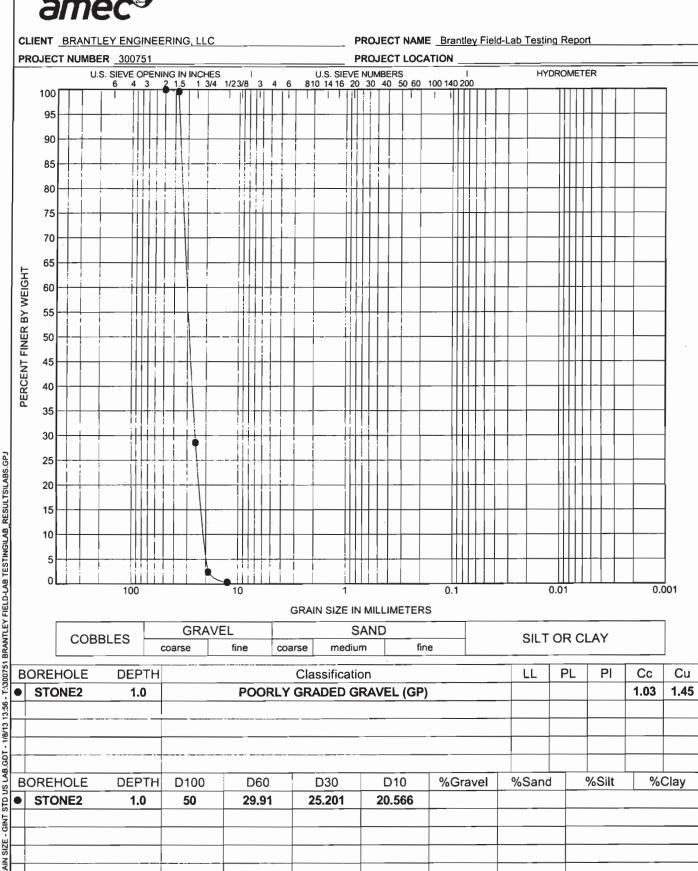
Reviewed By:

Draft

Daniel Eisman, P.E.

Section 3
Sump Stone





#4 Stone Gradation Chart

Sieve Size (mm)	Sieve Name	Cumulative Soil Retained (gr)	Percent Passing (%)
87.5	31/2"	0	100.0
75	3"	0	100.0
50	2"	0	100.0
37.5	11/2"	100	99.6
25	1"	18050	28.6
19	3/4"	24660	2.5
12.5	1/2"	25180	0.4
4.75	#4	0	0
2.36	#8	0	0
0.075	#200	0	0

PERMEABILITY OF GRANULAR SOILS CONSTANT HEAD

ASTM D2434-68

2000 E. Edgewood Drive Suite 215 Lakeland, FL 33803 Phone: (863) 667-2345

Fax: (863) 667-2662



12/21/2012

CLIENT: Brantley Engineering Date: 300751 Sample ID: Stone 2 Project#_ Sample Description: 2" minus gravel sample Requested By: _ Ricardo Kiriakidis Tested By: _ Jeffrey Ingersoll Checked By: Ricardo Kiriakidis Sample Diameter: 20.32 Dry Sample Weight; 25,280 cm grams cm^2 Dry Unit Weight: 91.32 Sample Area: 324.29 pcf Sample Length: 21.27 Moisture Content: 2 % cm Wet Sample Weight: 10,314 Constant Head (h): 14.04 cm grams Sample Volume: 6,898.52 cm³ Temperature (T): 15.6 °C 93.14 Correction Factor (R_T): 0.9 Wct Unit Weight:

Run	Time (s)	Q (ml)	k (cm/s)	k (ft/day)
l	7.1	18,950	12.4700	3.53E+04
2	7.1	18,930	12.4568	3.53E+04
3	7.3	18,990	12.1539	3.45E+04
4	7	18,050	12.0474	3.42E+04
		k (avg)=	12.2820	3.48E+04
		k ₂₀ (avg)=	11.55	3.27E+04

Section 4 Limerock

COMPACTION TEST LIMEROCK BEARING RATIO (LBR) MOLD VOLUME 1/13.33 CF **FSTM FM5-515**



PROJECT NO. 300751 MATERIAL NO. Base-1

PROJECT NAME

JED Landfill Leachate

PEN BY:

1/21/13

SAMPLE NO. LIMS NO.

DATE COMPACTED

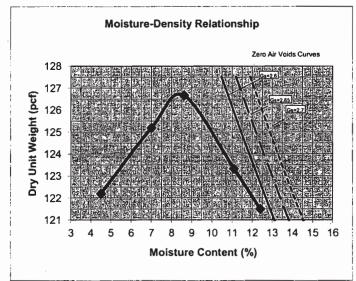
Relocation Facility PEN. DATE 1/19/2013 LAB NO. MATERIAL DESCRIPTION Clayey Sand with Gravel (SC) TESTED BY:

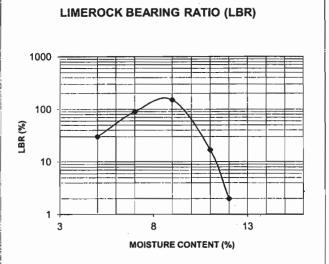
C6843 ew

NOTE: IF TEST IS ENGLISH WEIGH IN LBS, IF METRIC WEIGH IN KG.							
MOLD NO	46	51	49	37	27		
WET WT. + MOLD	25.01	25.46	25.66	25.83	25.66		
WT OF MOLD	15.43	15.41	15.34	15.55	15.43		
WET WT.	9.58	10.05	10.32	10.28	10.23		
WET UNIT WT	127.7	134.0	137.6	137.0	136.4		
DRY UNIT WT.	122.2	125.2	126.7	123.3	121.5		
LBR VALUE	30	90	151	17	2		
BEGIN SOAK	1/19 1315	1315	1315	1315	1315		
END SOAK	1/21 1210	1220	1235	1250	1205		
TIME OF TEST	46hrs 55mins	47hrs 05min	47hrs 20min	47hrs 35min	47hrs 50min		
MOISTURE CONTENT	7 . 5	1. 311. 7 . 1.31.	9	11	12		
PAN NO.	-	Α	1313	TG-5	000		
PAN & WET SOIL	711.2	637.1	611.1	598.1	696.8		
PAN & DRY SOIL	684.5	601.4	569.9	547.2	629.3		
WT OF WATER	26.7	35.7	41.2	50.9	67.5		
WT OF PAN	92.0	87.8	90.8	87.4	87.0		
111 01 1701	02.0						
WT OF DRY SOIL	592.5	513.6	479.1	459.8	542.3		

Maximum Optimum Density Moisture 126.7 8.6

L.B.R. Value 151



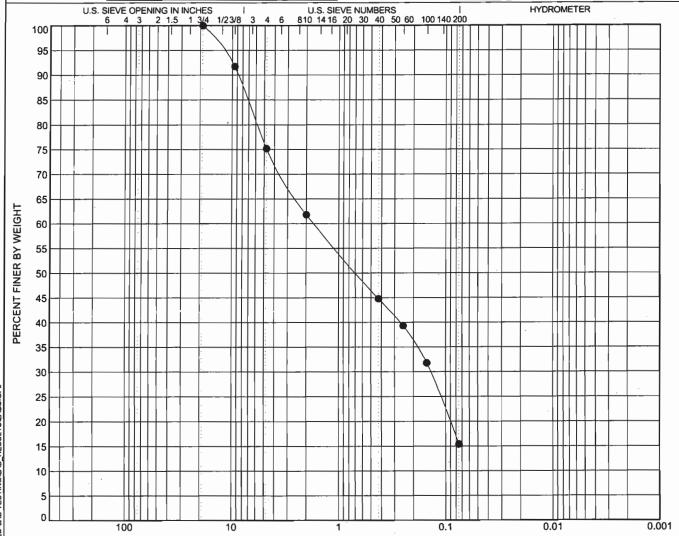




CLIENT BRANTLEY ENGINEERING, LLC

PROJECT NAME Brantley Field-Lab Testing Report

PROJECT NUMBER 300751 PROJECT LOCATION JED Landfill Leachate Storage Facility Relocation



GRAIN SIZE IN MILLIMETERS

	COBBLES	GRA	VEL	SAND			SILT OR CLAY
		coarse	fine	coarse	medium	fine	SILTOROLAT

_												
В	OREHOLE	DEPTH			Classification	on		LL	PL	PI	Сс	Cu
	Base-1	1.0		CLAYEY S	AND WITH (GRAVEL (SC	C)					
			_		_							
	_											
			.:									
В	OREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand		%Silt	%(Clay
	Base-1	1.0	19	1.692	0.139		24.8	59.8			15.4	
Н	_											
Н												

TD US LAB.GDT - 1/25/13 09:25 - T:3300751 BRANTLEY FIELD-LAB TESTINGILAB RESULTSILABS.GPJ

Base Gradation Chart

G: #	Cumulative Soil	Percent Passing
Sieve #	Retained (gr)	(%)
3/4"	0	100
3/8"	85.7	91.77
#4	258	75.21
#10	397.2	61.84
#40	574.5	44.81
#60	631.3	39.35
#100	710	31.79
#200	880.2	15.44

COMPACTION TEST LIMEROCK BEARING RATIO (LBR) MOLD VOLUME 1/13.33 CF **FSTM FM5-515**



PROJECT NO. 300751 MATERIAL NO. SAMPLE NO. LIMS NO.

Sub-base-1

PROJECT NAME

DATE COMPACTED

JED Landfill Leachate Relocation Facility

PEN BY: PEN. DATE

1/21/13 LAB NO.

MATERIAL DESCRIPTION Clayey Sand (SC)

1/19/2013

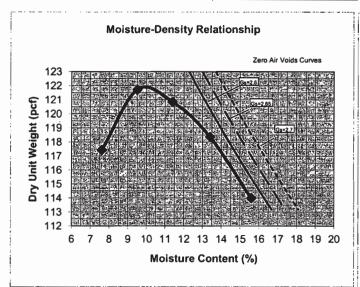
TESTED BY:

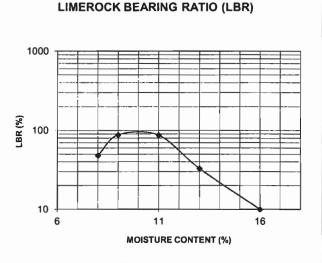
C6842 ew

NOTE: IF TEST IS ENGLISH WEIGH IN LBS, IF METRIC WEIGH IN KG.								
MOLD NO	A5	A7	A2	38	110			
WET WT. + MOLD	25.25	25.75	26.03	25.47	25.81			
WT OF MOLD	15.77	15.75	15.93	15.40	15.94			
WET WT.	9.48	10.00	10.10	10.07	9.87			
WET UNIT WT	126.4	133.3	134.6	134.2	131.6			
DRY UNIT WT.	117.4	121.7	120.9	118.4	114.0			
LBR VALUE	48	88	87	33	10			
BEGIN SOAK	1/19 1100	1100	1100	1100	1100			
END SOAK	1/21 0945	1000	1015	1030	1045			
TIME OF TEST	46hrs 45mins	47hrs 00min	47hrs 15min	47hrs 30min	47hrs 45min			
MOISTURE CONTENT	. 8	9	11	13	16			
PAN NO.	1976	89B	Н	0000	TG-1			
PAN & WET SOIL	584.8	600.0	657.8	615.5	720.7			
PAN & DRY SOIL	549.4	555.5	599.3	553.1	635.0			
WT OF WATER	35.4	44.5	58.5	62.4	85.7			
WT OF PAN	86.0	86.4	85.0	86.9	85.6			
WT OF DRY SOIL	400.4	400.4	E14.2	466.0	549.4			
WI OF DRY SOIL	463.4	469.1	514.3	466.2	549.4			

Maximum Optimum Density Moisture 122.0 9.9

L.B.R. Value 88

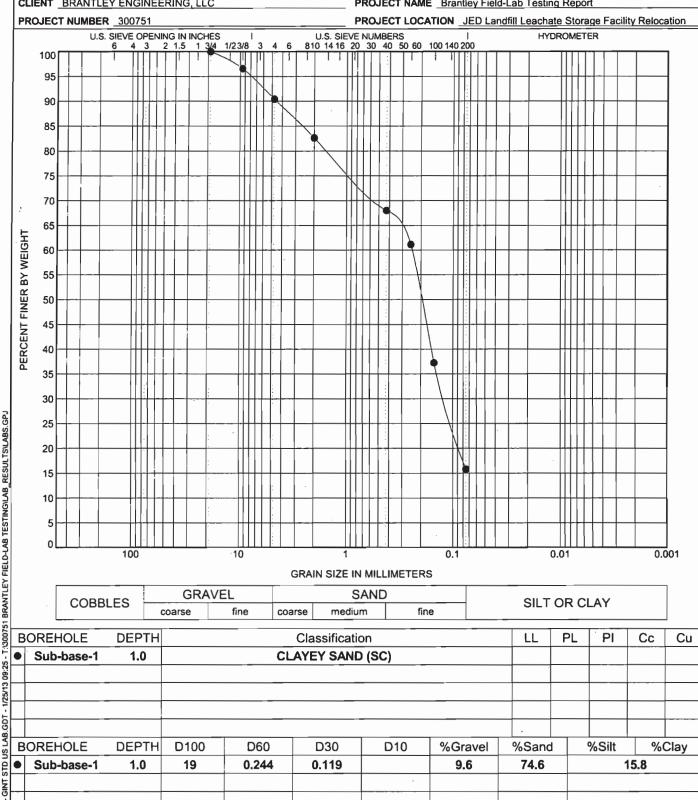








PROJECT NAME Brantley Field-Lab Testing Report



າ L_												
	BOREHOLE	DEPTH		_	Classification	on		LL	PL	PI	Сс	Cu
•	Sub-base-1	1.0		CI	LAYEY SAND	(SC)						
9.5												
Γ												
	BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sanc	i	%Silt	%(Clay
	Sub-base-1	1.0	19	0.244	0.119		9.6	74.6		1	5.8	
<u>:</u>												

Sub-base Gradation Chart

Sieve #	Cumulative Soil Retained (gr)	Percent Passing (%)
3/4"	0	100
3/8"	75.1	96.58
#4	210	90.45
#10	381	82.67
#40	702.6	68.04
#60	854.1	61.14
#100	1378.5	37.29
#200	1850.3	15.82

APPENDIX C
Soils Field Testing Results

Section 1 General Fill Density Summary and Field Tests (Leachate Pond)



10. 180					,		Pond	
PROJECT NUMBER:	2012-102	OWNER/ENGI	NEER:	Omni Waste of	Osceola, LLC		Fill	
	JED Landfill					_		_
PROJECT TITLE:	Leachate Storage Relocation	CONTRACTOR	₹:	RCS Excavation	n			
		DATES:	FROM	11/03/12	TO 11/07/12	PAGE	1	

				IN PLACE DETERM	МАТ	CHING PRO	TOR	-				
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		2007.11101.01.07.01.01.01.01	OR ELEV				DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	(%)	FAIL	
CP	11/03/12	- '	-	96.30	17.0	P-9	100.9	17.1	-	-	-	
DR1	11/03/12	2803.1852 N 08105.1154 W	1	97.40	15.6	P-9	100.9	17.1	96.5	-1.5	Р	
1	11/03/12	2803.1852 N 08105.1154 W	1	101.86	13.3	P-5	105.9	15.0	96.2	-1.7	Р	
2	11/03/12	2803.1985 N 08105.1127 W	1	96.05	15.1	P-9	100.9	17.1	95.2	-2.0	Р	
3	11/03/12	2803.2270 N 08105.1143 W	1	98.05	14.6	P-9	100.9	17.1	97.2	-2.5	Р	
CP	11/05/12	-		100.0	17.7	P-2	100.2	17.5	-	-	-	
DR2	11/05/12	2803.2142 N 08105.1176 W	1	97.2	16.9	P-2	100.2	17.5	97.0	-0.6	Р	
4	11/05/12	2803.2142 N 08105.1176 W	1	98.0	13.4	P-8	101.3	16.1	96.7	-2.7	Р	
5	11/05/12	2803.2182 N 08105.1198 W	2	95.9	17.4	P-2	100.2	17.5	95.7	-0.1	Р	
6	11/05/12	2803.2292 N 08105.1201 W	2	95.5	16.1	P-2	100.2	17.5	95.3	-1.4	Р	
7	11/05/12	2803.2004 N 08105.1316 W	1	98.9	17.2	P-2	100.2	17.5	98.7	-0.3	P	
CP	11/06/12	-		101.30	16.3	P-1	101.7	16.0	-	-	-	
DR3	11/06/12	2803.2130 N 08105.1247 W	2	98.50	14.0	P-1	101.7	16.0	96.9	-2.0	P	
8	11/06/12	2803.2130 N 08105.1247 W	2	96.2	17.6	P-2	100.2	17.5	96.0	0.1	Р	
9	11/06/12	2803.2358 N 08105.1740 W	1	99.0	13.5	P-1	101.7	16.0	97.4	-2.5	Р	
10	11/06/12	2803.2137 N 08105.1948 W	1	98.8	13.7	P-1	101.7	16.0	97.2	-2.3	Р	
CP	11/07/12	•	-	97.0	15.0	P-2	100.2	17.5	-	-	-	
DR4	11/07/12	2803.1979 N 08105.1426 W	1	97.1	14.9	P-2	100.2	17.5	96.9	-2.6	Р	
11	11/07/12	2803.1979 N 08105.1426 W	1	96.8	14.7	P-2	100.2	17.5	96.6	-2.8	Р	
12	11/07/12	2803.1834 N 08105.1591 W	1	94.3	13.9	P-2	100.2	17.5	94.1	-3.6	F	

Chris	Johnsor	1

11/07/12

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ARTES A								Pon	d
PROJECT NUMBER:	2012-102	OWNER/ENGI	NEER:	Omni Waste of	Osceola	, LLC_		Fil	ĺ
	JED Landfill				_		•		
PROJECT TITLE:	Leachate Storage Relocation	CONTRACTOR	₹:	RCS Excavation	<u> </u>				
			•						
	·	DATES:	FROM	11/07/12	то	11/08/12	PAGE	2	

				IN PLACE DETERMINATION MATCHING PROTOR			TOR	1	s			
TEST	TEST DATE		LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		LOCATION OF SAMPLE	OR ELEV				DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	(%)	FAIL	
12R	11/07/12	<u> </u>	1	96.1	17.4	P-2	100.2	17.5	95.9	-0.1	Р	
13	11/07/12	2803.1872 N 08105.1380 W	2	93.1	19.3	P-2	100.2	17.5	92.9	1.8	F	
13R	11/07/12	-	2	95.2	15.5	P-2	100.2	17.5	95.1	-2.0	Р	
14	11/07/12	2803.2086 N 08105.1330 W	2	95.7	16.3	P-2	100.2	17.5	95.5	-1.2	Р	
15	11/07/12	2803.1893 N 08105.1561 W	2	95.5	16.1	P-2	100.2	17.5	95.3	-1.4	Р	
CP	11/08/12	•	-	99.8	16.4	P-2	100.2	17.5	-			
DR5	11/08/12	2803.2215 N 08105.1465 W	1	97.9	15.4	P-2	100.2	17.5	97.7	-2.1	Р	
16	11/08/12	2803.2215 N 08105.1465 W	1	92.2	17.5	P-2	100.2	17.5	92.1	0.0	F	
16R	11/08/12	-	1	97.3	14.6	P-2	100.2	17.5	97.1	-2.9	Р	
17	11/08/12	2803.2271 N 08105.1503 W	- 1	96.4	16.0	P-2	100.2	17.5	96.2	-1.5	Р	
18	11/08/12	2803.2053 N 08105.1510 W	1	95.3	16.3	P-2	100.2	17.5	95.1	-1.2	Р	
19	11/08/12	2803.2220 N 08105.1628 W	2	95.7	16.8	P-2	100.2	17.5	95.5	-0.7	Р	
20	11/08/12	2803.2233 N 08105.1679 W	1	95.3	16.2	P-2	100.2	17.5	95.1	-1.3	P	
21	11/08/12	2803.2298 N 08105.1625 W	2	96.7	14.8	P-2	100.2	17.5	96.5	-2.7	Р	
22	11/08/12	2803.2325 N 08105.1804 W	2	97.1	16.1	P-2	100.2	17.5	96.9	-1.4	Р	
23	11/08/12	2803.2292 N 08105.1979 W	1	95.9	16.8	P-2	100.2	17.5	95.7	-0.7	Р	
24	11/08/12	2803.2202 N 08105.1778 W	2	98.6	15.0	P-2	100.2	17.5	98.4	-2.5	Р	
25	11/08/12	2803.2119 N 08105.1924 W	2	97.5	14.9	P-2	100.2	17.5	97.3	-2.6	Р	
26	11/08/12	2803.2002 N 08105.1983 W	1	95.2	17.9	P-2	100.2	17.5	95.0	0.4	Р	_
27	11/08/12	2803.1891 N 08105.1965 W	1	94.8	14.7	P-2	100.2	17.5	94.6	-2.8	Р	

Chris Johnson		
PREPARED BY	•	DATE

11/08/12



PROJECT NUMBER:	2012-102	OWNER/ENGI	NEER:	Omni Waste of C	Osceola	LLC		Fi	
PPO JECT TITLE:	JED Landfill	CONTRACTOR	. .	D00 F			•		
PROJECT TITLE:	Leachate Storage Relocation	CONTRACTOR	C :	RCS Excavation	_				
		DATES:	FROM	11/08/12	то	11/10/12	PAGE	3	

11/08/12

TO 1/10/12

PAGE

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	1			
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO OR ELEV	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
28	11/08/12	2803.1818 N 08105.1652 W	1	95.6	17.0	P-2	100.2	17.5	95.4	-0.5	Р	
29	11/08/12	2803.1866 N 08105.1565 W	2	99.6	16.9	P-2	100.2	17.5	99.4	-0.6	Р	
30	11/08/12	2803.2053 N 08105.1876 W	1	90.3	18.0	P-2	100.2	17.5	90.2	0.5	F	
31	11/08/12	2803.2073 N 08105.1653 W	1	93.9	18.3	P-2	100.2	17.5	93.7	0.8	F	
CP	11/09/12	-	-	99.7	17.0	P-2	100.2	17.5		-		
DR6	11/09/12	2803.2045 N 08105.1622 W	2	96.4	15.8	P-2	100.2	17.5	96.2	-1.7	٠Р	
30R	11/09/12	-	1	96.1	16.5	P-2	100.2	17.5	95.9	-1.0	Р	
31R	11/09/12	-	1	97.3	14.7	P-2	100.2	17.5	97.1	-2.8	Р	_
32	11/09/12	2803.2045 N 08105.1622 W	2	96.3	16.9	P-2	100.2	17.5	96.1	-0.6	Р	
33	11/09/12	2803.1880 N 08105.1664 W	1	96.6	15.4	P-2	100.2	17.5	96.4	-2.1	Р	
34	11/09/12	2803.0404 N 08105.0339 W	1	95.6	16.4	P-2	100.2	17.5	95.4	-1.1	Р	- :
35	11/09/12	2803.0819 N 08105.2260 W	1	96.1	18.7	P-2	100.2	17.5	95.9	1.2	Р	
36	11/09/12	2803.1891 N 08105.1851 W	1	96.5	15.0	P-2	100.2	17.5	96.3	-2.5	Р	
37	11/09/12	2803.1730 N 08105.1907 W	1	97.7	15.2	P-2	100.2	17.5	97.5	-2.3	Р	
38	11/09/12	2803.1601 N 08105.1816 W	1	95.8	14.8	P-2	100.2	17.5	95.6	-2.7	P _	
· CP	11/10/12	-	-	99.7	16.9	P-2	100.2	17.5		_	-	
DR7	11/10/12	2803.1674 N 08105.1482 W	1	97.2	14.9	P-2	100.2	17.5	97.0	-2.6	Р	
39	11/10/12	2803.1674 N 08105.1482 W	1	96.8	15.1	P-2	100.2	17.5	96.6	-2.4	Р	
40	11/10/12	2803.1649 N 08105.1400 W	1	95.2	15.1	P-2	100.2	17.5	95.0	-2.4	Р	
41	11/10/12	2803.1652 N 08105.1326 W	1	96.4	15.5	P-2	100.2	17.5	96.2	-2.0	Р	

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PROJECT NUMBER: :	2012-102
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2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Pond Fill

PROJECT TITLE:

JED Landfill
Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

11/10/12

TO 11/12/12

PAGE 4

				IN PLACE DETERM	IINATION	MAT	CHING PRO	TOR	1	TEST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
42	11/10/12	2803.1661 N 08105.1293 W	1	97.0	15.0	P-2	100.2	17.5	96.8	-2.5	P	
43	11/10/12	2803.1627 N 08105.1146 W	1	103.6	13.0	P-3	106	14.0	97.7	-1.0	P	
44	11/10/12	2803.1882 N 08105.1898 W	2	96.3	14.6	P-2	100.2	17.5	96.1	-2.9	Р	
45	11/10/12	2803.1724 N 08105.1961 W	1	95.3	15.8	P-2	100.2	17.5	95.1	-1.7	Р	
46	11/10/12	2803.1717 N 08105.1854 W	1	97.4	15.0	P-2	100.2	17.5	97.2	-2.5	Р	
47	11/10/12	2803.1870 N 08105.1777 W	2	97.4	14.6	P-2	100.2	17.5	97.2	-2.9	Р	
48	11/10/12	2803.1684 N 08105.1686 W	1	95.3	17.1	P-2	100.2	17.5	95.1	-0.4	Р	
49	11/10/12	2803.1786 N 08105.1691 W	2	95.8	18.1	P-2	100.2	17.5	95.6	0.6	Р	
50	11/10/12	2803.1766 N 08105.1972 W	2	95.8	15.0	P-2	100.2	17.5	95.6	-2.5	P	-
51	11/10/12	2803.2278 N 08105.1752 W	2	97.8	15.3	P-2	100.2	17.5	97.6	-2.2	P	
СР	11/12/12	•	-	101.3	16.5	P-1	101.7	16.0		_	-	
DR8	11/12/12	2803.1884 N 08105.1147 W	2	100.2	14.5	P-1	101.7	16.0	98.5	-1.5	P	
52	11/12/12	2803.1884 N 08105.1147 W	2	96.7	13.3	P-1	101.7	16.0	95.1	-2.7	Р	
53	11/12/12	2803.2286 N 08105.1472 W	2	97.5	15.2	P-1	101.7	16.0	95.9	-0.8	P	
54	11/12/12	2803.1960 N 08105.1278 W	2	100.0	13.1	P-1	101.7	16.0	98.4	-2.9	P	
55	_	2803.2044 N 08105.1162 W		100.8	14.3	P-1	101.7	16.0	99.1	-1.7	P	
56		2803.2183 N 08105.1202 W		97.8	13.3		101.7	16.0	96.2	-2.7	P	
57		2803.2265 N 08105.1184 W		98.6	13.1	P-1	101.7	16.0	96.9	-2.9	P	
58		2803.2084 N 08105.1964 W		95.6	19.7	P-2	100.2	17.5	95.4	2.2	P	
59	11/12/12	2803.1911 N 08105.1785 W	3	95.7	18.2	P-2	100.2	17.5	95.5	0.7	P	

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11/12/12

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PROJECT NUMBER:	2012-102	OWNER/ENGIN	EER:	Omni Waste of Os	ceola,	LLC			Fill
	JED Landfill								
PROJECT TITLE:	Leachate Storage Relocation	CONTRACTOR:		RCS Excavation					
		DATES:	FROM	11/12/12	то_	11/13/12	PAG	.	5

								1	TEST RESULT	s		
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV (ft)	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
60	11/12/12	2803.1902 N 08105.1792 W	3	95.0	14.5	P-2	100.2	17.5	94.8	-3.0	F	
60R	11/12/12	-	3	95.2	18.4	P-2	100.2	17.5	95.0	0.9	Р	
61	11/12/12	2803.2024 N 08105.1829 W	2	97.5	15.0	P-2	100.2	17.5	97.3	-2.5	Р	
62	11/12/12	2803.1620 N 08105.1518 W	2	96.4	15.8	P-2	100.2	17.5	96.2	-1.7	Р	
63	11/12/12	2803.1986 N 08105.1762 W	3	96.5	15.0	P-2	100.2	17.5	96.3	-2.5	Р	
64	11/12/12	2803.2056 N 08105.1614 W	3	95.4	15.2	P-2	100.2	17.5	95.2	-2.3	Р	
65	11/12/12	2803.1983 N 08105.1454 W	2	95.3	18.8	P-2	100.2	17.5	95.1	1.3	Р	
CP	11/13/12	÷	-	99.9	18.0	P-2	100.2	17.5	-	-	-	
DR9	11/13/12	2803.1870 N 08105.1549 W	3	98.9	16.2	P-2	100.2	17.5	98.7	-1.3	Р	-
66	11/13/12	2803.1870 N 08105.1549 W	3	100.4	14.4	P-1	101.7	16.0	98.7	-1.6	Р	
67	11/13/12	2803.1937 N 08105.1203 W	3	99.1	14.6	P-2	100.2	17.5	98.9	-2.9	Р	
68	11/13/12	2803.2134 N 08105.1257 W	3	95.3	17.2	P-2	100.2	17.5	95.1	-0.3	Р	
69	11/13/12	2803.2266 N 08105.1204 W	3	95.9	16.1	P-2	100.2	17.5	95.7	-1.4	Р	
70	11/13/12	2803.2279 N 08105.1330 W	3	98.4	15.3	P-2	100.2	17.5	98.2	-2.2	Р	
71	11/13/12	2803.2133 N 08105.1932 W	3	95.2	18.4	P-2	100.2	17.5	95.0	0.9	Р	
72	11/13/12	2803.2132 N 08105.1942 W	2	99.3	18.3	P-2	100.2	17.5	99.1	0.8	Р	
73	11/13/12	2803.2274 N 08105.1718 W	2	97.8	17.6	P-2	100.2	17.5	97.6	0.1	Р	
74	11/13/12	2803.1861 N 08105.1950 W	3	96.7	18.8	P-2	100.2	17.5	96.5	1.3	Р	
75	11/13/12	2803.1778 N 08105.1809 W	2	96.8	17.7	P-2	100.2	17.5	96.6	0.2	Р	
76	11/13/12	2803.1781 N 08105.1810 W	2	95.4	15.7	P-2	100.2	17.5	95.2	-1.8	Р	_

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11/13/12

Pond

PREPARED BY



JED Landfill

PROJECT NUMBER: 2012-102

SUMMARY OF FIELD DENSITY TESTING RESULTS

		Pond
OWNER/ENGINEER:	Omni Waste of Osceola, LLC	Fill

 PROJECT TITLE:
 Leachate Storage Relocation
 CONTRACTOR:
 RCS Excavation

 DATES:
 FROM
 11/19/12
 TO __11/21/12
 PAGE __6

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	. 1	TEST RESULTS	s T	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV (ft)	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
CP	11/19/12	-	-			P-8	101.3	16.1	-	-	-	
DR10	11/19/12	2803.1938 N 08105.1166 W	2	98.8	14.7	P-8	101.3	16.1	97.5	-1.4	Р	
77	11/19/12	2803.1938 N 08105.1166 W	2	99.2	14.6	P-8	101.3	16.1	97.9	-1.5	Р	
78	11/19/12	2803.2097 N 08105.1223 W	2	101.1	14.7	P-8	101.3	16.1	99.8	-1.4	Р	
79	11/19/12	2803.2243 N 08105.1217 W	2	98.2	14.7	P-8	101.3	16.1	96.9	-1.4	Р	-
80	11/19/12	2803.1969 N 08105.1248 W	3	99.0	18.9	P-8	101.3	16.1	97.7	2.8	Р	-
СР	11/20/12	•	-	99.6	17.8	P-2	100.2	17.5			-	
DR11	11/20/12	2803.2031 N 08105.1264 W	2	97.1	15.3	P-2	100.2	17.5	96.9	-2.2	Р	
81	11/20/12	2803.2031 N 08105.1264 W	2	95.8	17.1	P-2	100.2	17.5	95.6	-0.4	Р	
82	11/20/12	2803.2166 N 08105.1250 W	2	95.3	18.4	P-2	100.2	17.5	95.1	0.9	P	
83	11/20/12	2803.2228 N 08105.1406 W	2	96.1	17.2	P-2	100.2	17.5	95.9	-0.3	Р	
84	11/20/12	2803.2237 N 08105.1589 W	2	96.0	14.9	P-2	100.2	17.5	95.8	-2.6	Р	
85	11/20/12	2803.2075 N 08105.1783 W	3	98.6	15.8	P-2	100.2	17.5	98.4	-1.7	Р	
86	11/20/12	2803.2039 N 08105.1590 W	3	98.1	15.1	P-2	100.2	17.5	97.9	-2.4	Р	
87	11/20/12	2803.2191 N 08105.1923 W	4	98.5	14.7	P-2	100.2	17.5	98.3	-2.8	Р	
88	11/20/12	2803.2002 N 08105.1903 W	4	100.1	16.0	P-2	100.2	17.5	99.9	-1.5	Р	
89	11/20/12	2803.1855 N 08105.1543 W	4	98.3	16.5	P-2	100.2	17.5	98.1	-1.0	Р	
90	11/20/12	2803.1840 N 08105.1933 W		97.1	16.6	P-2	100.2	17.5	96.9	-0.9	Р	
СР	11/21/12	•	-	100.1	17.7	P-2	100.2	17.5		-	-	
DR12	11/21/12	2803.1668 N 08105.1288 W	4	96.4	15.8	P-2	100.2	17.5	96.2	-1.7	Р	

Chris	Johnson	

11/21/12

PREPARED BY

DATE .



PROJECT NUMBER:	2012-102
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OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Pond Fill

PROJECT TITLE:

JED Landfill
Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

11/21/12

TO 11/23/12

PAGE

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	1	EST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV (ft)	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
91	11/21/12	2803.1668 N 08105.1288 W	4	95.2	18.0	P-2	100.2	17.5	95.0	0.5	Р	
92	11/21/12	2803.1713 N 08105.1397 W	4	97.7	17.0	P-2	100.2	17.5	97.5	-0.5	Р	
93	11/21/12	2803.1809 N 08105.1740 W	4	100.3	13.7	P-8	101.3	16.1	99.0	-2.4	P	
94	11/21/12	2803.2023 N 08105.1611 W	4	98.3	14.8	P-2	100.2	17.5	98.1	-2.7	Р	
95	11/21/12	2803.1990 N 08105.1760 W	4	95.6	18.8	P-2	100.2	17.5	95.4	1.3	P	
96	11/21/12	2803.2043 N 08105.1723 W	5	95.7	20.1	P-2	100.2	17.5	95.5	2.6	Р	
97	11/21/12	2803.2001 N 08105.1378 W	5	98.5	16.7	P-2	100.2	17.5	98.3	-0.8	Р	
98	11/21/12	2803.1724 N 08105.1515 W	5	96.2	19.8	P-2	100.2	17.5	96.0	2.3	Р	
99	11/21/12	2803.1722 N 08105.1348 W	5	96.3	15.8	P-2	100.2	17.5	96.1	-1.7	Р	
CP	11/23/12	•	-	100.0	17.0	P-2	100.2	17.5		-	-	
DR13	11/23/12	2803.2018 N 08105.1377 W	5	96.3	15.9	P-2	100.2	17.5	96.1	-1.6	Р	
100	11/23/12	2803.2018 N 08105.1377 W	5	96.8	17.1	P-2	100.2	17.5	96.6	-0.4	Р	
101	11/23/12	2803.2018 N 08105.1656 W	5	96.3	15.6	P-2	100.2	17.5	96.1	-1.9	Р	
102	11/23/12	2803.2003 N 08105.1772 W	5	95.7	17.4	P-2	100.2	17.5	95.5	-0.1	Р	
103	11/23/12	2803.2203 N 08105.1913 W	5	100.8	14.7	P-8	101.3	16.1	99.5	-1.4	Р	
104	11/23/12	2803.2036 N 08105.1897 W	5	99.6	15.5	P-2	100.2	17.5	99.4	-2.0	Р	
105	11/23/12	2803.1825 N 08105.1926 W	5	100.4	15.2	P-8	101.3	16.1	99.1	-0.9	Р	
106	11/23/12	2803.1870 N 08105.1572 W	5	97.0	15.4	P-2	100.2	17.5	96.8	-2.1	Р	
107	11/23/12	2803.1956 N 08105.1558 W	5	97.8	17.0	P-2	100.2	17.5	97.6	-0.5	Р	
108	11/23/12	2803.1955 N 08105.1231 W	5	96.1	14.8	P-2	100.2	17.5	95.9	-2.7	Р	

Chris Johnson

11/23/12

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N. P.				Pond
PROJECT NUMBER:	2012-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC	Fill
	JED Landfill			
PROJECT TITLE:	Leachate Storage Relocation	CONTRACTOR:	RCS Excavation	
				
		DATES: FROM	11/23/12 TO 11/23/12 D	105

				IN PLACE DETERMINATION		MAT	CHING PRO	TOR	1	EST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO OR ELEV	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
109	11/23/12	2803.2045 N 08105.1200 W	5	98.6	14.7	P-2	100.2	17.5	98.4	-2.8	Р	
110	11/23/12	2803.2188 N 08105.1195 W	5	97.9	14.7	P-2	100.2	17.5	97.7	-2.8	P	
111	11/23/12	2803.1717 N 08105.1831 W	5	102.9	12.6	P-7	104.4	15.1	98.6	-2.5	Р	
112	11/23/12	2803.1719 N 08105.1669 W	5	95.8	17.3	P-2	100.2	17.5	95.6	-0.2	Р	
113	11/23/12	2803.1346 N 08105.1990 W	5	98.5	15.3	P-2	100.2	17.5	98.3	-2.2	Р	
114	11/23/12	2803.1192 N 08105.2012 W	6	97.1	14.9	P-2	100.2	17.5	96.9	-2.6	Р	
115	11/23/12	2803.1068 N 08105.1964 W	6	99.1	15.5	P-2	100.2	17.5	98.9	-2.0	Р	
116	11/23/12	2803.1031 N 08105.1853 W	-6	99.9	14.8	₽-2	100.2	17.5	99.7	-2.7	P	
117	11/23/12	2803.1049 N 08105.1831 W	6	98.7	15.0	P-2	100.2	17.5	98.5	-2.5	P	
118	11/23/12	2803.1219 N 08105.1925 W	6	97.2	14.7	P-2	100.2	17.5	97.0	-2.8	Р	
119	11/23/12	2803.1354 N 08105.1896 W	6	98.3	14.6	P-2	100.2	17.5	98.1	-2.9	Р	
120	11/23/12	2803.1373 N 08105.1785 W	6	98.1	15.2	P-2	100.2	17.5	97.9	-2.3	Р	
CP	11/23/12	-	-	100.0	17.9	P-2	100.2	17.5	-	-	-	
121	11/23/12	2803.1206 N 08105.1762 W	6	97.4	15.2	P-2	100.2	17.5	97.2	-2.3	Р	
122	11/23/12	2803.1028 N 08105.1780 W	6	96.6	17.7	P-2	100.2	17.5	96.5	0.2	P	
123	11/23/12	2803.1059 N 08105.1690 W	6	96.0	17.0	P-2	100.2	17.5	95.8	-0.5	Р	
124	11/23/12	2803.1228 N 08105.1697 W	6	95.6	17.6	P-2	100.2	17.5	95.4	0.1	Р	
125	11/23/12	2803.1339 N 08105.1691 W	6	99.3	14.8	P-2	100.2	17.5	99.1	-2.7	Р	
126	11/23/12	2803.1320 N 08105.1608 W	6	97.0	14.8	P-2	100.2	17.5	96.8	-2.7	Р	
127	11/23/12	2803.1159 N 08105.1618 W	6	95.2	17.0	P-2	100.2	17.5	95.0	-0.5	Р	

Chris Johnson
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11/23/12

DATE

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ALL STATE OF THE S									Pond	
PROJECT NUMBER:	2012-102		OWNER/ENGINEER:		Omni Waste of	Fill				
	JED Landfill				_					
PROJECT TITLE:	Leachate Storage Relocation	CONT	CONTRACTOR:		RCS Excavation					
							_			
		DATE	S.	FROM	11/23/12	TO	11/24/12	DACE	0	

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR		EST RESULTS	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV	(pcf)	CONTENT (%)	NUMBER	YTISN3D (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
128	11/23/12	2803.1031 N 08105.1619 W	6	95.7	15.0	P-2	100.2	17.5	95.5	-2.5	Р	
129	11/23/12	2803.1059 N 08105.1503 W	6	98.1	15.8	P-2	100.2	17.5	97.9	-1.7	Р	
130	11/23/12	2803.1863 N 08105.1204 W	6	96.6	17.6	P-2	100.2	17.5	96.4	0.1	Р	
131	11/23/12	2803.2052 N 08105.1189 W	6	95.2	17.4	P-2	100.2	17.5	95.1	-0.1	Р	
132	11/23/12	2803.2170 N 08105.1169 W	6	98.0	15.3	P-2	100.2	17.5	97.8	-2.2	Р	
133	11/23/12	2803.1707 N 08105.1292 W	6	96.7	18.5	P-2	100.2	17.5	96.5	1.0	Р	
CP	11/24/12	-	-	100.0	17.0	P-2	100.2	17.5		•	-	
DR14	11/24/12	2803.1695 N 08105.1142 W	5	96.2	16.0	P-2	100.2	17.5	96.0	-1.5	Р	
134	11/24/12	2803.1695 N 08105.1142 W	5	95.9	16.4	P-2	100.2	17.5	95.8	-1.1	Р	
135	11/24/12	2803.1800 N 08105.1926 W	5	97.0	17.0	P-2	100.2	17.5	96.8	-0.5	Р	
136	11/24/12	2803.1977 N 08105.1932 W	5	97.9	17.8	P-2	100.2	17.5	97.7	0.3	Р	
137	11/24/12	2803.2132 N 08105.1913 W	6	98.0	15.2	P-2	100.2	17.5	97.8	-2.3	Р	
138	11/24/12	2803.2025 N 08105.1801 W	6	95.9	18.5	P-2	100.2	17.5	95.7	1.0	Р	
139	11/24/12	2803.1151 N 08105.1473 W	6	102.3	14.2	P-7	104.4	15.1	98.0	-0.9	P	
140	11/24/12	2803.1299 N 08105.1510 W	5	102.3	13.0	P-7	104.4	15.1	98.0	-2.1	Р	
141	11/24/12	2803.1299 N 08105.1406 W	5	101.4	12.8	P-7	104.4	15.1	97.1	-2.3	P	
142	11/24/12	2803.1169 N 08105.1392 W	6	96.5	14.9	P-2	100.2	17.5	96.3	-2.6	P	
143	11/24/12	2803.1026 N 08105.1391 W	4	96.9	15.0	P-2	100.2	17.5	96.7	-2.5	P	
144	11/24/12	2803.1049 N 08105.1282 W	5	99.1	16.1	P-2	100.2	17.5	98.9	-1.4	Р	
145	11/24/12	2803.1179 N 08105.1257 W	5	95.9	14.5	P-2	100.2	17.5	95.7	-3.0	P	

Chris	Johnson	

11/24/12

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In Hallyan				Pond
PROJECT NUMBER:	2012-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC	Fill
	JED Landfill			
PROJECT TITLE:	Leachate Storage Relocation	CONTRACTOR:	RCS Excavation	

DATES: FROM 11/24/12 TO 11/24/12 PAGE 10

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	7	EST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT	FAIL	REMARK
146	11/24/12	2803.1287 N 08105.1273 W	5	99.1	15.3	P-2	100.2	17.5	98.9	-2.2	Р	
147	11/24/12	2803.1297 N 08105.1177 W	6	98.2	16.0	P-2	100.2	17.5 ·	98.0	-1.5	Р	
CP	11/24/12	-		99.3	17.5	P-2	100.2	17.5	-	-	-	
148	11/24/12	2803.1194 N 08105.1158 W	6	99.1	15.3	P-2	100.2	17.5	98.9	-2.2	Р	
149	11/24/12	2803.1065 N 08105.1181 W	6	100.2	16.4	P-2	100.2	17.5	100.0	-1.1	Р	
150	11/24/12	2803.1054 N 08105.1024 W	6	97.6	14.9	P-2	100.2	17.5	97.4	-2.6	Р	
151	11/24/12	2803.1183 N 08105.1023 W	7	95.4	15.0	P-2	100.2	17.5	95.2	-2.5	Р	
152	11/24/12	2803.1301 N 08105.0995 W	7	95.7	17.6	P-2	100.2	17.5	95.5	0.1	Р	
153	11/24/12	2803.1826 N 08105.1556 W	6	95.4	17.2	P-2	100.2	17.5	95.2	-0.3	Р	
154	11/24/12	2803.1870 N 08105.1563 W	6	96.6	14.7	P-2	100.2	17.5	96.4	-2.8	Р	
155	11/24/12	2803.2004 N 08105.1739 W	6	99.3	16.1	P-2	100.2	17.5	99.1	-1.4	Р	
156	11/24/12	2803.1976 N 08105.1505 W	6	96.4	19.2	P-2	100.2	17.5	96.2	1.7	Р	
157	11/24/12	2803.2008 N 08105.1387 W		96.9	18.2		100.2	17.5	96.7	0.7	Р	
158	11/24/12	2803.2264 N 08105.1400 W		97.5	16.0		100.2	17.5	97.3	-1.5	. P	
159	11/24/12	2803.2320 N 08105.1539 W		98.1	19.1		100.2	17.5	97.9	1.6	Р	
160	11/24/12	2803.2280 N 08105.1737 W		96.7	18.7	P-2	100.2	17.5	96.5	1.2	P	
161	11/24/12	2803.2277 N 08105.1888 W		95.5		P-2	100.2	17.5	95.3	1.6	Р	-
162	11/24/12	2803.2122 N 08105.1837 W		95.3	16.1	P-2	100.2	17.5	95.1	-1.4	Р	
163	11/24/12	2803.1778 N 08105.1890 W		97.5			100.2	17.5	97.3	-3.0	Р	
164	11/24/12	2803.1915 N 08105.1378 W	6	96.0	14.7	P-2	100.2	17.5	95.8	-2.8	Р	

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11/24/12



PROJECT NUMBER: 2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Pond Fill

PROJECT TITLE:

JED Landfill Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

11/24/12

TO 11/27/12

PAGE 11

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	ī	TEST RESULT	S	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		EGGATION OF GAMEE	OR ELEV				DENSITY	MOISTURE		FROM OPT		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	MOISTURE	FAIL	
165	11/24/12	2803.1864 N 08105.1473 W	7	96.1	15.8	P-2	100.2	17.5	95.9	-1.7	Р	
166	11/24/12	2803.2051 N 08105.1688 W	7	95.8	18.8	P-2	100.2	17.5	95.6	1.3	Р	
167	11/24/12	2803.1940 N 08105.1555 W	7	96.1	15.8	P-2	100.2	17.5	95.9	-1.7	Р	
168	11/24/12	2803.2465 N 08105.1883 W	7	96.2	18.7	P-2	100.2	17.5	96.0	1.2	Р	
169	11/24/12	2803.2286 N 08105.1613 W	7	97.1	18.1	P-2	100.2	17.5	96.9	0.6	Р	
CP	11/26/12	-	-	99.9	17.0	P-2	100.2	17.5	-		-	
DR15	11/26/12	2803.1724 N 08105.1274 W	7	97.0	15.9	P-2	100.2	17.5	96.8	-1.6	Р	
170	11/26/12	2803.1724 N 08105.1274 W	7	96.8	15.7	P-2	100.2	17.5	96.6	-1.8	Р	
171	11/26/12	2803.1740 N 08105.1704 W	8	96.6	18.6	P-2	100.2	17.5	96.4	1.1	Р	
172	11/26/12	2803.2082 N 08105.1903 W	8	98.1	18.9	P-2	100.2	17.5	97.9	1.4	Р	_
173	11/26/12	2803.2274 N 08105.1820 W	8	98.5	18.4	P-2	100.2	17.5	98.3	0.9	Р	-
174	11/26/12	2803.1722 N 08105.1346 W	8	97.4	14.6	P-2	100.2	17.5	97.2	-2.9	Р	
CP	11/27/12	-	•	101.1	16.3	P-8	101.3	16.1	-	-	-	
DR16	11/27/12	2803.2016 N 08105.1213 W	7	98.7	14.0	P-8	101.3	16.1	97.4	-2.1	Р	_
175	11/27/12	2803.2016 N 08105.1213 W	7	99.1	16.9	P-8	101.3	16.1	97.8	0.8	Р	
176	11/27/12	2803.2195 N 08105.1206 W	8	100.9	15.5	P-8	101.3	16.1	99.6	-0.6	Р	
177	11/27/12	2803.2244 N 08105.1360 W	8	99.7	16.6	P-8	101.3	16.1	98.4	0.5	Р	
178	11/27/12	2803.2245 N 08105.1658 W	8	100.7	13.9	P-8	101.3	16.1	99.4	-2.2	Р	_
179	11/27/12	2803.1914 N 08105.1169 W	8	101.0	13.4	P-8	101.3	16.1	99.7	-2.7	Р	
180	11/27/12	2803.1704 N 08105.1322 W	8	99.6	13.2	P-8	101.3	16.1	98.3	-2.9	Р	

Chris Johnson PREPARED BY

11/27/12



PRO.	JECT	NUMBER:	2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Pond Fill

PROJECT TITLE:

JED Landfill Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

11/27/12

TO 01/00/00

PAGE 12

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	7	TEST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	ОРТІМИМ	PERCENT	DIFFER	PASS/	
		EGGATION OF GAMELE	OR ELEV				DENSITY	MOISTURE		FROM OPT		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)		FAIL	
181 、	11/27/12	2803.1717 N 08105.1517 W	8	97.0	14.2	P-8	101.3	16.1	95.8	-1.9	Р	
182	11/27/12	2803.1722 N 08105.1710 W	8	95.9	17.2	P-8	101.3	16.1	94.7	1.1	F	
182R	11/27/12	•		100.1	15.8	P-8	101.3	16.1	98.8	-0.3	Р	
183	11/27/12	2803.2063 N 08105.1924 W	8	96.8	16.3	P-8	101.3	16.1	95.6	0.2	Р	
184	11/27/12	2803.2083 N 08105.1825 W	8	97.0	14.5	P-8	101.3	16.1	95.8	-1.6	Р	
185	11/27/12	2803.2169 N 08105.1746 W	8	100.1	13.8	P-8	101.3	16.1	98.8	-2.3	Р	_
186	11/27/12	2803.2117 N 08105.1644 W	8	99.5	17.4	P-8	101.3	16.1	98.2	1.3	Р	
187	11/27/12	2803.2159 N 08105.1550 W	7	96.8	15.1	P-8	101.3	16.1	95.5	-1.0	Р	
188	11/27/12	2803.2055 N 08105.1855 W	7	97.0	13.6	P-8	101.3	16.1	95.8	-2.5	Р	
189	11/27/12	2803.2045 N 08105.1588 W	7	99.5	14.0	P-8	101.3	16.1	98.2	-2.1	Р	
190	11/27/12	2803.2068 N 08105.1378 W	7	101.1	14.3	P-8	101.3	16.1	99.8	-1.8	Р	
191	11/27/12	2803.1831 N 08105.1561 W	7	99.1	15.9	P-8	101.3	16.1	97.9	-0.2	Р	
192	11/27/12	2803.1846 N 08105.1524 W	7	96.7	17.7	P-8	101.3	16.1	95.5	1.6	Р	
СР	11/28/12	•	-	104.1	14.9	P-7	104.4	15.1	-	-	-	
DR17	11/28/12	2803.2106 N 08105.1339 W	8	101.8	14.0	P-7	104.4	15.1	97.5	-1.1	Р	
193	11/28/12	2803.2106 N 08105.1339 W	8	99.1	13.4	P-7	104.4	15.1	95.0	-1.7	Р	
.194	11/28/12	2803.1871 N 08105.1787 W	8	102.2	14.1	P-7	104.4	15.1	97.9	-1.0	Р	
195	11/28/12	2803.1821 N 08105.1704 W	8	99.3	13.9	P-7	104.4	15.1	95.2	-1.2	Р	
						1						

Chris Johnson

11/28/12

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COMPACTED

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:		Jed Landfill Leachate Storage Reelocation	CONTRACTOR:	RCS Excavation
LOCATION: St. Co	loud, FL		DATE TESTED:	11/3/2012

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR1	2303			15.6		P9			
	601	3.75	112.6	-1.5	97.4		96.5%		1 1
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COMPACTED FILL

PROJECT NUMI	BER:	2011-102		OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME	E:	Jed Landfill Leachate Storage Reelocation	c	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		c	DATE TESTED:	11/5/2012

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR2	2319			16.9		P2			
	601	3.79	113.6	-0.6	97.2		97.0%		. :
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COMPACTED FILL

PROJECT NUM	BER:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC	_
PROJECT NAM	E:	Jed Landfill Leschate Storage Reglocation	CONTRACTOR:	RCS Excavation	_
LOCATION:	St. Cloud, FL		DATE TESTED:	11/6/2012	_

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(ibs)	(pcf)	OPT.	(pcf)				ELEV.
DR3	2299			14.0		P1			
	601	3.74	112.3	-2.0	98.5		96.9%		2



COMPACTED

PROJECT NUM	BER:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAMI	E:	Jed Landfill Leachate Storage Reelocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	11/7/2012

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR4	2288			14.9		P2			
	601	3.72	111.6	-2.6	97.1		96.9%	·	2
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COMPACTED

PROJECT NUMBER:		2011-102		OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:		Jed Landfill Leachate Storage Reelocation		CONTRACTOR:	RCS Excavation
LOCATION: St. Cloud, FL				DATE TESTED:	11/8/2012

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%			LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	сомр.	LOCATION		OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)					ELEV.
DR5	2309			15.4		P2				
	601	3.77	113.0	-2.1	97.9		97.7%			
										- 1
										- 1
										_
										_
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COMPACTED

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:		Jed Landfill Leachate Storage Reelocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	11/9/2012

			<u> </u>						
TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				 ELEV.
DR6	2289			15.8		P2			
	601	3.72	111.6	-1.7	96.4		96.2%		2
							1		
							1		
							1		
1									



COMPACTED FILL

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME	:	Jed Landfill Leachate Storage Reelocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	11/10/2012

NO.	WT. OF RING & SAMPLE	WT. OF SAMPLE	DENSITY	% MOIST. +/- OF	DRY DENSITY	PROCTOR NO.	% COMP.	LOCATION	LIFT OR
DR7	WT. OF RING 2290	(lbs)	(pcf)	OPT. 14.9	(pcf)	P2			ELEV.
DK/	601	3.72	111.7	-2.6	97.2		97.0%		1
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COMPACTED

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME	:	Jed Landfill Leachate Storage Reelocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	11/12/2012

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%			LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.		LOCATION		OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)					ELEV.
DR8	2336			14.5		P1				
	601	3.82	114.7	-1.5	100.2		98.5%			2
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COMPACTED

PROJECT NUM	BER:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME	i:	Jed Landfill Leachate Storage Reelocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	11/13/2012

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%	<u> </u>	LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(ibs)	(pcf)	OPT.	(pcf)				ELEV.
DR9	. 2339			16.2		P2			
	601	3.83	114.9	-1.3	98.9		98.7%		2
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COMPACTED FILL

PROJECT NUMBER:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:	Jed Landfill Leachate Storage Reelocation	CONTRACTOR:	RCS Excavation
LOCATION: St. Cloud	FL	DATE TESTED:	11/19/2012
2001110111			

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR10	2314			14.7		P8			
	601	3.78	113.3	-1.4	98.8		97.5%		
									1
									+
									+



COMPACTED FILL

PROJECT NUMBER:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC		
PROJECT NAME:	Jed Landfill Leachate Storage Reelocation	CONTRACTOR:	RCS Excavation		
LOCATION: St. Clou	1, FL	DATE TESTED:	11/20/2012		

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	сомр.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELE\
DR11	2294			15.3		P2			
	601	3.73	112.0	-2.2	97.1		96.9%		
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COMPACTED

PROJECT NUMBER:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:	Jed Landfill Leachate Storage Reelocation	CONTRACTOR:	RCS Excavation
LOCATION: St. Cloud, FL	· ·	DATE TESTED:	11/21/2012

NO.	WT. OF RING & SAMPLE WT. OF RING	WT. OF SAMPLE (lbs)	WET DENSITY (pcf)	% MOIST. +/- OF OPT.	DRY DENSITY (pcf)	PROCTOR NO.	% COMP.	LOCATION		LIFT OR ELEV.
DR12	2289 601		111.6	15.8 -1.7	96.4	_ P2	96.2%		-	4
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COMPACTED FILL

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:		Jed Landfill Leachate Storage Reelocation	CONTRACTOR:	RCS Excavation
LOCATION: St. Cloud, FL			DATE TESTED:	11/23/2012

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR13	2289			15.9		P2			l
	601	3.72	111.6	-1.6	96.3		96.1%		5
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COMPACTED

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:		Jed Landfill Leachate Storage Reelocation	CONTRACTOR:	RCS Excavation
LOCATION: St. Cloud, FL			DATE TESTED:	11/24/2012
2001110111				

	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%	LOCATION	LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	сомр.	LOCATION	
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR14	2288			16.0		P2			
	601	3.72	111.6	-1.5	96.2		96.0%		
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COMPACTED FILL

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PROJECT	Γ NAME;	Jed Landfill Lead	hate Storage Reeld	ecation		CONTRACTOR	:	RCS Excavation		
LOCATIO	ON: St. Cloud, FL				DATE TESTED:			11/26/2012		
TEST	WT. OF RING	WT. OF	WET	AV BAOUST	0.00	ppocrop				
			WET	% MOIST.	DRY	PROCTOR	%			LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION		OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)					ELEV.
DR15	2301			15.9		P2				
	601	3.75	112.4	-1.6	97.0		96.8%			7
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							1			



COMPACTED

	E032 30E			OWNERY ENGINEER.			Offilia Waste of Osceola, etc			
	T NAME:	Jed Landfill Leac	hate Storage Reelo	cation		CONTRACTOR		RCS Excavation		
LOCATIO	ON: St. Cloud, FL					DATE TESTED:		11/27/2012		
,										
TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%			LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	- 1	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				- 1	ELEV.
DR16	2302		(80.7)	14.0		P8			-	ELLV.
DALL	601	-	112.5			F*			- 1	_
	601	3./3	112.5	-2.1	98.7		97.4%		-	7
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COMPACTED

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:		Jed Landfill Leachate Storage Reelocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	11/28/2012

TEST NO.	WT. OF RING & SAMPLE WT. OF RING	WT. OF SAMPLE (lbs)	WET DENSITY (pcf)	% MOIST. +/- OF OPT.	DRY DENSITY (pcf)	PROCTOR NO.	% COMP.	LOCATION	-	LIFT OR ELEV.
DR17	2356 601			14.0		P7	97.5%			7
			ì							

Section 2 General Fill Density Summary and Field Tests (LFGTE Pad)



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PROJECT NUMBER:	2012-102	OWNER/ENGINEER: Omni Waste of Osceola, LLC	Fill
	JED Landfill	-	

PROJECT TITLE: Leachate Storage Relocation CONTRACTOR: **RCS Excavation**

DATES:

FROM 11/14/12 TO 11/14/12 PAGE

				IN PLACE DETERM	INATION	МАТ	CHING PRO	TOR	٦	TEST RESULT	S.	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		•	OR ELEV			l	DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	(%)	FAIL	
CP	11/14/12	-	-	100.7	17.2	P-9	100.9	17.1	-	-	-	
DR1	11/14/12	2803.1748 N 08105.1754 W	1	99.4	16.7	P-9	100.9	17.1	98.5	-0.4	Р	
1	11/14/12	2803.1748 N 08105.1754 W	1	96.9	15.9	P-9	100.9	17.1	96.0	-1.2	Р	
2	11/14/12	2803.2105 N 08105.1932 W	1	96.0	14.6	P-9	100.9	17.1	95.1	-2.5	Р	
3	11/14/12	2803.1520 N 08105.1891 W	1	98.4	14.5	P-9	100.9	17.1	97.6	-2.6	Р	
4	11/14/12	2803.1480 N 08105.1723 W	1	97.5	14.3	P-9	100.9	17.1	96.6	-2.8	Р	
5	11/14/12	2803.1494 N 08105.1586 W	1	96.7	14.3	P-9	100.9	17.1	95.8	-2.8	Р	
6	11/14/12	2803.1478 N 08105.1382 W	1	96.7	14.9	P-9	100.9	17.1	95.8	-2.2	Р	
7	11/14/12	2803.1470 N 08105.1266 W	1	98.1	15.7	P-9	100.9	17.1	97.2	-1.4	Р	
8	11/14/12	2803.1622 N 08105.1095 W	1	96.1	16.5	P-9	100.9	17.1	95.2	-0.6	Р	
9	11/14/12	2803.1737 N 08105.1153 W	1	99.8	14.3	P-9	100.9	17.1	98.9	-2.8	Р	_
10	11/14/12	2803.1708 N 08105.1275 W	1	97.3	14.7	P-9	100.9	17.1	96.4	-2.4	Р	-
11	11/14/12	2803.2119 N 08105.1886 W	1	97.0	19.4	P-9	100.9	17.1	96.1	2.3	Р	_
12	11/14/12	2803.2132 N 08105.1877 W	1	96.4	20.0	P-9	100.9	17.1	95.5	2.9	Р	_
13	11/14/12	2803.1743 N 08105.1751 W	1	97.0	15.0	P-9	100.9	17.1	96.1	-2.1	Р	_
14	11/14/12	2803.2102 N 08105.1931 W	1	98.1	15.0	P-9	100.9	17.1	97.2	-2.1	Р	
15	11/14/12	2803.1521 N 08105.1891 W	1	95.9	0.1	P-9	100.9	17.1	95.0	-17.0	Р	
16	11/14/12	2803.1480 N 08105.1724 W	1	96.2	14.7	P-9	100.9	17.1	95.3	-2.4	Р	
17	11/14/12	2803.1496 N 08105.1586 W	1	98.8	16.2	P-9	100.9	17.1	97.9	-0.9	Р	
18	11/14/12	2803.1478 N 08105.1384 W	1	99.1	15.9	P-9	100.9	17.1	98.2	-1.2	Р	

Chris Johnson PREPARED BY

11/14/12



PROJECT NUMBER: 2012-102

SUMMARY OF FIELD DENSITY TESTING RESULTS

OWNER/ENGINEER:

	LFGTE	
Omni Waste of Osceola, LLC	Fill	

JED Landfill PROJECT TITLE:

Leachate Storage Relocation CONTRACTOR: **RCS Excavation**

DATES:

FROM

11/14/12

TO 11/29/12

PAGE 2

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	٦	TEST RESULT	s	
TEST	TEST DATE		LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		LOCATION OF SAMPLE	OR ELEV				DENSITY	MOISTURE		FROM OPT		REMARK
NUMBER			(ft)	(200	CONTENT (%)	NUMBER	/0	(0/)	20115 (0/)	MOISTURE		
19	11/14/12	2803.1473 N 08105.1266 W	_	(pcf) 97.6	17.0	P-9	(pcf) 100.9	(%) 17.1	96.7	(%) -0.1	FAIL P	
20		2803.1622 N 08105.1098 W		97.1	16.8		100.9	17.1	96.2	-0.1	P	Danaih
21		2803.1736 N 08105.1153 W		96.8	17.1	P-9	100.9	17.1	95.9		P	Density
22		2803.1708 N 08105.1276 W		95.9	16.6		100.9			0.0		
23		2803.2117 N 08105.1886 W		97.2	15.9			17.1	95.0	-0.5	P	
							100.9	17.1	96.3	-1.2	P	
24		2803.2132 N 08105.1879 W	1	98.5	14.9		100.9	17.1	97.6	-2.2	Р	
CP	11/17/12	2002 2455 N 00405 4020 W	-	100.0	17.8		100.2	17.5	-	-	-	
DR2		2803.2155 N 08105.1936 W	_	98.3	14.9		100.2	17.5	98.1	-2.6	Р	
25		2803.2155 N 08105.1936 W		97.2	16.0		100.2	17.5	97.0	-1.5	Р	
26		2803.1956 N 08105.0813 W		101.1	16.9	P-1	101.7	16.0	99.4	0.9	Р	
27	11/17/12	2803.1954 N 08105.1285 W	1	96.0	15.1	P-2	100.2	17.5	95.8	-2.4	Р	
28	11/17/12	2803.2151 N 08105.1907 W	1	96.0	15.9	P-2	100.2	17.5	95.8	-1.6	-	
29	11/17/12	2803.2155 N 08105.1946 W	1	98.0	16.1	P-2	100.2	17.5	97.8	-1.4	Р	
30	11/17/12	2803.1946 N 08105.0813 W	1	101.5	16.2	P-1	101.7	16.0	99.8	0.2	Р	
31	11/17/12	2803.1954 N 08105.1284 W	1	97.1	15.5	P-2	100.2	17.5	96.9	-2.0	Р	
32	11/17/12	2803.2158 N 08105.1907 W	1	96.2	16.0	P-2	100.2	. 17.5	96.0	-1.5	Р	
33	11/17/12	2803.2509 N 08105.0805 W	1	108.8	11.0	P-10	110.1	13.6	98.9	-2.6	Р	
34	11/17/12	2803.1944 N 08105.0882 W	1	95.1	14.9	P-2	100.2	17.5	94.9	-2.6	F	Density
34R		2803.1944 N 08105.0882 W		99.0			100.2	17.5	98.8	-2.5	P	
CP	11/29/12	•	-	104.2		P-7	104.4	15.1	-	-	-	

Chris Johnson

11/29/12

PREPARED BY



LFGTE
Fill

PROJECT NUMBER: 2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

PROJECT TITLE:

JED Landfill Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

11/29/12

TO 11/30/12

PAGE

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	. 1	EST RESULT	S	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO OR ELEV	DRY DENSITY	MOISTURE	CURVE	MAX DRY DENSITY	OPTIMUM MOISTURE	PERCENT	DIFFER FROM OPT	PASS/	
NUMBER	,		(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	MOISTURE	FAIL	REMARK
DR3	11/29/12	2803.1848 N 08105.1330 W	1	100.6	14.3	P-7	104.4	15.1	96.4	-0.8	Р	
35	11/29/12	2803.1848 N 08105.1330 W	1	102.2	13.8	P-7	104.4	15.1	97.9	-1.3	Р	
36	11/29/12	2803.1889 N 08105.1364 W	1	104.0	12.7	P-7	104.4	15.1	99.6	-2.4	P	
37	11/29/12	2803.1561 N 08105.1884 W	1	99.3	18.1	P-7	104.4	15.1	95.1	3.0	Р	
38	11/29/12	2803.1503 N 08105.1766 W	1	101.1	12.9	P-7	104.4	15.1	96.8	-2.2	Р	
39	11/29/12	2803.1497 N 08105.1476 W	1	101.1	14.1	P-7	104.4	15.1	96.9	-1.0	Р	
40	11/29/12	2803.1444 N 08105.1343 W	1	99.7	12.9	P-7	104.4	15.1	95.5	-2.2	Р	
41	11/29/12	2803.1845 N 08105.1330 W	1	102.3	14.0	P-7	104.4	15.1	98.0	-1.1	Р	
42	11/29/12	2803.1889 N 08105.1354 W	1	104.1	13.8	P-7	104.4	15.1	99.7	-1.3	Р	
43	11/29/12	2803.1564 N 08105.1884 W	1	98.7	17.5	P-7	104.4	15.1	94.5	2.4	Р	
44	11/29/12	2803.1503 N 08105.1756 W	1	101.8	13.8	P-7	104.4	15.1	97.5	-1.3	Р	
45	11/29/12	2803.1498 N 08105.1476 W	1	101.1	15.0	P-7	104.4	15.1	96.9	-0.1	P	
46	11/29/12	2803.1444 N 08105.1344 W	1	100.0	13.4	P-7	104.4	15.1	95.8	-1.7	Р	
СР	11/30/12	<u>-</u>	-	104.0	15.2	P-7	104.4	15.1	-	-	-	• ,
DR4	11/30/12	2803.1502 N 08105.1703 W	1	102.1	15.1	P-7	104.4	15.1	97.8	0.0	Р	
47	11/30/12	2803.1502 N 08105.1703 W	2	100.1	15.8	P-7	104.4	15.1	95.9	0.7	P	
48	11/30/12	2803.1260 N 08105.1904 W	2	99.8	14.2	P-7	104.4	15.1	95.6	-0.9	Р	
49	11/30/12	2803.1152 N 08105.1917 W	2	100.4	13.1	P-7	104.4	15.1	96.2	-2.0	Р	
50	11/30/12	2803.1024 N 08105.1904 W	2	102.3	13.0	P-7	104.4	15.1	97.9	-2.1	Р	
51	11/30/12	2803.1055 N 08105.1785 W	2	101.3	12.9	P-7	104.4	15.1	97.0	-2.2	Р	

Chris	Johnson	

11/30/12

PREPARED BY



PROJECT NUMBER:	2012-102	OWNER/ENG
, modeou momberu		· · · · · · · · · · · · · · · · · · ·

ER/ENGINEER: Omni Waste of Osceola, LLC

LFGTE Fill

PROJECT TITLE:

JED Landfill
Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

11/30/12

TO 12/01/12

PAGE

				IN PLACE DETERM	PLACE DETERMINATION MATCHING PROTOR					EST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
52	11/30/12	2803.1187 N 08105.1773 W		100.4	14.6	P-7	104.4	15.1	96.2	-0.5	Р	
53	11/30/12	2803.1306 N 08105.1777 W	2	101.7	13.8	P-7	104.4	15.1	97.4	-1.3	Р	
54	11/30/12	2803.1504 N 08105.1703 W	2	100.5	16.5	P-7	104.4	15.1	96.3	1.4	Р	
55	11/30/12	2803.1260 N 08105.1914 W	2	99.1	15.2	'P-7	104.4	15.1	94.9	0.1	Р	
56	11/30/12	2803.1154 N 08105.1917 W	2	101.0	14.3	P-7	104.4	15.1	96.7	-0.8	Р	
57	11/30/12	2803.1024 N 08105.1905 W	2	102.5	15.8	P-7	104.4	15.1	98.2	0.7	Р	
58	11/30/12	2803.1056 N 08105.1785 W	2	101.5	16.0	P-7	104.4	15.1	97.2	0.9	Р	
59	11/30/12	2803.1187 N 08105.1775 W	2	101.0	16.1	P-7	104.4	15.1	96.7	1.0	Р	
60	11/30/12	2803.1304 N 08105.1777 W	2	101.4	15.2	P-7	104.4	15.1	97.1	0.1	Р	
СР	12/01/12	-	-	104.3	14.8	P-7	104.4	15.1	-	•	-	
DR5	12/01/12	2803.1064 N 08105.1654 W	2	100.8	13.9	P-7	104.4	15.1	96.6	-1.2	. Р	
61	12/01/12	2803.1064 N 08105.1654 W	2	100.5	13.8	P-7	104.4	15.1	96.3	-1.3	Р	
62	12/01/12	2803.1163 N 08105.1662 W	2	101.1	12.1	P-7	104.4	15.1	96.8	-3.0	Р	
63	12/01/12	2803.1261 N 08105.1656 W	2	101.7	14.3	. P-7	104.4	15.1	97.4	-0.8	Р	
64	12/01/12	2803.1327 N 08105.1572 W	2	101.8	12.6	P-7	104.4	15.1	97.5	-2.5	Р	
65	12/01/12	2803.1161 N 08105.1558 W	2	101.2	14.1	P-7	104.4	15.1	97.0	-1.0	Р	
66	12/01/12	2803.1038 N 08105.1533 W	2	99.2	13.2	P-7	104.4	15.1	95.0	-1.9	Р	
67	12/01/12	2803.1053 N 08105.1415 W	2	99.3	15.6	P-7	104.4	15.1	95.1	0.5	Р	
68	12/01/12	2803.1187 N 08105.1410 W	2	99.3	13.4	P-7	104.4	15.1	95.1	-1.7	Р	
69	12/01/12	2803.1314 N 08105.1438 W	2	101.4	14.3	P-7	104.4	15.1	97.1	-0.8	Р	

Chris Johnson

DATE

12/01/12

PREPARED BY



PROJECT NUMBER: 2012-102

SUMMARY OF FIELD DENSITY TESTING RESULTS

		*	LFGTE
OWNER/ENGINEER:	Omni Waste of Osceola, LLC		Fill

JED Landfill

PROJECT TITLE: Leachate Storage Relocation CONTRACTOR: RCS Excavation

DATES: FROM 12/01/12 TO 01/14/13 PAGE 5

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	1	EST RESULT	s T	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
70	12/01/12	2803.1659 N 08105.0766 W	2	99.9	13.8	P-7	104.4	15.1	95.7	-1.3	Р	
71	12/01/12	2803.1924 N 08105.0876 W	2	101.9	13.9	P-7	104.4	15.1	97.6	-1.2	P	
72	12/01/12	2803.2196 N 08105.0842 W	2	102.0	16.1	P-7	104.4	15.1	97.7	1.0	P	
73	12/01/12	2803.2527 N 08105.0858 W	2	102.0	13.6	P-7	104.4	15.1	97.7	-1.5	P	
74	12/01/12	2803.1322 N 08105.1334 W	2	98.4	13.7	P-7	104.4	15.1	94.3	-1.4	F	Density
75	12/01/12	2803.1322 N 08105.1334 W	2	103.2	14.0	P-7	104.4	15.1	98.9	-1.1	Р	
76	12/01/12	2803.1033 N 08105.1280 W	2	103.0	12.9	P-7	104.4	15.1	98.6	-2.2	Р	
77	12/01/12	2803.1060 N 08105.1103 W	2	100.0	16.5	P-7	104.4	15.1	95.8	1.4	P	
78	12/01/12	2803.1220 N 08105.1182 W	2	102.5	13.5	P-7	104.4	15.1	98.2	-1.6	Р	-
79	12/01/12	2803.1063 N 08105.1654 W	2	100.9	13.5	P-7	104.4	15.1	96.6	-1.6	Р	
80	12/01/12	2803.1163 N 08105.1661 W	2	103.2	14.6	P-7	104.4	15.1	98.9	-0.5	Р	
81	12/01/12	2803.1263 N 08105.1656 W	2	102.1	14.9	P-7	104.4	15.1	97.8	-0.2	Р	
82	12/01/12	2803.1327 N 08105.1574 W	2	101.9	15.1	P-7	104.4	15.1	97.6	0.0	Р	· -
83	12/01/12	2803.1151 N 08105.1558 W	2	103.2	15.8	P-7	104.4	15.1	98.9	0.7	Р	
84	12/01/12	2803.1036 N 08105.1533 W	2	103.1	16.0	P-7	104.4	15.1	98.8	0.9	Р	
CP	01/14/13	-	-	99.7	16.8	P-2	100.2	17.5	-	-	-	
DR6	01/14/13	2803.1950 N 08105.2093 W	3	98.0	16.1	P-2	100.2	17.5	-	-		
85	01/14/13	2803.1950 N 08105.2093 W	3	97.6	17.0	P-2	100.2	17.5	97.4	-0.5	Р	
86	01/14/13	2803.1671 N 08105.2236 W		97.9	15.7	P-2	100.2	17.5	97.7	-1.8	Р	
87	01/14/13	2803.1376 N 08105.2138 W		98.8	14.8	P-2	100.2	17.5	98.6	-2.7	P	

Chris Johnson
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01/14/13



PROJECT TITLE:

SUMMARY OF FIELD DENSITY TESTING RESULTS

		LFGTE
OWNER/ENGINEER:	Omni Waste of Osceola, LLC	Fill

PROJECT NUMBER: 2012-102 JED Landfill

Leachate Storage Relocation

CONTRACTOR: **RCS Excavation**

DATES:

FROM

01/14/13

TO 01/14/13

PAGE 6

				IN PLACE DETERMINATION MATCHING PROTOR			TOR	TEST RESULTS				
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO OR ELEV	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
88	01/14/13	2803.2195 N 08105.0842 W	2	100.7	15.6	P-7	104.4	15.1	96.5	0.5	Р	
89	01/14/13	2803.2527 N 08105.0857 W	2	103.5	15.9	P-7	104.4	15.1	99.1	0.8	Р	
90	01/14/13	2803.1186 N 08105.1410 W	2	102.0	15.9	P-7	104.4	15.1	97.7	0.8	Р	
91	01/14/13	2803.1314 N 08105.1435 W	2	101.6	15.5	P-7	104.4	15.1	97.3	0.4	Р	
92	01/14/13	2803.1657 N 08105.0766 W	2	99.9	15.2	P-7	104.4	15.1	95.7	0.1	Р	
93	01/14/13	2803.1924 N 08105.0875 W	2	100.8	14.6	P-7	104.4	15.1	96.6	-0.5	Р	
94	01/14/13	2803.1054 N 08105.2098 W	3	100.1	15.9	P-2	100.2	17.5	99.9	-1.6	Р	
95	01/14/13	2803.2150 N 08105.2161 W	3	99.3	17.1	P-2	100.2	17.5	99.2	-0.4	Р	
96	01/14/13	2803.2474 N 08105.2154 W	3	99.3	16.5	P-2	100.2	17.5	99.1	-1.0	Р	
97	01/14/13	2803.2774 N 08105.2195 W	3	95.6	16.3	P-2	100.2	17.5	95.4	-1.2	Р	
98	01/14/13	2803.3014 N 08105.2422 W	3	96.8	16.0	P-2	100.2	17.5	96.6	-1.5	Р	
99	01/14/13	2803.3076 N 08105.2846 W	3	95.4	16.5	P-2	100.2	17.5	95.2	-1.0	Р	
100	01/14/13	2803.2951 N 08105.1008 W	3	99.8	17.0	P-2	100.2	17.5	99.6	-0.5	Р	
101	01/14/13	2803.2754 N 08105.1221 W	3	100.0	17.3	P-2	100.2	17.5	99.8	-0.2	Р	
102	01/14/13	2803.2688 N 08105.1529 W	3	95.2	15.6	P-2	100.2	17.5	95.1	-1 .9	Р	
103	01/14/13	2803.2911 N 08105.1829 W	3	97.7	14.9	P-2	100.2	17.5	97.5	-2.6	Р	
104	01/14/13	2803.1950 N 08105.2043 W	3	97.8	17.0	P-2	100.2	17.5	97.6	-0.5	Р	
105	01/14/13	2803.1675 N 08105.2236 W	3	98.0	16.0	P-2	100.2	17.5	97.8	-1.5	Р	
106	01/14/13	2803.1377 N 08105.2138 W	3	99.0	15.8	P-2	100.2	17.5	98.8	-1.7	Р	
107	01/14/13	2803.1055 N 08105.2098 W	3	100.4	16.2	P-2	100.2	17.5	100.2	-1.3	Р	

Chris	Johnson	

01/14/13

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PROJECT NUMBER:	2012-102	OWNER/ENGIN	EER:	Omni Waste of Os	ceola,	LLC	<i>'</i> [Fill
	JED Landfill							
PROJECT TITLE:	Leachate Storage Relocation	CONTRACTOR:		RCS Excavation				
						_		
		DATES:	FROM	01/14/13	то	01/15/13	PAGE	7

				IN PLACE DETERM	N PLACE DETERMINATION			TOR	1	EST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	55144514
NUMBER			OR ELEV	(pcf)	CONTENT (%)	NUMBER	OENSITY (foct)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
108	01/14/13	2803.2153 N 08105.2161 W	3	100.0	17.1	P-2	100.2	17.5	99.8	-0.4	Р	_
109	01/14/13	2803.2474 N 08105.2156 W	3	99.4	16.2	P-2	100.2	17.5	99.2	-1.3	Р	_
CP	01/15/13	-	1	100.1	16.8	P-2	100.2	17.5	-	-	-	
DR7	01/15/13	2803.6009 N 08105.4337 W	3	103.0	12.0	P-3	106	14.0	97.2	-2.0	Р	_
110	01/15/13	2803.6009 N 08105.4337 W	3	103.9	11.4	P-3	106	14.0	98.0	-2.6	Р	
111	01/15/13	2803.5565 N 08105.4331 W	3	97.3	15.1	P-2	100.2	17.5	97.1	-2.4	Р	
112	01/15/13	2803.5565 N 08105.4326 W	3	95.2	15.0	P-2	100.2	17.5	95.0	-2.5	Р	
113	01/15/13	2803.5064 N 08105.4224 W	3	97.4	14.7	P-2	100.2	17.5	97.2	-2.8	Р	
114	01/15/13	2803.4641 N 08105.4051 W	3	97.5	15.1	P-2	100.2	17.5	97.3	-2.4	Р	
115	01/15/13	2803.4337 N 08105.3822 W	3	97.0	16.0	P-2	100.2	17.5	96.8	-1.5	Р	
116	01/15/13	2803.3876 N 08105.3503 W	3	95.7	15.2	P-2	100.2	17.5	95.5	-2.3	Р	
117	01/15/13	2803.3426 N 08105.3229 W	3	96.4	15.4	P-2	100.2	17.5	96.3	-2.1	Р	
118	01/15/13	2803.2786 N 08105.0854 W	3	102.1	14.8	P-3	106	14.0	96.3	0.8	Р	•
119	01/15/13	2803.2563 N 08105.0801 W	3	105.4	14.0	P-3	106	14.0	99.4	0.0	Р	
120	01/15/13	2803.2187 N 08105.0820 W	3	99.9	14.6	P-2	100.2	17.5	99.7	-2.9	Р	
121	01/15/13	2803.1860 N 08105.0840 W	3	102.7	15.3	P-3	106	14.0	96.9	1.3	Р	
122	01/15/13	2803.1556 N 08105.0836 W	3	94.6	15.2	P-2	100.2	17.5	94.4	-2.3	F	Density
123	01/15/13	2803.1556 N 08105.0836 W	3	97.6	16.0	P-2	100.2	17.5	97.4	-1.5	P	
124	01/15/13	2803.2920 N 08105.1045 W	3	96.1	14.5	P-2	100.2	17.5	95.9	-3.0	Р	_
125	01/15/13	2803.2681 N 08105.1319 W	3	97.1	15.5	P-2	100.2	17.5	96.9	-2.0	Р	

Chris Johnson

01/15/13

LFGTE

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PROJECT NUMBER:	2012-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC	Fill
	JED Landfill			
PROJECT TITLE:	Leachate Storage Relocation	CONTRACTOR:	RCS Excavation	

DATES: FROM <u>01/15/13</u> TO <u>01/22/13</u> PAGE 8

LFGTE

		,		IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	Ť	EST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
126	01/15/13	2803.2776 N 08105.2195 W	3	95.6	17.0	P-2	100.2	17.5	95.4	-0.5	Р	
127	01/15/13	2803.3014 N 08105.2424 W	3	97.8	16.1	P-2	100.2	17.5	97.6	-1.4	Р	
128 .	01/15/13	2803.3073 N 08105.2846 W	3	96.2	15.9	P-2	100.2	17.5	96.0	-1.6	. P	
129	01/15/13	2803.2951 N 08105.1018 W	3	100.0	17.0	P-2	100.2	17.5	99.8	-0.5	Р	
СР	01/22/13	-	1	99.9	16.9	P-2	100.2	17.5	•	-	-	
DR8	01/22/13	2803.2943 N 08105.1011 W	3	95.6	16.7	P-2	100.2	17.5	95.4	-0.8	Р	
130	01/22/13	2803.1705 N 08105.1325 W	3	96.2	15.0	P-2	100.2	17.5	96.0	-2.5	Р	
131	01/22/13	2803.1692 N 08105.1084 W	3	97.8	16.1	P-2	100.2	17.5	97.6	-1.4	P	
132	01/22/13	2803.1350 N 08105.0887 W	3	95.3	16.5	P-2	100.2	17.5	95.1	-1.0	Р	
133	01/22/13	2803.2943 N 08105.1011 W	3	95.5	15.6	P-2	100.2	17.5	95.3	-1.9	Р	
134	01/22/13	2803.2703 N 08105.1275 W	3	97.4	14.0	P-2	100.2	17.5	97.2	-3.5	Р	
135	01/22/13	2803.2718 N 08105.1534 W	3	99.4	15.2	P-2	100.2	17.5	99.2	-2.3	Р	
136	01/22/13	2803.2884 N 08105.1856 W	3	99.7	15.8	P-2	100.2	17.5	99.5	-1.7	P	
137	01/22/13	2803.3145 N 08105.2263 W	3	96.5	17.0	P-2	100.2	17.5	96.3	-0.5	Р	
138	01/22/13	2803.3230 N 08105.2655 W	3	99.0	16.0	P-2	100.2	17.5	98.8	-1.5	Р	
139	01/22/13	2803.3284 N 08105.2978 W	3	99.0	16.4	P-2	100.2	17.5	98.8	-1.1	Р	
140	01/22/13	2803.3542 N 08105.3145 W	3	97.6	15.7	P-2	100.2	17.5	97.4	-1.8	Р	
141	01/22/13	2803.3977 N 08105.3407 W	3	101.4	13.4	P-7	104.4	15.1	97.1	-1.7	Р	
142	01/22/13	2803.4483 N 08105.3658 W	3	101.3	12.6	P-7	104.4	15.1	97.0	-2.5	Р	
143	01/22/13	2803.4532 N 08105.3315 W	3	101.5	13.2	P-7	104.4	15.1	97.2	-1.9	Р	

Chris Johnson	01/22/13
PREPARED BY	DATE



PROJECT	NUMBER:	2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

LFGTE Fill

PROJECT TITLE:

JED Landfill

Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

01/22/13

TO 01/23/13

PAGE 9

				IN PLACE DETERM	N PLACE DETERMINATION			TOR	1	TEST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
144	01/22/13	2803.6598 N 08105.4392 W	3	103.3	14.2	P-7	104.4	15.1	98.9	-0.9	P	
145	01/22/13	2803.6569 N 08105.4320 W	3	102.7	12.8	P-7	104.4	15.1	98.4	-2.3	Р	
146	01/22/13	2803.1067 N 08105.1100 W	4	101.8	13.2	P-7	104.4	15.1	97.5	-1.9	Р	
147	01/22/13	2803.2755 N 08105.1221 W	3	97.5	17.1	P-2	100.2	17.5	97.3	-0.4	Р	
148	01/22/13	2803.2688 N 08105.1524 W	3	98.0	16.0	P-2	100.2	17.5	97.8	-1.5	Р	
149	01/22/13	2803.2921 N 08105.1829 W	3	97.5	15.3	P-2	100.2	17.5	97.3	-2.2	Р	
CP	01/23/13	-	1	99.8	16.7	P-2	100.2	17.5	-	-	-	
DR9	01/23/13	2803.1668 N 08105.1799 W	4	97.8	15.2	P-2	100.2	17.5	97.6	-2.3	Р	
150	01/23/13	2803.1668 N 08105.1799 W	4	98.1	17.0	P-2	100.2	17.5	97.9	-0.5	Р	
151	01/23/13	2803.1426 N 08105.1916 W	4	96.2	16.3	P-2	100.2	17.5	96.0	-1.2	Р	
152	01/23/13	2803.1155 N 08105.1915 W	4	97.4	15.8	P-2	100.2	17.5	97.2	-1.7	Р	
153	01/23/13	2803.1031 N 08105.1849 W	4	96.5	15.5	P-2	100.2	17.5	96.3	-2.0	Р	
154	01/23/13	2803.5485 N 08105.3992 W	4	97.5	16.8	P-2	100.2	17.5	97.3	-0.7	Р	
155	01/23/13	2803.5542 N 08105.4019 W	4	99.6	16.1	P-2	100.2	17.5	99.4	-1.4	Р	
156	01/23/13	2803.5576 N 08105.4024 W	4	100.0	15.9	P-2	100.2	17.5	99.8	-1.6	Р	
157	01/23/13	2803.5533 N 08105.3988 W	4	97.2	16.4	P-2	100.2	17.5	97.0	-1.1	P	
158	01/23/13	2803.5631 N 08105.4090 W	4	99.9	17.0	P-2	.100.2	17.5	99.7	-0.5	Р	
159	01/23/13	2803.5625 N 08105.4078 W	4	97.0	16.7	P-2	100.2	17.5	96.8	-0.8	Р	
160	01/23/13	2803.6009 N 08105.4337 W	3	103.9	11.4	P-3	106	14.0	98.0	-2.6	Р	-
161	01/23/13	2803.5565 N 08105.4331 W	3	97.3	15.1	P-2	100.2	17.5	97.1	-2.4	Р	*

Chris	Johnson

01/23/13

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PROJECT NUMBER:	2012-102
	JED Landfill

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

LFGTE Fill

PROJECT TITLE:

Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

01/23/13

TO 01/24/13

PAGE

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	,			IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	1	EST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV (ft)	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
162	01/23/13	2803.5564 N 08105.4326 W	3	96.0	16.0	P-2	100.2	17.5	95.8	-1.5	Р	
163	01/23/13	2803.5064 N 08105.4223 W	3	98.0	15.2	P-2	100.2	17.5	97.8	-2.3	Р	
164	01/23/13	2803.4631 N 08105.4051 W	3	98.1	16.1	P-2	100.2	17.5	97.9	-1.4	P	
165	01/23/13	2803.4337 N 08105.3824 W	3	98.2	15.9	P-2	100.2	17.5	98.0	-1.6	Р	
166	01/23/13	2803.3875 N 08105.3503 W	3	99.5	16.4	P-2	100.2	17.5	99.3	-1.1	Р	
167	01/23/13	2803.3426 N 08105.3227 W	3	96.3	17.0	P-2	100.2	17.5	96.1	-0.5	Р	
168	01/23/13	2803.2785 N 08105.0854 W	3	102.3	15.2	P-3	106	14.0	96.5	1.2	P	
169	01/23/13	2803.2563 N 08105.0811 W	3	104.8	15.1	P-3	106	14.0	98.9	1.1	Р	
170	01/23/13	2803.2188 N 08105.0820 W	3	100.0	17.0	P-2	100.2	17.5	99.8	-0.5	Р	<u> </u>
171	01/23/13	2803.1705 N 08105.1325 W	3	96.2	15.0	P-2	100.2	17.5	96.0	-2.5	Р	
172	01/23/13	2803.1692 N 08105.1084 W	3	97.8	16.1	P-2	100.2	17.5	97.6	-1.4	Р	
173	01/23/13	2803.1350 N 08105.0887 W	3	95.3	16.5	P-2	100.2	17.5	95.1	-1.0	Р	
CP	01/24/13	-		99.9	17.0	P-2	100.2	17.5	-	-		_
DR10	01/24/13	2803.1487 N 08105.1738 W	4	99.5	15.5		100.2	17.5	99.3	-2.0	Р	
174	01/24/13	2803.1487 N 08105.1738 W	4	99.9	15.0	P-2	100.2	17.5	99.7	-2.5	Р	
175	01/24/13	2803.1434 N 08105.1779 W	4	96.4	15.3	P-2	100.2	17.5	96.2	-2.2	Р	
176	01/24/13	2803.1333 N 08105.1754 W	4	98.9	16.0		100.2	17.5	98.7	-1.5	Р	
177	01/24/13	2803.1206 N 08105.1760 W	4	102.1	12.5	P-7	104.4	15.1	97.8	-2.6	Р	
178	01/24/13	2803.1136 N 08105.1682 W	4	103.3	13.6	P-7	104.4	15.1	98.9	-1.5	Р	
179	01/24/13	2803.1253 N 08105.1660 W	4	100.0	13.9	P-7	104.4	15.1	95.8	-1.2	Р	

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01/24/13

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PROJECT NUMBER: 2012-102

PROJECT TITLE:

JED Landfill

Leachate Storage Relocation

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

LFGTE Fill

CONTRACTOR:

RCS Excavation

01/24/13

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				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	7	EST RESULTS	S	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		LOCATION OF SAMPLE	OR ELEV			1	DENSITY	MOISTURE		FROM OPT		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	MOISTURE (%)	FAIL	
180	01/24/13	2803.1364 N 08105.1666 W	4	101.3	13.3	P-7	104.4	15.1	97.1	-1.8	Р	
181	01/24/13	2803.1468 N 08105.1686 W	4	97.1	14.8	P-2	100.2	17.5	96.9	-2.7	Р	
182	01/24/13	2803.1615 N 08105.1669 W	4	103.6	14.0	P-7	104.4	15.1	99.2	-1.1	Р	
183	01/24/13	2803.1596 N 08105.1594 W	4	101.6	13.5	P-7	104.4	15.1	97.3	-1.6	Р	
184	01/24/13	2803.1476 N 08105.1560 W	4	96.2	15.1	P-2	100.2	17.5	96.0	-2.4	Р	
185	01/24/13	2803.1381 N 08105.1526 W	4	99.7	14.2	P-2	100.2	17.5	99.5	-3.3	P	
186	01/24/13	2803.1259 N 08105.1552 W	4	98.1	13.9	P-2	100.2	17.5	97.9	-3.6	. Р	
187	01/24/13	2803.1117 N 08105.1537 W	4	96.0	15.7	P-2	100.2	17.5	95.8	-1.8	Р	
188	01/24/13	2803.1592 N 08105.1411 W	4	98.6	15.4	P-2	100.2	17.5	98.4	-2.1	Р	
189	01/24/13	2803.1435 N 08105.1381 W	4	95.3	16.1	P-2	100.2	17.5	95.1	-1.4	Р	
190	01/24/13	2803.1259 N 08105.1406 W	4	98.6	14.9	P-2	100.2	17.5	98.4	-2.6	P	
191	01/24/13	2803.1084 N 08105.1403 W	4	96.8	15.3	P-2	100.2	17.5	96.6	-2.2	P	
192	01/24/13	2803.1054 N 08105.1285 W	4	98.0	15.3	P-2	100.2	17.5	97.8	-2.2	Р	
193	01/24/13	2803.1271 N 08105.1258 W	4	97.6	15.6	P-2	100.2	17.5	97.4	-1.9	Р	
194	01/24/13	2803.1441 N 08105.1263 W	4	97.0	16.0	P-2	100.2	17.5	96.9	-1.5	Р	•
195	01/24/13	2803.1628 N 08105.1251 W	4	95.8	15.8	P-2	100.2	17.5	95.6	-1.7	Р	
196	01/24/13	2803.1606 N 08105.1118 W	4	98.2	14.9	P-2	100.2	17.5	98.0	-2.6	Р	
197	01/24/13	2803.1436 N 08105.1056 W	4	95.5	15.8	P-2	100.2	17.5	95.3	-1.7	Р	
198	01/24/13	2803.1227 N 08105.1100 W	4_	97.1	15.2	P-2	100.2	17.5	96.9	-2.3	P	<u> </u>
CP	01/28/13	•	-	100.0	16.7	P-2	100.2	17.5	-	-	-	

Chris Johnson PREPARED BY

01/28/13



PROJECT NUMBER: 2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

LFGTE Fill

PROJECT TITLE:

JED Landfill

Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

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				IN PLACE DETERM	INATION	MATCHING PROTOR		1	EST RESULT	s		
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		ESSATION OF SAMELE	OR ELEV				DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)		FAIL	
DR11	01/28/13	2803.6048 N 08105.4111 W	4	98.0	15.3	P-2	100.2	17.5	97.8	-2.2	Р	
199	01/28/13	2803.6048 N 08105.4111 W	4	97.7	15.0	P-2	100.2	17.5	97.5	-2.5	Р	_
200	01/28/13	2803.6289 N 08105.4120 W	4	99.3	16.1	P-2	100.2	17.5	99.1	-1.4	Р	
201	01/28/13	2803.6395 N 08105.4150 W	4	98.2	16.3	P-2	100.2	17.5	98.0	-1.2	Р	_
202	01/28/13	2803.6158 N 08105.4158 W	5	100.1	15.9	P-2	100.2	17.5	99.9	-1.6	Р	•
203	01/28/13	2803.6487 N 08105.4211 W	5	99.8	14.9	P-2	100.2	17.5	99.6	-2.6	Р	
204	01/28/13	2803.6181 N 08105.4148 W	5	99.9	17.2	P-2	100.2	17.5	99.7	-0.3	Р	
205	01/28/13	2803.2944 N 08105.1011 W	5	96.0	15.0	P-2	100.2	17.5	95.8	-2.5	Р	-
206	01/28/13	2803.2703 N 08105.1265 W	5	97.5	16.0	P-2	100.2	17.5	97.3	-1.5	Р	
207	01/28/13	2803.2717 N 08105.1534 W	5	98.8	16.5	P-2	100.2	17.5	98.6	-1.0	Р	
208	01/28/13	2803.2884 N 08105.1856 W	5	99.1	16.1	P-2	100.2	17.5	98.9	-1.4	Р	
209	01/28/13	2803.3145 N 08105.2263 W	5	96.3	17.1	P-2	100.2	17.5	96.1	-0.4	Р	
210	01/28/13	2803.3232 N 08105.2655 W	5	98.7	16.5	P-2	100.2	17.5	98.5	-1.0	Р	_
211	01/28/13	2803.3284 N 08105.2977 W	5	98.5	16.9	P-2	100.2	17.5	98.3	-0.6	Р	
212	01/28/13	2803.3542 N 08105.3145 W	5	98.5	16.2	P-2	100.2	17.5	98.3	-1.3	Р	
213	01/28/13	2803.3975 N 08105.3407 W	5	101.5	14.8	P-7	104.4	15,1	97.2	-0.3	Р	
214	01/28/13	2803.4485 N 08105.3658 W	5	101.9	13.8	P-7	104.4	15.1	97.6	-1.3	Р	
215	01/28/13	2803.4532 N 08105.3325 W	5	101.8	14.8	P-7	104.4	15.1	97.5	-0.3	Р	
216	01/28/13	2803.1668 N 08105.1799 W	5	98.1	17.0	P-2	100.2	17.5	97.9	-0.5	Р	
217	01/28/13	2803.1426 N 08105.1916 W	5	96.2	16.3	P-2	100.2	17.5	96.0	-1.2	Р	

Chris Johnson

01/28/13

DATE

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PROJECT NUMBER: 2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

LFGTE Fill

PROJECT TITLE:

JED Landfill

Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

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				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	1	TEST RESULT	s .	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		EGGATION OF GAMELE	OR ELEV				DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)		FAIL	
218	01/28/13	2803.1155 N 08105.1915 W	5	97.4	15.8	P-2	100.2	17.5	97.2	-1.7	Р	
219	01/28/13	2803.1031 N 08105.1849 W	5	96.5	15.5	P-2	100.2	17.5	96.3	-2.0	Р	
220	01/28/13	2803.5485 N 08105.3992 W	5	97.5	16.8	P-2	100.2	17.5	97.3	-0.7	Р	
221	01/28/13	2803.5542 N 08105.4019 W	5	99.6	16.1	P-2	100.2	17.5	99.4	-1.4	Р	
222	01/28/13	2803.5576 N 08105.4024 W	5	100.0	15.9	P-2	100.2	17.5	99.8	-1.6	Р	
СР	01/29/13	-	-	100.2	17.0	P-2	100.2	17.5	-	-	-	
DR12	01/29/13	2803.6426 N 08105.4159 W	5	98.7	16.4	P-2	100.2	17.5	98.5	-1.1	Р	
223	01/29/13	2803.6426 N 08105.4159 W	5	100.1	15.4	P-2	100.2	17.5	99.9	-2.1	Р	
224	01/29/13	2803.6095 N 08105.4195 W	5	100.1	15.6	P-2	100.2	17.5	99.9	-1.9	Р	
225	01/29/13	2803.6492 N 08105.4220 W	5	98.8	16.0	P-2	100.2	17.5	98.6	-1.5	Р	
226	01/29/13	2803.6222 N 08105.4152 W	5	99.2	16.3	P-2	100.2	17.5	99.0	-1.2	Р	
227	01/29/13	2803.5533 N 08105.3988 W	5	97.2	16.4	P-2	100.2	17.5	97.0	-1.1	P	
228	01/29/13	2803.5631 N 08105.4090 W	5	99.9	17.0	P-2	100.2	17.5	99.7	-0.5	Р	
229	01/29/13	2803.5625 N 08105.4078 W	5	97.0	16.7	P-2	100.2	17.5	96.8	-0.8	Р	
230	01/29/13	2803.1468 N 08105.1686 W	5	97.1	14.8	P-2	100.2	17.5	96.9	-2.7	Р	
231	01/29/13	2803.1615 N 08105.1669 W	5	103.6	14.0	P-7	104.4	15.1	99.2	-1.1	Р	
232	01/29/13	2803.1596 N 08105.1594 W	5	101.6	13.5	P-7	104.4	15.1	97.3	-1.6	Р	
233	01/29/13	2803.1476 N 08105.1560 W	5	96.2	15.1	P-2	100.2	17.5	96.0	-2.4	Р	-
234	01/29/13	2803.1381 N 08105.1526 W	5	99.7	14.2	P-2	100.2	17.5	99.5	-3.3	Р	
235	01/29/13	2803.1259 N 08105.1552 W	5	98.1	13.9	P-2	100.2	17.5	97.9	-3.6	Р	

Chris Johnson

01/29/13

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PROJECT NUMBER: 2012-102

JED Landfill

PROJECT TITLE: Leachate Storage Relocation

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

LFGTE Fill

CONTRACTOR:

RCS Excavation

DATES:

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				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	٦	FEST RESULT	S	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		EGGATION OF GAMELE	OR ELEV				DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)		FAIL	
236	01/29/13	2803.1117 N 08105.15 <u>37</u> W	5	96.0	15.7	P-2	100.2	17.5	95.8	-1.8	Р	
237	01/29/13	2803.1592 N 08105.1411 W		98.6	15.4	P-2	100.2	17.5	98.4	-2.1	Р	
238	01/29/13	2803.1435 N 08105.1381 W	5	95.3	16.1	P-2	100.2	17.5	95.1	-1.4	Р	
239	01/29/13	2803.1259 N 08105.1406 W	5	98.6	14.9	P-2	100.2	17.5	98.4	-2.6	Р	
240	01/29/13	2803.1084 N 08105.1403 W	5	96.8	15.3	P-2	100.2	17.5	96.6	-2.2	Р	
241	01/29/13	2803.1054 N 08105.1285 W	5	98.0	15.3	P-2	100.2	17.5	97.8	-2.2	P	
242	01/29/13	2803.1271 N 08105.1258 W	5	97.6	15.6	P-2	100.2	17.5	97.4	-1.9	Р	
243	01/29/13	2803.1441 N 08105.1263 W	5	97.0	16.0	P-2	100.2	17.5	96.9	-1.5	Р	
244	01/29/13	2803.1628 N 08105.1251 W	5	95.8	15.8	P-2	100.2	17.5	95.6	-1.7	Р	
245	01/29/13	2803.1606 N 08105.1118 W	5	98.2	14.9	P-2	100.2	17.5	98.0	-2.6	Р	
246	01/29/13	2803.1436 N 08105.1056 W	5	95.5	15.8	P-2	100.2	17.5	95.3	-1.7	Р	•
CP	01/31/13		- "-	100.0	16.6	P-2	100.2	17.5	-	-	-	
DR13	01/31/13	2803.7347 N 08105.6430 W	5	101.9	13.1	P-3	106	14.0	96.1	-0.9	Р	
247	01/31/13	2803.1023 N 08105.1597 W	5	101.2	11.9	P-3	106	14.0	95.5	-2.1	Р	
248	01/31/13	2803.0992 N 08105.1347 W	5	100.9	11.0	P-3	106	14.0	95.2	-3.0	Р	
249	01/31/13	2803.7347 N 08105.6430 W	5	103.9	13.1	P-3	106	14.0	98.0	-0.9	Р	
250	01/31/13	2803.7229 N 08105.6145 W	5	97.6	14.8	P-2	100.2	17.5	97.4	-2.7	Р	
251	01/31/13	2803.7064 N 08105.5808 W	5	95.9	15.0	P-2	100.2	17.5	95.7	-2.5	P	
252	01/31/13	2803.6914 N 08105.5480 W	5	102.1	13.2	P-3	106	14.0	96.3	-0.8	Р	
253	01/31/13	2803.6914 N 08105.5481 W	5	101.8	13.4	P-3	106	14.0	96.0	-0.6	Р	

Chris Johnson

01/29/13

PREPARED BY



PROJECT NUMBER: 2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

LFGTE Fill

PROJECT TITLE:

JED Landfill Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

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				IN PLACE DETERMINATION		MAT	CHING PRO	TOR	7	EST RESULT	s I	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		2007/1101/ 07 07 11/11 22	OR ELEV				DENSITY	MOISTURE		FROM OPT		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	MOISTURE	FAIL	
254	01/31/13	2803.1023 N 08105.1595 W		102.1	12.0	P-3	106	14.0	96.3	-2.0	P	
255	01/31/13	2803.0982 N 08105.1347 W	_	102.3	12.5	P-3	106	14.0	96.5	-1.5	Р	
256	01/31/13	2803.7347 N 08115.6430 W	5	104.0	13.1	P-3	106	14.0	98.1	-0.9	Р	
257	01/31/13	2803.7229 N 08105.6144 W	5	98.1	16.4	P-2	100.2	17.5	97.9	-1.1	Р	
258	01/31/13	2803.7063 N 08105.5808 W	5	99.2	15.9	P-2	100.2	17.5	99.0	-1.6	Р	
259	01/31/13	2803.6914 N 08105.5481 W	5	101.8	13.4	P-3	106	14.0	96.0	-0.6	Р	
260	01/31/13	2803.6725 N 08105.5111 W	5	102.6	15.6	P-3	106	14.0	96.8	1.6	Р	
261	01/31/13	2803.6533 N 08105.4743 W	5	103.4	12.2	P-3	106	14.0	97.6	-1.8	Р	
262	01/31/13	2803.6227 N 08105.4449 W	5	96.1	17.8	P-2	100.2	17.5	95.9	0.3	Р	
263	01/31/13	2803.5774 N 08105.4351 W	5	100.8	14.7	P-3	106	14.0	95.1	0.7	Р	
264	01/31/13	2803.5310 N 08105.4278 W	5	96.7	16.1	P-2	100.2	17.5	96.5	-1.4	Р	
265	01/31/13	2803.4848 N 08105.4193 W	5	101.8	15.0	P-3	106	14.0	96.1	1.0	Р	
CP	02/01/13	-	-	99.8	17.1	P-2	100.2	17.5	_	-	-	
DR14	02/01/13	2803.4525 N 08105.4005 W	5	98.5	15.4	P-2	100.2	17.5	98.3	-2.1	Р	
266	02/01/13	2803.4525 N 08105.4005 W	5	99.8	14.9	P-2	100.2	17.5	99.6	-2.6	Р	
267	02/01/13	2803.4089 N 08105.3706 W	5	97.5	15.6	P-2	100.2	17.5	97.3	-1.9	Р	
268	02/01/13	2803.3619 N 08105.3391 W	5	102.3	16.2	P-3	106	14.0	96.5	2.2	Р	
269	02/01/13	2803.3180 N 08105.3076 W	5	99.7	17.0	P-2	100.2	17.5	99.5	-0.5	Р	
270	02/01/13	2803.3093 N 08105.2739 W	5	98.2	16.1	P-2	100.2	17.5	98.0	-1.4	Р	-
271	02/01/13	2803.2918 N 08105.2244 W	5	97.7	15.8	P-2	100.2	17.5	97.5	-1.7	Р	

Chris Johnson	
PREPARED BY	_

01/31/13



PROJECT NUMBER: 2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

LFGTE Fill

PROJECT TITLE:

JED Landfill

Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

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				IN PLACE DETERMINATION MATCHING PROTOR TEST RESULTS						s		
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		EOCATION OF SAMPLE	OR ELEV				DENSITY	MOISTURE		FROM OPT		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	MOISTURE	FAIL	
272	02/01/13	2803.1813 N 08105.0826 W	5	97.4	15.4	P-2	100.2	17.5	97.2	-2.1	Р	
273	02/01/13	2803.2245 N 08105.0809 W	5	95.3	16.2	P-2	100.2	17.5	95.1	-1.3	Р	
274	02/01/13	2803.2576 N 08105.0821 W	6	96.0	14.9	P-2	100.2	17.5	95.8	-2.6	Р	
275	02/01/13	2803.2972 N 08105.1050 W	6	98.1	16.0	P-2	100.2	17.5	97.9	-1.5	Р	
276	02/01/13	2803.2691 N 08105.1407 W	6	94.5	17.0	P-2	100.2	17.5	94.3	-0.5	Р	
277	02/01/13	2803.2879 N 08105.1787 W	6	98.9	17.8	P-2	100.2	17.5	98.7	0.3	Р	
278	02/01/13	2803.3129 N 08105.2214 W	6	99.7	17.5	P-2	100.2	17.5	99.5	0.0	Р	
279	02/01/13	2803.3271 N 08105.2662 W	6	97.1	17.9	P-2	100.2	17.5	96.9	0.4	Р	
280	02/01/13	2803.3425 N 08105.3047 W	6	96.6	16.8	P-2	100.2	17.5	96.4	-0.7	Р	
281	02/01/13	2803.3748 N 08105.3267 W	6	95.5	17.8	P-2	100.2	17.5	95.4	0.3	Р	
282	02/01/13	2803.4181 N 08105.3565 W	6	100.8	16.4	P-3	106	14.0	95.0	2.4	Р	
283	02/01/13	2803.4494 N 08105.3479 W	6	101.8	16.1	P-3	106	14.0	96.0	2.1	Р	
284	02/01/13	2803.4587 N 08105.3118 W	6	98.0	16.4	P-2	100.2	17.5	97.8	-1.1	Ρ	-
285	02/01/13	2803.4820 N 08105.3286 W	6	98.5	16.2	P-2	100.2	17.5	98.3	-1.3	P	_
286	02/01/13	2803.5169 N 08105.3656 W	6	103.8	14.9	P-3	106	14.0	97.9	0.9	Р	
287	02/01/13	2803.5549 N 08105.3949 W	6	97.3	17.3	P-2	100.2	17.5	97.1	-0.2	Р	
288	02/01/13	2803.3129 N 08105.2213 W	6	99.5	17.0	P-2	100.2	17.5	99.3	-0.5	Р	
289	02/01/13	2803.3273 N 08105.2662 W	6	98.2	17.2	P-2	100.2	17.5	98.0	-0.3	Р	
290	02/01/13	2803.3424 N 08105.3047 W	6	95.9	17.0	P-2	100.2	17.5	95.7	-0.5	Р	
291	02/01/13	2803.3748 N 08105.3268 W	6	96.0	16.5	P-2	100.2	17.5	95.8	-1.0	Р	

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02/01/13



PROJECT	NUMBER:	2012-102
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OWNER/ENGINEER:

Omni Waste of Osceola, LLC

LFGTE Fill

PROJECT TITLE:

JED Landfill
Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

02/18/13

TO 02/18/13

PAGE

17

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	1	EST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		ESSATISTICS SAMELE	OR ELEV				DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	(%)	FAIL	
CP	02/18/13			99.7	17.4	P-2	100.2	17.5	•		-	
DR15	02/18/13	2803.2814 N 08105.2147 W		100.0	16.7	P-2	100.2	17.5	99.8	-0.8	Р	
292	02/18/13	2803.2814 N 08105.2147 W	6	99.9	15.7	P-2	100.2	17.5	99.7	-1.8	Р	
293	02/18/13	2803.2536 N 08105.2143 W	6	95.4	16.2	P-2	100.2	17.5	95.3	-1.3	Р	
294	02/18/13	2803.2197 N 08105.2129 W	6	98.3	17.0	P-2	100.2	17.5	98.1	-0.5	Р	
295	02/18/13	2803.4182 N 08105.3565 W	6	104.2	16.0	P-3	106	14.0	98.3	2.0	Р	
296	02/18/13	2803.4494 N 08105.3474 W	6	101.0	16.3	P-3	106	14.0	95.3	2.3	Р	
297	02/18/13	2803.4585 N 08105.3118 W	6	98.1	15.9	P-2	100.2	17.5	97.9	-1.6	Р	
298	02/18/13	2803.4820 N 08105.3285 W	6	98.2	16.2	P-2	100.2	17.5	98.0	-1.3	Р	
299	02/18/13	2803.5165 N 08105.3656 W	6	102.4	14.9	P-3	106	14.0	96.6	0.9	Р	
CP	02/20/13	-	-	105.8	14.6	P-3	106	14.0	-	-	-	
DR16	02/20/13	2803.1753 N 08105.1191 W	6	103.5	11.8	P-3	106	14.0	97.6	-2.2	Р	
300	02/20/13	2803.1753 N 08105.1191 W	6	104.3	12.1	P-3	106	14.0	98.4	-1.9	Р	
301	02/20/13	2803.2033 N 08105.1201 W	6	104.1	12.5	P-3	106	14.0	98.2	-1.5	Р	
302	02/20/13	2803.2280 N 08105.1245 W	6	103.2	12.1	P-3	106	14.0	97.4	-1.9	Р	
303	02/20/13	2803.2288 N 08105.1541 W	6	103.9	12.2	P-3	106	14.0	98.0	-1.8	P	
304	02/20/13	2803.2231 N 08105.1907 W	6	105.0	13.1	P-3	106	14.0	99.1	-0.9	Р	
305	02/20/13	2803.1958 N 08105.1874 W	6	103.8	12.8	P-3	106	14.0	97.9	-1.2	Р	
СР	02/21/13	-	-	105.8	13.7	P-3	106	14.0	-	-	-	
DR17	02/21/13	2803.6505 N 08105.4231 W	6	101.0		P-3	106	14.0	95.3	-0.9	Р	

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02/18/13



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PROJECT NUMBER:	2012-102	OWNER/ENGIN	IEER:	Omni Waste of	Osceola	LLC		Fill	
	JED Landfill					_			
PROJECT TITLE:	Leachate Storage Relocation	CONTRACTOR	:	RCS Excavatio	n				
		DATES:	FROM	02/21/13	TO	02/21/13	PAGE	18	

				IN PLACE DETERM	N PLACE DETERMINATION			TOR	Т	EST RESULT:	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		LOCATION OF SAMPLE	OR ELEV				DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	(%)	FAIL	
306	02/21/13	2803.6505 N 08105.4231 W	6	101.2	12.6	P-3	106	14.0	95.5	-1.4	Р	
307	02/21/13	2803.6186 N 08105.4131 W	6	102.8	13.6	P-3	106	14.0	97.0	-0.4	Р	
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Chris Johnson
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02/21/13



COMPACTED FILL

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:		Jed Landfill Leachate Storage Reelocation	CONTRACTOR:	RCS Excavation
LOCATION: St. CI	loud, FL		DATE TESTED:	11/14/2012

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%			LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION		OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)					ELEV.
DR1	2355			16.7		P9				
-	601	3.87	116.0	-0.4	99.4		98.5%			
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COMPACTED FILL

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:		Jed Landfill Leachate Storage Reelocation	CONTRACTOR:	RCS Excavation
LOCATION: St. CI	loud, FL		DATE TESTED:	11/17/2012

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR2	2309			14.9		P2			
	601	3.76	112.9	-2.6	98.3		98.1%		1
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COMPACTED FILL

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC	
PROJECT NAME:		Jed Landfill Leachate Storage Reelocation	CONTRACTOR:	RCS Excavation	
LOCATION:	St. Cloud, FL		DATE TESTED:	11/29/2012	

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR3	2340	_		14.3		P7			
	601	3.83	115.0	-0.8	100.6		96.4%		1
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COMPACTED FILL

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:		Jed Landfill Leachate Storage Reclocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	11/30/2012

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		UFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR4	2378			15.1		P7			
	601	3.92	117.5	0.0	102.1		97.8%		
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COMPACTED FILL

PROJECT NUMBER:		2011-102		OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:		Jed Landfill Leachate Storage Reviocation		CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL			DATE TESTED:	12/1/2012

	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR5	2337			13.9		P7			
	601	3.83	114.8	-1.2	100.8		96.6%		
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COMPACTED FILL

PROJECT NUMBER:		2011-102		OWNER/ENGINEER:	Omni Waste of Osceola, LLC	
PROJECT NAME:		Jed Landfili Leachate Storage Relocation		CONTRACTOR:	RCS Excavation	
LOCATION:	St. Cloud, FL			DATE TESTED:	1/14/2013	

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		UFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR6	2321			16.1		P2			
	601	3.79	113.8	-1.4	98.0		97.8%		3



COMPACTED

PROJECT NUMB	ER:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME	:	Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	1/15/2013

. NO.	WT. OF RING & SAMPLE WT. OF RING	WT. OF SAMPLE (lbs)	WET DENSITY (pcf)	% MOIST. +/- OF OPT.	DRY DENSITY (pcf)	PROCTOR NO.	% COMP.	LOCATION		LIFT OR ELEV.
DR7	2345 601	3.85	115.4	12.0 -2.0		P3	97.2%			3



COMPACTED FILL

PROJECT NUMBER:		2011-102		OWNER/ENGINEER:	Omni Waste of Osceola, LLC	
PROJECT NAME:		Jed Landfill Leachate Storage Relocation		CONTRACTOR:	RCS Excavation	
LOCATION:	St. Cloud, FL			DATE TESTED:	1/22/2013	

	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR ELEV.
$\overline{}$	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR8	2288			16.7		P2			
	601	3.72	111.6	-0.8	95.6		95.4%		3
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COMPACTED

FILE # 522.3

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME	:	Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	1/23/2013

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR9	2305			15.2		P2			I
	601	3.76	112.7	-2.3	97.8		97.6%		3
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COMPACTED

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME	i:	Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	1/24/2013

	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR10	2339			15.5		P2			
	601	3.83	114.9	-2.0	99.5		99.3%		3
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COMPACTED FILL

PROJECT NUMBER:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC	
PROJECT NAME:	Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation	
LOCATION: St. Cloud, F	L	DATE TESTED:	1/28/2013	

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR11	2309			15.3		P2			
	601	3.77	113.0	-2.2	98.0		97.8%		
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COMPACTED FILL

PROJECT NUMBER:		2011-102		OWNER/ENGINEER:	Omni Waste of Osceola, LLC	
PROJECT NAME:		Jed Landfill Leachate Storage Relocation		CONTRACTOR:	RCS Excavation	
LOCATION:	St. Cloud, FL			DATE TESTED:	1/29/2013	

TEST NO.	WT. OF RING & SAMPLE WT. OF RING	WT. OF SAMPLE (lbs)	WET DENSITY (pcf)	% MOIST. +/- OF OPT.	DRY DENSITY (pcf)	PROCTOR NO.	% COMP.	LOCATION	LIFT OR ELEV.
DR12	2338 601	3.83	114.9	16.4 -1.1	98.7	P2	98.5%		3
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COMPACTED FILL

PROJECT NUMBER:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC	
PROJECT NAME:	Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation	
LOCATION: St. Cloud,	FL .	DATE TESTED:	1/31/2013	

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR13	2344			13.1		P3			\top
	601	3.84	115.2	-0.9	101.9		96.1%		
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COMPACTED FILL

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC		
PROJECT NAME:		Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation		
LOCATION:	St. Cloud, FL		DATE TESTED:	2/1/2013		

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR14	2320			15.4		P2			
	601	3.79	113.7	-2.1	98.5		98.3%		
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COMPACTED FILL

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC		
PROJECT NAME:		Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation		
LOCATION:	St. Cloud, FL		DATE TESTED:	2/18/2013		
				<u> </u>		

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR15	2366			16.7		P2			
	601	3.89	116.7	-0.8	100.0		99.8%		3
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COMPACTED FILL

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC		
PROJECT NAME	!	Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation		
LOCATION:	St. Cloud, FL		DATE TESTED:	2/21/2013		

TEST NO.	WT. OF RING & SAMPLE WT. OF RING	WT. OF SAMPLE (lbs)	WET DENSITY (pcf)	% MOIST. +/- OF OPT.	DRY DENSITY (pcf)	PROCTOR NO.	% COMP.	LOCATION	LIFT OR ELEV.
DR17	2328 601	3.81	114.2	13.1 -0.9		P3	95.3%		3
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Section 3 General Fill Density Summary and Field Tests (Limerock Road)



PROJECT NUMBER: 2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Fill

PROJECT TITLE:

JED Landfill Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

01/22/13

TO 02/20/13

PAGE

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR		EST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
			OR ELEV				DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	(%)	FAIL	
CP	01/22/13	<u> </u>	-						-	-	-	Road Base
1	01/22/13	0+50	11	122.8	9.4	LB-1	126.7	8.6	96.9	0.8	P	Road Base
CP		-	-							-	-	Road Base
2	01/23/13	2+31	1	122.0	10.0	LB-1	126.7	8.6	96.3	1.4	Р	Road Base
3	01/23/13	4+25	1	122.1	10.8	LB-1	126.7	8.6	96.4	2.2	Р	Road Base
4	01/23/13	6+20	1	122.4	11.0	LB-1	126.7	8.6	96.6	2.4	Р	Road Base
5	01/23/13	8+10	1	123.0	11.3	LB-1	126.7	8.6	97.1	2.7	Р	Road Base
6	01/23/13	10+00	1	121.4	9.5	LB-1	126.7	8.6	95.8	0.9	Р	Road Base
7	01/23/13	11+00	1	122.5	9.0	LB-1	126.7	8.6	96.7	0.4	Р	Road Base
CP												
8	01/31/13	0+67	1	125.3	7.9	LB-1	126.7	8.6	98.9	-0.7	Р	Subbase
9	01/31/13	2+50	1	124.0	11.0	LB-1	126.7	8.6	97.9	2.4	F	Subbase
9R	01/31/13	2+50	1	125.0	11.0	LB-1	126.7	8.6	98.7	2.4	Р	Subbase
CP	02/20/13	-	-	126.0	9.1	LB-1	126.7	8.6	-	-	_	Subbase
10	02/20/13	4+00	1	125.1	7.7	LB-1	126.7	8.6	98.7	-0.9	Р	Subbase
11	02/20/13	5+90	1	126.2	7.5	LB-1	126.7	8.6	99.6	-1.1	P	Subbase
12	02/20/13	7+80	1	125.0	8.4	LB-1	126.7	8.6	98.7	-0.2	Р	Subbase
13	02/20/13	9+70	1	124.3	9.0	LB-1	126.7	8.6	98.1	0.4	Р	Subbase
14	02/20/13	11+50	1	125.4	9.4	LB-1	126.7	8.6	99.0	0.8	Р	Subbase
15	02/20/13	13+40	1	124.9	8.0	LB-1	126.7	8.6	98.6	-0.6	Р	Subbase

Chris Johnson

02/20/13

PREPARED BY



Road
Fill

PROJECT NUMBER: 2012-102

JED Landfill

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

PROJECT TITLE:

Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

02/20/13

TO 02/22/13

PAGE :

	1			IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	1	TEST RESULT	s	
TEST	TEST DATE		LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		LOCATION OF SAMPLE	OR ELEV		·		DENSITY	MOISTURE		FROM OPT		REMARK
NUMBER			(ft)	` (pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	(%)	FAIL	
16	02/20/13	15+35	1	125.6	7.1	LB-1	126.7	8.6	99.1	-1.5	Р	Subbase
17	02/20/13	17+25	1	124.6	6.7	LB-1	126.7	8.6	98.3	-1.9	Р	Subbase
18	02/20/13	19+20	1	124.9	7.9	LB-1	126.7	8.6	98.6	-0.7	Р	Subbase
CP	02/22/13	-	-	124.0	9.1	LB-1	126.7	8.6	-	-	-	Asphalt Base
19	02/22/13	0+90	2	122.8	9.4	LB-1	126.7	8.6	96.9	0.8	Р	Asphalt Base
20	02/22/13	2+80	2	125.6	9.3	LB-1	126.7	8.6	99.1	0.7	Р	Asphalt Base
21	02/22/13	4+70	2	124.8	8.4	LB-1	126.7	8.6	98.5	-0.2	Р	Asphalt Base
22	02/22/13	6+60	2	125.0	7.9	LB-1	126.7	8.6	98.7	-0.7	Р	Asphalt Base
23	02/22/13	8+50	2	124.5	9.0	LB-1	126.7	8.6	98.3	0.4	Р	Asphalt Base
24	02/22/13	10+40	2	124.9	9.7	LB-1	126.7	8.6	98.6	1.1	Р	Asphalt Base
25	02/22/13	12+20	2	125.8	9.3	LB-1	126.7	8.6	99.3	0.7	Р	Asphalt Base
26	02/22/13	14+00	2	125.0	10.0	LB-1	126.7	8.6	98.7	1.4	Р	Asphalt Base
27	02/22/13	15+80	2	124.7	9.0	LB-1	126.7	8.6	98.4	0.4	Р	Asphalt Base
28	02/22/13	17+60	2	124.8	9.9	LB-1	126.7	8.6	98.5	1.3	Р	Asphalt Base
29	02/22/13	19+50	2	124.6	9.4	LB-1	126.7	8.6	98.3	0.8	Р	Asphalt Base
,												

Chris	Johnson

Section 4 General Fill Density Summary and Field Tests (Storm Water Management Berm &Disposal Boundary Perimeter Berm)



ROJECT NUMBER:	2012-102	OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Berm Fill

PROJECT TITLE:

JED Landfill
Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

12/03/12

TO 12/03/12

PAGE 1

				IN PLACE DETERMINATION		MATCHING PROTOR			TEST RESULTS			
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
			OR ELEV				DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	(%)	FAIL	
CP	12/03/12	•	-	100.0	17.9	P-2	100.2	17.5	-	-	-	
DR 1	12/03/12	2803.1537 N 08105.1855 W	1	97.8	15.2	P-2	100.2	17.5	97.6	-2.3	Р	
1	12/03/12	2803.1537 N 08105.1855 W	1	97.8	16.9	P-2	100.2	17.5	97.7	-0.6	Р	_
2	12/03/12	2803.1391 N 08105.1861 W	1	98.2	15.1	P-2	100.2	17.5	98.0	-2.4	Р	
3	12/03/12	2803.1313 N 08105.1866 W	1	96.7	17.0	P-2	100.2	17.5	96.5	-0.5	Р	_
4	12/03/12	2803.1083 N 08105.1871 W	1	95.8	15.6	P-2	100.2	17.5	95.6	-1.9	Р	
5	12/03/12	2803.1093 N 08105.1769 W	1	95.2	14.5	P-2	100.2	17.5	95.0	-3.0	Р	
6	12/03/12	2803.1221 N 08105.1755 W	1	95.6	15.4	P-2	100.2	17.5	95.4	-2.1	Р	
7	12/03/12	2803.1380 N 08105.1733 W	1	95.6	15.0	P-2	100.2	17.5	95.4	-2.5	P.	
8	12/03/12	2803.1507 N 08105.1727 W	1	97.7	15.3	P-2	100.2	17.5	97.5	-2.2	Р	
9	12/03/12	2803.1571 N 08105.1618 W	1	100.1	16.0	P-2	100.2	17.5	99.9	-1.5	Р	
10	12/03/12	2803.1408 N 08105.1598 W	1	97.7	14.7	P-2	100.2	. 17.5	97.5	-2.8	Р	
11	12/03/12	2803.1198 N 08105.1631 W	1	95.7	15.9	P-2	100.2	17.5	95.5	-1.6	Р	
12	12/03/12	2803.1043 N 08105.1619 W	1	97.3	14.6	P-2	100.2	17.5	97.1	-2.9	Р	
13	12/03/12	2803.1431 N 08105.1486 W	1	98.4	16.2	P-2	100.2	17.5	98.2	-1.3	Р	
14	12/03/12	2803.1416 N 08105.1251 W	1	97.8	15.3	P-2	100.2	17.5	97.6	-2.2	Р	
15	12/03/12	2803.1359 N 08105.1091 W	1	98.0	14.8	P-2	100.2	17.5	97.8	-2.7	Р	
16	12/03/12	2803.1521 N 08105.1004 W	1	98.1	15.0	P-2	100.2	17.5	97.9	-2.5	Р	
17	12/03/12	2803.1508 N 08105.1173 W	1	98.3	14.9	P-2	100.2	17.5	98.1	-2.6	P	
18	12/03/12	2803.1515 N 08105.1 <u>356 W</u>	1	95.9	15.4	P-2	100.2	17.5	95.7	-2.1	Р	

Chris Johnson

12/03/12

PREPARED BY



PROJECT NUMBER: 2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Berm Fill

PROJECT TITLE: Leachate Sto

Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

12/04/12

TO 12/04/12

PAGE 2

				IN PLACE DETERMINATION		MATCHING PROTOR			TEST RESULTS			
TEST	TEST DATE		LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		LOCATION OF SAMPLE	OR ELEV				DENSITY	MOISTURE		FROM OPT		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	MOISTURE (%)	FAIL	
CP	12/04/12	-	-	104.2	14.8	P-7	104.4	15.1	-	- (70)	-	
DR2	12/04/12	2803.1064 N 08105.0924 W	1	102.1	14.0	P-7	104.4	15.1	97.8	-1.1	Р	
19	12/04/12	2803.1064 N 08105.0924 W	1	101.2	13.8	P-7	104.4	15.1	96.9	-1.3	Р	
20	12/04/12	2803.1091 N 08105.1121 W	1	101.6	12.6	P-7	104.4	15.1	97.4	-2.5	Р	
21	12/04/12	2803.1070 N 08105.1339 W	2	101.5	13.2	P-7	104.4	15.1	97.2	-1.9	Р	-
22	12/04/12	2803.1080 N 08105.1527 W	2	96.7	19.2	P-2	100.2	17.5	96.5	1.7	Р	
23	12/04/12	2803.1191 N 08105.1505 W	2	102.8	14.4	P-7	104.4	15.1	98.5	-0.7	P	
24	12/04/12	2803.1178 N 08105.1353 W	1	98.1	14.6	P-2	100.2	17.5	97.9	-2.9	Р	
25	12/04/12	2803.1188 N 08105.1134 W	1	96.1	15.9	P-2	100.2	17.5	95.9	-1.6	Р	
26	12/04/12	2803.1205 N 08105.0951 W	1	99.5	15.5	P-2	100.2	17.5	99.3	-2.0	Р	_
27	12/04/12	2803.1322 N 08105.1041 W	2	101.7	14.7	P-7	104.4	15.1	97.4	-0.4	Р	_
28	12/04/12	2803.1299 N 08105.1261 W	2	99.7	15.7	P-2	100.2	17.5	99.5	-1.8	Р	-
29	12/04/12	2803.1319 N 08105.1441 W	2	97.0	16.0	P-2	100.2	17.5	96.8	-1.5	Р	
30	12/04/12	2803.2624 N 08105.0802 W	2	104.3	13.9	P-7	104.4	15.1	99.9	-1.2	Р	
31	12/04/12	2803.2871 N 08105.0806 W	2	103.6	12.7	P-7	104.4	15.1	99.3	-2.4	Р	
32	12/04/12	2803.2939 N 08105.1021 W	2	101.1	13.0	P-7	104.4	15.1	96.9	-2.1	Р	
33	12/04/12	2803.2747 N 08105.1320 W	2	96.2	15.8	P-2	100.2	17.5	96.0	-1.7	Р	
34	12/04/12	2803.2670 N 08105.1569 W	1	99.1	14.8	P-2	100.2	17.5	98.9	-2.7	Р	
35	12/04/12	2803.1569 N 08105.1844 W	1	96.6	14.9	P-2	100.2	17.5	96.4	-2.6	P	
36	12/04/12	2803.1567 N 08105.1656 W	1	97.7	14.5	P-2	100.2	17.5	97.5	-3.0	Р	

Chris	Johns	son

12/04/12

PREPARED BY



PROJECT N	IUMBER:	2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Berm Fill

3

PROJECT TITLE:

JED Landfill Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

12/04/12

TO 12/06/12

PAGE

				IN PLACE DETERM	MATCHING PROTOR			TEST RESULTS				
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV (ft)	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
37	12/04/12	2803.1555 N 08105.1468 W	2	95.9	17.4	P-2	100.2	17.5	95.7	-0.1	Р	
38	12/04/12	2803.1559 N 08105.1283 W	2	96.5	16.7	P-2	100.2	17.5	96.3	-0.8	Р	
39	12/04/12	2803.1494 N 08105.1298 W	2	95.2	17.6	P-2	100.2	17.5	95.0	0.1	Р	
40	12/04/12	2803.1384 N 08105.1360 W	2	96.3	15.5	P-2	100.2	17.5	96.1	-2.0	Р	
41	12/04/12	2803.1502 N 08105.1628 W	2	96.2	15.7	P-2	100.2	17.5	96.0	-1.8	Р	
42	12/04/12	2803.1500 N 08105.1804 W	2	97.1	16.3	P-2	100.2	17.5	96.9	-1.2	Р	
CP	12/06/12		-	100.1	16.7	P-2	100.2	17.5		-	-	_
DR3	12/06/12	2803.0817 N 08105.1886 W	2	99.0	16.2	P-2	100.2	17.5	98.8	-1.3	Р	
43	12/06/12	2803.0817 N 08105.1886 W	2	98.4	15.8	P-2	100.2	17.5	98.2	-1.7	Р	
44	12/06/12	2803.1468 N 08105.0954 W	2	99.9	14.8	P-2	100.2	17.5	99.7	-2.7	P	
45	12/06/12	2803.1491 N 08105.1137 W	2	95.8	13.6	P-2	100.2	17.5	95.6	-3.9	P	
46	12/06/12	2803.1585 N 08105.1123 W	2	98.6	15.1	P-2	100.2	17.5	98.4	-2.4	Р	
47	12/06/12	2803.1528 N 08105.0832 W	2	97.7	10.7	P-2	100.2	17.5	97.5	-6.8	Р	
48	12/06/12	2803.1767 N 08105.0838 W	2	95.8	11.4	P-2	100.2	17.5	95.6	-6.1	P	
49	12/06/12	2803.2110 N 08105.0841 W	2	96.2	14.2	P-2	100.2	17.5	96.0	-3.3	Р	
50	12/06/12	2803.2486 N 08105.0832 W	2	98.0	15.1	P-2	100.2	17.5	97.8	-2.4	·Р	
51	12/06/12	2803.2912 N 08105.0826 W	2	97.6	13.4	P-2	100.2	17.5	97.4	-4.1	Р	
52	12/06/12	2803.2916 N 08105.1062 W	2	96.7	14.9	P-2	100.2	17.5	96.5	-2.6	Р	
53	12/06/12	2803.0827 N 08105.1986 W	2	97.6	15.0	P-2	100.2	17.5	97.4	<i>-</i> 2.5	Р	
54	12/06/12	2803.1438 N 08105.0854 W	2	98.6	14.7	P-2	100.2	17.5	98.4	-2.8	Р	

Chris Johnson

12/06/12

PREPARED BY



Berm	

PROJECT NUMBER: 2012-102

JED Landfill

Omni Waste of Osceola, LLC

Fill

PROJECT TITLE:

Leachate Storage Relocation

CONTRACTOR:

OWNER/ENGINEER:

RCS Excavation

DATES:

FROM

12/06/12

TO 12/07/12

PAGE 4

				IN PLACE DETERMINATION MAT			MATCHING PROTOR			TEST RESULTS		
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT	FAIL	REMARK
55	12/06/12	2803.0491 N 08105.1037 W	2	96.5	16.0	P-2	100.2	17.5	96.3	-1.5	Р	
56	12/06/12	2803.1525 N 08105.1133 W	2	97.8	15.0	P-2	100.2	17.5	97.6	-2.5	Р	
57	12/06/12	2803.1525 N 08105.0830 W	2	99.0	16.2	P-2	100.2	17.5	98.8	-1.3	Р	
58	12/06/12	2803.1747 N 08105.0832 W	2	95.9	16.7	P-2	100.2	17.5	95.7	-0.8	Р	_
59	12/06/12	2803.2120 N 08105.0811 W	2	97.5	15.9	P-2	100.2	17.5	97.3	-1.6	Р	
60	12/06/12	2803.2456 N 08105.0842 W	2	96.1	17.0	P-2	100.2	17.5	95.9	-0.5	Р	
61	12/06/12	2803.2922 N 08105.0836 W	2	96.0	16.9	P-2	100.2	17.5	95.8	-0.6	Р	
62.	12/06/12	2803.2926 N 08105.1042 W	2	96.3	17.1	P-2	100.2	17.5	96.1	-0.4	Р	
63	12/06/12	2803.2671 N 08105.1350 W	2	99.1	14.8	P-2	100.2	17.5	98.9	-2.7	Р	
CP	12/07/12	-	-	99.9	17.1	P-2	100.2	17.5	-		-	
DR4	12/07/12	2803.0855 N 08105.1946 W	3	98.0	16.0	P-2	100.2	17.5	97.8	-1.5	Р	
64	12/07/12	2803.0855 N 08105.1946 W	3	97.7	15.3	P-2	100.2	17.5	97.5	-2.2	Р	
65	12/07/12	2803.2681 N 08105.1634 W	3	102.2	12.9	P-7	104.4	15.1	97.9	-2.2	Р	
66	.12/07/12	2803.2715 N 08105.1385 W	3	100.9	13.0	P-7	104.4	15.1	96.6	-2.1	Р	
67	12/07/12	2803.2828 N 08105.1124 W	3	98.7	15.3	P-2	100.2	17.5	98.5	-2.2	Р	-
68	12/07/12	2803.2990 N 08105.0895 W	3	98.3	14.7	P-2	100.2	17.5	98.1	-2.8	Р	
69	12/07/12	2803.0835 N 08105.1942 W	3	98.0	15.0	P-2	100.2	17.5	97.8	-2.5	Р	
70	12/07/12	2803.26815N 08105.1644 W	3	101.0	13.0	P-7	104.4	15.1	96.7	-2.1	Р	
71	12/07/12	2803.2713 N 08105.1382 W	3	101.5	13.2	P-7	104.4	15.1	97.2	-1.9	P	
72	12/07/12	2803.2825 N 08105.1114 W	3	96.0	15.2	P-2	100.2	17.5	95.8	-2.3	Р	

Chris Johnson

12/07/12

PREPARED BY



OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Berm Fill

PROJECT TITLE:

JED Landfill
Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

12/07/12

TO 12/10/12

PAGE 5

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	1	TEST RESULT		
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
73	12/07/12	2803.2970 N 08105.0890 W	3	97.3	15.0	P-2	100.2	17.5	97.1	-2.5	Р	
CP	12/08/12	-	-	104.0	15.4	P-7	104.4	15.1	-	-	-	
DR5	12/08/12	2803.0770 N 08105.1934 W	3	96.2	17.0	P-2	100.2	17.5	96.0	-0.5	Р	
74	12/08/12	2803.0770 N 08105.1934 W	3	95.7	16.7	P-2	100.2	17.5	95.5	-0.8	Р	
75	12/08/12	2803.1084 N 08105.2101 W	3	101.1	16.9	P-7	104.4	15.1	96.8	1.8	Р	
76	12/08/12	2803.1350 N 08105.2153 W	3	101.9	16.7	P-7	104.4	15.1	97.6	1.6	Р	
CP	12/10/12			99.7	16.9	P-2	100.2	17.5	-	-	-	
DR6	12/10/12	2803.1656 N 08105.2140 W	3	97.8	16.0	P-2	100.2	17.5	97.6	-1.5	P	
77	12/10/12	2803.1656 N 08105.2140 W	3	99.8	16.9	P-2	100.2	17.5	99.6	-0.6	Р	
78	12/10/12	2803.1938 N 08105.2159 W	3	98.9	16.9	P-2	100.2	17.5	98.7	-0.6	Р	
79	12/10/12	2803.2327 N 08105.2150 W	3	102.8	12.2	P-7	104.4	15.1	98.5	-2.9	Р	_
80	12/10/12	2803.2639 N 08105.2150 W	3	103.3	14.7	P-7	104.4	15.1	99.0	-0.4	Р	
81	12/10/12	2803.2879 N 08105.2228 W	3	100.2	14.6	P-2	100.2	17.5	100.0	-2.9	Р	
82	12/10/12	2803.1654 N 08105.21402W	3	99.7	17.0	P-2	100.2	17.5	99.5	-0.5	Р	
83	12/10/12	2803.1918 N 08105.2139 W	3	99.0	17.3	P-2	100.2	17.5	98.8	-0.2	Р	
84	12/10/12	2803.2323 N 08105.2156 W	3	103.0	13.1	P-7	104.4	15.1	98.7	-2.0	Р	
85	12/10/12	2803.2634 N 08105.2130 W	3	103.1	15.2	P-7	104.4	15.1	98.8	0.1	Р	_
86	12/10/12	2803.2869 N 08105.2218 W	3	100.1	15.3	P-2	100.2	17.5	99.9	-2.2	Р	
87	12/10/12	2803.3081 N 08105.2569 W	3	99.0	17.6	P-2	100.2	17.5	98.8	0.1	Р	
88	12/10/12	2803.3126 N 08105.2975 W	3	100.2	18.4	P-2	100.2	17.5	100.0	0.9	Р	

Chris Johnson

12/10/12

PREPARED BY



Berm

PROJECT NUMBER: 2012-102

JED Landfill

OWNER/ENGINEER:

FROM

Omni Waste of Osceola, LLC

Fill

PROJECT TITLE:

Leachate Storage Relocation

CONTRACTOR:

DATES:

RCS Excavation

12/11/12

TO 12/18/12

PAGE 6

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	. 1	EST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV (ft)	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
CP	12/11/12	-	-	100.0	17.2	P-2	100.2	17.5	-	-	-	
DR7	12/11/12	2803.2797 N 08105.1706 W	3	99.1	15.7	P-2	100.2	17.5	98.9	-1.8	Р	
89	12/11/12	2803.2797 N 08105.1706 W	3	98.4	14.9	P-2	100.2	17.5	98.2	-2.6	Р	
90	12/11/12	2803.3007 N 08105.2034 W	3	103.0	12.8	P-7	104.4	15.1	98.6	-2.3	Р	
91	12/11/12	2803.3223 N 08105.2392 W	4	101.0	15.9	P-7	104.4	15.1	96.7	0.8	Р	
92	12/11/12	2803.3223 N 08105.2774 W	4	96.1	16.0	P-2	100.2	17.5	95.9	-1.5	P	
93	12/11/12	2803.3412 N 08105.3029 W	4	99.5	14.9	P-2	100.2	17.5	99.3	-2.6	Р	
94	12/11/12	2803.3715 N 08105.3240 W	4	104.3	13.1	P-7	104.4	15.1	99.9	-2.0	Р	
95	12/11/12	2803.2793 N 08105.1704 W	3	99.0	15.0	P-2	100.2	17.5	98.8	-2.5	Р	
96	12/11/12	2803.3003 N 08105.2030 W	3	102.3	12.1	P-7	104.4	15.1	98.0	-3.0	Р	
97	12/11/12	2803.3220 N 08105.2397 W	4	101.4	14.9	P-7	104.4	15.1	97.1	-0.2	Р	
98	12/11/12	2803.3226 N 08105.2764 W	4	97.0	15.0	P-2	100.2	17.5	96.8	-2.5	Р	
99	12/11/12	2803.3432 N 08105.3024 W	4	98.4	15.5	P-2	100.2	17.5	98.2	-2.0	Р	
100	12/11/12	2803.3710 N 08105.32409W	4	103.7	14.0	P-7	104.4	15.1	99.3	-1.1	Р	
CP	12/18/12	-	-	103.9	15.6	P-7	104.4	15.1	-	-	-	
DR8	12/18/12	2803.1243 N 08105.2179 W	4	103.0	14.8	P-7	104.4	15.1	98.7	-0.3	Р	
101	12/18/12	2803.1243 N 08105.2179 W	4	102.7	14.1	P-7	104.4	15.1	98.4	-1.0	Р	
102	12/18/12	2803.1563 N 08105.2153 W	4	101.8	13.8	P-7	104.4	15.1	97.5	-1.3	Р	
103	12/18/12	2803.1930 N 08105.2171 W	4	100.6	15.8	P-7	104.4	15.1	96.4	0.7	Р	-
104	12/18/12	2803.2325 N 08105.2189 W	4	96.2	15.5	P-2	100.2	17.5	96.0	-2.0	Р	

Chris Johnson

12/18/12

PREPARED BY



PROJECT NUMBER: 2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Fill

PROJECT TITLE: Leach

JED Landfill

Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

12/18/12

TO 12/22/12

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				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	1	TEST RESULTS		_
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
105	12/18/12	2803.2672 N 08105.2161 W	4	99.3	17.6	P-2	100.2	17.5	99.1	0.1	P	
106	12/18/12	2803.2965 N 08105.2336 W	4	101.5	14.4	P-7	104.4	15.1	97.2	-0.7	Р	
107	12/18/12	2803.3094 N 08105.2683 W	4	102.6	12.7	P-7	104.4	15.1	98.3	-2.4	Р	
108	12/18/12	2803.1245 N 08105.21785 V	4	102.9	14.0	P-7	104.4	15.1	98.6	-1.1	Р	
109	12/18/12	2803.1564 N 08105.2159 W	4	102.0	14.2	P-7	104.4	15.1	97.7	-0.9	Р	
110	12/18/12	2803.1932 N 08105.2176 W	4	101.1	15.1	P-7	104.4	15.1	96.8	0.0	Р	
111	12/18/12	2803.2329 N 08105.2179 W	4	97.0	14.9	P-2	100.2	17.5	96.8	-2.6	Р	
112	12/18/12	2803.2677 N 08105.2165 W	4	98.7	16.5	P-2	100.2	17.5	98.5	-1.0	P	
CP	12/22/12	- ·	1	105.8	14.6	P-3	106	14.0	-	-	-	
DR9	12/22/12	2803.2793 N 08105.1602 W	4	105.7	13.9	P-3	106	14.0	99.7	-0.1	Р	
113	12/22/12	2803.2793 N 08105.1602 W	4	106.0	14.0	P-3	106	14.0	100.0	0.0	Р	
114	12/22/12	2803.2895 N 08105.1872 W	4	105.8	11.1	P-3	106	14.0	99.8	-2.9	Р	
115	12/22/12	2803.3115 N 08105.2204 W	. 4	105.3	12.2	P-3	106	14.0	99.3	-1.8	Р	
116	12/22/12	2803.3216 N 08105.2594 W	4	105.3	13.0	P-3	106	14.0	99.3	-1.0	P	
117	12/22/12	2803.3338 N 08105.2995 W	4	104.1	14.5	P-3	106	14.0	98.3	0.5	Р	
118	12/22/12	2803.3626 N 08105.3115 W	4	102.0	12.7	P-3	106	14.0	96.3	-1.3	' P	
119	12/22/12	2803.3878 N 08105.3360 W	4	101.6	11.7	P-3	106	14.0	95.8	-2.3	Р	
120	12/22/12	2803.4163 N 08105.3608 W	4	101.2	14.3	P-3	106	14.0	95.5	0.3	Р	
121	12/22/12	2803.4490 N 08105.3589 W	4	97.6	17.8	P-2	100.2	17.5	97.4	0.3	Р	
122	12/22/12	2803.4528 N 08105.3202 W	4	104.1	11.0	P-3	106	14.0	98.2	-3.0	Р	

Chris Johnson

12/22/12

PREPARED BY



PROJECT	NUMBER:	2012-102	

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Berm Fill

PROJECT TITLE:

JED Landfill Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

12/22/12

TO 12/26/12

PAGE 8

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	TEST RESULTS			
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO OR ELEV	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
123	12/22/12	2803.4826 N 08105.3307 W	4	104.7	15.2	P-3	106	14.0	98.8	1.2	Р	
124	12/22/12	2803.5091 N 08105.3571 W	4	102.3	14.6	P-3	106	14.0	96.5	0.6	Р	
125	12/22/12	2803.5407 N 08105.3759 W	4	101.5	14.3	P-3	106	14.0	95.8	0.3	Р	
126	12/22/12	2803.5578 N 08105.3994 W	4	101.9	16.4	P-3	106	14.0	96.1	2.4	P	
127	12/22/12	2803.4522 N 08105.3202 W	4	104.5	12.0	P-3	106	14.0	98.6	-2.0	Р	
128	12/22/12	2803.4826 N 08105.3317 W	4	103.8	14.9	P-3	106	14.0	97.9	0.9	P	
129	12/22/12	2803.5095 N 08105.3579 W	4	103.0	15.0	P-3	106	14.0	97.2	1.0	Р	
130	12/22/12	2803.5417 N 08105.3754 W	4	100.9	14.9	P-3	106	14.0	95.2	0.9	Р	
131	12/22/12	2803.5575 N 08105.3991 W	· 4	101.0	15.6	P-3	106	14.0	95.3	1.6	Р	_
CP	12/26/12	-		105.8	14.4	P-3	106	14.0	-	-	-	
DR10	12/26/12	2803.3302 N 08105.3239 W	4	105.0	14.9	P-3	106	14.0	99.1	0.9	Р	
132	12/26/12	2803.3302 N 08105.3239 W	4	104.9	14.7	P-3	106	14.0	99.0	0.7	Р	
133	12/26/12	2803.3756 N 08105.3538 W	4	103.0	13.3	P-3	106	14.0	97.1	-0.7	Р	
134	12/26/12	2803.4164 N 08105.3808 W	4	105.8	11.3	P-3	106	14.0	99.8	-2.7	Р	
135	12/26/12	2803.4459 N 08105.4032 W	4	103.6	13.6	P-3	106	14.0	97.7	-0.4	Р	
136	12/26/12	2803.5066 N 08105.4228 W	4	99.2	17.1	P-2	100.2	17.5	99.0	-0.4	Р	
137	12/26/12	2803.3301 N 08105.3235 W	4	104.5	14.2	P-3	106	14.0	98.6	0.2	Р	
138	12/26/12	2803.3754 N 08105.3533 W	4	103.4	14.0	P-3	106	14.0	97.5	0.0	Р	
139	12/26/12	2803.4162 N 08105.3818 W	4	104.1	13.0	P-3	106	14.0	98.2	-1.0	Р	
140	12/26/12	2803.4454 N 08105.4022 W	4	103.0	13.9	P-3	106	14.0	97.2	-0.1	Р	

Chris Johnson

12/26/12

PREPARED BY



PROJECT NUMBER: 2012-102

JED Landfill

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Fill

PROJECT TITLE:

Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

12/26/12

DATES:

FROM

TO 12/28/12

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IN PLACE DETERMINATION MATCHING PROTOR **TEST RESULTS TEST** TEST DATE LIFT NO DRY DENSITY MOISTURE CURVE MAX DRY LOCATION OF SAMPLE OPTIMUM PERCENT DIFFER PASS/ OR ELEV DENSITY MOISTURE FROM OPT REMARK NUMBER CONTENT (%) NUMBER COMP (%) (pcf) MOISTURE FAIL 12/26/12 |2803.5064 N 08105.4221 W 4 98.7 16.4 141 P-2 100.2 17.5 98.5 Р -1.1 102.1 12/26/12 |2803.5407 N 08105.4274 W 16.6 142 4 P-3 106 Р 14.0 96.4 2.6 2803.5775 N 08105.4346 W 104.1 143 12/26/12 11.8 4 P-3 106 14.0 98.2 -2.2 Р 144 12/26/12 2803.5770 N 08105.4256 W 4 103.9 12.6 P-3 106 14.0 Р 98.1 -1.4 |2803.6074 N 08105.4202 W 4 103.4 12.7 145 12/26/12 P-3 106 14.0 97.5 -1.3 Р 100.0 17.8 CP 12/27/12 P-2 100.2 17.5 l2803.3520 N 08105.3119 W 5 99.1 15.0 **DR11** 12/27/12 P-2 100.2 17.5 98.9 -2.5 Р 5 98.4 12/27/12 2803.3520 N 08105.3119 W 14.9 146 P-2 100.2 17.5 98.2 -2.6 Р |2803.3860 N 08105.3359 W 5 100.1 15.2 147 12/27/12 P-2 100.2 17.5 Р 99.9 -2.3 |2803.4174 N 08105.3564 W 5 97.6 15.0 148 12/27/12 P-2 100.2 17.5 97.4 -2.5 Р 5 100.1 15.9 12/27/12 |2803.4636 N 08105.3167 W P-2 149 100.2 17.5 Р 99.9 -1.6 12/27/12 2803.4985 N 08105.3557 W 5 100.1 16.1 P-2 150 100.2 17.5 99.9 Р -1.4 2803.3525 N 08105.3115 W 5 99.0 15.0 151 12/27/12 P-2 100.2 17.5 98.8 -2.5 Ρ 2803.3865 N 08105.3353 W 5 99.8 14.9 12/27/12 152 P-2 100.2 17.5 -2.6 Ρ 99.6 5 96.4 153 12/27/12 2803.4177 N 08105.3568 W 15.8 P-2 100.2 17.5 96.2 Р -1.7 2803.4633 N 08105.3165 W 5 98.4 16.0 154 12/27/12 P-2 100.2 17.5 98.2 -1.5 Р 2803.4982 N 08105.3555 W 5 99.2 16.1 12/27/12 P-2 Р 155 100.2 17.5 -1.4 99.0 105.2 13.9 CP 12/28/12 P-3 106 14.0 2803.3175 N 08105.2973 W 5 105.1 14.2 **DR12** 12/28/12 P-3 106 14.0 99.2 0.2 Р [2803.3175 N 08105.2973 W 5 105.0 14.9 P-3 156 12/28/12 106 14.0 99.1 0.9 Р

Chris	Johr	nson

12/28/12

DATE

PREPARED BY



Berm

PROJECT NUMBER: 2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Fill

PROJECT TITLE:

JED Landfill

Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM 12/28/12

TO 12/29/12

PAGE

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				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	7	EST RESULT		
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT	FAIL	REMARK
157	12/28/12	2803.4502 N 08105.3426 W	5	102.8	12.1	P-3	106	14.0	97.0	-1.9	Р	
158	12/28/12	2803.5084 N 08105.3584 W	5	103.2	15.7	P-3	106	14.0	97.4	1.7	Р	
159	12/28/12	2803.5507 N 08105.3822 W	5	100.8	16.8	P-3	106	14.0	95.1	2.8	Р	
160	12/28/12	2803.5696 N 08105.4222 W	5	100.7	17.0	P-3	106	14.0	95.0	3.0	Р	
161	12/28/12	2803.6073 N 08105.4213 W	5	101.1	12.1	P-3	106	14.0	95.4	-1.9	P	
162	12/28/12	2803.5943 N 08105.4389 W	5	99.0	14.9	P-2	100.2	17.5	98.8	-2.6	Р	
163	12/28/12	2803.3172 N 08105.2973 W	5	104.8	15.0	P-3	106	14.0	98.9	1.0	P	
164	12/28/12	2803.4502 N 08105.3416 W	5	103.0	13.2	P-3	106	14.0	97.2	-0.8	Р	
165	12/28/12	2803.5081 N 08105.3574 W	5	102.7	16.4	P-3	106	14.0	96.9	2.4	Р	
166	12/28/12	2803.5502 N 08105.3821 W	5	101.0	15.9	P-3	106	14.0	95.3	1.9	Р	
167	12/28/12	2803.5692 N 08105.4212 W	5	101.8	16.5	P-3	106	14.0	96.0	2.5	Р	<u>-</u>
CP	12/29/12	-	-	100.0	16.9	P-2	100.2	17.5	-	-	-	-
DR13	12/29/12	2803.2812 N 08105.1811 W	5	99.7	14.9		100.2	17.5	99.5	-2.6	Р	-
168	12/29/12	2803.2812 N 08105.1811 W		100.2	15.2		100.2	17.5	100.0	-2.3	Р	-
169	12/29/12	2803.3075 N 08105.2165 W		95.7	16.0		100.2	17.5	95.5	-1.5	Р	
170	12/29/12	2803.3247 N 08105.2563 W		98.3	14.7		100.2	17.5	98.1	-2.8	P	
171	12/29/12	2803.3396 N 08105.3042 W		95.4	14.7		100.2	17.5	95.2	-2.8	Р	
172		2803.3753 N 08105.3264 W		97.5	15.8		100.2	17.5	97.3	-1.7	P	
173	12/29/12	2803.4080 N 08105.3495 W		93.7	15.0		100.2	17.5	93.5	-2.5	Р	
174	12/29/12	2803.4047 N 08105.3485 W	5	93.8	15.6	P-2	100.2	17.5	93.6	-1.9	Р	•

Chris Johnson

12/29/12

PREPARED BY



PROJECT NUMBER: 201

PROJECT TITLE:

JED Landfill Leachate Storage Relocation OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Berm Fill

CONTRACTOR:

RCS Excavation

DATES:

FROM

12/29/12

TO 01/02/13

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				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	T	EST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
			OR ELEV				DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	(%)	FAIL	
175	12/29/12	2803.4009 N 08105.3479 W	5	100.2	16.0	P-2	100.2	17.5	100.0	-1.5	Р	
176	12/29/12	2803.4485 N 08105.3360 W	·5	95.2	15.3	P-2	100.2	17.5	95.0	-2.2	Р	
177	12/29/12	2803.2813 N 08105.1826 W	5	98.9	15.0	P-2	100.2	17.5	98.7	-2.5	Р	
178	12/29/12	2803.3072 N 08105.2152 W	5	96.2	15.5	P-2	100.2	17.5	96.0	-2.0	Р	
179	12/29/12	2803.3241 N 08105.2563 W	5	97.5	15.1	P-2	100.2	17.5	97.3	-2.4	Р	
180	12/29/12	2803.3398 N 08105.3037 W	5	96.5	16.0	P-2	100.2	17.5	96.3	-1.5	Р	
181	12/29/12	2803.3751 N 08105.3272 W	5	98.1	15.1	P-2	100.2	17.5	97.9	-2.4	Р	
СР	01/02/13	· -	-	105.8	13.7	P-3	106	14.0			-	
DR14	01/02/13	2803.3376 N 08105.3244 W	5	105.0	14.1	P-3	106	14.0	99.1	0.1	P	
182	01/02/13	2803.3376 N 08105.3244 W	5	105.6	14.5	P-3	106	14.0	99.7	0.5	Р	
183	01/02/13	2803.3697 N 08105.3406 W	5	105.1	12.3	P-3	106	14.0	99.2	-1.7	P	
184	01/02/13	2803.3958 N 08105.3609 W	5	106.0	13.5	P-3	106	14.0	100.0	-0.5	Р	
185	01/02/13	2803.4226 N 08105.3835 W	5 -	105.3	11.4	P-3	106	14.0	99.4	-2.6	Р	
186	01/02/13	2803.4617 N 08105.4063 W	5	102.7	13.0	P-3	106	14.0	96.9	-1.0	Р	_
187	01/02/13	2803.4880 N 08105.4224 W	5	97.4	18.6	P-2	100.2	17.5	97.2	1.1	Р	_
188	01/02/13	2803.6303 N 08105.4561 W	5	101.4	11.9	P-3	106	14.0	95.6	-2.1	Р	-
189	01/02/13	2803.5852 N 08105.4419 W	5	99.7	15.7	P-2	100.2	17.5	99.5	-1.8	Р	
190	01/02/13	2803.5469 N 08105.4253 W	5	103.4	11.8	P-3	106	14.0	97.5	-2.2	Р	
191	01/02/13	2803.5143 N 08105.4207 W	5	103.9	15.5	P-3	106	14.0	98.0	1.5	Р	
192	01/02/13	2803.4789 N 08105.4130 W	5	102.7	14.4	P-3	106	14.0	96.9	0.4	Р	

Chris Johnson

01/02/13

PREPARED BY



PROJECT NUMBER: 2012-102

PROJECT TITLE:

2012-102

JED Landfill

Leachate Storage Relocation

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Berm Fill

CONTRACTOR:

RCS Excavation

DATES:

FROM

01/02/13

TO 01/04/13

PAGE 12

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	7	EST RESULT	s T	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		EGGATION OF GAMELE	OR ELEV				DENSITY	MOISTURE		FROM OPT		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	(%)	FAIL	
193	01/02/13	2803.4429 N 08105.3901 W	5	95.8	18.9	P-2	100.2	17.5	95.6	1.4	Р	-
194	01/02/13	2803.4081 N 08105.3698 W	5	97.7	15.8	P-2	100.2	17.5	97.5	-1.7	Р	
195	01/02/13	2803.3372 N 08105.3241 W	5	104.8	14.2	P-3	106	14.0	98.9	0.2	Р	_
196	01/02/13	2803.3694 N 08105.3402 W	5	104.5	13.1	P-3	106	14.0	98.6	-0.9	Р	
197	01/02/13	2803.3955 N 08105.3601 W	5	104.0	12.9	P-3	106	14.0	98.1	-1.1	Р	
198	01/02/13	2803.4223 N 08105.3830 W	5	105.1	12.4	P-3	106	14.0	99.2	-1.6	Р	
199	01/02/13	2803.4611 N 08105.4068 W	5	103.0	11.9	P-3	106	14.0	97.2	-2.1	Р	
CP	01/03/13	<u>-</u>	-	110.0	14.1	P-10	110.1	13.6	-		-	
DR15	01/03/13	2803.1850 N 08105.2186 W	5	110.1	13.5	P-10	110.1	13.6	100.0	-0.1	Р	
200	01/03/13	2803.1850 N 08105.2186 W	5	109.7	11.1	P-10	110.1	13.6	99.7	-2.5	Р	
201	01/03/13	2803.2213 N 08105.2157 W	5	107.5	12.3	P-10	110.1	13.6	97.6	-1.3	Р	
202	01/03/13	2803.3859 N 08105.3533 W	5	107.6	15.3	P-10	110.1	13.6	97.8	1.7	Р	
203	01/03/13	2803.3571 N 08105.3321 W	5	97.9	19.0	P-2	100.2	17.5	97.7	1.5	Р	
204	01/03/13	2803.3253 N 08105.3091 W	5	98.2	15.8	P-2	100.2	17.5	98.0	-1.7	Р	
205	01/03/13	2803.1856 N 08105.2182 W	5	108.5	11.8	P-10	110.1	13.6	98.5	-1.8	Р	
206	01/03/13	2803.2223 N 08105.2153 W	5	108.0	12.1	P-10	110.1	13.6	98.1	-1.5	Р	
207	01/03/13	2803.3855 N 08105.3536 W	5	107.5	15.1	P-10	110.1	13.6	97.6	1.5	Р	
208	01/03/13	2803.3576 N 08105.3325 W	5	98.0	18.7	P-2	100.2	17.5	97.8	1.2	Р	
209	01/03/13	2803.3257 N 08105.3098 W	5	98.1	16.2	P-2	100.2	17.5	97.9	-1.3	Р	
СР	01/04/13	-	-	99.8	17.0	P-2	100.2	17.5	-		-	

Chris Johnson

01/04/13

PREPARED BY



PROJECT NUMBER: 2012-102

PROJECT TITLE:

JED Landfill

Leachate Storage Relocation

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Berm Fill

CONTRACTOR:

RCS Excavation

DATES:

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				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	1	TEST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		EGGATION OF GAMELE	OR ELEV				DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER	·	·	(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	(%)	FAIL	
DR16	01/04/13	2803.2810 N 08105.1702 W	5	98.1	16.2	P-2	100.2	17.5	97.9	-1.3	Р	<u> </u>
210	01/04/13	2803.2810 N 08105.1702 W	5	97.7	14.9	P-2	100.2	17.5	97.5	-2.6	Р	
211	01/07/13	2803.3064 N 08105.2049 W	6	100.1	15.8	P-2	100.2	17.5	99.9	-1.7	Р	
212	01/07/13	2803.3225 N 08105.2397 W	6	97.6	17.0	P-2	100.2	17.5	97.4	-0.5	Р	
213	01/07/13	2803.3254 N 08105.2696 W	6	97.9	20.5	P-2	100.2	17.5	97.7	3.0	Р	
214	01/07/13	2803.3359 N 08105.3006 W	6	97.8	14.8	P-2	100.2	17.5	97.6	-2.7	Р	
215	01/07/13	2803.3618 N 08105.3186 W	6	97.1	15.2	P-2	100.2	17.5	96.9	-2.3	Р	
216	01/07/13	2803.3944 N 08105.3335 W	6	100.2	17.3	P-2	100.2	17.5	100.0	-0.2	P	
217	01/07/13	2803.4189 N 08105.3602 W	6	97.3	14.9	P-2.	100.2	17.5	97.1	-2.6	Р	
218	01/07/13	2803.4427 N 08105.3669 W	6	99.2	15.0	P-2	100.2	17.5	99.0	-2.5	Р	
219	01/07/13	2803.4518 N 08105.3233 W	6	98.7	16.0	P-2	100.2	17.5	98.5	-1.5	Р	
220	01/07/13	2803.4793 N 08105.3256 W	6	98.3	16.3	P-2	100.2	17.5	98.1	-1.2	Р	
221	01/07/13	2803.5070 N 08105.3616 W	6	98.7	15.4	P-2	100.2	17.5	98.6	-2.1	Р	
222	01/07/13	2803.5330 N 08105.3747 W	6	98.5	20.0	P-2	100.2	17.5	98.3	2.5	Р	
223	01/07/13	2803.5562 N 08105.4018 W	6	97.2	20.1	P-2	100.2	17.5	97.0	2.6	Р	
224	01/07/13	2803.5966 N 08105.4187 W	6	100.1	16.5	P-2	100.2	17.5	99.9	-1.0	Р	
225	01/07/13	2803.6305 N 08105.4217 W	6	97.2	16.2	P-2	100.2	17.5	97.0	-1.3	P	
CP	01/08/13	-	-	105.8	13.2	P-3	106	14.0	· -		-	
DR17	01/08/13	2803.0986 N 08105.2140 W	6	101.8	13.5	P-3	106	14.0	96.0	-0.5	Р	
226	01/08/13	2803.0986 N 08105.2140 W	6	101.2	13.3	P-3	106	14.0	95.4	-0.7	Р	

Chris J	lohnson

01/08/13

PREPARED BY



PROJECT NUMBER: 2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Berm Fill

PROJECT TITLE:

JED Landfill

Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

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TO 01/09/13

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			1	IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	1	TEST RESULT:	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		ECCATION OF SAMPLE	OR ELEV				DENSITY	MOISTURE		FROM OPT		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	MOISTURE	FAIL	
227	01/08/13	2803.1002 N 08105.2072 W	6	101.1	12.4	P-3	106	14.0	95.4	-1.6	Р	
CP	01/09/13	-	-	100.0	16.2	P-2	100.2	17.5	-	-	-	
DR18	01/09/13	2803.1264 N 08105.1652 W	6	97.1	15.8	P-2	100.2	17.5	96.9	-1.7	Р	
228	01/09/13	2803.1264 N 08105.1652 W	6	96.3	15.2	P-2	100.2	17.5	96.1	-2.3	P	
229	01/09/13	2803.1336 N 08105.1620 W	6	96.7	16.0	P-2	100.2	17.5	96.5	-1.5	Р	
230	01/09/13	2803.1436 N 08105.1672 W	6	100.2	15.7	P-2	100.2	17.5	100.0	-1.8	Р	
231	01/09/13	2803.2331 N 08105.2137 W	6	100.1	14.9	P-2	100.2	17.5	99.9	-2.6	Р	
232	01/09/13	2803.2521 N 08105.2104 W	6	99.0	15.0	P-2	100.2	17.5	98.8	-2.5	Р	
233	01/09/13	2803.2828 N 08105.2145 W	6	95.8	16.1	P-2	100.2	17.5	95.6	-1.4	Р	
234	01/09/13	2803.2967 N 08105.2338 W	6	100.1	16.0	P-2	100.2	17.5	99.9	-1.5	Р	
235	01/09/13	2803.3061 N 08105.2670 W	6	95.3	16.4	P-2	100.2	17.5	95.1	-1.1	Р	
236	01/09/13	2803.3054 N 08105.2642 W	6	97.0	15.9	P-2	100.2	17.5	96.8	-1.6	Р	
237	01/09/13	2803.3109 N 08105.3011 W	6	100.1	15.3	P-2	100.2	17.5	99.9	-2.2	Р	
238	01/09/13	2803.3319 N 08105.3215 W	6	95.2	16.3	P-2	100.2	17.5	95.1	-1.2	Р	
239	01/09/13	2803.1294 N 08105.2107 W	6	97.8	17.0	P-2	100.2	17.5	97.6	-0.5	Р	
240	01/09/13	2803.3063 N 08105.2676 W	6	95.6	16.9	P-2	100.2	17.5	95.4	-0.6	Р	
241	01/09/13	2803.3052 N 08105.2645 W	6	96.7	17.5	P-2	100.2	17.5	96.5	0.0	Р	
242	01/09/13	2803.3105 N 08105.3016 W	6	98.6	16.8	P-2	100.2	17.5	98.4	-0.7	Р	
243	01/09/13	2803.3314 N 08105.3211 W	6	96.5	16.2	P-2	100.2	17.5	96.3	-1.3	Р	-
244	01/09/13	2803.1291 N 08105.2109 W	6	97.1	17.0	P-2	100.2	17.5	96.9	-0.5	Р	

Chris Johnson

01/09/13

PREPARED BY



PROJECT NUMBER: 2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Berm Fill

PROJECT TITLE:

JED Landfill

Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

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				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	7	TEST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		EGGATION OF SAMPLE	OR ELEV			l	DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)		FAIL	
CP	01/10/13	-	-	99.7	16.8	P-2	100.2	17.5	-	-	-	
DR19	01/10/13	2803.1505 N 08105.2113 W	6	97.4	16.1	P-2	100.2	17.5	97.2	-1.4	Р	-
245	01/10/13	2803.1505 N 08105.2113 W	6	98.0	17.0	P-2	100.2	17.5	97.8	-0.5	Р	
246	01/10/13	2803.1860 N 08105.2139 W	6	97.6	16.8	P-2	100.2	17.5	97.4	-0.7	Р	
247	01/10/13	2803.2164 N 08105.2158 W	6	98.8	15.4	P-2	100.2	17.5	98.6	-2.1	Р	
248	01/10/13	2803.2398 N 08105.2154 W	6	99.1	16.3	P-2	100.2	17.5	98.9	-1.2	Р	
249	01/10/13	2803.2594 N 08105.2144 W	6	96.9	17.2	P-2	100.2	17.5	96.7	-0.3	P	
250	01/10/13	2803.5924 N 08105.4373 W	6	99.6	16.2	P-2	100.2	17.5	99.4	-1.3	Р	
251	01/10/13	2803.5599 N 08105.4279 W	6	99.8	15.0	P-2	100.2	17.5	99.6	-2.5	Р	
252	01/10/13	2803.5226 N 08105.4214 W	6	97.6	15.8	P-2	100.2	17.5	97.4	-1.7	Р	
253	01/10/13	2803.4851 N 08105.4152 W	6	100.0	15.7	P-2	100.2	17.5	99.8	-1.8	Р	
254	01/10/13	2803.4454 N 08105.3898 W	6	96.4	16.3	P-2	100.2	17.5	96.3	-1.2	Р	
255	01/10/13	2803.4065 N 08105.3728 W	6	96.7	17.0	P-2	100.2	17.5	96.5	-0.5	Р	
256	01/10/13	2803.1389 N 08105.1408 W	6	96.8	15.6	P-2	100.2	17.5	96.6	-1.9	Р	
257	01/10/13	2803.1207 N 08105.1436 W	6	99.3	16.9	P-2	100.2	17.5	99.1	-0.6	Р	
258	01/10/13	2803.1154 N 08105.1297 W	6	98.6	17.8	P-2	100.2	17.5	98.4	0.3	Р	
259	01/10/13	2803.1298 N 08105.1297 W	6	98.8	18.0	P-2	100.2	17.5	98.6	0.5	Р	
260	01/10/13	2803.1355 N 08105.1187 W	6	99.7	16.4	P-2	100.2	17.5	99.5	-1.1	Р	
261	01/10/13	2803.1162 N 08105.1104 W	6	100.2	19.0	P-2	100.2	17.5	100.0	1.5	Р	
262	01/10/13	2803.1164 N 08105.1047 W	6	99.7	17.5	P-2	100.2	17.5	99.5	0.0	Р	

Chris Johnson

01/10/13

PREPARED BY



PROJECT NUMBER: 2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Berm Fill

PROJECT TITLE:

JED Landfill

Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

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				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	٠ ٦	EST RESULTS	S	
TEST	TEST DATE	LOCATION OF CAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		LOCATION OF SAMPLE	OR ELEV				DENSITY	MOISTURE		FROM OPT		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)		FAIL	·
263	01/10/13	2803.1324 N 08105.1039 W	6	95.9	16.2	P-2	100.2	17.5	95.7	-1.3	Р	
264	01/10/13	2803.1295 N 08105.1292 W	6	99.0	17.8	P-2	100.2	17.5	98.8	0.3	Р	
265	01/10/13	2803.1354 N 08105.1181 W	6	98.7	16.0	P-2	100.2	17.5	98.5	-1.5	Р	
266	01/10/13	2803.1168 N 08105.1109 W	6	99.8	15.8	P-2	100.2	17.5	99.6	-1.7	Р	
267	01/10/13	2803.1161 N 08105.1042 W	6	94.3	17.0	P-2	100.2	17.5	94.1	-0.5	F	Density
267R	01/10/13	2803.1161 N 08105.1042 W	6	96.5	16.4	P-2	100.2	17.5	96.3	-1.1	Р	
CP	01/11/13	-	-	98.7	17.4	P-2	100.2	17.5	-	-	-	
DR20	01/11/13	2803.2815 N 08105.2198 W	6	99.2	16.0	P-2	100.2	17.5	99.0	-1.5	Р	
268	01/11/13	2803.2815 N 08105.2198 W	6	99.5	17.0	P-2	100.2	. 17.5	99.3	-0.5	Р	
269	01/11/13	2803.3002 N 08105.2415 W	6	96.9	16.4	P-2	100.2	17.5	96.7	-1.1	Р	
270	01/11/13	2803.3101 N 08105.2694 W	6	97.1	15.7	P-2	100.2	17.5	96.9	-1.8	Р	
271	01/11/13	2803.3081 N 08105.2893 W	6	97.4	16.3	P-2	100.2	17.5	97.2	-1.2	Р	
272	01/11/13	2803.3191 N 08105.3112 W	6	100.2	14.9	P-2	100.2	17.5	100.0	-2.6	Р	
273	01/11/13	2803.3546 N 08105.3348 W	6	99.7	15.6	P-2	100.2	17.5	99.5	-1.9	Ρ	
274	01/11/13	2803.3744 N 08105.3523 W	6	96.7	15.9		100.2	17.5	96.5	-1.6	Р	
276	01/11/13	2803.3191 N 08105.3112 W	6	100.2	14.9	P-2	100.2	17.5	100.0	-2.6	Р	
277	01/11/13	2803.3546 N 08105.3348 W	6	99.7	15.6	P-2	100.2	17.5	99.5	-1.9	Ρ	
278	01/11/13	2803.3744 N 08105.3523 W	6	96.7	15.9	P-2	100.2	17.5	96.5	-1.6	Р	
279	01/11/13	2803.4102 N 08105.3745 W	6	97.3	15.6	P-2	100.2	17.5	97.1	-1.9	Р	
280	01/11/13	2803.2811 N 08105.2192 W	6	98.5	16.7	P-2	100.2	17.5	98.3	-0.8	Р	

Chris Johnson

01/11/13

PREPARED BY



PROJECT NUMBER: 2012-102

PROJECT TITLE:

JED Landfill Leachate Storage Relocation OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Berm Fill

CONTRACTOR:

RCS Excavation

DATES:

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				IN PLACE DETERM	INATION	MA	CHING PRO	TOR	1	EST RESULTS	<u> </u>	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		ECCATION OF SAMELE	OR ELEV			1	DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	(%)	FAIL	
281	01/11/13	2803.3012 N 08105.2412 W	6	97.5	16.1	P-2	100.2	17.5	97.3	-1.4	Р	
282	01/11/13	2803.3105 N 08105.2699 W	6	96.3	16.0	P-2	100.2	17.5	96.1	-1.5	Р	
283	01/11/13	2803.3086 N 08105.2893 W	6	98.1	15.9	P-2	100.2	17.5	97.9	-1.6	Р	
284	01/11/13	2803.3197 N 08105.3117 W	6	99.4	15.0	P-2	100.2	17.5	99.2	-2.5	Р	
CP	01/12/13	ı	-	105.8	14.2	P-3	106	14.0	-		-	
DR21	01/12/13	2803.5982 N 08105.4394 W	7	100.0	16.9	P-2	100.2	17.5	99.8	-0.6	Р	
285	01/12/13	2803.5982 N 08105.4394 W	7	99.6	16.8	P-2	100.2	17.5	99.4	-0.7	P	-
286	01/12/13	2803.5607 N 08105.4327 W	7	95.9	17.0	P-2	100.2	17.5	95.7	-0.5	Р	
287	01/12/13	2803.5287 N 08105.4262 W	7	98.3	15.3	P-2	100.2	17.5	98.1	-2.2	Р	
288	01/12/13	2803.4956 N 08105.4179 W	7	102.2	15.0	P-3	106	14.0	96.4	1.0	Р	
289	01/12/13	2803.4636 N 08105.4078 W	7	96.9	15.0	P-2	100.2	17.5	96.7	-2.5	Р	
290	01/12/13	2803.4875 N 08105.3402 W	7	104.6	13.4	P-3	106	14.0	98.7	-0.6	Р	
291	01/12/13	2803.5085 N 08105.3602 W	7	102.0	13.2	P-3	106	14.0	96.2	-0.8	Р	
292	01/12/13	2803.5343 N 08105.3717 W	7	103.3	14.9	P-3	106	14.0	97.5	0.9	Р	
293	01/12/13	2803.5554 N 08105.3918 W	7	105.1	11.8	P-3	106	14.0	99.2	-2.2	Р	
294	01/12/13	2803.5657 N 08105.4171 W	7	105.5	11.7		106	14.0	99.5	-2.3	P	
295	01/12/13	2803.5809 N 08105.4281 W	7	98.2	15.2	P-2	100.2	17.5	98.0	-2.3	Р	
296	01/12/13	2803.6114 N 08105.4172 W	7 .	100.0	11.4	P-3	106	14.0	94.3	-2.6	F	Density
296R	01/12/13	2803.6114 N 08105.4172 W	7	102.0	14.9	P-3	106	14.0	96.3	0.9	Р	
CP	01/22/13	-	-	99.9	16.9	P-2	100.2	17.5	-	-	-	

Chris Johnson

01/12/13

PREPARED BY



PROJECT NUMBER: 2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Berm Fill

PROJECT TITLE:

JED Landfill

Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

01/22/13

FROM

TO 01/23/13

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				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	-	TEST RESULT:	s T	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		LOCATION OF SAMPLE	OR ELEV				DENSITY	MOISTURE		FROM OPT		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	MOISTURE (%)	FAIL	
DR22		2803.2943 N 08105.1011 W		95.6	16.7	P-2	100.2	17.5	95.4	-0.8	Р	
297		2803.2943 N 08105.1011 W		95.5	15.6	P-2	100.2	17.5	95.3	-1.9	Р	
298	01/22/13	2803.2703 N 08105.1275 W	7	97.4	14.0	P-2	100.2	17.5	97.2	-3.5	Р	
299	01/22/13	2803.2718 N 08105.1534 W	7	99.4	15.2	P-2	100.2	17.5	99.2	-2.3	Р	
300	01/22/13	2803.2884 N 08105.1856 W	7	99.7	15.8	P-2	100.2	17.5	99.5	-1.7	Р	
301	01/22/13	2803.3145 N 08105.2263 W	7	96.5	17.0	P-2	100.2	17.5	96.3	-0.5	Р	
302	01/22/13	2803.3230 N 08105.2655 W	7	99.0	16.0	P-2	100.2	17.5	98.8	-1.5	Р	
303	01/22/13	2803.3284 N 08105.2978 W	7	99.0	16.4	P-2	100.2	17.5	98.8	-1.1	Р	
304	01/22/13	2803.3542 N 08105.3145 W	7	97.6	15.7	P-2	100.2	17.5	97.4	-1.8	Р	
305	01/22/13	2803.3977 N 08105.3407 W	7	101.4	13.4	P-7	104.4	15.1	97.1	-1.7	Р	
306	01/22/13	2803.4483 N 08105.3658 W	7	101.3	12.6	P-7	104.4	15.1	97.0	-2.5	Р	
307	01/22/13	2803.4532 N 08105.3315 W	7	101.5	13.2	P-7	104.4	15.1	97.2	-1.9	Р	
308	01/22/13	2803.6598 N 08105.4392 W	7	103.3	14.2	P-7	104.4	15.1	98.9	-0.9	Р	
309	01/22/13	2803.6569 N 08105.4320 W	7	102.7	12.8	P-7	104.4	15.1	98.4	-2.3	Р	
310	01/22/13	2803.1067 N 08105.1100 W	7	101.4	13.8	P-7	104.4	15.1	97.1	-1.3	Р	
CP	01/23/13	-		99.8	16.7	P-2	100.2	17.5	-	-	-	
DR23	01/23/13	2803.1668 N 08105.1799 W	7	97.5	16.1	P-2	100.2	17.5	97.3	-1.4	Р	
311	01/23/13	2803.1668 N 08105.1799 W	7	98.2	17.0	P-2	100.2	17.5	98.0	-0.5	Р	
312	01/23/13	2803.1426 N 08105.1916 W	7	99.0	17.1	P-2	100.2	17.5	98.8	-0.4	Р	
313	01/23/13	2803.1155 N 08105.1915 W	7	97.6	17.8	P-2	100.2	17.5	97.4	0.3	Р	

Chris Johnson PREPARED BY

01/22/13



PROJECT NUMBER: 2012-102

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Berm Fill

PROJECT TITLE:

JED Landfill

Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

01/23/13

TO 01/24/13

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				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	٦	TEST RESULT	S	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		EGGATION OF GAMELE	OR ELEV				DENSITY	MOISTURE		FROM OPT		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	(%)	FAIL	
314	01/23/13	2803.1031 N 08105.1849 W	7	97.6	15.9	P-2	100.2	17.5	97.4	-1.6	Р	
315	01/23/13	2803.5485 N 08105.3992 W	7	97.5	16.3	P-2	100.2	17.5	97.3	-1.2	Р	
316	01/23/13	2803.5542 N 08105.4019 W	7	99.6	16.1	P-2	100.2	17.5	99.4	-1.4	Р	
317	01/23/13	2803.5576 N 08105.4024 W	7	100.0	15.9	P-2	100.2	17.5	99.8	-1.6	Р	
318	01/23/13	2803.5533 N 08105.3988 W	7	97.2	16.4	P-2	100.2	17.5	97.0	-1.1	Р	
319	01/23/13	2803.5631 N 08105.4090 W	7	99.9	17.0	P-2	100.2	17.5	99.7	-0.5	Р	
320	01/23/13	2803.5625 N 08105.4078 W	7	97.0	16.7	P-2	100.2	17.5	96.8	-0.8	Р	
321	01/23/13	2803.1664 N 08105.1795 W	7	96.3	_15.4	P-2	100.2	17.5	96.1	-2.1	Р	
322	01/23/13	2803.1421 N 08105.1916 W	7	97.1	16.0	P-2	100.2	17.5	96.9	-1.5	Р	
323	01/23/13	2803.1153 N 08105.1917 W	7	98.2	17.2	P-2	100.2	17.5	98.0	-0.3	Р	
324	01/23/13	2803.1036 N 08105.1844 W	7	97.5	15.8	P-2	100.2	17.5	97.3	-1.7	Р	
325	01/23/13	2803.5482 N 08105.3991 W	7	97.5	16.3	P-2	100.2	17.5	97.3	-1.2	Р	
326	01/23/13	2803.5544 N 08105.4017 W	7	99.6	16.1	P-2	100.2	17.5	99.4	-1.4	Р	
327	01/23/13	2803.5578 N 08105.4025 W	7	100.0	15.9	P-2	100.2	17.5	99.8	-1.6	Р	
328	01/23/13	2803.5537 N 08105.3983 W	7	97.2	16.4	P-2	100.2	. 17.5	97.0	-1.1	Р	
329	01/23/13	2803.5632 N 08105.4091 W	7	99.9	17.0	P-2	100.2	17.5	99.7	-0.5	Р	
330	01/23/13	2803.5623 N 08105.4077 W	7	97.0	16.7	P-2	100.2	17.5	96.8	-0.8	Р	
СР	01/24/13	-	-	104.2	15.8	P-7	104.4	15.1	-	-	-	
DR24	01/24/13	2803.5612 N 08105.4095 W	7	102.5	13.9	P-7	104.4	15.1	98.2	-1.2	Р	
331	01/24/13	2803.5628 N 08105.4075 W	7	103.1	14.5	P-7	104.4	15.1	98.8	-0.6	Р	

Chris Johnson

01/23/13

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OWNER/ENGINEER:

PROJECT NUMBER: 2012-102

JED Landfill
Leachate Storage Relocation

PROJECT TITLE:

2012-102

Omni Waste of Osceola, LLC

Berm Fill

CONTRACTOR:

RCS Excavation

DATES:

FROM

01/24/13

TO 01/24/13

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				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	1	TEST RESULT	s l	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		EGGATION OF SAMPLE	OR ELEV				DENSITY	MOISTURE		FROM OPT		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	MOISTURE	FAIL	
332	01/24/13	2803.1036 N 08105.1848 W	7	101.9	15.2	P-7	104.4	15.1	97.6	0.1	Р	
333	01/24/13	2803.5481 N 08105.3982 W	7	102.1	16.1	P-7	104.4	15.1	97.8	1.0	Р	
334	01/24/13	2803.5543 N 08105.4018 W	7	101.8	14.8	P-7	104.4	15.1	97.5	-0.3	Р	
335	01/24/13	2803.5573 N 08105.4028 W	7	100.9	15.2	P-7	104.4	15.1	96.6	0.1	Р	
336	01/24/13	2803.5535 N 08105.3985 W	7	102.2	15.0	P-7	104.4	15.1	97.9	-0.1	Р	
337	01/24/13	2803.5635 N 08105.4094 W	7	100.8	16.3	P-7	104.4	15.1	96.6	1.2	Р	
338	01/24/13	2803.5628 N 08105.4073 W	7	99.8	14.8	P-7	104.4	15.1	95.6	-0.3	Р	
339	01/24/13	2803.1668 N 08105.1798 W	7	100.5	14.9	P-7	104.4	15.1	96.3	-0.2	Р	
340	01/24/13	2803.1425 N 08105.1918 W	8	101.5	15.9	P-7	104.4	15.1	97.2	0.8	Р	
341	01/24/13	2803.1155 N 08105.1915 W	8	101.4	15.4	P-7	104.4	15.1	97.1	0.3	Р	
342	01/24/13	2803.1037 N 08105.1842 W	8	100.6	16.3	P-7	104.4	15.1	96.4	1.2	Р	
343	01/24/13	2803.5484 N 08105.3995 W	8	102.4	17.0	P-7	104.4	15.1	98.1	1.9	Р	
344	01/24/13	2803.5545 N 08105.4015 W	8	102.5	15.4	P-7	104.4	15.1	98.2	0.3	Р	
345	01/24/13	2803.5577 N 08105.4015 W	8	101.9	14.1	P-7	104.4	15.1	97.6	-1.0	Р	
346	01/24/13	2803.5532 N 08105.3986 W	8	100.5	14.5	P-7	104.4	15.1	96.3	-0.6	Р	
347	01/24/13	2803.5631 N 08105.4081 W	8	102.8	16.2	P-7	104.4	15.1	98.5	1.1	Р	
348	01/24/13	2803.5628 N 08105.4087 W	8	102.5	15.8	P-7	104.4	15.1	98.2	0.7	Р	
349	01/24/13	2803.5533 N 08105.3984 W	8	102.8	15.4	P-7	104.4	15.1	98.5	0.3	Р	
350	01/24/13	2803.5631 N 08105.4095 W	8	102.4	16.0	P-7	104.4	15.1	98.1	0.9	Р	
351	01/24/13	2803.5624 N 08105.4075 W	8	101.4	14.8	P-7	104.4	15.1	97.1	-0.3	Р	

Chris Johnson

01/24/13

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PROJECT NUMBER: 2012-102	PROJECT	NUMBER:	2012-102
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PROJECT TITLE:

2012-102

JED Landfill

Leachate Storage Relocation

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Berm Fill

CONTRACTOR:

RCS Excavation

01/25/13

DATES:

FROM

TO 01/25/13

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				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	٦	TEST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		EGGATION OF GAMEE	OR ELEV				DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	(%)	FAIL	
CP	01/25/13	<u>-</u>	-	100.0	17.9	P-2	100.2	17.5	•	-	-	
DR25	01/25/13	2803.5481 N 08105.3982 W	8	99.7	16.1	P-2	100.2	17.5	99.5	-1.4	Р	
352	01/25/13	2803.5543 N 08105.4018 W	8	98.4	14.8	P-2	100.2	17.5	98.2	-2.7	Р	
353	01/25/13	2803.5573 N 08105.4028 W	8	98.1	15.2	P-2	100.2	17.5	97.9	-2.3	Р	
354	01/25/13	2803.5535 N 08105.3985 W	8	99.1	15.0	P-2	100.2	17.5	98.9	-2.5	Р	
355	01/25/13	2803.5635 N 08105.4094 W	8	100.0	16.3	P-2	100.2	17.5	99.8	-1.2	Р	
356	01/25/13	2803.5628 N 08105.4073 W	8	99.8	14.8	P-2	100.2	17.5	99.6	-2.7	Р	
357	01/25/13	2803.1668 N 08105.1798 W	8	97.4	14.9	P-2	100.2	17.5	97.2	-2.6	Р	
358	01/25/13	2803.1425 N 08105.1918 W	8	96.8	15.9	P-2	100.2	17.5	96.6	-1.6	Р	
359	01/25/13	2803.1155 N 08105.1915 W	8	95.9	15.4	P-2	100.2	17.5	95.7	-2.1	Р	
360	01/25/13	2803.1037 N 08105.1842 W	8	98.3	16.3	P-2	100.2	17.5	98.1	-1.2	Р	
361	01/25/13	2803.5484 N 08105.3995 W	8	97.5	17.0	P-2	100.2	17.5	97.3	-0.5	Р	
362	01/25/13	2803.5545 N 08105.4015 W	8	98.1	15.4	P-2	100.2	17.5	97.9	-2.1	Р	
363	01/25/13	2803.5577 N 08105.4015 W	8	99.5	14.1	P-2	100.2	17.5	99.3	-3.4	Р	
364	01/25/13	2803.5532 N 08105.3986 W	8	96.7	14.5	P-2	100.2	17.5	96.5	-3.0	Р	
365	01/25/13	2803.5631 N 08105.4081 W	8	96.6	16.2	P-2	100.2	17.5	96.4	-1.3	Р	
366	01/25/13	2803.5628 N 08105.4087 W	8	97.5	15.8	P-2	100.2	17.5	97.3	-1.7	Р	
367	01/25/13	2803.5533 N 08105.3984 W	8	98.0	15.4	P-2	100.2	17.5	97.8	-2.1	Р	
368	01/25/13	2803.5631 N 08105.4095 W	8	99.0	16.0	P-2	100.2	17.5	98.8	-1.5	Р	
369	01/25/13	2803.5624 N 08105.4075 W	8	99.3	14.8	P-2	100.2	17.5	99.1	-2.7	Р	•

Chris Johnson
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01/25/13



PROJECT NUMBER:	2012-102	OWNER/ENGIN	EER:	Omni Waste of Osc	ceola,	LLC		Fill
	JED Landfill							
PROJECT TITLE:	Leachate Storage Relocation	CONTRACTOR:		RCS Excavation				
	•							
		DATES:	FROM	01/25/13	TO	01/00/00	PAGE	22

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR	٦	TEST RESULT	s T	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		EGOATION OF GAMPLE	OR ELEV				DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	(%)	FAIL	
370	01/25/13	2803.5621 N 08105.4073 W	8	97.4	16.2	P-2	100.2	17.5	97.2	-1.3	Р	
CP	01/26/13		-	99.5	17.0	P-2	100.2	17.5	-	-	- [
DR26	01/26/13	2803.1037 N 08105.1842 W	8	98.4	15.4	P-2	100.2	17.5	98.2	-2.1	Р	
371	01/26/13	2803.5484 N 08105.3995 W	8	96.9	15.9	P-2	100.2	17.5	96.7	-1.6	Р	
372	01/26/13	2803.5545 N 08105.4015 W	8	97.5	16.1	P-2	100.2	17.5	97.3	-1.4	Р	
373	01/26/13	2803.5577 N 08105.4015 W	8	96.3	14.8	P-2	100.2	17.5	96.1	-2.7	P	
374	01/26/13	2803.5532 N 08105.3986 W	8	95.9	16.3	P-2	100.2	17.5	95.7	-1.2	Р	
375	01/26/13	2803.5631 N 08105.4081 W	8	97.8	16.5	P-2	100.2	17.5	97.6	-1.0	P	
376	01/26/13	2803.5628 N 08105.4087 W	8	97.7	16,1	P-2	100.2	17.5	97.5	-1.4	Р	
377	01/26/13	2803.5533 N 08105.3984 W	8	98.4	15.5	P-2	100.2	17.5	98.2	-2.0	Р	
378	01/26/13	2803.5631 N 08105.4095 W	8	99.0	15.4	P-2	100.2	17.5	98.8	-2.1	Р	
379	01/26/13	2803.5624 N 08105.4075 W	8	95.6	15.9	P-2	100.2	17.5	95.4	-1.6	Р	
	-											
					-							
											. 1	

Chris Johnson
PREPARED BY

01/26/13

Berm



COMPACTED FILL

PROJECT NUMBER:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC		
PROJECT NAME:	Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation		
LOCATION: St. Cloud, FL		DATE TESTED:	12/3/2012		

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%			LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.		LOCATION		OR
	WT. OF RING	(tbs)	(pcf)	OPT.	(pcf)					ELEV.
DR1	2305		V7	15.2		P2				
	601	3.76	112.7	-2.3	97.8		97.6%			1
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COMPACTED FILL

PROJECT NUM	BER:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:		Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	12/4/2012

	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR2	2361			14.0		P7			
	601	3.88	116.4	-1.1	102.1		97.8%		1



COMPACTED FILL

PROJECT NUMBE	R:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:		Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation
LOCATION: 5	St. Cloud, FL		DATE TESTED:	12/6/2012

	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%			UFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION		OR
	WT. OF RING	(ibs)	(pcf)	OPT.	(pcf)					ELEV.
DR3	2340			16.2		P2				
	601	3.83	115.0	-1.3	99.0		98.8%			
									_	
			[
			[
			1							



COMPACTED FILL

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAMI	E:	Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	12/7/2012

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR4	2320			16.0		P2			
	601	3.79	113.7	-1.5	98.0		97.8%		
									—
									- 1
			-						
			-						



COMPACTED

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:		Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL	·	DATE TESTED:	12/8/2012

TEST NO.	WT. OF RING & SAMPLE WT. OF RING	WT. OF SAMPLE (Ibs)	WET DENSITY (pcf)	% MOIST. +/- OF OPT.	DRY DENSITY (pcf)	PROCTOR NO.	% COMP.	LOCATION	LIFT OR ELEV.
DR5	2303 601	3.75		17.0		P2	96.0%		:
		4							



COMPACTED

PROJEC	ROJECT NUMBER: 2011-102				OWNER/ENGINEER:			Omni Waste of Osceola, LLC		
PROJEC	T NAME:	Jed Landfill Leac	hate Storage Relo	sation		CONTRACTOR	:	RCS Excavation		
LOCATIO	ON: St. Cloud, FL					DATE TESTED:		12/10/2012		
	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%			LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION		OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)					ELEV.
DR6	2316			16.0		P2				
	601	3.78	113.4	-1.5	97.8		97.6%			3
		_								
		1								
		-						,		



PROJECT NUMBER

FIELD DENSITY TEST RECORD DRIVE CYLINDER METHOD ASTM D-2937

COMPACTED

PROJEC	T NAME:	Jed Landfili Leac	hate Storage Relo	cation		CONTRACTOR:		RCS Excavation		
LOCATIO	ON: St. Cloud, FL					DATE TESTED:			12/11/2012	
TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%			LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION		OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)	ı				ELEV.
DR7	2335			15.7		P2			_	
L	601	3.82	114.7	-1.8	99.1		98.9%			3
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COMPACTED

PROJECT	T NUMBER:		_	OWNER/ENGIN	NEER:	Omni Waste of Osceola, LLC			
PROJECT	T NAME:	Jed Landfill Leas	chate Storage Reloc	cation		CONTRACTOR:		RCS Excavation	
LOCATIO	ON: St. Cloud, FL					DATE TESTED:		12/18/2012	
TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
'	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)	'			ELEV.
DR8	2389	1		14.8	1	P7			
, ,	601 2 04 119 2				امدمه ا		00.79/	اد	اما

TEST NO.	WT. OF RING & SAMPLE	WT. OF SAMPLE	WET DENSITY	% MOIST. +/- OF	DRY DENSITY	PROCTOR NO.	% COMP.	LOCATION	LIFT OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)	140.	CONT.	Location	ELEV.
DR8	2389		V	14.8		P7			
	601	3.94	118.2	-0.3	103.0		98.7%		4
				_					
<u> </u>									
					_				



COMPACTED

PROJECT	OJECT NUMBER: 2011-102					OWNER/ENGI	NEER:	Omni Waste of Osceola, LLC		
PROJECT	T NAME:	Jed Landfill Leac	hate Storage Relo	cation		CONTRACTOR:	:	RCS Excavation		
LOCATIO	ON: St. Cloud, FL					DATE TESTED:			12/22/2012	
TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	- %			LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION		OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				<u> </u>	ELEV.
DR9	2421			13.9	_	P3				
	601	4.01	120.4	-0.1	105.7		99.7%			4



COMPACTED

PROJECT NUMBER:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:	Jed Landfill Loachate Storage Relocation	CONTRACTOR:	RCS Excavation
LOCATION: St. Cloud, FL		DATE TESTED:	12/26/2012

		•							
TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(łbs)	(pcf)	OPT.	(pcf)				ELEV.
DR10	2425			14.9		P3			
	601	4.02	120.6	0.9	105.0		99.1%		4
							1		
							1		
							1		



COMPACTED

PROJEC	PROJECT NUMBER: 2011-102					OWNER/ENGINEER: Omni Waste of Osceola, LLC					
PROJEC	T NAME:	Jed Landfill Leac	hate Storage Relo	cation		CONTRACTOR: RCS Excavation					_
LOCATIO	ON: St. Cloud, FL					DATE TESTED:		_	12/27/2012		
										,	
	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%				UFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION			OR
	WT. OF RING	(lbs]	(pcf)	OPT.	(pcf)						ELEV.
DR11		2324 15.0				P2					
	601	601 3.80 114.0 -2.5			99.1		98.9%				5
							-				
											_
			1								



COMPACTED FILL

PROJEC	ROJECT NUMBER: <u>2011-102</u>				OWNER/ENGINEER:			Omni Waste of Osceola, LLC		
PROJEC	T NAME:	Jed Landfill Leac	hate Storage Relo	sation		CONTRACTOR:		RCS Excavation		
LOCATIO	ON: St. Cloud, FL					DATE TESTED:		12/28/2012		
TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		UFT	
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR ELEV.	
DR12	WT. OF RING 2416	(tbs)	(pcf)	OPT. 14.2	(pcf)	P3			ELEV.	
DKIZ	601		120.0		105.1		99.2%		5	
		4.00	220.0	0.2			55.275			
					_		_			
		1 1					1			



COMPACTED

PROJEC	ROJECT NUMBER: 2011-102					OWNER/ENGI	NEER:	Omni Waste of Osceola, LLC		
PROJEC	T NAME:	Jed Landfill Lead	hate Storage Relo	cation	CONTRACTOR:			RCS Excavation		
LOCATIO	ON: St. Cloud, FL					DATE TESTED:		12/29/2012		
TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT	
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR	
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.	
DR13	233			14.9		P2			_ I	
	60	3.82	114.6	-2.6	99.7		99.5%		S	
		-								
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COMPACTED FILL

PROJECT	ROJECT NUMBER: 2011-102					OWNER/ENGI	NEER:	Omni Waste of	Osceola, LLC	
PROJECT	T NAME:	Jed Lendfill Lead	hate Storage Relo			CONTRACTOR:		RCS Excavation		
LOCATIO	ON: St. Cloud, FL					DATE TESTED:			1/2/2013	
TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%			LIFT
NO.	& SAMPLE	SAMPLE	SAMPLE DENSITY +/- OF			NO.	COMP.	LOCATION		OR
	WT. OF RING	(lbs) (pcf) OPT.			(pcf)					ELEV.
DR14	2412			14.1		P3				\Box
	601	3.99	119.8	0.1	105.0		99.1%			5
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		1					1			1 1
										$\overline{}$
		1 .					1			1 1
										\Box
		1					1			
										\Box
		1								1 I



COMPACTED

PROJECT NUMBER:		2011-102			OWNER/ENGINEER:			Omni Waste of Osceola, LLC		
PROJEC	T NAME:	Jed Landfill Leac	hate Storage Relo	cation		CONTRACTOR	:	RCS Excavation		
LOCATIO	ON: St. Cloud, FL					DATE TESTED:		1/	/3/2013	
TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%			UFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION		OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)					ELEV.
DR15	2490			13.5		P10_				
	60:	1 4.17	125.0	-0.1	110.1		100.0%			5
		-					-			
										
		-					1			
										
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COMPACTED

PROJECT NUMB	BER:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME	:	Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	1/4/2013

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%			LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION		OR
	WT. OF RING	(ibs)	(pcf)	OPT.	(pcf)					ELEV.
DR16	2325			16.2		P2				
	601	3.80	114.0	-1.3	98.1		97.9%			- 5
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	 								-	-
	. —									



COMPACTED FILL

PROJECT NUMBER:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:	Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation
LOCATION: St. Cloud, FL		DATE TESTED:	1/8/2013

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR17	2348			13.5		P3			
	601	3.85	115.5	-0.5	101.8		96.0%		6
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COMPACTED

PROJECT NUMBER: PROJECT NAME:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC	
PROJECT NAMI	E:	Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation	
LOCATION:	St. Cloud, FL		DATE TESTED:	1/9/2013	

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		UFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR18	2301			15.8		P2			\neg
	601	3.75	112.4	-1.7	97.1		96.9%		
								· ·	\neg
									- 1



COMPACTED

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:		Omni Waste of Osceola, LLC	
PROJECT NAME:		Jed Landfill Leachate Storage Relocation	CONTRACTOR:		RCS Excavation	
LOCATION:	: St. Cloud, FL		DATE TESTED:		1/10/2013	

TEST NO.	WT. OF RING & SAMPLE	WT. OF SAMPLE	WET DENSITY	% MOIST. +/- OF	DRY DENSITY	PROCTOR NO.	% COMP.	LOCATION	UFT
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
R19	2311			16.1		P2			
	601	3.77	113.1	-1.4	97.4		97.2%		
									
	-								
									-
									-
									\neg



COMPACTED FILL

PROJEC	T NUMBER:	2011-102				OWNER/ENGI	NEER:	Omni Waste of	Osceola, LLC		
PROJEC	T NAME:	Jed Landfill Lead	hate Storage Relo	cation		CONTRACTOR:					
LOCATIO	ON: St. Cloud, FL					DATE TESTED: 1/11/2013					
TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	- %			_	LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.		LOCATION		- 1	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)					- 1	ELEV.
DR20	2341		1,000	16.0		P2				\neg	
	601	3.84	115.1	-1.5	99.2		99.0%				6
										\neg	
		-									
										\neg	
										_	



COMPACTED FILL

PROJEC	I NUMBER:	2011-102				DAMMERAEMON	NEEK:	Ollini Anaste	i Osceola, ELC	
PROJEC	T NAME:	Jed Landfill Leac	nate Storage Reloc	cation	CONTRACTOR:			RCS Excavatio	n	
LOCATIO	ON: St. Cloud, FL					DATE TESTED:			1/12/2013	
TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%			LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	,	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)					 ELEV.
DR21	2369			16.9		P2				
	601	3.90	116.9	0.6	100.0		99.8%			 7
					_					



COMPACTED FILL

PROJECT NUM	BER:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME	E:	Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	1/22/2013

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR22	2288			16.7		P2			
	601	3.72	111.6	-0.8	95.6		95.4%		7
									 _
	 								-
									_
	-								-
	<u> </u>								



COMPACTED

PROJEC	T NUMBER:	2011-102				OWNER/ENGI	NEER:	Omni Waste of C	Osceola, LLC	
PROJEC	T NAME:	Jed Landfill Lead	hate Storage Relo	ocation CONTRACTOR:		RCS Excavation				
LOCATIO	ION: St. Cloud, FL		,	DATE TESTED:		1/23/2013				
TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%	Τ		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION		OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)					ELEV.
DR23	2313	3		16.1		P2				\neg
	601	3.77	113.2	-1.4	97.5		97.3%			7



COMPACTED FILL

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:		Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	1/24/2013

AMPLE DENSITY (pcf) 3.89 116	+/- OF OPT. 13.9 7 -1.2		P7	98.2%	LOCATION		OR ELEV.
	13.9			98.2%			ELEV.
3.89 116				98.2%			
3.89 116	.7 -1.2	102.5		98.2%		 	+-



COMPACTED

PROJECT NUMB	ER:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:	:	Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	1/25/2013

TEST NO.	WT. OF RING & SAMPLE WT. OF RING	WT. OF SAMPLE (lbs)	WET DENSITY (pcf)	% MOIST. +/- OF OPT.	DRY DENSITY (pcf)	PROCTOR NO.	COMP.	LOCATION	UFT OR ELEV.
DR2S	2351			16.1 -1.4		P2	99.5%		
							1		
	-								



COMPACTED

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME	:	Jed Landfill Leachate Storage Relocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	1/26/2013

	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	COMP.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				ELEV.
DR26	2318			15.4		P2			7
	601	3.79	113.6	-2.1	98.4		98.2%		8
1									
									\perp
1									
									1 1

Section 5 General Fill Density Summary and Field Tests (Forcemain Pipe Backfill)



Force	Main
Bac	kfill

PROJECT NUMBER: 2012-102

JED Landfill

Omni Waste of Osceola, LLC

Leachate Storage Relocation PROJECT TITLE:

CONTRACTOR:

OWNER/ENGINEER:

RCS Excavation

DATES:

FROM

01/29/13

TO 01/29/13

PAGE

				IN PLACE DETERM	IINATION	MAT	CHING PRO	TOR	1	TEST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
1		200/11/01/01/0/01/11/12	OR ELEV				DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)	(%)	FAIL	
CP	01/29/13	<u>•</u>	-	100.7	17.3	P-9	100.9	17.1		-	-	
DR1	01/29/13	2+40	1	99.3	16.7	P-9	100.9	17.1	98.4	-0.4	Р	
1	01/29/13	2+40	1	100.0	16.4	P-9	100.9	17.1	99.1	-0.7	Р	
2	01/29/13	4+70	1	95.1	16.7	P-9	100.9	17.1	94.3	-0.4	F	Density
2R	01/29/13	4+70	1	96.1	14.9	P-9	100.9	17.1	95.2	-2.2	P	•
3	01/29/13	7+00	1	97.0	14.6	P-9	100.9	17.1	96.1	-2.5	Р	
4	01/29/13	9+30	1	98.2	13.2	P-9	100.9	17.1	97.3	-3.9	Р	
5 .	01/29/13	11+60	1	97.6	14.3	P-9	100.9	17.1	96.7	-2.8	P	
6	01/29/13	13+90	1	96.8	15.1	P-9	100.9	17.1	95.9	-2.0	Р	
7	01/29/13	16+20	1	96.7	16.2	P-9	100.9	17.1	95.8	-0.9	Р	
8	01/29/13	18+50	1	98.0	16.6	P-9	100.9	17.1	97.1	-0.5	Р	
9	01/29/13	20+80	1	97.0	15.0	P-9	100.9	17.1	96.1	-2.1	Р	
10	01/29/13	23+10	1	99.2	14.1	P-9	100.9	17.1	98.3	-3.0	Р	
11	01/29/13	25+40	1	96.8	14.7	P-9	100.9	17.1	95.9	-2.4	Р	
12	01/29/13	28+70	1	97.1	15.8	P-9	100.9	17.1	96.2	-1.3	Р	
13	01/29/13	31+00	1	96.2	19.1	P-9	100.9	17.1	95.3	2.0	Р	-
14	01/29/13	33+30	1	99.0	17.8	P-2	100.2	17.5	98.8	0.3	Р	
15	01/29/13	35+60	1	97.5	15.0	P-2	100.2	17.5	97.3	-2.5	Р	
16	01/29/13	38+90	1	96.2	16.0	P-2	100.2	17.5	96.0	-1.5	Р	
17	01/29/13	41+20	1	101.1	16.2	P-1	101.7	16.0	99.4	0.2	Р	

Chris Johnson

01/29/13

PREPARED BY



Force Main

PROJECT NUMBER: 2012-102

JED Landfill

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Backfill

PROJECT TITLE:

Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

FROM

01/29/13

TO 01/29/13

PAGE 2

				IN PLACE DETERM	INATION	MAT	CHING PRO	TOR		TEST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
		LOCATION OF SAMPLE	OR ELEV				DENSITY	MOISTURE		FROM OPT MOISTURE		REMARK
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	(pcf)	(%)	COMP (%)		FAIL	
18	01/29/13	43+50	1	96.0	15.1	P-2	100.2	17.5	95.8	-2.4	Р	
19	01/29/13	45+00	1	97.2	16.2	P-2	100.2	17.5	97.0	-1.3	Р	
20	01/29/13	2+00	2	106.8	11.2	P-10	110.1	13.6	97.0	-2.4	Р	
21	01/29/13	4+30	2	95.6	14.9	P-2	100.2	17.5	95.4	-2.6	Р	
22	01/29/13	6+00	2	97.5	14.8	P-2	100.2	17.5	97.3 ·	-2.7	Р	
23	01/29/13	8+30	2	102.9	14.7	P-7	104.4	15.1	98.6	-0.4	Р	
24	01/29/13	10+30	2	99.6	14.5	P-7	104.4	15.1	95.4	-0.6	Р	
DR2	01/29/13	12+60	2	100.9	12.9	P-7	104.4	15.1	96.6	-2.2	Р	
25	01/29/13	14+90	2	101.5	13.8	P-7	104.4	15.1	97.2	-1.3	P	
26	01/29/13	17+10	2	103.2	13.1	P-7	104.4	15.1	98.9	-2.0	Р	
27	01/29/13	19+30	2	100.0	18.1	P-7	104.4	15.1	95.8	3.0	Р	
28	01/29/13	21+30	2	100.3	13.2	P-7	104.4	15.1	96.1	-1.9	Р	
29	01/29/13	23+50	2	101.5	14.2	P-7	104.4	15.1	97.2	-0.9	Р	
30	01/29/13	25+00	2	100.0	13.0	P-7	104.4	15.1	95.8	-2.1	Р	
· 31	01/29/13	27+30	2	101.8	16.0	P-7	104.4	15.1	97.5	0.9	P	
32	01/29/13	29+60	2	101.9	15.1	P-7	104.4	15.1	97.6	0.0	Р	
33	01/29/13	31+70	2	101.0	14.8	P-7	104.4	15.1	96.7	-0.3	Р	
34	01/29/13	34+00	2	99.9	14.2	P-7	104.4	15.1	95.7	-0.9	P	
35	01/29/13	36+30	2	101.1	13.5	P-7	104.4	15.1	96.8	-1.6	P	
36	01/29/13	38+60	2	102.3	13.0	P-7	104.4	15.1	98.0	-2.1	Р	

Chris Johnson

01/29/13

PREPARED BY



Force	Main
Bac	Ŀfill

PROJECT NUMBER: 2012-102

JED Landfill

OWNER/ENGINEER:

Omni Waste of Osceola, LLC

Backfill

PROJECT TITLE:

Leachate Storage Relocation

CONTRACTOR:

RCS Excavation

DATES:

01/30/13

FROM

TO 01/30/13

PAGE

				IN PLACE DETERM	PLACE DETERMINATION			TOR	1	TEST RESULT	S	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	554454
NUMBER			(ft)	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE (%)	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
СР	01/30/13	-	-	104.3	15.5	P-7	104.4	15.1	-	-		
DR3	01/30/13	40+30	2	102.3	14.6	P-7	104.4	15.1	98.0	-0.5	Р	
37	01/30/13	40+30	2	101.5	13.5	P-7	104.4	15.1	97.2	-1.6	Р	-
38	01/30/13	42+60 .	2	101.4	14.6	P-7	104.4	15.1	97.1	-0.5	Р	
39	01/30/13	44+90	2	101.7	13.4	P-7	104.4	15.1	97.4	-1.7	Р	
40	01/30/13	2+50	3	104.3	15.0	P-7	104.4	15.1	99.9	-0.1	Р	
41	01/30/13	4+90	3	97.9	13.9	P-7	104.4	15.1	93.8	-1.2	F	Density
41R	01/30/13	4+90	3	100.2	13.2	P-7	104.4	15.1	96.0	-1.9	Р	
42	01/30/13	7+00	3	101.5	14.5	P-7	104.4	15.1	97.2	-0.6	Р	
43	01/30/13	9+50	3	101.7	14.3	P-7	104.4	15.1	97.4	-0.8	Р	
44	01/30/13	11+70	3	102.5	13.5	P-7	104.4	15.1	98.2	-1.6	Р	
45	01/30/13	14+00	3	101.3	14.1	P-7	104.4	15.1	97.0	-1.0	Р	
46	01/30/13	16+50	3	100.0	15.0	P-7	104.4	15.1	95.8	-0.1	Р	÷
47	01/30/13	18+90	3	99.3	15.6	P-7	104.4	15.1	95.1	0.5	P	
48	01/30/13	20+50	3	100.1	13.8	P-7	104.4	15.1	95.9	-1.3	Р	
49	01/30/13	22+80	3	101.4	14.3	P-7	104.4	15.1	97.1	-0.8	Р	
50	01/30/13	25+30	3	101.2	14.5	P-7	104.4	15.1	96.9	-0.6	Р	
51	01/30/13	27+60	3	101.9	13.9	P-7	104.4	15.1	97.6	-1.2	Р	
52	01/30/13	29+90	3	103.1	15.1	P-7	104.4	15.1	98.8	0.0	Р	
53	01/30/13	32+00	3	99.0	13.6	P-7	104.4	15.1	94.8	-1.5	F	Density

Chris	Johnson

01/30/13

PREPARED BY



Service Services								Force Main	
PROJECT NUMBER:	2012-102	OWNER/ENGIN	EER:	Omni Waste of	Osceola	LLC		Backfill	
	JED Landfill								
PROJECT TITLE:	Leachate Storage Relocation	CONTRACTOR:		RCS Excavation	n				
		DATES:	FROM	01/30/13	то	01/30/13	PAG	F 5	

				IN PLACE DETERM	PLACE DETERMINATION			TOR	1	EST RESULT	s	
TEST	TEST DATE	LOCATION OF SAMPLE	LIFT NO	DRY DENSITY	MOISTURE	CURVE	MAX DRY	OPTIMUM	PERCENT	DIFFER	PASS/	
NUMBER			OR ELEV	(pcf)	CONTENT (%)	NUMBER	DENSITY (pcf)	MOISTURE	COMP (%)	FROM OPT MOISTURE	FAIL	REMARK
71	01/30/13	27+30	4	95.3	15.0	P-2	100.2	17.5	95.1	-2.5	Р	
72	01/30/13	29+60	4	98.5	16.0	P-2	100.2	17.5	98.3	-1.5	Р	
73	01/30/13	31+70	4	96.4	16.5	P-2	100.2	17.5	96.2	-1.0	Р	
74	01/30/13	34+00	4	98.5	16.1	P-2	100.2	17.5	98.3	-1.4	Р	
75	01/30/13	36+30	4	96.4	16.5	P-2	100.2	17.5	96.2	-1.0	Р	
DR5	01/30/13	38+60	4	97.4	16.2	P-2	100.2	17.5	97.2	-1.3	P	
76	01/30/13	38+60	4	98.5	16.0	P-2	100.2	17.5	98.3	-1.5	Р	
77	01/30/13	40+30	4	96.4	16.5	P-2	100.2	17.5	96.2	-1.0	P	
78	01/30/13	42+60	4	98.5	16.0	P-2	100.2	17.5	98.3	-1.5	P	
79	01/30/13	44+90	4	96.4	16.5	P-2	100.2	17.5	96.2	-1.0	Р	
80	01/30/13	45+10	4	96.4	16.5	P-2	100.2	17.5	96.2	-1.0	P	
								W				
											, 1	
			1		-							

Chris	Johnson	
20504	DED DV	

01/30/13

PREPARED BY



COMPACTED

PROJECT NUMBER:		2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME:		Jed Landfill Leachate Storage Reviocation	CONTRACTOR:	RCS Excavation
LOCATION: St. C	Cloud, FL		DATE TESTED:	1/29/2013

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		 LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	сомр.	LOCATION	OR
	WT. OF RING	(lbs)	(pcf)	OPT.	(pcf)				 ELEV.
DR1	2353			16.7		P9			
	601	3.86	115.9	-0.4	99.3		98.4%		 1
DR2	2323			12.9		P7			
	601	3.80	113.9	-4.2	100.9		96.6%		 2
	_								
]		



COMPACTED

PROJECT NUME	BER:	2011-102	OWNER/ENGINEER:	Omni Waste of Osceola, LLC
PROJECT NAME	:	Jed Landfill Leachate Storage Reelocation	CONTRACTOR:	RCS Excavation
LOCATION:	St. Cloud, FL		DATE TESTED:	1/30/2013

TEST	WT. OF RING	WT. OF	WET	% MOIST.	DRY	PROCTOR	%		LIFT
NO.	& SAMPLE	SAMPLE	DENSITY	+/- OF	DENSITY	NO.	сомр.	LOCATION	OR
	WT. OF RING	(ibs)	(pcf)	OPT.	(pcf)				ELEV.
DR3	2374			14.6		₽7			
	601	3.91	117.2	-2.9	102.3		98.0%		2
DR4	2331			14.3		P7			
	601	3.81	114.4	-3.2	100.1		95.9%		3
DR5	2312			16.2		P2			
	601	3.77	113.2	-1.3	97.4		97.2%		4
			Į.						
			ļ						1
									1

APPENDIX D
Inventory Log

Section 1
GCL



BRANTLEY ENGINEERING, LLC. Geosynthetic Inventory Control Log

Page 1 of 2

PROJECT NAME: J.E.D. Leachate Storage Facility Relocation

OWNER: Waste Services Inc.

MATERIAL TYPE:

GCL

DATE OF ARRIVAL:

11/05/12

DATE OF INVENTORY: 11/05/12

MATERIAL MANUFACTURER: CETCO

QA MONITOR:

CSJ

TRUCK TYPE:

Flatbed

CONDITION IN TRUCK: Good

UNLOADING METHOD:

Trackhoe

1 2 3	201245CV	ROLL NUMBER	LENGTH	WIDTH	THIOKNEGO	CERT	0444545	DEMARKS
2					THICKNESS	CERT	SAMPLE	REMARKS
2			(Ft)	(Ft)	OR WEIGHT	Y/N	Y/N_	
\rightarrow		6776	150	15_		Y	N	
3	201245CV	6781	150	15		Υ	N	
<u> </u>	201245CV	6790	150	15		Y	N	
4	201245CV	6792	150	15		Υ	N	
5	201245CV	6799	150	15		Y	N	
6	201245CV	6802	150	15		Y	N	
7	201245CV	6805	150	15		Υ	N	
8	201245CV	6806	150	15		Υ	N	
9	201245CV	6807	150	15		Υ	N	
10	201245CV	6808	150	15		Y	N	
11	201245CV	6810	150	15		Y	N	
12	201245CV	6811	150	15		Υ	N	-
13	201245CV	6812	150	15		Υ	N	
14	201245CV	6813	150	15		Υ	N	
15	201245CV	6814	150	15		Υ	N	
16	201245CV	6763	150	15		Υ	N	
17	201245CV	6767	150	15		Y	N	
18	201245CV	6786	150	15		Y	N	
19	201245CV	6787	150	15		Y	N	
20	201245CV	6788	150	15		Y	N	
21	201245CV	6789	150	15		Y	N	
22	201245CV	6794	150	15		Y	N	
23	201245CV	6795	150	15		Y	N	
24	201245CV	6796	150	15		Y	N	
25	201245CV	6797	150	15		Υ'	N	
26	201245CV	6798	150	. 15		Y	N	
27	201245CV	6800	150	15		Y	N	
	OTAL LENGTH (ft)	4050						
T	OTAL AREA (ft)	60750						



BRANTLEY ENGINEERING, LLC. Geosynthetic Inventory Control Log

Page 2 of 2

PROJECT NAME: J.E.D. Leachate Storage Facility Relocation

OWNER: Waste Services Inc.

MATERIAL TYPE:

GCL

DATE OF ARRIVAL: 11/05/12

DATE OF INVENTORY: 11/05/12

MATERIAL MANUFACTURER: CETCO

QA MONITOR:

CSJ

TRUCK TYPE:

Flatbed

CONDITION IN TRUCK: Good

UNLOADING METHOD:

Trackhoe

			MA	TERIAL DIMEN	SIONS	QC	CONF	
#	RESIN LOT#	ROLL NUMBER	LENGTH		THICKNESS	CERT	SAMPLE	REMARKS
			(Ft)	(Ft)	OR WEIGHT	Y/N	Y/N	
1	201245CV	6801	150	15		Y	N	
2	201245CV	6803	150	15		Υ	N	
3	201245CV	6804	150	15		Υ	N	
4								
5								
6								
7								
8								
9								
10								
11								
12								_
13								
14								
15								
16								
17								
18								_
19								
20							T T	_
21	-							
22								
23							j	
24					<u>_</u>		i i	
25								
26					<u>-</u>		i -	
27								
TO	TAL LENGTH (ft)	450					'	
TO	TAL AREA (ft)	6750						

PACKING LIST

MENTAL TECH LLC

ST. CLOUD FL 34773

√ENUE TATES

IL 60192

ORDER NO:.. 028849001 ORDER DATE: 10/22/2012 SHIP DATE:. 11/02/2012

SOLD TO: 5099 WASTE SERVICES 1501 OMNI WAY

SHIP FROM: . CETCO CARTERSVILLE FRT TERMS: . PREPAID & ADD SHIP VIA:.. AMERICO LOGISTICS

SHIP TO: 01

JED LANDFILL CELL 7 WASTE SERVICES

1501 OMNI WAY

SEE DIRECTIONS ATTACHED FOLLOW

ST. CLOUD FL 34773

PO: JED LEACHATE

PRODUCT	SIZE U/M	LOT #	ROLL# LNGTH WIDTH	SHIP QTY WEIGHT
CV-BENTOMAT ST	SFT SF	201245CV	00006776 150.0 15.0	
CV-BENTOMAT ST	SFT SF	201245CV	00006781 150.0 15.0	
CV-BENTOMAT ST	SFT SF	201245CV	00006790 150.0 15.0	2250.0 2672.0
CV-BENTOMAT ST	SFT SF	201245CV	00006792 150.0 15.0	2250.0 2695.0
CV-BENTOMAT ST	SFT SF	201245CV	000067991/150.0 15.0	2250.0 2649.0
CV-BENTOMAT ST	SFT SF	201245CV	00006802/150.0 15.0	2250.0 2678.0
CV-BENTOMAT ST	SFT SF	201245CV	00006805 150.0 15.0	2250.0 2634.0
CV-BENTOMAT ST	SFT SF	201245CV	00006806 150.0 15.0	2250.0 2639.0
DU-BENTOMAT ST	SFT SF	201245CV	00006807 150.0 15.0	2250.0 2645.0
CV-BENTOMAT ST	SFT SF	201245CV	00006808 ¹ 150.0 15.0	2250.0 2642.0
CV-BENTOMAT ST	SFT SF	201245CV	00006810 150.0 15.0	2250.0 2651.0
CV-BENTOMAT ST	SFT SF	201245CV	00006811 150.0 15.0	2250.0 2651.0
CV-BENTOMAT ST	SFT SF	201245CV	00006812 150.0 15.0	2250.0 2653.0
CV-BENTOMAT ST	SFT SF	201245CV	00006813 150.0 15.0	2250.0 2653.0
CV-BENTOMAT ST	SFT SF	201245CV	000068141/150.0 15.0	2250.0 2666.0
				## ######
				33750.0
CV-CG 50	50B EA			15.0 750.0
				=======
				15.0
,				
CV-LAB FEE-TSG	MSC EA			1.0 1.0
				=======
				1.0

======= 40616.0

ORDER TOTALS.....

PACKING LIST

OID ENVIRONMENTAL TECH LLC

0 FORBS AVENUE

FFMAN ESTATES IL 60192

ORDER NO:.. 023849002 ORDER DATE: 10/22/2012 SHIP DATE: . 11/02/2012

SOLD TO: 5099 WASTE SERVICES 1501 OMNI WAY

FRT TERMS: PREPAID & ADD

SHIP FROM: CETCO CARTERSVILLE

SHIP VIA: .. AMERICO LOGISTICS

ST. CLOUD FL 34773

SHIP TO: 01

JED LANDFILL CELL 7

WASTE SERVICES 1501 OMNI WAY

SEE DIRECTIONS ATTACHED FOLLOW

ST. CLOUD FL 34773

PO: JED LEACHATE

PRODUCT	SIZE U/M	LOT #	ROLL# LNGTH WIDTH	SHIP QTY	WEIGHT
			,		
CV-BENTOMAT ST	SFT SF	201245CV	00006763 150.0 15.0		2667.0
CV-BENTOMAT ST	SFT SF	201245CV	00006767 150.0 15.0	2250.0	2664.0
CV-BENTOMAT ST	SFT SF	201245CV	00006786 150.0 15.0		2701.0
CV-BENTOMAT ST	SFT SF	201245CV	00006787 150.0 15.0	2250.0	2687.0
CV-BENTOMAT ST	SFT SF	201245CV	00006788 150.0 15.0	2250.0	2694.0
CV-BENTOMAT ST	SFT SF	201245CV	00006789 150.0 15.0		2690.0
CV-BENTOMAT ST	SFT SF	201245CV	00006794 150.0 15.0		2651.0
CV-BENTOMAT ST	SFT SF	201245CV	00006795 150.0 15.0	2250.0	2663.0
CV-BENTOMAT ST	SFT SF	201245CV	00006796 150.0 15.0	2250.0	2650.0
CV-BENTOMAT ST	SFT SF	201245CV	00006797 150.0 15.0		2656.0
CV-BENTOMAT ST	SFT SF	201245CV	00006798 150.0 15.0		2664.0
CV-BENTOMAT ST	SFT SF	201245CV	00006800 150.0 15.0		2666.0
CV-BENTOMAT ST	SFT SF	201245CV	00006801 150.0 15.0		2668.0
CV-BENTOMAT ST	SFT SF	201245CV	00006803 150.0 15.0	2250.0	2663.0
CV-BENTOMAT ST	SFT SF	201245CV	00006804 150.0 15.0	2250.0	2662.0
				========	
				33750.0	
CV-CG 50	50B EA			15.0	750.0
34 20	202 211			=======	
				25.0	

====== 40796.0

TOTAL ITEMS.......... 16

ORDER TOTALS.....



BRANTLEY ENGINEERING, LLC. Geosynthetic Inventory Control Log

Page 1 of 2

PROJECT NAME: J.E.D. Leachate Storage Facility Relocation

OWNER: Waste Services Inc.

MATERIAL TYPE: GCL

DATE OF ARRIVAL: 11/07/12

DATE OF INVENTORY: 11/07/12

MATERIAL MANUFACTURER: CETCO

QA MONITOR:

CSJ

TRUCK TYPE:

Flatbed

CONDITION IN TRUCK: Good

UNLOADING METHOD: Trackhoe

			MA	TERIAL DIME	NSIONS	QC	CONF	
#	RESIN LOT#	ROLL NUMBER	LENGTH (Ft)	WIDTH (Ft)	THICKNESS OR WEIGHT	CERT Y/N	SAMPLE Y/N	REMARKS
1	201245CV	6766	150	15		Υ	N	
2	201245CV	6768	150	15		Υ	N	
3	201245CV	6769	150	15		Y	N	
4	201245CV	6770	150	15		Y	N	
5	201245CV	6771	150	15		Y	N	
6	201245CV	6772	150	15		Y	N	
7	201245CV	6773	150	15		Υ	N	
8	201245CV	6775	150	15		Y	N	
9	201245CV	6777	150	15		Y	N	
10	201245CV	6779	150	15		Y	N	
11	201245CV	6782	150	15		Y	N	
12	201245CV	6784	150	15		Υ Υ	N	
13	201245CV	6785	150	15		Υ	N	
14	201245CV	6793	150	15		Y	N	
15	201245CV	6809	150	15		Y	N	
16	201245CV	6748	150	15		Y	Y	In-Plant Conformance Samplin
17	201245CV	6749	150	15		Y	N	
18	201245CV	6752	150	15		· Y	N	
19	201245CV	6755	150	15		Y	N	
20	201245CV	6756	150	15		Υ	N	
21	201245CV	6757	150	15		Y	N	
22	201245CV	6758	150	15		Υ	N	
23	201245CV	6762	150	15		Y	N	
24	201245CV	6764	150	15		Y	N_	
25	201245CV	6765	150	15		Y	N	
26	201245CV	6774	150	15		Y	N	
27	201245CV	6778	150	15		Y	N	
	TAL LENGTH (ft)	4050						
TO	TAL AREA (ft)	607 <u>50</u>						



BRANTLEY ENGINEERING, LLC. Geosynthetic Inventory Control Log

Page 2 of 2

PROJECT NAME: J.E.D. Leachate Storage Facility Relocation

OWNER: Waste Services Inc.

MATERIAL TYPE:

GCL

DATE OF ARRIVAL: 11/07/12

DATE OF INVENTORY: 11/07/12

MATERIAL MANUFACTURER: CETCO

QA MONITOR:

CSJ

TRUCK TYPE:

Flatbed

CONDITION IN TRUCK: Good

UNLOADING METHOD:

Trackhoe

\top			MA	TERIAL DIME	NSIONS	QC	CONF	
#	RESIN LOT#	ROLL NUMBER	LENGTH	WIDTH	THICKNESS	CERT	SAMPLE	REMARKS
			(Ft)	(Ft)	OR WEIGHT	Y/N_	Y/N	
1	201245CV	6780	150	15		Y	N	
2	201245CV	6783	150	15		Y	N_	
3	201245CV	6791	150	15		<u> Y</u>	N	
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24						1		
25								
26								
27								
TO	TAL LENGTH (ft)	450						
TO	TAL AREA (ft)	6750						

PACKING LIST

ÆCH LLC

IL 60192

ORDER NO:.. 028849004 ORDER DATE: 10/22/2012 SHIP DATE: . 11/05/2012

5099 RVICES MNI WAY

SHIP FROM: CETCO CARTERSVILLE

FRT TERMS: PREPAID & ADD

SHIP VIA: .. AMERICO LOGISTICS

SHIP TO: 01 JT. CLOUD FL 34773

JED LANDFILL CELL 7 WASTE SERVICES

1501 OMNI WAY

SEE DIRECTIONS ATTACHED FOLLOW

ST. CLOUD FL 34773

PO: JED LEACHATE

PRODUCT		SIZE	U/M	LOT #	ROLL#	LNGTH	WIDTH	SHIP QTY	WEIGHT
CV-BENTOMAT	ST	SFT	SF	201245CV	00006766	V 150.0	15.0	2250.0	2655.0
CV-BENTOMAT	ST	SFT	SF	201245CV	00006768	150.0	15.0	2250.0	2644.0
CV-BENTOMAT	ST	SFT	SF	201245CV	00006769	1 50.0	15.0	2250.0	2650.0
CV-BENTOMAT	ST	SFT	SF	201245CV	00006770	150.0	15.0	2250.0	2653.0
CV-BENTOMAT	ST	SFT	SF	201245CV	00006771	150.0	15.0	2250.0	2665.0
CV-BENTOMAT	ST	SFT	SF	201245CV	00006772	/ 150.0	15.0	2250.0	2670.0
CV-BENTOMAT	ST	SFT	SF	201245CV	00006773			2250.0	2667.0
CV-BENTOMAT	ST	SFT	SF	201245CV	00006775	250.0	15.0	2250.0	2760.0
CV-BENTOMAT	ST	SFT	SF	201245CV	00006777	150:0	15.0	2250.0	2662.0
CV-BENTOMAT	ST	SFT	SF	201245CV	00006779			2250.0	2648.0
CV-BENTOMAT	ST	SFT	SF	201245CV	00006782 *	150.0	15.0	2250.0	2670.0
CV-BENTOMAT	ST	SFT	SF	201245CV	00006784	150.0	15.0	2250.0	2701.0
CV-BENTOMAT	ST	SFT	SF	201245CV	00006785	150.0	15.0	2250.0	2695.0
CV-BENTOMAT	ST	SFT	SF	201245CV	00006793	~ 150.0	15.0	2250.0	2660.0
CV-BENTOMAT	ST	SFT	SF	201245CV	00006809	/ 150.0	15.0	2250.0	2635.0
								33750.0	
CV-CG 50		50B	EA					15.0	750.0
								=======	
								15.0	

-------ORDER TOTALS..... 40785.0

TOTAL ITEMS..... 16

PACKING LIST

AL TECH LLC

IL 60192

.O: 5099 .E SERVICES .01 OMNI WAY

ST. CLOUD

FL 34773

ORDER NO:.. 028849003 ORDER DATE: 10/22/2012 SHIP DATE:. 11/05/2012

SHIP FROM: . CETCO CARTERSVILLE

FRT TERMS: . PREPAID & ADD

SHIP VIA:.. AMERICO LOGISTICS

SHIP TO: 01

JED LANDFILL CELL 7

WASTE SERVICES 1501 OMNI WAY

SEE DIRECTIONS ATTACHED FOLLOW

ST. CLOUD

FL 34773

PO: JED LEACHATE

PRODUCT	SIZE U/	1 LOT #	ROLL# LNGTH WIDTH	SHIP QTY	WEIGHT
CV-BENTOMAT ST	SFT SF	201245CV	00006748 150.0 15.0	2250.0	2723.0
CV-BENTOMAT ST	SFT SF	201245CV	00006749 150.0 15.0	2250.0	2687.0
CV-BENTOMAT ST	SFT SF	201245CV	00006752 150.0 15.0	2250.0	2660.0
CV-BENTOMAT ST	SFT SF	201245CV	000067550 150.0 15.0	2250.0	2666.0
CV-BENTOMAT ST	SFT SF	201245CV	00006756 150.0 15.0	2250.0	2664.0
CV-BENTOMAT ST	SFT SF	201245CV	00006757 150.0 15.0	2250.0	2653.0
CV-BENTOMAT ST	SFT SF	201245CV	00006758 150.0 15.0	2250.0	2653.0
CV-BENTOMAT ST	SFT SF	201245CV	00006762 150.0 15.0	2250.0	2661.0
CV-BENTOMAT ST	SFT SF	201245CV	00006764 150.0 15.0	2250.0	2671.0
CV-BENTOMAT ST	SFT SF	201245CV	00006765 150.0 15.0	2250.0	2674.0
CV-BENTOMAT ST	SFT SF	201245CV	00006774 150.0 15.0	2250.0	2669.0
CV-BENTOMAT ST	SFT SF	201245CV	00006778 150.0 15.0	2250.0	2660.0
CV-BENTOMAT ST	SFT SF	201245CV	00006780 150.0 15.0	2250.0	2646.0
CV-BENTOMAT ST	SFT SF	201245CV	00006783/ 150.0 15.0	2250.0	2676.0
CV-BENTOMAT ST	SFT SF	201245CV	00006791 150.0 15.0	2250.0	2659.0
			•	=======	
				33750.0	
CV-CG 50	50B EA			15.0	750.0
				=======	
				15.0	

ORDER TOTALS..... 40772.0

TOTAL ITEMS..... 16

Section 2 HDPE Geomembrane



BRANTLEY ENGINEERING, LLC. Geosynthetic Inventory Control Log

Page 1 of 1

PROJECT NAME: J.E.D. Leachate Storage Facility Relocation

OWNER: Waste Services Inc.

MATERIAL TYPE:

GEOMEMBRANE

DATE OF ARRIVAL:

11/09/12

DATE OF INVENTORY: 11/09/12

MATERIAL MANUFACTURER: Agru

QA MONITOR:

CSJ

TRUCK TYPE:

Flatbed

CONDITION IN TRUCK:

UNLOADING METHOD:

Trackhoe

			MA	TERIAL DIME	NSIONS	QC	CONF	
#	RESIN LOT#	ROLL NUMBER	LENGTH	WIDTH	THICKNESS	CERT	SAMPLE	REMARKS
	<u></u>		(Ft)	(Ft)	OR WEIGHT	Y/N	Y/N_	
1	H7120980	443446-12	500	23	60 mil	Υ	N	
2	H7120980	443448-12	500	23	60 mil	Υ	N	
3	H7120980	443455-12	500	23	60 mil	Υ	N	
4	H7120980	443457-12	500	23	60 mil	Υ	N	
5	H7120980	443558-12	500	23	60 mil	Υ	N	
6	H7120980	443559-12	500	23	60 mil	Υ	N	
7	H8221187	443562-12	500	23	60 mil	Υ	N	
8	H8221187	443563-12	500	23	60 mil	Υ	N_	
9	H8221187	443674-12	500	23	60 mil	Υ	N	
10	H8221187	443676-12	500	23	60 mil	Υ	N	
11	H8221187	443677-12	500	23	60 mil	Υ	N	
12	H8221158	443339-12	500	23	60 mil	Υ	Υ	In-Plant Conformance.Sampling
13	H8221187	443564-12	500	23	60 mil	Υ	Y	In-Plant Conformance Sampling
14	H8221187	443565-12	500	23	60 mil	Y	N	
15	H8221187	443566-12	500	23	60 mil	Υ	N	
16	H8221187	443569-12	500	23	60 mil	Υ	N	
17	H8221187	443570-12	500	23	60 mil	Y	N	
18	H8221187	443571-12	500	23	60 mil	Υ	N	
19	H8221187	443672-12	500	23	60 mil	Y	N	
20	H8221187	443673-12	500	23	60 mil	Υ	Υ	In-Plant Conformance Sampling
21	H8221187	443675-12	500	23	60 mil	Y	N	
22	H8221187	443678-12	500	23	60 mil	Υ	N	
23								
24								
25								
26								
27								
	OTAL LENGTH (ft)	11000						
T	OTAL AREA (ft)	253000						

		OF LADING - SHORT F	ORM - ORIGINAL - NOT				B/L NO.
AME OF CARRIE	BEŞ	TWAY FRT	DOLKIND	CARRIER'S NO.	DATE 11/7/	2012	035266
CEIVED, subject to	the clas	sifications and lawfully filed tariffs in o	effect on the date of issue of this Bill of Lec	ling,			
lerstood througho ther carrier on the d property, that ev- teof, it this is a rail hipper hereby certif	or below, int this content to the route to the rest to	, mapping, good order, except as no ontract as meaning any person or corp o said destination. It is mutually agreed ice to be performed hereunder, shalf k water shipment, or (2) in the applicable he is familiar with all the terms and co	affect on the date of issue of this Bill of Lated (contents and condition of contents of oration in possession of the property under a se to each carrier of all or any of said proses subject to all the terms and conditions or motor carrier classification or tarrif if this nditions of the said bill of lading, set forth a sessions.	packages unknown, marker the contract) agrees to ca perty over all or any portio of the Uniform Domestic S is a motor carrier shipmen in the classification or tark	o, consigned, and destined as rry to its usual place of deliver in of said route to destination, traight Bill of Lading set forth i. If which governs the transpor	ry at said destina and as to each p (1) in Uniform F	which said carrier (the word carrier i tion, if on its route, otherwise to deli- tarty at any time interested in all or a reight Classifications in effect on the pment, and the said terms and condi-
e hereby agreed to ROM:	by the s				JED LEACHATE S		
SHIPPER		AGRU/AMERI 500 GARRISON F	ROAD	CONSIGNEE	PROGRESSIVE W		LUTIONS CO
(ORIGIN)		GEORGETOWN, (843) 546-0600	SOUTH CAROLINA 29440		ST. CLOUD, FL. U MIKE KAISER (904		16
©			EMERGENCY RESPONSE PHONE NO	DESTINATION			ZIP
LIVERING ARRIER			ROUTE			VEHICLE NUMBER	
NO. PACKAGES	нм	KIND OF PA SPEC	ACKAGE, DESCRIPTION OF ARTICL	ES	*WEIGHT (SUBJECT TO CORR.)	CLASS OR RATE	CHARGES (FOR CARRIER USE ON
127,765 440		HD DBL MICRO 60N WELD ROD MFG BLA					
		Item Key	Lo	t Number	Quantity		
	ļ	L-HD-MSDS-60-23	44	3446-12	11,615		
		L-HD-MSDS-60-23		3448-12	11,615		
		L-HD-MSDS-60-23 L-HD-MSDS-60-23		3455-12 3457-12	11,615 11,615	1	
1	ĺ	L-HD-MSDS-60-23		3558-12	11,615		
	- 1	L-HD-MSDS-60-23	44	3559-12	11,615		,
ĺ		L-HD-MSDS-60-23		3562-12	11,615		
		L-HD-MSDS-60-23		3563-12 3674-12	11,615		
		L-HD-MSDS-60-23 L-HD-MSDS-60-23		3676-12	11,615 11,615		
		L-HD-MSDS-60-23		3677-12	11,615		
•		Location: GTOWN P.0	05 er Date: 10/15/12 Reque D. No.: JED				
			11 Bi 20 St 14,500 C	olls @	4746 446		
					42886	,	
		49	4,500		923		
VIT C.O,D. TO:		AGRU/AMERICA, INC.				C.O.D. FEE	
	ag	500 GARRISON ROAD GEORGETOWN, SOUTH CARG	DLINA 29440	C.O.D. Amt \$		Prepa Collect	
nd shipment moves b r, the law requires therit is "carrier's or sh	that the	bill of lading shall stolo required to state of the property. The agreed	or declared value of the property is heraby	Subject to Section 7 of conditioned to the consignitional the consignition of the consistency of the consi	ditions, if this shipment is to be se without recourse on the il sign the following statement: selivery of this shipment without ser layful charges	TOTAL CHARGES	\$
		not a part of bill of lading	ted by the shipper to be not exceeding	poyment of neight and all of		Freight charg	ges are

anent post office address of simpler + MARK WITH "X" TO DESIGNATE HAZARDOUS MATERIAL AS DEFINED IN TITLE 49 OF FEDERAL introduction materials include the technical or chemical name for n.u.s. (not otherwise specified) or generic description of material with appropriate UN or NA number as defined in US DOTE introduction.

TRAIGHT E	ILL C	F LADING - S	HORT FOR	M - ORIGINAL	- NOT N	VEGOTIABLE				B/L N	0.
		WAY FRT	Mike.	Allen		CARRIER'S NO.		DATE 11/7/2			035265
ceived, subject to property describe restend througho ther carrier on the diproperty, that ev- reof. If this is a rail apper hereby certif	the class d below, ut this con route to rery service or a rail-	silications and lawfully f in apparent good order, intract as meaning any p is said destination. It is m ice to be performed here water shipment, or (2) in le is familiar with all the hipper and accepted for l	iled tariffs in effect, except as nuted (erson or corporati utually agreed as sounder, shall be su the applicable mo terms and conditions	t on the date of issue of the contents and condition of on in possession of the pro- to each carrier of all or any bject to all the terms and otor carrier classification or ons of the said bill of ladin signs.	is Bill of Ladi contents of property under of said property of said property conditions of tariff if this ing, set forth in	ng, ackages unknown), mari the contract) agrees to o erty over all or any port the Uniform Domestic s a motor carrier shipme n the classification or ta	ked, consigne carry to its us tion of sald re Straight Bill ent. ariff which go	ed, and destined as sual place of defivery oute to destination, of Lading set forth everns the transport	indicated below y at said destinat and as to each p (1) in Uniform F ation of this ship	which ion, if arty at reight (oment,	said carrier (the word carrier b on its route, otherwise to delive any time interested in all or an Classifications in effect on the c and the said terms and conditi
ROM: SHIPPER (ORIGIN)	Dy the si	AGRI 500 GA GEOR	J/AMERICA ARRISON ROA GETOWN, SO 46-0600	., INC. AD UTH CAROLINA 294	14()	TO: CONSIGNEE STREET	PROGI ST. CL	EACHATE S RESSIVE W OUD, FL U (AISER (904	TORAGE ASTE SO SA	FAC	CILITY
	19	awenca		EMERGENCY RESPONSE	PHONE NO.	DESTINATION	1				ZIP
ARRIER				ROUTE					VEHICLE NUMBER		
NO. PACKAGES	нM		KIND OF PACK SPECIAL	AGE, DESCRIPTION C MARKS AND EXCEP	OF ARTICLE TIONS	ES	(SUBJ	*WEIGHT ECT TO CORR.)	OR RATE	1	CHARGES (FOR CARRIER USE ONL)
127,765 242 HD DBL MICRO 60MIL 23FT WELD ROD MFG BLACK HDPE 5MI WELD ROD MFG BLACK HDPE 5MI Item Key L-HD-MSDS-60-23 L-HD-MSD		Z3FT K HDPE 5MM K HDPE 5MM Date: 10/15/12	Loi 44: 44: 44: 44: 44: 44: 44: 44:	t Number 3339-12 3564-12 3565-12 3569-12 3570-12 3672-12 3673-12 3678-12	12	Quantity 11,615 11,615 11,615 11,615 11,615 11,615 11,615 11,615					
		(843) 546-0600 lwo ports by a carrier by	ROAD L SOUTH CAROLE		shippers are	C.O.D. Amt S	YX,	C/BS	C.O.D. FEE		
ter, the law requires ether it is "carriet's or s	that the hipper's v	bill of lading shall state reight".	The agreed or i	pecifically in writing the agreed 17. declared value of the proport by the shipper to be not exces per	ty is hereby	delivered to the consignee without consignor, the consignor shall sign the The carrier shall not make delivery of a payment of freight and all other lawful considerable.		t recourse on the bilowing statement: his shipment without harges.	CHARGES S Freight charges are PREPAID unless		
		amed materials are prope			labeled, and	are in proper condition to	ture of Curregnori	on, according to the	marked colle		the Department of Transportation
manent post office	artringe	Page 1 of 1		MARK WITH "X" TO D			TERIAL AS		/	JERA	RECINATIONS



BRANTLEY ENGINEERING, LLC. Geosynthetic Inventory Control Log

Page 1 of 1

PROJECT NAME: J.E.D. Leachate Storage Facility Relocation

OWNER: Waste Services Inc.

MATERIAL TYPE:

GEOMEMBRANE

DATE OF ARRIVAL:

11/12/12

DATE OF INVENTORY: 11/12/12

MATERIAL MANUFACTURER: Agru

QA MONITOR:

CSJ

TRUCK TYPE:

Flatbed

CONDITION IN TRUCK: Good

UNLOADING METHOD:

Trackhoe

			T MA	MATERIAL DIMENSIONS			CONF		
#	RESIN LOT#	ROLL NUMBER	LENGTH	WIDTH	THICKNESS	CERT	SAMPLE	REMARKS	
			(Ft)	(Ft)	OR WEIGHT	Y/N	Y/N_		
1	H7120980	443447-12	500	23	60 mil	Υ	Y	In-Plant Conformance Sampling	
2	H7120980	443449-12	500	23	60 mil	<u>Y</u>	N		
3	H7120980	443450-12	500	23	60 mil	ΥΥ	N		
4	H7120980	443451-12	500	23	60 mil	Υ	N		
5	H7120980	443452-12	500	23	60 mil	Υ	N		
6	H7120980	443453-12	500	23	60 mil	Υ	N		
7	H7120980	443454-12	500	23	60 mil	Υ	N		
8	H7120980	443456-12	500	23	60 mil	Υ	Υ	In-Plant Conformance Sampling	
9	H7120980	443560-12	500	23	60 mil	Υ	N		
10	H7120980	443561-12	500	23	60 mil	Υ	N		
11	H8221158	443340-12	500	23	60 mil	Υ	N		
12	H8221158	443341-12	500	23	60 mil	Υ	N		
13	H8221158	443342-12	500	23	60 mil	Υ	N		
14	H8221158	443343-12	500	23	60 mil	Υ	N		
15	H8221158	443444-12	500	23	60 mil	Y	N		
16	H8221158	443445-12	500	23	60 mil	Υ	N		
17	H8221187	443567-12	500	23	60 mil	Υ	N		
18	H8221187	443568-12	500	23	60 mil	Υ	N		
19	H8221187	443679-12	500	23	60 mil	Υ	N		
20	H8221187	443680-12	500	23	60 mil	Υ	N		
21	H8221187	443681-12	500	23	60 mil	Υ	N		
22									
23									
24									
25									
26									
27									
	OTAL LENGTH (ft)	10500							
TC	OTAL AREA (ft)	241500							

TRAIGHT BILL OF LADING - SHORT FORM - ORIGINAL - NOT NEGOTIABLE AME OF CARRIER DATE 035273 11/8/2012 TRUCK ECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of issue of this Bill of Lading, properly described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below which said carrier (the word carrier by derstood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to delive other carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any its property, that every service to be performed hereunder, shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Preight Classifications in effect on the rest, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment, and the said terms and condition entered to by the shipper and accepted for himself and his assigns. JED LEACHATE STORAGE FACILITY TO: :ROM: AGRU/AMERICA, INC. CONSIGNEE PROGRESSIVE WASTE SOLUTIONS CO SHIPPER 500 GARRISON ROAD GEORGETOWN, SOUTH CAROLINA 29440 ST. CLOUD, FL USA (OBIGIN) (843) 546-0600 STREET MIKE KAISER (904) 673-0446 EMERGENCY RESPONSE PHONE NO. DESTINATION ZIP ROUTE FLIVERING VEHICLE NUMBER KIND OF PACKAGE, DESCRIPTION OF ARTICLES SPECIAL MARKS AND EXCEPTIONS *WEIGHT (SUBJECT TO CORR.) CLASS OR RATE CHARGES (FOR CARRIER USE ONL NO. PACKAGES HM 116,150 HD DBL MICRO 60MIL 23FT Lot Number Quantity Item Key L-HD-MSDS-60-23 443447-12 11,615 11,615 L-HD-MSDS-60-23 443449-12 443450-12 11,615 L-HD-MSDS-60-23 443451-12 11,615 L-HD-MSDS-60-23 L-HD-MSDS-60-23 443452-12 11,615 443453-12 11,615 L-HD-MSDS-60-23 11,615 L-HD-MSDS-60-23 443454-12 L-HD-MSDS-60-23 443456-12 11,615 11,615 L-HD-MSDS-60-23 443560-12 L-HD-MSDS-60-23 443561-12 11,615 Total Weight: 38,330 LB Total Packages: 446,150 10 Palls Order No.: 20510 Order Date: 10/15/12 Request Date: 11/05/12 Location: GTOWN P.O. No.: JED MIT COD TO C.O.D. FEE

agru

AGRU/AMERICA, INC. 500 GARRISON ROAD GEORGETOWN, SOUTH CAROLINA 29440 (843) 546-0600

C.O.D. Amt S

Prepaid Collect \$

the shipment moves between two ports by a carrier by er, the law requires that the bill of lading shall state ther it is "carrier's or shipper's weight".

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.

The agreed or declared value of the property is specifically stated by the shipper to be not exceeding

Subject to Section 7 of conditions, if this shipment is to be delivered to the consigner without recourse on the consignor, the consignor, the consignor, the consignor, the consignor, the consignor shall sign the following stetement:

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)
tion For transportation, according to the

TOTAL CHARGES \$

hipper's imprint in lieu of stamp; not a part of bill of lading roved by the interstate Commerce Commission. s is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper conditions

Freight charges are PREPAID unless marked collect. applicable regulations of the

Check box if charges

Shipper, Per

Agent, Per + MARK WITH "X" TO DESIGNATE HAZARDOUS MATERIAL AS DEFINED IN TITLE 49 OF FEDERAL REGULATIONS.

manent post office address of a spe Of 1

an transporting hazardous materials include the technical or chemical name for n.o.s. (not otherwise specified) or generic description of material with appropriate UN or NA number as defined in US DOT Emergency Response number in Case of incident or account.

1

		ORT FORM - ORIGINAL - NOT			B/L NO.			
AME OF CARRI	_TRUCK		CARRIER'S NO.	DATE 11/8/2			035282	
CEIVED, subject to openy describe stood through er carrier on the property, that et ect, if this is a rail ipper hereby certif hereby agreed to	o the classifications and lawfully filed of below, in apparent good order, expout this contract as meaning any persi- te route to said destination. It is mutu- very service to be performed hereunal or a rail-water shipment. Or (2) in the fies that he is familiar with all the ter- by the shipper and accepted for him	I tariffs in effect on the date of issue of this Bill of L cept as noted (contents and condition of contents on on or corporation in possession of the property un- ally agreed as to each carrier of all or any of said p der, shall be subject to all the terms and condition applicable motor carrier classification or tariff if the uns and conditions of the said bill of lading, set for uself and his assigns.	ading, f packages unknown), marked, fer the contract) agrees to carr roperty over all or any portion of the Uniform Domestic Striss a motor carrier shipment, the classification or teriff	consigned, and destined as you to its usual place of delivery of said route to destination, aight Bill of Lading set forth (which governs the transport	ndicated below at said destinat and as to each p 1) in Uniform Fr	which tion, if arty a reight	a said carrier (the word carrier b on its route, otherwise to delive it any time interested in all or ar Classifications in effect on the t, and the said terms and condit	
ROM: HIPPER (ORIGIN)	AGRU/AMERICA, INC. 500 GARRISON ROAD GEORGETOWN. SOUTH CAROLINA 29440 (843) 546-0600		CONSIGNEE P	CONSIGNEE PROGRESSIVE WASTE SOLUTIONS CO ST. CLOUD, FL USA				
(EMERGENCY RESPONSE PHONE I			,		ZIP	
RRIER /	CHOLIE LOGAN	ROUTE			VEHICLE NUMBER		•	
NO. PACKAGES	+ → KII	ND OF PACKAGE, DESCRIPTION OF ARTIC SPECIAL MARKS AND EXCEPTIONS	CLES	*WEIGHT (SUBJECT TO CORR.)	CLASS OR RATE	1	CHARGES (FOR CARRIER USE ONL	
127,765	Item Key L-HD-MSDS-60-	-23 4 -23 4 -23 4 -23 4 -23 4 -23 4 -23 4 -23 4 -23 4 -23 4	.ot Number 	Quantity				
	to between two points by a corrier by N is that the bill of larting shall state	CA, INC. DAD OUTH CAROLINA 29440 IOTE: Where the rate is dependent on value, shippers a gourset to state specifically in writing the agreed or declarable of the property. The agreed of declared value of the property is hereit.	consignor, the consignor shall	ditions, if this shipment is to be the without recourse on the sign the following statement: elivery of this shipment without	C.O.D. FEE Prepa Collect TOTAL CHARGES	c1 \$		

ipper's imprint in lieu of stamp; not a part of bill of lading oved by the Interstate Commerce Commission.

Freight charges are PREPAID unloss marked collect.

1

if charges are Collec

Check box

is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation, according to the applicable regulations of

(Signature of Consignor)

Section 3 Drainage Geocomposite



BRANTLEY ENGINEERING, LLC. Geosynthetic Inventory Control Log

Page 1 of 1

PROJECT NAME: J.E.D. Leachate Storage Facility Relocation

OWNER: Waste Services Inc.

MATERIAL TYPE:

GEOCOMPOSITE

DATE OF ARRIVAL:

11/9/12

DATE OF INVENTORY: 11/9/12

MATERIAL MANUFACTURER: Skaps

QA MONITOR:

CSJ

TRUCK TYPE:

Flatbed

CONDITION IN TRUCK: Good

UNLOADING METHOD:

Skid Steer

			MA	MATERIAL DIMENSIONS			CONF	
#	RESIN LOT#	ROLL NUMBER	LENGTH	WIDTH	THICKNESS	CERT	SAMPLE	REMARKS
			(Ft)	(Ft)	OR WEIGHT	Y/N	Y/N	
1	FPAX 980083	51381010001	164	15	dbl/sided	Y	Υ Υ	in- Plant Conformance Sampling
2	FPAX 980083	51381010002	164	15	dbl/sided	ΥΥ	N	
3	FPAX 980083	51381010003	164	15	dbl/sided	. Y	N	
4	FPAX 980083	51381010004	164	15	dbl/sided	Υ	N	
5	FPAX 980083	51381010005	164	15	dbl/sided	Y	N	
6	FPAX 980083	51381010006	164	15	dbl/sided	Υ	N	
7	FPAX 980083	51381010007	164	15	dbl/sided	Υ	N	
8	FPAX 980083	51381010008	164	15	dbl/sided	Y	N	
9	FPAX 980083	51381010009	164	15	dbl/sided	Y	N	
10	FPAX 980083	51381010010	164	15	dbl/sided	Υ	N -	
11	FPAX 980083	51381010011	164	15	dbl/sided	Υ	N	
12	FPAX 980083	51381010012	164	15	dbl/sided	Υ	N	
13	FPAX 980083	51381010013	164	15	dbl/sided	Υ	N	
14	FPAX 980083	51381010014	164	15	dbl/sided	Υ	N	
15	FPAX 980083	51381010015	164	15	dbl/sided	Υ	N·	
16	FPAX 980083	51381010016	164	15	dbl/sided	Υ	N	
17	FPAX 980083	51381010017	164	15	dbl/sided	Υ	N	
18	FPAX 980083	51381010018	164	15	dbl/sided	Υ	N	
19	FPAX 980083	51381010019	164	15	dbl/sided	Y	N	
20	FPAX 980083	51381010020	164	15 .	dbl/sided	Υ	N	
21	FPAX 980083	51381010021	164	15	dbl/sided	Y	N	
22	FPAX 980083	51381010022	164	15	dbl/sided	Υ'	N	
23	FPAX 980083	51381010023	97	15	dbl/sided	Y	N	
24	FPAX 980083	51381010024	164	15	dbl/sided	Y	N	
25	FPAX 980083	51381010025	164	15	dbl/sided	Y	. N	
26	FPAX 980083	51381010026	164	15	dbl/sided	Υ	N	
27								
	OTAL LENGTH (ft)	4197						
T	OTAL AREA (ft)	62,955						



STRAIGHT BIL! OF LADING ORIGINAL-NOT NEGOTIABLE

SKAPS Industries

571 Industrial Parkway Commerce, GA 30529

Ph: 7000-336-7000 Fax: 706-336-7007

SHIP-TO:

Project: JED Loachate Storage Relocation, FL

Address: 1501 Omni Way

City, State, Zip: St Cloud, FL, 34773

Contact: Mike Kaiser Phone: 904-673-0446

Product Code: TN330-2-8

No	Roll #	Sq. Ft.
1	0051381010001	2,465 00
2	00513810100021	2,465.00
3	0051381010003	2,465.00
4	0051381010004	2,465.00
5	0051381010005	2,465.00
6	0051381010006	2.465.00
7	0051381010007	2,465 00
8	0051381010006	2,465.00
9	0051381010009	2,465.00
10	0051381610010	2,465.00
11	0051381010011	2,465.00
12	00513810 (012	2,465.00
13	005138101Ju13 🗸	2,465.00
14	00513817 0014	2.465.00
15	0051381010015	2,465.00
16	0051381610016	2,465.00
17	0051381010017	2,465.00
18	0051381010010	2,465.00
19	00513810100191	2,465.00
30	005130	2,465.00
21	00513611 121	2,465.00
22 ,	0051381.19022	2,465.00
23	00513810 16023	1,450.00
24	00513810100242	2,465.00
25	0051381010025	2,465.00
26	00513810 2020	2,465.00

Total Rusia: 26
Total Ser Feet: 63,075.00
Total Weight (lbs): 28,573.00

Bags of Ties: 2

Driver sign below if you have received above

mentioned items :

Driver's Sign:

Bill of Lading #: C00002204 Ship Date: 11/9/12 Sales Order #: C000644

Customer Name: IESI / Progressive Waste Solutions

Cust. P :). #: JED Leachate Storage

Ship Via: Flatbed Delivery Terms: Plant / PPA Container #:

Seal #:

SIGN HERE FOR SHIPPER:

SHIPPER ADDRESS:

571 INDUSTRIAL PKWY.

COMMERCE, GA 30529
ATTN RECEIVER: Please sign below if you have received the

items mentioned on the BOL and any discrepencies must be reported to SKAPS industries within 7 days of receipt of goods.							
Receiver Print Name	Receiver's Signature						
Receive Date	Receiver's Company Name						

Driver Requirements:

- 1) For Monday delivery driver must call on Friday.
- 2) Driver must call 706-336-7000 when unloaded.
- 3) Driver must call and advise of any delay in transit.
- 4) A copy of this bill-of-lading must accompany freight avoice, failure to do this will result in delayed payments.

Delivery Timings: Mon - Fri 8:00 am to 4:00 pm	
Driver's Name: Josh sexton	_
Driver's Sign:	
Driver's Cell Phone #: 972 - 572 - 2577	
Trucking Co.: Thomas Trucking Co.	
Tricking Co. Phone # 9/2 -449 73/97	
Broker: Load Pro	
Date: 11/9/12	
Touch Describes Tieses	_

Comments:

Please see and follow the attached directions Driver please call 24 hours prior to delivery instructions and directions for the drivers:

Access to the site for staging or parking outside of these hours will

not be permitted!

Freight view shipper #: 1885402

CARRIER MUST COLLECT THE FREIGHT FROM THE BROKER ONLY

Received at Commerce, GA from SKAPS Industries the property described above, in apparent good order except as noted (contents and condition of packages unknown), manked, consigned, and destined as and activities and activities and activities and activities and activities and those, which said Carrior (like word "Carrior" being understood throughout this Shipping Crider as meaning the person or corporation in possission of two property) agrees to every or the place of delivery at said destination. It is mutually agreed as to each Carrior of all or any of said property, over all or any portion of said route to destination and as to each of the tart of the shipper noted herein is SKAPS Industries as indicated they the designation of the "Shipper" to be SKAPS Industries, then the Shipper and Carrior and subject to be the terms and conditions contained in the Contract for truck Transportation on the parties or (b) if the Shipper noted herein is not SKAPS Industries then SKAPS Industries is acting solely as the agent for the denoted Shipper, and thus every aspect of the secret to be perform here under between the Shipper and the Carrior shall be subject to all the terms and conditions of the Uniform Domestic Straight All of Lading set forth (") in Official Scottern, Western, and tilinois Freight Classifications in effect on the date hereof, if this a rail-water shipment, or (2) in the applicable motor comier classification or tariff if their is a mall in carrier shipment. When acting in the capacity of an agent for a Shipper in placing the material in Iransia on behalf of a Shipper, SKAPS Industries accepts no liability for loss of darge damage to containers, or any other consequences occurring numing transportation. Carrier having agreed that the transportation arrangementation of the Shipper and carrier shipment, and the said terms and conditions are hereby agreed and accepted for himself and his assigns.

COMShippingDefinitive.rpt

Section 4
Geotextile



BRANTLEY ENGINEERING, LLC. Geosynthetic Inventory Control Log

Page 1 of 1

PROJECT NAME: J.E.D. Leachate Storage Facility Relocation

OWNER: Waste Services Inc.

MATERIAL TYPE:

GEOTEXTILE

DATE OF ARRIVAL:

11/12/12

DATE OF INVENTORY: 11/12/12

MATERIAL MANUFACTURER: Skaps

QA MONITOR:

CSJ

TRUCK TYPE:

Flatbed

CONDITION IN TRUCK: Good

UNLOADING METHOD:

Skid Steer

			MA	TERIAL DIME	NSIONS	QC	CONF	
#	RESIN LOT#	ROLL NUMBER	LENGTH	WIDTH	THICKNESS	CERT	SAMPLE	REMARKS
			(Ft)	(Ft)	OR WEIGHT	Y/N	Y/N	
1	27631	1	690	15	8 oz		N_	
2	27631	2	690	15	8 oz		N	
3	27631	3	690	15	8 oz_		N_	
4	27631	4	690	15	8 oz_		N	
5	27631	5	690	15	8 oz		N	
6	27631	6	690	15	8 oz		N	
7	27631	7	690	15	8 oz		N	
8	27631	8	690	15	8 oz		N_	
9								
10								
11								
12								
13								
14								
15								
16								
17								
18							·	
19								
20								
21								
22						- "		
23								
24			 					
25								
26				_	†		 	
27							 	
	TAL LENGTH (ft)	5520						
TOT	TAL AREA (ft)	82,800						

Packing List

Ship To:

Customer: 1349 Order Number: 027631

Customer PO: JED Leachate Storage Due Date:

Customer Name: IESI / Progressive Waste Solutions Site Location: Pendergrass Warehouse 01

JED LF Leachate Storage Relocation 1501 Omni Way SI Cloud,FL 34773

	31 Cloud,FL 34773			
Item Number	Product # Rolls	Product Qty in SY	Label	
GE180-180 x 690	•			
27631-01	1	1,150 Y2	0001	12 . 7
27631-02	1	1,150 Y2	0001	9710 42
27631-03	1	1,150 Y2	0001	020- (
27631-04	1	1,150 Y2	0001	
27631-05	I	1,150 Y2	0001	
27631-06	1	1,150 Y2	0001	
27631-07	1	1,150 Y2	0001	
27631-08	1	1,150 Y2	0001	

82800 51750 134550



BRANTLEY ENGINEERING, LLC. Geosynthetic Inventory Control Log

Page 1 of 1

PROJECT NAME: J.E.D. Leachate Storage Facility Relocation

OWNER: Waste Services Inc.

MATERIAL TYPE:

GEOTEXTILE

DATE OF ARRIVAL:

12/10/12

DATE OF INVENTORY: 12/10/12

MATERIAL MANUFACTURER: Skaps

QA MONITOR:

CSJ

TRUCK TYPE:

Flatbed

CONDITION IN TRUCK:

UNLOADING METHOD:

Skid Steer

			MA	TERIAL DIME	NSIONS	QC	CONF	-
#	RESIN LOT#	ROLL NUMBER	LENGTH	WIDTH	THICKNESS	CERT	SAMPLE	REMARKS
Щ			(Ft)	(Ft)	OR WEIGHT	Y/N	Y/N	
1	27631	700000286	690	15	8 oz	Υ	N	
2	27631	700000293	690	15	8 oz	Υ	N	
3	27631	700000301	690	15	8 oz	Υ	N	
4	27631	700000303	690	15	8 oz	Υ	N	
5	27631	700000308	597	15	8 oz	Υ	N	
YЦ								
8								
9								
10				•				
11				,				
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
T	OTAL LENGTH (ft) OTAL AREA (ft)	3357						
T	OTAL AREA (ft)	50,355						

Roll List (Customer Copy)

SKAPS Industries

335 Athena Drive - Warehouse A001

Athens. GA 30601

Phone:

706-354-3700

Fax

706-354-3737

I
33721
28250
12512
12/7/12

Sold To:

WSI / Progressive Waste Solutions 1099 Miller Drive

Altamonte Springs, FL. 32701 UNITED STATES

Ship To: JED Landfill

1501 Omni Way

St Cloud, FL 34773 UNITED STATES

Mike Kieser

Tel:

407-891-3720

Trailer# N/A		Seal# N/A	Carrie	r Cheeta	
	Roll Number	Product	Weight (LBS)	Length (FT)	Square Yards
	700000286	GE180-180	602	690	1,150.00
	700000293	GE180-180	600	690	1,150.00
	700000301	GE180-180	600	690	1,150.00
	700000303	GE180-180	600	690	1,150.00
	700000308	GE180-180	597	690	1,150.00
Product Total	5	Net Weight:	2,999		5,750.00
Total Rolls	5	Gross Weight:	2,999		5,750.00

APPENDIX E Manufacturer's Quality Control Certificates

Section 1
GCL





Date: 11/14/2012

Purchase Order: JED LEACHATE

ORDER NUMBERS: 028849001, 028849002, 028849003, 028849004

Waste Services

St. Cloud, FL 34773 mkaiser@wastesservicesinc.com

To Whom it May Concern:

Please find enclosed the MQA/MQC test data package for Geosynthetic Clay Liner shipments to Waste Services.

The enclosed data package includes results of all the MQC tests required by ASTM D5889, with the exception of index flux/hydraulic conductivity. This test, which is run according to ASTM D5887, is normally performed once per production lot (once per week), unless a higher frequency is required by the project specifications. Because of the GCL's low permeability, this test can take several weeks to complete. The index flux/hydraulic conductivity results associated with this lot of material will be provided under separate cover as soon as they are available.

Although the index flux/hydraulic conductivity test results are not yet available, CETCO accepts responsibility for our GCL should the index flux/hydraulic conductivity tests produce unacceptable results. If, upon delivery and prior to installation, individual rolls of GCL are found to be nonconforming to accepted project specifications, CETCO will replace the nonconforming material at no charge.

Questions regarding this information should be directed to Chris Athanassopoulos, Technical Support Engineer, at (847) 851-1831.

Sincerely,

Maria Martinez Quality Assurance

CETCO Cartersville Plant



GEOSYNTHETIC CLAY LINER MANUFACTURING QUALITY ASSURANCE DATA PACKAGE

PROJECT NAME: Jed LF Leachate Ponds CUSTOMER P.O.: JED LEACHATE

ORDER NUMBERS: 028849001, 028849002, 028849003, 028849004

PREPARED FOR: Waste Services

CONTENTS:

- Product Certifications
- GCL Order packing list and MQA tracking form
- · GCL manufacturing quality control test data
- Bentonite clay certification
- · Raw material test results

PREPARED BY: Maria Martinez Quality Assurance CETCO 218 Industrial Park

Cartersville, GA 30121 Telephone: (770) 387-7700

E-Mail: as maria.covarrubias@cetco.com

Ecert 2.0 Page 3 of 7



PRODUCT CERTIFICATIONS

PROJECT NAME: Jed LF Leachate Ponds CUSTOMER P.O.: JED LEACHATE

ORDER NUMBERS: 028849001, 028849002, 028849003, 028849004

PREPARED FOR: Waste Services

The GCL manufactured for the above-referenced order number(s) is certified to meet the values listed in the tables below:

GCL PROPERTY SPECIFICATIONS FOR BENTOMAT ST

	EKTT STECHTICATIONS FOR	CDENTOMATOL	
Test Method	Test Method Property	Test Frequency	Certified Value
ASTM D 5891	Bentonite Fluid Loss	1 per 50 Tons	18 ml Max
ASTM D 5993	Bentonite Mass/Area	40,000 sq ft (4000 sq m)	0.75 lb/sq ft Min
ASTM D 5890	Bentonite Swell Index	l per 50 Tons	24 ml/2g Min
ASTM D 6768	GCL Grab Strength	200,000 sq ft (20,000 sq m)	30 lbs/in MARV
ASTM D 6243	GCL Hydrated Internal Shear Strength	Periodic	500 psf typ @ 200 psf normal load
ASTM D 5887	GCL Hydraulic Conductivity	Weekly	5.0E-9 cm/s Max
ASTM D 5887	GCL Index Flux	Weekly	1.0E-8 m3/m2/s Max
ASTM D 6496	GCL Peel Strength	40,000 sq ft (4000 sq m)	3.5 lbs/in Min

SPECIALLY REQUESTED CERTIFIED PROPERTIES FOR THIS ORDER OF BENTOMAT ST

Test Method	Test Method Property	Requested Frequency	Requested Value	Requested Conditions
ASTM D 5887	GCL Hydraulic Conductivity	100,000 ft2	Standard	Standard
ASTM D4632*	Grab Strength*modified with 4-inch grips	45,000 ft2	Standard	Standard
ASTM D 4643	GCL Moisture	40,000 ft2	35%	Standard
ASTM D4632*	Peel Strength*modified with 4-inch grips	45,000 ft2	Standard	Standard

Bentonite property tests are performed at a bentonite processing facility before shipment to CETCO's production facility. All tensile testing is in the machine direction using ASTM D 6768. All peel strength testing is performed using ASTM D 6496. Upon request tensile and peel results can be reported per modified ASTM D 4632 using 4 inch grips.

NEEDLE DETECTION AND REMOVAL PROCEDURE

CETCO hereby affirms that all Bentomat[®] geosynthetic clay liner material manufactured for this project is continually passed under a magnet for needle removal and then screened with a metal detection device. CETCO certifies Bentomat® to be essentially free of broken needles and fragments of needles that would negatively effect the performance of the final product.

Maria Martinez Quality Assurance

Page 4 of 7



GCL PACKING LIST AND MQA TRACKING FORM

Listing of finished and raw materials used to produce certification package number 028849001

			GCL		Geotextiles				Clay			
		CV-E	ENTON	AT ST					N/W-WHIT		WOVEN	CV-CG 50
Order	GCL Lot #	GCL Roll #		- The street As an order	weight	sq ft	Roll # Tested	Cap Lot #	Cap Roll #	Roll # Tested	Base Roll #	Clay Lot #
028849003		6748	150	15	2723	2250	6748	201244CV	00003007	00003005	2022389694	
028849003	201245CV	6749	150	15	2687	2250	6748	201244CV	00003007	00003005	2022389694	1097914A
028849003	201245CV	6752	150	15	2660	2250	6748	201243CV	00002972	00002970	2022389694	1097914A
028849003	201245CV	6755	150	15	2666	2250	6748	201243CV	00002972	00002970	2022389694	1097914A
028849003	201245CV	6756	150	15	2664	2250	6748	201243CV	00002972	00002970	2022389694	1097914A
028849003	201245CV	6757	150	15	2653	2250	6748	201243CV	00002972	00002970	2022389694	1097914A
028849003	201245CV	6758	150	15	2653	2250	6748	201243CV	00002972	00002970	2022389694	1097914A
028849003	201245CV	6762	150	15	2661	2250	6748	201236CV	00002642	00002638	2022389694	1097914A
028849002	201245CV	6763	150	15	2667	2250	6763	201236CV	00002642	00002638	2022389694	1097914A
028849003	201245CV	6764	150	15	2671	2250	6763	201236CV	00002642	00002638	2022532710	1097914A
028849003 2	201245CV	6765	150	15	2674	2250	6763	201236CV	00002642	00002638	2022532710	1097914A
028849004 2	201245CV	6766	150	15	2655	2250	6763	201245CV	00003023	00003023	2022532710	1097914A
028849002	201245CV	6767	150	15	2664	2250	6763	201245CV	00003023	00003023	2022532710	1097914A
028849004	201245CV	6768	150	15	2644	2250	6763	201245CV	00003023	00003023	2022532710	1097914A
028849004 2	201245CV	6769	150	15	2650	2250	6763	201245CV	00003023	00003023	2022532710	1097914A
028849004	201245CV	6770	150	15	2653	2250	6763	201245CV	00003023	00003023	2022532710	1097914A
028849004 2	201245CV	6771	150	15	2665	2250	6763	201245CV	00003023	00003023	2022532710	1097914A
028849004 2	201245CV	6772	150	15	2670	2250	6763	201245CV	00003023	00003023	2022532710	1097914A
028849004 2	201245CV	6773	150	15	2667	2250	6763	201245CV	00003024	00003023	2022532710	1097914A
028849003 2	201245CV	6774	150	15	2669	2250	6763	201245CV	00003024	00003023	2022532710	1097914A
028849004 2	201245CV	6775	150	15	2760	2250	6763	201245CV	00003024	00003023	2022532710	1097914A
028849001 2	201245CV	6776	150	15	2661	2250	6763	201245CV	00003024	00003023	2022532710	1097914A
028849004 2	201245CV	6777	150	15	2662	2250	6763	201245CV	00003024	00003023	2022532710	1097914A
028849003 2	201245CV	6778	150	15	2660	2250	6778	201245CV	00003024	00003023	2022532710	1097914A
028849004 2	201245CV	6779	150	15	2648	2250	6778	201245CV	00003024	00003023	2022532710	1097914A
028849003 2	201245CV	6780	150	15	2646	2250	6778	2022564826			2022532710	1097914A
028849001 2	201245CV	6781	150	15	2676	2250	6778	2022564826			2022532710	1097914A
028849004 2	201245CV	6782	150	15	2670	2250	6778	2022564826			2022533420	1097914A
028849003 2	201245CV	6783	150	15	2676	2250	6778	2022564826		1	2022533420	1097914A
028849004 2	201245CV	6784	150	15	2701	2250	6778	2022564826			2022533420	1097914A
028849004 2	201245CV	6785	150	15	2695	2250	6778	2022564826			2022533420	1097914A
Order (GCL Lot #	GCL Roll#	Length	Width	weight	sq ft	Roll # Tested	Cap Lot #	Cap Roll #	Roll # Tested	Base Roll #	Clay Lot #
028849002 2	201245CV	6786	150	15	2701	2250	6778	2022564826			2022533420	1097914A
028849002 2	201245CV	6787	150	15	2687	2250	6778	2022564826			2022533420	1097914A
028849002 2		6788	150			2250		2022564826			2022533420	
028849002 2	201245CV	6789	150	15	2690	2250	6778	2022564826			2022533420	1097914A
028849001 2	201245CV	6790	150	15	2672	2250	6778	2022564826			2022533420	1097914A
028849003 2	201245CV	6791	150	15	2659	2250	6778	2022564826			2022533420	
028849001 2	201245CV	6792	150	15	2695	2250	6792	2022564826			2022533420	1097914A
028849004 2	201245CV	6793	150	15	2660	2250	6792	2022564826			2022533420	1097914A
028849002 2	201245CV	6794	150	15	2651	2250	6792	2022564826			2022533420	1097914A
028849002 2	201245CV	6795	150	15	2663	2250	6792	2022564822			2022533420	1097914A
028849002 2	201245CV	6796	150	15	2650	2250	6792	2022564822			2022533420	1097914A
028849002 2	201245CV	6797	150	15	2656	2250	6792	2022564822			2022533420	1097914A
028849002 2	201245CV	6798	150	15	2664	2250	6792	2022564822			2022533420	1097914A
	201245CV	6799	150	15	2649	2250	6792	2022564822			2022533420	1097914A
028849001 2	1012436											
028849001 2 028849002 2 028849002 2	201245CV			15	2666	2250	6792	2022564822			2022533420	1097914A

Total sq ft:						135000			Total Number of Rolls Certified: 60
028849001	201245CV	6814	150	15	2666	2250	6807	2022564830	2022532716 1097914A
028849001	201245CV	6813	150	15	2653	2250	6807	2022564830	2022532716 1097914A
028849001	201245CV	6812	150	15	2653	2250	6807	2022564830	2022532716 1097914A
028849001	201245CV	6811	150	15	2651	2250	6807	2022564830	2022532716 1097914A
028849001	201245CV	6810	150	15	2651	2250	6807	2022564830	2022533420 1097914A
028849004	201245CV	6809	150	15	2635	2250	6807	2022564830	2022533420 1097914A
028849001	201245CV	6808	150	15	2642	2250	6807	2022564825	2022533420 1097914A
028849001	201245CV	6807	150	15	2645	2250	6807	2022564825	2022533420 1097914A
028849001	201245CV	6806	150	15	2639	2250	6792	2022564825	2022533420 1097914A
028849001	201245CV	6805	150	15	2634	2250	6792	2022564825	2022533420 1097914A
028849002	201245CV	6804	150	15	2662	2250	6792	2022564825	2022533420 1097914A
028849002	201245CV	6803	150	15	2663	2250	6792	2022564825	2022533420 1097914A
028849001	201245CV	6802	150	115	2678	2250	6792	2022564825	2022533420 1097914A

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GCL MANUFACTURING QUALITY CONTROL TEST DATA

The following rolls in GCL certification package number 028849001 have been tested in our production facility lab.

Product	Lot # Tested	Roll # Tested	Mass Area	Grab Strength	Peel Strength 6496	Grab 4632 Modified	Moisture	Peel 4632 Modified
	ASTM	Test Method:	D 5993	D 6768	D 6496	D4632*	D 4643	D4632*
	R	equired Value:	0.75 lb/sq ft Min	30 lbs/in MARV	3.5 lbs/in Min		35%	
CV-BENTOMAT ST	201245CV	6748	0.85	69.5	9.4	277.9	27.9	44.5
CV-BENTOMAT ST	201245CV	6763	0.90	69.4	8.8	277.4	27.5	41.9
CV-BENTOMAT ST	201245CV	6778	0.90	68.0	6.5	269.2	26.4	32.2
CV-BENTOMAT ST	201245CV	6792	0.91	42.0	6.6	167.8	25.2	35.1
CV-BENTOMAT ST	201245CV	6807	0.95	59.9	6.3	239.7	23.9	33.7

modified ASTM D 4632 using 4 inch grips.

BENTONITE CLAY CERTIFICATION

The Bentonite Clay used to produce package 028849001

has been tested by American Colloid Company and yielded the following test results.

Clay Lot #	Moist	Swell	Fluid Loss
ASTM Test Method:	D 2216	D 5890	D 5891
Required Value:	12% Max	24 ml/2g Min	18 ml Max
1097914A	8.90	25.00	17.00

Ecert 2.0 Page 7 of 7



GEOTEXTILE TEST RESULTS FROM MATERIAL SUPPLIERS

The GCL in certification package number 028849001 was manufactured with geotextiles which were tested with the following results.

BASE GEO	TEXTILE			COVER GEOTEXTILE					
Material	Roll Number	Mass Area · oz/yd2	Grab Strength lbs	Material	Roll Number	Mass Area oz/yd2	Grab Strength lbs		
82 Tex	2022389694	3.2	175.4	PPX 650	2022564822	7.5	120.1		
PPX 82Tex	2022532710	3.5	138.4	PPX 650	2022564825	7.5	120.1		
PPX 82Tex	2022532716	3.4	174.1	PPX 650	2022564826	7.5	120.1		
PPX 82Tex	2022533420	3.4	167.1	PPX 650	2022564830	6.8	114.4		
				CV-NON-WOVEN	00002638	6.4	37.7		
				CV-NON-WOVEN	00002970	7.0	39.6		
				CV-NON-WOVEN	00003005	6.7	44.5		
				CV-NON-WOVEN	00003023	6.5	36.5		

Certifications from our suppliers are on file at our production facility.

An '*' or 'PT' indicates supplier certifications were unavailable prior to shipping so testing was performed at a CETCO lab.

Section 2 HDPE Geomembrane



443681 .12

23

505

11.615.0

cust:

PO#

JED JED Leachate Stor Fac

St Cloud, FL Dest:

IESI

43 rolls 60 HD micro (505)

20510

resin lot#

doc

English Dimensions check weld rod qty (if ordered) wid le<u>n</u>

roll# 100k/lot (3ft x wid) to Precis, 2nd day Brantley's UPS 71Y048 ref: JED LEACH H8221158 3822 3ft conf 60HD micro 43tot 443339 .12 23 505 11 615.0 H8221158 3821 60HD 43tot 2 443340 .12 23 505 11,615.0 micro H8221158 3817 443341 .12 23 505 11,615.0 60HD micro 43tot 3 H8221158 60HD 43tot 3818 11.615.0 micro 443342 .12 23 505 H8221158 443343 .12 23 505 11,615.0 60HD 43tot 5 3809 H8221158 3887 6 443444 .12 23 505 11,615.0 **GHOa** micro 43tot 43tot 3885 H8221158 60HD 443445 .12 505 11.615.0 micro 23 H7120980 3877 60HD 43tot 8 443446 .12 23 505 11,615.0 micro 3876 3ft conf H7120980 443447 .12 23 505 11,615.0 60HD micro 43tot 9 3881 H7120980 60HD micro 43tot 10 443448 .12 23 505 11,615.0 H7120980 3888 60HD 43tot 11 443449 .12 23 505 11,615.0 micro 3894 H7120980 12 443450 .12 23 505 11,615.0 GH09 micro 43tot 3892 H7120980 60HD 43tot 443451 .12 23 505 11.615.0 micro H7120980 60HD 43tot 14 3891 443452 .12 23 505 11,615.0 micro 3883 H7120980 443453 .12 23 505 11,615.0 60HD micro 43tot 15 3892 H7120980 16 60HD 43tot 11,615.0 micro 443454 .12 23 505 H7120980 443455 .12 23 505 11,615.0 60HD micro 43tot 17 3897 H7120980 3889 3ft conf 443456 .12 23 505 11,615.0 60HD micro 43tot 18 19 3849 H7120980 60HD 43tot 443457 .12 23 505 11,615.0 micro H7120980 20 3815 443558 .12 505 11,615.0 60HD micro 43tot 23 3818 H7120980 21 443559 .12 505 11,615.0 60HD micro 43tot 23 3829 H7120980 11,615.0 60HD micro 43tot 22 443560 .12 23 505 H7120980 43tot 23 3875 443561 .12 23 505 11,615.0 60HD micro 3869 H8221187 443562 .12 23 505 11,615.0 60HD micro 43tot 24 43tot 25 3864 H8221187 11,615.0 60HD 443563 .12 23 505 micro H8221187 11,615.0 60HD 43tot 26 3864 3ft conf 443564 .12 23 505 micro H8221187 3859 443565 .12 23 505 11,615.0 60HD micro 43tot 27 3864 H8221187 28 443566 .12 60HD 43tot 11,615.0 micro 23 505 H8221187 443567 .12 11,615.0 60HD micro 43tot 29 3858 23 505 3866 H8221187 443568 .12 23 505 11,615.0 **60HD** micro 43tot 30 31 3862 H8221187 60HD 43tot 11,615.0 443569 .12 23 505 micro H8221187 43tot 32 3868 443570 .12 23 505 11,615.0 60HD micro 3870 H8221187 33 443571 .12 23 505 11,615.0 60HD micro 43tot 3873 H8221187 11.615.0 60HD micro 43tot 34 443672 .12 23 505 H8221187 43tot 35 3871 3ft conf 23 11,615.0 60HD micro 443673 12 505 H8221187 443674 .12 3865 23 11,615.0 60HD micro 43tot 36 505 H8221187 37 3864 43tot 443675 .12 23 505 11,615.0 60HD micro H8221187 443676 .12 11,615.0 60HD micro 43tot 38 3856 23 505 H8221187 3855 443677 .12 505 11,615.0 60HD micro 43tot 39 3866 H8221187 40 60HD 43tot 11,615.0 443678 .12 23 505 micro H8221187 443679 .12 23 11,615.0 60HD micro 43tot 41 3865 505 H8221187 3860 443680 .12 23 505 11,615.0 60HD micro 43tot 42 43 3861 H8221187

60HD

micro

43tot



ROLL#					Lo	t #:		H82211	58 l	iner	Type: N	/licrosp	ike™	M HDP	E
Measurement ASTM D5994 (Modified)				MIN: MAX:	METF 1.42 1.67	RIC mm mm	56	GLISH mil mil	Le	ngth		1.5 m 153.926 7.01	m	60 mil 505.0 23.0	feet feet
Asperity ASTM D		27/34			1.53	mm		mil	OIT(Stan	dard) A	STM D3895	minutes	185	TE: RESU	
Specific Grav ASTM D792	/ity				Density					g/cc				.944	4
MFI ASTM D COND. E GRADE:	1238	K30)7		Melt Flo	w Inde	ex 19	90°C /2160	0 g	g/10 r	min			.28	3
Carbon Black ASTM D4218		ent		and the second s	Range					%				2.26	3
Carbon Black ASTM D5596		ersion			Categor	у							10	In Cat 1	
Tensile Stren ASTM D6693 ASTM D638 (2 inches / m	Modif				Average	Stren	gth	@ Yield	2	8 N/mm	(kN/m)	161 p _l	pi	2,671) psi
(,		and an order of the state of th	Average	Stren	gth	@ Break	3	6 N/mm	(kN/m)	206 p	oi	3,422	. psi
Elongation A ASTM D638 ((2 inches / m Lo = 1.3" Yiel	(Modif inute d	ied)			Average	Elong	gatio	n @ Yield		%				16.35	;
Lo = 2.0" Bre	*****			***************************************	Average	Elong	atio	n @ Breal	<	%		et i sa communication and desperations, and		539.4	l
Dimensional S ASTM D1204		•		Mary of the same and the first profiles.	Average	Dime	nsio	nal chang	e	%		gyfrau arban hldaide ad gyng gyng by		32	2
Tear Resistar ASTM D1004		ified)			Average	Tear	Resi	istance		235.2	N_			52.886	bs
Puncture Res FTMS 101 Me			Mod	dified)	Average	Peak	(Loa	ad		427.6	N			96.140) lbs
Puncture Res ASTM D4833					Average	Peak	c Loa	ad		578.8	N			130.13	lbs
ESCR ASTM D1693					Minimur	n Hrs	w/o	Failures	1500	hrs			CE	RTIFIED)
Notched Cons ASTM D5397		Tensile	Loa	ad p	oass / fai	0 30)%		300	nrs			OI	NGOING	.

Customer: IESI

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2 Lot #:	H8221158	Liner Type: N	⁄licrospike [™]	M HDPE	
l: 1.47 mm 58	GLISH mil mil	Thickness Length Width	1.5 mm 153.926 ^m 7.01 m;	23.0 fe	eet
E: 1.53 mm 60	mil	OIT(Standard) ASTM D3895	minutes 185		
Density		g/cc		.944	
Melt Flow Index 19	90°C /2160 g	g/10 min		.28	
Range		%	And the state of t	2.25	
Category	Account to the second s		10	In Cat 1	
Average Strength	@ Yield	29 N/mm (kN/m)	165 ppi	2,747	psi
Average Strength	@ Break	35 N/mm (kN/m)	202 ppi	3,353	psi
Average Elongatio	n @ Yield	%		16.77	
Average Elongation	n @ Break	%		516.3	
Average Dimension	nal change	%		32	
Average Tear Resi	istance	249.8 N		56.167	lbs
Average Peak Load)	ad	422.1 N		94.890	lbs
Average Peak Loa	ad	616.4 N		138.57	lbs
Minimum Hrs w/o	Failures	1500 hrs	CE	RTIFIED	
pass / fail @ 30%) (4)	300 hrs	0	NGOING	
	METRIC EN 1.47 mm 58 X: 1.58 mm 62 E: 1.53 mm 60 Density Melt Flow Index 19 Range Category Average Strength Average Elongation Average Elongation Average Dimension Average Peak Load Average Peak Load Minimum Hrs w/o	METRIC ENGLISH N: 1.47 mm 58 mil X: 1.58 mm 62 mil E: 1.53 mm 60 mil Density Melt Flow Index 190°C /2160 g Range Category Average Strength @ Yield Average Elongation @ Yield Average Elongation @ Break Average Dimensional change Average Peak Load Average Peak Load Minimum Hrs w/o Failures	METRIC ENGLISH Thickness	METRIC ENGLISH N: 1.47 mm 58 mil Length	METRIC ENGLISH N: 1.47 mm 58 mil Length

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Destination St Cloud, FL

Date:....

Quality Control Department



ROLL# 44	<u>3341</u> .	-12	Lo	t #:		H822115	8 Li	ner '	Type: N	/licrosp	ike¹	M HDP	E
Measurement ASTM D5994 (Modified)		MIN: MAX:		RIC mm mm	57	GLISH mil mil	Leng	gth	s	1.5 m 153.926 7.01		60 mil 505.0 23.0	feet feet
Asperity ASTM D7466: TOP / BOTTOM	26/36 mil	AVE:	1.54	mm	61	mil	OIT(Standa	rd) AS	STM D3895	minutes	185	TE RESU	
Specific Gravity ASTM D792			Density				g/	cc				.94	4
MFI ASTM D1238 COND. E GRADE:	K307		Melt Flov	w Inde	ex 190	0°C /2160	g g	/10 m	nin			.28	8
Carbon Black Cont ASTM D4218	ent		Range			THE RESERVE OF THE PERSON OF T	%			<u> </u>	-	2.20)
Carbon Black Dispe ASTM D5596	ersion		Category	/							10	In Cat	1
Tensile Strength ASTM D6693 ASTM D638 (Modif (2 inches / minute	•		Average	Stren	ngth @) Yield	29	N/mm	(kN/m)	167 p	pi	2,747	7 psi
		-	Average	Stren	gth @	Break	36	N/mm	(kN/m)	203 p	pi	3,353	s psi
Elongation ASTM I ASTM D638 (Modif (2 inches / minute Lo = 1.3" Yield	ied)		Average	Elong	gation	@ Yield	%	b				16.77	7
Lo = 2.0" Break	production of the second		Average	Elong	gation	@ Break	%					516.3	3
Dimensional Stabili ASTM D1204 (Mod			Average	Dime	nsion	al change	9	6				32	2
Tear Resistance ASTM D1004 (Mod	ified)		Average	Tear	Resis	tance	24	9.8	N			56.167	7 lbs
Puncture Resistance FTMS 101 Method	-	dified)	Average	Peal	k Load	d	42	2.1	N			94.89) Ibs
Puncture Resistance ASTM D4833 (Mod		THE AMERICAN TO TRANSPORT	Average	Peal	k Load	d	61	6.4	N			138.5	7 lbs
ESCR ASTM D1693			Minimun	n Hrs	w/o F	ailures	1500 h	ırs			CE	RTIFIE)
Notched Constant 7 ASTM D5397	rensile Lo	ad	pass / fail	@ 30	0%		300 hr	s			0	NGOING	•

Customer: IESI

PO: JED JED Leachate Stor Fac

Destination St Cloud, FL.

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Quality Control Department



Measurement MIN:	ROLL #	44	3342	2-12	Lo	t #:		 18221158	BLine	er Type: I	Microsp	oike ¹	M HDPE	Ē
Aspentify ASTM D1982 2936 mil AVE 1.53 mil 100 mil 0IT(Standard) ASTM D3895 minutes 185 RESULTS	ASTM D5994				1.40	mm	55	mil	Lengt	h	153.926	m	505.0	
ASTM D792			25/36 n	nil AVE:	1.53	mm	60	mil	OIT(Standard) ASTM D3895	5 minutes	185		
COND. E GRADE: K307 Carbon Black Content ASTM D4218 Carbon Black Dispersion ASTM D5596 Category Tensile Strength Average Strength @ Yield 29 Norms (NAMIN) Average Strength @ Break 35 Norms (NAMIN) Average Strength @ Break 35 Norms (NAMIN) Average Strength @ Strength % 202 ppi 3,353 psi Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Average Elongation @ Yield % 16.77 Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 516.3 Dimensional Stability ASTM D1204 (Modified) Average Dimensional change %32 Tear Resistance ASTM D1004 (Modified) Average Tear Resistance ASTM D1004 (Modified) Average Peak Load 422.1 N 94.890 lbs Puncture Resistance ASTM D4833 (Modified) Average Peak Load 616.4 N 138.57 lbs RSCM ASTM D1693 Notched Constant Tensile Load pass / fail @ 30% 300 hrs	•	ty		The state of the s	Density	The distance will consider a second and a			g/co				.944	
ASTM D4218 Carbon Black Dispersion ASTM D5596 Category Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break Average Strength with Break Average Strength with Break Average Strength with Break Average Elongation with Strength wi	COND. E	238	K30	7	Melt Flor	w Inde	ex 190	0°C /2160 g	g g/1	0 min			,28	}
ASTM D5596 Tensile Strength		Conte	ent		Range				%				2.20)
ASTM D6693 Average Strength @ Yield 29 Norme (INNime) 165 ppi 2,747 psi ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 35 Norme (INNime) 202 ppi 3,353 psi Elongation ASTM D6693 ASTM D638 (Modified) Average Elongation @ Yield % 16.77 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 516.3 Dimensional Stability ASTM D1204 (Modified) Average Dimensional change %32 Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 249.8 N 56.167 lbs Puncture Resistance FTMS 101 Method 2065 (Modified) Average Peak Load 422.1 N 94.890 lbs Puncture Resistance ASTM D4833 (Modified) Average Peak Load 616.4 N 138.57 lbs ESCR ASTM D1693 Minimum Hrs w/o Failures 1500 hrs CERTIFIED		Dispe	rsion		Category	y						1(0 In Cat 1	
Average Strength @ Break 35 N/mm (kN/m) 202 ppi 3,353 psi Elongation ASTM D6693 ASTM D638 (Modified) Average Elongation @ Yield % 16.77 (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 516.3 Dimensional Stability ASTM D1204 (Modified) Average Dimensional change %32 Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 249.8 N 56.167 lbs Puncture Resistance FTMS 101 Method 2065 (Modified) Average Peak Load 422.1 N 94.890 lbs Puncture Resistance ASTM D4833 (Modified) Average Peak Load 616.4 N 138.57 lbs ESCR ASTM D1693 Minimum Hrs w/o Failures 1500 hrs CERTIFIED	ASTM D6693 ASTM D638 (N	Modifi			Average	Stren	igth @) Yield	29 N	/mm (kN/m)	165 p	pi	2,747	psi
ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break Dimensional Stability ASTM D1204 (Modified) Average Dimensional change Average Tear Resistance ASTM D1004 (Modified) Average Tear Resistance Puncture Resistance FTMS 101 Method 2065 (Modified) Average Peak Load Av	(=				Average	Stren	gth @	Break	35 N	/mm (kN/m)	202 p	pi	3,353	psi
Dimensional Stability ASTM D1204 (Modified) Average Dimensional change % Tear Resistance ASTM D1004 (Modified) Average Tear Resistance Puncture Resistance FTMS 101 Method 2065 (Modified) Average Peak Load	ASTM D638 (N (2 inches / mi	Modifi nute)	ed)		Average	Elong	gation	@ Yield	%				16.77	
ASTM D1204 (Modified) Average Dimensional change %32 Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 249.8 N 56.167 lbs Puncture Resistance FTMS 101 Method 2065 (Modified) Average Peak Load 422.1 N 94.890 lbs Puncture Resistance ASTM D4833 (Modified) Average Peak Load 616.4 N 138.57 lbs ESCR ASTM D4833 (Modified) Minimum Hrs w/o Failures 1500 hrs CERTIFIED Notched Constant Tensile Load pass / fail @ 30% 300 hrs	Lo = 2.0" Brea	ık			Average	Elong	gation	@ Break	%%				516.3	
ASTM D1004 (Modified) Average Tear Resistance Puncture Resistance FTMS 101 Method 2065 (Modified) Average Peak Load Average			•		Average	Dime	nsiona	al change	%				32	
FTMS 101 Method 2065 (Modified) Puncture Resistance ASTM D4833 (Modified) Average Peak Load Average Peak			fied)		Average	Tear	Resis	tance	249	.8 N			56.167	lbs
ASTM D4833 (Modified) ESCR ASTM D1693 Minimum Hrs w/o Failures 1500 hrs CERTIFIED Notched Constant Tensile Load pass / fail @ 30% 300 hrs				Modified)	Average	Peal	k Load	1	422	.1 N			94.890	lbs
ASTM D1693 Notched Constant Tensile Load pass / fail @ 30% 300 hrs ONGOING					Average	Peal	k Load	i	616	.4 N			138.57	lbs
DASS / TAIL (0) 30% 300 DIS DING					Minimur	n Hrs	w/o F	ailures	1500 hrs	3		CI	ERTIFIED)
		tant T	ensile	Load	pass / fai	l @ 30	0%		300 hrs	All the second	Parrier and Committee Comm	C	NGOING	

Customer: IESI

PO: JED JED Leachate Stor Fac

Destination St Cloud, FL

Date:.....

0/24/2012

Signature......Quality Control Department



ROLL#	<u>443</u>	34	3-	12	Lo	ot #:		H822	21158	8 L	_iner	Type: N	/licrosp	ike⊺	™ HDF	PΕ	
Measurement ASTM D5994 (Modified)				MIN: MAX:	METI 1.42 1.65	RIC mm mm	56		l mil mil	Le		*******	1.5 m 153.926 7.01		60 m 505.0 23.0		
Asperity ASTM D74		6/35 r			1.53	mm			mil	OIT(Stan	dard) A	STM D3895	minutes	185	TI RES	EST	
Specific Gravit ASTM D792	y			ng n	Density		t. also di officiazione di cale	And the second s		-	g/cc				.94	44	
MFI ASTM D12 COND. E GRADE:	238	K30)7	To the second suppose a second	Melt Flo	w Inde	ex 19	90°C /2	2160 ლ	9	g/10 r	nin			.2	28	
Carbon Black (ASTM D4218	Conter	nt	al de antide suit yannes en	and an empty of the speciment	Range	n Para din mandrid di sudiri di su			artis anu gillyrilatikini von		%				2.2	28	
Carbon Black (ASTM D5596	Disper	sion		4.0	Categor	у			and the state of t				Account a titue of the country of th	10) In Cat	1	
Tensile Strengt ASTM D6693 ASTM D638 (M (2 inches / min	/lodifie	d)			Average	Stren	igth (@ Yiel	ld	2	9 N/mm	(kN/m)	165 p	pi	2,74	17	psi
(2 11101100 / 11111					Average	Stren	gth (@ Bre	ak	3	5 N/mm	(kN/m)	202 p	pi	3,35	53_	psi
Elongation AS ASTM D638 (M (2 inches / min Lo = 1.3" Yield	/lodifie nute)				Average	: Elonç	gatio	on @ Y	ield		%				16.7	77	
Lo = 2.0" Break	k			-	Average	Elong	gatio	n @ B	reak		%				516	.3	
Dimensional St ASTM D1204 (•				Average	Dime	nsio	nal cha	ange		%				3	32	
Tear Resistanc ASTM D1004 (ed)			Average	Tear	Resi	istance	e		249.8	N			56.16	67	lbs
Puncture Resis FTMS 101 Met		D65 (N	Mod	the top managinal com-	Average			-			422.1	N			94.89	90	lbs
Puncture Resis ASTM D4833 (I		ed)			Average	e Peal	< Loa	ad			616.4	N			138.	57	lbs
ESCR ASTM D1693					Minimu	m Hrs	w/o	Failur	es	1500	hrs			CE	RTIFIE	D	
Notched Const ASTM D5397	ant Te	nsile	Loa	ad p	oass / fai	ii @ 30	 0%		-ante-state-o-	300	hrs			0	NGOIN	G	7

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10/24/2012

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ROLL# 443	3444-	12	Lot	#:	F	1822115	Liner	Type: N	/licrosp	ike⊺	™ HDP	E
Measurement ASTM D5994 (Modified)		MIN:	METR 1.51	mm		mil		ss	1.5 m 153.926 7.01		60 mil 505.0 23.0	feet feet
	7/36 mil A	MAX: NVE:	1.67 1.58	mm mm		mil mil	OIT(Standard) A	·	minutes	185	TE RESI	
Specific Gravity ASTM D792	ndepanifularu suditugrading bilanifulisi, ang at ng	griffe - forfallelingfilt de gallius is y	Density	MET STORE NO. 1 K. ANTINISTRATE I	BOCA, při vádě říške a zařímove	recommendado de Princia da 1988 de Antoré de Parlamento	g/cc	одден ший табан — энг Аленда — учин онулг	dermanen eta	errenge er ekkereseke kor	.94	4
MFI ASTM D1238 COND. E GRADE:	K307		Melt Flov	v Inde	ex 190	0°C /2160 g	g g/10	min		F	.2	8
Carbon Black Conte	nt		Range	er en i a mandri viene	and the second		%	and the second s			2.2	В
Carbon Black Disper ASTM D5596	rsion		Category		Pharmaghly subject The Thinks				Mancha — et autobaco accessor	10	In Cat	1
Tensile Strength ASTM D6693 ASTM D638 (Modifie (2 inches / minute)	ed)	,	Average	Stren	igth @) Yield	30 N/m/	m (kN/m)	171 p	pi	2,74	7 psi
(2 monos / minuto)		/	Average	Stren	gth @) Break	37 N/mi	m (kN/m)	209 p	pi	3,353	3 psi
Elongation ASTM De ASTM D638 (Modifie (2 inches / minute) Lo = 1.3" Yield		,	Average	Elong	gation	@ Yield	%				16.77	7
Lo = 2.0" Break	lik aalahii, ki wiraa didaada haalah ka'd ka wisadhaa alihad a		Average	Elong	ation	@ Break	%				516.3	3
Dimensional Stability ASTM D1204 (Modifi		/	Average	Dime	nsiona	al change	%				3	2
Tear Resistance ASTM D1004 (Modifi	ied)	,	Average	Tear	Resis	tance	249.8	N			56.16	7 lbs
Puncture Resistance FTMS 101 Method 2		ified)	Average	Peak	k Load	i	422.1	N			94.89	0 lbs
Puncture Resistance ASTM D4833 (Modifi		,	Average	Peak	k Load	i	616.4	N			138.5	7 Ibs
ESCR ASTM D1693	The second second second second second		Minimun	n Hrs	w/o F	ailures	1500 hrs			CE	RTIFIE)
Notched Constant Te	ensile Loa	id p	ass / fail	@ 30	0%		300 hrs	100	and provided the second se	0	NGOING	3

Customer: IESI

PO: JED JED Leachate Stor Fac

Destination St Cloud, FL

10/25/20

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ROLL# 44	13445 -	12	Lo	t #:	Н	 822115	8L	iner.	Type: N	/licrosp	oike ¹	™ HDP	E
Measurement ASTM D5994 (Modified)		MIN: MAX:	METF 1.53 1.67	RIC mm mm		LISH mil mil	Le	ngth	s	1.5 m 153.926 7.01		60 mil 505.0 23.0	feet feet
Asperity ASTM D7466: TOP / BOTTOM	25/35 mil /	AVE:	1.58	mm	62	mil	OIT(Stand	dard) AS	STM D3895	minutes	185	TE RESI	
Specific Gravity ASTM D792			Density				ç	g/cc				.94	4
MFI ASTM D1238 COND. E GRADE:	K307		Melt Flov	w Inde	ex 190	°C /2160 (g	g/10 n	nin			.28	В
Carbon Black Cor ASTM D4218	ntent	ng safig kanada kalaba na amin	Range		ATTACA MARIE GENERAL PROPERTY.	Andrick State of the State of t		%				2.3	5
Carbon Black Disp ASTM D5596	persion		Category	/							10) In Cat	1
Tensile Strength ASTM D6693 ASTM D638 (Mod (2 inches / minute			Average	Strer	igth @	Yield	31	1 N/mm	(kN/m)	179 p	pi	2,882	2 psi
(2 mones / minute			Average	Strer	gth @	Break	3	9 N/mm	(kN/m)	221 p	pi	3,560) psi
Elongation ASTM ASTM D638 (Mod (2 inches / minute Lo = 1.3" Yield	ified)		Average	Elon	gation	@ Yield		%				16.94	1
Lo = 2.0" Break		Mr 1,50 H. F 700 - 1700 - 1	Average	Elong	gation	@ Break		%				544.0)
Dimensional Stabi ASTM D1204 (Mo			Average	Dime	nsiona	l change	Law of Gardina Advanta Annual	%				3	2
Tear Resistance ASTM D1004 (Mo	dified)		Average	Tear	Resist	ance	2	249.8	N			56.167	7 lbs
Puncture Resistan		dified)	Average	Peal	k Load		4	422.1	N			94.89) lbs
Puncture Resistan ASTM D4833 (Mo			Average	Peal	k Load		(616.4	N			138.5	7 lbs
ESCR ASTM D1693			Minimur	n Hrs	w/o Fa	ailures	1500	hrs			CE	RTIFIE)
Notched Constant ASTM D5397	Tensile Loa	ad	pass / fail	0 3	0%	,	300 l	nrs		Arras Cunys (Arr & Array Juleann	0	NGOING	3

Customer: IESI

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Destination St Cloud, FL

Date:....



DLL# 443446-				Lo	t #:		17120980	DL	iner.	Туре: І	Micros	pike ¹	™ HDP	E	
			MIN: MAX:	1.51	mm	59	mil	Le	ngth				60 mi 505.0 23.0	fee	
466: OM	27/36	mil		1.57			mil	OIT(Stand	dard) As	STM D389	5 minutes	191			
ty			VI MANAGARIA A PARTI I PARTI I	Density	and the second second	A.C. THE LOGIC COLUMNS CO.		Ç	g/cc				.94	6	
238	K3	07	m, f agains granging and distribution	Melt Flov	w Inde	ex 190	0°C /2160 g	3	g/10 n	nin			.2	24	
Conte	ent	Lance Pearly II		Range		and the state of t	to the standard design of the standard design	1	%				2.3	5	
Dispe	ersion			Category	/							10	0 In Cat	1	
				Average	Stren	igth @) Yield	31	l N/mm	(kN/m)	178 բ	ppi	2,88	2	psi
				Average	Stren	gth @) Break	3	9 N/mm	(kN/m)	220 p	pi	3,56	0	psi
Modifi	ed)	3		Average	Elonç	gation	@ Yield		%				16.9	4	
k			-	Average	Elong	ation	@ Break		%				544.	0	
			Principle Street	Average	Dime	nsiona	al change		%		······································		7	7	
ce (Modi	fied)			Average	Tear	Resis	tance	2	249.8	N			56.16	7	lbs
	_	(Мо	dified)	Average	Peal	k Load	1	4	122.1	N			94.89	0	lbs
			Name of the Control o	Average	Peal	(Load	I	•	616.4	N			138.5	7	lbs
				Minimur	n Hrs	w/o F	ailures	1500	hrs		,	CE	ERTIFIE	D	
tant T	ensile	e Lo	oad	pass / fail	@ 30	0%		300 h	nrs	- University	www.www.maded.idelabilish	0	NGOIN	G	
	the Modification (Modification)	27/36 ty 238 K3 Content Dispersion th Modified) nute) k tability (Modified) ce (Modified) stance thod 2065 stance (Modified)	27/36 millom ty 238 K307 Content Dispersion th Modified) nute) K tability (Modified) ce (Modified) stance thod 2065 (Modified)	MAX: 466: 27/36 mil AVE: by 238 K307 Content Dispersion th Modified) nute) k tability (Modified) nute) k tability (Modified) stance thod 2065 (Modified) stance (Modified)	METERIAL MAX: 1.51 MAX: 1.65 MAX: 1.65 MAX: 1.57 MAX: 1.65 MAX: 1.	METRIC MIN: 1.51 mm MAX: 1.65 mm MAX: 1.65 mm MAX: 1.57 mm Metry Density Density Density Content Range Dispersion Category The Average Strent Modified) Average Elong Modified) Average Elong Modified) Average Elong Modified) Average Dime Modified) Average Dime Modified) Average Peak Modified) Average Peak Modified) Average Peak Modified) Average Peak Modified) Minimum Hrs	MIN: 1.51 mm 59 MAX: 1.65 mm 65 MIN: 1.57 mm 62 MY Density Density Content Range Dispersion Category th Average Strength @ Modified) Average Elongation nute) Average Elongation tability (Modified) Average Dimensiona Average Tear Resisted Category Average Peak Load Modified) Average Peak Load Modified) Average Peak Load Modified) Average Peak Load Minimum Hrs w/o Feat	METRIC ENGLISH MIN: 1.51 mm 59 mil MAX: 1.65 mm 65 mil MAX: 1.65 mm 62 mil MOM Density Density Density Melt Flow Index 190°C /2160 g K307 Content Range Dispersion Category th Average Strength @ Yield Modified) Average Strength @ Break STM D6693 Modified) Average Elongation @ Yield Average Elongation @ Break Average Elongation @ Break Average Dimensional change Stance Modified) Average Peak Load Average Peak Load Minimum Hrs w/o Failures	METRIC ENGLISH The MIN: 1.51 mm 59 mil Lee MAX: 1.65 mm 65 mil Wilder MAX: 1.65 mm 65 mil OIT(Standard) Melt Flow Index 190°C /2160 g K307 Content Range Dispersion Category the Average Strength @ Yield 3* Modified) Average Strength @ Break 3: Modified) Average Elongation @ Yield Average Elongation @ Break 4: Average Elongation @ Break 5: Average Peak Load 4: Average Peak Load 4: Average Peak Load 6: Average Peak Load	METRIC ENGLISH Thickness MIN: 1.51 mm 59 mil Length MAX: 1.65 mm 65 mil Width MAX: 1.65 mm 65 mil OIT(Standard) AS MY Density g/cc 238 Melt Flow Index 190°C /2160 g g/10 m K307 Content Range % Dispersion Category th Average Strength @ Yield 31 Nmm Modified) nute) Average Strength @ Break 39 Nmm STM D6693 Modified) Average Elongation @ Yield % Average Elongation @ Break % Average Elongation @ Break % Modified) Average Dimensional change % Stance Modified) Average Peak Load 422.1 Stance Modified) Average Peak Load 616.4 Minimum Hrs w/o Failures 1500 hrs	METRIC ENGLISH Thickness MIN: 1.51 mm 59 mil Length	METRIC ENGLISH Thickness	METRIC ENGLISH Thickness 1.5 mm 153.926 m 153.926 m 153.926 m 7.01 m 153.926 m 7.01 m 153.926 m 7.01 m	METRIC ENGLISH Thickness 1.5 mm 60 min 153.926 m 505.0 min 163.926 m 505.0 min 164.0 min 165 min 65 min 165 min 62 min 165 min 62 min 165 min	METRIC ENGLISH Thickness 1.5 mm 505.0 fee 505.0 fee 23.0 fee

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ROLL# 443447-12	Lot #:	H7120980	Liner Type: N	/licrospike [†]	M HDPE	
Measurement ASTM D5994 MIN: (Modified) MAX			Thickness Length Width	1.5 mm 153.926 ^m 7.01 m;	23.0 fe	eet eet
Asperity ASTM D7466: 26/36 mil AVE:	1.54 mm	61 mil	DIT(Standard) ASTM D3895	minutes 191	TES' RESUL	
Specific Gravity ASTM D792	Density		g/cc		.946	
MFI ASTM D1238 COND. E GRADE: K307	Melt Flow Inde	ex 190°C /2160 g	g/10 min		.24	
Carbon Black Content ASTM D4218	Range		%		2.35	
Carbon Black Dispersion ASTM D5596	Category			10	In Cat 1	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Stren	gth @ Yield	31 N/mm (kN/m)	175 ppi	2,882	psi
The second secon	Average Stren	gth @ Break	38 N/mm (kN/m)	216 ppi	3,560	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield	Average Elong	gation @ Yield	%		16.94	
Lo = 2.0" Break	Average Elong	ation @ Break	%		544.0	
Dimensional Stability ASTM D1204 (Modified)	Average Dime	nsional change	%		77	
Tear Resistance ASTM D1004 (Modified)	Average Tear	Resistance	249.8 N		56.167	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified	Average Peak	Load	422.1 N		94.890	lbs
Puncture Resistance ASTM D4833 (Modified)	Average Peak	Load	616.4 N		138.57	lbs
ESCR ASTM D1693	Minimum Hrs	w/o Failures	1500 hrs	CE	RTIFIED	
Notched Constant Tensile Load ASTM D5397	pass / fail @ 30)%	300 hrs	0	NGOING	

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ROLL # 44344	8-12	Lo	t #:	Н	7120980	Liner 7	Type: N	licrosp	ike⊺	™ HDP	E
Measurement ASTM D5994	MIN:	METF 1.43	RIC mm	ENGL 56	LISH mil	Thickness Length		1.5 m 153.926	m	60 mi 505.0	feet
(Modified)	MAX:	1.65	mm	65	mil	Width		7.01	m;	23.0	feet
Asperity ASTM D7466: 27/33 TOP / BOTTOM	mil AVE:	1.56	mm	61	mil	OIT(Standard) AS	TM D3895	minutes	191		ST JLTS
Specific Gravity ASTM D792		Density				g/cc				.94	6
MFI ASTM D1238 COND. E GRADE: K3(07	Melt Flor	w Inde	ex 190°	°C /2160 g	g/10 m	nin			.2	4
Carbon Black Content ASTM D4218	ak thanthall their yaqatti tek yata uateraali 1 Am	Range		A Condition of the Cond		%		AND THE PERSON OF THE PERSON O		2.3	5
Carbon Black Dispersion ASTM D5596	man or with his hour strong by the day on court makes address.	Category	y	- Day - III					10) in Cat	1
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)		Average	Stren	ngth @	Yield	31 N/mm (kN/m)	177 p	pi	2,88	2 psi
(2 mones / minate)		Average	Stren	gth @	Break	38 N/mm (kN/m)	219 p	pi	3,56	0 psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield		Average	Elong	gation (@ Yield	%				16.9	4
Lo = 2.0" Break		Average	Elong	gation	@ Break	%				544.	0
Dimensional Stability ASTM D1204 (Modified)		Average	Dime	nsiona	al change	%				7	7
Tear Resistance ASTM D1004 (Modified)		Average	Tear	Resist	ance	249.8	N			56.16	7 lbs
Puncture Resistance FTMS 101 Method 2065 ((Modified)	Average				422.1				94.89	
Puncture Resistance ASTM D4833 (Modified)		Average	Peal	k Load		616.4	N			138.5	7 lbs
ESCR ASTM D1693		Minimur	m Hrs	w/o Fa	ailures	1500 hrs		,	CE	RTIFIE	D
Notched Constant Tensile ASTM D5397	Load	pass / fai	I @ 3	0%		300 hrs			O	NGOIN	3

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ROLL# 443449-	12 Lot #:	H712098	B0Liner Type: I	Microspike ¹	™ HDPE	
(AA JIS I)		ENGLISH mil	Thickness Length Width	1.5 mm 153.926 ^m 7.01 m;		et
Asperity ASTM D7466: 27/33 mil A	VE: 1.55 m	m 61 mil	OIT(Standard) ASTM D3895	5 minutes 191	TES1 RESUL	
Specific Gravity ASTM D792	Density		g/cc		.946	
MFI ASTM D1238 COND. E GRADE: K307	Melt Flow I	ndex 190°C /2160	g g/10 min		.24	
Carbon Black Content ASTM D4218	Range		%		2.35	
Carbon Black Dispersion ASTM D5596	Category			10	In Cat 1	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average St	rength @ Yield	31 N/mm (kN/m)	176 ppi	2,882	psi
(2 inches / finitiate)	Average St	rength @ Break	38 N/mm (kN/m)	217 ppi	3,560	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield	Average Ele	ongation @ Yield	%		16.94	
Lo = 2.0" Break	Average Ele	ongation @ Break	%		544.0	
Dimensional Stability ASTM D1204 (Modified)	Average Di	mensional change	%		77	
Tear Resistance ASTM D1004 (Modified)	Average Te	ar Resistance	249.8 N		56.167	lbs
Puncture Resistance FTMS 101 Method 2065 (Mod	Average P	eak Load	422.1 N		94.890	lbs
Puncture Resistance ASTM D4833 (Modified)	Average P	eak Load	616.4 N		138.57	lbs
ESCR ASTM D1693	Minimum I	drs w/o Failures	1500 hrs	CI	ERTIFIED	
Notched Constant Tensile Loa ASTM D5397	d pass / fail @	30%	300 hrs		NGOING	

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ROLL#		0	-12	Lo	ot #:	and year we developed to	H712098	30L	iner	Type: N	/licrosp	oike⊺	M HDPE	=	
Measurement ASTM D5994 (Modified)				MIN: MAX:	MET 1.49 1.65	RIC mm mm	59	GLISH mil mil	Ler	ıgth	ss	1.5 m 153.926 7.01		23.0	feet feet
Asperity ASTM D74		23/33	mil	AVE:	1.58	mm	62	mil	OIT(Stand	lard) A	STM D3895	minutes	191	TES RESU	
Specific Gravit ASTM D792	ty				Density				g	/cc				.946	i
MFI ASTM D1 COND. E GRADE:	238	K3(07		Melt Flo	w Ind	ex 19	90°C /2160	g (g/10 r	nin			.24	,
Carbon Black ASTM D4218	Conte	ent		T T T T T T T T T T T T T T T T T T T	Range			**************************************	9	6				2.25	
Carbon Black ASTM D5596	Dispe	rsion			Categor	ту							10	In Cat 1	
Tensile Streng ASTM D6693 ASTM D638 (N (2 inches / mir	Modifie				Average	e Strer	ngth	@ Yield	29	N/mm	(kN/m)	167 p	pi	2,689	psi
					Average	Strer	ngth	@ Break	38	N/mm	(kN/m)	219 p	pi	3,515	psi
Elongation AS ASTM D638 (N (2 inches / mir Lo = 1.3" Yield	Modifie				Average	e Elong	gatio	n @ Yield	q	%				16.78	
Lo = 2.0" Brea					Average	Elon	gatio	n @ Break	9	6				545.3	
Dimensional S ASTM D1204 (OIL OFFENSION AND AND AND AND AND AND AND AND AND AN	Average	Dime	nsio	nal change		%				77	,
Tear Resistand ASTM D1004 (fied)			Average	Tear	Res	istance	2	42.7	N			54.566	lbs
Puncture Resis			Мо	dified)	Average	e Peal	k Loa	ad	4	23.4	N .	With commerce was the state of	annu da d	95.181	lbs
Puncture Resis ASTM D4833 (Average	e Peal	k Loa	ad	6	18.2	N			138.98	lbs
ESCR ASTM D1693					Minimu	m Hrs	w/o	Failures	1500	hrs		- Area y regge Ma	CE	RTIFIED	
Notched Const ASTM D5397	tant To	ensile	Lo	ad	pass / fa	il @ 30	0%		300 h	rs			0	NGOING	

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ROLL# 443451-1	2 Lot #:	H7120980	Liner Type: I	Microspike ¹	M HDPE	
/A 4 - diff - d)	METRIC IN: 1.44 mm		Thickness Length Width	1.5 mm 153.926 ^m 7.01 m;		eet eet
Asperity ASTM D7466: 28/32 mil A	AX: 1.66 mm /E: 1.55 mm	61 mil	OIT(Standard) ASTM D3895	i minutes 191	TES RESUI	
Specific Gravity ASTM D792	Density		g/cc		.946	
MFI ASTM D1238 COND. E GRADE: K307	Melt Flow Ind	ex 190°C /2160 g	g/10 min		.24	
Carbon Black Content ASTM D4218	Range	hi emilir aktub oʻratir arany qua koʻrlaylik aktub oʻra Arkiliyada	%		2.25	
Carbon Black Dispersion ASTM D5596	Category			10) In Cat 1	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strer	ngth @ Yield	29 N/mm (kN/m)	164 ppi	2,689	psi
(2 mones / minde)	Average Strer	ngth @ Break	38 N/mm (kN/m)	214 ppi	3,515	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield	Average Elon	gation @ Yield	%		16.78	
Lo = 2.0" Break	Average Elon	gation @ Break	%		545.3	
Dimensional Stability ASTM D1204 (Modified)	Average Dime	ensional change	. %		77	
Tear Resistance ASTM D1004 (Modified)	Average Tear	Resistance	242.7 N		54.566	lbs
Puncture Resistance FTMS 101 Method 2065 (Modifi	Average Pea		423.4 N		95.181	lbs
Puncture Resistance ASTM D4833 (Modified)	Average Pea	k Load	618.2 N		138.98	lbs
ESCR ASTM D1693	Minimum Hrs	w/o Failures	1500 hrs	CE	RTIFIED	er e
Notched Constant Tensile Load ASTM D5397	pass / fail @ 3	0%	300 hrs	0	NGOING	

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Lot #: H7120980		0 Liner Type: Microspike™ HDPE						
		Thickness Length Width	1.5 mm 153.926 ^m 7.01 ^m ;	60 mil 505.0 fe 23.0 fe	et et			
	63 mil	DIT(Standard) ASTM D3895	minutes 191	TEST RESUL				
Density		g/cc		.946				
Melt Flow Inde	ex 190°C /2160 g	g/10 min		.24				
Range	anganini ganan Agang at dagan andaran araw a sa s	%		2.25				
Category			10	In Cat 1				
Average Stren	gth @ Yield	29 N/mm (kN/m)	168 ppi	2,689	psi			
Average Stren	gth @ Break	39 N/mm (kN/m)	220 ppi	3,515	psi			
Average Elong	ation @ Yield	%		16.78				
Average Elong	ation @ Break	%		545.3				
Average Dime	nsional change	%		77				
Average Tear	Resistance	242.7 N		54.566	lbs			
Average Peak	Load	423.4 N		95.181	lbs			
Average Peak	Load	618.2 N		138.98	lbs			
Minimum Hrs	w/o Failures	1500 hrs	CI	ERTIFIED				
pass / fail @ 30)%	300 hrs	C	NGOING				
	METRIC 1.53 mm 1.69 mm 1.59 mm Density Melt Flow Index Range Category Average Stren Average Elong Average Elong Average Dime Average Peak Minimum Hrs	METRIC ENGLISH 1.53 mm 60 mil 1.69 mm 67 mil 1.59 mm 63 mil Density Melt Flow Index 190°C /2160 g Range Category Average Strength @ Yield Average Elongation @ Yield Average Elongation @ Break Average Dimensional change Average Peak Load	METRIC ENGLISH 1.53 mm 60 mil Length	METRIC ENGLISH Thickness 1.5 mm 1.53 mm 60 mil Length 153.926 m 1.69 mm 67 mil Width 7.01 m 1.59 mm 63 mil OIT(Standard) ASTM D3895 minutes 191 Density g/cc Melt Flow Index 190°C /2160 g g/10 min Range % Category 168 ppi Average Strength @ Yield 29 N/mm (kN/m) 220 ppi Average Elongation @ Break 39 N/mm (kN/m) 220 ppi Average Elongation @ Break % Average Dimensional change % Average Peak Load 423.4 N Average Peak Load 618.2 N Minimum Hrs w/o Failures 1500 hrs	METRIC ENGLISH Thickness 1.5 mm 60 mil 505.0 fe 505.0 fe 305.0 fe 505.0 fe 505.0 fe 505.0 fe 305.0 fe 3			

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Lot #:	H7120980	BO Liner Type: Microspike™ HDPE						
		Thickness Length Width	1.5 mm 153.926 ^m 7.01 ^m ;	60 mil 505.0 fe 23.0 fe	et et			
1.58 mm	62 mil	OIT(Standard) ASTM D3895	minutes 191	TEST RESUL				
Density		g/cc		.946				
Melt Flow Inde	ex 190°C /2160 g	g/10 min		.24				
Range		%		2.18				
Category			10	In Cat 1				
Average Stren	ngth @ Yield	29 N/mm (kN/m)	167 ppi	2,689	psi			
Average Stren	gth @ Break	38 N/mm (kN/m)	219 ppi	3,515	psi			
Average Elong	gation @ Yield	%		16.78				
Average Elong	gation @ Break	%		545.3				
Average Dime	nsional change	%		77				
Average Tear	Resistance	242.7 N		54.566	lbs			
Average Peal	k Load	423.4 N		95.181	lbs			
Average Peal	< Load	618.2 N		138.98	lbs			
Minimum Hrs	w/o Failures	1500 hrs	CE	ERTIFIED				
pass / fail @ 30	0%	300 hrs	0	NGOING				
	METRIC 1.46 mm 1.68 mm 1.58 mm Density Melt Flow Index Range Category Average Stren Average Elong Average Elong Average Dime Average Peal Average Peal Minimum Hrs	METRIC ENGLISH 1.46 mm 57 mil 1.68 mm 66 mil 1.58 mm 62 mil Density Melt Flow Index 190°C /2160 g Range Category Average Strength @ Yield Average Elongation @ Yield Average Elongation @ Break Average Dimensional change Average Peak Load	METRIC ENGLISH 1.46 mm 57 mil Length	METRIC ENGLISH 1.46 mm 57 mil Length	METRIC ENGLISH Thickness			

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Lot #: H7120980		0 Liner Type: Microspike™ HDPE						
		Thickness Length Width	1.5 mm 153.926 ^m 7.01 ^m ;	000.0	et			
1.56 mm	61 mil	DIT(Standard) ASTM D3895	minutes 191	TES1 RESUL				
Density		`g/cc		.946				
Melt Flow Inde	ex 190°C /2160 g	g/10 min		.24				
Range		%		2.18				
Category			10) In Cat 1				
Average Stren	gth @ Yield	29 N/mm (kN/m)	165 ppi	2,689	psi			
Average Stren	gth @ Break	38 N/mm (kN/m)	216 ppi	3,515	psi			
Average Elong	ation @ Yield	%		16.78				
Average Elong	ation @ Break	%		545.3				
Average Dime	nsional change	%		77				
Average Tear	Resistance	242.7 N		54.566	lbs			
Average Peak	Load	423.4 N		95.181	lbs			
Average Peak	Load	618.2 N		138.98	lbs			
Minimum Hrs	w/o Failures	1500 hrs	CI	RTIFIED				
pass / fail @ 30)%	300 hrs	C	NGOING				
	METRIC 1.43 mm 1.63 mm 1.56 mm Density Melt Flow Index Range Category Average Stren Average Elong Average Elong Average Dime Average Peak Average Peak Minimum Hrs	METRIC ENGLISH 1.43 mm 56 mil 1.63 mm 64 mil 1.56 mm 61 mil Density Melt Flow Index 190°C /2160 g Range Category Average Strength @ Yield Average Elongation @ Yield Average Elongation @ Break Average Dimensional change Average Peak Load	METRIC ENGLISH 1.43 mm 56 mil Length	METRIC ENGLISH Thickness 1.5 mm 1.43 mm 56 mil Length 153.926 m 1.63 mm 64 mil Width 7.01 m; 1.56 mm 61 mil OIT(Standard) ASTM D3895 minutes 191 Density g/cc Melt Flow Index 190°C /2160 g g/10 min Range % Category 10 Average Strength @ Yield 29 Nmm (kN/m) 165 ppi Average Elongation @ Break 38 Nmm (kN/m) 216 ppi Average Elongation @ Break % Average Dimensional change % Average Peak Load 423.4 N Average Peak Load 618.2 N Minimum Hrs w/o Failures 1500 hrs CE	METRIC ENGLISH Thickness			

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ROLL# 443455-12		12	Lot #: H7120980			Liner Type: Microspike™ HDPE						
Measurement ASTM D5994 (Modified)		MIN: MAX:	METF 1.52 1.65	RIC mm mm	60	LISH mil mil	Thickne: Length Width		1.5 m 153.926 7.01		23.0	feet feet
Asperity ASTM D7466: TOP / BOTTOM	25/36 mil	AVE:	1.59	mm	63	mil	OIT(Standard) A	STM D389	95 minutes	191	TE: RESU	
Specific Gravity ASTM D792			Density				g/cc		_		.946	6
MFI ASTM D1238 COND. E GRADE:	K307		Melt Flor	w Inde	ex 190	0°C /2160 g	g g/10	min			.24	1
Carbon Black Cont ASTM D4218	ent		Range				%				2.35	5
Carbon Black Dispe ASTM D5596	ersion		Category	/						10	0 In Cat 1	l
Tensile Strength ASTM D6693 ASTM D638 (Modif (2 inches / minute			Average	Strer	ngth @) Yield	29 N/mn	n (kN/m)	165 p	pi	2,634	l psi
(2 mones / minute			Average	Strer	ngth @	Break	40 N/mn	n (kN/m)	226 p	pi	3,618	psi
Elongation ASTM I ASTM D638 (Modif (2 inches / minute Lo = 1.3" Yield	ied)		Average	Elong	gation	@ Yield	%				16.13	3
Lo = 2.0" Break	- was province also be a color of the longitude of		Average	Elong	gation	@ Break	%				563.8	3
Dimensional Stabili ASTM D1204 (Mod	•	in a supplemental district	Average	Dime	nsion	al change	%				77	7
Tear Resistance ASTM D1004 (Mod	ified)		Average	Tear	Resis	tance	242.7	N		4	54.566	b lbs
Puncture Resistand FTMS 101 Method	-	dified)	Average	Peal	k Load	d	423.4	N			95.18	lbs
Puncture Resistand ASTM D4833 (Mod			Average	Peal	k Load	d	618.2	N			138.98	3 lbs
ESCR ASTM D1693			Minimur	n Hrs	w/o F	ailures	1500 hrs			CI	ERTIFIE)
Notched Constant 7 ASTM D5397	Tensile Lo	ad	pass / fai	I @ 3	0%	nd e nor 'nn seel gereke jij vil deur vil belan ver 'n e een	300 hrs	The state of the s		C	ONGOING	3

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PO: JED JED Leachate Stor Fac

Destination St Cloud, FL

Date:.....

10/25/2012

Quality Control Department



ROLL#			12	Lot #: H7120980			0 Liner Type: Microspike™ HDPE							
Measurement ASTM D5994 (Modified)				MIN: MAX:	METI 1.50 1.67	RIC mm mm	59	GLISH mil mil		ess	1.5 m 153.926 7.01		60 mil 505.0 23.0	feet feet
Asperity ASTM D7		26/35	mil A	AVE:	1.59	mm	63	mil	OIT(Standard) A	ASTM D3895	5 minutes	191	TE: RESU	
Specific Gravi ASTM D792	ity	,			Density				g/cc				.946	3
MFI ASTM D1 COND. E GRADE:	1238	K30	07		Melt Flo	w Inde	ex 19	00°C /2160	g g/10	min			.24	ı
Carbon Black ASTM D4218		eņt			Range		***************************************	William to come accommodate ac	%				2.35	5
Carbon Black ASTM D5596		ersion			Categor	y						10	In Cat 1	
Tensile Streng ASTM D6693 ASTM D638 (I (2 inches / mi	Modifi				Average	Stren	ngth (@ Yield	29 N/mr	m (kN/m)	165 p	pi	2,634	, psi
(21101037111	mute ,				Average	Stren	ngth (@ Break	40 N/mr	m (kN/m)	226 p	pi	3,618	psi
Elongation AS ASTM D638 (I (2 inches / mi Lo = 1.3" Yield	Modifi inute)	ed)			Average	Elong	gatior	n @ Yield	%				16.13	3
Lo = 2.0" Brea				- No. de	Average	Elong	gation	n @ Break	%				563.8	3
Dimensional S ASTM D1204		•		2444	Average	Dime	nsior	nal change	%		un		77	7
Tear Resistan		fied)			Average	Tear	Resi	stance	242.7	N			54.566	bs
Puncture Resi FTMS 101 Me		_	Mod	lified)	Average	Peal	k Loa	nd	423.4	N			95.181	lbs
Puncture Resi ASTM D4833					Average	Peal	k Loa	ıd	618.2	N	and a supplemental company and a supplemental supplementa		138.98	lbs
ESCR ASTM D1693		and the second s	e , and arrest force		Minimu	m Hrs	w/o	Failures	1500 hrs			CE	ERTIFIED)
Notched Cons ASTM D5397	stant T	ensile	Loa	ad I	pass / fai	I @ 30	0%		300 hrs	API A		0	NGOING)

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Destination St Cloud, FL

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Lot #:	H7120980	Liner Type: N	/licrospike [⊤]	M HDPE	
		Thickness Length Width	1.5 mm 153.926 ^m 7.01 ^{m;}	60 mil 505.0 fe 23.0 fe	et et
1.57 mm	62 mil	DIT(Standard) ASTM D3895	minutes 191	TEST RESUL	
Density		g/cc		.946	
Melt Flow Inde	ex 190°C /2160 g	g/10 min		.24	
Range		%		2.35	
Category			10	In Cat 1	
Average Strer	ngth @ Yield	29 N/mm (kN/m)	163 ppi	2,634	psi
Average Stren	ngth @ Break	39 N/mm (kN/m)	224 ppi	3,618	psi
Average Elono	gation @ Yield	%		16.13	
Average Elong	gation @ Break	<u></u> %		563.8	
Average Dime	ensional change	%	where we self-of hearterings here happen apon a	77	
Average Tear	Resistance	242.7 N		54.566	lbs
Average Peal	k Load	423.4 N		95.181	lbs
Average Peal	k Load	618.2 N		138.98	lbs
Minimum Hrs	w/o Failures	1500 hrs	CE	RTIFIED	
pass / fail @ 3	0%	300 hrs	0	NGOING	
	METRIC 1.48 mm 1.65 mm 1.57 mm Density Melt Flow Index Range Category Average Stren Average Elong Average Elong Average Dime Average Pea Average Pea Minimum Hrs	METRIC ENGLISH 1.48 mm 58 mil 1.65 mm 65 mil 1.57 mm 62 mil Density Melt Flow Index 190°C /2160 g Range Category Average Strength @ Yield Average Elongation @ Yield Average Elongation @ Break Average Dimensional change Average Peak Load	METRIC ENGLISH 1.48 mm 58 mil 1.65 mm 65 mil 1.57 mm 62 mil 0IT(Standard) ASTM D3895 Density g/cc Melt Flow Index 190°C /2160 g g/10 min Range % Category Average Strength @ Yield 29 N/mm (kN/m) Average Elongation @ Freak 39 N/mm (kN/m) Average Elongation @ Break % Average Elongation @ Break % Average Dimensional change % Average Tear Resistance 242.7 N Average Peak Load 423.4 N Average Peak Load 618.2 N Minimum Hrs w/o Failures 1500 hrs	METRIC ENGLISH Thickness	METRIC ENGLISH 1.48 mm 58 mil Thickness

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RE



ROLL#	443	355	8-12	Lo	ot #:		H712098	0 Liner	Type: N	/licrosp	oike ¹	™ HDPI	E
Measurement ASTM D5994 (Modified)			MIN MAX		RIC mm mm	58	GLISH mil mil	Thicknes Length Width		1.5 m 153.926 7.01		60 mil 505.0 23.0	feet feet
Asperity ASTM D7		5/36 n	nil AVE		mm		mil	OIT(Standard) AS	STM D3895	minutes	191	TE: RESU	
Specific Grav ASTM D792	rity			Density				g/cc				.946	3
MFI ASTM D1 COND. E GRADE:	1238	K30	7	Melt Flo	w Inde	ex 19	0°C /2160 g	g g/10 r	nin			.24	1
Carbon Black ASTM D4218		nt	1-	Range	·		generaliser Me enga of restricts to a supplication of	%				2.34	
Carbon Black ASTM D5596		sion		Categor	у						10	In Cat 1	l
Tensile Streng ASTM D6693 ASTM D638 ((2 inches / mi	- Modifie	ed)		Average	Strer	igth @	① Yield	28 N/mm	(kN/m)	161 p	pi	2,634	ı psi
(2 110103 / 1111	mate)		hande on the agreement assemble date.	Average	Stren	gth @) Break	39 N/mm	(kN/m)	221 p	pi	3,618	psi
Elongation AS ASTM D638 (I (2 inches / mi Lo = 1.3" Yield	Modifie inute)			Average	e Elong	gation	ı @ Yield	%				16.13	}
Lo = 2.0" Brea		****		Average	Elong	gation	@ Break	%				563.8	.
Dimensional S ASTM D1204	-		Strand Son Housell Agents, but the high high	Average	Dime	nsion	al change	%	And the second			77	,
Tear Resistan ASTM D1004		ed)		Average	Tear	Resis	stance	242.7	N			54.566	bs
Puncture Resi FTMS 101 Me			/lodified	Averaged)	e Peal	c Load	d	423.4	N			95.181	lbs
Puncture Resi ASTM D4833				Average	e Peal	c Load	d	618.2	N			138.98	lbs
ESCR ASTM D1693				Minimu	m Hrs	w/o F	ailures	1500 hrs			CE	RTIFIED)
Notched Cons ASTM D5397	stant Te	nsile	Load	pass / fa	il @ 30	0%		300 hrs			0	NGOING	

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ROLL# 4435	ROLL# 443559-12		Lot #: H7120980		30 Liner Type: Microspike™ HDPE						
Measurement ASTM D5994 (Modified)	MIN:	METI 1.46	RIC mm	57	GLISH mil mil	Thicknes Length		1.5 m 153.926 7.01		60 mil 505.0 23.0	feet feet
	mil AVE				mil	OIT(Standard) AS	STM D3895	minutes	191	TES RESU	
Specific Gravity ASTM D792	ander green with the miles attached	Density				g/cc	arran in data and de Americania de della francia			.946	3
MFI ASTM D1238 COND. E GRADE: K3	307	Melt Flo	w Ind	ex 19	0°C /2160 (g g/10 n	nin			.24	ŀ
Carbon Black Content ASTM D4218		Range				%				2.34	ļ
Carbon Black Dispersion ASTM D5596	1	Categor	y						10) In Cat 1	
Tensile Strength ASTM D6693 ASTM D638 (Modified)		Average	Strer	ngth (② Yield	28 N/mm	(kN/m)	160 p	pi	2,634	, psi
(2 inches / minute)	gay, july, sha manaribir s d'une dindr di dadidi.	Average	Strer	ngth @	@ Break	38 N/mm	(kN/m)	219 p	pi	3,618	psi
Elongation ASTM D669 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield	3	Average	Elon	gatior	n @ Yield	%				16.13	;
Lo = 2.0" Break		Average	Elon	gation	@ Break	%				563.8	3
Dimensional Stability ASTM D1204 (Modified)	i i s nghiện thuật die de de en en en graft grant mensagilist	Average	Dime	ension	nal change	%	16 mm			77	,
Tear Resistance ASTM D1004 (Modified)		Average	Tear	Resi	stance	242.7	N		.,	54.566	bs
Puncture Resistance FTMS 101 Method 2065	(Modified	Average	e Pea	k Loa	d	423.4	N			95.181	l lbs
Puncture Resistance ASTM D4833 (Modified)		Average	e Pea	k Loa	d	618.2	N			138.98	lbs
ESCR ASTM D1693	and a find a fin	Minimu	m Hrs	w/o	Failures	1500 hrs			CI	ERTIFIED)
Notched Constant Tensi ASTM D5397	le Load	pass / fai	1@3	0%		300 hrs			C	NGOING	3

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2 Lot #:	H7120980	Liner Type: I	Microspike ¹	M HDPE	
		Thickness Length	1.5 mm 153.926 ^m 7.01 ^m ;		et
	60 mil	OIT(Standard) ASTM D389	5 minutes 191	TEST RESUL	
Density		g/cc		.946	
Melt Flow Ind	ex 190°C /2160 g	g/10 min		.24	
Range		%		2.34	
Category			10	In Cat 1	
Average Strer	ngth @ Yield	30 N/mm (kN/m)	172 ppi	2,873	psi
Average Strer	ngth @ Break	39 N/mm (kN/m)	220 ppi	3,675	psi
Average Elon	gation @ Yield	%		16.58	
Average Elon	gation @ Break	%		548.7	
Average Dime	ensional change	%		77	
Average Tear	Resistance	251.0 N		56.422	lbs
Average Pea	k Load	460.4 N		103.51	lbs
Average Pea	k Load	635.8 N		142.93	lbs
Minimum Hrs	s w/o Failures	1500 hrs	CI	ERTIFIED	
pass / fail @ 3	0%	300 hrs	C	NGOING	
	METRIC N: 1.44 mm AX: 1.57 mm /E: 1.52 mm Density Melt Flow Ind Range Category Average Street Average Elon Average Elon Average Dime Average Pear Average Pear Average Pear Minimum Hrs	METRIC ENGLISH N: 1.44 mm 57 mil AX: 1.57 mm 62 mil E: 1.52 mm 60 mil Density Melt Flow Index 190°C /2160 g Range Category Average Strength @ Yield Average Elongation @ Yield Average Elongation @ Break Average Dimensional change Average Peak Load Average Peak Load Minimum Hrs w/o Failures	METRIC ENGLISH N: 1.44 mm 57 mil Length	METRIC ENGLISH N: 1.44 mm 57 mil Length	METRIC ENGLISH Thickness

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ROLL# 443561-12	Lot #:	H7120980	Liner Type: N	Microspike™	M HDPE	
Measurement ASTM D5994 MIN: (Modified) MAX:	METRIC 1.47 mm 1.66 mm		Thickness Length Width	1.5 mm 153.926 ^m 7.01 ^m ;	60 mil 505.0 fee 23.0 fee	et
Asperity ASTM D7466: 26/37 mil AVE:	1.57 mm		DIT(Standard) ASTM D3895	minutes 191	TEST RESUL1	
Specific Gravity ASTM D792	Density		g/cc		.946	
MFI ASTM D1238 COND. E GRADE: K307	Melt Flow Inde	ex 190°C /2160 g	g/10 min		.24	
Carbon Black Content ASTM D4218	Range		%		2.34	
Carbon Black Dispersion ASTM D5596	Category			10	In Cat 1	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Stren	gth @ Yield	31 N/mm (kN/m)	178 ppi	2,873	psi
	Average Stren	gth @ Break	40 N/mm (kN/m)	227 ppi	3,675	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield	Average Elong	gation @ Yield	%		16.58	
Lo = 2.0" Break	Average Elong	ation @ Break	%		548.7	
Dimensional Stability ASTM D1204 (Modified)	Average Dime	nsional change	%		77	
Tear Resistance ASTM D1004 (Modified)	Average Tear	Resistance	251.0 N		56.422	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Average Peak	Load	460.4 N		103.51	lbs
Puncture Resistance ASTM D4833 (Modified)	Average Peak	Load	635.8 N		142.93	lbs
ESCR ASTM D1693	Minimum Hrs	w/o Failures	1500 hrs	CE	RTIFIED	
Notched Constant Tensile Load ASTM D5397	pass / fail @ 30)%	300 hrs	0	NGOING	

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Date: 10/26/2012

Quality Control Department



Lot #: H	8221187	Liner Type:	Microspike™ HDPE			
1.48 mm 58	.ISH mil mil	Thickness Length Width	1.5 mm 153.926 ^m 7.01 ^m ;		eet eet	
1.60 mm 63	mil O	olT(Standard) ASTM D38	95 minutes 178	TES' RESUL		
Density		g/cc		.947		
Melt Flow Index 190°	°C /2160 g	g/10 min		.26		
Range		%		2.34		
Category			10) In Cat 1		
Average Strength @	Yield	32 N/mm (kN/m)	181 ppi	2,873	psi	
Average Strength @	Break	41 N/mm (kN/m)	231 ppi	3,675	psi	
Average Elongation (@ Yield	%		16.58		
Average Elongation (@ Break	%		548.7		
Average Dimensional	l change	%	Phát thiện nh thiết thiế	55		
Average Tear Resista	ance	251.0 N		56.422	lbs	
Average Peak Load		460.4 N		103.51	lbs	
Average Peak Load		635.8 N		142.93	lbs	
Minimum Hrs w/o Fa	ilures	1500 hrs	CE	RTIFIED	has spiral Aller	
pass / fail @ 30%		300 hrs	o	NGOING		
	METRIC ENGL 1.48 mm 58 1.70 mm 67 1.60 mm 63 Density Melt Flow Index 190 Range Category Average Strength @ Average Elongation @ Average Elongation @ Average Dimensiona Average Peak Load Minimum Hrs w/o Fa	METRIC ENGLISH 1.48 mm 58 mil 1.70 mm 67 mil 1.60 mm 63 mil Density Melt Flow Index 190°C /2160 g Range Category Average Strength @ Yield Average Elongation @ Yield Average Elongation @ Break Average Dimensional change Average Peak Load Average Peak Load Minimum Hrs w/o Failures	METRIC ENGLISH 1.48 mm 58 mil Length	METRIC ENGLISH Thickness	METRIC ENGLISH 1.48 mm 58 mil Length	

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Lot #:	H8221187	Liner Type: N	/licrospike [⊤]	M HDPE	
		Thickness Length Width	1.5 mm 153.926 ^m 7.01 ^m ;	60 mil 505.0 fee 23.0 fee	
1.56 mm	61 mil	DIT(Standard) ASTM D3895	minutes 178	TEST RESUL	
Density		g/cc		.947	
Melt Flow Inde	x 190°C /2160 g	g/10 min		.26	
Range		%		2.41	
Category			10	In Cat 1	
Average Streng	gth @ Yield	31 N/mm (kN/m)	176 ppi	2,873	psi
Average Streng	gth @ Break	40 N/mm (kN/m)	226 ppi	3,675	psi
Average Elong	ation @ Yield	%		16.58	
Average Elong	ation @ Break	%		548.7	
Average Dimer	nsional change	%		55	
Average Tear I	Resistance	251.0 N		56.422	lbs
Average Peak	Load	460.4 N		103.51	lbs
Average Peak	Load	635.8 N		142.93	lbs
Minimum Hrs	w/o Failures	1500 hrs	CE	RTIFIED	and desired and
pass / fail @ 30	%	300 hrs	0	NGOING	in the second
	METRIC 1.47 mm 1.66 mm 1.56 mm Density Melt Flow Inde Range Category Average Streng Average Elong Average Elong Average Dimer Average Peak Average Peak Minimum Hrs	METRIC ENGLISH 1.47 mm 58 mil 1.66 mm 65 mil 1.56 mm 61 mil Density Melt Flow Index 190°C /2160 g Range Category Average Strength @ Yield Average Elongation @ Yield Average Elongation @ Break Average Dimensional change Average Peak Load	METRIC ENGLISH 1.47 mm 58 mil 1.66 mm 65 mil 1.56 mm 61 mil CIT(Standard) ASTM D3895 Density g/cc Melt Flow Index 190°C /2160 g g/10 min Range % Category Average Strength @ Yield 31 N/mm (kN/m) Average Elongation @ Yield % Average Elongation @ Break % Average Dimensional change % Average Tear Resistance 251.0 N Average Peak Load 460.4 N Average Peak Load 635.8 N Minimum Hrs w/o Failures 1500 hrs	METRIC ENGLISH Thickness	METRIC ENGLISH 1.47 mm 58 mil Thickness

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Lot #:	H8221187	Liner Type: N	/licrospike ¹	M HDPE	
		Thickness Length Width	1.5 mm 153.926 ^m 7.01 ^m ;	60 mil 505.0 fe 23.0 fe	et
1.57 mm	62 mil	OIT(Standard) ASTM D3895	minutes 178	TES1 RESUL	
Density		g/cc		.947	
Melt Flow Inde	ex 190°C /2160 g	g/10 min		.26	
Range		%		2.41	***
Category			1() In Cat 1	
Average Stren	igth @ Yield	31 N/mm (kN/m)	178 ppi	2,873	psi
Average Stren	igth @ Break	40 N/mm (kN/m)	227 ppi	3,675	psi
Average Elong	gation @ Yield	%		16.58	
Average Elong	gation @ Break	%		548.7	
Average Dime	nsional change	%		55	
Average Tear	Resistance	251.0 N		56.422	lbs
Average Peal	k Load	460.4 N		103.51	lbs
Average Peal	k Load	635.8 N		142.93	lbs
Minimum Hrs	w/o Failures	1500 hrs	CE	RTIFIED	
pass / fail @ 30	0%	300 hrs	O	NGOING	
	METRIC 1.48 mm 1.48 mm 1.66 mm 1.57 mm Density Melt Flow Index Range Category Average Stren Average Elong Average Elong Average Dime Average Peal Average Peal Minimum Hrs	METRIC ENGLISH 1.48 mm 58 mil 1.66 mm 65 mil 1.57 mm 62 mil Density Melt Flow Index 190°C /2160 g Range Category Average Strength @ Yield Average Elongation @ Yield Average Elongation @ Break Average Dimensional change Average Tear Resistance Average Peak Load	METRIC ENGLISH Thickness	METRIC ENGLISH 1.48 mm 58 mil Length	METRIC ENGLISH Thickness

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10/20/20

Quality Control Department



ROLL# 443565-	12 Lo	ot #: H	822118	7Liner Type: N	/licrospike ¹	™ HDPE	
/NA - 415 - 41	METI MIN: 1.52 MAX: 1.61	RIC ENGL mm 60 mm 63	ISH mil mil	Thickness Length Width	1.5 mm 153.926 ^m 7.01 m;	000.0	eet eet
Asperity ASTM D7466: 26/35 mil /	•	mm 61	mil	OIT(Standard) ASTM D3895	minutes 178	TES [*] RE\$UL	
Specific Gravity ASTM D792	Density			g/cc		.947	
MFI ASTM D1238 COND. E GRADE: K307	Melt Flo	w Index 190°	°C /2160 g	g g/10 min		.26	
Carbon Black Content ASTM D4218	Range			%		2.51	
Carbon Black Dispersion ASTM D5596	Categor	у			10	In Cat 1	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average	e Strength @	Yield	28 N/mm (kN/m)	159 ppi	2,589	psi
(2 1101100 / 11111100)	Average	Strength @	Break	36 N/mm (kN/m)	203 ppi	3,313	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield	Average	Elongation (@ Yield	%		16.18	
Lo = 2.0" Break	Average	Elongation (@ Break	%		525.7	
Dimensional Stability ASTM D1204 (Modified)	Average	Dimensiona	l change	%	and therefore between the same of the same	55	
Tear Resistance ASTM D1004 (Modified)	Average	Tear Resista	ance	251.0 N		56.422	lbs
Puncture Resistance FTMS 101 Method 2065 (Moo	Average	e Peak Load		460.4 N		103.51	lbs
Puncture Resistance ASTM D4833 (Modified)	Average	e Peak Load		635.8 N		142.93	lbs
ESCR ASTM D1693	Minimu	m Hrs w/o Fa	ailures	1500 hrs	CE	RTIFIED	
Notched Constant Tensile Loa ASTM D5397	ad pass / fai	il @ 30%		300 hrs	0	NGOING	

Customer: IESI

PO: **JED JED Leachate Stor Fac**

Destination St Cloud, FL

10/26/2012 Date:....

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Lot #:	H8221187	Liner Type: N	Microspike™ HDPE			
		Lengui	1.5 mm 153.926 ^m 7.01 ^{m;}			
	62 mil	DIT(Standard) ASTM D3895	minutes 178			
Density		g/cc		.947		
Melt Flow Inde	x 190°C /2160 g	g/10 min		.26		
Range	990-144 y Antifold Eriker (Eriker erikan)	%	The state of the s	2.51		
Category			10	In Cat 1		
Average Streng	gth @ Yield	28 N/mm (kN/m)	161 ppi	2,589	psi	
Average Streng	gth @ Break	36 N/mm (kN/m)	206 ppi	3,313	psi	
Average Elong	ation @ Yield	%		16.18		
Average Elong	ation @ Break	%%		525.7		
Average Dimer	nsional change	%		55		
Average Tear F	Resistance	251.0 N		56.422	lbs	
Average Peak	Load	460.4 N		103.51	lbs	
Average Peak	Load	635.8 N		142.93	lbs	
Minimum Hrs	w/o Failures	1500 hrs	CE	RTIFIED		
pass / fail @ 30	%	300 hrs	0	NGOING		
	METRIC 1.50 mm 1.70 mm 1.58 mm Density Melt Flow Inde Range Category Average Streng Average Elong Average Elong Average Dimer Average Peak Average Peak Minimum Hrs	METRIC ENGLISH 1.50 mm 59 mil 1.70 mm 67 mil 1.58 mm 62 mil Density Melt Flow Index 190°C /2160 g Range Category Average Strength @ Yield Average Elongation @ Yield Average Elongation @ Break Average Dimensional change Average Peak Load	METRIC ENGLISH 1.50 mm 59 mil 1.70 mm 67 mil 1.58 mm 62 mil 1.58 m	METRIC ENGLISH Thickness	METRIC ENGLISH 1.50 mm 59 mil Thickness	

Customer: IESI

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Destination St Cloud, FL

10/26/2012

Quality Control Department



nil) feet
feet
TEST SULTS
947
.26
2.51
at 1
589 psi
313 psi
5.18
5.7
55
422 lbs
3.51 lbs
2.93 lbs
IED
NG

Customer: IESI

PO: JED **JED Leachate Stor Fac**

Destination St Cloud, FL

Date:....

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1435	68	-12	Lo	t #:	<u> </u>	1822118	7	Liner	Type: N	/licrosp	ike⊺	M HDP	E
		MIN: MAX:	1.49	mm	59	SLISH mil mil	Le	ength				60 mii 505.0 23.0	feet feet
66: 25/31 M	mil	AVE:	1.56	mm	61	mil	OIT(Star	ndard) AS	STM D3895	minutes	178		
!			Density		Total Subbase P. P. V. P.	CONTENT OF THE PROPERTY OF THE	ARTON COMPANY STATE OF THE STAT	g/cc				.94	7
38 K	307		Melt Flov	w Inde	ex 190	0°C /2160 g	9	g/10 n	nin		-	.20	6
ontent			Range					%				2.3	6
ispersio	n		Category	/							10	In Cat	1
odified)			Average	Stren	ngth @) Yield	2	8 N/ṃm	(kN/m)	159 p	pi	2,589) psi
			Average	Stren	gth @) Break	3	6 N/mm	(kN/m)	203 p	pi	3,313	s psi
M D669 odified) ute)	3		Average	Elong	gation	@ Yield		%				16.18	3
			Average	Elong	ation	@ Break		%				525.7	7
ability /lodified)			Average	Dime	nsion	al change		%	***************************************	Jackto s rustos		5	5
e Modified)			Average	Tear	Resis	tance		251.0	N			56.422	2 lbs
ance od 2065	(Mc	odified)	Average	Peal	k Load	1		460.4	N			103.5	1 lbs
ance /lodified)			Average	Peal	k Load	i		635.8	N		-	142.9	3 lbs
			Minimun	n Hrs	w/o F	ailures	1500	hrs			CE	RTIFIE)
nt Tensi	le Lo	oad	pass / fail	@ 30	0%		300	hrs			0	NGOING	3
	38 Kontent dispersion odified) ute) TM D669 odified) ute) ability Modified) ance dod 2065 ance Modified)	38 K307 Content Dispersion M D6693 Odified) Late) Ability Modified) Andified) Andified) Andified) Andified) Andified) Andified) Andified) Andified) Andified)	MAX: 36: 25/31 mil AVE: 38 K307 Content Dispersion CM D6693 odified) ute) CM D6693 odified) ute) Ability Modified) ance ance ance Modified)	METERMIN: 1.49 MAX: 1.65 MAX: 1.65 MAX: 1.56 MAX: 1.65 MAX: 1.66 MAX: 1.65 MAX: 1.66 M	METRIC MIN: 1.49 mm MAX: 1.65 mm MAX: 1.56 mm METRIC MIN: 1.49 mm MAX: 1.65 mm METRIC MIN: 1.49 mm MAX: 1.65 mm METRIC MIN: 1.49 mm MAX: 1.65 mm MAX: 1.56 mm METRIC MIN: 1.49 mm MAX: 1.65 mm MAX: 1.56 mm METRIC MAX: 1.65 mm MAX: 1.65 mm METRIC MAX: 1.65 mm MAX: 1.65 mm METRIC MAX: 1.65 mm MAX: 1.65 mm MAX: 1.65 mm MAX: 1.65 mm METRIC MAX: 1.65 mm MAX: 1.60 mm MAX: 1.	METRIC ENG MIN: 1.49 mm 59 MAX: 1.65 mm 65 66: 25/31 mil AVE: 1.56 mm 61 Melt Flow Index 190 K307 Content Range Density Average Strength @ Odified) Lite) Average Elongation Lite) Average Elongation Lite) Average Elongation Average Dimensions Average Tear Resis Lance Lod 2065 (Modified) Average Peak Load Average Peak Load Average Peak Load Minimum Hrs w/o Feat	METRIC ENGLISH MIN: 1.49 mm 59 mil MAX: 1.65 mm 65 mil Density Density Melt Flow Index 190°C /2160 g K307 Content Range Dispersion Category Average Strength @ Yield Density Average Strength @ Break Average Elongation @ Yield Density Average Elongation @ Break Ability Average Dimensional change Average Tear Resistance Average Peak Load Minimum Hrs w/o Failures	METRIC ENGLISH MIN: 1.49 mm 59 mil Le MAX: 1.65 mm 65 mil Density Density Melt Flow Index 190°C /2160 g K307 Content Range Dispersion Category Average Strength @ Yield Average Strength @ Break MM D6693 Dodified) Density Average Elongation @ Yield Density Average Elongation @ Break Ability Average Dimensional change Average Tear Resistance Average Peak Load Average Peak Load Minimum Hrs w/o Failures 1500	MIN: 1.49 mm 59 mil Length MAX: 1.65 mm 65 mil OIT(Standard) AS Density g/cc Melt Flow Index 190°C /2160 g g/10 m K307 Content Range % Average Strength @ Yield 28 N/mm Odified) atte) Average Elongation @ Yield % Average Elongation @ Break % Average Elongation @ Break % Average Dimensional change % Average Peak Load Av	METRIC ENGLISH Thickness	METRIC ENGLISH Thickness	METRIC ENGLISH Thickness 1.5 mm 153.926 m 7.01 m 153.926 m 7.01 m 153.926 m 7.01 m	METRIC ENGLISH Thickness

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ROLL#	44	356	39	-12		Lo	t #:		H8221	187	i	_iner	Type: N	Microsp	oike¹	™ HDP	Ε	
Measurement ASTM D5994 (Modified)				MIN: MAX:	1	METF .48 .67	RIC mm mm	58	GLISH mi mi		Le	ngth	ss	1.5 m 153.926 7.01		60 mi 505.0 23.0	fee fee	
Asperity ASTM D74		26/35	mil	AVE:	1.	.57	mm	62	mi	I 0	IT(Stan	dard) A	STM D3895	minutes	178	TE RES	ST UL1	
Specific Gravit ASTM D792	ty				Den	sity			en de la companya de Producido que			g/cc				.94	7	
MFI ASTM D1 COND. E GRADE:	238	КЗ	07		Melt	Flov	w Inde	ex 19	90°C /210	60 g		g/10 r	nin		***************************************	.2	6	
Carbon Black ASTM D4218	Conte	ent		10 TO THE REAL PROPERTY.	Ran	ge	500 F.31 R.311 C.	-				%				2.3	6	
Carbon Black ASTM D5596	Dispe	rsion			Cate	gory	/		-						10	In Cat	1	
Tensile Streng ASTM D6693 ASTM D638 (N (2 inches / mir	Modifi	-			Aver	rage	Strer	ngth (@ Yield		2	B N/mm	(kN/m)	160 p	pi	2,58	9	psi
(211010371111					Aver	age	Strer	igth (@ Break		3	6 N/mm	(kN/m)	205 p	pi	3,31	3	psi
Elongation AS ASTM D638 (N (2 inches / mir Lo = 1.3" Yield	Modifi nute)	ed)	3		Aver	age	Elong	gatio	n @ Yiel	ld		%				16.1	В	
Lo = 2.0" Brea		*** *********************************		a al adores anoma — min agence	Aver	age	Elon	gation	n @ Bre	ak		%				525.	7	
Dimensional S ASTM D1204 (-			Aver	age	Dime	nsior	nal chan	ge		%				5	5	
Tear Resistand ASTM D1004 (fied)			Aver	age	Tear	Resi	stance		:	251.0	N			56.42	2	lbs
Puncture Resis		_	(Mo	dified)	Ave	rage	Peal	(Loa	ad			460.4	N	***************************************		103.5	1	lbs
Puncture Resis ASTM D4833 (Ave	rage	Peal	(Loa	ad			635.8	N			142.9	3	lbs
ESCR ASTM D1693				wall transfer of being	Mini	imun	n Hrs	w/o	Failures		1500	hrs			CE	RTIFIE)	
Notched Const ASTM D5397	tant T	ensile	e Lo	ad	pass	/ fail	@ 30	0%			300	nrs	Andrew Control		0	NGOING	3	

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ROLL# 443570	-12	Lo	t #:	Н	 1822118	Liner	Type: N	/licrosp	ike⊺	M HDPI	E
Measurement ASTM D5994 (Modified)	MIN: MAX:	METF 1.48 1.63	RIC mm mm		LISH mil mil	Thicknes Length Width		1.5 m 153.926 7.01		60 mil 505.0 23.0	feet feet
Asperity ASTM D7466: 26/37 mil		1.56			mil	OIT(Standard) AS	STM D3895	minutes	178	TE:	
Specific Gravity ASTM D792		Density				g/cc				.947	7
MFI ASTM D1238 COND. E GRADE: K307		Melt Flov	v Inde	ex 190	°C /2160 g	g/10 n	nin			.26	6
Carbon Black Content ASTM D4218		Range				%				2.33	3
Carbon Black Dispersion ASTM D5596		Category	/						10	In Cat 1	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)		Average	Strer	ngth @	Yield	31 N/mm	(kN/m)	176 p	pi	2,860) psi
(2 mones / minute)		Average	Střen	igth @	Break	38 N/mm	(kN/m)	219 p	pi	3,565	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield		Average	Elonç	gation	@ Yield	%				17.51	
Lo = 2.0" Break		Average	Elong	gation	@ Break	%				536.2	2
Dimensional Stability ASTM D1204 (Modified)		Average	Dime	nsiona	ıl change	%				55	5
Tear Resistance ASTM D1004 (Modified)		Average	Tear	Resist	ance	259.5	N			58.351	lbs
Puncture Resistance FTMS 101 Method 2065 (Mo	odified)	Average	Peal	k Load		441.1	N			99.174	l lbs
Puncture Resistance ASTM D4833 (Modified)		Average	Peal	k Load		665.7	N			149.65	bs
ESCR ASTM D1693		Minimun	n Hrs	w/o Fa	ailures	1500 hrs			CE	RTIFIED)
Notched Constant Tensile Lo ASTM D5397	oad	pass / fail	@ 30	0%		300 hrs			0	NGOING	i

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ROLL# 443571-12	Lot #: H8221187	7Liner Type: Microspike [†]	M HDPE
Measurement ASTM D5994 MIN: (Modified) MAX	METRIC ENGLISH 1.47 mm 58 mil : 1.64 mm 65 mil	Thickness	60 mil 505.0 feet 23.0 feet
Asperity ASTM D7466: 27/36 mil AVE:	1.56 mm 61 mil	OIT(Standard) ASTM D3895 minutes 178	TEST RESULTS
Specific Gravity ASTM D792	Density	g/cc	.947
MFI ASTM D1238 COND. E GRADE: K307	Melt Flow Index 190°C /2160 g	g g/10 min	.26
Carbon Black Content ASTM D4218	Range	%	2.33
Carbon Black Dispersion ASTM D5596	Category	10	In Cat 1
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Yield	31 N/mm (kN/m) 176 ppi	2,860 psi
	Average Strength @ Break	38 N/mm (kN/m) 219 ppi	3,565 psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield	Average Elongation @ Yield	%	17.51
Lo = 2.0" Break	Average Elongation @ Break	%	536.2
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional change	%	55
Tear Resistance ASTM D1004 (Modified)	Average Tear Resistance	259.5 N	58.351 lbs
Puncture Resistance FTMS 101 Method 2065 (Modified	Average Peak Load	441.1 N	99.174 lbs
Puncture Resistance ASTM D4833 (Modified)	Average Peak Load	665.7 N	149.65 lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500 hrs CE	RTIFIED
Notched Constant Tensile Load ASTM D5397	pass / fail @ 30%	300 hrs O	NGOING

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ROLL#	44367 <i>2</i>	<u>2-12</u>	Lo	t #:	H	1822118	7Liner	Type: I	Microsp	oike	M HDPE	Ξ
Measurement ASTM D5994 (Modified)		MIN:	METF 1.50	mm		mil	Thicknes Length Width		1.5 m 153.926 7.01			feet feet
Asperity ASTM D746		MAX: il AVE:		mm mm		mil mil	OIT(Standard) A		5 minutes	178	TES RESU	
Specific Gravity ASTM D792	1		Density	maranta - Galley agains - angga		rophysica halandar 'S vystiniya'a ish ki abisariniari	g/cc	erkerenguner hallen sigen in die der Statistische Augus der auf	Angura Annyuni Sadali Salah Alip ya Malai a Alib Andre Angura Angura Angura Angura Angura Angura Angura Angura		.947	7
MFI ASTM D12 COND. E GRADE:	38 K307		Melt Flo	w Inde	ex 190	°C /2160 g	g/10 r	min			.26	6
Carbon Black C ASTM D4218	Content		Range				%				2.33	3
Carbon Black D ASTM D5596	ispersion		Categor	/						10) In Cat 1	
Tensile Strengtl ASTM D6693 ASTM D638 (M (2 inches / mini	odified)		Average	Strer	ngth @) Yield	31 N/mm	ı (kN/m)	177 p	pi	2,860) ps
(2 1101103 / 111111			Average	Strer	igth @	Break	39 N/mm	(kN/m)	220 p	pi	3,565	ps
Elongation AST ASTM D638 (Mo (2 inches / minu Lo = 1.3" Yield	odified)		Average	Elong	gation	@ Yield	%				17.51	
Lo = 2.0" Break			Average	Elong	gation	@ Break	%				536.2	2
Dimensional Sta ASTM D1204 (M			Average	Dime	nsiona	al change	%				55	5
Tear Resistance ASTM D1004 (N			Average	Tear	Resist	tance	259.5	N			58.351	lbs
Puncture Resist FTMS 101 Meth		lodified)	Average	Peal	k Load		441.1	N			99.174	, lbs
Puncture Resist ASTM D4833 (N			Average	Peal	k Load		665.7	N			149.65	lbs
ESCR ASTM D1693			Minimur	n Hrs	w/o F	ailures	1500 hrs			CE	RTIFIED)
Notched Consta ASTM D5397	ant Tensile L	.oad	pass / fai	@ 3	0%		300 hrs		~	0	NGOING	1

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Date: 10/27/2012



ROLL#	443	367	' 3·	-12	Lo	t #:		H822118	7Line	er Type: I	Microsp	oike	™ HDP	E	
Measurement ASTM D5994 (Modified)				MIN: MAX:	METF 1.43 1.67	RIC mm mm	56	GLISH mil mil	Length	ess	1.5 m 153.926 7.01		60 mi 505.0 23.0	fee fee	
Asperity ASTM D7		26/35	mil	AVE:	1.54	mm	61	mil	OIT(Standard)	ASTM D3895	5 minutes	178	TE RES	ST UL1	
Specific Gravi ASTM D792	ity				Density				g/cc				.94	7	
MFI ASTM D1 COND. E GRADE:	238	K3	07		Melt Flor	w Inde	ex 19	0°C /2160 ç	g g/10) min			.2	6	
Carbon Black ASTM D4218	Conte	ent			Range		-		%				2.2	9	
Carbon Black ASTM D5596	Dispe	rsion			Categor	y						10	In Cat	1	
Tensile Streng ASTM D6693 ASTM D638 (I (2 inches / mi	Modifie				Average	Stren	gth (② Yield	30 N/	mm (kN/m)	173 p	pji	2,86	0	psi
(2 1101100 / 1111				******	Average	Stren	gth @	② Break	38 N	mm (kN/m)	216 p	pi _	3,56	5	psi
Elongation AS ASTM D638 (N (2 inches / mil Lo = 1.3" Yield	Modifie nute)				Average	Elong	ation	n @ Yield	%				17.5	1	
Lo = 2.0" Brea			***	Ann tal fel and talks	Average	Elong	ation	@ Break	%				536.	2	
Dimensional S ASTM D1204					Average	Dime	nsion	nal change	%				5	5	
Tear Resistand		fied)			Average	Tear	Resis	stance	259.	5 N			58.35	1	lbs
Puncture Resi FTMS 101 Me			(Mo	dified)	Average	Peal	c Loa	d	441.	1 N			99.17	4	lbs
Puncture Resi ASTM D4833					Average	Peak	Loa	d	665.	7 N			149.6	5	lbs
ESCR ASTM D1693					Minimur	n Hrs	w/o I	Failures	1500 hrs			CE	RTIFIE	D	
Notched Cons ASTM D5397	tant T	ensile	Lo	ad	pass / fai	@ 30)%		300 hrs			0	NGOING	3	

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ROLL# 443674-12	Lot #:	H8221187	Liner Type: N	/licrospike ^T	M HDPE	
Measurement ASTM D5994 MIN: (Modified) MAX	1.45 mm		Thickness Length Width	1.5 mm 153.926 ^m 7.01 ^m ;	60 mil 505.0 fe 23.0 fe	
Asperity ASTM D7466: 26/36 mil AVE	1.56 mm	61 mil	DIT(Standard) ASTM D3895	minutes 178	TEST RESUL	
Specific Gravity ASTM D792	Density		g/cc		.947	
MFI ASTM D1238 COND. E GRADE: K307	Melt Flow Inde	x 190°C /2160 g	g/10 min		.26	
Carbon Black Content ASTM D4218	Range	and all the St. and and	%		2.29	
Carbon Black Dispersion ASTM D5596	Category			10	In Cat 1	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Streng	gth @ Yield	31 N/mm (kN/m)	176 ppi	2,860	psi
	Average Streng	gth @ Break	38 N/mm (kN/m)	219 ppi	3,565	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield	Average Elong	ation @ Yield	%		17.51	
Lo = 2.0" Break	Average Elong	ation @ Break	%		536.2	
Dimensional Stability ASTM D1204 (Modified)	Average Dimer	nsional change	%		55	
Tear Resistance ASTM D1004 (Modified)	Average Tear F	Resistance	259.5 N		58.351	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified	Average Peak	Load	441.1 N		99.174	lbs
Puncture Resistance ASTM D4833 (Modified)	Average Peak	Load	665.7 N		149.65	lbs
ESCR ASTM D1693	Minimum Hrs v	w/o Failures	1500 hrs	CE	RTIFIED	
Notched Constant Tensile Load ASTM D5397	pass / fail @ 30	%	300 hrs	0	NGOING	

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Lot #:	H8221187	Liner Type: N	e: Microspike™ HDPE		
		Thickness Length Width	1.5 mm 153.926 ^m 7.01 m;		eet eet
	62 mil	OIT(Standard) ASTM D3895	minutes 178	TEST RESUL	
Density		g/cc		.947	
Melt Flow Inde	ex 190°C /2160 g	g/10 min		.26	
Range		%		2.30	
Category			10) in Cat 1	
Average Strer	ngth @ Yield	28 N/mm (kN/m)	160 ppi	2,591	psi
Average Stren	ngth @ Break	38 N/mm (kN/m)	217 ppi	3,512	psi
Average Elon	gation @ Yield	%		16.86	
Average Elong	gation @ Break	<u> </u>		552.4	
Average Dime	ensional change	%		55	
Average Tear	Resistance	259.5 N		58.351	lbs
Average Pea	k Load	441.1 N		99.174	lbs
Average Pea	k Load	665.7 N		149.65	lbs
Minimum Hrs	w/o Failures	1500 hrs	CE	RTIFIED	
pass / fail @ 3	0%	300 hrs	0	NGOING	
	METRIC 1.51 mm 1.66 mm 1.57 mm Density Melt Flow Index Range Category Average Stren Average Elone Average Elone Average Dime Average Pear	METRIC ENGLISH 1.51 mm 59 mil 1.66 mm 65 mil 1.57 mm 62 mil Density Melt Flow Index 190°C /2160 g Range Category Average Strength @ Yield Average Elongation @ Yield Average Elongation @ Break Average Dimensional change Average Peak Load	METRIC ENGLISH 1.51 mm 59 mil Length	METRIC ENGLISH Thickness	METRIC ENGLISH 1.51 mm 59 mil Length

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ROLL# 44	<u> 3676-12</u>	2 Lot	#:	Н	18221187	<u>7</u>	_iner	Type: N	/licrosp	ike¹	™ HDP	E	
Measurement ASTM D5994	MIN	METR l: 1.48	IC mm	ENGI 58	LÌSH mil	Le	ngth	ss	1.5 m 153.926 7.01		60 mi 505.0 23.0	feet feet	
(Modified) Asperity ASTM D7466:	MAX 24/31 mil AVE		mm mm		mil mil		idth				TE	ST	
TOP / BOTTOM Specific Gravity			**********					STM D3895	minutes	178	RES	ULT	S
ASTM D792		Density					g/cc				.94	7	
MFI ASTM D1238 COND. E GRADE:	K307	Melt Flow	v Inde	ex 190	°C /2160 g	I	g/10 n	nin			.2	6	
Carbon Black Cont ASTM D4218	ent	Range				The state of the s	%				2.3	0	
Carbon Black Dispe ASTM D5596	ersion	Category								10) In Cat	1	
Tensile Strength ASTM D6693 ASTM D638 (Modif (2 inches / minute	,	Average	Stren	ngth @	Yield	2	8 N/mm	(kN/m)	162 p	pi	2,59	1 p	osi
	,	Average	Stren	igth @	Break	3	9 N/mm	(kN/m)	220 p	pi	3,512	2 p	osi
Elongation ASTM I ASTM D638 (Modifi (2 inches / minute) Lo = 1.3" Yield	ied)	Average l	Elonç	gation	@ Yield		%				16.8	6	
Lo = 2.0" Break		Average I	Elong	gation	@ Break		%				552.	4	
Dimensional Stabilit ASTM D1204 (Mod	•	Average I	Dime	nsiona	ıl change	- Million	%				5	5	
Tear Resistance ASTM D1004 (Mod	ified)	Average ⁻	Tear	Resist	ance		259.5	N			58.35	1 lt	bs
Puncture Resistance FTMS 101 Method		Average d)	Peal	k Load			441.1	N			99.17	4 lt	bs
Puncture Resistanc ASTM D4833 (Mod	_	Average	Peal	k Load			665.7	N			149.6	5 lk	bs
ESCR ASTM D1693		Minimum	n Hrs	w/o Fa	ailures	1500	hrs			CE	RTIFIE	D	
Notched Constant 7	ensile Load	pass / fail		20/		300 I	h		The state of the s		NGOING		

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ROLL# 443	3677-	12	Lot	#:	<u> </u>	18221187	Liner	Type: N	pe: Microspike™ HDPE			•
Measurement ASTM D5994 (Modified)		MIN: MAX:	METR 1.51 1.65	RIC mm mm		LISH mil mil	Thicknes Length Width		1.5 m 153.926 7.01		60 mil 505.0 23.0	feet feet
Asperity ASTM D7466: 2	25/29 mil /	AVE:	1.57	mm	62	mil	OIT(Standard) AS	STM D3895	minutes	178	RESU	
Specific Gravity ASTM D792			Density				g/cc				.947	,
MFI ASTM D1238 COND. E GRADE:	K307		Melt Flov	v Inde	ex 190	°C /2160 g	g/10 n	nin			.26	3
Carbon Black Conte ASTM D4218	ent	de Land of Calcaga (Calcaga)	Range		A CONTRACTOR OF THE SECOND		%				2.30)
Carbon Black Dispe ASTM D5596	rsion		Category	′						10) In Cat 1	
Tensile Strength ASTM D6693 ASTM D638 (Modifie (2 inches / minute)			Average	Stren	igth @) Yield	28 N/mm	(kN/m)	1 60 p	pi	2,591	psi
(2 mones / minute)			Average	Stren	gth @	Break	38 N/mm	(kN/m)	217 p	pi	3,512	psi
Elongation ASTM D ASTM D638 (Modifie (2 inches / minute) Lo = 1.3" Yield	ed)		Average	Elong	gation	@ Yield	%				16.86	;
Lo = 2.0" Break			Average	Elong	gation	@ Break	%				552.4	ļ
Dimensional Stability ASTM D1204 (Modif	•	Marin and Publishers of the American	Average	Dime	nsion	al change	%				55	5
Tear Resistance ASTM D1004 (Modif	fied)		Average	Tear	Resis	tance	259.5	N			58.351	lbs
Puncture Resistance FTMS 101 Method 2	_	dified)	Average	Peal	k Load	1	441.1	N			99.174	, Ibs
Puncture Resistance ASTM D4833 (Modif			Average	Peal	k Load	i	665.7	N			149.65	j lbs
ESCR ASTM D1693			Minimur	n Hrs	w/o F	ailures	1500 hrs			CE	RTIFIEC)
Notched Constant T ASTM D5397	ensile Loa	ad	pass / fail	@ 3	0%		300 hrs			0	NGOING	;

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Lot #:	H8221187	Liner Type: N	/licrospike [†]	M HDPE	
		Thickness Length Width	1.5 mm 153.926 ^m 7.01 ^m ;		et
1.58 mm	62 mil	DIT(Standard) ASTM D3895	minutes 178	TEST RESUL	
Density		g/cc		.947	
Melt Flow Inde	ex 190°C /2160 g	g/10 min		.26	
Range		%		2.33	
Category			10	In Cat 1	
Average Stren	gth @ Yield	28 N/mm (kN/m)	161 ppi	2,591	psi
Average Stren	gth @ Break	38 N/mm (kN/m)	218 ppi	3,512	psi
Average Elong	ation @ Yield	%		16.86	
Average Elong	ation @ Break	%		552.4	
Average Dime	nsional change	%		55	
Average Tear	Resistance	259.5 N		58.351	lbs
Average Peak	Load	441.1 N		99.174	lbs
Average Peak	Load	665.7 N		149.65	lbs
Minimum Hrs	w/o Failures	1500 hrs	CE	RTIFIED	
pass / fail @ 30)%	300 hrs	0	NGOING	
	METRIC 1.50 mm 1.63 mm 1.58 mm Density Melt Flow Index Range Category Average Stren Average Elong Average Elong Average Dime Average Peak Minimum Hrs	METRIC ENGLISH 1.50 mm 59 mil 1.63 mm 64 mil 1.58 mm 62 mil Density Melt Flow Index 190°C /2160 g Range Category Average Strength @ Yield Average Elongation @ Yield Average Elongation @ Break Average Dimensional change Average Tear Resistance Average Peak Load	METRIC ENGLISH 1.50 mm 59 mil Length	METRIC ENGLISH Thickness	METRIC ENGLISH 1.50 mm 59 mil 1.50 mm 59 mil 1.50 mm 59 mil 1.63 mm 64 mil 1.63 mm 64 mil 1.58 mm 62

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Date:.....

Quality Control Department



ROLL#	44	<u> 3679</u>	-12	Lo	t#:		H8221187	7 Liner	Type: N	<i>f</i> licrosp	ike™	M HDPE	
Measurement ASTM D5994			MIN:	METF 1.48	RIC mm		GLISH mil	Thicknes Length		1.5 m 153.926		60 mil 505.0	feet
(Modified)			MAX:	1.78	mm		mil	Width		7.01	m;	23.0	feet
Asperity ASTM D		27/34 mil		1.60	mm		mil	OIT(Standard) AS	STM D3895	minutes	178	TES RESU	
Specific Grav ASTM D792	vity		A 1970 C 20 10 10 10 10 10 10 10 10 10 10 10 10 10	Density			and the second s	g/cc	,			.947	•
MFI ASTM D COND. E GRADE:	1238	K307		Melt Flor	w Inde	ex 19	0°С /2160 g	g/10 n	nin			.26	
Carbon Black ASTM D4218		ent		Range				%				2.33	
Carbon Black ASTM D5596		ersion		Category	y						10	In Cat 1	
Tensile Stren ASTM D6693 ASTM D638 (2 inches / m	3 (Modif	-		Average	Stren	igth (@ Yield	29 N/mm	(kN/m)	163 p	pi	2,591	psi
(2		,		Average	Stren	gth @	@ Break	39 N/mm	(kN/m)	221 p	pi	3,512	psi
Elongation A ASTM D638 (2 inches / m Lo = 1.3" Yiel	(Modif ninute	ied)		Average	Elong	gatior	n @ Yield	%				16.86	
Lo = 2.0" Bre	ak			Average	Elong	gation	n @ Break	%				552.4	
Dimensional ASTM D1204		-	pronkrijijiik. karkenkaskapa n	Average	Dime	nsior	nal change	%	anne del mode de la company de			55	
Tear Resistar ASTM D1004		ified)		Average	Tear	Resis	stance	259.5	N			58.351	lbs
Puncture Res FTMS 101 M			odified)	Average	Peal	k Loa	ıd	441.1	N			99.174	lbs
Puncture Res				Average	Peal	k Loa	ıd	665.7	N			149.65	bs
ESCR ASTM D1693	3	distributed of shirt sussesses		Minimu	m Hrs	w/o	Failures	1500 hrs		-	CE	RTIFIED	
Notched Con ASTM D5397		Γensile L	oad	pass / fai	0 30	0%		300 hrs			0	NGOING	i

Customer: IESI

PO: JED JED Leachate Stor Fac

Destination St Cloud, FL

Date:....

10/27/2012

Quality Control Department



Lot #: H8	221187 Liner T	ype: Microspike™	HDPE
1.46 mm 57	mil Length	153.926 m	60 mil 505.0 feet 23.0 feet
1.58 mm 62	mil OIT(Standard) AST	TM D3895 minutes 178	TEST RESULTS
Density	g/cc		.947
Melt Flow Index 190°C	C /2160 g g/10 mi	in	.26
Range	%		2.32
Category		10	In Cat 1
Average Strength @ Y	'ield 28 N/mm (k	N/m) 161 ppi	2,588 psi
Average Strength @ E	Break 33 N/mm (k	N/m) 191 ppi	3,070 psi
Average Elongation @	Yield %		17.88
Average Elongation @	Break %		511.3
Average Dimensional	change %		55
Average Tear Resistar	nce 260.9	N	58.649 lbs
Average Peak Load	403.7	N	90.769 lbs
Average Peak Load	595.1	N	133.79 lbs
Minimum Hrs w/o Fail	lures 1500 hrs	CEI	RTIFIED
pass / fail @ 30%	300 hrs	01	IGOING
	METRIC ENGLI 1.46 mm 57 1.69 mm 67 1.58 mm 62 Density Melt Flow Index 190°C Range Category Average Strength @ Y Average Elongation @ Average Elongation @ Average Dimensional Average Peak Load Minimum Hrs w/o Fail	METRIC ENGLISH Thickness 1.46 mm 57 mil Length 1.69 mm 67 mil 1.58 mm 62 mil OIT(Standard) AST Density g/cc Melt Flow Index 190°C /2160 g g/10 mi Range % Category Average Strength @ Yield 28 N/mm (k Average Elongation @ Yield % Average Elongation @ Break % Average Dimensional change % Average Tear Resistance 260.9 Average Peak Load 403.7 Average Peak Load 595.1 Minimum Hrs w/o Failures 1500 hrs	METRIC ENGLISH Thickness 1.5 mm 1.46 mm 57 mil Length 153.926 m 7.01 m 1.58 mm 67 mil Width 7.01 m 7.01 m 1.58 mm 62 mil OIT(Standard) ASTM D3895 minutes 178 Density g/cc Melt Flow Index 190°C /2160 g g/10 min Range % Category 10 Average Strength @ Yield 28 N/mm (kN/m) 161 ppi Average Elongation @ Break 33 N/mm (kN/m) 191 ppi Average Elongation @ Break % Average Dimensional change % Average Peak Load 403.7 N Average Peak Load 595.1 N Minimum Hrs w/o Failures 1500 hrs CEI

Customer: IESI

PO: JED JED L

JED Leachate Stor Fac

Destination St Cloud, FL

signature.....

Quality Control Department



ROLL# 443681-	·12 Lo	t#: H8	3221187	Liner Type: N	/licrospike ¹	M HDPE	
(AA - PE1)	METF MIN: 1.51	mm 59	mil	Thickness Length	1.5 mm 153.926 ^m 7.01 ^{m;}	000.0	eet eet
Asperity ASTM D7466: 23/31 mil	MAX: 1.64 AVE: 1.56	mm 65 mm 61	mil mil	DIT(Standard) ASTM D3895	minutes 178	TES RESUI	
Specific Gravity ASTM D792	Density			g/cc		.947	
MFI ASTM D1238 COND. E GRADE: K307	Melt Flo	w Index 190°	C /2160 g	g/10 min	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.26	
Carbon Black Content ASTM D4218	Range			%		2.32	
Carbon Black Dispersion ASTM D5596	Categor	y			10) In Cat 1	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average	Strength @ `	Yield	28 N/mm (kN/m)	159 ppi	2,588	psi
(2)	Average	Strength @ I	Break	33 N/mm (kN/m)	, 189 ppi	3,070	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield	Average	Elongation @) Yield	%		17.88	
Lo = 2.0" Break	Average	Elongation @) Break	%		511.3	
Dimensional Stability ASTM D1204 (Modified)	Average	Dimensional	change	%		55	
Tear Resistance ASTM D1004 (Modified)	Average	Tear Resista	nce	260.9 N		58.649	lbs
Puncture Resistance FTMS 101 Method 2065 (Mod	Average	Peak Load		403.7 N		90.769	lbs
Puncture Resistance ASTM D4833 (Modified)	Average	Peak Load		595.1 N		133.79	lbs
ESCR ASTM D1693	Minimur	m Hrs w/o Fai	ilures	1500 hrs	CE	RTIFIED	
Notched Constant Tensile Loa ASTM D5397	ad pass / fai	I @ 30%	***************************************	300 hrs	0	NGOING	

Customer: IESI

PO: **JED**

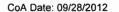
JED Leachate Stor Fac

Destination St Cloud, FL

ato: 10/27

signature......

Quality Control Department





Certificate of Analysis

Shipped To: AGRU AMERICA INC: GEORGETOWN

500 GARRISON RD

GEORGETOWN SC 29440

USA

Recipient: PALMER

Fax:

Delivery #: 88530242

PO #: 6891

Weight: 186600 LB Ship Date: 09/28/2012 Package: BULK Mode: Hopper Car

Car #: SHPX463811

Seal No: 297678

Product:

MARLEX POLYETHYLENE K307 BULK

Lot Number: H8221158

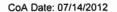
Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.28	g/10mi
HLMI Flow Rate	ASTM D1238	23	g/10mi
Density	D1505 or D4883	0.937	g/cm3
Pellet Count	P02.08.03	28	pel/g
Production Date		09/25/2012	

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP (CPChem). However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.

Troy Griffin

Quality Systems Coordinator

For CoA questions contact Customer Service Representative at +1-832-813-4806





Certificate of Analysis

Shipped To: AGRU AMERICA INC

500 GARRISON RD

GEORGETOWN SC 29440

USA

Recipient: PALMER

Fax:

Delivery #: 88490287

PO #: 6780

Car #:

Weight: 193900 LB Ship Date: 07/14/2012 Package: BULK

PSPX008163

Mode: Hopper Car

Seal No: 297317

Product:

MARLEX POLYETHYLENE K307 BULK

Lot Number: H7120980

Property	Test Method	Value	Unit
Melt Index HLMI Flow Rate Density Pellet Count Production Date	ASTM D1238 ASTM D1238 D1505 or D4883 P02.08.03	0.24 21 0.937 24 07/11/2012	g/10mi g/10mi g/cm3 pel/g

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP (CPChem). However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.

Troy Griffin

Quality Systems Coordinator

For CoA questions contact Customer Service Representative at +1-832-813-4806





Certificate of Analysis

Shipped To: AGRU AMERICA INC: GEORGETOWN

500 GARRISON RD

GEORGETOWN SC 29440

USA

Recipient: PALMER

Fax:

Delivery #: 88534687

PO #: 6946

Weight: 185500 LB Ship Date: 10/08/2012 Package: BULK Mode: Hopper Car

Car #: CPCX805077 Seal No: 299507

Product:

MARLEX POLYETHYLENE K307 BULK

Lot Number: H8221187

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.26	g/10mi
HLMI Flow Rate	ASTM D1238	21	g/10mi
Density Pellet Count	D1505 or D4883	0.937	g/cm3
	P02.08.03	28	pel/g
Production Date		10/03/2012	

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP (CPChem). However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.

Troy Griffin

Quality Systems Coordinator

For CoA questions contact Customer Service Representative at +1-832-813-4806



Lili Cui, Ph.D., Geomembrane Technical Service & Applications Development
Room 154 PTC ■ Bartlesville, OK 74004■

918-661-1897 ■ cuil@cpchem.com ■ Fax: 918-662-2220 ■ www.cpchem.com

June 8, 2012

Grant Palmer Agru America 500 Garrison Road Georgetown, SC 29440

Dear Grant:

This letter is to report the final results of oven-aging and UV-aging tests (according to GRI-GM13 and GRI-GM17) on Agru America sheet samples that you provided to us in 2011. These tests were performed by CPChem's Materials Evaluation Laboratory in Bartlesville, OK. The tests were completed April 2012.

The GRI-GM13 (HDPE) and GRI-GM17 (LLDPE) durability tests were done according to the following procedures.

Test	Exposure	Method
HP-OIT	150 °C, 500 psi oxygen	D5885
Oven Aging	90 days, 85 °C	D5721
UV Aging	1600 UV hrs (Conditions were 20 hours UVA-340 at 75 °C followed by 4	D7238
	hrs dark with condensation at 60 °C. Irradiance was 0.72 W/m² at 340	
	nm.)	

Oven-Aging Results

Sample	Initial HP-OIT (min)	HP-OIT Value after Oven Aging (min)	% HP-OIT Retained	GRI-GM13 or GRI- GM17 % Retained Requirement
40 mil LLDPE Roll # 346550-11 from Marlex [®] 7104 Polyethylene Lot # CBC810430	659	572	87	60
60 mil HDPE Roll # 447108-11 from Marlex [®] K307 Polyethylene Lot # 71-1-1104	1136	994	88	80

UV-Aging Results

Sample	Initial HP-OIT (min)	HP-OIT Value after UV Aging (min)	% HP-OIT Retained	GRI-GM13 or GRI- GM17 % Retained Requirement
40 mil LLDPE Roll # 346550-11 from Marlex® 7104 Polyethylene Lot # CBC810430	659	449	68	35
60 mil HDPE Roll # 447108-11 from Marlex [®] K307 Polyethylene Lot # 71-1-1104	1136	924	81	50

According to these test results, the durability requirements are met.

If you have any questions, please call me at 918-661-1897.

Sincerely,

Lili Cui, Ph.D.

Lili Cui

Geomembrane Technical Service & Applications Development

Any technical advice, recommendations, results, or analysis ("Information") contained herein, including, without limitation, Information as it may relate to the selection of a specific product ("Product") for your use and application, is given without warranty or guarantee and is accepted at your sole risk. It is imperative that you test the Information (and Product, if applicable) to determine to your own satisfaction whether the Information (and Product, if applicable) are suitable for your intended use and application. You expressly assume, and release Chevron Phillips Chemical Company, from all risk and liability, whether based in contract, tort or otherwise, in connection with the use of, or results obtained from, such Information (and Product, if applicable).

Section 3 Drainage Geocomposite



October 30, 2012

IESI / Progressive Waste Solutions

1099 Miller Drive

Altamonte Springs, FL 32701

Ref.: JED Leachate Storage Relocation, FL Customer P.O. # JED Leachate Storage

Product: TN 330-2-8

We certify that the TN 330-2-8 drainage geocomposite, meets the project requirements as stated in the

Property	Test Method	Unit	Required Value	Qualifier
Geonet ⁴				
Mass per Unit Area	ASTM D 5261	lbs/ft²	0.300	Minimum
Thickness	ASTM D 5199	mil	330 +/- 30	Range
Carbon Black	ASTM D 4218	%	2.0 - 3.0	Range
Tensile Strength	ASTM D 5035	lbs/in	90	Minimum
Melt Flow	ASTM D 12383	g/10 min	1.0	Maximum
Density	ASTM D 1505	g/cm³	0.93	Minimum
Composite	er en	Agricultural and the		
Ply Adhesion	ASTM D 7005	lb/in	1.0	MARV ⁶
Transmissivity ¹	ASTM D 4716	m²/sec	1.5 x 10 ⁻³	MARV
Transmissivity ²	ASTM D 4716	m²/sec	1.0 x 10 ⁻³	MARV
Geotextile ^{4 & 5}				<u> </u>
Fabric Weight	ASTM D 5261	oz/yd²	8.0	MARV
Grab Strength	ASTM D 4632	lbs	200	MARV
Tear Strength	ASTM D 4533	Ibs	75	MARV
Puncture Resistance	ASTM D 4833	lbs	90	MARV
CBR Puncture	ASTM D 6241	lbs	500	MARV
Permittivity	ASTM D 4491	sec-1	0.50	MARV
AOS	ASTM D 4751	US Sieve	80	MARV
UV Resistance	ASTM D 4355	%/hrs	70/500	MARV

Notes:

- 1 Transmissivity measured using water at 21 \pm 2 °C (70 \pm 4 °F) with a gradient of 0.02 and a confining pressure of 500 psf between soil and textured liner after 24 hours.
- ² Transmissivity measured using water at 21 \pm 2 °C (70 \pm 4 °F) with a gradient of 0.02 and a confining pressure of 15,000 psf between soil and textured liner after 100 hours.
- 3 Condition 190/2.16
- 4 Geotextile and Geonet properties are prior to lamination.
- 5 Geotextile data is provided by the supplier.
- 6 MARV is statistically defined as mean minus two standard deviations and it is the value which is exceeded by 97.5% of all the test data.

Sincerely,

Nilay Patel

Nilay Patel QA Manager





Product: TN 330-2-8

Project: JED Leachate Storage Relocation, FL

We, the Geocomposite Manufacturer, hereby certify the following for the material delivered to the above referenced project :

Roll	Geocomposite Roll Number	Geonet Roll Number	Geotextile I	Roll Number	Ply Adi (lb/		Geocomposite Transmissivity
			Side A	Side B	Minimum	Average	(m²/sec)
1	51381010001	51381010001 - N	5138.001	5138.003	1.32	2.60	
_ 2	51381010002	51381010002 - N	5138.001	5138.003			
3	51381010003	51381010003 - N	5138.001	5138.003			
4	51381010004	51381010004 - N	5138.001	5138.003			
5	51381010005	51381010005 - N	5138.001	5138.003			
6	51381010006	51381010006 - N	5138.001	5138.003			
7	51381010007	51381010007 - N	5138.008	5138.002			
8	51381010008	51381010008 - N	5138.008	5138.002			
9	51381010009	51381010009 - N	5138.008	5138.002			
10	51381010010	51381010010 - N	5138.008	5138.002			
11	51381010011	51381010011 - N	5138.008	5138.002			
12	51381010012	51381010012 - N	5138.008	5138.002			
13	51381010013	51381010013 - N	5138.004	5138.009			
14	51381010014	51381010014 - N	5138.004	5138.009			
15	51381010015	51381010015 - N	5138.004	5138.009	1.40	2.75	
16	51381010016	51381010016 - N	5138.004	5138.009			
17	51381010017	51381010017 - N	5138.004	5138.009			
18	51381010018	51381010018 - N	5138.004	5138.009			
19	51381010019	51381010019 - N	5138.007	5138.005			
20	51381010020	51381010020 - N	5138.007	5138.005			
21	51381010021	51381010021 - N	5138.007	5138.005			
22	51381010022	51381010022 - N	5138.007	5138.005			
23	51381010023	51381010023 - N	5138.007	5138.005			
24	51381010024	51381010024 - N	5138.007	5138.005			
25	51381010025	51381010025 - N	5138.010	5138.006			
26	51381010026	51381010026 - N	5138.010	5138.006			
27	51381010027	51381010027 - N	5138.010	5138.006			



Product:

TN 330-2-8

Project:

JED Leachate Storage Relocation, FL

We, the Geonet Manufacturer, hereby certify the following for the material sent to the above referenced project :

⁵ Geonet Roll Number	Resin Lot Number	Geonet Density (gm/cc)	Mass Per Unit Area (lb/ft²)	Thickness (mils)	Carbon Black (%)	Tensile Strength (MD) (lb/in)	Transmissivity (m²/sec)
51381010001 - N	FPAX 980083	0.9558	0.360	314	2.41	111	
51381010002 - N	FPAX 980083	0.9558					
51381010003 - N	FPAX 980083	0.9558					
51381010004 - N	FPAX 980083	0.9558					
51381010005 - N	FPAX 980083	0.9558					
51381010006 - N	FPAX 980083	0.9558					
51381010007 - N	FPAX 980083	0.9558					
51381010008 - N	FPAX 980083	0.9558					
51381010009 - N	FPAX 980083	0.9558					
51381010010 - N	FPAX 980083	0.9558					
51381010011 - N	FPAX 980083	0.9558					
51381010012 - N	FPAX 980083	0.9558					
51381010013 - N	FPAX 980083	0.9558					
51381010014 - N	FPAX 980083	0.9558					
51381010015 - N	FPAX 980083	0.9558	0.358	310	2.54	109	
51381010016 - N	FPAX 980083	0.9558					
51381010017 - N	FPAX 980083	0.9558					
51381010018 - N	FPAX 980083	0.9558					
51381010019 - N	FPAX 980083	0.9558					
51381010020 - N	FPAX 980083	0.9558					
51381010021 - N	FPAX 980083	0.9558					
51381010022 - N	FPAX 980083	0.9558		•			
51381010023 - N	FPAX 980083	0.9558					
51381010024 - N	FPAX 980083	0.9558					
51381010025 - N	FPAX 980083	0.9558					
51381010026 - N	FPAX 980083	0.9558					
51381010027 - N	FPAX 980083	0.9558					



ASTM D 4716

Client:

IESI / Progressive Waste Solutions

Project:

JED Leachate Storage Relocation, FL

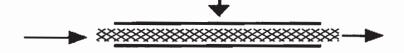
Product:

TN 330-2-8

Job #

5138

Test Configuration:



INFLOW

12 X 12 Test Surface

OUTFLOW

Test Information:

Boundary Conditions:

Soil

Geocomposite Textured Liner Normal Load: Gradient: 500 0.02

Seating Time: 24 hours **Flow Direction:** MD

Test Results:

Roll No.	Pressure, psf	Gradient	Transmissivity, m²/sec
Kon No.	Pressure, psi	Gradient	24 hours
51381010001	500	0.02	2.05 x 10 ⁻³



ASTM D 4716

Client:

IESI / Progressive Waste Solutions

Project:

JED Leachate Storage Relocation, FL

Product:

TN 330-2-8

Job #

5138

Test Configuration:



INFLOW

OUTFLOW

12 X 12 Test Surface

Test Information:

Boundary Conditions:

Soil

Geocomposite

Textured Liner

Normal Load: 15000

0.02

Gradient: Seating Time: 100 hours

Flow Direction: MD

Test Results:

Roll No.	Pressure, psf	Gradient	Transmissivity, m ² /sec
Koli No.	Pressure, psi	Gradient	100 hours
51381010001	15000	0.02	1.25 x 10 ⁻³



POLYETHYLENE RESIN CERTIFICATION

IESI / Progressive Waste Solutions JED Leachate Storage Relocation, FL

SKAPS Industries

Commerce, GA TN 330-2-8

Geocomposite Production Plant : Geocomposite Brand Name :

Geocomposite Manufacturer:

Customer Name: Project Name: We, the Geonet Manufacturer, hereby certify the following for the material delivered to the above referenced project:

Resin Supplier	Resin Production Plant	Resin Brand Name	Resin Lot Number	Property	Test Method	Units	Resin Supplier Value	Tested Value*
Matrix Dolymore	Cho, man	בי	COUCOU API	Density	ASTM D1505	am / cc	0.952	0.951
	Chevion, 1A		LFAA 300003	Melt flow Index	ASTM D1238 ^(a)	gm / 10 min	0.13	0.16

(a) Condition 190/2.16

* Data from SKAPS Quality Control



Product:

TN 330-2-8

Project :

JED Leachate Storage Relocation, FL

We, the Geocomposite Manufacturer, hereby certify the following for the material delivered to the above referenced

project:

GEOCOMP ROLL#		WEIGHT oz/sq yd		XMD TENSILE lbs.	MD TRAP Ibs.	XMD TRAP Ibs.	PUNCTURE lbs.	CBR PUNCTURE Ibs.	AOS us sieve	PERM- ITY sec ⁻¹
E1201010001	5138.001	8.60	231	233	103	116	134	653	80	1.37
51381010001	5138.003	8.60	231	233	103	116	134	653	80	1.37

Section 4
Geotextile



SKAPS Industries (Nonwoven Division) 335, Athena Drive Athens, GA 30601 (U.S.A.) Phone (706) 354-3700 Fax (706) 354-3737 Sales Office:

Engineered Synthetic Product Inc.

Phone: (770)564-1857 Fax: (770)564-1818

November 15, 2012 **WSI / Progressive Waste Solutions** 1099 Miller Drive Altamonte Springs, FL 32701

PO: JED Leachate Storage

BOL: 33356

Dear Sir/Madam:

This is to certify that SKAPS GE180 is a high quality needle-punched nonwoven geotextile made of 100% polypropylene staple fibers, randomly networked to form a high strength dimensionally stable fabric.SKAPS GE180 resists ultraviolet deterioration, rotting, biological degradation. The fabric is inert to commonly encountered soil chemicals. Polypropylene is stable within a pH range of 2 to 13. SKAPS GE180 conforms to the property values listed below:

PROPERTY	TEST METHOD	UNITS	M.A.R.V. Minimum Average Roll Value
Weight	ASTM D 5261	oz/sy (g/m²)	8.00 (271)
Thickness*	ASTM D 5199	mils (mm)	100 (2.54)
Grab Tensile	ASTM D 4632	lbs (kN)	225 (1.00)
Grab Elongation	ASTM D 4632	%	50
Trapezoidal Tear	ASTM D 4533	lbs (kN)	90 (0.40)
Puncture Resistance	ASTM D 4833	lbs (kN)	130 (0.58)
Mullen Burst Strength	ASTM D 3786	psi (kPa)	425 (2930)
Permittivity*	ASTM D 4491	sec ⁻¹	1.26
Permeability*	ASTM D 4491	cm/sec	0.30
Water Flow*	ASTM D 4491	gpm/ft²(l/min/m²)	100 (4074)
AOS*	ASTM D 4751	US Sieve (mm)	80 (0.18)
UV Resistance	ASTM D 4355	%/hrs	70/500

Notes:

PALAK PATEL

QUALITY CONTROL MANAGER

www.skaps.com

www.espgeosynthetics.com

^{*} At the time of manufacturing. Handling may change these properties.

Product: GE180-180

				_				_	_		
PERMITTIVITY	D4491	sec.1	1.26	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
PERMEABILITY	D4491	cm/sec	0.30	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43
WATER FLOW	D4491	gpm/ft²	100	101	101	101	101	101	101	101	101
AOS	D4751	US Sieve	80	80	80	80	80	80	80	80	. 80
MULLEN	D3786	psi	425	434	434	434	434	434	434	434	434
PUNCTURE	D4833	lbs.	130	136	136	136	136	136	136	136	136
XMD TRAP	D4533	sql	90	119	119	119	119	119	119	119	119
MD TRAP	D4533	lbs.	90	102	102	102	102	102	102	102	102
XMD ELONG	D4632	%	50	82	82	82	82	78	78	78	78
4G XMD TENSILE	D4632	sql	225	243	243	243	243	236	236	236	236
	D4632	%	50	_ 72	72	72	7.5	89	89	89	89
THICKNESS MD TENSILE MD ELO	D4632	lbs.	225	233	233	233	233	525	229	229	229
THICKNESS	D5199	(mils)	100	124	124	124	124	122	122	122	122
WEIGHT	D5261	by ps/zo	8.00	8.54	8.54	8.54	8.54	8.32	8.32	8.32	8.32
ROLL #	ASTM METHOD	UNITS	TARGET	27631.01	27631.02	27631.03	27631.04	27631.05	27631.06	27631.07	27631.08



SKAPS Industries (Nonwoven Division) 335, Athena Drive Athens, GA 30601 (U.S.A.) Phone (706) 354-3700 Fax (706) 354-3737

E-mail: info@skaps.com

Sales Office:

Engineered Synthetic Product Inc.

Phone: (770)564-1857 Fax: (770)564-1818

January 15, 2013
WSI / Progressive Waste Solutions

1099 Miller Drive Altamonte Springs, FL 32701

PO: 12512 BOL: 33721

Dear Sir/Madam:

This is to certify that SKAPS GE180 is a high quality needle-punched nonwoven geotextile made of 100% polypropylene staple fibers, randomly networked to form a high strength dimensionally stable fabric. SKAPS GE180 resists ultraviolet deterioration, rotting, biological degradation. The fabric is inert to commonly encountered soil chemicals. Polypropylene is stable within a pH range of 2 to 13. SKAPS GE180 conforms to the property values listed below:

PROPERTY	TEST METHOD	UNITS	M.A.R.V. Minimum Average Roll Value
Weight	ASTM D 5261	oz/sy (g/m²)	8.00 (271)
Thickness*	ASTM D 5199	mils (mm)	100 (2.54)
Grab Tensile	ASTM D 4632	lbs (kN)	225 (1.00)
Grab Elongation	ASTM D 4632	%	50
Trapezoidal Tear	ASTM D 4533	lbs (kN)	90 (0.40)
Puncture Resistance	ASTM D 4833	lbs (kN)	130 (0.58)
Mullen Burst Strength	ASTM D 3786	psi (kPa)	425 (2930)
Permittivity*	ASTM D 4491	sec ⁻¹	1.26
Permeability*	ASTM D 4491	cm/sec	0.30
Water Flow*	ASTM D 4491	gpm/ft²(l/min/m²)	100 (4074)
AOS*	ASTM D 4751	US Sieve (mm)	80 (0.18)
UV Resistance	ASTM D 4355	%/hrs	70/500

Notes:

PALAK PATEL

QUALITY CONTROL MANAGER

www.skaps.com

www.espgeosynthetics.com

^{*} At the time of manufacturing. Handling may change these properties.

Product : GE180-180

∠					Τ	Т	Т	Г
PERMITTIVIT	D4491	sec.	1.26	1.34	1.34	1.37	1.37	1.37
PERMEABILITY	D4491	cm/sec	0.30	0.42	0.42	0.43	0.43	0.43
WATER FLOW	D4491		100				103	103
AOS	D4751	US Sieve	8	80	80	80	8	80
MULLEN	D3786	psi	425	428	434	431	431	431
PUNCTURE	D4833	lbs.	130	133	139	135	135	135
XMD TRAP	D4533	sql	06	104	119	113	113	113
MD TRAP	D4533	lbs.	90	65	103	95	95	62
XMD ELONG	D4632	%	20	77	82	22	75	82
XMD TENSILE	D4632	sql	225	233	243	237	237	241
MD ELONG	D4632	%	20	99	71	69	69	74
MD TENSILE	D4632	lbs.	225	227	233	529	229	235
THICKNESS	D5199	(mils)	100	123	120	125	125	122
WEIGHT	D5261	pk bs/zo	8.00	8.17	8.55	8.25	8.25	8.47
ROLL #	ASTM METHOD	UNITS	TARGET	700000286	700000293	700000301	700000303	700000308

Section 5 #4 Stone



RE: #4 (1 1/2") Alabama River Gravel Material Specifications

This letter is to certify, the materials Conrad Yelvington Distributors proposes to supply to the above referenced job has been tested with the applicable ASTM standards and found to have the typical results listed below:

% Passing
100
98
49
11
3

Typical Test Result			
30			
2.587			
0.9			
0.4			
161 pcf			

^{*}Average of tests performed at the quarry/terminal, and may not be indicative of any one test. In place material may vary from submittal due to degradation and segregation caused by handling, spreading and compaction.

Should you have any questions or need any additional information, please contact me at your earliest convenience.

Regards.

Donald Reilly

Technical Services Manager

Section 6 Limerock



Florida Department of Transportation

RICK SCOTT GOVERNOR 5007 NE 39th Avenue Gainesville, FL 32609 ANANTH PRASAD SECRETARY

July 24th, 2012

James L. Craggs
Buck Hammock Mining Company, LLC
4101 Northeast 35th St.
Ocala, Florida, 34479

Dear Mr. Craggs,

Subject:

Approval of Buck Hammock Mining Company, LLC, FDOT Source 92757 of FDOT

Material Code B02, Bank Run Shell Base

This is to inform you that the above subject aggregate source and stockpile #1 of Bank Run Shell Base Material is approved in accordance with the Department of Transportation Rule 14-103.0071. Your source may certify the above referenced material using the Conditional QC Certification System. This is to ensure a source can maintain consistent production of aggregate meeting Department specifications within the limits set forth in Section 2.3 of the Construction Aggregates Manual.

You may use the Conditional QC Certification System for a period not exceeding 180 days beginning on the original approval date to establish the quality and reliability of the product. Within this time frame, please submit a written request to the Director, Office of Materials, to employ the Full QC Certification System, provided you satisfy the requirements of Rule 14-103.0071(1)(a)-(k). Otherwise, the new source shall be subject to suspension pursuant to Rule 14-103.009.

While using the Conditional QC Certification System, the mine is subject to all the requirements of Rule 14-103.071(2), Section 2.2 of the Construction Aggregates Manual and appropriate material specifications.

For the purpose of identification, Florida Department of Transportation mine number 92757 will be used to identify this source and should be used by you in all correspondence regarding the mine.

QC data must be submitted to establish the quality and reliability of the material being shipped from your mine. In addition, please keep the Department informed of any conditions resulting in changes in the shipment, handling, or storage facilities, used for FDOT materials that might deviate from the approved Quality Control Program or affect the QC data submitted.

Page 2 Mr. Craggs July 24, 2012

Terms of approval are as follows:

- 1. You are approved to distribute FDOT Material Code B02, Bank Run Shell Base, Certified to FDOT projects.
- 2. Your initial sampling and testing frequencies are as follows: LBR, LLPI, Gradation 2 per week.
- 3. A suitable sign identifying stockpiles shall state the following: FDOT, B02.
- 4. The following information must appear on each certification document (ticket or bill of lading): FDOT mine number, date, quantity, aggregate description, corresponding department material code, producer ticket number, and the certification statement Specified in your Quality Control Program.
- 5. All test data must be transmitted to the Department and available to Department personnel at the source as per Section 1.3, Table 9 of the Construction Aggregates Manual.
- 6. Prior to shipment of certified material, you are required to contact the District Aggregate Control Unit. This is to allow adequate time to make the necessary Quality Assurance arrangements.

If you have any questions or comments please contact, Mike McNally, District 5 Aggregate Coordinator at (386) 740-3581 or Nicole Robey, State Materials Office at: (352) 955-2930.

Sincerely,

David J. Horhota, PhD, P.E.

State Geotechnical Materials Engineer

DJH: nr

cc: M. McNally

File



Craggs Construction Company 4101 Northeast 35th Street

4101 Northeast 35th Street Ocala, Florida 34479

Telephone: (352) 622-7175 Fax: (352) 622-3345 Estimating Fax: (352) 732-6624

July 20, 2012

Timothy J. Ruelke, P.E.
Director, Office of Materials
Florida Department of Transportation
State Materials Office
5007 NE 39th Avenue
Gainesville, FL 32609 | (352) 955-6600

RE: Request for Initial Source Approval; Buck Hammock Mining Company, LLC. (FDOT Type 1 Mine # 92757)

Dear Mr. Ruelke,

In accordance with the Florida Department of Transportation State Materials Office requirements, our Quality Control Program submitted on June 27, 2012, and previously submitted testing data to support this Request for Initial Source Approval, please accept this letter as Buck Hammock Mining Company, LLC.'s official Request for Initial Source Approval on this 20th day of July, 2012.

We believe that we have demonstrated to the Department that we have met all the established guidelines and requirements set forth by the FDOT State Materials Office for such designation.

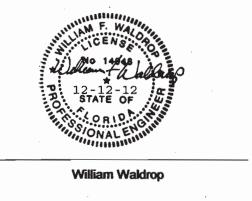
Please review our request and if you concur, provide us with your Initial Source Approval designation at your earliest convenience.

Thank you,
James L. Craggs
Buck Hammock Mining Company, LLC

Section 7 Asphaltic Concrete

ORLANDO PAVING COMPANY

roject No.					CTQP	Qualified Mix	Designer	Carl M	oorefield	
roj. Name	j. Name Various Projec				Address		8150 Apopka	a Blvd., Apopka Fl.	32703	
Phone No.	407-293-4340 Fa		Fax No.	407-29	0-5068	E-mail	ca	rl.moorefield@hub	bard.com	
Submitted By Orlando Paving Compa			отрапу	Туре Міх	Type S-	1 Recycle	Design No. QA # 12-S1402			
TV.	or Mattola		F.D.O.T. CODE		PRODUCER		PIT NO.	DATE	AND ED	
					-		TH NO.	•	AMPLED	
1. Crushed RA	Crushed RAP A0531				ng Company	<u>'</u>	· ·	12/03	3 / 2012	
2. S1A Stone			C44	Martin Mariet	ta Materials		NS315	12/03	3 / 2012	
3. S1B Stone			C54	Martin Mariet	ta Materials		NS315	12 / 03 / 2012		
4. Screening		_	F20	Hubbard Mat	Hubbard Materials Company			12 / 03 / 2012		
5. Local Sand				Tarmac Cent		_ •		12 / 03	3 / 2012	
6. Recycling A	most or DC 63	29	916-PG				-	12700	772012	
o. Recycling A	gent of PG 52	-20	910-1-0				1			
	1		_	BY WEIGHT TO		EGATE PAS			1	
Blend	40%	16%	12%	22%	10% 5	6	JOB MIX FORMULA	Specification		
Number	1 1		3	4	อ	-	FORMULA	Range		
us ·				1			1			
N 3/4"	100	100	100	100	100		100	100		
- 1/2-	100	90	100	100	100		98	88 - 98		
ν) 3/8"	96	70	94	100	100		93	75 - 93		
No. 4	73	15	39	94	100		67	47 - 75		
W No. 10	52	4	8	51	100		44	31 - 53		
> No. 40	34	3	3	18	91		28	19 - 35		
	19	2	2	12	15		12	7-21		
4 No. 80	10.0	0.5	0.5	6.5	0.5		5.6	2 - 6		
No. 80 No. 200		2.627	2.625	2.558	2.630	1	2.602			

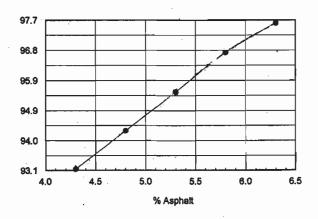


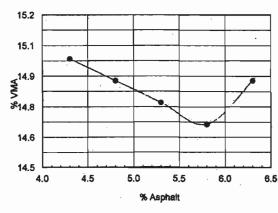
14948	12/12/2012
Registration No.	Effective Date

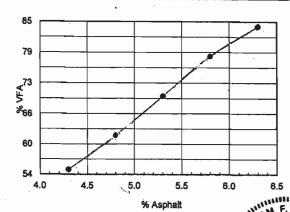
HOT MIX DESIGN DATA SHEET

Design No. QA 12-S1402A S1 Recycle

P _b	G _{mb} @ N _{des}	G _{mm}	V _a	VMA	VFA	P _{be}	P _{0.075} / P _{be}	Stability	Flow
4.3	2.312	2.482	6.8	15.0	55	3.6	1.6	3630	10.0
4.8	2.327	2.467	5.7	14.9	62	4.1	1.4	3710	11.0
5.3	2.342	2.452	4.5	14.8	70	4.5	1.2	3750	12.0
5.8	2.357	2.437	3.3	14.7	78	5.0	1.1	3770	13.0
6.3	2.364	2.422	2.4	14.9	84	5.4	1.0	3710	14.0
								·	







Optimum Asphalt 5.3 %

Air Voids 4.5 %

Mixing Temperature 310

Lab Density 146.1 Lbs/Ft³

VMA 14.8

Compaction Temperature 310

Stability

3750 lb.

NCAT Oven -0.10

(+To Be Added)/(-To Be Subtracted)

_%

Additives Anti-Strip 0.5 %

%

154

Calibration Factor

Optimum Asphalt Content

Asphalt using 40% RAP @ 5.4% Recycling Agent to be determined by

the current RAP stockpile viscosity value

= 5.30%

= 2.20%

= 3.10%

APPENDIX F Conformance Test Results

Section 1 GCL



November 6, 2012

Allan Brantley Brantley Engineering, LLC 13933 Tree Loft Road Milton, GA 30004

Re: FINAL LABORATORY TEST REPORT

Dear Mr. Brantley:

Thank you for consulting Precision Geosynthetic Laboratories International (PGLI) for your material testing needs.

Enclosed is the final laboratory report for the Conformance testing of one (1) Bentomat ST GCL sample.

PROJECT NAME: Omniwaste of Osceola County (JED Leachate Storage Facility)

DATE REPORTED: November 6, 2012

Initial: *GVZ*

DATE: 11/06/2012

REFERENCE PGLI JOB NO.: G121209 DATE RECEIVED: November 1, 2012 SAMPLED BY: PGLI at CETCO, GA

SAMPLE IDENTIFICATIONS:

SAMPLE ID

1. R#6748 L#201245CV

PGLI CONTROL NUMBER

87923

TESTS REQUIRED / PERFORMED:

TEST METHOD

1. ASTM D5084

2. ASTM D5887

DESCRIPTION

Hydraulic Conductivity

Index Flux

TEST RESULTS: The test results are summarized in the attached Table 1.

Respectfully,

PRECISION GEOSYNTHETIC LABORATORIES INTERNATIONAL

Maria Expitia Maria Espitia

Quality Assurance

Carmelo V. Zantua **Technical Director**

Signatures are on file

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. PGLI neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is our policy to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. Retained conformance samples are disposed of after one (1) month. On the other hand, should you need us to keep them at a longer period, please advise us in writing.



MATERIAL PROPERTIES

CLIENT: Brantley Engineering, LLC

PROJECT: Omniwaste of Osceola County (JED Leachate Storage Facility)

Date Received: 11/1/2012 Date Reported: 11/6/2012

Client Sample ID: R#6748 L#201245CV

Material Description: Bentomat ST GCL

PGL Control No.: 87923

					S	PECIMEN	S								Proj.
	1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	DESCRIPTION														Maximum
ASTM D5084	Hydraulic Conduct	Hydraulic Conductivity (cm./ sec.)									l i				
	Initial Specimen Size: 4" dia Initial Moisture Content of the GCL: 19.7 %														
	Effective Consolidation	Stress: 5 ps	i, Final Moisure	Content: 111.	_									l	1
	2.1E-09				1						2.1E-09	N/A	N/A	N/A	5.00E-09
ASTM D5887	Index Flux (m. ³ / n	n.²/sec.)												1	1 . [
	Confining Pressure: 5	psi												l	1
	2.7E-09				f - 4	: : :					2.7E-09	N/A	N/A	N/A	1 - 1

(Sheet 1 of 1) (End of Table 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.



MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Omniwaste of Osceola County
Project Name: (JED Leachate Storage Facility)

TYPE OF MQA: LEVEL (2)

QA by: Maria Expitia

Material: Bentomat ST GCL

SAMPLING FREQUENCY: 1/200,000 sq.ft.

Manufacturer: CETCO

Location: GA

			Length	Width	Area	Date	Sampled	Date	Date	Reference Job No/
No.	Roll #	Lot#	(ft.)	(ft.)	(ft²)	Manufactured	by	Sampled	Received	Control No
1	6748	201245CV	150	15	2250	N/A	PGLI	10/30/2012	11/1/2012	G121209 C#87923
2	6749	201245CV	150	15	2250	N/A				
3	6750	201245CV	150	15	2250	N/A				
4	6751	201245CV	150	15	2250	N/A				
5	6752	201245CV	150	15	2250	N/A				
6	6753	201245CV	150	15	2250	N/A				
7	6754	201245CV	150	15	2250	N/A				
8	6755	201245CV	150	15	2250	N/A				
9	6756	201245CV	150	15	2250	N/A				
10	6757	201245CV	150	15	2250	N/A				
11	6758	201245CV	150	15	2250	N/A				
12	6759	201245CV	150	15	2250	N/A				
13	6760	201245CV	150	15	2250	N/A				
14	6761	201245CV	150	15	2250	N/A				
15	6762	201245CV	150	15	2250	N/A				
16	6763	201245CV	150	_ 15	2250	N/A				
17	6764	201245CV	150	15	2250	N/A				
18	6765	201245CV	150	15	2250	N/A				
19	6766	201245CV	150	15	2250	N/A				
20	6767	201245CV	150	15	2250	N/A				
21	6768	201245CV	150	15	2250	N/A				
22	6769	201245CV	150	15	2250	N/A				
23	6770	201245CV	150	15	2250	· N/A				
24	6771	201245CV	150	15	2250	N/A				
25	6772	201245CV	150	15	2250	N/A				
26	6773	201245CV	150	15	2250	N/A				
27	6774	201245CV	150	15	2250	N/A				
28	6775	201245CV	150	15	2250	N/A				



	Omniwaste of Osceola County
Project Name:	(JED Leachate Storage Facility)

TYPE OF MQA: LEVEL (2)

QA by: Maria Expitia

Material: Bentomat ST GCL

SAMPLING FREQUENCY: 1/200,000 sq.ft.

Manufacturer: CETCO

Location: GA

	Location: GA									
No.	Roll #	Lot#	Length (ft.)	Width (ft.)	Area (ft²)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
29	6776	201245CV	150	15	2250	N/A				
30	6777	201245CV	150	15	2250	N/A				
31	6778	201245CV	150	15	2250	N/A				
32	6779	201245CV	150	15	2250	N/A				
33	6780	201245CV	150	15	2250	N/A				
34	6781	201245CV	150	15	2250	N/A				
35	6782	201245CV	150	15	2250	N/A				
36	6783	201245CV	150	15	2250	N/A				
37	6784	201245CV	150	15	2250	N/A				
38	6785	201245CV	150	15	2250	N/A				
39			150	15	2250	N/A	_			
	6786 6787	201245CV	150	15	2250	N/A	l			
40		201245CV								
41	6788	201245CV	150	15	2250	N/A				
42	6789 6790	201245CV 201245CV	150 150	15 15	2250 2250	N/A N/A				
\vdash				15	2250	N/A				
44	6791	201245CV	150		2250	N/A			_	
45	6792	201245CV	150	15				-		
46	6793	201245CV	150	15	2250	N/A			-	
47	6794	201245CV	150	15	2250	N/A				
48	6795	201245CV	150	15	2250	N/A				
49	6796	201245CV	150	15	2250	N/A			_	
50	6797	201245CV	150	15	2250	N/A		_	 	
51	6798	201245CV	150	15	2250	N/A		-		
52	6799	201245CV	150	15	2250	N/A	-			
53	6800	201245CV	150	15	2250	N/A		_		
54	6801	201245CV	150	15	2250	N/A			-	
55	6802	201245CV	150	15	2250	N/A	_		ļ	
56	6803	201245CV	150	15	2250	N/A				

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Omniwaste of Osceola County Project Name: (JED Leachate Storage Facility)	TYPE OF MQA: LEVEL (2)	QA by: Maria Expetia	
Material: Bentomat ST GCL	SAMPLING FREQUENCY: 1/200,000 sq.ft.		

Manufacturer: CETCO

Location: GA

	Location: GA									
No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft²)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
57	6804	201245CV	150	15	2250	N/A				
58	6805	201245CV	150	15	2250	N/A				
59	6806	201245CV	150	15	2250	N/A				
60	6807	201245CV	150	15	2250	N/A				
61	6808	201245CV	150	15	2250	N/A				
62	6809	201245CV	150	15	2250	N/A				
63	6810	201245CV	150	15	2250	N/A				
64	6811	201245CV	150	15	2250	N/A				
65	6812	201245CV	150	15	2250	N/A				
66	6813	201245CV	150	15	2250	N/A				
67	6814	201245CV	150	15	2250	N/A				
68	6815	201245CV	90	15	1350	N/A				
				TOTAL ft² =	152,100					

Section 2 HDPE Geomembrane

November 1, 2012

Allan Brantley

Brantley Engineering, LLC
13933 Tree Loft Road
Milton, GA 30004

Re: FINAL LABORATORY TEST REPORT

Dear Mr. Brantley:

Thank you for consulting Precision Geosynthetic Laboratories International (PGLI) for your material testing needs.

Enclosed is the final laboratory report for the Conformance testing of one (1) 60mil HDPE Microspike Geomembrane sample.

PROJECT NAME: Omniwaste of Osceola County (JED Leachate Storage Facility)

DATE REPORTED: November 1, 2012

DATE: 11/01/2012

REFERENCE PGLI JOB NO.: G121202

DATE RECEIVED: October 30, 2012

SAMPLED BY: PGLI at AGRU, SC

SAMPLE IDENTIFICATIONS:

SAMPLE ID

1. R#443456.12 L#H7120980

PGLI CONTROL NUMBER

野山

87891

TESTS REQUIRED / PERFORMED:

TEST METHOD

1. ASTM D5994

2. ASTM D1505

3. ASTM D6693

4. ASTM D1603

5. ASTM D5596

DESCRIPTION

Thickness

Density

Tensile Properties

Carbon Black Content

Carbon Black Dispersion

TEST RESULTS: The test results are summarized in the attached Table 1.

Respectfully,

PRECISION GEOSYNTHETIC LABORATORIES INTERNATIONAL

Maria Espitia

Quality Assurance

Carmelo V. Zantua Technical Director

Signatures are on file

It shall be noted that the sample tested is believed to be true representative of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. PGLI neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is our policy to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. Retained conformance samples are disposed of after one (1) month. On the other hand, should you need us to keep them at a longer period, please advise us in writing.

2 Pages Total

TABLE 1. MATERIAL PROPERTIES

CLIENT: Brantley Engineering, LLC

PROJECT: Omniwaste of Osceola County (JED Leachate Storage Facility)

Date Received: 10/30/2012
Date Reported: 11/1/2012

QC'd By: Maria Cypiti

Client Sample ID: R#443456.12 L#H7120980

PGL Control No.: 87891

Material Description: 60mil HDPE Microspike Geomembrane

						SPECIMEN	<u>s</u>								Proj.
	1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
IETHOD	DESCRIPTION	N N									1				
STM D5994	Thickness (mils)													l	
	Apparatus: De	ad-weight dia	al micrometer wi	ith gauge po	oints tapere	ed at an angle of	60° +/- 2° to	the horizon	tal with the tip	,	1 2	1		ı	
	rounded to a ra	dius of 0.8+	/-0.1 mm(0.031-	+/-0.004 in),	with a spe	cified force of 0.	56+/-0.05 N (2+/-0.2 oz)				:	ı	1	
	Loading Time:	5 sec Spe	cimen Size: 4" x	4"								i .	l	ı	60 nominal
	63	64	65	65	62	64	63	62	61	14.5 61	63	secondar in	61	65	54 minimum
STM D1505	Density (grams/	cm.3)	V-50						2.300			1 v			
	0.9484		0.9484	Ş i	4.1		4.55	200		Ç.,	0.9484	0.0000	0.9484	0.9484	0.94
STM D6693	Tensile Properties	:										1 21 4 300	·	, -	
pe IV		_	Width of narrow	section:0.2	5in, Length	of narrow section	n:1.3in, Widt	h Overall:0.	'5in,			1	l	1	
•	Length Overall	4.5in Con	ditioning: Condu	ucted test in	standard l	aboratory atmos	phere of 23+/	-2°C (73.4+	/-3.6° F), and	1			l	ı	
	50+/-5% relativ	e humidity. I	Rate of Separati	ion: 2"/min		-						1	l		
	Tensile Strength	at Yield (lbs/ inwidth)									1	l	
	MD 188	182	189	186	194		3.33			and in the	187	4	182	194	126 min.
	TD 204	205	199	193	200						200	5	193	205	
	Tensile Strength	at Break	(lbs/ in widt	th)											
	MD 247	231	243	267	240	ryjyj Hagi	26,76×4	1.1111		£r - 40	246	13	231	267	90 min.
	TD 251	256	216	235	207					94. Wite:	233	22	207	256	
	Elongation at Yie	ld (perce	nt, %)												
	MD 22	22	20	22	23		Year day	15. 57		10 Apr. 1999	22		20	23	12 min.
	TD 18	18	19	18	18						18	0	18	19	
	Elongation at Bre	ak (perce	ent, %)	ent of the	Gauge	Length = 2.0									
	MD 513	475	437	498	442	4. W + Si					473	34	437	513	100 min.
	TD 639	639	542	568	517			중계설시			581	56	517	639	
STM D1603	Carbon Black Co	ntent (pe	rcent, %)								5.48				
	2.27	2.25		Section 6	くは経済			Sale. (1.8)			2.26	0.02	2.25	2,27	2-3
STM D5596	Carbon Black Dis	persion	(category rat	ing per re	ference o	hart PCN: 12	2-455960-3	8)						1	9 of 10 in Category 1 of
			1							\$\$\$ \$\display 1 \display 1	10 c	ut of 10 in	Catego	ry 1	all in Category 1,2, or

(End of Table 1) (Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

LEGENDS:

MD - MACHINE DIRECTION TD - TRANSVERSE DIRECTION



October 31, 2012

Allan Brantley

Brantley Engineering, LLC
13933 Tree Loft Road
Milton, GA 30004

Re: FINAL LABORATORY TEST REPORT

Dear Mr. Brantley:

Thank you for consulting Precision Geosynthetic Laboratories International (PGLI) for your material testing needs.

Enclosed is the final laboratory report for the Conformance testing of two (2) 60mil HDPE Microspike Geomembrane samples.

PROJECT NAME: Omniwaste of Osceola County (JED Leachate Storage Facility)

DATE REPORTED: October 31, 2012

DATE: 10/31/2012

REFERENCE PGLI JOB NO.: G121198

DATE RECEIVED: October 29, 2012

SAMPLED BY: PGLI at AGRU, SC

SAMPLE IDENTIFICATIONS:

SAMPLE ID

1. R#443339.12 L#H8221158

2. R#443447.12 L#H7120980

PGLI CONTROL NUMBER

87869

87870

TESTS REQUIRED / PERFORMED:

TEST METHOD

1. ASTM D5994

2. ASTM D1505

3. ASTM D6693

4. ASTM D1603

5. ASTM D5596

DESCRIPTION

Thickness

Density

Tensile Properties
Carbon Black Content

Carbon Black Dispersion

TEST RESULTS: The test results are summarized in the attached Tables 1 to 2.

Respectfully,

PRECISION GEOSYNTHETIC LABORATORIES INTERNATIONAL

Maria Espitia

Quality Assurance

Maria Expetia

Carmelo V. Zantua Technical Director

Signatures are on file

It shall be noted that the sample tested is believed to be true representative of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. PGLI neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is our policy to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. Retained conformance samples are disposed of after one (1) month. On the other hand, should you need us to keep them at a longer period, please advise us in writing.

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Brantley Engineering, LLC

PROJECT: Omniwaste of Osceola County (JED Leachate Storage Facility)

Date Received: 10/29/2012 Date Reported: 10/31/2012 QC'd By: Maria Cycitia PGL Job No.: G121198

PGL Control No.: 87869

Client Sample ID: R#443339.12 L#H8221158

Material Description: 60mil HDPE Microspike Geomembrane

						SPECIME	NS								Proj.
	1	2	3	4	5	6	7	- 8	9	10	Avg.	Std. Dev	Min	Max	Specs.
METHOD	DESCRIPTION	1													
ASTM D5994	Thickness (mils)										ŀ	l	i i	l	
	Apparatus: Dea	nd-weight dial	micrometer wi	th gauge po	oints tapered	at an angle o	1 60° +/- 2° to t	he horizonta	l with the tip		1 1 2	1	1	l	
	rounded to a ra	dius of 0.8+/-	0.1 mm(0.031-	-/-0.004 in),	with a spec	ified force of 0	0.56+/-0.05 N (2+	/-0.2 oz)					1	1	
	Loading Time:	5 sec Speci	men Size: 4" x	4"							l	1	l	1	60 nominal
	63	64	63	62	64	63	62	64	65	66	64	1 1	62	66	54 minimum
ASTM D1505	Density (grams/	cm. ³)										1	l l	ı	
	0.9479		0.9479		+ 9 j i					e en la éco	0.9479	0.0000	0.9479	0.9479	0.94
ASTM D6693	Tensile Properties	<u>:</u>										1	l .	1	
Type IV	-						ion:1.3in, Width					ı	ı	1	
	•				standard la	boratory atmos	sphere of 23+/-2	°C (73.4+/-	3.6 ° F), and			ı	1	1	
	50+/-5% relativ		•									4	ı	l	
	Tensile Strength	٠.					. 25						1.	1	
	MD 170	180	187	189	181				1 M. M.		181	7	170	189	126 min.
	TD 204	197	196	192	193	12 M	5 x () 1 5	• .			196	5	192	204	
	Tensile Strength		lbs/ in widi	•	000	25.5	1. 1.29213 m								
	MD 252	239	218	246	238			v			239 235	13	218	252	90 min.
	TD 246	240	245	207	239	41 W 11 12	STANDARD NO.				235	16	207	246	
	Elongation at Yie MD 22		ı, %) 21	22	23	ng kalaban k		1 4 5 5	500 100	vie brille	22	122	466000		12 min.
	TD 17	21 17	17	16	23 17						17	0	21 16	23 17	1 2 min.
	Elongation at Bre	0.7 NAST 5 1		19	AND MARKET	.ength = 2.0	>>	a	10,000	Margaret 15		Y	100	16(1)	
	MD 466	508	440	449	443	.engur ~ 2.0	zur. Solis okki utwa			and the late	461	28	440	508	100 min.
	TD 627	619	615	535	606						600	37	535	627	
ASTM D1603	Carbon Black Co	12 p = 3,4 1, 1, 1, 1		500			with	· · · ·	1 1 1 10 10	91 4 5 112 20 1		9 1 1	1	J ***	
7.01.11.01000	2.25	2.29		1. 11.1. 12.	17. w.s.	Name of the		4	. 898 ⁽ 113)		2.27	0.03	2.25	2,29	2.3
ASTM D5596	Carbon Black Dis		category rati							*****		1	1	1	9 of 10 in Category 1 or
, 10 / 10/ 00000	1	1	334	1	Sec. 1 de 1 etc.	Notice (4) to	- Caran		45, 70.4s	er distance.	40.	ut of 10 in	Coton	I .m. 4	all in Category 1,2, or 3

(Sheet 1 of 1) (End of Table 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

LEGENDS:

MD - MACHINE DIRECTION TD - TRANSVERSE DIRECTION



TABLE 2. **MATERIAL PROPERTIES**

CLIENT: Brantley Engineering, LLC

PROJECT: Omniwaste of Osceola County (JED Leachate Storage Facility)

Date Received: 10/29/2012 Date Reported: 10/31/2012 QC'd By: Maria Cipilia PGL Job No.: G121198

Client Sample ID: R#443447.12 L#H7120980

PGL Control No.: 87870

Material Description: 60mil HDPE Microspike Geomembrane

						SPECI	MENS									Proj.
	1	_ 2	3	4	5	6	5	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	DESCRIPTION															
ASTM D5994	Thickness (mils)											<u> </u>	l	ì	1	
	Apparatus: Dead	l-weight dia	al micrometer wit	h gauge po	ints tapere	d at an an	gle of 60°	+/- 2° to t	he horizoi	ntal with the tip	p	i .	1	l	1	
	rounded to a rad	ius of 0.8+/	/-0.1 mm(0.031+	/-0.004 in),	with a spec	cified force	of 0.56+/-	0.05 N (2+	/-0.2 oz)			:	1		l .	
	Loading Time: 5	sec Spec	cimen Size: 4" x	4*								l		ı	1	60 nominal
	62	61	62	63	62	6	4	64	66	63	64	63	100	61	66	54 minimum
ASTM D1505	Density (grams/ c	:m. ³)										ı	1		ı	
	0.9481	0.9481	0.9481							18.00	网络拉马克马马克	0.9481	0.0000	0.9481	0.9481	0.94
ASTM D6693	Tensile Properties:											l .	1	1	1	
Type IV	Test Specimens.											1	ı	ı	l	. 4
	Length Overall:	4.5in Cond	ditioning: Conduc	cted test in :	standard la	boratory a	atmosphere	of 23+/-2	°C (73.4-	·/-3.6° F), and	i	1.5		l	1	
	50+/-5% relative			on: 2"/min									1	ı	ı	
	Tensile Strength a	t Yield (I	lbs/ inwidth)									V. * *		l	ı	
	MD 180	181	173	172	169	٠.,	1175				3 3	175	5 5	169	181	126 min.
	TD 188		197	183	190	· · ·		· ·	•		Part de la constant d	189	5	183	197	
	Tensile Strength a	,	•									1.	l	ı	ı	
	MD 205	244	205	246	221	`		** .		1,50		224	20	205	246	90 min.
	TD 202	187	227	202	196	1						203	15	187	227	
	Elongation at Yield		: *				2.554							ı	l	
	MD 21	22	22	21	22			y de los				21		21	22	12 min.
	TD 17	16	¥8 17	18	18	Á.				. Now we		17		16	18	
	Elongation at Brea				Gauge I		4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						1			
	MD 459	429	459	441	463						ay iya kar	450	15	429	463	100 min.
	TD 548	470	615	547	500	£77741.		. 1	. ***	t per malah		536	55	470	615	
ASTM D1603	Carbon Black Con									2.5					1	
10711 05555	2,23	2.23								iwy/sir	WANTEDON	2.23	0.00	2.23	2.23	2-3
ASTM D5596	Carbon Black Disp											100	1	Į.		9 of 10 in Category 1 or 2
	(31)	*** 1 -		1	J. Alk	v 81 1	Prodesiya	5, 1 % ∧	je 6. 1 €.	5 6 1		10 0	ut of 10 in	Catego	ory 1	all in Category 1,2, or 3

(End of Table 2)

(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

LEGENDS:

MD - MACHINE DIRECTION

TD - TRANSVERSE DIRECTION





November 2, 2012

Allan Brantley **Brantley Engineering, LLC** 13933 Tree Loft Road Milton, GA 30004

Re: FINAL LABORATORY TEST REPORT

Dear Mr. Brantley:

Thank you for consulting Precision Geosynthetic Laboratories International (PGLI) for your material testing needs.

Enclosed is the final laboratory report for the Conformance testing of two (2) 60mil HDPE Microspike Geomembrane samples.

PROJECT NAME: Omniwaste of Osceola County (JED Leachate Storage Facility)

DATE REPORTED: November 2, 2012

DATE: 11/02/2012

REFERENCE PGLI JOB NO.: G121204

DATE RECEIVED: October 31, 2012

SAMPLED BY: PGLI at AGRU, SC

SAMPLE IDENTIFICATIONS:

SAMPLE ID

1. R#443564.12 L#H8221187

2. R#443673.12 I#H8221187

PGLI CONTROL NUMBER

87900

87901

TESTS REQUIRED / PERFORMED:

TEST METHOD

1. ASTM D5994

2. ASTM D1505

3. ASTM D6693

4. ASTM D1603 5. ASTM D5596 **DESCRIPTION**Thickness

nickness

Density

Tensile Properties

Carbon Black Content

Carbon Black Dispersion

TEST RESULTS: The test results are summarized in the attached Tables 1 to 2.

Respectfully,

PRECISION GEOSYNTHETIC LABORATORIES INTERNATIONAL

Maria Espitia

Quality Assurance

Maria Expetia

Carmelo V. Zantua

Technical Director

Signatures are on file

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. PGLI neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is our policy to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. Retained conformance samples are disposed of after one (1) month. On the other hand, should you need us to keep them at a longer period, please advise us in writing.

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Brantley Engineering, LLC

PROJECT: Omniwaste of Osceola County (JED Leachate Storage Facility)

Date Received: 10/31/2012 Date Reported: 11/2/2012

Client Sample ID: R#443564.12 L#H8221187

Material Description: 60mil HDPE Microspike Geomembrane

QC'd By: Maria Cypitia PGL Job No.: G121204

PGL Control No.: 87900

					SF	PECIMENS	;								Proj.
	1 _	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
/ETHOD	DESCRIPTION	l									\$194 Hours			\Box	
STM D5994	Thickness (mils)										Kir in	l	l	l	
	Apparatus: Dea	d-weight dial	micrometer with	h gauge po	oints tapered at a	n angle of 60	o +/- 2° to	the horizon	tal with the tip		Sec. 17.	1	l	l	
	rounded to a rad	dius of 0.8+/-	-0.1 mm(0.031+/	-0.004 in),	, with a specified	force of 0.56	+/-0.05 N (2	+/-0.2 oz)					l	l	
	Loading Time: 5	sec Speci	imen Size: 4" x 4	4-									l	l	60 nominal
	62	64	63	62	61	63	62	62	62	62	62	11	61	64	54 minimum
STM D1505	Density (grams/	cm. ³)									S. 184 .	l			
	0.9476	0.9476	0.9476		AM.	Section 1	1	. A		a distribu	0.9476	0.0000	0.9476	0.9476	0.94
STM D6693	Tensile Properties:										St. 1111	1	l	l	
ype IV					5in, Length of na						Fig. 4	i i	l	l	
	Length Overall:	4.5in Cond	litioning: Conduc	cted test in	standard labora	tory atmosph	ere of 23+/-2	2°C (73.4+	/-3.6° F), and		Mary San		l	1	
	50+/-5% relative	humidity. R	late of Separatio	n: 2"/min							2.3	l	l	ı	
	Tensile Strength a		bs/ inwidth)						. 2%		500		l	Ι.	
	MD 167	175	183	175	160		가막성				172	9	160	183	126 min,
	TD 189	190	194	174	180		JR - 58		448n		185	8	174	194	
	Tensile Strength a	·	lbs/ in width	f .									ı	I	
	MD 207	216	232	233	237						225	13	207	237	90 min.
	TD 202	229	245	199	196		J. 18		9492 - 40 m		214	22	196	245	
	Elongation at Yield	 1000 - 1000 - 1000 - 1000 - 1000 	t i i zžinazaci t			okowozeko in	200			A services		1	1		
	MD 22	22	21	23	22			1880.F			22		21	23	12 min.
	TD 18	18	18	19	17		14m2)			\$ (3 DE \$43)	18	0	17	19	
	Elongation at Brea		real contraction and the contraction of the contrac		Gauge Len	gth = 2.0 in) .		S 44,000 . S						
	MD 450	451	416	415	481						443	28	415	481	100 min.
	TD 523	601	634	568	533					(a. h. 1994) (1995)	572	46	523	634	
ASTM D1603	Carbon Black Cor		cent, %)					.at. se					,		
	2,27	2.23	89 - 1	Maria :							2.25	0.03	2.23	2,27	2-3
STM D5596	Carbon Black Dis	persion (d	category ratin	ng per re	ference chart 1	PCN: 12-4	55960-38	3)				ut of 10 in	1	I	9 of 10 in Category 1 or

(End of Table 1)

(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

LEGENDS:

MD - MACHINE DIRECTION TD - TRANSVERSE DIRECTION



TABLE 2.

MATERIAL PROPERTIES

CLIENT: Brantley Engineering, LLC

PROJECT: Omniwaste of Osceola County (JED Leachate Storage Facility)

Date Received: 10/31/2012
Date Reported: 11/2/2012

QC'd By: Maria Cy

Client Sample ID: R#443673.12 L#H8221187

PGL Job No.: **G121204** PGL Control No.: **87901**

Material Description: 60mil HDPE Microspike Geomembrane

	4	2	2	- 1		SPECIMENS 6	7		0		District Annual Control	104-1-15		Process.	Proj.
4ETUOD	DECODIDATIO					- 6		- 8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	DESCRIPTIO											4		ı	
STM D5994	Thickness (mils	,										4		ı	
		-	l micrometer witi			-			with the tip		70 Bur			ı	
			-0.1 mm(0.031+/	-	with a speci	fied force of 0.5	5+/-0.05 N (2	+/-0.2 oz)			200	l I		ı	本 그 사람 밥 좋아올라다
	2000 Teach 1		cimen Size: 4" x 4					>				1		ľ	60 nominal
	64	63	62	64	63	64	62	63	62	61	63	1 a 1 a	61	64	54 minimum
STM D1505	Density (grams/						***	week to				1		I	
	0.9481	0.9481	0.9481	Sec. 1							0.9481	0.0000	0.9481	0.9481	0.94
STM D6693	Tensile Properties	_									15.1 W 7 14.4 C	4			
ype IV	, .		Vidth of narrow s		_									l	
	•		ditioning: Conduc		standard lab	oratory atmospi	nere of 23+/-2	2°C (73.4+/-3	8.6° F), and			4		ı	
		•	Rate of Separation	n: 2"/min										ı	
	Tensile Strength		,					¥							
	MD 166	173	163	161							167	5	161	173	126 min.
	TD 194	174	181	193	172	9.094/A 1. 4.					183	10	172	194	
	Tensile Strength		(lbs/ in width	,		Balan was sa san		985		or green,			10, 1000	Area .	
	MD 200	200	219	219	217					스타 나를 했다.	211	10	200	219	90 min.
	TD 210	209	209	234	204	Grant Land		##4 ib V	:-	en philipers	213	12	204	234	
	Elongation at Yie	2 x 2 550000 c		00	one d ou it et	ara ar ter din des	Land to the Greek	lida an ar		cara a si tama a si 136		landar 🛶 🛶	Nor distributes	1.1	
	MD 22	21	23	22	21				1 S. S.		22	188 1864	21	23	12 min.
	TD 18	18	18	16	18 Gauge I						18		16	18	
	Elongation at Bre	453	480	470	412	ength = 2.0 ir	i. 1986 – prograživi	Ballesaler.	3 7 5	a soné investisce é	404		. 33288	Marada .	
	TD 556	605	565	478 642	589						461	30	412	482	100 min.
STM D1603	2.35 SECTION 10 SE	Or a configuration of the		042	209	SECURE OF THE	1904 ON 80		*		591	34	556	642	
21M1D1003	Carbon Black Co		cent, %)	July 10 1		ocar o discon NA	25 200 200 20	San Salatan		with violateid	0.00			884144	
OTM DEEDS	2.21	2.25		erikikin	138, 20,860°	SPECIAL 10	4EE060 20	8008-31, 1100 N			2.23	0.03	2.21	2.25	2-3
STM D5596	Carbon Black Dis	persion (category ratin	ig ber re	ierence ch	The second of the second) 		a ruddin kular kindi.		I ut of 10 in	±		9 of 10 in Category 1 or all in Category 1,2, or 3

(End of Table 2) (Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

LEGENDS:

MD - MACHINE DIRECTION TD - TRANSVERSE DIRECTION



MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Omniwaste of Osceola County

Project Name: (JED Leachate Storage Facility)

TYPE OF MQA: LEVEL (2) QA by:

Material: 60mil HDPE Microspike Geomembrane SAMP

SAMPLING FREQUENCY: 1/100,000 sq.ft. or at least 1/lot

Manufacturer: AGRU

Location: SC

No.	Roll #	Lot#	Length (ft.)	Width (ft.)	Area (ft²)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
1	443339.12	H8221158	505	23	11615	N/A	PGLI	10/25/2012	10/29/2012	G121198 C#87869
2	443340.12	H8221158	505	23	11615	N/A				
3	443341.12	H8221158	505	23	11615	N/A				
4	443342.12	H8221158	505	23	11615	N/A				
5	443343.12	H8221158	505	23	11615	N/A_				
6	443444.12	H8221158	505	23	11615	N/A		,		
7	443445.12	H8221158	505	23	11615	N/A				
Ĺ				Sub Total ft² =	81305					
8	443446.12	H7120980	505	23	11615	N/A				
9	443447.12	H7120980	505	23	11615	N/A	PGLI	10/25/2012	10/29/2012	G121198 C#87870
10	443448.12	H7120980	505	23	11615	N/A				
11	443449.12	H7120980	505	23	11615	N/A	_			
12	443450.12	H7120980	505	23	11615	N/A				
13	443451.12	H7120980	505	23	11615	N/A				
14	443452.12	H7120980	505	23	11615	N/A				
15	443453.12	H7120980	505	23	11615	N/A				
16	443454.12	H7120980	505	23	11615	N/A				
17	443455.12	H7120980	505	. 23	11615	· N/A				
18	443456.12	H7120980	505	23	11615	N/A	PGLI	1026/2012	10/30/2012	G121202 C#87891
19	443457.12	H7120980	505	23	11615	N/A				
20	443558.12	H7120980	505	23	11615	N/A				
21	443559.12	H7120980	505	23	11615	N/A				
22	443560.12	H7120980	505	23	11615	N/A				
23	443561.12	H7120980	505	23	11615	N/A				
	 			Sub Total ft ² =	185840					

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Omniwaste of Osceola County

Project Name: (JED Leachate Storage Facility)

TYPE OF MQA: LEVEL (2)

A hu Maria Expetis

Material: 60mil HDPE Microspike Geomembrane

SAMPLING FREQUENCY: 1/100,000 sq.ft. or at least 1/lot

Manufacturer: AGRU

Location: SC

No.	Roll#	Lot#	Length (ft.)	Width (ft.)	Area (ft²)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
24	443562.12	H8221187	505	23	11615	N/A				
25	443563.12	H8221187	505	23	11615	N/A				
26	443564.12	H8221187	505	23	11615	N/A	PGLI	10/29/2012	10/31/2012	G121204 C#87900
27	443565.12	H8221187	505	23	11615	N/A				
28	443566.12	HB221187	505	23	11615	N/A				
29	443567.12	H8221187	505	23	11615	N/A				
30	443568.12	H8221187	505	23	11615	N/A				
31	443569.12	H8221187	505	23	11615	N/A				
32	443570.12	H8221187	505	23_	11615	N/A				
33	443571.12	H8221187	505	23_	11615	N/A				
34	443672.12	H8221187	505	23	11615	N/A				
35	443673.12	H8221187	505	23	11615	N/A	PGLI	10/29/2012	10/31/2012	G121204 C#87901
36	443674.12	H8221187	505	23	11615	N/A				
37	443675.12	H8221187	505	23	11615	N/A				
38	443676.12	H8221187	505	23	11615	N/A				
39	443677.12	H8221187	505	23	11615	N/A				
40	443678.12	H8221187	505	23	11615	N/A	L			
41	443679.12	H8221187	505	23	11615	N/A				
42	443680.12	H8221187	505	23	11615	N/A				
43	443681.12	H8221187	505	23	11615	N/A				
				Sub Total ft ² =	232300					
				TOTAL ft ² =	499,445					

Section 3 Drainage Geocomposite



November 6, 2012

Allan Brantley **Brantley Engineering, LLC** 13933 Tree Loft Road Milton, GA 30004

Re: FINAL LABORATORY TEST REPORT

Dear Mr. Brantley:

Thank you for consulting Precision Geosynthetic Laboratories International (PGLI) for your material testing needs.

Enclosed is the final laboratory report for the Conformance testing of one (1) 330mil Double-Sided Geocomposite sample.

PROJECT NAME: Omniwaste of Osceola County (JED Leachate Storage Facility)

DATE REPORTED: November 6, 2012

Initial: CVZ

DATE: 11/06/2012

REFERENCE PGLI JOB NO.: G121195

DATE RECEIVED: October 25, 2012

SAMPLED BY: PGLI at SKAPS, GA

SAMPLE IDENTIFICATIONS:

SA	MPLE ID	PGLI CONTROL NUMBER
R#	51381010001	
1.	Double-Sided Geocomposite	87856
2	Non-woven Genteytile (Ton)	87857

Non-woven Geotextile (Top)
 Non-Woven Geotextile (Bottom)
 87857

TESTS REQUIRED / PERFORMED:

EST METHOD	DESCRIPTION

Geotextile Component	
1. ASTM D5261	Mass Per Unit Area
2. ASTM D4632	Grab Tensile

3. ASTM D4533 Trapezoidal Tear Resistance
4. ASTM D4751 Apparent Opening Size
5. ASTM D4491 Permittivity

Geocomposite
6. ASTM D4716 Transmissivity
7. ASTM D7005 Ply Adhesion

TEST RESULTS: The test results are summarized in the attached Tables 1, 1A and 1B.

Respectfully,

PRECISION GEOSYNTHETIC LABORATORIES INTERNATIONAL

Maria Espitia

Quality Assurance

Carmelo V. Zantua Technical Director

Signatures are on file

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. PGLI neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is our policy to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. Retained conformance samples are disposed of after one (1) month. On the other hand, should you need us to keep them at a longer period, please advise us in writing.

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Brantley Engineering, LLC

PROJECT: Omniwaste of Osceola County (JED Leachate Storage Facility)

Date Received : 10/25/2012 Date Reported: 11/6/2012

QC'd by: G121195

Client Sample ID: R#51381010001

PGLI Control No.: 87856

Material Description: 330mil Double-Sided Geocomposite

					S	PECIMEN:	5								Proj.
	1 _	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
/IETHOD	DESCRIPTIO	Ν .													Minimur
STM D7005	Ply Bond Adhes	sion (lbs/in.	- width)								l				
	Instron Tensile Testing Machine is set for 305mm(12 in./min.) constant rate of extension with initial gauge length of 50mm.														
	Full scale force range	e used for testin	g: <u>100</u> lbs.												l .
	Side A of Comp	osite													
	MD 5.5	5.9	4.2	6.8	5.3			er.			5.5	0.9	4.2	6.8	1.0
	Side B of Comp										l				
	MD 5.4	3.8	5.2	6.5	5.8						5.3	1.0	3.8	6.5	1.0
STM D4716	Transmissivity			500 psf, G	radient: <u>0.02</u>		ne: <u>24</u> hrs			. 10000					
		Temperature of	Test Water:	<u>20.3</u> °C Sp	ecimen Size:	12" x 14"									l .
	Transmissivity	(m.²/ sec.)		14.						3.000					
	MD 7.2E-03 Flow Rate (q	al/min)	ivi.					14.4			7.2E-03	N/A	N/A	N/A	6.1x10
	MD 0.70	aviiiii)			k						0.70	N/A	N/A	N/A	ļ
	Transmissivity	(gal/min/ft)					•			2 11.9 21					
	MD 34.89				dý i	+1		4.00			34.89	N/A	N/A	N/A	
STM D4716							Time: <u>100</u> h	rs				'			
	Transmissivity	Temperature of	rest water:	<u>20.2</u> C Sp	eamen Size:	12 X 14									
	MD 4.7E-03		las (MAC)	21 et 20				1111			4.7E-03	N/A	N/A	N/A	1.0x10
	Flow Rate (g			100 1 10 ,000	igent, and the	*			. , ,	- 20000000000	- T				
	MD 0.46		TENERA			. * : * *;	. * A.				0.46	N/A	N/A	N/A	
	Transmissivity	(gal/min/ft)							*	-5 ms38 s			ë d		
	MD 22.77		1977 ×		Name of the second			J. 1997.			22.77	N/A	N/A	N/A	
	Test Set Up:	Plate										1			
	60mil HDE	Flate _ E Microspike	00000000									l			
		ieocomposite									74 E.	1			
		E Microspike													14 12 1
		Plate											ļ. d		

(Sheet 1 of 1) (End of Table 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

LEGENDS: MD - MACHINE DIRECTION





CLIENT: Brantley Engineering, LLC

PROJECT: Omniwaste of Osceola County (JED Leachate Storage Facility)

Date Received: 10/25/2012

PGLI Control No.:

Date Reported: 11/2/2012 Client Sample ID: R#51381010001

Material Description: Non-Woven Geotextile Component of Double-Sided Geocomposite (Top) SPECIMENS

						SPECIMENS	S								Proj.
	_ 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
ETHOD	DESCRIPTION	,													Minimun
STM D5261	Mass per Unit Area	a (oz/ yd.²))												
	Test Specimen Size: 4".	x 8"										1			1 - 43
	8.5	8.6	8.6	8.5	8.5						8.5	0.0	8.5	8.6	8.0
STM D4632	Grab Tensile											l			
	Test was performed as	directed in D46	632, dry cond	dition. Instro	n Tensile Te	sting Machine w	ith hydraulic a	ction grips ar	nd			1			
	1 in x 2 in rubber faces v	was used. Max	kimum load u	sed for testi	ng: <u>1500</u> lbs							1			1 2
	Grab Breaking Loa	ad (lbs)										:			
	MD 231	234	229	236	241	231	229	234	236	237	234	4	229	241	200
	TD 287	290	259	267	288	300	270	250	261	259	273	17	250	300	
	Apparent Breaking	Elongation	(percent)						A.40-			4 " 1			1 3
	MD 77	76	80	74	75	77	76	75	77	75	76	2	74	80	
	TD 94	104	99	93	98	106	94	97	90	96	97	5	90	106	2
STM D4533			40.40.50		-		•				"	. ř	30	'**	l ĝ
5 .555	Specimens were tested	•	•	1 D4533 dry	condition							1			- ` ` ` ` `
	MD 107	22	75.		110	108	106	102	110	106	107	3	102	110	75
	TD 132		2.000		109	2.5	110	111	112	129	121	10	102	132	["
STM D4491	Permittivity (sec1		Sein.	102	103			1.3 1 1.47		123		'0	109	A. 134, A	
	Four specimens were te	•	a the bood o	oncinal at 6	0 mm. Tho	vorrocoordina w	ater volume or	ecina throug	tha casaima		Million San				
nistant neau	was collected at the disc		-			-		-	ni ine specime	111				l	
	BT Technology permitting	_						г эрестеп.			No say	:		l	
	2.70 S. T. S. S. S.	1.74	1.71			quilements was		44 T. J. J. J.	oražioa i i		1.73	0.03	1,71	1.77	0.5
		/ sec.)	1761	1.71	11.72.53		7.44	9.,,	2000 C	1.0 11 2.1	1.73	0.03	14(1,0	A.U.	0.5
		0.36	0.35	0.35	. 44	and the second	2723	4.79	895) L	25.	0.35	0.00	0.35	0.36	
	Flow Rate (gpm/	10-14-1-1-1	0.35	0.33				r farrer e	Or British		0.33	0.00	0.35	0.36	₹ . Z#
		130	128	128	. :::-				: 		129	2	128		
STM D4751	1999 - 1979 - 1979		. 15 cm 4 cm - 44 cm			1 - 21 - 14			18480	,	129	2	128	132	
51WI D4/51		•			,		C. Tulou Doto						l	l	
	Specimens were tested		5,94.15				o. Tyler Hotap		enda, er		70 100	N/A	AUA		
DT14 D 4754	70-100	T	110 400 5	70-100	70-100		1		er and the time		70-100	N/A	N/A	N/A	
STM D4751		•	•												
	Specimens were tested	and the control of the	Server - 1			naker used is W.	S. Tyler Rotar). 	orawa.						
	0.208	0.204	0.207	0.208	0.206		9-10-17	111.488			0.207	0.002	0.204	0.208	≤ 0.21 ma

(End of Table 1A)

(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.





CLIENT: Brantley Engineering, LLC

PROJECT: Omniwaste of Osceola County (JED Leachate Storage Facility)

(Bottom)

Date Received: 10/25/2012 Date Reported: 11/2/2012

PGLI Control No.:

Client Sample ID: R#51381010001

Material Description: Non-Woven Geotextile Component of Double-Sided Geocomposite

					:	SPECIMENS									Proj.
	1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs
ETHOD	DESCRIPTION	N													Minimu
STM D5261	Mass per Unit A	ea (oz/ yd.	²)									h			77 19
	Test Specimen Size:	4" x 8"													
	8.4	8.4	8.5	8.3	8.5	100	ě	W			8.4	0.1	8.3	8.5	8.0
STM D4632	Grab Tensile														
	Test was performed as directed in D4632, dry condition. Instron Tensile Testing Machine with hydraulic action grips and														
	1 in x 2 in rubber face	s was used. Ma	ximum load	used for testing	g: <u>1500</u> lbs										4
	Grab Breaking L	oad (lbs)													
	MD 229	230	236	231	229	232	231	234	237	235	232	ुः ३ .	229	237	200
	TD 240	250	261	270	261	281	290	270	261	259	264	, 14	240	290	
	Apparent Breaki	ng Elongatio	n (percent)											2 - 1 2 - 1
	MD 77	76	80	76	77	76	75	79	76	78	77	2	75	80	ě :
	TD 90	94	99	90	92	106	101	97	94	90	95	5	90	106	
STM D4533	Trapezoid Tear	Strength (lb	s)											1	
	Specimens were tested as directed in Test Method D4533, dry condition.													11	
	MD 101	102	111	109		107		106	111	117	109	. 5	101	117	75
	TD 120	127	131	120	131	119	115	119	120	121	122	5	115	131	
STM D4491	Permittivity (sec	:. ⁻¹)													
onstant Head	Four specimens were								h the specim	ien				1	
	was collected at the discharge side and the amount and time recorded. Five readings were taken for each specimen.														
	BT Technology perm	-000005		Table 1 to 1 to 1				w						. 9991	
	1.68	1.73	1.70	1.68	samila 1	il editaria	- 1 B		i Nag		1.70	0.02	1.68	1.73	0.5
	Permeability (c			mark sect				: 4		. Casa tau				e and bases	
	0,35	45.00.00	0.35	0.36		\$50,6840	The H		17.15.150	Yanta	0.35	0.01	0.35	0.36	
	Flow Rate (gpr	1 000000106				y w		15 14 1	. 40	5		8 120		21.73482	
	126	129						W d			127	2	125	129	# ()
STM D4751		•										3		ı	
	Specimens were test											(.			
				70-100	70-100	20 5 5 5 F	***		a ga kii		70-100	N/A	N/A	N/A	
STM D4751	Apparent Openi		,								N 1798				
	Specimens were tes						7, 1			ند د د د د د د د د د د				- 1 W.S	Book to
	0.207	0.208	0.205	0.206	0.206						0.206	0.001	0.205	0.208	≤ 0.21 m

(End of Table 1B)

(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.



MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Omniwaste of Osceola County
Project Name: (JED Leachate Storage Facility)

TYPE OF MQA: LEVEL (2)

Maria Expitio

Material: 300mil Double-Sided Geocomposite

SAMPLING FREQUENCY: 1/200,000 sq.ft.

Manufacturer: SKAPS

Location: GA

No.	Roll #	Product	Area (ft²)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
1	51381010001	TN330-2-8	2520	N/A	PGLI	10/24/2012	10/25/2012	G121195 C#87856
2	51381010002	TN330-2-8	2520	N/A				
3	51381010003	TN330-2-8	2520	N/A				
4	51381010004	TN330-2-8	2520	N/A				
5	51381010005	TN330-2-8	2520	N/A				
6	51381010006	TN330-2-8	2520	N/A				
7	51381010007	TN330-2-8	2520	N/A				
8	51381010008	TN330-2-8	2520	N/A				
9	51381010009	TN330-2-8	2520	N/A				
10	51381010010	TN330-2-8	2520	N/A				
11	51381010011	TN330-2-8	2520	N/A				
12	51381010012	TN330-2-8	2520	N/A				
13	51381010013	TN330-2-8	2520	N/A				
14	51381010014	TN330-2-8	2520	N/A				
15	51381010015	TN330-2-8	2520	N/A				
16	51381010016	TN330-2-8	2520	N/A				
17	51381010017	TN330-2-8	2520	N/A				
18	51381010018	TN330-2-8	2520	N/A				
19	51381010019	TN330-2-8	2520	N/A				
20	51381010020	TN330-2-8	2520	N/A				
21	51381010021	TN330-2-8	2520	N/A				
22	51381010022	TN330-2-8	2520	N/A				
23	51381010023	TN330-2-8	2520	N/A				
24	51381010024	TN330-2-8	2520	N/A				
25	51381010025	TN330-2-8	2520	N/A				
		TOTAL ft ² =	63,000					

Section 4
Geotextile



October 31, 2012

Allan Brantley Brantley Engineering, LLC 13933 Tree Loft Road Milton, GA 30004

Re: FINAL LABORATORY TEST REPORT

Dear Mr. Brantley:

Thank you for consulting Precision Geosynthetic Laboratories International (PGLI) for your material testing needs.

Enclosed is the final laboratory report for the Conformance testing of one (1) 8oz Non-Woven Geotextile sample.

PROJECT NAME: Omniwaste of Osceola County (JED Leachate Storage Facility)

DATE REPORTED: October 31, 2012

DATE: 10/31/2012

REFERENCE PGLI JOB NO.: G121190 DATE RECEIVED: October 25, 2012 SAMPLED BY: PGLI at SKAPS, GA

SAMPLE | DENTIFICATIONS:

SAMPLE ID

R#27631.01

PGLI CONTROL NUMBER

87828

TESTS REQUIRED / PERFORMED:

TEST METHOD

1. ASTM D5261

2. ASTM D4632

3. ASTM D4533

4. ASTM D4833

5. ASTM D6241

6. ASTM D4491

7. ASTM D4751

DESCRIPTION

Mass Per Unit Area

Grab Tensile

Trapezoidal Tear Resistance

Puncture Resistance

Static Puncture Resistance

Permittivity

Apparent Opening Size

TEST RESULTS: The test results are summarized in the attached Table 1.

Respectfully,

PRECISION GEOSYNTHETIC LABORATORIES INTERNATIONAL

Maria Espitia

Quality Assurance

Maria Expetia

Carmelo V. Zantua **Technical Director**

Signatures are on file

It shall be noted that the sample tested is believed to be true representative of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. PGLI neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is our policy to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. Retained conformance samples are disposed of after one (1) month. On the other hand, should you need us to keep them at a longer period, please advise us in writing.

TABLE 1. MATERIAL PROPERTIES

CLIENT: Brantley Engineering, LLC

PROJECT: Omniwaste of Osceola County (JED Leachate Storage Facility)

Date Received: 10/25/2012
Date Reported: 10/31/2012
Client Sample ID: R#27631.01

QC'd By: _ PGL Job No.:

G121190

PGL Control No.:

G121190 87828

Material Description: 8oz Non-Woven Geotextile

					S	PECIME	NS								Proj.
	1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs
IETHOD	DESCRIPTION														Min.
STM D5261	Mass per Unit Area	a (oz/ yd.²)										1 1			
	Test Specimen Size: 4")	x 8"									100				1
	8.8	8.7	8.6	8.3	8.5				10 K. J. J. 10 F.		8.6	0.2	8.3	8.8	8.0
STM D4632	Grab Tensile										1				1
	Test was performed as o	directed in D463	2, dry con	dition. Instron	Tensile Testing	Machine v	vith hydraulic actio	n grips and			1.60				1
	1 in x 2 in rubber faces v	vas used. Maxin	num load i	used for testing	g: <u>1500</u> lbs										
	Grab Breaking Loa	d (lbs)													
	MD 238	240	242	240	245	238	250	242	238	239	241	4	238	250	200
	TD 240	258	268	270	278	260	259	260	259	267	262	10	240	278	
	Apparent Breaking	Elongation ((percent)							V., k 1911			1	*
	MD 77	80	76	79	76	80	76	77	73	77	77	2	73	80	
	TD 94	99	101	101	104	94	97	101	90	94	97	4	90	104	139. :
STM D4833	Puncture Resistan	ce (lbs)									State of the state	1			
	Specimens were tested	as directed in T	est Metho	d D4833. The	y were clampe	d without te	nsion between circ	cular plates (of a ring					1	
	clamp attachment secur	red in the tensile	machine.	Test specime	ns were exten	ded to or be	yond the outer ed	ges of the c	lamping plates.					l	
	138	140	158	157	159	160	159	162	160	160	151	11	130	162	90
	155	157	136	130	139			de X							
STM D4533	Trapezoid Tear Str	rength (lbs)												1	
	Specimens were tested	as directed in T	est Metho	d D4533, dry c	ondition.					,		<i></i>			
	MD 101	106	107	120	119	122	120	126	130	127	118	10	101	130	75
	TD 132	140	150	150	144	129	136	138	150	147	142	8	129	150	

(Continued on next page)

(Sheet 1 of 2)



TABLE 1.

MATERIAL PROPERTIES

CLIENT: Brantley Engineering, LLC

PROJECT: Omniwaste of Osceola County (JED Leachate Storage Facility)

QC'd By:

PGL Job No.:

PGL Control No.:

G121190 87828

Date Received: 10/25/2012
Date Reported: 10/31/2012

Client Sample ID: R#27631.01

Material Description: 8oz Non-Woven Geotextile

SPECIMENS Proi. 10 Avg. Std. Dev. Max Specs. METHOD DESCRIPTION Min. Permittivity (sec. 1) **ASTM D4491** Constant Head Four specimens were tested by holding the head constant at 50 mm. The corresponding water volume passing through the specimen was collected at the discharge side and the amount and time recorded. Five readings were taken for each specimen. BT Technology permittivity testing apparatus compliant to ASTM D4491 requirements was used. 1.78 1.74 1.68 1.73 0.04 1.68 1.78 0.5 Permeability (cm./ sec.) 0.35 0.34 0.37 0.35 0.35 0.01 0.34 0.37 Flow Rate (gpm/ft.2) 133 128 129 3 130 126 133 ASTM D4751 Apparent Opening Size (U.S. standard sieve size) Specimens were tested as directed in Test Method D4751. Type of sieve shaker used is W.S. Tyler Rotap. 70-100 70-100 70-100 70-100 70-100 70-100 N/A N/A N/A **ASTM D4751** Apparent Opening Size (mm) Specimens were tested as directed in Test Method D4751. Type of sieve shaker used is W.S. Tyler Rotap. 0.205 0.205 0.207 0.206 0.207 0.208 0.001 ≤ 0.21 0.205 0.208 **ASTM D6241** Static Puncture Strength (lbs) The specimens were tested in accordance with ASTM D6241. Specimens were conditioned for 1 hr in the laboratory at 21+/-5° C (75+/-3.6oF) and at 60%+/-10 Relative Humidity. Specimens were secured between the holding plates ensuring that they extended to or beyond the outer edges of the clamping plates. 723 741 761 780 735 30 681 780 500 Deflection @ Maximum Force (in) 2.4 2.6 2.6 2.6

(End of Table 1)

(Sheet 2 of 2)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

LEGENDS:

MD - MACHINE DIRECTION TD - TRANSVERSE DIRECTION



MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Omniwaste of Osceola County		М	aria Expiti
Project Name: (JED Leachate Storage Facility)	TYPE OF MQA: LEVEL (2)	QA by:'	
Material: 8oz Non-Woven Geotextile	SAMPLING FREQUENCY: 1/100,000 sq.ft.		

Manufacturer: SKAPS

Location: GA

	LUCATION, GA									
No.	Roli #	Product	Length (ft.)	Width (ft.)	Area (ft²)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
1	27631.01	GE180	690	15	10350	N/A	PGLI	10/23/2012	10/25/2012	G121190 C#87828
2	27631.02	GE180	690	15	10350	N/A				
3	27631.03	GE180	690	15	10350	N/A				
4	27631.04	GE180	690	15	10350	N/A				
5	27631.05	GE180	690	15	10350	N/A				
6	27631.06	GE180	690	15	10350	N/A				
7	27631.07	GE180	690	15	10350	N/A				
8	27631.08	GE180	690	15	10350	N/A				
				TOTAL ft ² =	82,800					

APPENDIX G Subgrade Acceptance Certificates (Ponds A, B and C)

BRANTLEY ENGINEERING, LLC.



SUBGRADE ACCEPTANCE

PROJECT NAM	ME: <u>JED Landfill Leac</u>	hate Storage Fa	acility Relocation							
PROJECT NUM	BER: <u>2012-102</u>									
OWNER:	Omni Waste of Osce	eola County, LLO	<u> </u>							
LOCATION:	JED Landfill St. Clou	ıd, FL								
observed the so surface on which	a duly appointed representative il subgrade surface described b h to install Geosynthetic eHDPE.	elow, and found	l it to be an acceptable							
The certification is based on subterranean inspections and tests performed by Brantley Engineering and visual observations of the subgrade only. Brantley makes no representations or warranties regarding conditions which may exist below the prepared surface of the subgrade. The subgrade conforms to the project specifications for installation of geosynthetics. The synthetics installer accepts no responsibility for conformance of the subgrade to this project's specifications.										
Area Being Acce <u>HDPE PAR</u> <u>SECONDA</u>	pted: US P - L THRU RY (AYER	P-29								
CQA REPRESE	NTATIVE:	SYNTHETIC	S INSTALLER REP:							
Date:	11-30-12	Date:	11-30-12 Au							
Signature:			A							
/	mu Colli	Signature:	AM							
Name:	SALMAN NEJAD, PE	Signature:	Arnuifo Martine 2							
	'	Name:								
Title:	VICE President Brantly Engineery	Name:	Arnufo Martine 2							
Title:	ESENTATIVE:	Name:	Arnufo Martine 2							
Title:	ESENTATIVE:	Name:	Arnufo Martine 2							
Title:	VICE President Brantly Engineery	Name:	Arnufo Martine 2							

BRANTLEY ENGINEERING, LLC.



Brantley Engineering, LLC

SUBGRADE ACCEPTANCE

PROJECT NAM	IE: <u>JED Landfill Leacl</u>	nate Storage Fa	cility Relocation
PROJECT NUM	IBER: <u>2012-102</u>		
OWNER:	Omni Waste of Osce	ola County, LLC	;
LOCATION:	JED Landfill St. Cloud	d, FL	
observed the so	duly appointed representative subgrade surface described be to install GeosyntheticHDPE.	elow, and found	it to be an acceptable
Engineering and representations of surface of the surface installation of general surface.	is based on subterranean insperieual observations of the subgor warranties regarding condition bgrade. The subgrade conformosynthetics. The synthetics instance subgrade to this project's sp	rade only. Branns which may ex so to the project aller accepts no	ntley makes no xist below the prepared specifications for
Area Being Acce			
HDPE F	ands P-30 7 Ry layer	HRU P-	62
	of caren		
CQA REPRESEI	TATIVE:	SYNTHETIC	S INSTALLER REP:
Date:	2-1-12	Date:	12-1-12
Signature: M	pul Zalu	Signature:	Alloe
	FACMAN NEUAD, PE	Name:	Arnuito UGAinez
Title:	ce President	Title:	SUP.
OWNERS REPR	ESENTATIVE:		
Date:	2-1-12		•
Signature:	Mte Ke		
Name:	Milæ Kaiser		

BRANTLEY ENGINEERING, LLC.



Brantley Engineering, LLC

SUBGRADE ACCEPTANCE

PROJECT NAME: JED Landfill Leachate Storage Facility Relocation										
PROJECT	NUMBER:	2012-102								
OWNER:		Omni Waste of Osce	ola County, LL	<u>c</u>						
LOCATION	:	JED Landfill St. Clou	d, FL							
observed th	e soil subgrad	e surface described b Geosynthetic	elow, and found	gineering, LLC, have visually d it to be an acceptable L) Geocomposite						
Engineering representati surface of the installation of	and visual ob ons or warrant ne subgrade. of geosynthetic	servations of the subg	rade only. Brans which may enter to the project taller accepts n	exist below the prepared t specifications for						
Area Being	Accepted: Par dany Lony	rels P-63	TIARN	P-78						
CQA REPRI	ESENTATIVE:		SYNTHETIC	CS INSTALLER REP:						
Date:	12-3-1	2	Date:	12-3-12						
Signature:	mpul,	Zaku -	Signature:	12-3-12						
Name:		AN NEWAD, PE	Name:	Arousto Martinez						
Title:	ME Pr	esident	Title:	SUR						
OWNERS R	EPRESENTA									
Date:	12-3-1		:							
Signature:	Mike!	.Ku_								
Name:	Mile	Kaiser								
Title:	Enginee			·.						

APPENDIX H Geomembrane Installation (Secondary Layer for Ponds A, B, and C)

Section 1 Geomembrane Panel Deployment Log



PROJECT # 2012-102

PROJECT DÉSCRIPTION : J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

LAYER: _PRIMARY (SECONDARY) OTHER

11-30-12 Page #1 11/30/12 LENGTH **WIDTH AREA** COMMENTS/PANEL LOCATION **AMB** AVG. QA **PANEL ROLL THICKNESS** APPROX. MON. **TEMP** APPROX. APPROX. **SPECIAL SHAPE** # # (mil) 75 P1 166 22,5 455 443342-12 3735 60 443342 225 PZ 165 3712.5 60 ککت 165 225 P3 443342 76 61 450 3712.5 144 C55 P4 22.5 3690 44 3568 60 CSS 162 3568 75 60 22.5 3645 P3 3568 255 61 225 Pb 75 163 3667.5 255 3645 225 3560 60 75 PB 163 60 3560 CSJ 22.5 3667.5 76 61 P9 22,5 3422.5 455 3560 161 25 562.5 60 3340 2z.5 455 710 90 3340 60 C55 10 74 540 255 7\$ 24 225 Trapezoid \ 3340 61

PAGE APPROX. TOTAL (SQ FT):_	34290	Ft2
DAILY TOTAL (SO FT):	_	

REVIEWED BY: S. NEJAD

DATE: 11-30-12

ACCUMULATED TOTAL (SQ FT):	ACCUMUL	ATED	TOTAL	(SQ FT):	
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SINEERING, LLC **GEOMEMBRANE PANEL DEPLOYMENT LOG**

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.

11/30/12



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

LAYER: PRIMARY SECONDARY

11-30-12

pase #(2)

PANEL	ROLL	AMB	LENGTH	WIDTH	AREA	AVG.	QA	COMMENTS/PANEL LOCATION
#	#	TEMP	APPROX.	APPROX.	APPROX.	THICKNESS (mil)	MON.	SPECIAL SHAPE
P13	3340	74	38	22.5	855	61	CST	
P 14	3340	74	38	22.5	855	60	<కర్	
715	3340	73	41	22.5	922.5	60	C35	
216	3340	73	41	22.5	922.5	Ca1	C55	
P17	3340	73	28	22.5	630	60	CSJ	Trapezoid T
718	3340	73	50	22.5	1125	60	CST	Trapezoid
P45	3340	73	15	27.5	337.5	60	C55	
P.20	3340	73	25	22.5	562.5	61	<55	Trapezoid V
2,1	3340	73	40	22.5	900	60	e35	
22	3340	73	40	22.5	900	60	C35	
23	3567	73	40	22.5	700	(5-1)	c35	um makananan arkar ing disebut di sebesah di
24	3567	73	40	22.5	900	40	4>5	

PAGE APPROX. TOTAL (SQ FT): 9810 F+2

DAILY TOTAL (SQ FT):

ACCUMULATED TOTAL (SQ FT)

REVIEWED BY : S. NEUAD

DATE: 11-30-12



PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanço

LAYER: _PRIMARY SECONDARY OTHER_

12/30/1	12							11-30-12 Page #13
PANEL	ROLL	AMB	LENGTH	WIDTH	AREA	AVG.	QA	COMMENTS/PANEL LOCATION
# .	# .	TEMP	APPROX.	APPROX.	APPROX.	THICKNESS (mil)	MON.	SPECIAL SHAPE
P25	3567	23	28	22.5	630	60	L55	Trapezoid V
P26	3567	73	14	5	20	61	C55	Trapezoid \
727	3567	73	14	5	70	60	LS 5	
P28	3567	73	28	225	630	60	C#5	Trapezoid D
P29	3567	73	164	22.5	3690	61	CSJ	
		way iz				-		The state of the s

PAGE APPROX. TOTAL (SQ FT): 5090 FT2

DAILY TOTAL (SQ FT): 49,190 FT2

ACCUMULATED TOTAL (SQ FT): 49,190 FT2

REVIEWED BY: 5. NEUAD

DATE: 11-30-12



PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

LAYER: PRIMARY SECONDARY OTHER

12-1-12 page #

PANEL	ROLL	AMB	LENGTH	WIDTH	AREA	AVG.	QA	COMMENTS/PANEL LOCATION
#	#	TEMP	APPROX.	APPROX.	APPROX.	THICKNESS (mil)	MON.	SPECIAL SHAPE
30	3567	77	165	22.5	3712.5	60	CSJ	
31	3341	77	164	22.5	3690	61	250	
32	3341	77	145	22,5	3712.5	60	C53	
33	3341	.77	165	27.5	3712.5	60	<গ্ৰ	
34	3680	27	165	22.5	371z.5	60	C55	
35	3680	77	165	22.5	3712.5	(a.((5)	·
36	3680	77	165	22.5	3712.5	60	CSJ	
37	3447	22	165	22.5	3712.5	60	C3J	
38	3447	27	28	22.5	630	60	C355	
39	3447	27	17	6	102	60	C55	
40	3447	77	17	6	102	60	055	· .· .
41	3447	77	32	22.5	720	Ce 1	C50	

PAGE APPROX. TOTAL (SQ FT)	: 31,231,25
DAILY TOTAL (SO FT):	_

REVIEWED BY: 5. NEUAD

DATE: 12/1/12

ACCUMULATED TOTAL (SQ FT):	
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INEERING, LLC BRANTLEY GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco

LAYER: PRIMARY SECONDARY OTHER

12/1/12 Page #

PANEL #	ROLL #	AMB TEMP	LENGTH APPROX.	WIDTH APPROX.	AREA APPROX.	AVG. THICKNESS (mil)	QA MON.	COMMENTS/PANEL LOCATION SPECIAL SHAPE
42	3447	77	38	22.5	355	60	C\$5	
43	3447	27	38	22.5	855	60	455	
44	3447	77	38	225	853	(60	C55	
45	3447	77	38	325	855	60	C55	
46	3447	77	22	22.5	495	60	دعح	
47	3447	77	(8	6	108	61	C25	
48	3447	27	32	225	720	60	CEST	
49	3445	77	28	225	630	60	くらひ	
50	3445	77	10	15	150	60	C55	
51	3445	72	20	13	300	60	C35	
52	3445	77	28	22.5	630	61	C55	e preparation de la constant de la c
53	3445	77	55	22.5	1237.5	60	45	

PAGE APPROX. TOTAL (SQ FT):_	7690.5	Ft2
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DAILY TOTAL (SQ FT	'):	_

ACCUMULATED TOTAL (SQ FT):__

REVIEWED BY: 5. NEUAD

DATE: 12/1/12



PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

LAYER: PRIMARY (SECONDARY)

12-1-12

PANEL #	ROLL #	AMB TEMP	LENGTH APPROX.	WIDTH APPROX.	AREA APPROX.	AVG. THICKNESS (mil)	QA MON.	COMMENTS/PANEL LOCATION SPECIAL SHAPE
34	3445	77	78	22.5	1755	(60	C 55	
55	3445	77	28	22.5	1755	60	C5J	
56	3445	77	78	225	1755	101	LS 5	
37	3681	77	78	22-5	1755	60	<u> </u>	
58	3681	77	4.6	225	1035	Leo	C55	
59	3481	77	30	22.5	675	60	C55	
60	3681	77	14	10	140	60	C55	
61	3681	27	14	10	140	61	CSJ	
62	3681	77	30	22.5	675	60	CFL	

PAGE APPROX. TOTAL (SQ FT): 9685 FT

DAILY TOTAL (SQ FT): 48607 Ft²

ACCUMULATED TOTAL (SQ FT): 97797 Ft²



PROJECT # 2012-102

12/2/12

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco

LAYER: PRIMARY SECONDARY OTHER

12-3-12

12/3/12								10-)-10	<i>y</i> — "
PANEL	ROLL	AMB	LENGTH	WIDTH	AREA	AVG.	QA	COMMENTS/PANEL LOCATION	
#	#	TEMP	APPROX.	APPROX.	APPROX.	THICKNESS (mil)	MON.	SPECIAL SHAPE	
63	3481	70	163	22.5	3467.5	60	255		
64	3456	71	163	22.5	3667.5	60	C25		
65	3456	71	163	22.5	3667.5	60	C\$5		
66	3456	72	163	22.5	3467.5	Ge1	CST		
67	3451	73	163	225	3467.5	60	CSJ		
68	3-151	73	24	22.5	540	60	C55		
69	3451	74	7	5	35	(e 0	055		
70	3451	74	13	5	65	60	C25		
21	3451	74	24	225	585	40	050		
73	345/	74	39	225	877.5	60	CSS		•
73	3451	74	39	22.5	877.5	61	45	A. D. C. C. S.	
74	3451	74	39	22.5	877.5	60	CLS		

PAGE APPROX. TOTAL (SQ FT): 22195 Ft2

DAILY TOTAL (SQ FT):

REVIEWED BY: 5. NEJAD

DATE: 12 - 3 - 12

ACCUMULATED TOTAL (SQ FT):_____



PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

LAYER: PRIMARY (SECONDARY)

OTHER____

12-3-12

Page # 8

PANEL #	ROLL #	AMB TEMP	LENGTH APPROX.	WIDTH APPROX.	AREA APPROX.	AVG. THICKNESS (mil)	QA MON.	COMMENTS/PANEL LOCATION SPECIAL SHAPE
75	3451	75	39	22.5	877.5	60	C55	
76	3451	25	24	225	540	60	CST	·
77	3461	75	10	9	90	61	C55	
78	3451	75	28	22.5	630	60	C55	
							1	
								<u></u>

PAGE APPROX. TOTAL (SQ FT): $2 \mid 37.5 \mid Ft^2$ DAILY TOTAL (SQ FT): $24332.5 \mid Ft^2$ ACCUMULATED TOTAL (SQ FT): $122129.5 \mid Ft^2$

REVIEWED BY : S. NE JAD

DATE: 12-3-12

Section 2 Geomembrane Trial Seam Log



SECONDOMY

OWNER: Omni Waste of Osceola County, LLC

PROJECT #: 2012-102

PROJECT LOCATION - St. Cloud. FL.

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

Brantley Engineering, LLC

ENGINEER: Geosyntec
INSTALLER: Comanco

DATE: 11-30-12

AGE# 1

PROJEC	LLLOC	AHON	: St. Clo	ua, FI										DAIE:	11-	50-	10		PAGE	₹	_
					FUSIO	FUSION WELD EXTRUSION WELD															
TF/TX ID#	Time	AMB TEMP.	MACH. ID#	WELD	SPEED	WEDGE SET	PRE HEAT	BARREL SET		PEEL	VALUE	lbs/i	nch		SH	EER V	ALUE	lbs/in	ch	P/F	QA MON.
TF-I	1400	₹8	95	SM	18	840	_	-	INSIDE OUTSIDE	102	, , ,	99	103	_	135	140	131	145	143	P	SMN
TF-2	1405	78	75	JP	13	850	_	-	INSIDE	201	103	121 93	114	97	140	140	131	145	143	p	SMN
TF-3	1600	78	16	JP	10	850	_	_	INSIDE OUTSIDE	105 108			106	95		141	135	145	144	P	SMN
									INSIDE OUTSIDE												
									OUTSIDE												
									INSIDE OUTSIDE												
									OUTSIDE												
									INSIDE												
									OUTSIDE												
	:			-					OUTSIDE									-			
									INSIDE												
									INSIDE OUTSIDE												
									INSIDE												

REVIEWED BY:	5	NEIDN
REVIEWED BY:	J.	NGJAD

DATE: 11-30-12

Passing Peel Fusion (91 lb/in):

__ P

Passing Peel Extrusion (78 lb/in):

Passing Shear Fusion (120 lb/in): _

Passing Shear Extrusion (120 lb/in):

BRANTLEY AGINEERING, LLC GEOMEMBRANE TRIAL SEAM LOG

SECO ndary

PROJECT #: 2012-102

PROJECT LOCATION: St. Cloud, Fl.

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

Brantley Engineering, LLC OWNER: Omni Waste of Osceola County, LLC ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 12-1-12 PAGE# 2

	0. 200		. 0 0.0	uu,					n .					<i>D.</i> () L.					1 AGE		_
					FUSIO	N WELD	EXTRUS	ION WELD													
TF/TX ID#	Time	AMB TEMP.	MACH. ID#	WELD TECH	SPEED	WEDGE SET	PRE HEAT	BARREL SET		PEEL '	VALUI	E lbs/i	nch		SH	EER V	ALUE	lbs/in	ch	P/F	QA MON.
TF-1	0740	59	95	SM	14	850		-	INSIDE OUTSIDE	109			111	121	165	163	159	156	146	P	SMN
TF-2	0745	59	16	JP	8	850	_	-	INSIDE	101	111		109		1/ 2	166	156	148	164	P	SMN
TF-3	0750	59	95	5M	15	850	_	_	INSIDE OUTSIDE	94	112	104	100	103	1,,,	170	165	145	168	P	SMN
TF-4	1140	78	16	Jρ) 0	850		-	INSIDE OUTSIDE	108	112	101	96		150	141	146	144	144	Р	SMN
TF-5	1150	78	95	5M	15	850	. —	-	INSIDE OUTSIDE	107	93	94		95	1.,,				143		SMN
									INSIDE								Ē				
									INSIDE												
									INSIDE						-						
									INSIDE								-				
<u> </u>	i .		1: :		2 E. E.	.:	1.		OUTSIDE										:		
									INSIDE						_	_		-		+-	
					-		-		OUTSIDE						-					\vdash	
					-		-	<u> </u>	QUTSIDE											\vdash	
4			1		11	1	III.		11							1	1	1	1		

Passing Peel Fusion (91 lb/in):	Passing Peel Extrusion (78 lb/in):	Passing Shear Fusion (120 lb/in):	Passing Shear Extrusion (120 lb/in):
/.	Λ.		

OUTSIDE

REVIEWED BY: <u>S. NEJAD</u>

DATE: 12-1-12

OWNER: Omni Waste of Osceola County, LLC

PROJECT #: 2012-102

PROJECT LOCATION: St. Cloud, Fl.

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

Brantley Engineering, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

DATE: 12-3-12

PAGE#_3

		J. LOO		. 50. 010	,					DATE: TO THE TABLE												
						FUSIO	N WELD	EXTRUSI	ON WELD													
	TF/TX ID#	Time	AMB TEMP.	MACH. ID#	WELD TECH	SPEED	WEDGE SET	PRE HEAT	BARREL SET		PEEL \	VALUI	E lbs/i	nch		SH	IEER V	ALUE	lbs/in	ch	P/F	QA MON.
		10:00		95	SM	16	850	-		\vdash	109		97		94	141	148	147	151	138	P	SMM
	 	10:20		16	JP	io	850	_	~	INSIDE	134	108	105	111	102	141	158	139	150	144	р	SMN
	TF3	10:00	70	16	JP	8	850	_	_	INSIDE		120	_	113	110	143	145	149		134		SMN
	TF-4	1240	78	16	JP	8.	850	_	_	-	124	122			119		139	141	146	141	P	SMM
rustan	TX-I	1340	78	71	BV		-	480	440	INSIDE OUTSIDE	130		126		126	144	136	149	135	134	۲	SMA
										INSIDE OUTSIDE												
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										OUTSIDE					+-	1						
٠.		1		 		1		1		INSIDE								\uparrow				
										OUTSIDE						7						

Passing Peel Fusion (91 lb/in): _____

Passing Peel Extrusion (78 lb/in): _____

Passing Shear Fusion (120 lb/in): _____

Passing Shear Extrusion (120 lb/in):

REVIEWED BY: 5. NE JAD

DATE: 12-3-12



SECONDARY

OWNER: Omni Waste of Osceola County, LLC

PROJECT #: 2012-102

PROJECT LOCATION: St. Cloud, Fl.

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

Brantley Engineering, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

DATE: 12 -4-12

Passing Shear Fusion (120 lb/in): _____ Passing Shear Extrusion (120 lb/in): ____

PAGE#

=XT1USION

				·	FUSION WELD EXTRUSION WELD								D7 (1 L)		TAGE!						
TF/TX	Time	AMB	MACH.	WELD	SPEED	WEDGE	PRE	BARREL		PEEL	VALU	lbs/i	nch		SH	EER V	ALUE	lbs/in	ch	P/F	QA
ID#		TEMP.	ID#	TECH		SET	HEAT	SET													MON.
T \ 1	9100		10	C 14	-		110~	11.1	INSIDE	120	113	116	100	114	ia		hau				
1-X7	8120	70	19	SH			488	440	OUTSIDE			_	_		185	173	181	171	164	P	SMN
TX-2	8:20	70	71	BV	_	-	530	500	OUTSIDE	128		128	119		164	172	163	166	167	p	SMN
			, ,				77	720	INSIDE	116	122	114	120	120		110	147	166	r6: /	ľ	21(14
Tx-3	12:50	80	71	ΒV		_	520	480	OUTSIDE	7	100	114	120	120	134	124	136	136	144	P	SMY
				_					INSIDE						<u> </u>		7,2	170	, ,	<u>'</u>	7 7
									OUTSIDE												
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REVIEWED BY :	3.	NEUAD

Passing Peel Fusion (91 lb/in): _____ Passing Peel Extrusion (78 lb/in): _____

DATE: 12 U-17

Section 3 Geomembrane Fusion Seaming Log

BRANTLE GINEERING, LLC **GEOMEMBRANE FUSION SEAM LOG**

SECONDAY

PROJECT # 2012-102

MACHINE # A 95

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



Brantley Engineering, LLC OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco DATE: 11 - 30 -12

122A	NG:	TRIA	I SE	2M4
MJ3I	140	INIA	ᆫᇰᇆ	11713

NO.	TIME	TECH ID
TF-I	14:00	SM

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (Ø)

PAGE NUMBER:

	*					MACHINE SET	rings	.i	LENGTH				** PASSIN	NG - NON
	SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
SEAM	START * FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
1/2	NEOS + SEOS	1400	76	SM	18	840	845	165	120/45	DS-1	5MN		12-3	SMN
213	NEOS . SEOS	14117	76	SM	18	840	842	165	210)	5MN		12-3	SMN
61.7	NEOS . SEOS	14:34	75	SM	18	840	840	161	371	_	5MN		12-3	SMM
8/9	NEOS · SEOS	14:56	75	8 M	18	840	844	161	490/42	D5-3	SMN		12-3	SMM
12/13	WEOS . EEOS	1525	74	514	18	840	842	38	80	_	SMN		12-3	SMN
13/14	WEOS · EEOS	1530	74	5M	18	840	845	38	118		SMN		12-3	SMN
14/15	WEOS . EEOS	1540	73	SM	18	840	842	38	156	_	SMN		12-3	
15/16	WEOS. EEOS	1550	73	5M	18	840	839	40	196	_	SMN		12-3	5MN
20/21	EGOS . WEOS	1600	73	5M	18	840	842	40	236		SHN	(12-3	SMIY
21/22	EUGS · WEOS	1608	73	SM	18	840	844	40	276	_	SIMN		12-3	SMIN
22/23	EE05 . WEOS	1616	72	SM	18	840	845	40	316	_	SMN	:	12-3	MME
23/24	EEOS · WEOS	624	72	SM	18	840	843	40	356		SMN		12-3	SMH
24125	EEOS · WEOS	1430	72	SM	18	840	840	40	396		SMN		12-3	SMIY
25/24	5505 * WESS	1638	72	SM	18	840	843	14	410	-	SIMN		12-3	SMIN
27/28	NEOS * SE65	1643	72	SM	18	840	840	14	424	-	SMN		17-3	SMN
* REFERENCE SEAM EI	NDPOINTS FROM END OF SEAM	vi (EOS),					PAGE TOTAL:	1034				** DATA TO BE	COMPLETE	D BY THE

* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), **DEFECT NUMBER OR A POINT LOCATION ON A SEAM**

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

BRANTLEY SINEERING, LLC GEOMEMBRANE FUSION SEAM LOG

GECONDONY

PROJECT # 2012-102

MACHINE#

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.

75



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec
INSTALLER: Comanco
DATE: ///30//2

PASSING TRIAL SEAMS

NO.	TIME	TECH ID
TF-2	1405	JP
	ē	

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (_____)

PAGE NUMBER:

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		*	`#.					MACHINE SET	rings		LENGTH				** PASSIN	IG - NON
	SEAM	SEC	TION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
SEAM	START	*	FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT	*	POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
3/4	NEOS	*	\$E05	12410	76	JP	13	850	850	163	80/83	DS-2	450		12-3	3 MW
516	ufos	*	3803	1430	75	57	13	850	850	161	244		455		12-3	SMN
7/8	NEOS	*	5005	1455	75	57	13	850	850	161	405		45		12-3	SMN
5/10	NEGS	*	SEOS	1520	74	J9	ß	850	850	41	446	_	CsJ			SMIY
10/11	JEOS.	*	SEQS	1530	74	TP	13	850	851	8	454	_	C \$3			SMN
10/12	FEOS	*.	WEOS	1535	73	37	13	850	850	30	484	_	دىن		12-3	
11/12	EEOS	*	WEOS	1541	73	57	13	850	850	6	490		255		12-3	5MN
16/17	KENS	*	wEos	1545	73	39	1,3	850	850	37	495/32	D5-4	435		12-3	SMN
/	:	.*				,										
1		*					· ·	•	-	S -			- 1			
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7	The state of the s	*					· · · · · ·	FREE STREET	Server Chicago and Asia	9. 6. 	E PRESENTATION OF THE PRES		-			1
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/		*			1							1				

* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY DESTRUCTIVE LENGTH CARRY-OVER

PAGE TOTAL: (007

32 607

DAILY TOTAL WELDED (FT)

32

DATA REVIEWER ONLY.

** DATA TO BE COMPLETED BY THE

REVIEWED BY: 3. NEJAD

DATE: 12/4/12

BRANTLEY GINEERING, LLC **GEOMEMBRANE FUSION SEAM LOG**

GECONDOMY

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco** DATE: 11/30/12

РΔ	SSI	NG	TRI	Δŀ	SEA	MS

	NO.	TIME	TECH ID
	TF-3	16:00	J.P.
.,			
MACHINE #			

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (____)

PAGE NUMBER: 3

	*	T				MACHINE SET	TINGS		LENGTH				** PASSII	NG - NON
	SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	
SEAM	START * FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
17/19	FEOS + WEOS	1610	73	TP	10	850	849	14	14	~	(35		12-3	974N
18/19	NEOS SEOS		,	50	10	850	851	22	36		L35	-		SMN
17/18	EFOS " WEOS				10	850	850	30	46		C55		12-3	
19/20	UEOD * EEOS	1630		JP	10	850	850	11	77	_	حيح			SMH
18/20	WEOS . EEO>	1633	73	JP	10	850	849	31	108	_	433		,	SMN
4/29	NEOS 'SEOS					850	850	162	115/155	P5-5	C55			SMN
/	•													
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* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

PAGE TOTAL 210

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

155

270

DAILY DESTRUCTIVE LENGTH CARRY-OVER

REVIEWED BY: 8 NETAD
DATE: 12/4/12

BRANTLE LINGINEERING, LLC **GEOMEMBRANE FUSION SEAM LOG**

SECONDARY

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco** DATE: 11-30-12

PASSING TRIAL SE	AM:	S
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	NO.	TIME	TECH ID	DES
	7F-1	14:00	SM	FRC
9				
MACHINE # 73			,	

RUCTIVE SEAM LENGTH CARRY-OVER

PAGE NUMBER:

	*					MACHINE SET	TINGS		LENGTH				** PASSIN	NG - NON
1	SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
SEAM	START * FINISH	START	AIR	WELD	МАСН			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
25/28	EEOS . WGOS	1648	72	SM	18	846	840	31	455	1	SMN		12-3	SMN
26/27	EEOS * WEOS	1651	72	SM'	18	840	842	18	473	1	SMN	_		SMN
1 / 28	NEOS · SEOS	1700	72	8M	18	840	844	35	490/18	DS-6	SMN		12-3	5MN
/														
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/	*													
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^{*} REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE TOTAL: 84

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

REVIEWED BY: S. NEJAD DATE: 12/4/12

BRANTLE GINEERING, LLC **GEOMEMBRANE FUSION SEAM LOG**

SECONDAM

PROJECT # 2012-102

MACHINE #

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco** DATE: 12-1-12

PASSING TRIAL SEAMS

NO. TIME TECH ID SM SM 1150 5 M

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (4)

PAGE NUMBER: 5

		*					MACHINE SET	TINGS		LENGTH				** PASSIN	IG - NON
	SEAM	SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
SEAM	START	* FINISH	START	AIR	WELD	МАСН			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT	* POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
5/16	NEOS	· SEOS	0748	59	SIM	\$4	850	848	. 22	40	1	SMN		12-3	SMH
5 /15	NEOS	* 5 E OS	0751	59	514	14	850	846	23	43	4	SMN		12-3	SMN
5 / 14	NEOS	* 5 E 0 S	0754	59	SM	14	850	844	22	85	-	SMN		12-3	519 M
5 /13	NEOS	* SEOS	0757	59	SM	14	850	845	23	108	1	SMN		12-3	SMN
29/30	NEOS	* SE05	1040	77	SM	15	850	844	165	273	_	SMN		12-3	SMIY
32 / 33	SE05	* NEOS	1100	フフ	SM	15	850	846	165	438	_	SMN		12-3	51114
33 / 34	SEOS	* NEOS	1132	フフ	S14	15	850	847	165	490/113	DS-8	SMN		12-3	SM14
34/35	SEOS	· NEOS	1128	77	5M	15	850	845	165	278	_	SMM		12-3	SMM
35/36	SEOS	· NEOS	1145	77	5M	15	850	848	165	443	_	SMN		12-3	SIMA
45 146	WEOS	* EEOS	1207	78	SH	15	850	850	33	476	-	SMN		12-4	SMN
47/48	9805	* NEOS	1215	78	SM	15	850	840	14	490		SMN		12-4	$\overline{}$
45 /48	WEOS	* EEOS	1219	78	SM	15	850	840	11	495/6	Ds_ 9	SMN		12-4	SMM
46/48	WEOS	* 5E0S	1221	78	SM	15	850	848	20	26	_	SMN		12-4	SMH
46/47	WESS	* EEOS	1223	78	5M	15	850	849	15	41	_	SHN		124	SMN
44 /45	EEOS	*WEEDS	1230	78	SM	15	850	848	42	83	-	5MA		12-4	SMN
* REFERENCE SEAM EI	NDPOINTS FR	OM END OF SEAM	M (EOS),					PAGE TOTAL:	1050		_		** DATA TO BE	COMPLETE	D BY THE

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

DATA REVIEWER ONLY.

REVIEWED BY: S. NEUAD DATE: 12-4-12



9 Econdary

PROJECT # 2012-102

MACHINE # 95

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco DATE: 12 - 1 - 12

PASSING TRIAL SEAMS

NO. TIME TECH ID

TF-1 0740 5M

TF-3 0750 5M

FF-5 1150 5M

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (.5) 8 3

PAGE NUMBER: 6

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1	Ţ			1		MACHINE SET	TINGS		LENGTH				** PASSIN	NG - NON
	SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
SEAM	START * FINIS	SH START	AIR	WELD	МАСН			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POI	NT TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
43 / 44	5505 · WE	05 1238	7.8	SM	15	850	8.48	42	125	-	SMN		124	SMN
52/53	SEOS . NE	15 1300	78	8M	15	850	846	30	155	_	5414		12-3	SMH
51/52	SEOS . NE	05 1307	78	8M	15	850	848	16	171	-	SMN	_	12-3	SMN
50/51	5605 · NE	05 1310	78	SM	15	850	850	15	186	_	SMN		12-3	SMN
51 / 53	EEOS · WE	05 1313	78	SM	15	850	849	20	206	_	87414		12-3	SNN
50/53	EGOS · WE	05 1314	78	SM	15	850	846	フ	213		5MN		12-3	SMN
53/54	EEOS · WE	05 1315	78	SM	15	850	850	77	290		SMN		12-3	SMM
54155	WEOS · EE	65 132a	78	871	15	850	852	78	368	_	SMN		12-3	SMN
55156	WEOS + BEC	5 1337	78	SM	15	850	850	78	446	_	SMN		12-3	SMM
9 / 59	NEOS + SEC	5 1345	178	SM	115	850	848	36	482	-	SMN		12-3	SMN
57 158	W605 . 6E	05 1350	78	SM	15	850	846	72	490/64	DS-11	SMH		12-3	SMN
56/57	WE65 . EE	1356	78	SM	15	850	850	78	142	-	SMK	To a source is and a second	12-3	SMH
61/62	NEOS · SE	55 1404	78	SM	15	850	842	14	156	_	SMN		12-3	SMM
58/61	9605 + NEO	5 1405	78	SM	15	850	848	12	168		SMN		12-3	SMM
58 162	SEOS + NEO	5 1407	78	811	15	800	846	14	182	_	SMN		12-3	5MN

* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

182

PAGE TOTAL: 589

DAILY TOTAL WELDED (FT)

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DAILY DESTRUCTIVE LENGTH CARRY-OVER

REVIEWED BY: 5 MEJAD
DATE: DJU 17

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

BRANTLEY SINEERING, LLC GEOMEMBRANE FUSION SEAM LOG

SECondary

PROJECT # 2012-102

MACHINE# 95

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco DATE: 12-1-12

PASSING TRIAL SEAMS

NO. TIME TECHID

TF-1 0740 SM

TF-3 0750 SM

TF-5 1150 SM

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (6) 82

					1									
1	*					MACHINE SET	rings	.	LENGTH				** PASSIN	IG - NON
1	SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
SEAM	START * FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
57/62	WEOS * EEOS	1409	78	871	15	850	8-48	7	189	_	SMN		12-3	SMN
.59160	SEOS . NEOS	1411	78	SM	15	850	846	13	ZoZ	4	SMN		12-3	SMN
58/60	EEOS . WEOS	1416	78	SM	15	850	848	12	214		SMA		12-3	SMH
58159	EEOS . WEOS	1418	78	SM	15	850	846	24	238	_	SMN		12-3	5MN
57/59	EEOS . WE OS	1422	78	814	15	850	845	6	244	_	SMN	Covend B		
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1	*· - · ·					-	+ · · · · · · · · · · · · · · · · · · ·	F2 50 71 Tax 4		रे. अस्त्रमध्य		_ ,,	· · · · · ·	
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^{*} REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE TOTAL: 67

1701

170

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

PAGE DESTRUCTIVE LENGTH CARRY-OVER

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

REVIEWED BY: 8 MESAD

BRANTLEY SINEERING, LLC **GEOMEMBRANE FUSION SEAM LOG**

9 Econdary

PROJECT # 2012-102

MACHINE # 16

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco DATE: 12/1/12

PASSING TRIAL SEAMS

NO. TIME **TECH ID** **DESTRUCTIVE SEAM LENGTH CARRY-OVER** FROM PAGE # (3) /5

PAGE NUMBER:

	*					MACHINE SET	TINGS		LENGTH				** PASSIN	NG - NON
	SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
SEAM	START * FINISH	START	AIR	WELD	масн			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
1/24	NEOS + SEC	0745	58	JP	ඉ	850	850	22·	177		C35		12-3	SMN
1/23	NEOS * SEOS	0747	58	3 ?	8	850	849	22	199	_	235		12-3	MKS
1/22	NEOS * SEOS	0749	58	<u>5</u> 2	8	850	850	23	222	_	035		12-3	SHH
1/21	NEOS * SEOS	0751	58	JP	8	850	851	22	244	_	435	ų (_e mam	12.3	SMH
1/18	NEON "SEOS	5751	58	37	8	850	850	34	280	_	C\$5		12-3	SMN
5/18	NEOS * 3FOS	0754	58	JP	පි	850	850	31	311	_	ধ্যে			SMN
4/8	EFOS "WEOS	0810	60	4C	8	850	850	22	333	_	رجي			SMN
3/7	EEOS "WEUS	0812	60	Q P	8	වීජ	848	23	356	_	c55		12-3	SMN
2/6	EFOY " WEO	0814	60	JP	8	350	850	22	378	_	255		12-3	SMN
115		0816		57	23	250	850	23	401	_	C\$5		12-3	SMIL
30/31	NEOS SEOS	1050	_	JP	10	850	850	162		D5-77	C35			SMH
31/32	SEGS " NEO	> 1110	72	σP	10	850	850	164	237		45		12-3	SMN
36/37	5805 " NEOS	1140	27	υP	10	850	850	163	400		C.50	+	12-3	SMM
42/43	wros *EFOS	1210	77	58	10	850	850	36	436	_	-25	i - —	12-4	SMN
41/42	UEOS · FEOS	12	77	159	16	850	848	31	467		025	1	12-4	SMM
* REFERENCE SEAM EI	NDPOINTS FROM END OF SE	AM (EOS),					PAGE TOTAL:	802				** DATA TO BE		D BY THE

^{*} REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

DATA REVIEWER ONLY.



SECONDARY

PROJECT # 2012-102

MACHINE # 16

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC **ENGINEER:** Geosyntec

INSTALLER: Comanco

PASSING TRIAL SEAMS

NO. TIME **TECH ID** TF-2

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (8) 467

PAGE NUMBER:

													_		
		*					MACHINE SET	ΠNGS		LENGTH				** PASSIN	IG-NON
	SEAM S	SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
SEAM	START	* FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT	* POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
40/41	EFOS	* 5503	1224	27	3 P	10	850	850	16	483	-	ري		12-4	SMN
38/39	SECO	* WED 5	1228	72	59	10	855	850	17	490/10	סורכם	ट्य		12-4	SMH
38/4(3805	* NEAS	1245	27	58	10	850	850	28	38		C55	i	12-4	SMM
39/40	SEOS	* NE05	1250	77	TP	10	850	<i>৪5</i> ১	12	50		45		12-4	SMN
37/48	3 F03	*NFOS	1310	77	90	10	850	८५१	40	90		C\$5		12-4	SHN
37/45	SEOS	* NEOS	1315	77	JP	10	850	850	19	104	_	C>3		12-4	
37/44	SEOS	* NE03	1317	77	JP	10	850	856	22	126	_	C55		12-4	
37/43	5£03	* NE05	1317	27	JP	10	850	850	23	1.49		C55		12-4	SMN
37/42	520>	· NEOS	1321	27	JP	10	856	850	22	171	_	C55		124	SMN
37/41	3205	. NE-4	1323	77	J\$	10	850	849	4	175	~	C55	Covered	By 2	T
37/38	5805	* PE02	1324	22	JP	10	850	851	36	211		CSO		12-4	5MY
9 157	SEOS	* WEOS			JP.	10	85C	850	20	Ž31	Aller and the second se	CD	See A conditional six and	12-3	SMN
9 154	5503	* NEOS	1349	77	JP	10	850	850	22	253		CST	,	12-3	SMN
9 155	50.5	* NEOS	1351	77	JP	10	850	850	23	276	_	CSJ		12-3	SMH
9/54	9.E0S	* NEOS	1353	77	JP	10	850	852	22	298	_	CSJ		12-3	SMA

^{*} REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE TOTAL: 321

298

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

REVIEWED BY: S - NEJAD DATE: 12 - 4 - 12



SECONDAM

ENGINEER: Geosyntec

INSTALLER: Comanco

OWNER: Omni Waste of Osceola County, LLC

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



PASSING TRIAL SEAMS

Brantley Engineering, LLC

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (9) 29 8

DATE: 12/1/12

		NO.	TIME	TECH ID
	•	TF-2	0745	JP
		TF-4	1140	JP
	1.7			
MACHINE #	16		1	

PAGE NUMBER:

	*				MACHINE SET	TINGS		LENGTH				** PASSIN	IG - NON
	SEAM SECTION	APPROX. AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
SEAM	START * FINISH	START AIR	WELD	масн			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT	TIME TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
9 1 49	SEOS * NEOS	1403 77	35	10	850	850	36	334	1	CST		12-3	SMH
49/50	\$ E#3 + NEOS	14 68 77	9Z	10	850	950	14	348	_	C53		12-3	SMN
49 /53	SEOS NEOS	1412 75	JP	10	<u> </u>	850	30	378	_	C55		17.3	SMN
33/52	FEOS "WEOS	1420 77	25	10	860	850	5	383		C55		CZ-3	SMN
32 /52	EFOS 'WEOS	1421 77	JP	.16	පිරව	850	16	390/9	DS-12	C55		12-3	SMN
32 151	FEOS .WEOS	1423 77	JP	10	850	850	4	15		C25	-	12-3	SMIY
31 151	EEOS · WEOS	1425 77	SP	10	850	850	14	29		CST		12-3	SMN
31 /50	EEOS . WROS	1426 77	TP	10	850	850	8	37	-	C45		12-3	
20 / 49	EEOS · WEOS	1428 77	JP	10	850	850	22	59	_	C57		12-3	514 N
9/29	FEOS · WEOS	1430 77	JP	10	850	850	23	82		C25	_	12-3	SMH
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1			Note that the second	5 845 U. J.	X	1	:	The state of the s			TOTAL TO PROGRAMMA SECTION	Aur Herina	<u> </u>
/	*		7		-			,					
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^{*} REFERENCE SEAM ENDPORES FROM END OF SEAM (EOS),

PAGE TOTAL 174

DATA REVIEWER ONLY.

** DATA TO BE COMPLETED BY THE

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

PAGE DESTRUCTIVE LENGTH CARRY-OVER

REVIEWED BY: 5 NEJAD

BRANTLEY GINEERING, LLC GEOMEMBRANE FUSION SEAM LOG

GECordany

PROJECT # 2012-102

MACHINE#_95

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco DATE: 12-3-12

PASSING TRIAL SEAMS

NO. TIME TECHID

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (7) 24 U

PAGE NUMBER:

	*					MACHINE SET	TINGS		LENGTH				***	
	CTANA CTCTION	APPROX.	ANAD			DIGITAL SET		ADDDOV					** PASSIN	
	SEAM SECTION	APPROX.	AMB.			DIGITALSET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
SEAM	START * FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
63/64	SEOS * NEOS	1018	72	SM	16	850	848	162	406	ı	SMN	_	12-3	SMN
64/65	5505 NE05	1034	72	SM	16	850	852	163	490/49	DS-13	SMIN		12-3	SMM
65/66	5665 NEOS	1050	72	8M	16	850	846	163	242	1	SMN		12-3	MMY
71/72	WEOS * FEDS	1100	72	514	16	800	848	37	279		SMN		12-3	SMN
72/73	WEOS. EEOS	1104	72	SM	16	848	849	37	316	_	SMN		12-3	SMN
73/74	WEOS · EEOS	1108	72	SM	16	840	850	37	353	<u> </u>	SMM		12-3	SNIY
74175	WEOS * EEOS	1112	72	514	16	850	848	37	390		SMN		12-3	SNN
75/76	EEOS · WEOS	1116	72	SM	16	850	850	37	427.	_	SIMN		12-3	SMN
67178	SEOS . NEOS	1121	72	SM	16	850	848	28	440/15	D5-14	SMN		12-3	SMN
67168	3605 NEOS	1142	72	SM	16	850	846	34	49	_	SMM		12-3	SMN
70/71	WEOS* EEOS	1146	73	SM	16	850	848	15	64		SHN		12-3	SMA
68/69	STEDS * NEOS	1152	73	SM	110	850	846	8	72		SHN	26A-A	12-3	SMN
69170	WEO: + ECOS	1315	78	SM	16	850	848	10	82	-	SMN		12-3	SMY
68170	WEGS * EERS	1320	78	9M	16	850	849	ᆚ	86		SMH	Covered	y 5	J
68/71	WEOS * EEOS	1325	78	5M	16	850	850	20	106	-	SMM		12-3	SMN

^{*} REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

PAGE TOTAL: 792

106

DAILY TOTAL WELDED (FT)

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DAILY DESTRUCTIVE LENGTH CARRY-OVER

DATA REVIEWER ONLY.

** DATA TO BE COMPLETED BY THE

REVIEWED BY: 5、 NGJAD DATE: 12-4-12

BRANTLEY GINEERING, LLC **GEOMEMBRANE FUSION SEAM LOG**

GECordany

PROJECT # 2012-102

MACHINE # 95

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco** DATE: 12-3-12

PASSING TRIAL SEAN	MS	
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NO.	TIME	TECH ID	` DESTRUCTIVE SEAM LENGTH CARRY-OVER
TF-1	10:00	5M	FROM PAGE # () 106
1			
			PAGE NUMBER:

	*				MACHINE SETTINGS			LENGTH				** PASSIN	G - NON	
	SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	resting
SEAM	START * FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
67/71	SEOS * MEOS	1330	78	SM	16	850	848	H	110	_	5MM	Covered	By 6	N
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*	REFERENCE	SEAM	ENDP	OINTS	FROM	END	OF	SEAM	(EOS)
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DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

PAGE TOTAL:

110

796

110

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

REVIEWED BY: S. NEJAD DATE: 12-4-12

BRANTLEY SINEERING, LLC **GEOMEMBRANE FUSION SEAM LOG**

SECONDARY

PROJECT # 2012-102

MACHINE# 16

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco** DATE: 12-3-12

PASSING TRIAL SEAMS

NO. TIME **TECH ID** 7F-2 0:00 loiso 1240 JP

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (10)

PAGE NUMBER:

	*					MACHINE SETTINGS			LENGTH				** PASSIN	IC NON
	SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	
SEANA				MELD	LAACII.	DIGITALOLI	INDIGATOR							
SEAM	START * FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
52/43	NEOS * SEOS	1038	72	372	8	850	848	38	120	_	८३५		12-3	SMN
54/43	NEPS + 3E05	1642	22	377	金	850	850	22	142	-	C35		12-3	SMN
557/63	NEOS * SEOS	Your	72	JP.	8	850	85/	22	164	/	453	- -	12-3	SMN
56/63	NEGS" SEGS	1046	73	TP	Po	850	250	23	127	-	C55		12-3	SMN
52/43	NEOS SEOS	1048	73	TP	8	850	850	23	207	_	<45		12-3	SMN
62/63	NE05 * 4805	1050	73	JP.	8	850	250	38	245	_ ^	255	-	12-3	SMN
deller	5 FOS * N FOS	1130	23	၁ ခု	8	850	850	162	407	_	হ্যে	· ·	12-3	SMN
72/67	(Ecs " NEOS	1/32	74	JP	8	200	851	22	429	1	CST		12-3	SMN
23/67	skan * NEOD	1134	75	JP	စ္တ	850	256	23	452		255		12-3	SMM
74/60	3505 * NEOS	1Ble	75	JP	8	850	843	22	474	<u> </u>	C55		12-3	SMM
75/67	2000 . NEOD	1138	75	JP	8	850	850	23	490/7	DS-15	025		12-3	SMN
76/78	NEOS SEOS	1140	35	σP	8	-856	850	36	37		ديح		12-3	SMH
47/78	Elon WEOS	1150	76	58	8	350	850	4	41	· –	45	Covered	By 5	ta
48/78	EBOZ "WEOS	1151	26	JP.	8	850	850	17	58		C35		123	SMM
48/67	EEB *WEOS	1153	76	JP	8	850	860	4	62	<u>_</u>	425	Covered	By 5	F

* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

PAGE TOTAL: 470

62

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

REVIEWED BY: 5. NG JAD DATE: 12 - 4 - 12

BRANTLEY EN ERING, LLC GEOMEMBRANE FUSION SEAM LOG

SECONDAM

PROJECT # 2012-102

MACHINE # 16

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



Brantley Engineering, LLC OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco** DATE: 12 - 3 - 12

PASSING TRIAL SEAMS

NO. TIME **TECH ID** JP TF-2 10:00 TF-3 10200 12:40

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (13) 62

PAGE NUMBER:

*				MACHINE SET	TINGS		LENGTH					
SEAM SECTION	APPROX. AN	ИB.		DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			1	
START * FINISH	START A	IR WELD	масн			LENGTH	PREVIOUS		OA			QA
POINT * POINT	TIME TE	MP TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.		REMARKS		MON.
EFOS "WEOS	1154 7	6 28	8	850	850	18	80	_		NEW THIC	-	SMH
FFOS LUFOS	1156 7	७ उरे	8	850	850	4	84	-		Coverse		5D
FFOS · WEGS	1157 7	6 JP	8	850	850	18	102	-		30.0	- D /	SMN
EEOS . WEOS	1189 7	6 JP	8	850	850	4	106	_		Correct		50
FEOS "WEOS	306 8	1 JP	8	850	860	18	124	. –				SMN
FEOS "WEO'S	1308 8	1 SP	8	850	850	6	130	_	-	Covered		5 B
EEOS WEOS	1310 8	1 JP	8	850	250	17	147	_		-		3MM
EEOS "WFOS	1312 8	1 JP	8	පිරව	850	5	152			Carred		44
EKOS "WEOS	1314 8	(JP	8	850	B50	18	170			COPERCY		SMN
SEON WEON	1320 8	1 OP	8	860	850	12	182		_	-		SMIY
EE03 * WEOS	B22 8	1 JP	وي	850	850	10	192	_		-	_	SMIY
SG' Elos	1324 8	1 JP	8	260	8.50							SMN
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											<u> </u>	-
	START FINISH POINT POINT FFOS WEOS FFOS WEOS FFOS WEOS FEOS WEOS FEOS WFOS START * FINISH START A POINT * POINT TIME TE EFOS * WFOS 1154 7 EFOS * WFOS 1157 7 EFOS * WFOS 1157 7 EFOS * WFOS 1157 7 EFOS * WFOS 1159 2 EFOS * WFOS 1308 8 EFOS * WFOS 1310 8 EFOS * WFOS 1312 8 EFOS * WFOS 1320 8	START * FINISH START AIR WELD POINT * POINT TIME TEMP TECH EFOS * WFOS 1154 76 JP EFOS * WFOS 1157 76 JP EFOS * WFOS 1169 76 JP EFOS * WFOS 1308 8 GP EFOS * WFOS 1308 8 GP EFOS * WFOS 1312 81 JP EFOS * WFOS 1312 81 JP EFOS * WFOS 1320 81 JP	SEAM SECTION APPROX. AMB. START * FINISH START AIR WELD MACH POINT * POINT TIME TEMP TECH SPEED EFOS * WFOS 1154 76 JP B EFOS * WFOS 1157 76 JP B EFOS * WFOS 1169 76 JP B EFOS * WFOS 1308 B OP B EFOS * WFOS 1308 B OP B EFOS * WFOS 1312 B JP B EFOS * WFOS 1320 B JP B	SEAM SECTION APPROX. AMB. START * FINISH START AIR WELD MACH POINT * POINT TIME TEMP TECH SPEED WEDGE EFOS * WEOS 1154 76 59 8 850 EFOS * WEOS 1167 76 59 8 850 EFOS * WEOS 1167 76 59 8 850 EFOS * WEOS 1169 76 59 8 850 EFOS * WEOS 1308 8 50 59 8 850 EFOS * WEOS 1308 8 50 59 8 850 EFOS * WEOS 1312 81 59 8 860 EFOS * WEOS 1312 81 59 8 860 EFOS * WEOS 1320 81 59 8 850 START * FINISH START AIR WELD MACH POINT * POINT TIME TEMP TECH SPEED WEDGE WEDGE EFOS * WEOS 1154 76 JP 8 850 850 EFOS * WEOS 1157 76 JP 8 850 850 EFOS * WEOS 1157 76 JP 8 850 850 EFOS * WEOS 1169 76 JP 8 850 850 EFOS * WEOS 1308 8 5 JP 8 850 850 EFOS * WEOS 1308 8 5 JP 8 850 850 EFOS * WEOS 1312 81 JP 8 860 850 EFOS * WEOS 1312 81 JP 8 850 850 EFOS * WEOS 1320 81 JP 8 850 850 EFOS * WEOS 1320 81 JP 8 850 850 EFOS * WEOS 1320 81 JP 8 850 850 EFOS * WEOS 1320 81 JP 8 850 850 EFOS * WEOS 1320 81 JP 8 850 850 EFOS * WEOS 1320 81 JP 8 850 850 EFOS * WEOS 1320 81 JP 8 850 850	SEAM SECTION APPROX. AMB. START * FINISH START AIR WELD MACH POINT * POINT TIME TEMP TECH SPEED WEDGE WEDGE WELDED EFOD * WEOD 1154 76 JP B B50 B50 18 EFOS * WEOS 1167 76 JP B B50 B50 18 EFOS * WEOS 1169 76 JP B B50 B50 4 EFOS * WEOS 1169 76 JP B B50 B50 4 EFOS * WEOS 1308 B GJP B B50 B50 18 EFOS * WEOS 1308 B GJP B B50 B50 18 EFOS * WEOS 1308 B GJP B B50 B50 17 EFOS * WEOS 1312 B1 JP B B60 B50 17 EFOS * WEOS 1312 B1 JP B B60 B50 17 EFOS * WEOS 1312 B1 JP B B60 B50 16 EFOS * WEOS 1312 B1 JP B B60 B50 16 EFOS * WEOS 1312 B1 JP B B60 B50 16 EFOS * WEOS 1312 B1 JP B B60 B50 16 EFOS * WEOS 1320 B1 JP B B60 B50 12 EFOS * WEOS 1320 B1 JP B B60 B50 12 EFOS * WEOS 1320 B1 JP B B60 B50 12	SEAM SECTION APPROX. AMB. START * FINISH START AIR WELD MACH LENGTH PREVIOUS POINT * POINT TIME TEMP TECH SPEED WEDGE WEDGE WELDED DESTR. EFOS * WFOS 1154 76 JP 8 850 850 18 80 EFOS * WFOS 1167 76 JP 8 850 850 18 102 EFOS * WFOS 1169 76 JP 8 850 850 4 106 EFOS * WFOS 1308 8 6 JP 8 850 850 17 147 EFOS * WFOS 1308 8 6 JP 8 850 850 17 147 EFOS * WFOS 1312 81 JP 8 860 850 17 147 EFOS * WFOS 1320 81 JP 8 850 850 17 162 EFOS * WFOS 1320 81 JP 8 850 850 17 162 EFOS * WFOS 1320 81 JP 8 860 850 17 162 EFOS * WFOS 1320 81 JP 8 860 850 17 162 EFOS * WFOS 1320 81 JP 8 860 850 17 162 EFOS * WFOS 1320 81 JP 8 860 850 12 182 EFOS * WFOS 1320 81 JP 8 860 850 12 182 EFOS * WFOS 1320 81 JP 8 860 850 12 182	SEAM SECTION APPROX. AMB. START * FINISH START AIR WELD MACH POINT * POINT TIME TEMP TECH SPEED WEDGE WEDGE WELDED DESTR. NO. EFOS * WFOS 1154 76 JP 8 850 850 18 80 — EFOS * WFOS 1167 76 JP 8 850 850 18 102 — EFOS * WFOS 1169 76 JP 8 850 850 4 106 — EFOS * WFOS 1169 76 JP 8 850 850 4 106 — EFOS * WFOS 1308 8 5 JP 8 850 850 6 130 — EFOS * WFOS 1308 8 5 JP 8 850 850 6 130 — EFOS * WFOS 1308 8 5 JP 8 850 850 6 130 — EFOS * WFOS 1308 8 5 JP 8 860 850 6 152 — EFOS * WFOS 1312 81 JP 8 860 850 16 170 — EFOS * WFOS 1312 81 JP 8 860 850 16 170 — EFOS * WFOS 1320 81 JP 8 850 850 16 170 — EFOS * WFOS 1320 81 JP 8 850 850 16 170 — EFOS * WFOS 1320 81 JP 8 850 850 16 170 — EFOS * WFOS 1320 81 JP 8 850 850 16 170 — EFOS * WFOS 1320 81 JP 8 850 850 16 170 — EFOS * WFOS 1320 81 JP 8 850 850 16 170 — EFOS * WFOS 1320 81 JP 8 850 850 16 170 — EFOS * WFOS 1320 81 JP 8 850 850 170 170 — EFOS * WFOS 1320 81 JP 8 850 850 170 170 — EFOS * WFOS 1320 81 JP 8 850 850 170 170 — EFOS * WFOS 1320 81 JP 8 850 850 170 170 — EFOS * WFOS 1320 81 JP 8 850 850 170 170 —	SEAM SECTION APPROX. AMB. START FINISH START AIR WELD MACH POINT POINT TIME TEMP TECH SPEED WEDGE WEDGE WELDED DESTR. NO. MON. EFOD "WFOD 1154 76 JP 8 850 850 18 80 — CSJ FFOS "WFOS (157 76 JP 8 850 850 18 102 — CSJ FFOS "WFOD 1169 76 JP 8 850 850 4 10 6 — CSJ FFOS "WFOD 1169 76 JP 8 850 850 4 10 6 — CSJ FFOS "WFOD 1308 8" JP 8 850 850 6 130 — CSJ FFOS "WFOD 1308 8" JP 8 850 850 6 130 — CSJ FFOS "WFOD 1310 21 JP 8 850 850 6 130 — CSJ FFOS "WFOD 1310 21 JP 8 850 850 17 147 — CSJ FFOS "WFOD 1310 21 JP 8 850 850 17 147 — CSJ FFOS "WFOD 1310 21 JP 8 850 850 16 17 147 — CSJ FFOS "WFOD 1310 21 JP 8 850 850 16 17 147 — CSJ FFOS "WFOD 1310 21 JP 8 850 850 16 17 170 — CSJ FFOS "WFOD 1320 81 JP 8 850 850 16 170 — CSJ FFOS "WFOD 1320 81 JP 8 850 850 17 170 — CSJ FFOS "WFOD 1320 81 JP 8 850 850 17 170 — CSJ FFOS "WFOD 1320 81 JP 8 850 850 17 170 — CSJ FFOS "WFOD 1320 81 JP 8 850 850 17 170 — CSJ FFOS "WFOD 1320 81 JP 8 850 850 17 170 — CSJ FFOS "WFOD 1320 81 JP 8 850 850 17 170 — CSJ FFOS "WFOD 1320 81 JP 8 850 850 17 170 — CSJ FFOS "WFOD 1320 81 JP 8 850 850 17 170 — CSJ FFOS "WFOD 1320 81 JP 8 850 850 17 170 — CSJ	SEAM SECTION APPROX. AMB. START * FINISH START AIR WELD MACH POINT * POINT TIME TEMP TECH SPEED WEDGE WEDG	SEAM SECTION APPROX. AMB. START * FINISH START AIR WELD MACH PROX. FROM LOCATED DESTR. QA POINT * POINT TIME TEMP TECH SPEED WEDGE WEDGE WELDED DESTR. NO. MON. REMARKS DATE FFOD * WFOD 1154 76 JP B B50 B50 18 80 - C5J D2-3 FFOS * WFOS 1167 76 JP B B50 B50 18 102 - C5J GOVERGE BY FFOS * WFOS 1169 76 JP B B50 B50 18 102 - C5J GOVERGE BY FFOS * WFOS 1308 BC JP B B50 B50 18 124 - C5J GOVERGE BY FFOS * WFOS 1308 BC JP B B50 B50 60 18 124 - C5J GOVERGE BY FFOS * WFOS 1308 BC JP B B50 B50 60 18 124 - C5J GOVERGE BY FFOS * WFOS 1308 BC JP B B50 B50 60 17 147 - C5J GOVERGE BY FFOS * WFOS 1312 B1 JP B B60 B50 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1312 B1 JP B B60 B50 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1312 B1 JP B B60 B50 B50 16 17 147 - C5J GOVERGE BY FFOS * WFOS 1312 B1 JP B B60 B50 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1312 B1 JP B B60 B50 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1312 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1312 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B B60 B50 17 147 - C5J GOVERGE BY FFOS * WFOS 1320 B1 JP B1 JP B1 JP B1 JP B1 JP		

* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE TOTAL: 14 0

202

610

202

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

REVIEWED BY: S. MEJAD DATE: 12-4-12

Section 4 Geomembrane Extrusion Seaming Log



GEOMEMBRANE EXTRUSION SEAM AND TEST LOG

PROJECT # 2012-102

MACHINE # 7/

PROJECT LOCATION: St. Cloud, Fl.

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation



OWNER: Omni Waste of Osceola County, LLC ENGINEER: Geosyntec

INSTALLER: Comanco

GECondam

DATE:124-12

PASSING TRIAL	SFAN

NO.	TIME	TECH ID
TX-1	8200	B√

PROM PAGE # (_ Ø) _ _ _

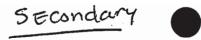
PAGE NUMBER:

		EXTRUSIO	ON SEAI	MING					VAC	CUUM	TESTIN	lG	
	*					LENGTH			NON				
1	SEAM SECTION	APPROX.	АМВ.		APPROX.	FROM	LOCATED		DESTR.				
SEAM	START * FINISH	START	AIR	WELD	LENGTH	PREVIOUS	DESTR.	QA	TEST	TECH		QA	
NUMBER	POINT * POINT	TIME	TEMP	TECH	WELDED	DESTR.	NO.	MON.	DATE	IĐ	P/F	MON.	REMARKS
60/61	SEOS * NEOS	11:00	76	BV	6	6	-	SMN	12-4	B√	P	CSJ	
/	*	-											
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* REFERENCE SEAM ENDPOINTS FROM	PAGE TOTAL:	
END OF SEAM (EOS), DEFECT NUMBER	PAGE DESTRUCTIVE LENGTH CARRY-OVER	6
OR A POINT LOCATION ON A SEAM	DAILY TOTAL WELDED (FT)	6
	DAILY DESTRUCTIVE LENGTH CARRY-OVER	10

REVIEWED BY: 5. NEJAD

Section 5 Geomembrane Defect, Repair, and Vacuum Test Log



PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

				<u> </u>		REPA	JiR _			V	ACUU	M'TES	r		
DEFECT	DE	FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX '	MACH	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE		:			SIZE	ID#	TECH	MON.		ID		MON.
Α	1/2	46'S. OF HEOS	Cut	11/30		12-3	4	GKZ	71	Bu	C75	12-4	W6	P	C45
В	1/2	120'S. OF NEOS	D5-1	11/30		12-3	7	GXZ	21	BU	45	12-4	W4	P.	25
C .	3/4	BO'S OF NEOS	D3-2			12-3	7	6×2	21	BU	273	12-4	one	٦	255
D	75	58N/7E	CR	CR		12-3	2	181	71	Bu	C+3	12-4	MG	7	255
F_	75	57'N 13'K	CR	11/30		12-3	7	171	21	Bu	থ্য	12-4	ULG	3	45
G	75	77'N / 13'E	CR	11/30		12-3		はなし	ા		4	12-4	Ma	7	CST
H	8/9	42'N ac 5505	25-3	11/30	·	124	₹	421.00	P.la.	30	025	12-4	mo	P	45
j	16/17	5'WAC FEOS	D51	11/30		12-3	P	245	うじ	.B^	050	12-21	MG.	. 8	045
K_	16/17	2' F of LSFOS	30	11/30		12-3		ZXY	21	BV	C35	12-4	no-	Þ	145
M	15/16	WEGS	ನೆ	11/30	·	12-3	7	3KE.	21.	BU	ککک	124	ma	P	OS
N	27/28	NEOS	Bo	11/30		12-3	8	> % 4	71	BO	25	17-4	wile	. P-	ens
ψP	19/20	51E 08 10 FOS	FM	11/30	·	/2-3	7	2x3	21	BU	F50	12-4	velo	P	013
Q	4/29	7/5 DE NEOS	2>5-5	11/30		12-3	7	2K4	71	BJ	2505	12.4	MA	7	245
R	1/28	18'N of SEOS	D5-6	11/30		12-3	3	215	21	Ba	CaJ	12-4	mo	P	145
S	1/28	NEOS	BO	11/30		1Z-3	7	246	21	Br	کین	12-4	wo	7	245
T	5/10/12/13	Firesection	7	12/1		12-3	8	6×3	22	13~	455	12.4	Ma	3	C23
. W_	5/13/14	Intersection	1	12/1		123	7	444	21	Bu	C42	12-4	ma	P	125
X	5/14/15	Intersection	7	12/1	·	17-3	7	3+3	7.1	30	45	12-21	mo	P	C25
Υ	5/15/14	Intersection	T	12/1	<u></u>	12-3	7	2K2	7.1	BU	45	124	MG	- P	45
DEFEC	TS TYPES	DX - EXTRUSION DESTRUCTIVE			PT - PRESSURE TEST	CUT	•			REP/	VIR TY	PES		13	

DELECTO TITLES	DV - FU DISORGIU DESTRUCELLAE	TT THEODOTTE TEST CO.
BO - BURNOUT	ED - EQUIP. DAMAGE	T - THREE PANEL INTERSECTION
CO - CHANGE OF OVERLAP	EXT - PANEL EXTENTION	VL - VACCUM LEAK
CUT -; CUT	FM - FISHMOUTH	WR - WRINKLE
D - DAMAGE	FS - FAILED SEAM	WS - WELDER RESTART
CR - CREASE	INT - INTERSECTION	OTHER
DF - FUSION DESTRUCTIVE	10 - INSUFFICIENT OVERLAP	OTHER

REPAIR TYPES

P - PATCH

C - CAP

RS - RECONSTRUCTED SEAM

G&W -- GRIND AND WELD

REVIEWED BY: S. NEUAD

DATE: 12-5-12







PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

PAGE#__

						Í		REPA	JR			V	ACUUI	VI TES	Γ
DEFECT	DE	FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TECH	MON.		ID		MON.
Α	10/11/12	intersection	T	12-1-12		12-3	A	5×5	71	Bu	(5)	124	ne	R	225
В	P-31	5'N/12 W	\mathcal{D}	12-1		12-4	P	3×3	21.	_	CAT		·n6	7	45
С	7-31	15, N/19 M	D	12-1	4	12-4	A	244	\$71	BK		12.5	ma	P	025
D	33/34	52' N. OF SEOS	DS-8	12-1		12-4.	P	2×4	19		C53	12-4	ma	7	255
F	33/34	6' N. OF SEOS	Bo	12-1		12-4	7	243	71	BU	225	12-5	24	3	275
G	34/35	SEOS TO 6'N.	Bo	12-1		12-4	?	216	21	BV	C55	12-5	149	P	055
H	45/48	5' E OF WEOS	DS-9	12-1		12-4	₽	2×6	12	54	CAQ	12-4	no	P	425
3	44/45	From EEOS TO 20 W	FS	12-1		12-4	æ	2×20	19	Sm	250	12-4	no	P	135
K	37/45/48	Fut.	7	12-1		124	P	2K2	19	5 %	45	12-4	nes	7	45
M	45/46/48	Int	7	12-1	Covered by 2K	_	_	_	~	-	_		~		
N N	410/47/48	Fat	T	12-1		12-4	P	2×2	19	SM	C55	024	no	P	43
Р	37/44/45	Int	7	12-1		12-4	?	2×2	19		45	12-4	MC	P	C55
Q	37/43/44	Int	T	12-1		12-4	5	2×2	12	3m	455	12-4	NO	7	C55
R	37/42/43	Int	T	12-1		12-4	P	212	12	Sm	455	12-7	no	P	C25
· S	37/41/42	Ent	T	12-1	Covered bill	_	_			_		-	_		
T :	37/38/41	Int	T	12-1		12-4	5	216	19	Sm	C35	12-4	MO	P	45
W	38/39/40/41	Fort	7	12-1		12-4	3	2xte	19	Sm	C55	12-4	and	P	L55
X	55/56	39' WOS EEDS	FM	12-1:		12-4	P	244	71	BU	435	12-5	MO	P	225
<u> </u>	57/58	8' E OF WEOS	DS-11.	12-1		12-4	P	244	- 21	Bu.	C55	124	ma	P	05

DEFECTS TYPES

DX - EXTRUSION DESTRUCTIVE

PT - PRESSURE TEST CUT

REPAIR TYPES

BO - BURNOUT

ED - EQUIP, DAMAGE

T - THREE PANEL INTERSECTION

P - PATCH

CO - CHANGE OF OVERLAP

EXT - PANEL EXTENTION

VL - VACCUM LEAK

C - CAP

CUT - CUT

FM - FISHMOUTH

WR - WRINKLE

RS - RECONSTRUCTED SEAM

D - DAMAGE

FS - FAILED SEAM

WS - WELDER RESTART

G&W - GRIND AND WELD

CR - CREASE

INT - INTERSECTION

OTHER _

DF - FUSION DESTRUCTIVE

- INSUFFICIENT OVER! A

OTHER ___

REVIEWED BY: S. NEJAD

DATE: 12-5-12



SECONDARY



PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

PAGE#_3

							REPA	IR			V	ACUU	M TES	Γ
DEFECT	DEFECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TECH	MON.		ID		MON.
Α	5/16/17/18 Futersection	7	12/1		12-3	P	GHL	21	Bu	435	12-4	46	7	435
В	17/18/19 Intersection	7	12/1		12-3	Ð	ŽK Z	21	βv	255	12-4	we	P	2005
С	18/19/20 Intersection	7	12/1	Covered by 18	-	-	~	ŀ	-	,)	-	
D	1/18/20/21 Introsection	7	12/1		12-3	7	413	21	BV	ري	124	mb	P	COST
F	1/21/22 Intersection	T	12/1		12-3	7	2KZ	21	Bu	293	12-4	nc	P	CUS
G	1/22/23 Intraction	7	124		12-3	7	242	7.1	ষ্টিত	C35	12-4	me	P	cns
H	1/23/24 Futersection	7	12/1		12-3	P	242	21	Bu	C\$5	12-4	NG	P	155
J	1/24/25/28 Intersection	T	12/1		12-3	3	2×2	31	Bo	CST	12-4	ing	P	ast
K	25/24/27/28 Intresection	T	12/1		12-3	3	2 X Z	71	Ba	C\$5	12-4	MG	P	45
M	4/8/9/29 Intersection	7	12/1		12-3	7	373	31	βυ	225	12-4	MG	P	CHS
N	3/4/7/8 Intersection	T	12/1		12-3	7	2X2	21	BV	255	12-4	MG	?	45
P	2/3/6/7 Intersection	T	12/1		12.3	7	2K2	21	BV	COS	12-4	and	P	657
Q	1/2/5/6 Intersection	T	12/1		12-3	3	5×3	71	BU	035	12-4	·enco	P	4
R	15/18 Tatersection	T	12/1		72-3	7	414	21	BU	055	12-4	MB	7	051
S	30)31 NEOS	BO	12/1		12-3	-	mer	71	Bo	455	12-4	mo	P	45
Ť	30/31 89'5 of NEOS	25-7	12/1		12-3	7	244	21	BU	425	12-4	pq 6	P	45
W	9/57/58/59 Int.	17	12/1		12-4	5	3×6	21	30	455	12.4	ma	P	45
X	9/56/57 Int.	IT	12/1		12-4	2	2×2	71	30	255	12-4	MG	12	45
<u>Y</u>	9/56 9'N of SEOS	BO	12/1		12-4	<u> </u>	222	71	BU	-25	12-4	ino	P	us

DEFECTS TYPES	DX - EXTRUSION DESTRUCTIVE	PT - PRESSURE TEST CUT	REPAIR TYPES
BO - BURNOUT	ED - EQUIP. DAMAGE	T - THREE PANEL INTERSECTION	P - PATCH
CO - CHANGE OF OVERLAP	EXT - PANEL EXTENTION	VL - VACCUM LEAK	C - CAP
CUT - CUT	FM - FISHMOUTH	WR - WRINKLE	RS - RECONSTRUCTED SEAM
D - DAMAGE	FS - FAILED SEAM	WS - WELDER RESTART	G&W - GRIND AND WELD
CR - CREASE	INT - INTERSECTION	OTHER	
DF - FUSION DESTRUCTIVE	IO - INSUFFICIENT OVERLAP	OTHER	

REVIEWED BY: 5 NEOLD

SECONDARY



PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

:ENGINEER: Geosyntec **INSTALLER: Comanco**

PAGE#

						REPAIR					V	ACUUI	M TES	Γ	
DEFECT	DEI	FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TECH	MON.		ID		MON.
Α	9155/56	Int	T	12-1		12-4	7	212	71	Bu	C\$J	12-4	7 916	4	155
В	9/34/55	Int	7	12-1		12-4	?	2X2	71	30	শ্বেত	12-4	PIC	P	45
С	9/49/53/54	Int	7	12-1		12-4	7	6×2	21	BU	C\$5	12-4	PLG	P	175
D	57/5%	25/FOF W FOS	Firs	12-1	Convert by 6P		_		_		_	1-	_	_	
F	57/58	35/Eaf WEOS	Bo	12-1	Covered by 67		_		~	_	_	-1	-		
G	58/59/60	Fints	T	12-1		124	?	242	71	BU	c35	1251	Pro	P	00
H	58/60/61	Fnt.	T	12-1		12-4	8	644	21	Bu	255	12-4	Pro	P	125
J	5861/62	Int	7	12-1		12-4	7	121	71	Bu	C55	12-4	186	P	US
K	57/58/62	Fat	7	12-1	·	12.4	?	142	71	Da	C25	12-4	Porce	1	UT
M	9/29/30/49	Pat	T	12-l		12-4	P	3×3	71	BV	C35	124	mo	A	45
N	30/31/49/50	Int	7	12-1		12-4	P	343	21	BV	c>5	124	mo	P	CIT
Р	31/50/51	Int	7	12-1		12-4	P	2K2	71	30	25	12-4	Ma	P	cs5
Q	31/32/51	Int.	T	12-1	<u> </u>	12-4	P	242	21	30	005	12-5	114	P	ç उ
R	32/5/152	Int.	T	12-1	,	12-4	7	2×2	71	BU	C25	12-5	MG	P	405
S	32/33/52	Int.	T	12-1	Covered By GR	_	.—	_			_	-	_	_	
Т	32/52	9' WOS EEOS	DS-12	12:-/		Ruy	?	2066	71	BU	CES	12-5	MG	7	C55
W	38/39	75 of NEOS	DB-10	12/		12-4	P	2×4	19	5M	C55	12-4	PAKO	P	45
Х	67/15	7's of NEOS		12-3		12-4	7	244	71	Þυ	45	12-5	no	7	055
Y	834/63/64	Int.	1	12-3		12-4	P	3×5	71	BU	C35	12-5	m6	9	C55

r	١			_	~	TC.	T	/ 1	•		•
Ł.)	Ρ-	-	-	ι	, S	- 1 1	/ 1	-	->	

DX - EXTRUSION DESTRUCTIVE

PT - PRESSURE TEST CUT

REPAIR TYPES

BO - BURNOUT

ED - EQUIP. DAMAGE

T - THREE PANEL INTERSECTION

P - PATCH

CO - CHANGE OF OVERLAP

DF - FUSION DESTRUCTIVE

EXT - PANEL EXTENTION

IO - INSUFFICIENT OVERLAP

VL - VACCUM LEAK

C - CAP

CUT - CUT

FM - FISHMOUTH

D - DAMAGE

WR - WRINKLE

RS - RECONSTRUCTED SEAM

FS - FAILED SEAM

WS - WELDER RESTART

G&W - GRIND AND WELD

CR - CREASE

INT - INTERSECTION

OTHER_

OTHER

REVIEWED BY: 8. NEJAD

DATE: | 2 - 5 - 12



SECONDAM



PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

PAGE# 5

		<u> </u>						REPA	İR			V	ACUUI	M TES	Г
DEFECT	DE	FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOGATION DESCRIPTION	TYPE					SIZE	ID#	TECH	MON.		ID		MON.
Α	34	15'EI'N OF SEC	D	12-3		12-4	7	(4)	71	BU	C53	12-5	M4	2	CSS
В	35/64/65	Int	7	12-3		12-4	7	245	71	Bv	ద్మమై	12-5	MO	P	CSJ
С	36/65/66	Int	T	12-3		124	7	2K5	71	Bu	-হ্য	125	MO	P	C35
D	37/66/67	Int	7	12-3		12-4	P	2×5	71	BU	C35	12-4	Mb	P	ک پرس
F	37/67/78	Int	T	12-3		12-4		2K4	19	3m	cs5	12-5	MG	7	255
Ģ	47/77/78	INF	T	12-3		12-4	₹	2×5	12	34	020	12-5	ng	7	635
Н	37	12/FINDE SWC	D	12-3		12-4	_	121	71.	Bu	15	12-5	MG	7	205
J	C3/70/71	Int	7	12-4		12-H	7	246	21	Bu	C25	12-5	MG	7	625
. K	67/72/73	Int	T	12-4		12-4		2×2	フし	30	رجي	12-5	Ma	P	055
М	67/73/74	Fut	7	12-41		12-4	8	2×2	つし	BU	-55	12-5	MG	7	025
N	67/24/75	Int	T	12-4		12-4	P	2K2	71	BU	CSJ	12-5	26	P	205
Р	75/76/78	Int	7	12-4	<u></u>	12-4	₹	4×10	21	Bu	45	12-5	na	7	COT
Q	76/77/78	Int	7	12-4		124	P	424	71	Bu	035	12-5	MG	9	22
, R	7	12E,6'5 . S NOC	D	17-4		12-3	3	181	71	Bu	235	12-4	me	<u>P</u>	625
S	2	16'E 6'3 25 NWC	D	12-4		15.3	4	3×2	21	B ∨	45	12-4	ne	P	275
Т	49/35/52	Int	T	12-4		12-4	P	322	71	Bu	C35	12-4	n4	7	45
W	50/51/53	Int	T	12-4		12-4	(P	2×2	21	Bu	CST	12-4	·m4	P	235
Х	9	6'S, 240 OF NEC	D	12-4		12-41	2	2×2	71	BU	CSJ	12-4	ML	7	45
Υ	1/2	H31 SOC NEOS	. D	12-4	Cap	12-4	1 2	43xz	19	Sm	CIT	12-4	MG	P	43

PT - PRESSURE TEST CUT

DEFECTS TYPES	DX - EXTRUSION DESTRUCTIVE	PT - PRESSURE TEST CUT
BO - BURNOUT	ED - EQUIP. DAMAGE	T - THREE PANEL INTERSECTION
CO - CHANGE OF OVERLAP	EXT - PANEL EXTENTION	VL - VACCUM LEAK
CUT - CUT	FM - FISHMOUTH	WR - WRINKLE
D - DAMAGE	FS - FAILED SEAM	WS - WELDER RESTART
CR - CREASE	INT - INTERSECTION	OTHER
DF - FUSION DESTRUCTIVE	IO - INSUFFICIENT OVERLAP	OTHER

G&W - GRIND AND WELD

RS - RECONSTRUCTED SEAM

REPAIR TYPES

P - PATCH C - CAP

REVIEWED BY: 5. NE JAD DATE: 12-5-12

DEFECTS TYPES



SECONDARY



PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

PAGE# 6

								REPA	JR .		,	V	ACUUI	M TES	Γ
DEFECT		FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TECH	MON.		ID		MON.
Α	64/65	RH'N. OF SEOS	DS-13	12-3		12-4	7	244	71	Bu	دعح	12-5	14	7	යන
В	69/165	125' N. OF SEOS	130	12 -7		12-4	7	242	71		ريخ	12-5	Ma	7	255
С	105/66	2' N. DF SEOS	BO	12-2		12-4	3	244	71	Bu	C35	124	ш6	P	455
D	65/66	112 N. OF SEOS	IO	12-8		12-4	7	2X 3	71	Bu	<i>\c</i> \sq	12-5	MG	P	C05
F	65/66	22'S. OF NEOS	D	12-3		12-4	7	212	71	Bu	C55	12-4	me	P	45
G	67/78	15'S. OF NEOS	D5-14	12-3		12-4	5	2×4	21	Bu	45	12-5	MCG	P	CSJ
Н	67/68	2' N. DF SEOS	BO	12-3		C74	P	2*4	7#	₽V	C55	12-5	MG	7	235
J	66/107	3' NOFSEDS	80	12-3		12-4	7	3×5	71	20	425	12-5	ns	P	C55
K	70/71	2'W. OF EEOS	30	12-3		12-4	P	244	71	Bo	455	12-5	ng	P	455
M	68/69	2' N. OF SEOS	BO	12-3		124	P	244	21	Bu	025	12.5	MU	A	4 55
N	67/71	2' N. OF SEDS	Cut	12-3		12-4	P	346	21	Bu	C\$5	12-5	46	P	025
Р	57/58	22 E. OF WEOS	BO	12-3		12-4	7	2×12	71	Bu	435	12-5	wele	A.	CST
Q	57/58	32E. OF WEDS	BO	12-3	Carered by 6P	<u></u>	<u></u> ·	_	-	_			~	(
R	52/63/33	Int.	7	12-3	<u> </u>	12-4	Þ	8×4	21	BU	055	12-5	MG	P	C25
S	32/33/52	Int.	T	12-3	Covered By BA				~	-	-			-	_
Т	30	12'3, 3'W OF NEC	D	12-4		12-3	D	242	21	BU	C\$D	12-5	Mb	P	45
W	30	17'5 3'W OF NEC	D	12-4		12-3	P	242	21	BU	(55	RM	me	P	035
Х	31	G'N. E'W OR SEC.	cut	12-4	Pipe	124	2	244	21	BU	155	12-5	,MG	7	C5J
<u> </u>	5a	35,8'WOS DEC	Cut.	12-4	Pipe	12-4	P	244	21	BU	45	12-5	Ma	P	CSJ

DEFECTS TYPES

DX - EXTRUSION DESTRUCTIVE

PT - PRESSURE TEST CUT

VL - VACCUM LEAK

WR - WRINKLE

REPAIR TYPES

BO - BURNOUT

ED - EQUIP. DAMAGE

T - THREE PANEL INTERSECTION

P - PATCH

CO - CHANGE OF OVERLAP

EXT - PANEL EXTENTION

C - CAP

CUT - CUT

D - DAMAGE

FM - FISHMOUTH

RS - RECONSTRUCTED SEAM

FS - FAILED SEAM

CR - CREASE

INT - INTERSECTION

WS - WELDER RESTART

G&W - GRIND AND WELD

DF - FUSION DESTRUCTIVE

IO - INSUFFICIENT OVERLAP

OTHER ____ OTHER ____

REVIEWED BY: 5. NE JAD

DATE: 12-5-12



SECONDARY

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco

PAGE# +

								REPA	IR .			V	ACUU	M TEST	r
DEFECT		FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	МАСН	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE		·			SIZE	ID#	TECH	MON.		ID		MON.
· A	49	5'8,5'3 of NWC	Cut	12-4	Pipe	12-4	2	2×2	71	BV	C55	lz-5	ma	7	275
В	53/54/43	Int	1	12-4		12-4	A	545	71		C \$5		urb	7	45
С	54155/63	Int	T	12-4		12-4		242	21	30	C55	12-4	ML	7	655
D_	55 56 63	Int	T	12-4		12-4		171	21			12-4		P	455
F_	56/57/63	Int	T	12-4		12-4		(1)	71	₿u	C\$T	12-4	Mb	P	L55
G	57/62/63	Frt	7	12-4	ļ	12-4	P	121	71	$\mathcal{B}_{\mathcal{O}}$	CST	124	mb	P	C45
H	51/52/53	Fah	7	12-21				212	21	Bo		12-5		P	45
J	57/6P		DKS-1	12-4		12-4		218	71	BU		12-5			C55
K	46/42	EEOS	FXT	12-4		12-4		2×5	19			12-21	mo		C45
M	34	151N,15E of 50 C	D	12-4		12-4	P	243	21	BU		12-5		7	C35
N N	37	7N. 15E Of Swc	$\mathcal{Q}_{v_{v}}$	12-4		12-4	₹	12	71	Bn	255	12-5	24	7	C37
P		i	<u></u>			-									
Q						 						<u> </u>			
R		<u> </u>							-	_		ļ	<u> </u>	<u> </u>	ļ
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X	<u> </u>							<u> </u>		-	-	ļ	-		ļ
. Г						<u> </u>						1	l .		

DEFECTS TYPES	DX - EXTRUSION DESTRUCTIVE	PT - PRESSURE TEST CUT	REPAIR TYPES
BO - BURNOUT	ED - EQUIP. DAMAGE	T - THREE PANEL INTERSECTION	P - PATCH
CO - CHANGE OF OVERLAP	EXT - PANEL EXTENTION	VL - VACCUM LEAK	C - CAP
CUT - CUT	FM - FISHMOUTH	WR - WRINKLE	RS - RECONSTRUCTED SEAM
D - DAMAGE	FS - FAILED SEAM	WS - WELDER RESTART	G&W - GRIND AND WELD
CR - CREASE	INT - INTERSECTION	OTHER	
DF - FUSION DESTRUCTIVE	IO - INSUFFICIENT OVERLAP	OTHER	

REVIEWED BY: S. NEJAD DATE: 12-5-12

Section 6 Geomembrane Non-Destructive Pressure Test Log

GEOMEMBRANE PRESSURE TEST LOG

SEcondary

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.

Brantley Engineering, LLC OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 12-3-12

PAGE#

	SEAM SECTION*	PRESS		TIME	PRESSURE	T	SEAM		
SEAM	START * FINISH	GUAGE	TECH	1111/2	(PSI)	PASS/	COMPLETE	QA	
NUMBER	POINT * POINT	NUMBER	1D	START * FINISH	INITIAL * FINAL	FAIL	NO / YES	MONITOR	REMARKS
19/20	WEDS . EEOS	1	Co	1152 - 1157	30 • 30	P	1 ~	SMN	
18/19	HEOS . SEOS	2.	Co	1153.1158	30 . 30	P	1 /	SMN	
18/20	WEOS · EEOS	3	co	1154.1159	30 - 29	P	1 V	5MM	
1/18	NEOS · SEOS	4	CO	1250 . 1255	30 . 30	12	1 /	SMN	
1/21	MEDS. SEDS	5	ČO	1255 - 1300	30 . 30	13	1 /	SMN	
1/22	NEOS. SEOS	6	CO	1256.1301	30 . 30	P	1 ✓	5MN	
1 123	NEOS. SEOS	7	CO	1257 1302	30 . 7 8	P	1 ~	5MN	
1124	NEOS · SEOS	1	CO	1304 + 1309	30 . 30	P	1 /	5MN	
1/25	- • -			- • -	•	<u> </u>	/	_	Covered By 3J
25/28	EEOS. WESS	2	CO	1305 . 1310	30 *30	P	11	SMIY	'
25/26	BEOS . WESS	3	CO	1307 1312	30 .30	P	1	SMN	
24127	EEOS · WEOS	4	CO	1307.1312	30 . 30	P_	11	SMN	
24/25	EEUS · WEDS	5	CO	1308-1313	30 . 29	P	1/	SMN	
23/24	EEOS. WEOS	7	CO	1303.1308	30 .74	P	1V	SMN	
22/23	EEOS. WEDS	6	CO	1257-1302	30 -29	12	10	5MM	
21/22	EEDS · WED)	9	CO	1256.1301	30 28	P	1 ~	5MN	
20121	FEOS. WEDS	9	CO	1255 - 1300	30 .28	P	11	SMN	
17/19	EEDS . WEDS	١	CO	1320 . 1325	30 . 29	12	1 ~	SMN	
516	NE05 . 5605	2	CO	1348-1353	30 * 30	P	1 0	5MN	
112	5E05 . 57	3	CO	1352.1357	30 . 30	P	1 V	SMN	54 TO NEOS Capp

*REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), **DEFECT NUMBER OR A POINT LOCATION ON A SEAM**

REVIEWED BY: 5. HEJAD DATE: 12-4-12

GEOMEMBRANE PRESSURE TEST LOG

GECONDAY

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.

Brantley Engineering, LLC OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 12 - 3-12

PAGE# 2

	SEAM SECTION*	PRESS		TIME	PRESSURE	П	SEAM		-
SEAM	START * FINISH	GUAGE	TECH	111412	(PSI)	PASS/	COMPLETE	QA	
NUMBER	POINT * POINT	NUMBER	ID	START * FINISH	INITIAL * FINAL	FAIL	NO / YES	MONITOR	REMARKS
617	NEOS . SEOS	4 (Co	1349.1354	30 . 30	P	1	SMN	
2/3	NEOS . SEOS		Co	1349.1354	30 . 30	P	1 1	SMN	
1314	NEOS. SEOS	6	Co	1355:1400	30 . 30	12	1 1	SMN	
718	NEOS . 5E05		CØ	1355.1400	30 · 30	p	1 /	SMN	
4/29	NEOS . SEOS		Co	1400. 1405	30 . 30	P	1 /	SMAI	
819	NE03. SE05		co	1400.1405	30 . 30	P	1 ~	5MN	
9 149	NE05 . 5 E 05	,	Co	1405.1410	30 · 30	P	1 /	5MN1	
29/30	MEDS . SEDS	2	CO	1405.1410	30 . 30	P	1	SMN	
115	NEDS . SESS	3	Co	1348-1353	30 · 30	P	, ,	SMN	
216	EEOS · WEOS	4	Co	1349 - 1354	30 . 30	P	1 ~	MM	
317	EEOS · WEOS	6	$\mathcal{C}_{\mathcal{O}}$	1355 . 1400	30 · 30	r	1	SMN	
4/8	EEDS · WESS	5	Co	1400 . 1405	30 . 30	P	1 /	SMN	
9/29	GEOS · WEOS	7	CO	1405.1410	30 · 30	P	1	5MN	
49150	NEDS . SEOS	9	CO	1408 . 1413	30 . 30	P	1 🗸	SMN	
30/31	MEDS . SEDS	8	CO	1408 . 1413	30 . 29	P	1	5MN	
49153	SEDJ · NEDS	10	CO	1410 . 1415	30 . 30	P	/ /	5MN	
50153	EEDS · WEDS	11	CO	1410 . 1415	30 · 30	P	11,	SMN	
16/17	EEDS . WEDS	12	CO	1324 · 1329	30 · 30	P	10.	SMN	
17/18	EEOS · WEOS	13	CO	1324 . 1329	30 . 30	P	1 /	SMH	
17/19	EGOS WEDS	14	CO	1320 . 1325	30.29	P	1	SMNI	

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), DEFECT NUMBER OR A POINT LOCATION ON A SEAM

REVIEWED BY: S. NECLAD

GEOMEMBRANE PRESSURE TEST LOG

GECONDONY

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 12-3-12

AGE# 3

		CEANACI	ECTIONS	2222		TIAAF	PDECCUPE	Γ		-	
			ECTION*	PRESS		TIME	PRESSURE	- 1	SEAM		
	SEAM	START	* FINISH	GUAGE	TECH		(PSI)	PASS/	COMPLETE	QA	
┈	NUMBER	POINT	* POINT	NUMBER	D	START * FINISH	INITIAL * FINAL	FAIL	NO / YES	MONITOR	REMARKS
1	5/16	NEOS	* SEOS	2	C6	1334 • 1339	30 + 30	P	1 🗸	SHN	
1	5/15	NEOS	* 5605	١	co	1334 - 1339	30 * 30	P	1 /	SMN	
$\langle L$	15/16	EEOS	· WEOJ	4	CO	1334 • 1339	30 . 30	P	1	SHN	
/L	14/15	teos	· Woos	5	CO	1335 - 1340	30 . 28	'P	1	SMA	
7	5/14	NEOS	· 5 E 0 S	3	S	1335 • 1340	30 . 30	P	1	SMN	
	13/14	EEOS	· WEOS	6	Co	1337 . 1342	30 · 30	þ	1	SMN	
$\dashv \Box$	5/13	NEOS	· 5E05	8	Co	1337 . 1342	30 . 28	þ	1	SMA	
	12/13	EEOS	· WEOS	7	CO	1338 . 1343	30 . 30	12	1	SMM	
/	10/12	EEOS	· WEOS	1)	Co	1338 + 1343	30 . 28	P	1	SMN	
/[5/10	MEOS	* S Eos	10	0	1342 . 1347	30 . 30	P	1	SMH	
/ [11/12	EEOS	· WEOS	9	CO	1343 + 1348	30 . 30	P	1	SMN	
1	10/11	NEOS	· s Eos	8	Co	1343 . 1348	30 · 30	Р	1	SMM	
$\neg $	9 154	SESS	· NEOS	12	Co	1417 . 1422	30 . 30	P	/	SMH	
~[[9 155	5605	· MEOS	14	CO	1417 . 1422	30 · 30	P	/	SMH	
⊿ [9 156	NEOS	• 34	13	Co	1420.1425	30 . 30	P	1	SMN	
ᆀ	9 156	34	* 5E 05	15	CO	1420.1425	30 . 30	P	1	SMN	
1	58/60	EEDS	· WESS	2	CO	1430.1435	30 · 30	P	1	SMN	
J	58159		· WEOS	j	CO	1430.1435	30 . 30	P	/	SMN	
7 I[9 / 59		· 9.E05	3	Co	1432 . 1437	30 . 30	P	/	SMH	
/[9 157	HEOS	* S E S	5	CO	1431 • 1436	30 . 30	P	1	SMM	

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), DEFECT NUMBER OR A POINT LOCATION ON A SEAM

REVIEWED BY: S. NEJAD

DATE: 12-4-12

GEOMEMBRANE PRESSURE TEST LOG

SECONDARY

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.

Brantley

Engineering, LLC

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 12-3-12

PAGE# 4

Г		CE AAA	SECTION			Т .			5001155			T T	I
		SEAM	SECTION*	PRESS			IME	PF	RESSURE	-	SEAM		
	SEAM	START	* FIN	SH GUAGE	TECH				(PSI)	PASS/	COMPLETE	QA	
	NUMBER	POINT	• POI	NT NUMBER	ID	START	* FINISH	INITIAL	* FINAL	FAIL	NO / YES	MONITOR	REMARKS
	57/59	-	• ~	-	_		*		•	_	- / -		Carpped by 3n
1	58/61	5803	· NE		CO	1445	* 1450	30	• 30	P	1 /	SMN	', _,
1	61/62	NEOS			CO	1445	. 1450	30	· 30	P	1 /	SMN	
4	58162	9605	. NE	8	co	1446	. 1451	30	. 29	P	/ /	SMN	
4	57/58	EEDS	. 60	2 9	CO	1446	. 1451	30	• 30	P	7	SMH	
/	57158	60	· WE	05 7	Co	1455	· 1500		• 30	P	1	SMN	
\downarrow	57/62	WEOS	· EE	s li	Co	1455	. 1500	30	. 29	P	1 /	SMN	
4	55156	WEOS			CO	1501	· 150b	30	• 30	Γρ	1 /	SMN	
4	42163	NEOS	. 5E0	5 9	Co	1454	. 1459	30	. 29	þ	1 /	SMN	
4	57163	NEOS	* 5 E	5 10	Co	1457	. 1502	30	• 30	b	1 1	SMN	
-	56157	HESS	· 50	05 [13	CO	1457	· 1502	3.0	• 30	P	1 /	SMN	
1	56163	NEOS	5. SE	05 12	Co	1459	. 1504	30	. 30	P	1 ~	SMN	
1	55 163	NEOS	· 3E	05 15	Co	1500	. 1202	30	• 30	p	1	SIMM	
4	53154	WEOS	• EE	05 11	CO	1501	· 1506	30	. 30	12	1 V	SMN	
7	54155	EEos	· WE	0) 2	CO	1500	: 1505	30	• 30	p	/ /	SMN	
-	52153	NESS	· 5E	>> 1	Co	150	1507	30	• 30	P	1 🗸	SMN	
-	51/53	EEOS	· WG	3	Co	1506	1511	30	• 30	ĺρ	1 -	5MN	
1	51152	5603	· 1/6	,5 5	CO	1507	. 1512	30	. 28	P	1 🗸	SMN	
/	54/63	HESS	. SE	5 4	Co	1507	. 1512	30	• 30	P	1 1	SIMM	
/	31 150	EEOS	·WE	05 6	Cb	1509	1514	30	• 30	P	1	SMM	

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), **DEFECT NUMBER OR A POINT LOCATION ON A SEAM**

REVIEWED BY: 5. NE JAD DATE: 12-4-12

GEOMEMBRANE PRESSURE TEST LOG

Brantley Engineering, LLC SECONDARY

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 12 - 3 - 12

PAGE# 5

		SEAM SECTION*	PRESS		TIME	PRESSURE		SEAM		
	SEAM	START * FINISH	GUAGE	TECH		(PSI)	PASS/	COMPLETE	QA	
	NUMBER	POINT * POINT	NUMBER	1D	START * FINISH	INITIAL * FINAL	FAIL	NO / YES	MONITOR	REMARKS
./	3) 151	EEOS · WEOS	8	Co	1509 - 1514	30 . 30	p	1 /	SMN	
	50151	NEOS. SEOS	10	C6	1509.1514	30 . 30	ρ	1 ~	SMN	
	30 149	EEDS · WEOS	9	Co	1408 - 1413	30 . 30	p	1	SMN	
	31 /32	NEOS · SEOS	11	0	1522 - 1527	30 . 30	P	1	SMN	
/	32 151	EEOS . WESS	14	CO	1522 . 1527	30 . 30	P	1	SMN	
	32 152	FEOS · WEOS	13	Co	1524 - 1529	30 . 30	D	1	SMA	
	32 / 33	NEOS · SEOS	12	CO	1524 + 1529	30 . 30	P	1 ~	SMN	
1	33 152	*	~		- • -	- • -	-	- 14		Covered By GR
1	52/63	NEOS . SEOS	15	0	1525 - 1530	30 . 30	p	1 /	SMN	,
1	33/63	EEOS · WEOS	2	Co	1529 - 1534	30 · 30	ρ	1 V	5MN	
1	33 / 34	4605 . 2F	3	CO	1530 -1535	30 . 30	p	V 1	SMH	
1	33 /34	2F · NEOS	1	Co	1530 . 1535	30 · 30	p	1~	SMN	
1	63/64	NEOS · 4 EOS	5	CO	1534 . 1536	30 . 29	p	1 V	SMN	,
/	34/64	EEOS · WEOS	7	Co	1531 . 1536	30 . 30	p	1	SMN	
/	34/35	26 · NEOS	6	CO	1533 . 1538	30 . 30	p	1~	SMN	26 TO GEDS Cappel
1	64165	NEOS · GEOS	8	Co	1534 - 1539	30 . 30	P	1	SMN	
/	35 /36	NEOS · SEOS	10	CO	1542.1547	30 . 30	P	1	SMN	
1	65/66	NEOS . 6D	21	CO	1544 - 1549	30 + 30	P	V /	SMN	
1	45 166	4D . 3E05	13	CO	1544 . 1549	30 · 30	P	1	SMN	
1	36/66	EEOS · WEOS	12	co	1600.1605	30 . 30	7	1 /	5MM	

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), DEFECT NUMBER OR A POINT LOCATION ON A SEAM

REVIEWED BY: S. NE JAD

DATE: 12-4-12

GEOMEMBRANE PRESSURE TEST LOG

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.

Brantley Engineering, LLC SECONDON

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 12-3-12

		SEAM SECTION*	PRESS		TIME	PRESSURE		SEAM		
	SEAM	START * FINISH	GUAGE	TECH		(PSI)	PASS/	COMPLETE	QA	
	NUMBER	POINT * POINT	NUMBER	ID	START * FINISH	INITIAL * FINAL	FAIL	NO / YES_	MONITOR	REMARKS
1	36/37	NEOS · SEOS	15	CO	1600.1605	30 . 30	P	1 /	SMN.	
4	166167	NEOS · GEOS	14	CO	1601-1605	30 . 30	ادا	1 /	SMN	
1	37/67	EEOS · WEDS	ス	Co	1601. 1606	30 · 30	P	1 🗸	SMN	
	67178	NEWS · SEUS		Co	1610. 1615	30.30	P	1 /	SMN	
0	48/78	EEOS · WEOS	3	CO	1410. 1415	30 · 30	Þ	1 /	SMN	
~	77/78	GEOS · NEOS	4	Co	1618 - 1623	30 · 30	Р	1 .	SMN	
	47/77	5G . EE05	6	co	1418.1423	30 . 30	P	17	SMN	
	76177	EEOS · WEOS	7	Co	1619 - 1624	30 + 30	٦	1 /,	SMN	
	74/78	NEOS · SEUS	9	Co	1625.1630	30 · 30	D	1	SMN	
1	75/76	EEOS · WESS	10	CO	1625 - 1630	30 . 30	P	1 /	SMN	
	L7/75	NEOS · SEOS	14	Co	1/30-1635	30 · 30	p	10	SMA	
	74175	WEOS · EEOS	111	CO	1628-1633	30.30	P	1//	SMN	
1	73/74	WESS · EEOS	1 3	CO	1639-1644	30 . 30	P	10	SMN	
/	67174	GE05 . NESS	12	CO	1639-1644	30 . 30	P	1	SMN	
1	67173	SEOS · NEOS	15	CO	11,40.1645	30 . 30	72	1	SMN	
1	72/73	EEOS · WEOS	2	(0	1640.1645	30 · 30	12	1/	SMN	
/	67172	SEOS · NEOS	14	CO	11.44 - 11.49	30 . 29	5	1	IMM	
1	71 172	GEDS . WEOS	3	(V)	1444 - 1449	30 . 30	Þ	1	SMN	
1	107 / 108	SEOS · HEOS	1	Co	1651 - 1656	30 . 30	Ď	1 /	5MH	
	Le8 /71	WEOS · EEOS	1	CO	1651 - 1656	30 . 30	P	1	SMN	
- 1					1.5-11		1	<u> </u>		

*REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), **DEFECT NUMBER OR A POINT LOCATION ON A SEAM**

GEOMEMBRANE PRESSURE TEST LOG

SECORDAM

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.

Brantley Engineering, LLC OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 12 - 3 - 12

PAGE#_7

		SEAM SECTION*	PRESS			TIME		PRI	ESSURE		SEA	Vi		
	SEAM	START * FINISH	GUAGE	TECH				{	PSI)	PASS/	СОМР	.ETE	QA	
	NUMBER	POINT * POINT	NUMBER	Œ	START	•	FINISH	INITIAL	* FINAL	FAIL	NO /	YES	MONITOR	REMARKS
/	68/69	GEOS · NEOS	7	Co	30	* 1	30	1653	. 1658	P	/		SMN	
1	1,9/70	WEOS · EEOS	6	Co	30	* "	30		. 1658	2	/		SMH	
/	70/71	WESS · EEOS	12	CO	30	• 0	30	1454	. 1659	1 ' P	/		SMN	
/	27/28	NE03. 5E05	15	Co	35	-	30		.1312		/	V	SMN	
1	1 /28	NEOS. SEOS	18	CO	30	+ 2			. 1212	P	/		SMH	
✓	5 /18	NEOS · SEOS	11	Co	30	. :			1324	P	/	/	SIYÎN	
/	59 160	SEOS · NEOS	14	Co	30	• 7			• 1448	P	/		SMIX	
/	35 165	EEOS ·WE .S	ì	Co	30	• 2			. 1547	P	/	~	SMN	
	/	•				•			•		/			
	/	•				•			•		/			
	/	•				•			•		/			
	/	•				•			•		/			
	/	•				*			*		/			
	/	•									/			
	/	•				•			•		/			
	/	•				•			•		/			
	/	•				•			•		/			
	/	•				•					/			
	/	*				•			•		/			
	/	•				*			•	1	/			
										•				

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), DEFECT NUMBER OR A POINT LOCATION ON A SEAM

REVIEWED BY: 5. ME (A)

DATE: 12-4-12

GEOMEMBRANE PRESSURE TEST LOG

SECONDARY

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.

Brantley Engineering, LLC OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 12-4-12

PAGE# 8

		SEAM	SECT	ION*	PRESS		TIME	DRI	SSU	IRE		SEAM		
	SEAM	START	•	FINISH	GUAGE	TECH	THVIL		PSI)	/ILL	PASS/	COMPLETE	QA	
	NUMBER	POINT		POINT			START * FINISH	·	P31)	F181 61			_	DE1440VC
			<u>.</u>		NUMBER	ID	317411	INITIAL	÷	FINAL	FAIL	NO / YES	MONITOR	REMARKS
	1 /	SEOS		NE 05	<u> </u>	Co	0743.0748	30	<u>.</u>	30	P	- / V	SMH	
	46/47	Wios		EEOS	- /	Co	0743.0748	30	•	30	7	1 7	SMN	
1	46/48	WESS		EEOS	4	Co	0746.0751	30	•	30	P	1 N	SMM	
1	45/46	WESS	* (EE 05	3	Co	0746.0751	30	•	30	P	1 /	SMIX	
	45/48	WEOS	* (EES	6	CO	0746 . 0751	30	*	30	P	1 /	SMN	
	37 148	SEOS	*	NEOS	フ	CO	0755.0800	30	*	28	P	1 /	SMN	
	44 145	EEOS	**	1605	5	Co	0759 .0804	30	*	30	P	1/	SMM	
	37 145	NEOS	• (SEOS	9	Co	0759.0804	30	•	30	P	1/	SMN	
/	37 144	NEOS	•	SEOS	-t1	Co	0759.0804	30	•	30	P	1/	SMN	
4	43/44	EEOS		WEOS	10	Co	0801.0806	30	•	36	P	1/	SMN	
	37/43	NEOS	• (SEOS	8		0803 . 0808	30	٠	30	Þ	1 /	SMN	
7	42/43	FEOS	*	WEOS	2	Co	0805.0870	30	*	30	P	1 .	SMN	
	37/42	NEOS	* (5 E05	1	Co	0805 .0810	30	*	30	P	1	SMN	
	41/42	EEOS	*	WESS	3		0806 . 0811	30	*	30	P	1 🗸	SMN	
1	38/41	SEOS	٠	NES	5	Co	0807 . 0872	30	*	30	P	1	SMM	
1	37 /38	SEOS	•	NEOS	4	Co	0807.0812	30		30	P	1 /	SMN	
/	40/41	EEDS	• [WESS	7	CO	0808 . 0813	30	•	30	P	1 🗸	SMAI	
/	39140	5803	•	MEOS	4	Co	0809 . 0814	30		30	P	1 1	5MN	
	38/39	SEB	•	NEOS	8	CO	0809 . 0814	30	•	30	P	1 🗸	3MN	
'	/		٠				*					/		

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),
DEFECT NUMBER OR A POINT LOCATION ON A SEAM

REVIEWED BY: 5. NEWAY

DATE: 12-4-17

Section 7 Geomembrane Destructive Samples Laboratory Results



January 14, 2013

Allan Brantley Brantley Engineering, LLC 13933 Tree Loft Road Milton, GA 30004

Re: REVISED LABORATORY TEST REPORT

Dear Mr. Brantley:

Thank you for consulting Precision Geosynthetic Laboratories International (PGLI) for your material testing needs.

Enclosed is the final laboratory report for the Seam testing of sixteen (16) 60mil HDPE Seam samples.

PROJECT NAME: JED Leachate Storage Facility Relocation

DATE REPORTED: December 5, 2012- 1st reported

January 14, 2013 - DSX-1 sample ID correction

DATE: 01/14/2013

REFERENCE PGLI JOB NO.: G121286 DATE RECEIVED: December 5, 2012

SAMPLES SENT BY: Brantley Engineering, LLC

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGLI CONTROL NUMBER
1. DS-1 P1/2	88432
2. DS-2 P3/4	88433
3. DS-3 P8/9	88434
4. DS-4 P17/16	88435
5. DS-5 P4/29	88436
6. DS-6 P28/1	88437
7. DS-7 P30/31	88438
8. DS-8 P34/33	88439
9. DS-9 P48/45	88440
10. DS-10 P39/38	88441
11. DS-11 P58/57	88442
12. DS-12 P32/52	88443
13. DS-13 P65/64	88444
14. DS-14 P78/67	88445
15. DS-15 P75/67	88446
16. DSX-1 P52/6P	88447

TESTS REQUIRED / PERFORMED:

TEST METHOD 1. ASTM D6392

2. ASTM D6392

DESCRIPTION

Shear Bond Strength

Peel Bond Adhesion

TEST RESULTS: The test results are summarized in Tables 1 to 8.

Respectfully,

PRECISION GEOSYNTHETIC LABORATORIES INTERNATIONAL

Maria Espitia

Maria Expetia

Carmelo V. Zantua

Quality Assurance Technical Director Signatures are on file

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. PGLI neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is our policy to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks. On the other hand, should you need us to keep them at a longer period, please advise us in writing.



CLIENT: Brantley Engineering, LLC

PROJECT: JED Leachate Storage Facility Relocation DATE REC'D: 5-Dec-12

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld PGLI JOB #: G121286 QC'd By: Maria Expite TEST METHOD: ASTM D6392

DATE REPORT: 14-Jan-13

osshead Spee	d: 2 in/min		_			Crosshead Speed: 2 in/min						
			SHE	AR EVALUATIO	N		<u> </u>	PEEL E	VALUATION			
		MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT		
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.		
ID	CONTROL#	(lb/in width)		Break	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width)		
DS- 1	88432	178	> 50%	BRK		1 Outside	123	0	SE1			
P1/2		175	> 50%	BRK		2 Outside	127	0	SE1			
		180	> 50%	BRK	l	3 Outside	130	0	SE1			
	·	176	> 50%	BRK		4 Outside	131	0	SE1			
		178	> 50%	BRK		5 Outside	127	0	SE1			
	1 1		1		1	AVG:	128			91		
						STD. DEV.	3					
	1					1 Inside	131	0	SE1			
						2 Inside	127	0	SE1			
	1 1				1	3 Inside	125	0	SE1			
						4 Inside	130	0	SE1			
						5 Inside	124	0	SE1			
	AVG.	177			120	AVG:	127			91		
	STD. DEV.	2				STD. DEV.	3					
DS- 2	88433	180	> 50%	BRK		1 Outside	124	0	SE1			
P3/4	1	181	> 50%	BRK		2 Outside	123	0	SE1			
		177	> 50%	BRK		3 Outside	131	0	SE1			
		175	> 50%	BRK		4 Outside	129	0	SE1			
		176	> 50%	BRK		5 Outside	131	0	SE1			
]	AVG:	128			91		
						STD. DEV.	4					
]]			1 Inside	124	0	SE1			
						2 Inside	131	o o	SE1			
						3 Inside	129	o o	SE1			
						4 Inside	130	o o	SE1			
						5 Inside	127	0	SE1			
	AVG:	178			120	AVG:	128			91		
	STD. DEV.	3				STD. DEV.	3		1	0.		
	ON ACTA DE202 E			EVIDUCION	AD1			CI AAAINIATED LINDES				

ED UNDER THE BEAD.
only)
N FAILURE.
•

(End of Table 1)

(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.





MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld

PROJECT: **JED Leachate Storage Facility Relocation**DATE REC'D: **5-Dec-12**SEAM TYPE: **Fusion W**PGLI JOB #: **G121286**

CLIENT: Brantley Engineering, LLC

acid By: Maria Expitis

TEST METHOD: ASTM D6392 DATE REPORT: 14-Jan-13

rosshead Speed	l: 2 in/min					Crosshead Speed: 2 in/min						
			SHE	AR EVALUATIO	N			PEEL E	VALUATION			
	. [MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT		
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.		
<u>ID</u>	CONTROL#	(lb/in width)		Break	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width)		
DS-3	88434	176	> 50%	BRK		1 Outside	121	0	SE1			
P8/9	1 1	178	> 50%	BRK	ļ	2 Outside	120	0	SE1			
	1 1	175	> 50%	BRK		3 Outside	127	0	SE1			
	1 1	175	> 50%	BRK	\	4 Outside	132	0	SE1			
		180	> 50%	BRK		5 Outside	129	0	SE1			
	1 1				1	AVG:	126			91		
						STD. DEV.	5					
	1 1					1 Inside	131	0	SE1			
						2 Inside	124	0	SE1			
	1 1				1	3 Inside	126	0	SE1			
						4 Inside	126	0	SE1			
						5 Inside	122	0	SE1			
	AVG.	177			120	AVG:	126			91		
	STD. DEV.	2				STD. DEV.	3					
DS-4	88435	178	> 50%	BRK	}	1 Outside	127	0	SE1			
P17/16		175	> 50%	BRK		2 Outside	120	0	SE1			
	1 1	174	> 50%	BRK	}	3 Outside	122	0	SE1	1		
	1 1	174	> 50%	BRK		4 Outside	124	0	SE1			
	1 1	180	> 50%	BRK	1	5 Outside	127	0	SE1			
					[AVG:	124			91		
	1					STD. DEV.	3					
						1 Inside	121	0	SE1			
				1		2 Inside	126	0	SE1			
						3 Inside	120	0	SE1			
						4 Inside	124	0	SE1			
						5 Inside	120	0	SE1			
	AVG:	176			120	AVG:	122			91		
	STD. DEV.	3				STD. DEV.	3					

BREAK DESCRIPTION	ON (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 2)

(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.





CLIENT: Brantley Engineering, LLC
PROJECT: JED Leachate Storage Facility Relocation DATE REC'D: 5-Dec-12

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld PGLI JOB #: G121286

TEST METHOD: ASTM D6392 DATE REPORT: 14-Jan-13

rosshead Speed	t: 2 in/min					Crosshead Sp	eed: 2 in/min			
			SHE	AR EVALUATIO	N			PEEL E	VALUATION	
		MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT
SAMPLE	PGLI	STRENGTH	Elongation	of .	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.
ID	CONTROL#	(lb/in width)		Break	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width)
DS-5	88436	172	> 50%	BRK	[1 Outside	126	0	SE1	
P4/29	\ \ \	175	> 50%	BRK		2 Outside	120	0	SE1	
		175	> 50%	BRK	ļ	3 Outside	127	0	SE1	
	} [174	> 50%	BRK		4 Outside	124	0	SE1	
	1 1	170	> 50%	BRK		5 Outside	125	0	SE1	
	1 1					AVG:	124			91
						STD. DEV.	3			
					1	1 Inside	135	0	SE1	
						2 Inside	130	0	SE1	
	1 1					3 Inside	134	0	SE1	
						4 Inside	137	0	SE1	
						5 Inside	131	0	SE1	
	AVG.	173			120	AVG:	133			91
	STD. DEV.	2				STD. DEV.	3			
DS-6	88437	175	> 50%	BRK		1 Outside	122	0	SE1	
P28/1		178	> 50%	BRK		2 Outside	131	0	SE1	1
	1	177	> 50%	BRK	1	3 Outside	129	0	SE1	
		174	> 50%	BRK		4 Outside	132	0	SE1	
		174	> 50%	BRK		5 Outside	131	0	SE1	
	1		l]	AVG:	129			91
					1	STD. DEV.	4			
						1 Inside	123	0	SE1	
						2 Inside	127	0	SE1	
						3 Inside	120	0	SE1	
				1		4 Inside	124	0	SE1	1
						5 Inside	131	0	SE1	
	AVG:	176			120	AVG:	125			91
	STD. DEV.	2				STD. DEV.	4			
AK DESCRIPTION	ON (ASTM D6392 F	USION):		EXTRUSION:	AD1	ADHESION FAIL	URE, SPECIMENS I	DELAMINATED UNDER	R THE BEAD	

BREAK DESCRIPTION	N (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
	,		BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 3)

(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.





PGLI JOB #: G121286

CLIENT: Brantley Engineering, LLC
PROJECT: JED Leachate Storage Facility Relocation DATE REC'D: 5-Dec-12

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld

TEST METHOD: ASTM D6392

DATE REPORT:

rosshead Speed	d: 2 in/min					Crosshead Sp	eed: 2 in/min		DATE HET OHT.	14 0411
			SHE	AR EVALUATIO	N			PEEL E	VALUATION	
		MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.
ID	CONTROL#	(lb/in width)	3	Break	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width)
DS-7	88438	182	> 50%	BRK		1 Outside	124	0	SE1	(IDINI) WIGHTY
P30/31		181	> 50%	BRK		2 Outside	130	0	SE1	
		177	> 50%	BRK	ì	3 Outside	127	0	SE1	
	1	175	> 50%	BRK		4 Outside	131	0	SE1	
		179	> 50%	BRK		5 Outside	135	0	SE1	
			1			AVG:	129		V	91
						STD. DEV.	4			•
	1 1					1 Inside	122	0	SE1	
						2 Inside	130	0	SE1	
						3 Inside	127	0	SE1	
						4 Inside	130	0	SE1	
						5 Inside	127	0	SE1	
	AVG.	179			120	AVG:	127			91
	STD. DEV.	3	·			STD. DEV.	3			
DS-8	88439	184	> 50%	BRK		1 Outside	127	0	SE1	
P34/33		181	> 50%	BRK		2 Outside	124	0	SE1	
	1	177	> 50%	BRK		3 Outside	128	0	SE1	
		176	> 50%	BRK		4 Outside	131	0	SE1	
-	1 1	180	> 50%	BRK		5 Outside	132	0	SE1	
	1			·		AVG:	128			91
	1 1				[STD. DEV.	3			
						1 Inside	131	0	SE1	
						2 Inside	121	0	SE1	
						3 Inside	124	0	SE1	
						4 Inside	125	0	SE1	
						5 Inside	131	0	SE1	
	AVG:	180			120	AVG:	126			91
	STD. DEV.	3				STD, DEV.	4			

BREAK DESCRIPTION	ON (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			нт	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 4)

(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.





CLIENT: Brantley Engineering, LLC

PROJECT: JED Leachate Storage Facility Relocation DATE REC'D: 5-Dec-12

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld

PGLI JOB #: G121286

TEST METHOD: ASTM D6392 14-Jan-13 DATE REPORT:

Crosshead Speed: 2 in/min Crosshead Speed: 2 in/min SHEAR EVALUATION PEEL EVALUATION **PROJECT** MAXIMUM % Locus MAXIMUM LOCUS PROJECT SAMPLE **PGLI** STRENGTH SPEC. **SPECIMEN** STRENGTH INCURSION Elongation of OF SPEC. CONTROL # NUMBER (lb/in width) Break (lb/in width) (lb/in width) ID (%) BREAK (lb/in width) **DS-9** 88440 173 > 50% BRK 1 Outside 143 0 SE₁ P48/45 174 > 50% BRK 2 Outside 141 0 SE₁ 175 > 50% BRK 3 Outside 150 SE1 0 175 > 50% BRK 4 Outside 147 0 SE1 **BRK** 177 > 50% 5 Outside 142 0 SE₁ AVG: 145 91 STD. DEV. 4 1 Inside 150 0 SE₁ 2 Inside 147 0 SE₁ 3 Inside 151 SE₁ 0 147 4 Inside SE₁ 0 5 Inside 145 0 SE₁ AVG. 175 120 AVG: 148 91 STD. DEV. STD. DEV. 2 1 **DS-10** 88441 181 > 50% BRK 1 Outside 128 0 SE₁ P39/38 177 > 50% BRK 2 Outside 127 0 SE₁ 182 > 50% BRK 3 Outside 131 0 SE₁ 175 > 50% **BRK** 4 Outside 124 0 SE₁ 178 > 50% BRK 5 Outside 120 0 SE₁ AVG: 126 91 STD. DEV. 4 1 Inside 129 0 SE₁ 2 Inside 125 SE₁ 0 130 SE₁ 3 Inside 0 4 Inside 136 0 SE₁ 5 Inside 127 0 SE₁ AVG: 120 AVG: 129 179 91 STD. DEV. 4 STD. DEV. 3

BREAK DESCRIPTION	ON (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 5)

(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit





CLIENT: Brantley Engineering, LLC

PROJECT: JED Leachate Storage Facility Relocation

DATE REC'D: 5-Dec-12

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld

PGLI JOB #: G121286

TEST METHOD: ASTM D6392 DATE REPORT:

14-Jan-13

sshead Speed	t: 2 in/min					Crosshead Sp	eed: 2 in/min			
				AR EVALUATIO				PEEL E	VALUATION	
	!	MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.
ID	CONTROL#	(lb/in width)		_Break	(lb/in width)	NUMB <u>ER</u>	(lb/in width)	(%)	BREAK	(lb/in width
DS-11	88442	176	> 50%	BRK		1 Outside	125	0	SE1	
P58/57		178	> 50%	BRK	1	2 Outside	127	0	SE1	
	1 1	176	> 50%	BRK	1	3 Outside	120	0	SE1	
	l l	174	> 50%	BRK		4 Outside	124	0	SE1	
	1 1	174	> 50%	BRK	ļ	5 Outside	125	0	SE1	
						AVG:	124			91
	1 1				1	STD. DEV.	3			
						1 Inside	126	0	SE1	
	1 1				•	2 Inside	130	0	SE1	
	1					3 Inside	127	0	SE1	
	1 1					4 Inside	125	0	SE1	
						5 Inside	127	0	SE1	
	AVG.	176			120	AVG:	127			91
	STD. DEV.	2				STD. DEV.	2			
DS-12	88443	173	> 50%	BRK		1 Outside	155	0	SE1	
P32/52	, ,	174	> 50%	BRK	1	2 Outside	157	0	SE1	
	1 1	175	> 50%	BRK	1	3 Outside	147	0	SE1	
	1 1	175	> 50%	BRK		4 Outside	142	0	SE1	
	1	174	> 50%	BRK	1	5 Outside	145	0	SE1	
	1 1					AVG:	149			91
	1 1				1	STD. DEV.	6			
						1 Inside	158	0	SE1	
						2 Inside	152	Ō	SE1	
						3 Inside	154	0	SE1	
						4 Inside	151	o '	SE1	
				·		5 Inside	147	ő	SE1	
	AVG:	174			120	AVG:	152			91
	STD. DEV.	1				STD. DEV.	4			٠.

BREAK DESCRIPTION	ON (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 6)

(Sheet 1 of 1)

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CLIENT: Brantley Engineering, LLC

PROJECT: JED Leachate Storage Facility Relocation DATE REC'D: 5-Dec-12

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld PGLI JOB #: G121286 OC'd By: Moria Cipitio TEST METHOD: ASTM D6392

DATE REPORT:

14-Jan-13

rosshead Speed	: 2 in/min					Crosshead Spe	eed: 2 in/min			
			SHE	AR EVALUATIO	N			PEEL E	VALUATION	
	[MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.
ID	CONTROL#	(lb/in width)		Break	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width)
DS-13	88444	180	> 50%	BRK		1 Outside	120	0	SE1	
P65/64	(·)	181	> 50%	BRK		2 Outside	119	0	SE1	
		177	> 50%	BRK		3 Outside	125	0	SE1	
	1	175	> 50%	BRK		4 Outside	120	0	SE1	
	1 1	177	> 50%	BRK		5 Outside	127	0	SE1	
					1	AVG:	122			91
						STD. DEV.	4			
					1	1 Inside	124	0	SE1	
					1	2 Inside	125	0	SE1	
	1		·			3 Inside	125	0	SE1	
						4 Inside	127	0	SE1	
						5 Inside	128	0	SE1	
	AVG.	178			120	AVG:	126			. 91
	STD. DEV.	2				STD. DEV.	2			
DS-14	88445	176	> 50%	BRK		1 Outside	125	0	SE1	
P78/67		175	> 50%	BRK		2 Outside	120	0	SE1	l
	1 1	174	> 50%	BRK	1	3 Outside	121	0	SE1	
		<u>_</u> 174	> 50%	BRK		4 Outside	124	0	SE1	
		1 80	> 50%	BRK		5 Outside	120	0	SE1	
						AVG:	122			91
						STD. DEV.	2			
						1 Inside	119	0	SE1	
						2 Inside	118	0	SE1	{
					1	3 Inside	122	0	SE1	
						4 Inside	127	0	SE1	
						5 Inside	125	0	SE1	
	AVG:	176			120	AVG:	122			91
	STD. DEV.	2				STD. DEV.	4			

BREAK DESCRIPTIO	N (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 7)

(Sheet 1 of 1)

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CLIENT: Brantley Engineering, LLC
PROJECT: JED Leachate Storage Facility Relocation DATE REC'D: 5-Dec-12

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld

TEST METHOD: ASTM D6392 14-Jan-13

PGLI JOB #: G121286 DATE REPORT:

rosshead Speed	t: 2 in/min					Crosshead Sp	eed: 2 in/min			
			SHE	AR EVALUATIO	N			PEEL E	VALUATION	
	1 1	MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.
ID .	CONTROL#	(lb/in_width)		Break	(lb/in width)	NUMBER	(lb/in_width)	(%)	BREAK	(lb/in width)
DS-15	88446	175	> 50%	BRK		1 Outside	155	. 0	SE1	
P75/67		170	> 50%	BRK	1	2 Outside	151	0	SE1	
		174	> 50%	BRK	1	3 Outside	148	0	SE1	
Fusion	1 1	174	> 50%	BRK	1	4 Outside	145	0	SE1	
	1	177	> 50%	BRK	1	5 Outside	149	0	SE1	
	1 1				1	AVG:	150			91
	1 1		1		1	STD. DEV.	4			
]		ļ		1	1 Inside	146	0	SE1	
			1			2 Inside	150	0	SE1	
						3 Inside	142	0	SE1	
						4 Inside	149	0	SE1	
						5 Inside	152	0	SE1	
	AVG.	174			120	AVG:	148		1	91
	STD. DEV.	3		_		STD. DEV.	4			
DSX-1	88447	177	> 50%	BRK		1 Outside	130	0	SE3	
P52/ 6P		180	> 50%	BRK		2 Outside	132	0	SE3	
	1	174	> 50%	BRK		3 Outside	129	0	SE3	
Extrusion	1	174	> 50%	BRK		4 Outside	134	0	SE3	
	1	177	> 50%	BRK		5 Outside	137	0	SE3	
	[ļ	ļ	1	AVG:	132			78
						STD. DEV.	3			
						1 Inside	N/A			
	1		ļ			2 Inside				
						3 Inside				
						4 Inside				
						5 Inside				
	AVG:	176			120	AVG:				
	STD. DEV.	3				STD. DEV.				
EAK DESCRIPTION	ON (ASTM D6392 F	USION):		EXTRUSION:	AD1	ADHESION FAIL	URE. SPECIMENS I	DELAMINATED UNDE	R THE BEAD.	
	ADHESION FAILL	,			AD2	ADHESION FAIL	URE.			
(BREAK IN SHEET	INC			AD-WLD	BREAK THROUG	SHITHE FILLET.			

BREAK DESCRIPTIO	N (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 8)

(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to Indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.



APPENDIX I Geomembrane Installation (Primary Layer for Ponds A, B, and C)

Section 1 Geomembrane Panel Deployment Log

INEERING, LLC **GEOMEMBRANE PANEL DEPLOYMENT LOG**

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

12-19-12 Page (1)

LAYER: PRIMARY SECONDARY OTHER Bestom

								1211 12 1042 (4)
PANEL	ROLL	AMB	LENGTH	WIDTH	AREA	AVG.	- · · · Q'A	COMMENTS/PANEL LOCATION
.#	# .	TEMP	APPROX.	APPROX.	APPROX.	THICKNESS (mil)	MON.	SPECIAL SHAPE
l	3566	55	100	22.5	2250	60	055	
ス	3546	55	25	22.5	562.5	LeO	655	35 15
3	3546	55	15	6	90	. le 0	CST	12/10
4	3566	53	15	10	150	60	C55	25 15
5	3564	55	27	22.5	607.5	Le O	45	38 26
(e	.3564	55	39	22.5	877.5	41	45	
7	3544	55	39	22.5	871.5	60	C55	
8	3564	55	40	2Z.5	900	60	45	•
9	3564	55	40	22.5	900	60	C55	
10	3566	54	25	22.5	56251	61	C35	40 0
Li	3560	56	2.0	12	240	60	८५७	
12	36-66	66	4-3	22.5	967.5	60	45	20

PAGE APPROX. TOTAL (SQ FT): 8985	 •	
DAILY TOTAL (SQ FT):	REVIEWED BY :	S. NEUAD
ACCUMULATED TOTAL (SQ FT):	 DATE:	12-21-12

SINEERING, LLC GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT # 2012-102

PROJECT DESCRIPTION : J.E.D. Leachate Pond Relocation

64.

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco

LAYER: PRIMARY SECONDARY OTHER BY

								12-19-12 Page (2)
PANEL	ROLL	-AMB-	-LENGTH-	WIDTH	AREA	AVG.	- QA	
#	#	ТЕМР	APPROX.	APPROX.	APPROX.	THICKNESS (mil)	MON.	SPECIAL SHAPE
13	3566	54	24	22.5	540	60	255	34 12
14	3647	56	34	22.5	810	60	CST	
15	3477	54	34	22.5	gı D	60	45	·
16	3677	54	36	22.5	810	61	255	
17	3677	54	36	27.5	810	40	455	
18	3677	57	27	2 2.5	607.5	60	C55	36 18
19	3677	37	16	9	144	60	065	18
20	36 77	57	10	5	50	60	450	10 70
21	3677	57	zi	22.5	472.5	40	C35	52 10
22	3676	57	226	22.5	5085	60	C55	
23	3455	58	41	22.5	922,5	40	055	
24	3677	- 59	284	-22.5	6390	60	C55	

PAGE APPROX. TOTAL (SQ FT): 17451.5	
DAILY TOTAL (SQ FT):	REVIEWED BY: S. NEJAD
ACCUMULATED TOTAL (SQ FT):	DATE: 12-21-12

BRANTLEY INEERING, LLC GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

LAYER: PRIMARY SECONDARY (

OTHER B+M.

(2-19-12 Page 3) LENGTH WIDTH AVG. QA COMMENTS/PANEL LOCATION AREA PANEL ROLL **AMB** THICKNESS APPROX. APPROX. APPROX. MON. SPECIAL SHAPE # TEMP (mil) 3455 225 325 7312.5 60 CST 60 25 3453 22.5 60 2835 60 Cat 2.6 124 22.5 4522.5 60 C55 62 201 2562 27 4995 43 222 22.5 28 60 C3T 3562 97 22.5 CST 2182.5 Lel 29 3457 64 92 3457 22.5 4320 60 C55 30 ble 162 60 C55 22.5 3645 3457 67 31 185 ره ن 49 22.5 4162,5 455 3559 32 73 225 22.5 455 5062.5 3559 33 40 98 22.5 60 74 2205 055 37 3674 50 3562 74 15 8 60 120 35 60 75 CD 3.6 3457 10 150 15

PAGE APPROX. TOTAL (SQ FT)	41512
DAILY TOTAL (SQ FT):	
	and the second

ACCUMULATED TOTAL (SQ FT):

REVIEWED BY :_	5. <i>1</i>	YEUAD	
DATE:	12-	21-12	

BRANTLEY INEERING, LLC GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

LAYER: PRIMARY SECONDARY OTHER Bound

12.19-12 Page

PANEL	ROLL	AMB	LENGTH	WIDTH	AREA	AVG.	QA	COMMENTS/PANEL-LOCATION
#	#	TEMP	APPROX.	APPROX.	APPROX.	THICKNESS (mil)	MON.	SPECIAL SHAPE
37	3457	76	12	4	72	60	e50	12 12
38	3562	77	64	.22.5	1440	60	C\$5	
39	3559	77	77	22.5	1732.5	60	255	
4.0	3674	78	340	22.5	7650	60	455	
41	3558	78	256	22.5	5760	61	C53	
426	3674	79	84	22.5	1890	60	450	
43	3558	29	246	22.5	5985	60	435	
44	3504	79	64	22.5	1440	61	c45	•
45	3564	29	330	22.5	7425	Leo	C\$5	
46	3457	80	34	22.5	745	61	055	
47	3564	80	19	20	380	60	155	
43	3564	30	35	.22.5	-787.5	60	C53	

PAGE APPROX. TOTAL (SQ FT): 35327	•	
DAILY TOTAL (SQ FT):	REVIEWED BY :_	S. NEJAD
ACCUMULATED TOTAL (SQ FT):	DATE:_	12-21-12



PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

LAYER: PRIMARY SECONDARY OTHER

12-19-12 Page (5)

OTHER STAM COVER

								12-17-12 (dige 6)
PANEL	ROLL	AMB	LENGTH	WIDTH	AREA	AVG	QA	COMMENTS/PANEL-LOCATION-
#	#	TEMP	APPROX.	APPROX.	APPROX.	THICKNESS (mil)	MON.	SPECIAL SHAPE
49	3564	80	45	22.5	1012.5	60	CS5_	
50	3563	90	46	22.5	t012.5	60	CPL	
51	3563	80	46	22.5	1035	60	cso	
52	3563	80	46	22.5	1035	60	455	
53	3563	80	16	22.5	360	60	(C)	225
54	3563	80	34	225	265	60	695	SE 30
55	3563	80	60	72.5	1350	60	CES 5	
56	3563	80	33	22.5	742.5	100	C55	
57	3563	80	44	225	990	60	C55	
58	3563	80	44	22.5	990	40	C\$5	
59	3563	80	44	22.5	990	60	C53	•
	35 G 3	80	44	22.5	990	60	45	

PAGE APPROX. TOTAL (SQ FT): 112725		
DAILY TOTAL (SQ FT):	REVIEWED BY :	S. NEUAD
ACCUMULATED TOTAL (SQ FT):	DATE:_	12-21-12

GINEERING, LLC BRANTLE **GEOMEMBRANE PANEL DEPLOYMENT LOG**

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

12-19-12 Page (6)

LAYER: PRIMARY SECONDARY

OTHER 1

PANEL	- ROLL	AMB	- LENGTH -	WIĐTH	AREA	AVG. THICKNESS	· QA	COMMENTS/PANEL LOCATION
#	· · · · •	TEMP	APPROX.	APPROX:	APPROX.	(mil)	MON.	SPECIAL SHAPE
لعا	3678	පිත	25	Įί	275	60	ess	21 21
62	36.78	80	17	6	102	<i>چ</i> ی)	ধ্যে	27
63	3678	80	27	22.5	637.5	60	C85	32 12
Col	3678	89	74	225	1665	60	C55	
65	3678	81	74	22.5	(665	دو (C3J	
Cela	3678	8(74	22.5	1665	60	C85	d - commence and
67	3678	21	39	14.	546	60	255	THE STATE OF THE S
68	3678	81	22	22.5	495	40	<u>ఆవు</u>	34 70
69	3678	80	15	22.5	337.5	61	CSJ	
70	3678	80	26	22.5	885	40	ess	37 15

PAGE APPROX. TOTAL (SQ FT): 7943 Ft^2 DAILY TOTAL (SQ FT): 122491 Ft^2 ACCUMULATED TOTAL (SQ FT): 122491 Ft^2

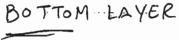
REVIEWED BY: S. NEUAD

DATE: 12-21-12

Section 2 Geomembrane Trial Seam Log









PROJECT LOCATION: St. Cloud, Fl.

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco DATE: 12-19-12

PAGE# \

					FUSION WELD		EXTRUSION WELD						_	_								
TF/TX	Time	AMB	MACH.	WELD	SPEED	WEDGE	PRE	BARREL	PEEL VALUE lbs/inch					SH	EER V	ALUE	ch	P/F	QA			
ID#		TEMP.	1D#	TECH		SET	HEAT	SET								_					MON.	
TF-1	0730	55	16	BV	10	850	_	_	INSIDE	122	129	112	127		190	187	186	173	166	ρ	SNN	<i>s/</i> s
.))			-				OUTSIDE	120	117	118	118	119	- (0	10 1	100	117	100	1	37119	1/3
TF-2	0730	55	95	SM	15	800	_	-	OUTSIDE	114	109	108	105	100	186	186	181	176	157	P	SMN	5/5
TF-3	0730	55	1,	2.6	8	850			INSIDE	128	124	131	120	122	100	100				. 2	41441	< }
1112	0 / 70	75	16	BV		0 7 0		_	OUTSIDE	125	131	112	122	118	188	182	173	175	170	P	SMN	s/r
7F-4	1240	78	95	SM	15	800	·	_	INSIDE OUTSIDE	96	96	94	95	94	142	134	139	151	139	ρ	SMN	5/5
	 				ļ , ,	0.00		-	INSIDE	102	96	96	109	101	- (5				· `			'
TF-5	1240	78	16	BV	12	850	_	_	OUTSIDE	107	96	107	99	94	140	134	131	140	139	P	SMN	s/T
TF-6	10.1	78	16	BV	9	0.5			INSIDE	125	111	114	114	107	. = 2			14/5	11/2	נו	434.4	١.
11776	1240	(0	1.6	V •	9	850			OUTSIDE	120	121	105	107	100	152	149	150	147	142	2	SMN	5/7
1-6.	71240	78	95	SM	194	2			INSIDE	118	119	119	132	113	135	138	120	10 7	143	P	SMN	7/7
16.	1 (000	1.0		,	177	800			OUTSIDE	121	133	128	133	114	1//	178	139	137	177		31114	'''
75-8	1630	80	16	BV	12	850			INSIDE	101	113	121	118	106	141	143	140	145	147	12	SMM	3/5
	1.475	00	 ` 	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			╟	-	OUTSIDE	106	118	120	116	102	ļ	110	 		, · · ·		-	'_
TF-9	1630	80	16	BV	9	850	_	-	OUTSIDE	108	110	116	116	114	138	143	145	140	143	P	SMN	T/7
75.10	1630	02	95	5M	1/1			_	INSIDE	100	113	112	118	110		1110	142	1117	142	.P	1845/	5/7
	عرمها	80	4>		14	80			OUTSIDE	106	112	115	124	111	143	145	176	147	17.6	٠.٢	SMN	<u> </u>
TF-11	1630	80	95	514	15	2			INSIDE	106	103	101	112	98	142	140	,,,,	11/2	14	P	CHAN	5/5
17-11	1470	1 80		ļ. <u></u>	12	800			OUTSIDE	108	108	114	106	106	כדי	170	145	142	146	r	SMN]//>
									INSIDE	<u> </u>	-	<u> </u>	ļ	<u> </u>	1							
		 	<u> </u>	<u> </u>			┞——	-	OUTSIDE	ļ	-		<u> </u>	ļ	-							1
									INSIDE		-	-			-							
		<u> </u>]		OUTSIDE									<u></u>				

Passing Peel Extrusion (78 lb/in): _____

REVIEWED BY: S. NECLAD

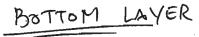
Passing Peel Fusion (91 lb/in): ____

DATE: 12-21-12

Passing Shear Fusion (120 lb/in): _____

Passing Shear Extrusion (120 lb/in):





PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

Brantley Engineering, LLC OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

DATE: 19 25 - 12

PROJEC	PROJECT LOCATION : St. Cloud, Fl.											DATE:	12-	20.	-12		PAGE#	<u> </u>			
					FUSIO	N WELD	EXTRUSI	ON WELD													
TF/TX	Time	AMB	масн.	WELD	SPEED	WEDGE	PRE	BARREL		PEEL VALUE lbs/inch						EER V	P/F	QA			
ID#		ТЕМР.	ID#	TECH		SET	HEAT	SET													MON.
To,	. 93 4	, ,	24	JP	***	_	NOA	3170	INSIDE	139	127	140	133	110	166	167	172	,7,	110	_	SMN
TX-1	0830	65		Jr			490	4 10	OUTSIDE		-	_	-	-	129	147	110	172	149	P	31117
TX-2	0900	65	71	SM	_	-	480	460	INSIDE OUTSIDE	154	139	140	152	146	147	151	158	170	155	1 P	SMN
4 2			<i></i>		-				INSIDE	135	129	132	120	122				12.5		_	- 44 4 1
Tx-3	1300	78	71	SM			480	460	OUTSIDE	-	· •	.			135	129	132	1:20	122	P	SMN
TX-4			24	JP	_	-	480	455	INSIDE OUTSIDE	133	134	129	128	115	121	131	129	131	123	P	SMN
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								·	OUTSIDE												
									INSIDE												.
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REVIEWED BY:	3.	NEURD	_

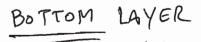
Passing Peel Extrusion (78 lb/in):

DATE: 12-21-12

Passing Peel Fusion (91 lb/in): _

Passing Shear Fusion (120 lb/in): _ Passing Shear Extrusion (120 lb/in): _





PROJECT LOCATION: St. Cloud, Fl.

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

Brantley Engineering, LLC OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

DATE: 12-21-12

PAGE#_ろ

						N WELD		ION WELD													
TF/TX	Time	AMB	MACH.	WELD	SPEED	WEDGE		BARREL		PEEL	VALUI	E lbs/i	nch		SH	EER V	ALUE	lbs/in	ch	P/F	QA
ID#		TEMP.	ID#	TECH		SET	HEAT	SET		122	1/0	12.0	128						T		MON.
TX-1	0820	41	71	sM	-	_	480	460	INSIDE	105	119	120	122	123	175	163	159	167	143	P	SHN
									INSIDE												
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REVIEWED BY: 5 NEJAD

Passing Peel Extrusion (78 lb/in): _

DATE: 12/21/12

Passing Peel Fusion (91 lb/in):

Passing Shear Fusion (120 lb/in): _____ Passing

Passing Shear Extrusion (120 ib/!n): _____

Section 3 Geomembrane Fusion Seaming Log





Bo	T	TOM	LA	4	E	R	
-							

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco DATE: 12-19-12

			PASSI	NG TRI	AL SEA	MS									
		NO.		TI	ME	TECH ID				DESTRUC	TIVE SE	AM LENGTH C	ARRY-OV	ER	
		77-7	2	73	Ö	5M				FROM PA	GE#(_	<u>~</u>	<u>*************************************</u>		
MACHINE# 9	5						ਜਾ <u>4 1</u> 27	· · ·	<u> </u>	\\	PAGE 1	NUMBER:	1	· ··· • • · ·	
_	*	1				MACHINE SET	TINGS		LENGTH				** PASSING	G-NON	
	SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE T	TESTING	
SEAM	START * FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	OA	

	*	. 1			MACHINE SET	TINGS		LENGTH				** PASSIN	G - NON
	SEAM SECTION	APPROX. AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE T	TESTING
SEAM	START * FINISH	START AIR	WELD	MACH		.	LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT	TIME TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	. DESTR.	NO.	MON.	REMARKS	DATE	MON.
5 16	WEOS * EE.OS	03-131 55	514	15	800	502	3 8	· 38	-	SUN		12-20	SMM
6 17	WEOS * EEOS	074350	SM	15	800	800	39	77	-	SMN		12-20	SMN
7 18	WEOS * 6605	0755 57	514	15	820	804	39	116	-	SIYN		12-20	SMN
8 / 9	EEOS * WEOS	0810 57	5M	15	800	802	39	155	•	SMH		12-20	SMIY
9/10	EEOS * WEOS	0815 57	SM	15	820	800	39	194	ı	SMN		1220	SMIY
13/14	EtOS · WEOS	0824 58	SM	15	800	802	39	233	-	SMIN		12-20	SMIY
14/15	EE05 + WEOS	0830 58	SM	15	800	800	39	272	1	SMN		12.20	SMM
15 /16	EEOS · WEOS	0835 58	514	15	800	798	39	311	-	SMN		12-20	SMIV
16/17	EEOS + WEOS.	0852 60	SM	15	820	800	39	350	_	SMN		12-20	SMIN
17 /18	EEOS * WEOS	0857 60	SM	15	800	798	38	388	-	SMN		12-20	MH
23/24	EEOS *WEOS	090760	514	15	800	796	22	410		SMN		12-20	SMIY
22 /23	NEOS *SEOS	091462	SM	15	800	800	40	450	- -	SMN		12-20	SMIV
22/24	NEOS + SEOS	0920 62	5M	15	800	798	184	480/154	DB-1	SMN		12-20	SMIY
1 /24	NEOS + SEOS	0931 42	SM	15	800	799	100	254		SMM		12.20	SMIY
23 125	NE03 . SE0S	0950 63	3M	15	890	800	40	294		314		12-20	SMN

* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

PAGE TOTAL:

** DATA TO BE COMPLETED BY THE

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER DAILY TOTAL WELDED (FT) DAILY DESTRUCTIVE LENGTH CARRY-OVER

DATA REVIEWER ONLY.

REVIEWED BY: S. NEJAD DATE: 12-21-12





PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco DATE: 12 - 19 - 12

PASSING TRIAL SEAMS

•	NO.	TIME	TECH ID	, <i>j</i>	DESTRUCTIVE SEAM LENGTH CARRY-OVER
	イピーし	730	BU	1217	FROM PAGE # (Ø)
	TF-3	730	BU `		
MACHINE#_[66				·	PAGE NUMBER: 2

	*				MACHINE SET	TINGS		LENGTH				** PASSIN	G-NON
	SEAM SECTION	APPROX. AN	л в.		DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
SEAM	START * FINISH	START A	IR WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT	TIME TE	MP TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
4/5	UEOG * EEOD	750 51	6 Bu	10	850	852	18	18		45	-	12-20	SMIN
2/3	NE05 * 5 E05	759 50	७ ७०	lo	850	950	14	32	_	CSJ		12-20	SMM
2/5	EFOS * WEOS	805 5	6 BU	10	850	851	24	56		450		12-20	SMN
2/4	EEOS · WEOS	809 5	6 BU	10	850	860	5	6		COT	Covered	By 2	B →
3/4	EFOS * WESS	810 6	ע & כ	10	850	850	17	78	_	e55		12-20	SMN
1 / 22	WEOS * EEOS	823 5.	8 30	16	850	95≀	22	100	_	حيح		12-20	SMN
9 / 82	NE 05 + SFOS	832 5	B BU	8	860	850	23	123	-	435		12-20	SMN
8 / 32	NEOS * SEOS	836 6	6 B 0	왕	850	862	10	133	_	C65		12-20	SMN
1 / 8	NEOS * SEOS	837 3	19 30	-8	850	850	12	145	-	C255		12-20	SMM-
1 / 7	NE05 * 5E0>	839 5	B BU	8	850	850	23	168		C55		12-20	SMM
1/6	NEOS . SEOS	B41 5	9 30	8	850	851	22	190		455		12-20	SMH.
1/3	NE03 * SE05	845 5	9 BU	8	850	850	7	197	<u> </u>	C25-		12-20	
1/2	NEOS * SEOS	846 3	9 BU	8	850	850	23	228	_	255		12-20	SMN.
10 / 12	FEED . WEOS	105 6	o Bu	8	850	850	28	248		250		12-20	SMM
70/11	ERUN " WEOS		-0 BU	8	850	851	2	257	-	CAT		12-20	SMH
* DECEMBAGE OF A LA	ENDOUNTS EDOM END OF SEA					DAGE TOTAL	720				AR DATA TO DE	<u> </u>	

^{*} REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

REVIEWED BY: 8. NEJAD





PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION : St. Cloud, Fl. . '



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

DATE: 12-19-12

PASSING TRIAL SEAMS

	NO.	TIME	TECH ID	DESTRUCTIVE SEAM LENGTH CARRY-OVER
	TEAL	730	BU	FROM PAGE # (2) 25 7
	TE-3	730	BV	
MACHINE # 16				PAGE NUMBER: 3

	*					MACHINE SET	TINGS		LENGTH				** PASSIN	G-NON
1	SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
SEAM	START * FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA	·	TEST	QA
NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
11 / 13	WEOS * FEOS	916	61	BU	8	850	850	10	267	-	८५५		12-20	SMM
12 / 13	FEOS "WEOS	425	62	Bu	8	<i>8</i> కం	851	31	298		८६७		12-20	SMN
11/12	NEOS * SEOS	939	62	`\$∨	8	850	850	20	318		255		12-20	SHN
18 / 19	EECS "WEOS	941	63	30	10	850	851	18	336	·	C65		12-20	SHM
20/21	NEOS * 3 FOS	945	43	31	10	850	850	lo	346	_	455		12-20	SHM
18 /21	FEOS "WEOD	950	44	20	8	850	350	24	370	·	C 55		12-20	SHN
19/21	EEOS + WEOS	962	45	BU	છ	850	850	8	378		CST		12-20	HKS
19 / 20	EE03 + WE03	954	65	30	8	850	851	12	390	-	255		12-20	MAS
21/22	NEOD SEOD	1000	65	30	-10	850	৪১০	32	422		CST	•	12-20	SMN-
18 / 22	NE03 * SE03	1004	45	BU	10	850	850	8	430	_	255		12-20	SMN
17 1.22	NE07 + 3£03	1005	66	30	10	850	849	22	452	-	cso		12-20	MMZ
16 / 22	NEOS * 3607	1067	46	30	10	850	850	23	475	-	C55		12-20	SMH
15/22	NE07 * 3507	1009	tele	BU	10	850	850	22	480/17	DB-3	255		12-20	SMN
14 / 22	NE07 * 3605	10/1	lile	Bu	10	800	851.	23	40		22		12-20	SMH
12/22	NEO3 * 5803	1015	64	BU	10	850	850	44	106		css		12-20	SMA

^{*} REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER DAILY TOTAL WELDED (FT)

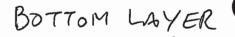
106

DAILY DESTRUCTIVE LENGTH CARRY-OVER

REVIEWED BY: S. NEJAD

DATE: 12-21-12





PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



Brantley Engineering, LLC OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco

DATE: 12-19-12

PASSING TRIAL SEAMS

	NO.	TIME	TECH ID	DESTRUCTIVE SEAM LENGTH CARRY-OVER
	 TF-2	730	SM	FROM PAGE #() 294
	 7F-4	1240	-15 m	
a /	TF-7	1240	3m	
MACHINE# プ			· .	PAGE NUMBER: 4

	*					MACHINE SET	TINGS		LENGTH				** PASSIN	G-NON
1 1	SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE T	resting _{j.} :
SEAM	START * FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MÓN.
24/25	NEOS · SEOS	0956	64	514	15	800.	.802	288	490/92	DB-2	SMN		12-20	SMN
28/29	EE 05 . WEDS	1028	65	SM	15	800	798	22	1/4	_	SMN		12-20	SMY
27/29	NEOS * SEOS	1032	65	SM	15	800	800	97	211		SMN		12-20	SMN
27 /28	NEWS . SESS	1044	65	SM	15	800	796	103	314	_	SHM	•	12-20	BMN
26/28	NEOS · 9E83	1052	66	SM.	15	8200	800	126	440	_	SMN		12-20	8HN
29/30	NEOS . SEOS	1114	68	SM	15	820	80.2	97	490/47	DB - 4	SMN	· · · · · · · · · · · · · · · · · · ·	12-20	SMN
28/30	NE65 . SE65	1123	68	SM	15	800	800	103	150		SMN		12-20	SMN
31 /32	8EOS · NEOS	1134	68	SM	15	800	798	160	310	_	SMH		12-20	
33 /34	EEOS * WEOS	1300	76	SM.	-1-5	870	796	22	332		5MM		12-20	-SMN-
32 / 33	SEOS · NEOS	1304	76	SM	15	800	800	9.7	429	-	SMN		12-20	SMN
32 /34	SEOS · NEOS	1312	77	SM	15	800	798	97	480/46	DB-6	SMIY		12-20	
33 140	SEOS · NEOS	1332	78	SM	1.5	800	796	243	289	-	SMM		12-20	SMN
34 /40	3605 · NEOS	1350	79	5M	15	800	800	97	386	_	SMN	, .	12-20	3MN
41/43	9505 + NEOS	1407	79	SM	15	808	798	242	490/138	DB-8	SMN		12-20	
42/42	EEOS · WEOS	1430	79	SM	15	800	800	20	1 58		SMN		12-20	SMM
* REFERENCE SEAM E	NDPOINTS FROM END OF SEA				PAGE TOTAL	181H				** DATA TO BE	COMPLETED	BY THE		

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DATA REVIEWER ONLY.

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

REVIEWED BY: S. NEUAD

DATE: 12-21-12







PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanço** DATE: 12-19-12

PASSING TRIAL SEAMS

•	NO.	TIME	TECH ID	DESTRUCTIVE SEAM LENGTH CARRY-OVER
	TF-1	730	2	FROM PAGE # (
	TE-3	730	30	
1	TF-5	1240	BV.	
MACHINE #	TF-6	1240	37	PAGE NUMBER:

	*	ķ					MACHINE SET	ΠNGS		LENGTH				** PASSIN	IG - NON
	SEAM S	ECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED		· .	DESTRUCTIVE	
SEAM	START *	FINISH	START	AIR	WELD	MACH.			LENGTH	PREVIOUS	DESTR.	QA		TEST	\$QA
NUMBER	POINT	* POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
25 / 27	NEOS '	5 605	1030	67	Bu	10	850	850	200	306	-	८ऽऽ		12-20	SHH
26 /27	EE05	WEO3	1054	48	BU	8	850	851	22	328		ديح		12-20	SHM
25/26	NEOS '	* క్రక్ర	165	63	BU	10	950	850	124	452		255		12-20	SMH
30 /31	NEOS	\$ 5E05	185	20	BU	10	850	850	160	490/122	DB-5	ديء		12-20	SHM
31/37	EKOS	* 45805	1155	7/	BU	10	885	850	12	134	_	455		12-20	SHH
30 /37	\$ Gos	* NEOS	1249	76	BV	12	850	849	12	146		SMN		12-20	SMN
35/36	NEOS	· SEOS	1303	76	BV	12	850	858	14	160	. ~	SMN		12-20	SHN
35 / 38	EEOS	· WEOS	1305	76	BV	12	850	848	14	174	. ~	SMN		12-20	ŞMH
36/38	ECOS	· WES.	1306	76	BV	12	8-50	846	-16	190	. –	SMN		12-20	SMN-
36137	EEOS	· wto s	1316	77	BV	12	850	848	14	204		SMN	·	12-20	SMN
30/36	EE63	* WEOS	1318	フフ	BV	12	850	850	3	207	_	SIM		Ву	57
30/38	EEGS	* WESS	1319	フフ	BV	12	850	800	20	227	_	SIMM		12-20	SMN
38 /39	WEOS	* EEOS	1323	フフ	BV	1.5	850	848	75	302	_	SMAI		12-20	SMN
32/38	E505	* W605	1336	78	BV	1-12-	850	850	18	320		SMX	<i>(</i>	12-20	-SMI4
32 /35	GEOS	· WESS	1338	78	BV	12	828	848	15	335		SMM		12-26	SIMIY

* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

PAGE TOTAL: 719

** DATA TO BE COMPLETED BY THE

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

335

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

DATA REVIEWER ONLY.

REVIEWED BY: S. NEJAD DATE: 12-21-12





BOTTOM LAYER

PROJECT # 2012-102

MACHINE # 95

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco DATE: 12-19-12

PASSING TRIAL SEAMS

	NO.	TIME	TECH ID
	- 12Fm-4	1246	-5m
=	4F=7	1240	514
	4F-10	1630	3M
	TF-11	1630	3m

DESTRUCTIVE SEAM LENGTH CARRY-OVER

FROM-PAGE#(___

	_							T						
	*		.			MACHINE SET	TINGS		LENGTH				** PASSING	G-NON
	SEAM SECTION	APPROX.	AMB,	• • •		DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE T	ESTING
SEAM	START * FINISH	STÄRT	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA	Ť	TEST	QA
NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	/WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
42144	SEDS * NEOS	1432	80	3M	15	800	798	104	222	J	SIMN		12-20	SHN
43/45	SEOS · NEOS	14528	80	8M	15	800	800	262	484	. —	SMN		12-20	SHN
44/45	SEOS · NEOS	1515	81	SM	15	800	802	64	490/58	DB-9	SMN		12-20	MMS
56/57	WEOS * EEOS	1535	8-1	SM.	15	800	800	43	101	_	SMN		12-20	SHA
57 158	WEOS · EE OS	1538 8	87	5 M	15	800	802	43	144	_	SIYIY		12-20	SMN
58159	WEOS · EEOS	15438	81	5M	15	800	804	43	187	_	5MN			SMM
59160	WEOS · EEOS	1547	81	5M	15	800	798	43	230	 -	SMN		12-20	SMN
60/61	WEOS . EEOS.	1552	87	514	15.	8-80	800	25	255	-	SMN		12-20	SMM
62163	SE05 . NE05	1550	80	SM.	15	800	802	19	274	_	SMN		12-20	SMN
39/64	WEOS + EE OS	1605	80	SIM	15	800	8.00	74	348	_	SMM		12-20	SMN
64/105	WESS . EEOS	1616	80	814	15	800	798	74	422		SMN		12-20	SMN
65/66	WEOS + EEOS	1623	79	SM	15	800	800	74	485/11	D8-11	SMM	12-14-11-11-11	12-20	SIMN
46/67	WESS . EESS	1634	79	514	15	800	796	54	65	-	SMN		12-20	SHN
69 / 70	3505 · NEOS	1643	76	SM	15	800	798	15	8-0	-	SMN		12-20	
66 170	WEOS . EGOS	1700	76	5M	15	800	800.	51	59		SMN		12-20	

* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

PAGE TOTAL: 909

92

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

DATA REVIEWER ONLY.

** DATA TO BE COMPLETED BY THE

REVIEWED BY: S. NEJAD

DATE: 12-21-12

BOTTOM LAYER

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco DATE: 12–19–12

PASSING TRIAL SEAMS

	NO.	TIME	TECH ID	DESTRUCTIVE SEAM LENGTH CARRY-OVER
	TF-5	1240	BO	FROM PAGE # (5) 335
	TF-10	1240	BU	
Le Common de la Co				4
MACHINE #				PAGE NUMBER:

	*		T		MACHINE SET	TINGS		LENGTH				** PASSIN	G-NON
1	SEAM SECTION	APPROX. AME	.		DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	ESTING
SEAM	START * FINISH	START AIR	WELD	МАСН			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT	TIME TEM	P TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR. '	NO.	MON.	REMARKS	DATE	MON.
401 41	SEOS + NEOS	1345 78	BV	12	850	848	242	480/97	DB-7	SMN		12-20	SHIY
40/42	SEOS · NEOS	1416 79	BV	12	850	850	84	181	·	SMN		12-20	SMM
41/42	EEOS . WEOS	1430 80	BV	12	850	848	22	203	- .	SMN		12-20	SMN
43/44	EEOS ·WEOS	1435 80	BV	12	850	850	22	225	-	SMN		12-20	8MN
47 148	EEOS * WEOS	1443 80	3U	12	250	850	20	245	_	C \$JT		12-20	SMN
46/47	SE07 . 15E07	1446 80	Bu	12	850	850	19	264	· ·	455		12-20	SMN
46/48	WEOS * EEBS	1452 80	Bu	9	850	850	30	294	-	255		12-20	SMN
48/49	FEOD WEOD	1500 %	30	12	850	849	45	339		ধ্যে		12-20	SMN
49/50	EEGS * UEOS	1507 80	BU	12	850	850	45	384		CES		12-20	SMN
501.51	EEOS * CEOS	15/6 80	30	12	250	850	45	429	_	055		12-20	SIMN
51/52	WEGS FEOS	1327 80	30	12	850	250	45	474	_	255		12-20	SMM
52/53	WEON * FEOD	1535 80	, BO	12	850	248	29	490/13	03-10	CSS		12-20	6MN
54 / 55	5800 + NEOS	1544 80	BU	12	850	850	38	51	_	255		12-20	SMH
53 155	COFEOS EFOS	1558 3	182	12	850	850	75	(a)		655		12-20	SMN
53/54	WERS * EBOS	1600 8	Bu	12	850	850	マス	88	_	C50		12-20	SHN

* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

PAGE DESTRUCTIVE LENGTH CARRY-OVER

PAGE TOTAL: 723

88

DATA REVIEWER ONLY.

** DATA TO BE COMPLETED BY THE

2. DEFECT NUMBER OR A POINT LOCATION ON A SEAM

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

REVIEWED BY: S. NEJAD DATE: 12-21-12

BRANTLE SINEERING LUGGE GEOMEMBRANE FUSION SEAM LOGE

PROJECT # 2012-102

MACHINE # 16

PROJECT DESCRIPTION: J.E.D. Leachate Pond Religication

PROJECT LOCATION : St. Cloud, Fl.



Brantley Engineering, LLC OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco** DATE: 12-19-12

PASSING TRIAL SEAMS

NO. **TECH ID** TIME 7F-5 1240 BU TF-6 2240 BU TF-8 1630 BU TF-9 1630 BU

DESTRUCTIVE SEAM LENGTH CARRY-OVER

FROM PAGE # (7) 88

PAGE NUMBER

	*													
	T					MACHINE SET	TINGS		LENGTH		.	٠.	** Passing	G-NON
	SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM .	LOCATED	.	٠. ا	DESTRUCTIVE T	ESTING
SEAM	START * FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	. NO.	MON.	REMARKS	DATE	MON.
54/36	EEOS · LIEOS	listil	81	B	Ŋ	850	850	20	108		এজ	,.	12-20	MMS
55 1.56	WERL FEOS	1615	පිර	BU	ع	පීරිර	849	25	133		CS		12-20	SMM
60/63	WEOS * EEOS	16281	୫୦	Bu	4	850	850	20	153		C55	•	12-20	SHN
tel 163	WEDS * FEDS	1430	80	BU	9	250	850	11.	Lle4	·	C55		12-20	SMM
· Lel /62	WFOS * EFOS	1631	80	Bu	9	830	850	23	187		⊂ 35		12.20	SMN.
45/63	SECS + NEOS	1637	80	क्रि	12	850	851	30	224		CSJ.		12-20	SMN
45/60	BEOS . NEOS	1642	79	BU	12	850	850	9	233		45 5		12-20	SMN
45/59	SEOS " NEOD	1644	79	ह्य _प	12	850	850	22	255		حع ح		12-20	SMN
45/58	5503 * NE03	16046	79	Bu.	-62	850	850	23	278	-	ব্বে		12-20	SMN
45 157	SEOS " NEOS	1449	79	Bu	12	850	850	22	300		css		12-20	SMN
45/56	SEOS " NEOS	1652	200	BU	12	850.	858	10	310	_	455		12-20	SMN
93 / 23	SEOS " NEOS	1654	79	BU.	12	850	850	62	372	·· ·	C55		12-20	SMN
45 / 52	SEOS + NFOS		78	Bu	12	250	248	22	394		C25		12-20	SMA
45/51	SE03 . NEOS		78	BU	12	250	851	プ 3	417	- : 25	C55		12-20	SMN
45/50	SECS · NEOS	1707	23	BV	12	850	850	22	439	<u> </u>	055		12-20	SMN
10100	BAND KEDS	10,20	- 000	1000	2-1			000	<u></u>	<u> </u>	J -/ 1			

REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

PAGE TOTAL: 351

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER DAILY TOTAL WELDED (FT)

439

DAILY DESTRUCTIVE LENGTH CARRY-OVER

REVIEWED BY: S. NEJAD

DATE: 12-21-12

GINEERING, LLC

GEOMEMBRANE FUSION SEAM LOG

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



Brantley **Engineering, LLC**

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanço DATE: 12-19-12

DESTRUCTIVE SEAM LENGTH CARRY-OVER

FROM PAGE # (8) 439

PAGE NUMBER:

TIME **TECH ID** TF-8 1430 BU TF-9 **%**∪ 1630

PASSING TRIAL SEAMS

NO.

MACHINE # _ l (o

	*				, -							<u> </u>		
	*					MACHINE SET	TINGS		LENGTH				** PASSIN	IG - NON
	SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
SEAM	START * FINISH	START	AIR-	WELD	MACH		,	LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
45/219	SEOS . NEOS	1710	27	B	12	850	850	スで	461		حدی		12-20	5MH
45/46	SEOS " NEOS	1714	77	あら	12	850	851	36	490/7	DB-12			12-20	SMM
33 /38	NEOS * SEOS		75	BU	12	850	% 50	~	14	_	CS	Corure		68
33/39	NEOS SEOS	1737	74	7	12	පීරිර	850	23	37		C25		12-20	
33 /64	NEGS + SEBS	1739	74	Bo	12	850	850	22	39		455			SMH
33 /45	15E05 " SE05"	1742	24	වර	12	850	848	23	82		C25		12-20	MME
33/66	NEW ' SEOS	245	73	Bu	12.	850	850	22	90/14	DB-14	25		• •	SMM
52 / 55	LIE07 "EFOS	1755	73	Bu	12	200	850	10	24		CST		12-20	
. /	*				ļ									
/												,		
/	*													
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/	*												<u> </u>	
* REFERENCE SEAM E	NDPOINTS FROM END OF SEAF	M (EOS),		•	PAGE TOTAL	165			.1	** DATA TO BE	COMPLETE	D BY THE		

^{*} REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

24 25 44 ** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

REVIEWED BY : 3 . NEJAD

DATE: 12-21-12



BOTTOM Layer

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco DATE: 12-19-12

PASSING TRIAL SEAMS

	NO.	TIME	TECH ID	DESTRUCTIVE SEAM LENGTH CARRY-OVER
	TF-10	1630	501	FROM PAGE # (6) 9 Z
	TF-11	1630	5M	
06				
MACHINE # $\underline{\underline{99}}$				PAGE NUMBER: LO

	*					MACHINE SET	TINGS		LENGTH				** PASSIN	G - NON
	SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	
SEAM	START * FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
67170	WEOS · EEOS	1701	75	SM	15	800	798	20	112	1.	SIMA		12-20	SHH
67/69	WEDS * EEOS	1703	75	514	15	800	798	22	134	1	SIMM		12-20	SMN
28/70	9505 · NEOS	1712	75	SM	15	800	800	37	171	-	SMN	,	12-20	SHN
Ze8/66	5683 . NEOS	1715	75	SM	15	800	796	15	186	1	SMH		12-20	SMH
28/65	SEDS · NEOS	1719	74	SM	15	800	798	22	208	_	SMN		12-20	SMH
28 164	SEOS · NEOS	1721	74	SM	15	800	.800	23	231	_	SMN	• :	12-20	SMN
28 /39	SEOS . NEOS	1723	74	SM	15	800	802	22	253	-	SMA		12-20	SMN
28 / 38	SEOS . NEOS	1725	74	SM	15	800	800	4	257	_	SMN	covered	BY 40	\$56
67 168	WEOS . GEOS	1730	70	SM	1.5	800	796	24	281	—	SMN.		12-20	5MIY
33 168	NEOS · SEOS	1736	68	5M	15	800	800	34	305/10	DB-13	SMN		12-20	SMH
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/	*													
/												-		
/	*													

^{*} REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE TOTAL: 223

10

3720

10

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

REVIEWED BY: S. NEJAD

S-12-21-3

Section 4 Geomembrane Extrusion Seaming Log



GEOMEMBRANE EXTRUSION SEAM AND TEST LOG

PROJECT # 2012-102

MACHINE #_71

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation



PROJECT LOCATION: St. Cloud, Fl.

PASSING TRIAL SEAMS

NO.	TIME	TECH ID
TX- 2	0900	5 M
TX-3	1300	5 M

Bottom Layer

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

DATE: 12-20-12

DESTRUCTIVE SEAM LENGTH CARRY-OVER
FROM PAGE # (- Ø) - Ø

....

PAGE NUMBER: ____________

		EXTRUSIO	N SEAM	MING					VAC	CUUM	TESTIN	NG	l
	*					LENGTH			NON				
	SEAM SECTION	APPROX.	AMB.		APPROX.	FROM	LOCATED		DESTR.				
SEAM	START * FINISH	START	AIR	WELD	LENGTH	PREVIOUS	DESTR.	QA	TEST	TECH		QA	-
NUMBER	POINT * POINT	TIME	TEMP	TECH	WELDED	DESTR.	NO.	MON.	DATE	ID	P/F	MON.	REMARKS
68/69	NEGS * SEOS	1401	7 5	3m	14	14		C55	12-20	m5	P	455	
/	•											1	
/	•												
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/	*												
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/	*											<u> </u>	
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				-	<u> </u>			_		1	T	<u> </u>	
/	*								1	1	\top	 	<u> </u>

* REFERENCE SEAM ENDPOINTS FROM	PAGE TOTAL: LY	<u> </u>
END OF SEAM (EOS), DEFECT NUMBER	PAGE DESTRUCTIVE LENGTH CARRY-OVER	14
OR A POINT LOCATION ON A SEAM	DAILY TOTAL WELDED (FT)	14
	DAILY DECEDITION I ENGIN CARRY OVER	14

REVIEWED BY: 3. NEUAD

DATE: 12-21-12

Section 5 Geomembrane Defect, Repair, and Vacuum Test Log



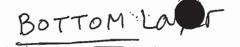
GEOMEMBRANE DEFECT, REPAIR, AND TEST LOG

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.





OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

PAGE# 2

		5	<u> </u>		••			REPA	IR.			V	ACUUI	M TEST	25.
DEFECT		FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE					SIZE	IĎ#	TECH	мой.	· · · ·	. ID	۳.	MON.
Α	6/7	WEOS 70 6'E.	cut	12-19		12 20	9	2K4	71	SM	CSS	12-20	115	\overline{Q}	CSK
В	6/7	12'E. OF WESS	Bo	12-19	\$	12-20	P	212	٦٢ .	Bor	<i>دچح</i>	12-20	bus "	9	200
С	718	WEOS TO 6'E	ent	12-19		12-20	P	244	71	Sim	C55	2-20	ms	P	C45
D	15/16	EEOS TO 6'W	Bo	12-19	Kovered by 24			-		<u> </u>	-	_	~		
F	22/23	NEOS TO 5'3.	Bo	12-19		12-20	3	2 K4	24	JP	450	pro	bus	P .	45
G	22/24	30'S OF NEOS	DB-1	12-19		12-20	7	2×5	24	JP.	455	12-20	jus	P	255
H	22/24	38'5 OF NEOS	D	12-19		12-20	25	2K2	24	JP	رجي	12-20	MS	7	C55
J	22/24	125' S. OF NES	10	12-19		12-20		224	71	SM	حج	12-20	MS	7	25
K	22/24	14' H. OF SEGS	IO	12-19		12-20	3	2KZ	71	Sm	455	12-28	mo	7	455
M	1/22/24	Interscetion	7	12-19		12-20		242	51	300	255	12520	us	7	455
N_	22/23/24	intersection	T	12-19		12-20	₽	212	24	25	C 5J	12-20	mà.	7	.00
P	23/24/25	Intersection.	7	12-19		12-20	P	2×2	24	37	435	12-20	ms	?	435
Q	24/25	152'S. OFNES	LD_	12-19	. ,	12-20		2K2	71 -	sm	455	12-20	my	·?	145
R	24/25	174' S. OF NEOS	-	12-19		12-20	5	2K2	71	Sm	45	12-20	ns	7	45
S	24/25	92' N. OF SEOS	D3-2	1		12-20	P	2 X le	71	Sm	255	17-20	225	7	150
T	27/29	NEWS to 6'S.	Bo	12-19		12-20		206	24	JP	255	12-20	ms	P	25
W	27/29	35'S. OF NEOS				12-20		2 K 4	24	D.B	025	12-20	no	P "	450
X	29/30	NEOS TO 10'S.	130	12-19	·	12-20		2×6	24.	OP.	C52	12-20		17	COS
Υ	29/30	50'S OF NEOS	DB-4	12-19		12.20	12	2X5	24	J.B	CET	12.20	mo	P	45

DEFECTS TYPES	DX - EXTRUSION DESTRUCTIVE	PT - PRESSURE TEST CUT	REPAIR TYPES
BO - BURNOUT	ED - EQUIP. DAMAGE	T - THREE PANEL INTERSECTION	P - PATCH
CO - CHANGE OF OVERLAP	EXT - PANEL EXTENTION	VL - VACCUM.LEAK	C-CAP
CUT - CUT	FM - FISHMOUTH	WR - WRINKLE	RS - RECONSTRUCTED SEAM
D - DAMAGE	-FSFAILED-SEAM	-WSWELDER-RESTART	G&WGRIND AND WELD
CR - CREASE	INT - INTERSECTION	OTHER	·

OTHER

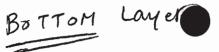
REVIEWED BY: S. NEUAD DATE: 1-3-13

IO - INSUFFICIENT OVERLAP

DF - FUSION DESTRUCTIVE



BRANTLE INEERING, LLC GEOMEMBRANE DEFECT, REPAIR, AND TEST LOG



PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

PAGE#_Z_

		<u></u>						REPA	AIR			V	ACUUI	M TES	<u>آ</u>
DEFECT	DE	FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QΑ	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE		ŧ			SIZE	ID#	TECH	MON.		ID		MON.
Α	2/3/4	Tit	T	12-19		12-20	5	315	21	SM	دخ ح	12-20	ves	7	146
В	2/4/5	Int	$ \tau $	12-19	Covered L. 2A	_	~	_	_	~	_	- .	_	-:	~-`
С	1/2/5	Int	T	12-19		12-20	P	Zx2	71	309	c 2 2	220	w	P	145
D	9/10/22	Int	7	12-19		12-20	2	324	71	5m	CST	12-20	kez	P	45
F	8/9/22	Int	T	12-19.		12-20	?	2×2	71	SM	C45	1220	my	P	45
G	1/8/22	Int	7	12-19		12-20	7	2X7	71	Son.	C53	12-20	us	P	C335
H	1/7/8	Int	7	12-19]	12-20	P .	242	21	300	C55	12-20	Less.	P	c35
J	116/7	Int	T	12-19		12-20	P	2×2	7/	300	4	12-20	us	P	C05
K	1/5/4	Int	T	12-19		12-20	P	2K2	71	Sm	C25	12-20	us	7	45
M	11/12/13	Int	7	12-19		12-20		212	24	15	<\$T	12-20	us	P	-05
N	23	10'N, 11'E of SIZC	Cut	12-19	·	12-20		2X2	24	JP	45	12.20	org	ያ	45
P P	13/14/22	Int	T	12-19		12-20	7	2×3	24	35	025	1220	145	7 -	45
Q	19/20/21	Int	7	12-19		12-20	P	2K2	24	JP	<u><5</u>	12-20	nes	7	C43
R	18/19/21	Int	7	12.19	<u> </u>	12-20	7	242	24	25	c55	12-20	m3	\mathcal{P}	43
S	18/21/22	Int .	T	12-19	,	12-20	3	242	24	JP	45	12-20	neg	P	CES
T	17/18/22	Fat	7	12-19	<u> </u>	1220		2×2	24	26	255	12-20	suy	17	035
W	14/12/22	Int	7	12-19		12-20		242	24	5P	255		44	9	45
. X	15/16/22	Int	1	12-19		12-20	P	2K5	24	JP	435	12-20	any	7	13
Y	15/22	17' Not 5805	DB-3	12-19		12-20	7	216	24	25			neg	9	C-15
DEFEC	TS TYPES	DX - EXTRUSION DESTRUCTIVE			PT - PRESSURE TES	T CUT				REP	AIR TY	PES			
BO - BUI	RNOUT	ED - EQUIP. DAMAGE			T - THREE PANEL IN	ITERSECT	ION			P - PA	TCH				
CO - CH	ANGE OF OVERLAP	EXT - PANEL EXTENTION			VL - VACCUM LEAK					C - CA	AP .				
CUT - CI	IT	EM - EICHMOLITH			WP - WDINKIE					DC . D	CONST	מווכדבה פ	CANA		

•	DEFECTS TYPES	DX - EXTRUSION DESTRUCTIVE	PT - PRESSURE TEST CUT	REPAIR TYPES
	BO - BURNOUT	ED - EQUIP. DAMAGE	T - THREE PANEL INTERSECTION	P - PATCH
	CO - CHANGE OF OVERLAP	EXT - PANEL EXTENTION	VL - VACCUM LEAK	C - CAP
	CUT - CUT	FM - FISHMOUTH	WR - WRINKLE	RS - RECONSTRUCTED SEAM
_	-DDAMAGE	-FSFAILED-SEAM	-WSWELDER-RESTART	G&W - GRIND AND WELD
	CR - CREASE	INT - INTERSECTION	OTHER	·
	DE - ELISION DESTRUCTIVE	IO - INCLIEUCIENT OVERLAD .	OTHER :	

REVIEWED BY: 3- NEJAD

DATE: 1-3-13

BRANTINE NATIONALING LINES TO LLOW. GEOMEMBRANE DESECTI, REPANY AND THE STOLLOW.

PROJECT # 2012-102

PROJECT DESCRIPTION : J.E.D. Leachate Pond Relocation

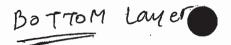
PROJECT LOCATION : St. Cloud, Fl.

Brantley Engineering, LLC

		: <u></u>						E KIRPY				· V	A@UUI	M-TEST	[,]
DEFECT	DE	FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE 3	PAPPROX	MAGH	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TECH	MON		ID .		MON.
Α	32/33	27 N. OFSESS	Cut	12-19		12-24	P	OXXO	71	3m	43	[Z-21	me	P.	C45)
В	32/33	17' N. OF SEOS	BO	12-19	* ×	12.20	2	212	71	sm	C455	12-20	m	Yes	65
C	32/34	51 N. OFSEOS	DB-6	12-19		1220	· P	,,2,xLe	24	JP	455	12-zo	w.j.	P	C53
D	32/34	65 N. OF SEUS	Bo	12-19		12-20	P	2 12	24	3 P	C95	lz-zo	ws	8	CH57
F	33/40	BEDS TO 5' N.	30.	-12-19		12-21	Þ	2×2	71.	Sin	055	12-21	ms	**	45
G	34/40	45' N. OF SESS	Bo	12-19		12-20	7	2×3	24	TP	C255	12-75	ws	P	255
Н	40/41	9E05 TO 5'N.	Bo	1249		12-20	P	2×6	71	sin	C15	12470	M.5.	S. P.	LUST
از ا	40/41	145' N. OFSEOS	DB-7	12-19		12-20	9	295	24	SP	055	12-20	mos	P	655
K	41/43	104' N. OF SEOS	DR8	12-19		12-20	P	226	21	5ª	295	12-20	a	7	645
M	42/44	33' N. OF SEOS	130	12-19		12-20	· P	112	24	OP	265	12-20	big	P	23
N	42/44	G'S. OF NEOS	130	12-19		12-20	7	226	24	26	C35	12-20	nes	P	265
P.	43/45	158' N. OF SEO	130	12-19		12.20	7	2×6.	24	37	253	12-20	1445	' ح	6 53
Q	43/45	52' N. OF SEO	IO	12-19	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	12-70	P	24 3	71	5m	CSJ	1200	my	7	655
R	43/45	A N. OF SEOS	Bo	12-19		12-20	P	2×5	21	BM	C95	12-20	ns	. 8	CUS
S	43/45	62 NOF SEOS	IO	12-19	7.	12-20	7	2 162	71	32	020	12-20	MS	1	CST
T	44/45	6' N. DESEOS.		فيستبدد ويتندون وارو		12-20	1	212	7-4	2D	CSJ			P	CS
W	62/63	61 N. TO SEOS	180.	12-19		1330	P	247	7/	Sm	435	12-2	my	P	45
X	39 164	33 E:OFWEOS	130	1		[2-20		2×2	31	sm	SES	12-2	127	1.7	1275
Υ ,	65/66	II' W. OF GEOS	DB-11	12-19		17-3	P	245	7/	3m	255	12-2	ms	P	255

DEFECTS TYPES	DX - EXTRUSION DESTRUCTIVE	PT - PRESSURE TEST CUT		REPAIR TYPES	
BO - BURNOUT	ED - EQUIP. DAMAGE	T - THREE PANEL INTERSECTION		P - PÁTCH	
CO - CHANGE OF OVERLAP	EXT - PANEL EXTENTION	VL - VACCUM LEAK		C-CAP	رية مواكد
CUT - CUT	FM - FISHMOUTH	WR - WRINKLE		RS - RECONSTRUCTED S	EA
.D. DAMAGE	FS- FAILED/SEAM	.WS - WELDER RESTART		G&W - GRIND AND WE	D
CR - CREASE	INT - INTERSECTION	OTHER			analysis.
DF - FUSION DESTRUCTIVE	IO LINSUEFICIENT OVERLAP	OTHER	· · · · · · · · · · · · · · · · · · ·		

BRANTLE SINEERING, LLC GEOMEMBRANE DEFECT, REPAIR, AND TEST LOG



PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

P - PATCH C - CAP

RS - RECONSTRUCTED SEAM

G&W - GRIND AND WELD

PAGE#_ 식

							REPA	JR	,		V.	ACUU	M TEST	Γ
DEFECT	DEFECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TECH.	MON.		ID		MON.
Α	14/15/22 Int.	7	12-19		12-20	R	2.22	24	JP	C55	12-20	ong	P	Las
В	27/28/29 Int	T	12-19		12-20	P	2K2	24	55	455	12-20	my	7	45
С	28/29/30 Int	7	12-19		12-20	\$	2×2	24	92	C55	12-20	419	P	05
D	25 Helza Pat	T	12-19		12-20	7	2×3	71	sm	<u>ديح</u>	12-20	ug	9	CES
F	26/27/28 Int	T	12-19.		12-20	Ρ.	2×3	21	sm	655	12-20	mg	P	C55
G	38'SH NEGS	58-5	12-19		n-20	P	2X5	24	JP.	C55	6220	ws	P	Ligg
H	52/53 13'0 SC FF05	DB-10	12~19		1220	P	246	24	UP	25	(2/28	ary	P	155
J	Ce1/62/63 Int	17	12-19		12.20	7	2 KZ	71	SM	C53	12-20	urs	P	050
K -	60/41/63 Int	7	12-19		12.27	8	3×3	71	SM	C 95	12-20	mj	\mathcal{P}	125
M	45/60/63 Int.	T	12-19		62-20	7	2×3	71	5m	cor	1220	us	P	45
N	45/59/60 Int	7	12-19		12.20	P	2 12	21	311	093	12-20	ur	P	495
P	45/58/59 Int	7	12-19		1220	7	214	21	Sm	cy	12.70	m	P	655
· Q	45/57/58 Inf	T	12-19		12-20	P	2x2	71	sne	C55	12-20	wy	P	100
R	45/56 57 Int	T	12-19		12-20	2	ZXZ	71	su	C55	12-20	m4	P	45
<u>\$</u>	45/55/56 INL	T	12-19		12,720	2	2×2	71	SM	055	12-20	lax	P	CUS
T	45/52/55 Inf	T	12-19		12-20	P	242	24	JP	650	12.20	m3	12	CAS
W	45/57/52 Int	17	12-19		12-20	P	242	24	57	(5)	12-20	pres	R	025
X	45/50/51 Int	T	12-19		12-20	7	23/2	24	30	455	12.20	m4	P	css
Υ.	4549/50 Int	T	12-69		1220	P.	2X2	24	SP	-25	12-20	ms	P	1005
DEFEC	TS TYPES DX - EXTRUSION DESTRUCTIVE			PT - PRESSURE TEST	CUT			, ,,,,	REP	AIR'TY	PES		:	

BO - BURNOUT	ED - EQUIP. DAMAGE	T - THREE PANEL INTERSECTION
CO - CHANGE OF OVERLAP	EXT - PANEL EXTENTION	VL - VACCUM LEAK
CUT - CUT	FM - FISHMOUTH	WR - WRINKLE
D - DAMAGE	FS - FAILED SEAM	WS - WELDER RESTART
CR - CREASE	INT - INTERSECTION	OTHER
DF - FUSION DESTRUCTIVE	IO - INSUFFICIENT OVERLAP	OTHER

REVIEWED BY: 3. NGJAD.

DATE: 1 3 -13

BRANTLE SINEERING, LLC GEOMEMBRANE DEFECT, REPAIR, AND TEST LOG



PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanço

PAGE#_5

CODE	SEAM PANEL OR	ECT LOCATION	Derece												
CODE	SEAM, PANEL OR		DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	.MACH	WELD	QA	DATE	TECH	P/F	QA
	DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TECH	MON.		ID		MON.
Α	69/70	SEOS TO 5'N	Bo	12-19		12.20	P	2×6	71	3m	رچي	12-20	m5	P	C125
В	28/70	SEOS TO 4' M.	80	12-19		220	P	2×4	21	5m	c55	12-20	ins.	P	C75
С	45146	7'S. OF NEOS	DB-12	12-19		12-20	7	2x6.	24			12-20	ms	P	45 5
D	33/68	SEOS TO 5' N.	BO	12-19	Corredby 5F						-	-	1	_	-
	33/68	10'N. OF SEOS	DB-13	12-19.		12-20	P	2418	71	ЗM	এক	12-20	wy	P	255
	33/66		DB-14	12-19		12-20	P	2× 8	71	son	CSJ	12-20	ors	7	C55
Н	2.8	8'5,100	Lut	12-19		12-20	7	2K2	24	JP	455	12.20	pres	P	11
J	22	108'5,16'0	Œ.	12-19		12-20	P	1×1	24	JP	455	12-20	ms	P	45
K	22	98'5,2'E	D	12-19		12-20	7	171	24	3 P	455	12-20	ns	7	45
M	60/11/12	Int	7	12-19		12-20	4	2×2	71	Sm	C55	12-20	ing	F	ust
N	28/30	44'NE SEOS	cut	12-19	,	12-21	٠ ح.	2×2	21	5m	C55	1226	ms	. B.	45
P		85,126	D	12-19		1220	7	2 X 2	71	500	45	(2-20	ing	7	195
Q	23	18'N, 11'E	D	12-19	<u> </u>	12-20	F	282	24	26	حي ا	12-70	us	3	45
R	23	G'N, 3'E	D	12-19		12-20	9_	2×2	24	29		12-70		7	4
S	28/30/39	Int	T	12-19		12-20	9	2110	21	301	45	12-20	us	9,	cos
T	30/36/37	Int	I	12-19		12-20	P	2 Kle	4	3m	C\$5	12-20	ins	P	11/5
W	28/39/64	IN	7	12-19		12-20	7	213	21	Son		12-20		P	Un,
X	28/64/45	Int	T	12-19		12.20	?	2 X X	71	301		12-20	_	P	Chr
Y	28/45/66	Int.	1	12-19		12-20	7	2×2	71	Sm	455	12-20	Т —	P	en

DEFECTS TYPES	DX - EXTRUSION DESTRUCTIVE	PT - PRESSURE TEST CUT	REPAIR TYPES
BO - BURNOUT	ED - EQUIP. DAMAGE	T - THREE PANEL INTERSECTION	P - PATCH
CO - CHANGE OF OVERLAP	EXT - PANEL EXTENTION	VL - VACCUM LEAK	C - CAP
CUT - CUT	FM - FISHMOUTH	WR - WRINKLE	RS - RECONSTRUCTED SEAM
D DAMAGE	FS_FAILED_SEAM	WS - WELDER RESTART	G&W - GRIND AND WELD
CR - CREASE	INT - INTERSECTION	OTHER	
DE ELISION DECEDITORINE	IO INCLIEUCIENT OVERLAG	OTUED	

REVIEWED BY: S. NEGAL

DATE: 1-3-13

GINEERING, LEC GEOMEMBRANE DETECT, REPAIR, AND TEST LOG

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



Bottom Layer

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco

> P - PATCH C - CAP

RS - RECONSTRUCTED SEAM G&W - GRIND AND WELD

PAGE# C

								REPA	IR .		, ,,	V.	ACUU	M TEST	·
DEFECT	DE	FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TECH	MQN.		łD		мон.
Α	24	106'5,10'E	D	12-19		12-20	7	213	24	3.5	455	12-20	mg	2	C35
. В	25/27	55 04 NEOS	Bo	12-19		2-20	P	215	24	5P	C255	12-20	mg	P	UST
С	34/34	1	DEX-5	17-20		12-20	7	215	24	52	455	12-20	ais	\mathcal{P}	US
D	34	10'N. 5'E	D	12-20		12-20	8	多人本	24	3P	C45	12-20	mg	P	Use
F	34	72/ 12'E	D	12-20.		1220	P	141.	24	38	455	12-20	mg	P	Cosí
G	34	2'N, 5'E	D	12-20		12-20	P	ixi	24	JP.	C55	RIZO	015	7	C48
Н	32/33/34	Int	7	12-20		12-20	9	2×2	24	JP	<u> </u>	12-70	1119	7	C45
J	33/34/40	Int	T	12-20		12-20	7	2x2	24	38	دي ح	12-20	my	P	C95
K	30	55'N, 7'E	D	12-20		12-20	7	2×3	24	JP	C35	12-20	1119	P	C45
M	30/31/37	Int	T	12-20		12-20	7	242	24	JP	css	12-20	my	P	45
N	32/35/38	Int	T	12.70		12-20	5	2×2	71	bm	৫হ্য	12-20	MS	P	45
	25/36/38	Int	T	12-20		12.20	7	202	21	Sm	455	no	MG	P	C5)
Q	- 38	18'N, 18'W	D	12-20	<u> </u>	1220	3	2×6	21	SM	C53	12-20	ms	P	255
R	39 .	15'15, 21'les	7	12-20	1	12.20	7	2X2	7/	64	C75	12-20	ms	7	455
S	33/38/39	Int	T	12-20	•••	12.20		2×16	91	Sir	045	12-20	mg	P	055
T	33/35/64	Int	T	12-20		12-20	?	2×3	21	3n	C+3	12-20	my	J.P	CST
W	33/64/65	Int.	T	12-20		12-27	7	20/3	21	5 M	055	12-20	my	P	css
X	adantes	Int	7	12-20		12.28	P	4x6	11	3m	css	1220	mg	P	us
Υ	67/68/49	Ind	7	12-20		12-2	7	343	71	SM	45	120	ng	12	B
DEFEC	TS TYPES	DX - EXTRUSION DESTRUCTIVE		•	PT - PRESSURE TES	T CUT			,	REP/	AIR TY	PES		, , , ,	

DEFECTS TYPES	DX - EXTRUSION DESTRUCTIVE	PT - PRESSURE TEST CUT
BO - BURNOUT	ED - EQUIP. DAMAGE	T - THREE PANEL INTERSECTION
CO - CHANGE OF OVERLAP	EXT - PANEL EXTENTION	VL - VACCUM LEAK
CUT - CUT	FM - FISHMOUTH	WR - WRINKLE
D - DAMAGE	FS - FAILED SEAM	WS - WELDER RESTART
CR - CREASE	INT - INTERSECTION	OTHER
DF - FUSION DESTRUCTIVE	IO - INSUFFICIENT OVERLAP	OTHER

REVIEWED BY: 5. NEUAD DATE: 1-3-13

SINEERING, LLC

GEOMEMBRANE DEFECT, REPAIR, AND TEST LOG

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



Bottom Laures

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanço**

PAGE# 7

								REPA	JR.			V	ACUUI	M TES	r
DEFECT	DE	FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TECH	MON.		ID		MON.
A	65/67/70	Fnt	7	12-20		12-20		3×3	77	5m	<u>උනු</u>	12-20	М5	7 -	(5)
В	66/62/20	Int	7.	12-20		1220	\$	302	71	3m	CST	12.20	45	A	(5)
C	28/66/20	Int	1	12-20		12-20	P	343	71	Sm	453	12-20	M5	7	(5)
D	64	10'0, 10'5	D	12-20		12-20	P	2K2	71	Sm	رىحى	12-20	MS	7	CSJ
F	<u>64</u>	160, 12,6	D	12-20		12-20	P	2×2	21	Sm	C35	12-20	W3	P	C55
G	40/41/42	Int	<u></u>	2-20	7-1	12-20	5	212	24	JP	C55	2-20	MS	3	455
Н	41/42/43	Int	7	12-20		12-20	7	2012	24	JP	455	12-20	m3	P	CST
j	42/43/44	Int	T	12-20		12-20	7	242	24	JP	435	12-20	ms	P	C55
K	45/44/48	Ind	+	12-20		12.20		2016	24			12-20		P	C55
M	46/47/48	Int	T	12-20	_	12.20	P	203	24	5P		12-20		P	05
N	50/51	23'UOCEEDS	Bo	12-20		12~20	?	242	24	UP		12-20		18	CAS
P	52/53/55	Int	T	12.20		1>-20	7	243	24	JP	ఆస్	12-28	wy	P	45
Q	53/54/55		T	12-20	: *	12-20	1	2x2	24	_	-	12-20	7	2	CSI
R	38	4'N 36'W	D	12.20	·	12-20	5	2×2	74	SM	255	12-70	24	P	CSI
S	3 የ	4N 4E	۵	12-20		12.20	P	242	11	5m	075	12-20	ms'	12	COI
T	43	5.N. 9'E	D	12-28	:	12-20	P	2×2	71	SM	120	12-20		17	001
W	43	24'2,7'4	Q	12-20	·	12.20	7	2×2	71	5m	15	17.20		P	145
Х	54/55/54	Int	T	12-20		12-21		21/2	71	5M	- 655	12-21	ors	9	C43
Υ	54	6'H, 12'W	P	12-26		12.2	17.	2002	71	50		12-21		P	055

DEFECTS TYPES	DX - EXTRUSION DESTRUCTIVE	PT - PRESSURE TEST COT	REPAIR TYPES
BO - BURNOUT	ED - EQUIP. DAMAGE	T - THREE PANEL INTERSECTION	P - PATCH
CO - CHANGE OF OVERLAP	EXT - PANEL EXTENTION	VL - VACCUM LEAK	C - CAP
CUT - CUT	FM - FISHMOUTH	WR - WRINKLE .	RS - RECONSTRUCTED SEAM
D - DAMAGE	FS - FAILED SEAM	WS - WELDER RESTART	G&W - GRIND AND WELD
CR - CREASE	INT - INTERSECTION	OTHER	
DE ELICION DECEDITORIVE	IO - INCLIEUCIONT CIVEDI AD	OTHER	

REVIEWED BY: S. NEJAD

SINEERING, LLC GEOMEMBRANE DEFECT, REPAIR, AND TEST LOG

Botton Layer

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION; St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanço**

PAGE#_&

						REPAIR						VACUUM TEST			
DEFECT		FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TECH	MON.		iD		MON.
Α	56	·3'5 18'N	Cut	12-20		12-21	P	216	7/	5m	LS5	包之	MS	P	رئ
В	24/28	5N 0C 5500	30	12-20		12-20	P	2×6	71	Sm	<u> </u>	12-20	mg	8	CHT
С	33	260,7'E	٦	12-20		1220	7	2X2	71	Sm	455	12-20	M6	?	45
D	મુત્ર	88'33,11'5	⊅	12-20		12-20	P	24	71	Sm	255	12-20	bes	?	COI
F_	43	92' N, 11 E	ک	12-20.		12-20	7	2 X Z	71	5M	CF2.	12-20	ors	P	.055
G	33	160'3 3'E	4	12-70		12.20		2X2	24	JP.	C65	12+20	816	9	45
H	31/32/35	Int	T	12-20		1z-20	<u> </u>	4×10	24	JP	455	12-20	me	P	655
J	40	1454 50	Ð	12-20		12-21	P	94x2	71	SM	45	1221	129	7	C55
K	41	1600,50	D	12-20		12-21	?	242	21	Sm	US	12-21	ms	2	15
M_	<i>L</i>			· .		 			ļ		ļ	<u> </u>	<u> </u>	<u> </u>	
N						<u> </u>							↓	↓	
P		<u> </u>					_			-					``
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R			1			<u> </u>		<u> </u>	ļ.,,,,,	<u> </u>		<u> </u>	—	<u> </u>	<u> </u>
S		1.1.	├		<u> </u>					1		<u> </u>	↓	Ь—	1
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W			-	 -	i	ļ	+		*				<u> </u>	\vdash	
Χ.		ļ		1		1	ļ .		-		ļ	<u> </u>	↓	—	↓
ΥΥ						<u> </u>				<u>l</u> .		ـــــالـــــــــــــــــــــــــــــــ			

DEFECTS TYPES	DX - EXTRUSION DESTRUCTIVE	PT - PRESSURE TEST CUT	REPAIR TYPES
BO - BURNOUT	ED - EQUIP. DAMAGE	T - THREE PANEL INTERSECTION	P - PATCH
CO - CHANGE OF OVERLAP	EXT - PANEL EXTENTION	VL - VACCUM LEAK	C - CAP
CUT - CUT	FM - FISHMOUTH	WR - WRINKLE	RS - RECONSTRUCTED SEAM
D - DAMAGE	FS - FAILED SEAW	WS-WELDER RESTART	G&W - GRIND-AND-WELD
CR - CREASE	INT - INTERSECTION	OTHER	
DF - FUSION DESTRUCTIVE	IO - INSUFFICIENT OVERLAP	OTHER	

REVIEWED BY: S. NGUAD DATE: 1-3-13

Section 6 Geomembrane Non-Destructive Pressure Test Log

BRANTLEY INEERING, LLC GEOMEMBRANE PRESSURE TEST LOG

BOTTOM Layer

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 12/20/12

PAGE#

		SEAM S	SECTION*	PRESS		TIME	PRESSU	URE		SEAM			
.	SEAM	START	+FINISH	GUAGE	TECH-		(PSI)-		-PASS/	COMPLETE	E	QA -	
	NUMBER	POINT	* POINT	NUMBER	1D	START * FINISH	INITIAL *	FINAL	FAIL	NO /	YES	MONITOR	REMARKS
/	14/15	<u>5505</u>	* WEOS	1	CO	0758 * 0803	30 *	28	р	/ Ł		SMN	
	14/22	NEOS	* 3E05	2	CO	0758*0803		30	P	//	<u> </u>	SMN	
1	15/22	NEOS	· SEOS	3	co	0758 *0803		30	12	/、		SMN	
1	15/16	EEOS	* WEOS	4	Co	8759.8804	30 +	<u>3</u> 2	P	/ (/	SMN	
	16/17	EEOS	* W605	5	Co	803 .0808		30	P	/		SMM	
	16/22	NEOS	* 5E05	6	Co	0803 + 0808	30 *	28	P	/ \		SMN	
4	17/22	NEOS	* 5EOS	7	Co	0803 . 0808	30 .	30	P	/ ^	/	SMN	
-	17/18	EEDS	* WEOS	8	co	0804.0809	30 .	30	12	/ \		SMN	
	21/22	NEOS	* 5E05	9	Co	0805 . 0810	30 *	30	P	/ \	<u> </u>	SMN	
	18 /22	N.EOS	* 5E05	1	.co	0815 . 0850	30 *	28	P	/ (<u>/_</u>	SMN	
	18/21	6605	* WEOS	2	Co	0825 * 0830	30 .	30	P	· /,	/	SMN	
/	20/21	NEOS	* 9,805	3	Co	0828 * 0833	30 *	30	þ	/	<u>/_</u>	SMN	
/	19 /20	EEOS	* WEOS	4	Co	0828 + 0833	30 *	30	P	/	<u> </u>	SMN	
/	18/19	EE05	* WESS	5	Co	0829 + 0834	30 *	30	P	. /	<u>/</u>	SMN.	
1	19/21	EEOS	* WEOS	6	Co	1829 + 8834	30 *	30	<u>I</u> P	/	√ .	SMN	1
/	13 /14	EEOS	* weos	7	Co	0833 * 0838	30 +	30	P	./	/	SMN	
/	12/13	56.05	·weos	8	Co	0833 . 0838	30 *	28	P	/	/	SMN	
/	12/22	NEOS	* 4E0S	9	Co	0833 . 0848	30 *	30	P	1	V.	SMN	
/	11/13	- FE9-5 -	- *- W605		-co-	0839 . 0844	30 .	30	- P		/	SMN	
-	11/12	NEOS	• 9505	2	Co	8839 * 0844	30. •	36	10	/	/	SMN	

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),
DEFECT NUMBER OR A POINT LOCATION ON A SEAM

REVIEWED BY: 5. NEUAD



BOTTOM Layer

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

DATE: 12-120-12

PAGE# 2

Ī		SEAM SECTION*	PRESS		TIME	PRESSURE		SEAM		
	SEAM	START * FINISH	GUAGE	TECH		(PSI)				
II.					CT4 DT		PASS/	COMPLETE		
l l	NUMBER	POINT * POINT	NUMBER	ID	START * FINISH	INITIAL * FINAL	FAIL	NO / YES	MONITOR	REMARKS
	10/11	EEOS + WEOS	3	Co	0843 + 0848	30 * 30	ρ	10	5MN	
	10/12	EGOS + WGOS	4	Co	0848 * 0853	30 * 30	P	/ V	SMN	
∕∥	9/10	EEOS + WEOS	5	CO	0848+0853	30 + 30	P	1 V,	SMN	
	9 122	NEOS . SEOS	6	Co	0852 + 0857	30 + 30	P	/	SMN	
-	8 1.9	EGOS . WEOS	7	Co	0852 0857	ვ ე • პე	P	1 6	SMN	
	8 /22	NEOS . SEOS	8	Co	0852 * 0857	30 + 30	P	1 1	SMN	
/	1 /22	BEOS . WEOS	q	co	0852 * 0857	30 + 30	P	1 2	SMN	
1	1/8	MEDS . SEDS	10	Co	0852 * 0857	30 + 30	9	1~	5MN	
4	718	EEOS · WEOS	1	co	0853 * 0858	30 . 30	P	1	SMN	
4	17	NEOS + SEOS	2	Co	0853 * 0858	30 + 30	P	1 ~	SMN	
4	617	EEOS + WEOS	3	Co	0854 * 0859	30 * 30	P	1	SMAY	· _
*	1/6	HEOS + SEOS	4	CO	0854 . 0859	30 * 30	P	1 /	SMN	
	5/6	EEOS * WGOS	5	CO	0859 * 8904	30 + 28	P	1	SMM	
	1.15	NEOS + 5605	16	Co	0859 . 0904	30 * 30	P	10	SMN	
/	215	EEOS + WEOS	7	Co	0900 + 0905	30 * 30	P	1	SML	
1	1/2	11E05 + 9E05	8	co	0900 + 0905	36 * 30	Þ	1 /	SMN	
	2 13	NEOS . SEOS	9	Co	0905 .0910	30 * 29	þ	10.	SMN	
/	3 14	ECOS WEOS	10	CO	0905 . 0910	30 . 30	Ď	17	SMN	
/	4 15-	6607 · WEO)		Co	0907 .0912	30 . 30	<u> i2 </u>		5MN	
/	1/24	HE05 . 950)	7	CO	8908 + 0913	30 + 30	ĺρ	1/	5MM	

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),
DEFECT NUMBER OR A POINT LOCATION ON A SEAM

REVIEWED BY: S. NEJAD

DATE: 12-21-12



BOTTOM LAYER

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

DATE: 12-20-12

PAGE# 3

[SEAM SECTION*				TIME	PRE	SSURE		SEAM		
	SEAM	START	*FINISH	GUAGE	- TECH			PSI)	- PASS/	COMPLETE	-QA-	
	NUMBER	POINT	* POINT	NUMBER	ID	START * FINISH	INITIAL	* FINAL	FAIL	NO / YES	MONITOR	REMARKS
	22/24	BEOS	* K	5	Co	0908 • 0913	30	* 30	P	V 1	SMN	
	22/24	LIC	· 1(605	3	Co	0911 . 0916	30	* 30	P	1	SMN	
1	22 123	NEOS	* 5505	7	Co	0911 +0916	30	. 30	Р	1/	SMN	
~	23 124	EEOS	* WE . S	4	Co	0914 + 0919	30	* 30	P		SMN	•
8	23 /25	NEOS	* 5E05	5	Co	0914 . 0919	30	* 30	P	1 6	SMN	
		NEO S	* 9E05	10	co	0920 . 0925	30	* 30	P	1	SMN	
-	25 127	NEOS	• 5505	8	Co	0924 * 0931	30	. 30	P	11	SMN	
		GE 0 5	* WEOS	9	Co	0926 0931	30	<u>* 30</u>	ρ	. 1	SMN	
	27 128	NEOS	• 9805	l	co	0926 * 0931	30	<u>* 30</u>	P	11	SMLI	
1	24 128	NEOS	· 96 05	2	co	0926 . 0931	30	<u>* 30 </u>	l.P	1 V	SMN	
	27 129	NEOS	· 9805	3	Co	0938 + 0943	30	* 30	P	· 1V	SMN	
	28 129	EEOS	* WEOS	4	Co	0938 + 0943	30	* 30	9	1~	SMN	
*	29 /30	NEOS	* SE05	5	co	0940 . 945	30	* 30	P	1~	SMN	
1	28 /30	NEOS	* 5 N	6	co	0940 . 0945	30	* 30	P	V 1	SMN	
~	30 /31	NEOS	* 9E0S	. 7	Co	0944 * 0949	30	• 30	P	1/	SMH	
/	30/37	EEOS	* WEOS	8	CO	0944 . 0949	30	* 30	P	1	SMN	
/	31 137	NEOS	* SEOS	9	Co	0944 + 0949	30	* 30	P	1	SMN	
1	31 /32	NEOS	* 9505	10	co	0945 +0950	30	• 30	P	1	SMN	
1	36 137	BE03	* WE'S		.Co	0948 +0953	30	+ 30	P	1/	SMN	
/	28 130	5 N	* 9 E 0 S	2	Co	0950 +0955	30	+ 30	P	1	5MM	

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), DEFECT NUMBER OR A POINT-LOCATION-ON-A-SEAM-- --

REVIEWED BY: S. NEJAD DATE: 12-21-12

NEERING, LLC **GEOMEMBRANE PRESSURE TEST LOG**

BOTTOM LAYER

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

DATE: 12-20-12

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. [SEAM	SEC	TION*	- PRESS			ŦIN	1E	PRI	SSU	RE		SEAM		
`	SEAM	START	*	FINISH	GUAGE	TECH					PSI)		PASS/	COMPLETE	QA	.
ľ	NUMBER	POINT	*	POINT	NUMBER	ID	START	*	FINISH	INITIAL	*	FINAL	FAIL	NO / YES	MONITOR	REMARKS
_	30 /38	EEOS	*	WEOS	3	င	0950	*	0955	30	*	<u> </u>	P	1/	SMN	
	28 /39	NEOS	*	9805	7	Co	0952	*	0957	30	*	29_	P	1 ✓	5MN	
1	28 164	NEOS	•	9 E05	5	Co	0952	*	0957	30	* :	30	P	10	SMN	
	28/45	NEOS	*	SEOS	6	Co	0953	*	0958	30	*	30	P	1	SMN	
	28 166	MEOS	*	3605	7	Co	1003	*	1008	3 a	*	30	P	1~	SMN	
1	28170	NEGS	*.	SEOS	8	co	1004	*.	1009	30	*	30	P	1 🗸	5MN	
	66170	EEOS	*	WEIS	9	Co	1010	*	1015	30	*	30	P	1 ✓	SMN	
	67170	EEOS		WEOS	10	Co	10 10	*	1015	30	*	30	P	1 V	SMN	
	69170	HEOS	*	9805	ţ	Co	10 12	*	1017	30	*	30	P	1 🗸	SMN	
	67169	EEOS	*	WEOS	2	Co	1013	*	1018	30	÷	30	P	11	SMN	
	66167	EEOS	*	WEOS	3	Co	1027	. *	032	30	*	30	P	· 1V	8MH	
	67168	EEOS	*	WEOS	4	Co	1027	*	1032	30	*	30	P	1/	SMA	
/	33/66	NEOS	*	3 E-5	5	CO	1028	*	1033	30	*	30	P	1	SMN	
	65/66	EEOS	*	WEOS	6	Co	1028	*	1033	3.0		30	P	. 1/	SMN	
1	33 / 68	NEOS		SEOS	9	Co	1033	*	1038	30	*	30	P	1.	SMH	
1	64165	EESS		WEOS	7	Co	1034	*	1039	30		30	P	1	SMN	
	33/65	NEOS	•	4E05	8	Co	1036	f *	1039	30	*	30	10	1 /	SMN	
/	39 164	EEOS	-	WEOS	1	Co	1030	, •	1041	30	*	30	P	10	5 MJY	
	33 /64	NEOS		5605	2	,co	1036	; ₁	1041	30		30	p	1	SMA	
1	38 /39	EEOS		WE 05	3	co	1048	} •	1053	30	*	30	þ	11	5MN	

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), DEFECT NUMBER OR A POINT LOCATION ON A SEAM

REVIEWED BY: S. NEJAD DATE: 12-71-12

INEERING, LLC BRANTLEY **GEOMEMBRANE PRESSURE TEST LOG**

BOTTOM LAYER

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco

DATE: 12-20-12

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	· · · SEAM-S	ECTION*	PRESS		TIME	PRESSURE		SEAM		
SEAM	START	* FINISH	GUAGE	TECH -		(PSI)	PASS/	COMPLETE	······QA·· ·-	<u> </u>
NUMBER	POINT	* POINT	NUMBER	ID	START * FINISH	INITIAL * FINAL	FAIL	NO / YES	MONITOR	REMARKS
33 /39	NEOS	* 5005	4	Co	1048 * 1053	30 + 30	P	1	SMH	
P 25 126	NEOS	* 9E05	B	Co	0926 + 0931	30 + 30	P	1	SMN	
32 /38	EEOS	* WEOS	5 .	Co	1049 + 1054	30 + 30	P	1 V	SMN	
32 / 33	SEOS	* 3A	6	Co	1049 + 1054	30 + 30	P	V 1	SMN	
32 135	EEOS	* WESS	7	CS	1052 + 1057	30 + 30	P	1	SMN	
35 /38	EEOS	* WEOS	8	co	1052 * 1057	30 . 30	P	1	SMN	
35 136	NEOS	· 9 E05	1	Co	1053 . 1058	30 + 30	P	10	SHN	
32 /33	3 A	· NEOS	2	Co	1108 * 1113	30 . 29	P	1/	SMN	
32 134	NEOS	* 5E05	16	Co	1108 . 1113	30 + 30	P	1	SMN	
33 /34	EEOS	* WEOS	3	Co	1108 + 1113	30 + 30	P	1 /	SMN	
133 / 40	NEOS	+ 3G	4	Co	1111 + 1116	30 . 30	P	10	SHN	·
134 140	SEOS	* 3 G	5	Co	1110 - 1115	30 . 30	P	V /	SMN	
34 140	3 G	* NEOS	6	Co	1110 . 1115	30 + 29	P	11	SMN	
40/42	NEOS.	* 4E05	7	Co	1112 . 1117	30 + 30	P	1 1	SMN	
140141	NE05	* SEOS	8	Co	1112 * 1117	30 + 30	P	1/	SMM	
41 142	EEGS	· WEOS	9	Co	1113 + 1118	30 + 29	P	1 🗸	SMN	
41/43	NEOS	· SEOS	I	Co	1133 + 1138	. 30 + 30	p	1 1.	SMN	
42/43	NEOS	· 5E05	2	Co	1134 + 1139	30 + 30	P	1	SMN	
42/44	SEOS	+ 3 M	3	co	1134 + 1139	30 + 30	ρ	~ /	SMN	
43/44	EEOS	* WEOS	4	co	1134 + 1139	30 . 30	P	1	SULH	

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), DEFECT NUMBER OR A POINT LOCATION ON A SEAM

REVIEWED BY: S. NEJAD

DATE: 12-21-12



Brantley

Engineering, LLC

BOTTOM LAYER



PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

DATE: 12-20-12

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					· · · · · · · · · · · · · · · · · · ·				
. =1		SEAM SECTION*	- PRESS		TIME	PRESSURE		SEAM	
	SEAM	START * FINISH	GUAGE	TECH		(PSI)	PASS/	COMPLETE	
	NUMBER	POINT * POINT	NUMBER	ID	START * FINISH	INITIAL * FINAL	FAIL .	NO / YES	MONITOR REMARKS
/	42 /44	3 M · NEOS	5	Co	1135 + 1140	30 + 29	Р	10	SMN
/	44 145	NEOS . 5805	6	co	1136. + 1141	30 + 30	P	1.1	SMH
1	43 145	NEOS · 3P	7	Co	1138 + 1143	30 + 30	P	V 1	SMN
1	43/45	3P . 3E0S	8	co	1138 + 1143	30 * 30	P	10	SMN .
/	45 146	NEOS · SEOS	9	Co	1151 + 1156	30 + 30	p	1/	SMN
/	46/48	EEOS . WEOS	10	co	1151 + 1156	30 * 30	P	1	SMN
	110 1110	EEOS . WEOS	1	Co	1152 + 1157	30 . 30	p	1	SMN
	45/49	NES · SEOS	2	Co	1152 + 1157	30 . 30	p	1 /	SMN
2	46147		3	co	1153 • 1158	30 . 30	P	1	SMN
0	47/48	EEOS + WEOS	4	Co	1153 + 1158	30 . 30	P	10	SMN
/	49150	EEOS . WEOS	5	co	1154 + 1159	30 * 30	P	1	SMN
1	45 150	HEOS + SEOS	10	Co	1154 • 1159	30 . 30	P	1	SNN
/	50151	EEOS + WEOS	7	Co	1155 . 1200	30 • 30	P	1/	SMN
/	45 /51	Mess . 5E05	8	CO	1155 + 1200	30 • 30	0	1	SMA
/	51/52	GEOS + WEOS	9	Co	1156 - 1201	30 . 30	P	1	SMM
	52 153	EEOS . WEOS	10	Co	1157 . 1202	30 + 30	P	1	SMN
	52 155	GEOS + WEOS	t	Co	1254 + 1259	30 + 30	p	1/	SMN
	45155	NEOS + 4805	2	Co	1254 + 1259	30 + 30	P	1/	SMM
/	45 152		3	Co	1254 . 1259	30 . 30	P	· · · · · · · · · · · · · · · · · · ·	SMA
	53 155	EEOS · WEOS	4	Co	1254 . 1259	30 . 36	p	1	SMM
		100-7			1-21			,	0 0

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),
DEFECT NUMBER OR A POINT LOCATION ON A SEAM

REVIEWED BY: S. MEJAD

DATF: 12-21-12



BOTTOM LAYER

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

DATE: 12-20-12

PAGE# 7

	SEAM SECTION	N* PRESS	-	TI	ME	PR	ESSU	RE		SEAM		· · · · · · · · · · · · · · · · · · ·
SEAM-	START FI		- TECH	*** *** ***					PASS/	COMPLETE	-OA	
NUMBER	POINT * P	OINT NUMBER	ID	START *	FINISH	INITIAL	*	FINAL	FAIL .	NO / YES	MONITOR	REMARKS
53 /54	EEOS * WE	E05 5	ھ	1256 1	1301	30	*	30	P	1 🗸	SMN	.
54 155	NEOS . SE	Fos b	co	1256.	1301	30	*	30	P	1 /	SMN.	
54 156	EEOS * W	160S 7	co	1257	1302	30	•	30	P		SMN	
55 156	EEOS + h	NE-05 8	Co	1258 4	1303	30	*	30	p	1/	SMN	
45156	NEOS * S	Eos 9	Co	1258	1303	30	*	36	р	10	5MN	
56 157	EEOS * W	E05 10	co	1-1- 	1304	30	.*	29	ρ		SMN	
45 157	MES + SE	505 1	Co	1259	1304	30	*	30	P	10	5MN	
57 158	EEOS * W	E05 2	CO	1301	1306	30	*	36	ρ.	1 /	SMN	
45/58	NESS + SE	<i>sos</i> 3	Co	1301	1306	30	*	30	·p	11	SMN	· .
58 159	EEOS * WE	305 4	Co	1315	· 1320	30	*	30	P	1/	SMN	
45 159	NEOS + 9	E05 5	CO	1315:		30	*	30	P	1 🗸	SMN.	
59 160	EEOS * V	ve65 6	Co	1320	• 1325	30	*	30	P	1./	SMN	
45 160	NE65 + 9	1605 7	Co	1320	• 1325	30	*	30	P	10	SMN	
60 163	EEOS . n	1505 8	CO	13.20	· 1325	. 30	*	3,0	P	1/	SMN.	
45/63	NEOS . S	E05 9	Co	1320	1325	30	*	30	P	1 %	SMN	
60/61	EEOS · W	10 10	Co	1322	· 1327	30	*	30	P	1/	SMN	
161/63	Etos * W	150 S	CO	1322	• 1327	30	*	30	P	. 1/,	SMIY	
61 162	EEOS + W	1663 2	Co		·1333	3 0	*	30	P	17	SMN	
162163	HESS + G	605 3	.Co	1328	• 1333		*	-}≈	. P	12	SHN	· · · · · · · · · · · · · · · · · · ·
36 /38	Ecos + h	VEOS 1.	Co	0953	• 0958	30	*	<i>3</i> o	P	1	SMN	

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), DEFECT NUMBER OR A POINT LOCATION ON A SEAM

REVIEWED BY: S. NEJAD

Section 7 Geomembrane Destructive Samples Laboratory Results



December 10, 2012

Allan Brantley **Brantley Engineering, LLC** 13933 Tree Loft Road Milton, GA 30004

Re: FINAL LABORATORY TEST REPORT

Dear Mr. Brantley:

Thank you for consulting Precision Geosynthetic Laboratories International (PGLI) for your material testing needs.

Enclosed is the final laboratory report for the Seam testing of seven (7) 60mil HDPE Seam samples.

PROJECT NAME: JED Leachate Storage Facility Relocation

DATE REPORTED: December 10, 2012

DATE: 12/10/2012

REFERENCE PGLI JOB NO.: G121299

DATE RECEIVED: December 10, 2012

SAMPLES SENT BY: Brantley Engineering, LLC

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGLI CONTROL NUMBER
1. DPX-1 5C/ P65	88508
2. DP-1 P13/ 14	88509
3. DP-2 P12/ 10	88510
4. DP-3 P16/ 17	88511
5. DP-4 P23/ 22	88512
6. DP-5 P20/ 19	88513
7. DP-6 P35/ 24	88514

TESTS REQUIRED / PERFORMED:

TEST METHOD

1. ASTM D6392

2. ASTM D6392

DESCRIPTION

Shear Bond Strength Peel Bond Adhesion

TEST RESULTS: The test results are summarized in Tables 1 to 4.

Respectfully,

PRECISION GEOSYNTHETIC LABORATORIES INTERNATIONAL

Maria Espitia

Maria Expetia

Carmeio V. Zantua

Quality Assurance Technical Director

Signatures are on file

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. PGLI neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is our policy to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks. On the other hand, should you need us to keep them at a longer period, please advise us in writing.

5 Pages Total



TABLE 1. **SEAM PEEL AND SHEAR TEST RESULTS**

CLIENT: Brantley Engineering, LLC
PROJECT: JED Leachate Storage Facility Relocation DATE REC'D: 10-Dec-12

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld

PGLI JOB #: G121299

OC'd By: ASTM D6392 DATE REPORT: 10-Dec-12

rosshead Speed	l: 2 in/min					Crosshead Sp	eed: 2 in/min			
			SHE	AR EVALUATIO	N			PEEL E	VALUATION	
	1 1	MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.
ID	CONTROL #	(lb/in width)		Break	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width)
DPX-1	88508	164	> 50%	BRK		1 Outside	149	0	SE3	
5C/ P65		168	> 50%	BRK		2 Outside	141	0	SE3	
		165	> 50%	BRK		3 Outside	140	0	SE3	
Extrusion	1 1	166	> 50%	BRK		4 Outside	147	0	SE3	
	1 1	167	> 50%	BRK	l .	5 Outside	144	0	SE3	
						AVG:	144			78
						STD. DEV.	4	i i		
						1 Inside	N/A			
						2 Inside				
						3 Inside				
						4 Inside				
						5 Inside				
	AVG.	166			120	AVG:				
	STD. DEV.	2				STD. DEV.				
DP-1	88509	172	> 50%	BRK	1	1 Outside	129	0	SE1	
P13/ 14		170	> 50%	BRK		2 Outside	130	0	SE1	
		169	> 50%	BRK		3 Outside	127	0	SE1	
Fusion		173	> 50%	BRK		4 Outside	121	0	SE1	
		172	> 50%	BRK		5 Outside	122	0	SE1	
						AVG:	126			91
			1	1		STD. DEV.	4			
						1 Inside	122	0	SE1	
						2 Inside	122	0	SE1	
						3 Inside	127	0	SE1	
						4 Inside	131	0	SE1	
						5 Inside	127	0	SE1	
	AVG:	171			- 120	AVG:	126			91
	STD. DEV.	2				STD. DEV.	4			•
EAK DESCRIPTION	ON (ASTM D6392 I	FUSION):		EXTRUSION:	AD1	ADHESION FAIL	URE. SPECIMENS	DELAMINATED UNDE	R THE BEAD.	
	-				+					

BREAK DESCRIPTI	ON (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE	BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.	
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.	
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.	
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.	
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)	
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.	
			BRK2	BREAK IN TOP SHEETING.	
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.	
			HT	BREAK AT EDGE OF HOT TACK	
			SIP	SEPARATION IN THE PLANE OF THE SHEET.	

(End of Table 1)

(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.





TABLE 2. SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: Brantley Engineering, LLC

PROJECT: **JED Leachate Storage Facility Relocation** DATE REC'D: **10-Dec-12**

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld

PGLI JOB #: G121299

acid By: Maria Expite

TEST METHOD: ASTM D6392
DATE REPORT: 10-Dec-12

osshead Speed	: 2 in/min					Crosshead Sp	eed: 2 in/min			
			SHE	AR EVALUATIO	N			PEEL E	VALUATION	
	[MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.
ID	CONTROL#	(lb/in width)		Break	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width)
DP-2	88510	172	> 50%	BRK		1 Outside	147	0	SE1	
P12/ 10	1 1	170	> 50%	BRK		2 Outside	138	0	SE1	
		173	> 50%	BRK	l	3 Outside	140	0	SE1	
		174	> 50%	BRK		4 Outside	142	0	SE1	
		170	> 50%	BRK		5 Outside	137	0	SE1	
						AVG:	141			91
						STD. DEV.	4			
						1 Inside	143	0	SE1	
						2 Inside	142	0	SE1	
						3 Inside	147	0	SE1	
						4 Inside	141	0	SE1	
						5 Inside	140	0	SE1	
	AVG.	172			120	AVG:	143			91
	STD. DEV.	2				STD. DEV.	3			
DP-3	88511	172	> 50%	BRK		1 Outside	121	0	SE1	
P16/ 17		170	> 50%	BRK		2 Outside	120	0	SE1	
		173	> 50%	BRK		3 Outside	127	0	SE1	
		170	> 50%	BRK		4 Outside	131	0	SE1	
		170	> 50%	BRK		5 Outside	121	0	SE1	
					l	AVG:	124			91
						STD. DEV.	. 5			
	1					1 Inside	131	0	SE1	
						2 Inside	127	0	SE1	
						3 Inside	120	0	SE1	
						4 Inside	121	0	SE1	
						5 Inside	123	0	SE1	
	AVG:	171			120	AVG:	124			91
	STD. DEV.	1				STD. DEV.	5			

BREAK DESCRIPTION	ON (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 2)

(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.





SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: Brantley Engineering, LLC

PROJECT: JED Leachate Storage Facility Relocation

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld PGLI JOB #: G121299 OC'd By: Moria Cypit TEST METHOD: ASTM D639

91

DATE REC'D: 10-Dec-12 10-Dec-12 DATE REPORT: Crosshead Speed: 2 in/min Crosshead Speed: 2 in/min SHEAR EVALUATION PEEL EVALUATION MAXIMUM Locus **PROJECT** MAXIMUM % LOCUS PROJECT SAMPLE **PGLI** STRENGTH SPEC. Elongation of **SPECIMEN** STRENGTH INCURSION OF SPEC. CONTROL ID (lb/in width) Break (lb/in width) NUMBER (lb/in width) BREAK (%) (lb/in width) DP-4 88512 171 > 50% BRK 1 Outside 122 0 SE1 P23/22 171 > 50% BRK 2 Outside 123 0 SE₁ 172 > 50% BRK 3 Outside 129 0 SE₁ 173 > 50% BRK 4 Outside 127 0 SE1 170 > 50% BRK 5 Outside 121 0 SE1 AVG: 124 91 STD. DEV 3 1 Inside 130 SE₁ 0 2 Inside 127 0 SE₁ 3 Inside 131 0 SE₁ 4 Inside 127 0 SE₁ 5 Inside 131 0 SE₁ AVG. 171 120 AVG: 129 91 STD. DEV. STD. DEV 2 1 DP-5 88513 174 > 50% BRK 121 1 Outside 0 SE₁ P20/19 170 > 50% **BRK** 2 Outside 120 0 SE₁ 176 > 50% BRK 3 Outside 127 0 SE₁ 171 > 50% BRK 4 Outside 121 0 SE₁ BRK 174 > 50% 5 Outside 122 0 SE₁ AVG: 122 91 STD. DEV 3 130 1 Inside 0 SE₁ 2 Inside 127 0 SE₁ 3 Inside 122 0 SE₁ 4 Inside 124 0 SE₁ 5 Inside 125 0 SE₁

BREAK DESCRIPTION	ON (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 3)

AVG:

STD. DEV.

173

2

(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

120

AVG:

STD. DEV

126

3





SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: Brantley Engineering, LLC
PROJECT: JED Leachate Storage Facility Relocation DATE REC'D: 10-Dec-12

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld

PGLI JOB #: G121299

TEST METHOD: ASTM D6392 DATE REPORT:

Crosshead Speed	l: 2 in/min					Crosshead Sp	eed: 2 in/min			
			SHE	AR EVALUATIO	N			PEEL E	VALUATION	
	[MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.
ID	CONTROL#	(lb/in width)		Break	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width)
DP-6	88514	171	> 50%	BRK		1 Outside	129	0	SE1	
P35/ 24		172	> 50%	BRK		2 Outside	131	0	SE1	`
		174	> 50%	BRK		3 Outside	122	0	SE1	
		170	> 50%	BRK		4 Outside	127	0	SE1	
		171	> 50%	BRK		5 Outside	130	0	SE1	
						AVG:	128			91
	l 1				1	STD. DEV.	4			
	!!					1 Inside	127	0	SE1	
						2 Inside	124	0	SE1	
						3 Inside	130	0	SE1	
						4 Inside	127	0	SE1	
						5 Inside	132	0	SE1	
	AVG.	172			120	AVG:	128			91
	STD. DEV.	2				STD. DEV.	3			•

BREAK DESCRIPTION	ON (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK .	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			нт	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.
	(End of Table 4)			(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.





January 14, 2013

Allan Brantley Brantley Engineering, LLC 13933 Tree Loft Road Milton, GA 30004

Re: REVISED LABORATORY TEST REPORT

Dear Mr. Brantley:

Thank you for consulting Precision Geosynthetic Laboratories International (PGLI) for your material testing needs.

Enclosed is the final laboratory report for the Seam testing of eight (8) 60mil HDPE Seam samples.

PROJECT NAME: JED Leachate Storage Facility Relocation

DATE REPORTED: December 8. 2012- 1st reported

January 14, 2013 - DP-7 and DP-8 sample

DATE: 01/14/2013

REFERENCE PGLI JOB NO .: G121298

1D correction

DATE RECEIVED: December 8, 2012

SAMPLES SENT BY: Brantley Engineering, LLC

SAMPLE IDENTIFICATIONS:

PGLI CC	NTROL	NUM	BER
---------	-------	-----	-----

PGLI CONTRO
88500
88501
88502
88503
88504
88505
88506
88507

TESTS REQUIRED / PERFORMED:

TEST METHOD

1. ASTM D6392

2. ASTM D6392

DESCRIPTION

Shear Bond Strength Peel Bond Adhesion

TEST RESULTS: The test results are summarized in Tables 1 to 4.

Respectfully,

PRECISION GEOSYNTHETIC LABORATORIES INTERNATIONAL

Maria Espitia Quality Assurance

Maria Expetia

Carmelo V. Zantua **Technical Director**

Signatures are on file

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. PGLI neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shalf be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is our policy to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks. On the other hand, should you need us to keep them at a longer period, please advise us in writing.

5 Pages Total



SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: Brantley Engineering, LLC
PROJECT: JED Leachate Storage Facility Relocation
DATE REC'D: 8-Dec-12

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld PGLI JOB #: G121298

TEST METHOD: ASTM D6392 DATE REPORT: 14-Jan-13

rosshead Speed	d: 2 in/min					Crosshead Sp	eed: 2 in/min			
			SHE	AR EVALUATIO	N			PEEL E	VALUATION	
		MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJEC1
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.
<u>ID</u>	CONTROL #	(lb/in_width)		Break	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width
DP-7	88500	173	> 50%	BRK	1	1 Outside	149	0	SE1	
P39/P45		176	> 50%	BRK		2 Outside	136	0	SE1	
	1	180	> 50%	BRK	1	3 Outside	135	0	SE1	
		179	> 50%	BRK		4 Outside	131	0	SE1	
	1 1	176	> 50%	BRK	1	5 Outside	136	0	SE1	
	'				1	AVG:	137			91
						STD. DEV.	7			
						1 Inside	124	0	SE1	
						2 Inside	121	0	SE1	
	1					3 Inside	125	0	SE1	
						4 Inside	123	0	SE1	
						5 Inside	124	0	SE1	
	AVG.	177			120	AVG:	123			91
	STD. DEV.	3				STD. DEV.	2			
DP-8	88501	179	> 50%	BRK	T	1 Outside	121	0	SE1	
P46/P47	1	181	> 50%	BRK	[2 Outside	120	0	SE1	
		176	> 50%	BRK		3 Outside	122	0	SE1	
	1 1	177	> 50%	BRK	1	4 Outside	119	0	SE1	
	l l	179	> 50%	BRK		5 Outside	119	0	SE1	
						AVG:	120			91
	1 1				1	STD. DEV.	1			
	1 1					1 Inside	130	0	SE1	
					1	2 Inside	128	0	SE1	
						3 Inside	126	0	SE1	
	1 1					4 Inside	128	0	SE1	
						5 Inside	126	0	SE1	
	AVG:	178			120	AVG:	128			91
	STD. DEV.	2				STD. DEV.	2			
EAK DESCRIPTION	ON (ASTM D6392 F	USION):		EXTRUSION:	AD1	ADHESION FAIL	URE. SPECIMENS	DELAMINATED UNDE	R THE BEAD.	
	ADHESION FAILU	RE.			AD2	ADHESION FAIL		,		
(BREAK IN SHEET	ING.			AD-WLD	BREAK THROUG	H THE FILLET.			

BREAK DESCRIPTIO	N (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 1)

(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.





SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: Brantley Engineering, LLC

PROJECT: JED Leachate Storage Facility Relocation DATE REC'D: 8-Dec-12

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld PGLI JOB #: G121298

TEST METHOD: ASTM D6392 DATE REPORT:

rosshead Speed	t: 2 in/min					Crosshead Speed: 2 in/min				
			SHE	AR EVALUATIO	NN			PEEL E	VALUATION	
		MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.
ID	CONTROL #	(lb/in width)		Break	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width)
DP-9	88502	182	> 50%	BRK		1 Outside	126	0	SE1	
P55/P54	1	176	> 50%	BRK		2 Outside	125	0	SE1	
		179	> 50%	BRK	}	3 Outside	125	0	SE1	
	1	175	> 50%	BRK	1	4 Outside	120	0	SE1	
		177	> 50%	BRK		5 Outside	127	0	SE1	
	1				1	AVG:	125	_		91
						STD. DEV.	3			
	1				l	1 Inside	130	0	SE1	
					1	2 Inside	130	0	SE1	\
	1				1	3 Inside	133	0	SE1	
	'				1	4 Inside	128	0	SE1	
						5 Inside	126	0	SE1	
	AVG.	178			120	AVG:	129			91
	STD. DEV.	. 3				STD. DEV.	2			
DP-10	88503	181	> 50%	BRK		1 Outside	146	0	SE1	
P59/P58	1	180	> 50%	BRK		2 Outside	140	0	SE1	
		176	> 50%	BRK		3 Outside	137	0	SE1	ļ
	1	180	> 50%	BRK	ì	4 Outside	137	0	SE1	
)	178	> 50%	BRK		5 Outside	140	0	SE1	
			Į.		1	AVG:	140			91
	1				1	STD. DEV.	4			
	'		1		1	1 Inside	127	0	SE1	
						2 Inside	128	0	SE1	
						3 Inside	130	0	SE1	}
						4 Inside	128	0	SE1	
						5 Inside	126	0	SE1	
	AVG:	179			120	AVG:	128			91
	STD. DEV.	_ 2				STD. DEV.	1			
REAK DESCRIPTION				EXTRUSION:	AD1		1	DELAMINATED UNDE	R THE BEAD.	_

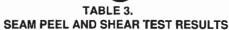
BREAK DESCRIPTIO	N (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.	*	BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 2)

(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.





CLIENT: Brantley Engineering, LLC
PROJECT: JED Leachate Storage Facility Relocation

DATE REC'D: 8-Dec-12

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld PGLI JOB #: G121298

TEST METHOD: ASTM D6392 DATE REPORT:

Crosshead Speed.	: 2 in/min					Crosshead Speed: 2 in/min				
			SHE	AR EVALUATIO	N			PEEL E	VALUATION	
	l I	MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.
ID	CONTROL#	(lb/in width)		<u>Break</u>	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width)
DP-11	88504	176	> 50%	BRK	1	1 Outside	119	0	SE1	
P65/P64	\	173	> 50%	BRK		2 Outside	120	0	SE1	
	l 1	171	> 50%	BRK	\	3 Outside	124	0	SE1	
	l l	174	> 50%	BRK		4 Outside	126	0	SE1	
		176	> 50%	BRK	1	5 Outside	125	0	SE1	
						AVG:	123			91
	[[Į .			STD. DEV.	3			
	1]			1 Inside	119	0	SE1	
					l	2 Inside	120	0	SE1	
,]]					3 Inside	124	0	SE1	
						4 Inside	126	0	SE1	
						5 Inside	125	0	SE1	
	AVG.	174			120	AVG:	123			91
	STD. DEV.	2				STD. DEV.	3			
DP-12	88505	182	> 50%	BRK		1 Outside	136	0	SE1	
P35/P66		. 176	> 50%	BRK	1	2 Outside	135	0	SE1	
	\	174	> 50%	BRK		3 Outside	140	0	SE1	
		176	> 50%	BRK	Į.	4 Outside	139	0	SE1	
		175	> 50%	BRK		5 Outside	136	0	SE1	
	l 1		\			AVG:	137			91
			· ·			STD. DEV.	2			
	1 1		ļ			1 Inside	135	0	SE1	
						2 Inside	130	0	SE1	
						3 Inside	129	0	SE1	
			1			4 Inside	128	0	SE1	
						5 Inside	126	0	SE1	
	AVG:	177			120	AVG:	129			91
	STD. DEV.	3				STD. DEV.	3			

BREAK DESCRIPTION	ON (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 3)

(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to Indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.





SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: Brantley Engineering, LLC

PROJECT: **JED Leachate Storage Facility Relocation** DATE REC'D: **8-Dec-12**

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld

PGLI JOB #: G121298

OC'd By: Maria Expite

TEST METHOD: ASTM D6392 DATE REPORT: 14-Jan-13

rosshead Speed	d: 2 in/min					Crosshead Speed: 2 in/min				
			SHE	AR EVALUATIO	N			PEEL E	VALUATION	
		MAXIMUM	%	Locus .	PROJECT		MAXIMUM	%	LOCUS	PROJECT
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.
ID	CONTROL #	(lb/in width)		Break	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width)
DP-13	88506	180	> 50%	BRK		1 Outside	121	0	SE1	
P69/P70	l l	181	> 50%	BRK		2 Outside	124	0	SE1	
		175	> 50%	BRK		3 Outside	128	0	SE1	
		176	> 50%	BRK		4 Outside	123	0	SE1	
		175	> 50%	BRK		5 Outside	120	0	SE1	
					1	AVG:	123			91
	1 1					STD. DEV.	3			
						1 Inside	126	0	SE1	
			1			2 Inside	127	0	SE1	
						3 Inside	124	0	SE1	
						4 Inside	126	0	SE1	
						5 Inside	128	0	SE1	
	AVG.	177			120	AVG:	. 126			91
	STD. DEV.	3				STD. DEV.	2			
DP-14	88507	187	> 50%	BRK		1 Outside	136	0	SE1	
P1/P45		184	> 50%	BRK		2 Outside	134	0	SE1	
	l l	180	> 50%	BRK		3 Outside	135	0	SE1	
		183	> 50%	BRK		4 Outside	131	0	SE1	
		183	> 50%	BRK	\	5 Outside	128	0	SE1	
						AVG:	133			91
	1 1					STD. DEV.	3			
			l			1 Inside	134	0	SE1	
						2 Inside	130	0	SE1	
						3 Inside	129	0	SE1	
						4 Inside	127	0	SE1	
						5 Inside	126	0	SE1	
	AVG:	183			120	AVG:	129	_		91
	STD. DEV.	2				STD. DEV.	3			
EAK DESCRIPTION	ON (ASTM D6392 F	USION):		EXTRUSION:	AD1	ADHESION FAIL	JRE. SPECIMENS I	DELAMINATED UNDE	R THE BEAD.	
							100 00			

BREAK DESCRIPTION	N (ASIM D6392 FUSION):	EXTRUSION:	ADI	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 4)

(Sheet 1 of 1)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

APPENDIX J Geomembrane Installation (Bottom Layer for Ponds A, B, and C)

Section 1 Geomembrane Panel Deployment Log

BRANTLE GINEERING, LLC GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

LAYER: PRIMARY SECONDARY OTHER

12-5-12

Page 1

PANEL	ROLL	AMB	LENGTH	WIDTH	AREA	AVG.	QA	COMMENTS/PANEL LOCATION
. #	#	TEMP	APPROX.	APPROX.	APPROX.	THICKNESS (mil)	MON.	SPECIAL SHAPE
P-1	3444	74	165.	22.5	3712.5	60	055	
P-2	3444	74	24	22:5	600	60	C05	35 13
P-3	3444	74	7	22.5	157.5	60	C55	
P-4	3444	74	7	22.5	157.5	60	C55	
P5	3444	74	26	22.5	650	61	45	35 17
P-6	3444	74	40	22.5	900	60	COST	
P-7	3444	74	40	22,5	900	6	CIT	
12-8	3444	74	40	22.5	900	60	C51	
P-9	3444	74	40	22.5	900	(60	CHT	r e e e e e e e e e e e e e e e e e e e
P-10	3444	74	27	22.5	607.5	60	COST	99/7 15
P-11	3445	74	16	22.5	360	60	055	64
P-12	3444	74	45	22,5	1012.5	6/	255	+ 3

			- 7
PAGE APPROX.	TOTAL (SQ FT):	10857.5	Ft c

DAILY TOTAL (SQ FT):

ACCUMULATED TOTAL (SQ FT):_____

REVIEWED BY: S, NGJAD

DATE: 12 - 7-12



PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

LAYER: PRIMARY SECONDARY OTHER___

12-5-12 Page (2

PANEL #	ROLL #	AMB TEMP	LENGTH APPROX.	WIDTH APPROX.	AREA APPROX.	AVG. THICKNESS (mil)	QA MON.	COMMENTS/PANEL LOCATION SPECIAL SHAPE
13	3678	74	165	225	3712.5	60	CBJ	
14	3479	75	165	22.5	3712.5	61	య	
15	3679	25	145	22.5	3712.5	60	C55	
16	3449	38	166	22.5	3712.5	60	C55	· <u>.</u>
17	3449	75	165	22.5	3712.5	60	C35	
18	3449	75	165	22.5	3712.5	60	055	
19	3343	74	165	725	37125	60	C35	
20	3343	74	165	725	3712.5	(0 B	250	
21	3343	74	165	225	3712.5	61	455	
22	3454	74	l le5	22.5	3712.5	60	055	
23	3454	74	165	22.5		61	455	
24	3454	74	165	22.5	3712.5	60	05	

PAGE APPROX. TOTAL (SQ FT):_	44550	F+2
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DAILY TOTAL (SQ FT):

REVIEWED BY: 5. NEUAD DATE: 12-7-12

ACCUMULATED TOTAL (SQ FT):______ DATE:_____

GINEERING, LLC **GEOMEMBRANE PANEL DEPLOYMENT LOG**

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

LAYER: PRIMARY SECONDARY OTHER

Page 3 12-5-12

						_		1320
PANEL	ROLL	AMB	LENGTH	WIDTH	AREA	AVG.	QA	COMMENTS/PANEL LOCATION
#	# 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	TEMP	APPROX.	APPROX.	APPROX.	THICKNESS (mil)	MON:	SPECIAL SHAPE
.25	3453	73	2815	22.5	652.5	60	డక్	18 34
26	3453	73	' Ce	18	108	60	C55	18
27	345 3	73	7	20	140	60	८५०	20
28	3453	7.3	30	22.5	675	60	CST	17 3 34
29	3453	73	40	225	900	60	C55	
30	3453	>3	40	7 2.5	960	40	055	
3(3453	73	40	22.5	900	60	C55	
32	3453	73	40	22.5	900	60	CST	
33	3453	7.3	17	22.5	382.5	60 %	C55	24
34	3453	73	9	19	171	60	C55	/18
35	1.12	73	46	22.5	1485	61	CST	22
36	3-15-3	73	ą	21	189	60	CST	21

PAGE APPROX. TOTAL (SQ FT): 7403 Ft^2 DAILY TOTAL (SQ FT): 62816.5 Ft^2 ACCUMULATED TOTAL (SQ FT): 62816.5 Ft^2

DATE: 12-7-12

GINEERING, LLC

GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco

LAYER: PRIMARY SECONDARY OTHER

12-6-12

PANEL	ROLL	AMB	LENGTH	WIDTH	AREA	AVG. THICKNESS	QA	COMMENTS/PANEL LOCATION
#	#	TEMP	APPROX.	APPROX.	APPROX.	(mil)	MON.	SPECIAL SHAPE
37	3453	64	34	22.5	765	60	C55	40 28
38	3453	64	40	22.5	900	60	C55	
39	345 3	64	40	22.5	900	68	C55	
740	3452	64	40	22.5	900	60	CEST	
141	3452	64	.40	72.5	900	61	45	
42	3452	64	27	225	407.5	60	CBJ	140
43	3452	64	13	14	182	61	C55	
44	3452	65	<u>,27</u>	22.5	607.53	60	CST	40 113
45	3452	65	143	225	3667.5	60	C#5	
46	3452	45	163	22.5	3667.5	60	C35	
47	3448	45	163	22.5	3647.5	60	235	
48	3448	65	143	22.5	342.5	60	CSJ	

PAGE	APPROX.	TOTAL	(SQ	FT):_	30	14:	32	

DAILY TOTAL (SQ FT): _____

ACCUMULATED TOTAL (SQ FT):_____

REVIEWED BY: 5. NE JAD

DATE: 12-7-12

BRANTLE GINEERING, LLC GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

LAYER: PRIMARY) SECONDARY OTHER_____

12-6-12 Page

Page

PANEL #	ROLL #	AMB TEMP	LENGTH APPROX.	WIDTH APPROX.	AREA APPROX.	AVG. THICKNESS (mil)	QA MON.	COMMENTS/PANEL LOCATION SPECIAL SHAPE
49	3448	66	163	225	3667,5	60	C55	
50	3450	70	29	225	652.5	68	C35	15 10
51	3450	7 l	15	30	450	60	255	
52	3450	71	29	22.5	652.5	60	C3J	43 15
3	3450	21	54	22.5	1215	61	ديح	78
54	3450	71	78	22.5	1755	60	C35	
33	3450	72	78	225	1755	60	CSJ	
54	3450	72	78	22.5	1755	60	est	<u>.</u>
37	3450	72	78	22.5	1755	40	CSJ	
58	3561	72	49	22.5	1102	60	CST	24
59	3561	72	28	22.5	630	60	435	40
60	3561	72	28	10.	280	60	CSJ	

PAGE APPROX. TOTAL (SQ FT):_	15,669.5
	-
DAILY TOTAL (SQ FT):	•

ACCUMULATED TOTAL (SQ FT):

REVIEWED BY: S. NEUAD

DATE: 12 - 7-12





PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

LAYER: PRIMARY SECONDARY OTHER

Por 6 12-6-12

			<u> </u>					1000
PANEL	ROLL	AMB	LENGTH	WIDTH	AREA	AVG.	QA	COMMENTS/PANEL LOCATION
#	#	TEMP	APPROX.	APPROX.	APPROX.	THICKNESS (mil)	MON.	SPECIAL SHAPE
61	3561	72	28	22.5	630	60	८५५	40 16
62	3561	72	163	22.5	3667.5	60	C55	
63	3561	72	163	27.5	3667.5	60	C55	
CeH	3446	72	163	22.5	3667.5	60	C55	
le5	3446	72	163	22.5	3667.5	60	C55	
66	3446	72	163	22.5	3667.5	61	<u>حين</u>	
67	3676	23	18	22.5	405	60	(5)	20 50
68	3676	73	8	12	96	40	20	
69	3676	79	15	22.5	3325	Ge 1	C55	30 12
20	3674	74	36	22.5	855	60	C55	
71	3676	24	38	22.5	855	60	C55	多
72	13676	74	38	22.5	855	60	C55	

PAGE APPROX. TOTAL (SQ FT):_	22,371	
DAILY TOTAL (SQ FT):		

ACCUMULATED TOTAL (SQ FT):_

REVIEWED BY: S. N. J. J. A. D. DATE: 12-7-12

SINEERING, LLC BRANTLE **GEOMEMBRANE PANEL DEPLOYMENT LOG**

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco LAYER: PRIMARY)

SECONDARY OTHER

Page (7) 12-6-12

PANEL	ROLL	AMB	LENGTH	WIDTH	AREA	AVG.	QA	COMMENTS/PANEL LOCATION
#	#	ТЕМР	APPROX.	APPROX.	APPROX.	THICKNESS (mil)	MON.	SPECIAL SHAPE
73	3676	24	38	22.5	855	60	CSJ	
74	3676	74	29	22.5	652.5	60	C55	40.
75	3676	74	18	18	324	60	C55	18 18
].						
								•
						,		
					· · · · · ·			

PAGE APPROX. TOTAL (SQ FT): 1,831.5

DAILY TOTAL (SQ FT): 60,304

ACCUMULATED TOTAL (SQ FT): 123, 114.5

REVIEWED BY: S. NEJAD

DATE: 12-7-12

Section 2 Geomembrane Trial Seam Log



OWNER: Omni Waste of Osceola County, LLC

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

Brantley Engineering, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

DATE: 12-5-12

PAGE#

PROJECT LOCATION: St. Cloud, Fl. FUSION WELD **EXTRUSION WELD** PEEL VALUE lbs/inch SHEER VALUE lbs/inch SPEED WEDGE P/F TF/TX **AMB** MACH. WELD PRE BARREL QA ID# TEMP. ID# TECH SET HEAT SET MON. INSIDE 102 140 135 131 137 158 12to 73 95 850 18 SM TF-1 SMN 98 98 106 136 OUTSIDE 134 108 99 114 INSIDE TF-2/1250 850 16 142 150 141 135 BV 10 139 10 SMN 169 101 OUTSIDE 109 b9 132 101 INSIDE 75-3 1250 BV 154 148 144 130 139 P 8 850 SMN 127 105 103 OUTSIDE 132 129 126 TF-4 1250 INSIDE 144 134 139 140 141 8 850 16 BV 5 MM 127 130 137 OUTSIDE INSIDE OUTSIDE INSIDE OUTSIDE INSIDE OUTSIDE INSIDE OUTSIDE INSIDE OÚTSIDE INSIDE OUTSIDE INSIDE OUTSIDE INSIDE OUTSIDE INSIDE **OUTSIDE**

		,	
Passing Peel Fusion (91 lb/in):	Passing Peel Extrusion (78 lb/in):	Passing Shear Fusion (120 lb/in):	Passing Shear Extrusion (120 lb/in):

REVIEWED BY: S. NEJAD

DATE: 12-5-12



OWNER: Omni Waste of Osceola County, LLC

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

Brantley Engineering, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

PROJEC	TIOC	ΔΤΙΩΝ	: St. Clo	ud El										DATE:	10-/	- J	ico		DACE	. 2	
I IVOJEV) LOC/	111011	. 50. 010	[FUSIO	N WELD	EXTRUS	ION WELD]					DATE.	12-0	5-12			PAGE	-	·
TF/TX	Tlme	AMB TEMP.	MACH.	WELD TECH	SPEED	WEDGE SET	PRE HEAT	BARREL SET		PEEL	VALU	E lbs/i	nch		SH	IEER V	'ALUE	lbs/in	ch	P/F	QA MON.
7-1	800	76	95	Sm	ાક	85°C		_	INSIDE	109	102	123		95	llele	151	154	154	145	P	255
TF-2	රිපව	70	16	вυ	9	850		_	INSIDE	104 118	103	111 98	99	97	174	L57	147	163	165	P	C&J
TF-3	కలం	70	lle	BU	9	850	_	_	INSIDE	138 114	140	124	_	127	169	172	الهك	171	167	7	<i>ে</i>
TF-4	දිර	70	16	Bu	11	৪১০			INSIDE OUTSIDE	114	108	107	111	113	(ଜୃନ୍ଧ	162	158	<i>15</i> 8	143	P	C\$2
TF-5	1240	පිර	16	BU	9	850			INSIDE OUTSIDE	127	125	127	112	(0G 98	158	146	136	155	135	P	<u>دخی</u>
TF-6	1240	දිර	16	Bu	9	850			INSIDE OUTSIDE	134		123		132	ાઇષ્ટ	(46	147	157	147	7	C\$5
TF-7	1240	80	ماا	Bu	H	প্তর্তচ		_	INSIDE OUTSIDE	117	120	108	112	110 113	140	انكر	141	ાપા	130	7	حك
Tx-2	1300	80	19	3P	_	_	475	445	INSIDE OUTSIDE	118	134	118	112	115	159	154	146	157	149	7	255
Tx-2	l3∞	80	71	sm			480	446	INSIDE OUTSIDE	112	136	(29	130	138	162	143	182	175.	153	P	055
			<u>.</u>				 		INSIDE												
l		1.		,	<u> </u>	<u>T</u>	 	· · · · ·	OUTSIDE	1	1		- "	1	-			ļ. —			
									OUTSIDE					-	-						
									INSIDE		<u> </u>										
					-		 		OUTSIDE	-	1	-		,					-		
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Passing Peel Fusion (91 lb/in): Passing Peel Extrusion (78 lb/in): Passing St	r Fusion (120 lb/in): Passing Shear Extrusion (120 lb/in):
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REVIEWED BY: 5. NECLAD

DATE: 12-11-12



BRANTLE GINEERING, LLC GEOMEMBRANE TRIAL SEAM LOG

Primary

PROJECT #: 2012-102

PROJECT LOCATION: St. Cloud, Fl.

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

DATE: 12-7-12 PAGE# 3

		FUSION WELD EXTRUSION WELD																			
TF/TX	Time	AMB	MACH.	WELD	SPEED	WEDGE	PRE	BARREL		PEEL	VALU	E lbs/i	nch		SH	IEER V	'ALUE	lbs/in	ch	P/F	QA
ID#		TEMP.	ID#	TECH		SET	HEAT	SET										_			MON.
TX-1	8∞	65	19	JP	_		485	460	INSIDE	138	121	123	116	IRZ	173	173	161	167	165	P	COJ
ļ									OUTSIDE	-	10-	-	1/2	(08					, -		
22	800	65	71	3M	-		480	440	OUTSIDE	115	125	110	47	-	174	153	156	157	llela	9	255
- 3	1240	72	19	JP			495	460	INSIDE	110	115	113	118	109	tEU	100	100	1000	149	0	P 45-
7x-3	1~10		<u>'</u>	Or		_		,,,,,	OUTSIDE		_			_	1137	130	153	155	1.17	9	255
TX-4	1240	72	21	SUL	_		480	440	INSIDE	163		109	118	121	148	151	157	152	155	P	45
, ,			<u> </u>	-					OUTSIDE				_		-		-	 -		<u> </u>	
									OUTSIDE		· ·			<u> </u>	l						
				-				_	INSIDE			_			-	-		_			
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<u> </u>					<u> </u>		<u> </u>		OUTSIDE		<u> </u>	ļ	· .	<u> </u>							
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									INSIDE		-	-	├	-	-						
<u> </u>						-		-	OUTSIDE		-	-		-	-	-		-	₩	-	
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									OUTSIDE		 	+	\vdash	+-	1						

DEVIEWED BY	ς'	1/E TAN	

DATE: 12 - 11 - 12

Passing Peel Fusion (91 lb/in): _____ Passing Peel Extrusion (78 lb/in): _____

Passing Shear Fusion (120 lb/ln):

Passing Shear Extrusion (120 lb/in):

Section 3 Geomembrane Fusion Seaming Log



PROJECT # 2012-102

MACHINE #_95

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco** DATE: 12-5-12

assin	G TI	RIAL	SEAMS	

NO.	TIME	TECH ID
TF-1	1240	SM
C.		

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (____

PAGE NUMBER:

		*					MACHINE SET	TINGS		LENGTH				** PASSIN	G - NON
۱		SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	resting
I	SEAM	· START * FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
	NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
4	617	GEOS * WEOS	1300	74	SM	18	850	848	40	40	•	SMN		12-6	C55
4	718	EE05 * WE 05	1304	74	SM:	18	830	850	40	80	1	SIYN		12-Ce	C\$5
1	819	EEOS · WEOS	1308	74	514	18	850	846	40	120	1	SMM		12-6	UST
4	9/10	EEOS. WEOS	1314	74	5M	18	850	848	40	160	1	SMA		12-6	C53
	10/11	₩505*5E0S	1320	74	SM	18	850	846	15	175	1	SMN		62-6	C\$55
	1/12	NEOS + SEOS	1323	75	SM	18	850	847	34	209	~	SMN		52-6	CSJ
$ \sqrt{\ }$	1 /13	NEUS . SEUS	1331	75	SM	18	850	848	165	374	-	SMN		12-le	455
	13/14	NEOS SEOS	1347	75	5141	18	850	846	165	385/154	DP-1	SMN		12-6	45
И	14/15	NEOS . SEOS	1403	75	SM	18	880	848	164	318	_	SMN		12-Ce	00
ч	15/16	NEOS. SEOS	1417	76	SM	18	850	846	164	482	-	SMN		12-6	255
ų	16/17	NE 05 . SE05	1434	75	SM	18	850	845	164	490/156	DP-Z	SMH		52-Ce	లా
/	70-121	SE05 . NE05	1457	74	SM	18	850	848	164	320		SMN		12-6	025
4	21/22	SESS . NESS	1508	74	SM	18	850	846	164	484	_	SMN		12-6	CSD
V	22/23	5505 · NEOS	1525	173	SM	18	850	848	164	495/153	DP-4	SMN		12-6	<55
И	23/24	SEOS · NEOS	1540	73	5M	1.8	850	846	164	3/17		SMN		12-6	455

* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DATA REVIEWER ONLY.

** DATA TO BE COMPLETED BY THE

DEFECT NUMBER OR A POINT LOCATION ON SEAM

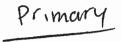
DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

REVIEWED BY: 3. NEJAD DATE: 12-11-12









PROJECT # 2012-102

MACHINE # 16

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco** DATE: 12-5-12

PASSING TRIAL SEAMS

NO.	TIME	TECH ID
PF-2	12,50	B√
TF-3	1250	BV
TF-4	1250	BV
		-

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (-)

PAGE NUMBER:

F		*					MACHINE SET	TINGS		LENGTH					• 1
ı		SEAN SECTION	APPROX.	ALAD			DIGITAL SET		40000					** PASSIN	
- 1		SEAM SECTION	APPROX.	AMB.			DIGITALSET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
- 1	SEAM	START * FINISH	START	AìR	WELD	MACH	'		LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
	NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
1	5/6	EEOS * WEOS	1312	74	BV	10	850	848	40	40	1	SMN		126	C35
1/	415	FE03+WFOS	1320	74	Bu	10	856	849	16	56	1	43 5		12-16	CST
u	2/3	2 FOS * 5FOS	1325	75	30	10	850	850	14	70	•	CES		12-6	CSIT
	, 215	WAOS+ EEOS	1341	75	BU	10	850	850	31	101	_	455		12-6	45
اربر	3/4	WFOS FFOS	1345	75	BU	10	850	850	18	119	_	435		12-6	035
4	1/2	NEOD * SEOD	1355	75	BU	10	850	851	33	152		C\$5	_	12-6	C55
√	1116	NROS * SEOS	1400	25	2~	12	850	850	22	174		425	`	12rce	cso
70	117	NEOD + SE OF	1403	75	BU	10	850	8-19	23	197	_	3		12-6	255
~	118	NROD * BEOS	1404	75	るり	10	850	850	22	219		০গ্ন		12-6	ESS
М	1/9	NE05 * 5F03	1409	75	30	10	850	850	23	242	_	235	_	12-6	C55
\mathcal{M}	11/12	4500 · 3E05	1417	74	Bu	10	850	850	22	264	****	(2)		12-6	C505
U		WEUS - 6607	1423	24	BJ	10	830	851	27 .	270/21	DP - 2	655		12-6	450
4	17/18	NEOS · SEOS	1432	74	BU	10	850	850	164	185		C55		12-Le	250
4	18/19	3E05 * 15805	1457	74	BU	10	850	348	164	349	_	455		12-6	45
M	19/20	5E05 + NE05	1527	73	BU	10	250	949	164	490/23	DP-5	c55		12-6	C35

* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

PAGE TOTAL: 783

23

DAILY TOTAL WELDED (FT)

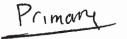
DAILY DESTRUCTIVE LENGTH CARRY-OVER

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

REVIEWED BY: 3. NECIAD DATE: 12-11-12





PROJECT # 2012-102

MACHINE # 95

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco DATE: 12-5-12

ASSING	TRIA	L SEAMS
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·			
DESTRUCTIVE SEAM LENGTH CARRY-OVER	TECH ID	TIME	NO
FROM PAGE # (_ \ _) _ 317	SM	1240	TF-1
PAGE NUMBER:	·		

F	, , , , , , , , , , , , , , , , , , , ,	*					MACHINE SET	TINGS		LENGTH					
I		CEAN CECTION	ADDDOV	4445					ADDDOV					** PASSIN	
		SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	PARTES
	SEAM	START * FINISH	START	AlR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
	NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
\sim	32 / 33	WEOS . EEOS	1555	73	SM	18	850	848	34	351	ł	5MIY		12-6	025
	31 /32	WESS * EEBS	1600	73	SM	18	850	850	42	393		SMM		12-6	C50
4	30/31	EEOS * WEOS	1610	73	514	18	850	846	42	435		SMN		12-le	45
4	29/30	EEOS · WEOS	1615	72	SM	18	850	850	42	477		SIMM	-	12-6	C20-
√	24/35	SEOS · NEOS	1630	72	SM	18	850	846	3.7	490/24	DP-6	SMN		12-6	CSJ
	1	*								,					
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* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

PAGE TOTAL: 197

** DATA TO BE COMPLETED BY THE

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

DATA REVIEWER ONLY.

REVIEWED BY: S. NGJAD DATE: 12-11-12



PROJECT # 2012-102

MACHINE # 6

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco DATE: 12-5-12

PASSING TRIAL SEAMS

NO. TIME **TECH ID** 7F-2 1250 BV 1250 137 1250 BV

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (4) 339

PAGE NUMBER: 5

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

MACHINE SETTINGS LENGTH ** PASSING - NON APPROX. DIGITAL SET INDICATOR APPROX. **SEAM SECTION** AMB. **FROM** LOCATED DESTRUCTIVE TESTING **SEAM** MACH LENGTH START **FINISH** START AIR WELD **PREVIOUS** DESTR. QA TEST QA NUMBER POINT POINT TIME **TEMP** TECH **SPEED** WEDGE WEDGE WELDED DESTR. NO. MON. REMARKS DATE MON. 24/28 3E05 + NE05 1655 72 BU రివర 0 TB 10 -50 344 12-6 C30 1656 850 849 33 24/25 වුට SF03 * NEOS フス 10 377 کک 12-6 035

* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

PAGE DESTRUCTIVE LENGTH CARRY-OVER

PAGE TOTAL: 28

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

DAILY TOTAL WELDED (FT)

377

DAILY DESTRUCTIVE LENGTH CARRY-OVER

REVIEWED BY: S. NEJAD

DATE: 12-11-12

PROJECT # 2012-102

MACHINE#_ 95

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco** DATE: 12-6-12

PASSING TRIAL SEAMS

NO. TIME **TECH ID** 800 TF-1 5m1

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (3) 24

PAGE NUMBER:

F															
ı II		*					MACHINE SETT	TINE SETTINGS		LENGTH		1		** PASSIN	G-NON
		SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED	. !		DESTRUCTIVE	resting
	SEAM	START * FINISH	START	AIR	WELD	MACH		1	LENGTH	PREVIOUS	DESTR.	QA		TEST	OA
	NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
1	37/38	Etos · WEOS	08.00	64	SM	18	850	848	40	64	}	SMN		12-6	ಆವ
	38/39	WE85 . EE05	0805	64	514	18	850	846	38	102)	SMIV		12-6	CS5-
~	39/40	WEOS * EEOS	0810	64	514	18	850	849	38	140	-	SMN		12-6	ধ্যে
1	40/41	WEDS * EEOS	0817	65	SM	18	850	848	40	180	_	SMN		12-6	C50-
V	41/42	WEOS · EEOS	0825	les	SM	18	850	850	40	220		SMN		12-6	C25
V	45 /46	NEOS · GEOS	0837	65	SM	18	850	848	162	385	-	SMIN		12-6	C55
~	44 / 45	ME65 . 3E05	0828	6.5	514	18	850	850	40	422	-	SMN		12-6	435
V	46/47	NEOS * SEOS	0855	67	54	18	850	850	162	490/94	DP-8	SMN		\$2-6	450
~	47/48	NEOS · SEOS	0913	69	SM	18	850	846	162	256	_	SMN		12-6	455
	56/57	WEOS · EEOS	0930	72	SM	18	85%	848	78	334	_	SMM		12-6	کئ
V	55, 156	WEOS . EEOS	0936	72	SM	18	850	850	78	412	_	SMIY		12-6	050
V	54/55	W605 . 6605	0941	72	5 M	18	850	846	78	480/io	DP-9	-2 MA	the state of	12-6	S
	53 154	WE05 + EE05	0947	72	SM	18	850	848	78	88	-	SMI		12-6	C55
1	62 1 63	SEOS · NEOS	1005	72	5M	18	850	846	162	250	_	SMIY		12-6	250
√	63/104	9665 * NEOS	1043	72	SM	18	850	849	162	412	_	5141		12-6	453

* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY DESTRUCTIVE LENGTH CARRY-OVER

PAGE TOTAL: 1358

DAILY TOTAL WELDED (FT)

DATA REVIEWER ONLY.

** DATA TO BE COMPLETED BY THE

REVIEWED BY: 5. NEUAD

DATE: 12-11-12

PROJECT # 2012-102

MACHINE # 16

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco DATE: 12-6-12

PASSING TRIAL SEAMS

NO. TIME TECH ID Bu TF-2 800 800 TF-3 アレ TFAY තුත BU

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (5) 377

PAGE NUMBER:

		*					MACHINE SET	TINGS		LENGTH				** PASSIN	IG - NON
1		SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
ľ	SEAM	START * FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
	NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
V	31 / 37	EEUS · WEOS	0815	64	Bu	9	850	ક્ષ્યક	12	399	_	C25		62-6	C55
	12/37	WEDS . EEOS	0820	64	Bu	9	850	848	28	427	_	25		12-4	255
~∥	12/45	NE05 * 5 E 05	0824	65	Bu	91	850	950	28	455	_	435		126	CSJ
	38 45	NEUS * SEOS	0836	65	BU	9	850	850	22	477	-	C53		12-6	C37
√	39/45	NEOS * SEOS	0839	65	30	9	850	850	23	490/10	DP-7	ಆರ	٠	12-6	055
V	40/45	NEUS * 3E05	0842	45	30	9	850	851	22	32		255	-	12-6	C55
4	41/45	NEOS * 5805	0844	65	Bu	9	850	850	23	53	-	COJ	_	12-6	CSJ
V	42/43	WEOS . FEOT	0855	Ele	30	9	850	850	14	69		CSJ		12-6	e53-
~	43/44	NE03 + 3805	0857	67	30	9	950	851	13	82	J	455		12-6	<i>C\$</i> J
~	612/44	WEOS · EEOS	0904	68	Bu	9	850	850	31	113	-	455		12-6	C\$5
~	48/49	NEOS . SEOS	0916	70	Bo	9	850	850	162	275	_	ट्ड		12-6	ککه
= V	50151	SEOS NED	093	122	30	9	850	851	13	290		45 J		126	CSJ
V	51152	NEOS . SEOS	09 43	72	BU	9	850	250	15	305		C55	f.	1	455
V	51/53	KEOS · WEOS	8950	72	30	9	850	849	30	335		C-55		12-6	
1	50/53	WERD FROS	1004	12	BV	9	250	250	32	367	-	C55		12-6	
	* REFERENCE SEAM È	NOPOINTS FROM END OF SEA			PAGE TOTAL	480				** DATA TO BE	COMPLETE	D BY THE			

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

DATA REVIEWER ONLY.

REVIEWED BY: S. NEUAD DATE: 12-11-12

PROJECT # 2012-102

MACHINE# 16

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco DATE: 12-6-(2

PASSING TRIAL SEAMS

NO. TIME TECHID

TF-2 800 80

TF-3 900 30

TF-4 800 B0

TF-7 1240 80

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (_ 7 _) 36 7

PAGE NUMBER:

F		*					MACHINE SET	INGS		LENGTH				SS DACCIN	C NON
		SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			** PASSIN	· · · · · · · · · · · · · · · · · · ·
	SEAM	START * FINISH	START	AIR	WELD	MACH	DIGITALGET	INDICATOR	LENGTH	PREVIOUS					
- 1	l l						WEDGE	WEDGE			DESTR.	QA		TEST	QA
. 4	NUMBER "	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
V	57158	WEOS .FEOS	1013	72	30	A	820	පිරිද	78	445		CS5		12-6	CSJ
~!	50/60	UEO3 . EEO3	1024	22	ষ্টিও	18	850	8500	20	465	_	ৎগ্ৰ		12-6	655
\sim	59/60	SEOS + NEOS	1030	72	BU	1)	850	849	٩	474	~	<55	Cocacally	₹\$	
~√	57/59	WEGS FECS	1038	72	ည္တ	11	850	850	1.7	481	-	C3J		12-6	255
4	58/59	WEGS . EEOS	1039	フュ	$\mathcal{B}^{\mathcal{U}}$	11	ජී50	850	24	490/17	DP-10	455		12-6	C\$5
~[49/57	5505 * NEDO	1057	22	BU	11	850	850	18	35		C25		12-6	C+5)
~	49/54	SEOS * NEOS	1059	73	Bu	(1	250	951	23	58		روح		12-6	450
ℳ	49/55		1102	7ろ	BU	10	250	850	22	80	~	C35		126	روی
√	49/54	SEON . NEON	1105	73	BU	и	850	දිජ	23	103	_	C35		12-6	CSJ
V	49/50	SEOS . NEOS	1108	73	Bu	11	850	848	40	143	_	C45		12-6	رچح
4	52/53	EEO3 EOS	1125	74	Bu	U	850	850	32	175	~	c32		12-6	CST
_/	38/Col 3	₩ • EE03	1137	74	Bu	11	850 -	- జిన్	a	- 194		155	10 mm 1 mm 2 mm 1 mm 1 mm 1 mm 1 mm 1 mm	12-la	435
V	57/61	weog. Froy	1/39	75	BU	11	850	800	10	206	_	455		12-6	حد
4	61/62	SEOS . NEOS	1249	78	BV	11	850	848	38	244		SHIY		12-6	
V	52162	NEOS . 9 EOS	1259	78	βV	11	850	846	38	282	_	SMN		12-6	<i><</i> 53 [−]

^{*} REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

PAGE TOTAL: 405

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

REVIEWED BY: S. NEJAD

DATE: 12-11-12



PROJECT # 2012-102

MACHINE # 95

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco** DATE: 12-6-12

PASSING TRIAL SEAMS

NO. **TECH ID** TIME 800 TK-1 500

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (______) 4/2

PAGE NUMBER:

ſ		*						MACHINE SETTINGS				LENGTH				** PASSIN	NG - NON
-		SEAM SECTION		APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING	
	SEAM	START	*	FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
	NUMBER	POINT	*	POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
	64/65	SEOS	*	NEOS	10:52	74	5M	18	850	846	16.2.	490/84	DP-11	SMN		12-6	45
1	49/59	5505	*	MEOS	10:57	74	SM	18	850	848	40	124		514N		17-le	450
$\overline{}$	65/66	SEOS	*	NEOS	11:17	75	314	18	850	846	162	286	ļ	SMIY		12-6	1
/	73/74	WEOS	*	EEOS	11:30	76	519	18	850	848	38	324	_	SMN		12.7	455
	72/73	WEOS	*	EEOS	1135	76	SM	18	850	850	38	362	-	SMIV		12-7	095
	71/72	WEOS	*	EEOS	1140	76	SM	18	850	852	38	400	<u></u>	SMN		1207	25
4	70/71	WEOS	*	EEOS	1143	76	SM	18	850	848	38	438	-	SMN		12-4	c05
ᅫ	69170	WEOS	*	EEOS	1148	76	SM	18	856	846	34	462/10	DP-13	NHC		12-7	e35
			*														
	/.		*					·									
- 1	/		*														
			*				:-					EFF_Min_Const					4004
	/		*					1									
	/		*														
	1		*														

^{*} REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

PAGE TOTAL: 550

DAILY DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

10 1908 ** DATA TO BE COMPLETED BY THE DATA REVIEWER ONLY.

REVIEWED BY: S. NEJAD DATE: 12-11-12

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

DATE: 12-6-12

PASSING TRIAL SEAMS

TIME **TECH ID** NO. 30 TE-5 1240 TF-6 1240 BU TF-7 BU 1240

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (<u>8</u>) 28 2

PAGE NUMBER:

			*					MACHINE SET	rings		LENGTH				***	·
1		SEAN	SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.		LOCATED			** PASSIN	
l								DIGITALSET	INDICATOR		FROM	LOCATED			DESTRUCTIVE	TESTING
1	SEAM	- START	* FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA	1	TEST	QA
	NUMBER	POINT	*. POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
1	54 162	HEOS	* 5005	1304	78	BV	11	856	849.	22	304		SMN	_	62-le	C55
4	55 162	NEOS	* 950S	1305	78	BV	11	850	848	23	327	-	SMN	_	12-le	C5)
4	56162	MEOS	*SEOS	1309	7.8	BV	111	850	846	22	349		SHN		12-6	655
	57/62	NESS	* 5E05	1314	78	BV.	11	850	848	21	370		SMN		12-6	C55
V	74 175	EEOS	* WEOS	1325	78	BV	11	850	850	18	388	_	SHN		12-7	C55
V	35/74	WEDS	*EEOS	1333	78	BV	11	8.50	848	31	419	444-	SHN		62-7	<u>حيح</u>
V	36175	WESS	· EEOS	1336	78	BV	11	850	846	23	442		SMN		12-0	حين
~	35/66	SEOS	· NEOS	1344	7.8	BV	1	800	848	38	470/10	DP-12	SHK		12-72	C55
~	68/69	WEOS	· EEOS	1405	78	BV	1	850	846	10	20		SMN	,	12-7	255
~	67 1.68	SEOS	· NEOS	1411	78	BV	111	850	848	7	27	_	SMM		12-7	CSJ
V	67/69	EEOS	* W 505	1413	78	BY	111	850	846	30	57	_	SMN		12-4	ري -
-1/	67/70	EEOS	· WEOS	1416	18	BV		850	848	7	64		314N		12-14-	ಳು -
~	66/67	SENS	* NEOS	1429	80	13~	1(850	850	35	99		SMN		12-7	455
V	66170	9E05	·NEOS	1434	80	BV	11	850	849	17	116		SMN		12-4	C25-
1	106/71	5605	· NEOS	1436	80	βV	111.	850	848	22	13.8		SMN		12-4	225
	* REFERENCE SEAM EN	NDPOINTS FR	OM END OF SEA	M (EOS),					PAGE TOTAL	324				** DATA TO BE	COMPLETE	D BY THE

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

DATA REVIEWER ONLY.

REVIEWED BY: S. NEJAD

DATE: 12-11-12



PROJECT # 2012-102

MACHINE #_ / 6

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco** DATE: 12-6-12

PASSING TRIAL SEAMS

NO. TIME **TECH ID** 1240 BU TF-5 1240 BU ディク BU 1240

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (10) 138

PAGE NUMBER:

			*					MACHINE SET	TINGS		LENGTH				** PASSIN	G-NON
		SEAM	SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED		}	DESTRUCTIVE T	TESTING
	SEAM	START	* FINISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
	NUMBER	POINT	* POINT	, TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
V	66/72	3505	· P Kos	1438	80	BO	11	850	850	23	161	-	655		127	C5:5
U	66/73	SFOO	* NEOS	W41	80	BU	11	850	ଞ୍ୟଞ	22	183	_	C55		12-7	C65-
U	24/66	EEOS	*WE05	1500	0	Bo	u	850	850	净	200		435		12-7	C#57
4	24/65	EERS	* LUROS	1510	79	Bu	Įl	850	850	5	205		255	Covered by 5c	_	_
V	23/65	EF07	* 4503	1519	72	Bo	11	850	\$50	18	223	_	45 5		12-7	८క్రూ
V	23 64	EFOS	* WE03	1513	79	BU	11	850	ෂර ව	5	228	~		Carrally 5F	·-	~
V	22/64	EE05	* ひ至05	4514	79	Bν	21	850	849	17	245		শ্বে		12-7	دعۍ
	22/43	EE03	* WEOZ	1516	79	るひ	61.	860	251	3	250	-	C\$J	HELDRON	~	
V	21/63	FROS	* WEOS	1617	77	BU	11	250	850	18	268)	C\$5	,,,,,	12-7	CSS
✓	21/62	EE03	· WEOS	1520	22	BU	il	850	849	5	273	_	455	Covered by 55		_
~	20/62	EEOS	* WF03	1521	79	BU	16	80	850	17	290		C55		12-7	C65
1/	20/52	EFOS	* WE03	1523	79	30	77	850	850	5	295		C 50	Covered by Sk		Bids Turnsparence
V	19/52	EEOD	· 4805	1555	77	BU	11	850	850	18	313	_	C55		12-7	<50
V	19/51	EERS	· UEBS	1557	22	BU	11	850	848	5	318	_	C85	Covered by St	2 —	~
1	18/51	EF03	· UEBS	155B	フフ	BU	1/	850	849	17	335	_	C57		12-7	ধ্যে
•	* REFERENCE SEAM E	NDPOINTS FRO	OM END OF SEAM	vi (EOS),				9	PAGE TOTAL	197		_		** DATA TO BE	COMPLETE	D BY THE

* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), **DEFECT NUMBER OR A POINT LOCATION ON A SEAM**

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

REVIEWED BY: S. NECLAD

DATE: 12-11-12

BRANTLE GINEERING, LLC **GEOMEMBRANE FUSION SEAM LOG**

Primary

PROJECT # 2012-102

MACHINE #

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



Brantley Engineering, LLC OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

DATE:_

PASSING TRIAL SEAMS

TECH ID NO. TIME 20 TF-5 1240 TF-6 BU 1240 TF7 1240 3V

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE #([() 335

PAGE NUMBER: 12

			*						MACHINE SET	TINGS		LENGTH				** PASSIN	IG - NON
		SEAM	A SECTION	1	APPROX.	AMB.		ľ	DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
	SEAM .	START	* FI	NISH	START	AIR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
	NUMBER	POINT	* P	OINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
ν	17/50	EESS	* س	203	1602	フン	Bu	11	250	850	22	357		CSJ		12-7	C63
V	16/49	EEOS	ع ص	0 5	1411	77	BU	11	850	950	23	380		গ্ৰে		12-7	255
~	15/48	EE05	* WE	03	1414	27	BU	11	95 0	849	22	402	-	থ্য		にてて	C \$J
V	14/47	EEOS	€ ن	205	1416	77	BU	11	850	850	23	425		CSJ		12-7	CB5
V	13/46	EE03	أخبة *	ومع	1420	77	BU	Ll	850	850	22	447	-	C55		12-7	255
V	1/45	EEOS	* 67	203	1422	77	Bu	и	850	851	23	460 10	DP-14	CSJ		12-7	
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* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE TOTAL: 135

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

10

1543

10

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

REVIEWED BY: S. NEUAD

DATE: 12 - 11 - 12

Section 4 Geomembrane Extrusion Seaming Log





PROJECT # 2012-102

MACHINE # 16

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco** DATE: 12-5-12

PASSING TRIAL SEAMS

NO. TIME **TECH ID** 7F-2 1250 TF-3 1250 75-4 1250 B V

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (2) 23

PAGE NUMBER:

F											·			· · · · · · · · · · · · · · · · · · ·	
		*					MACHINE SET	TINGS		LENGTH				** PASSIN	G-NON
		SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED		ì	DESTRUCTIVE	TESTING
H	SEAM	START * FINISH	START	AlR	WELD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
	NUMBER	POINT * POINT	TIME	TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
V	28/29	EEOS · WEOS	1550	23	BU	10	850	850	38	61		<2J		22-4	cs0-
V	27/28	EEOS "WEOS	1600	73	30	16	850	849	19	80		ধ্য		12-6	050
✓∥	25/24	SEOS . NEOS	1603	23	By	10	850	850	17	97		485		12-6	حي
\checkmark	25/28	LSFOS * FFOS	1623	73	32	10	850	850	28	ノスケ	_	CSS	Covered by 34		
\checkmark	26/27	WEOS · EEOS	1618	72	Bv.	10	250	850	25	150		C5)		12-6	455
√	34/34	WEOS * EEOS	1624	72	Bu	10	850	850	18	168		C55		1216	055
V	35/36	5F05 *NE05	1628	72	30	10	850	848	21	189		255	†	12-6	C55
V	34/35	SEDY · NEOS	1430	72	BK	10	850	849	19	208	_	C35		12-7	শ্বেত
V	32/35	WEOS. EEOS	1633	72	BV	10	850	850	11	219	-	C35		12-6	ري
4	33/35	WEOD * EEOS	1634	22	Bu	10	850	850	19	238	_	C55		12-6	250
1	33/34	WROS . EEOS	1634	12	るい	10	850	850	17	255	_	CSJ		12-6	255
	24/32	1505 · DE09	1647	72	BU	10	850	850	16	271		C55		12-6	උනු -
V	24/31	SEOD " NEOD	1649	22	BU	10	850	851	23	294	-	C55		12-6	25
. 7	24/30	3803 · NE07	1651	72	BY	10	850	850	22	316	_	255			450
1	24/29	5E05 * NEOS	1653	72	BV	10	960	850	23	334		CSJ		12-6	cs5
,	* REFERENCE SEAM E	NDPOINTS FROM END OF SEAF	M (EOS),			PAGE TOTAL	316	** DATA TO BE COMPLETED BY THE							

^{*} REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

339

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

DATA REVIEWER ONLY.

REVIEWED BY: S. NEJAD

DATE: 12 -11 - 12

BRANTLE GINEERING, LLC GEOMEMBRANE EXTRUSION SEAM AND TEST LOG

Primary

PROJECT # 2012-102

MACHINE # $\frac{71}{}$

PROJECT LOCATION: St. Cloud, Fl.

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

DATE: 12-7-12

PASSING TRIAL SEAMS

NO. TIME TECHID

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (🖄)

PAGE NUMBER: ______

			EXTRUSIO	N SEA	VING					VAC	:UUM	TESTIN	IG	
	*						LENGTH			NON				
	SEAM SEG	CTION	APPROX.	AMB.		APPROX.	FROM	LOCATED		DESTR.				
SEAM	START *	FINISH	START	AIR	WELD	LENGTH	PREVIOUS	DESTR.	QA	TEST	TECH		QA	
NUMBER	POINT *	POINT	TIME	TEMP	TECH	WELDED	DESTR.	NO.	MON.	DATE	ID	P/F	MON.	REMARKS
60/61	3FOS *	20	S1.31	66	5m	9	9		45	12-7	MG	P.	C55	
/	•													
/	*													
/														
/	•													
/	•													
/	*													
/	*													
/														
/_	*													
						** * **								
/														
/	*													
/	•													

• ;	REFERENCE	SEAM	ENDPOINT	'S FROM
E	ND OF SEA	M (EO	S), DEFECT	NUMBER

PAGE TOTAL:

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY DESTRUCTIVE LENGTH CARRY-OVER

9

OR A POINT LOCATION ON A SEAM

DAILY TOTAL WELDED (FT)

9

REVIEWED BY: S. NEJAD

DATE: 12-11-12

Section 5 Geomembrane Defect, Repair, and Vacuum Test Log



BRANTLE SINEERING, LLC GEOMEMBRANE DEFECT, REPAIR, AND TEST LOG

Primary

ry •

PROJECT # 2012-102

PROJECT LOCATION: St. Cloud, Fl.

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

Brantley Engineering, LLC OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

PAGE#

		· · · · · · · · · · · · · · · · · · ·			·			REPA	dR .			V.	ACUUI	M TES	Γ
DEFECT		FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX '	MACH	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE		· .			SIZE	ID#	TECH	MON.		ID		MON.
Α	13/14	11 S. OF NEOS	DP-1	12-5		12-6	P	2+4	19	JP	Ay	12-7	MG	P	Ay.
В	13/14	99'S. OF NEOS	Io	12-5		126	P	1+3	19	JP	ΑУ	12-7	MG	P	Α̈́Υ
С	17/18	6'S. TO NEOS	Cut	12-5		12-6	P	176	19	JP		12-7	MG	P	A4
D	16/17	8'5. OF NEOS	DP-3	12-5		12-6	P	2×4	19	JP	AY	2-7	MG	P	AΥ
F	16/17	70' N. OF SEOS	30	12-5.		12-6	8	1.2	19	1P	AY	12-7		P.	AY
G	16/17	18' N. OFSES	120	12-5		12-6	P	1 x 2	19)P	AY	12-7	MG	P	AY
н	P-19	6' N./10 G	D	12-5		12-7	P	1x2	19	JP	AY	12-7	MG	P	AX
J	P-26	14' N./10E	D	12-5	•	2-7	B	1 x 1	19	SP	AY	12-7		P	Ar
, K	21/22	85' N. OF SESS	IO	12-5		12-6	P	1×5	19	JP	144	12-7	MG	9	Ay
M	22/23	11' N. OF SEOS	DP-4	12-5		12-7	P	2×5	19	JP	Α¥	12-7	MG	P	AV
N	24/35	13' N. OF SEOS	DP-6	12-5		12-7	P	2×5	19	:\P	AY	122	ora	P	44.
P	28/29	EFOS	130	12-5		Q-7	P	1×6	19	ŇΡ	AY	62-7	ma	P	RY
Q	38/39	4'E. OFWEOS	130	12-5		12-6	P	176	19	JP	AY	127	ma	_ ·	44
R	40/41	10' W. DF EEOS	80	12-6		12-6		121	71	5M	AY	12-7	max	P	AY
S	1/13	15' N. OF SEDS	Bo.	12-6		12-7	P	axa	19	3P	AY	12-7	MG	D	ΑÝ
T	46/47	10'S. OF MEOS	D	12-6		12-6	, P	1xCo	71	5M	AY	12-2	req	3	44
W	46/47	15'5. OF NEDS	D.	126		12-6	P	126	71	3M	AY	12-7	may	P	94
X	46/47	68'S. OF NEOS	DP-8			12-6		2x4	71	SM	Ay	127	ma	P	AY
Y	146/47	110'S. OF NEOS	LD	12-6		12-6	P	(1 2	71	5M	AY	12-7	ma	8	A4

DEFECTS TYPES	DX-EXTRUSION DESTRUCTIVE		PT - PRESSURE TEST CUT	-REPAIR TYPES
BO - BURNOUT	ED - EQUIP. DAMAGE	•	T - THREE PANEL INTERSECTION	P - PATCH
CO - CHANGE OF OVERLAP	EXT - PANEL EXTENTION	٠	VL - VACCUM LEAK	C - CAP
CUT - CUT	FM - FISHMOUTH	1 2.	WR - WRINKLE	RS - RECONSTRUCTED SEAM
D - DAMAGE	FS - FA!LED SEAM		WS - WELDER RESTART	G&W - GRIND AND WELD
CR - CREASE	INT - INTERSECTION	1	OTHER	

OTHER

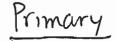
REVIEWED BY: S. MEJAD

10 - INSUFFICIENT OVERLAP

DF - FUSION DESTRUCTIVE









PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

PAGE# Z

		<u></u>						REPA	IR_			V	ACUUI	M TEST	[
DEFECT	DE	FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QA	DATE	TECH	P/F	. QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TECH	MON.		ID		MON.
Α	12/3//37	Int	7	12-6		12-6	P	2+2	71	SM	AY	12=7	inco	P	PU)
В	12/37)45	Int	7	12-6	· .	12-6	P	444	71	SM	AY		orlo	9	RY
С	38/39/45	Int	T	12-6		12-6	P	lxl	71	SM	AV	12-7	uce	B	124
D	39(40/45	FAT	7	12-6		12-6	P	1×6	الأ	SM	Ay	12-7	ma	7	14/
F	40/41/45	Int	7	17-6.		12-6		1×1	71	SM	Αy	125	MEO	P	24
G	41/42/45	Int	7	12-6		12-6	P	2×4	71	SM	AY	127	nc	P	PH4
Н	39/45	TO'NOC SEOS	DP-7	12-6		12-6		226	71	SM	Ay	12-7	MG	P	ny
j	42/43/44	Int	T	12-6		12-6		3+3	71	31	AY	127	mo	p	AY
K	50/51/53	Int	7	12-6		12-6		124	71	SM	AY	12-7	me	P	MY.
M	51/52/53	Int	7	12-6		12-7	P	2×2	71	51	AJ	12-7	vilo	P	RY
N	54/55	10' WOSEEBS	DP-9	12-6	,	1g-Ce	7	2×4	71	SM	AY	12-7	MG	P	AY
Р	37/58/61	Int	T	12-6		18-7	7	1x1	71	SM	AY	12-7	MG	P	AY
Q	58/6/6	Int	7	12-6		12-6		176	71	SM	AY	B-7	MG	6	AY
R	58/59	7'EOC WEOS	DP-10	12-6		12-6		2×4	71	SM	AY	12-2	Ma	8	RY
S	58/59/60		T	12-6		12-6		5×5	71	5M	AY	12-7	mes	8	RY.
T	57/58/59	Int .	7	12-6		12-6		11×1	71	SM		1207	una	P	A4"-
W	49/37/59	Fret	T	12-6		12-6		1×1	71	3M		12-7	ule	9	124
X	49/5437	Ind	T	12-6		12-6		111	71	SM	AY	12-7	ule		AY
<u>Y</u>	49/55/56	Int	7	12-6		12-6	<u> </u>		71	5M	AY	1221	- MES	<u> </u>	94

DEI EC13 I II E3	DY - FYLLOSION DESTROCTIVE	TT-THEOSORE TEST COT
BO - BURNOUT	ED - EQUIP. DAMAGE	T - THREE PANEL INTERSECTION
CO - CHANGE OF OVERLAP	EXT - PANEL EXTENTION	VL - VACCUM LEAK
CUT - CUT	FM - FISHMOUTH	WR - WRINKLE
D - DAMAGE	FS - FAILED SEAM	WS - WELDER RESTART
CR - CREASE	INT - INTERSECTION	OTHER
DF - FUSION DESTRUCTIVE	IO - INSUFFICIENT OVERLAP	OTHER

REPAIR TYPES

P - PATCH

C - CAP

RS - RECONSTRUCTED SEAM

G&W - GRIND AND WELD

REVIEWED BY: S. NEJAD

DATE: 12-11-12



SINEERING, LLC GEOMEMBRANE DEFECT, REPAIR, AND TEST LOG

Primary



PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

PAGE# 3

D.F.					4	_	REPA				v	ACOU	M TEST	' 11
	FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QA	DATE	TECH	P/F	QA
EAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TECH	MON.		ID		MON.
H16/4	Int	7	12.5		12-6	P	2+2	19	NP.	AY	12-7	MG	P	AY
12/5	Int	7	12-5		12-6	P	3×3	19	IP	ΑX	A =		P	AY
1/6/7	Int	T	12-5		12-6		3 12	19	J.P	AY	12-9	MG	P	AV
1/7/8	Int	T	12-5		12-6		2+2	19	J.P	AY	12-7	MG	P	AI
	Int	7	12-5.		2-6		2+2	19	1.8	AY	12-7	MG	P	Ay
	Int	7			2-6	'	3 * 3	19	J.P	A,y	12-7	MG	P	AY
0/11/12	Int	T	_				213	19	J.P	A,Y	12-7	MG	P	AV
10 (17		39-2			7		2×5	19	J.P	A,y	12-7	MG	P	AV
	23'5 06 NEOS	25-50			12/6		2×5	19	SP	AY	12-7	116	P	AY.
		T			12-7		1×1_	19	JP	AY	12-7	inso	?	A4
33/21/75	1-2-	8			5-7	- ' -	171	19	JP	Ay	12-7	MG	3	A4
32/33/35	, 	T			12-7	 	1×1	19	JP	AY	12-7	me	7	ay
24/32/35		T			12-7		1 +2	19	JP	Ay	42-7	MG	?	AY
		T	 				171	19	16	AY	12-7	inco	?	RY
24/30/31		T	12-5		12-7	1	1 1 1	19	JP	Ay	02-7	ma	3	44
	T	17			12-7		141	<u> </u>	76	AY	12-7	ne	P	AY
		1	 -'		12-7		IXI	10/	JP	AY	12-7	me	P	AY
		1	12-5				171	19	NP	AY	12-7	ne	7	24
	Frit	1	125		12-7	17	2×6	19	175	AY	127	Ma	7	144
	EAM, PANEL OR DEFECT CODE 1/2/5 1/4/7 1/7/8 1/8/9 1/8/9 1/8/9 1/8/9 1/8/9 1/8/9 1/8/9 1/8/1/3	EAM, PANEL OR DEFECT LOCATION DESCRIPTION 1/6/4	EAM, PANEL OR DEFECT LOCATION DESCRIPTION TYPE 1/6/4	EAM, PANEL OR DEFECT LOCATION DESCRIPTION TYPE 16/4	EAM, PANEL OR DEFECT LOCATION DESCRIPTION TYPE H6	EAM, PANEL OR DEFECT LOCATION DESCRIPTION TYPE 16	EAM, PANEL OR DEFECT LOCATION DESCRIPTION TYPE 1/6/4	EAM, PANEL OR DEFECT LOCATION DESCRIPTION TYPE 12.5	EAM, PANEL OR DEFECT LOCATION DESCRIPTION TYPE DEFECT CODE DEFECT LOCATION DESCRIPTION TYPE DEFECT CODE DEFECT LOCATION DESCRIPTION TYPE DEFECT CODE DEFECT LOCATION DESCRIPTION TYPE DEFECT CODE DEFECT LOCATION DESCRIPTION TYPE DEFECT CODE DEFECT LOCATION DESCRIPTION TYPE DEFECT LOCATION TYPE DEFECT LOCATION DESCRIPTION TYPE DEFECT LOCATION TYPE DEFECT LOCATI	EAM, PANEL OR DEFECT LOCATION DESCRIPTION TYPE DEFECT CODE DEFECT CODE DEFECT LOCATION DESCRIPTION TYPE DEFECT CODE DEFECT LOCATION DESCRIPTION TYPE DEFECT CODE DEFECT LOCATION DESCRIPTION TYPE DEFECT LOCATION DESCRIPTION TYPE DEFECT LOCATION DESCRIPTION TYPE DEFECT LOCATION DESCRIPTION TYPE SIZE ID # TECH ID # D	EAM, PANEL OR DEFECT LOCATION DESCRIPTION TYPE DEFECT CODE DEFECT CODE DEFECT CODE DEFECT LOCATION DESCRIPTION TYPE DEFECT LOCATION DEFECT L	EAM, PANEL OR DEFECT LOCATION DESCRIPTION TYPE DEFECT CODE DEFECT CODE DEFECT CODE DEFECT LOCATION DESCRIPTION TYPE T 12.5 TAT T 12	EAM, PANEL OR DEFECT LOCATION DESCRIPTION TYPE DEFECT CODE DEFECT CODE DEFECT CODE DEFECT LOCATION DESCRIPTION TYPE DEFECT CODE DEFECT LOCATION DESCRIPTION TO DEFECT CODE DEFECT CODE DEFECT CODE DEFECT CODE DEFECT CODE DEFECT LOCATION DESCRIPTION DEFECT CODE DEFECT CO	EAM, PANEL OR DEFECT LOCATION DESCRIPTION TYPE SIZE ID# TECH MON. ID

DEI ECIS I II ES	DA - EXTRUSION DESTRUCTIVE	FI FRESSORE TEST COT
BO - BURNOUT	ED - EQUIP. DAMAGE	T - THREE PANEL INTERSECTION
CO - CHANGE OF OVERLAP	EXT - PANEL EXTENTION	VL - VACCUM LEAK
CUT - CUT	FM - FISHMOUTH	WR - WRINKLE
D - DAMAGE	FS - FAILED SEAM 🔩	WS - WELDER RESTART
CR - CREASE	INT - INTERSECTION	OTHER
DF - FUSION DESTRUCTIVE	IO - INSUFFICIENT OVERLAP	OTHER

REPAIR TYPES-----

P-PATCH

C - CAP

RS - RECONSTRUCTED SEAM

G&W - GRIND AND WELD

REVIEWED BY: S. NEJAD

DATE: 12-11-12



INEERING, LLC GEOMEMBRANE DEFECT, REPAIR, AND TEST LOG

Primary



PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

PAGE#

								REPA	ΔIR	,		V	ACUUI	M TES	r
DEFECT	DEI	FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TEÇH	MON.		ID		MON.
Α	62/63	4'N. TO SEOS	BO	18-6		12-7	P	1x6	71.	5M	AY	12-7	MG	P	AV
В	P-64	5'5./10'E	D	12-6		12-7	4	l×l	71	SM	AY	12-7		P	AY
С	63/64	42'S. OF NEDS	D	12-6		12-7	P	1x1	71	SM	AY	12-7	MB	P	AY
D	64165	B4'S. OF NEOS	DP-11	12-6		12-7	P	2×4	71	5M	AY	12-7	MG	P	Av
F	65/66	4 N TO SEOS	BO	12-6		2-7	P	1x60	7	SM	AY	12-7	MG	P	Ay
G	P-1	2'N. / 10'E	D	12-6		12-7	P	Jxl	19	JP	Ay	12-7	MG	P	AY
Н	61/62	4 N. To SEOS	BO	12-6		12-7	P	ixa	71	5M	AY	12-7	MG	7	Ay
J	45/46	22'S. OF NEDS	D	12-6		12-7	P	121	71	SM	AV	12-7	MG	3	RY
K	45/46	26'S. OF NEOS	\mathcal{D}	12-6		12-7	P	121	71	SM	AY	1207	126	7	44
M	40/45	10'S. OF NEOS	cut	12-6		12-6	_	141	71	5M	AY	m	016	?	R4.
N	49/59	4' N. TO SEOS	Bo	12-6		12-6		1×5	171	SM	AY	12-7	no	1	44
Р	35/66	10'S, OF NEOS		12-6		12-7	P	245	21	SM	AY	127	mb	P	RY
Q	69/70	10'W. OF GEOS		12-6		12-7	P	2×5	71	SM	AY	2-7	MG	P	YK
R	1/45	10' E. of WEO>	DP-14			12-7	P	2×8.	19	175	AY	12-7	MG	P	AY
S	67/18/69	Int	7	12-6		12-7	P	2+2	71	SM	AY	12-7	MG	₽	AY
T	18/51/	13'E of Wees	C	12-6		12-7	P	236	171	<u>5</u> M	AY	19-	MG	P	AY
W	14/15	NEOS	130	12-6		12-6		175	19)p	AY	12-7	116	P	AY
<u> </u>	112	NEOS	180	12-6		12-6		1x5	19	17	MY	12-7	MG	₽	AY
	24/35/66			1-6-	DT DDECCHDE TEC	12-6		1741		175	AY ND TV	127	MG	P	RY

DEFECTS TYPES

DX - EXTRUSION DESTRUCTIVE

PT - PRESSURE TEST CUT

REPAIR TYPES

BO - BURNOUT

ED - EQUIP. DAMAGE

T - THREE PANEL INTERSECTION

P - PATCH

CO - CHANGE OF OVERLAP

EXT - PANEL EXTENTION

VL - VACCUM LEAK

C - CAP

CUT - CUT

FM - FISHMOUTH

D - DAMAGE

WR - WRINKLE

RS - RECONSTRUCTED SEAM

FS - FAILED SEAM

WS - WELDER RESTART

G&W - GRIND AND WELD

CR - CREASE

INT - INTERSECTION

OTHER_

DF - FUSION DESTRUCTIVE 10 - INSUFFICIENT OVERLAP **OTHER**

REVIEWED BY: S. NEJAD DATE: 12-11-12





PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

PAGE# 5

								REPA	IR			V	ACUUI	M TEST	
DEFECT	DE	FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QA	DATE	TECH	P/F	QA
CODE	DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TECH	MON.		ID		MON.
Α	49/54 55	FAF	7	12-4		12-6	P	1x1	71	SM	AY	12-7	no	P	194
В	49/53/54	Fris	T	12-6		2-6		Tx2	71	SM	Ay	12-7	MG	P	AH
С	24163166	INT		12-6		12-6		124	7919	SM	AY	12-7	Des	₽	AY
D	ÇS	5C	DPX-L	12-7		n-Co		2×5	19	75	Ay	127	MG	7	AY
F 、	23/64/65	INT	T	12-13		14	7	1x6	101	JP.	AY	12-7	Ulb	7	AY
G	64	11'8, 15'S OF NWC	\mathcal{D}	12-7		12-7	P	1×1	19	75	AY	12-7	MG	P	Ay
Н	A1/03/69	IM	T	12-7		12-7	7	1×6	14	D	AN	12-7	246	7	AY
J	21/62/63	INT	T	12-7		12-7	P	142	19	JP	A	(2-7	MG	7	AV
K	20/19/63	INT	T	12-7		0-7	P	1×6	71	31	AY	127	no	7	1924
M	18/19/51	LAT	T	12-7		12-7	3	1×6	19	JP.	AY	12-7	ML	P	RY
N	17 (18 (5)	INT	T	12-7		10-7	2	3.45	19	75	ΑY	12-7	MG	P	AY
P	10/17/49	IM	T	12-7		12-7	P	176	19	75	AY	12-7			Ay
Q	15/16/48	INT	I	12-7		12-7	<u>P</u>	2+2	19.	155	AY	12-7			Aγ
R	14/15/47	IWT	1	12-7		12-7	P	IXI	19	7b	AY	12-7	MG	P	Av
<u>S</u> .	13/14/40	TMT	1	12-7		12-7	P	×	19	13	AY	1	MG	7	AV
T	1/13/45	INT	1	12-7		15-3	P	141	19	15	AY	12-7	MG	P	Av
W	1/12/45	INT	1	12-7		10-7	112	22	19	75	AY	12-7	MG	P	AY
X	47	1112 313 OF NW	17)	12-7		13-7	P.	1×6	19	75	AX		MG		Ay
у	<u> 150</u>	418, 2'S OP NWC	Cut.	12-7	Pipe	12-7	P	<u> × </u>		34	AY	12-7	MG	<u>P</u>	A

DEFECTS TYL	

DX - EXTRUSION DESTRUCTIVE

PT -PRESSURE TEST CUT

REPAIR TYPES

BO - BURNOUT

ED - EQUIP. DAMAGE

T - THREE PANEL INTERSECTION

P - PATCH

CO - CHANGE OF OVERLAP

EXT - PANEL EXTENTION

VL - VACCUM LEAK

C - CAP

CUT - CUT

FM - FISHMOUTH

D - DAMAGE

WR - WRINKLE

RS - RECONSTRUCTED SEAM

FS - FAILED SEAM

WS - WELDER RESTART

G&W - GRIND AND WELD

CR - CREASE

INT - INTERSECTION

OTHER _

DF - FUSION DESTRUCTIVE IO - INSUFFICIENT OVERLAP OTHER ____

REVIEWED BY: S. NEJAD

DATE: 12-11-12





PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.

Brantley Engineering, LLC OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

PAGE# 6

								REPA	AIR			V	ACUUI	M TES	٢
DEFECT	DE	FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TECH	MON.		ID		MON.
Α	19	11'E, 21'NOFSWC	\mathcal{D}	12-7		12-7	P	1/2	19	JP	MY	12-7	27/0	P	1P.14
В	52	4'5,6'W of NEC	Cut	10-7	• .	12-7	7	x	19	SP	ΔY	12-7	beb	P	94
С	64	11'8, 75 of NWC	\mathcal{D}_{-}	12-7		12-7	P	1/4	19	SD	AY	12-7	1220	\mathcal{P}	24
D	67/68/69	INT	T	2-7		12-7	P	1x1	71	SM	AY	12-7	MG	7	By
F	67/69/10	IMT	T	12-7		12-7	P	121	71	511	ΑÝ	12-7	MG	P	AV
G	Gal67170	IMI	T	12-7		12-7	P	[x]	71	SM	Ay	12-7	MG	2	PW
Н	GG/70/71	TVI	T	12-7		12-7	7	121	71	SM	AY	12-7	MG	7	AW
J	66 171 177	INI	T	12~7		12-7	2	121	71	SM	AY	12-7	ma	7	AY
K	66172173	11/1	T	12-7		12-7	7	Ixl	71	MC	AY	12-7	ma	P	RY
<u>M</u>	66/73/74	1111	T	12-7	<u> </u>	12-7	P	1x6	71	3M	AY	12-7	MG	7	184
N	35 136175	IM	II	12-7		12-7	7	121	71	500	Ay	12-7	MG	7	184
P	52153154	IMT.	T	12-1		12-7	P	2×2	1	2W	AY	12-7	MG	7	144
Q	54/155/62	IM	7	12-7		12-1	P	1/×1	11	2W	AY	12-7	ma	7	AY
R	55156162	IM	7	12-7		12-7	P	1 1 1	171	SM	144	12-7	MG	7	A4,
<u>S</u>	56157162	INI	1	12-7		12-7	12	100	171	311	AY	12-7	416	7	A4
T	57 61 (6)	IN	7	12-7		12-7	P	1×1	11	5M	-	12-7	May	7	AY
W	64165	5805	30	12-7		12-7	P	1×4	21	SM	A4	127	MG	Υ_	154
X										↓	-				igspace
Υ				et N											

-DEFECTS-TYPES	DX ~ EXTRUSION-DESTRUCTIVE	PT - PRESSURE TEST CUT	REPAIR-TYPES
BO - BURNOUT	ED - EQUIP. DAMAGE	T - THREE PANEL INTERSECTION	P - PATCH
CO - CHANGE OF OVERLAP	EXT - PANEL EXTENTION	VL - VACCUM LEAK	C - CAP
CUT - CUT	FM - FISHMOUTH	WR - WRINKLE	RS - RECONSTRUCTED SEAM
D - DAMAGE	FS - FAILED SEAM	WS - WELDER RESTART	G&W - GRIND AND WELD
CR - CREASE	INT - INTERSECTION	OTHER	
DF - FUSION DESTRUCTIVE	IO - INSUFFICIENT OVERLAP	OTHER	

REVIEWED BY: S. NEJAD

DATE: 12-11-12

Section 6 Geomembrane Non-Destructive Pressure Test Log



GEOMEMBRANE PRESSURE TEST LOG

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

ENGINEER: Geosyntec **INSTALLER: Comanco**

DATE: 12-6-12

primary

OWNER: Omni Waste of Osceola County, LLC

PAGE#



SEAM SECTION* PRESS TIME PRESSURE SEAM COMPLETE QA
NUMBER POINT * POINT NUMBER ID START * FINISH INITIAL * FINAL FAIL NO / YES MONITOR REMARKS 13/14 NESS * SEOS CD 745 * 750 30 * 30 P / CST 15/16 NESS * SEOS 3 CO 748 * 753 30 * 30 P / CST 11/18 NESS * SEOS 5 CO 750 * 756 30 * 30 P / CST 18/19 NESS * SEOS 5 CO 751 * 756 30 * 30 P / CST 19/20 NESS * SEOS 6 CO 752 * 757 30 * 30 P / CST 19/20 NESS * SEOS 7 CO 753 * 758 30 * 30 P / CST
13/14 NEO3 · SEOS CO 745 · 750 30 · 30 P CST 14/15 NEO3 · SEOS CO 748 · 753 30 · 30 P V CST 15/16 NEO3 · SEOS 3 CO 748 · 753 30 · 30 P V CST 11/18 NEO3 · SEOS 4 CO 750 · 756 30 · 30 P V CST 18/19 NEO3 · SEOS 5 CO 751 · 756 30 · 30 P V CST 19/20 NEO3 · SEOS 6 CO 752 · 757 30 · 30 P V CST 10/21 NEO3 · SEOS 7 CO 753 · 758 758
14/15 NEOS SEOS 2 CO 748 · 753 30 · 30 P /V CST 15/16 NEOS · SEOS 3 CO 748 · 753 30 · 30 P /V CST 11/18 NEOS · SEOS 4 CO 750 · 756 30 · 30 P /V CST 18/19 NEOS · SEOS 6 CO 751 · 756 30 · 30 P /V CST 19/20 NEOS · SEOS 6 CD 752 · 757 30 · 30 P /V CST 20/21 NEOS · SEOS 7 CO 753 · 758 30 · 30 P /V CST
15/16 DES SEOS 3 CO 748.753 30.30 P 1 CST 17/18 NEOS SEOS 4 CO 750.756 30.30 P 1 CST 18/19 NEOS SEOS 5 CO 751.756 30.30 P 1 CST 19/20 NEOS SEOS 6 CO 752.757 30.30 P 1 CST 20/21 DEOS SEOS 7 CO 753.758 30.30 P 1 V CST
17/18 NEOS · 5EOS 4 CO 750 · 756 30 · 30 P / COST 18/19 NEOS · 5EOS 5 CO 751 · 756 30 · 30 P / CST 19/20 NEOS · 5EOS 6 CO 752 · 757 30 · 30 P / CST 20/21 NEOS · 5EOS 7 CO 753 · 758 30 · 30 P / V CST
18/19 NEOS · SEOS 5 CO 751 · 756 30 · 30 P / CST 19/20 NEOS · SEOS 6 CO 752 · 757 30 · 30 P / CST 20/21 NEOS · SEOS 7 CO 753 · 758 30 · 30 P / V CST
19/20 NEOD + SEOD 6 CD 752 + 757 30 + 30 P /V CST 20/21 NEOD + SEOD 7 CD 753 + 758 30 + 30 P /V CST
20/21 NEOD · SEO> 7 CO 753 · 758 30 · 30 P /V C55
1 22 /23 NEOS · SEOS 1 80 805 · 810 30 · 30 P / LGT
1 23/24 NEOS + SEOS 2 CO 800 + 811 30 + 30 P / / CST
21/22 1K·5605 3 Co 818 · 823 30 · 30 P // C55
21/22 NEOS · 1K 4 CD 819 · 824 30 · 30 P / CSJ
4 16/17 NEOS . IF 5 CO 824 · 831 30 · 30 P / CS5
16/17 2F . SEOS L CO 827 . 832 30 . 30 P / LSJ
1/13 1\$ · 5565 7 CO 842 · 847 30 · 28 P -/ CSJ
4 1/13 13 · NEOS & CO 842 · 847 30 · 30 P / CSJ
10/11 Exas " USES (CO 1136 " 1135 35 " 30 P / ~ C95
11/12 EEOS " WECS 2 CO U30 " U35 30 " 29 P / C55
1 10/12 EE07 " SE05 3 CD 1130 " 1135 30 " 30 P / ~ C55
1 / 12 NEOS · SEOS 4 60 1131 · 1136 30 · 30 P 1 5 C55
9/10 EE05 · WEOS 5 CO 1131 · 1134 30 · 30 8 1 V C55

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), **DEFECT NUMBER OR A POINT LOCATION ON A SEAM**

REVIEWED BY: 5. NEUAD

DATE: 12-11-12



PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PRO.

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 12-6-12

PAGE# <u>ス</u>

OJECT LOCATION : St. Cloud, Fl.	Brantley Engineering, LLC
renord	

Primari									
	SEAM SECTION*	PRESS		TIME	PRESSURE		SEAM		
SEAM	START * FINISH	GUAGE	TECH		(PSI)	PASS/	COMPLETE	QA	
NUMBER	POINT * POINT	NUMBER	IĐ	START * FINISH	INITIAL * FINAL	FAIL	NO / YES	MONITOR	REMARKS
1/9	MEGS SEOS	Ų	ری	1133 * 1138	30 * 30	P	1	C52	
8/9	FEOS * WEOS	7	0	1133 * 1138	30 * 30	P	1~	১৯১	
7/8	EEOS * WEOS	8	ره	1134 + 1139	30 + 30	P	1	<i>45</i> 3	
1/8	NEOS * SEOS	9	حب	1134 * 1139	30 * 29	7	10	८ऽऽ	
617	EEOS + WEOS	Ĺ	CO	1142 * 1147	30 * 30	P	1~	٧55	
1/7	NEOS SEOS	2	00	1142 * 1147	30 * 30	7	1~	رئ ح	
516	E205 * LEOS	3	0	1147 * 1162	30 * 30	8	15	255	
1 / 6	NEOD * SEOS	m	0	1147 * 1152	30 * 30	P	1 ✓	L55	
215	EE05 * WEOS	5	LO	1148 * 1153	30 * 30	8	1/	CST	
4/1/2	NE05 * SE05	6	CO	1148 * 1153	35 * 29	9	1/	255	
2/3	NEOS * EFOS	7	60	444 * 1154	30 * 30	7	1	८ऽउ	
3/4	E805 * WEOS	8	63	1149 * 1154	30 * 30	P	1 /	C55	
4/5	EEO3 *WEO5	9	ر ۵	1149 * 1154	30 * 30	3	1	255	
11/37	EEO3 * WEO3	1	co	1304 * 1309	36 * 30	P	1/	455	
12/37	EROS " WEOS	2	C0	1304 * 1309	30 * 30	P	1 -	455	
12/45	NE05 \$ 5E05	"3	60	1305 * 1310	30 * 30	P	1	455	
32 / 38	EFOS "WEOS	4	۷0	1306 * 1311	30 * 30	7	1.	255	
38 /45	NEOS * 35.05	5	CO	1313 * 1318	30 * 30	P	1	255	
V38/39	WEOS · EEOS	Ų	Co	1314 * 1319	30 + 28	9	10	C55	
39/40	U805 * E805		(0	1323 * 1328	30 * 30	7	1/	255	

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), DEFECT NUMBER OR A POINT LOCATION ON A SEAM

REVIEWED BY: S. NEJAD

DATE: 12-11-12



Brantley

Engineering, LLC

Primary

OWNER: Omni Waste of Osceola County, LLC

055

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.

ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 12-6-12

PAGE# 3

Promosy	SEAM SECTION*	PRESS		TIME	PRESSURE	1	SEAM		
CTARA			75011	111412					
SEAM	START * FINISH	GUAGE	TECH		(PSI)	PASS/	COMPLETE	QA	
NUMBER	POINT * POINT	NUMBER	ID	START * FINISH	INITIAL * FINAL	FAIL	NO / YES	MONITOR	REMARKS
40/45	peop * 3203	2	20	1325 * 1330	36 + 36	P	1 -	435	
40/41	ueos *eess	3	CO	1325 * 1330	30 * 30	9	/	C53	
41/45	NEOS * SEOS	4	60	1325 * 1330	30 * 30	7	1.~	८১১	
141/42	was * Reos	5	66	1327 * 1332	30 + 36	?	1	255	•
42/44	WEGS * EEGS	لو	C0	1327 + 1332	3△ * 3△	P	1 ~	८১১	
44/45	NE03 * 5E03	7	60	1327 * 1332	36 * 3¢	P	1 ~	حلاح	
42/43	UEOS * EROS	පි	60	1328 * 1333	30 * 30	P	12	८ 55	
43/44	NE03 * 5E03	9	CO	1328 * 1333	30 * 30	8	1~	<u>~55</u>	
45 / 44	WEGS * SEOS	1	60	1339 * 1344	30 * 30	9	1	255	
46/47	NE05 * 5E0 5	2	د٥	1340*1345	30 * 30	9	1~	<i>c</i> 55	
47/48	<u>.Ugos * 5505</u>	3	20	1341 * 1346	30 * 29	7	12	455	
48/49	NEGS * SEOS	4	<u>_</u>	1342 * 1347	30 * 30	9	1 ~	455	
62/63	NEGS * SEOS	l	20	1357 * 1462	36 * 28	. B	1~	८ड्य	
63/64	NEGS * SEOS	2:	60	1358 * 1463	30 * 30	7	1	155	
165/66	NEOS * SEOS	3	20	1400 + 1405	30 * 30	9.	1	255	
64/65	NE03 * 5603	4	60	1405 1416	36 * 3G	5	10	455	
50/51	NEOS * SEOS	<u> </u>	20	1415 * 1420	30 * 30	- P -		ح33	
51153	eros * weos	7	co	1415 * 1420	30 + 28	P	1	<u> </u>	
49/50	NE05 * SE05	8	co	1423 + 1428	30 + 29	P	1	C55	

* LSE05

CO

1423. 1428

REVIEWED BY: S. NEUAD

DATE: 12-11-12

EROS

50/53

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), **DEFECT NUMBER OR A POINT LOCATION ON A SEAM**



PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.

Brantley Engineering, LLC OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

DATE: 12-6-12

PAGE#

Primare	1						·		
	SEAM SECTION*	PRESS		TIME	PRESSURE		SEAM		
SEAM	START * FINISH	GUAGE	TECH		(PSI)	PASS/	COMPLETE	QA	
NUMBER	POINT * POINT	NUMBER	ID	START * FINISH	INITIAL * FINAL	FAIL	NO / YES	MONITOR	REMARKS
53/54	EEOS + WEOS	5	۲٥	1424 + 1429	30 30	9	1-	455	
49 154	NEOS * 5E95	l	ره	1425 * 1430	30 * 30	7	10	<u>45</u>	
54 155	EEOS * WEOS	ス	co	1425 * 1430	30 * 30	₹		455	
4 49 155	NEOS * SEOS	3	20	1425 * 1430	30 * 30	P		८५उ	
55 156	EEOS " WEOS	8	ره	1432 * 1437	30 * 30	8	1 ~	455	
49156	NEDS * SEDS	7	CO	1433 * 1438	30 * 30	3	1	শ্বে	•
56/57	EEDS " WED'S	8	co	1433 * 1438	30 * 30	7	1 ~	455	
49 157	NEOS * SEOS	9	20	1433 * 1438	30 * 30	P	1 ~	CSJ	
49/59	NE05 * SEOS	1	٥٥	1434 * 1439	30 * 30	5	1 ~	255	
57159	EFGS "UEOS	2	ره	1434 * 1439	30 * 30	4	1	455	
58159	EE03 * WE05	3	(0	1435 * 1440	30 * 30	9	1 -	455	
57 158	EE05 * WEOS	4	0	1435 * 1440	30 * 36	F	1 ~	455	
1 58/60	కట్టా • అక్టూ	5	00	1436 * 1441	30 + 29	7	1 -	C55	
58/61	\$ E63 * WEOS	4	60	1450 * 1455	30 * 39	P	1 /	455	
4 61 /62	NEOS * BEOS	8	CO	1450 * 1455	36 * 30	7	1~	455	
57/62	NEOS * SEOS	9	Co	1450 * 1455	30 * 30	P	1-	C55	
56/62	NEOS SEOS	0	<i>CO</i>	1453 * 1438	30 * 30	P	10	শ্বেত	
155-162	NEON * SE 05	2	ره	1453 * 1458	30 * 30	P	1~	C5-3	
54/62	NE05 * 5E05	3	Co	1453 * 1458	30 * 30	ΙP	1 /	CST	
57/61	EEGS * WEOS	7	00	1484 + 1459	30 + 30	P	1-	255	

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), **DEFECT NUMBER OR A POINT LOCATION ON A SEAM**

REVIEWED BY: S. NEUAD

DATE: 12-11-12



PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PRO

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 12-6-12

PAGE# 5

DJECT LOCA	ATION : St. Cloud, Fl.			rantley ngineering, LLC
	SEAM SECTION*	PRESS	TIME	PRESSURE

Premari	t							
	SEAM SECTION*	PRESS	TIME	PRESSURE		SEAM		
SEAM	START * FINISH	GUAGE TEC	ЭН	(PSI)	PASS/	COMPLETE	QA	
NUMBER	POINT * POINT	NUMBER I	START * FINISH	INITIAL * FINAL	FAIL	NO / YES	MONITOR	REMARKS
52/53	EEGS * WEOS	4 4	> 1455 * 1500	30 * 30	9	1 -	455	
52/62	NE03. * 5E05	5 4	> 1459 * 1504	3১ * ১৪	7	1 ~	C55	
51/52	NEOS SEOS	نه ده	1503 * 1508	30 * 30	3	1 ~	255	
25/24	3505 * NEOS	1 00	1525 * 1330	30 * 30	P	1 -	C5J	
26/27	WERS FEECE	2 6	1525 * 1530	36 * 28	P	1 ~	CSJ	
24/28	SE05 * NEOS	3 4	1528 * 1633	30 * 28	9	1 -	<u>ححح</u>	
28/29	weas * eegs	ا ہو ا	1528 * 1533	30 * 30	7	1 ~	255	
74/29	NE05 * SE05	5 c	1528 * 1533	30 * 30	7	1	455	
22 / 28	WESS * EEOS	8 0	1531 * 1536	30 + 30	7	12	<u>حيح</u>	
4 29 / 30	wegs * Eegs	1 (0 1542 1547	30 * 30	9	1 ~	250	. ,
24 /37	wan * 5505	.a c	D 1345 . 1242	30 * 29	7	10	C50	•
30/31	₩805 * E505	3 C	1552 1557	30 * 29	3	1	035	
24/31	NEOS * SEOS	4 6	1582 1557	30 * 30	7	1 /	282	
31 /32	U505 " E505	5 4	1553 1558	30 * 30.	7	1.V	CAU	
24/32	NE05 * SE05	نو د	1553 1558	30 * 29	P	1~	45	
1 32 / 33	UE05 * EE05	1 6	1555 1500	30 * 30	P	1/	U55	
33/35	UNOS * 55.05	2 6	1545 1600	30 - 30	P .	1	455	
32/35	15 05 · REDS	3 0	0 1555 1600	30 * 30	P	1	455	
24/35	NE03 . SEOS	7 0	1559 1604	30 * 28	P	1 ~	255	
33/34	UKOY · EEOD	5 4	1603 . 1608	30 + 30	9	10	455	<u> </u>

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), DEFECT NUMBER OR A POINT LOCATION ON A SEAM

REVIEWED BY: 8. NEUAD

DATE: 12-11-12



PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco

DATE: 12-6-12

PAGE# 😉

Premare	1								
	SEAM SECTION*	PRESS		ŢIME	PRESSURE		SEAM		
SEAM	START * FINISH	GUAGE	TECH		(PSI)	PASS/	COMPLETE	QA	
NUMBER	POINT * POINT	NUMBER	ID	START * FINISH	INITIAL * FINAL	FAIL	NO / YES	MONITOR	REMARKS
34/35	LIEOS EEOS	نو	ری	1603 + 1608	30 * 30	P	1~	45	
24/25	SEPS * NEOS	ı	20	1529 * 1534	30 * 30	7	10	255	
34 / 34	was From	2_	60	1603 * 1608	30 * 30	P	10	0915	
39 / 45	NEOS + 3EOS	3	60	(323 * 1328	30 • 30	P	12	65T	
/	*			*	*		/		
/	*			*	*		1		
/	*			*	*		/		
/	*			*	*		/		
/	•			*	*		/		-
1.	•		•	*	*				
/	*			*	*				
/				*	*		/		
/	*			. *	*				
/	*			*	*		1		
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/				*	*	1	/		
' /	*			*	*		/		

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), DEFECT NUMBER OR A POINT LOCATION ON A SEAM

REVIEWED BY: S. NEJAD

DATE: 12 - 11-12



Brantley

Engineering, LLC

Primary

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 12-7-12

PAGE# 7

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				1.4

	Primar	4								
.		SEAM SECTION*	PRESS		TIME	PRESSURE		SEAM		
II.	SEAM	START * FINISH	GUAGE	TECH		(PSI)	PASS/	COMPLETE	QA	Ŋ.
- 1	NUMBER	POINT * POINT	NUMBER	ID	START * FINISH	INITIAL * FINAL	FAIL	NO / YES	MONITOR	REMARKS
4	34/35	UE03 * EE03	1	6	733 * 738	30 . 30	P	1	4্হ্য	
4	35/36	NE63 \$503	2	උප	733 * 738	30 30	P	1 \(\sigma \)	255	
4	25/86	WEGS SEOS	3	20	734 * 739	305 * 30	?	1	<u>~>J</u>	
4	34/75	WEST FEETS	4	<u>८</u> 8	735 * 740	35 · 30	P	1 ~	C55	
†	74/25	₩ £ £ 65	5	60	735 * 740	30 + 30	P	1	455	
4	35/24	wes 'ees	ده	20	739 * 744	36 * 35	P	1 -	<u>حجی</u>	,
7	73/24	weds * Eegs	ì	CO	741 * 746	35 + 29	P	1 ~	ديح	
վ	72/73	UEBS "EFOS	2	Las	745 * 750	30 + 30	P	1 ~	255	
- ↓	/ Leb / 73	SE03 * NEOS	3	حف	745 * 750	30 * 30	P	1 /	45 3	
4	66/92	aleos * seos	닉	0	745 * 750	30 * 30	P	1 ~	C\$1	
4	21/72	wed * erg	5	40	748 * 753	30 * 30	\mathcal{G}	1 ~	255	
1	66 1 70	NEPS * SEOS	4	0	748 * 753	30 * 30	7	1 v	45	
ď	(30/71	WEGS EEOS	1	20	755 * 800	30 . * 30	1	1 /	455	
4	66/74	NE03 * 5E05	2	60	755 * 800	30 * 30	7	10	255	
Ü	66/67	ue03 * 5005	3	40	757 802	30 * 30	P	10	255	
,	69 / 70	Wros * EEOS	4	د٥	758 . 803	30 * 30	P	1	255	
	67/70	1205 + REO 5	3	20	750 . 803	30 30	9	1 /	255	
į	67/69	LIEUS * EEOS	(a_	0	758 * 803	30 30	P	1	C53-	
Ė	68/69	utos * EEO>	7	00	759 . 804	30 * 30	P	10	८५५	
(67/68	NEOS SEOS	8	20	759 * 804	30 . 30	P	1~	C55	

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), **DEFECT NUMBER OR A POINT LOCATION ON A SEAM**

REVIEWED BY: S. NEJAP

DATE: 12-11-12

Section 7 Geomembrane Destructive Samples Laboratory Results



January 14, 2013

Allan Brantley Brantley Engineering, LLC 13933 Tree Loft Road Milton, GA 30004

Re: REVISED LABORATORY TEST REPORT

Dear Mr. Brantley:

Thank you for consulting Precision Geosynthetic Laboratories International (PGLI) for your material testing needs.

Enclosed is the final laboratory report for the Seam testing of fifteen (15) 60mil HDPE Seam samples.

PROJECT NAME: JED Leachate Storage Facility Relocation

DATE REPORTED: December 26, 2012- 1st reported

Initial: EVZ

DATE: 01/14/2013

January 14, 2013 - DBX-1 sample ID correction

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REFERENCE PGLI JOB NO.: G121337 DATE RECEIVED: December 26, 2012

SAMPLES SENT BY: Brantley Engineering, LLC

SAMPLE IDENTIFICATIONS:

PGLI CONTROL NUMBER
88721
88722
88723
88724
88725
88726
88727
88728
88729
88730
88731
88732
88733
88734
88735

TESTS REQUIRED / PERFORMED:

TEST METHOD

1. ASTM D6392

2. ASTM D6392

DESCRIPTION

Shear Bond Strength

Peel Bond Adhesion

TEST RESULTS: The test results are summarized in Tables 1 to 8.

Respectfully,

PRECISION GEOSYNTHETIC LABORATORIES INTERNATIONAL

Maria Espitia

Quality Assurance

Maria Expetia

Technical Director

Signatures are on file

ed that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are co ive only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. PGL1 neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is our policy to keep physical records of each job for two (2) years mencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. Falled seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks. On the other hand, should you need us to keep them at a longer period, please advise us in writing.



PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.

Brantley Engineering, LLC OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 12-7-12

PAGE#_8

_	Primar	V								
I		SEAM SECTION*	PRESS		TIME	PRESSURE		SEAM		
ļ	SEAM	START * FINISH	GUAGE	TECH		(PSI)	PASS/	COMPLETE	· QA	
	NUMBER	POINT * POINT	NUMBER	ID	START * FINISH	INITIAL * FINAL	FAIL	NO / YES	MONITOR	REMARKS
4	24/66	WEOS BEOS	1.	رده	815 820	35 36	P	1	C85	
베	23/65	WEOS * KEOS	2	ده	816 + 821	3 ℃ * 30	7		es5	
╣	22/64	WEGY " EEOS	3	م	817 822	30 , 32	P	1 ~	Car	
╣	21/63	UEOS PEOS	ય	ره	822 . 827	30 * 35	P	1	C\$5	
4	120/62	WEGS " EEOS	5	ده	923 * 828	30 * 30	7	1 ~	CSJ	
, 1	19 / 52	WEOS " EEOS	(a	00	825 * 830	30 * 30	P	12	235	
ľ	18/51	"T " EEOS	<u> </u>	ره	829 + 834	30 + 30	P	1	C55	
Ч	18 /51	4T * WEO3	2	C0	829 * 834	30 * 30	ક	1	LST	
V	12 150	LEGS * E105	3	CD	836 * 835	30 * 30	P	1	245	
4	16/49	WEDS FEEDS.	4	0	क्षेत्रप • क्ष्य	30 * 30	7	.1 ~	455	
1	15/48	WEOS EEOS	5	د٥	\$35 . 840	30 * 30	7	1/	CS5	
1	14/47	WEGS FEOS	بل	ره	835 840	30 * 30	P	1~	255	
╗	13/46	UEOS " EEOS	l.	60	836 * 841	30 * 30	9	1 /	030	
4	1/45	EE03 * WE05	2	60	836 + 841	30 * 30	P	1 ~	450	
	. /				*	*		/		
	/_	•			•			1		
	1		.:		*	*				
	1	•			*	*		/		
	1	•			*	*		/		
	1	*			*	*		/		

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), DEFECT NUMBER OR A POINT LOCATION ON A SEAM

REVIEWED BY: S. NEJAD

DATE: 12-11-12



CLIENT: Brantley Engineering, LLC

PROJECT: JED Leachate Storage Facility Relocation

DATE REC'D: 26-Dec-12

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld

PGLI JOB #: G121337

OCHBY Maria Expetia

OC'd By: ASTM D6392
DATE REPORT: 14-Jan-13

sshead Speed	t: 2 in/min					Crosshead Sp	eed: 2 in/min				
				AR EVALUATIO	N	PEEL EVALUATION					
		MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT	
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.	
ID	CONTROL#	(lb/in width)		<u>Break</u>	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width	
DB-1	88721	177	> 50%	BRK	1	1 Outside	125	0	SE1	l	
P22/24		176	> 50%	BRK		2 Outside	123	0	SE1		
		178	> 50%	BRK	1	3 Outside	122	0	SE1		
	l l	177	> 50%	BRK		4 Outside	120	0	SE1		
		177	> 50%	BRK		5 Outside	120	0	SE1		
					1	AVG:	122			91	
	1		[STD. DEV.	2				
						1 Inside	120	0	SE1		
						2 Inside	122	0	SE1	1	
	1.					3 Inside	121	0	SE1		
						4 Inside	123	0	SE1		
						5 Inside	120	0	SE1		
	AVG.	177			120	AVG:	121			91	
	STD. DEV.	1				STD. DEV.	1				
DB-2	88722	168	> 50%	BRK		1 Outside	129	0	SE1		
P24/25		169	> 50%	BRK	} .	2 Outside	130	0	SE1		
	\ I	177	> 50%	BRK		3 Outside	127	0	SE1		
		166	> 50%	BRK	}	4 Outside	131	0	SE1		
		170	> 50%	BRK		5 Outside	136	0	SE1		
	1 1					AVG:	131			91	
			l			STD. DEV.	3				
	1 1					1 Inside	131	0	SE1	I	
						2 Inside	126	o l	SE1		
						3 Inside	130	Ö	SE1		
						4 Inside	136	o l	SE1		
						5 Inside	131	0	SE1		
_	AVG:	170			120	AVG:	131	, in the second	<u> </u>	91	
	STD. DEV.	4				STD. DEV.	4			01	
A M DECORDED	ON (ASTM D6392 F			EXTRUSION:	AD1		יטר סטרטעוראט	DELAMINATED UNDE	D THE DEAD	_	

BREAK DESCRIPTIO	N (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 1)

(Sheet 1 of 1)





TABLE 2. SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: Brantley Engineering, LLC

PROJECT: **JED Leachate Storage Facility Relocation**DATE REC'D: **26-Dec-12**

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld PGLI JOB #: G121337 OC'd By: ASTM D6392

DATE REPORT: 14-Jan-13

Crosshead Speed: 2 in/min Crosshead Speed: 2 in/min SHEAR EVALUATION PEEL EVALUATION MAXIMUM Locus **PROJECT** MAXIMUM LOCUS **PROJECT** SAMPLE **PGLI** STRENGTH Elongation of SPEC. **SPECIMEN** STRENGTH INCURSION OF SPEC. CONTROL # (lb/in width) Break (lb/in width) NUMBER (lb/in width) BREAK (lb/in width) DB-3 88723 173 > 50% BRK 1 Outside 148 0 SE₁ P15/22 180 > 50% BRK 2 Outside 150 0 SE₁ 179 > 50% BRK 3 Outside 146 0 SE₁ 176 > 50% BRK 4 Outside 145 SE₁ 0 179 BRK > 50% 5 Outside 146 0 SE₁ AVG: 147 91 STD. DEV. 2 1 Inside 129 0 SE₁ 2 Inside 131 0 SE₁ 3 Inside 140 SE₁ 0 4 Inside 137 SE₁ 0 5 Inside 135 0 SE₁ AVG. 177 120 AVG: 134 91 STD. DEV. 3 STD. DEV. 4 88724 170 **DB-4** > 50% BRK 1 Outside 120 0 SE₁ P29/30 170 BRK > 50% 2 Outside 122 0 SE₁ 167 > 50% **BRK** 3 Outside 119 SE₁ 0 168 > 50% BRK 4 Outside 120 SE₁ 0 171 > 50% BRK 5 Outside 120 0 SE₁ AVG: 120 91 STD. DEV. 1 1 Inside 123 SE1 0 2 Inside 126 0 SE₁ 3 Inside 124 0 SE₁ 4 Inside 123 SE₁ 0 5 Inside 123 0 SE₁ AVG: 169 120 AVG: 124 91 STD. DEV. 2 STD. DEV. 1

BREAK DESCRIPTION	N (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3 .	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
	•		AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 2)

(Sheet 1 of 1)



CLIENT: Brantley Engineering, LLC

PROJECT: JED Leachate Storage Facility Relocation DATE REC'D: 26-Dec-12

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld

PGLI JOB #: G121337

TEST METHOD: ASTM D6392 DATE REPORT:

14-Jan-13

osshead Spee	d: 2 in/min					Crosshead Speed: 2 in/min					
			SHE	AR <u>EVALU</u> ATIO	DN			PEEL E	VALUATION		
		MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT	
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.	
<u>ID</u>	CONTROL #	(lb/in width)		Break	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width	
DB-7	88727	166	> 50%	BRK		1 Outside	122	0	SE1		
P41/40	i 1	168	> 50%	BRK	1	2 Outside	126	0	SE1	ļ	
		170	> 50%	BRK		3 Outside	123	0	SE1		
	1 1	166	> 50%	BRK	1	4 Outside	127	0	SE1		
	1 1	167	> 50%	BRK		5 Outside	125	0	SE1		
	1 1				}	AVG:	124			91	
]		ì '			STD. DEV.	2				
			ļ			1 Inside	126	0	SE1		
	1 1				1	2 Inside	120	0	SE1		
						3 Inside	120	0	SE1		
						4 Inside	124	0	SE1		
						5 Inside	124	0	SE1		
	AVG.	168			120	AVG:	123			91	
	STD. DEV.	2				STD. DEV.	3				
DB-8	88728	171	> 50%	BRK		1 Outside	119	0	SE1		
P43/41	1	166	> 50%	BRK	1	2 Outside	120	0	SE1		
		168	> 50%	BRK	1	3 Outside	122	0	SE1		
	1	166	> 50%	BRK		4 Outside	122	0	SE1		
		167	> 50%	BRK	1	5 Outside	123	0	SE1		
		•	1			AVG:	121			91	
	1			ľ		STD. DEV.	2				
	Į l]			1 Inside	122	0	SE1		
						2 Inside	120	0	SE1		
						3 Inside	118	0	SE1		
						4 Inside	120	0	SE1		
						5 Inside	119	0	SE1		
	AVG:	168	_		120	AVG:	120	_		91	
	STD. DEV.	2			-	STD. DEV.	1				
AK DESCRIPT	ON (ASTM D6392 F	USION):		EXTRUSION:	AD1	ADHESION FAIL	URE. SPECIMENS	DELAMINATED UNDE	R THE BEAD.		
	ADHESION FAILL	,			AD2	ADHESION FAIL					
,	DDEAK IN CHEET				AD-WLD	RDEAK THROUG	LI TUE EILLET				

BREAK DESCRIPTIO	N (ASTM D6392 FUSION):	EXTRUSION:	AUT	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE B
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
	•		AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 4)

(Sheet 1 of 1)





CLIENT: Brantley Engineering, LLC

PROJECT: JED Leachate Storage Facility Relocation

DATE REC'D: 26-Dec-12

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld

PGLI JOB #: G121337

TEST METHOD: ASTM D6392 DATE REPORT: 14-Jan-13

sshead Speed	d: 2 in/min					Crosshead Sp	eed: 2 in/min			
			SHE	A <u>R EVALUATIO</u>	N			PEEL E	VALUATION	
		MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.
ID	CONTROL #	_(lb/in width)		_Break	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width
DB-9	88729	179	> 50%	BRK		1 Outside	129	0	SE1	
P45/44		181	> 50%	BRK	1	2 Outside	127	0	SE1	
		176	> 50%	BRK		3 Outside	131	0	SE1	
		177	> 50%	BRK		4 Outside	131	0	SE1	
		171	> 50%	BRK	1	5 Outside	129	0	SE1	
						AVG:	129			91
						STD. DEV.	2			
	'					1 Inside	127	0	SE1	
			'			2 Inside	126	0	SE1	
	1					3 Inside	127	0	SE1	
						4 Inside	128	0	SE1	
						5 Inside	127	0	SE1	
	AVG.	177			120	AVG:	127			91
	STD. DEV.	4				STD. DEV.	1			
DB-10	88730	176	> 50%	BRK		1 Outside	126	0	SE1	
P53/52		176	> 50%	BRK	Į.	2 Outside	128	o	SE1	
		176	> 50%	BRK		3 Outside	130	0	SE1	
	1	178	> 50%	BRK	ļ	4 Outside	126	0	SE1	
		176	> 50%	BRK		5 Outside	127	0	SE1	
						AVG:	128			91
	1				l	STD. DEV.	2			•
						1 Inside	130	0	SE1	
)					2 Inside	128	o l	SE1	
						3 Inside	127	o l	SE1	
						4 Inside	125	0	SE1	
						5 Inside	127	0	SE1	
	AVG:	177			120	AVG:	127	Ť		91
	STD. DEV.	1				STD. DEV.	2			01
AK DESCRIPTION	ON (ASTM D6392 F	USION):		EXTRUSION:	AD1	ADHESION FAIL	URE. SPECIMENS	DELAMINATED UNDE	R THE BEAD.	

BREAK DESCRIPTI	ION (ASTM 06392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 5)

(Sheet 1 of 1)





CLIENT: Brantley Engineering, LLC
PROJECT: JED Leachate Storage Facility Relocation

DATE REC'D: 26-Dec-12

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld

PGLI JOB #: G121337

TEST METHOD: ASTM D6392 DATE REPORT: 14-Jan-13

							Crosshead Speed: 2 in/min					
			SHE	AR EVALUATIO	N			PEEL E	VALUATION			
		MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT		
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.		
<u>ID</u>	CONTROL#	(lb/in width)		<u>Break</u>	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width)		
DB-11	88731	176	> 50%	BRK		1 Outside	128	0	SE1			
P66/65		177	> 50%	BRK	ļ	2 Outside	128	0	SE1			
		171	> 50%	BRK		3 Outside	126	0	SE1			
	l i	176	> 50%	BRK	l	4 Outside	129	0	SE1			
		177	> 50%	BRK		5 Outside	126	0	SE1			
					Į.	AVG:	127			91		
	1					STD. DEV.	1					
					1	1 Inside	126	0	SE1			
	1 !					2 Inside	125	0	SE1	1		
					l	3 Inside	124	0	SE1			
					1	4 Inside	124	0	SE1			
						5 Inside	126	0	SE1			
_	AVG.	176			120	AVG:	125			91		
	STD. DEV.	2				STD. DEV.	1					
DB-12	88732	179	> 50%	BRK		1 Outside	121	0	SE1	Γ -		
P46/45	1 1	181	> 50%	BRK		2 Outside	123	0	SE1	•		
		177	> 50%	BRK		3 Outside	121	0	SE1			
]	177	> 50%	BRK	1	4 Outside	122	0	SE1			
	[180	> 50%	BRK		5 Outside	126	0	SE1			
			1]	AVG:	123			91		
						STD. DEV.	2					
]			1 Inside	119	0	SE1			
						2 Inside	120	0	SE1	1		
			Į .			3 Inside	119	0	SE1			
						4 Inside	119	0	SE1			
						5 Inside	121	0	SE1			
	AVG:	179			120	AVG:	120			91		
	STD. DEV.	2				STD. DEV.	1					

BREAK DESCRIPTION	N (ASTM D6392 FUSION):	EXTRUSION:	AU1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 6)

(Sheet 1 of 1)





CLIENT: Brantley Engineering, LLC

PROJECT: JED Leachate Storage Facility Relocation

DATE REC'D: 26-Dec-12

MATERIAL: 60mil HDPE SEAM SEAM TYPE: Fusion Weld

PGLI JOB #: G121337

TEST METHOD: ASTM D6392 DATE REPORT: 14-Jan-13

Crosshead Speed: 2 in/min							Crosshead Speed: 2 in/min					
	1	SHEAR EVALUATION						PEEL E	VALUATION			
		MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT		
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.		
ID	CONTROL #	(lb/in width)		<u>Break</u>	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width)		
DB-13	88733	176	> 50%	BRK		1 Outside	130	0	SE1			
P68/33	1 1	174	> 50%	BRK	ļ	2 Outside	128	0	SE1			
	l l	176	> 50%	BRK		3 Outside	127	0	SE1			
	1 1	174	> 50%	BRK		4 Outside	126	0	SE1			
		175	> 50%	BRK		5 Outside	127	0	SE1			
	1 !					AVG:	128			91		
	1 1		ļ			STD. DEV.	1					
	1 1				1	1 Inside	126	0	SE1			
						2 Inside	125	0	SE1	l		
					1	3 Inside	124	0	SE1			
						4 Inside	126	0	SE1			
						5 Inside	125	0	SE1			
	AVG.	175			120	AVG:	125			91		
	STD. DEV.	1				STD. DEV.	1					
DB-14	88734	169	> 50%	BRK		1 Outside	125	0	SE1			
P66/33	1 1	172	> 50%	BRK		2 Outside	131	0	SE1			
	1 1	169	> 50%	. BRK		3 Outside	127	0	SE1	1		
		168	> 50%	BRK	[4 Outside	129	0	SE1			
		169	> 50%	BRK		5 Outside	126	0	SE1			
						AVG:	128			91		
					l	STD. DEV.	2					
						1 Inside	123	0	SE1			
			I			2 Inside	120	0	SE1			
						3 Inside	126	0	SE1			
						4 Inside	123	0	SE1			
						5 Inside	123	0	SE1			
_	AVG:	169			120	AVG:	123			91		
	STD. DEV.	_1				STD. DEV.	2					
AL DECODINE	N (ASTM DE202 E	1101011		EXTRUSION:	AD1	15115010115111		DELAMINATED LINDE				

BREAK DESCRIPTION	N (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGE OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 7)

(Sheet 1 of 1)



MATERIAL: 60mil HDPE SEAM

SEAM TYPE: Fusion Weld PGLI JOB #: G121337

TEST METHOD: ASTM D6392

DATE REPORT:

D/ E / O												
Crosshead Speed	: 2 in/min					Crosshead Sp	Crosshead Speed: 2 in/min					
			SHE	AR EVALUATIO	N	PEEL EVALUATION						
	l	MAXIMUM	%	Locus	PROJECT		MAXIMUM	%	LOCUS	PROJECT		
SAMPLE	PGLI	STRENGTH	Elongation	of	SPEC.	SPECIMEN	STRENGTH	INCURSION	OF	SPEC.		
ID	CONTROL #	(lb/in width)		Break	(lb/in width)	NUMBER	(lb/in width)	(%)	BREAK	(lb/in width)		
DBX-1	88735	167	> 50%	BRK		1 Outside	129	0	SE3			
P34/3Q		170	> 50%	BRK		2 Outside	132	0	SE3			
	1 1	170	> 50%	BRK		3 Outside	128	0	SE3			
Extrusion		169	> 50%	BRK	1	4 Outside	126	0	SE3			
		169	> 50%	BRK		5 Outside	130	0	SE3			
			ļ		1	AVG:	129			78		
						STD. DEV.	2					
						1 Inside	N/A					
		. ']			2 Inside	1]			
	'					3 Inside						
						4 Inside						
						5 Inside						
	AVG.	169			120	AVG:			·			
	STD. DEV.	1				STD. DEV.						

BREAK DESCRIPTION	ON (ASTM D6392 FUSION):	EXTRUSION:	AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD	ADHESION FAILURE.		AD2	ADHESION FAILURE.
BRK	BREAK IN SHEETING.		AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT OUTER EDGÉ OF SEAM.		SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.		SE2	BREAK AT TOP EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.		SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
SIP	SEPARATION IN THE PLANE OF THE SHEET.		BRK1	BREAK IN BOTTOM SHEETING.
			BRK2	BREAK IN TOP SHEETING.
			AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
			HT	BREAK AT EDGE OF HOT TACK
			SIP	SEPARATION IN THE PLANE OF THE SHEET.

(End of Table 8)

CLIENT: Brantley Engineering, LLC

DATE REC'D: 26-Dec-12

PROJECT: JED Leachate Storage Facility Relocation

(Sheet 1 of 1)

APPENDIX K Geomembrane Installation (Top Layer Floating Cover for Ponds A and C)

Section 1 Geomembrane Panel Deployment Log



GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

1-2-13 Pose 1



PANEL	ROLL	AMB	LENGTH	WIDTH	AREA	AVG.	QA	COMMENTS/PANEL LOCATION
# #	#	ТЕМР	APPROX.	APPROX.	APPROX	THICKNESS (mil)	MON	SPECIAL-SHAPE
7	3599	70	346	27.5	7785	ලිල	eso	
2	3 579	70	147	22.5	3307.5	60	C35	
-3	3569	71	199	22.5	4477.5	60	C\$3	
4	3 549	72	295	225	6637.5	60	055	
5	3673	22	52	22.5	1170	61	455	
4	3473	72	348	22.5	7830	60	C55	
1	3673	73	111	225	2497.5	60	C35	
8	3475	73	237	225	53323	60	CEST	
9	3565	73	87	:35	435	60	C65	
10	:3545	73	86.	. 5	.430	Ceo	C55	
11	35G5	77	87	5	435	60	CES	
12	3545	7-1	86	5	436	60	055	<u> </u>

PAGE APPROX. TOTAL (SQ FT): 40,767.5

DAILY TOTAL (SQ FT):

ACCUMULATED TOTAL (SQ FT):_____

REVIEWED BY: S. NEUAD

DATE: 1-3-13



GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

LAYER: PRIMARY SECONDARY

OTHER Top

								1-2-13 Page (2)
PANEL	ROLL	AMB	LENGTH	WIDTH	AREA	AVG.	QA	COMMENTS/PANEL LOCATION
#		TEMP	APPROX.	APPROX	APPROX:	THICKNESS (mil)	MON	SPEGIAL-SHAPE
13	3565	74	346	2915	7785	Co	045	
				. '				
			•					
		•						•
·								
· ·								

PAGE APPROX. TOTAL (SQ FT): 7785

DAILY TOTAL (SQ FT): 48552.5

ACCUMULATED TOTAL (SQ FT): 48552.5

REVIEWED BY: 8. NEUAD

DATE: 1-3-13





PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

1-3-13 Page (3)

LAYER: PRIMARY SECONDARY OTHER Too

PANEL #	ROLL #	AMB TEMP	LENGTH APPROX.	WIDTH APPROX.	AREA APPROX.	AVG. THICKNESS (mil)	QA MON.	COMMENTS/PANEL LOCATION SPECIAL SHAPE
14	3672	65	163	225	3757.5	60	C55	
15	3672	65.	167	12.5	3787.5	60	C55	·
14	3672	65	167	22.5	3757.5	60	e55	·
17	3339	65	167	22.5	3757.5	60	C45	
18	3339	66	167	27.5	37675	600	055	·
19	3681	64	55	9	495	60	CST	
20	3681	66	55	5	275	60	C35	
21	3681	lele	55	-55	275	60	CSS	<u> </u>
22	3339	lele	165	22.5	3712.5	60	C55	

PAGE APPROX. TOTAL (SQ FT): 23545

DAILY TOTAL (SQ FT): 23545

ACCUMULATED TOTAL (SQ FT): 72 097.5 F+2

REVIEWED BY: S. NEUAD

DATE: 1-3-13

Section 2 Geomembrane Trial Seam Log





PROJECT #: 2012-102

PROJECT LOCATION: St. Cloud, Fl.

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

Brantley Engineering, LLC

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

DATE: 1-2-13 PAGE#

					FUSIO	N WELD	EXTRUSI	ON WELD														
TF/TX	Time	AMB	MACH.	WELD	SPEED	WEDGE	PRE	BARREL		PEEL'	VALUE	E lbs/i	nch		SH	EER V	ALUE	lbs/in	ch	P/F	QA	1
ID#		TEMP.	ID#	TECH		SET	HEAT	SET													MON.	
Thi	5900	65	96	JP	13	850	_	_	OUTSIDE	103	117	106	113	107	147	145	160	158	158	٦	SMN	5/5
FF-2	०१००	65	95	sM	17	850	_	-	INSIDE	104	104	151	105	93	164	145				Р	SMN	5/5
TF-3	0900	65	16	B√	10	850		_	INSIDE OUTSIDE	121	117	121	121	98	169	160	166	157	156	ρ	SMN	5/5
TF-4	0950	65	95	SM	16	850	~	_	INSIDE OUTSIDE	125	125			118	744	173	165	170	146	Р	SMN	T17
TF-5	0900	65	16	BV	8	860		-	INSIDE OUTSIDE		132	132	115	116		169			178	P	5MXI	T/T
1-x7	1300	72	24	JP	-		488	460	INSIDE	142	130	140	141	134	140	147	137	144	139	P	SUM	\$25
TF-6	1300	72	16	BV	10	850	_	-	INSIDE OUTSIDE	94	108	105	_	94	142	145	137	140	149	P	5MN	3/7
TX-7	1300	72	29	5M	480	_	480	460	INSIDE OUTSIDE	129	124			121	139	145	147	154	142	P	SMN	NS
									INSIDE		·											
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-				 	-		╂	+	OUTSIDE	\vdash	-		 	-		-		+	+	+		-{
					1				OUTSIDE						1							

REVIEWED BY: 5. NEJAD

Passing Peel Extrusion (78 lb/in): _

Passing Peel Fusion (91 lb/in):

DATE: 1-3-13

Passing Shear Fusion (120 lb/in): _

Passing Shear Extrusion (120 lb/in): _



PROJECT #: 2012-102

PROJECT LOCATION: St. Cloud, Fl.

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation



Top Layer

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

DATE: 1-3-13 PAGE# 2

			. 51. 010	~~, · · · ·					I												
					FUSIO	N WELD	EXTRUSI	ON WELD													
TF/TX ID#	Time	AMB TEMP.	MACH.	WELD	SPEED	WEDGE	PRE HEAT	BARREL SET		PEEL	VALUI	E lbs/i	nch		SH	EER V	ALUE	lbs/in	ch	P/F	QA MON.
									INSIDE	108	121	106	108	<i>[∞</i>		1.0	.	4 . 4			
7F-(800	84	<i>-</i> 9.3	-5 W-	17	830	ļ		OUTSIDE	112	104	108	102	101	121	(6.5	165	166	153	2	C=5
TF-2	040	(95	300	16	850		1	INSIDE	153		132	134		101	179	122	109	122	P	C6.T-
18-2	200	67	<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	J**/	66	400			OUTSIDE		122	122		115	(50	175	112		113		CSJ
TX-1	900	70	42	Bu			530	500	_	132	117	132	144	(58	165	140	180	15%	147	P	C57
(/-)		, -		-	ļ				OUTSIDE	135	12(1.0	203	130					- ,		
TX-2	900	70	71	JP			520	460	OUTSIDE	-	-	(13)		-	407	(ලව	151	165	155	P	C\$J
			20	<			480	460	INSIDE	132	147	129	152	132	100		1111		44.1	-	
Tx-3	1100	72	29	Sm			420	760	OUTSIDE			_		-	159	162	(44	13 (144	P	C&J
TX-4	1300	76	42	B∪	_	-	490	440	OUTSIDE	119	124	120	125	123	148	154	130	151	152	7	CSJ
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Passing Peel Fusion (91 lb/in):	Passing Peel Extrusion (78 lb/in):	Passing Shear Fusion (120 lb/in):	Passing Shear Extrusion (120 lb/in):
REVIEWED BY: S. NEUL	1D		

DATE: 1 - 3 - 13

BRANTLLY ENGINEERING, LLC

GEOMEMBRANE TRIAL SEAM LOG

PROJECT #: 2012-102

PROJECT LOCATION: St. Cloud, Fl.

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

Brantley Engineering, LLC

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco

PAGE# 3 DATE: 1-4-13

Passing Shear Extrusion (120 lb/in):

					FUSIO	N WELD	EXTRUS	ON WELD													
TF/TX	Time	AMB	MACH.	WELD	SPEED	WEDGE	PRE	BARREL		PEEL	VALU	E lbs/i	nch		SH	EER V	ALUE	lbs/in	ch	P/F	QA
ID#		TEMP.	ID#	TECH		SET	HEAT	SET													MON.
	<i>ተ</i> አ ድላጎ	15	าล	311		,	480	460	INSIDE	113	115	121	118	122	140	, r= -3		,	,		
1201	800	المكلا	29	566			1,50	. •	OUTSIDE				+		178	153	150	152	157	P	C\$5
									INSIDE		······			· · · · · · · · · · · · · · · · · · ·							
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Passing Peel Extrusion (78 lb/in): _____

Passing Shear Fusion (120 lb/in):

REVIEWED BY :_	5,	NEVAD
DATE . 1 - 6	12	

Passing Peel Fusion (91 lb/in):

Section 3 Geomembrane Fusion Seaming Log

BRANTLEY ENGINEERING, LLC

GEOMEMBRANE FUSION SEAM LOG

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



Top Liner

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

DATE: 1-2-13

PASSING TRIAL SEAMS

	NO.	TIME	TECH ID	DESTRUCTIVE SEAM LENGTH CARRY-OVER	
	TF-3	900	Bu	FROM PAGE # (
	7F-5	960	B.A.		
MACHINE # [L				PAGE NUMBER:1	

	*				MACHINE SET	TINGS		LENGTH	•			** PASSIN	IG - NON -
1	SEAM SECTION	APPROX. AN	MB.		DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
SEAM	START * FINISH	START A	AIR WELD	MACH			LENGTH	PREVIOUS	DESTR.	ĊΑ		TEST	QA
NUMBER	POINT * POINT	TIME TE	MP TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
1/3,	LSEOS * EEOS	1042 7	1 BA	10	क्ष्य	849	199	199	_	(হ্য		1-2	SMN
1/2	WEOS * EEOS	1110 7	2 80	10	850	850	147	346		CEST		1-2	SMN
Le 18	WEOS * EEOS	1146 7	3 BU	10	850	850	237	583		ৎহ্য		1=2	5MN
8/9	WGOS * EEOS	1320 7	4 30	(6)	850	850	87	630	<u>_</u>	025		1-2	5MN
9 / 13	WEOS · FEOS	1337 2	4 BV	10	850	848	87	757		05		1-2	SMN
8/10	WEOS * EECS	1352 7	4 30	10	850	850	86	843	_	055		1-2	SMN
10 /13	WERRY * E£05	1410 7	4 30	10	850	850	9.6	929		CST		1-2	SHN
8 / ૫	LISEOS * EKOS	1430 7	5 30	10	850	සිත්ව	37	966		८४ऽ	-	1-2	SMN
2/4	WEOD * EEOS	1436 7	530	10	850	ક્ષ ન(૧	60	1016	_	C55		1-2	SHN
7/12	WESH * ERCH	1774 7	5 30	10	65b	850	86	1102	_	150		1-2	5MN
12/13	Ceccon EROZ	1456 2	5 BJ	10	850	850	86	1188		055		1-2	SMN
11 / 13	WEOS KEOS	1564	15 180	16	850	&	87	1275		00		1-2	5MH
/	*												
/	*												
/													

^{*} REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

PAGE TOTAL: 1275

** DATA TO BE COMPLETED BY THE

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

1275

1275

DAILY DESTRUCTIVE LENGTH CARRY-OVER

1275

DATA REVIEWER ONLY.

BRANTLEY GINEERING, LLC GEOMEMBRANE FUSION SEAM LOG

Top Liner

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco DATE: 1-2-13

PASSI	NG	TR	ΔL	SEA	MS

NO. TIME TECHID

TF-2 900 SM

TF-4 900 SM

DESTRUCTIVE SEAM LENGTH CARRY-OVER FROM PAGE # (______)

PAGE NUMBER: 2

	*				MACHINE SET	TINGS		LENGTH				** PASSIN	NO. NON
ľ	SEAM SECTION	APPROX. AM	в.		DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	
SEAM	START * FINISH	START All	- 1	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT	TIME TEN	AP TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
2/3	NEOS + SEOS	1100 71	SM	16	850	848	2.2	22		SMN	112111111111	1-Z	5MN
415	9505 · NE65	1108 7	ISM	16	850	850	23	45	_	5MM		1-2	SMN
3 15	WESS * EEOS	11147	1 SM	16	850	848	52	97	-	SMN		1-2	SMN
3 /4	WEGS · EE GS	1117 7		16	850	850	147	244	-	SMN		1-2	SMN
2 /4	WESS . EEOS	1127 72	SIM	16	850	848	147	391		SMM		1-2	SMN
7/8	NEGS . SEOS	1144 7		16	850	849	23	414	_	SMN		1-2	SMM
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* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

PAGE TOTAL 414

4114

414

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

REVIEWED BY: 5. NGJAD

DATE: 1 - 3 - 13

BRANTLEY SINEERING, LLC **GEOMEMBRANE FUSION SEAM LOG**

Top	Liner
Charles and the same of the sa	

PROJECT # 2012-102

MACHINE # _ 9 4

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco** DATE: 1-2-13

PASSING TRIAL SEAM	15	
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•	.1410	140 INIAE SEA	1700
DESTRUCTIVE SEAM LENGTH CARRY-OVER	TECH ID	TIME	NO.
FROM PAGE # ()	57	900	TF-
PAGE NUMBER:			

	*	T.				MACHINE SET	TINGS		LENGTH				44.04.000	
	SEAM SECTION	APPROX.	AMB.			DIGITAL SET		ADDROY	FROM	LOCATED			** PASSIN DESTRUCTIVE	- 1
65444		1				DIGITALICI	INDICATOR	l .I			. !			
SEAM	START * FINISH	START	AIR	WELD	MACH	. '		LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT		TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
5 /6	WGOS . GGOS	1120	72	JP	13	850	848	52	52	_	5MN		1-2	SMN
416	WEOS . EEOS		72		3	850	850	295	347		SMN		1-2	SHN
617	WEOS * EEOS	1155	73	JP	13	850	848	1/1	458	_	SMN		1-2	SMIV
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* REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY DESTRUCTIVE LENGTH CARRY-OVER

PAGE TOTAL: 458

458

458

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

DAILY TOTAL WELDED (FT)

458

REVIEWED BY: S. NEJAP DATE: 1-3-12

** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

BRANTL IGINEERING, LLC GEOMEMBRANE FUSION SEAM LOG

Top Loyer

PROJECT # 2012-102

MACHINE #_

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION : St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco DATE: 1-3-13

PASSING TRIAL SEAMS

NO. TIME TECH ID

DESTRUCTIVE SEAM LENGTH CARRY-OVER

FROM PAGE # (2) 414

TF-2 900 6M

PAGE NUMBER:

	*					MACHINE SET	TINGS		LENGTH				** PASSIN	IG - NON
	SEAM SECTION	APPROX.	AMB.			DIGITAL SET	INDICATOR	APPROX.	FROM	LOCATED			DESTRUCTIVE	TESTING
SEAM	START * FINISH	START	AIR	.MEFD	MACH			LENGTH	PREVIOUS	DESTR.	QA		TEST	QA
NUMBER	POINT * POINT		TEMP	TECH	SPEED	WEDGE	WEDGE	WELDED	DESTR.	NO.	MON.	REMARKS	DATE	MON.
14 / 15	EGOS . MEOS	0831	45	5M	17	850	848	167	581	_	SMN		1-3-13	SMM
15/16	EEOS * WEOS	0850	65	SM	17	850	850	168	749	-	5MN		1-3	SMN
16/17	EEOS . WEOS	0907	65	SM	[7	850	849	168	917	-	SMN		1-3	SMM
17/18	EEOS · WEOS	0927	67	SM	17	850	850	148	1085	_	SMH		1-3	SMN
20/21	SEDS + MEDS	0948	48	SM	17	850	848	7	1092	_	SMN	Coppe	By	LP
18/19	EEOS * WEOS.	0955	68	5M	17	850	850	56	1148		SMN		1-3	SMN
18/20	EEOS · WE 65	1003	68	SM	17	850	849	56	1204	-	SMN		1-3	SMN
18 /21	EEOS + WEOS	1007	68	514	17	850	850	56	1260	_	SMN		1-3	SMN
19/22	EEDS . WESS.	1027	69	SM	17	850	848	54	1316	-	SMN		1-3	SMN
20 /22	EEOS * WEOS	1030	49	SM	17	850	849	56	1372	_	SHN		1-3	SMN
21/22	EEOS + WEOS	1034	69	9M	17	820	848	56	1438	-	SMH		1-3	SMM
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^{*} REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS),

DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE TOTAL: 1024

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

1438 1438 ** DATA TO BE COMPLETED BY THE

DATA REVIEWER ONLY.

REVIEWED BY: 5 NEUAD

Section 4 Geomembrane Extrusion Seaming Log



GEOMEMBRANE EXTRUSION SEAM AND TEST LOG

PROJECT # 2012-102

MACHINE # 24

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

Brantley Engineering, LLC OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntee

INSTALLER: Comanço

DATE: 1-2-13

PROJECT LOCATION: St. Cloud, Fl.

PASSING TRIAL SEAMS

NQ.	TIME	TECH ID
Tx-1	1300	Q.P.

DESTRUCTIVE SEAM-LENGTH-CARRY-OVER

FROM PAGE # (💋)

PAGE NUMBER:

		EVEDICIO	NI SEAL	41110			<u></u>						
		EXTRUSIC	N SEAR	VIING	<u> </u>				<u>VAC</u>	:MUU:	TESTIN	IG .	
	*				ļ	LENGTH			NON				
	SEAM SECTION	APPROX.	AMB.		APPROX.	FROM	LOCATED		DESTR.			·	l l
SEAM	START * FINISH	START	AIR	WELD	LENGTH	PREVIOUS	DESTR.	QA	TEST	TECH .		. QA	j., 180 g.,
NUMBER	POINT * POINT	TIME	TEMP	TECH	WELDED	DESTR.	NO.	MON.	DATE	ID	P/F	MON.	REMARKS
1/BLW	NEOS * 5E05	1315	74	JP.	22	22		CSJ	1-3.	my	7	C455	• .
1. /BL	WEOS * EEOS	1320	74	JP.	344	368	_	05	1-3	ms	3	45	· ·
1 /BLE	SEOS + NEOS	1607	74	JP.	.22	396	_	45	1-3	urs	P	055	
2/36	5E05 " NEOS	1615	74	57	23	413	<u>.</u>	055	1-3	025	P	235	
4 /BLE	5E05 " 11505	1622	74	JP.	22	435	_	450	1-3	ns	9	C55	
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* REFERENCE SEAM ENDPOINTS FROM

PAGE TOTAL: 435

END OF SEAM (EOS), DEFECT NUMBER

PAGE DESTRUCTIVE LENGTH CARRY-OVER

BLE = Bottom Liner EAST

OR A POINT LOCATION ON A SEAM

DAILY TOTAL WELDED (FT)

DAILY DESTRUCTIVE LENGTH CARRY-OVER

REVIEWED BY: S. NEJAD DATE: 1-3-13

BRANTLEY NEERING, LLC GEOMEMBRANE EXTROSION SEAM AND TEST LOG

TOP LAYER



PROJECT # 2012-102

MACHINE # 29

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 1-2-13

PROJECT LOCATION: St. Cloud, Fl.

PASSING TRIAL SEAMS

NO. TIME TECH ID

DESTRUCTIVE SEAM LENGTH CARRY-OVER
FROM PAGE # (_ 🛩) _ _ Ø

PAGE NUMBER: 2

			EXTRUSIO	N SEAN	/ING					VAC	:UUM	TESTIN	iG	
		*					LENGTH			NON		_		
	SEAM	SECTION	APPROX.	AMB.		APPROX.	FROM	LOCATED		DESTR.				
AM	START	* FINISH	START	AIR	WELD	LENGTH	PREVIOUS	DESTR.	QA	TEST	TECH		QA	
IBER	POINT [.]	* POINT	TIME	TEMP	TECH	WELDED	DESTR.	NO.	MON.	DATE	ID .	P/F	MON.	REMARKS
BL	EEOS	* LOSEOS	1335	74	SM	346	346		CES	1-3	625	P	CST	
BLU	NEGG	* SEOS	1546	74	SM	22	368	_	CSJ	1-3	ms	P		
BLW	NEOS	* SEOS	1556	24	Sun	3	373	_	CB5	1-3	ms	P		
BW	UFOS	* 5505	1657	74	BM	23	396	_	C55	1-3	nis	7		
/BLU	NEOS	* 5E05	1405	74	5m	22	418		255	1-3	ms	9		-··
BLW	NEOS	* 5F65	1615	74	SM	23	441		CSJ	1-3	MS	9		
BLW	NEOS	· 2M	1625	74	3m	15	456		435	1-3	ms	P	<i>455</i>	
BLW	2m	· 5865	1427	74	SM	3	461		45	1-3	ms	P	C\$5	,
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1//////////////////////////////////////	BER BLW BLW BLW BLW BLW	M START BER POINT BL ESCS BLW DECS	BER POINT * POINT BL EECS * LISEOS BLW DECS * SECS BLW SECS ** ** ** ** ** ** ** ** **	SEAM SECTION APPROX. M START * FINISH START BER POINT * POINT TIME BL EEGS * LSEOS 1335 BLW DEGS * SEOS 1546 BLW DEGS * SEOS 1556 BLW DEGS * SEOS 1657 BLW DEGS * SEOS 1605 BLW DEGS * SEOS 1605 BLW DEGS * SEOS 1615 BLW DEGS * SEOS 1627 SEAM SECTION APPROX. AMB. M START * FINISH START AIR BER POINT * POINT TIME TEMP BL EECS * LSEOS 1335 74 BLW DECS * SEOS 1546 74 BLW DECS * SEOS 1556 74 BLW DECS * SEOS 1657 74 BLW DECS * SEOS 1605 74 BLW DECS * SEOS 1615 74 BLW DECS * SEOS 1625 74 BLW DECS * SEOS 1627 74 BLW DECS * SEOS 1627 74 ** ** ** ** ** ** ** ** **	SEAM SECTION APPROX. AMB. M START * FINISH START AIR WELD BER POINT * POINT TIME TEMP TECH BL EECS * LSEOS 1335 74 5M BLW DECS * SECS 1546 74 5M BLW DECS * SECS 1556 74 5M BLW DECS * SECS 1657 74 5M BLW DECS * SECS 1657 74 5M BLW DECS * SECS 1615 74 5M BLW DECS * SECS 1615 74 5M BLW DECS * SECS 1615 74 5M BLW DECS * SECS 1615 74 5M BLW DECS * SECS 1625 74 5M BLW DECS * SECS 1625 74 5M BLW DECS * SECS 1627 74 5M BLW DECS * SECS 1627 74 5M BLW DECS * SECS 1627 74 5M BLW DECS * SECS 1627 74 5M	SEAM SECTION APPROX. AMB. M START * FINISH START AIR WELD LENGTH BER POINT * POINT TIME TEMP TECH WELDED BL EECS * LSEOS (335) 74 5M 344 BLW DECS * SECS (546) 74 5M 22 BLW DECS * SECS (556) 74 5M 55 BLW DECS * SECS (1557) 74 5M 23 BLW DECS * SECS (1605) 74 5M 23 BLW DECS * SECS (1605) 74 5M 22 BLW DECS * SECS (1605) 74 5M 22 BLW DECS * SECS (1605) 74 5M 23 BLW DECS * SECS (1615) 74 5M 23 BLW DECS * SECS (1627) 74 5M 35 SEAM SECTION APPROX. AMB. SEAM SECTION APPROX. AMB. M START * FINISH START AIR WELD LENGTH PREVIOUS BER POINT * POINT TIME TEMP TECH WELDED DESTR. BL EECS * Liston 1335 74 5M 344 346 BLW DEGS * SECS 1546 74 5M 22 368 BLW DEGS * SECS 1556 74 5M 22 368 BLW DEGS * SECS 1657 74 5M 23 396 BLW DEGS * SECS 1657 74 5M 23 396 BLW DEGS * SECS 1605 74 5M 23 441 BLW DEGS * SECS 1615 74 5M 23 441 BLW DEGS * SECS 1615 74 5M 23 441 BLW DEGS * SECS 1615 74 5M 23 441 BLW DEGS * SECS 1615 74 5M 23 441 BLW DEGS * SECS 1615 74 5M 35 461 BLW DEGS * SECS 1615 74 5M 35 461 BLW DEGS * SECS 1615 74 5M 35 461 BLW DEGS * SECS 1615 74 5M 35 461 BLW DEGS * SECS 1615 74 5M 35 461 BLW DEGS * SECS 1615 74 5M 35 461 BLW DEGS * SECS 1615 74 5M 35 461	** SEAM SECTION APPROX. AMB. APPROX. FROM LOCATED MSTART * FINISH START AIR WELD LENGTH PREVIOUS DESTR. NO. BL EEGS * LISEOS (335) 74 5M 344 346 — BLW DEGS * SECS 1546 74 5M 22 368 — BLW DEGS * SECS 1556 74 5M 23 396 — BLW DEGS * SECS 1657 74 5M 23 396 — BLW DEGS * SECS 1605 74 5M 22 418 — BLW DEGS * SECS 1615 74 5M 23 441 — BLW DEGS * SECS 1615 74 5M 23 441 — BLW DEGS * SECS 1615 74 5M 23 441 — BLW DEGS * SECS 1615 74 5M 23 441 — BLW DEGS * SECS 1615 74 5M 23 441 — BLW DEGS * SECS 1615 74 5M 23 441 — BLW DEGS * SECS 1615 74 5M 23 441 — BLW DEGS * SECS 1615 74 5M 23 441 — BLW DEGS * SECS 1615 74 5M 35 461 — BLW DEGS * SECS 1615 75 74 5M 35 461 — BLW DEGS * SECS 1615 75 74 5M 35 461 — BLW DEGS * SECS 1615 75 74 5M 35 461 — BLW DEGS * SECS 1615 75 74 5M 35 461 — BLW DEGS * SECS 1615 75 74 5M 35 461 — BLW DEGS * SECS 1615 75 74 5M 35 461 — BLW DEGS * SECS 1615 75 74 5M 35 461 — BLW DEGS * SECS 1615 75 74 5M 35 461 — BLW DEGS * SECS 1615 75	** SEAM SECTION APPROX. AMB. START * FINISH START AIR WELD LENGTH PREVIOUS DESTR. QA BER POINT * POINT TIME TEMP TECH WELDED DESTR. NO. MON. 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AMB. APPROX. FROM LOCATED DESTR. D	** SEAM SECTION APPROX. AMB. APPROX. FROM LOCATED M START * FINISH START AIR WELD LENGTH PREVIOUS DESTR. QA TEST TECH DESTR. NO. MON. DATE ID P/F MON. BLE EEGS * LISEOS 1335 74 5M 344 346 — CEST 1-3 MJ P CEST BLW DEGS * SECS 1546 74 5M 22 368 — CEST 1-3 MJ P CEST BLW DEGS * SECS 1557 74 5M 23 39 6 — CEST 1-3 MJ P CEST BLW DEGS * SECS 1657 74 5M 23 39 6 — CEST 1-3 MJ P CEST BLW DEGS * SECS 1605 74 5M 22 418 — CEST 1-3 MJ P CEST BLW DEGS * SECS 1605 74 5M 22 418 — CEST 1-3 MJ P CEST BLW DEGS * SECS 1615 74 5M 22 418 — CEST 1-3 MJ P CEST BLW DEGS * SECS 1615 74 5M 23 441 — CEST 1-3 MJ P CEST BLW DEGS * SECS 1615 74 5M 23 441 — CEST 1-3 MJ P CEST BLW DEGS * SECS 1615 74 5M 23 441 — CEST 1-3 MJ P CEST BLW DEGS * SECS 1627 74 5M 23 441 — CEST 1-3 MJ P CEST BLW DEGS * SECS 1627 74 5M 23 441 — CEST 1-3 MJ P CEST BLW DEGS * SECS 1627 74 5M 23 441 — CEST 1-3 MJ P CEST BLW DEGS * SECS 1627 74 5M 23 441 — CEST 1-3 MJ P CEST BLW DEGS * SECS 1627 74 5M 35 461 — CEST 1-3 MJ P CEST BLW DEGS * SECS 1627 74 5M 35 461 — CEST 1-3 MJ P CEST		

* REFERENCE SEAM ENDPOINTS FROM

PAGE TOTAL: 461

BLU = Bottom Lines West

END OF SEAM (EOS), DEFECT NUMBER

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY DESTRUCTIVE LENGTH CARRY-OVER

461

OR A POINT LOCATION ON A SEAM

DAILY TOTAL WELDED (FT)

461

BLE = Bottom Lines East

REVIEWED BY: 5. NEJAD

DATE: 1 - 3 - 13

BRANTLEY ENGINE

GEOMEMBRANE EXTRUSION SEAM AND TEST LOG

PROJECT # 2012-102

MACHINE #_ 42

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

Brantley Engineering, LLC

PROJECT LOCATION: St. Cloud, Fl.

PASSING TRIAL SEAMS

NO.	TIME	TECH ID
TX-1	900	BU
TX-4	1300	BU

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco DATE: 1-3-13

Top Layer

DESTRUCTIVE SEAM LENGTH CARRY-OVER

FROM PAGE # (__K__)_

PAGE NUMBER:

		EXTRUSIC	N SEAP	VING					VAC	: MUU:	TESTIN	IG.	
	*				.	LENGTH			NON				
	SEAM SECTION	APPROX.	AMB.		APPROX.	FROM	LOCATED		DESTR.				
SEAM	START * FINISH	START	AIR	WELD	LENGTH	PREVIOUS	DESTR.	QA	TEST	TECH		QA	
NUMBER	POINT * POINT	TIME	TEMP	TECH	WELDED	DESTR.	NO.	MON.	DATE	ID.	P/F	MON.	REMARKS
14/BL	WEOS "FEOS	922	64	BU	154	154		CET	1-3	2	P	CET	
14 /BUE	3805 *NEOS	1022	44	BO	22	176	,	C45.	1-3	バウ	P	Cist	
15/BLE	SEOS * NEON	1030	64	BU	22	198		C=5	1-3	ons	P	C55	
14 / BLF	SECT PRECE	1038	66	30	22	220		డక్	1-3	pe's	P	C3\\(\frac{1}{2}\)	
17 /BLE	5509 NEOS	1105	67	BJ	2.2	242		635	1-3	me	P	رجي	
18 / BUE	SEOD + NEOS	(111	47	届り	22	264		C57	1-3	ms	?	CST	
19/BLE	SEOD * NEOD	1115	હઉ	30	10	274	٠,	C-55	1-3	cee >	P	C95	
22/BL	EEOS * WEOS	1122	69	BU	87	361		C05	1-3	mg	P	ر چے	
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* REFERENCE SEAM ENDPOINTS FROM

PAGE TOTAL: 34 1

END OF SEAM (EOS), DEFECT NUMBER OR A POINT LOCATION ON A SEAM

PAGE DESTRUCTIVE LENGTH CARRY-OVER

DAILY TOTAL WELDED (FT)

361 341

DAILY DESTRUCTIVE LENGTH CARRY-OVER

REVIEWED BY: S. NEJAI)

BLE = Bottom Liner East



GEOMEMBRANE EXTRUSION SEAM AND TEST LOG

PROJECT # 2012-102

MACHINE # 29

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



Top Layer

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco** DATE: 1-3-13

BLW = Botton Liner West

DESTRUCTIVE SEAM LENGTH CARRY-OVER

FROM PAGE # (2) 46

PAGE NUMBER:

PASSING TRIAL SEAMS

TIME	TECH ID
1100	SM

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ARKS
ARKS
ARKS
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_ _ _

* REFERENCE SEAM ENDPOINTS FROM

END OF SEAM (EOS), DEFECT NUMBER

PAGE DESTRUCTIVE LENGTH CARRY-OVER

752

DAILY TOTAL WELDED (FT) OR A POINT LOCATION ON A SEAM

752

DAILY DESTRUCTIVE LENGTH CARRY-OVER

REVIEWED BY: S. NEJAD

Section 5 Geomembrane Defect, Repair, and Vacuum Test Log

BRANTLE ENGINEERING, LLC

GEOMEMBRANE DEFECT, REPAIR, AND TEST LOG

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.

Brantley

Engineering, LLC

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec INSTALLER: Comanco

Top liner

PAGE#__1_

								REPA	JR			٧	ACUU	M TES	T
DEFECT	DE	FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QΑ	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TECH	MON.		ID		MON.
Α	1/2/3	Tout	T	1-2		1-3	7	2 × 3	27	JP	255	1-3	وكمان	7	455
В	2/3/4	Int	T	1-2		1.3	7	245	71	JP	(5)	1-3	My	P	(4)
С	348	Int.	7	1-2.		1-3	7	242	フィ	J7	25J	1-3	يدر چي.	P	الزنه >
D	5	11'P, 3'W	D	1-2		1-3	9	2×2	71	JP	C55	1-3	wien	P	C55
F	4/5/6	Fort	7	1-2		1-3	'P	2×2	71	OP	C:35	1-3	we s	P	رض
G	8/9/10	Int	T	1-2		1-3	۷.	347	21	35	CFST	1-3	6-25	7	رج
Н	8/10:11	Int	T	1-2		1-3	C	3×7	21	TP	253	1-3	125	P	<u>د چې ک</u>
J	6/4	130'WOC FEOS	TO.	1-2		1-3	7	2 1/2	71	OP	C57	1-3	une	F	65
K	7	132'W, 10'N	D	1-2		1-3	P	2 1/2	71	JP	(435	1-3	MS	₽	c.55
M	3	640 04 5000	B	1-2		1-3	P	6×8	71	3P	C (2)	1-3	me	7	C355
N	21/22	70'8-06-LSE05	Cest	1-3		1-3	P	222	26	JP	20	1-3	uc.	9	-155
Р.	20/21	NEWS to SERS	CAQ	1-3		1-3	E.	3x.6	76	5P	Ciri	(-3	MS	P	655
Q	19/20	NE my +05500	CAP	1-3		1-3	<u>_</u>	327	71	JP	255	1-3	MS	7	45
R	1/BLB	EN 08 3505	D	1-2		1.2	P	2×2	24	BP	4.55	1-3	145	7	155
S	4/10	EEUS	cust	1-3		1-2	7	2X3	24	JP	<u>رخ</u> ح	1-3	MS	P	C55
T	617	EEGG	Grist	1-3		1.3	7	2×2	21	JP	6.45	1-3	025	3	055
W	7/12	EEUZ	PT	1-3		1-3	P	2×21	71	JP	كزيت	1-3	my	P	055
Х	12/13	EE09	PT	1-3		1-3	P	以以	71	JP	CES	1-3	my	P	CES
Υ	11/12	NECT LOSEOS	Cap	1-3		1-3	C	489	71	JP	C55	1-3	145	P	(23
	TC TVDCC	-14 C. C. C. C. L. C.									11/2T (TLA				

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DX - EXTRUSION DESTRUCTIVE

PT - PRESSURE TEST CUT

REPAIR TYPES

BO - BURNOUT

ED - EQUIP. DAMAGE

T - THREE PANEL INTERSECTION

P - PATCH

CO - CHANGE OF OVERLAP

EXT - PANEL EXTENTION

VL · VACCUM LEAK

C-CAP

CUT - CUT

FM - FISHMOUTH

WR - WRINKLE

D - DAMAGE

FS - FAILED SEAM

AAIV - AAIVIIAIVEE

RS - RECONSTRUCTED SEAM

CR - CREASE

INT - INTERSECTION

WS - WELDER RESTART

G&W - GRIND AND WELD

DF - FUSION DESTRUCTIVE

IO - INSUFFICIENT OVERLAP

OTHER

REVIEWED BY: S. NEJAD DATE: 1-6-13

BRAN-LLY ENGINEERING, LLC

GEOMEMBRANE DEFECT, REPAIR, AND TEST LOG

Brantley

Engineering, LLC

PROJECT # 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco

PAGE# /

								REPA	AIR .			V	ACUU	M TES	т
DEFECT		FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TECH	MON.		ID		MON.
Α	3/5	12' W. OF EESS	Bo	1-19-13		1-3	7	2×2	71	JP	ریک	1-3	ms	5	تخت
В	6/7/8	three paintel int.	T	1-2-13		1-3	P	246	71	J ?	C55	1-3	mi	P	(35
<u>C</u>	8	1010,3'00	D	1-3		1-3	P	243	22	JP	C35	1~3	245	P	ころフ
D	7/9/11	Int _	7	1-3		1-3	7	212	71	JP	CST	1-3	ins	P	C55
F	2	15 5' 15'E	⊅	1-3		1-3	7	2 メ え	71	3 P	CSJ	1-3	MS	P	133
G	1/3	20 WOSFEDS	D	1.3		1-3	P	242	71	ST	C35	1-3	5-65	P	C55
H	3	57'E 16'S	Ð	1-3	***	1-3	P	272	71	JP	رشح	1-3	w15	P	255
j	5	43'E 11 N	D	1-3		1-3	9	2×2		JP.		1-3	MS	7	C45)
K	13/BL	30' W 25 8E05	NB	1-3		1-3	P	3X4	71	SP	435	1-3	un 3		155
M	13/132	to4 woLFEES	Cento	1-3		1-2	7	2×2	-2(JP	C55	1-3	us	P	< <u>\$55</u>
N	8/9/BLW	Inti	T	1-3		1-2	\$	2 X X	21	37	<55	1-3	one	5	(55
P	6/8/BL	Int.	1	1-3		1-2	P	ZX.2	71	SP	LOT	1.3	mg	P	-55
Q	5/4/BL	Int	T	1-3		1-2		2K2	21	JP	C255	1-3	ace	P	CSJ
R	3/5/BLW	Int	T	1-3		1.2	P	242	71	25	<=>3	1-3	015	P	<5 <u>S</u>
S	1/3/BLW	Int	T	1-3		1-2	P	242	71	JP	K3T	6-3	vus	P	CSS
T	1/32	23 4304 8503	.D	1-3		1-3		2×2	2+	JP	C>1	1-3	ms.	ম	C53
W_	UBU	88 Bog GF04	D	1-3		1-2	7	ZXZ	24	25	205		m5	P	455
X	1/32	135 Eas weing	D	1-3		1-3	P	242	- F -	137	030		029	7	25
Y	1/36	led Eat week	B	1.3		1-3	P	10012	151	JP	a dry	1-3	449	P	كنيث

DEFECTS TYPES

DX - EXTRUSION DESTRUCTIVE

PT - PRESSURE TEST CUT

REPAIR TYPES

BO - BURNOUT

ED - EQUIP. DAMAGE

T - THREE PANEL INTERSECTION

P - PATCH

CO - CHANGE OF OVERLAP

EXT - PANEL EXTENTION

VL - VACCUM LEAK

C - CAP

CUT - CUT

FM - FISHMOUTH

WR - WRINKLE

RS - RECONSTRUCTED SEAM

D - DAMAGE

FS - FAILED SEAM

WS - WELDER RESTART

G&W - GRIND AND WELD

CR - CREASE

INT - INTERSECTION

OTHER B= Boot

DF - FUSION DESTRUCTIVE

10 - INSUFFICIENT OVERLAP

OTHER

REVIEWED BY: 5. NEUAD

DATE: 1-6-13

BRANTLEY ENGINEERING, LLC

GEOMEMBRANE DEFECT, REPAIR, AND TEST LOG

PROJECT # 2012-102

DF - FUSION DESTRUCTIVE

IO - INSUFFICIENT OVERLAP

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER:** Comanco

PAGE#_3

								REPA	AIR.			V	ACUU	M TEST	Γ,
DEFECT	DE	FECT LOCATION	DEFECT	DATE	REMARKS	DATE	TYPE	APPROX	MACH	WELD	QA	DATE	TECH	P/F	QA
CODE	SEAM, PANEL OR DEFECT CODE	DEFECT LOCATION DESCRIPTION	TYPE					SIZE	ID#	TECH	MON.		ID		мон.
Α	1/BLS	186' E. OF WES	FM	1-3-13		1-4	P	2+2	29	3m	بمعظ	1-4	219	0	an
В	P-22	EEOP		1-3-13		1-3	P	747	71	T	65		dij		chr
С	14/325	20'E. OFWEDS	FM	1-3.13		1-3	P	2×3	71	JP	Corre	1-3	219	1	COT
D	14/15/BU	F Three Panil 111.	T	1-3-13		1-3	7	2×2	71	JP	1/5	1-3	mi	17	COS
F	19/BLE	RISER BOOT	B	1-3-13.		1-4		1028	29	SM	_	i-4	M9	P	051
G	22/BLN	RISET BOOT	B	1-13-13		1-4	Boot	1000	29	5m	627	1-4	wo	1	055
Н															
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<u>Y</u>	TC TVDEC		<u></u>								UD TV				

DEFECTS TYPES	DX - EXTRUSION DESTRUCTIVE	PT - PRESSURE TEST CUT	REPAIR TYPES
BO - BURNOUT	ED - EQUIP. DAMAGE	T - THREE PANEL INTERSECTION	P - PATCH
CO - CHANGE OF OVERLAP	EXT - PANEL EXTENTION	VL - VACCUM LEAK	C - CAP
CUT - CUT	FM - FISHMOUTH	WR - WRINKLE	RS - RECONSTRUCTED SEAM
D - DAMAGE	FS - FAILED SEAM	WS - WELDER RESTART	G&W - GRIND AND WELD
CR - CREASE	INT - INTERSECTION	OTHER BOOT	

* BLS = BOTTOM LAYER SOUTH * BLE = BOTTOM LAYER EAST, ETC. * BLN = BOTTOM LAYER NORTH REVIEWED BY: S. NEJAD

DATE: 1-6-13

Section 6 Geomembrane Non-Destructive Pressure Test Log

BRANTLEY & ANNEERING, LLC

GEOMEMBRANE PRESSURE TEST LOG

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



TOP Layer

OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec **INSTALLER: Comanco**

DATE: 1-2-13

PAGE#

							•		
	SEAM SECTION*	PRESS.		TIME	PRESSURE		SEAM		
SEAM-	START * FINISH	GUAGE	TECH		(PSI)	PASS/	COMPLETE	QA.	
NUMBER	POINT * POINT	NUMBER	ID	START * FINISH	INITIAL * FINAL	FAIL	NO / YES	MONITOR	REMARKS
214	EEOS . WEOS	ş	CO	1325 * 1330	30 * 30	ρ		5MN	
2 /3	EEOS * WEOS	2	CO	1325. * 1330	30 . 29	P	1	SMH	
1/2	EEOS + WEOS	3	Co	1327 + 1332	30 + 30	P	1 /	SMN	
1/3	EEOS + WEOS	4	Co	1327 + 1332	30 + 30	P	1	SMN	•
2 /3	EEOS + WEOS	5	Co	1327 1337	30 + 30	P	1	SMN	•
4 15	NEOS . SEOS	6	co	1341 + 1346	30 . 29	P	1/	SMN	
4/6	Etos · WEOS	7	Co	1341 + 1346	30 . 30	P	1	SMN	
5 16	EESS . WEOS	8	co	1341 . 1346	30 . 29	P	1	SMN	
3 15	6605 · WEOS	9	co	1342 . 1347	30 . 30	P	1/	SMN	
6/8	GEOS + WEOS	7	co	1359 + 1404	30 + 30	P	1	SMM	
617	EEOS * WEOS	2	Co	1359 . 1404	30 * 30	P	. 1	SMN	
718	NEDS * 9505	3	CO	1359 . 1404	30 * 30	P	11	SMN	
8 19	EGOS · WEOS	4	CO	1425 • 1430	30 + 30	P	1	SMN	
9 /13	EEOS . WEOS	5	Co	1425 . 1430.	30 * 30	P	1	SMN	
8/10	Etos · Weos	6	Co	1440 . 1445	30 * 30	P	1	SMN	
10/13	Etos . WGOS	7	Co	1440 : 1445	30 + 30	P	1 ~	SMN	
8/11	EEOS + WEOS	8	Co	1455 + 1500	30 + 30	P	1/	SMN	
7/11	GEOS . WEDS	9	Co	1455 + 1500	30 + 30	P	1	SMN	
7/12	E5.5 · W5.5		co	1459 . 1504	30 . 30	P	1	SMN	3
12 /13	EEOS . WEOS	2	Cb	1507 * 1512	30 * 30	þ	1	SMN	

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), DEFECT NUMBER OR A POINT LOCATION ON A SEAM

REVIEWED BY: 5. NE JAD DATE: 1-2-13

NEERING, LLC **BRANTLEY GEOMEMBRANE PRESSURE TEST LOG**

Top Loner

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 1-2-13

PAGE# 2

						Т			
	SEAM SECTION*	PRESS		TIME	PRESSURE		SEAM		
SEAM	START * FINISH	GUAGE	TECH		(PSI)	PASS/	COMPLETE	QA	
NUMBER	POINT * POINT	NUMBER	ID	START * FINISH	INITIAL * FINAL	FAIL	NO / YES	MONITOR	REMARKS
11 / 13	EEOS + WEOS	3	Co	1521 1526	30 + 30	P	1 /	SMN	
/	•			•	*				
/	•	•		. •	•				
/	*			*	*		j		
1.	•			*	•		/		
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' ,	•		 	•	•		,		

^{*}REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), **DEFECT NUMBER OR A POINT LOCATION ON A SEAM**

REVIEWED BY: S. NECLAD DATE: 1-3-13



Top Layer

PROJECT #: 2012-102

PROJECT DESCRIPTION: J.E.D. Leachate Pond Relocation

PROJECT LOCATION: St. Cloud, Fl.



OWNER: Omni Waste of Osceola County, LLC

ENGINEER: Geosyntec

INSTALLER: Comanco

DATE: 1-3-13

		_					TT			
	SEAM SECTION*	PRESS		TIME	PRI	SSURE		SEAM		
SEAM	START - + FINISH	- GUAGE	TECH		- (PSI)	- PASS/-	COMPLETE	QA .	
NUMBER	POINT * POINT	NUMBER	ID	START * FINISH	INITIAL	* FINAL	FAIL	NO / YES	MONITOR	REMARKS
14/15	WEOS · EEOS	.)	co	1110 • 1115	30	* 30	P	1~		
15/16	WEOS · EEOS	2	0	1111 + 1116	30	• 30	P	1	.,	•
16/17	Wess · GEOS	3	co	1112 • 1117	30	. 30	P	1		
17/18	wess · Eess	4	S	1114 . 1/19	30	• 30	P	1 /		•
21 /22	WES . 1N	5	Cø	1141.1146	30	• 30	P	V 1		
21 /22	1N · EEOS	6	Co	1143 - 1148	30	• 30	P	/		
18/21	EEOS · WEOS	7	co	1143.1148	30	• 30	P	1~		
18/19	GEOS . WEOS	8	Co	1144 - 1149	30	• 30	9	1~		
18/20	EEOS · WEOS	9	Co	1144 . 1149	30	• 30	P	1.		•
19/22	EEOS . WEOS	i	Co	1145.1150	30	* 30	P	1.		
20/22	ECOS. WEDS	2	C6	1145. 1150	30	· 30	P	1 /	· ·	•
/	•			•		*		/		
/	•			•				/		
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/	•			•		•		/		

*REFERENCE SEAM ENDPOINTS FROM END OF SEAM (EOS), **DEFECT NUMBER OR A POINT LOCATION ON A SEAM**

REVIEWED BY: S. NEJAP DATE: 1-3-13

APPENDIX L Concrete Break Results and Concrete Placement Record Log

CONCRETE PLACEMENT RECORD

CLIENT: Omni Waste of Osceola County, LLC

PROJECT NUMBER: 2012-102

PROJECT NAME: J.E.D. Leachate Pond Relocation

Brantley Engineering, LLC CONCRETE SUPPLIER:

Bedrock Industries

GRADE/MIX DESIGN NO.:

4000 PSI

SUBCONTRACTOR:

DeBeradinis Construction

· ·								SLUMP MAX	/MIN:		6/4
								SPECIFIED AI	R CONTENT:		3
DATE	TRUCK NO.	BATCH TIME	START POUR TIME	FINISH POUR TIME	VOLUME/ACCUM. VOLUME yd³	TEMP *F	MEASURED SLUMP	NO. CYLINDERS MADE	CYLINDER REF. NO.	AIR CONTENT	REMARKS
1/4/2013	1	7:30	8:00	8:20	. 10	80	4.5	4	C1,C3	3.25	
1/4/2013	2	7:40	8:10	8:30	6.5	78	4.5			3.25	
1/10/2013	1	6:30	7:00	7:20	10	77	5	4	C2,C4	3.5	
1/10/2013	2	6:40	7:20	7:30	10	81	5			3.5	
1/10/2013	3	6:50	7:30	7:40	10	80	5	4	C5-8	3.5	
1/10/2013	4	7:00	7:40	7:50	10	78	5			3.5	
1/10/2013	5	7:10	7:50	8:05	10	79	5	4	C9-12	3.5	
1/10/2013	6	7:20	8:05	8:20	10	79	5			3.5	·
1/16/2013	1	6:30	7:00	7:20	10	.76	4.75	4	C13-16	3.25	·
1/16/2013	2	6:40	7:20	7:30	10	81	4.75			3.25	
1/16/2013	3	6:50	7:30	7:40	10	80	4.75			3.25	
1/16/2013	4	7:00	7:40	7:50	10	_77	4.75	4	C17-18	3.25	
1/16/2013	. 5	7:10	7:50	8:05	10	77,	4.75			3.25	
1/16/2013	6	7:20	8:05	8:20	10	75	4.75			3.25	
											·
* ATTACHMENT	rs, no. of	PAGES					_				



set ID: C-1,C-3

CONCRETE FIELD AND LAB TEST REPORT

Client:

Brantley Engineering

DATE:

1/22/13

Project:

JED Landfill

JOB NO:

FIELD TESTS

(ACTUAL)

300751

MIX ID:

MIX DESC:

28 DAY SPECIFIED STRENGTH:

4000

PSI

4000 PSI

DATE SAMPLED:

1/4/13

BY: Client

SLUMP, INCHES:

(SPECIFIED) LO: # HI: #

TIME BATCHED:

FIELD INFORMATION

TIME SAMPLED:

AIR CONTENT %: UNIT WEIGHT, PCF: LO: # HI: # LO: # HI: #

BATCH PLANT: TRUCK:

DATE RECV'D:

1/9/13

AIR TEMP, °F:

LO: # HI: #

TICKET:

MIX TEMP, °F:

LO: # HI: #

COMPRESSION TEST RESULTS OF CYLINDRICAL CONCRETE SPECIMENS

	CYL. NO.	AVERAGE DIAMETER D (IN.)	AVERAGE HEIGHT L (IN.)	L/D RATIO	AREA (SQ. IN.)	DATE TESTED	TEST AGE (DAYS)	MAX. LOAD (LBS.)	COMP. STRENGTH (PSI)	FRACTURE TYPE
	C-1	6.00	12.00	. 2	28.27	1/11/13	7	105450	3730	1
1	C-3	6.00	12.00	2	28.27	2/1/13	28	157270	5560	1
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1					p.					
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UNLESS OTHERWISE INDICATED, TESTS WERE PERFORMED IN GENERAL ACCORDANCE WITH THE FOLLOWING ASTM TEST METHODS C39, C138, C143, C173 or C231, C1064 SLUMP MEASURED TO ONE-QUARTER INCH

DENOTES CURED IN FIELD

<<< DENOTES LOW COMPRESSIVE STRENGTH # DENOTES SPECIFIED RANGES NOT PROVIDED

AIR CONTENT MEASURED TO ONE-QUARTER PERCENT FRACTURE TYPE IS CORRESPONDING TO FRACTURE PATTERN SHOWN IN ASTM C39 AND SKETCHES BELOW:



POUR LOCATION:



Type 2





Туре 4



SAFETY DESIGNATION:



Туре 6



REMARKS: Cylinders were molded and field cured by the client and delivered to AMEC on 1/9/13. Pour location and ticket and delivered to AMEC on 1/9/13. provided.

TECHNICIAN PERFORMING CONCRETE COMPRESSION TESTS

30 /m 4

AI NGUYEN, PROFESSIONAL ENGINEER FLORIDA REGISTRATION NO



Set ID: C-2, C-4 Lab ID: 43275

CONCRETE FIELD AND LAB TEST REPORT

Client:

Brantley Engineering

DATE: 2/1/13

Project:

JED Landfill

JOB NO:

300751

MIX ID:

28 DAY SPECIFIED STRENGTH:

4000

PSI

MIX DESC:

4000 PSI

FIELD INFORMATION

FIELD TESTS (ACTUAL)

(SPECIFIED)

DATE SAMPLED:

1/4/13

BY: Client

SLUMP, INCHES:

LO: # HI: #

TIME BATCHED:

TIME SAMPLED:

AIR CONTENT %:

LO: # HI: #

BATCH PLANT:

UNIT WEIGHT, PCF:

LO: # HI: #

TRUCK:

DATE RECV'D:1/9/13 AIR TEMP, °F:

LO: # HI: #

TICKET:

MIX TEMP, °F:

LO: # HI: #

COMPRESSION TEST RESULTS OF CYLINDRICAL CONCRETE SPECIMENS

	CYL. NO.	AVERAGE DIAMETER D (IN.)	AVERAGE HEIGHT L (IN.)	L/D RATIO	AREA (SQ. IN.)	DATE TESTED	TEST AGE (DAYS)	MAX. LOAD (LBS.)	COMP. STRENGTH (PSI)	FRACTURE TYPE
Г	C-2	5.97	12.00	2	27.99	1/22/13	18	145160	5190	5
- 1	. C-4	6.00	12.00	2	28.27	2/1/13	28	161070	5700	1
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1										

UNLESS OTHERWISE INDICATED, TESTS WERE PERFORMED IN GENERAL ACCORDANCE WITH THE FOLLOWING ASTM TEST METHODS C39, C138, C143, C173 or C231, C1064

DENOTES CURED IN FIELD <<< DENOTES LOW COMPRESSIVE STRENGTH SLUMP MEASURED TO ONE-QUARTER INCH AIR CONTENT MEASURED TO ONE-QUARTER PERCENT

FRACTURE TYPE IS CORRESPONDING TO FRACTURE PATTERN SHOWN IN ASTM C39 AND SKETCHES BELOW: # DENOTES SPECIFIED RANGES NOT PROVIDED











Type 5

SAFETY DESIGNATION:



Type 6



POUR LOCATION:

REMARKS: Cylinders were molded and field cured by the client and delivered to AMEC on 1/9/13. Pour location and

TECHNICIAN PERFORMING CONCRETE COMPRESSION TESTS

JEFFREY INGERSOLL

PROFESSIONAL ENGINEER FLORIDA REGISTRATION NO. 685

REVIEWED



set ID: C-5 to C-8

CONCRETE FIELD AND LAB TEST REPORT

Client:

Brantley Engineering

DATE:

1/24/13

Project:

JED Landfill

JOB NO:

300751

MIX ID:

28 DAY SPECIFIED STRENGTH:

4000

PSI

MIX DESC:

4000 PSI

FIELD INFORMATION

FIELD TESTS (ACTUAL)

(SPECIFIED)

DATE SAMPLED:

1/10/13

BY: Client

SLUMP, INCHES:

LO: # HI: #

TIME BATCHED:

TIME SAMPLED:

AIR CONTENT %:

LO: # HI: #

BATCH PLANT:

UNIT WEIGHT, PCF: AIR TEMP, °F:

LO: # HI: # LO: # HI: #

TRUCK: TICKET: DATE RECV'D:1/15/13

MIX TEMP, °F:

LO: # HI: #

COMPRESSION TEST RESULTS OF CYLINDRICAL CONCRETE SPECIMENS

	CYL. NO.	AVERAGE DIAMETER D (IN.)	AVERAGE HEIGHT L (IN.)	L/D RATIO	AREA (SQ. IN.)	DATE TESTED	TEST AGE (DAYS)	MAX. LOAD (LBS.)	COMP. STRENGTH (PSI)	FRACTURE TYPE
	C-5	6.00	12.00	2	28.27	1/17/13	7	106610	3770	5
-	C-6	5.96	12.00	2	27.90	1/24/13	14	122520	4390	1
J	C-7					HOLD				
	C-8					HOLD				

UNLESS OTHERWISE INDICATED, TESTS WERE PERFORMED IN GENERAL ACCORDANCE WITH THE FOLLOWING ASTM TEST METHODS C39, C138, C138, C137 or C231, C1064 DENOTES CURED IN FIELD SLUMP MEASURED TO ONE-QUARTER INCH

<<< DENOTES LOW COMPRESSIVE STRENGTH

AIR CONTENT MEASURED TO ONE-QUARTER PERCENT FRACTURE TYPE IS CORRESPONDING TO FRACTURE PATTERN SHOWN IN ASTM C39 AND SKETCHES BELOW: # DENOTES SPECIFIED RANGES NOT PROVIDED



Type 1

POUR LOCATION:



Type 2



Туре 3



Туре 4



Туре 5



Туре 6



SAFETY DESIGNATION:

REMARKS: Cylinders were moided and field cured by the client and delivered to AMEC on 1/15/13. Pour location and till the big provided. No. 66551

TECHNICIAN PERFORMING CONCRETE COMPRESSION TESTS

JEFFREY INGERSOLL

PROFESSIONAL ENG FLORIDA REGISTRATION NO

REVIEWED



set ID: C-9 to C-12

CONCRETE FIELD AND LAB TEST REPORT

Client:

Brantley Engineering

DATE: 1/24/13

Project:

JED Landfill

JOB NO:

300751

MIX ID:

28 DAY SPECIFIED STRENGTH:

4000

PSI

MIX DESC:

4000 PSI

FIELD INFORMATION

FIELD TESTS (ACTUAL)

(SPECIFIED)

DATE SAMPLED:

1/10/13

BY: Client

SLUMP, INCHES:

LO: # HI: #

TIME BATCHED:

LO: # HI: #

TIME SAMPLED:

RECV'D:1/15/13

AIR CONTENT %: UNIT WEIGHT, PCF:

LO: # HI: #

BATCH PLANT: TRUCK:

DATE

AIR TEMP, °F:

LO: # Hi: #

TICKET:

MIX TEMP, °F:

LO: # HI: #

COMPRESSION TEST RESULTS OF CYLINDRICAL CONCRETE SPECIMENS

	CYL. NO.	AVERAGE DIAMETER D (IN.)	AVERAGE HEIGHT L (IN.)	L/D RATIO	AREA (SQ. IN.)	DATE TESTED	TEST AGE (DAYS)	MAX. LOAD (LBS.)	COMP. STRENGTH (PSI)	FRACTURE TYPE
	C-9	5.99	12.00	2	28.18	1/17/13	7	101400	3600	5
1	C-10	5.97	12.00	2	27.99	1/24/13	14	118960	4250	6
NI.	C-11					HOLD				
	C-12					HOLD				
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								1	}	
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UNLESS OTHERWISE INDICATED, TESTS WERE PERFORMED IN GENERAL ACCORDANCE WITH THE FOLLOWING ASTM TEST METHODS C39, C138, C143, C173 or C231, C1064 SLUMP MEASURED TO ONE-QUARTER INCH

* DENOTES CURED IN FIELD <<< DENOTES LOW COMPRESSIVE STRENGTH
DENOTES SPECIFIED RANGES NOT PROVIDED

AIR CONTENT MEASURED TO ONE-QUARTER PERCENT

FRACTURE TYPE IS CORRESPONDING TO FRACTURE PATTERN SHOWN IN ASTM C39 AND SKETCHES BELOW:



Type 1



Type 2





Type 4





Type 5

SAFETY DESIGNATION:





POUR LOCATION:

REMARKS: Cylinders were molded and field cured by the client and delivered to AMEC on 1/15/13. Pour location and the client and delivered to AMEC on 1/15/13. No. 66551

TECHNICIAN PERFORMING CONCRETE COMPRESSION TESTS

JEFFREY INGERSOLL

PROFESSIONAL EN FLORIDA REGISTRATION NO.



Set ID: C-13 to C-16

CONCRETE FIELD AND LAB TEST REPORT

Client:

Brantley Engineering

DATE: 1/24/13

Project:

JED Landfill

JOB NO:

300751

MIX ID:

28 DAY SPECIFIED STRENGTH:

4000

PSI

MIX DESC:

4000 PSI

FIELD INFORMATION

FIELD TESTS (ACTUAL)

DATE SAMPLED:

1/10/13

BY: Client

SLUMP, INCHES:

(SPECIFIED) LO: # HI: #

TIME BATCHED:

TIME SAMPLED:

RECV'D:1/15/13

AIR CONTENT %: UNIT WEIGHT, PCF: LO: # HI: # LO: # HI: #

BATCH PLANT:

DATE

AIR TEMP, °F:

LO: # HI: #

TRUCK: TICKET:

MIX TEMP, °F:

LO: # HI: #

COMPRESSION TEST RESULTS OF CYLINDRICAL CONCRETE SPECIMENS

	CYL. NO.	AVERAGE DIAMETER D (IN.)	AVERAGE HEIGHT L (IN.)	L/D RATIO	AREA (SQ. IN.)	DATE TESTED	TEST AGE (DAYS)	MAX. LOAD (LBS.)	COMP. STRENGTH (PSI)	FRACTURE TYPE
	C-13	6.00	12.00	2	28.27	1/17/13	7	100720	3960	1
١	C-14	5.99	12.00	2	28.18	1/24/13	14	130620	4620	1
N	C-15					HOLD				
	C-16					HOLD		,		

UNLESS OTHERWISE INDICATED, TESTS WERE PERFORMED IN GENERAL ACCORDANCE WITH THE FOLLOWING ASTM TEST METHODS C39, C138, C143, C173 or C231, C1064

* DENOTES CURED IN FIELD <<< DENOTES LOW COMPRESSIVE STRENGTH

SLUMP MEASURED TO ONE-QUARTER INCH AIR CONTENT MEASURED TO ONE-QUARTER PERCENT

DENOTES SPECIFIED RANGES NOT PROVIDED FRACTURE TYPE IS CORRESPONDING TO FRACTURE PATTERN SHOWN IN ASTM C39 AND SKETCHES BELOW:



Type 1



Type 2





Type 4



Type 5

SAFETY DESIGNATION:





Type 6

No. 66551

POUR LOCATION:

REMARKS: Cylinders were molded and field cured by the client and delivered to AMEC on 1/15/13. Pour locate taile were not

TECHNICIAN PERFORMING CONCRETE COMPRESSION TESTS

FLORIDA REGISTRATION



Set ID: C-17, C-18 Lab ID: 43281

CONCRETE FIELD AND LAB TEST REPORT

Client:

Brantley Engineering

DATE:

1/3024/13

Project:

JED Landfill

JOB NO:

300751

MIX ID:

28 DAY SPECIFIED STRENGTH:

4000

PSI

MIX DESC:

4000 PSI

FIELD INFORMATION

FIELD TESTS (ACTUAL)

(SPECIFIED)

DATE SAMPLED:

1/10/13

BY: Client

SLUMP, INCHES:

LO: # HI: #

TIME BATCHED:

TIME SAMPLED:

AIR CONTENT %: **UNIT WEIGHT, PCF:**

LO: # HI: #

BATCH PLANT:

LO: # HI: # LO: # HI: #

TRUCK:

DATE RECV'D:1/15/13 AIR TEMP, °F:

TICKET:

MIX TEMP, °F:

LO: # HI: #

COMPRESSION TEST RESULTS OF CYLINDRICAL CONCRETE SPECIMENS

	CYL. NO.	AVERAGE DIAMETER D (IN.)	AVERAGE HEIGHT L (IN.)	L/D RATIO	AREA (SQ. IN.)	DATE TESTED	TEST AGE (DAYS)	MAX. LOAD (LBS.)	COMP. STRENGTH (PSI)	FRACTURE TYPE
	C-17	6.00	12.00	2	28.27	1/24/13	8	100720	3560	5
	C-18	5.99	12.00	2	28.18	1/30/13	14	117540	4170	5
1										
1										

UNLESS OTHERWISE INDICATED, TESTS WERE PERFORMED IN GENERAL ACCORDANCE WITH THE FOLLOWING ASTM TEST METHODS C39, C138, C138, C1373 or C231, C1064 * DENOTES CURED IN FIELD

CONTES CORED IN FIELD COMPRESSIVE STRENGTH # DENOTES SPECIFIED RANGES NOT PROVIDED

SLUMP MEASURED TO ONE-QUARTER INCH AIR CONTENT MEASURED TO ONE-QUARTER PERCENT

FRACTURE TYPE IS CORRESPONDING TO FRACTURE PATTERN SHOWN IN ASTM C39 AND SKETCHES BELOW:





Type 2





Type 4



Турв 5





Type 6

No. 66551

POUR LOCATION:

SAFETY DESIGNATION:

REMARKS: Cylinders were molded and field cured by the client and delivered to AMEC on 1/15/13. Pour locat provided.

TECHNICIAN PERFORMING CONCRETE COMPRESSION TESTS

FLORIDA REGISTRATION

APPENDIX M Daily Field Monitoring Reports

CQA Daily Field Monitoring Summary

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 1

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date:

10/9/12

<u>Weat</u>	<u>her D</u>	<u>)escri</u>	<u>ption</u>
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Sky Cover:

Clear

Amt. of Precip:

0"

Wind:

5-10

(mph)

Temp: Low (F):

70 at 7:00

a.m.

High (F)

88 at 3:00 p.m.

CQA's On Site: Chris Johnson, Allan Brantley

Daily Load Count:

Major Construction Equipment:

Contractor(s) Construction Progress:

Pre-Construction meeting.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the rwequest of the client to attend a pre-construction meeting for the JED Leachate Storage Facility Relocation project. Meeting was attended with representatives of WSI, Brantley Engineering and RSC Excavation. Project safety and scheduling were discussed as well as training for the endangered Indigo Snake. The site was visited by attendees after the meeting to discuss location and constructability logistics.

CQA Specialist:

CQA Daily Field Monitoring Summary

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 2

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

10/17/12 Date:

Weather Description

Sky Cover:

Clear

Amt. of Precip:

a.m.

0"

Wind:

5-10

(mph)

Temp: Low (F):

69 at 7:00

High (F)

80 at 3:00 p.m.

CQA's On Site: Allan Brantley

Daily Load Count:

Major Construction Equipment:

Contractor(s) Construction Progress:

RCS was installing silt fence along the southeastern and eastern portion of the borrow area. RCS was preparing the temporary access ramp near the southeast corner of the borrow area. RCS excavated test pits in the borrow area to assist in obtaining bulk soil samples.

CQA (s) Monitoring Activities and Test Results:

Observed excavation of the test pits in the borrow area. Obtained bulk samples for proctor analysis, sieve analysis, and soils classification. Transported bulk sampes to the AMEC laboratory in Lakeland, Florida for analysis.

CQA Specialist:

Allan Brantley, PE

CQA Daily Field Monitoring Summary Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 3

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date:

10/22/12

Wea	ther	Descr	iption

Sky Cover:

Clear

Amt. of Precip:

0"

Wind:

5-10 (mph)

Temp: Low (F):

60 at 7:00

High (F)

83 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 101

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozen, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor cleared organic material from the south side of the borrow area. A drainage pipe was placed in the ditch outside of the borrow area and backfilled to create an access road from Omni Dr.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Attended safety meeting. The contractor discussed proper procedure for encountering Indigo Snake. Pamphlets were given to employees outlining procedures. Monitored the contractors clearing and grubbing activities as well as pipe placement for the access road.

CQA Specialist:

Page 1 of 1

CQA Daily Field Monitoring Summary

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 4

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 10/23/12

Weather Description

Sky Cover:

Clear

Amt. of Precip:

0"

Wind:

5-10 (mph)

Temp: Low (F):

71 at 7:00 a.m.

High (F)

82 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 164

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozen, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor cleared organic material from the proposed pond area. Spoils were stockpiled on the east side of the borrow area.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Attended safety meeting. Monitored the contractors clearing and grubbing activities. Checked silt fence for proper installation. Visited the wetlands areas to observe surveyors stake placement and observe prior brush clearing around existing wells in the area.

CQA Specialist:

CQA Daily Field Monitoring Summary Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 5

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Contractor: RCS Excavation

Location: St. Cloud, Florida

Date:

10/24/12

Weather Description

Sky Cover:

Clear

Amt. of Precip:

0"

Wind:

5-10

(mph)

Temp: Low (F):

74 at 7:00

High (F)

86 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 185

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozen, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor cleared organic material from the south side of the site. The material was stockpiled at the east side of the site behind the borrow area.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored clearing efforts to determine areas that may require further clearing due to excess organic material. No such areas were encountered at this time. Met with representatives of WSI and RSC to discuss structural fill schedule and toe placement for wetlands mitigation area.

CQA Specialist:

CQA Daily Field Monitoring Summary Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 6

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 10/25/12

Weather Description

Sky Cover:

Mostly cloudy

Amt. of Precip:

Trace

Wind:

5-15 (mph)

Temp: Low (F):

75 at 7:00

a.m.

High (F)

83 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 117

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozen, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor cleared organic material from the berm footprint on the north and west side of the site. Organics were also removed from the borrow area along the north western side of the borrow area. The material was stockpiled at the east side of the site behind the borrow area.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored clearing efforts to determine areas that may require further clearing due to excess organic material. Some larger subsurface organics were found in the west side berm footprint and removed by the contractor.

CQA Specialist:



Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 7

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation Location: St. Cloud, Florida

Installer: Comanco

10/26/12

Weather Description

Sky Cover:

Mostly cloudy

Amt. of Precip:

Trace Wind: 10-25 (mph)

Temp: Low (F):

72 at 7:00 a.m.

High (F)

80 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 164

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozen, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor began placing material along the eastern berm to allow for drying. Material was also placed in the southeastern quadrant of the cell to construct a temporary access road to the pond area. No material was compacted today.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the eastern berm area and southeastern quadrant access road. No compunction testing was required today as placement of fill was for initial drying of the material. Monitored excavation of material from the borrow area for possible material changes or detriments.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 8

Contractor: RCS Excavation

Installer: Comanco

Project Name: JED Leachate Storage Facility Relocation

Location: St. Cloud, Florida

10/27/12

Weather Description

Sky Cover:

Mostly cloudy

Amt. of Precip:

Trace Wind: 10-25 (mph)

Temp: Low (F):

63 at 7:00

High (F)

79 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 168

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the southeastern quadrant of the cell to construct a temporary access road to the pond area. No material was compacted today.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the southeastern quadrant access road. No compaction testing was required today as placement of fill was for initial drying of the material. Monitored excavation of material from the borrow area for possible material changes or detriments.

CQA Specialist:

CQA Daily Field Monitoring Summary Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 9

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date:

10/29/12

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

5-15 (mph)

Temp: Low (F):

46 at 7:00

High (F)

69 at 3:00 p.m.

CQA's On Site: Chris Johnson, Allan Brantley

Daily Load Count: 153

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the northern area of the pond to push existing standing water towards the southern section of site. No material was compacted today.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the northern area of the site. Initial material was placed to force standing water to the south side of the site and allow for placement of compacted fill in the pond area. Silt fence was inspected for existing or potential issues. None were observed at this time. Mr. Brantley visited the site to assess current construction activities and deliver additional testing equipment.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 10

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

motaner. Coman

Date:

10/30/12

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

0 Wind:

5-15 (mph)

Temp: Low (F):

46 at 7:00 a.m

High (F)

72 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 169

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the northern area of the pond to push existing standing water towards the southern section of site. No material was compacted today.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the northern area of the site. Initial material was placed to force standing water to the south side of the site and allow for placement of compacted fill in the pond area. A haul road was constructed into the pond area.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 11

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date:

10/31/12

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

0

Wind:

5-15 (mph)

Temp: Low (F):

43 at 7:00

High (F)

73 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 242

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the proposed pond area to push existing standing water towards the southern section of site. No material was compacted today.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the northern area of the site. Initial material was placed to force standing water to the south side of the site and allow for placement of compacted fill in the pond area. Preliminary testing was done to determine the current moisture content of materials placed to dry. Moisture contents ranged from 11.3% to 14.7%. Walked the site with representatives of WSI and RCS. Discussed construction schedule and delivery of geosynthetics.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 12

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

mstaner. Comanico

Date:

11/1/12

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

55 at 7:00 a.m

High (F)

79 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 288

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the proposed pond area to push existing standing water towards the southern section of site. No material was compacted today.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the northern area of the site. Initial material was placed to force standing water to the south side of the site and allow for placement of compacted fill in the pond area.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 13

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date:

11/2/12

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

0

0-10 (mph)

Temp: Low (F):

56 at 7:00 a.m.

High (F)

78 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 190

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the proposed pad area in the center of the site to push existing standing water towards the southern section of site. No material was compacted today.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the northern area of the site. Initial material was placed to force standing water to the south side of the site and allow for proper drying of the material. Preliminary testing was done to determine the current moisture contents. Moisture contents ranged from 11.4% to 28.7%.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 14

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

11/3/12 Date:

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

0 Wind: 0-10 (mph)

Temp: Low (F):

58 at 7:00

High (F)

79 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 88

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the proposed pad area in the center of the site to push existing standing water towards the southern section of site. No material was compacted today.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the northern area of the site. Initial material was placed to force standing water to the south side of the site and allow for proper drying of the material. Compactor arrived on site today. The pond area was static rolled and the eastern edge of the pond was tested. Test results can be found in the compaction summary.

CQA Specialist:



Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 15

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 11/5/12

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

0

Wind:

0-10

(mph)

Temp: Low (F):

58 at 7:00

a.m.

High (F)

82 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the proposed pad area in the south side of the site to push existing standing water towards the southernmost section of the site.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the southern area of the site. Initial material was placed to force standing water to the south side of the site and allow for proper drying of the material. The pond area was static rolled and the eastern edge of the pond was tested. Test results can be found in the compaction summary. The remainder of the pond was disked and allowed to dry. This area was static rolled prior to leaving the site.

CQA Specialist:

CQA Daily Field Monitoring Summary Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 16

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 11/6/12

Weather Description

Sky Cover:

M. Cloudy

Amt. of Precip:

Wind:

0-5

(mph)

Temp: Low (F):

51 at 7:00

a.m.

High (F)

77 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the proposed pad area in the south side of the site to push existing standing water towards the southernmost section of the site. A progress meeting was held to discuss scheduling and upcoming geosynthetic installation. Representatives of WSI, RSC Brantley Engineering and Comanco were present.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the southern area of the site. Initial material was placed to force standing water to the south side of the site and allow for proper drying of the material. The pond area was static rolled and the eastern and northern edges of the pond area was tested. Test results can be found in the compaction summary. The remainder of the pond was allowed to dry. This area was static rolled prior to leaving the site.

CQA Specialist:

CQA Daily Field Monitoring Summary Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 17.

Contractor: RCS Excavation

Installer: Comanco

Project Name: JED Leachate Storage Facility Relocation

Location: St. Cloud, Florida

Date: 11/7/12

Weather	Description
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Sky Cover:

Sunny

Amt. of Precip:

Wind:

0 - 15

(mph)

Temp: Low (F):

51 at 7:00

High (F)

77 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area. General fill was dumped in the pond area and spread by means of D6 dozer and was compacted by means of smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond area. The pond area was static rolled and tested. Test results can be found in the compaction summary.

CQA Specialist:



Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 18

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

te: _____11/8/12

Weather	Description
6 4 P P P P 1 1 P 1	

Sky Cover:

Sunny

Amt. of Precip:

Λ

Wind:

0-10 (mph)

Temp: Low (F):

48 at 7:00

a.m.

High (F)

67 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area. General fill was dumped in the pond area and spread by means of D6 dozer and was compacted by means of smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond area. The pond area was static rolled and tested. Test results can be found in the compaction summary. Geomembrane arrived on site.

CQA Specialist:

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 19

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date:

11/9/12

Weather	Desc	ription
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Sky Cover:

Sunny

Amt. of Precip:

0

Wind:

0-10

(mph)

Temp: Low (F):

48 at 7:00

a.m.

High (F)

74 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area. General fill was dumped in the pond area and spread by means of D6 dozer and was compacted by means of smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond area. The pond area was static rolled and tested. Test results can be found in the compaction summary. Geomembrane arrived on site. Silt fences were inspected and a small area was repaired due to wind damage.

CQA Specialist:

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Project Number: 2012-102

Report Number: 20

Project Name: JED Leachate Storage Facility Relocation

Location: St. Cloud, Florida

Owner: Omni Waste of Osceola County, LLC

Contractor: RCS Excavation

Installer: Comanco

Date: 11/10/12

Weather Description	W	eat	<u>her</u>	Desc	crip	<u>tion</u>
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Sky Cover:

Sunny

Amt. of Precip:

Wind:

0 - 10

(mph)

Temp: Low (F):

49 at 7:00

a.m.

High (F)

75 at 3:00 p.m.

COA's On Site: Chris Johnson

Daily Load Count: 189

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area. General fill was placed in the pond area and spread by means of D6 dozer and was compacted by means of smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond area. The pond area was static rolled and tested. Test results can be found in the compaction summary. .

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Report Number: 21

Project Name: JED Leachate Storage Facility Relocation

Location: St. Cloud, Florida

Owner: Omni Waste of Osceola County, LLC

Contractor: RCS Excavation

Installer: Comanco

: 11/12/12

Weather	Description
---------	-------------

Sky Cover:

Sunny

Amt. of Precip:

0

Wind:

0-10 (mph)

Temp: Low (F):

54 at 7:00 a.m.

High (F)

77 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area. General fill was placed in the pond area and spread by means of D6 dozer and was compacted by means of smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond area. The pond area was static rolled and tested. Test results can be found in the compaction summary.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

11/13/12

Report Number: 22

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

58 at 7:00 a.m. High (F)

82 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area. General fill was placed in the pond area and spread by means of D6 dozer and was compacted by means of smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond area. The pond area was static rolled and tested. Test results can be found in the compaction summary. .

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 23

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

ate: 11/14/12

Weather Description

Sky Cover:

M. Cloudy

Amt. of Precip:

Wind:

)-10 (mph)

Temp: Low (F):

58 at 7:00 a.m.

High (F)

78 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area and the northern section of the proposed LFGTE pad. General fill was placed in the pond and LFGTE area and spread by means of D6 dozer and was compacted by means of smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond and LFGTE area. The pond area was static rolled and tested. Test results can be found in the compaction summary.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 24

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

trace

Date:

11/15/12

Weather Description

Sky Cover:

M. Cloudy

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

63 at 7:00

High (F)

78 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area and the northern section of the proposed LFGTE pad. General fill was placed in the pond and LFGTE area and spread by means of D6 dozer and was compacted by means of smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond and LFGTE area. The pond area was static rolled and tested. Test results can be found in the compaction summary.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 25

Contractor: RCS Excavation

Wind:

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 11/16/12

Weather Description

Sky Cover:

M. Cloudy

Amt. of Precip:

trace

0-10 (mph)

Temp: Low (F):

58 at 7:00 a.n

High (F)

72 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area and the northern section of the proposed LFGTE pad. General fill was placed in the pond and LFGTE area and spread by means of D6 dozer and was compacted by means of smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond and LFGTE area. The pond area was static rolled and tested. Test results can be found in the compaction summary.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Report Number: 26

Owner: Omni Waste of Osceola County, LLC

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Location: St. Cloud, Florida

Installer: Comanco

trace

Date: 11/17/12

Weather Description

Sky Cover:

M. Cloudy

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

56 at 7:00 a.m

High (F)

73 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area and the northern section of the proposed LFGTE pad. General fill was placed in the pond and LFGTE area and spread by means of D6 dozer and was compacted by means of smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond and LFGTE area. The pond area was static rolled and tested. Test results can be found in the compaction summary.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 27

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

istalier. Coman

Date:

11/19/12

Weather Description

Sky Cover:

M. Cloudy

Amt. of Precip:

trace Wind:

0-10 (mph)

Temp: Low (F):

56 at 7:00 a.m.

High (F)

70 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 261

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area and the northern section of the proposed LFGTE pad. General fill was placed in the pond and LFGTE area and spread by means of D6 dozer and was compacted by means of smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond and LFGTE area. The pond area was static rolled and tested. Test results can be found in the compaction summary. The borrow site for sump stone was visited and a sample was collected and taken to the lab.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

11/20/12

Report Number: 28

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

- .

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

56 at 7:00 a.m.

High (F)

74 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 224

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area. General fill was placed in the pond area and spread by means of D6 dozer and was compacted by means of smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond area. The pond area was static rolled and tested. Test results can be found in the compaction summary.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 29

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

istalier. Comanico

Date:

11/21/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

57 at 7:00 a.m

High (F)

73 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 206

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area. General fill was placed in the pond area and spread by means of D6 dozer and was compacted by means of smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond area. The pond area was static rolled and tested. Test results can be found in the compaction summary. Silt fence was checked on site prior to leaving for the holiday and was observed to be in good condition.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 30 Contractor: RCS Excavation

Installer: Comanco

Project Name: JED Leachate Storage Facility Relocation Location: St. Cloud, Florida

Date:

11/23/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

57 at 7:00 a.m.

High (F)

72 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 229

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area. General fill was placed in the pond area and spread by means of D6 dozer and was compacted by means of smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond area. The pond area was static rolled and tested. Test results can be found in the compaction summary.

CQA Specialist:



Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 31

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date:

11/24/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

58 at 7:00 a.m.

High (F)

70 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 214

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area. General fill was placed in the pond area and spread by means of D6 dozer and was compacted by means of smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond area. The pond area was static rolled and tested. Test results can be found in the compaction summary.

CQA Specialist:



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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 32

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 11/26/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

)-10 (mph)

Temp: Low (F):

58 at 7:00 a.m

High (F)

74 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 221

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area. General fill was placed in the pond area and spread by means of D6 dozer and was compacted by means of smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond area. The pond area was static rolled and tested. Test results can be found in the compaction summary.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 33

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

istaller. Comanco

Date:

11/27/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

62 at 7:00 a.m

High (F)

75 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 196

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area. General fill was placed in the pond area and spread by means of D6 dozer and was compacted by means of smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond area. The pond area was static rolled and tested. Test results can be found in the compaction summary.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Report Number: 34

Owner: Omni Waste of Osceola County, LLC

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

11/28/12 Date:

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

61 at 7:00

High (F)

77 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count: 204

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed material in the pond area. General fill was placed in the pond area and spread by means of D6 dozer and was compacted by means of smooth drum roller. The pond area was finish graded and prepared for geosynthetic placement. Mr. Nejad was familiarized with the project and attended the pre-construction meeting held on site for the geosynthetics installation.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of material in the pond area. The pond area was static rolled and tested. Test results can be found in the compaction summary.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 35

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 11/29/12

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

61 at 7:00 a.m

High (F)

77 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count: 212

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed general fill in the LGFTE pad area. Material was placed by means of D6 dozer and compacted by means of Smooth Drum Roller. Comanco placed GCL and Secondary Geomembrane in Pond A and Pond B. Geomembrane was seamed by the contractor using fusion wedges. Defects located in the bottom of the ponds were liestered to protect from water in the event of rain.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of general fill in the LFGTE pad. The LFGTE pad was static rolled and tested. Test results can be found in the compaction summary. Monitored and documented geosynthetics installation.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 36 Contractor: RCS Excavation

Installer: Comanco

Project Name: JED Leachate Storage Facility Relocation Location: St. Cloud, Florida

Date:

11/30/12

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

60 at 7:00 a.m

High (F)

77 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count: 246

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

The contractor placed general fill in the LGFTE pad area. Material was placed by means of D6 dozer and compacted by means of Smooth Drum Roller. Comanco placed GCL and Secondary Geomembrane in Pond A and Pond B. Geomembrane was seamed by the contractor using fusion wedges. Defects located in the bottom of the ponds were liestered to protect from water in the event of rain.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of general fill in the LFGTE pad. The LFGTE pad was static rolled and tested. Test results can be found in the compaction summary. Monitored and documented geosynthetics installation.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 37

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

mstaller. Comanico

Date:

12/1/12

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

62 at 7:00 a.m

High (F)

78 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count: 0

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor installed silt fence for other areas of the project including Force Main Berm and Dry Retention Berm. Comanco placed GCL and Secondary Geomembrane in Pond C. Geomembrane was seamed by the contractor using fusion wedges. Comanco began detail work including repairs. Deployment of Geomembrane for the Secondary layer is completed.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of general fill in the LFGTE pad. The LFGTE pad was static rolled and tested. Test results can be found in the compaction summary. Monitored and documented geosynthetics installation.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 38

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: _____ 12/3/12

Weather Description

Sky Cover:

P. Sunny

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

62 at 7:00 a.m.

High (F)

78 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count: 268

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Comanco completed detail work for the secondary geomembrane layer.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Monitored and documented geosynthetics installation.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 39

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

nstaller. Comand

Date:

12/4/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

)-10 (mph)

Temp: Low (F):

60 at 7:00 a.n

High (F)

78 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count: 270

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Contractor also installed stone and pipe for the secondary leak detection system. Comanco placed geocomposite material on the floor of ponds.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Monitored and documented geosynthetics installation.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

12/5/12

Report Number: 40

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date:

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

-10 (mph)

Temp: Low (F):

60 at 7:00 a.m.

High (F)

77 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count: 274

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Comanco deployed geomembrane for primary layer. Panels were deployed using a skid steer and were fusion seamed. Open edges were sandbagged and protected.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Monitored and documented geosynthetics installation.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 41

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

.

Date:

12/6/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

61 at 7:00 a.m

High (F)

78 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count: 274

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Comanco deployed geomembrane for primary layer. Panels were deployed using a skid steer and were fusion seamed. Open edges were sandbagged and protected. Once deployment was completed repairs and detail work were begun.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Monitored and documented geosynthetics installation.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 42

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

nstaller: Comanco

Date:

12/7/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

60 at 7:00 a.m.

High (F)

79 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count: 252

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Comanco completed repairs and detail work for primary layer of geomembrane.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Monitored and documented geosynthetics installation.

CQA Specialist:



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Project Number: 2012-102

Report Number: 43

Project Name: JED Leachate Storage Facility Relocation

Location: St. Cloud, Florida

Owner: Omni Waste of Osceola County, LLC

Contractor: RCS Excavation

Installer: Comanco

e: 12/8/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

62 at 7:00 a.m.

High (F)

77 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 252

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm, Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Compaction test results can be found in the compaction summary.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Report Number: 44

Project Name: JED Leachate Storage Facility Relocation

Location: St. Cloud, Florida

Owner: Omni Waste of Osceola County, LLC

Contractor: RCS Excavation

Installer: Comanco

Date: 12/10/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

60 at 7:00 a.m.

High (F)

80 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad.

Daily Load Count: 233

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller. Contractor built access ramps into the ponds for sand placement. Composite was used under the ramp to protect geomembrane from damage. Ramp was constructed at 3' thickness to allow for weight distribution of equipment.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm as well as sand placement activities for the ponds. Compaction test results can be found in the compaction summary.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Report Number: 45

Owner: Omni Waste of Osceola County, LLC

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Location: St. Cloud, Florida

Installer: Comanco

12/11/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

62 at 7:00 a.m. High (F)

80 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count: 198

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller. Contractor built access ramps into the ponds for sand placement. Composite was used under the ramp to protect geomembrane from damage. Ramp was constructed at 3' thickness to allow for weight distribution of equipment.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm as well as sand placement activities for the ponds. Compaction test results can be found in the compaction summary.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

12/12/12

Report Number: 46

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

ate.

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

' Wind:

0-10 (mph)

Temp: Low (F):

58 at 7:00 a.m

High (F)

74 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count: 10

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Contractor was unable to continue placing sand in the ponds due to previous nights rain. Pumps were set up to remove water from the ponds. Concrete drainage structure was placed in the ditchline along the main landfill road for the drainage under proposed entry road for the LFGTE pad.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm as well as concrete drainage structure installation.

CQA Specialist:



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Project Number:	2012-102
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Report Number: 47

Owner: Omni Waste of Osceola County, LLC

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Toject Name. JED Leachate Storage Facility Nelot

Location: St. Cloud, Florida

Installer: Comanco

Date:

12/13/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

59 at 7:00 a.m

High (F)

77 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 156

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Ponds were pumped to remove standing water. Sand was placed in pond A in dried areas.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm as well as sand placement in pond A.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Report Number: 48

Owner: Omni Waste of Osceola County, LLC

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Location: St. Cloud, Florida

Installer: Comanco

Date:

12/14/12

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

.Wind:

0-10 (mph)

Temp: Low (F):

59 at 7:00 a.m

High (F)

78 at 3:00 p.m.

CQA's On Site: Chris Johnson, Aaron Yarborough

Daily Load Count: 108

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Ponds were pumped to remove standing water. Sand was placed in pond A and C at 1' thickness.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm as well as sand placement in pond A and C.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Report Number: 49

Owner: Omni Waste of Osceola County, LLC

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

12/15/12

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

(mph)

Temp: Low (F):

60 at 7:00

High (F)

78 at 3:00 p.m.

CQA's On Site: Chris Johnson, Aaron Yarborough

Daily Load Count: 25

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Ponds were pumped to remove standing water. Sand was placed in pond A at 1' thickness. Pond C was finish graded.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm as well as sand placement in pond A and C.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 50

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 12/17/12

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

60 at 7:00 a.m

High (F)

78 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count: 26

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Ponds were pumped to remove standing water. Sand was placed in pond B at 1' thickness. Pond A was finish graded.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm as well as sand placement in pond A and B.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

12/18/12

Report Number: 51

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

ato:

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

10-20 (mph)

Temp: Low (F):

61 at 7:00 a.m

High (F)

78 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count: 173

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Pond B was finish graded. All ponds were raked and prepared for liner installation including removal of access ramps. Comanco arrived on site, but was unable to deploy geomembrane due to high winds.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm as well as preparation of ponds for liner deployment.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

12/19/12

Report Number: 52

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

istaliet. Comanco

Sky Cover:

P. Cloudy

Amt. of Precip:

Weather Description

Wind:

10-20 (mph)

Temp: Low (F):

61 at 7:00 a.m

High (F)

78 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count: 170

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller. Comanco deployed geomembrane for all ponds. Geomembrane panels were fusion welded using wedges.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Monitored and documented geomembrane installation.

CQA Specialist:

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Project Number: 2012-102

Report Number: 53

Owner: Omni Waste of Osceola County, LLC

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 12/20/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

0-10 (mph)

Temp: Low (F):

60 at 7:00 a.m

High (F)

76 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count: 140

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller. Comanco performed repairs and detail work including pressure testing and vacuum testing for all ponds.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Monitored and documented geomembrane repairs and testing.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 54

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

ate: 12/21/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

10-25 (mph)

Temp: Low (F):

48 at 7:00 a.m.

High (F)

65 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count: 159

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller. Comanco performed repairs and vacuum testing for all remaining repairs.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Monitored and documented geomembrane repairs and testing.

CQA Specialist:



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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 55

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date:

12/22/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

(mph)

Temp: Low (F):

42 at 7:00

High (F)

63 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 142

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller. Anchor trenches were backfilled for all ponds.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Test results can be found in the compaction summary.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 56

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

1/2"

Location: St. Cloud, Florida

Date:

12/26/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

20-30 (mph)

Temp: Low (F):

63 at 7:00

High (F)

82 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller. Force Main pipe was fused for installation around ponds. Contractor also constructed ballast weights for the bottom of the pond.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Test results can be found in the compaction summary.

CQA Specialist:



Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 57

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 12/27/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

63 at 7:00 a.m

High (F)

77 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller. Contractor constructed ballast weights for the bottom of the pond.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Test results can be found in the compaction summary.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 58

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date:

12/28/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

62 at 7:00 a.m

High (F)

75 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller. Contractor began forming for concrete on both of the proposed pump pads.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Test results can be found in the compaction summary.

CQA Specialist:



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Project Number: 2012-102

Report Number: 59

Project Name: JED Leachate Storage Facility Relocation

Location: St. Cloud, Florida

Owner: Omni Waste of Osceola County, LLC

Contractor: RCS Excavation

Installer: Comanco

12/29/12

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

62 at 7:00 a.m. High (F)

76 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller. Contractor continued forming for concrete on both of the proposed pump pads.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Test results can be found in the compaction summary.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 60

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 1/2/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

-10 (mph)

Temp: Low (F):

62 at 7:00 a.m

High (F)

77 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller. Contractor continued forming for concrete on both of the proposed pump pads. Comanco installed geomembrane panels in Pond A for he floating cover. Panels were deployed and seam using fusion seaming. The cover was welded to the Bottom liner by means of extrusion welding.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Test results can be found in the compaction summary. Istallation of the Floating Cover was monitored and documented, including any defects and necessary repairs.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 61

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 1/3/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

0 Wind:

5-10 (mph)

Temp: Low (F):

62 at 7:00 a.m.

High (F)

77 at 3:00 p.m.

CQA's On Site: Chris Johnson, Sam Nejad

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller. Contractor continued forming for concrete on both of the proposed pump pads. Comanco installed geomembrane panels in Pond C for the floating cover. Panels were deployed and seamed using fusion seaming. The cover was welded to the Bottom liner by means of extrusion welding.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Test results can be found in the compaction summary. Istallation of the Floating Cover was monitored and documented, including any defects and necessary repairs.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 62

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

nstaller. Col

Date:

1/4/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

-10 (mph)

Temp: Low (F):

61 at 7:00 a.m

High (F)

79 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller. Contractor continued forming for concrete on both of the proposed pump pads. Comanco completed all repairs and detail work for the floating cover.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Test results can be found in the compaction summary. Monitored completion of repairs and detail work by Comanco. Monitored Concrete placement. Four cylinders were obtained and left on site to cure.

CQA Specialist:



Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 63

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

installer. Comanco

Date:

1/5/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

0

Wind:

5-10 (mph)

Temp: Low (F):

61 at 7:00 a.m.

High (F)

80 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Test results can be found in the compaction summary. Silt fences were checked to ensure there has been no damage. None was found.

CQA Specialist:



Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 64

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

ristalier. Comai

Date:

1/7/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

64 at 7:00 a.m.

High (F)

81 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 109

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Test results can be found in the compaction summary. Concrete samples from previous pour were delivered to the lab for testing.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 65

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

ate: 1/8/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

63 at 7:00 a.m.

High (F)

83 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 125

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller. Forming of the loadout pad took place.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Test results can be found in the compaction summary. Monitored rebar placement and forming of loadout pad.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 66

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 1/9/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

63 at 7:00 a.m

High (F)

83 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 144

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller. Forming of the loadout pad took place.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Test results can be found in the compaction summary. Monitored rebar placement and forming of loadout pad.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 67

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

te: 1/10/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

64 at 7:00 a.m

High (F)

84 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 148

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller. Concrete contractor poured concrete for the loadout pad.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Test results can be found in the compaction summary. Monitored concrete pour of loadout pad. 12 cylinders were taken and left on site to cure. Air and slump test were within parameters of the concrete companies specified mix.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 68

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 1/11/13

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

63 at 7:00 a.m

High (F)

82 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 199

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Test results can be found in the compaction summary. Concrete samples from the previous days pour were taken to lab for testing.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 69

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

installer. Comance

Date:

1/12/13

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

63 at 7:00 a.m

High (F)

84 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 47

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed material for the inner berm and the dry retention berm. Material was placed using a bulldozer in lifts. Material was compacted using a smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of fill in the inner berm and dry retention berm. Test results can be found in the compaction summary.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 70

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

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Date:

1/14/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

0 Wind:

5-10 (mph)

Temp: Low (F):

63 at 7:00 a.m.

High (F)

82 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 97

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor graded southwestern quadrant of the LFGTE pad for the proposed entry road. The contractoe also fused 8" SDR 11 HDPE pipe for force main installation. The slope between the loadout pad and pump pad was formed and prepared for concrete placement.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored grading of the roadway, pipe fusion and concrete forming. Concrete forms and rebar placement were installed as per project specifications.

CQA Specialist: Chris Johnson

Page 1 of 1

Project Number: 2012-102

Report Number: 71

Owner: Omni Waste of Osceola County, LLC Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco Date:

1/15/13

Location: St. Cloud, Florida

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

61 at 7:00

High (F)

80 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 114

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor graded northwestern quadrant of the LFGTE pad for the proposed entry road. The contractor also fused 8" SDR 11 HDPE pipe for force main installation. The concrete contractor formed areas around drainage pipe located at the proposed road entrance and the emergency spillway located on the storm water berm.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored grading of the roadway, pipe fusion and concrete forming. Concrete forms and rebar placement were installed as per project specifications.

CQA Specialist:



Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 72

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

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Date:

1/16/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

0 Wind:

5-10 (mph)

Temp: Low (F):

58 at 7:00 a.m

High (F)

79 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 173

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor graded northeastern quadrant of the LFGTE pad for the proposed entry road. The contractor also fused 8" SDR 11 HDPE pipe for force main installation. The concrete contractor poured concrete for the pad slope, drain skirts and emergency spillway.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored grading of the roadway, pipe fusion and concrete forming. Concrete samples were taken and left on site to cure.

CQA Specialist:



Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 73

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 1/17/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

59 at 7:00 a.m.

High (F)

79 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 118

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor graded southeastern quadrant of the LFGTE pad for the proposed entry road. The contractor also fused 8" SDR 11 HDPE pipe for force main installation. Berm slopes were dressed to ensure proper slope grades.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored grading of the roadway and pipe fusion. Concrete samples were taken to the lab for testing.

CQA Specialist:



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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 74

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 1/18/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

10-15 (mph)

Temp: Low (F):

59 at 7:00 a.m

High (F)

78 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 126

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor re-graded the proposed entry road as they decided to use 6" of LBR100 material as opposed to 12" of LBR40 for road subbase. The contractor also fused 8" SDR 11 HDPE pipe for force main installation.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored grading of the roadway and pipe fusion.

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CQA Specialist:



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Project Number: 2012-102

Report Number: 75

Project Name: JED Leachate Storage Facility Relocation

Location: St. Cloud, Florida

Owner: Omni Waste of Osceola County, LLC

Contractor: RCS Excavation

Installer: Comanco

Date:

1/19/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

0 Wind:

10-15 (mph)

Temp: Low (F):

59 at 7:00 a.m.

High (F)

75 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 136

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor re-graded the proposed entry road as they decided to use 6" of LBR100 material as opposed to 12" of LBR40 for road subbase.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored grading of the roadway.

CQA Specialist:



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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 76

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 1/21/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

10-15 (mph)

Temp: Low (F):

59 at 7:00 a.m

High (F)

76 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 87

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed LBR100 material for sub-base layer in roadway area. Material was installed at the road entrance and extended both eastward and northward in 6" lift. Contractor also graded the proposed road around the leachate ponds.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored grading of the roadways.

CQA Specialist:

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Project Number: 2012-102

Report Number: 77

Owner: Omni Waste of Osceola County, LLC

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date:

1/22/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

52 at 7:00 a.m

High (F)

76 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 110

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed LBR100 material for sub-base layer in roadway area. Material was installed at the road entrance and extended both eastward and northward in 6" lift. Contractor also graded the proposed road around the leachate ponds. Material was placed on the forcemain berm in nominal lifts at the southern end of the berm. Material was placed with a D-6 Dozer and compacted using a smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored grading of the roadways. Test results for soil placement can be found in the compaction summarry.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

1/23/13

Report Number: 78

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

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Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

60 at 7:00 a.m.

High (F)

78 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 100

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed LBR100 material for sub-base layer in roadway area. Material was installed at the road entrance and extended both eastward and northward in 6" lift. Contractor also graded the proposed road around the leachate ponds. Material was placed on the forcemain berm in nominal lifts at the southern end of the berm. Material was placed with a D-6 Dozer and compacted using a smooth drum roller.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored grading of the roadways. Test results for soil placement can be found in the compaction summarry.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 79

Contractor: RCS Excavation

Wind:

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date:

1/24/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

0

5-10 (mph)

Temp: Low (F):

60 at 7:00 a.m

High (F)

78 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 103

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed LBR100 material for base layer in roadway area. Material was installed at the road entrance and extended both eastward and northward in 6" lift. Contractor also graded the proposed road around the leachate ponds. Excavation for force main installation was done from south end toward the north end of the force main berm.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored grading of the roadways. Test results for soil placement can be found in the compaction summarry.

CQA Specialist:

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Project Number: 2012-102

Report Number: 80

Owner: Omni Waste of Osceola County, LLC

1/25/13

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

.

Date:

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

60 at 7:00 a.m.

High (F)

78 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 126

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed LBR100 material for base layer in roadway area. Material was installed at the road entrance and extended both eastward and northward in 6" lift. Contractor also graded the proposed road around the leachate ponds. Excavation for force main installation was done from south end toward the north end of the force main berm. Force main and southernmost manhole were installed.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored grading of the roadways. Monitored installation of manholes and force main.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 81

Contractor: RCS Excavation

Installer: Comanco

Project Name: JED Leachate Storage Facility Relocation Location: St. Cloud, Florida

Date:

1/26/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

62 at 7:00

High (F)

81 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 116

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed LBR100 material for base layer in roadway area. Material was installed at the road entrance and extended both eastward and northward in 6" lift. Contractor also graded the proposed road around the leachate ponds. Excavation for force main installation was done from south end toward the north end of the force main berm. Force main and 3 manholes were installed.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored grading of the roadways. Monitored installation of manholes and force main.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 82

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

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Date:

1/28/13

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

62 at 7:00 a.m

High (F)

80 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 116

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed LBR100 material for base layer in roadway area surrounding the pond. Material was placed in the LFGTE pad. Material was spread by means of bulldozer and compacted by means of vibratory smooth drum roller. Excavation for force main installation was done from south end toward the north end of the force main berm. Force main and 1 manhole were installed.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of limerock in the roadways. Monitored installation of manholes and force main. Test results can be found in the compaction summary.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 83

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 1/29/13

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

60 at 7:00 a.m.

High (F)

80 at 3:00 p.m.

CQA's On Site: Chris Johnson, Allan Brantley

Daily Load Count: 89

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed LBR100 material for base layer in roadway area surrounding the pond. Material was placed in the LFGTE pad. Material was spread by means of bulldozer and compacted by means of vibratory smooth drum roller. Force Main and final manhole were installed nearest the existing pond.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of limerock in the roadways. Monitored installation of manholes and force main. Test results can be found in the compaction summary. Mr. Brantley visited the site to get an overwiew of site progress.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 84

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 1/30/13

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

56 at 7:00

High (F)

77 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 100

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed LBR100 material for base layer in roadway area surrounding the pond. Material was placed in the LFGTE pad. Material was spread by means of rubber tire loader means of vibratory smooth drum roller. Blow offs and testing apparatus were mounted to force main for testing.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of limerock in the roadways. Monitored installation testing apparatus for force main.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 85

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

te: 1/31/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

56 at 7:00 a.m

High (F)

75 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 60

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed LBR100 material for base layer in roadway area surrounding the pond. Material was placed in the LFGTE pad. Material was spread by means of rubber tire loader means of vibratory smooth drum roller. Water was pumped into force main for testing purposes.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of limerock in the roadways. Monitored installation testing apparatus for force main.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 86

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

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Date:

2/1/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

56 at 7:00 a.m.

High (F)

74 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 49

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed LBR100 material for base layer in roadway area surrounding the pond. Material was placed in the LFGTE pad. Material was spread by means of rubber tire loader means of vibratory smooth drum roller. Water was pumped into force main for testing purposes.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of limerock in the roadways.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 87

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

.

Date:

2/4/13

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

44 at 7:00 a

High (F)

73 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 62

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed LBR100 material for base layer in roadway area surrounding the pond. Material was placed in the LFGTE pad. Material was spread by means of rubber tire loader means of vibratory smooth drum roller. Hydrostatic testing was performed on the force main during the afternoon. The force main was still in expansion phase at the end of the day. The force main was left under pressure for the evening to complete testing in the morning.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of limerock in the roadways. Monitored hydrostatic testing.

CQA Specialist:

Page 1 of 1

Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 88

Contractor: RCS Excavation

Wind:

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 2/5/13

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

0

5-10 (mph)

Temp: Low (F):

44 at 7:00 a.m.

High (F)

73 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 58

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor placed LBR100 material for base layer in roadway area surrounding the pond. Material was placed in the LFGTE pad. Material was spread by means of rubber tire loader means of vibratory smooth drum roller. Hydrostatic testing was performed on the force main. Once initial expansion phase was completed the pressure was mantained at 130 psi for one hour. There was no loss of pressure after one hour test period.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored placement of limerock in the roadways. Monitored hydrostatic testing.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 89

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

ate: 2/6/13

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

52 at 7:00 a.m

High (F)

77 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count: 40

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor backfilled force main trench and placed final lift on force main berm on the northern section of the berm. The storm water berm was finish graded in a small section at the south side of the berm.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Placement of fill in the force main trench and final lift of the force main berm were monitored. Finish grading for the storm water berm was monitored.

CQA Specialist:



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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 90

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

te: 2/7/13

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

) Wind:

5-10 (mph)

Temp: Low (F):

57 at 7:00 a.m

High (F)

80 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor backfilled force main trench and placed final lift on force main berm on the middle section of the berm. The storm water berm was finish graded in a small section at the south side of the berm.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Placement of fill in the force main trench and final lift of the force main berm were monitored. Finish grading for the storm water berm was monitored.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 91

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

installer: Comanco

Location: St. Cloud, Florida

installer. Comanco

Date:

2/8/13

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

0

Wind:

10 (mph)

Temp: Low (F):

60 at 7:00 a.m

High (F)

80 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor backfilled force main trench and placed final lift on force main berm on the middle section of the berm. The storm water berm was finish graded in a small section at the middle section of the berm.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Placement of fill in the force main trench and final lift of the force main berm were monitored. Finish grading for the storm water berm was monitored.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 92

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 2/11/13

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

) Wind:

5-10 (mph)

Temp: Low (F):

60 at 7:00 a.m.

High (F)

80 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 3 off road trucks, 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor worked on finish grading for both berms. No material was hauled today. Sub contractor worked on grading and prepping the LFGTE pad road for asphalt placement.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored finish grading and road preperation activities.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 93

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

nstalier. Coman

Date:

2/12/13

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

57 at 7:00 a.m

High (F)

75 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor worked on finish grading for both berms. No material was hauled today. Sub contractor worked on grading and prepping the LFGTE pad road for asphalt placement.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored finish grading and road preperation activities.

CQA Specialist:



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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 94

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 2/13/13

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

57 at 7:00 a.m

High (F)

75 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor worked on finish grading for both berms. No material was hauled today. Sub contractor worked on grading and prepping the LFGTE pad road for asphalt placement.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored finish grading and road preperation activities.

CQA Specialist:

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Project Number: 2012-102

ago i oi

Owner: Omni Waste of Osceola County, LLC

Contractor: RCS Excavation

Report Number: 95

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date:

2/14/13

Weather Description

Sky Cover:

Cloudy

Amt. of Precip:

1/2"

Wind:

5-10 (mph)

Temp: Low (F):

57 at 7:00 a.m

High (F)

75 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 2 excavators, D6 dozer, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor worked on finish grading for both berms. No material was hauled today. Sub contractor worked on grading and prepping the LFGTE pad road for asphalt placement.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored finish grading and road preperation activities.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 96

Contractor: RCS Excavation

report Number, 50

Installer: Comanco

Project Name: JED Leachate Storage Facility Relocation

installer. Comanico

Location: St. Cloud, Florida

e: 2/18/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

55 at 7:00 a.m

High (F)

76 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 2 excavators, 2 dozers, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor worked on finish grading for both berms. No material was hauled today. Sub contractor worked on grading and prepping the LFGTE pad road for asphalt placement. Subcontractor was placing sod on Force main berm.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored finish grading and road preperation activities. Monitoring of sod placement on berms was also performed. Testing was performed for small remaining areas of the berm. Test results can be found in the testing summary.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 97

Contractor: RCS Excavation

Wind:

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

installer. Comanco

Date:

2/20/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

1/2"

5-10 (mph)

Temp: Low (F):

55 at 7:00 a.m

High (F)

76 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 2 excavators, 2 dozers, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor worked on finish grading for both berms. No material was hauled today. Sub contractor worked on grading and prepping the LFGTE pad road for asphalt placement. Subcontractor was placing sod on Force main berm.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored finish grading and road preperation activities. Monitoring of sod placement on berms was also performed. Testing was performed for road areas. Test results can be found in the testing summary.

CQA Specialist:



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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 98

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

Date: 2/21/13

Wind:

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

5-10 (mph)

Temp: Low (F):

55 at 7:00 a.m.

High (F)

76 at 3:00 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 2 excavators, 2 dozers, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor worked on finish grading for both berms. No material was hauled today. Subcontractor was placing sod on Force main berm.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored finish grading and road preperation activities. Monitoring of sod placement on berms was also performed. Testing was performed for small remaining areas of the berm. Test results can be found in the testing summary.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 99

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

2/22/13

Weather Description

Sky Cover:

P. Cloudy

Amt. of Precip:

Wind:

Temp: Low (F):

56 at 7:00

High (F)

78 at 3:0(p.m.

(mph)

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: 2 excavators, 2 dozers, Tractor with a disc hare.

Contractor(s) Construction Progress:

General contractor worked on finish grading for both berms. No material was hauled today. Subcontractor was placing sod on Force main berm.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. Monitored finish grading and road preperation activities. Monitoring of sod placement on berms was also performed. Testing was performed for road areas. Test results can be found in the testing summary.

CQA Specialist:

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Project Number: 2012-102

Owner: Omni Waste of Osceola County, LLC

Report Number: 99

Contractor: RCS Excavation

Project Name: JED Leachate Storage Facility Relocation

Installer: Comanco

Location: St. Cloud, Florida

installer. Comand

Date:

4/8/13

Weather Description

Sky Cover:

Sunny

Amt. of Precip:

Wind:

5-10 (mph)

Temp: Low (F):

63 at 7:00 a.m

High (F)

82 at 3:0 p.m.

CQA's On Site: Chris Johnson

Daily Load Count:

Major Construction Equipment: Water Truck

Contractor(s) Construction Progress:

General contractor was not on site today.

CQA (s) Monitoring Activities and Test Results:

The site was visited at the request of the client to perform CQA services for the JED leachate pond relocation project. A final visit was performed to observe finished project. Asphalt completion and sod placement, as well as final pipe connections at the pond an pump pad were specifically observed. Photographs of the area were taken for insertion into the final report.

CQA Specialist: