

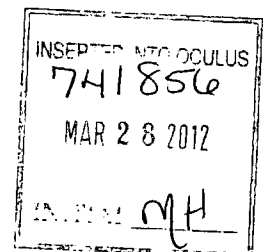
*Collected File copy*  
FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
NOV 08 2011  
SOUTHWEST DISTRICT  
TAMPA

**Enterprise Recycling and Disposal Facility  
Cell 6 Construction Completion Certification Report  
FDEP Permits No.: 177982-008-SC/T3 and 177982-007-SO/T3  
WACS No.: 87895**

**Prepared For:  
Angelo's Aggregate Materials, Ltd.  
P.O. Box 1493  
Largo, FL 33779**

**Submitted To:  
Florida Department of Environmental Protection  
Southwest District – Solid Waste Section  
13051 North Telecom Parkway  
Temple Terrace, FL 33637-0926**

**Prepared By:  
John P. Arnold, P.E.  
State of Florida P.E. No.: 47164  
34924 Williams Cemetery Road  
Dade City, FL 33525**



**October 2011**

May 11, 2012

Mr. Steve Morgan  
Solid Waste Section  
Florida Department of Environmental Protection - Southwest District  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
MAY 16 2012  
SOUTHWEST DISTRICT  
TAMPA

RE: Enterprise Recycling and Disposal Facility  
Cell 6 Construction Completion Report – Response to RAI No. 2  
Angelo's Aggregate Materials, LTD  
FDEP Permit Nos. 177982-008-SC/T3 and 177982-007-SO/T3  
WACS No.: 87895  
Pasco County, Florida

Dear Mr. Morgan:

This letter is in response to the April 24, 2012 request for additional information (RAI) we received from you. In this response we've reiterated the Department's comments in italics, with our response immediately following.

1. *The narrative in Attachment G indicates that in Areas B-2, B-3 and B-4 "The western most extent of limerock will be determined at a later date with the mining of the area west of Cell 6." Therefore it appears that limerock which may be west of Cell 6 in these areas was not over excavated and a 3' clay layer was not constructed over exposed limerock, which may result in the direct discharge of contact stormwater (i.e. leachate) diverted to the western edge of Cell 6 into the exposed limestone.*

*As shown on Sheet C-10 of the construction/operation drawings, a temporary stormwater diversion swale was to be constructed west of Cell 6. The details for this diversion swale, shown on Details 1 & 3 of Drawing C-22 of the construction/operation drawings, show the constructed cell bottom clay layer continuing in the constructed swale. The revised engineer of record narrative report, weekly construction photographs, and as-built surveys do not appear to describe or show the constructed diversion swale. The daily observation reports for July 14<sup>th</sup> and 15<sup>th</sup> discuss the "excavation & benching of western edge of cut for stormwater control, but do not appear to discuss the construction of the diversion swale, including the construction of the clay layer in the constructed swale.*

- a. *Please verify and provide supporting documentation that the permitted temporary stormwater diversion swale was constructed along the western edge of Cell 6.*

Response: The temporary stormwater diversion swale was constructed in accordance with the referenced requirements under the observation of the Engineer of Record. The signed/sealed construction completion certification report included this feature. Specifically, the certification statement, "...the project has been constructed in substantial

Inserted Into	OCULUS
Date:	6/4/12
Initials:	MM

accordance with the permit requirements” applies to this element of the work. This level of documentation/certification is consistent with what we have provided to the Department on previous cell certifications. We believed that previously accepted reporting standards would remain suitable for certification of this cell given the temporary, minor nature of this feature. However, to be clear, we have revised the enclosed pages of the certification report (footnoted; *Engineering Report Rev. 2; May 2012*) to specifically make mention of and to certify that the temporary stormwater diversion swale was constructed per the permit requirements. Since this feature is temporary and outside the cell footprint, there are no specific data reporting requirements or testing schedule (especially since this feature will become part of future Cell 7 and will be constructed to the permit requirements). However, field observations and measurements were performed by the Engineer of Record during construction to make sure that the undercut, clay backfill, and construction met the permit requirements. The enclosed revision pages should be used to replace the pages in the previous submittal.

- b. Please provide the supporting rationale for not determining the western extent of the limestone encountered during Cell 6 construction and not mitigating these areas to prevent potential discharge of contact stormwater (i.e., leachate) from Cell 6 into the limerock.*

Response: The referenced sentence, “...westernmost extent....west of Cell 6” language in the completion report refers to both the areas west of the temporary stormwater diversion swale and the borrow pit (mine), associated with the areas B-2, B-3, and B-4. Accordingly, there are no areas of exposed limerock that could serve as a preferential drainage path via limestone as they would relate to the operations of this landfill. The last sentence of paragraphs describing each of these areas state, “All limerock exposed at this location was over-excavated to a depth of 3’ as required to construct the clay barrier layer.” These areas are shown on Figure 1 in Attachment G. If limerock exists in the mine west of these areas (which are outside the operational limits of the landfill) it will be revealed as mine operations progress. This is consistent with the practices used to certify previous cells and in operating the mine. The western extent of the limestone associated with Cell 6 construction and mitigation has been determined and mitigated per the permit requirements.

2. *Geologic Boring Log MW-15B: Please provide a revised boring log for this well that includes the SPT blow count data.*

Response: The geologic boring log for MW-15B is complete with all recorded SPT blow count data (N-values). The Florida registered professional geologist on-site and directing the driller, Mr. John Locklear, P.G., advanced the soil boring using a combination of split spoon sampling (for which N-values are recorded) and auger boring (for which soil cuttings are evaluated). The purpose of the geologic soil boring was to characterize the lithology in terms of monitoring well construction and placement of the screened interval. Mr. Locklear discussed the vertical placement of wells screens with respect to lithology with Mr. Morris, P.G. prior to the field work. MW-15B was advanced in the field based on the professional judgment of Mr. Locklear to achieve those goals.

We trust this submittal, along with the financial assurance update, will satisfy the Department's certification requirements. Please call me at (352) 339-1408 if you have any questions or require any additional information.

Sincerely,



John Arnold, P.E. Date: 5/14/12  
State of Florida P.E. No.: 47164  
34924 Williams Cemetery Road  
Dade City, FL 33525  
Tel: (352) 339-1408

attachments  
cc:

Dominic Lafrate, Angelo's Recycled Materials



March 2, 2012

Dept. of Environmental  
Protection  
MAR 06 2012  
Southwest District

Mr. Steve Morgan  
Solid Waste Section  
Florida Department of Environmental Protection - Southwest District  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

RE: Enterprise Recycling and Disposal Facility  
Cell 6 Construction Completion Report – RAI No. 1 Response  
Angelo's Aggregate Materials, Ltd.  
FDEP Permit Nos. 177982-008-SC/T3 and 177982-007-SO/T3  
WACS No.: 87895  
Pasco County, Florida

Dear Mr. Morgan:

This letter is in response to the December 7, 2011 request for additional information (RAI) we received from you. In this response we've reiterated the Departments comments in italics, with our response immediately following.

1. *As indicated in of October 28, 2011 cover letter to the report, Specific Condition #B.2.a.(2) of Permit 177982-008-SC/T3 states that "The Record Documents shall include, but shall not be limited to, as-built elevations of the disposal areas (surveys), details and elevations of limerock encountered, and other details as appropriate." While the "Weekly Photographs" submitted with the certification report appear to show limerock encountered during construction, neither the certification report nor the record drawings surveys submitted appear to include "details and elevations of limerock encountered" during the construction of Cell 6. Please verify and revise the certification report to provide this information.*

Response: The requested information is enclosed and provided as "Attachment G - Limerock Details and Elevation Observations." Please append the *Cell 6 Construction Completion Report* dated October 28, 2011 by adding the enclosed Attachment G to the end of the report.

2. *In accordance with Specific Condition #E.3. of Permit 177982-007-SO/T3, monitoring wells MW-2A and MW-2B shall be installed at least 30 days prior to disposal of waste in Cell 6; documentation of MW-2A and MW-2B wells construction shall be submitted to the Department within 30 days of installation in accordance with Specific Condition #E.5.b., and #E.5.d.; initial sampling of MW-2A and MW-2B shall be conducted within 7 days of well installation and development for the parameters listed in Specific Condition #E.4.b; and the results of the initial sampling event shall be submitted to the Department within 30 days of receipt from the analytical laboratory. Please provide this information.*

Response: Installation, initial sampling, and reporting of the groundwater monitoring wells associated with Cell 6 construction is being coordinated by our sub-consultant, Mr. Lockleer P.G. All of the requested materials will be provided to the Department when available, in accordance with the referenced deadlines and requirements.

3. *Sub-Grade Survey: This survey indicates that the Cell 6 was excavated to an elevation inconsistent with the mining excavation grade for Cell 6 depicted on Drawing C-8A Filling Sequence 3A submitted on August 7, 2009 with Permit Modification 177982-017-SC/SM. The issue of inconsistencies in the permitted construction drawings was identified by the permittee in a December 27, 2010 e-mail to the Department. This e-mail included a drawing titled "Top of Clay Grading Plan" and stated that the "corresponding bottom of excavation would be 3' or greater in depth from the top of clay". The sub-grade excavation survey provided was evaluated based on the representations made in the December 27, 2010 email. However, this issue of permit drawing inconsistencies supports the conclusion that the current permit drawings need to be modified and updated drawings provided with the pending permit renewal application, as discussed during the November 30, 2011 pre-application meeting. **This comment is provided for information purposes only and does not necessarily require a response other than acknowledgement of the comment.***

Response: The comment is noted.

4. *Finished Grade Survey: This survey appears to indicate that the Cell 6 finished grade was completed along the north boundary of the Cell 6 footprint without construction of the cell side slope depicted on Drawing C-9A Filling Sequence 4 submitted on August 7, 2009 with Permit Modification 177982-017-SC/MM and shown on the "Top of Clay Grading Plan" drawing submitted to the Department via e-mail on December 27, 2010. Please verify this apparent construction deviation and discuss what corrective actions will be taken to reconstruct cell to the permitted design in this area.*

Response: In accordance with the February 28, 2012 email from Mr. Morgan, we request that Cell 6, with the exception of the area extending 50-foot south of the northern boundary line (which runs east-west), be certified for use. The excluded area would extend the entire width (280' +/-) of the Cell 6.

5. *Confining Layer Construction: This section states and the supporting information provided with the construction certification submittal appears to confirm that the 3-foot clay confining layer in the entirety of Cell 6 was constructed in three 1-foot lifts. However the permitted methodology for clay confining layer construction on side slopes depicted on Details 1A and 1B – "Typical Clay Side Slope Construction Detail" on Drawing C-23 Details, submitted on November 13, 2006 with Permit 177982-007-SC/T3 shows the construction of the 3-foot clay confining layer on side slopes in several 12 ft wide sections up the slope, with the excess soils removed after construction. Please verify and explain this apparent construction deviation and discuss what corrective actions will be taken to address this issue.*

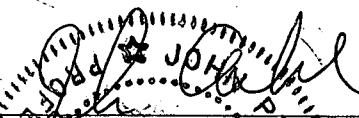
Response: The side slopes were constructed in several 12-foot wide layers with the excess material being removed after construction. The description of work (as referenced above) was only for the "bottom" portion of Cell 6 (excluding south slope of the clay layer that ties to existing grade). The report did not include a description of the side slope construction, which was a carry-over from the previous cell completion report (which was used as a template for this report). The Confining Layer Construction section of the *Cell 6 Construction Completion Report* has been revised to include a description of side slope construction. Please replace pages 1 and 2 of the previously submitted Engineering Report (Attachment C of the Cell 6 Construction Completion Report dated October 28, 2011) with the enclosed revised pages.

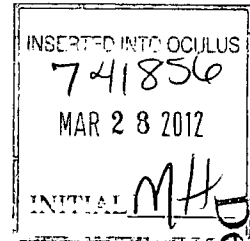
6. *The revised cost estimates provided in Attachment E (total for closing \$3,242,369.82 and long-term care \$163,854.8/year x 30 years = \$4,915,644.01), are approved (see attached letter). A copy of the approval letter will be forwarded to Mr. Frank Hornbrook, Solid Waste Section, FDEP, 2600 Blair Stone Road, Tallahassee, Florida 32399-2407. Please work with him directly to assess the facility's compliance with the funding mechanism requirements of Rule 62-701.630, F.A.C. Please provide proof of adequate funding.*

Response: The Letter of Credit used to provide financial assurance has been updated to include both the addition of Cell 6 and the 2012 annual inflation adjustment authorized by the Department. The Letter of Credit from our bank (Comerica) has been provided to Mr. Frank Hornbrook in the Solid Waste Section.

We trust this submittal, along with the financial assurance update, will satisfy the Department's certification requirements. Please call me at (352) 339-1408 if you have any questions or require any additional information.

Sincerely,

  
John Arnold, E.R. Date: 3/2/12  
State of Florida P.E. No.: 47164  
34924 Williams Cemetery Road  
Dade City, FL 33525  
Tel: (352) 339-1408  
ENGINEER 070186  
attachments  
cc: Dominic LaRue, Angelo's Recycled Materials



October 28, 2011

Ms. Susan Pelz, P.E.  
Solid Waste Section  
Florida Department of Environmental Protection - Southwest District  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

RE: Enterprise Recycling and Disposal Facility  
Cell 6 Construction Completion Report  
Angelo's Aggregate Materials, Ltd.  
FDEP Permit Nos. 177982-008-SC/T3 and 177982-007-SO/T3  
WACS No.: 87895  
Pasco County, Florida

Southwest District  
NOV 08 2011  
Dept. of Environmental  
Protection

Dear Ms. Pelz:

This report contains the Certification of Construction Completion (Certification) and Construction Quality Assurance (CQA) data for Cell 6 of the Enterprise Class III landfill and is being submitted to the Florida Department of Environmental Protection (Department) for review and approval.

The CQA program and certification reporting are based on the specific condition requirements contained in FDEP Permit No. 177982-008-SC/T3, which include the following:

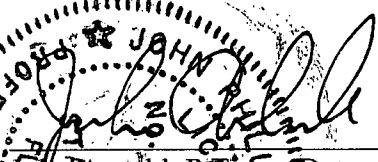
- a. **The owner or operator shall submit a Certification of Construction Completion, Form 62-701.900(2), signed and sealed by the professional engineer in charge of construction and quality assurance to the Department for approval (Specific Condition 177982-008-SC/T3, Part B, 2.a.1). The Certification of Construction Completion is provided in Attachment A.**
- b. **The permittee shall submit Record Drawings/Documents showing all changes (i.e. additions, deletions, revisions to the plans previously approved by the Department including site grades and elevations). The Record Documents shall include, but not be limited to, as-built elevations of the disposal areas (surveys), details and elevations of limerock encountered, and other details as appropriate (Specific Condition 177982-008-SC/T3, Part B, 2.a.2). The Record Drawings are provided in Attachment B.**
- c. **The owner or operator shall submit a narrative indicating all changes in plans, the cause of the deviations, and certification of the Record Drawings/Documents**

by the Engineer to the Department (Specific Condition 177982-008-SC/T3, Part B, 2.a.3). The narrative report was prepared by the professional engineer of record is provided in Attachment C.

- d. The professional engineer of record shall submit to the Department a final report to verify conformance with the project specifications, including all test results for the development of each cell (Specific Condition 177982-008-SC/T3, Part B, 2.a.4). This document, including the Construction Quality Assurance Testing performed by Universal Engineering Sciences, Inc. (provided in Attachment D) are provided in accordance with is requirement.
- e. Prepare and submit financial assurance for the facility in accordance with F.A.C. 62-701.630 and Specific Condition 177982-008-SC/T3, Part D.4). The 2011 financial assurance estimates have been updated to include Cell 6 and is provided in Attachment E. An updated letter of credit that includes Cell 6 will be provided to Fred Wick in the Tallahassee office of the FDEP pending approval of the enclosed estimate by the Department.

We trust this submittal, along with the financial assurance update, will satisfy the Department's certification requirements. Please call me at (352) 339-1408 if you have any questions or require any additional information.

Sincerely,

  
John Lafrate, P.E.  
Date: 10/28/11  
State of Florida P.E. No.: 47164  
3402 Williams Cemetery Road  
Date City, FL 38525  
(352) 339-1408

attachments

cc: Dominic lafrate, Angelo's Recycled Materials

**Attachment A**

**Certification of Construction Completion  
FDEP Form 62-701.900(2)**



# Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

DEP Form # 62-701.900(2)

Form Title Certification of Construction Completion  
of a Solid Waste Management Facility

Effective Date May 19, 1994

## Certification of Construction Completion of a Solid Waste Management Facility

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
NOV 08 2011  
SOUTHWEST DISTRICT  
TAMPA

DEP Construction Permit No: 177982-008-SC/T3 County: PASCO

Name of Project: ENTERPRISE RECYCLING & DISPOSAL FACILITY

Name of Owner: ANGELO'S AGGREGATE MATERIALS, LTD

Name of Engineer: JOHN P. ARNOLD, P.E.

Type of Project: CELL 6 OF THE CLASS III LANDFILL; CERTIFICATION OF AS-BUILT DRAWINGS  
AND CERTIFICATION OF CLAY LINER CONSTRUCTION AND CONFORMANCE TESTING

Cost: Estimate \$250,000 est. Actual \$250,000 est.

Site Design Quantity: 7,500 ton/day Site Acreage: 10.86 (1,690' x 280') Acres

Deviations from Plans and Application Approved by DEP (attach additional pages as needed):

TOP OF CLAY EXCEEDS MINIMUM ELEVATION REQUIRED BY FDEP. CERTIFIED AS-BUILT  
DRAWINGS AND SOIL TEST RESULTS SHOW CONSTRUCTION TO BE IN SUBSTANTIAL  
ACCORDANCE WITH PERMITTED PLANS.

Address and Telephone No. of Site: 4111 ENTERPRISE RD., DADE CITY, FL 33525

Name(s) of Site Supervisor: MR. ALFREDO MARTINEZ

Date Site inspection is requested: NOVEMBER 21-25, 2011

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

Permit No.: 177982-008-SC/T3 & -007-SO/T3 Dated: 05/31/2007

Date: OCTOBER 28, 2011

*John P. Arnold*  
Signature of Professional Engineer  
No. 47164  
PE No. 47164 OF  
STATE  
3997 W. Williams Cemetery Rd  
Dade City, FL 33525  
PROFESSIONAL ENGINEER

## **Attachment B**

### **Record Drawings Simmons & Beall, Inc.**

Topographic surveys, signed and sealed by a Florida registered Professional Surveyor and Mapper, of the tops of both the over-excavated subgrade and the finished 3-foot thick clay layer are provided. The Surveyor of record is Simmons and Beall. The Surveyor also provided layout and grading control in the field during construction of the cell to monitor and verify conformance with the Department approved requirements.

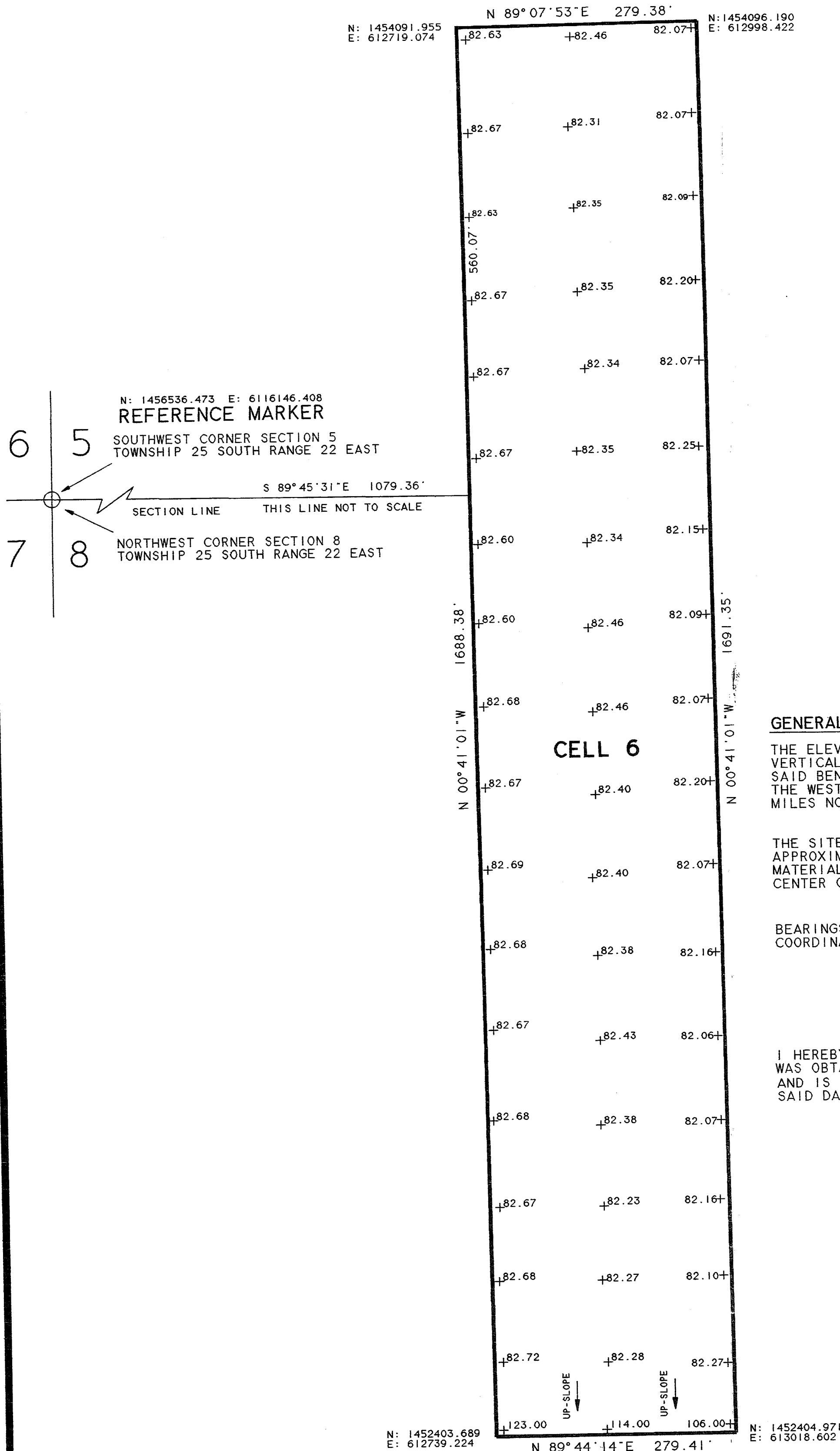


# ANGELO'S RECYCLED MATERIALS ENTERPRISE ROAD FACILITIES

SECTIONS 5 & 8 TOWNSHIP 25 SOUTH RANGE 22 EAST 1573194 ①  
PASCO COUNTY, FLORIDA



SCALE 1" = 100'



## CELL NO. 6 FINISHED GRADE SURVEY

### GENERAL NOTES

THE ELEVATIONS SHOWN HEREON ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 AND REFERENCED TO U.S.G.S. BENCHMARK # Q-56. SAID BENCHMARK BEING LOCATED ON THE NORTH SIDE OF JORDAN ROAD AND THE WEST RIGHT-OF-WAY LINE OF THE CSX RAILROAD APPROXIMATELY TWO MILES NORTH OF DADE CITY, FLORIDA.

THE SITE BENCHMARK IS LOCATED ON THE NORTH SIDE OF ENTERPRISE ROAD APPROXIMATELY 75 FEET WEST OF THE ENTRANCE TO ANGELO'S RECYCLED MATERIALS LAND FILL, BEING A 5/8" IRON ROD AND CAP NO. LB6382 IN THE CENTER OF AN AERIAL PANEL WITH AN ELEVATION OF 148.94 FEET.

BEARINGS AND COORDINATES SHOWN HEREON BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE.

I HEREBY CERTIFY THAT THE INFORMATION CONTAINED ON THIS PUBLICATION WAS OBTAINED UNDER MY DIRECTION FROM JUNE 8, TO OCTOBER 28, 2011, AND IS A TRUE REPRESENTATION OF THE GROUND ELEVATIONS EXISTING ON SAID DATES.

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
NOV 08 2011  
SOUTHWEST DISTRICT  
TAMPA

PREPARED BY:

BOBBY W. SIMMONS  
PROFESSIONAL LAND SURVEYOR  
FLORIDA PLS CERT. NO. 37655  
FLORIDA LB CERT. NO. 6382

NOT VALID UNLESS IMPRINTED WITH RAISE/RECEIVED

GENERAL LEGEND	
(D)	- Deed or Description
CM	- Concrete Monument
POB	- Point of Beginning
PCP	- Permanent Control Point
PRM	- Permanent Reference Monument
R/W	- Right of Way
RRS	- Railroad Spike
N & D	- Nail and Disk
ID	- Computed Data
P.C.	- Point of Curvature
P.T.	- Point of Tangency
IP	- Iron Pipe
IR	- Iron Rod
CL	- Center Line
FD	- Found
S	- Set
(R)	- Radial
(NR)	- Non Radial
REVISIONS	

### SIMMONS & BEALL, INC

SURVEYING & MAPPING  
FLORIDA LB. NO. 6382



P.O. BOX 1297  
36739 STATE ROAD 52  
DADE CITY, FLORIDA 33526  
(352) 567-0048  
FAX (352) 567-0675

Date of Survey: 10-28-11 Drawn by: CD

Date of Plot: 10-28-11 Checked by: BWS

Job Number: 06087-C6 Sheet: TWO OF TWO

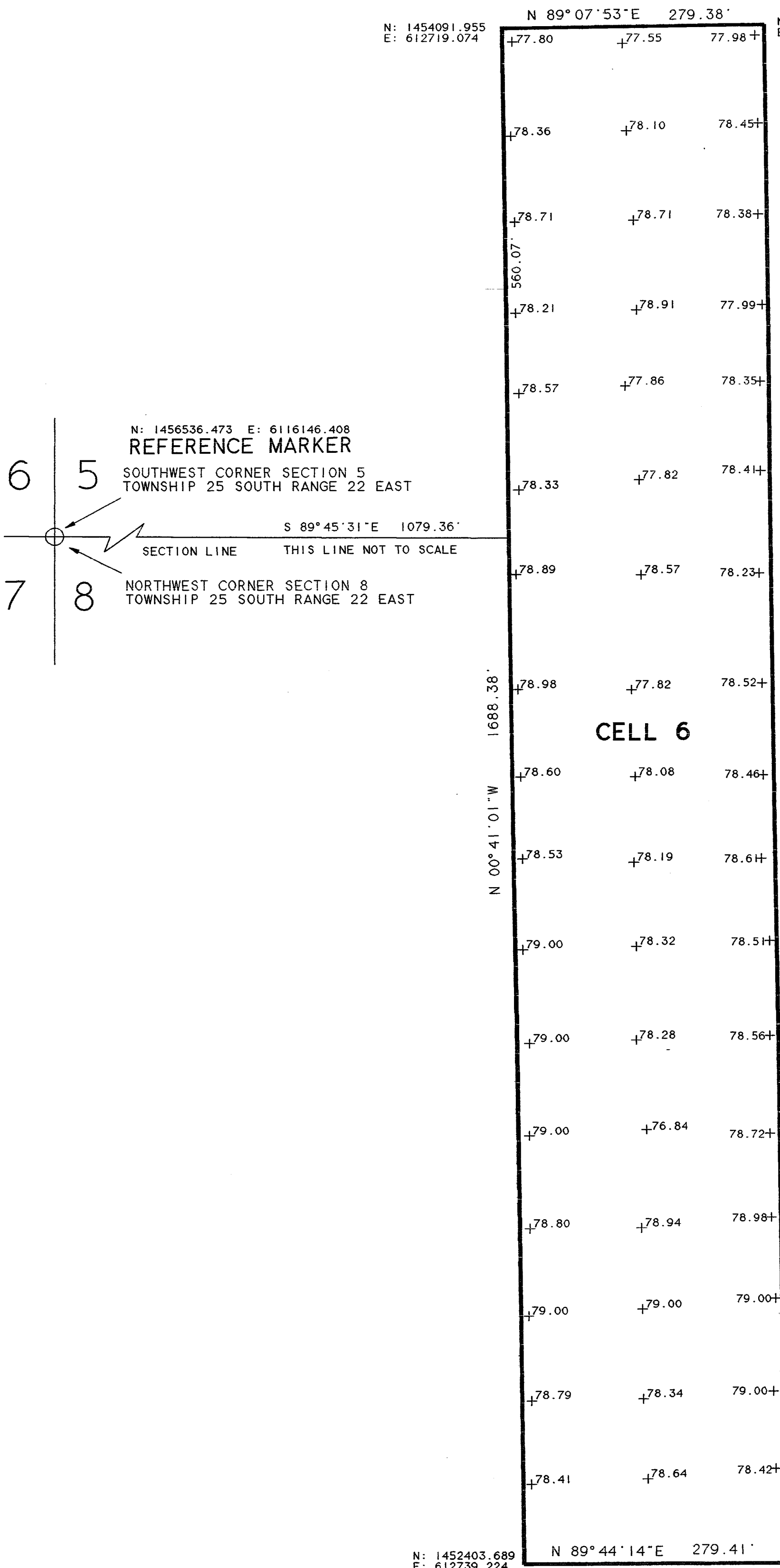
CERTIFIED TO: ANGELO'S RECYCLED MATERIALS

# ANGELO'S RECYCLED MATERIALS ENTERPRISE ROAD FACILITIES (2)

SECTIONS 5 & 8 TOWNSHIP 25 SOUTH RANGE 22 EAST  
PASCO COUNTY, FLORIDA



SCALE 1" = 100'



## GENERAL NOTES

THE ELEVATIONS SHOWN HEREON ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 AND REFERENCED TO U.S.G.S. BENCHMARK # Q-56. SAID BENCHMARK BEING LOCATED ON THE NORTH SIDE OF JORDAN ROAD AND THE WEST RIGHT-OF-WAY LINE OF THE CSX RAILROAD APPROXIMATELY TWO MILES NORTH OF DADE CITY, FLORIDA.

THE SITE BENCHMARK IS LOCATED ON THE NORTH SIDE OF ENTERPRISE ROAD APPROXIMATELY 75 FEET WEST OF THE ENTRANCE TO ANGELO'S RECYCLED MATERIALS LAND FILL, BEING A 5/8" IRON ROD AND CAP NO. LB6382 IN THE CENTER OF AN AERIAL PANEL WITH AN ELEVATION OF 148.94 FEET.

BEARINGS AND COORDINATES SHOWN HEREON BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE.

I HEREBY CERTIFY THAT THE INFORMATION CONTAINED ON THIS PUBLICATION WAS OBTAINED UNDER MY DIRECTION FROM FEBRUARY 23, TO OCTOBER 07, 2011, AND IS A TRUE REPRESENTATION OF THE GROUND ELEVATIONS EXISTING ON SAID DATES.

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
NOV 08 2011  
SOUTHWEST DISTRICT  
TAMPA

PREPARED BY:

BOBBY W. SIMMONS  
PROFESSIONAL LAND SURVEYOR  
FLORIDA PLS CERT. NO. 27626  
FLORIDA LB CERT. NO. 6382

NOT VALID UNLESS IMPRINTED WITH REGISTERED SEAL

## GENERAL LEGEND

(D) - Deed or Description  
CM - Concrete Monument  
P.B. - Point of Beginning  
P.C.P. - Permanent Control Point  
P.R.M. - Permanent Reference Monument  
R/W - Right of Way  
R.R.S. - Railroad Spike  
N & D - Nail and Disk  
CD - Computed Data  
P.C. - Point of Curvature  
P.T. - Point of Tangency  
I.P. - Iron Pipe (F) - Field Data  
I.R. - Iron Rod  
P. - Plot  
C. - Center Line  
F.D. - Found  
S. - Set  
R. - Radial  
N.R. - Non Radial

## REVISIONS

## SIMMONS & BEALL, INC

SURVEYING & MAPPING  
FLORIDA LB. NO. 6382



P.O. BOX 1297  
36739 STATE ROAD 52  
DADE CITY, FLORIDA 33526  
(352) 567-0048  
FAX (352) 567-0675

02-23-11

Date of Survey: 10-07-11

Drawn by: CD

Date of Plot: 10-28-11

Checked by: BWS

Job Number: 06087-C6

Sheet: ONE OF TWO

CERTIFIED TO: ANGELO'S RECYCLED MATERIALS

**Attachment C**

**Engineer of Record Narrative Report**

**Engineer of Record Narrative Report**

**Enterprise Recycling and Disposal Facility  
Cell 6 Construction**

**FDEP Permits No.: 177982-008-SC/T3 and 177982-007-SO/T3  
WACS No.: 87895**

**Prepared For:**

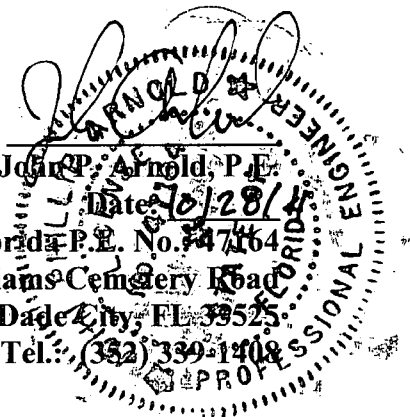
**Angelo's Aggregate Materials, Ltd.  
P.O. Box 1493  
Largo, FL 33779**

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
NOV 08 2011  
SOUTHWEST DISTRICT  
TAMPA

**Prepared By:**

**Engineer of Record: John P. Arnold, P.E.**

**Date: 10/28/11  
State of Florida P.E. No. 747164  
34924 Williams Cemetery Road  
Dade City, FL 33525  
Tel.: (352) 339-1408**



## **Background**

This report documents the activities and methods of construction for Cell 6 (approximately 10.86 acres in size) in accordance with FDEP Permit No. 177982-008-SC/T3.

Record Drawings of the tops of both the subgrade and 3' clay layer were performed by the Surveyor and evaluated by the Engineer of Record (Engineer) for conformance with the Department requirements. The Record Drawings are provided in Attachment B. The surveys show that the subgrade was over-excavated a minimum of 3-feet and backfilled with clay to the prescribed minimum finished grades, or higher. The clay was placed in three (3) 12-inch thick compacted lifts. Tests for each completed clay lift were performed to ensure compliance with the Department requirements. The top of the finished clay layer is higher than the minimum elevations shown on the approved plans.

Universal Engineering Sciences, Inc. (UES) performed all field and laboratory testing in accordance with the Construction Quality Assurance (CQA) requirements. Simmons and Beall Land Surveyors provided layout control throughout construction activities and performed Record Surveys of both the over-excavated (subgrade) surface and top-of-clay surface. Mr. John Arnold, P.E. served as the professional engineer of record and he, or his designee was on-site at all times during construction to monitor construction activities.

## **Confining Layer Construction**

Cell 6 was over-excavated by a minimum of 3 feet below the finished grade of the top of the clay layer. This was primarily accomplished as part of the mining activities associated with this site. The over-excavation was performed using tracked excavating equipment. The Surveyor provided grade stakes and performed field layout services to verify that the excavation was sufficient to meet the 3-foot over-excavation criteria. In the bottom (excludes southern side slope) of Cell 6, clay was placed and compacted in the over-excavated cell area using 12-inch lifts to construct the confining layer. The side slope along the south side of Cell 6 was constructed in accordance with Details 1A and 1B – “Typical Clay Side Slope Construction Detail” on Drawing C-23 Details, submitted on November 13, 2006 with Permit 177982-007-SC/T3. Clay was placed in several 12 ft wide sections (approximately 2' thick) and compacted up the side slope, with the excess soils removed after construction. Signed and Sealed drawings documenting the As-Built conditions of the tops of both the over-excavation and confining layer are provided in Attachment B.

Clay from on-site was used to construct the confining layer. The clay was installed and compacted to within at least 95% of the maximum dry density in accordance with ASTM D698. The clay for each lift was spread with a bull dozer and compacted with multiple passes of loaded off-road (articulating) dump trucks. The in-place density and moisture content for each lift of the confining layer was evaluated by the Universal representative using nuclear-density testing and Speedy Moisture Content devices, respectively. Cell 6 was subdivided by row and column into 12 sections for testing. Each section was less than 1 acre in size, which was the approved testing frequency used for in-place materials, per lift. Lifts were designated as Lift 1, 2, or 3 (from bottom to top). Columns A and B ran north-south and are 140' wide. Rows 1 thru 6 rows ran east-west and are approximately 282' long. A figure depicting the Cell 6 Test Plan is attached.

The UES field technician collected undisturbed Shelby tube samples for each test section, per completed lift, to verify that the installed permeability met or exceeded the Department approved criteria. Permeability testing was performed on the undisturbed Shelby tube samples in the laboratory using a triaxial-permeameter device. The collected samples were also used to evaluate Atterberg Limits.

Results of the density, permeability, and moisture content tests, including the testing plan key map, are in the Universal Testing Report provided as Attachment C.

### **Temporary Stormwater Diversion Swale Construction**

The temporary stormwater diversion swale along the west side of Cell 6 was constructed in accordance with the permit requirements, as observed in the field by the Engineer of Record. The permit documents do not specify a testing schedule for this temporary feature. Field grade stakes and depth measurements were performed on a daily basis for the construction of this feature. The subgrade soils were excavated by a minimum of 3' below the top of the finished swale. Clay from the same source as the bottom liner was used to construct the temporary stormwater diversion swale; which was placed and compacted in 12-inch thick lifts. The subgrade extending approximately 20' west of the temporary stormwater diversion swale was also over-excavated by a minimum of 3' and backfilled with bottom liner clay. At the completion of Cell 6 construction, all occurrences of limestone were remediated per the permit requirements.

### **Field Inspection, Review, Conformance Assessment, and Major Deviations**

John Arnold, P.E., serving as the Engineer of Record, reviewed the UES Testing Report, As-Built (Record) drawings, performed daily field inspections/observations, and prepared and submitted this report and Certification of Construction Completion to the Department for review and approval. In accordance with requirements of Specific Condition 177982-008-SC/T3, Part B, 6.b.:

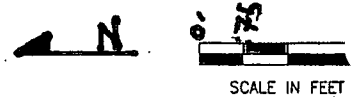
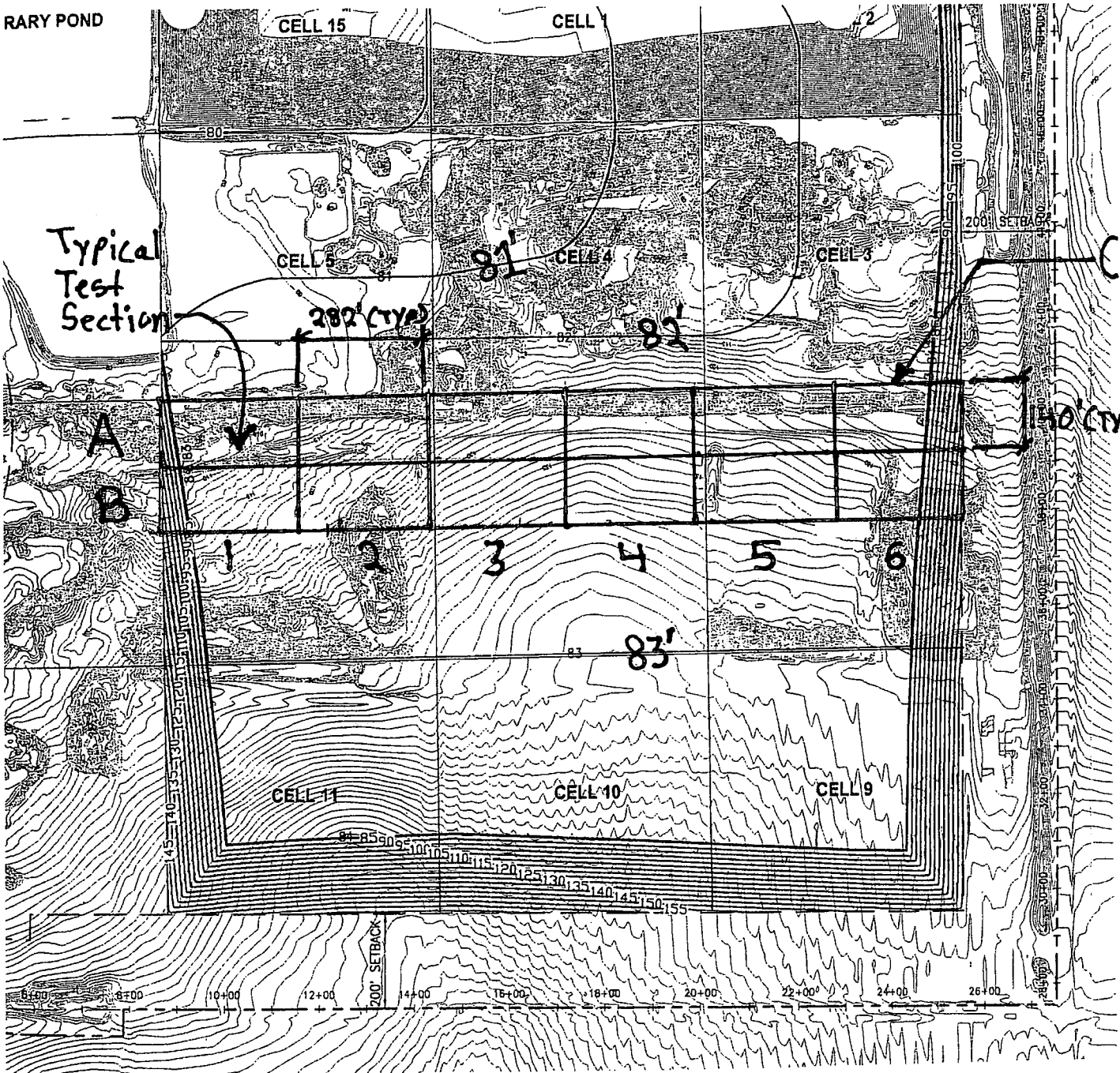
1. There were no occurrences of sinkholes, soft zones, ravel areas, or unstable conditions associated with construction of Cell 6.
2. There were no submittal or change orders associated with construction of Cell 6.
3. Weekly progress meeting were informal and minutes were not taken.
4. Daily observation reports and photographs of construction activity are attached to this Engineer of Record Narrative Report.

### **Summary**

Review of the UES Testing Report, Record Drawings, and field observations during construction indicate that Cell 6 has been constructed in substantial accordance with the Department approved permit requirements.

## **Cell 6 Test Plan**

RARY POND



**LEGEND**

- PROPERTY BOUNDARY
- LANDFILL LIMITS
- CELL BOUNDARY
- - - - - FLOW ARROW
- APPROXIMATE EXCAVATION CONTOURS

**NOTES:**

1. PROPOSED CONTOURS REPRESENT THE TOP OF CLAY (3' BARRIER LAYER) ELEVATION.
2. THIS PLAN REPRESENTS CELL BOTTOM GRADES IF ALL MINING AND CELL GRADING WAS COMPLETED PRIOR TO LANDFILLING. SEE DRAWING C-5 THROUGH C-13 FOR ACTUAL PHASED CONSTRUCTION.
3. Cell 6 Test Plan Applies to Lifts 1, 2, and 3 of 3' Clay Barrier Layer.
4. Hand notes by John Arnold, P.E. on October 2011.

Cell 6 Test Plan

CERTIFICATE OF AUTHORIZATION #1841	DATE	PROJECT NO.
APPROVED BY	NOV 2006	01030-005-01
MARK ROBERTS, P.E.	SCALE	DWG. NO.
P.E. # 54187	1"=150'	C-4



## **Weekly Photographs**

# Angelo's Enterprise Class III Cell 6

Week Ending 1/9/11



# Angelo's Enterprise Class III Cell 6

Week Ending 1/16/11



# Angelo's Enterprise Class III Cell 6

Week Ending 1/23/11

No work activities for week due to rain



# Angelo's Enterprise Class III Cell 6

Week Ending 1/30/11



# Angelo's Enterprise Class III Cell 6

Week Ending 1/30/11





# Angelo's Enterprise Class III Cell 6

Week Ending 2/6/11



# Angelo's Enterprise Class III Cell 6

Week Ending 2/13/11





# Angelo's Enterprise Class III Cell 6

Week Ending 2/20/11



# Angelo's Enterprise Class III Cell 6

Week Ending 2/27/11





# Angelo's Enterprise Class III Cell 6

Week Ending 2/27/11



# Angelo's Enterprise Class III Cell 6

Week Ending 3/06/11





# Angelo's Enterprise Class III Cell 6

Week Ending 3/06/11



# Angelo's Enterprise Class III Cell 6

Week Ending 3/06/11





# Angelo's Enterprise Class III Cell 6

Week Ending 3/06/11



# Angelo's Enterprise Class III Cell 6

Week Ending 3/13/11





# Angelo's Enterprise Class III Cell 6

Week Ending 3/20/11



# Angelo's Enterprise Class III Cell 6

Week Ending 3/27/11





# Angelo's Enterprise Class III Cell 6

Week Ending 4/03/11



# Angelo's Enterprise Class III Cell 6

Week Ending 4/10/11

No Work Activities for Week Due to Rain and Mechanical Repairs

# Angelo's Enterprise Class III Cell 6

Week Ending 4/17/11





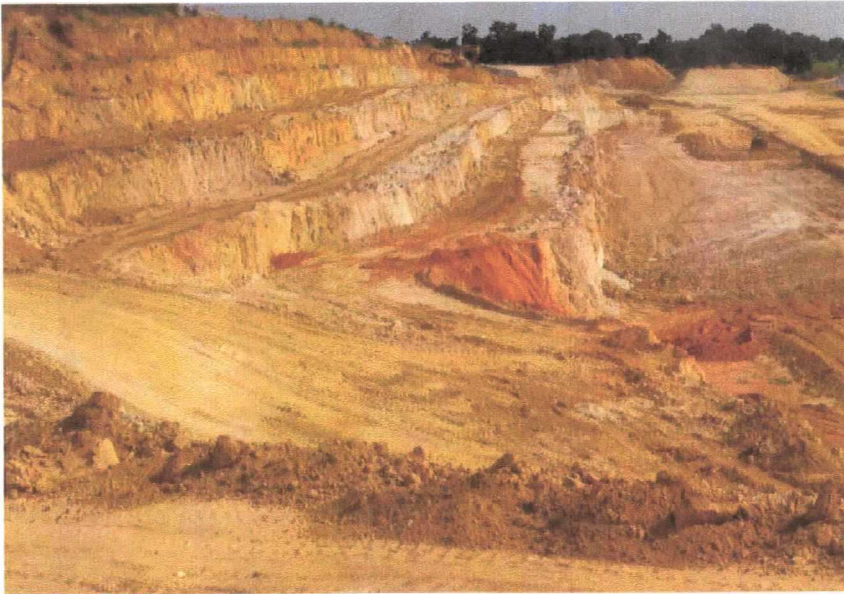
# Angelo's Enterprise Class III Cell 6

Week Ending 4/24/11



# Angelo's Enterprise Class III Cell 6

Week Ending 5/01/11





# Angelo's Enterprise Class III Cell 6

Week Ending 5/08/11





# Angelo's Enterprise Class III Cell 6

Week Ending 5/15/11



# Angelo's Enterprise Class III Cell 6

Week Ending 5/22/11





# Angelo's Enterprise Class III Cell 6

Week Ending 5/29/11



# Angelo's Enterprise Class III Cell 6

Week Ending 6/05/11





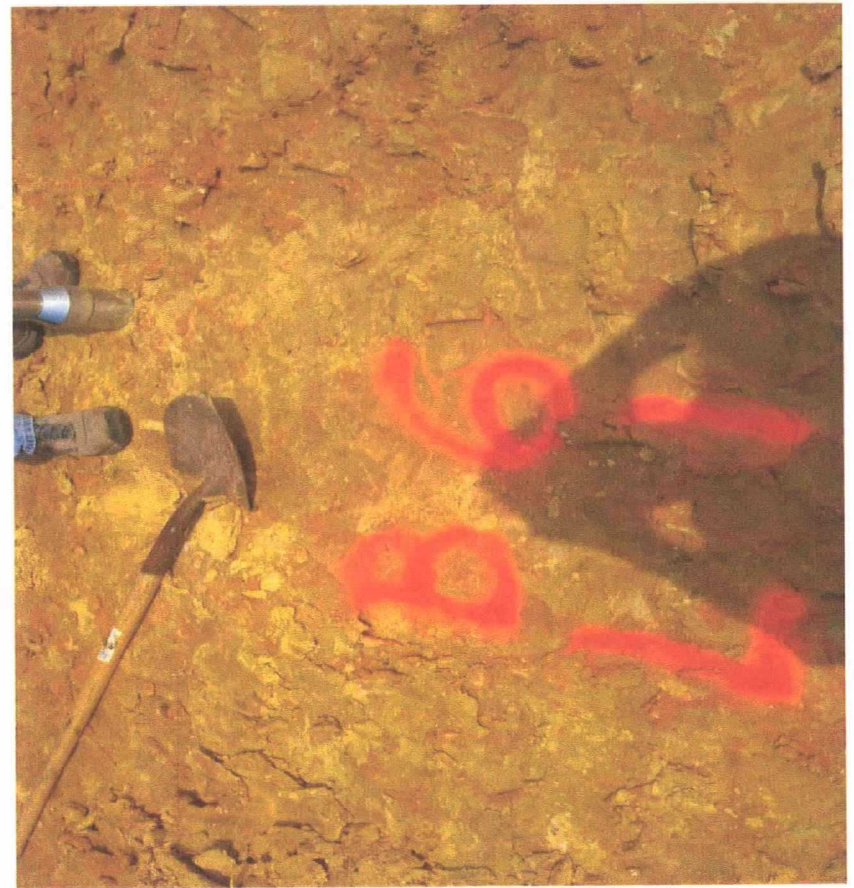
# Angelo's Enterprise Class III Cell 6

Week Ending 6/12/11



# Angelo's Enterprise Class III Cell 6

Week Ending 6/19/11





# Angelo's Enterprise Class III Cell 6

Week Ending 6/26/11





# Angelo's Enterprise Class III Cell 6

Week Ending 7/03/11



# Angelo's Enterprise Class III Cell 6

Week Ending 7/10/11

Very Limited Construction Activities for the Week Due to Rain

# Angelo's Enterprise Class III Cell 6

Week Ending 7/17/11

No Construction Activities for the Week Due to Rain

# Angelo's Enterprise Class III Cell 6

Week Ending 7/24/11

No Construction Activities for the Week Due to Rain

# Angelo's Enterprise Class III Cell 6

Week Ending 7/31/11

No Construction Activities for the Week Due to Rain

# Angelo's Enterprise Class III Cell 6

Week Ending 8/7/11



# Angelo's Enterprise Class III Cell 6

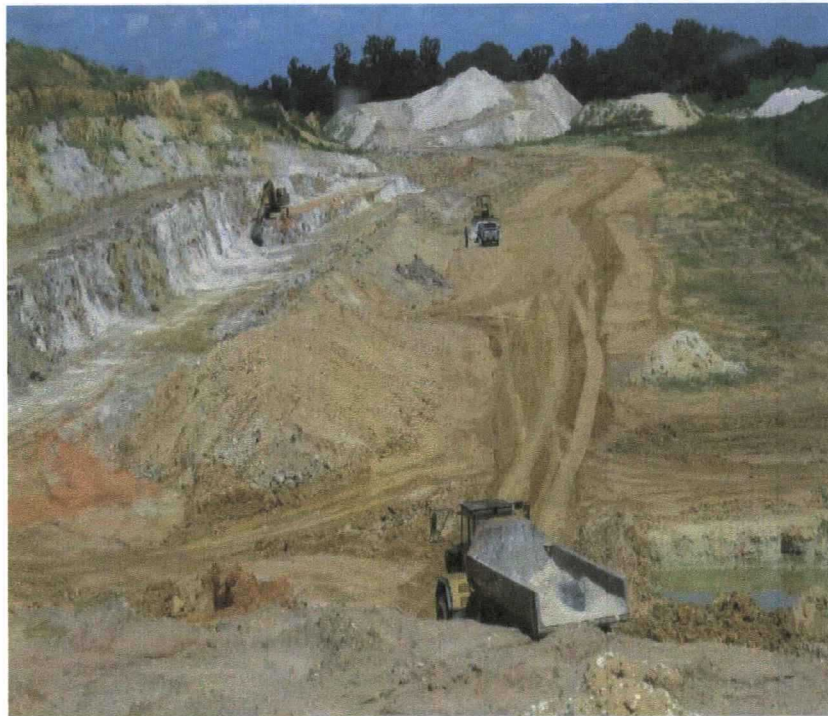
Week Ending 8/14/11

Very Limited Construction Activities Due to Rain



# Angelo's Enterprise Class III Cell 6

Week Ending 8/21/11



# Angelo's Enterprise Class III Cell 6

Week Ending 8/28/11



# Angelo's Enterprise Class III Cell 6

Week Ending 9/04/11

No Work Activities Due To Rain

# Angelo's Enterprise Class III Cell 6

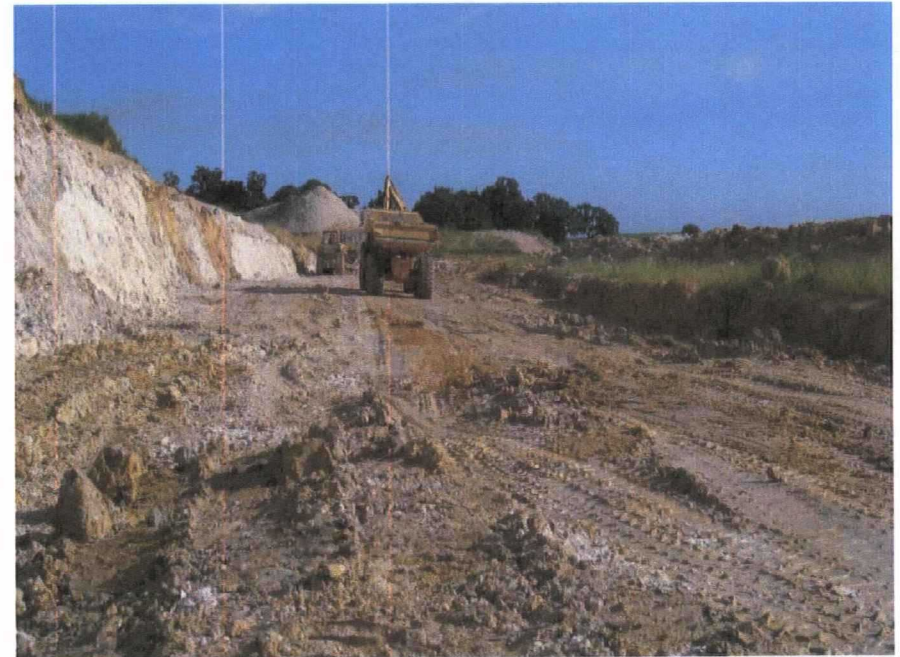
Week Ending 9/11/11

No Work Activities Due To Rain



# Angelo's Enterprise Class III Cell 6

Week Ending 9/18/11



# Angelo's Enterprise Class III Cell 6

Week Ending 9/25/11



# Angelo's Enterprise Class III Cell 6

Week Ending 10/2/11

No Work Activities Due To Rain



# Angelo's Enterprise Class III Cell 6

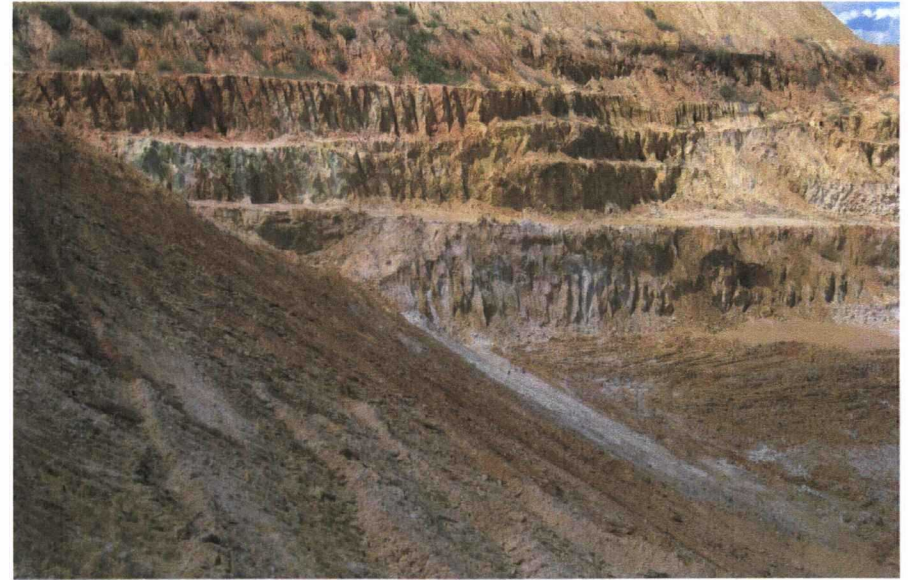
Week Ending 10/09/11





# Angelo's Enterprise Class III Cell 6

Week Ending 10/16/11



## **Daily Observation Reports**

# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd

Engineer of Record: John Arnold, P.E. (JPA)

Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.

Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
1/3/11	JPA	65, clear		Excavation of easternmost portion of cell. Work is progressing from North to South.
1/4/11	JPA	60, clear		Continued excavation of approximate 40' wide strip from North to South
1/5/11	JPA	65, clear		Continued excavation of approximate 40' wide strip from North to South
1/6/11	JPA	60, clear		Continued excavation of approximate 40' wide strip from North to South
1/7/11	JPA	55, clear		Continued excavation of approximate 40' wide strip from North to South
1/8/11	JPA	60, clear		Continued excavation of approximate 40' wide strip from North to South
1/9/11				
1/10/11	JPA	65, cloudy		Excavation of easternmost portion of cell. Work is progressing from North to South and is at the approximte mid point.
1/11/11	JPA	55, rainy	1.00	No Cell Work Activities - Wet Conditions
1/12/11	JPA	50, cloudy		No Cell Work Activities - Wet Conditions
1/13/11	JPA	45, cloudy		No Cell Work Activities - Wet Conditions
1/14/11	JPA	55, cloudy		Excavation of easternmost portion of cell, approximately 40' wide. Shows as "A" column (N-S) on the testing key.
1/15/11	JPA	60, clear		Excavation of easternmost portion of cell, approximately 40' wide. Shows as "A" column (N-S) on the testing key.
1/16/11				

# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd  
 Engineer of Record: John Arnold, P.E. (JPA)  
 Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.  
 Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
1/17/11	JPA	60, rainy	0.20	No Cell Work Activities - Wet Conditions
1/18/11	JPA	65, rainy	2.25	No Cell Work Activities - Wet Conditions
1/19/11	JPA	65, rainy	0.05	No Cell Work Activities - Wet Conditions
1/20/11	JPA	75, overcast		No Cell Work Activities - Wet Conditions
1/21/11	JPA	60, rainy	1.00	No Cell Work Activities - Wet Conditions
1/22/11	JPA	50, rainy	0.40	No Cell Work Activities - Wet Conditions
1/23/11				
1/24/11	JPA	60, clear		No Cell Work Activities - Wet Conditions
1/25/11	JPA	70, clear		Excavation progressing throughout the A column progressing. The north to south progression continues to move westerly.
1/26/11	JPA	55, cloudy		Excavation progressing throughout the A column progressing from East to West.
1/27/11	JPA	50, clear		Excavation progressing throughout the A column progressing from East to West.
1/28/11	JPA	55, cloudy		Excavation progressing throughout the A column progressing from East to West.
1/29/11	JPA	60, cloudy		Excavation progressing throughout the A column progressing from East to West.
1/30/11				



# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd

Engineer of Record: John Arnold, P.E. (JPA)

Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.

Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
1/31/11	JPA			Excavation progressing throughout the A column progressing from East to West.
2/1/11	JPA	70, clear		Excavation progressing throughout the A column progressing from East to West.
2/2/11	JPA	70, clear		Excavation progressing throughout the A column progressing from East to West.
2/3/11	JPA	70, clear		Excavation progressing throughout the A column progressing from East to West.
2/4/11	JPA	75, clear		Excavation progressing throughout the A column progressing from East to West.
2/5/11	JPA	65, clear		Excavation progressing throughout the A column progressing from East to West.
2/6/11				
2/7/11	JPA	65, rainy	0.50	No Cell Work Activities - Wet Conditions
2/8/11	JPA	55, overcast		Limited excavation, slightly wet contitions.
2/9/11	JPA	60, cloudy		Limited excavation, slightly wet contitions.
2/10/11	JPA	65, rainy	0.10	No Cell Work Activities - Wet Conditions
2/11/11	JPA	55, rainy	0.20	No Cell Work Activities - Wet Conditions
2/12/11	JPA	55, cloudy		No Cell Work Activities - Wet Conditions
2/13/11				

# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd  
 Engineer of Record: John Arnold, P.E. (JPA)  
 Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.  
 Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
2/14/11	JPA	55, clear		Excavation of A column approaching final cut (approximately 140' west of existing landfill cell boundary).
2/15/11	JPA	60, clear		Continued excavation of A column.
2/16/11	JPA	65, clear		Continued excavation of A column. Excavation now is entering the eastern Portion of the B Column.
2/17/11	JPA	65, clear		Continued excavation of A column. Excavation now is entering the eastern Portion of the B Column.
2/18/11	JPA	70, clear		Continued excavation of A column. Excavation now is entering the eastern Portion of the B Column.
2/19/11	JPA	65, clear		Continued excavation of A column. Excavation now is entering the eastern Portion of the B Column.
2/20/11				
2/21/11	JPA	70, clear		Excavation of B column. Call surveyor to measure bottom of cut grades in A column.
2/22/11	JPA	75, clear		Continued excavation in B Column
2/23/11	JPA	75, clear		Surveyors Measuring Excavation Grades. Continued Excavation of B column.
2/24/11	JPA	75, clear		Excavation of B directed at backfilling excavated area. Loaded trucks proof loading and backfilling with compaction.
2/25/11	JPA	75, clear		Excavation of B column. Work is an approximate 40' wide strip (north to south) that advances the cut in a westerly direction.
2/26/11	JPA	70, clear		Excavation of B column with clay being backfilled in 4. Orient off road trucks to make maximum, loaded passes for compaction.
2/27/11				

# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd  
 Engineer of Record: John Arnold, P.E. (JPA)  
 Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.  
 Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
2/28/11	JPA	75, clear		Excavation of B column with clay being backfilled in 4. Orient off road trucks to make maximum, loaded passes for compaction.
3/1/11	JPA	75, overcast		Excavation of B column with clay being backfilled in 4. Orient off road trucks to make maximum, loaded passes for compaction.
3/2/11	JPA	70, cloudy		Excavation of B column with clay being backfilled in 4. Orient off road trucks to make maximum, loaded passes for compaction.
3/3/11	JPA	70, overcast		Excavation of B column with clay being backfilled in 4. Orient off road trucks to make maximum, loaded passes for compaction.
3/4/11	JPA	70, overcast		UES Sampling A4-1&2, A5-1&2, A6-1&2; excvaton of B column continues. Backfilling of A continues (staggered for testing of lifts)
3/5/11	JPA	70, overcast, sprinkles		Excavation of B column continues. Backfilling of A continues (staggered for testing of lifts)
3/6/11				
3/7/11	JPA	65, cloudy		Finish staggered backfilling over surveyed area and testing. Continue B excavation.
3/8/11	JPA	70, clear		UES Sampling A1-1&2, A2-1&2, A3-1&2; excavation of B ongoing
3/9/11	JPA	75, clear		Continued excavation of B column
3/10/11	JPA	65, rainy	1.00	No Cell Work Activities - Wet Conditions
3/11/11	JPA	60, rainy	0.30	No Cell Work Activities - Wet Conditions
3/12/11	JPA	60, clear		No Cell Work Activities - Wet Conditions
3/13/11				

# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd

Engineer of Record: John Arnold, P.E. (JPA)

Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.

Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
3/14/11	JPA	65, clear		No Cell Work Activities - Wet Conditions
3/15/11	JPA	70, clear		No Cell Work Activities - Wet Conditions
3/16/11	JPA	70, clear		Continue excavation of B with backfilling of A.
3/17/11	JPA	70, clear		Continue excavation of B with backfilling of A.
3/18/11	JPA	70, clear		Continue excavation of B with backfilling of A.
3/19/11	JPA	75, clear		Continue excavation of B with backfilling of A.
3/20/11				
3/21/11	JPA	75, clear		Continue excavation of B with backfilling of A.
3/22/11	JPA	75, clear		Continue excavation of B with backfilling of A.
3/23/11	JPA	70, clear		Continue excavation of B with backfilling of A.
3/24/11	JPA	75, clear		Continue excavation of B with backfilling of A.
3/25/11	JPA	75, clear		Continue excavation of B with backfilling of A.
3/26/11	JPA	74, cloudy		Continue excavation of B with backfilling of A.
3/27/11				



# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd  
 Engineer of Record: John Arnold, P.E. (JPA)  
 Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.  
 Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
3/28/11	JPA	70, rainy	0.10	No Cell Work Activities - Wet Conditions
3/29/11	JPA	75, rainy	5.00	No Cell Work Activities - Wet Conditions
3/30/11	JPA	75, overcast		No Cell Work Activities - Wet Conditions
3/31/11	JPA	70, overcast		No Cell Work Activities - Wet Conditions
4/1/11	JPA	70, rainy	3.50	No Cell Work Activities - Wet Conditions
4/2/11	JPA	70, overcast		Continue excavation of B with backfilling of A.
4/3/11				
4/4/11	JPA	80, cloudy		No Cell Work Activities - Wet Conditions and Equipment Maint.
4/5/11	JPA	75, cloudy		No Cell Work Activities - Wet Conditions and Equipment Maint.
4/6/11	JPA	70, rainy	0.70	No Cell Work Activities - Wet Conditions and Equipment Maint.
4/7/11	JPA	75, clear		No Cell Work Activities - Wet Conditions and Equipment Maint.
4/8/11	JPA	75, clear		No Cell Work Activities - Wet Conditions and Equipment Maint.
4/9/11	JPA	80, clear		No Cell Work Activities - Wet Conditions and Equipment Maint.
4/10/11				No Cell Work Activities - Wet Conditions and Equipment Maint.

# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd  
 Engineer of Record: John Arnold, P.E. (JPA)  
 Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.  
 Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
4/11/11	JPA	80, cloudy		Continue excavation of B with backfilling of A.
4/12/11	JPA	80, clear		Continue excavation of B with backfilling of A.
4/13/11	JPA	75, clear		Continue excavation of B with backfilling of A.
4/14/11	JPA	75, clear		Continue excavation of B with backfilling of A.
4/15/11	JPA	80, clear		Continue excavation of B with backfilling of A.
4/16/11	JPA	80, clear		Continue excavation of B with backfilling of A.
4/17/11				
4/18/11	JPA	75, clear		Continue excavation of B with backfilling of A.
4/19/11	JPA	80, clear		Continue excavation of B with backfilling of A.
4/20/11	JPA	80, clear		Continue excavation of B with backfilling of A.
4/21/11	JPA	80, clear		Continue excavation of B with backfilling of A.
4/22/11	JPA	80, clear		Continue excavation of B with backfilling of A.
4/23/11	JPA	80, clear		Continue excavation of B with backfilling of A.
4/24/11				

# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd

Engineer of Record: John Arnold, P.E. (JPA)

Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.

Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
4/25/11	JPA	80, rainy	0.30	No Cell Work Activities - Wet Conditions
4/26/11	JPA	80, cloudy		No Cell Work Activities - Wet Conditions
4/27/11	JPA	85, clear		No Cell Work Activities - Wet Conditions
4/28/11	JPA	85, clear		Excavation of B and backfill with compaction of A
4/29/11	JPA	80, clear		Excavation of B and backfill with compaction of A
4/30/11	JPA	75, clear		Excavation of B and backfill with compaction of A
5/1/11				Excavation of B and backfill with compaction of A
5/2/11	JPA	80, cloudy		Excavation of B and backfill with compaction of A
5/3/11	JPA	80, cloudy		UES Sampling A1-3, A2-3, A3-3, A4-3, A5-3, A6-3
5/4/11	JPA	80, cloudy		Excavation of B
5/5/11	JPA	80, cloudy		Excavation of B
5/6/11	JPA	75, overcast		Excavation of B
5/7/11	JPA	75, rainy	0.30	No Cell Work Activities - Wet Conditions
5/8/11				No Cell Work Activities - Wet Conditions

# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd  
 Engineer of Record: John Arnold, P.E. (JPA)  
 Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.  
 Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
5/9/11	JPA	80, cloudy		Excavation of B continues. Materials stockpiles at north of site and south of scale house used to segregate materials and store excess cut.
5/10/11	JPA	80, overcast		Excavation of B continues. Materials stockpiles at north of site and south of scale house used to segregate materials and store excess cut.
5/11/11	JPA	80, overcast		Excavation of B continues. Materials stockpiles at north of site and south of scale house used to segregate materials and store excess cut.
5/12/11	JPA	80, cloudy		Excavation of B continues. Materials stockpiles at north of site and south of scale house used to segregate materials and store excess cut.
5/13/11	JPA	80, cloudy		Excavation of B continues. Materials stockpiles at north of site and south of scale house used to segregate materials and store excess cut.
5/14/11	JPA	80, rainy	0.10	No Cell Work Activities - Wet Conditions
5/15/11				No Cell Work Activities - Wet Conditions
5/16/11	JPA	75, overcast		Excavation of B continues. Materials stockpiles at north of site and south of scale house used to segregate materials and store excess cut.
5/17/11	JPA	75, overcast, light sprinkles		No Cell Work Activities - Wet Conditions
5/18/11	JPA	75, cloudy		Excavation of B continues. Materials stockpiles at north of site and south of scale house used to segregate materials and store excess cut.
5/19/11	JPA	75, clear		Excavation of B continues. Materials stockpiles at north of site and south of scale house used to segregate materials and store excess cut.
5/20/11	JPA	75, clear		Excavation of B continues. Materials stockpiles at north of site and south of scale house used to segregate materials and store excess cut.
5/21/11	JPA	80, clear		Excavation of B continues. Materials stockpiles at north of site and south of scale house used to segregate materials and store excess cut.
5/22/11				



# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd

Engineer of Record: John Arnold, P.E. (JPA)

Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.

Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
5/23/11	JPA	85, cloudy		Excavation of B cells ongoing.
5/24/11	JPA	85, cloudy		Excavation of B cells ongoing.
5/25/11	JPA	85, clear		Excavation of B cells ongoing.
5/26/11	JPA	85, clear		Excavation of B cells ongoing.
5/27/11	JPA	85, clear		Excavation of B cells ongoing.
5/28/11	JPA	80, clear		Excavation of B cells ongoing.
5/29/11				
5/30/11	JPA	85, clear		Excavation of B cells ongoing
5/31/11	JPA	85, clear		Excavation of B cells ongoing
6/1/11	JPA	80, overcast		Excavation of B cells ongoing
6/2/11	JPA	80, rainy	1.25	No Cell Work Activities - Wet Conditions
6/3/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
6/4/11	JPA	85, clear		No Cell Work Activities - Wet Conditions
6/5/11				

# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd

Engineer of Record: John Arnold, P.E. (JPA)

Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.

Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
6/6/11	JPA	85, clear		No Cell Work Activities - Wet Conditions
6/7/11	JPA	85, clear		Excavation of B Cells ongoing and sufficiently wide enough to call surveyor to document excavated grades.
6/8/11	JPA	85, clear		Surveyors Measuring Grades in excavated portion of B cell. Excavation activities continuing.
6/9/11	JPA	85, cloudy		Earthwork directed at filling and compacting B column that has be surveyed. Off road truck directed to proof load and fill excavation with compaction.
6/10/11	JPA	85, overcast		Earthwork directed at filling and compacting B column that has be surveyed. Off road truck directed to proof load and fill excavation with compaction.
6/11/11	JPA	80, clear		Earthwork directed at filling and compacting B column that has be surveyed. Off road truck directed to proof load and fill excavation with compaction.
6/12/11				
6/13/11	JPA	85, clear		Earthwork directed at filling and compacting B column that has be surveyed. Off road truck directed to proof load and fill excavation with compaction.
6/14/11	JPA	85, overcast		Earthwork directed at filling and compacting B column that has be surveyed. Off road truck directed to proof load and fill excavation with compaction.
6/15/11	JPA	85, overcast		Earthwork directed at filling and compacting B column that has be surveyed. Off road truck directed to proof load and fill excavation with compaction.
6/16/11	JPA	80, overcast		UES Sampling B1-1&2, B2-1&2, B3-1&2, B4-1&2, B5-1&2, B6-1&2
6/17/11	JPA	85, clear		Excavation of B continues westward and staggered B backfill
6/18/11	JPA	85, clear		Excavation of B continues westward and staggered B backfill
6/19/11				

# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd  
 Engineer of Record: John Arnold, P.E. (JPA)  
 Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.  
 Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
6/20/11	JPA	85, overcast		Excavation of B continues westward and staggered B backfill
6/21/11	JPA	90, overcast		Excavation of B continues westward and staggered B backfill
6/22/11	JPA	85, overcast		Excavation of B continues westward and staggered B backfill
6/23/11	JPA	85, rainy	0.10	Excavation of B continues westward and staggered B backfill
6/24/11	JPA	85, rainy	0.40	Excavation of B continues westward
6/25/11	JPA	85, rainy	0.50	No Cell Work Activities - Wet Conditions
6/26/11				
6/27/11	JPA	80, overcast		Excavation of B continues westward with backfill of B staggered with lift 3 greater than 50% complete
6/28/11	JPA	80, overcast		UES Sampling B1-3, B2-3, B3-3, B4-3, B5-3, B6-3
6/29/11	JPA	80, overcast		Excavation and benching of western edge of cut for stormwater control
6/30/11	JPA	80, rainy	0.25	Excavation and benching of western edge of cut for stormwater control
7/1/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
7/2/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
7/3/11		85, overcast		

# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd  
 Engineer of Record: John Arnold, P.E. (JPA)  
 Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.  
 Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
7/4/11	JPA	85, overcast		Excavation and benching of western edge of cut for stormwater control
7/5/11	JPA	85, overcast		Excavation and benching of western edge of cut for stormwater control
7/6/11	JPA	85, rainy	1.50	No Cell Work Activities - Wet Conditions
7/7/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
7/8/11	JPA	85, rainy	0.60	No Cell Work Activities - Wet Conditions
7/9/11	JPA	80, overcast		No Cell Work Activities - Wet Conditions
7/10/11				No Cell Work Activities - Wet Conditions
7/11/11	JPA	85, rainy	0.10	No Cell Work Activities - Wet Conditions
7/12/11	JPA	85, overcast, light sprinkles		No Cell Work Activities - Wet Conditions
7/13/11	JPA	90, overcast		No Cell Work Activities - Wet Conditions
7/14/11	JPA	85, rainy	0.50	No Cell Work Activities - Wet Conditions
7/15/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
7/16/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
7/17/11				



# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd

Engineer of Record: John Arnold, P.E. (JPA)

Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.

Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
7/18/11	JPA	85, rainy	0.60	No Cell Work Activities - Wet Conditions
7/19/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
7/20/11	JPA	80, clear		No Cell Work Activities - Wet Conditions
7/21/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
7/22/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
7/23/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
7/24/11				
7/25/11	JPA	90, rainy	0.50	No Cell Work Activities - Wet Conditions
7/26/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
7/27/11	JPA	85, rainy	0.90	No Cell Work Activities - Wet Conditions
7/28/11	JPA	85, rainy	0.75	No Cell Work Activities - Wet Conditions
7/29/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
7/30/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
7/31/11				

# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd

Engineer of Record: John Arnold, P.E. (JPA)

Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.

Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
8/1/11	JPA	85, rainy	0.40	No Cell Work Activities - Wet Conditions
8/2/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
8/3/11	JPA	80, overcast		No Cell Work Activities - Wet Conditions
8/4/11	JPA	90, overcast		Excavation of westernmost strip of B
8/5/11	JPA	90, overcast		Excavation of westernmost strip of B
8/6/11	JPA	90, overcast		Excavation of westernmost strip of B
8/7/11				
8/8/11	JPA	85, vercast, light sprinkles		Excavation of westernmost strip of B
8/9/11	JPA	80, rainy	1.75	No Cell Work Activities - Wet Conditions
8/10/11	JPA	80, overcast		No Cell Work Activities - Wet Conditions
8/11/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
8/12/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
8/13/11	JPA	90, overcast		No Cell Work Activities - Wet Conditions
8/14/11				

# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd  
 Engineer of Record: John Arnold, P.E. (JPA)  
 Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.  
 Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
8/15/11	JPA	Wet from weekend rain		No Cell Work Activities - Wet Conditions
8/16/11	JPA	90, overcast		No Cell Work Activities - Wet Conditions
8/17/11	JPA	90, overcast		No Cell Work Activities - Wet Conditions
8/18/11	JPA	90, overcast		Excavation of areas outside cell limits for tie to grade.
8/19/11	JPA	85, overcast		Excavation of areas outside cell limits for tie to grade.
8/20/11	JPA	85, overcast		Excavation of areas outside cell limits for tie to grade.
8/21/11				
8/22/11	JPA	90, overcast		Excavation of areas outside cell limits for tie to grade.
8/23/11	JPA	90, overcast		Excavation of areas outside cell limits for tie to grade.
8/24/11	JPA	90, rainy	0.40	No Cell Work Activities - Wet Conditions
8/25/11	JPA	90, overcast		No Cell Work Activities - Wet Conditions
8/26/11	JPA	85, rainy	0.20	No Cell Work Activities - Wet Conditions
8/27/11	JPA	85, rainy		No Cell Work Activities - Wet Conditions
8/28/11				

# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd

Engineer of Record: John Arnold, P.E. (JPA)

Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.

Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
8/29/11	ND	85, overcast		No Cell Work Activities - Wet Conditions
8/30/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
8/31/11	JPA	85, rainy	0.20	No Cell Work Activities - Wet Conditions
9/1/11	JPA	85, overcast		No Cell Work Activities - Wet Conditions
9/2/11	JPA	85, cloudy		No Cell Work Activities - Wet Conditions
9/3/11	JPA	85, cloudy		No Cell Work Activities - Wet Conditions
9/4/11				
9/5/11	JPA	85, cloudy		No Cell Work Activities - Wet Conditions
9/6/11	JPA	85, cloudy		No Cell Work Activities - Wet Conditions
9/7/11	JPA	80, rainy	3.00	No Cell Work Activities - Wet Conditions
9/8/11	JPA	85, cloudy		No Cell Work Activities - Wet Conditions
9/9/11	JPA	85, cloudy		No Cell Work Activities - Wet Conditions
9/10/11	JPA	85, rainy	0.20	No Cell Work Activities - Wet Conditions
9/11/11				



# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd

Engineer of Record: John Arnold, P.E. (JPA)

Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.

Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
9/12/11	JPA	85, cloudy		Excavation of areas outside cell limits for tie to grade.
9/13/11	JPA	85, cloudy		Excavation of areas outside cell limits for tie to grade.
9/14/11	JPA	85, cloudy		Excavation of areas outside cell limits for tie to grade.
9/15/11	JPA	85, cloudy		Excavation of areas outside cell limits for tie to grade.
9/16/11	JPA	85, cloudy		Excavation of areas outside cell limits for tie to grade.
9/17/11	JPA	85, cloudy		Excavation of areas outside cell limits for tie to grade.
9/18/11				
9/19/11	JPA	85, cloudy		Surveyors measuring grades for western most B area, extending beyond cell limits for tie to grade
9/20/11	JPA	85, cloudy		Excavation of areas west of B cell and south for tie to grade
9/21/11	JPA	85, overcast, light sprinkles		Excavation of areas west of B cell and south for tie to grade
9/22/11	JPA	85, clear		Excavation of areas west of B cell and south for tie to grade
9/23/11	JPA	85, cloudy		Excavation of areas west of B cell and south for tie to grade
9/24/11	JPA	85, cloudy some rain		Excavation of areas west of B cell and south for tie to grade
9/25/11				

# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd

Engineer of Record: John Arnold, P.E. (JPA)

Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.

Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
9/26/11	JPA	80, mostly clear		No work activities - cell wet
9/27/11	JPA			No work activities - cell wet
9/28/11	JPA			No work activities - cell wet
9/29/11	JPA			No work activities - cell wet
9/30/11	JPA			No work activities - cell wet
10/1/11	JPA			No work activities - cell wet
10/2/11				
10/3/11	JPA			Clay placement and compaction
10/4/11	JPA			Clay placement and compaction
10/5/11	JPA			Clay placement and compaction
10/6/11	JPA			Clay placement and compaction
10/7/11	JPA			Clay placement and compaction
10/8/11	JPA			Clay placement and compaction
10/9/11				

# Enterprise Recycling and Disposal Facility

## Cell 6 Construction

### Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd

Engineer of Record: John Arnold, P.E. (JPA)

Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc.

Surveyor: Simmons and Beal Land Surveyors, Inc.

Date	Resident Observer	Weather Conditions	Rainfall	Observations and Comments
10/10/11	JPA			Clay placement and compaction
10/11/11	JPA			Clay placement and compaction
10/12/11	JPA			Clay placement and compaction
10/13/11	JPA			Clay placement and compaction
10/14/11	JPA			Clay placement and compaction
10/15/11	JPA			Work substantially finished
10/16/11				
10/17/11	JPA			Constucion activities complete
10/18/11	JPA			
10/19/11	JPA			
10/20/11	JPA			
10/21/11	JPA			Survey crew on-site for finish up work
10/22/11	JPA			
10/23/11				

**Attachment D**

**Construction Quality Assurance Test Results  
Universal Engineering Science, Inc.**





# UNIVERSAL

ENGINEERING SCIENCES, INC.

Consultants in: Geotechnical Engineering • Environmental Sciences

Construction Materials Testing • Threshold Inspection • Private Provider Inspection

**9802 Palm River Road • Tampa, FL 33619 • Ph (813) 740-8506 • Fax (813) 740-8706**

November 3, 2011

Angelo's Recycled Materials  
41111 Enterprise Road  
Dade City, Florida 33525

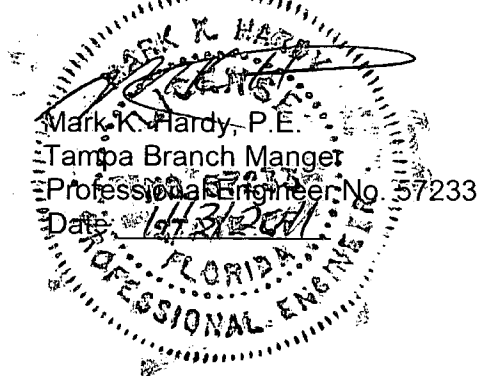
Attention: John Arnold  
Reference: Enterprise Class III Landfill Cell 6  
Dade City, Florida  
UES Project No. 0810.1100040.0000

Dear Mr. Arnold:

Pursuant to your request please find attached a complete summarization of the testing reports to date for this project. All of the attached test reports have been through our standard in-house Quality Control/ Quality Acceptance review process. This letter certifies reports ST#1, PR#1, PR#2, PR#3, DR#1, DR#2, DR#3, DR#4, and DR#5 bound herein.

We trust this test report package is acceptable to your current needs. However, if you should require additional information please contact us.

Respectfully submitted,  
**UNIVERSAL ENGINEERING SCIENCES, INC.**  
Certificate of Authorization No. 549/GB33





# UNIVERSAL

## ENGINEERING SCIENCES

Consultants in: Geotechnical Engineering • Environmental Sciences  
Construction Materials Testing • Threshold Inspection • Private Provider Inspection

302 Palm River Road • Tampa, FL 33619-4438 • (813) 740-8506 • Fax (813) 740-8706

Client: Angelo's Recycled Materials  
Project: Enterprise Class III Landfill Cell 6

Project#: 0810.1100040.0000  
Date: November 1, 2011  
Report#: ST#1

Location	Lift	Permeability	200 Wash	LL	PL	PI	Sampled
A-1	1	7.29x10 <sup>-9</sup> cm/sec	44.8	48	24	24	3/8/2011
A-1	2	5.86x10 <sup>-9</sup> cm/sec	46.9	56	24	32	3/8/2011
A-1	3	5.48x10 <sup>-9</sup> cm/sec	50.1	52	22	30	5/3/2011
A-2	1	1.98x10 <sup>-9</sup> cm/sec	36.9	55	28	27	3/8/2011
A-2	2	4.64x10 <sup>-9</sup> cm/sec	46.3	63	33	30	3/8/2011
A-2	3	1.42x10 <sup>-8</sup> cm/sec	52	50	26	24	5/3/2011
A-3	1	6.03x10 <sup>-9</sup> cm/sec	56.3	61	30	31	3/8/2011
A-3	2	5.66x10 <sup>-9</sup> cm/sec	49.3	52	28	24	3/8/2011
A-3	3	5.88x10 <sup>-9</sup> cm/sec	59.1	56	28	28	5/3/2011
A-4	1	6.64x10 <sup>-9</sup> cm/sec	48.2	63	20	43	3/4/2011
A-4	2	7.49x10 <sup>-9</sup> cm/sec	31.5	46	24	22	3/4/2011
A-4	3		47.2	51	30	21	5/3/2011
A-5	1	5.64x10 <sup>-9</sup> cm/sec	49.1	55	21	34	3/4/2011
A-5	2	1.58x10 <sup>-9</sup> cm/sec	44.2	52	33	19	3/4/2011
A-5	3	1.41x10 <sup>-8</sup> cm/sec	50.6	68	28	40	5/3/2011
A-6	1	5.80x10 <sup>-9</sup> cm/sec	48.1	70	33	37	3/4/2011
A-6	2	5.81x10 <sup>-9</sup> cm/sec	33.9	57	28	29	3/4/2011
A-6	3	4.76x10 <sup>-9</sup> cm/sec	52.4	59	26	33	5/3/2011
B-1	1	1.24x10 <sup>-8</sup> cm/sec	50.1	69	23	46	6/16/2011
B-1	2	5.86x10 <sup>-9</sup> cm/sec	51	78	30	48	6/16/2011
B-1	3	5.65x10 <sup>-9</sup> cm/sec	54.1	54	21	33	6/28/2011
B-2	1	1.40x10 <sup>-8</sup> cm/sec	52.4	57	27	30	6/16/2011
B-2	2	1.42x10 <sup>-8</sup> cm/sec	48.5	62	21	41	6/16/2011
B-2	3	1.38x10 <sup>-8</sup> cm/sec	26.5	60	28	32	6/28/2011
B-3	1	1.24x10 <sup>-8</sup> cm/sec	45.3	65	28	37	6/16/2011
B-3	2	5.10x10 <sup>-9</sup> cm/sec	40.6	65	22	43	6/16/2011
B-3	3	5.80x10 <sup>-9</sup> cm/sec	36.4	46	18	28	6/28/2011
B-4	1	1.29x10 <sup>-8</sup> cm/sec	40.9	47	23	24	6/16/2011
B-4	2	1.36x10 <sup>-8</sup> cm/sec	28.2	47	22	24	6/16/2011
B-4	3	5.76x10 <sup>-9</sup> cm/sec	38.6	50	21	29	6/28/2011
B-5	1	1.36x10 <sup>-8</sup> cm/sec	48.5	58	28	30	6/16/2011
B-5	2	5.46x10 <sup>-9</sup> cm/sec	37.9	52	18	34	6/16/2011
B-5	3	5.29x10 <sup>-9</sup> cm/sec	57	64	30	34	6/28/2011
B-6	1	5.29x10 <sup>-9</sup> cm/sec	26	59	26	33	6/16/2011
B-6	2	4.86x10 <sup>-9</sup> cm/sec	24.4	54	24	30	6/16/2011
B-6	3	1.41x10 <sup>-8</sup> cm/sec	36.1	45	18	27	6/28/2011



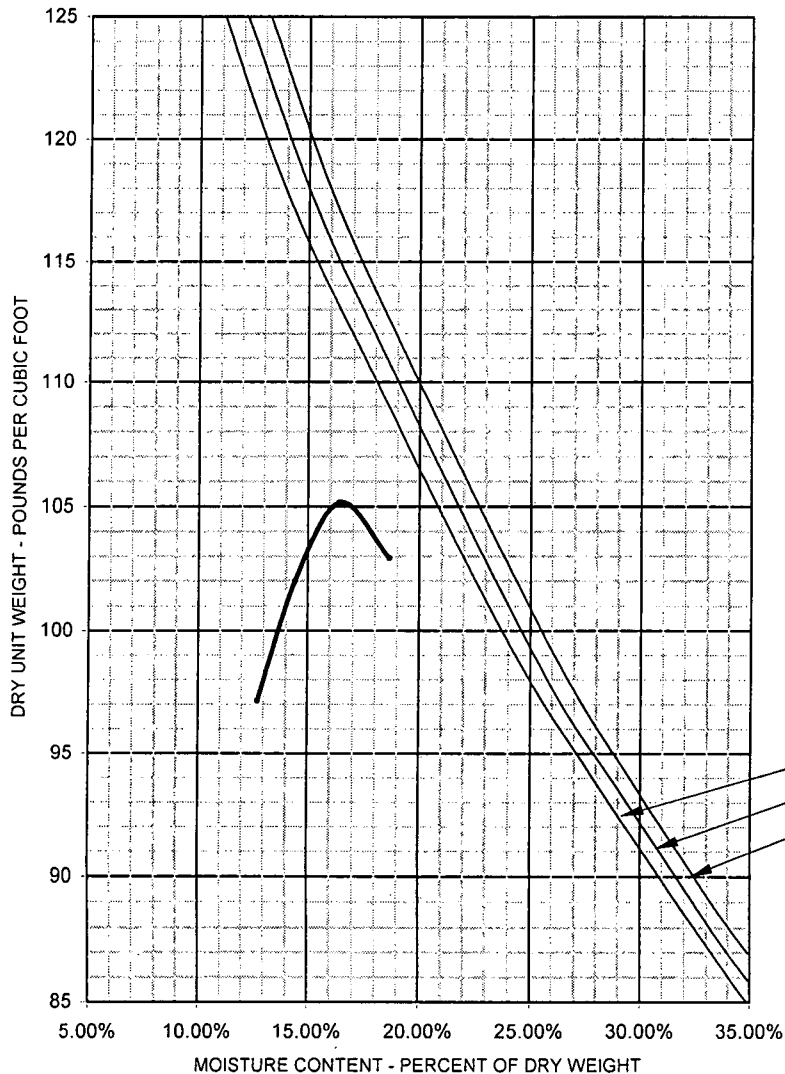
# UNIVERSAL ENGINEERING SCIENCES, INC.

Consultants in: Geotechnical Engineering • Environmental Sciences  
Construction Materials Testing • Threshold Inspection • Private Provider Inspection

9802 Palm River Road • Tampa FL 33619-4438 • (813) 740-8506 • Fax(813) 740-8706

Client : Angelo's Recycled Materials  
Project: Enterprise Class III Landfill Cell #6  
Sample  
Date: 3/4/2011  
Location: Grid A-4

Project No.: 0810.1100040  
Report No.: PR#1  
Report Date: 3/8/2011  
Lab # : 3996  
Test Method : D 698  
Rammer Type: Manual  
Soil Description:  
Tan Clayey Sand



Date Tested :	3/7/2011
Maximum Dry Density(pcf)	105
Optimum Moisture Content (%)	16
Wash 200%	N/A

This form may not be reproduced without the consent of UES, Inc.

© 2011

This report has been reviewed by the UES Engineer of Record. The intent of this report is to provide testing information in an Expedient manner. A signed / sealed cover page for all tests reports can be provided at the completion of the project and / or at the request of the client.



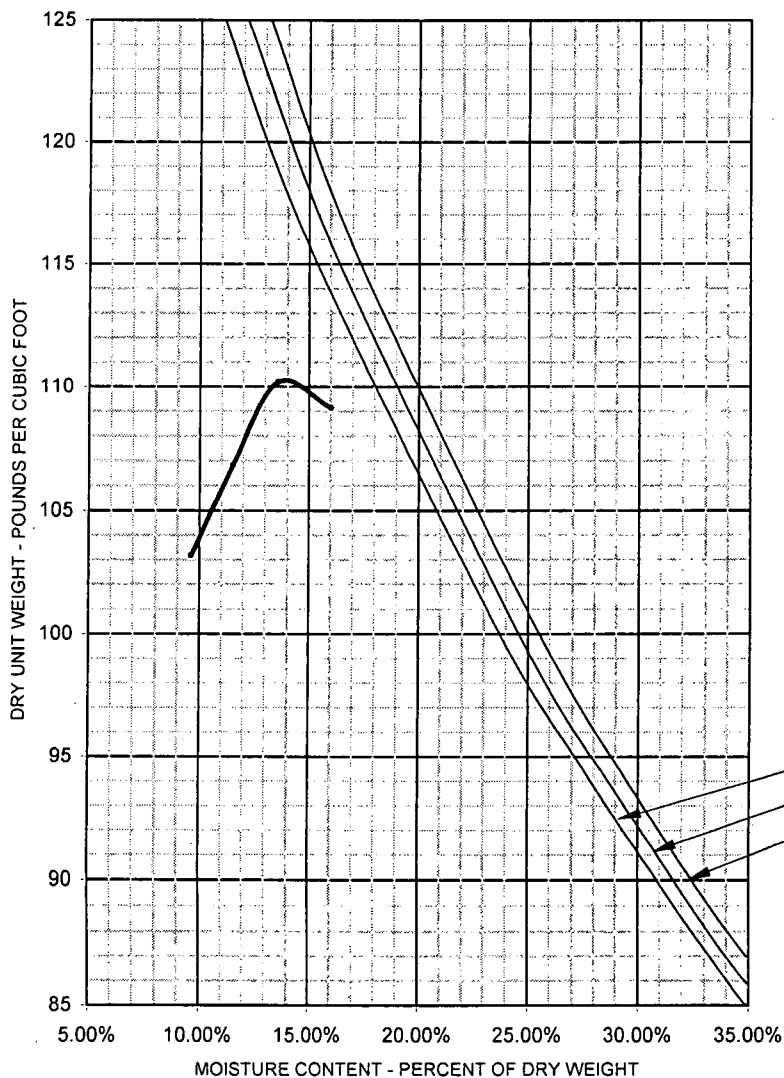
# UNIVERSAL ENGINEERING SCIENCES, INC.

Consultants in: Geotechnical Engineering • Environmental Sciences  
Construction Materials Testing • Threshold Inspection • Private Provider Inspection

9802 Palm River Road • Tampa FL 33619-4438 • (813) 740-8506 • Fax(813) 740-8706

Client : Angelo's Recycled Materials  
Project: Enterprise Class III Landfill Cell #6  
Sample  
Date: 3/4/2011  
Location: Grid A-4

Project No.: 0810.1100040  
Report No.: PR#2  
Report Date: 3/9/2011  
Lab #: 3995  
Test Method : D 698  
Rammer Type: Manual  
Soil Description:  
Brown Clayey Sand



Date Tested :	3/8/2011
Maximum Dry Density(pcf)	110
Optimum Moisture Content (%)	14
Wash 200%	N/A

This form may not be reproduced without the consent of UES, Inc.

© 2011

This report has been reviewed by the UES Engineer of Record. The intent of this report is to provide testing information in an Expedient manner. A signed / sealed cover page for all tests reports can be provided at the completion of the project and / or at the request of the client.





# UNIVERSAL ENGINEERING SCIENCES, INC.

Consultants in: Geotechnical Engineering • Environmental Sciences  
Construction Materials Testing • Threshold Inspection • Private Provider Inspection

9802 Palm River Road • Tampa FL 33619-4438 • (813) 740-8506 • Fax(813) 740-8706

Client : Angelo's Recycled Materials  
Project: Enterprise Class III Landfill Cell #6  
Sample  
Date: 6/16/2011  
Location: Grid B-1

Project No.: 0810.1100040

Report No.: PR#3

Report Date: 6/21/2011

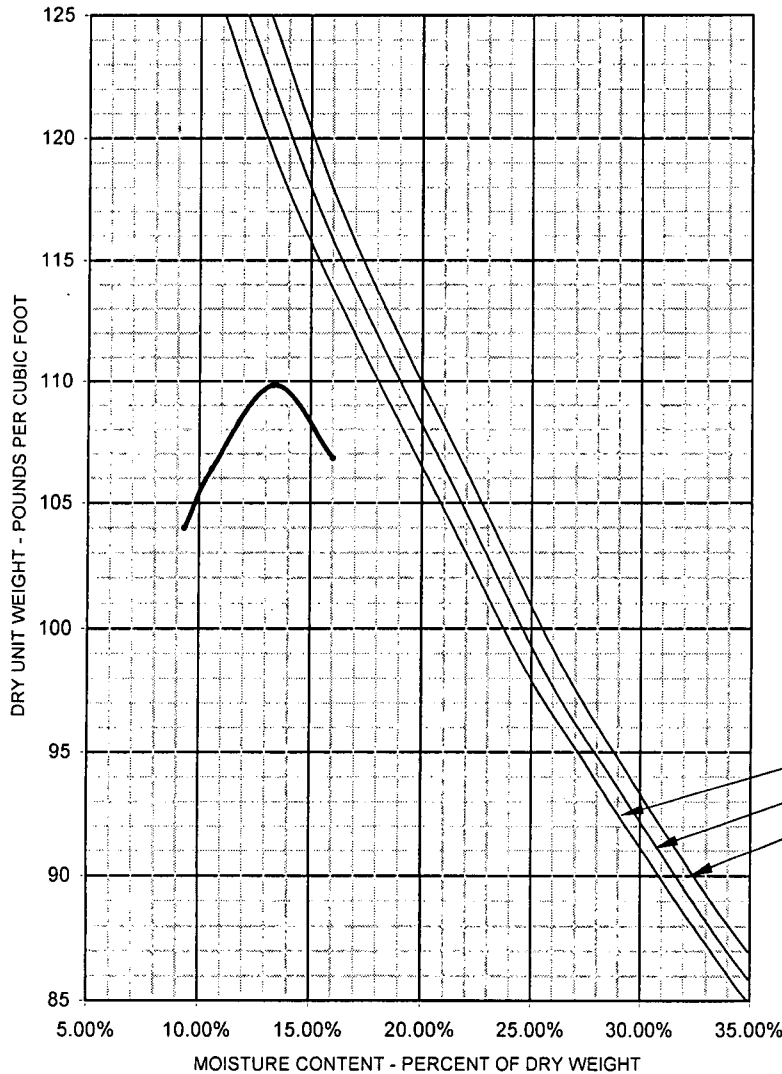
Lab # : 4041

Test Method : D 698

Rammer Type: Manual

Soil Description:

Brown Clayey Sand



Date Tested :	6/20/2011
Maximum Dry Density(pcf)	110
Optimum Moisture Content (%)	13
Wash 200%	N/A

This form may not be reproduced without the consent of UES, Inc.

© 2011

This report has been reviewed by the UES Engineer of Record. The intent of this report is to provide testing information in an Expedient manner. A signed / sealed cover page for all tests reports can be provided at the completion of the project and / or at the request of the client.



# UNIVERSAL

## ENGINEERING SCIENCES, INC.

Consultants in: Geotechnical Engineering • Environmental Sciences  
Construction Materials Testing • Threshold Inspection • Private Provider Inspection

Project No.: 0810.1100040.0000  
Report No.: DR # 1  
Date: March 8, 2011

9802 Palm River Road • Tampa FL 33619-4438 • (813) 740-8506 • Fax(813) 740-8706

### IN-PLACE DENSITY REPORT

Client: Angelo's Recycled Materials  
41111 Enterprise Road  
Dade City, Florida 33525

Project: Enterprise Class III Landfill Cell 6  
41111 Enterprise Road  
Dade City, Florida 33525

Area Tested: Clay Liner Cell 6

Reference  
Datum: Top of Native

Type of Test- Field: ASTM D-2922 Nuclear Method      Date Tested: March 4, 2011  
Laboratory: ASTM D698 - Standard Proctor

Remarks: The tests below met the minimum 100% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
1	A-4	+1	110.0	14.0	115.0	5.8	105
2	A-4	+2	110.0	14.0	115.9	7.6	105
3	A-5	+1	110.0	14.0	115.5	9.4	105
4	A-5	+2	110.0	14.0	118.3	8.0	108
5	A-6	+1	110.0	14.0	115.5	11.2	105
6	A-6	+2	110.0	14.0	116.2	9.6	106

Technician: D. Ross  
Field CC: John  
CC:

This form may not be reproduced without the consent of UES, Inc.

This report has been reviewed by the UES Engineer of Record. The intent of this report is to provide testing information in an expeditious manner. A signed / sealed cover page for all test reports can be provided at the completion of the project and / or at the request of the client.



# UNIVERSAL

## ENGINEERING SCIENCES, INC.

Consultants in: Geotechnical Engineering • Environmental Sciences  
Construction Materials Testing • Threshold Inspection • Private Provider Inspection

Project No.: 0810.1100040.0000  
Report No.: DR # 2  
Date: March 10, 2011

9802 Palm River Road • Tampa FL 33619-4438 • (813) 740-8506 • Fax(813) 740-8706

### IN-PLACE DENSITY REPORT

**Client:** Angelo's Recycled Materials  
41111 Enterprise Road  
Dade City, Florida 33525

**Project:** Enterprise Class III Landfill Cell 6  
41111 Enterprise Road  
Dade City, Florida 33525

**Area Tested:** Clay Liner Cell 6

**Reference Datum:** Top of Native

**Type of Test-** **Field:** ASTM D-2922 Nuclear Method **Date Tested:** March 8, 2011  
**Laboratory:** ASTM D698 - Standard Proctor

**Remarks:** The tests below met the minimum 100% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
7	A-1	+1	110.0	14.0	113.9	13.2	104
8	A-1	+2	110.0	14.0	113.5	9.8	103
9	A-2	+1	110.0	14.0	112.1	12.8	102
10	A-2	+2	110.0	14.0	113.4	10.1	103
11	A-3	+1	110.0	14.0	113.6	11.9	103
12	A-3	+2	110.0	14.0	111.9	8.7	102

**Technician:** C. Haley  
**Field CC:** John  
**CC:**

This form may not be reproduced without the consent of UES, Inc.

This report has been reviewed by the UES Engineer of Record. The intent of this report is to provide testing information in an expeditious manner. A signed / sealed cover page for all test reports can be provided at the completion of the project and / or at the request of the client.



# UNIVERSAL

## ENGINEERING SCIENCES, INC.

Consultants in: Geotechnical Engineering • Environmental Sciences  
Construction Materials Testing • Threshold Inspection • Private Provider Inspection

Project No.: 0810.1100040.0000  
Report No.: DR # 3  
Date: May 7, 2011

9802 Palm River Road • Tampa FL 33619-4438 • (813) 740-8506 • Fax(813) 740-8706

### IN-PLACE DENSITY REPORT

**Client:** Angelo's Recycled Materials  
41111 Enterprise Road  
Dade City, Florida 33525

**Project:** Enterprise Class III Landfill Cell 6  
41111 Enterprise Road  
Dade City, Florida 33525

**Area Tested:** Clay Liner Cell 6

**Reference Datum:** Top of Native

**Type of Test-** **Field:** ASTM D-2922 Nuclear Method **Date Tested:** May 3, 2011  
**Laboratory:** ASTM D698 - Standard Proctor

**Remarks:** The tests below met the minimum 100% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
13	A-1	+3	110.0	14.0	114.2	11.6	104
14	A-2	+3	110.0	14.0	110.6	13.6	101
15	A-3	+3	110.0	14.0	113.1	12.6	103
16	A-4	+3	110.0	14.0	112.0	11.8	102
17	A-5	+3	110.0	14.0	112.7	12.1	102
18	A-6	+3	110.0	14.0	110.2	13.0	100

**Technician:** M. Arroyo  
**Field CC:** John  
**CC:**

This form may not be reproduced without the consent of UES, Inc.

This report has been reviewed by the UES Engineer of Record. The intent of this report is to provide testing information in an expeditious manner. A signed / sealed cover page for all test reports can be provided at the completion of the project and / or at the request of the client.





# UNIVERSAL

## ENGINEERING SCIENCES, INC.

Consultants in: Geotechnical Engineering • Environmental Sciences  
Construction Materials Testing • Threshold Inspection • Private Provider Inspection

Project No.: 0810.1100040.0000  
Report No.: DR # 4  
Date: June 20, 2011

9802 Palm River Road • Tampa FL 33619-4438 • (813) 740-8506 • Fax(813) 740-8706

### IN-PLACE DENSITY REPORT

**Client:** Angelo's Recycled Materials  
41111 Enterprise Road  
Dade City, Florida 33525

**Project:** Enterprise Class III Landfill Cell 6  
41111 Enterprise Road  
Dade City, Florida 33525

**Area Tested:** Clay Liner Cell 6

**Reference Datum:** Top of Native

**Type of Test:** Field: ASTM D-2922 Nuclear Method      **Date Tested:** June 16, 2011  
Laboratory: ASTM D698 - Standard Proctor

**Remarks:** The tests below met the minimum 100% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
19	B-1	+1	110.0	14.0	110.0	11.3	100
20	B-1	+2	110.0	14.0	110.4	14.6	100
21	B-2	+1	110.0	14.0	110.8	8.8	101
22	B-2	+2	110.0	14.0	112.5	12.7	102
23	B-3	+1	110.0	14.0	111.9	11.6	102
24	B-3	+2	110.0	14.0	113.5	15.6	103
25	B-4	+1	110.0	14.0	112.9	13.9	103
26	B-4	+2	110.0	14.0	110.8	12.9	101
27	B-5	+1	110.0	14.0	109.5	9.9	100
28	B-5	+2	110.0	14.0	112.7	13.1	102
29	B-6	+1	110.0	14.0	110.0	10.8	100
30	B-6	+2	110.0	14.0	111.8	11.5	102

**Technician:** M. Arroyo  
**Field CC:** John  
**CC:**

This form may not be reproduced without the consent of UES, Inc.

This report has been reviewed by the UES Engineer of Record. The intent of this report is to provide testing information in an expeditious manner. A signed / sealed cover page for all test reports can be provided at the completion of the project and / or at the request of the client.



# UNIVERSAL

## ENGINEERING SCIENCES, INC.

Consultants in: Geotechnical Engineering • Environmental Sciences  
Construction Materials Testing • Threshold Inspection • Private Provider Inspection

Project No.: 0810.1100040.0000  
Report No.: DR # 5  
Date: July 2, 2011

9802 Palm River Road • Tampa FL 33619-4438 • (813) 740-8506 • Fax(813) 740-8706

### IN-PLACE DENSITY REPORT

**Client:** Angelo's Recycled Materials  
41111 Enterprise Road  
Dade City, Florida 33525

**Project:** Enterprise Class III Landfill Cell 6  
41111 Enterprise Road  
Dade City, Florida 33525

**Area Tested:** Clay Liner Cell 6

**Reference Datum:** Top of Native

**Type of Test-** **Field:** ASTM D-2922 Nuclear Method **Date Tested:** June 28, 2011  
**Laboratory:** ASTM D698 - Standard Proctor

**Remarks:** The tests below met the minimum 100% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
31	B-1	+3	110.0	14.0	110.2	12.6	100
32	B-2	+3	110.0	14.0	113.5	14.2	103
33	B-3	+3	110.0	14.0	112.0	13.7	102
34	B-4	+3	110.0	14.0	110.0	9.9	100
35	B-5	+3	110.0	14.0	110.2	10.1	100
36	B-6	+3	110.0	14.0	111.3	13.1	101

**Technician:** M. Arroyo  
**Field CC:** John  
**CC:**

This form may not be reproduced without the consent of UES, Inc.

This report has been reviewed by the UES Engineer of Record. The intent of this report is to provide testing information in an expeditious manner. A signed / sealed cover page for all test reports can be provided at the completion of the project and / or at the request of the client.

## **Attachment E**

### **Financial Assurance Funding Mechanism and Cost Estimate**

A copy of the current and approved 2011 Financial Assurance Cost Estimate for Cells 1, 2, 3, 4, 5, and 15 has been inflated on a pro-rata basis to include Cell 6 (10.86 acres of Cell 6 added to 39.6 acres of operating Class III landfill footprint).

Angelo's Recycled Materials  
Enterprise Recycling and Disposal Facility  
Cell 6  

---

Financial Assurance Requirements - Estimate

**A. 2011 APPROVED FINANCIAL ASSURANCE CELLS 1 - 5 & 15\***

Cells 1, 2, 3, 4, 5, 15 =	39.6 acres
2011 FDEP Closure Estimate = \$	2,544,386.86
2011 FDEP Long Term Care Estimate = \$	3,857,456.34
2011 FDEP Closure Estimate = \$	64,252.19 /acre
2011 FDEP Long Term Care Estimate = \$	97,410.51 /acre

**B. PRO RATED CELL 6 FINANCIAL ASSURANCE**

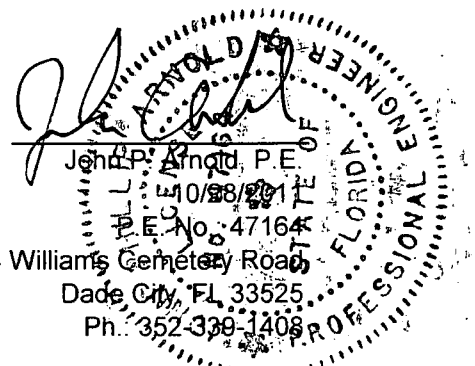
Cell 6 (1,690' x 280') =	10.86 acres
Cell 6 Closure Estimate = \$	697,982.96
Cell 6 Long Term Care Estimate = \$	1,058,187.67

**C. UPDATED 2011 FINANCIAL ASSURANCE INCLUDING CELLS 1 - 6 & 15**

Cells 1, 2, 3, 4, 5, 6, 15 Closure Est. = \$	3,242,369.82
Cells 1, 2, 3, 4, 5, 6, 15 Long Term Care Est. = \$	4,915,644.01
Cells 1, 2, 3, 4, 5, 6, 15 Total Financial Assurance = \$	8,158,013.84

**NOTE**

\* 2001 Financial Assurance Estimate Attached

  
John P. Arnold, P.E.  
L. 10/28/2011  
P.E. No. 47164  
34924 Williams Cemetery Road  
Dade City, FL 33525  
Ph. 352-339-1408

# ANGELO'S RECYCLED MATERIALS

P.O. BOX 1493  
LARGO, FL 33779



ARLICK 407.333.8010 407.333.8114 (FAX)  
DADE CITY 352.567.7676 352.567.9448 (FAX)

FAX 407.333.8485 407.333.8114 (FAX)  
LARGO 727.581.1544 727.586.5676 (FAX)

February 28, 2011

Ms. Susan Pelz, P.E.  
Solid Waste Section  
Florida Department of Environmental Protection - Southwest District  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

RE: Enterprise Class III Landfill and Recycling Facility  
Annual Financial Assurance Cost Estimate Adjustment  
Angelo's Aggregate Materials, LLC (d/b/a/ Angelo's Recycled Materials)  
FDEP Permit No.: 17982-002-SO  
Pasco County, Florida

Dear Ms. Pelz:

The FDEP approved 2010 financial assurance cost estimates for closure and long-term care for this facility have been inflation adjusted for 2011 using the FDEP approved multiplier of 1.010. The revised estimates (FDEP form 62-701.900(28)) are enclosed for your review. A copy of this estimate has been forwarded to Mr. Fred Wick, Solid Waste Section, FDEP, 2600 Blair Stone Road, Tallahassee, FL 32399-2407.

Please call me at (352) 339-1408 if you have any questions or require any additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "John Arnold".

John Arnold  
Project Manager

Attachment

cc: Fred J. Wick, Environmental Manager, Solid Waste Section  
Dominic Iafate, Angelo's Recycled Materials  
Gary Bucholz, Angelo's Recycled Materials





# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

DEP Form # 62-701.900(28), F.A.C.

Form Title: Closure Cost Estimating Form  
For Solid Waste Facilities

Effective Date: January 6, 2010

Incorporated in Rule 62-701.630(3), F.A.C.

## CLOSURE COST ESTIMATING FORM FOR SOLID WASTE FACILITIES

Date of DEP Approval: \_\_\_\_\_

### I. GENERAL INFORMATION:

Facility Name: ENTERPRISE CLASS III LANDFILL AND RECYCLING FACILITY WACS ID: SW/51/87895  
 Permit Application or Consent Order No.: 177982-007-SO/T3 Expiration Date: 05/31/2012  
 Facility Address: 41111 ENTERPRISE RD, DADE CITY, FL 33525  
 Permittee or Owner/Operator: ANGELO'S AGGREGATE MATERIALS, LTD d/b/a ANGELO'S RCY. MTL.  
 Mailing Address: P.O. BOX 1493, LARGO, FL 33779

Latitude: 29° 19' 53" Longitude: 82° 08' 06"  
 Coordinate Method: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Collected by: \_\_\_\_\_ Company/Affiliation: \_\_\_\_\_

### Solid Waste Disposal Units Included in Estimate:

Phase / Cell	Acres	Date Unit Began Accepting Waste	Active Life of Unit From Date of Initial Receipt of Waste	If active: Remaining life of unit	If closed: Date last waste received	If closed: Official date of closing
1	6.08	2004	6 YR	2.6 YR	N/A	N/A
2	5.57	2005	5 YR	2.6 YR	N/A	N/A
15	6.23	2005	5 YR	2.6 YR	N/A	N/A
5	7.34	2005	5 YR	2.6 YR	N/A	N/A
4	7.04	2007	3 YR	2.6 YR	N/A	N/A
3	7.04	2007	3 YR	2.6 YR	N/A	N/A

Total disposal unit acreage included in this estimate: Closure: 39.6 Long-Term Care: 39.6

Facility type: ☐ Class I ☒ Class III ☐ C&D Debris Disposal  
 (Check all that apply) ☐ Other: \_\_\_\_\_

### II. TYPE OF FINANCIAL ASSURANCE DOCUMENT (Check type)

- ☒ Letter of Credit\* ☐ Insurance Certificate ☐ Escrow Account  
☐ Performance Bond\* ☐ Financial Test ☐ Form 29 (FA Deferral)  
☐ Guarantee Bond\* ☐ Trust Fund Agreement

\* - Indicates mechanisms that require the use of a Standby Trust Fund Agreement

Northwest District  
160 Government Center  
Pensacola, FL 32502-5794  
850-595-8360

Northeast District  
7825 Baymeadows Way, Ste. B200  
Jacksonville, FL 32256-7590  
904-807-3300

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

Southwest District  
13051 N. Telecom Pky.  
Tempe Terrace, FL 33637  
813-632-7600

South District  
2295 Victoria Ave., Ste. 364  
Fort Myers, FL 33901-3881  
239-332-6975

Southeast District  
400 N. Congress Ave., Ste. 200  
West Palm Beach, FL 33401  
561-681-6600

## ESTIMATE ADJUSTMENT

40 CFR Part 264 Subpart H as adopted by reference in Rule 62-701.630, Florida Administrative Code, (F.A.C.) sets forth the method of annual cost estimate adjustment. Cost estimates may be adjusted by using an inflation factor or by recalculating the maximum costs of closure in current dollars. Select one of the methods of cost estimate adjustment below.

☒ (a) Inflation Factor Adjustment

☐ (b) Recalculated or New Cost Estimate

Inflation adjustment using an inflation factor may only be made when a Department approved closure cost estimate exists and no changes have occurred in the facility operation which would necessitate modification to the closure plan. The inflation factor is derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its survey of Current Business. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year. The inflation factor may also be obtained from the Solid Waste website [www.dep.state.fl.us/waste/categories/swfr](http://www.dep.state.fl.us/waste/categories/swfr) or call the Financial Coordinator at (850) 245-8706.

This adjustment is based on the Department approved closing cost estimate dated:

2/26/2010

Latest Department Approved  
Closing Cost Estimate:

Current Year Inflation  
Factor, e.g. 1.02

Inflation Adjusted Closing  
Cost Estimate:

\$2,519,194.91

x

1.01

=

\$2,544,386.86

This adjustment is based on the Department approved long-term care cost estimate dated:

2/26/2010

Latest Department Approved  
Annual Long-Term Care  
Cost Estimate:

Current Year Inflation  
Factor, e.g. 1.02

Inflation Adjusted Annual  
Long-Term Care Cost  
Estimate:

\$127,308.79

x

1.01

=

\$128,581.88

Number of Years of Long Term Care Remaining:

x

30

Inflation Adjusted Long-Term Care Cost Estimate:

=

\$3,857,456.34

Signature by:

☒ Owner/Operator

☐ Engineer

(check what applies)

  
Signature

41111 ENTERPRISE RD

Address

JOHN ARNOLD, PROJECT MANAGER

Name & Title

DADE CITY, FL 33525

City, State, Zip Code

FEBRUARY 28, 2011

Date

JOHN.PHILLIP.ARNOLD@GMAIL.COM

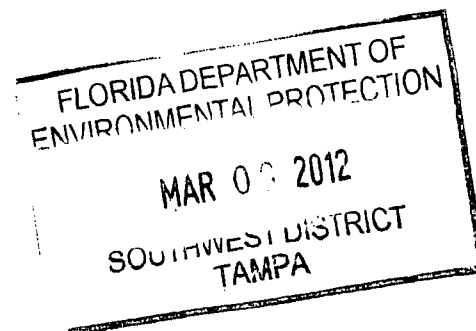
E-Mail Address

(352) 339-1408

Telephone Number

**Attachment G**

**Limerock Details and Elevation Observations**



Details and elevations of limerock observed during the construction of Cell 6 are based on the daily field observations performed by John Arnold, P.E. Limerock was observed at locations in testing grids B-5, B-4, B-3, and west of B-2, as shown in Figure 1. The lateral and vertical extents of the limerock are based on relative observations and field measurements made from construction grade stakes installed by the land surveyor, Simmons and Beall, Inc. On a weekly basis 10 to 20 grade control stakes were installed in the work area to facilitate construction and observation activities. Elevations refer to NGVD '29 datum.

Limerock in B-5 was encountered at latitude  $28^{\circ} 19' 49''\text{N}$ , longitude  $82^{\circ} 08' 04''\text{W}$  at an elevation of approximately 100' NGVD. As excavation of the overburden progressed westward, the extent of the limerock was determined to be approximately 65' long by 75' wide. The limerock was firm to hard with a clay mantel. No soft zones or voids within the limerock were observed. The limerock pinnacle/outcrop maximum elevation was 115' NGVD (+/-). The west edge of the limerock pinnacle/outcrop extended to an elevation of 79' NGVD (+/-). All limerock exposed at this location was over-excavated to a depth of 3' as required to construct the 3' thick clay barrier layer.

Limerock in B-4 was encountered at latitude  $28^{\circ} 19' 52''\text{N}$ , longitude  $82^{\circ} 08' 04.8''\text{W}$  at an elevation of approximately 108' NGVD. As excavation of the overburden progressed westward, the extent of the limerock was determined to be approximately 75' long by 50' wide. The western most extent of the limerock will be determined at a later date with the mining of the area west of Cell 6. The limerock was firm to hard with a clay mantel. No soft zones or voids within the limerock were observed. The exposed limerock pinnacle/outcrop maximum elevation was 110' NGVD (+/-) and minimum elevation of 79' NGVD (+/-). All limerock exposed at this location was over-excavated to a depth of 3' as required to construct the 3' thick clay barrier layer.

Limerock in B-3 was encountered at latitude  $28^{\circ} 19' 54''\text{N}$ , longitude  $82^{\circ} 08' 05''\text{W}$  at an elevation of approximately 112' NGVD. As excavation of the overburden progressed westward, the extent of the limerock was determined to be approximately 50' long by 80' wide. The western most extent of the limerock will be determined at a later date with the mining of the area west of Cell 6. The limerock was firm to hard with a clay mantel. No soft zones or voids within the limerock were observed. The limerock pinnacle/outcrop maximum elevation was 115' NGVD (+/-) and minimum elevation of 79' NGVD (+/-). All limerock exposed at this location was over-excavated to a depth of 3' as required to construct the 3' thick clay barrier layer.

Limerock in the area west of B-2 was encountered at latitude  $28^{\circ} 19' 56''\text{N}$ , longitude  $82^{\circ} 08' 06.8''\text{W}$  at an elevation of approximately 90' NGVD. As excavation of the overburden progressed westward, the extent of the limerock was determined to be approximately 100' long by 40' wide. The western most extent of the limerock will be determined at a later date with the mining of the area west of Cell 6. The limerock was firm to hard with a clay mantel. No soft zones or voids within the limerock were observed. The limerock pinnacle/outcrop maximum elevation was 112' NGVD (+/-) and minimum elevation of 88' NGVD (+/-). Limerock exposed at this location was over-excavated to a depth of 3' as required to construct the 3' thick clay barrier layer.

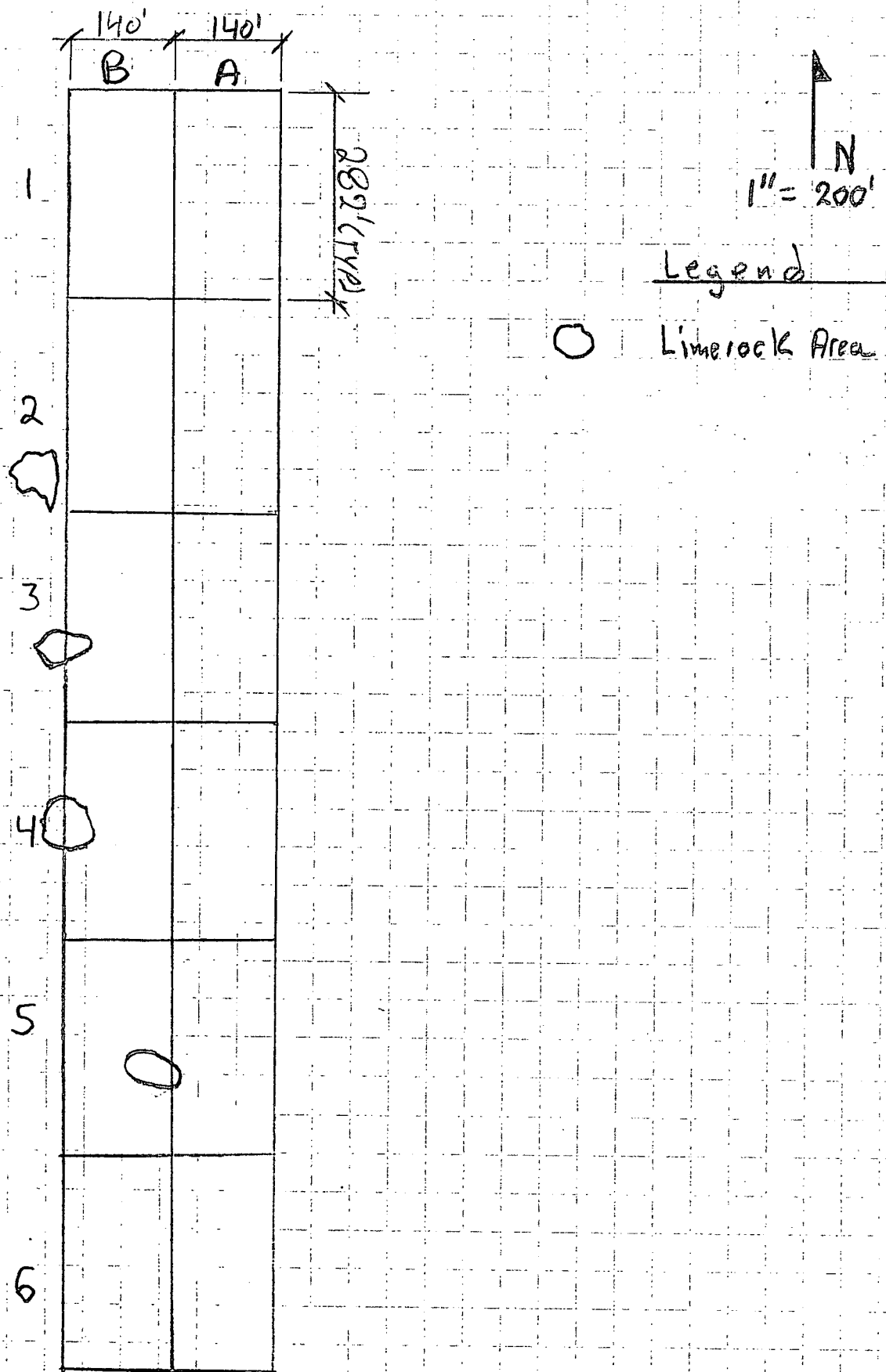


Figure 1

Cell 6 Limerock Observations  
Enterprise Class III Landfill