# HARTMAN & ASSOCIATES, INC.

OFFICERS:

Gerald C. Hartman, P.E., DEE Harold E. Schmidt, Jr., P.E., DEE James E. Christopher, P.E. Charles W. Drake, P.G. Mark A. Rynning, P.E., M.B.A. William D. Musser, P.E., P.H. Lawrence E. Jenkins, P.S.M.

SENIOR ASSOCIATES:

Marco H. Rocca, C.M.C. Roderick K. Cashe, P.E. Douglas P. Dufresne, P.G. Jon D. Fox, P.E. Troy E. Layton, P.E., DEE

engineers, hydrogeologists, surveyors & management consultants

June 24, 2003

ASSOCIATES:

James E. Golden, P.G. Andrew T. Woodcock, P.E., M.B.A. John P. Toomey, P.E. Mark A. Gabriel, P.E. George S. Flint, M.P.A. Jennifer L. Woodall, P.E. L. Todd Shaw, P.E. Rafael A. Terrero, P.E., DEE Jill M. Hudkins, P.E. HAI #99.0331.007

Phase 4

File 12 0

Jill M. Hudkins, P.E. Valerie C. Davis, P.G. Charles M. Shuttz, P.E. Charles M. Shuttz, P.E. C. Michelle Gaylord C. Michelle Gaylord W. Bruce Lafrenz, P.G. Daryll B. Parker, M.B.A. Alexis K. Stewart, P.E. Alexis K. Stewart, P.E.

File 12.0

Southwest District Tampa

Alexis K. Stewart, P.E. Beverly J. Garrett, P.E

Via UPS Overnight

Mr. Kim Ford, P.E.

Florida Department of Environmental Protection Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Subject:

Addendum to June 10, 2003 Excavation Plan

Enterprise Recycling & Disposal Facility

Angelo's Aggregate Materials, Ltd.

FDEP Permit Nos. 177982-001-SC, 177982-002-SO

Pasco County, Florida

Dear Mr. Ford:

On behalf of Angelo's Aggregate Materials, Ltd. (Angelo's), Hartman & Associates, Inc. (HAI) is submitting this plan addendum to address the excavation scenarios discussed during our telephone conversation on June 17, 2003, in accordance with Specific Condition #5 of the above construction permit. The two scenarios to be addressed include: 1) the clay layer surrounding the limestone areas is deeper than the base grade of Cell 1; and 2) there is no clay layer surrounding the limestone areas.

In the first of these scenarios, a grid of borings, at approximately 50-foot centers up to 10 feet below the base cell grade, will be completed and grouted to investigate and identify the confining layer. Once the horizontal extent of the layer has been mapped, clay will be extended out to cover the limestone and overlap the deeper clay layer by at least 50 feet.

In either case, Angelo's will extend the additional clay (maximum permeability of 1x10E-6 cm/s) beyond the limestone areas to an area where clay is present in order to complete a tie-in and maintain a continuous confining layer across the cell floor. The clay will be placed in lifts and compacted in the same manner as stated in the June 10, 2003 plan, attached. Weekly progress reports will be submitted to the Department once construction activities resume. The surveyors have been unable to complete the current cell grades or delineate the limestone areas

> 201 EAST PINE STREET • SUITE 1000 • ORLANDO, FL 32801 TELEPHONE (407) 839-3955 • FAX (407) 839-3790 • www.consulthai.com A TETRA TECH COMPANY ATLANTA PLANTATION JACKSONVILLE DESTIN **ORLANDO** FORT MYERS

Mr. Kim Ford, P.E. June 24, 2003 Page 2

due to the ongoing rain and wet conditions at the site. However, photographs taken from a June 17, 2003 site inspection by Mr. Miguel Garcia of HAI are attached.

We trust that this plan addendum will satisfy the requirements of the construction permit. Please call us if you have any questions.

Very truly yours,

Hartman & Associates, Inc.

James E. Golden, P.G.

Senior Hydrogeologist/Associate

Jennifer E. Deal, P.E.

Project Engineer

JEG/JLD/cr/99.0331.007/corresp/Ford.jeg

cc:

Dominic Iafrate, Angelo's Craig Bryan, Angelo's Miguel A. Garcia, HAI Dale Claytor, HAI

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June 10, 2003

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Charles M. Shultz, P.E.
Scan M. Parks, AICP, QEP
C. Michelle Gaybord
HAI #99.0331.007

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Dhogs 4

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Alexis K. Stewart, P.E. Beverly J. Garrett, P.E.

W. Broce Lafrenz, P.G. Daryll B. Parker, M.B.A. Phase 4

File 12.0

Via Facsimile & UPS Ground

Mr. Kim Ford, P.E. Florida Department of Environmental Protection Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Subject:

Enterprise Recycling & Disposal Facility Angelo's Aggregate Materials, Ltd.

FDEP Permit Nos. 177982-001-SC, 177982-002-SO

Pasco County, Florida

Dear Mr. Ford:

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HAI is proposing to continue excavation in Cell 1 to the approved base grades (80-82 feet, NGVD). At completion, any areas with exposed limestone would be over-excavated by 3-feet and patched with 3-feet of compacted clay material with a maximum permeability of 1 x 10E-6 cm/s, in accordance with Specific Condition #9.c of the construction permit. The clay will be tied-in to the surrounding confining layer in a step-type method. Three "steps", each 12-inches in height and 5-feet in width will be excavated in the sandy clay surrounding the limestone areas. The excavation and steps will be filled with on-site clay above the level of the surrounding base grade. A manually operated drum roller, tamper, or similar equipment, will be used to compact



Mr. Kim Ford, P.E. June 10, 2003 Page 2

each 12-inch lift of the loose clay. Additional clay will be added as necessary to bring the elevation of the limestone area to the approved cell base grade.

Base grades of Cell 1 will be sloped away from the limestone to avoid excessive surface water infiltration into the limestone areas prior to confining layer construction. The locations and sizes of these areas will be surveyed, tied to benchmarks, and shown on the Site Plan. Quality assurance testing, as specified in the Engineering Report, will be conducted in each of these locations (one in the center and one over each side of the tie-in areas) in addition to the minimum number of tests required per cell. On-site clay is currently being tested to ensure the permeability requirement will be met in the patched areas.

Weekly updates will be submitted to the Department to summarize the excavation and construction activities for Cell 1. These updates will include photos of Cell 1 (one taken from the southern boundary of the cell, and one close-up of each limestone area), measurements of the limestone areas from a fixed point, and the current cell base elevations.

The Site Plan with the surveyed locations will be submitted to the FDEP for review once completed. Quality assurance testing is expected to begin immediately after the survey confirms that the appropriate base grades have been achieved. A cell certification form will be submitted to the Department to document all these activities prior to waste acceptance.

We trust that this plan will satisfy the requirements of the construction permit. Please call us if you have any questions.

Very truly yours,

Hartman & Associates, Inc.

Senior Hydrogeologist/Associate

James E. Golden, P.G.

410/03

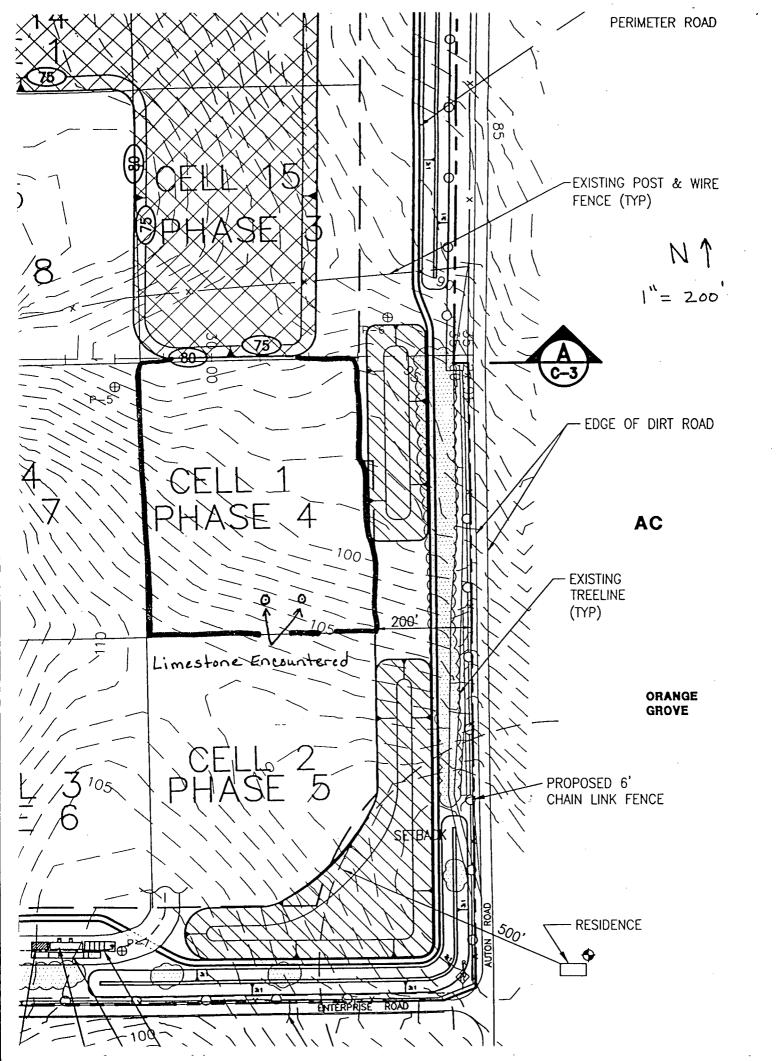
ennifer L. Deal, P.E.

Project Engineer

JEG/jld/cr/99.0331.007/corresp/ Ford.jeg

cc:

John Iafrate, Angelo's Dominic Iafrate, Angelo's Craig Bryan, Angelo's

















#### Ford, Kim

From: Ford, Kim

**Sent:** Thursday, June 19, 2003 3:38 PM

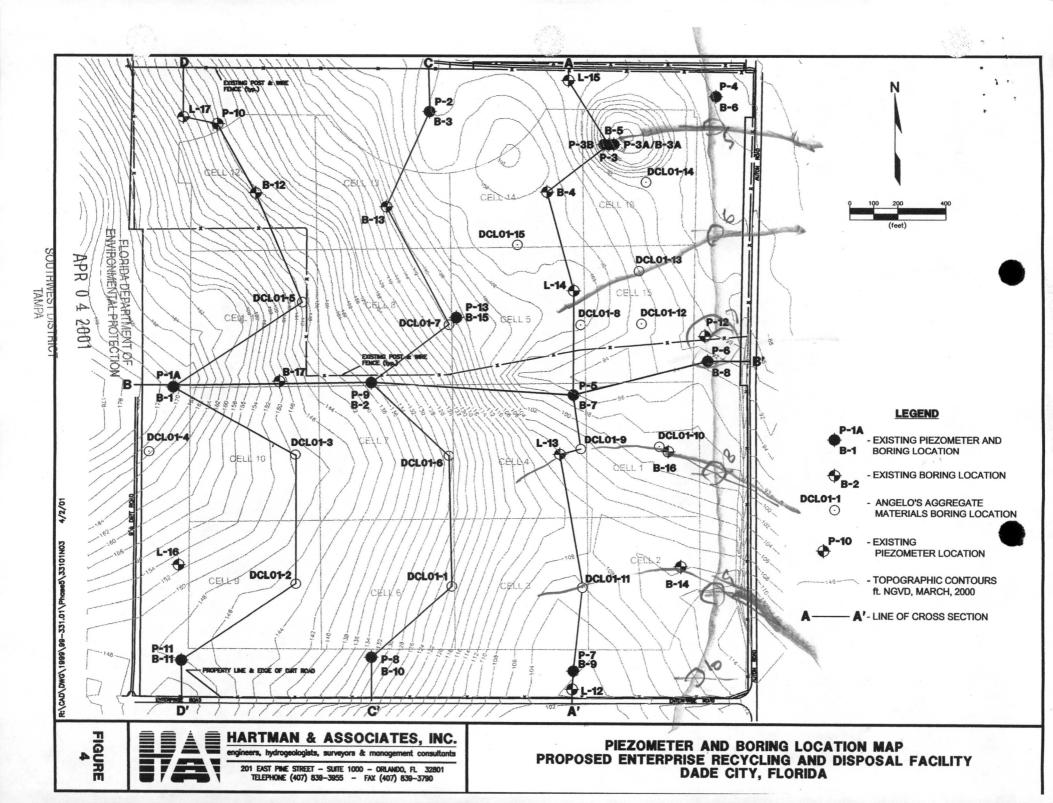
To: Pelz, Susan; Morris, John R.

Subject: conversation with Jennifer Deal about Enterprise CIII

On June 19, 2003 at 3:10pm I spoke with JD and discussed the following:

- 1. call John about well screen depths
- 2. fax in writing all design changes to Kim from Jennifer (the certifying engineer) for review
- 3. call David Smith for all stormwater related changes
- 4. use Sheet C-2 for the base grades maybe enlarge the cell 1 part of the sheet to 1" =100' or 1' = 50', and show all elevations on that drawing as part of the weekly report
- 5. a cross-section N-S along the east new wells is needed for geology of the area
- 6. water levels requested as part of each weekly report for all wells and PZs
- 7. photos of all walls of excavation around cell 1 requested
- 8. notification requested when within 1 foot of final base grades to observe the geology after the last cuts without mixing of the excavated soil. I asked if pans are being used for the excavation. JD did not know.
- 9. I suggested possible test pits may be requested to determine how many and where the base will be samples taken for permeability.

Kim



#### Morris, John R.

From:

Morris, John R.

Sent:

Thursday, June 19, 2003 10:42 AM

To:

'Miguel Garcia'

Cc:

Ford, Kim; Pelz, Susan

Subject:

RE: Enterprise Class III Landfill, Pasco County; telephone conversations

Importance:

High

#### Miguel:

Thanks for reviewing the attached e-mail message and providing your response. Please note that the last bullet item listed for our discussion on 6/18/03 should refer to Pond 2 along the EAST boundary of the facility -- the reference to Pond 2 along the west boundary is incorrect.

#### Thanks again.

----Original Message----

From: Miguel Garcia [mailto:mgarcia@consulthai.com]

Sent: Thursday, June 19, 2003 10:24 AM

To: Morris, John R.

Subject: RE: Enterprise Class III Landfill, Pasco County; telephone

conversations

#### John,

This summary accurately describes our discussions regarding the Enterprise Road Landfill site in Pasco County.

Miguel A. Garcia
Hydrogeologist
Hartman & Associates, Inc.
201 E. Pine St., Suite 1000
Orlando, Florida 32806
Ph. 407-839-3955 Fax. 407-839-2066
Email: Mgarcia@consulthai.com

#### ----Original Message----

From: Morris, John R. [mailto:John.R.Morris@dep.state.fl.us]

Sent: Wednesday, June 18, 2003 6:06 PM

To: Miguel Garcia (E-mail)

Subject: Enterprise Class III Landfill, Pasco County; telephone

conversations

#### Miguel:

As we discussed today, I have prepared the following summary to describe items of interest during our previous telephone conversations regarding the Enterprise facility:

#### 4/1/03:

\* referenced the written notification of soil boring/monitor well/gas probe installation and piezometer abandonment that was previously provided in

the HAI letter dated 3/20/03

 $\star$  indicated that field activities were planned to start 4/2/03, and were anticipated to last about 2 weeks

#### 4/4/03:

\* soil boring installed near the NE corner of the facility to characterize subsurface conditions for proposed wells MW-5A (surficial

- aquifer) and MW-5B (Florida. aquifer) showed no competent li. stone to a depth of 95 ft bls
- \* consistent silty clay unit was encountered below the water table sediments
- \* well screen depth of 60-70 ft bls was anticipated for proposed well MW-5B; due to different lithology encountered, now plan to complete well MW-5B as a deep surficial aquifer well with well screen at 70-80 ft bls \* I did not object to the proposed change in screened interval and did not feel it was appropriate to keep drilling to find limestone at this location

#### 5/9/03:

- \* soil boring installed along east boundary to characterize subsurface conditions for proposed well MW-9 (surficial aquifer) showed mixed clayey sand/sandy clay to 37 ft bls, silty clay with limestone fragments were encountered at 37 ft bls, lost circulation zone at 41 ft bls, and depth to water was at 37 ft bls; well screen of 34-54 ft bls was anticipated for proposed well MW-9; due to different lithology encountered, now plan to complete as a shallower well so don't breach confining unit with well screen;
- I did not object to proposed change in screened interval to maintain the integrity of the confining unit
- \* soil boring installed along east boundary to characterize subsurface conditions for proposed well MW-8 (surficial aquifer) showed limestone fragments at 38-40 ft bls, with hard limestone below; well screen of 29-49 ft
- bls was anticipated for proposed well MW-8; due to different lithology encountered, now plan to complete as a shallower well so don't breach confining unit with well screen; I did not object to proposed change in screened interval to maintain integrity of the confining unit
- \* plan to delete the 2 ft long sumps that were planned below the screened intervals in the surficial aquifer monitor wells; I did not object to the deletion of the well sumps
- \* plan to bring another drill rig to the facility next week or following week; plan to install gas probes next week

#### 5/23/03:

\* existing piezometer along the south boundary (P-7) needs to be abandoned to allow for construction of stormwater pond in the southeast corner (Pond 1?); to allow continued ground water elevation data collection in the southern portion of the facility plan to install proposed well MW-11 ahead of schedule; I did not object to the early abandonment of P-7 and early

#### installation of MW-11

#### 5/29/03:

\* received voice mail message providing verbal notification that limestone had been encountered during excavation of Cell 1

#### 5/30/03:

\* follow-up conversation to discuss occurrence of limestone, plan to get surveyors out to the facility on 5/31/03 or 6/2/03, plan to provide written notification to the Department by 6/3/03

#### 6/18/03:

- \* plan to install stormwater pond in southeast corner (Pond 1?) ahead of schedule and needed to discuss well and gas probe locations in proximity to this pond
- \* well MW-9 has been installed and appears to be located along the western bank of the pond; plan to remove the existing concrete pad, install larger diameter protective casing and replace the concrete pad to provide better protection for the well
- \* well MW-10 has been installed and appears to be located within the bottom of the pond; plan to abandon the existing well and install a replacement well located to the NW toward the footprint of Cell 2; indicated my preference to refer to the replacement well as MW-10 so do not have to do minor permit modification to reference new well number; not a problem as had

not conducted initial sampl\_g event and have not reported moditoring data for this location to date

- \* gas probe GP-11 is adjacent to well MW-9 and will be modified in a similar manner
- $\star$  gas probe GP-12 is adjacent to well MW-10 and will be replaced in a similar manner
- \* HAI has been coordinating with Pasco County to route some of the stormwater drainage from the roadside swale along the north side of Enterprise Road into the stormwater pond at the southeast corner of the facility (Pond 1?); this pond will be somewhat enlarged from its proposed configuration extended westward along the south berm and expanded toward Cell 2, with some changes to the footprint of Cell 2; I asked if these changes to the stormwater permit had been discussed with stormwater permitting personnel to determine if a permit modification was needed
- \* suggested that proposed changes to stormwater pond and Cell 2 configuration should be discussed with Kim Ford
- \* also discussed proposed stormwater Pond 2 (west boundary) and Pond 3 (north boundary); the site map attached to the operating permit (# 177982-002-SO) appears to indicate that proposed well MW-8 and gas probe GP-10 may be located within Pond 2; it also appears that proposed well MW-3 and gas probe GP-6 may be located within Pond 3; need to consider relocating these wells/gas probes prior to their installation to minimize impacts with the stormwater ponds

Please let me know if you agree with this summary and indicate any changes that you may recall. It is my intention to update this summary as needed for

our permit file. Thanks for your assistance.

John R. Morris, P.G.

Solid Waste Section, Southwest District Office

Telephone: 813-744-6100, ext. 336 (suncom 512-1042, ext. 336)

Facsimile: 813-744-6125

E-mail: john.r.morris@dep.state.fl.us

#### BEST AVAILABLE COPY

... WASTE MGT TAMPA SWD ... x:8137446125

## \*\* Transmit Conf.Report \*\*

P.1

Jun 17 2003 14:02

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# FLORIDA DEPAL MENT OF ENVIRONMENTAL PROTECTION

3804 Cocon... Palm Drive Tampa, FL 33619-8318

# **FAX**

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From:	En Cors
Phone:	(813) 744-6100 × 3 82
Fax phone:	(813) 744-6125

REMARKS:  Urgent  For your review  Reply ASAP Please comment
- phanis Ole For Now
CHI CORNER POST AND BONCHMARKS
SURVINGED DRAWING WITH THE  1st weekly proceess Report
THE DUNISHO - THE PLAN IS OR FOR
CLAY EVERYWHERE AT BASE BUT NOT DEPEN CLAY OR MISSIAN CLAY

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We trust that this plan will satisfy the requirements of the construction permit. Please call us if you have any questions.

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Senior Hydrogeologist/Associate

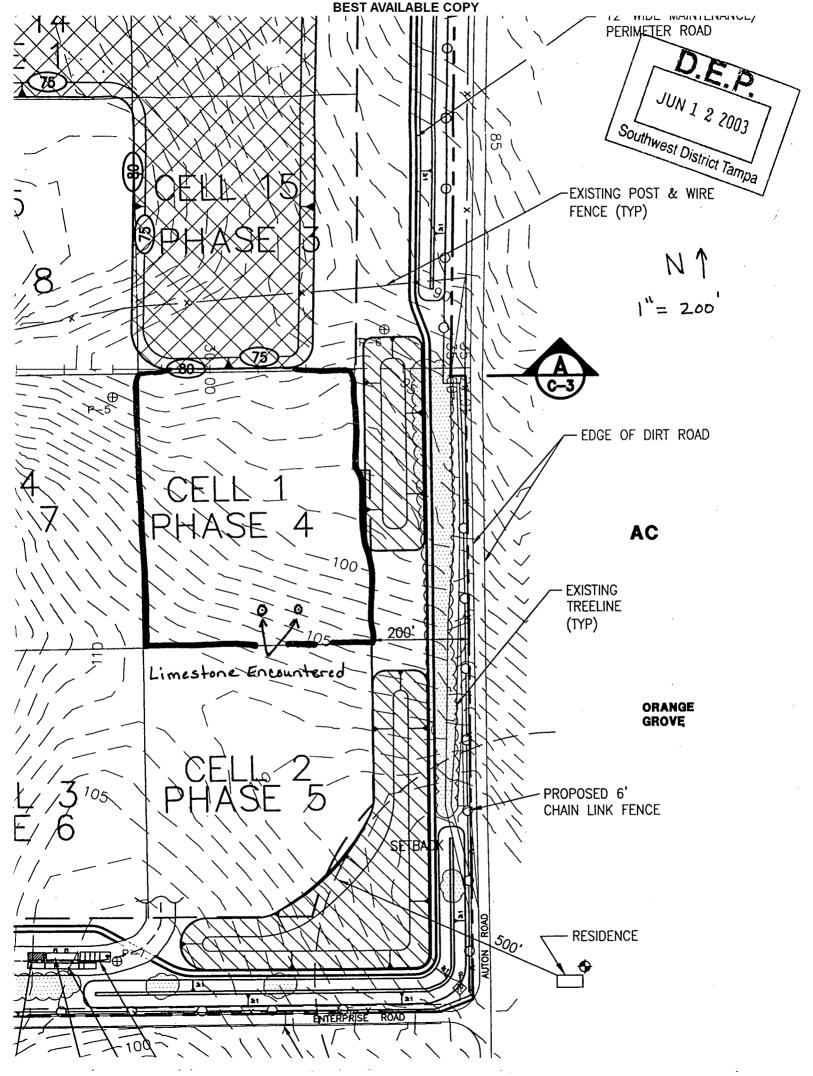
JEG/jld/cr/99.0331.007/corresp/ Ford.jeg

ennifer L.

**Project Engineer** 

cc: John Iafrate, Angelo's

Dominic Iafrate, Angelo's Craig Bryan, Angelo's



PHONE WY J. DIAL ENTERPRISE 6 17/03 Other Convoinons 1) NO LR ATSATE 2) CLAY EVERYWHERE AT SASE 3) Chay DEGPER THAN BASE Clay missing hurt Grout Solvinon FLATURES GARIFICATION Clay on LOO ( Gin WATER (EJEL in TEmp STORMWATCH POND