

ARDAMAN & ASSOCIATES, INC. PROGRESS MEETING REPORT FOR PINEY POINT GYPSUM STACK SYSTEM CLOSURE		File No.: 06-110A	Page 1 of 5
		Meeting Date: <u>8/2/07</u>	
		Report No: <u>124</u>	Report Date: <u>8/8/07</u>
Project Name:	CLOSURE CONSTRUCTION - OGS & NGS SLOPES, NGS-N RELIEF DITCH, SCP-S AND SCP-N		Project Address: 300 U.S. Highway 41 North Palmetto, Florida 34221 Manatee County
ATTENDEES: Ardaman: Rob Werner, John Cameron FDEP: CDM: Dean Carter (telecom) Mike Cruz, Jack Partin, George Curry Comanco: Compass: Mike Slovensky, Tim Morrow, Jeremy Giles HRK:			

COPY TO: FDEP: Phil Coram, Sam Zamani, John Coates
 Ardaman: Nadim Fuleihan, Rob Werner, Tom Leto, John Cameron, Tony Deatherage
 CDM: Steve Solters, Dean Carter, Michael Edgar, Michael Cruz, Dick Slovarp
 Comanco: Tom Topp, Paul Moore
 Compass: Tim Morrow, Jeremy Giles, Tom McSweeney, Mike Slovensky
 HRK: Art Roth, Ivan Nance

Next Meeting is Scheduled for Thursday, August 9, 2007
Site Tour at 8:00 am followed by
Construction/Engineering and CDM Operations Meetings

1.0 REVIEW MINUTES OF PREVIOUS MEETING

- No corrections were reported.

2.0 SAFETY

- No incidents were reported.

3.0 SUMMARY OF WORK PERFORMED

Compass

- Well Water usage - none (trucked) since last report.
- Watered seed and sod areas (irrigation system); repaired washouts on the OGS-S south slope.
- Continued hauling soil from the Gulfstream II borrow area; total hauled as of 7/31/07 was reported at 167,618 cy (estimated by truck count).
- Continued placing, grading and compacting soil cover on liner in the Phase II (NGS) east stormwater ditch.
- Continued placing soil cover on liner in the SCP-N west compartment.
- Resumed grading and started compacting soil cover on liner in the NGS Relief Ditch.
- Equipment: 8 dump trucks, 2 water trucks, 6 D6 dozers, 2 excavators, 1 motor grader, 3 club carts, 1 skidsteer bobcat, 1 fuel truck - 23 personnel.

Comanco

- Comanco was not represented at the meeting - no work was performed since last report.

CDM

- Continued desiccating sludge and grading and compacting the SCP-N.

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- Continued hauling soil-gypsum mix materials to the excess material stockpile area.
- Continued installation of the SCP south seepage collection drain system.
- Continued stripping vegetation in Basin 2.
- Resumed removal of gypsum sediment from the Phase II lined stormwater ditch.
- Equipment: 7 Terex dump trucks, 1 John Deere dump truck, 1 6-yard dump truck, 2 loaders, 4 D6 dozers, 1 D4 dozer, 1 motor grader, 6 excavators, 3 compactors, 2 water trucks, 1 service truck, 3 6-inch service pumps, 1 2-inch pump, 1 12-inch fusing machine, 1 9-yard rock box, 2 plate compactors, 2 bagging machines - 23 personnel.

4.0 PROJECTED WORK FOR NEXT WEEK

Compass

- Water seeded and sodded areas; repair washouts.
- Continue hauling from the Gulfstream II borrow area and placing in the Phase II stormwater ditches and in the SCP-S west compartment.
- Grade soil cover for fabriform and rip-rap pad installations.
- Start sod installation in the Phase II south stormwater ditch and the NGS Relief Ditch.

CDM

- Continue desiccating sludge, grading and compacting the SCP-N, and hauling to the excess material stockpile area.
- Continue installation of the SCP south seepage collection drain system.
- Continue removal of gypsum sediment from the Phase II lined stormwater ditch.
- Connect Phase I stormwater ditch 24-inch outlet pipe to Outfall 0003.
- Begin installation of fabriform pads at the Relief Ditch, Phase I structure No. 10 and Phase II structure No. 4. (See 8.0 Technical Items - Miscellaneous regarding erosion protection at the discharge of the Phase II seepage collection drain outlet pipe.)

5.0 SURVEY NOTES

- CDM/Edgemon continued as-built surveys for the SCP phase II seepage collection drain.
- A partial take-up survey of remaining SCP-N cut was performed by Edgemon on 7/13/07, and was emailed by CDM to Ardaman on 7/24/07, with additional follow-up information emailed on 7/26/07. Ardaman reported that calculations based on the survey data provided, along with truck load count information previously provided by CDM for materials already placed on the stockpile, indicate that the projected final volume of the stockpile is expected to be in the range of the design estimate and therefore the design aerial extent of the excess material stockpile area is not expected to change.
- As-built surveys for crest road closure work will need to be provided upon completion of fine grading for restoration of design crest road surface gradients. CDM indicated that as-builts are in progress for the OGS crest roads.

6.0 PROJECT SCHEDULE

- 3 workdays were lost to rain by Compass this reporting period; 2 days by CDM.
- CDM updated and distributed the project schedule by email on 7/31/07. The updated schedule was tabled for discussion after the meeting.
- CDM will update and distribute the project schedule by email on 8/7/07.
- Weekend work schedule: CDM on Saturday.

7.0 SHOP DRAWINGS and SUBMITTALS

All shop drawings and submittals should be submitted to Rob Werner (Ardaman) for approval, with transmittals only copied to John Cameron (Ardaman), Steve Solters (CDM) and Mike Cruz (CDM).

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- SKAPS Transect 270 geocomposite was submitted for approval by CDM/Comanco by email on 7/31/07. The geocomposite was conditionally approved by Ardaman by email on 7/31/07, for use on the crest roads

8.0 TECHNICAL ITEMS/CLARIFICATIONS AND QUALITY ASSURANCE

Current Closure Construction Drawing Versions are summarized below. (See Meeting Minutes No. 122 or earlier for detailed version control background information):

- NGS-S Cap and NGS-N Relief Ditch: Sets dated 9/28/05.
- Phase I Slope Closure: Sets dated 9/28/05; except drawing Nos. C-2, C-5, C-6, D-6, D-9, D-10, D-11, revised date 2/15/06 (various revision nos.).
- Slope Cover Construction - OGS Ponds: Sets dated 12/16/05.
- Phase II Slope Closure: Sets dated 12/22/05; except for drawing nos. C-1 (rev. 2) and D-2 (rev. 1) dated 12/13/06.
- SCP-South Compartment Closure (LPWS): Sets dated 1/11/06; except drawing No. D-6, dated 2/15/06 (Rev. 1). Note that finish grades for the SCP-S Process Water Sump were revised per the drawing provided by Ardaman at the 7/6/06 construction meeting (and attached to meeting minutes) indicating optional design grades for the pond bottom area, which were adopted by CDM/Compass.
- SCP-S, SCP-N & Basin 2 Closure: Sets dated 11/8/08. Note that supplemental drawings were distributed at the 3/29/07 meeting to clarify installation of the SCP-S seepage collection drain system between point nos. 14 and 23 (end of drain). It was noted at the 4/5/07 meeting that the east end of the drain may be shortened to accommodate installation of a cut-off wall that is being considered in conjunction with design discussions related to the proposed Buckeye Road groundwater collection drain.

Regarding specifications, pertinent Phase III - NGS-S Reservoir Closure Specifications and ITN specification documents shall be used. Pertinent ITN specifications, along with specifications for HDPE panel drains and concrete erosion control mats, were compiled in a specification document (Sections 24, 25, 26, 27, 28, 29 and 30, all revision 0, dated 7/6/05) on 7/7/05. Additional supplemental specifications for "Woven Geotextile" and "General Earthwork Using Soil" (Sections 31 and 32, both revision 1, dated 1/4/06) were distributed at the meeting on 1/5/06.

- Drawings were distributed by Ardaman at the 7/20/06 meeting for additional panel drains required in the following areas: OGS Slope Pond, OGS-N Cap, OGS west and south ditches, and the NGS-S east ditch. Copies of these figures were attached to the electronic version of the meeting minutes.
- Drawings C-1, C-2, D-1, D-2 and D-3 were distributed at the 4/5/07 meeting for the First 50 percent - Plant Watershed Areas. Drawing C-1, revision 1 and a CD were distributed at the meeting for use as an interim grading plan.
- Ardaman distributed a detailed grading plan figure at the 5/10/07 meeting to clarify the transition from typical berm section to outlet pipe profile at the locations of the SCP cap outlets; additional clarifications were sent by email to CDM on 5/21/03 and 5/23/07.
- Regarding closure of the NGS-N crest roads, Ardaman replied to CDM's proposed location for placement of gypsum to be excavated to lower the crest roads to grade in a 6/6/07 email. A marked-up copy of the proposed typical cross section for placement of gypsum on the north end of the NGS-S east slope was provided at the meeting. See 8.0 Technical Items, Miscellaneous for more.
- Regarding NGS Relief Ditch erosion protection at the discharge end of the NGS-S Cap outlet pipe, a sketch was distributed by email on 7/18/07, showing a revised scheme proposed to accommodate the un-depressed liner. The sketch was distributed and discussed at the meeting.

Quality Control Activities

- Ardaman had 8 technicians on site this reporting period.
- In-place gypsum/soil density tests
Phase II SCP closure - 182 passing, 1 failing, none pending.

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- In-place soil fill density tests
 - OGS reservoir slope cover - no change - 59 passing, none failing, none pending.
 - Phase I stormwater ditches soil cover - no change - 68 passing, none failing, none pending.
 - Phase II stormwater ditches soil cover - no change - 13 passing, 4 failing, none pending.
 - NGS Relief Ditch - 4 passing, none failing, none pending.
- Liner conformance testing - no change
 - A summary of conformance testing, revision 6, was last updated 7/19/07 and was distributed at the 7/26/07 meeting.
 - All rolls (148 of 148 40-mil smooth, 28 of 28 40-mil textured, and 27 of 28 80-mil textured) are conditionally approved pending visual inspection when deployed, except 80-mil textured roll #417549-07.
- Liner destructive tests (DT's)
 - SCP Phase II pond - no change - 81 marked, 81 passing, none failing, none pending.
- Liner anchor trench compaction tests
 - SCP Phase II pond - no change - 8 passing, none failing, none pending.

Miscellaneous

- Rainfall was reported by CDM at 1.44" from 7/25/07 through 7/31/07.
- CDM and Ardaman continue to monitor the Granddaddy Boil location.
- Protection of the twin 18" gate valves on the NGS-N outlet pipeline and plans for final grading of the existing low area around the valves at the northwest corner on the NGS-N were discussed at the 5/17/07 meeting. Ardaman will provide a sketch for HRK's review and then to CDM for execution.
- Ardaman indicated at the 5/31/07 meeting that the design for the south drain segment east of Outfall 003 will be revised for compatibility with the proposed Buckeye Road groundwater collection drain and associated cutoff wall. CDM indicated their selection of drain Option 1 at the 6/21/07 meeting.
- Regarding removal and placement of gypsum from the NGS-N northern and western crest roads, Ardaman indicated to CDM by email on 6/8/07 that the capacity of the proposed placement area on the NGS-N northeast slope (station 26+50 to 30+50) is approximately 2,000 cy, whereas the anticipated cut volume is approximately 4,000 cy. Several supplemental gypsum placement areas have since been identified and checked for potential storage capacity, including the following: gypsum ramp at the northeast corner of the NGS-N (1,500 cy); NGS-N crest road west of the Relief Ditch (1,200 to 1,500 cy); NGS-N slope at the northwest corner (capacity not estimated).
- It was noted at the 7/5/07 meeting that some gypsum could also potentially be placed on the wide gypsum crest road between the NGS-S Cap and the NGS-S as needed to restore the correct surface gradient. CDM provided survey information to Ardaman by email on 7/25/07. CDM requested Ardaman to provide a sketch for recommended gypsum placement.
- Regarding erosion repairs presently being performed by Compass on the Phase II slopes, it was noted during the 6/21/07 site tour that erosion gullies were being filled with loose dry soil, which has a high erosion potential. It was suggested that CDM/Compass consider wetting, scarifying, dressing and recompacting (tracking in with a dozer) the eroded gypsum surface prior to placement of soil dressing and re-seeding. CDM/Compass concurred and agreed to revisit and revise slope repair protocols.
- It was noted on the site tour that germination on the NGS-N slope has improved, however, deep erosion gullies (up to 2' deep) are present at many locations on the lower slope (such as those observed on the NGS-N north slope just above the 1:1 cut during the 7/12/07 site tour). CDM/Compass indicated that erosion gullies such as these would be opened up by ripping, followed by wetting and recompaction prior to re-seeding or sodding. It was indicated that this could be done most efficiently at the time that soil cover is being placed in the stormwater ditch adjacent to wherever such repairs are needed, at which time the soil cover will provide access to the repair area.
- It was noted at the 7/5/07 meeting that the 24" NGS-S outlet along the NGS-N west road was gouged at several locations; CDM will be advised as to whether or not repairs are necessary.
- Regarding seepage from the Gulfstream II recharge ditch system which was recently observed to result in surface ponding on the Piney Point property in the vicinity of MW-10A, Compass advised that recharge ditch water levels are not specifically addressed in the permit, but had been advised by their consultants to keep the water level as high as practical. Compass agreed that water levels will be controlled to prevent future seepage breakouts.

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- It was noted at the 7/5/07 meeting that surface water control activities associated with soil cover placement in the Phase II stormwater pond have included pumping clean runoff over the north dike where it then percolates into the ground. It was agreed that water should be tested and Department approval sought on a case by case basis before pumping to a location where it can percolate into the ground.
- CDM/Compass were advised that the soil cover on the lined perimeter berm of the SCP-S compartment will need to be placed and compacted prior to filling more than about half of the up-gradient area of the SCP-S cap in order to provide/preserve design stormwater detention capacity and hence prevent uncontrolled discharge of stormwater into the seepage ditch.
- Current design drawings for the Phase II Slope Closure construction indicate a fabriform erosion control mat at the discharge end of the Phase II seepage collection drain outlet pipe (i.e., at the current discharge location at the headwaters of the remaining north seepage ditch near the northeast corner of the NCP). Considering that the outlet pipe will be extended and buried in conjunction with installation of the NCP seepage collection drain, it was agreed that the fabriform pad can be replaced with a temporary rip-rap apron constructed using 80-lb sand-cement bags.
- Monitor Well MW-10A was substantially damaged by construction equipment on or about 7/19/07. CDM will access whether the well can be repaired and then will either repair or replace.

Acceptances

- From 7/27/07 to 7/30/07, SCP phase II seepage collection system, subgrade for drain installation from station 121+50 to 122+00, and 4+00 to 6+50.
- From 7/27/07 to On 7/30/07, SCP phase II seepage collection system, top-of-12"-pipe for gravel cover, from station 2+00 to 6+50.

9.0 COMMENTS by PROGRAM MANAGER

- A proposal for gravel erosion protection, yet to be installed along the inboard slope of the access road at the toe of the OGS-S slope cover, was last discussed by conference call on 2/13/07 between FDEP, CDM and Ardaman. [Ardaman forwarded a sketch to CDM showing a potential cross section revision that may be considered to reduce the required gravel quantity via email on 2/23/07.] It has been agreed that the existing access ramps will be left in place until this work is done. Further discussions will be scheduled with FDEP.
- Based on updated grassing tabulations previously forwarded to FDEP, change order no. 20 is in progress.
- CDM received an updated cost proposal from Compass for closure of the First 50 percent - Plant Watershed Area, which was forwarded to FDEP on 6/12/07; discussions are ongoing.
- Quantities for liner work and soil cover quantities for crest road closure have been agreed upon. It is CDM's understanding that a change order is being developed by FDEP.
- CDM requested a copy of the gas line as-built provided to Ardaman by FDEP at the 6/21/07 meeting - the drawing was received by CDM on 7/30/07.
- CDM requested permission to grade out the NGS-S south slope access ramp to reduce erosion-related maintenance needs. Ardaman indicated that HRK had at one time stated that the ramp could potentially be used for contractor access during dredge disposal activities.

10.0 COMMENTS by FDEP

- FDEP was not represented at the meeting.

11.0 COMMENTS by HRK

- HRK was not represented at the meeting.