

ARDAMAN & ASSOCIATES, INC. PROGRESS MEETING REPORT FOR PINEY POINT GYPSUM STACK SYSTEM CLOSURE		File No.: 06-110A	Page 1 of 5
		Meeting Date: <u>8/30/07</u>	
		Report No: <u>128</u>	Report Date: <u>9/5/07</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, Tony Deatherage FDEP: CDM: Mike Cruz, Jack Partin, Jean Wilson, Wayne Winner Comanco: Paul Moore Compass: 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, Jean Wilson
 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, September 6, 2007
Construction/Engineering Meeting at 9:00 am

1.0 REVIEW MINUTES OF PREVIOUS MEETING

- No corrections were noted.

2.0 SAFETY

- No incidents were reported.

3.0 SUMMARY OF WORK PERFORMED

Compass

- Water usage - no water trucked (well water); no water provided by irrigation.
- Continued washout repairs on OGS-S south slope.
- Continued hauling soil from the Gulfstream II borrow area; total hauled as of 8/29/07 was reported at 206,338 cy (estimated by truck count).
- Continued placing, grading and compacting soil cover on liner in the Phase II (NGS) stormwater ditches.
- Began placing soil cover on liner along the southern edge of the SCP-N compartment - west side.
- Completed grading and compacting soil cover on liner and placing sod in the NGS Relief Ditch.
- Continued grading for fabriform/rip-rap pads - Phase I structure 10 (complete) and Phase II structure 4.
- Equipment: 6 dump trucks, 2 water trucks, 6 D6 dozers, 2 excavators, 1 motor grader, 3 club carts, 1 skidsteer bobcat, 1 fuel truck - 23 personnel; demobilized 1 dump truck.

Comanco

- Continued liner deployment (complete) and detail work in the SCP-N west compartment. Liner deployed as of 8/29/07 (per Ardaman measurement): 255,705 sf 40-mil textured ; 1,310,833 sf 40-mil smooth; 2,838 sf 60-mil textured; 4,674 sf 80-mil textured.
- Continued miscellaneous liner repairs (for Compass and CDM) at isolated liner damage locations.
- Equipment: 1 loader, 2 pick-up trucks, 1 excavator, 1 forklift, 1 QC trailer - 11 personnel.

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CDM

- Continued grading and compacting the SCP-N, and hauling/pushing excess material to the stockpile area.
- Started installation of the SCP-N seepage collection drain system.
- Started rough grading Basin 2.
- Continued removal of gypsum sediment from the Phase II lined stormwater ditch.
- Installed fabriform at Phase I (OGS) structure #10.
- Equipment: 7 Terex dump trucks, 2 John Deere dump trucks, 2 loaders, 4 D6 dozers, 1 D4 dozer, 1 motor grader, 6 excavators, 2 compactors, 1 water truck - 24 personnel. Demobilized 6-yd dump truck; added 1 John Deere dump truck since last report.

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; also continue placement in the SCP-N, pending liner acceptance.
- Continue grading for fabriform/rip-rap pads - Phase II structure #4.
- Continue sod installation in the Phase II (NGS) stormwater ditch and the Phase I (OGS) west stormwater ditch.

Comanco

- Continue detail work in the SCP-N west compartment, and start deployment in the east compartment, pending subgrade acceptance.
- Complete miscellaneous liner repairs (for Compass and CDM).

CDM

- Continue grading and compacting the SCP-N, and hauling/pushing excess material to the stockpile area.
- Continue removal of gypsum sediment from the Phase II lined stormwater ditch.
- Continue seepage collection drain north of SCP-N.
- Continue rough grading Basin 2.
- Install fabriform at Phase II (NGS) structure #4.

5.0 SURVEY NOTES

- CDM/Edgemon continued as-built surveys for liner subgrade in the SCP-N.
- As-built survey of OGS-S crest roads were provided by CDM to Ardaman by email on 8/16/07. Ardaman responded with comments on 8/20/07. CDM indicated that additional points have been surveyed.
- CDM/Edgemon resumed as-built surveys for the SCP seepage collection drain system.
- CDM/Edgemon also performed as-built surveys on soil cover in the NGS Relief Ditch, the Phase I (OGS) stormwater ditches, and the Phase II (NGS) stormwater ditches

6.0 PROJECT SCHEDULE

- No workdays were lost to rain this reporting period.
- The project schedule will be updated and distributed by email by CDM on 9/11/07.
- CDM indicated that there are no logic changes since last update.
- Weekend work schedule: no plans to work the 3-day Labor Day weekend.

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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).

- Three geocomposite samples were submitted by CDM/Comanco to Ardaman for conformance testing; testing is in progress.

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, the east end of the drain and limits of the lined stormwater ditch will be shortened to accommodate installation of a cut-off wall associated with the proposed Buckeye Road groundwater collection drain. See 8.0 Technical Items - Miscellaneous for more.

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.

- Ardaman issued preliminary drawing sets, dated 8/8/07, rev. P1 - For Review, for the Buckeye Road Groundwater Collection System at the meeting. These drawings include the revised design for the south drain and lined ditch segments east of Outfall 003 (for compatibility with the proposed collection drain and cutoff wall).
- 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.

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Quality Control Activities

- Ardaman had 10 technicians on site this reporting period.
- In-place gypsum/soil density tests
Phase II SCP closure - 232 passing, none failing, none pending.
- In-place soil cover 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 - 17 passing, none failing, 1 pending.
NGS Relief Ditch - 32 passing, none failing, none pending.
- Liner conformance testing
A summary of conformance testing, revision 7, was last updated on 8/8/07 for SCP 40-mil smooth and 40-mil textured. Table 2 revision 8 dated 8/29/07 was distributed at the meeting for 80-mil textured; 27 of 30 rolls have been tested and conditionally approved. Table 3 revision 9 dated 8/29/07 was distributed at the meeting for 60-mil textured; 58 of 115 rolls have been tested and conditionally approved; CDM/Comanco were requested to check the status of roll 125791-07.
- Liner destructive tests (DT's)
SCP Phase II pond - 148 marked, 115 passing, none failing, 20 pending.
- Liner anchor trench compaction tests
SCP Phase II pond - 8 passing, none failing, 9 pending.

Miscellaneous

- Rainfall was reported by CDM at 0.23" from 8/22/07 through 8/28/07.
- 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.
- 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. Additional gypsum placement areas have since been identified, including: the gypsum ramp at the northeast corner of the NGS-N (1,500 cy); the wide road west of the Relief Ditch (1,200 to 1,500 cy); NGS-N slope at the northwest corner. It was noted at the 7/5/07 meeting that some gypsum could also potentially be placed on the wide road between the NGS-S Cap and the NGS-S to restore the correct surface gradient. CDM provided survey information to Ardaman by email on 7/25/07. It was noted at the meeting that the timing for final placement and grading of the fill would need to be coordinated with the crest road closure work to avoid contact runoff from the regraded gypsum road into the NGS-S compartment. However, CDM may store some gypsum from the NGS-N dikes for future final crest grade restoration.
- 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 recompact (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 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 recompact prior to re-seeding or sodding. CDM indicated that they plan to undertake the repair work once soil cover is placed in the adjacent stormwater ditch (for access).
- It was noted at the 7/5/07 meeting that the 24" NGS-N outlet along the NGS-N west road was gouged at several locations; CDM will be advised whether or not repairs are necessary. Additionally, it was noted by CDM that drainage paths under the pipe have been blocked by Compass - Compass was requested to restore the drainage paths.

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- 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.
- Monitor Well MW-10A was damaged by construction equipment on or about 7/19/07. Ardaman indicated at the meeting 8/23/07 that the well should be replaced at the same location.
- Regarding liner installation for closure of the NGS-N south crest road, acceptable methods for lining around the existing (and in-service) spray system tie-down bollards was discussed at the 8/23/07 meeting. Ardaman will provide a sketch.
- Piezometer PZ-106A was damaged by Compass' subcontractor - the piezometer will be repaired and its new elevation surveyed.

Acceptances

- On 8/30/07, liner accepted for soil cover, SCP pond bottom from west dike 19+00 south to existing soil-covered liner, and from station 6+00 west to within 1 panel width of the west dike anchor trench.
- On 8/24/07, soil cover accepted for grassing, the NGS Relief Ditch from its east end to station 218+00.
- On 8/28/07, soil cover accepted for grassing, the NGS Relief Ditch from station 218+00 to its west end.
- From 8/28-30/07, ditch invert and top-of-12-inch-pipe accepted for seepage collection drain installation, SCP from station 35+00 to 31+00.
- On 8/29/07, subgrade accepted for fabricform and rip-rap installation, Phase I structure #10.
- From 8/23-27/07, soil cover accepted for grassing, Phase II southeast stormwater ditch from station 171+40 to 153+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.
- Change order No. 20 is in progress; CDM received a draft from FDEP on 8/6/07. The draft includes quantity adjustments for liner work and soil cover for crest road closures. Last discussion with FDEP and Ardaman was on 8/24/07.
- 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.
- Next Program Manager's meeting will be held on 9/13/07.

10.0 COMMENTS by FDEP

- CDM requested permission at the 8/2/07 meeting 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. FDEP will initiate a discussion with HRK..

11.0 COMMENTS by HRK

- HRK was not represented at the meeting.