

ARDAMAN & ASSOCIATES, INC. PROGRESS MEETING REPORT FOR PINEY POINT GYPSUM STACK SYSTEM CLOSURE		File No.: 06-110A	Page 1 of 5
		Meeting Date: <u>8/9/07</u>	
		Report No: <u>125</u>	Report Date: <u>8/15/07</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: Nadim Fuleihan, Rob Werner, John Cameron, Tony Deatherage FDEP: John Coates, Sam Zamani CDM: Dean Carter, Mick Edgar, Mike Cruz, Jack Partin, George Curry, Jean Wilson Comanco: Paul Moore Compass: Mike Slovensky, Tom McSweeney, 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 16, 2007
Construction/Engineering Meeting at 9:00 am

1.0 REVIEW MINUTES OF PREVIOUS MEETING

- No corrections were noted.

2.0 SAFETY

- An overhead power line was struck by the boom of Compass's 330 track-hoe on 8/6/07(as the hoe passing beneath the lines with its boom partially raised) - no injuries were reported. The location has been marked with warning signs, and Compass will provide a spotter when working in close proximity to power lines in the future; the backhoe operator was terminated. Compass will email a report to CDM; CDM will forward to FDEP.

3.0 SUMMARY OF WORK PERFORMED

Compass

- Well Water usage - none (trucked) since last report.
- Completed washout repair on the OGS-S south slope (washout at the top of the inboard slope soil cover).
- Continued hauling soil from the Gulfstream II borrow area; total hauled as of 8/3/07 was reported at 176,242 cy (estimated by truck count).
- Continued placing, grading and compacting soil cover on liner in the Phase II (NGS) south and east stormwater ditch.
- Continued placing soil cover on liner in the SCP-S west compartment.
- Continued grading and started compacting soil cover on liner in the NGS Relief Ditch.
- Excavate and grade for fabriform pads.
- 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

- Received additional liner for the SCP project - 115 rolls of 60-mil textured and 2 rolls of 80-mil textured. Also received 27 rolls of geocomposite. Mobilization is in progress to resume liner installation in the SCP.

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CDM

- Continued grading and compacting the SCP-N, and hauling/pushing excess material to the stockpile area.
- Continued installation of the SCP south seepage collection drain system to station 10+00; installed inlet structure 3.
- Continued stripping vegetation in Basin 2.
- Continued 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, 2 compactors, 1 water truck - 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.
- Continue grading and compacting soil cover in the NGS-N Relief Ditch.
- Grade soil cover for fabriform installations.
- Start sod installation in the Phase II south stormwater ditch and the NGS-N Relief Ditch.

Comanco

- Mobilize equipment and start liner installation in the SCP-N.
- Repair isolated liner damage in the Phase II east stormwater ditch and SCP-S west compartment.

CDM

- Continue grading and compacting the SCP-N, and hauling/pushing excess material to the stockpile area.
- Complete installation of SCP-S inlet structure No. 4, then resume seepage collection drain installation starting north of SCP-N (section west of Basin No. 1).
- 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.

5.0 SURVEY NOTES

- CDM/Edgemon continued as-built surveys for the SCP phase II seepage collection drain.
- CDM/Edgemon started as-built surveys for liner subgrade in the SCP-N.
- 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.
- Ardaman requested that CDM/Edgemon stake four locations on the south property line (based on the May 1, 1998 property survey by Clements Surveying) within the approximate limits of the proposed cut-off wall / groundwater collection drain system to be installed between the south toe of the OGS south stormwater ditch and Buckeye Road.

6.0 PROJECT SCHEDULE

- 1 workday was lost to rain by Compass and CDM this reporting period.
- CDM updated and distributed the project schedule by email on 8/7/07, and distributed hard copies at the meeting.. CDM indicated good progress with subgrade preparation in the SCP-N (Comanco is presently mobilizing to start liner installation) and with the SCP seepage collection drain. Also, Compass has continued good progress with soil cover and sodding, weather permitting.
- Weekend work schedule: CDM and Compass on Saturday; Compass possibly on Sunday to work on the Relief Ditch.

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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).

- There are no submittals at this time.

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 8 technicians on site this reporting period.
- In-place gypsum/soil density tests
Phase II SCP closure - 184 passing, none failing, 4 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 - 14 passing, 3 failing, none pending.
NGS Relief Ditch - 7 passing, none failing, none pending.
- Liner conformance testing
A summary of conformance testing, revision 7, was updated on 8/8/07 and was distributed at the meeting. In summary, rolls which are conditionally approved pending visual inspection are summarized as follows: 148 of 148 40-mil smooth, 28 of 28 40-mil textured, and 29 of 30 80-mil textured. Regarding 115 rolls of 60-mil textured (Table 3) delivered this week, conformance samples have not yet been tested, and some factory reports are still required.
- 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 2.58" from 8/1/07 through 8/7/07.
- 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 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 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 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

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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.

- 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 damaged by construction equipment on or about 7/19/07. Based on review of an assessment sketch prepared by CDM's well drilling contractor, CDM was advised the well will need to be replaced.
- CDM reported that efforts are ongoing toward un-plugging and cleaning out the inlet and discharge piping from the NGS-N relief ditch to restore its condition and enable draining of accumulated rainfall from the relief ditch. The system had become plugged when eroded soil and silt fence materials were apparently washed into the inlet after a heavy rain. Ardaman recommended that the inlet be cleared as soon as possible to restore the functionality of the panel drains and that a more adequate silt barrier (hay bales, berm, etc.) be maintained until soil cover/grassing is done.
- CDM proposed for consideration an alternative crest road closure detail wherein the anchor trench along the outboard edge of the HDPE liner would be eliminated (crest road closure Option 1). Ardaman distributed sketches at the meeting to clarify the alternative as presented in CDM's memo to the Department dated 8/7/07.
- Ardaman requested that CDM pump the existing water that has collected in the isolated remnant ditch just south of the MW-10A location (north and south of the Gulfstream II access/entrance road) into the process system as part of an ongoing study related to MW-10A.

Acceptances

- On 8/3/07 and 8/6/07, SCP phase II seepage collection system, subgrade for drain installation and top-of-12"-pipe for gravel cover, from station 7+00 to 10+00.
- On 8/7/07 and 8/8/07, for backfill, Inlet Structure #3 and 1st 40 feet of 12-inch outlet pipe.
- On 8/6/07, Certificate of Sod/Grass Cover Acceptance, of the OGS North and West Ditches to Structure 9 (5.5 acres).
- On 8/9/07, subgrade for liner installation, SCP east and west dikes and bottom from east dike station 57+75 to 58+75.
- On 8/9/07, subgrade for fabriform installation in the Relief Ditch.

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.
- 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.

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..
- FDEP commended CDM and Compass for work accomplished since last site visit on 7/12/07.

11.0 COMMENTS by HRK

- HRK was not represented at the meeting.