

MAY 24 2010

May 21, 2010

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

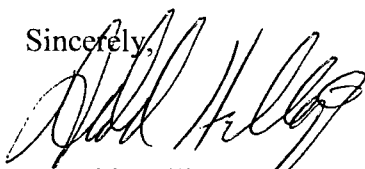
Southwest District

Re: Liner Repairs to Hillsborough County Southeast Landfill Effluent Pond B
FDEP Permit No. 35435-014-SO/01
Jones Edmunds Project No. 08449-030-04

Dear Susan:

On May 14th liner perforations were identified in Effluent Pond B during routine cleaning. The FDEP was immediately notified by the landfill supervisor Larry Ruiz via email in accordance with Operation Permit Specific Condition Part C-6.b. On May 19th Comanco was on site to examine and repair the liner. No damage was identified to components under the liner and no other areas of the liner requiring repair were identified. Repairs were made with patches completed to industry standards. Repair activities were observed by CDS and their written report, signed and sealed by Joe O'Neill, PE, is attached. Please call me at 352-258-4720 if you have any questions.

Sincerely,



Donald Hullings, PE
Director - Civil/Environmental

Attachment: Report on Liner Repairs – Pond B

Cc: Larry Ruiz, SWMD

324 South Hyde Park Avenue
Suite 250
Tampa, FL 33606

813.258.0703 Phone
813.254.6860 Fax
www.jonesedmunds.com



11012 N. Ridgedale Road
Temple Terrace, Florida 33617
(813) 629-1965 office
(813) 914-7347 fax

May 21, 2010

Project Number 10-01-023.01

Mr. Don Hullings, P.E.
Director of Civil Engineering
Jones Edmunds and Associates, Inc.
324 South Hyde Park Avenue Suite 250
Tampa, Florida 33603

**RE: Report on Liner Repairs – Pond B
Southeast County Landfill
Permit No. 35435-014-SO/01
Tampa, Florida**

Dept. of Environmental
Protection

MAY 24 2010

Southwest District

Dear Mr. Hullings,

Civil Design Services, Inc. (CDS) is submitting this report to document the repairs and quality assurance observations made during the repairs by our firm to the geomembrane HDPE liner system in Effluent Pond B at the Southeast County Landfill. This Report was prepared to fulfill the requirements of Specific Condition Part C-6.d of the above referenced FDEP Solid Waste Operations Permit.

Observation Notes

- 9:00 am - CDS on-site, May 19, 2010, to observe the geomembrane repairs to be completed by Comanco Environmental Corporation (Comanco).
- 9:20 am – Comanco unloading equipment in Pond B area.
- 9:20 am to 10:10 am – CDS inspected entire Pond B for damaged areas. Water was removed from areas with standing water to allow for inspection of liner below the water surface.
- 10:15 am – CDS observed Comanco pre-weld testing to insure the extrusion gun was operating correctly and the technician was applying the correct pressure to welds. All tests passed.
- 10:30 am to 11:45 am – CDS cut primary liner in damage areas in the bottom of Pond B to inspect geonet and secondary liner. No damage was observed to geonet or secondary geomembrane. Comanco then placed extrusion beads over damaged areas (holes). The holes were extrusion welded with beads sealing the individual damaged area. Then single larger patch was placed over all individual beads.
- 11:45 am to 12:30 pm – Comanco vacuum boxed all extrusion welds around patches. CDS observed all vacuum box repairs. All tests passed.
- 12:30 pm – All repairs and testing completed. CDS onsite to complete Repair Location Map.
- The Repair Location Map prepared by CDS is contained in Attachment A.

Attachment A

- Comanco's Pre-Weld Start-up and Non-Destructive Logs are contained in Attachment B.
- Photographs of the damaged areas and the repairs are contained in Attachment C.

Recommendation

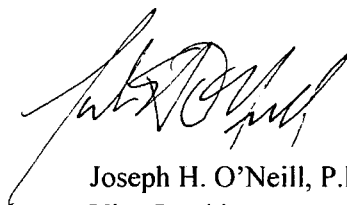
It is our professional opinion that the repairs were completed successfully, in accordance with industry standards for geomembrane repairs, and that Effluent Pond B can be returned to operations.

Please call if you have any questions regarding this Report, please contact me at (813) 629-1965.

Sincerely,
Civil Design Services, Inc.

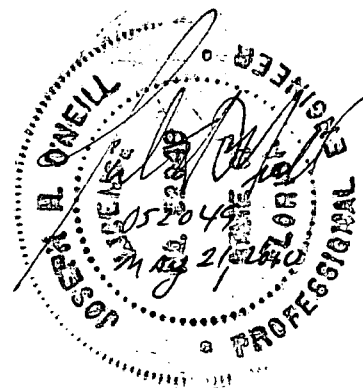


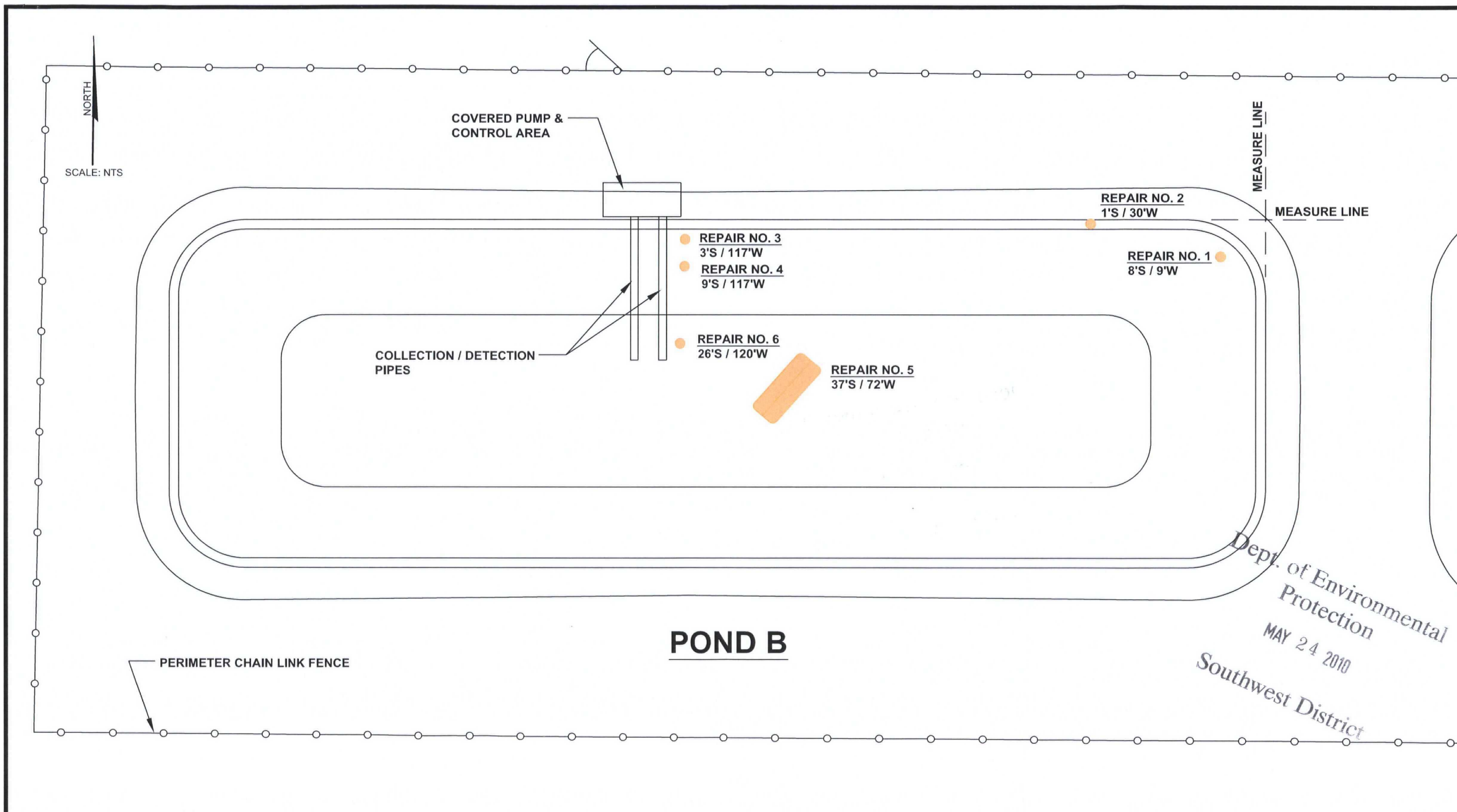
Maria (Lisa) O'Neill
President



Joseph H. O'Neill, P.E.
Vice President

Attachment A
Attachment B
Attachment C





REPAIR LOCATION MAP - POND B
FIGURE NO. 1

PROJECT NAME & LOCATION:
POND B REPAIR
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

PROJECT NO:
10-01-023.01
SCALE:
AS SHOWN
CLIENT NAME:
JONES EDMUNDS / SWMD

Civil Design Services, Inc.
Certificate of Authorization 28923

Civil Design Services, Inc.
11012 N. Ridgedale Road
Temple Terrace, Florida 33617
(813) 629-1965 office
(813) 914-7347 fax

Dept. of Environmental
Protection

MAY 24 2010

Southwest District

Attachment B



COMANCO ENVIRONMENTAL CORPORATION

Preweld Test Report

Page 1 of 1Project Name: Hillsborough SE Landfill Liner RepairJob # 03104175Superintendent: Larry GrahamMaterial Type: 60 mil Smooth

Job Description: _____

Reported By: Larry Graham

Liner Types S = Smooth T = Textured SG = Super Grip

Primary

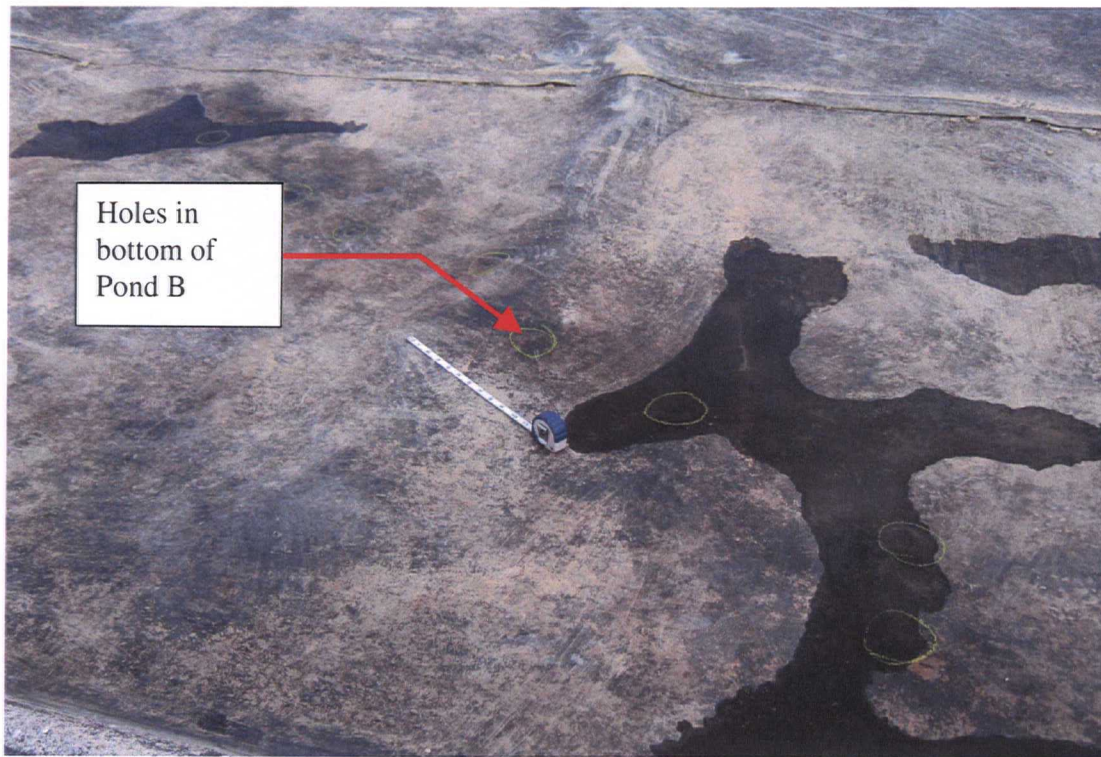
Other _____

Pond	
Cell	
Pad	

Peel Test Extrusion Minimum 82 PPIPeel Test Fusion Minimum 82 PPIShear Test Minimum 120 PPI

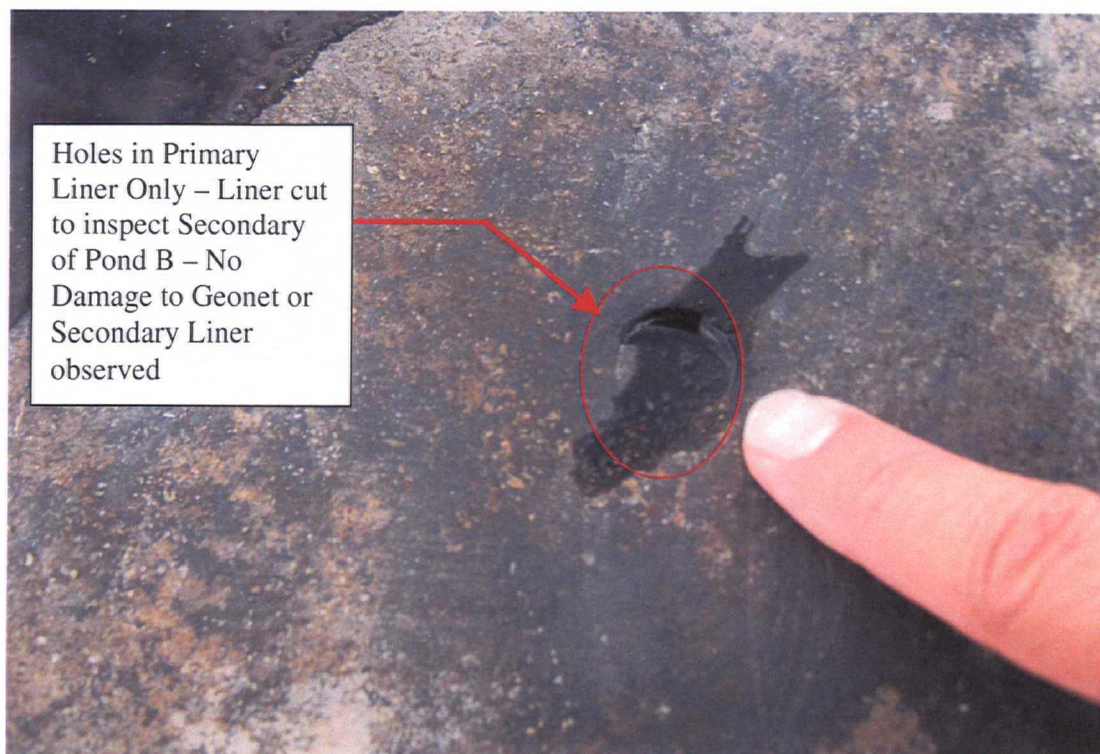
Weld Date	Time	Operator	Mach	Mach	Preheat	Ambient		Coupon 1	Coupon 2	Coupon 3	Coupon 4	Coupon 5	Test
Liner Type	am pm	Name/ ID	No.	Speed	Temp	Temp	Temp	A : B	A : B	A : B	A : B	A : B	Results
5-19-10	10:15	Rogelio	ET-A062	/	470	460		124	124	121	121	126	Pass
S TO S	Am	Gomez						125	129	124	122	129	
TO	:							Peel	Peel	Peel	Peel	Peel	
TO	:							Shear	Shear	Shear	Shear	Shear	
TO	:							Peel	Peel	Peel	Peel	Peel	
TO	:							Shear	Shear	Shear	Shear	Shear	
TO	:							Peel	Peel	Peel	Peel	Peel	
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TO	:							Peel	Peel	Peel	Peel	Peel	
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TO	:							Peel	Peel	Peel	Peel	Peel	
TO	:							Shear	Shear	Shear	Shear	Shear	

Attachment C



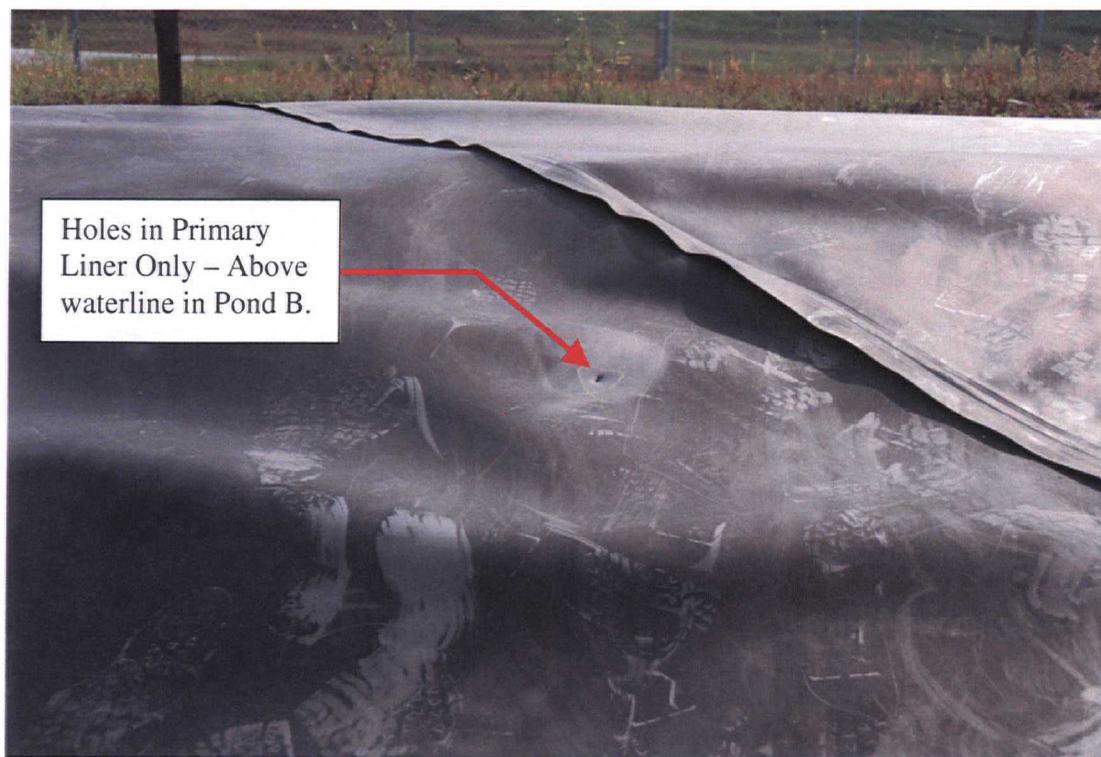
Holes in
bottom of
Pond B

Photograph No. 1 – Photograph taken by SWMD of holes found in the bottom of Pond B.

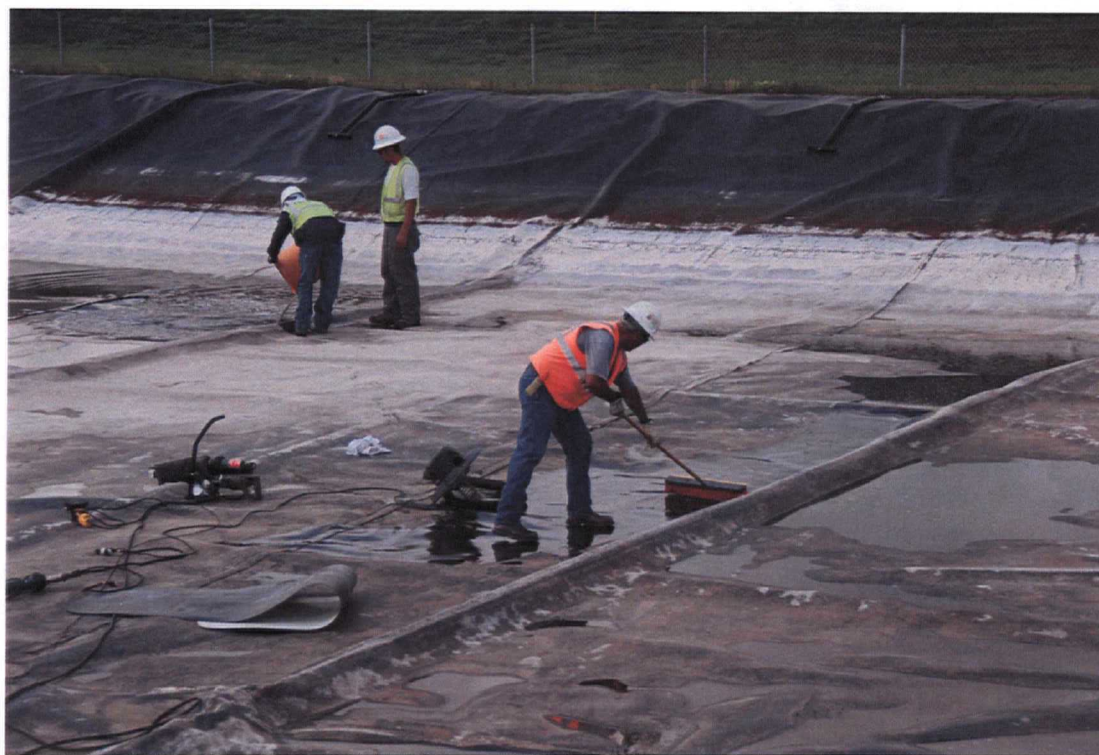


Holes in Primary
Liner Only – Liner cut
to inspect Secondary
of Pond B – No
Damage to Geonet or
Secondary Liner
observed

Photograph No. 2 – Close up of typical damaged area in bottom of Pond B.



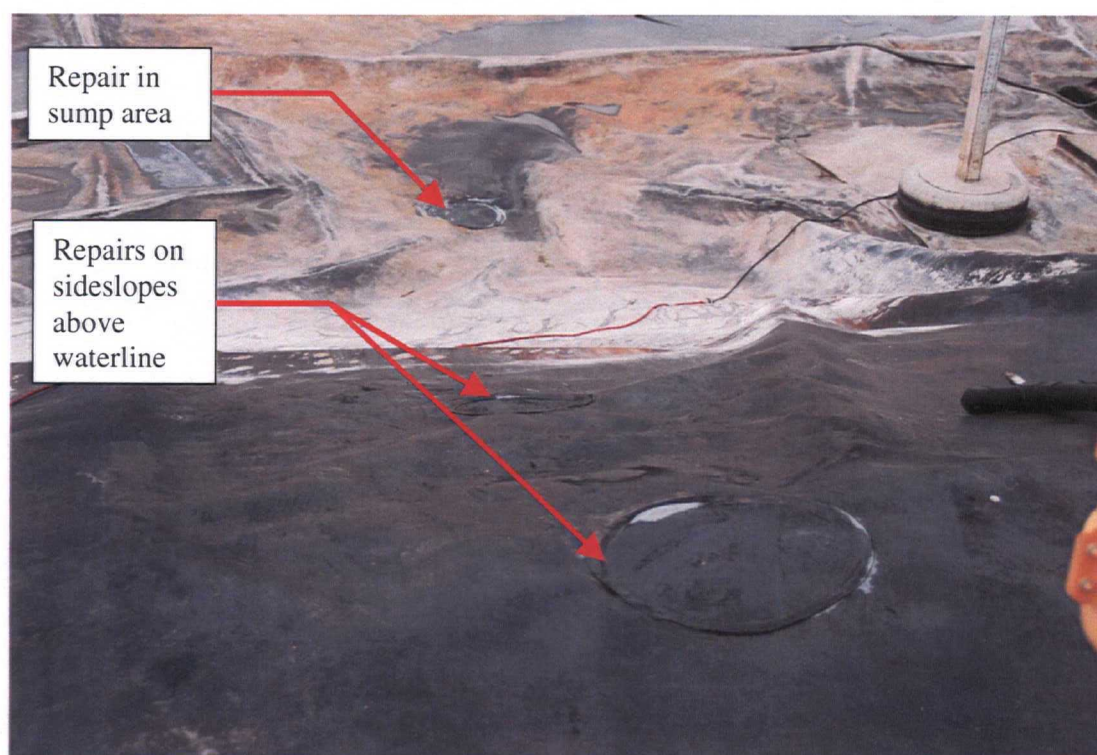
Photograph No. 3 – Pond B inspected. Several small holes found above waterline. Northeast Corner of Pond B.



Photograph No. 4 – Repair of Pond B damaged areas. Water removed; Bead placed over damage; Patch hot tacked placed over beads; extrusion welded patch; then vacuum boxed.



Photograph No. 5 – Final patch placed over damaged area in the bottom of Pond B. White bubbles from soap used to vacuum box extrusion weld.



Photograph No. 6 – Other Repairs in Pond B. White bubbles from soap used to vacuum box extrusion weld.



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May 21, 2010

Project Number 10-01-023.01

Mr. Don Hullings, P.E.
Director of Civil Engineering
Jones Edmunds and Associates, Inc.
324 South Hyde Park Avenue Suite 250
Tampa, Florida 33603

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Southeast County Landfill
Permit No. 35435-014-SO/01
Tampa, Florida**

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Dept. of Environmental
Protection
MAY 24 2010
Southwest District

- Comanco's Pre-Weld Start-up and Non-Destructive Logs are contained in Attachment B.
- Photographs of the damaged areas and the repairs are contained in Attachment C.

Recommendation

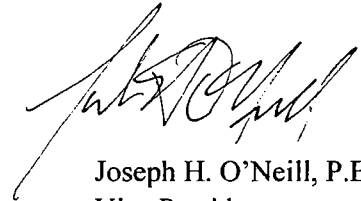
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Please call if you have any questions regarding this Report, please contact me at (813) 629-1965.

Sincerely,
Civil Design Services, Inc.



Maria (Lisa) O'Neill
President

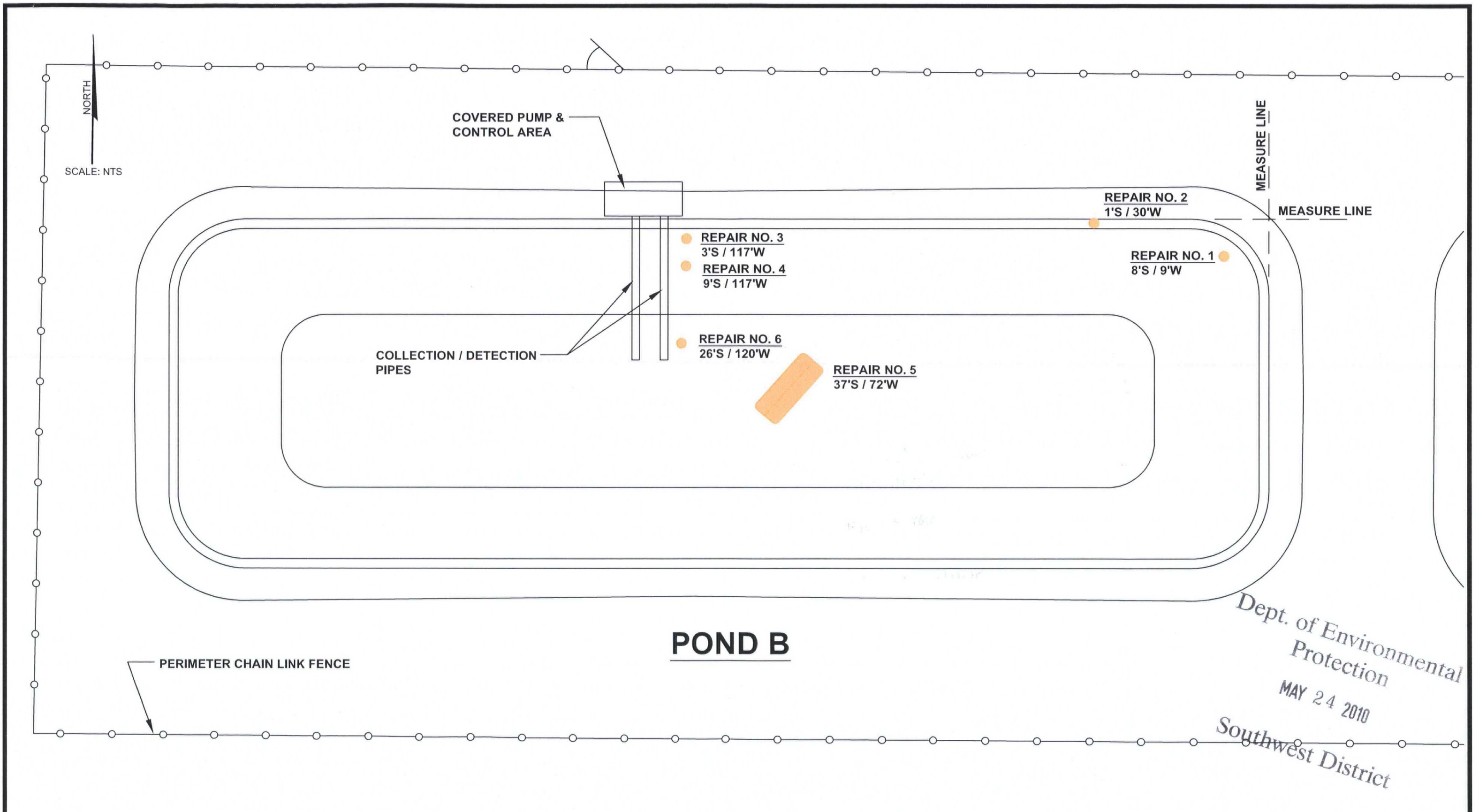


Joseph H. O'Neill, P.E.
Vice President

Attachment A
Attachment B
Attachment C



Attachment A



REPAIR LOCATION MAP - POND B
FIGURE NO. 1

PROJECT NAME & LOCATION:
POND B REPAIR
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

PROJECT NO:
10-01-023.01
SCALE:
AS SHOWN
CLIENT NAME:
JONES EDMUNDS / SWMD

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Attachment B

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COMANCO ENVIRONMENTAL CORPORATION

Preweld Test Report

Page 1 of 1Project Name: Hillsborough SE Landfill Liner RepairJob # 03104175Superintendent: Larry GrahamMaterial Type: 60 mil Smooth

Primary

Pond ☐Peel Test Extrusion Minimum 82 PPI

Job Description: _____

Cell ☐Peel Test Fusion Minimum 82 PPIReported By Larry Graham

Other _____

Pad ☐Shear Test Minimum 120 PPI

Liner Types S = Smooth T = Textured SG = Super Grip

Weld Date	Time	Operator	Mach	Mach	Mach	Preheat	Ambient		Coupon 1	Coupon 2	Coupon 3	Coupon 4	Coupon 5	Test
Liner Type	am pm	Name/ ID	No.	Speed	Temp	Temp	Temp		A : B	A : B	A : B	A : B	A : B	Results
5-19-10	10:15	Rogelio	ET-A062	/	470	460		Peel	124	124	121	121	126	Pass
S TO S	Am	Gomez						Shear	125	129	124	122	129	
TO	:							Peel	:	:	:	:	:	
TO	:							Shear	:	:	:	:	:	
TO	:							Peel	:	:	:	:	:	
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TO	:							Shear	:	:	:	:	:	



Superintendent: Larry Graham

Job # : 03104175

Project Name: Woburn SE Landfill Liner Re

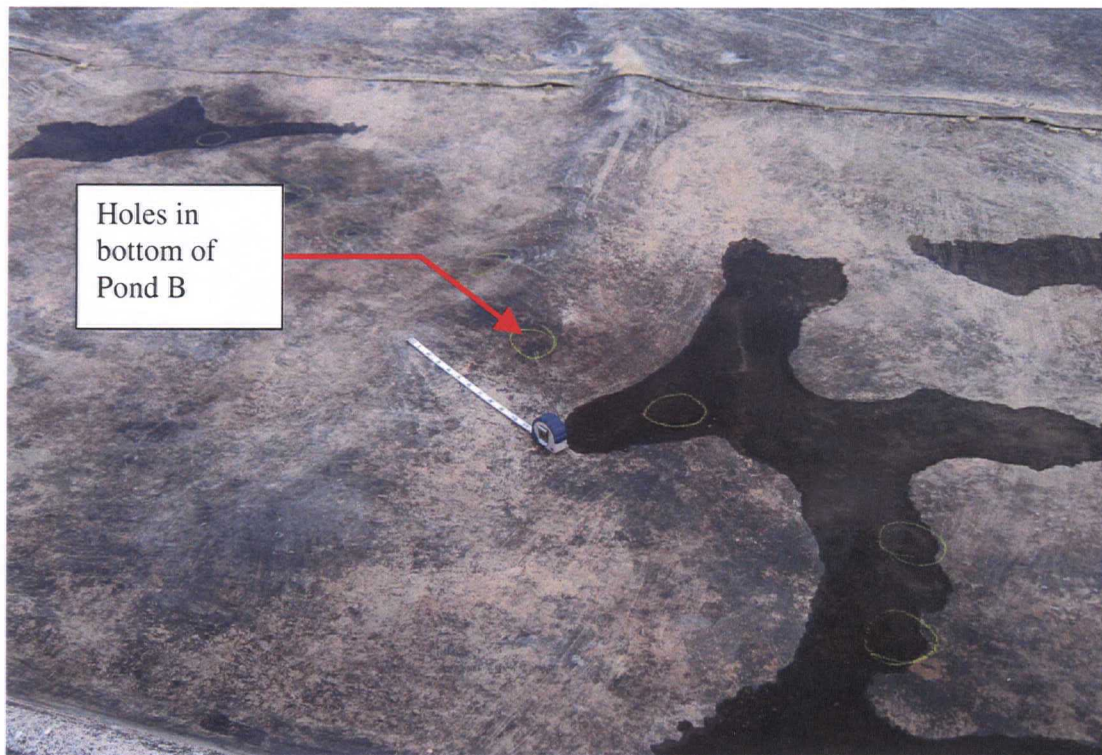
Primary

Cell ☐ Pad ☐

Material Type: 60 mil Smooth

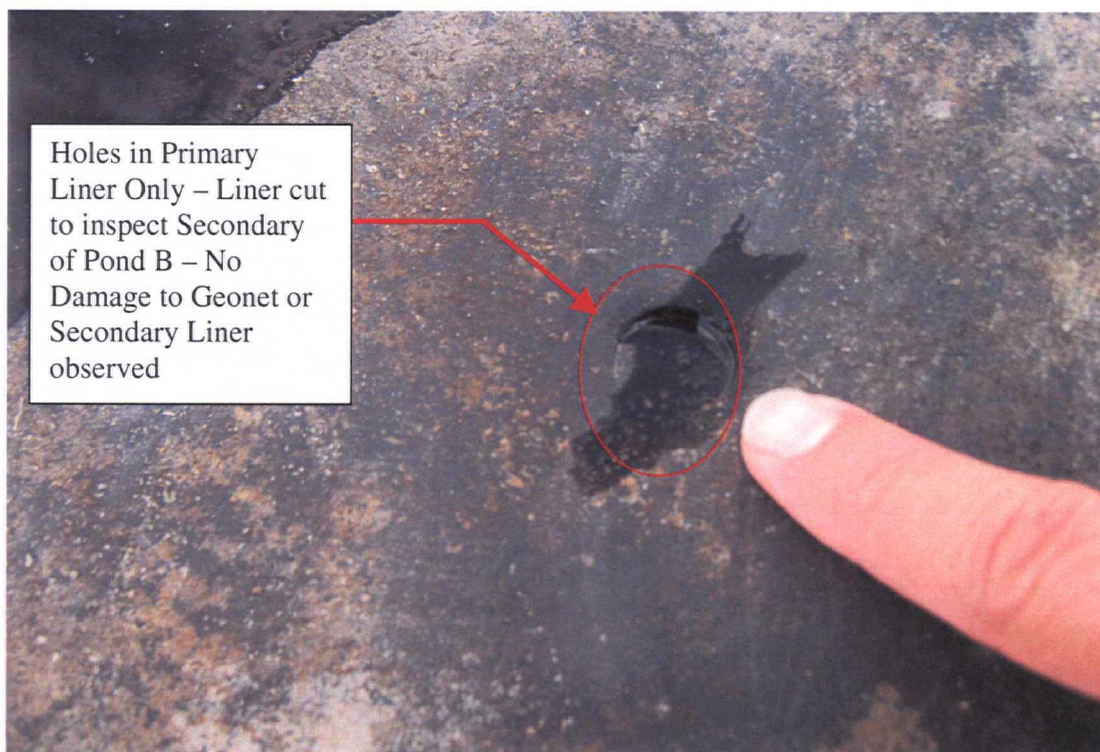
Pond ☐ Other**Job Description:**[illegible]

Attachment C



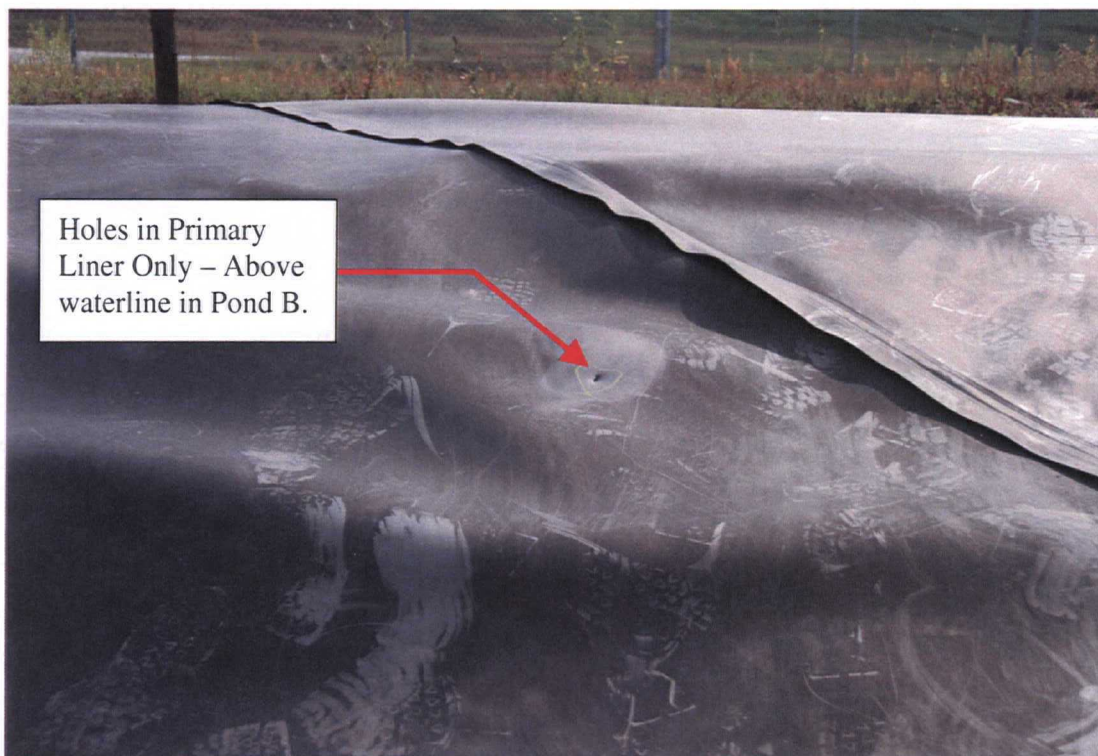
Holes in
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Photograph No. 1 – Photograph taken by SWMD of holes found in the bottom of Pond B.

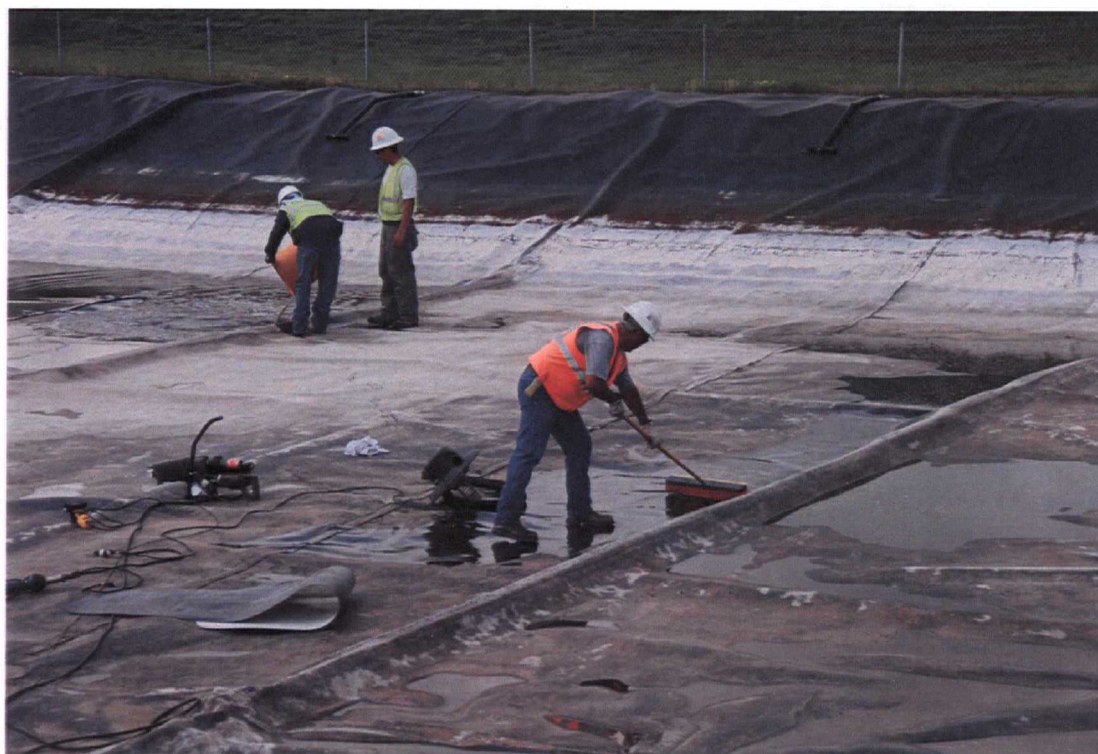


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Liner Only – Liner cut
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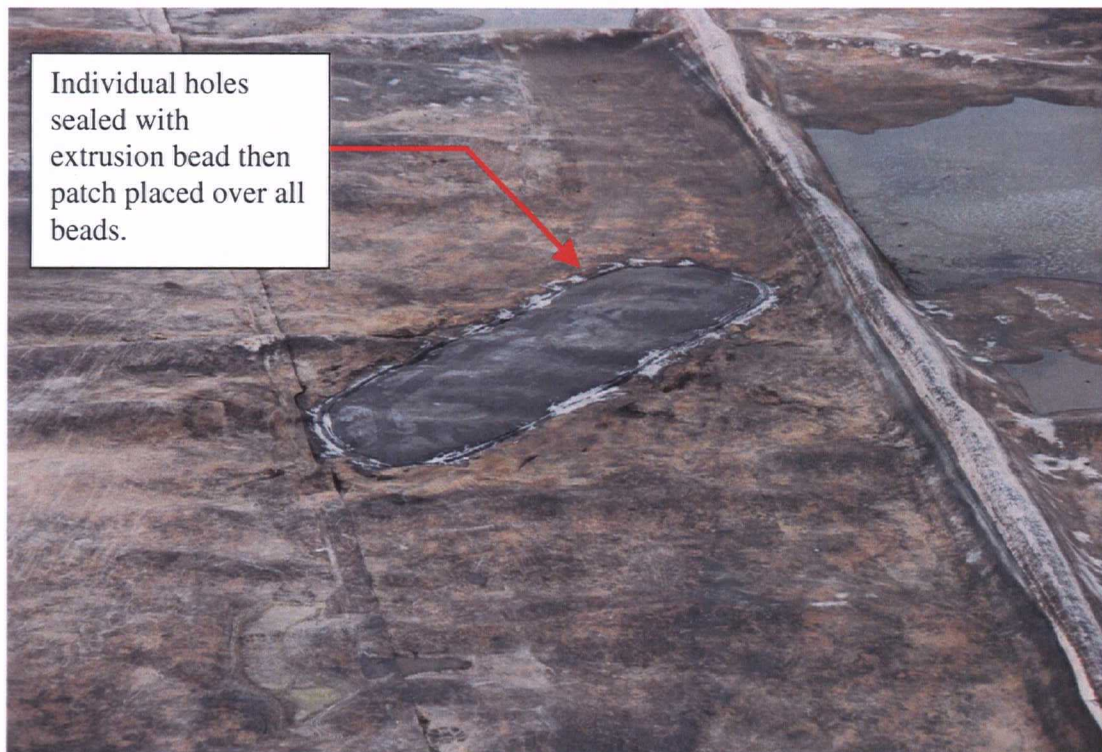
Photograph No. 2 – Close up of typical damaged area in bottom of Pond B.



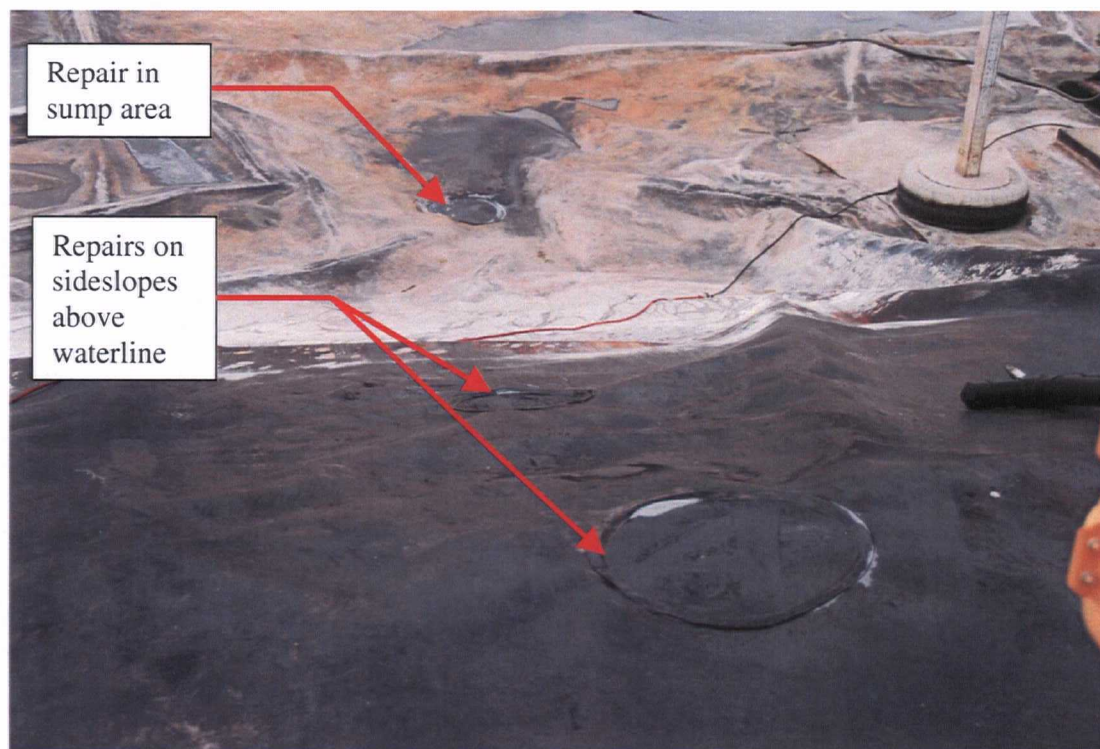
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