

SPILLWAY TEST TRENCHES NO. 1 AND NO. 2 PHOTOGRAPHIC LOG

Client Name: Tennessee Valley Authority	Site Location: Kingston Fossil Plant – Harriman, Tennessee	Project No.: 60095742
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Photo No. 1	Date: 1-25-09
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Direction Photo Taken:

Looking east.

Description:

Screen capture 1 from a 14.25 minute QuickTime video of excavation attempt at Trench No. 1. Wide view looking toward the east. Arrow points to surveyor's stake location which is just off-screen to the left (north).



Photo No. 2	Date: 1-25-2009
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Direction Photo Taken:

Looking east.

Description:

Screen capture 2 from a 14.25 minute QuickTime video of excavation attempt at Trench No. 1.



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Client Name: Tennessee Valley Authority		Site Location: Kingston Fossil Plant – Harriman, Tennessee	Project No.: 60095742
Photo No. 3	Date: 1-25-2009		
Direction Photo Taken: Looking east.			
Description: Screen capture 2 from a 14.25 minute QuickTime video of excavation attempt at Trench No. 1.			

Photo No. 4	Date: 1-30-2009		
Direction Photo Taken: Looking east.			
Description: Wide view of Trench No. 1 during second attempt to locate outfall piping. Two trackhoes working in tandem to probe for concrete outlet pipe or dike remnants. White arrow illustrates surveyor stake. Trackhoe has moved east along drainage. Initial excavation took place near stake.			

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Client Name: Tennessee Valley Authority		Site Location: Kingston Fossil Plant – Harriman, Tennessee	Project No.: 60095742
Photo No.: <b style="font-size: 1.2em;">5	Date: 1-30-2009		
Direction Photo Taken: Looking east.			
Description: Long-stick amphibious trackhoe probing to a depth of approximately 10 feet at Trench No.1. Note: Consistency is that of a milkshake, thus any dike remnant, clay, or concrete pipe would be easily identifiable.			

Photo No.: <b style="font-size: 1.2em;">6	Date: 1-30-2009		
Direction Photo Taken: Looking east.			
Description: Long-stick trackhoe removing some ash from the base of the excavation at Location Trench No. 1. Note: Consistency is that of a milkshake, thus any dike remnant, clay, or concrete pipe would be easily identifiable. White arrow highlights surveyor's stake.			

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Client Name: Tennessee Valley Authority		Site Location: Kingston Fossil Plant – Harriman, Tennessee	Project No.: 60095742
Photo No. 7	Date: 1-30-2009		
Direction Photo Taken: Looking southeast.			
Description: Initial excavation activity at Trench No. 2.			

Photo No. 8	Date: 1-30-2009		
Direction Photo Taken: Looking vertical.			
Description: Trench No. 2 encountered dike material at a depth of approximately 9 feet below ground (ash) surface near Test Boring Location 09-206.			

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Client Name: Tennessee Valley Authority		Site Location: Kingston Fossil Plant – Harriman, Tennessee	Project No.: 60095742
Photo No.: <b style="font-size: 1.2em;">9	Date: 2-1-2009		
Direction Photo Taken: Looking northeast.			
Description: Amphibious trackhoe moving ash to prevent sloughing into Trench No. 2 during excavation of the outfall pipe. Immediately behind the hoe is a large surface water drainage that prevented exposure of the northeast end of the pipe.			

Photo No.: <b style="font-size: 1.2em;">10	Date: 2-1-2009		
Direction Photo Taken: Looking south-southwest.			
Description: Trackhoe moving ash during excavation of the outfall pipe at Trench No. 2. Kingston Fossil Plant smokestacks in the background. AECOM drill rig visible in near background drilling at Location 09-105.			

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Client Name: Tennessee Valley Authority		Site Location: Kingston Fossil Plant – Harriman, Tennessee	Project No.: 60095742
Photo No. 11	Date: 2-1-2009		
Direction Photo Taken: Nearly vertical.			
Description: Excavating through the dike material in search of the outfall pipe.			

Photo No. 12	Date: 2-1-2009		
Direction Photo Taken: Nearly vertical.			
Description: Excavation approaching outfall pipe. Note the red clay cap on top of the brown silt/silty clay natural soil material.			

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Client Name: Tennessee Valley Authority		Site Location: Kingston Fossil Plant – Harriman, Tennessee	Project No.: 60095742
Photo No.: 13	Date: 2-1-2009		
Direction Photo Taken: Nearly vertical.			
Description: Outfall pipe located. Arrow highlights a trackhoe bucket scratch on the concrete.			

Photo No.: 14	Date: 2-1-2009	
Direction Photo Taken: Looking east-southeast.		
Description: Unearthing the outfall pipe. Pool of water at the lower left was created by the clay “dam” to keep soft ash from sloughing into the trench.		

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Client Name: Tennessee Valley Authority		Site Location: Kingston Fossil Plant – Harriman, Tennessee	Project No.: 60095742
Photo No. 15	Date: 2-6-2009		
Direction Photo Taken: Looking east.			
Description: Trackhoes continue excavation of outfall pipe. Pump at right continues to keep water level low in adjacent sump which was originally dug to keep water out of excavation.			

Photo No. 16	Date: 2-6-2009		
Direction Photo Taken: Looking east.			
Description: Excavation nearly complete. East end of outfall pipe was not exposed because it extends underneath a large drainage immediately behind the trackhoe in this photo. The elevation of the water in the drainage would likely flood the excavation.			

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Client Name: Tennessee Valley Authority		Site Location: Kingston Fossil Plant – Harriman, Tennessee	Project No.: 60095742
Photo No. 17	Date: 2-6-2009		
Direction Photo Taken: Looking east.			
Description: Deepening the sump to protect excavation from flooding.			

Photo No. 18	Date: 2-8-2009		
Direction Photo Taken: Looking southwest.			
Description: Outfall pipe intake structure observed after water was drained from the upper pool into the lower sump and pumped out. Note that the intake pipe is intact and full of ash. Survey rod is approximately 4.5 feet long.			

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Client Name: Tennessee Valley Authority		Site Location: Kingston Fossil Plant – Harriman, Tennessee	Project No.: 60095742
Photo No.: 19	Date: 2-8-2009		
Direction Photo Taken: Looking east.			
Description: One four-foot section of the outfall pipe was removed to observe condition of the pipe. Note the small amount of ash inside the lateral portion of the pipe.			

Photo No.: 20	Date: 2-8-2009	
Direction Photo Taken: Looking northeast.		
Description: Pipe inside diameter is 30 inches. Approximately 3 inches of ash present in the pipe. Note the waterline on the sides of the pipe indicating it flowed approximately half-full.		

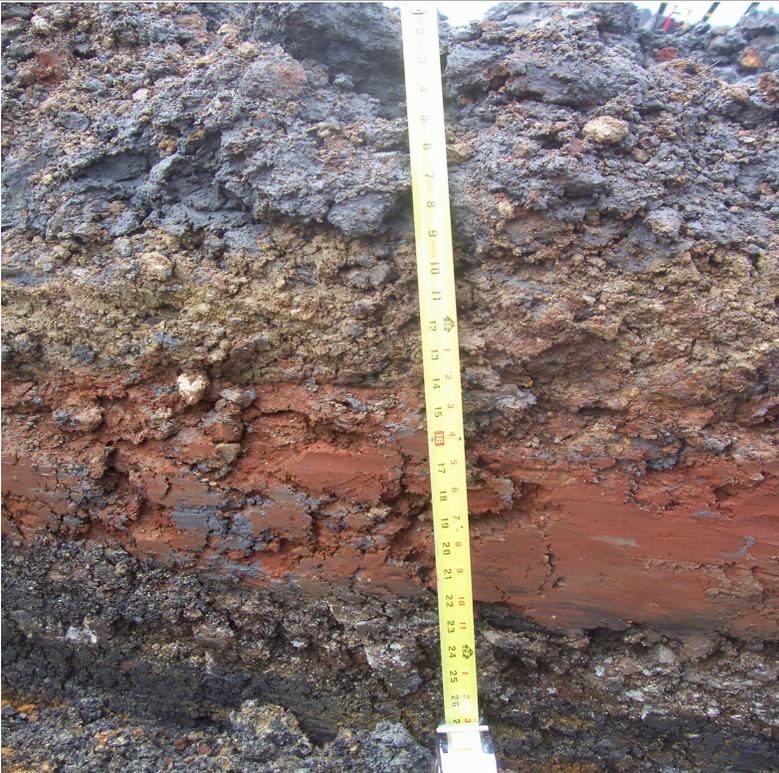
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Client Name: Tennessee Valley Authority		Site Location: Kingston Fossil Plant – Harriman, Tennessee	Project No.: 60095742
Photo No.: 21	Date: 2-8-2009		
Direction Photo Taken: Looking northeast.			
Description: Arrows highlight the fibrous okum used to seal the pipe joints.			

Photo No.: 22	Date: 2-10-2009	
Direction Photo Taken: Looking northeast.		
Description: AECOM lead project engineer inspects the outfall pipe and condition of the dike walls exposed in the excavation.		

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Client Name: Tennessee Valley Authority		Site Location: Kingston Fossil Plant – Harriman, Tennessee	Project No.: 60095742
Photo No.: 23	Date: 2-6-2009		
Direction Photo Taken: Looking southeast.			
Description: White dashed line approximates the starter dike material. White circle highlights the area where Photo 24 was taken.			

Photo No.: 24	Date: 2-8-2009	
Direction Photo Taken: Looking southwest.		
Description: Clay cap material on top of Starter Dike. Note that it is likely that this thickness is not representative of the original thickness due to disturbance during excavation.		