

Memorandum

September 25, 2003

To: Mr. Colin Wagoner, Ridolfi Engineers Inc.

From: Dr. David Velinsky, ANS-PCER

Subj: Anacostia Sediment Core Sampling

Attached are the initial descriptions of Cores 4 and 6 along with an illustration of each core section. These are in draft format and any suggestions would be appreciated. Table 1 provides information regarding core locations, length and water depth at the time of collection.

Table 1: Locations, time sampled, core lengths and water depths for cores in Anacostia River.

Core #	Time Taken	Latitude	Longitude	Total Length (m)	Water Depth (m)
Core 1	0913	38.86984 N	77.00364 W	4.90	4.73
Core 2	1105	38.87073 N	77.00093 W	4.24	5.34
Core 3	1140	38.86963 N	76.99438 W	4.92	4.27
Core 4	1236	38.87070 N	76.99638 W	4.24	4.73
Core 5	1448	38.87171 N	77.00121 W	4.62	4.37
Core 6	1554	38.86752 N	77.00505 W	5.04	4.88

The field descriptions include features such as color, smell, texture (clay versus sand), presence of shell or woody debris, and other features that may help in future interpretations. Selected pieces of the woody material, found at specific intervals, was sent out for dating.

If you have any questions regarding these images please let me know. To print out the cores, in Adobe print as images.

Core Four: Descriptions

Section A-A'

- 0-17cm: Fine clay; olive gray color; slightly unconsolidated
- 17-31cm: Fine clay; olive gray; more solid than previous layer with some gas pockets

Section B-B'

- 31-175cm: Fine clay; olive gray; gas pockets
- 175-212cm: Plastic clay-mud; dark yellowish brown intermixed with dark yellowish orange; gas pockets throughout
- 212-232cm: Fine plastic clay; mix of colors: olive gray, dark gray and black with moderate yellowish brown layers; slight scent of petroleum

Section C-C'

- 232-254cm: Fine plastic clay; alternating thin layers of olive gray, dark gray, medium gray and grayish orange; some small gas pockets
- 254-277cm: Fine clay; thick dark gray layers with thin olive gray and grayish orange layers; strong petroleum scent
- 277-332cm: Thick, dry plastic mud; same colors as above interval
- 332-340cm: Fine grain sand mixed with clay; olive black in color
- 340-354cm: Dry sticky clay; between light olive gray and olive gray color
- 354-403cm: Very fine sand mixed with dry clay; dark gray in color
- 403-411cm: Top and bottom centimeters (~1) are fine sand; pale olive in color; center area: very fine sand and silt mixture with organic matter; dark gray/black
- 407-408cm: large piece of woody material
- 411-424cm: Fine sand/clay mix with large gravel pieces; between olive and dark greenish gray color

Latitude: 38.87070 N

Longitude: 76.99638 W

Core Six: Description

Section A-A'

- 0-22cm: Very fine wet clay with very fine sand; olive gray/light olive gray in color;
22-79cm: Very fine clay; olive gray with medium dark gray/grayish black 4cm layers at 25cm and 38cm depth; thin grayish orange, light olive, olive gray, and dark gray layers as well; gas pockets
79-109cm: Very fine clay; grayish black; woody debris
109-110cm: Very fine clay; olive gray/light olive gray

Section B-B'

- 110-116cm: Very fine clay with very fine sand; wet; dark greenish gray color
116-130cm: Fine clay; olive gray color
130-280cm: Fine clay with very, very fine sand; grayish black; (141-148cm- had thick olive gray layers [clay]) (208-209cm - one large gravel piece) (230-233cm- large air space)
280-294cm: Fine sand in fine clay with woody organic matter; olive/grayish black
294-303cm: Medium sand with some clay; organic woody material; gravel
303-311cm: Medium sand; medium yellowish brown

Section C-C'

- 311-345cm: Medium coarse sand; yellowish brown; some clay areas
345-383cm: Coarse sand, silt, and clay (olive color); woody organic material; gravel becomes gradually larger with depth over intervals
371-383cm: leads to gravel layer in next interval
383-395cm: gravel layer; large gravel with coarse sand
395-428cm: Very light bluish gray clay; very dense and dry; play-doh consistency with some sand intrusions beginning at 418cm
428-431cm: Clay with very, very fine sand; rusty brown/yellow in color
431-461cm: Coarse sand; rusty brown/yellow in color with scattered gravel
461-504cm: Large gravel, gradually decreasing in size with depth; intermixed with coarse sand; (467-474cm- large rock)

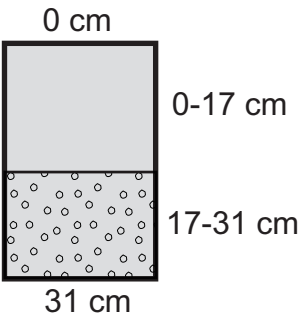
Latitude: 38.86752 N

Longitude: 77.00505 W

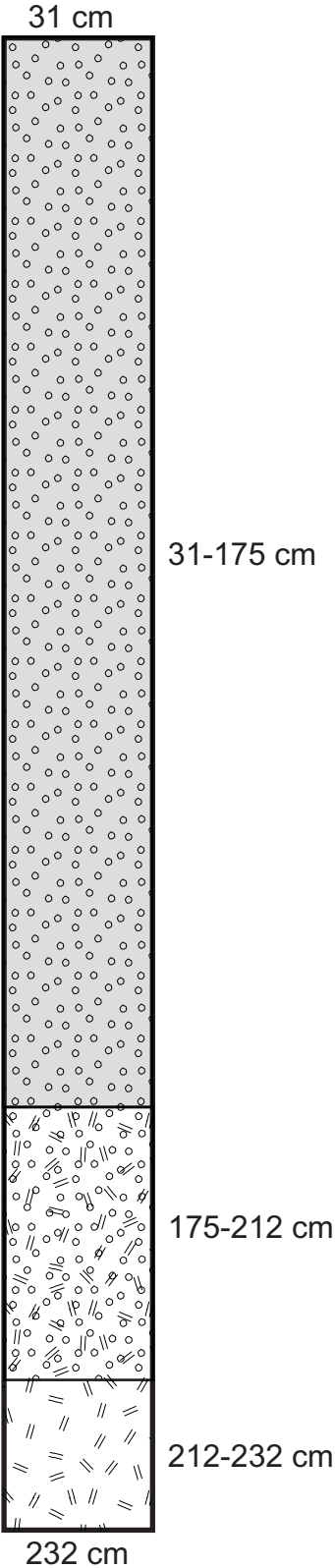
Poplar Point Core #4

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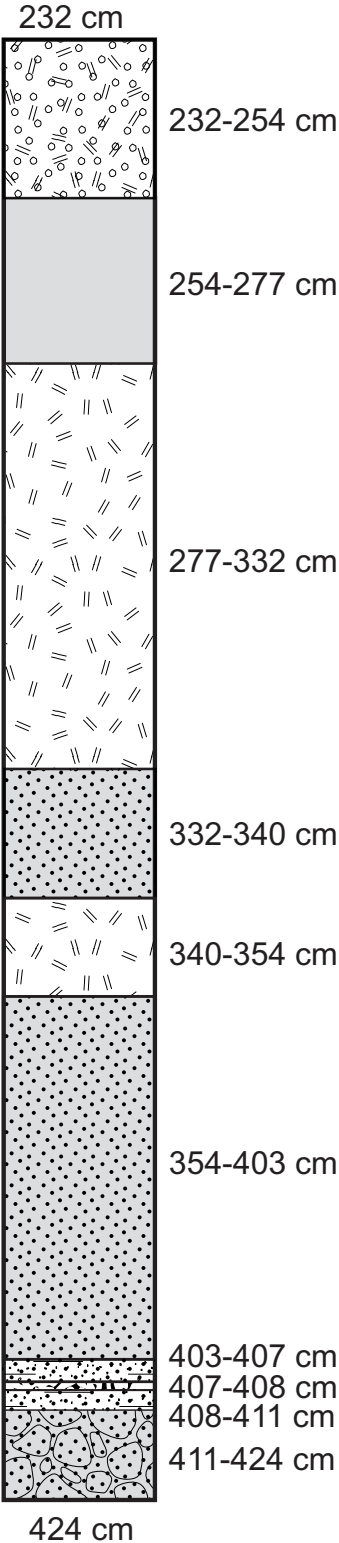
Section A-A¹



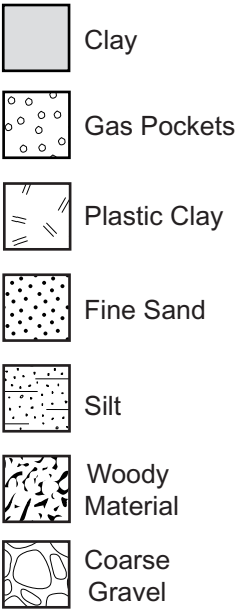
Section B-B¹



Section C-C¹

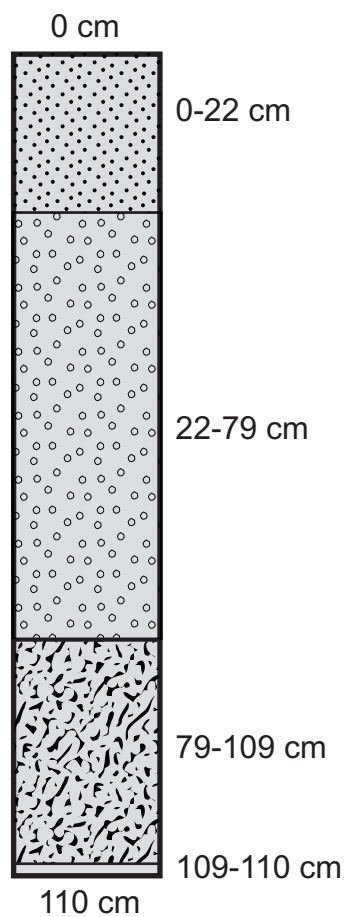
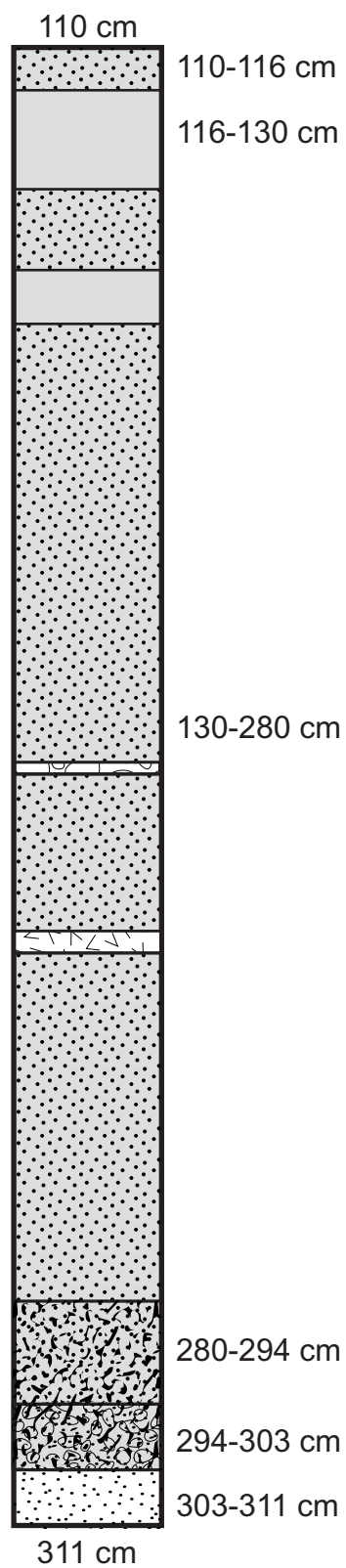
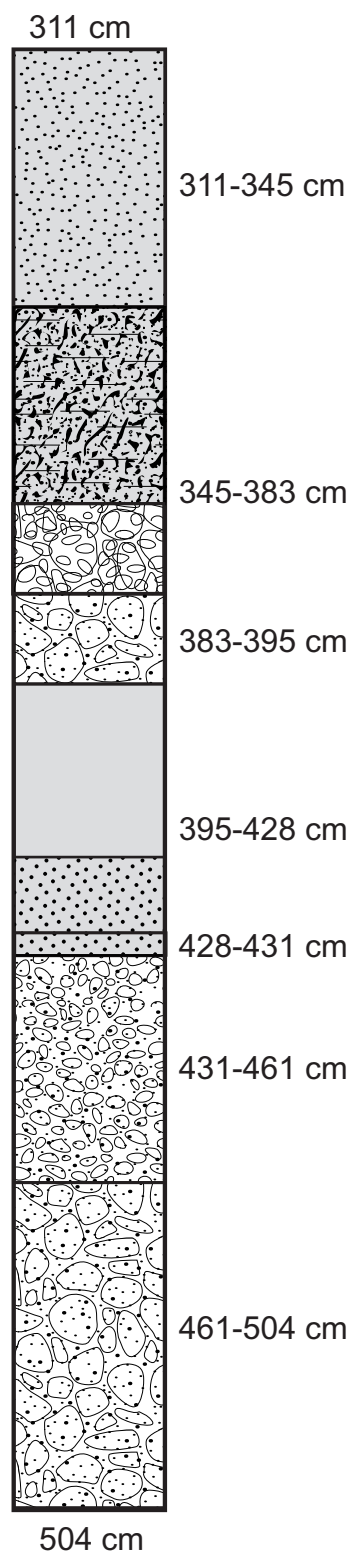


Sediment Key



Poplar Point Core #6

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Section A-A¹Section B-B¹Section C-C¹

Sediment Key

