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MCRD PARRIS ISLAND
5090.3a

EMAIL OF TRANSMITTAL FOR OLD WASTEWATER TREATMENT PLANT SEDIMENT SAMPLING DATA PRESENTATION WITH ATTACHMENTS MCRD PARRIS ISLAND SC
2/3/2006
TECHLAW

Sladic, Mark

From: McRae, Mac [mmcrae@TechLawInc.com]
Sent: Friday, February 03, 2006 3:45 PM
To: koroma-llama.lila@epamail.epa.gov; hargrodc@dhec.sc.gov; stampsjm@dhec.sc.gov; art.sanford@navy.mil; timothy.j.harrington@usmc.mil; wendtp@mrd.dnr.state.sc.us; tom.dillon@noaa.gov; kraemerd@tampabay.rr.com; mark.sladic@ttnus.com
Subject: OWWTP EPA sediment sampling results

Attachments: MCRD OWWTP Aug03SedResults _presn.ppt

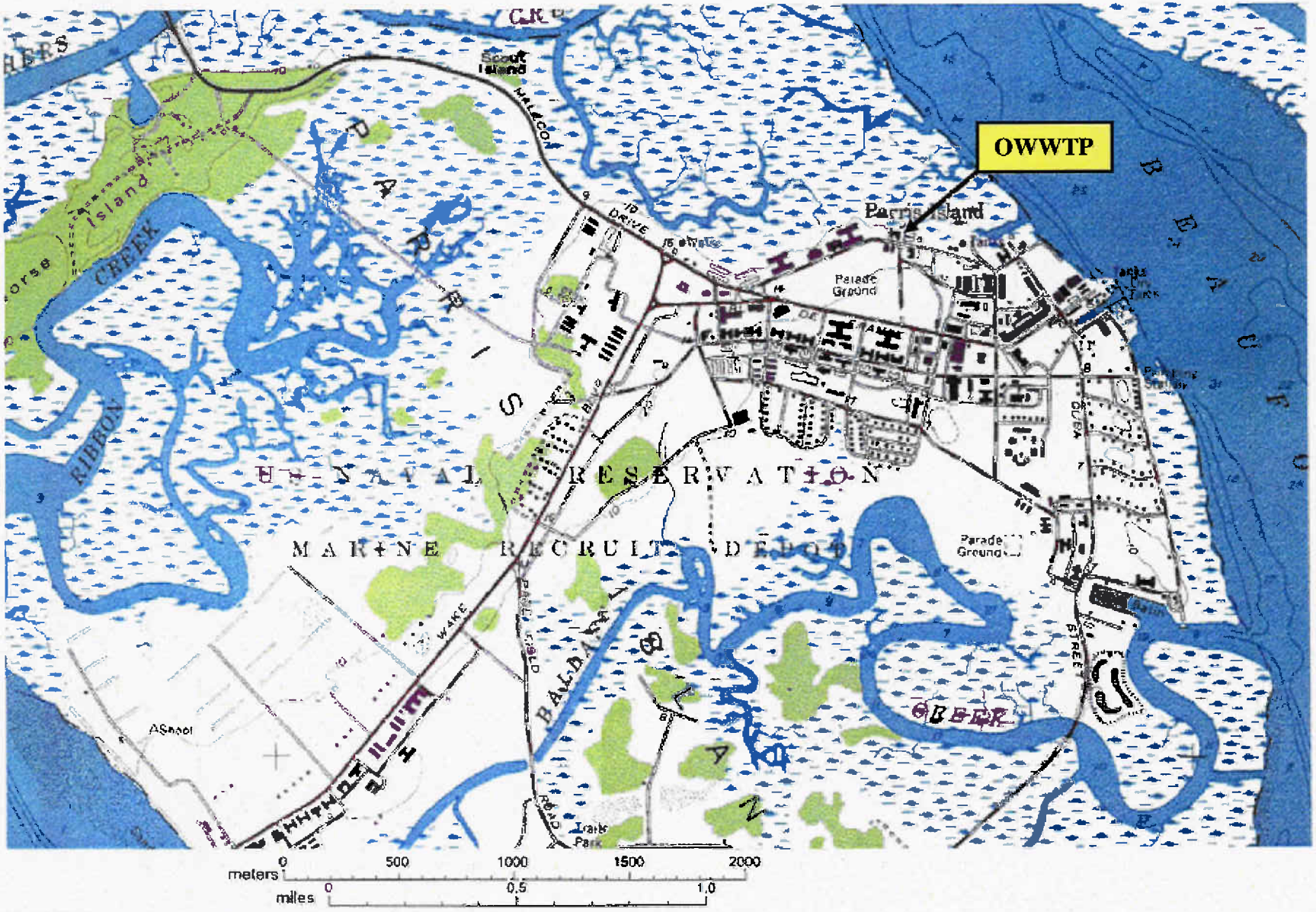
MCRD OWWTP
ug03SedResults _pr.

All,

Jerry has requested the EPA OWWTP sediment sampling data so I have attached the OWWTP PowerPoint presentation that was given to the Team in August 2003. The OWWTP site sample tag map, sumary of results table and photos are included in the presentation. EPA wanted the PI team to have this data in preparation for the OWWTP agenda discussion next week. The file is rather large, but it does present a good story of the OWWTP sampling activities.

Thanks,

Mac


OWWTP
Parris Island
Parade Ground
Parade Ground
US NAVAL RESERVATION
MARINE RECRUIT DEPOT
Scout Island
MALECON
DRIVE
WAKE
BALDAN
CREEK
RIBBON
CREEK
Island
Trailer Park
meters
0
500
1000
1500
2000
miles
0
0.5
1.0

OWWTP SEDIMENT SAMPLING SUMMARY

Sample Location	Sample Designation	Sample Depth	Sample Analysis					
			TCL	TAL[1]	Pesticides	PCBs	Hg, Pb, As	Other[2]
OWWTP								
SAR-SD-01	SAR-SD-01-01	0 - 0.5'	X	X	X	X		X
SAR-SD-02	SAR-SD-02-01	0 - 0.5'	X	X	X	X		X
SAR-SD-03	SAR-SD-03-01	0 - 0.5'	X	X	X	X		X

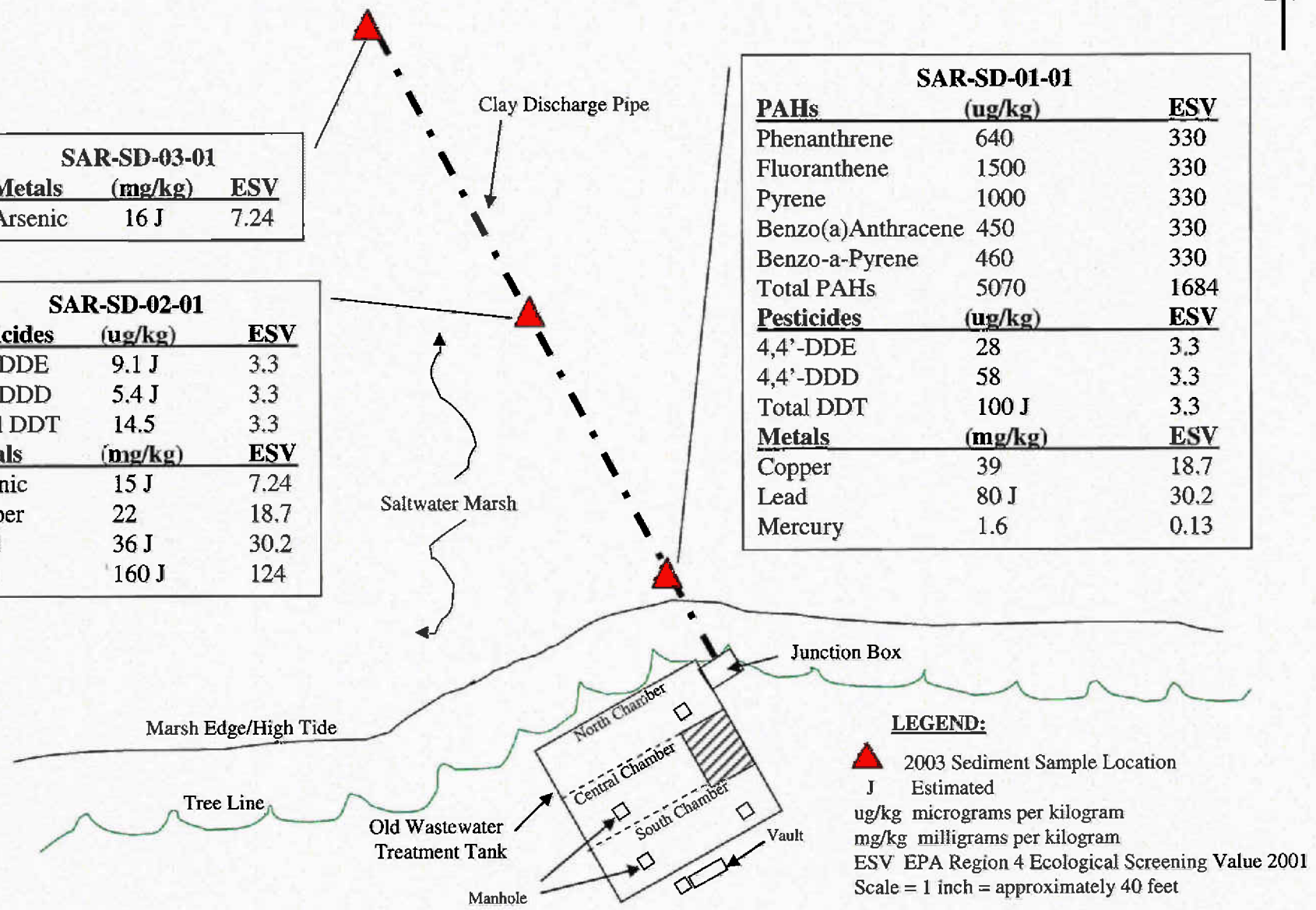
Notes:

(1) TAL inorganics including mercury and cyanide.

(2) Conventional Sediment variables including TOC, grain size and moisture content.

(3) DDX series only.

Old Wastewater Treatment Plant (OWWTP) Sediment Results (Region 4 ESV Exceedances Only)



SAR-SD-03-01

Metals	(mg/kg)	ESV
Arsenic	16 J	7.24

SAR-SD-02-01

Pesticides	(ug/kg)	ESV
4,4'-DDE	9.1 J	3.3
4,4'-DDD	5.4 J	3.3
Total DDT	14.5	3.3
Metals	**(mg/kg)**	**ESV**
Arsenic	15 J	7.24
Copper	22	18.7
Lead	36 J	30.2
Zinc	160 J	124

SAR-SD-01-01

PAHs	(ug/kg)	ESV
Phenanthrene	640	330
Fluoranthene	1500	330
Pyrene	1000	330
Benzo(a)Anthracene	450	330
Benzo-a-Pyrene	460	330
Total PAHs	5070	1684
Pesticides	**(ug/kg)**	**ESV**
4,4'-DDE	28	3.3
4,4'-DDD	58	3.3
Total DDT	100 J	3.3
Metals	**(mg/kg)**	**ESV**
Copper	39	18.7
Lead	80 J	30.2
Mercury	1.6	0.13

LEGEND:

▲ 2003 Sediment Sample Location

J Estimated

ug/kg micrograms per kilogram

mg/kg milligrams per kilogram

ESV EPA Region 4 Ecological Screening Value 2001

Scale = 1 inch = approximately 40 feet

Old Wastewater Treatment Tank

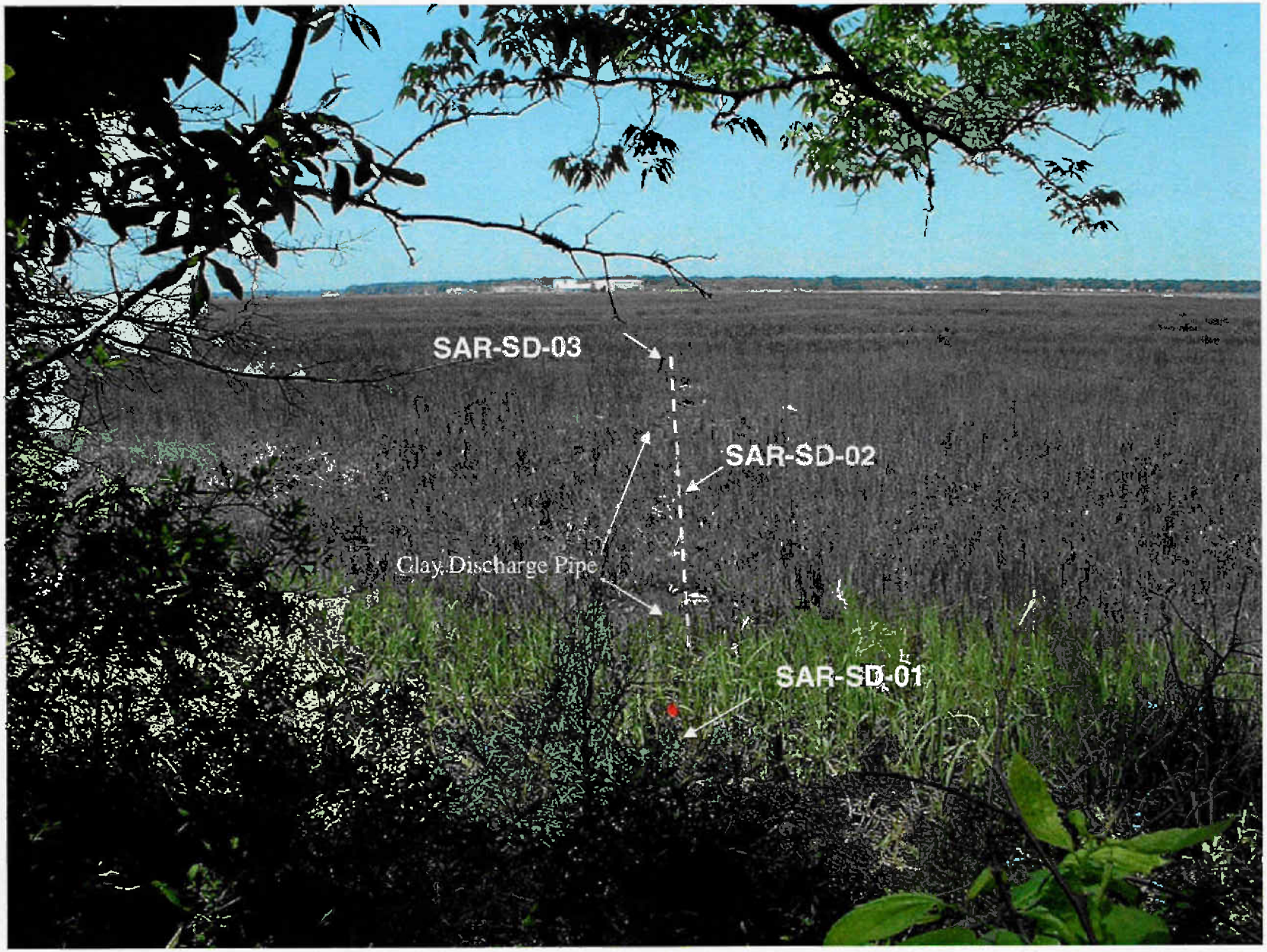
North Chamber
Central Chamber
South Chamber
Old Wastewater Treatment Tank

OWWT Tank
Junction Box

Clay Discharge Pipe
Junction Box

Clay Discharge Pipe
SAR-SD-01

SAR-SD-02-01


SAR-SD-03
SAR-SD-02
Clay Discharge Pipe
SAR-SD-01

OWWTP SEDIMENT RESULTS SUMMARY

Parameter	EPA Region 4	OWWTP Sample Results		
	Sediment ESV	SAR-SD-01-01	SAR-SD-02-01	SAR-SD-03-01
ORGANICS (ug/kg)				
Phenanthrene	330	[redacted]	170	37 J
Fluoranthene	330	[redacted]	280	96 J
Pyrene	330	[redacted]	230	80 J
Benzo(a)Anthracene	330	[redacted]	80 J	37 J
Benzo-a-Pyrene	330	[redacted]	93 J	60 J
Total PAHS	1684	[redacted]	1069	350
PESTICIDES (ug/kg)				
4,4'-DDE	3.3	[redacted]	[redacted]	ND
4,4'-DDD	3.3	[redacted]	[redacted]	ND
Total DDT Residues	3.3	[redacted]	[redacted]	ND
METALS (mg/kg)				
Antimony	12	ND	ND	ND
Arsenic	7.24	1.1 J	[redacted]	[redacted]
Copper	18.7	[redacted]	[redacted]	15
Lead	30.2	[redacted]	[redacted]	21 J
Mercury	0.13	[redacted]	ND	ND
Zinc	124	86 J	[redacted]	83 J
PARTICLE SIZE DATA				
8 mm % (> sand in size)		0.82	0.47	0.15
Sand %		53.44	6.48	10.28
Silt %		3.77	15.62	16.15
Clay %		1.18	5.26	4.32
% Moisture		40.79	72.17	69.10
TOTAL ORGANIC CARBON (TOC) (mg/kg)		35,000	72,000	33,000

Notes:

Shaded cells indicate sediment ESV exceedance

NA = Not Analyzed

ND = Not Detected

J - Identification of analyte is acceptable; reported val