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Site ID 14CTB - 330			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 21, 2014	Day of Year	294
Field Crew	Marci Marot, Alisha Ellis		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	12:10	Departure Time (EDT)	12:33
Latitude	38.23515	Longitude	-75.21185
Water Depth (m)	2.13		
Handheld GPS used	Garmin GPSmap76	GPS Waypoint	004
YSI	Pro-Plus	Camera	Nikon AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	12:14
GPS Session ID		Stop Time	12:30
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type		Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	15.9
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	759.7
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	89.9
Bulk Density/LOI	Yes	DO (mg/L)	7.15
Grain Size	Yes	Specific Conductance (mS/cm)	45.90
Stable Isotopes/Metals	Yes	Salinity	29.80
Distance from GPS		pH (-)	7.58
Azimuth from GPS		ORP (mV)	63.7
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
Good PONAR recovery. Ysi window fogged up. Very hard to read. Values may not be accurate.

Photos
Site: 2027-2030

Site ID 14CTB - 331			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 21, 2014	Day of Year	294
Field Crew	Marci Marot, Alisha Ellis		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	12:48	Departure Time (EDT)	13:06
Latitude	38.24603	Longitude	-75.20074
Water Depth (m)	1.70		
Handheld GPS used	Garmin GPSmap76	GPS Waypoint	005
YSI	Pro-Plus	Camera	Nikon AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Reciever Used		Start Time	12:53
GPS Session ID		Stop Time	13:04
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type		Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	16.7
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	759.4
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	89
Bulk Density/LOI	Yes	DO (mg/L)	7.29
Grain Size	Yes	Specific Conductance (mS/cm)	44.51
Stable Isotopes/Metals	Yes	Salinity	28.81
Distance from GPS		pH (-)	7.68
Azimuth from GPS		ORP (mV)	69.7
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
Good PONAR recovery. Large cloud building overhead over NW bay.

Photos
Site: 2031-2034

Site ID 14CTB - 332			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 21, 2014	Day of Year	294
Field Crew	Marci Marot, Alisha Ellis		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	11:41	Departure Time (EDT)	12:03
Latitude	38.22062	Longitude	-75.22673
Water Depth (m)	2.2		
Handheld GPS used	Garmin GPSmap76	GPS Waypoint	003
YSI	Pro-Plus	Camera	Nikon AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	11:48
GPS Session ID		Stop Time	12:01
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type		Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	17.0
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	759.8
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	88.4
Bulk Density/LOI	Yes	DO (mg/L)	7.12
Grain Size	Yes	Specific Conductance (mS/cm)	46.53
Stable Isotopes/Metals	Yes	Salinity	30.26
Distance from GPS		pH (-)	7.57
Azimuth from GPS		ORP (mV)	58.2
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
Good PONAR recovery. Large cloud building overhead over NW bay.

Photos
Site: 2021-2024

Site ID 14CTB - 333, 14CTB - 385 (Replicate)			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 21, 2014	Day of Year	294
Field Crew	Marci Marot, Alisha Ellis		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	10:43	Departure Time (EDT)	11:17
Latitude	38.20641	Longitude	-75.20473
Water Depth (m)	1.41		
Handheld GPS used	Garmin GPSmap76	GPS Waypoint	002
YSI	Pro-Plus	Camera	Nikon AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	10:50
GPS Session ID		Stop Time	11:02
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type		Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	16.3
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	760.3
Forams (preserved, x2)	Yes (x4)	Dissolved Oxygen (DO) (%)	92.5
Bulk Density/LOI	Yes (x2)	DO (mg/L)	7.49
Grain Size	Yes (x2)	Specific Conductance (mS/cm)	46.89
Stable Isotopes/Metals	Yes (x2)	Salinity	30.52
Distance from GPS		pH (-)	7.35
Azimuth from GPS		ORP (mV)	48.0
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
Poor recovery with PONAR, sediment probably too stiff to penetrate. Multiple grabs needed. Replicate grab 385 is the better of the two samples collected (i.e. better ponar recovery).

Photos
Site: 2017-2020

Site ID 14CTB - 334			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 21, 2014	Day of Year	294
Field Crew	Marci Marot, Alisha Ellis		
Platform	USGS RV Mako	Location	Chincoteague Bay, MD
Arrival Time (EDT)	10:07	Departure Time (EDT)	10:28
Latitude	38.19607	Longitude	-75.18492
Water Depth (m)	0.94		
Handheld GPS used	Garmin GPSmap76	GPS Waypoint	001
YSI	Pro-Plus	Camera	Nikon AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	10:14
GPS Session ID		Stop Time	10:20
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type		Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	15.7
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	760.5
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	96.2
Bulk Density/LOI	Yes	DO (mg/L)	7.89
Grain Size	Yes	Specific Conductance (mS/cm)	47.58
Stable Isotopes/Metals	Yes	Salinity	31.01
Distance from GPS		pH (-)	8.70
Azimuth from GPS		ORP (mV)	83.4
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
2 PONAR grabs. Grain size, forams, organics - 1st grab. Bulk density - 2nd grab. Sunny day with some cloud cover, warm temp. Calm water, wave ht. = a few inches.

Photos
Site: 2011-2014

Site ID 14CTB - 335			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 21, 2014	Day of Year	294
Field Crew	Marci Marot, Alisha Ellis		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	13:26	Departure Time (EDT)	13:48
Latitude	38.18987	Longitude	-75.24876
Water Depth (m)	2.02		
Handheld GPS used	Garmin GPSmap76	GPS Waypoint	006
YSI	Pro-Plus	Camera	Nikon AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	13:29
GPS Session ID		Stop Time	13:45
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type		Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	17.2
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	759.2
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	96.7
Bulk Density/LOI	Yes	DO (mg/L)	7.70
Grain Size	Yes	Specific Conductance (mS/cm)	47.57
Stable Isotopes/Metals	Yes	Salinity	31.02
Distance from GPS		pH (-)	7.90
Azimuth from GPS		ORP (mV)	67.5
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
Large overhead cloud breaking apart.

Photos
Site: 2035-2038

Site ID	14CTB - 336		
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 21, 2014	Day of Year	294
Field Crew	Marci Marot, Alisha Ellis		
Platform	USGS <i>RV Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	14:00	Departure Time (EDT)	14:24
Latitude	38.17993	Longitude	-75.23125
Water Depth (m)	2.06		
Handheld GPS used	Garmin GPSmap76	GPS Waypoint	007
YSI	Pro-Plus	Camera	Nikon AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Receiver Used		Start Time	14:06
GPS Session ID		Stop Time	14:19
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type		Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	17.7
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	758.9
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	96.7
Bulk Density/LOI	Yes	DO (mg/L)	7.58
Grain Size	Yes	Specific Conductance (mS/cm)	47.86
Stable Isotopes/Metals	Yes	Salinity	31.26
Distance from GPS		pH (-)	7.90
Azimuth from GPS		ORP (mV)	65.1
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes

Photos
Site: 2041-2044

Site ID	14CTB - 337		
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 21, 2014	Day of Year	294
Field Crew	Marci Marot, Alisha Ellis		
Platform	USGS <i>RV Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	14:38	Departure Time (EDT)	15:00
Latitude	38.17042	Longitude	-75.21585
Water Depth (m)	1.41		
Handheld GPS used	Garmin GPSmap76	GPS Waypoint	008
YSI	Pro-Plus	Camera	Nikon AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Receiver Used		Start Time	14:45
GPS Session ID		Stop Time	14:55
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type		Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	17.2
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	758.7
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	108.6
Bulk Density/LOI	Yes	DO (mg/L)	8.68
Grain Size	Yes	Specific Conductance (mS/cm)	47.42
Stable Isotopes/Metals	Yes	Salinity	30.91
Distance from GPS		pH (-)	7.93
Azimuth from GPS		ORP (mV)	65.4
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes

Photos	
Site: 2045-2048	

Site ID 14CTB - 338			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 21, 2014	Day of Year	294
Field Crew	Marci Marot, Alisha Ellis		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	15:07	Departure Time (EDT)	Not recorded
Latitude	38.16023	Longitude	-75.19913
Water Depth (m)	0.71		
Handheld GPS used	Garmin GPSmap76	GPS Waypoint	009
YSI	Pro-Plus	Camera	Nikon AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	15:12
GPS Session ID		Stop Time	15:23
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type		Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	18.3
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	758.6
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	172.3
Bulk Density/LOI	Yes	DO (mg/L)	13.44
Grain Size	Yes	Specific Conductance (mS/cm)	48.03
Stable Isotopes/Metals	Yes	Salinity	31.36
Distance from GPS		pH (-)	8.42
Azimuth from GPS		ORP (mV)	61.2
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
Abundance of fibrous green macro-algae. Ponar grab taken in barren spot.

Photos
Site: 2050-2053 Algae: 2054-2055

Site ID 14CTB - 339			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 28, 2014	Day of Year	301
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	9:46	Departure Time (EDT)	Not recorded
Latitude	38.14481	Longitude	-75.26754
Water Depth (m)	2.2 (depth sounder), ~2.5 (bouy)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	067
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	9:48
GPS Session ID		Stop Time	9:57
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type	Silty mud	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	14.6
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	765.8
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	98.0
Bulk Density/LOI	Yes	DO (mg/L)	8.18
Grain Size	Yes	Specific Conductance (mS/cm)	48.66
Stable Isotopes/Metals	Yes	Salinity	31.78
Distance from GPS		pH (-)	7.58
Azimuth from GPS		ORP (mV)	47.5
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
Wind ~10 out of SSW, supposed to pick up 10-20 2x ponar, shells and worms, silty mud.
*Puck (depth sounder) keeps flipping up during transit, watch for blinking numbers and check.

Photos

Site ID	14CTB - 340		
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 28, 2014	Day of Year	301
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS <i>RV Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	10:10	Departure Time (EDT)	Not recorded
Latitude	38.13293	Longitude	-75.24594
Water Depth (m, depth sounder)	2.60		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	068
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Receiver Used		Start Time	10:13
GPS Session ID		Stop Time	10:21
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type	Silty mud	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	14.6
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	765.8
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	120.8
Bulk Density/LOI	Yes	DO (mg/L)	10.13
Grain Size	Yes	Specific Conductance (mS/cm)	48.04
Stable Isotopes/Metals	Yes	Salinity	31.30
Distance from GPS		pH (-)	7.71
Azimuth from GPS		ORP (mV)	47.4
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes

Photos	

Site ID 14CTB - 341			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 28, 2014	Day of Year	301
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	16:28	Departure Time (EDT)	Not recorded
Latitude	38.12083	Longitude	-75.22431
Water Depth (m, depth sounder)	2.0		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	083
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	16:31
GPS Session ID		Stop Time	16:42
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type	Fine sand	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	15.6
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	764.2
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	113.8
Bulk Density/LOI	Yes	DO (mg/L)	9.37
Grain Size	Yes	Specific Conductance (mS/cm)	47.91
Stable Isotopes/Metals	Yes	Salinity	31.25
Distance from GPS		pH (-)	8.03
Azimuth from GPS		ORP (mV)	57.5
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
2x ponar grabs
End of day

Photos

Site ID 14CTB - 342, 14CTB - 386 (Replicate)			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 28, 2014	Day of Year	301
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	16:00	Departure Time (EDT)	Not recorded
Latitude	38.11479	Longitude	-75.20412
Water Depth (m, measured)	0.69		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	082
YSI	Pro-Plus	Camera	Nikon AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	16:03
GPS Session ID		Stop Time	16:13
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type	Medium sand	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	16.7
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	764.2
Forams (preserved, x2)	Yes (x4)	Dissolved Oxygen (DO) (%)	72.5
Bulk Density/LOI	Yes (x2)	DO (mg/L)	5.81
Grain Size	Yes (x2)	Specific Conductance (mS/cm)	48.35
Stable Isotopes/Metals	Yes (x2)	Salinity	31.58
Distance from GPS		pH (-)	8.10
Azimuth from GPS		ORP (mV)	49.5
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
14CTB-342 replicate 14CTB-386 2x ponar per replicate

Photos
Ponar action shots: 2134-2136

Site ID	14CTB - 343		
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 28, 2014	Day of Year	301
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS <i>RV Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	10:56	Departure Time (EDT)	Not recorded
Latitude	38.10526	Longitude	-75.28582
Water Depth (m, depth sounder)	2.3		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	070
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Receiver Used		Start Time	10:59
GPS Session ID		Stop Time	11:08
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type	Sandy mud	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	14.6
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	765.8
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	114.3
Bulk Density/LOI	Yes	DO (mg/L)	9.51
Grain Size	Yes	Specific Conductance (mS/cm)	49.63
Stable Isotopes/Metals	Yes	Salinity	32.48
Distance from GPS		pH (-)	7.38
Azimuth from GPS		ORP (mV)	57.9
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes

Photos

Site ID 14CTB - 344			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 28, 2014	Day of Year	301
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	10:34	Departure Time (EDT)	Not recorded
Latitude	38.10052	Longitude	-75.26889
Water Depth (m, depth sounder)	2.1		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	069
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	10:37
GPS Session ID		Stop Time	10:47
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type	Silty fine sand	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	14.6
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	765.9
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	111.9
Bulk Density/LOI	Yes	DO (mg/L)	9.38
Grain Size	Yes	Specific Conductance (mS/cm)	48.38
Stable Isotopes/Metals	Yes	Salinity	31.56
Distance from GPS		pH (-)	6.99
Azimuth from GPS		ORP (mV)	56.2
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
2x ponar grabs

Photos

Site ID 14CTB - 345			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 28, 2014	Day of Year	301
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	14:36	Departure Time (EDT)	Not recorded
Latitude	38.08162	Longitude	-75.22341
Water Depth (m)	2.0		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	078
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	14:37
GPS Session ID		Stop Time	14:48
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type	Fine muddy silt	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	15.3
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	764.5
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	69.8
Bulk Density/LOI	Yes	DO (mg/L)	5.74
Grain Size	Yes	Specific Conductance (mS/cm)	48.93
Stable Isotopes/Metals	Yes	Salinity	31.98
Distance from GPS		pH (-)	7.88
Azimuth from GPS		ORP (mV)	46.1
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
Used boat hook to measure ~2.0m water depth

Photos

Site ID 14CTB - 346			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 28, 2014	Day of Year	301
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	12:55	Departure Time (EDT)	Not recorded
Latitude	38.09121	Longitude	-75.24567
Water Depth (m)	0.62		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	075
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	12:58
GPS Session ID		Stop Time	13:08
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type	Fine sand	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	15.1
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	765.1
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	75.7
Bulk Density/LOI	Yes	DO (mg/L)	6.26
Grain Size	Yes	Specific Conductance (mS/cm)	48.80
Stable Isotopes/Metals	Yes	Salinity	31.89
Distance from GPS		pH (-)	6.97
Azimuth from GPS		ORP (mV)	67.7
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
2x ponar grabs

Photos

Site ID	14CTB - 347		
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 30, 2014	Day of Year	303
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton, Ali Redman (CBFS)		
Platform	CBFS Boston Whaler	Location	Chincoteague Bay, VA
Arrival Time (EDT)	15:28	Departure Time (EDT)	Not recorded
Latitude	37.97863	Longitude	-75.37704
Water Depth (m)	1.71		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	103
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Receiver Used		Start Time	15:29
GPS Session ID		Stop Time	15:39
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type	Fine sand	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	16.9
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	763.5
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	67.7
Bulk Density/LOI	Yes	DO (mg/L)	5.40
Grain Size	Yes	Specific Conductance (mS/cm)	48.78
Stable Isotopes/Metals	Yes	Salinity	31.90
Distance from GPS		pH (-)	8.05
Azimuth from GPS		ORP (mV)	70.4
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes

Photos

Site ID 14CTB - 348, 14CTB - 387 (Replicate)			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 29, 2014	Day of Year	302
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	10:58	Departure Time (EDT)	Not recorded
Latitude	38.09259	Longitude	-75.33223
Water Depth (m)	1.3 (depth sounder), 1.49 (measured)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	087
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	11:01
GPS Session ID		Stop Time	11:11
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type	Mud	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	16.1
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	762.1
Forams (preserved, x2)	Yes (x4)	Dissolved Oxygen (DO) (%)	54.0
Bulk Density/LOI	Yes (x2)	DO (mg/L)	4.39
Grain Size	Yes (x2)	Specific Conductance (mS/cm)	48.67
Stable Isotopes/Metals	Yes (x2)	Salinity	31.81
Distance from GPS		pH (-)	7.99
Azimuth from GPS		ORP (mV)	50.9
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
Significant algal growth on bay bottom clayey, mud 14CTB-348 replicate 14CTB-387 No replicate radium sample

Photos

Site ID	14CTB - 349		
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 29, 2014	Day of Year	302
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS <i>RV Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	11:21	Departure Time (EDT)	Not recorded
Latitude	38.07430	Longitude	-75.32148
Water Depth (m)	1.4 (depth sounder), 1.62 (measured)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	088
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Receiver Used		Start Time	11:24
GPS Session ID		Stop Time	11:31
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type	Mud	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	16.2
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	762.2
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	46.4
Bulk Density/LOI	Yes	DO (mg/L)	3.74
Grain Size	Yes	Specific Conductance (mS/cm)	49.29
Stable Isotopes/Metals	Yes	Salinity	32.26
Distance from GPS		pH (-)	8.06
Azimuth from GPS		ORP (mV)	55.8
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes

Photos

Site ID	14CTB - 350		
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 29, 2014	Day of Year	302
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS <i>RV Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	13:17	Departure Time (EDT)	Not recorded
Latitude	38.06059	Longitude	-75.33312
Water Depth (m)	1.6 (depth sounder), 1.49 (measured)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	092
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Receiver Used		Start Time	13:20
GPS Session ID		Stop Time	13:29
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type	Not recorded	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	14.6
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	760.8
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	44.6
Bulk Density/LOI	Yes	DO (mg/L)	3.56
Grain Size	Yes	Specific Conductance (mS/cm)	49.17
Stable Isotopes/Metals	Yes	Salinity	32.18
Distance from GPS		pH (-)	7.97
Azimuth from GPS		ORP (mV)	57.5
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes

Photos

Site ID	14CTB - 351		
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 29, 2014	Day of Year	302
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS <i>RV Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	11:49	Departure Time (EDT)	Not recorded
Latitude	38.06987	Longitude	-75.34986
Water Depth (m)	1.2 (depth sounder), 1.32 (measured)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	089
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Receiver Used		Start Time	11:52
GPS Session ID		Stop Time	12:01
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type	Silty clay	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	16.7
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	761.9
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	42.9
Bulk Density/LOI	Yes	DO (mg/L)	3.43
Grain Size	Yes	Specific Conductance (mS/cm)	48.69
Stable Isotopes/Metals	Yes	Salinity	31.83
Distance from GPS		pH (-)	7.92
Azimuth from GPS		ORP (mV)	56.0
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes

Photos	

Site ID 14CTB - 352, 14CTB - 329 (Replicate)			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 28, 2014	Day of Year	301
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	11:42	Departure Time (EDT)	Not recorded
Latitude	38.06511	Longitude	-75.29866
Water Depth (m)	1.9 (depth sounder), ~2.0 (measured)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	072
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	11:45
GPS Session ID		Stop Time	11:53
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type	Silty fine sand	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	14.8
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	765.6
Forams (preserved, x2)	Yes (x4)	Dissolved Oxygen (DO) (%)	109.0
Bulk Density/LOI	Yes (x2)	DO (mg/L)	9.07
Grain Size	Yes (x2)	Specific Conductance (mS/cm)	49.33
Stable Isotopes/Metals	Yes (x2)	Salinity	32.27
Distance from GPS		pH (-)	6.70
Azimuth from GPS		ORP (mV)	61.8
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
14CTB-352 replicate 14CTB-329 No replicate radium sample

Photos

Site ID 14CTB - 353			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 28, 2014	Day of Year	301
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	12:05	Departure Time (EDT)	Not recorded
Latitude	38.05075	Longitude	-75.27563
Water Depth (m)	2.2 (depth sounder)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	073
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	12:08
GPS Session ID		Stop Time	12:19
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type	Silty fine sand	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	15.1
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	765.5
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	102.0
Bulk Density/LOI	Yes	DO (mg/L)	8.41
Grain Size	Yes	Specific Conductance (mS/cm)	49.49
Stable Isotopes/Metals	Yes	Salinity	32.39
Distance from GPS		pH (-)	6.36
Azimuth from GPS		ORP (mV)	50.9
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
2x ponar grabs

Photos

Site ID 14CTB - 354, 14CTB - 389 (Replicate)			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 29, 2014	Day of Year	302
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	15:29	Departure Time (EDT)	Not recorded
Latitude	38.03698	Longitude	-75.26443
Water Depth (m)	1.5 (depth sounder), 1.57 (measured)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	097
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	15:29
GPS Session ID		Stop Time	15:38
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type	Sand	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	17.4
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	760.8
Forams (preserved, x2)	Yes (x4)	Dissolved Oxygen (DO) (%)	35.4
Bulk Density/LOI	Yes (x2)	DO (mg/L)	2.79
Grain Size	Yes (x2)	Specific Conductance (mS/cm)	49.38
Stable Isotopes/Metals	Yes (x2)	Salinity	32.34
Distance from GPS		pH (-)	8.10
Azimuth from GPS		ORP (mV)	67.1
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
Front approaching from west(?). Dark sky but radar appears clear. 14CTB-352 replicate 14CTB-329 No replicate radium sample

Photos

Site ID 14CTB - 355			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 29, 2014	Day of Year	302
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	15.:05	Departure Time (EDT)	Not recorded
Latitude	38.03266	Longitude	-75.28732
Water Depth (m)	1.8 (depth sounder), 1.78 (measured)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	096
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	15:09
GPS Session ID		Stop Time	15:18
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type	Fine sand	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	16.4
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	760.7
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	33.1
Bulk Density/LOI	Yes	DO (mg/L)	2.67
Grain Size	Yes	Specific Conductance (mS/cm)	49.31
Stable Isotopes/Metals	Yes	Salinity	32.28
Distance from GPS		pH (-)	7.97
Azimuth from GPS		ORP (mV)	63.4
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
2x ponar grabs. Extremely difficult to land on target site in 2ft. rollers/chop.

Photos

Site ID	14CTB - 356		
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 29, 2014	Day of Year	302
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS <i>RV Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	10:29	Departure Time (EDT)	Not recorded
Latitude	38.04719	Longitude	-75.31093
Water Depth (m)	2.1 (depth sounder)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	086
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Receiver Used		Start Time	10:34
GPS Session ID		Stop Time	10:43
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type	Mud	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	15.7
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	762.5
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	72.5
Bulk Density/LOI	Yes	DO (mg/L)	5.91
Grain Size	Yes	Specific Conductance (mS/cm)	49.24
Stable Isotopes/Metals	Yes	Salinity	32.22
Distance from GPS		pH (-)	7.99
Azimuth from GPS		ORP (mV)	52.8
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes

Photos

Site ID	14CTB - 357		
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 29, 2014	Day of Year	302
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS <i>RV Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	10:04	Departure Time (EDT)	Not recorded
Latitude	38.03535	Longitude	-75.33159
Water Depth (m)	2.3 (depth sounder)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	085
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Receiver Used		Start Time	10:07
GPS Session ID		Stop Time	10:19
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type	Silty mud	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	15.8
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	762.6
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	97.8
Bulk Density/LOI	Yes	DO (mg/L)	7.95
Grain Size	Yes	Specific Conductance (mS/cm)	49.47
Stable Isotopes/Metals	Yes	Salinity	32.39
Distance from GPS		pH (-)	7.97
Azimuth from GPS		ORP (mV)	52.1
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes

Photos

Site ID 14CTB - 358			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 29, 2014	Day of Year	302
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	13:46	Departure Time (EDT)	Not recorded
Latitude	38.02406	Longitude	-75.31075
Water Depth (m)	2.3 (depth sounder)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	093
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Reciever Used		Start Time	13:49
GPS Session ID		Stop Time	13:57
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type	Silty to very fine sandy mud	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	16.3
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	760.7
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	37.1
Bulk Density/LOI	Yes	DO (mg/L)	2.99
Grain Size	Yes	Specific Conductance (mS/cm)	49.36
Stable Isotopes/Metals	Yes	Salinity	32.31
Distance from GPS		pH (-)	7.96
Azimuth from GPS		ORP (mV)	62.5
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
Wind seems to be swinging around more out of WSW 1ft. chop on water all day.

Photos

Site ID	14CTB - 359		
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 29, 2014	Day of Year	302
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS <i>RV Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	14:09	Departure Time (EDT)	Not recorded
Latitude	38.01393	Longitude	-75.29354
Water Depth (m)	1.8 (depth sounder), 2.03 (measured)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	094
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Receiver Used		Start Time	14:12
GPS Session ID		Stop Time	14:23
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type	Fine sand	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	16.7
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	760.7
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	28.0
Bulk Density/LOI	Yes	DO (mg/L)	2.22
Grain Size	Yes	Specific Conductance (mS/cm)	49.10
Stable Isotopes/Metals	Yes	Salinity	32.12
Distance from GPS		pH (-)	8.10
Azimuth from GPS		ORP (mV)	67.7
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes

Photos	

Site ID 14CTB - 360			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 29, 2014	Day of Year	302
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	9:39	Departure Time (EDT)	Not recorded
Latitude	38.02493	Longitude	-75.37396
Water Depth (m)	1.6 (depth sounder), 1.67 (measured)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	084
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	9:43
GPS Session ID		Stop Time	9:51
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type	Mud	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	16.0
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	762.7
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	114.0
Bulk Density/LOI	Yes	DO (mg/L)	9.27
Grain Size	Yes	Specific Conductance (mS/cm)	48.81
Stable Isotopes/Metals	Yes	Salinity	31.91
Distance from GPS		pH (-)	7.88
Azimuth from GPS		ORP (mV)	44.3
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
<p>Hazy (smoky?) light wind out of SSW</p> <p>Planned access to site 301 today is questionable - CNWR closed after rocket explosion.</p> <p>Could not service base CH01 this morning due to CNWR closure.</p> <p>1ft. chop on water</p>

Photos

Site ID 14CTB - 361			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 29, 2014	Day of Year	302
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, VA
Arrival Time (EDT)	17:25	Departure Time (EDT)	Not recorded
Latitude	38.00787	Longitude	-75.34471
Water Depth (m)	2.2		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	101
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Reciever Used		Start Time	17:30
GPS Session ID		Stop Time	17:39
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type	Not recorded	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	16.5
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	761.4
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	47.5
Bulk Density/LOI	Yes	DO (mg/L)	3.82
Grain Size	Yes	Specific Conductance (mS/cm)	48.83
Stable Isotopes/Metals	Yes	Salinity	31.93
Distance from GPS		pH (-)	8.05
Azimuth from GPS		ORP (mV)	60.5
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
Wind picking up significantly out of NW ~1ft. chop on water Last site - end of day

Photos

Site ID 14CTB - 362, 14CTB - 390 (Replicate)			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 29, 2014	Day of Year	302
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS RV <i>Mako</i>	Location	Chincoteague Bay, VA
Arrival Time (EDT)	17:01	Departure Time (EDT)	Not recorded
Latitude	37.99013	Longitude	-75.31487
Water Depth (m)	1.4 (depth sounder), 1.43 (measured)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	100
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	17:04
GPS Session ID		Stop Time	17:14
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type	Silty fine sand	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	17.5
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	761.1
Forams (preserved, x2)	Yes (x4)	Dissolved Oxygen (DO) (%)	38.0
Bulk Density/LOI	Yes (x2)	DO (mg/L)	2.99
Grain Size	Yes (x2)	Specific Conductance (mS/cm)	49.14
Stable Isotopes/Metals	Yes (x2)	Salinity	32.17
Distance from GPS		pH (-)	8.10
Azimuth from GPS		ORP (mV)	50.5
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
Wind switched to out of NW, waves have laid down a bit 14CTB-362 replicate 14CTB-390 No replicate radium sample

Photos

Site ID	14CTB - 365		
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 30, 2014	Day of Year	303
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton, Ali Redman (CBFS)		
Platform	CBFS Boston Whaler	Location	Chincoteague Bay, VA
Arrival Time (EDT)	15:50	Departure Time (EDT)	Not recorded
Latitude	37.95729	Longitude	-75.37893
Water Depth (m)	2.07		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	104
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Receiver Used		Start Time	15:52
GPS Session ID		Stop Time	16:00
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type	Silty mud	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	16.9
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	763.5
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	50.8
Bulk Density/LOI	Yes	DO (mg/L)	4.04
Grain Size	Yes	Specific Conductance (mS/cm)	48.75
Stable Isotopes/Metals	Yes	Salinity	31.88
Distance from GPS		pH (-)	8.08
Azimuth from GPS		ORP (mV)	67.9
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes

Photos

Site ID 14CTB - 366			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 30, 2014	Day of Year	303
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton, Ali Redman (CBFS)		
Platform	CBFS Boston Whaler	Location	Chincoteague Bay, VA
Arrival Time (EDT)	15:06	Departure Time (EDT)	Not recorded
Latitude	37.97228	Longitude	-75.40746
Water Depth (m)	1.90 (measured)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	102
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	15:07
GPS Session ID		Stop Time	15:18
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type	Silty mud	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	16.7
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	763.5
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	96.5
Bulk Density/LOI	Yes	DO (mg/L)	7.72
Grain Size	Yes	Specific Conductance (mS/cm)	48.78
Stable Isotopes/Metals	Yes	Salinity	31.89
Distance from GPS		pH (-)	8.02
Azimuth from GPS		ORP (mV)	72.4
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
Light breeze out of NW

Photos

Site ID 14CTB - 367			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 30, 2014	Day of Year	303
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton, Ali Redman (CBFS)		
Platform	CBFS Boston Whaler	Location	Chincoteague Bay, VA
Arrival Time (EDT)	16:14	Departure Time (EDT)	Not recorded
Latitude	37.94657	Longitude	-75.41251
Water Depth (m)	6.26 (measured)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	105
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	16:15
GPS Session ID		Stop Time	16:25
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type	Fine sand	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	17.1
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	763.5
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	40.8
Bulk Density/LOI	Yes	DO (mg/L)	3.24
Grain Size	Yes	Specific Conductance (mS/cm)	48.95
Stable Isotopes/Metals	Yes	Salinity	32.03
Distance from GPS		pH (-)	8.10
Azimuth from GPS		ORP (mV)	71.2
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
10/30/2014 - Mako would not start, using Chincoteague Bay Field station Boston Whaler. Site 367 is at mouth of channel - cannot get on anchor - anchor is drifting. Depth is greater than the end of bouy rope, and the bouy is drifting in the strong current. Headed to site 366, will try to hit shoal on return.
Second try: Hit target this time, anchor holding.

Photos

Site ID	14CTB - 368		
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 28, 2014	Day of Year	301
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS <i>RV Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	11:20	Departure Time (EDT)	Not recorded
Latitude	38.07787	Longitude	-75.28063
Water Depth (m)	2.6 (depth sounder)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	071
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Receiver Used		Start Time	11:23
GPS Session ID		Stop Time	11:31
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type	Silty mud	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	14.8
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	765.7
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	107.8
Bulk Density/LOI	Yes	DO (mg/L)	8.95
Grain Size	Yes	Specific Conductance (mS/cm)	49.60
Stable Isotopes/Metals	Yes	Salinity	32.45
Distance from GPS		pH (-)	6.39
Azimuth from GPS		ORP (mV)	64.3
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes

Photos

Site ID	14CTB - 369		
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 28, 2014	Day of Year	301
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS <i>RV Mako</i>	Location	Chincoteague Bay, MD
Arrival Time (EDT)	11:20	Departure Time (EDT)	Not recorded
Latitude	38.06949	Longitude	-75.26189
Water Depth (m)	1.1 (depth sounder), ~1 (measured)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	074
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Receiver Used		Start Time	12:31
GPS Session ID		Stop Time	12:45
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type	Fine sand	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	15.7
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	765.3
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	91.3
Bulk Density/LOI	Yes	DO (mg/L)	7.45
Grain Size	Yes	Specific Conductance (mS/cm)	48.97
Stable Isotopes/Metals	Yes	Salinity	32.02
Distance from GPS		pH (-)	7.16
Azimuth from GPS		ORP (mV)	61.7
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes

Photos	

Site ID 14CTB - 398			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 27, 2014	Day of Year	300
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS RV <i>Mako</i>	Location	Toms Cove, VA
Arrival Time (EDT)	15:32	Departure Time (EDT)	15:49
Latitude	37.87981	Longitude	-75.36317
Water Depth (m)	3.7 (depth sounder), 2.5 (measured)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	065
YSI	Pro-Plus	Camera	Nikon AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
DGPS Positioning		Radium Sampling: Mn Fiber	
GPS Reciever Used		Start Time	15:37
GPS Session ID		Stop Time	15:49
Occupation Time (min)		Total Volume	5 gal.
Surface/Grab: USGS Petit PONAR		Water Quality Parameters: YSI	
Vegetation/Sediment Type	Mud/clay	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	15.5
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	765.3
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	118.8
Bulk Density/LOI	Yes	DO (mg/L)	9.72
Grain Size	Yes	Specific Conductance (mS/cm)	48.71
Stable Isotopes/Metals	Yes	Salinity	31.83
Distance from GPS		pH (-)	7.90
Azimuth from GPS		ORP (mV)	61.7
Marsh Push Core: 4" Polycarbonate Barrel		Sand Gouge Core: AMS Sand/Loose Sediment Probe	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
Marsh Auger Core: Eijkelpamp Peat Sampler		Shovel (Dig) Core: AMS Sharpshooter Shovel	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
Access seems significantly shallower than in March 2014 Near low tide right now (falling) *need paper chart for area*

Photos
Site: 106-110, N-NE-E-SE-S from anchor.

Site ID 14CTB - 403			
USGS Field Activity Number (FAN)	2014-322-FA (14CTB02)		
Date	October 27, 2014	Day of Year	300
Field Crew	Julie Bernier, Marci Marot, Alisha Ellis, Cathryn Wheaton		
Platform	USGS RV <i>Mako</i>	Location	Toms Cove, VA
Arrival Time (EDT)	15:58	Departure Time (EDT)	Not recorded
Latitude	37.87568	Longitude	-75.35814
Water Depth (m)	3.9 (depth sounder), 2.5 (measured)		
Handheld GPS used	Garmin GPSmap76S	GPS Waypoint	066
YSI	Pro-Plus	Camera	NA

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<i>DGPS Positioning</i>		<i>Radium Sampling: Mn Fiber</i>	
GPS Reciever Used		Start Time	16:01
GPS Session ID		Stop Time	16:12
Occupation Time (min)		Total Volume	5 gal.
<i>Surface/Grab: USGS Petit PONAR</i>		<i>Water Quality Parameters: YSI</i>	
Vegetation/Sediment Type	Mud	Water Type (estuary, marsh, standing, marsh backfill)	Estuarine
Pentrometer (marsh sites only)		Temperature (°C)	15.2
Shear Strength (kg/cm ²) (marsh sites only)		Barometric Pressure (mm Hg)	765.3
Forams (preserved, x2)	Yes	Dissolved Oxygen (DO) (%)	101.7
Bulk Density/LOI	Yes	DO (mg/L)	8.41
Grain Size	Yes	Specific Conductance (mS/cm)	48.71
Stable Isotopes/Metals	Yes	Salinity	31.83
Distance from GPS		pH (-)	8.01
Azimuth from GPS		ORP (mV)	61.6
<i>Marsh Push Core: 4" Polycarbonate Barrel</i>		<i>Sand Gouge Core: AMS Sand/Loose Sediment Probe</i>	
Vegetation Type		Barrel Length (cm)	
Pentrometer		ITGODS (bottom of weld ≈ top of barrel) (cm)	
Shear Strength (kg/cm ²)		Recovered Core Length (cm)	
Barrel Length (cm)		Core Catcher Used?	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		Distance from GPS	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Azimuth from GPS	
Compaction (cm)			
Recovered Core Length (cm)			
Distance from GPS			
Azimuth from GPS			
<i>Marsh Auger Core: Eijkelpamp Peat Sampler</i>		<i>Shovel (Dig) Core: AMS Sharpshooter Shovel</i>	
Number of Sections		Recovered Depth (cm)	
Total Core Length (cm)		Distance from GPS	
Distance from GPS		Azimuth from GPS	
Azimuth from GPS			

Notes
2x ponar grab
Asked to leave Tom's Cove area by marine police in preparation for rocket launch on Wallops Island.

Photos