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Vibracore Description Sheet

Core ID: P11 - C01
Latitude: 40.64652
Longitude: -73.14170
Date Collected: 4/10/16
Geographic Location: Target - T05A , Elev. Profile 11

Date Described: 05/02/16
Described By: Kelso
Core Penetration: 159.5 cm
Core Length: 100 cm

SEDIMENTARY TEXTURE AND STRUCTURES	% SAND (0 – 50 – 100)	PHYSICAL CHARACTERISTICS	STRATIFICATION TYPE	SAMPLE	PHYSICAL DESCRIPTION
CLAY, SILT, FINE SAND, MEDIUM SAND, COARSE SAND, INTERVAL (m)		COLOR, DEFORMATION, BED THICKNESS, % SHELL, % ORGANICS, % BIOTURBATION	WAVY, FLASER, LENTICULAR, CROSS BED, MASSIVE BED, INCLINED BED, HORIZON LAMINATION	GRAIN SIZE, HEAVY MINERAL, MICRO FOSSILS, RADIOMETRIC, RADIOGRAPH, PHOTOGRAPH	Compaction - 59.5 cm
0.1					0-37cm - Sand, light brown (5y 8/2), poorly sorted fine - medium massive quartz sand with larger shell fragments in other, possibly spread out distribution, very clean - 100% sand
0.2					
0.3					
0.4					
0.5					
0.6					
0.7					
0.8					
0.9					
1.0					37-100cm - Sand, light brown (5y 8/2), well sorted (medium-coarse) sand with abundant thin heavy mineral laminations, only occasional small shell fragments, bedding appears to cross bedded in places
1.5					
2.0					
2.5					
3.0					
3.5					
4.0					
4.5					
5.0					

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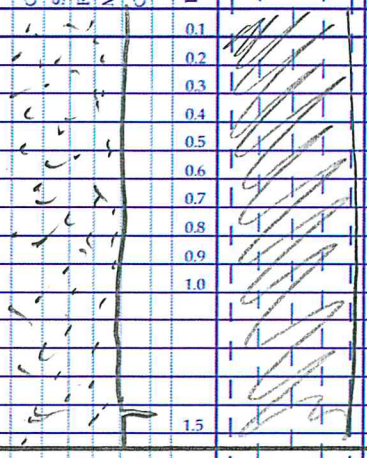
Vibracore Description Sheet

Core ID: P11 - C02
Latitude: 40.64670 N
Longitude: -73.14178 W
Date Collected: 04/10/16
Geographic Location: TOS - B, Bay. Profile 11

Date Described: 05/03/16
Described By: Kelso
Core Penetration: 1.705 m
Core Length: 1.55m

SEDIMENTARY TEXTURE AND STRUCTURES	% SAND	PHYSICAL CHARACTERISTICS	STRATIFICATION TYPE	SAMPLE	PHYSICAL DESCRIPTION
CLAY, SILT, FINE SAND, MEDIUM SAND, COARSE SAND, INTERVAL (m)	0, 50, 100	COLOR, DEFORMATION, BED THICKNESS, % SHELL, % ORGANICS, % BIOTURBATION	WAVY, FLASER, LENTICULAR, CROSS BED, MASSIVE BED, INCLINED BED, HORIZON LAMINATION	GRAIN SIZE, HEAVY MINERAL, MICRO FOSSILS, RADIOMETRIC, RADIOGRAPH, PHOTOGRAPH	Compaction - 15.5 cm



0-165cm - Sand - (5Y 8/2) light brown moderately well sorted medium sand with grain horizon of various thickness throughout. from 0-60 cm the sediment is is a bit more mottled but wavy grain horizons are still visible bedding is wavy in all directions grain size is smaller on average than surrounding, quartz mineral shell content throughout except for a thin dense shell and small pebble horizon layer 145-147cm with angular bedding

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Vibracore Description Sheet

Core ID: FI P10-C03
Latitude: 46.64370
Longitude: -73.15611
Date Collected: 04/10/16
Geographic Location: T06A, Elev. Profile 10

Date Described: 05/03/16
Described By: Kelso
Core Penetration:
Core Length: 1.00 m

SEDIMENTARY TEXTURE AND STRUCTURES	% SAND (0–100)	PHYSICAL CHARACTERISTICS	STRATIFICATION TYPE	SAMPLE	PHYSICAL DESCRIPTION
CLAY, SILT, FINE SAND, MEDIUM SAND, COARSE SAND, INTERVAL (m)		COLOR, DEFORMATION, BED THICKNESS, % SHELL, % ORGANICS, % BIOTURBATION	WAVY, FLASER, LENTICULAR, CROSS BED, MASSIVE BED, INCLINED BED, HORIZON LAMINATION	GRAIN SIZE, HEAVY MINERAL, MICRO FOSSILS, RADIOMETRIC, RADIOGRAPH, PHOTOGRAPH	Compaction - -0.5 cm
0.1–1.0					0-100 cm - Sand, light brown + purple garnet, moderately sorted, fine to coarse quartz sand and garnet sand with black phosphate flecks throughout, bedding is very faint throughout, 1/2 section shot light

Depth scale: 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0

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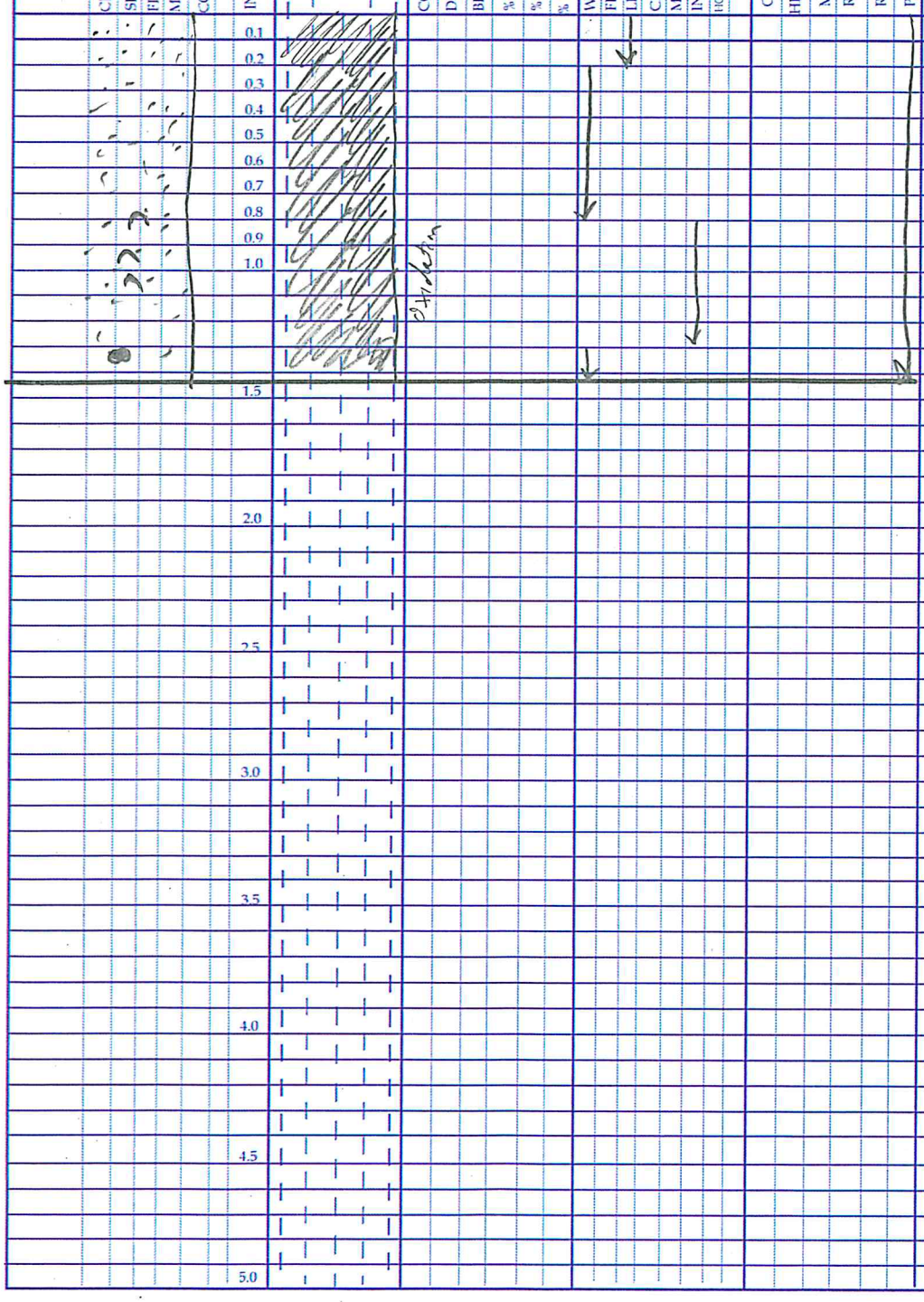
Vibracore Description Sheet

Core ID: FI P10-C04
Latitude: 40.64378
Longitude: -73.15614
Date Collected: 04/10/16
Geographic Location: T06-B, Elev. Profile 10

Date Described: 05/03/16
Described By: Kelso
Core Penetration:
Core Length: 1.41m

SEDIMENTARY TEXTURE AND STRUCTURES	% SAND (0 — 50 — 100)	PHYSICAL CHARACTERISTICS	STRATIFICATION TYPE	SAMPLE	PHYSICAL DESCRIPTION
CLAY, SILT, FINE SAND, MEDIUM SAND, COARSE SAND, INTERVAL (m)		COLOR, DEFORMATION, BED THICKNESS, % SHELL, % ORGANICS, % BIOTURBATION	WAVY, FLASER, LENTICULAR, CROSS BED, MASSIVE BED, INCLINED BED, HORIZON LAMINATION	GRAIN SIZE, HEAVY MINERAL, MICRO FOSSILS, RADIOMETRIC, RADIOGRAPH, PHOTOGRAPH	Compaction - -23.0 cm (?)



0-141 cm - Sand; light brown (5 YR 5/2), moderately sorted fine to medium quartz sand interbedded with purple, well sorted fine - medium garnet sand. Bedding is mottled and lenticular from 0-20 cm, wavy from 20-80 cm, inclined from 80-130, then back to wavy from 130-141 cm, abundant disseminated phosphate. Shell content limited to two large shell fragments at 80 and 148 cm + 10 cm rounded pebbly at 137 cm. Sand is oxidized from 100-127 cm

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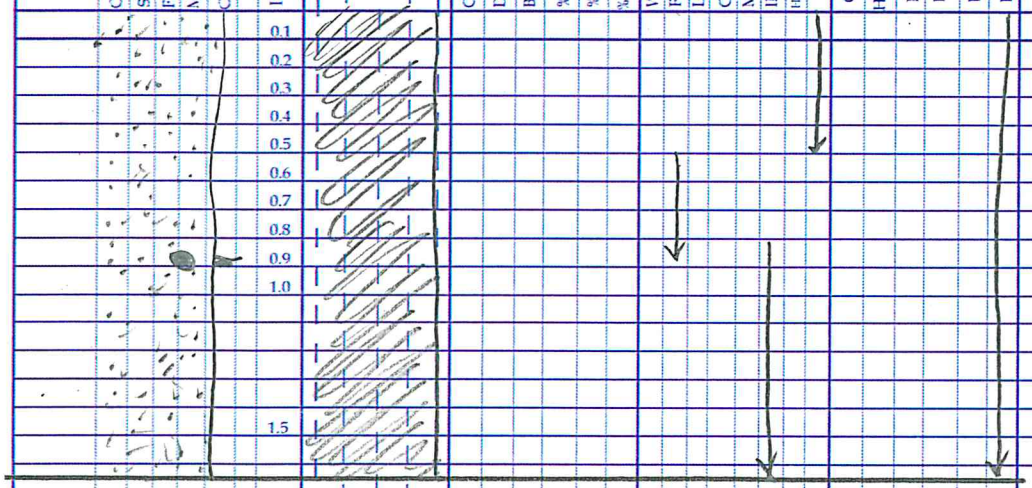
Vibracore Description Sheet

Core ID: FI P25-C05
Latitude: 40.69010
Longitude: -72.98597
Date Collected: 4/10/16
Geographic Location: T01-A, Elev. Profile 25

Date Described: 2017/03/11
Described By: KLS
Core Penetration:
Core Length: 1.64m

SEDIMENTARY TEXTURE AND STRUCTURES	% SAND (0 – 50 – 100)	PHYSICAL CHARACTERISTICS	STRATIFICATION TYPE	SAMPLE	PHYSICAL DESCRIPTION
CLAY, SILT, FINE SAND, MEDIUM SAND, COARSE SAND, INTERVAL (m)		COLOR, DEFORMATION, BED THICKNESS, % SHELL, % ORGANICS, % BIOTURBATION	WAVY, FLASER, LENTICULAR, CROSS BED, MASSIVE BED, INCLINED BED, HORIZON LAMINATION	GRAIN SIZE, HEAVY MINERAL, MICRO FOSSILS, RADIOMETRIC, RADIOGRAPH, PHOTOGRAPH	Compaction - 0.5 cm



0-51cm - Sand, light brown (5y 8/2), mottled, olive, moderately sorted fine-coarse sand with scattered phosphate fleck, occasional small scale gastropod fragment

51 - 164cm - Sand, light brown, moderately sorted fine-coarse quartz sand interbedded with organic, well sorted fine-medium quartz sand, scattered small pebble and occasional phosphate fleck within the quartz sand. Increase phosphate content increase within the quartz horizons. Of course the density is similar below in sand layers. Wavy to lenticular from 51-85 cm then mostly inclined from 85 - 164 cm

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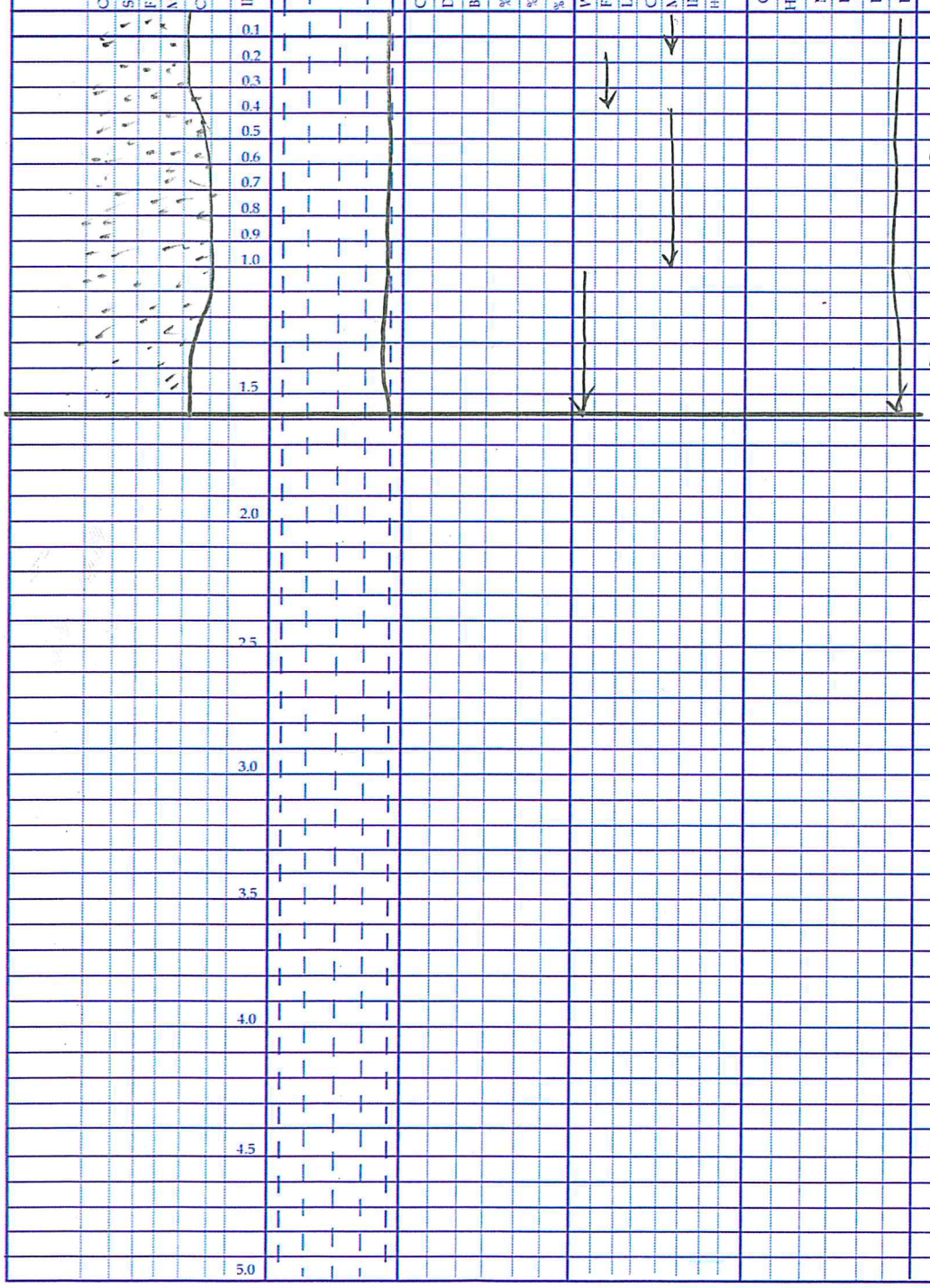
Vibracore Description Sheet

Core ID: FI P25-C06
Latitude: 40 69021
Longitude: -72.98606
Date Collected: 04/10/16
Geographic Location: T01-B, Elev. Profile 25

Date Described: 05/03/16
Described By: Kelso
Core Penetration:
Core Length: 1.58 m

SEDIMENTARY TEXTURE AND STRUCTURES	% SAND (0–50–100)	PHYSICAL CHARACTERISTICS	STRATIFICATION TYPE	SAMPLE	PHYSICAL DESCRIPTION
CLAY, SILT, FINE SAND, MEDIUM SAND, COARSE SAND, INTERVAL (m)		COLOR, DEFORMATION, BED THICKNESS, % SHELL, % ORGANICS, % BIOTURBATION	WAVY, FLASER, LENTICULAR, CROSS BED, MASSIVE BED, INCLINED BED, HORIZON LAMINATION	GRAIN SIZE, HEAVY MINERAL, MICRO FOSSILS, RADIOMETRIC, RADIOGRAPH, PHOTOGRAPH	compaction - 21 cm



0-43 cm - Sand, light brown (5y 6/4) to light brownish red (7.5R 4/4) mottled moderately sorted quartz sand and garnet sand, angular bedding evident but masked, organic root fragment (sec. 1) at 36 cm.

Sharp Angular Contact

43-110 cm - Sand light brown (5y 6/2) poorly sorted, fine - poorly grained, massive, sand with only scattered shell fragments and minimal dissemination of phosphate flecks and feldspar granules

110-150 cm - Sand light brown (5y 5/2) moderately sorted, fine to coarse grained quartz sand interbedded with purple (7.5R 4/4) well sorted, fine to medium garnet sand, bedding is wavy, phosphatic flecks and abundant in garnet horizon thin clay deposit (2 cm) from 147-149 cm until larger shell fragments a small quartz pebble.

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Vibracore Description Sheet

Core ID: FI P25-C07
Latitude: 40.68993
Longitude: -72.98579
Date Collected: 04/10/16
Geographic Location: T01-C, Elev. Profile 25

Date Described: 05/03/16
Described By: Kelso
Core Penetration:
Core Length: 1.41m

SEDIMENTARY TEXTURE AND STRUCTURES	% SAND (0–50–100)	PHYSICAL CHARACTERISTICS	STRATIFICATION TYPE	SAMPLE	PHYSICAL DESCRIPTION
CLAY, SILT, FINE SAND, MEDIUM SAND, COARSE SAND, INTERVAL (m)		COLOR, DEFORMATION, BED THICKNESS, % SHELL, % ORGANICS, % BIOTURBATION	WAVY, FLASER, LENTICULAR, CROSS BED, MASSIVE BED, INCLINED BED, HORIZON LAMINATION	GRAIN SIZE, HEAVY MINERAL, MICRO FOSSILS, RADIOMETRIC, RADIOGRAPH, PHOTOGRAPH	Compaction - 4.5 cm
0.1					0-20cm - Sand light brown (5y 8/2) well sorted, fine to medium grained massive quartz sand with minimal shell frags and phosphate flecks
0.2					
0.3					
0.4					
0.5					
0.6					
0.7					
0.8					20-58 cm - Sand, light brown (5y 8/2) poorly sorted fine - coarse grained massive sand with scattered large shell fragments, phosphate nodules, and feldspar granules
0.9					
1.0					
1.5					58-108 cm - Sand light grayish brown (5y 7/2) interbedded well sorted fine - med sand and poorly sorted coarse - fine gravel sand, bedding is mainly ancular and evident particularly within the fine sediment horizons, scattered shell fragments particularly within the coarse sand horizons, phosphate also minimal in the fine sand horizon but increases in the coarse sand unit
2.0					
2.5					
3.0					
3.5					108-123cm - Sand light brown, poorly sorted fine - coarse grained sand with moderate dissemination shell frags and phosphate granules, bedding is massive
4.0					
4.5					123-140cm - Sand light brown well sorted, fine to medium grained massive quartz sand
5.0					

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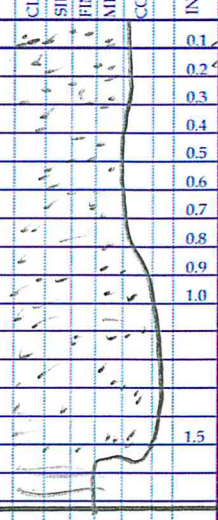
Vibracore Description Sheet

Core ID: FI P26 - C08
Latitude: 40.69437
Longitude: -72.97461
Date Collected: 04/11/16
Geographic Location: T02-A, Elev Probe 26

Date Described: 05/03/16
Described By: KLS
Core Penetration:
Core Length: 1.71 m

SEDIMENTARY TEXTURE AND STRUCTURES	% SAND (0–100)	PHYSICAL CHARACTERISTICS	STRATIFICATION TYPE	SAMPLE	PHYSICAL DESCRIPTION
CLAY, SILT, FINE SAND, MEDIUM SAND, COARSE SAND, INTERVAL (m)		COLOR, DEFORMATION, BED THICKNESS, % SHELL, % ORGANICS, % BIOTURBATION	WAVY, FLASER, LENTICULAR, CROSS BED, MASSIVE BED, INCLINED BED, HORIZON LAMINATION	GRAIN SIZE, HEAVY MINERAL, MICRO FOSSILS, RADIOMETRIC, RADIOGRAPH, PHOTOGRAPH	Compaction - 27.5 cm



0-34 cm - Sand light reddish brown (7.5R 6/4) moderately sorted, fine to coarse, massive sand with very few shell fragments, good possible disseminated feldspar tests, abundant very small phosphate flecks

34-90 cm - Sand light brown moderately sorted, fine quartz sand interbedded with dark, well sorted fine to medium garnet sand bedding is laminated wavy to inclined moderate disseminated phosphate flecks - particularly in the garnet horizons scattered shell fragments

90-159 cm - Sand - light brown, poorly sorted, fine to very coarse sand with small quartz pebbles, shell fragments and feldspar grains abundant, minimal disseminated phosphate granules, bedding is absence

159-171 cm - Sand, light brown, well sorted fine horizontally laminated sand with thin black (dark gray) organic horizons, no visible shell or phosphate material and only trace small feldspar flecks.

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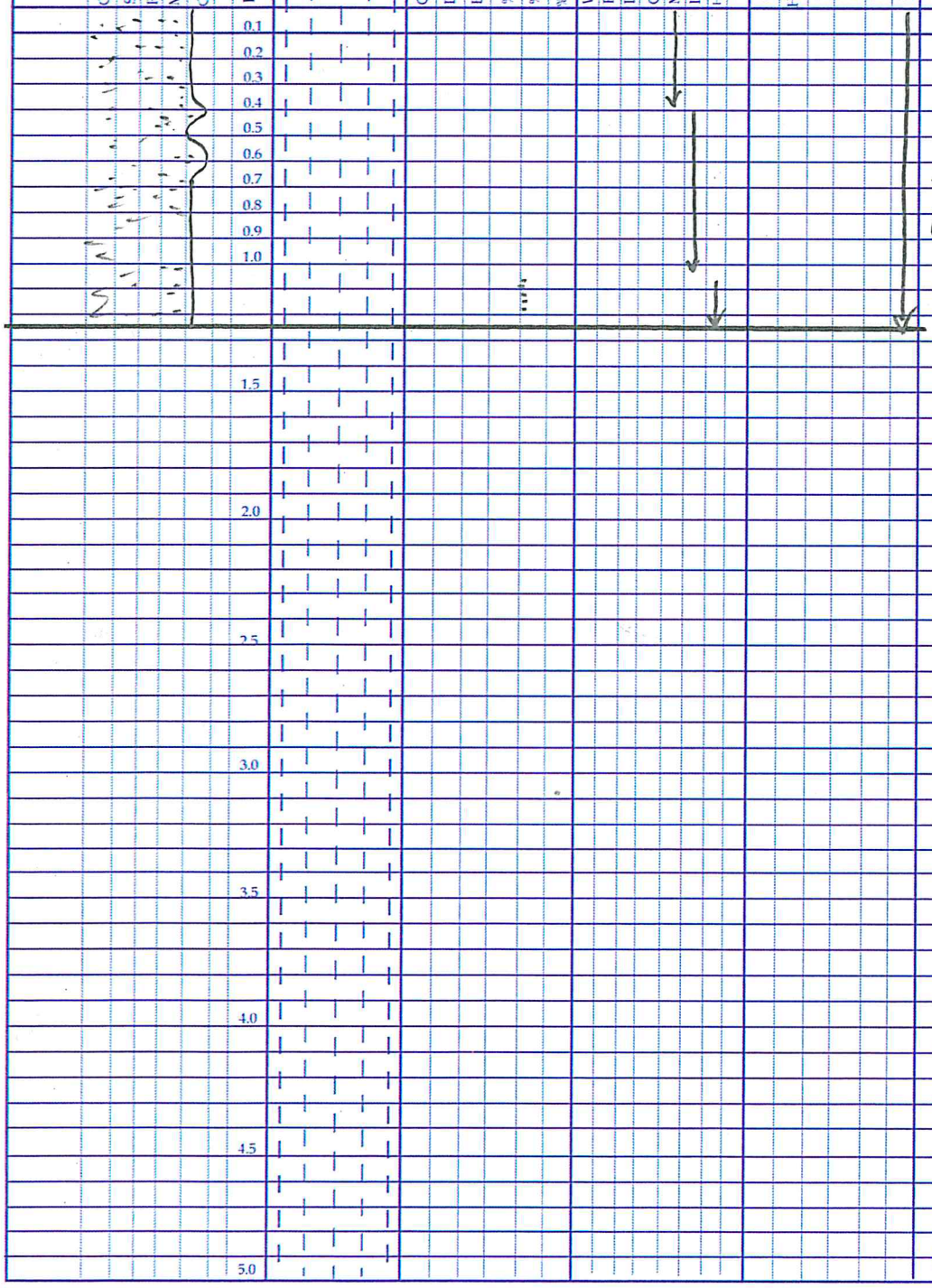
Vibracore Description Sheet

Core ID: FI P26-C∅9
Latitude: 40.69425
Longitude: -72.97450
Date Collected: 04/11/16
Geographic Location: T02-B, Elev. Profile 26

Date Described: 05/05/18
Described By: Kelsey
Core Penetration:
Core Length: 1.25 m

SEDIMENTARY TEXTURE AND STRUCTURES	% SAND	PHYSICAL CHARACTERISTICS	STRATIFICATION TYPE	SAMPLE	PHYSICAL DESCRIPTION
CLAY, SILT, FINE SAND, MEDIUM SAND, COARSE SAND, INTERVAL (m)	0, 50, 100	COLOR, DEFORMATION, BED THICKNESS, % SHELL, % ORGANICS, % BIOTURBATION	WAVY, FLASER, LENTICULAR, CROSS BED, MASSIVE BED, INCLINED BED, HORIZON LAMINATION	GRAIN SIZE, HEAVY MINERAL, MICRO FOSSILS, RADIOMETRIC, RADIOGRAPH, PHOTOGRAPH	Compaction - 74cm



0-44cm - Sand, light brown (5y 8/2), moderately sorted, fine - med/coarse, angular quartz sand with a bit of mixed garnet from 0-7cm, abundant diffuse phosphate flecks,

44-96 cm - Sand, light brown, poorly sorted, coarse quartz sand, interbedded with light grayish brown, well sorted fine - medium sand with occasional larger quartz pebbles and phosphate fragments.

Coarse sand horizon at 47, 66, 72 cm, & 86 cm

96-125 cm - Sand, light brown, moderately sorted, fine - coarse quartz sand with thin garnet interbed from 105 to 120 cm which exhibit horizontal to concave down bedding

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Vibracore Description Sheet

Core ID: FI P29-C10
Latitude: 40.71002
Longitude: -72.93323
Date Collected: 04/11/16
Geographic Location: T03-A, Elev. Profile 29

Date Described: 05/05/16
Described By: KCBS
Core Penetration:
Core Length: 1.28m

SEDIMENTARY TEXTURE AND STRUCTURES	% SAND (0–100)	PHYSICAL CHARACTERISTICS	STRATIFICATION TYPE	SAMPLE	PHYSICAL DESCRIPTION
CLAY, SILT, FINE SAND, MEDIUM SAND, COARSE SAND, INTERVAL (m)		COLOR, DEFORMATION, BED THICKNESS, % SHELL, % ORGANICS, % BIOTURBATION	WAVY, FLASER, LENTICULAR, CROSS BED, MASSIVE BED, INCLINED BED, HORIZON LAMINATION	GRAIN SIZE, HEAVY MINERAL, MICRO FOSSILS, RADIOMETRIC, RADIOGRAPH, PHOTOGRAPH	compaction - 63 cm 0-106 cm - light brown (5Y 8/2), moderately sorted medium quartz sand interbedded with purple (5P 4/2) well sorted, fine to medium garnet sand. abundant phosphate and feldspar flakes 106-128cm - Sand, light brown (5Y 8/4) moderately-poorly sorted quartz sand with occasional small shell fragments and larger quartz grains, moderate abundance phosphate flakes, faint horizontal bedding, oxidized

Interval (m): 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0

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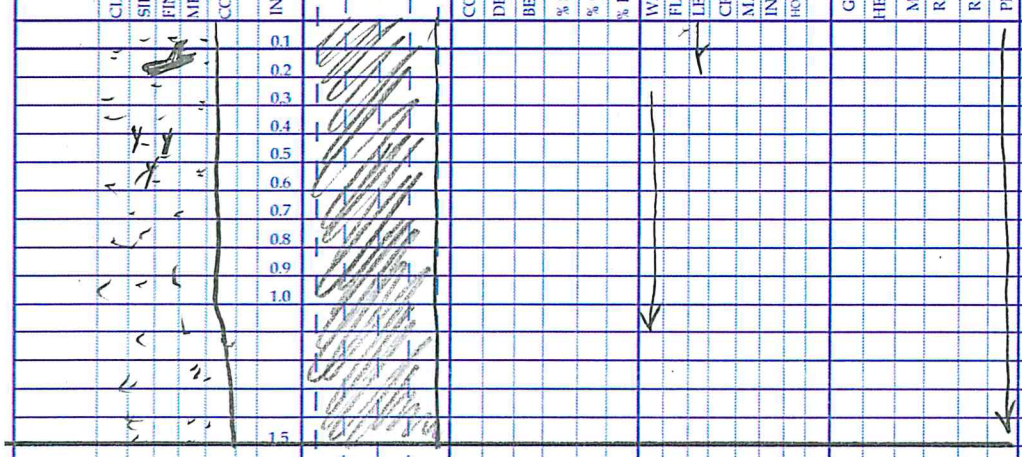
Vibracore Description Sheet

Core ID: FI P29-C11
Latitude: 40.71016
Longitude: -73.93335
Date Collected: 04/11/16
Geographic Location: T03-B, Elev. Probe - 29

Date Described: 05/05/16
Described By: Kels
Core Penetration:
Core Length: 1.49m

SEDIMENTARY TEXTURE AND STRUCTURES	% SAND (0–50–100)	PHYSICAL CHARACTERISTICS	STRATIFICATION TYPE	SAMPLE	PHYSICAL DESCRIPTION
CLAY, SILT, FINE SAND, MEDIUM SAND, COARSE SAND, INTERVAL (m)		COLOR, DEFORMATION, BED THICKNESS, % SHELL, % ORGANICS, % BIOTURBATION	WAVY, FLASER, LENTICULAR, CROSS BED, MASSIVE BED, INCLINED BED, HORIZON LAMINATION	GRAIN SIZE, HEAVY MINERAL, MICRO FOSSILS, RADIOMETRIC, RADIOGRAPH, PHOTOGRAPH	Compaction - 24 cm



0-17cm - Sand - dark reddish gray, well sorted fine garnet, quartz and phosphate sand, lenticular large anthropogenic wood fragment at base of unit

17-106 cm - Sand light grayish brown quartz sand interbedded with dark red (7.5R 4/4) well sorted, generally moderate, disseminated phosphate, black, bulk PR varies to angular garnet and phosphate content decreases down core

106 - 149 cm - Sand light brown, moderately - poorly sorted fine to coarse quartz sand, with areas of oxidization, occasional thin phosphate horizon, minimal disseminated phosphate granules, one thin larger shell fragment at 146 cm

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Vibracore Description Sheet

Core ID: F1 P22 - C13
Latitude: 40.67781
Longitude: -73.01941
Date Collected: 04/11/16
Geographic Location: T04A , Elev Profile - 22

Date Described: 05/05/16
Described By: Kelso
Core Penetration:
Core Length: 1.08m

SEDIMENTARY TEXTURE AND STRUCTURES	% SAND (0 – 50 – 100)	PHYSICAL CHARACTERISTICS	STRATIFICATION TYPE	SAMPLE	PHYSICAL DESCRIPTION
CLAY, SILT, FINE SAND, MEDIUM SAND, COARSE SAND, INTERVAL (m)		COLOR, DEFORMATION, BED THICKNESS, % SHELL, % ORGANICS, % BIOTURBATION	WAVY, FLASER, LENTICULAR, CROSS BED, MASSIVE BED, INCLINED BED, HORIZON LAMINATION	GRAIN SIZE, HEAVY MINERAL, MICRO FOSSILS, RADIOMETRIC, RADIOGRAPH, PHOTOGRAPH	Compaction - 5.0 cm
					0-29cm - Sand, light brown (5 y 8/2), moderately sorted, medium - coarse, massive, quartz sand with only sporadic phosphate flecks.
					29 - 108 cm - Sand, light brown (5 y 8/2), moderately sorted, quartz sand with bedded with dark red (2.5 YR 3/6) phosphate, well sorted, fine to medium grained, phosphate bungers. Bedding ranges from inclined to horizontal, occasional thin coarse poorly sorted sand horizons at 44, 65, 78 and 102 cm, no visible shell material

0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0

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Vibracore Description Sheet

Core ID: FI P22-C14
Latitude: 40.67792
Longitude: -73.01953
Date Collected: 04/11/16
Geographic Location: T04B, Elev. Profile 22

Date Described: 05/05/16
Described By: Kelso
Core Penetration:
Core Length: 1.70m

SEDIMENTARY TEXTURE AND STRUCTURES	% SAND (0–50–100)	PHYSICAL CHARACTERISTICS	STRATIFICATION TYPE	SAMPLE	PHYSICAL DESCRIPTION
CLAY, SILT, FINE SAND, MEDIUM SAND, COARSE SAND, INTERVAL (m)		COLOR, DEFORMATION, BED THICKNESS, % SHELL, % ORGANICS, % BIOTURBATION	WAVY, FLASER, LENTICULAR, CROSS BED, MASSIVE BED, INCLINED BED, HORIZON LAMINATION	GRAIN SIZE, HEAVY MINERAL, MICRO FOSSILS, RADIOMETRIC, RADIOGRAPH, PHOTOGRAPH	Compaction - 3.5 cm
0.1					0-170cm - Sand, light brown (5y 8/2) moderately sorted, medium grained sand interbedded with dark green sand. Bedding is all over the place - bioturbated from 12-30cm cross bedded from 46-76cm horiz from 79-85cm inclined from 85-162cm and back to horizontal from 162-170cm. sporadic phosphate and feldspar flecks - phosphate content richest in garnet sand horizon. No visible shell material
0.2					
0.3					
0.4					
0.5					
0.6					
0.7					
0.8					
0.9					
1.0					
1.5					
2.0					
2.5					
3.0					
3.5					
4.0					
4.5					
5.0					

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Vibracore Description Sheet

Core ID: FI-P22-C15
Latitude: 40.67765
Longitude: -73.01930
Date Collected: 04/11/16
Geographic Location: TOUC, Elev. Profile 22

Date Described: 05/05/16
Described By: 16/50
Core Penetration:
Core Length: .71 m

SEDIMENTARY TEXTURE AND STRUCTURES	% SAND (0–50–100)	PHYSICAL CHARACTERISTICS	STRATIFICATION TYPE	SAMPLE	PHYSICAL DESCRIPTION
CLAY, SILT, FINE SAND, MEDIUM SAND, COARSE SAND, INTERVAL (m)		COLOR, DEFORMATION, BED THICKNESS, % SHELL, % ORGANICS, % BIOTURBATION	WAVY, FLASER, LENTICULAR, CROSS BED, MASSIVE BED, INCLINED BED, HORIZON LAMINATION	GRAIN SIZE, HEAVY MINERAL, MICRO FOSSILS, RADIOMETRIC, RADIOGRAPH, PHOTOGRAPH	Compaction - 27.5 cm

0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0

0 - 71cm - Sand light brown, clean, moderately sorted, medium grained sand with several thin coarse sand horizons with shell fragment and increased phosphate content at 13-14cm, 29cm, 35cm and a couple long inclined horizons from 53-70cm minimal disseminated phosphate and seldom granules and gravel. An occasional shell fragment