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SEDIMENTOLOGY OF CONTAMINATED ST. LAWRENCE RIVER SEDIMENTS AT CORNWALL, ONTARIO

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NWRI Contribution No. 00-052

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MANAGEMENT PERSPECTIVE

This study was done in support of the GL2000 Program for the assessment and remediation of contaminated sediments in the St. Lawrence River at Cornwall, Ontario. It is part of the Remedial Action Plan Program (Stream 1.1 RAPS/AOCS) and its status as an Environment Canada priority is Business Line- Nature, Outcome- Conservation of biodiversity in healthy ecosystems, Result- Priority ecosystems are conserved and restored and GL-2000- De-list AOCs. The project began in 1993 and was completed in 1998.

This report describes the results of a six-year study of the physical properties and stability of contaminated St. Lawrence River sediments at Cornwall, Ontario. Study data are needed for decisions on whether remediation is required and what form it should take. Several innovative procedures were used to delineate the areas of contaminated sediments and to monitor their stability. Results are presented as GIS maps and reports of sediment properties, geometry and bathymetry and as records of sediment stability.

Further work on sediment stability and capping as a remedial option make take place if funding is available.

SOMMAIRE À L'INTENTION DE LA DIRECTION

Cette étude appuie le programme Grands Lacs 2000 pour ce qui est de l'évaluation et de l'assainissement des sédiments contaminés dans le fleuve Saint-Laurent à Cornwall, en Ontario. Elle fait partie du programme des plans d'assainissement (volet 1.1 - PA/SP). Le projet a débuté en 1993 et s'est terminé en 1998.

Ce rapport décrit les résultats d'une étude de six ans sur les propriétés physiques et la stabilité des sédiments contaminés dans le fleuve Saint-Laurent à Cornwall, en Ontario. Des données sont requises pour déterminer s'il faut mener des activités d'assainissement et pour choisir les méthodes d'assainissement appropriées, le cas échéant. Plusieurs méthodes novatrices ont été utilisées pour délimiter les zones de sédiments contaminés et pour surveiller leur stabilité. Les résultats sont présentés sous forme de cartes SIG, de rapports sur les propriétés et la stabilité des sédiments, sur la géométrie et sur la bathymétrie.

Réalisation d'autres études sur la stabilité des sédiments et leur recouvrement comme méthode d'assainissement si des fonds sont disponibles.

ABSTRACT

The properties and stability of sediments at a contaminated site in the St. Lawrence River at Cornwall, Ontario, have been the subject of a six-year long study by NWRI on behalf of the local Remedial Action Plan (RAP). The study was concerned with the location of the fine-grained sediments most likely to be contaminated, their thickness and volume, and their stability. It was based on a combination of acoustic mapping, grab sampling and coring of sediments, underwater-television and diver observations, and acoustic monitoring of sediment stability.

The major deposit of contaminated sediment is located on the inshore slope of the north shore of the river between Windmill Point and Pilon Island. Mud and muddy sands with an area of 360,000 m^2 and an estimated volume of 119,000 m^3 account for 67 percent of the deposit. Average thickness of the fine-grained sediments is 0.32-0.36 m. Smaller deposits at the Tank Farm and Boat Launch sites have mud and muddy-sand volumes estimated at 20,000 and 5,000 m^3 respectively. A large relatively uncontaminated deposit with a volume of fine-grained sediment of 142,000 m^3 is present on the south shore of the river at the northeast end of Cornwall Island. This consists mainly of mud and muddy sand with an average thickness ranging from 0.16-0.34 m. In the study reach as a whole, fine-grained sediment covers about 1.2 million m^2 or about 23% of the total area and sediment volume exceeds 378,000 m^3.

Acoustic-monitoring data from three sites in the Windmill Point to Pilon Island reach showed only limited changes in the position of the sediment-water interface even during periods of extreme flow rates, and there was no evidence from the physical data that remobilization of contaminated sediments had occurred during the period of the study.

RÉSUMÉ

Pendant six ans, au nom de l'équipe chargée de la mise en oeuvre du plan d'assainissement (PA) local, l'INRE a étudié les propriétés et la stabilité des sédiments dans une zone contaminée du fleuve Saint-Laurent à Cornwall, en Ontario. L'étude a porté sur l'emplacement des sédiments à grain fin les plus susceptibles d'être contaminés, sur leur épaisseur et leur volume de même que sur leur stabilité. Elle s'est appuyée sur la cartographie acoustique, le prélèvement d'échantillons instantanés, le carottage des sédiments, un réseau sous-marin de télévision, des observations faites par des plongeurs et la surveillance acoustique de la stabilité des sédiments.

Le principal dépôt de sédiments contaminés se trouve sur le talus côtier de la rive nord du fleuve, entre la pointe Windmill et l'île Pilon. Il est constitué à 67 pour cent de vase et de sable vaseux d'une superficie de 360 000 m^2 et d'un volume estimé à 119 000 m^3. L'épaisseur moyenne des sédiments à grain fin varie de 0,32 à 0,36 m. Les dépôts plus petits à l'emplacement du parc de stockage et de la rampe de mise à l'eau contiennent 20 000 m^3 de vase et 5 000 m^3 de sable vaseux. Un vaste dépôt peu contaminé constitué de 142 000 m^3 de sédiments à grain fin est présent sur la rive sud du fleuve, à l'extrémité nord-est de l'île Cornwall. Il est composé principalement de vase et de sable vaseux d'une épaisseur moyenne de 0,16 à 0,34 m. Dans l'ensemble du bief à l'étude, les sédiments à grain fin couvrent environ 1,2 million de m^2, soit à peu près 23 % de la superficie totale, et leur volume dépasse 378 000 m^3.

Les données de surveillance acoustique recueillies à trois endroits du bief entre la pointe Windmill et l'île Pilon n'ont révélé que des changements mineurs de l'emplacement de l'interface sédiments-eau durant les périodes de débit extrême et, d'après les données physiques, rien n'indique qu'il y a eu remobilisation des sédiments contaminés durant la période d'étude.

1.0 Introduction

Environment Canada's National Water Research Institute (NWRI) has been studying the physical properties of St. Lawrence River sediments at Cornwall since 1993 in support of a RAP project on remediation of contaminated sediments (Rukavina 1993, 1994a, 1994b, 1996). The major objectives of the study have been to locate the sites of fine-grained, contaminated sediments and to measure their thickness, volume and stability.

The original focus of the study was the reach of the river extending from Windmill Point to Pilon Island which previous work by Kauss et al (1988) and Anderson (1990) had shown to be the most contaminated. Early attempts to delimit the contaminated sediment were frustrated by the highly variable nature of the riverbed and it was evident that point observations from sampling and underwater television were not going to be able to resolve the complex distribution of bottom types. Trials of acoustic mapping with a RoxAnn™ seabed-classification system in 1993 provided the high-density data needed to define the deposit and survey results were the basis for a successful coring survey in 1994 in cooperation with OMEE (Richman 1996). RoxAnn surveys were then continued at the same site to track annual and seasonal changes in the deposit, and mapping was gradually extended to complete a survey of the entire reach from the Boat Launch to Flanigan's Point (Figure 1) by 1997. The more extensive coverage was used for selection of sites for a final coring survey again in collaboration with OMEE in October 1997.

Studies of sediment stability were carried out in parallel with sediment mapping. Acoustic bottom sensors were installed at 3 sites in 1993 and periodic monitoring of bottom changes at one or more of the sites took place through 1994 and 1995. In 1996, development and trials of an automatic in situ logger began and more detailed data were collected during several extended periods. With further refinements, equipment stability improved to the point that it was possible to log continuously from

July 1997 to April 1998 and to obtain the first record of sediment changes under the ice.

An important part of the study has been the development of new equipment and procedures for mapping and monitoring of contaminated sediments. The original work with the RoxAnn seabed-classification system was done at Cornwall and the operating and calibration procedures were established there. The need for calibration of RoxAnn acoustic data on bottom types with independent data led to the development of an underwater video system for recording of surface-sediment characteristics and for measurement of sediment thickness. And finally, the Cornwall study provided the opportunity for the adaptation of an acoustic-sediment monitor originally developed for nearshore studies to the monitoring of contaminated-sediment stability.

2.0 Study site

The study site is the north channel of the St. Lawrence River at Cornwall, Ontario. It extends from the Boat Launch just east of the international bridge to Flanigan's Point east of Pilon Island (Figure 1). Lepage (1999) describes the geology of the reach as consisting of recent deposits generally less than 60-cm thick overlying clayey glacial sediments and till. The basal till is clay-rich and as much as 15 m thick and is overlain by up to 9 m of sandy till (Terasmae 1965). Earlier surveys (Kauss et al. 1988, Anderson 1990) located contaminated sediments on the north slope of the riverbed just east of Windmill Point and offshore from the Courtauld's property. Side-scan sonar surveys in 1991 (McQuest 1991) established that the river bed throughout the reach consisted mainly of sands and gravels and exposed glacial till, and that fine-grained sediments were restricted to the reach east of Windmill Point and to small areas at the Boat Launch and Tank Farm sites. Preliminary underwater-television work by NWRI in 1992 showed the riverbed to be highly variable and indicated the need for higher-density surveys to resolve the bottom types and to improve the definition of the areas of fine-grained contaminated sediments.

3.0 Sediment mapping

3.1 Field procedures

Bottom-sediment types were mapped acoustically with a RoxAnn seabed classification system (Rukavina and Caddell 1997, Rukavina 1998). This uses echo-sounder data on acoustic hardness and roughness to classify the bottom as one of 8 types: mud, muddy sand, sand, coarse sand, gravel, boulders/hard, weeds on soft, weeds on hard.

RoxAnn surveys were run from the Puffin, a 9-m long aluminum workboat equipped with a dual-frequency echo sounder and a differential GPS. The survey sounder was the Atlas Deso 10 hydrographic sounder, a two-transducer system operating at frequencies of 210kHz and 30kHz. Sounder transducers were installed on a side-mounted frame and the GPS antenna was mounted on the top of the same frame. Surveys were run at boat speeds of 2-3 m/s and data were logged at 1-second intervals to a notebook computer running the survey program, Microplot™. Microplot converted the echo data to acoustic labels, georeferenced them and then plotted them as a real-time colour map on the computer display.

There is some uncertainty about the size of RoxAnn's footprint on the bottom but the transducer specifications suggest that it has a maximum diameter approximately equal to the water depth. RoxAnn averages the returns from the footprint and is unable to discriminate smaller features. This means that heterogeneous sediments tend to be mapped as averages of their end members and may be misrepresented.

RoxAnn's acoustic classes were converted to physical bottom types by calibration with groundtruth data from underwater-television and sampling surveys. Representative sites for calibration were selected from the RoxAnn maps. The sites were then traversed with a suspended underwater-television system and representative grab samples were collected. A description of sample properties was made upon recovery

and subsamples were collected for grain-size analysis. The sample descriptions made particular note of the presence of materials of anthropogenic origin- wood chips, fibrous material, and oil and grease so that their distribution could be mapped as well.

The underwater-television system consisted of a camera and lights mounted on a stainless-steel tripod and a shipboard monitor, video recorder and mixer. Diver weights were used to increase the tripod weight to about 48 kg so that it would penetrate the soft sediment and provide a measure of sediment thickness as well as a record of surface-sediment properties. The video mixer was used to imprint a GPS record on the videotape images so that all frames were georeferenced.

A Shipek grab sampler was used for surface samples and cores were collected with Benthos, Tech Ops or mini-box corers or as pushcores by divers. The equipment and procedures used are described in Mawhinney and Bisutti 1987.

3.2 Mapping schedule

The initial RoxAnn survey in October 1993 mapped the Windmill Point to Pilon Island reach, hereafter referred to as WPPI, and deposits at the Boat Launch and Tank Farm sites (Figure 1). RoxAnn was calibrated with Shipek samples from the WPPI reach and limited underwater-television observations and cores.

Survey results from 1993 were used to select sites for an extensive coring and sampling program in October 1994 (Richman 1996). The survey of the WPPI reach was repeated in October 1994 and a diver survey of sediment thickness was undertaken in a small area adjacent to the Courtauld's property which was being considered as a dredge site for a demonstration project. The use of underwater television surveys for RoxAnn calibration was expanded as equipment and procedures were improved.

In 1995, the small dredge site was resurveyed in July and the WPPI reach was resurveyed in October. Underwater-television surveys were continued and a small number of cores was collected.

RoxAnn work was expanded in 1996 to look for bottom changes produced by changes in flow rate and aquatic vegetation. Seasonal mapping of the WPPI site took place in May, August and October along with underwater-television surveys. The small dredge site was resurveyed in June and August. The August survey included mapping of a small basin just east of Pilon Island. A second suite of Shipek samples for RoxAnn calibration was collected during the May, June and October surveys. Diver cores from just west and east of Pilon Island were recovered in February 1996 as part of study of longterm sensing sites (Hans Biberhofer, personal communication, Lorrain 1996) and 2 sites just east of Windmill Point were cored with a Tech Ops corer in March 1996.

Seasonal RoxAnn mapping of the WPPI site was continued in 1997 with surveys in April, June, and July, and mapping was also extended to the entire reach between the Boat Launch and Flanigan's Point. The acoustic work was supported by extensive underwater-television surveys with a new tripod system for measuring sediment thickness. The new mapping revealed an extensive deposit of fine-grained sediment just offshore from the northeast corner of Cornwall Island hereafter referred to as NECI. RoxAnn maps were again used to select sites for a joint EC/OMEE coring survey in October 1997 (Rukavina 1997). Mini-boxcores were collected on the north shore within the area extending from Windmill Point to the east side of Pilon Island and on the south shore in the Cornwall Island deposit. Longer cores were recovered by divers at the WPPI, Boat Launch and NECI sites in November 1997 for use in sediment dating and detailed analysis of vertical changes.

The final field survey was run in October 1998. RoxAnn mapping of the WPPI site was repeated and a small number of Shipek samples was recovered from the Tank Farm and Boat Launch sites to check for the presence of oil and grease.

3.3 Mapping data

The cumulative RoxAnn survey grid for the period 1993-1998 is shown in Figure 2. More than 450,000 data records of depth and bottom type were logged during the 6 years of the survey. Shipek samples were collected at 217 sites (Figure 3) and cores at 132 sites (Figure 4). Appendix 1 lists the field and descriptive data for the surface samples and for the tops of cores and Appendix 2 lists the same information for the cores and includes the subsurface data. More than 3000 georeferenced bottom images were recorded with underwater television (Figure 5). Sediment-thickness data for 975 sites obtained from underwater-television records, cores and diver observations are listed in Appendix 3.

3.4 Laboratory analysis

All cores collected by NWRI were x-radiographed in their liners, and the x-radiographs were examined for evidence of vertical changes in grain size, sediment structures, and composition. Selected cores were then sliced longitudinally and subjected to the standard procedure for core analysis. This included a description of core colour, texture and structure, measurements of shear strength (Hansbo 1957), and subsampling for grain-size, water content and LOI (Loss On Ignition) analysis. Six cores from the Boat Launch, Courtauld's and Cornwall Island sites and a site east of Pilon Island were dated with ^{210}Pb analysis (Turner 1996a, 1996b, 1996c, 1999a, 1999b, 1999c)

Subsamples from the Shipek grab samples (0-3 cm) and from the sediment cores were analysed in the NWRI Sedimentology Laboratory using standard procedures for grain size, water content and LOI (Duncan and LaHaie 1979). The 1994 cores were analysed by the OME laboratory for grain size, water content and LOI using procedures described in Richman (1996). OME size analysis is based on a Coulter Counter which

generally yields smaller quantities of fines than NWRI's sedimentation procedure. NWRI and OME also differ in the way they report water content and LOI. NWRI's water content is the ratio of the weight of water to the weight of dry sediment expressed as a percentage; OME uses the ratio of the weight of water to the weight of wet sediment. Units for LOI are percent weight loss (NWRI) and mg/g (OME).

Appendices 4, 5, and 6 list data on grain size, shear strength and water content/LOI respectively.

3.5 Calibration of RoxAnn

Calibration of RoxAnn consisted of comparing its acoustic bottom types with the surface data from samples and cores and with underwater-television observations. Samples were analysed for particle size using the procedures described above and grouped into 3 classes- sand (>67% sand), muddy sand (33-67% sand), and mud (<33% sand)- corresponding to the RoxAnn labels. A spreadsheet macro was used to search for RoxAnn data within 5 m of each sample site. If the RoxAnn labels fell within the same size class as the sample, they were rated as good, if one size class removed fair, and otherwise poor. Where no size data were available, the sample description or underwater-television image was used to decide on the goodness of fit. The accuracy of the RoxAnn classification determined in this fashion varied from site to site but was typically about 55% good, 35% fair and 20% poor. This was good agreement considering that it was based on comparison of samples and television data that had a much smaller footprint than the sounder.

3.6 GIS mapping and areal analysis

ARC/INFO™ was used to map the survey data and do areal analysis. Chloropleth maps of RoxAnn data, grain size and sediment thickness were produced by voronoi

analysis (Rukavina and Delorme 1992), a procedure for dealing with discrete data. Maps were generated by assigning each data point an area (polygon) which is closest to it than to any other point, and then merging polygons with the same attribute The result was a map with georeferenced boundaries and a table of areas of coverage of the data classes.

To prepare the RoxAnn file for GIS analysis, all the data were checked, fixes with poor GPS quality were removed, and water depths were corrected to IGLD85. Adjustments were also made for the difference in RoxAnn response produced by an equipment change between the 1994 and 1995 surveys. Test files run with old and new equipment in 1995 were used to determine the changes and these were then applied to the 1993 and 1994 data to make them conform with the later data. The edited files were then imported into an ARC/INFO GIS for voronoi-polygon analysis of the RoxAnn bottom types and roughness and hardness parameters. RoxAnn October surveys for each year from 1993 to 1998 were mapped and analysed separately by GIS. The same data were also imported into the program Surfer for Windows® and a uniform grid was used to grid each year's data with the default kriging procedure. Average values for the 6 surveys were then computed and exported and these were used for GIS analysis of average RoxAnn bottom types. A contour map of bathymetry of the Windmill Point to Pilon Island area was produced from all the RoxAnn depth data collected between 1993 and 1998. The map was prepared by importing the data into Surfer, gridding them on a 10-m square grid, and then moving the grid data into ARC/INFO for contouring at a 1-m interval. Contour maps of bathymetry were also produced for the Boat Launch, Tank Farm and NECI sites with the combined RoxAnn depth data from several surveys. In this case, the data were processed in ARC/INFO.

Grain-size data were available for samples and cores from more than 300 sites. For mapping purposes the size data were reduced to 5 classes: mud (>67% finer than 4 microns), muddy sand (33-67% mud), sand (<33% mud), a "hard" class for the gravel and boulder samples for which size analysis was not possible, and a weed class where

weed cover prevented recovery of samples. Chloropleth maps of the 5 classes were produced for the WPPI, Tank Farm, Boat Launch and NECI deposits and size data in the rest of the area were plotted as point data.

Data on sediment thickness obtained by coring, diver probing and underwater television were available for 975 sites. Only the WPPI, Tank Farm, Boat Launch and NECI sites had data concentrated enough for GIS mapping. Data for those sites were subdivided into 5 classes (0-10 cm, 10-30 cm, 30-50 cm, 50-70 cm, >70 cm) and mapped by voronoi analysis. Thickness data for the balance of the area were plotted as point data. An estimate of total volume of fine-grained sediments for the entire reach was obtained from the product of sediment area and average sediment thickness. Size and thickness polygons for the four sites above were superimposed in ARC/INFO to compute the volumes of size classes for each deposit.

4.0 Acoustic monitoring of riverbed erosion and sedimentation

4.1 Field work

Acoustic monitoring of the sediment surface was used to measure the depth of disturbance of the sediments by currents and the likelihood of resuspension or erosion of the contaminants. The system used was a bottom-mounted high-precision echo sounder capable of tracking the changing level of the sediment surface with a precision of a few mm. In its original configuration (Figure 6), it could only be used during visits to the site because data were recorded at the surface by plugging the sounder cable into a shipboard sounder-digitizer. In 1993, equipment was installed at 3 sites between Windmill Point and Pilon Island, and sporadic records were collected during the field seasons of 1993 to 1995. During this same period, work began on the development of a self-recording acoustic logger (Figure 7) to permit continuous, unattended collection of data. This was completed and tested in 1996 and then installed at 2 sites in 1997

and 1998. The system was programmed to record bursts of data every 20 minutes and had sufficient battery power and memory to operate for 3 to 4 months. Although data recovery was poor in the early missions, reliability was finally improved to the point that it was possible to collect a continuous record of data at one site from July 1997 to July 1998 and to document a full year of bottom changes.

The three monitoring sites are shown in Figure 8. Site 1 at the west end of the area is at a water depth of 9.1 m and on a muddy-sand substrate near the contact between inshore muddy sand and offshore sand. Site 2 is in the middle of the area at a depth of 11.1m and on muddy sand. Site 3 is just west of Pilon Island at a depth of 10.7 m and on a mud substrate.

During each installation and recovery of the equipment, the sites were videotaped by divers and direct measurements were made of the transducer to interface distance for comparison with the acoustic records.

4.2 Analysis of sediment-stability data

The acoustic data on bottom changes collected manually from 1993 to 1995 were edited for bad data and corrected for water temperature. Each record consisted of 20 readings which were averaged and then converted to differences from the original position of the bottom. The same procedure was used to process the datalogger data collected from the spring of 1996 to the summer of 1998.

5.0 Results and discussion

5.1 Bottom types, study reach

Figure 9 is a GIS map of RoxAnn acoustic bottom types for the entire study reach. The map shows a very complex pattern of bottom types in which coarser sediments ranging from sands to boulders are dominant in the western half of the reach and finer sediments in the eastern half. Boulders and gravel likely derived from underlying glacial till cover most of the river bed from the Boat Launch to just east of Windmill Point. Between the Point and Pilon Island, the mid-channel deposits change from gravels to coarse sands and sands and the inshore slopes are covered with fine-grained sediments ranging from muddy sands offshore to muds inshore. The two largest deposits of fine-grained sediments occur in this area. The first extends as a narrow ribbon along the north shore from Windmill Point to Pilon Island; the second is a larger deposit on the south shore between Pilon Island and the northeast corner of Cornwall Island. Smaller areas of mud and muddy sand are present east of Pilon Island and along the north shore between Pilon Island and Flanigans Point. In the western half of the reach, there are small patches of finer sediment on the south shore opposite Windmill Point and at the Tank Farm and Boat Launch sites on the north shore. Fine-grained sediments only are shown in Figure 10 to highlight their distribution.

Figures 11 and 12 are grain-size and thickness maps of the entire study reach produced by the same GIS polygon procedure described above. Continuous mapping was done only for the WPPI, NECI Tank Farm, and Boat Launch areas because sample density elsewhere was too small to warrant it. The remaining samples are represented by coloured squares. The distribution of fine-grained sediments is similar to that of the RoxAnn acoustic map which is not surprising given the reasonably good correspondence of acoustic and sample data discussed above.

Crude estimates of the areas and volumes of mud and muddy sand for the entire reach

can be computed from their RoxAnn areas and simple averages of all mud and muddy-sand thicknesses. Results are shown in Table 1. The acoustic estimates of mud and muddy-sand areas are about 300,000 m^2 and 850,000 m^2 respectively and the corresponding volumes are about 150,000 m^3 and 264,000 m^3.

5.2 Individual deposits

5.2.1 Windmill Point to Pilon Island

The reach between Windmill Point and Pilon Island consists of an inshore shelf extending to about 4 m and then a steep slope to mid-channel depths of 12 to 15 m (Figure 13). Prominent shoals with an irregular bottom are present inshore just east of Windmill Point and at the offshore limit of the area west of Pilon Island. The total area of the site is 826,606 m^2 and the proportions of size types are 43% mud and muddy sand, 31% sand, 24% gravel and boulders and 2% weeds (Table 2, Figure 14). Fine-grained sediments form a ribbon-like deposit 2200 m long and 50-200 m wide on the slope between the inshore shelf and the main channel (Figure 15). This is an area of low relief bounded inshore by an irregular bottom of mixed sediment types and offshore by a rugged erosional channel with a relief of as much as 2 m. Deposit width is least opposite the shoreline promontories and greatest on the shoal just west of Pilon Island. Inshore depths range from 3-9 m and the offshore boundary is between 8 and 13 m. Figure 16 is a GIS map of sediment thickness for the site. Most of the sediment is less than 10 cm thick (44%) and only 10% is thicker than 50 cm (Table 3). The thickness pattern is very patchy and shows no consistent trends. The thickest sediments occur as small discrete areas scattered through the deposit. The total volume of the deposit is about 178,000 m^3 67% of which consist of mud and muddy sand (Table 4).

5.2.2 Northeast Cornwall Island

The area north east of Cornwall Island has a complex bathymetry with highly irregular contours (Figure 17). The site is bounded on the south by a broad inshore shelf extending to depths of 4-6 m and then a steeper slope to depths of 13-16 m in a small s-shaped basin. A large shoal area with depths as low as 2 m is present at the eastern margin. The total area of the site is 680,037 m^2 most of which is covered by mud (54%) in the southern half of the area and small patches of sand (17%), muddy sand (17%), and hard bottom (12%) in the northern half (Table 5, Figure 18). The fine-grained sediment is a basin deposit 1700 m long and 100-350 m wide extending from 50-100 m offshore at its western end to 100-600 m offshore at it eastern end (Figure 19). Deposit depths are 7-8 m inshore, increase to a maximum of 15-16 m along the basin axis and then decrease to 12-14 m at the offshore limit. Thickness is greatest along the axis of the basin (30->70 cm), least (0-10 cm) along the north-east margin and 10-30 cm thick through the balance of the area (Table 6, Figure 20). The total volume of the deposit is about 165,000 m^3 86% of which consist of mud and muddy sand (Table 7).

5.2.3 Boat Launch

Sediment maps for the Boat Launch and Tank Farm sites are based on a much lower density of sample points and are not as reliable. They have been prepared to give a general idea of the distribution of sediment type and thickness and the best estimates currently available for areal coverage and volume.

The Boat Launch site consists of a deep rectangular basin parallel to the shoreline and separated from it by an inshore shelf and shoal (Figure 21). The shelf extends to a depth of about 4 m, and the slope then steepens and falls to basin depths of 8-11 m. The eastern end of the basin extends beyond the area mapped; the western end grades upward into a shoal area with water depths of less than 2 m. The area of the

site is 157,206 m^2 most of which is hard bottom (76%). Sediment cover consists of 17% mud, 4% sand and 3% muddy sand (Table 8, Figure 22). The fine-grained sediments occur 50-100 m offshore on the northwest slope of the basin where they cover an area 500 m long and 100 m wide within the depth range 4-8 m (Figure 23). Sediment thickness is mainly less than 10 cm but can exceed 70 cm in the area of fine sediments (Table 9, Figure 24). Total sediment volume is about 24,000 m^3 82% of which is mud and muddy sand (Table 10).

5.2.4 Tank Farm

The Tank Farm site has a simple bathymetry consisting of a broad inshore shelf extending to 4 m, a steep slope from 4 to 7 m, and then an area of low relief between 7 and 9 m (Figure 25). The site has an area of 61,725 m^2 composed of 46% hard bottom, 30% muddy sand and mud, and 24% sand (Table 11, Figure 26). Fine-grained sediments occur on the inshore shelf in depths generally less than 6 m. The deposit extends about 700 m along the shoreline and ranges in width from 100-200 m (Figure 27). Sediment thickness ranges from 10 to >70 cm in the north-central part of the area and is less than 10 cm elsewhere (Table 12, Figure 28). Total sediment volume is about 11,000 m^3 with a composition of 42% muddy sand and mud, 31% sand and 27% hard bottom (Table 13).

5.2.5 The Four Deposits

Table 14 lists the total areas and volumes and the average thicknesses for the four deposits combined. Areal coverage is approximately 1,700,000 m^2, or about a third of the total area of the reach. Mud and muddy sand, the principal bottom types, make up 47.9% and 27.6% of the sediment volume, a total of about 286,000 m^3. The proportions of mud and muddy sand differ from the acoustic estimates (Table 1) because of the non-uniform distribution of data points and the presence of gas in the muds which shifts their acoustic labels up to muddy sand (Rukavina 1998).

5.3 Changes in acoustic bottom types, Windmill Point to Pilon Island

Figure 15 is the average map of RoxAnn bottom types in the WPPI reach based on all data collected between 1993 and 1998. Figure 29 shows the results of the individual surveys. The maps shown all represent data collected only during the month of October and with survey and equipment conditions otherwise as uniform as possible. Some changes in RoxAnn equipment were necessary between 1994 and 1995 and 1995 and 1996. Attempts were made to adjust for the changes by comparing data from new and old equipment, but this was not always possible. All maps show the same basic pattern: hard and weedy bottom inshore, a ribbon-like deposit of mud and muddy sand at mid-depth, and sand and coarser sediments at the offshore boundary of the area in mid-channel. The 1996 to 1998 records are very similar, even in detail, possibly because they were collected after the survey equipment and procedures had stabilized. More variability occurs in the earlier maps and particularly in the sediment pattern for 1994 which is much finer across the entire deposit. The increase in the area of muddy sediments and sands from 1993 to 1994 may be real. Flow rates peaked in 1993 at more than 10,000 m^3/s and then dropped to a low of less than 6,000 m^3/s in 1994. That should have resulted in flushing of finer sediment in 1993 and its recovery in 1994.

5.4 Exotics

Many of the sediment samples contained material which would not be reflected in the grain-size classification: exotics like shells, wood fragments, oil and grease, and fibrous material. They were considered to be important because of their possible relationship to contaminants and because they could have some influence on the acoustic classification. The distribution of exotics is shown on individual maps in Figures 30-33. The "o" symbols indicate the sites where the exotic material was observed and the "+" symbols the sites where it was not present. In a small number of cases, records of sample properties were incomplete and it is possible that exotic material was present

but not recorded.

The distribution of oil and grease and wood chips is of most importance because these materials are associated with contaminated sediments. Both are present along the entire north shore of the study reach from the Boat Launch to east of Pilon Island but at only one south-shore site. Frequency of occurrence along the north shore increases in an eastward direction.

5.5 Sedimentation rates

Sedimentation rates determined by ^{210}Pb dating are shown in Figure 34. The values range from a high of 2.6 cm/y at the Boat Launch site to a low of 0.4 cm/y east of Pilon Island. Rates for the WPPI reach and the south shore fall in between at 0.8 to 1.1 cm/y. The oldest sediment occurs in the Tcti and Pilon 2 cores where the bottom 10 cm and 23 cm respectively predate the ^{210}Pb horizon of 110 years BP. The rates for these may not be reliable, however, because they both have irregular activity profiles suggesting non-uniform sedimentation. An independent size marker occurs in core 109 in the form of a horizon of fibrous material between 44 and 52 cm. This has the texture and appearance of cotton batting and appears to be some form of textile debris. The 44-52 cm portion of the core falls within the ^{210}Pb date range of 1898-1915.

5.6 Physical properties of sediment cores

Because cores collected in 1994 were subsampled by extracting and homogenizing the top and bottom 10-cm segments, only limited data were available on downcore changes in physical properties. Figure 35 is a plot of the mud content of the core tops and bottoms in which samples from the same core are linked to show the trend in size up the core. Mud content ranges from 18 to 93 percent. In most cores, mud percent

decreases and grain size increases upward suggesting current deposition at higher energy conditions than in the past. The detailed grain-size profiles for the 1996 and 1997 cores (Figure 36) show a more complicated pattern. The figure is a map of size profiles showing the proportions of gravel, sand, silt and clay content for 2-cm sample slices. Cores from the WPPI reach show a mix of size patterns: size increases upwards in cores 131, 132, 126 and 156, downwards in core 117 and fluctuates in cores 128, 109 and Tcti. The cores east of Pilon Island show limited changes in one core (core 172) and very large vertical variations in the other (Core Pilon 2). South-shore cores are relatively uniform but show opposite trends; sand content increases upward in core 179 and downward in core 182. One of the Boat Launch cores (core 166) is uniform throughout its length; the other (core 168) shows a pronounced coarsening upwards. In most of the cores, the vertical fluctuations in size are minor to moderate suggesting that depositional conditions have been relatively uniform during their accumulation. The unstable sites are 128, 109 and Pilon 2. The large variations in sand content at these sites require either large changes in transport rate or in sediment load. Because sites 128 and 109 occur in the midst of sites with no similar changes, it is likely that they were affected by localized discharge of sediment.

Fall-cone measurements of shear strength (Hansbo 1957) were taken at 2-cm intervals in cores 109, 166 and 179 (Appendix 5). Values range from a minimum of 0.25 kPa at the surface to about 1.2 kPa at the base of the cores in muddy sediment. Extreme values of 2.3 kPa are associated with sand lenses.

5.7 Sediment stability

The acoustic data on bottom position which were recorded manually from 1993 to 1995 are shown in Figure 37. The figure also shows the direct measurements by divers used to confirm the acoustic data. All records have been adjusted to display the differences from the original readings with negative readings representing erosion and positive

readings representing deposition. Each point on the graph is the average of 20 readings and all data have been adjusted to a standard water temperature.

Bottom readings at sites 1 and 2 showed about 2-4 cm of oscillation about the original elevation and a net change ranging from -3 cm to +1 cm. The initial shoaling at site 3 was the result of settling of the frame rather than deposition. Following the settling, readings ranged from as low as -4 cm to as high as +5 cm and the net changes were +1 and +3 cm. Diver readings were generally lower than the acoustic readings by 2 to 3 cm, the result of deliberately reading short to avoid disturbing the sediment surface.

Self-recording loggers were installed at site 2 between July 1997 and July 1998 and at site 3 between November 1997 and June 1998. Data recovery was about 90% at site 2 and 80% at site 3 and the data represent the first records of bottom changes under the ice. Bursts of 20 readings were logged at each of the 2 transducers at each site every 20 minutes. The 20-minute readings were averaged and corrected for water temperature and then averaged again to produce daily averages. Data quality for the 20-minute averages varied from very stable with less than a mm of variation to highly variable with fluctuations of several cms (Figure 38). The high variability was associated with a number of factors observed during diver inspections: fouling of the transducers, early or late triggering on organic debris transported as bedload and suspended load, gas in the sediments, and floating objects and fish. In general, major shifts in bottom elevation followed by rapid recovery were likely the result of these perturbations rather than real changes particularly when the left and right transducers did not agree in the direction of change.

Daily averages for sites 2 and 3 are shown in Figure 39 with diver readings superimposed. The graphs show the differences from the original reading which was set at zero. Readings from the left transducer at site 2 were positive at the start of the record, negative from November 15, 1997 to about the start of June 1998 and then positive with a total range of variation of about 5 cm. Readings from the right

transducer were within 2 cm of the starting elevation until about May 15 when there was an erosion spike to about 6 cm. This was followed by recovery and then more oscillation than previously but still in the range of 3 cm from the starting elevation. Net changes for both transducers were +1.5 cm and 0.5 cm. Diver readings again tended to be higher than the acoustic interface because of the measurement procedure.

Readings at site 3 showed more variation from transducer to transducer. The left transducer data were initially stable and slightly positive for the first part of the record and slightly negative for the second. Data from the right transducer were generally less stable. The first and second parts of the record were positive or slightly negative with peaks as high as +5 cm. Net changes were -1.5 cm for the left transducer and +2 cm for the right. Diver data showed less agreement with the acoustic data than at the other site. Readings were generally positive and as much as 5 cm above the equivalent acoustic data.

In general, the acoustic records showed that bottom changes were limited to within 2 cm of the starting elevation although there were occasional spikes to as much as 6 cm. Diver measurements were generally in agreement with the acoustic data but too crude to confirm the small-scale variations. A comparison of the acoustic data and flow rates is shown in Figure 40. Both sets of values are daily averages. The period of record corresponds to extreme changes in flow rates from a low of 4690 to a high of 10240 m/s. Yet there is no obvious correlation between the flow rates and bottom response even during the periods when the rates were shifting most rapidly.

The small-scale variations which characterize the acoustic data appeared from diver observations to be caused mainly by transport of a veneer of light-weight organic material. There was no evidence that the underlying sediment was disturbed. The deposit appears to be stable because of its location inshore of the main-channel currents in a zone where water movement consists of back eddies too slow for sediment erosion or transport.

6.0 Conclusions

The study reach covers an area of more than 5 million m^2 between the international bridge and Flanigans Point 27% of which consist of muds and muddy sands with a total volume in excess of 377,000 m^3. Fine-grained sediments are concentrated in two areas: the north shore of the river between Windmill Point and Pilon Island and the south shore at the east end of Cornwall Island. Smaller deposits occur at the Tank Farm and Boat Launch sites and inshore and east of Pilon Island.

Detailed mapping was limited to the areas of known contaminants, the Windmill Point to Pilon Island reach (WPPI), the northeast Cornwall Island area (NECI), and the Tank Farm and Boat Launch sites. Fine-grained sediments in the WPPI reach have an area of 360,000 m^2 and a volume of 119,000 m^3. Average thickness of the muds and muddy sands is 0.36 m and 0.32 m respectively. The NECI deposit covers an area of 680,000 m^2 and has a volume of 165,000 m^3. Most of the deposit consists of mud and muddy sand with the same average thicknesses as the WPPI site. The Boat Launch site has an area of 157,000 m^2 most of which is hard bottom. Total volume of the muds and muddy sands is about 20,000 m^3 and average thickness is about 0.60 m. The Tank Farm area of 62,000 m^2 is equally divided between hard bottom and sediment cover. The volume of muds and muddy sands combined is less than 5,000 m^3. Average thickness ranges from 0.25 m for the mud sand to 0.32 cm for the mud.

Grain-size profiles in two suites of sediment cores collected in 1994 and 1997 show mainly coarser sediments at the surface than at depth. Two cores in the WPPI reach and one core east of Pilon Island have sand lenses at depth suggesting either higher sedimentation rates or periods of erosion. ^{210}Pb dating of several cores yields sedimentation rates between 0.4 and 2.6 cm/y and indicates that sediments older than 110 years BP are present just east and west of Pilon Island. Fibrous material is present at depth in a core from the WPPI reach which corresponds to a ^{210}Pb date between 1898 and 1915.

Acoustic monitoring of sediment stability in the WPPI reach showed only minor changes in bottom elevation on the scale of a few cm even during the very large range of flow rates between 1997 and 1998. Contaminated fine-grained sediments in the reach are unlikely to be disturbed by sediment resuspension or transport because they are inshore of the active zone of sediment transport.

One of the byproducts of the study was the development of new equipment and procedures for studies of contaminated sediments: a RoxAnn seabed-classification system for high-speed mapping, an underwater video system for mapping sediment type and thickness and an acoustic logger for monitoring contaminated-sediment stability.

7.0 Recommendations for further work

Although the results of acoustic monitoring of bottom stability suggest that resuspension and transport of contaminated sediments are unlikely along the Windmill Point to Pilon Island reach, surface samples continue to show elevated levels of mercury and other heavy metals. A better understanding of the potential for contaminated-sediment transport might be gained by direct measurements of the shear stresses required for resuspension. These could be made with an underwater flume developed in NWRI's Hydraulic Laboratory which is designed to initiate and record the critical shear stresses required for erosion. Installation of this equipment within the contaminated sediment area and measurements coordinated with further acoustic-logger and new video-logger monitoring would provide the data on sediment dynamics needed for proper assessment of site stability. The new data would also be useful in gauging the potential for transport of contaminated sediment during dredging or the grain size of sediment needed to provide a stable sediment cap.

8.0 Acknowledgements

H. Biberhofer of Environment Canada, Ontario Region, requested the report, outlined the specifications required and assisted in the compilation of the core data. NWRI's Technical Operations Section provided the launch and staff support for field surveys with RoxAnn, and the Canadian Hydrographic Service, Central Region, supplied and maintained the positioning system. The RoxAnn operator was B. Trapp of NWRI's New Technology Research Branch, T. Egan of Nordsea Ltd. was contracted as the RoxAnn consultant, J. Ford of NWRI Engineering advised on acoustic issues. M. Dunnett and D. Gilroy, NWRI contractors, were responsible for reduction of much of the RoxAnn data, and D. Gilroy also assisted in the field surveys. L. Richman of OMEE, Toronto, provided the data on OMEE cores. L. Hua and R. Kay of the NWRI GIS Centre were responsible for the ARC/INFO GIS analysis. The development of RoxAnn as a sediment mapping tool is being funded by Environment Canada's Great Lakes 2000 Cleanup Fund.

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Tables

Table 1. GIS areas and volumes for acoustic types, study reach, 1993-1998

Acoustic Type	Area, sq m	Area, sq km	Percent	Avg Thickness, m	Volume, cu m
Mud	300,182	0.3000	6.0	0.50	150,091
Muddy Sand	850,356	0.8500	16.9	0.31	263,610
Other	3,881,137	3.8811	77.1		
Total	5,031,675	5.0320	100.0		413,701

Table 2. Areas of grain-size types, Windmill Point to Pilon Island, 1993-1998

Type	Area, sq m	Area, sq km	Percent
Mud	110,814	0.1108	13.4
Muddy Sand	249,077	0.2491	30.1
Sand	255,723	0.2557	30.9
Hard/Boulders/Gravel	198,411	0.1984	24.0
Weeds	12,583	0.0126	1.5
Total	826,606	0.8266	100.0

Table 3. Areal distribution of thickness, Windmill Point to Pilon Island, 1993-1998

Thickness, cm	Area, sq m	Area, sq km	Percent
0-10	373,930	0.3739	44.2
11-30	220,075	0.2201	26.0
31-50	170,074	0.1701	20.1
51-70	69,022	0.0690	8.2
>70	12,861	0.0129	1.5
Total	845,962	0.8460	100.0

Table 4. Grain-size volumes, Windmill Point to Pilon Island, 1993-1998

Type	Area, sq m	Avg thickness, m	Volume, cu m	Percent
Mud	110,814	0.36	39,736	22.4
Muddy Sand	249,077	0.32	79,038	44.5
Sand	255,723	0.18	46,805	26.4
Hard/B/G	198411	0.04	8,654	4.9
Weeds	12583	0.27	3,377	1.9
Total	826606	0.21	177610	100.0

Table 5. Areas of grain-size types, northeast Cornwall Island, 1997-1998

Type	Area, sq m	Area, sq km	Percent
Mud	363,837	0.3638	53.5
Sand	117,881	0.1179	17.3
Muddy Sand	116,516	0.1165	17.1
Hard/Boulders/Gravel	81,804	0.0818	12.0
Total	680,037	0.6800	100.0

Table 6. Areal distribution of thickness, northeast Cornwall Island, 1997-1998

Thickness, cm	Area, sq m	Area, sq km	Percent
0-10	219,496	0.2195	32.3
11-30	106,066	0.1061	15.6
31-50	177,679	0.1777	26.1
51-70	158,717	0.1587	23.3
>70	18,079	0.0181	2.7
Total	680,037	0.6800	100.0

Table 7. Grain-size volumes, northeast Cornwall Island, 1997-1998

Type	Area, sq m	Avg thickness, m	Volume, cu m	Percent
Mud	363,837	0.34	124,040	75.1
Muddy Sand	116,516	0.16	18,348	11.1
Sand	117,881	0.14	16,799	10.2
Hard/B/G	81,804	0.07	6,026	3.6
Total	680,037	0.24	165,212	100.0

Table 8. Areas of grain-size types, Boat Launch, 1993-1998

Type	Area, sq m	Area, sq km	Percent
Hard/Boulders/Gravel	118,945	0.1189	75.7
Mud	27,190	0.0272	17.3
Sand	6,255	0.0063	4.0
Muddy Sand	4,816	0.0048	3.1
Total	157,206	0.1572	100.0

Table 9. Areal distribution of thickness, Boat Launch, 1993-1998

Thickness, cm	Area, sq m	Area, sq km	Percent
0-10	110,422	0.1104	70.3
11-30	19,174	0.0192	12.2
31-50	8,825	0.0088	5.6
51-70	2,865	0.0029	1.8
>70	15,919	0.0159	10.1
Total	157,206	0.1572	100.0

Table 10. Grain-size volumes, Boat Launch, 1993-1998

Type	Area, sq m	Avg thickness, m	Volume, cu m	Percent
Mud	27,190	0.63	17,027	69.7
Hard/B/G	118,945	0.04	4,247	17.4
Muddy Sand	4,816	0.60	2,904	11.9
Sand	6,255	0.04	242	1.0
Total	157,206	0.15	24,241	100.0

Table 11. Areas of grain-size types, Tank Farm, 1993-1998

Type	Area, sq m	Area, sq km	Percent
Hard/Boulders/Gravel	28,277	0.0283	45.8
Muddy Sand	16,457	0.0165	26.7
Sand	14,953	0.0150	24.2
Mud	2,038	0.0020	3.3
Total	61,725	0.0617	100.0

Table 12. Areal distribution of thickness, Tank Farm, 1993-1998

Thickness, cm	Area, sq m	Area, sq km	Percent
0-10	39,117	0.0391	63.4
11-30	11,111	0.0111	18.0
31-50	7,785	0.0078	12.6
51-70	0	0.0000	0.0
>70	3,711	0.0037	6.0
Total	61,725	0.0617	100.0

Table 13. Grain-size volumes, Tank Farm, 1993-1998

Type	Area, sq m	Avg thickness, m	Volume, cu m	Percent
Muddy Sand	16,457	0.25	4,153	36.4
Sand	14,953	0.23	3,473	30.5
Hard/B/G	28,277	0.11	3,125	27.4
Mud	2,038	0.32	650	5.7
Total	61,725	0.18	11,402	100.0

Table 14. Total grain-size areas and volumes, four deposits combined

Type	Area, sq m	Avg thickness, m	Volume, cu m	Percent
Mud	503,880	0.36	181,453	47.9
Muddy sand	386,865	0.27	104,443	27.6
Sand	394,812	0.17	67,319	17.8
Hard/B/G	427,437	0.05	22,052	5.8
Weeds	12,583	0.27	3,377	0.9
Total	1,725,577	0.18	378,644	100.0

Figures

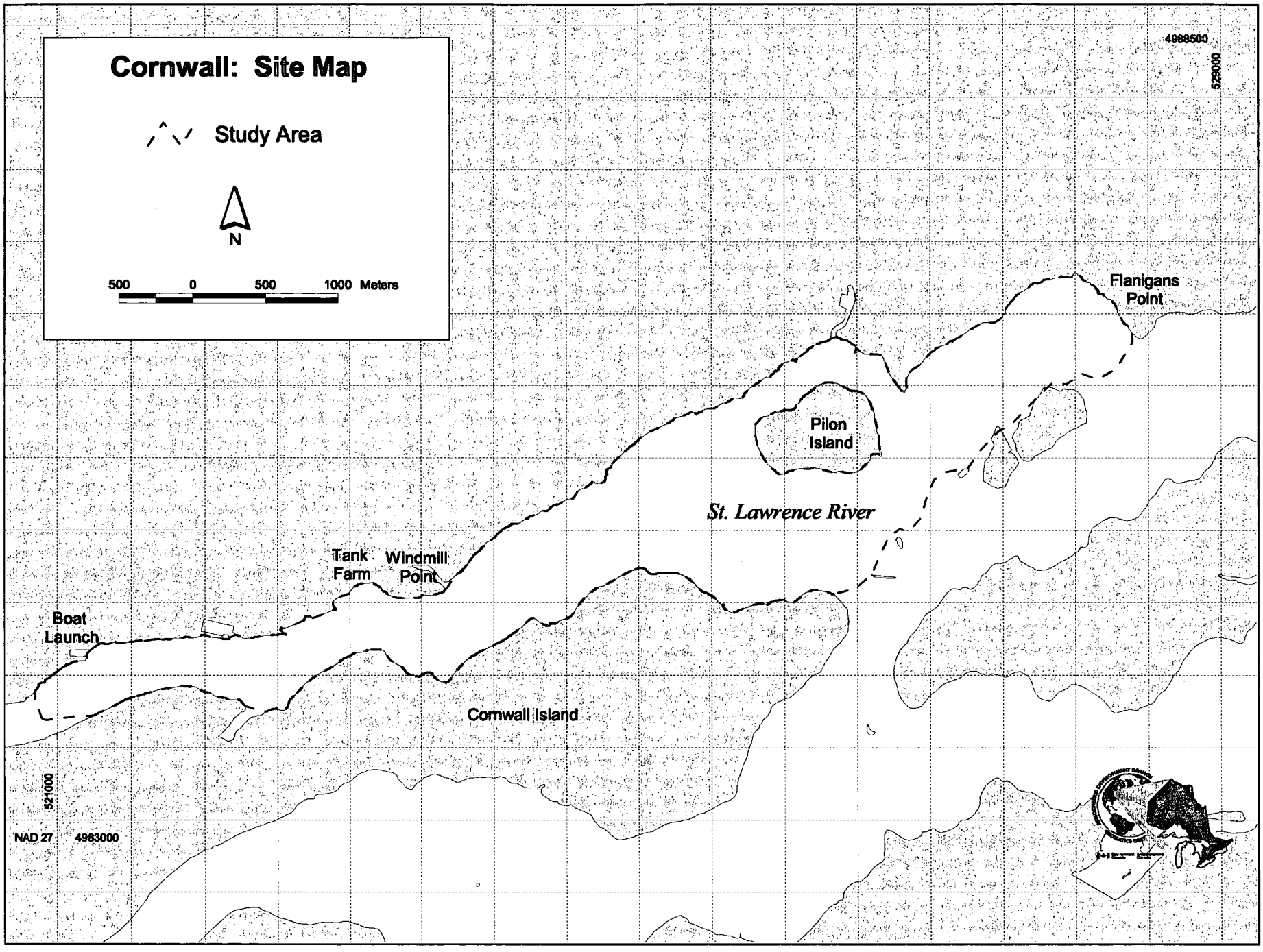


Figure 1. Site map

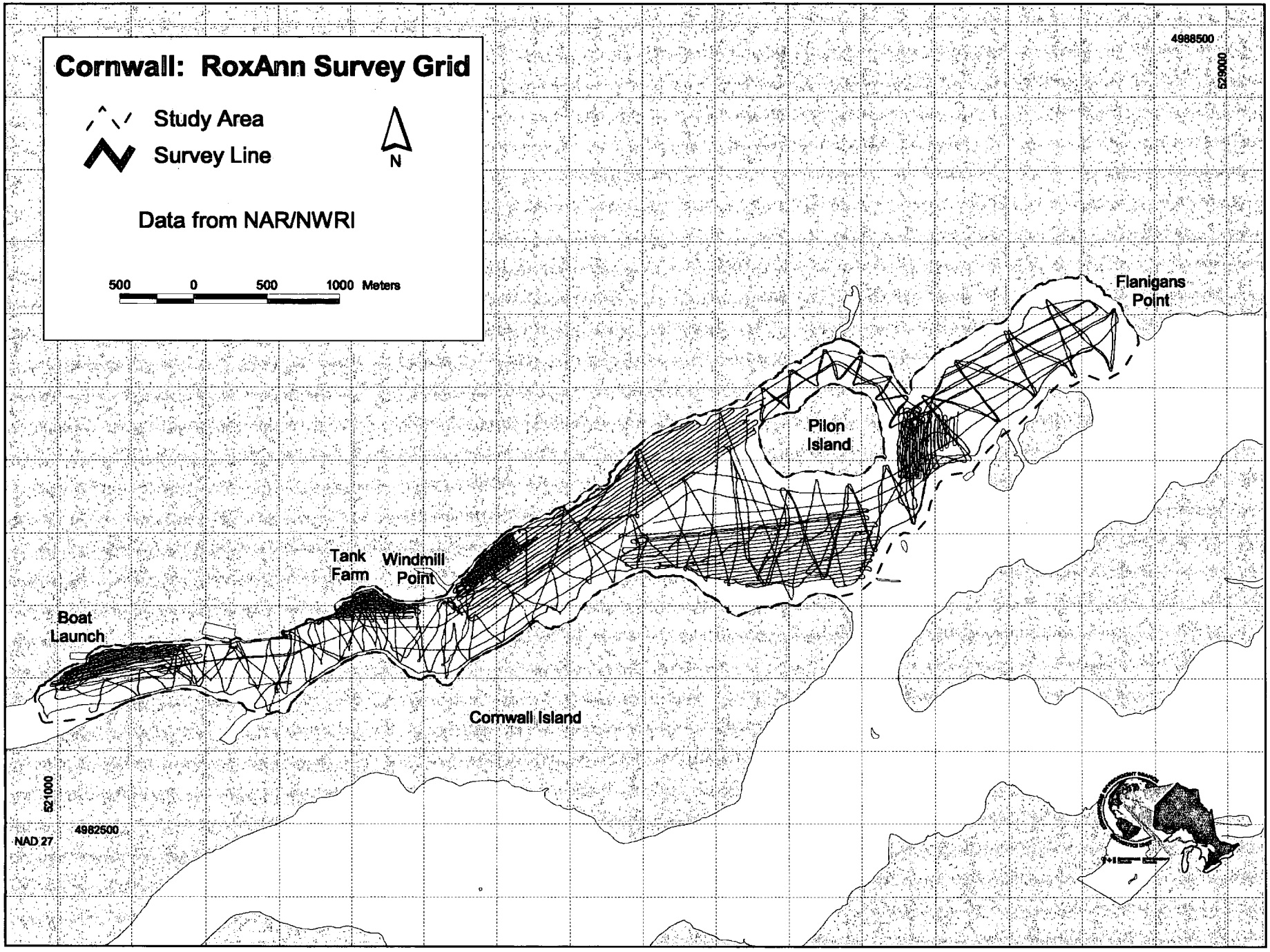


Figure 2. RoxAnn Survey Grid

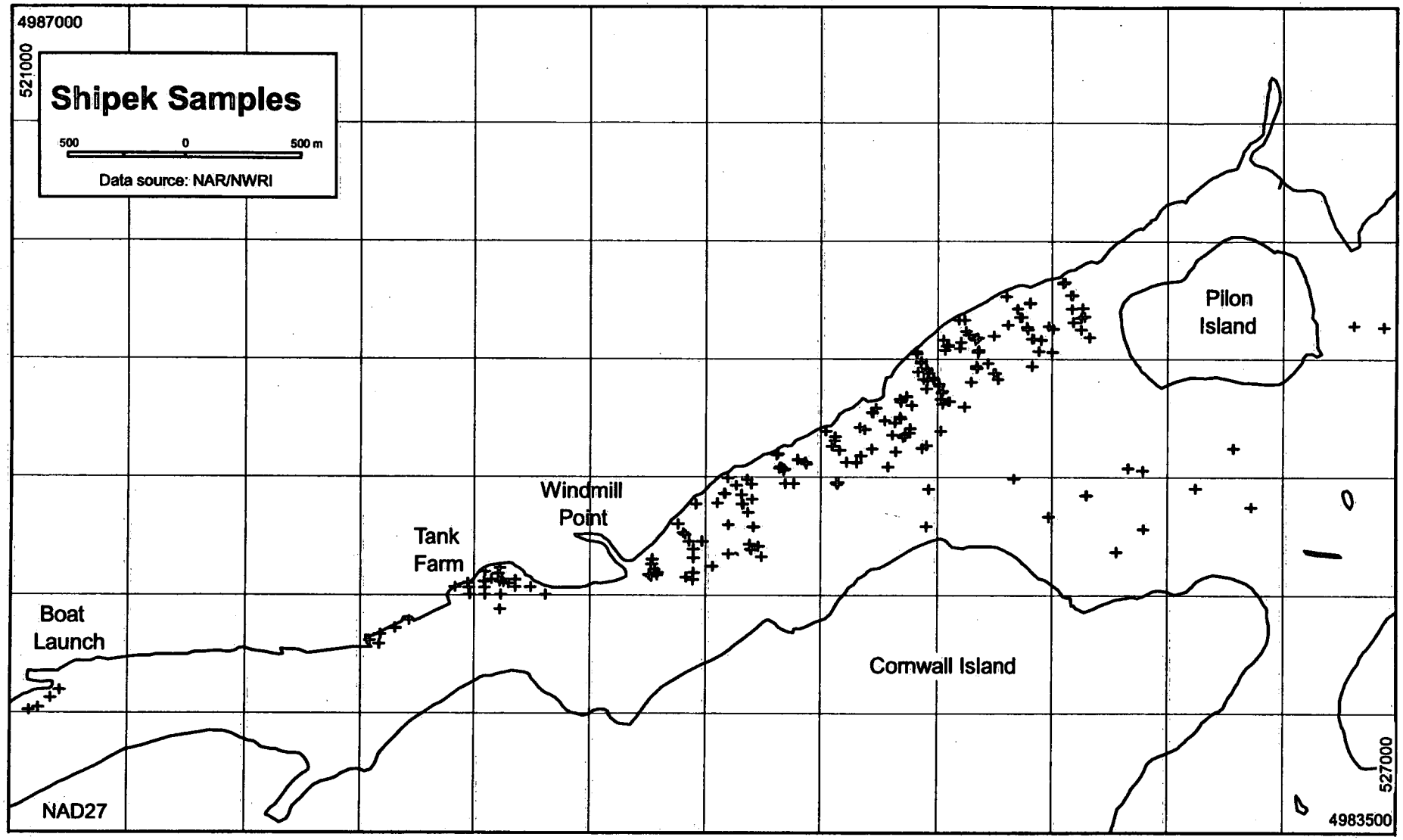


Figure 3. Shipek-sample sites

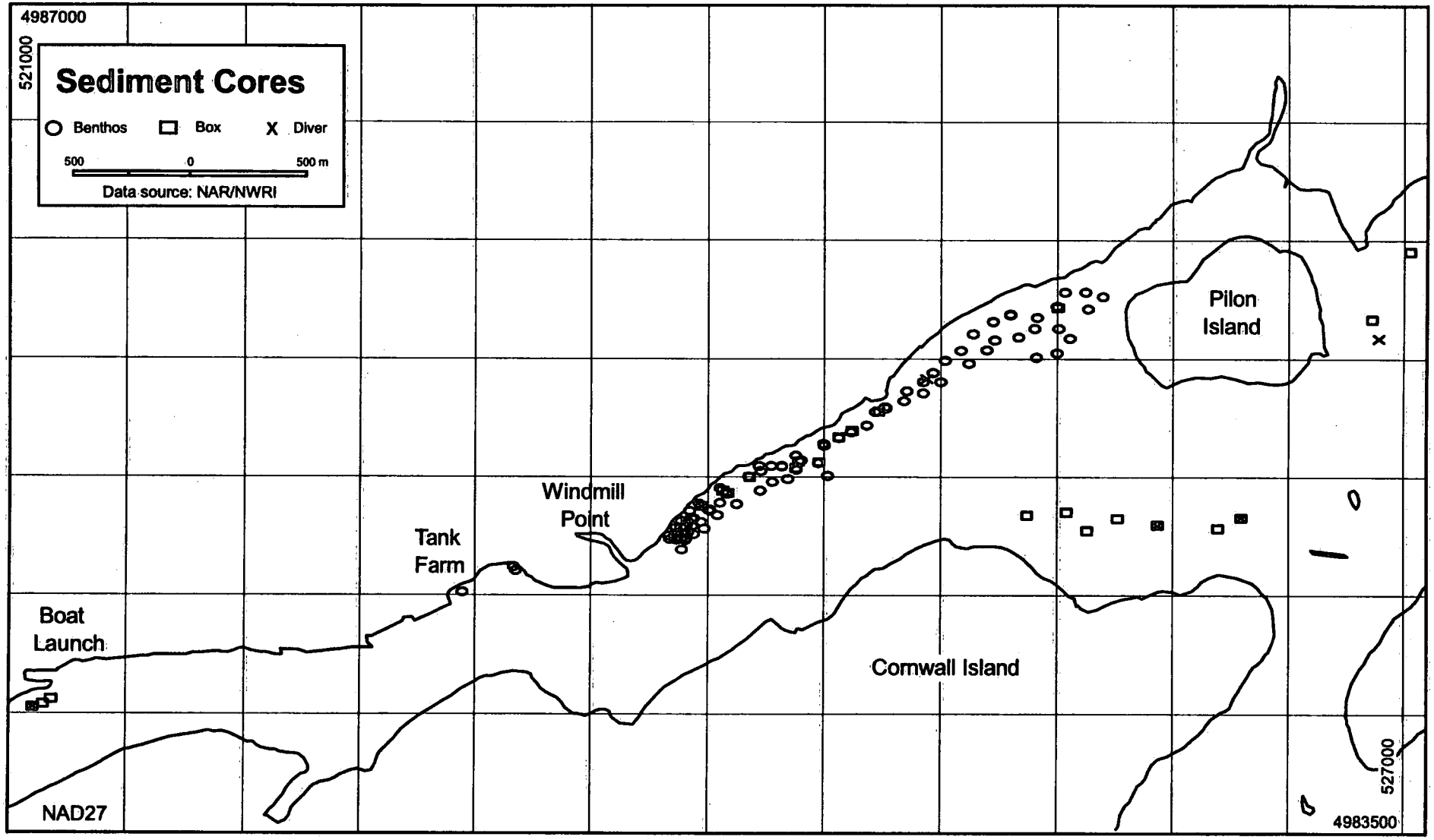


Figure 4. Sediment-core sites

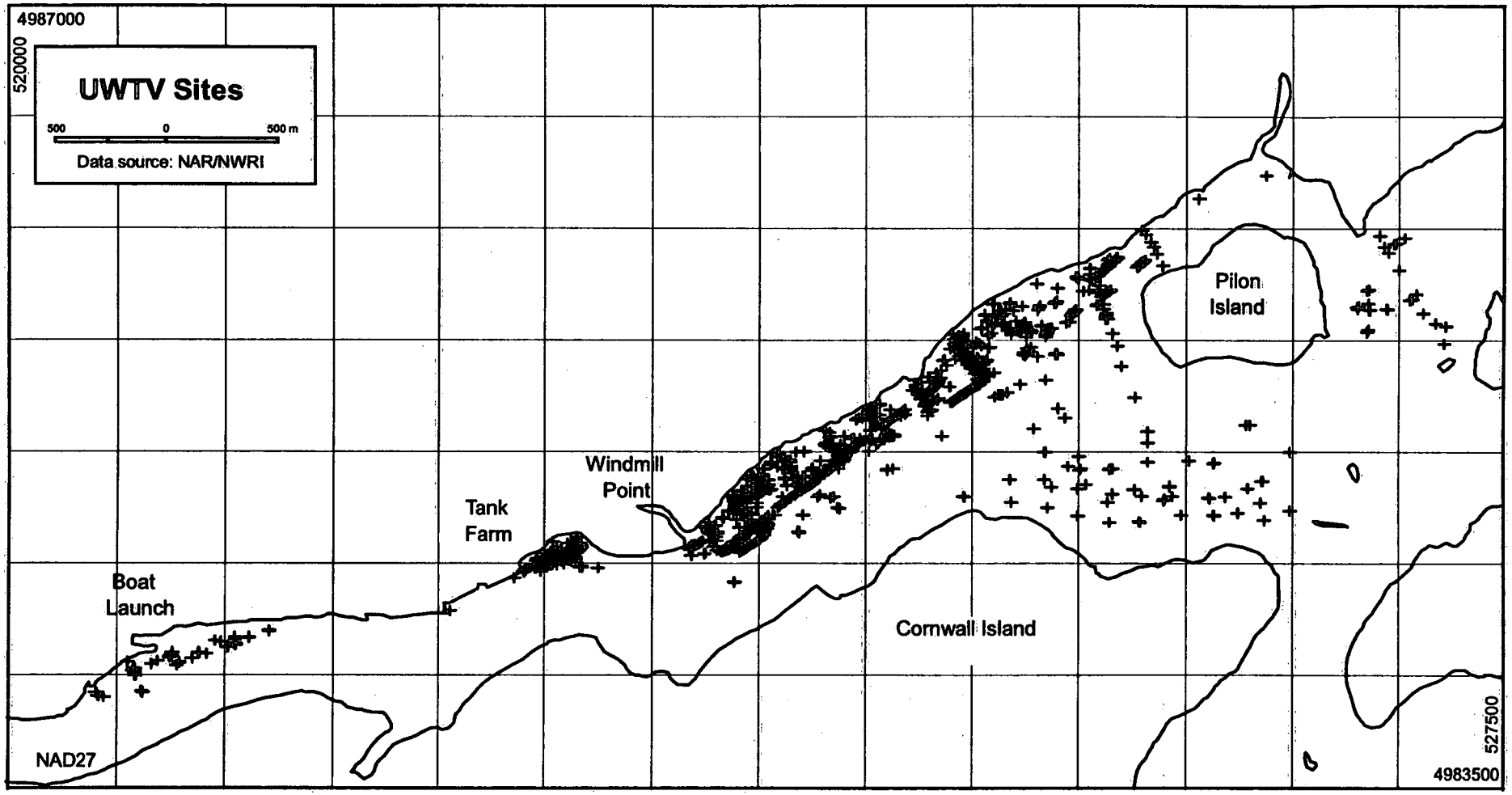


Figure 5. Underwater-television sites

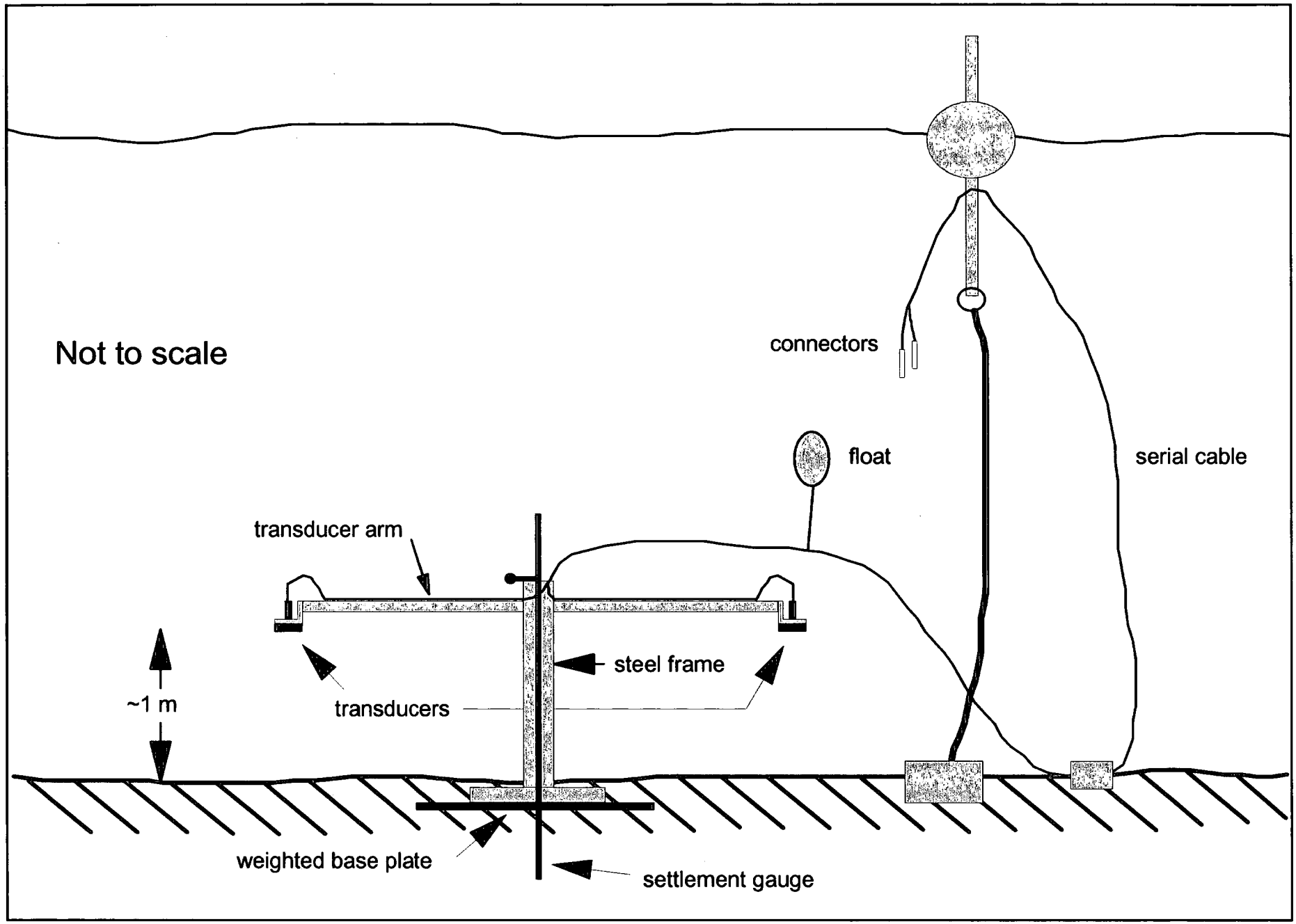


Figure 6. Fixed-transducer system

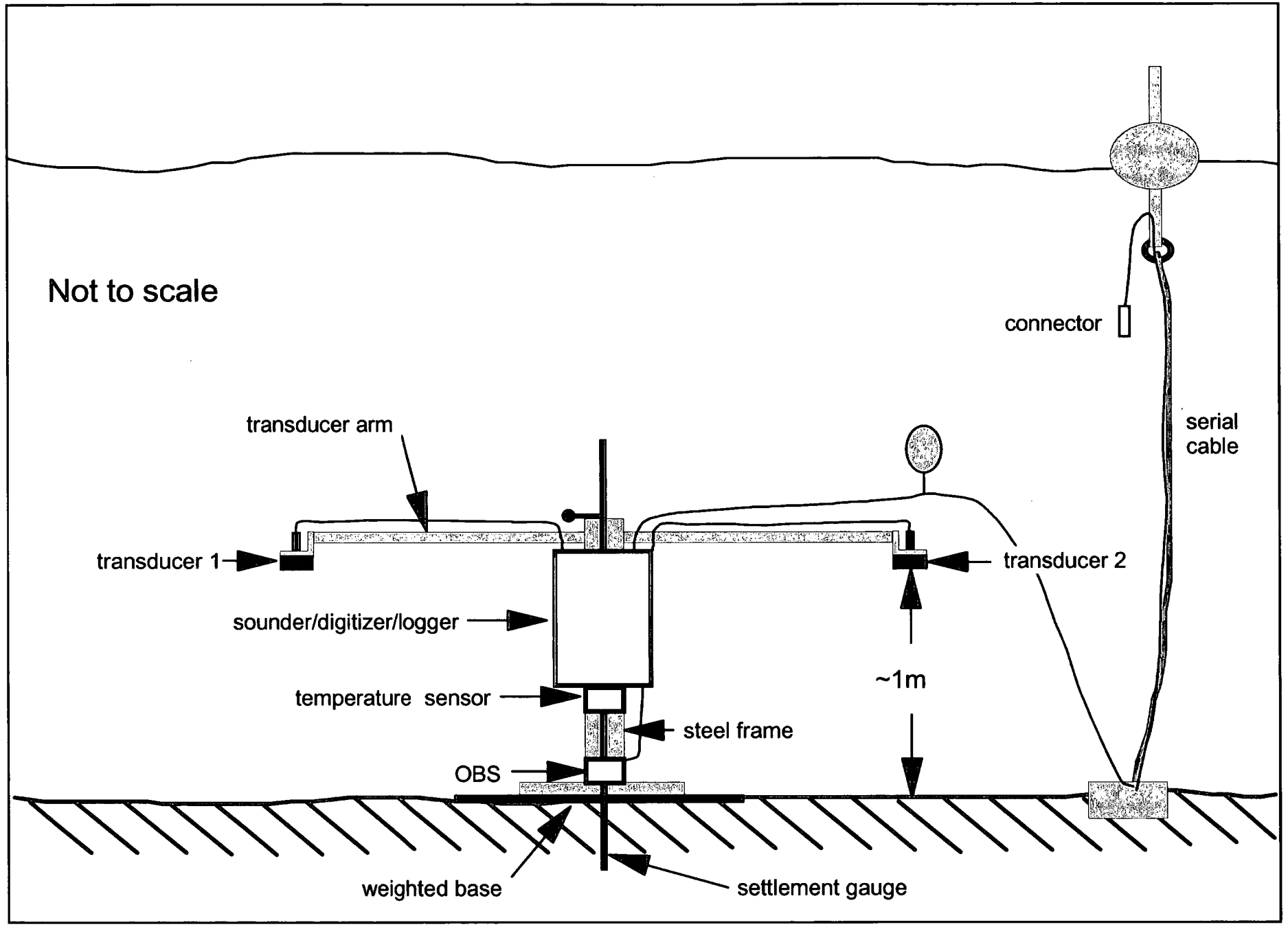


Figure 7. Acoustic datalogger

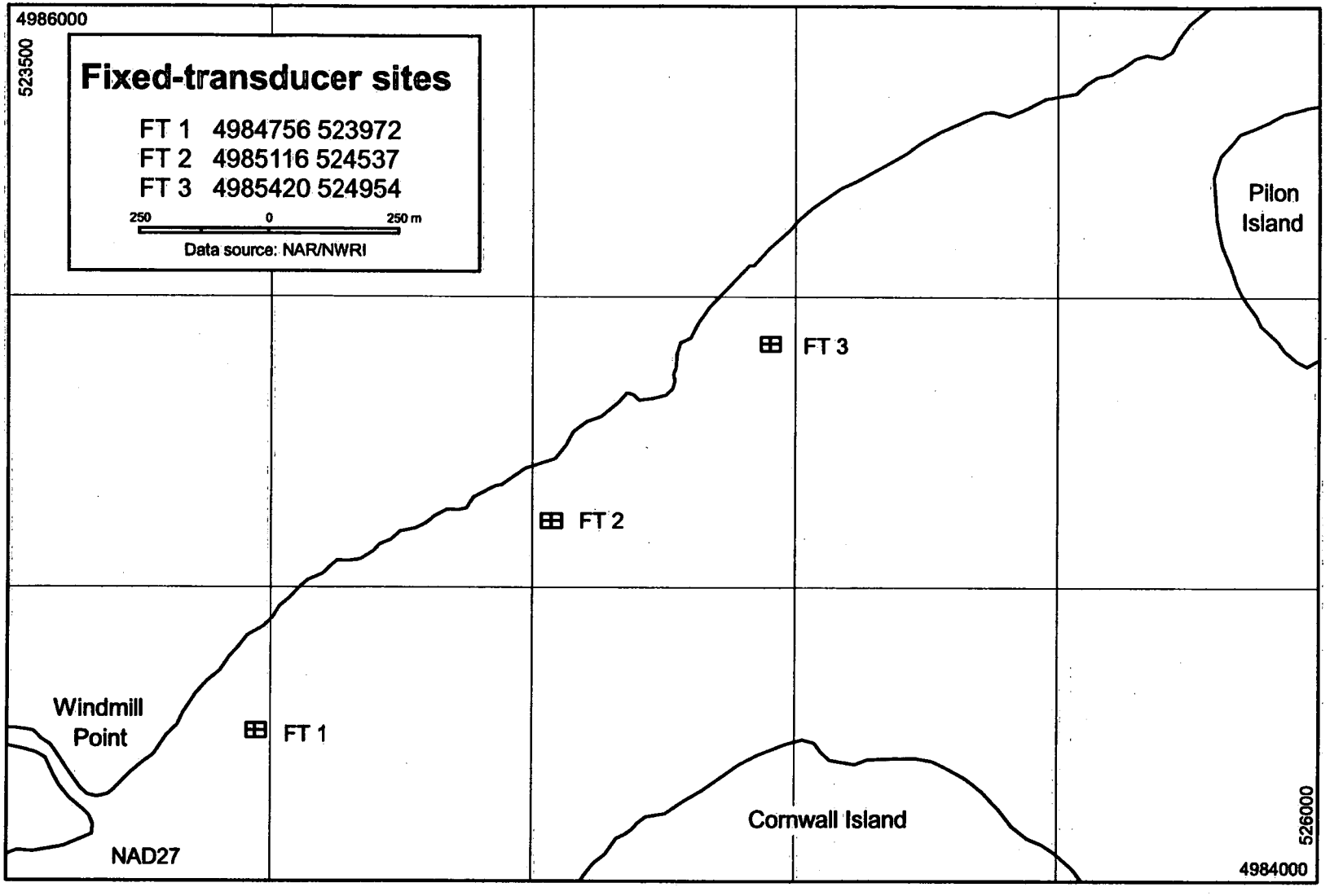


Figure 8. Acoustic-monitoring sites

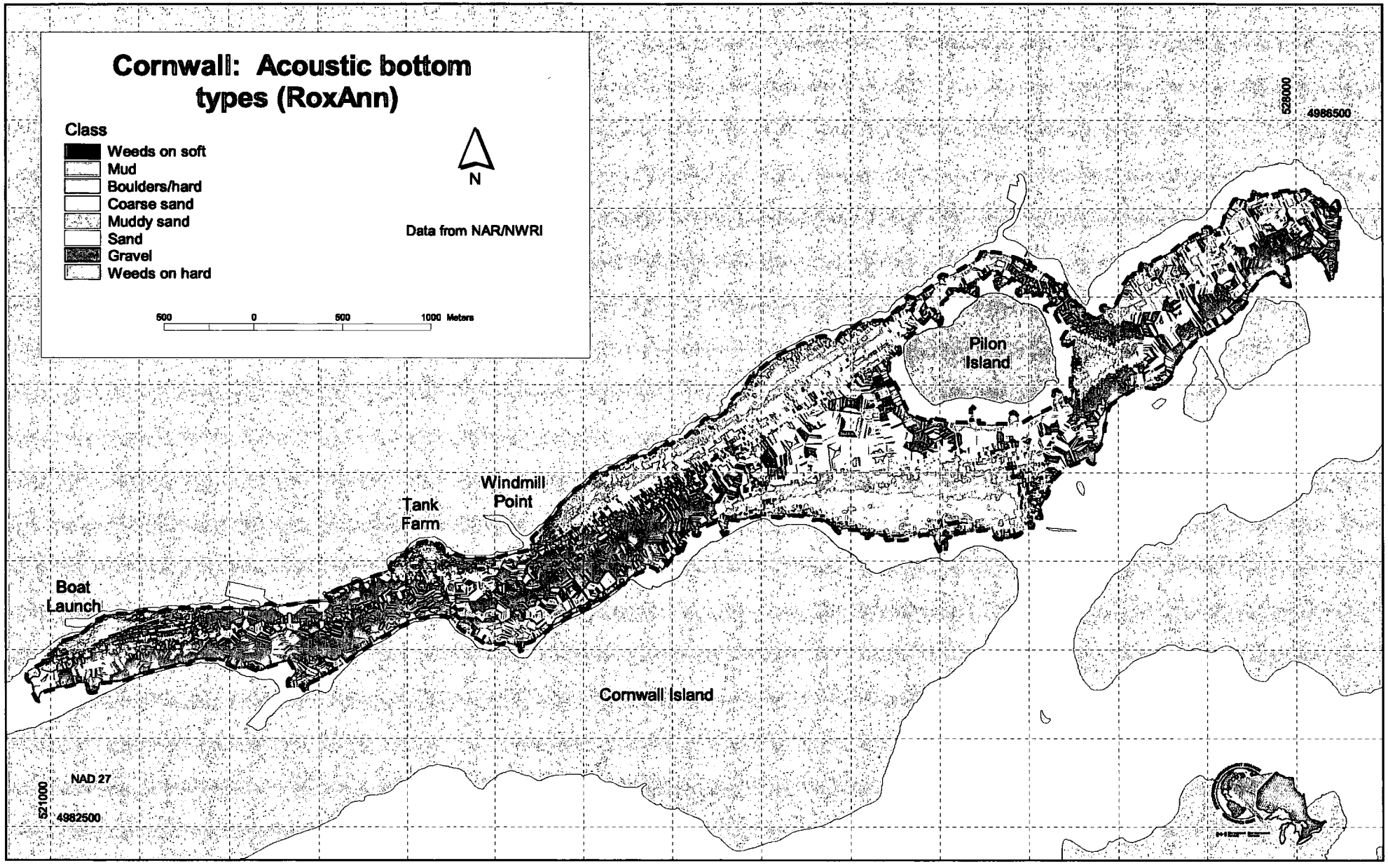


Figure 9. RoxAnn bottom types, study reach

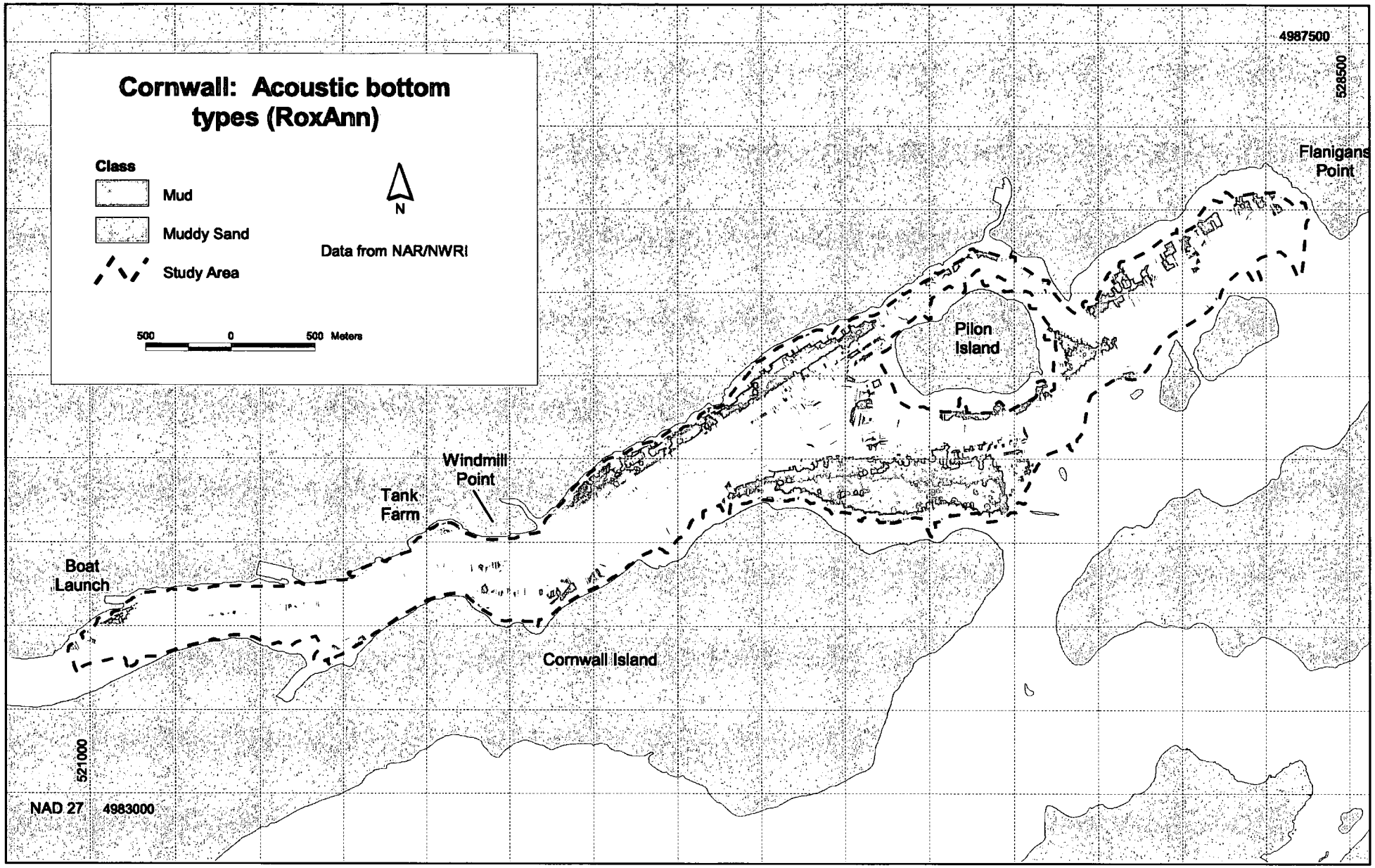


Figure 10. RoxAnn fine-grained sediments, study reach

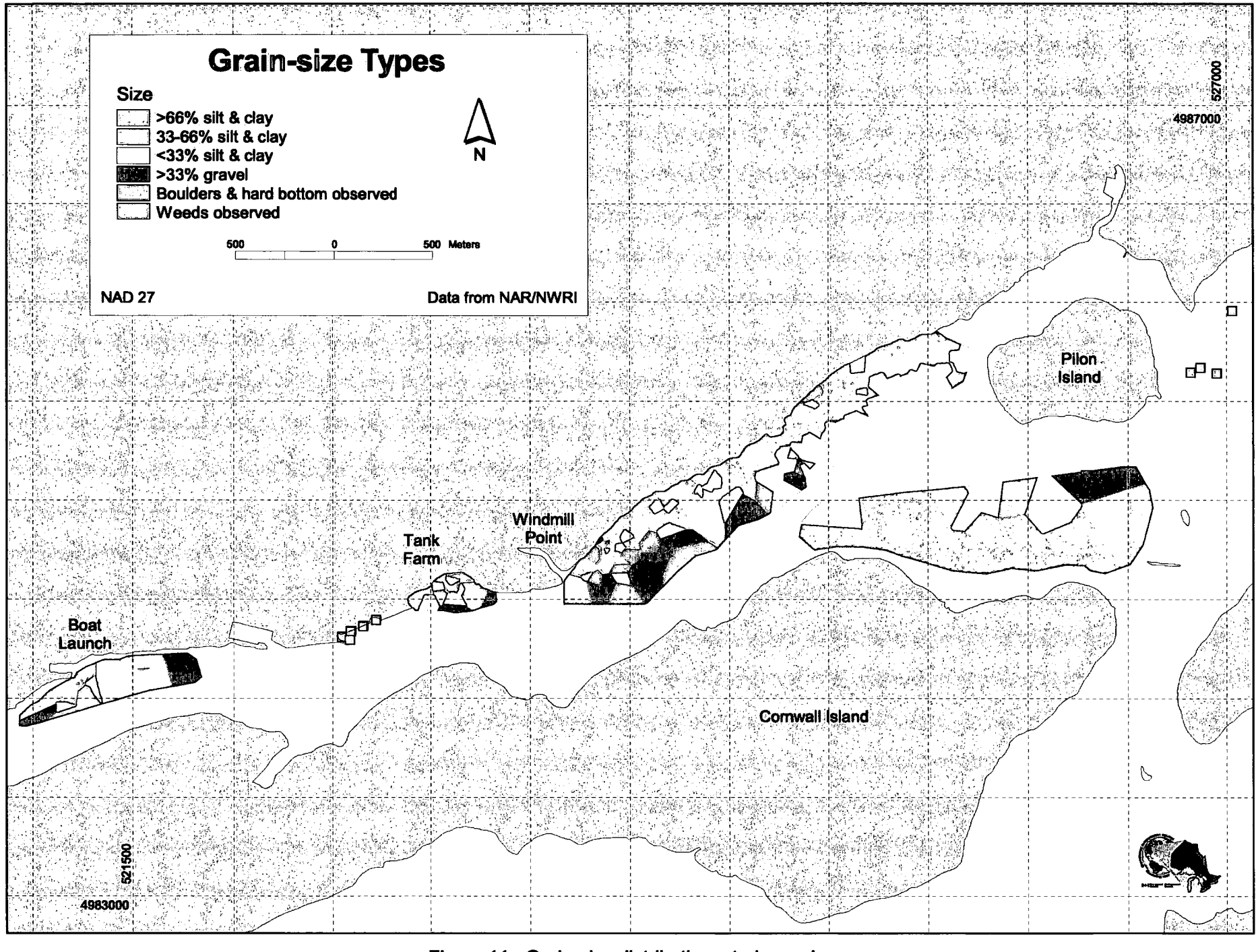


Figure 11. Grain-size distribution, study reach

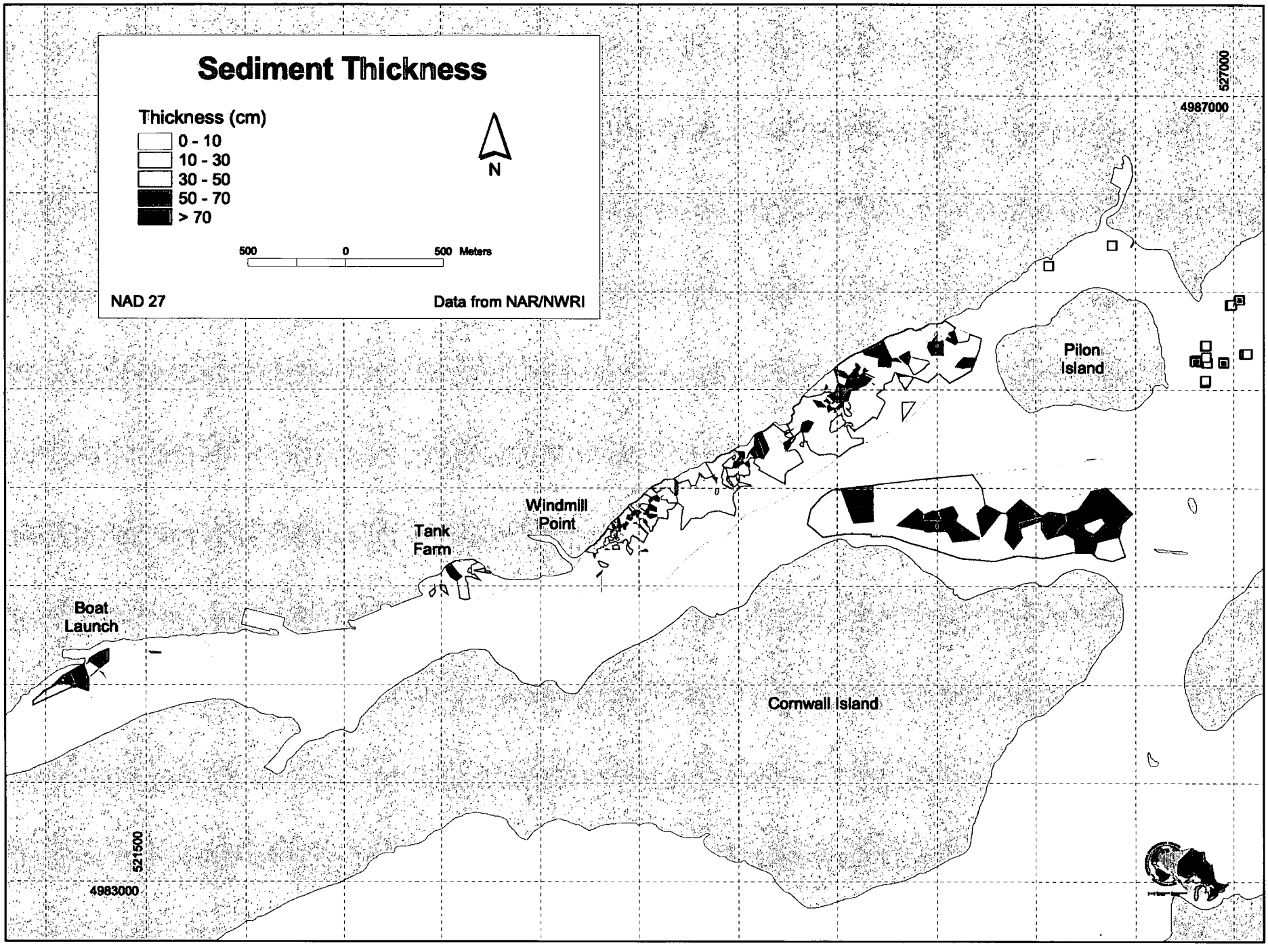


Figure 12. Sediment thickness, study reach

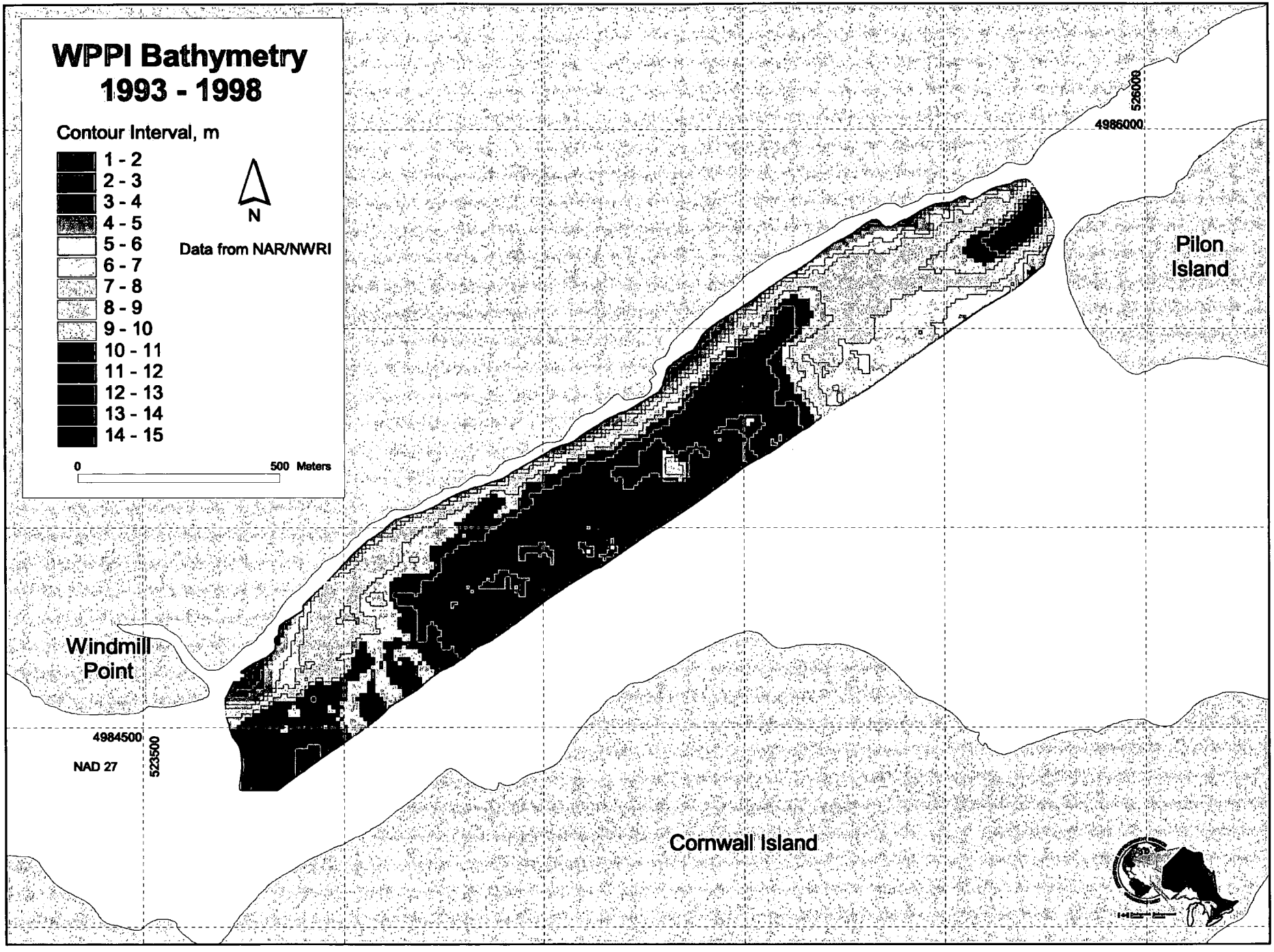


Figure 13. Average bathymetry, Windmill Point to Pilon Island

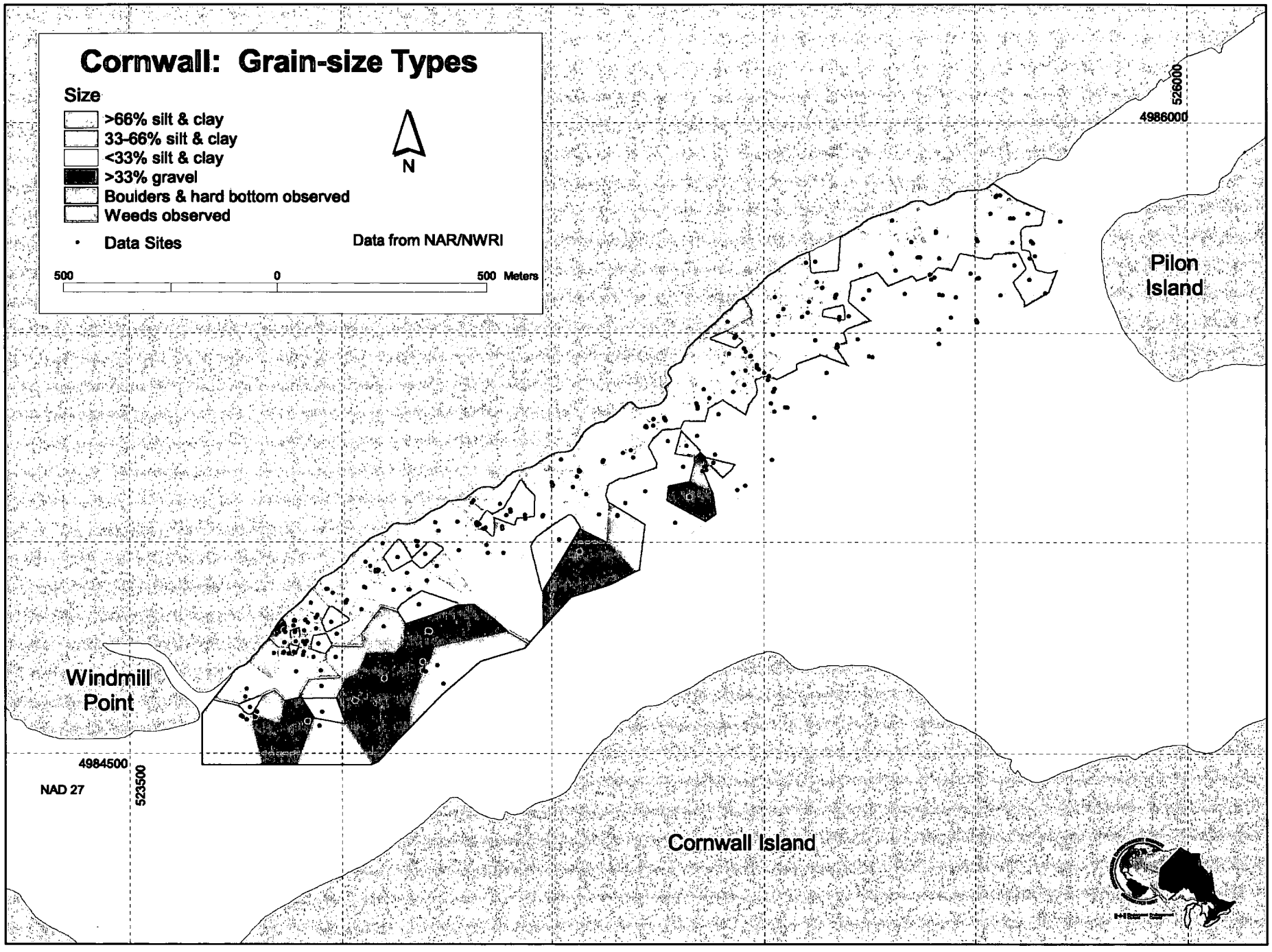


Figure 14. Grain-size distribution, Windmill Point to Pilon Island

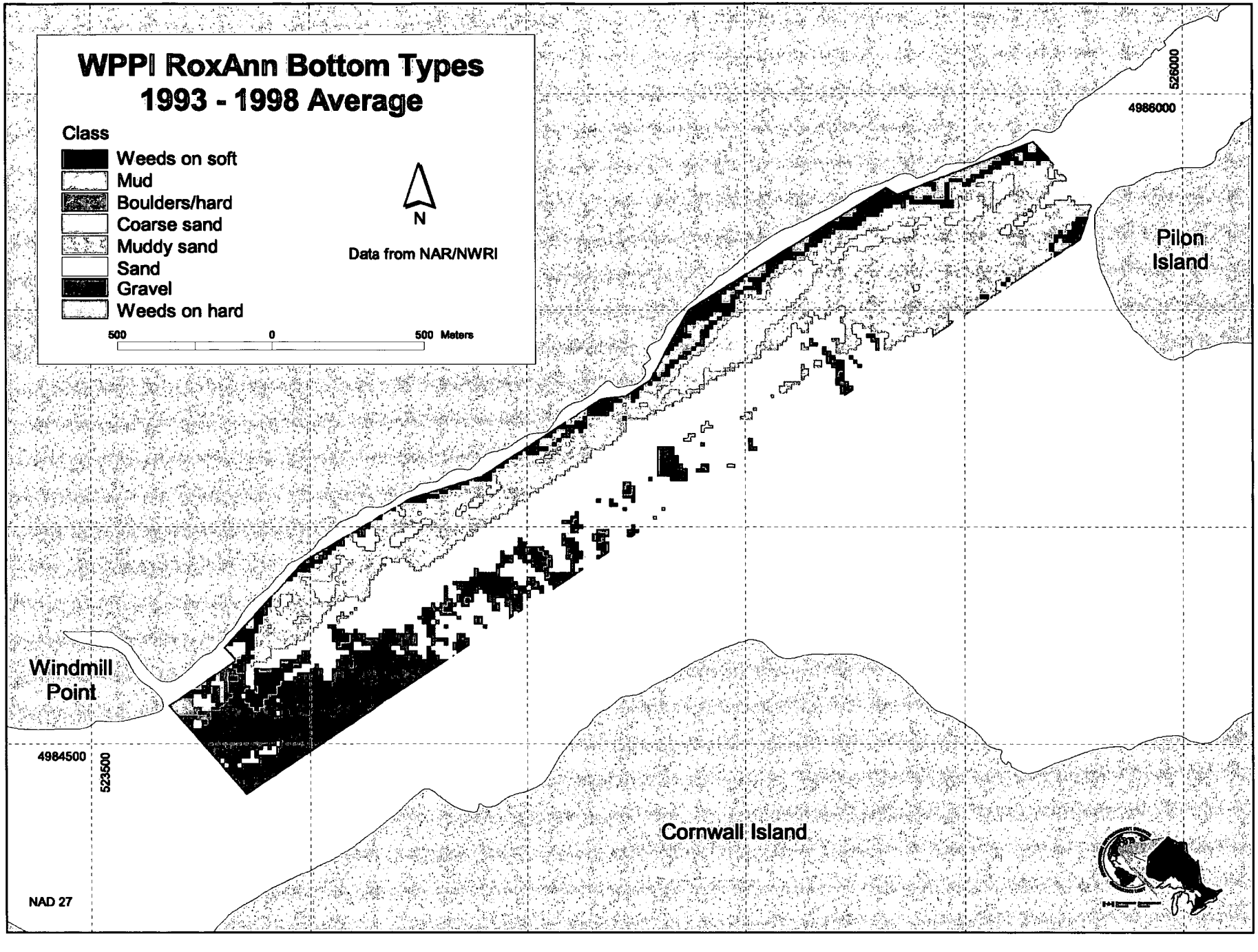


Figure 15. RoxAnn bottom types, Windmill Point to Pilon Island

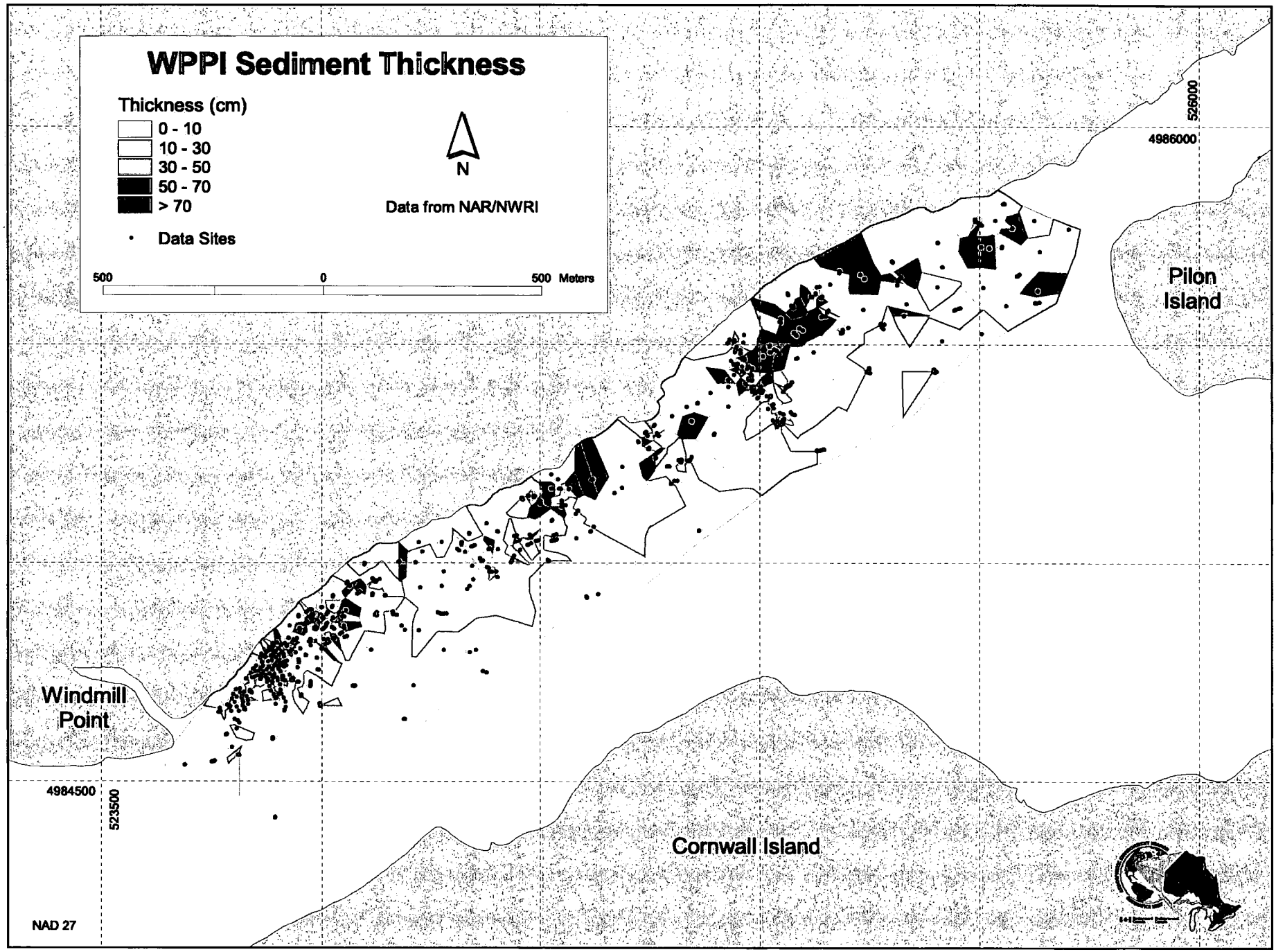


Figure 16. Sediment thickness, Windmill Point to Pilon Island

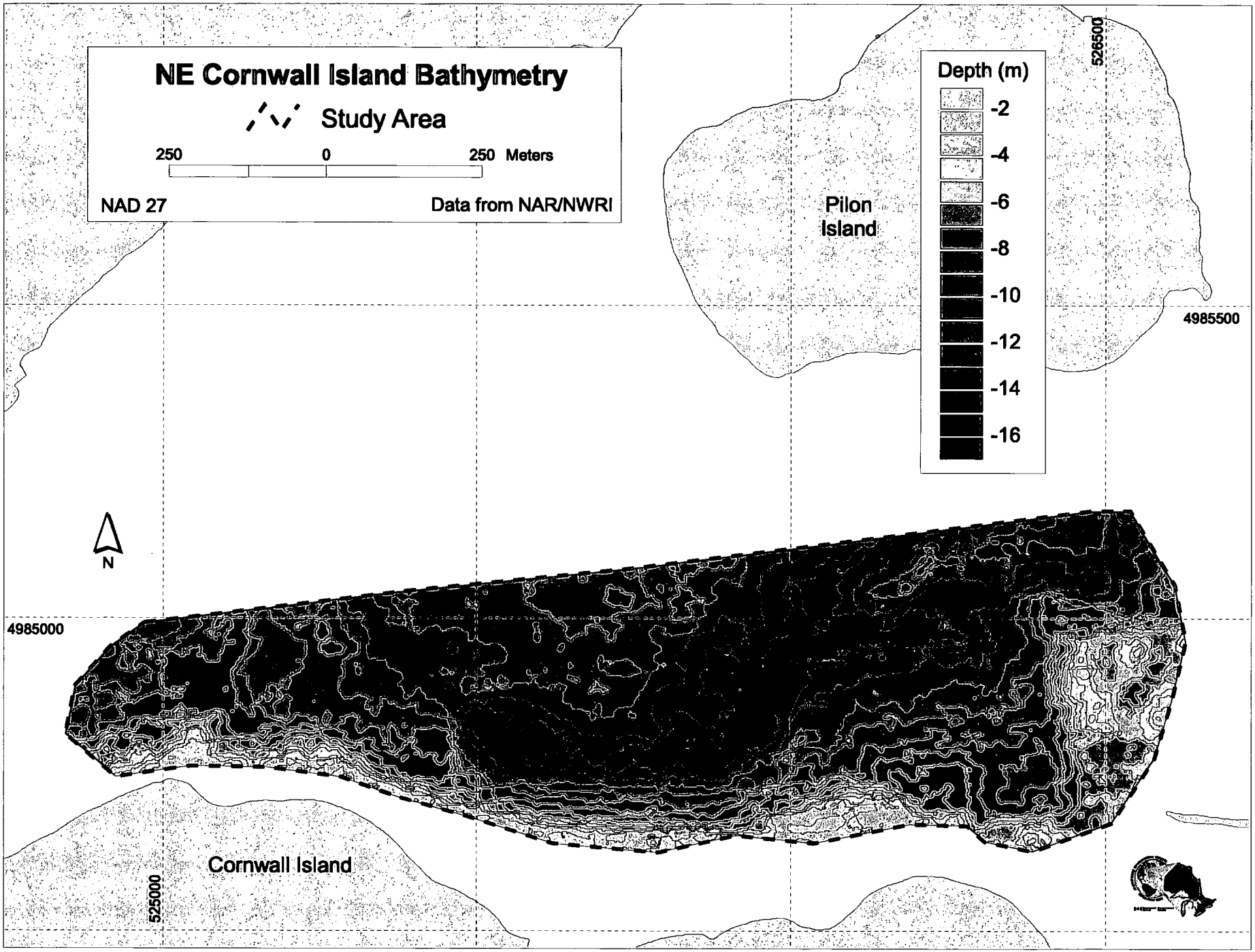


Figure 17. Bathymetry, NE Cornwall Island

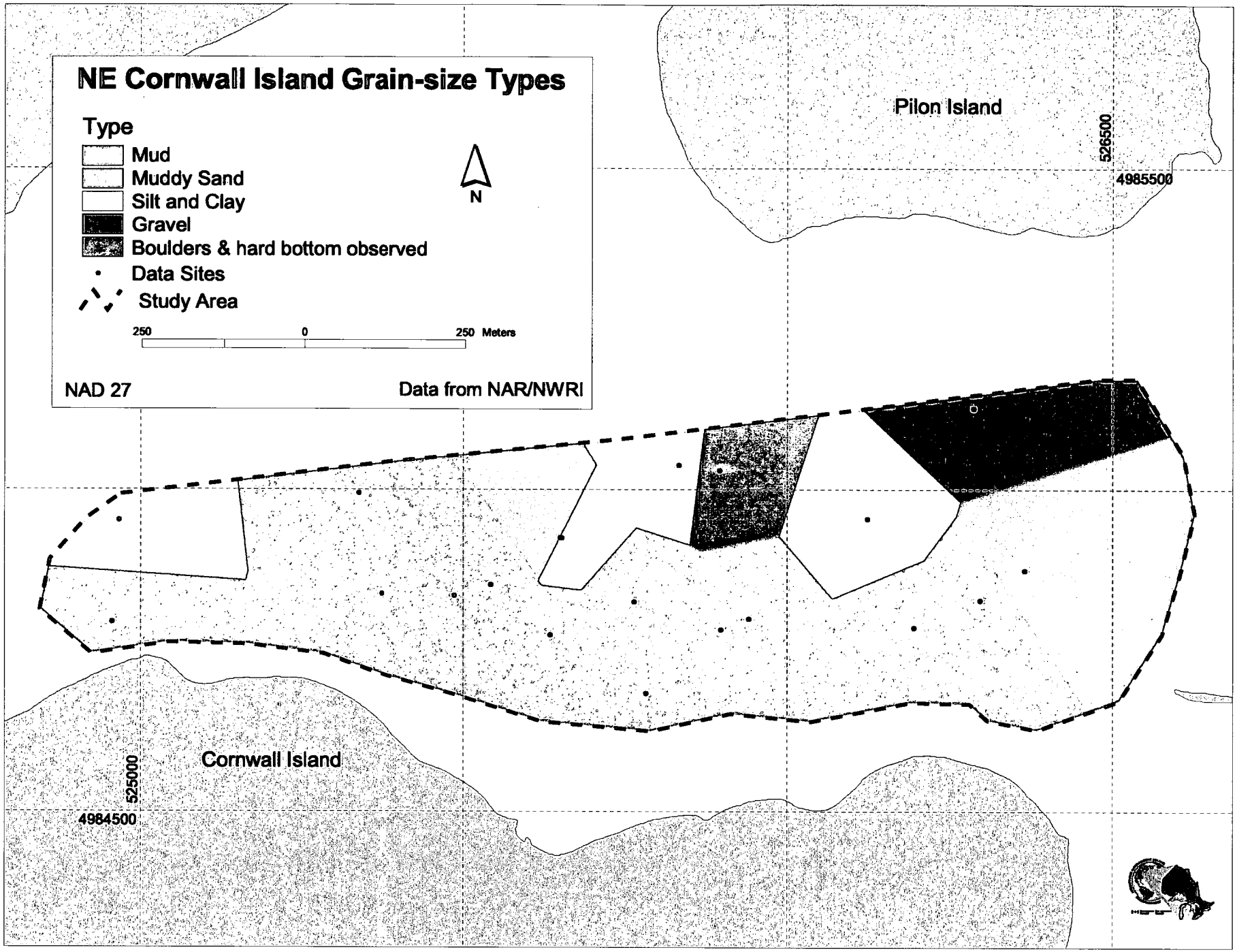


Figure 18. Grain-size distribution, NE Cornwall Island

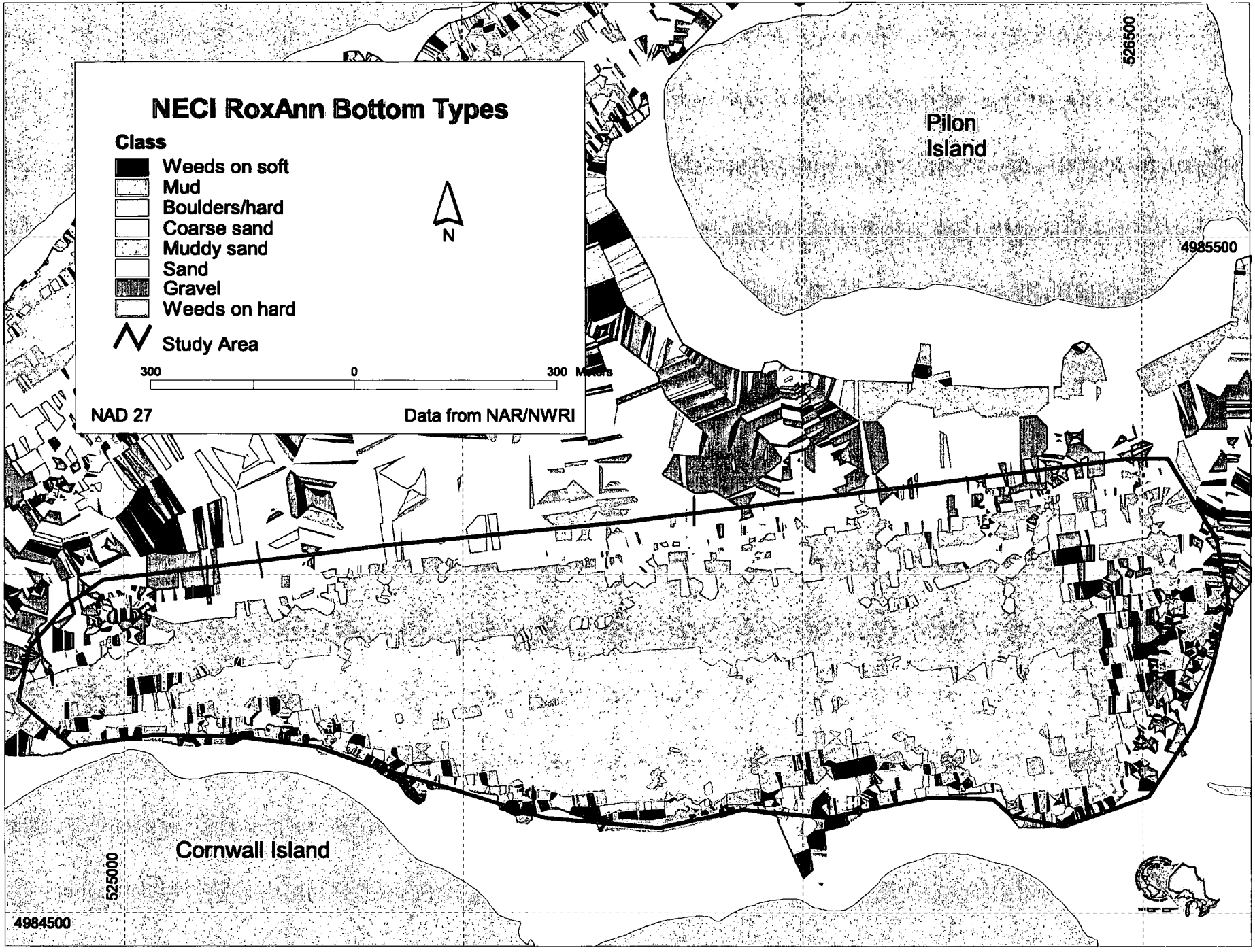


Figure 19. RoxAnn bottom types, NE Cornwall Island

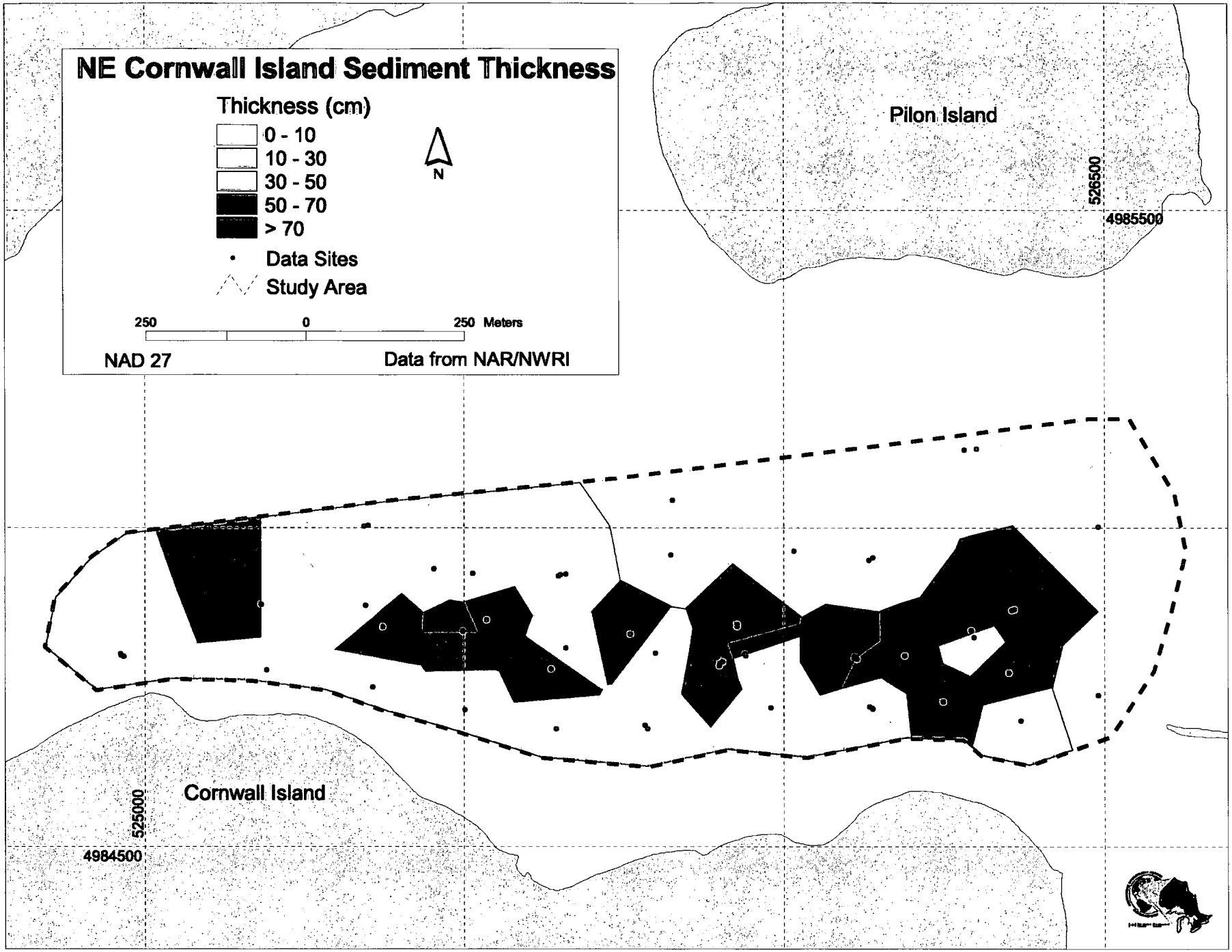


Figure 20. Sediment thickness, NE Cornwall Island

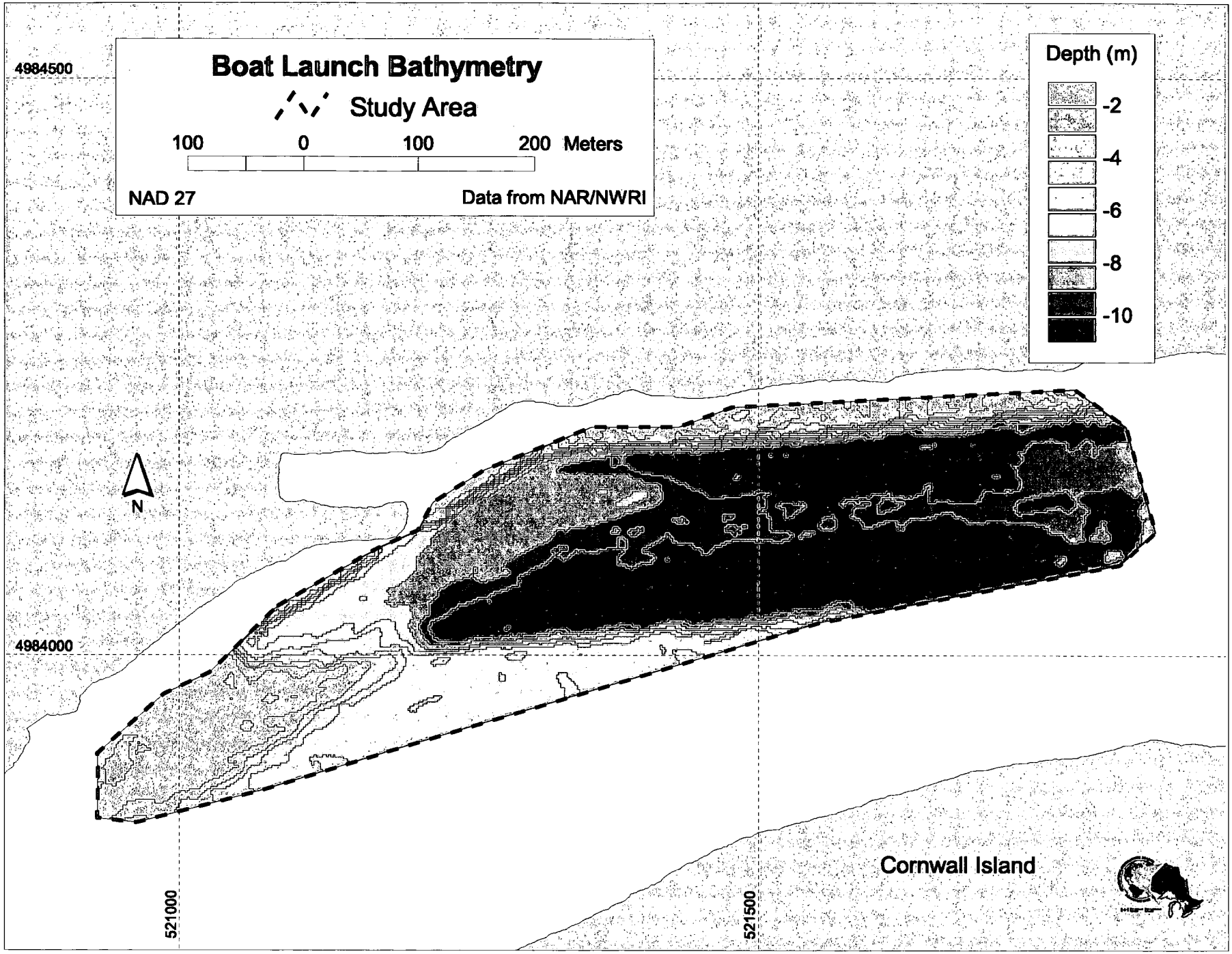


Figure 21. Bathymetry, Boat Launch

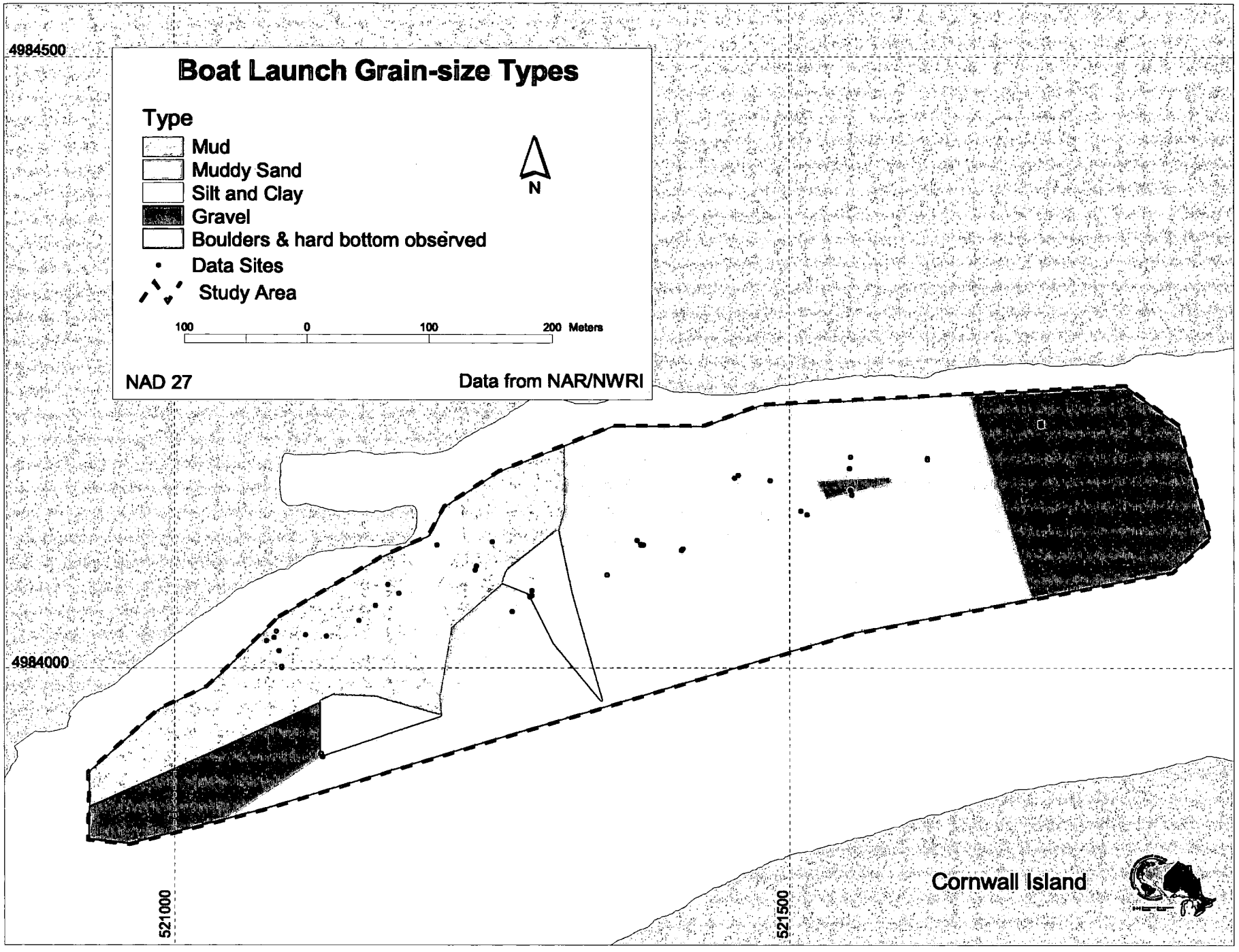


Figure 22. Grain-size distribution, Boat Launch

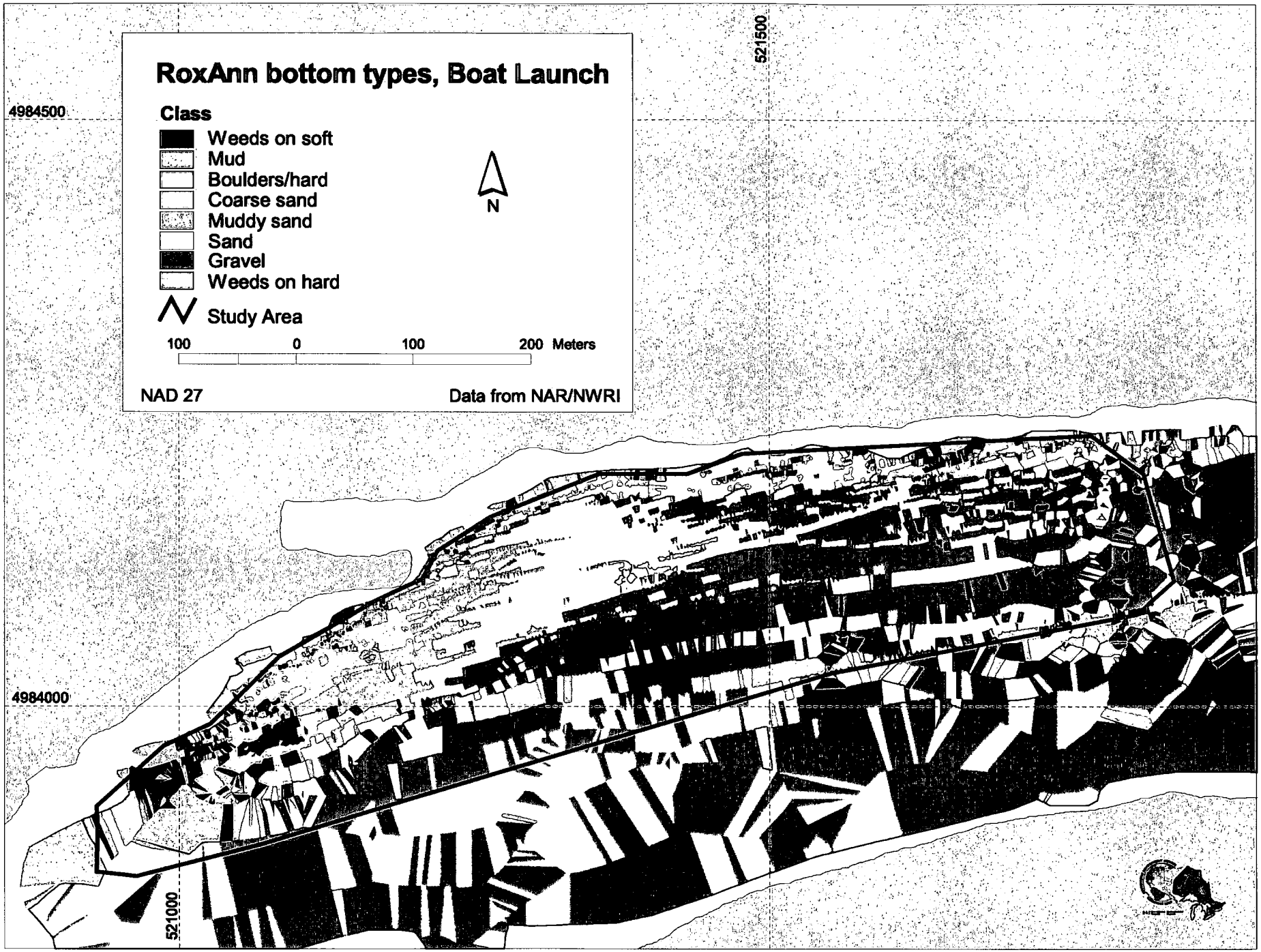


Figure 23. RoxAnn bottom types, Boat Launch

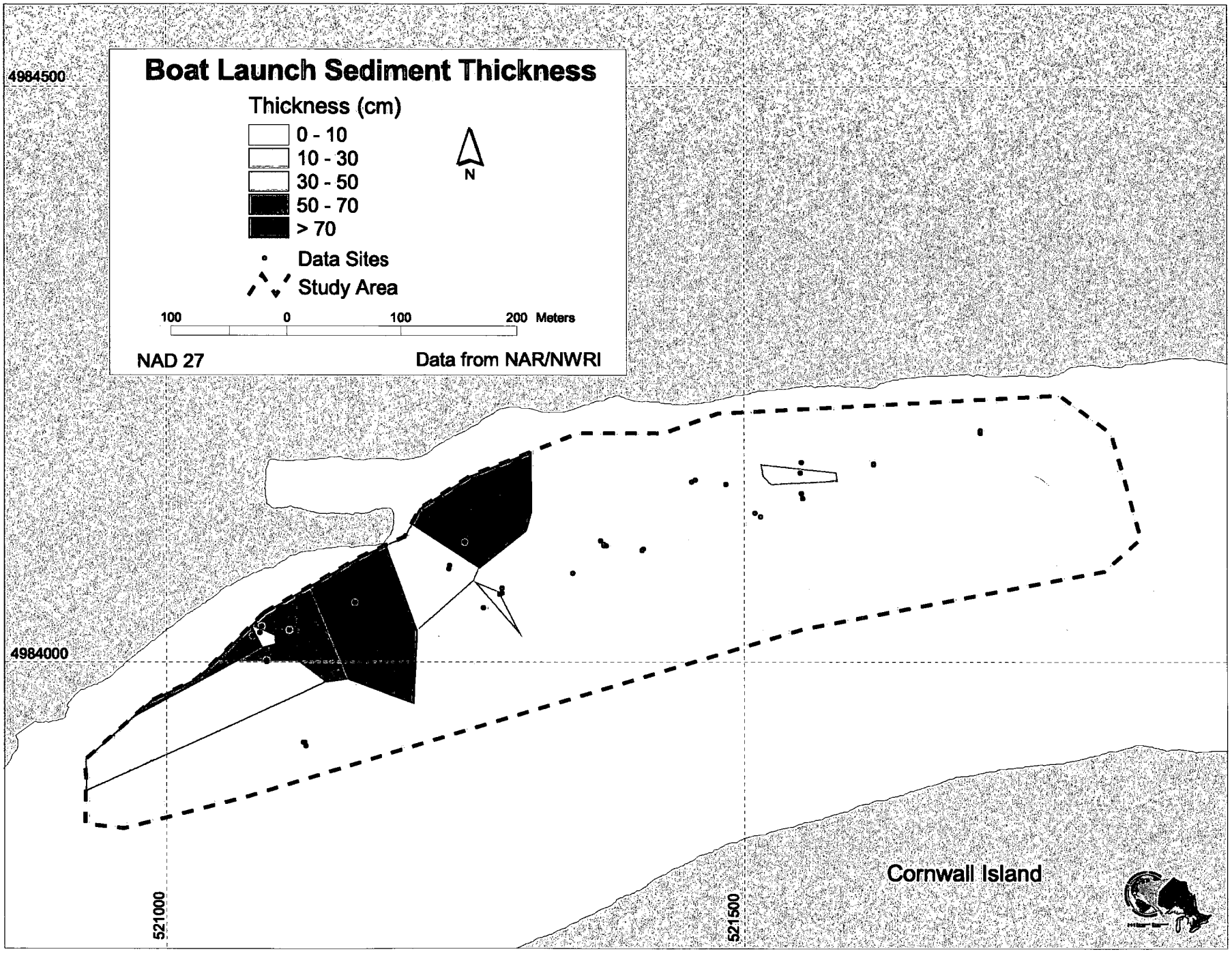


Figure 24. Sediment thickness, Boat Launch

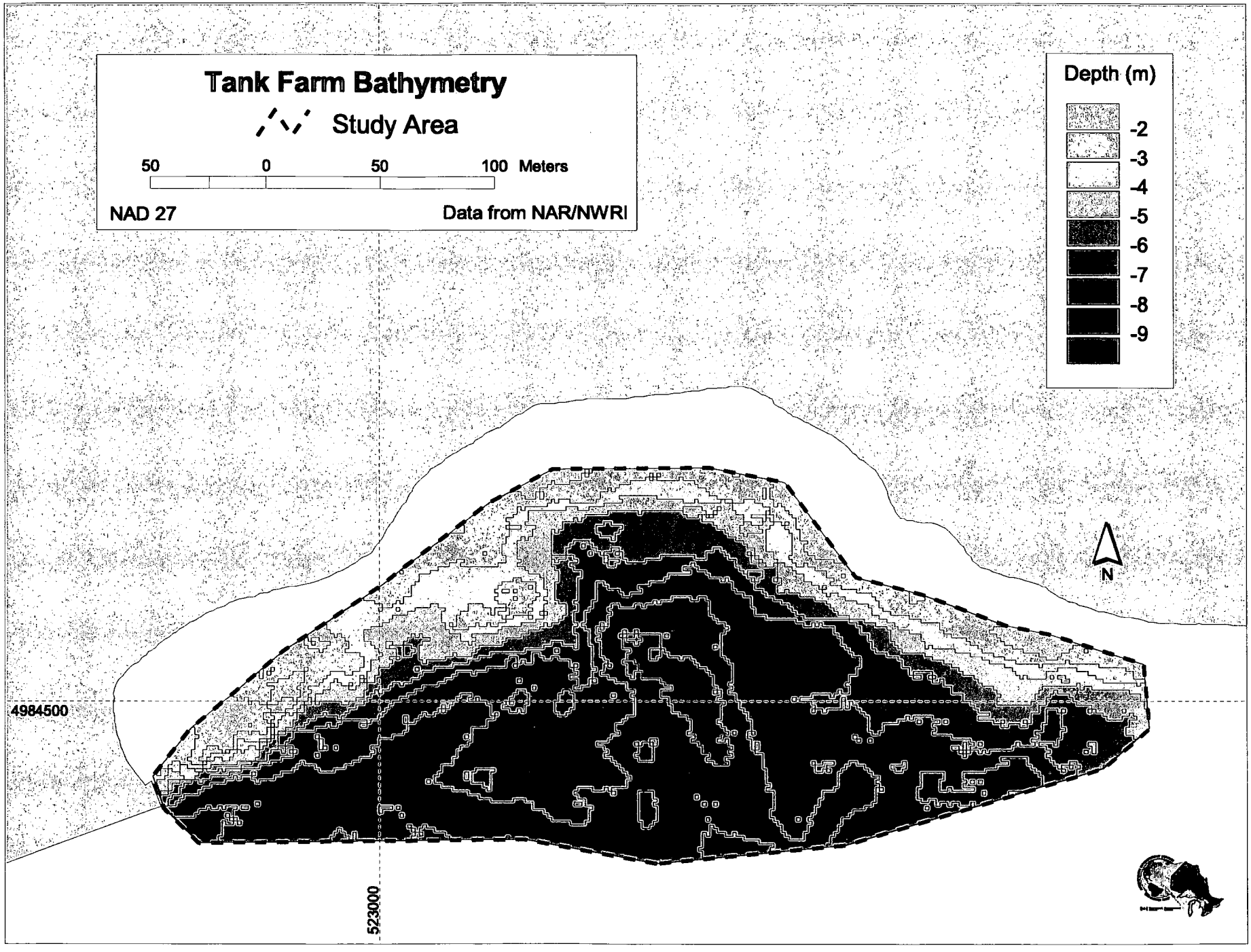


Figure 25. Bathymetry, Tank Farm

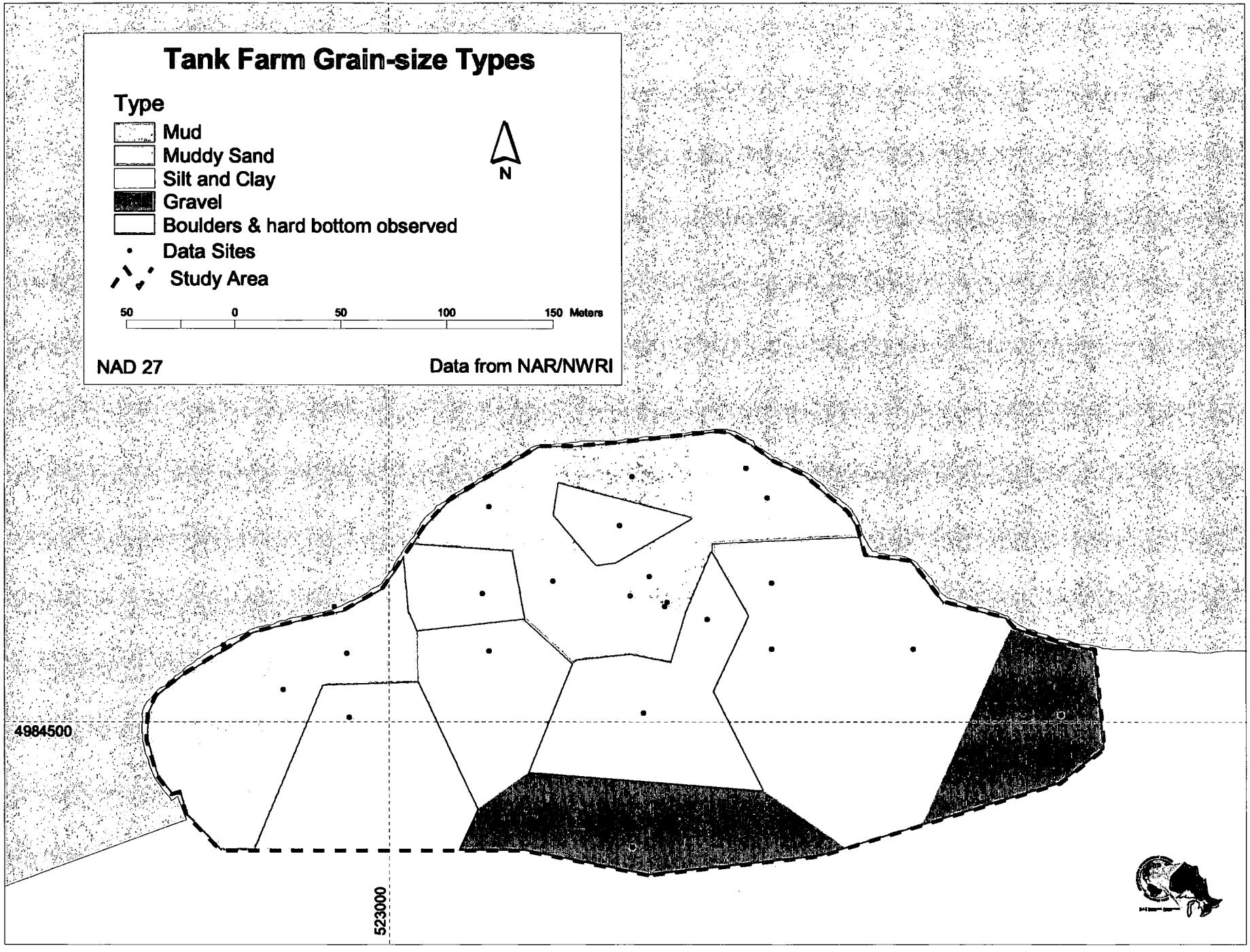


Figure 26. Grain-size distribution, Tank Farm

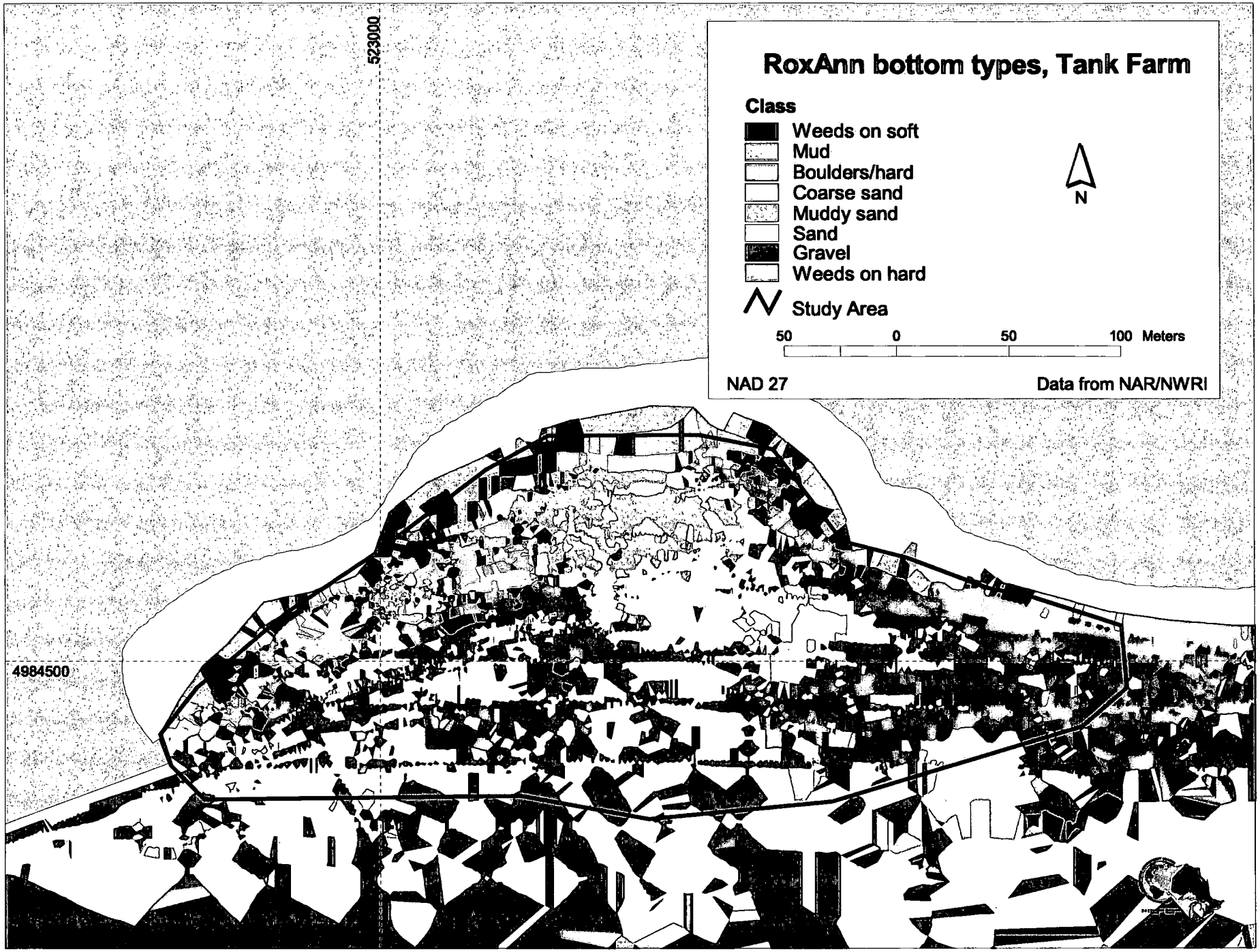


Figure 27. RoxAnn bottom types, Tank Farm

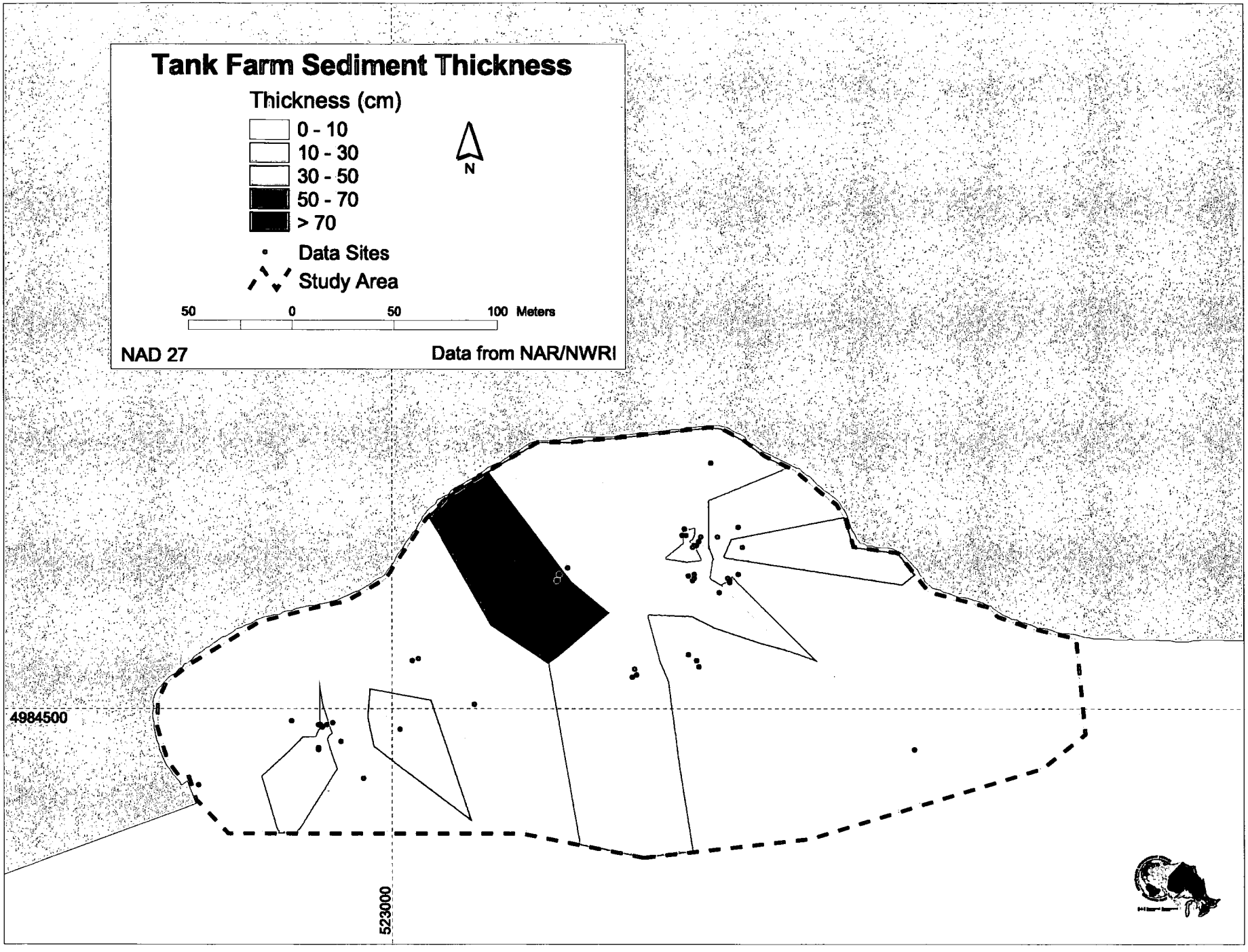
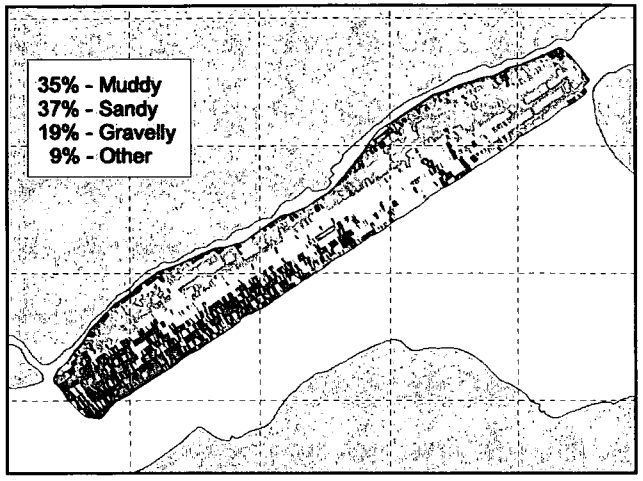
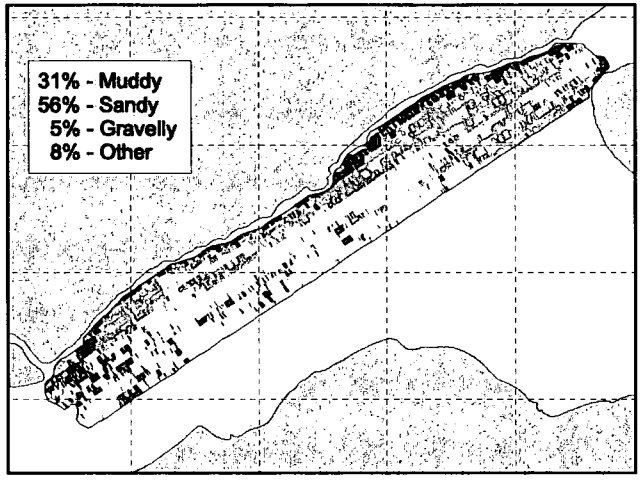


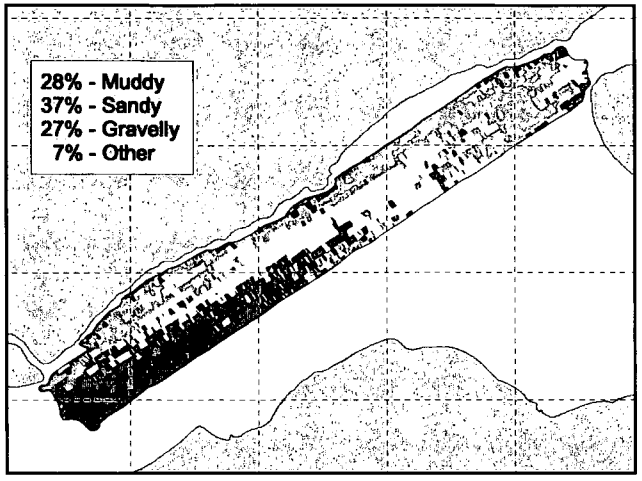
Figure 28. Sediment thickness, Tank Farm



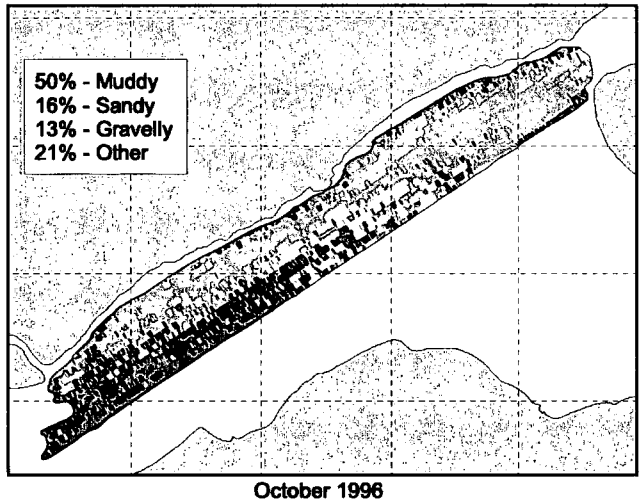
October 1993



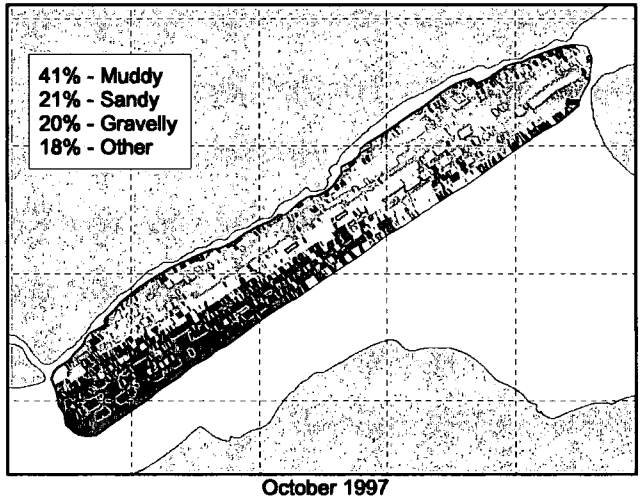
October 1994



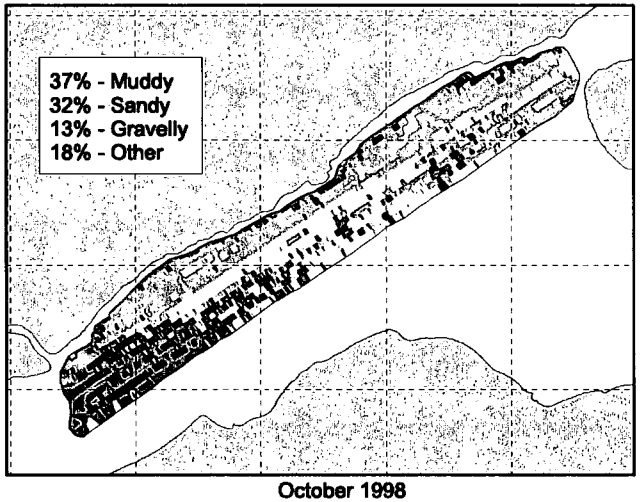
October 1995



October 1996



October 1997



October 1998

Legend

- Mud
- Muddy sand
- Sand
- Coarse sand
- Gravel
- Boulders/hard
- Weeds on soft
- Weeds on hard

Data from NAR/NWRI

Figure 29. Changes in RoxAnn bottom types, 1993-1998

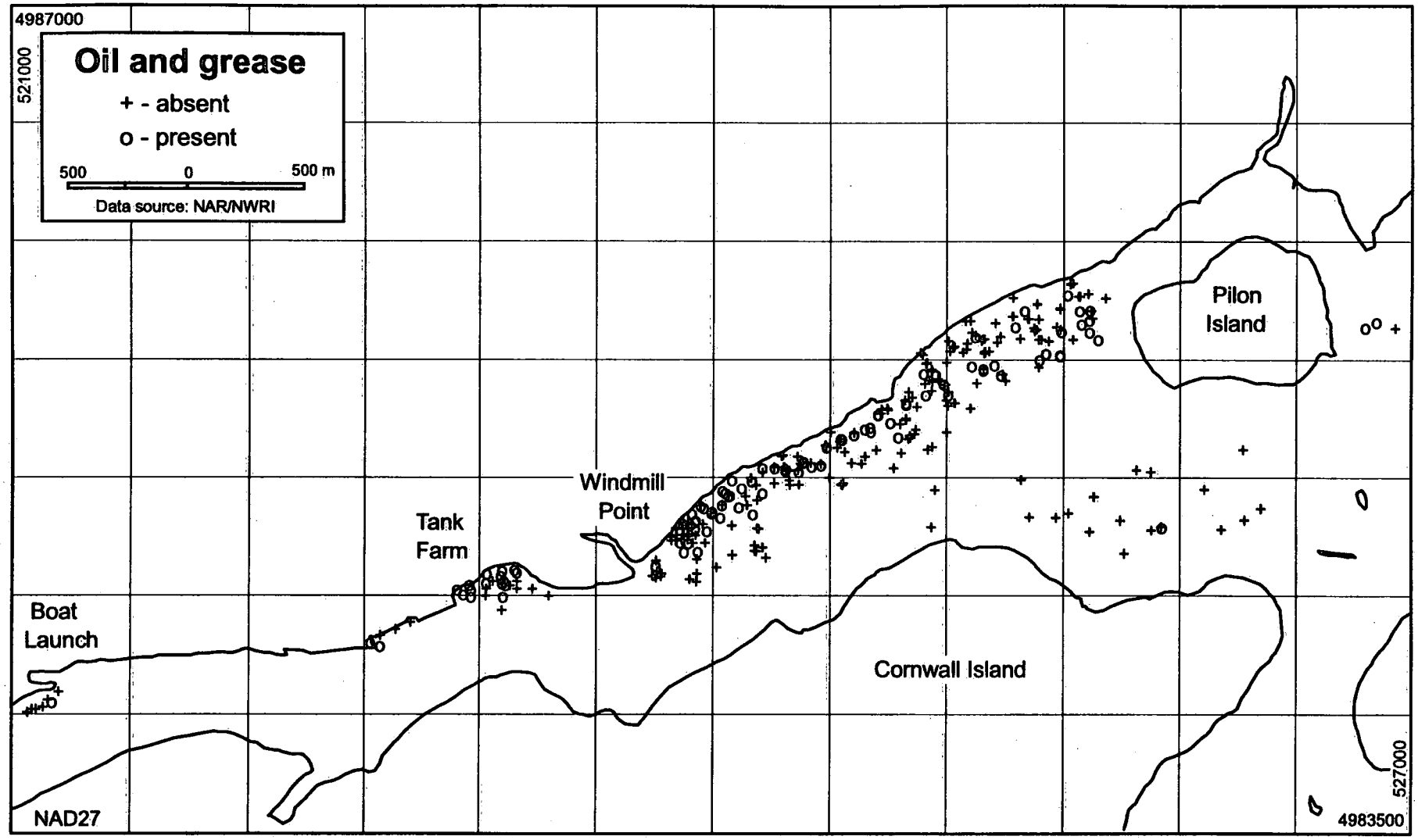


Figure 30. Occurrence of oil and grease

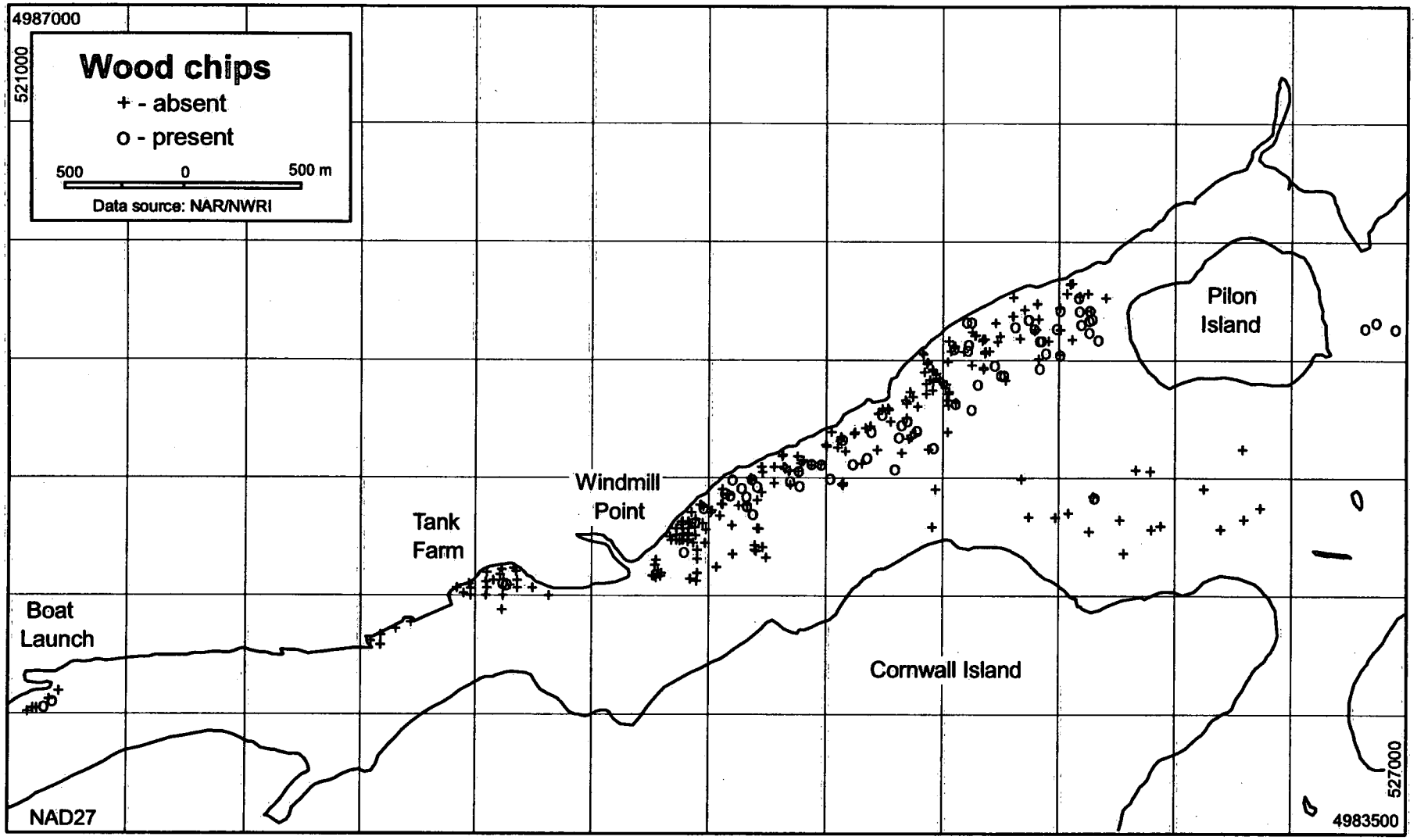


Figure 31. Occurrence of wood chips

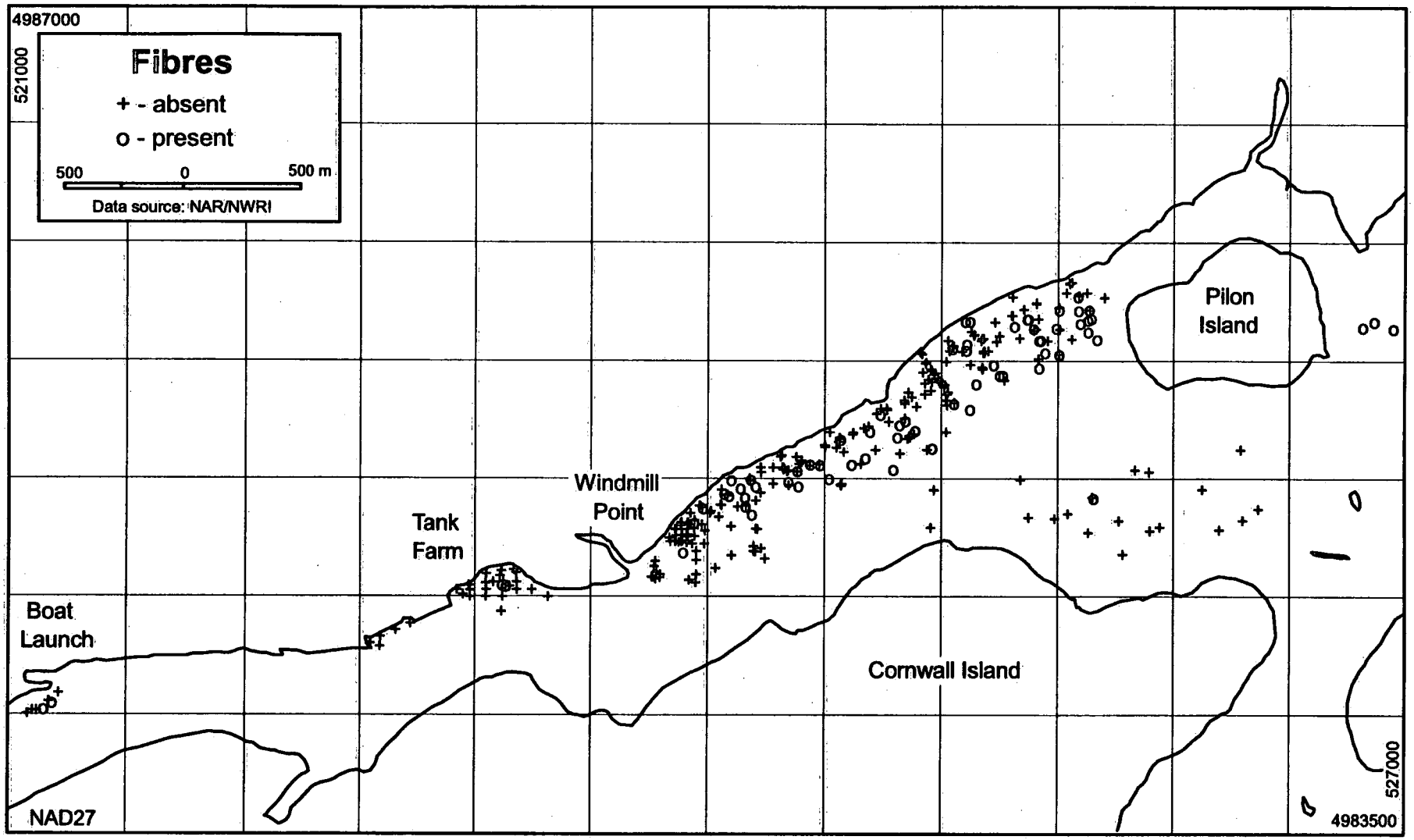


Figure 32. Occurrence of fibres

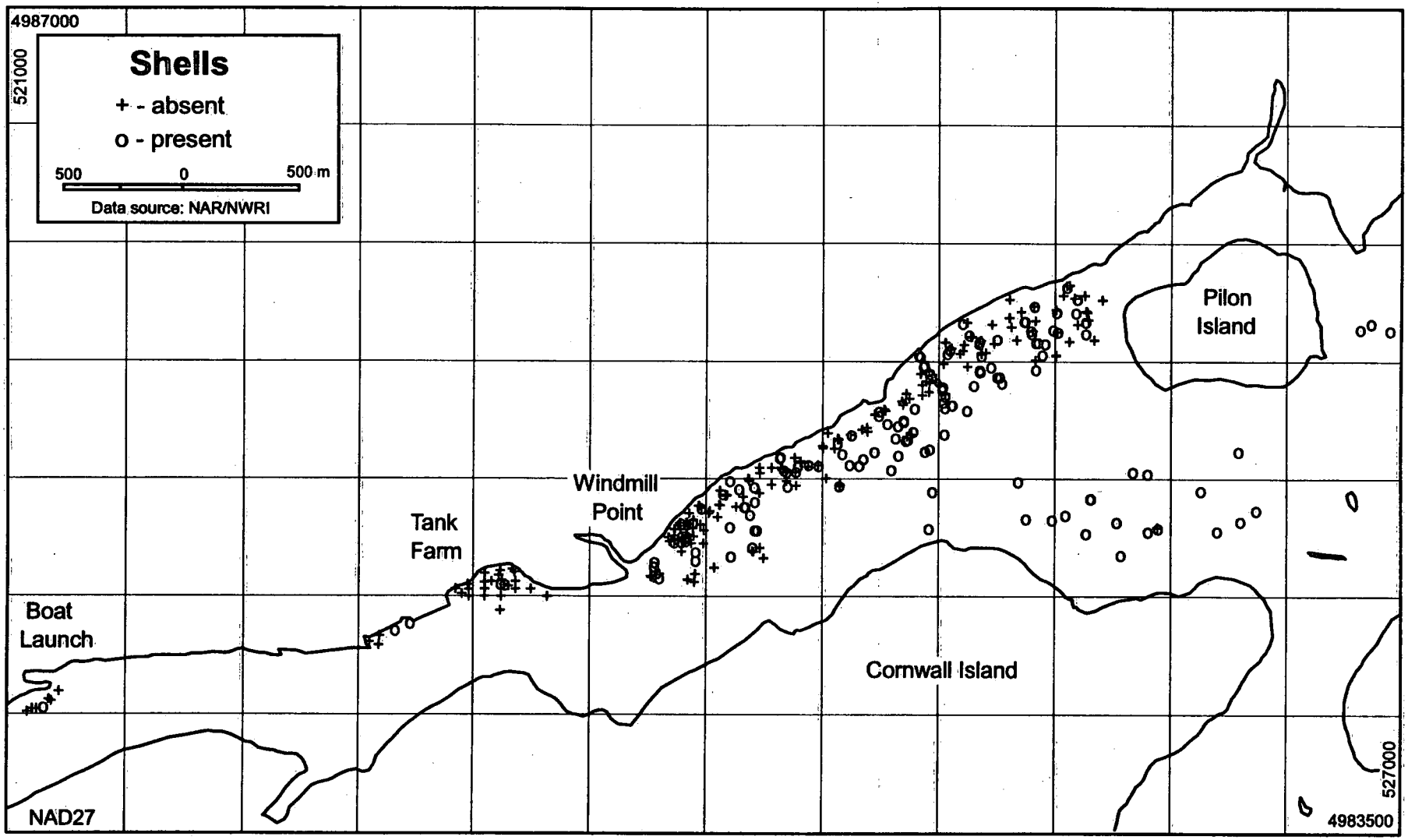


Figure 33. Occurrence of shells

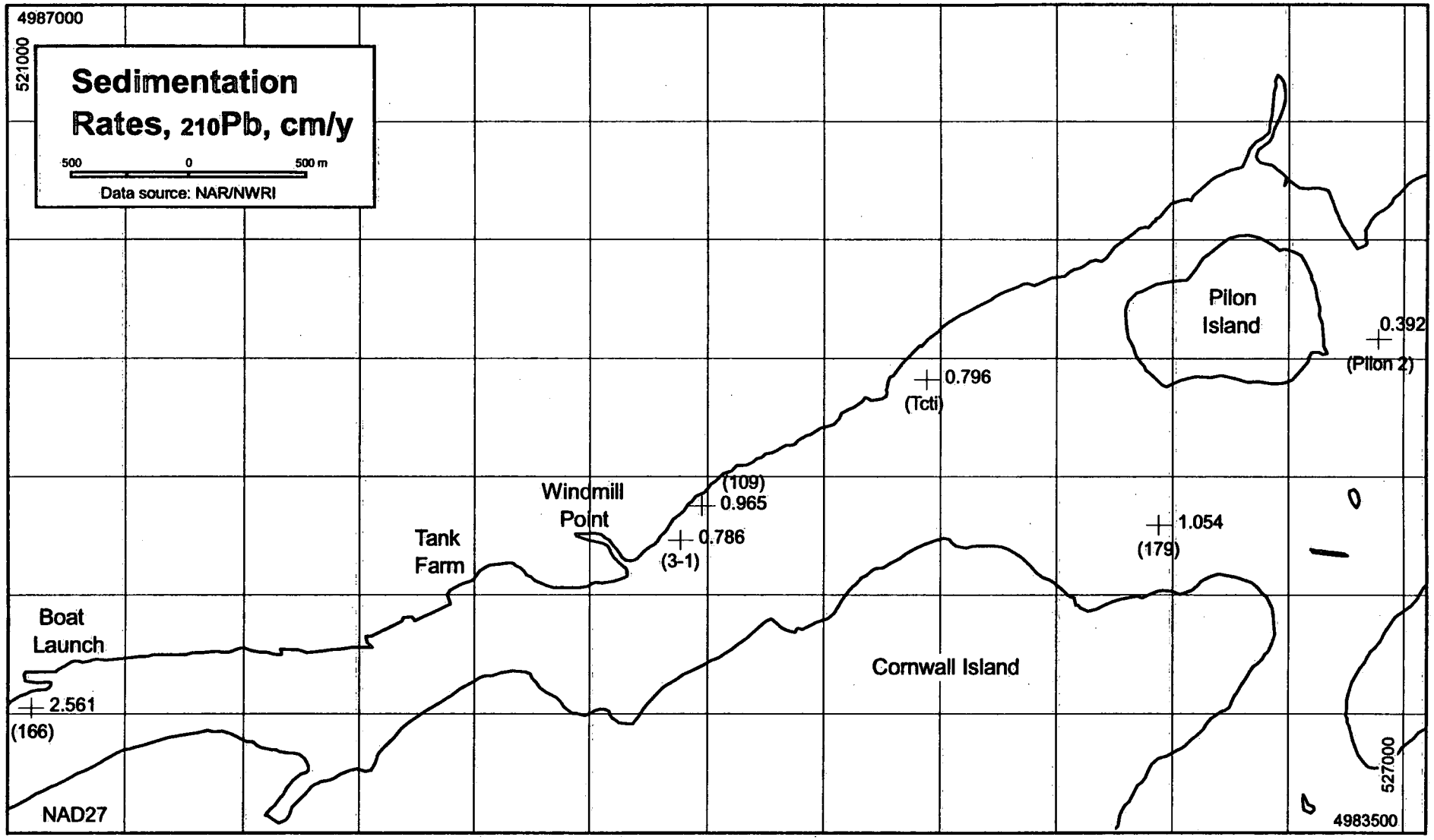


Figure 34. Sedimentation rates, $_{210}$Pb dating (cm/y)

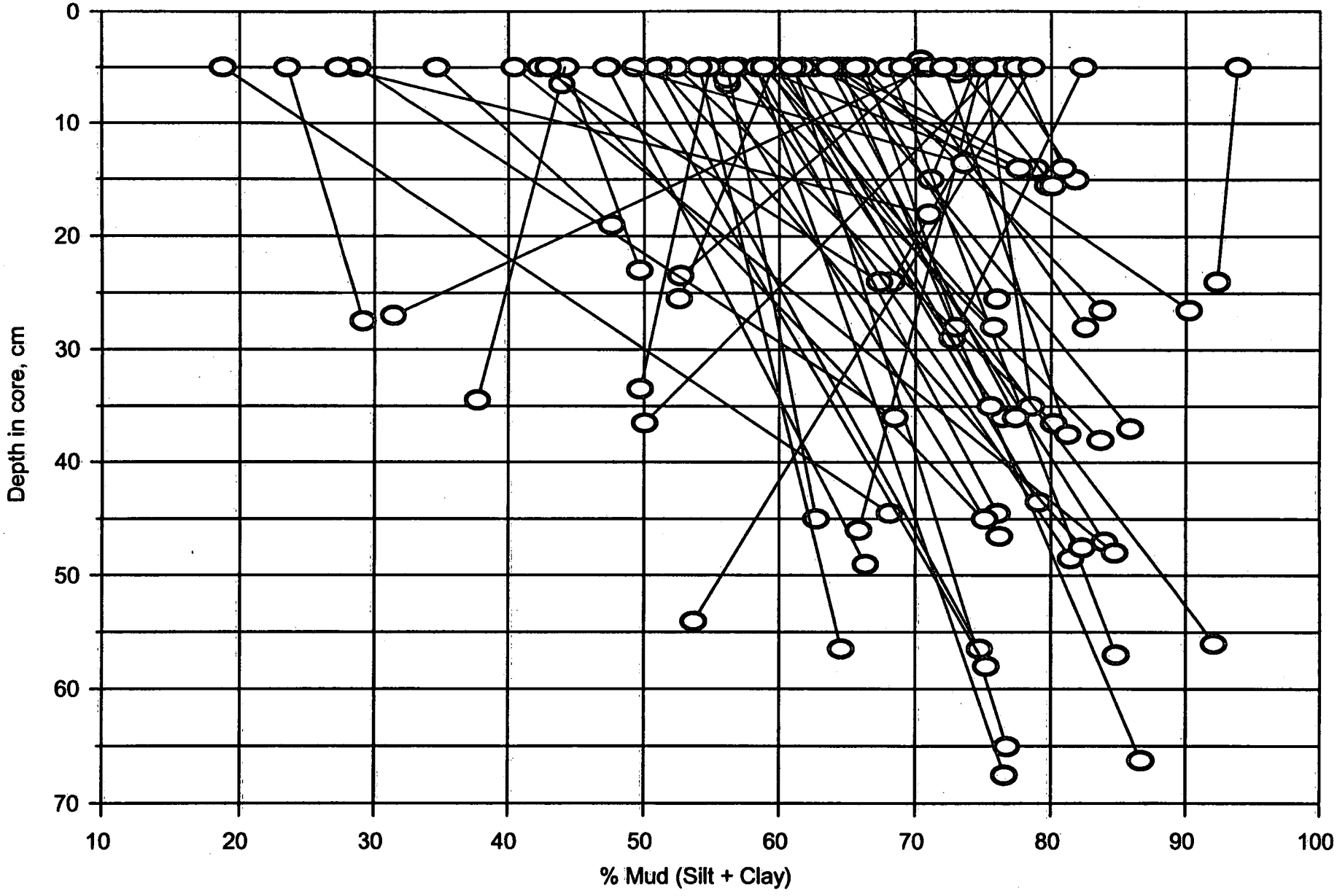


Figure 35. Grain-size profiles, 1994 cores

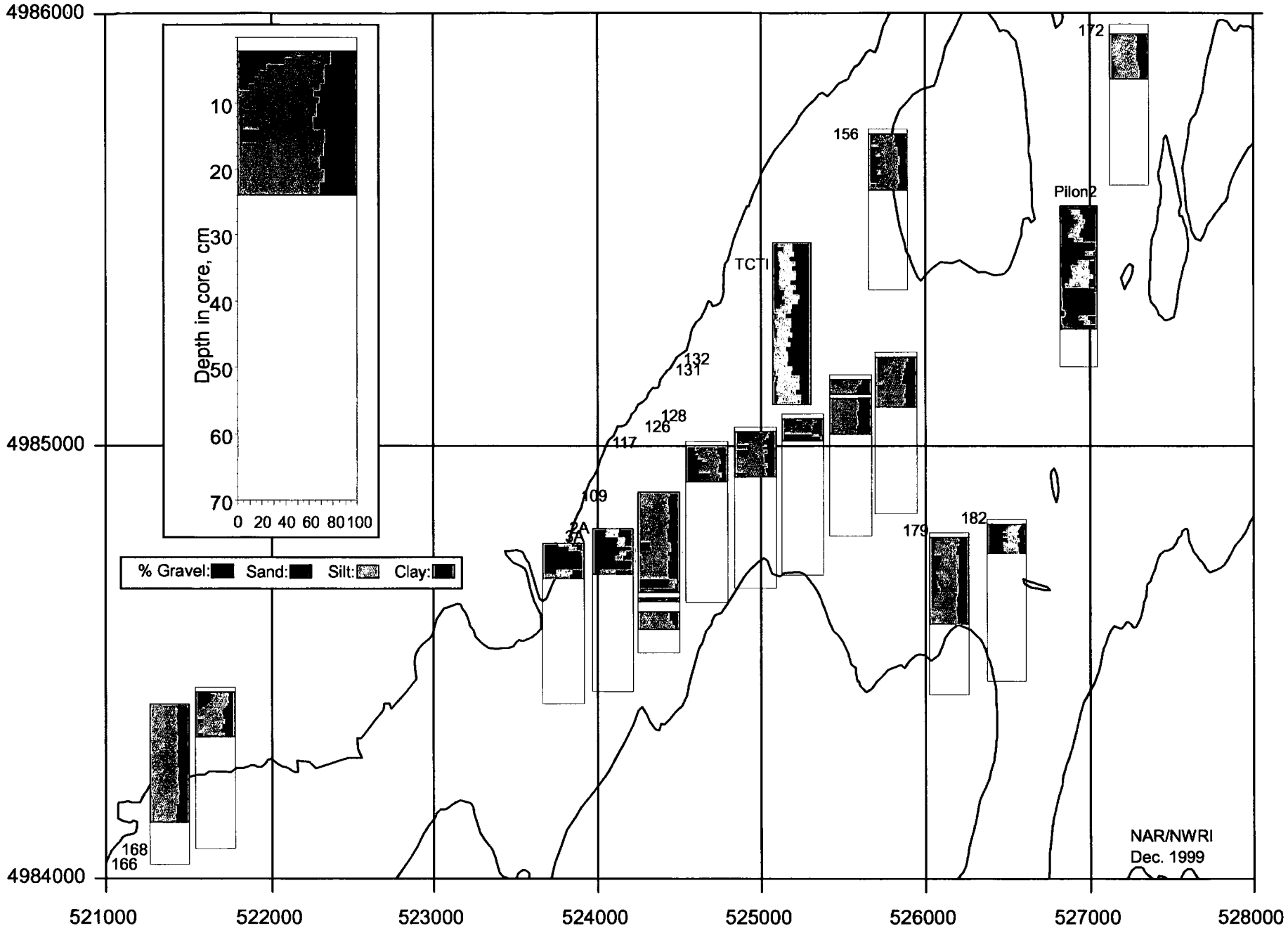


Figure 36. Map of grain-size profiles, 1996/1997 cores.

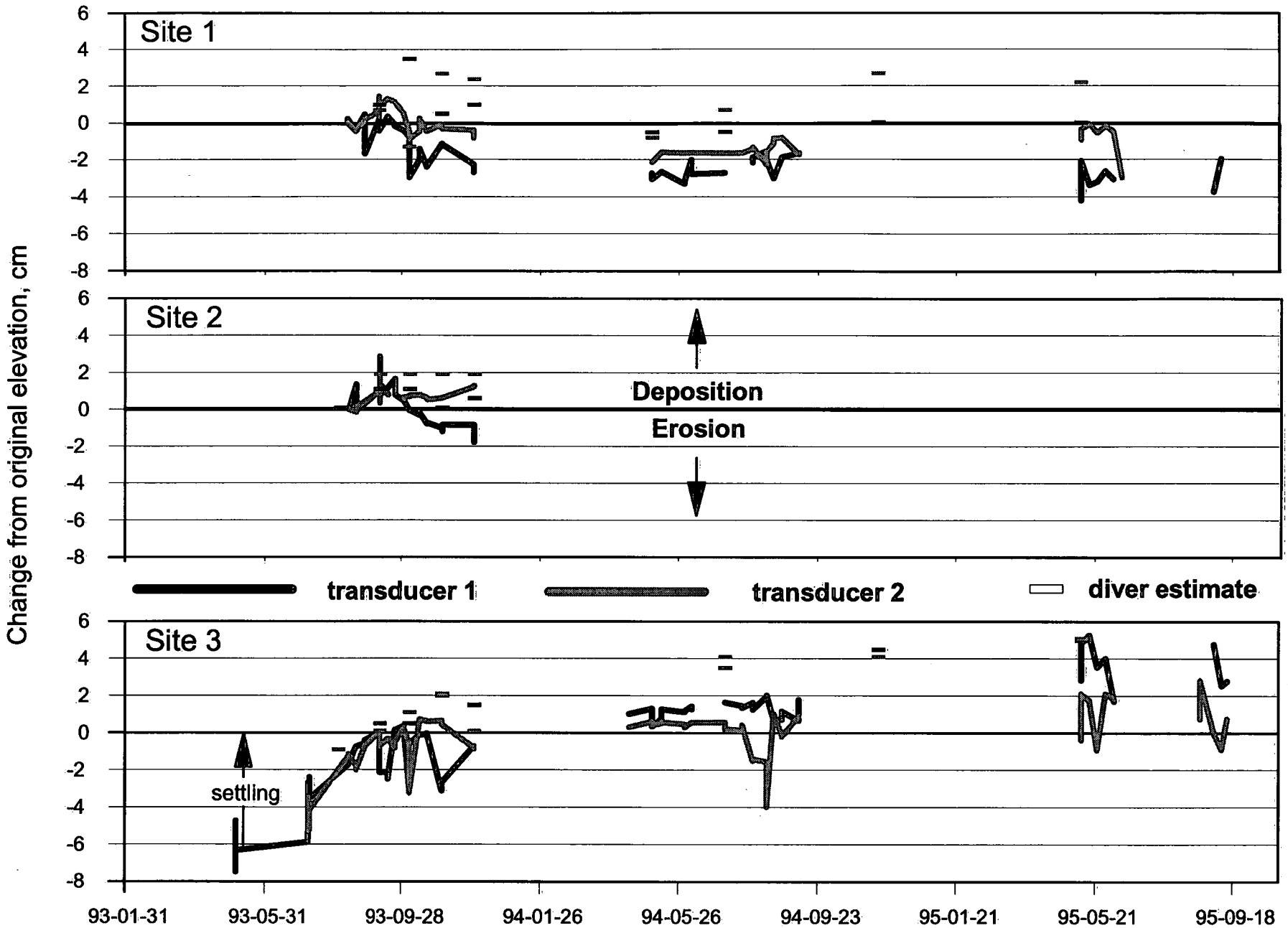


Figure 37. Acoustic data on bottom stability, 1993-1995

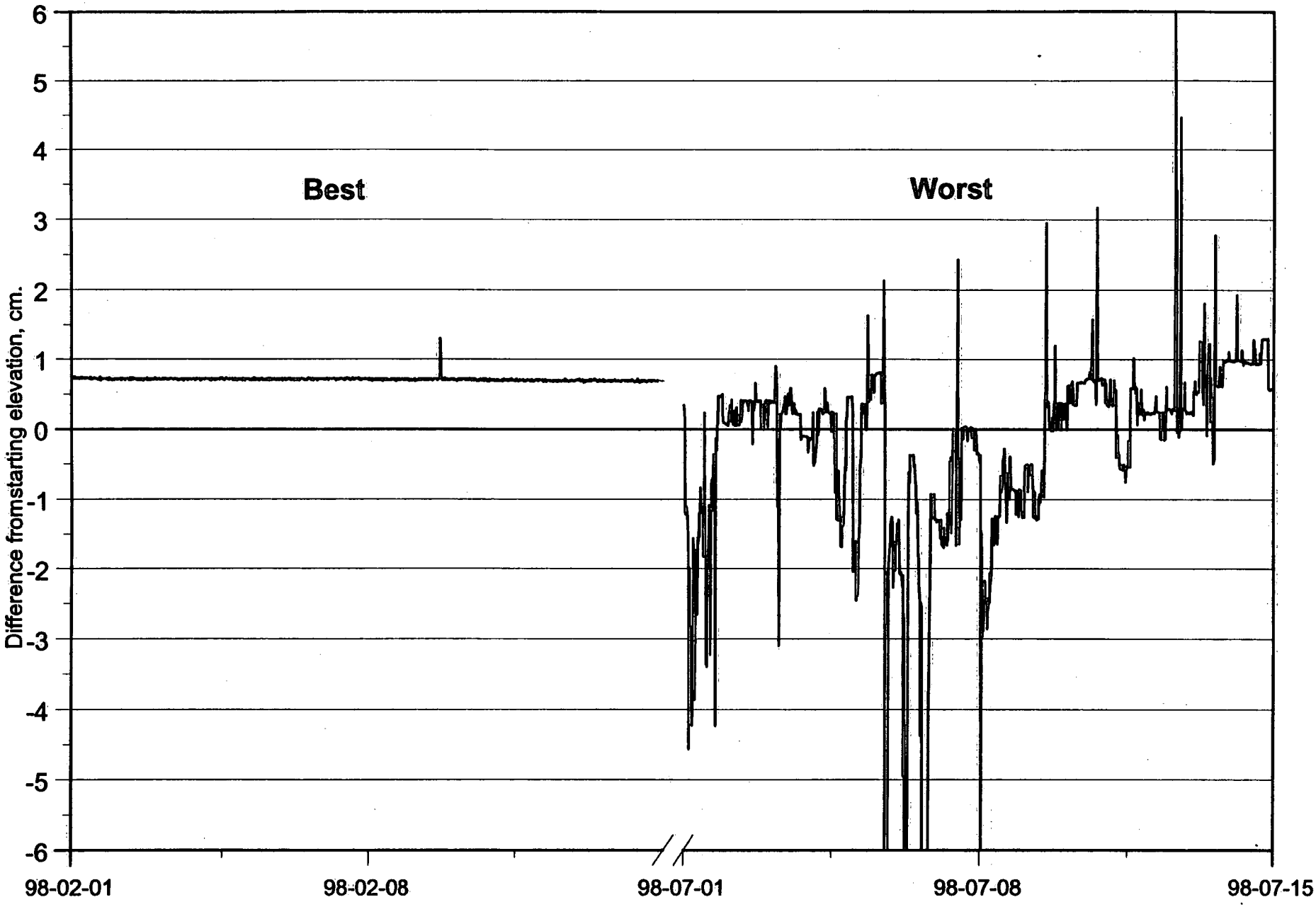


Figure 38. Datalogger variability, best/worst

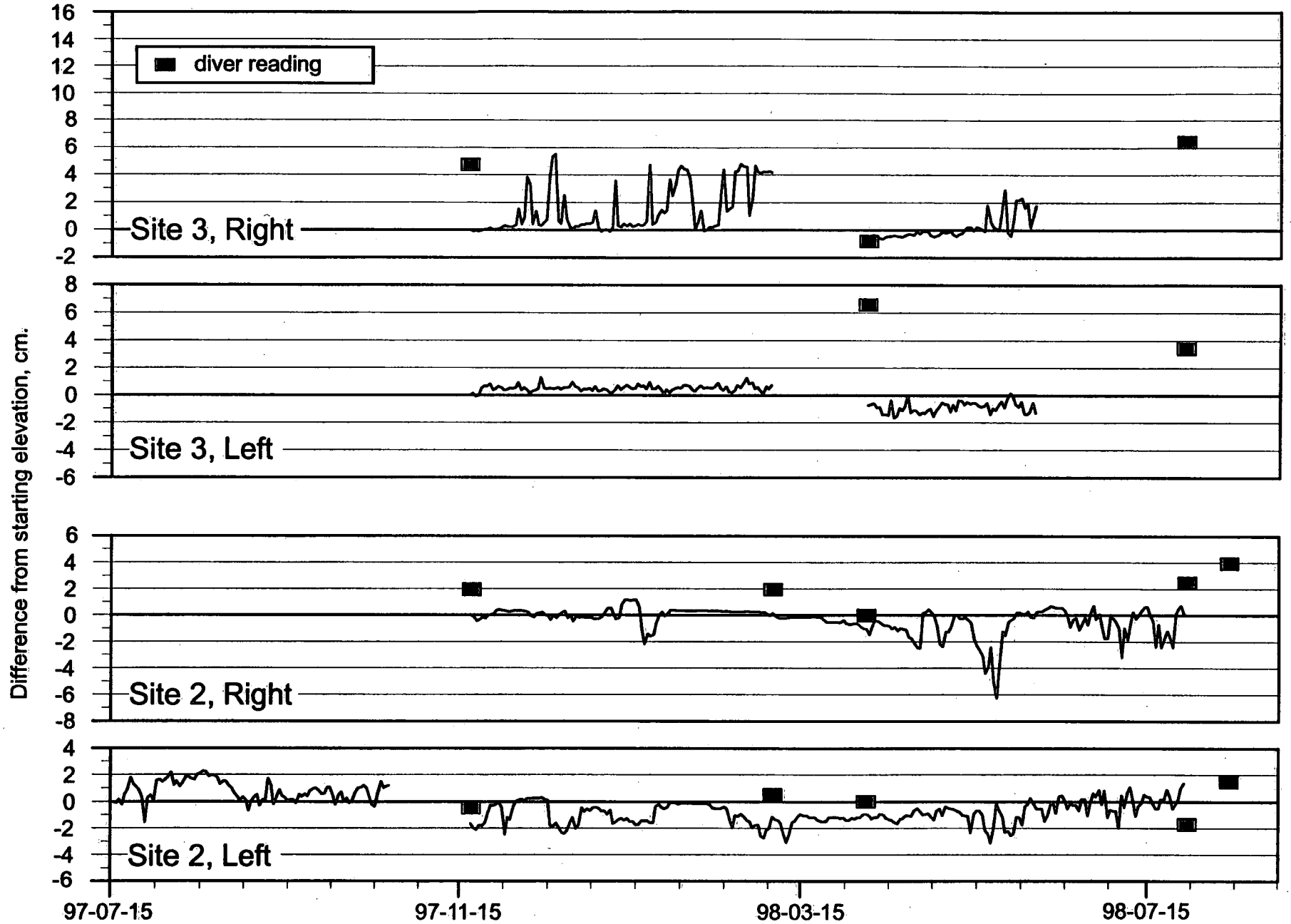


Figure 39. Datalogger records, sites 2 and 3, daily averages

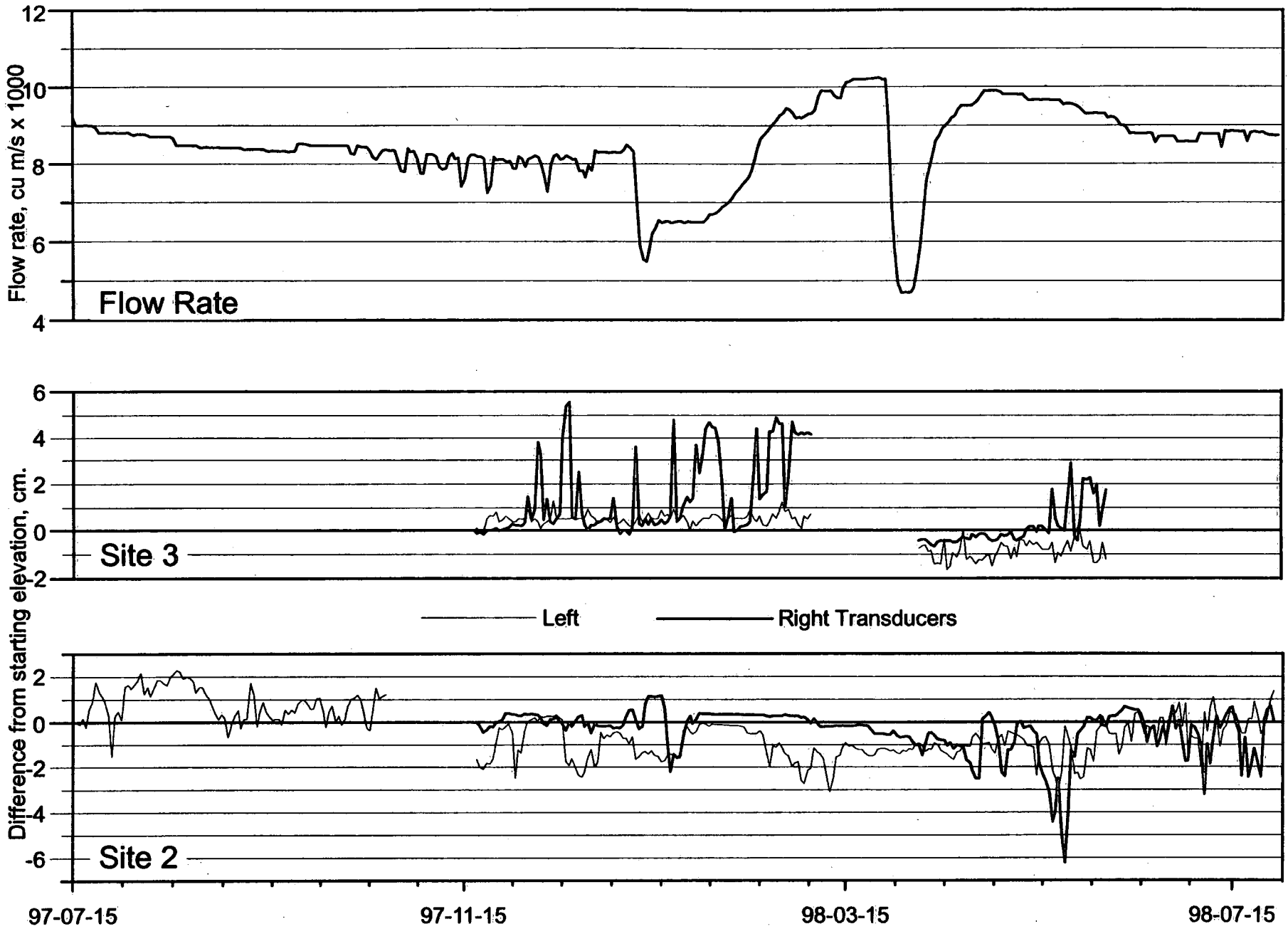


Figure 40. Datalogger records vs flow rate

Appendix 1. Field and descriptive data for surface-sediment samples (Shipek samples and core tops).

Serial Number	Site Number	Sample Type	Date	Easting NAD27	Northing NAD27	Depth, m not IGLD	Interval (cm)	Size type see notes	Exotics see notes	Description
1		Shipek	1993-05-05	522545.8	4984310.0		0-3	m	o	
2		Shipek	1993-05-05	522590.0	4984337.3			H	p	Rocks.
3		Shipek	1993-05-05	522655.3	4984363.1			H	sp	Rocks, shells.
4		Shipek	1993-05-05	522720.0	4984393.7			H	sp	Rocks,shells.
5		Shipek	1993-05-05	522587.0	4984294.7		0-3	s	o	
6		Shipek	1993-05-05	522921.5	4984535.6		0-3	x	o	
7		Core	1993-05-05	522949.7	4984514.7		?	x	o	
8		Shipek	1993-05-05	522974.0	4984553.8		0-3	x	o	
9		Shipek	1993-05-05	522980.4	4984531.9		0-3	x	o	
10		Shipek	1993-05-05	522981.4	4984502.1		0-3	s	o	
11		Shipek	1993-05-05	523047.2	4984600.5		0-3	x	o	
12		Shipek	1993-05-05	523044.4	4984559.7		0-3	s	o	
13		Shipek	1993-05-05	523047.4	4984533.5			H	p	Rocks.
14		Shipek	1993-05-05	523113.9	4984614.6		0-3	m	o	
15		Shipek	1993-05-05	523108.0	4984591.7		0-3	s	o	
16		Shipek	1993-05-05	523121.6	4984567.9		0-3	x	o	
17		Shipek	1993-05-05	523118.9	4984504.2		0-3	s	o	
18		Shipek	1993-05-05	523313.6	4984503.1			G	p	Current, gravel.
19		Shipek	1993-05-05	523113.8	4984441.4			G	p	Current, gravel.
20		Core	1993-05-05	523166.7	4984619.2		?	x	o	
21		Core	1993-05-05	523176.7	4984604.5		?	x	o	
22		Shipek	1993-05-05	523179.0	4984565.0			B	p	Boulders.
23		Shipek	1993-05-05	523179.1	4984534.2			B	p	Boulders.
24		Shipek	1993-05-05	523244.6	4984534.4			B	p	Boulders.
25	1av	Shipek	1993-10-14	523770.0	4984633.0	1.3	0-3	x	wofs	Shelly mud with weeds.
26	2	Shipek	1993-10-14	523908.0	4984764.0	7.6	0-3	m	s	Thin mud over shelly sand.
27	3av	Shipek	1993-10-14	523933.0	4984727.0	7.4	0-3	m	f	Mud over fibrous mud with minor sand.
28	4av	Shipek	1993-10-14	523949.0	4984695.0	8.2	0-3	x	ofsp	Cobble, fibrous mud with shells and wood fragments/chips.
29	5av	Shipek	1993-10-14	524098.0	4984997.0	3.0	0-3	m	ofds	Fibrous mud with shells and wood/leaf fragments.
30	6	Shipek	1993-10-14	524163.0	4984887.0	10.8	0-3	x	fs	Mud over fibrous mud with snail shells.
31	6-1av	Shipek		524160.5	4984886.5		0-3	x	dsp	Thin sandy mud over wood chips, pebbles and shells.
32	7	Shipek	1993-10-22	524185.0	4984852.0	11.4	0-3	s	odsp	Veneer of brown mud over black oily muddy sand with pebbles, wood fragments and shells, full bucket, 2 vials, photo.
33	8-1	Shipek	1993-10-22	525022.0	4985359.0	12.8	0-3	s	os	Brown shelly (snails) sand, oil slick, 2/3 bucket, 2 vials, photo.
34	8-2	Shipek	1993-10-22	524315.0	4985099.0	3.0	0-3	m	ws	Weeds on sampler, small sample of brown mud with snail shells, total sample in 1 vial, photo.
35	10	Shipek	1993-10-22	524385.0	4984974.0	12.8	0-3	x	d	Veneer of brown muddy sand over 2-3 cm layer of fresh wood chips over black mud with wood chips, full bucket with slanted surface, 2 vials, photo.
36	11	Shipek	1993-10-22	524522.0	4985198.0	1.0		W	w	Weed-covered Shipek, small amount of brown mud, not retained, photo.
37	12	Shipek	1993-10-22	524560.0	4985157.0	10.8	0-3	m	sp	1-2 cm brown mud with minor sand, shells, pebbles over black greasy clay, full bucket, 2 vials, photo.

Serial Number	Site Number	Sample Type	Date	Easting NAD27	Northing NAD27	Depth, m not IGLD	Interval (cm)	Size type see notes	Exotics see notes	Description
38	13	Shipek	1993-10-22	524581.0	4985114.0	12.0	0-3	m	s	1-2 cm brown sand and mud with shells, granules over black greasy clay, full bucket, 4 vials (1 & 2 standard 3-cm box samples, 3- surface mud, 4- black clay), 2 photos (2nd of contact).
39	14	Shipek	1993-10-22	524612.0	4985066.0	12.2	0-3	x	fdsp	Brown shelly, sandy gravel with carbonized plant and wood fragments, 2/3 bucket, 2 vials, photo.
40	17	Shipek	1993-10-22	524810.0	4985180.0	10.8	0-3	s	ods	Mainly snail shells and carbonized wood fragments in matrix of brown sand, oil slick and greasy black film on sediment, 3/4 bucket, 2 vials, photo.
41	18	Shipek	1993-10-21	524915.0	4985526.0	1.1		B	sp	Boulder bottom visible, sample not attempted.
42	19	Shipek	1993-10-21	524935.0	4985492.0	3.0	0-3	m	ws	Weed-covered black mud with snail shells and weed fragments, full bucket, 2 vials- surface weeds not included in samples, 2 photos- one of weed-covered
43	20	Shipek	1993-10-21	524984.0	4985416.0	12.8	0-3	m	-	1 cm brown mud with a few live snails over smooth black mud with minor sand, full bucket, 2 vials, photo.
44	21	Shipek	1993-10-21	525012.0	4985396.0	14.6	0-3	x	s	2-3 cm brown mud over muddy black sand with snail shells, overfull bucket with slanted surface which collapsed, 2 vials, photo.
45	22	Shipek	1993-10-21	525051.0	4985322.0	11.9	0-3	s	dsp	Sample consists mainly of well-sorted snail shells with minor sand and pebbles, few wood fragments, oil slick, 2/3 bucket, 2 vials, photo.
46	23	Shipek	1993-10-21	525100.0	4985667.0	2.0	0-3	m	wds	Black shelly mud with wood fragments and snail shells, Shipek was covered with weeds, full bucket, 2 vials, photo.
47	24	Shipek	1993-10-21	525126.0	4985621.0	7.2	0-3	m	s	2-3 cm soft brown mud over soft black mud with a few snail shells, full bucket with slightly sloping surface, 2 vials, photo.
48	25	Shipek	1993-10-21	525169.0	4985583.0	10.6	0-3	x	fs	2 cm brown mud over black, fibrous, shelly mud; large clam shell coated with zebra mussels; full bucket, 2 vials, 2 photos- one of clam shell and zebra mussels.
49	26	Shipek	1993-10-21	525178.0	4985531.0	10.7	0-3	x	fs	Disturbed sample of brown-black fibrous muddy sand with snail shells, full bucket, 2 vials, photo.
50	27	Shipek	1993-10-21	525222.0	4985484.0	9.0	0-3	s	ods	Mix of sandy mud, snail shells, weeds and wood fragments; oil slick; 1/3 bucket, 2 vials, photo.
51	28	Shipek	1993-10-21	525249.0	4985443.0	7.6	0-3	s	odsp	Muddy sand with snail shells, large clam shells, wood fragments and small pebbles, oil slick, 1/3 bucket, 2 vials, photo.
52	29	Shipek	1993-10-21	525304.0	4985767.0			W	w	Weeds in clear water, no sample, no second attempt.
53	30	Shipek	1993-10-22	525350.0	4985716.0		0-3	m	o	1-2 cm brown mud with minor sand over black mud with minor sand, discrete blobs of black oily substance, full bucket, 3 vials (3rd of oily sediment only), 2 photos- one of oil, opposite outfall next to WTP, protected by steel pilings.
54	31	Shipek	1993-10-22	525364.0	4985679.0	7.9	0-3	x	ds	Disturbed sample, 1-2? cm brown sandy mud over black sandy mud with many wood fragments, snail shells, full bucket, 2 vials, photo.
55	32	Shipek	1993-10-22	525397.0	4985627.0	9.1	0-3	s	s	Veneer of brown muddy sand over black shelly muddy sand, shells are mainly snails, 3/4 bucket, disturbed, 2 vials, photo, single Chironomid.
56	33	Shipek	1993-10-22	525415.0	4985590.0		0-3	s	ds	2-3 cm wood-chip layer over brown sand with some shells, full bucket, 2 vials,
57	34	Shipek	1993-10-22	525443.0	4985536.0	6.8	0-3	s	ods	Disturbed sample, veneer of brown muddy sand over brown to brown-black shelly sand with wood fragments, oil slick and some oil patches in sample, 3/4 bucket, 2 vials, photo.
58	35	Shipek	1993-10-22	525588.0	4985715.0	11.5	0-3	x	ofds	Veneer of brown sandy mud over dark brown fibrous sandy mud with carbonized wood fragments, snail shells, oil patches and oil slick, full bucket, 2 vials, photo.
59	36	Shipek	1993-10-22	525628.0	4985677.0	11.0	0-3	x	ofds	1-2 cm brown muddy silt with snail shells over brown-black, organic-rich muddy sand with carbonized wood fibres, wood chips, several oil patches and oil slick, full bucket, slanted surface, 3 vials (3rd is surface sediment only).
60	37	Shipek	1993-10-22	525665.0	4985594.0	6.0	0-3	x	ofd	Veneer of brown muddy sand over brown-black, organic-rich muddy sand with wood fibres and chips- some fresh and some carbonized, oil slick and oil patches in sediment, full bucket, 2 vials, photo.

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				NAD27						
61	41	Shipek	1993-10-22	524774.0	4985242.0	11.6	0-3	s	os	Well-sorted brown sand with snail shells and shell fragments, oil slick, 3/4 bucket, 2 vials, photo.
62	65	Shipek	1993-10-22	524740.0	4985294.0	5.8	0-3	x	s	Small sample including rectangular chunk of cohesive black greasy mud, remaining sediment was brown shelly mud, 3 vials (1&2- total sample except for 3- black greasy mud), photo.
63	113	Shipek	1993-10-22	523793.0	4984584.0	5.2		G	sp	Small sample, 1 cm of brown sand and gravel with snail shells and broken rock? fragment, note that photo and sounder may be mislabeled 13, 1 vial, photo.
64	118	Shipek	1993-10-22	523885.0	4984802.0	4.3	0-3	m	w	1-2 cm brown mud with minor sand over black mud with minor sand, surface weeds with small zebra mussels attached, full bucket, 2 vials, photo.
65	143	Shipek	1993-10-22	523780.0	4984608.0	2.4	0-3	s	w	Brown-black mud over muddy sand, weed-covered sample and weeds on surface, weeds not included in samples, 1/3 bucket, 2 vials, photo.
66	172	Shipek	1993-10-22	523773.0	4984652.0	2.5	0-3	x	ws	1 cm brown mud over black mud with shells, minor sand, 1/3 bucket, disturbed, weeds on sampler and sample surface, weeds not included in sample, 2 vials.
67	248	Shipek	1993-10-22	524135.0	4984964.0	9.0	0-3	s	wodsp	Oil film, weed fragments on surface, black sandy gravel with shells, weed and wood fragments and debris (piece of garbage bag and aluminum foil), weeds not sampled, 3/4 bucket, 2 vials, photo.
68	281	Shipek	1993-10-22	524157.0	4984926.0	9.5	0-3	x	wfdp	Veneer of brown mud over 2 cm brown gravelly sand with shells and plant and wood fragments over black greasy clay, full bucket, tilted surface, Vallisneria-like weeds on sampler, 3 vials (3rd is greasy clay), photo.
69	343	Shipek	1993-10-22	524343.0	4985035.0	11.4	0-3	s	s	1-2 cm brown shelly sand over dark-brown, well-sorted shelly sand, full bucket, 2 vials, photo (oil slick and smear in photo may be from previous sample).
70	407	Shipek	1993-10-22	525548.0	4985824.0	4.8	0-3	m	s	Disturbed sample, 1-2 cm brown mud over brown-black mud with snail shells, full bucket, 2 vials, photo.
71	443	Shipek	1993-10-22	525583.0	4985772.0	8.8	0-3	x	fd	2-3 cm brown mud over brown-black fibrous sandy mud with wood fragments, full bucket, slanted surface, 2 vials, photo.
72	455	Shipek	1993-10-22	525627.0	4985626.0	8.0	0-3	x	ofds	1-2 cm brown muddy sand over brown-black fibrous muddy, shelly sand with carbonized wood chips and fibres, full bucket with slanted surface, oil slick, 2 vials (1- box sample, 2- surface sediment only), photo.
73	FT	Shipek	1993-10-22	524958.0	4985455.0	9.4	0-3	m	s	1 cm brown mud over stiffer black mud with a few snail shells, full bucket, 2 vials, photo.
74	8-2-1	Shipek	1993-10-22	524311.0	4985094.0		obs.	W	ws	Vallisneria-like weeds on sampler, brown mud with snail shells, sample discarded.
75	18-1	Shipek	1993-10-22	524911.0	4985534.0			S	s	Small sample of sand and shells,1 vial, photo.
76	28-1	Shipek	1993-10-21	525268.0	4985416.0			X	s	Shells, zebra mussels, muddy sand.
77	407-1	Shipek	1993-10-22	525550.0	4985827.0			W	w	Weeds on sampler.
78	S9	Shipek	1994-10-13	523962.5	4984887.5	5.1	0-3	m	o	Ooze, oil sheen, globules, slight petroleum odour.
79	S14	Shipek	1994-10-18	524053.1	4984892.9	8.5	0-3	x	wo	Macrophytes, oily ooze, oil sheen, globules, little fine sand.
80	S15-1a	Shipek	1994-10-18	524086.3	4984929.9	8.8	0-3	x	o	Very oily ooze, little fine sand, light brown over black.
81	S15-2a	Shipek	1994-10-18	524081.8	4984932.7	8.7	0-3	x	o	Very oily ooze, strong odour, oil sheen.
82	S15-3a	Shipek	1994-10-18	524081.3	4984930.5	8.7	0-3	x	o	Very oily ooze, strong odour, oil sheen.
83	S17	Shipek	1994-10-18	524180.5	4984991.1	9.5	0-3	x	o	Ooze (1cm gray-green surface) over brownish-black sand, oily, oily odour.
84	S23	Shipek	1994-10-18	524324.1	4985044.9	11.5	0-3	m	o	Very oily ooze, many oil globules, light brown(1cm) over dark brown ooze.
85	S27-1a	Shipek	1994-10-18	524403.0	4985073.4	11.0	0-3	s	o	Silty sand marl, zebras, slight petroleum odour, many oil globules.
86	S27-2a	Shipek	1994-10-18	524401.9	4985076.9	11.2	0-3	s	o	Silty sand, oil globules, marl, zebra mussels, slight odour.
87	S27-3a	Shipek	1994-10-18	524401.5	4985076.7	11.3	0-3	s	o	Silty sand, lots of marl, oil globules, zebras, slight oily odour.
88	S31	Shipek	1994-10-23	524564.1	4985172.5	9.6	0-3	x	o	Light brown top 1 cm, over dark brown, oil globules, slight petroleum odour, ooze.
89	S33	Shipek	1994-10-23	524667.5	4985212.7	8.9	0-3	x	o	0-1 cm light brown over dark brown, oil globules, some detritus, slight petroleum.

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90	S35-1a	Shipek	1994-10-23	524723.9	4985273.8	7.8	0-3	x	o	Light brown over black ooze, petroleum odour, some marl, globules.
91	S35-2a	Shipek	1994-10-23	524722.1	4985275.1	7.8	0-3	x	o	Light brown over black ooze, petroleum odour, some marl, globules.
92	S35-3a	Shipek	1994-10-23	524723.2	4985275.5	7.8	0-3	x	o	Light brown over black ooze, petroleum odour, some marl, globules.
93	S37	Shipek	1994-10-23	524845.3	4985319.3	10.2	0-3	x	o	Brown over black ooze, petroleum odour, oil globules, sparse detritus.
94	S39	Shipek	1994-10-23	524918.4	4985448.9	4.8	0-3	m	o	Brown over black ooze, no odour, fewer globules than above, sparse detritus, zebra muscles.
95	S42	Shipek	1994-10-23	524967.6	4985442.7	11.1	0-3	m	o	Light brown over black ooze, globules, no odour.
96	S47	Shipek	1994-10-23	525137.8	4985605.6	9.6	0-3	x	o	Light brown over black ooze, globules, slight petroleum odour.
97	S57	Shipek	1994-10-23	525505.4	4985628.9	8.8	0-3	s	o	Silty sand, lots of marl, zebras, oily, no odour.
98	S58	Shipek	1994-10-23	525502.4	4985529.9	6.3	0-3	s	od	Silty sand, wood chips, marl, oil globules, slight petroleum odour.
99	S62	Shipek	1994-10-23	525632.1	4985718.4	12.1	0-3	s	od	Silty sand, many wood chips at 5 cm, oil sheen/oil globules, slight petroleum
100	C1	Benthos core	1994-10-21	523873.0	4984735.0	6.0	0-13	x	os	Ooze, 0-2 cm light brown, 2-7 cm dark brown, mixed with shell and shell fragments and becomes sandy with fine gravel, many oil globules, no odour, 7-10 cm dark brown, 12-13 cm black.
101	C2	Benthos Core	1994-10-22	523891.1	4984693.0	9.0	0-12	x	od	Ooze, 0-1 cm light brown, 1-4 cm dark brown, sand, wood chips at bottom, moderate petroleum odour, oil globules.
102	C3	Benthos core	1994-10-21	523907.5	4984731.9	7.6	0-10	x	os	0-3 cm ooze, light brown, 7-10 cm shell and shell fragments, some fine sand, oil globules, gravelly at 10 cm.
103	C4	Benthos core	1994-10-22	523918.8	4984809.3	7.4	0-10	m	o	Ooze, many oil globules, slight petroleum odour no detritus, 0-1 cm light brown, 1-10 cm gray.
104	C5	Benthos core	1994-10-21	523925.8	4984856.3	4.1	0-10	x	o	Very oily ooze, slight odour, 0-5 cm brown, 5-10 cm black.
105	C6	Benthos core	1994-10-21	523942.0	4984826.9	7.8	0-10	x	o	Ooze, very oily, slight petroleum odour, 0-2.5 cm light brown, darkens to black at 15 cm.
106	C7	Benthos core	1994-10-21	523939.1	4984793.6	7.8	0-10	x	o	0-7 cm ooze, oil globules throughout, slight petroleum odour, 0-4 cm light brown, 5-7 cm black, 7-10 cm fine gravel/sand, black.
107	C8	Benthos core	1994-10-22	523944.2	4984758.8	9.0	0-11	s	-	0-1 cm ooze, zebra mussel, light brown, 1-5 cm silty sand, dark gray, 5-10 cm sand fine gravel, dark gray, light brown, 10-11 cm more muddy, slight petroleum odour, dark gray.
108	C9	Benthos core	1994-10-13	523966.0	4984887.7	4.6	0-8.6	m	-	Muddy silt, ooze, oily petroleum chemical odour, 0-5 cm dark gray, 5-8.6 cm
109	C10	Benthos core	1994-10-22	523973.6	4984809.5	8.7	0-10	s	os	Oil globules, slight petroleum odour, 0-3 cm ooze, 0-2 cm light brown, 2-3 cm darker brown, 3-9 cm sand with shell and shell fragments, 3-8 cm darker brown, 8-9 cm gray, 9-10 cm sandy ooze with many shell and shell fragments, gray.
110	C11	Benthos core	1994-10-24	523987.9	4984782.4	10.5	0-10	m	o	Ooze, slight to moderate petroleum odour, oil globules, ½ cm light brown over dark gray.
111	C12-1	Benthos core	1994-10-18	524008.9	4984859.3	8.8	0-10	m	o	0-4 cm light brown, flocculent, 4-10 cm slightly packed, petrochemical odour, oil sheen, black.
112	C12-2	Benthos core	1994-10-18	524011.8	4984862.2	9.0	0-10	x	o	0-3 cm light brown, worm castings, 4-10 cm oily black ooze, petroleum odour.
113	C12-3	Benthos core	1994-10-18	524009.3	4984856.3	8.7	0-10	x	s	0-2 cm loose, brown, 2-7.5 cm brown, sandy, 7.5-10 cm black, oozy, 8-9 cm shells, gritty, moderate odour.
114	C13	Benthos core	1994-10-24	524046.2	4984840.1	9.5	0-10	m	os	0-5 cm ooze, 0-2 cm light brown, 2-5 cm black, 5-10 cm silty sand/fine gravel - oil globules, slight petroleum odour, shell and shell fragments mix in sandy layer.
115	C14	Benthos core	1994-10-18	524055.5	4984890.7	9.0	0-10	x	-	0-8.5 cm loose, light brown, 8.5-10 cm black, thicker, darker, strong sulphur
116	C15-1	Benthos core	1994-10-18	524086.0	4984934.0	8.8	0-10	x	-	Strong sulphur odour, wet loose ooze, 0-3 cm light brown, 3-10 cm black.
117	C15-2	Benthos core	1994-10-18	524080.8	4984928.8	8.8	0-10	m	-	Strong sulphur odour, 0-9 cm flocculent, 0-1 cm light brown, 1-9 cm black, 9-10 cm wet mud, more sandy, black.
118	C15-3	Benthos core	1994-10-18	524084.8	4984930.6	8.8	0-10	m	-	0-6 cm ooze, 6-10 cm sandier grayish black, moderate sulphur odour.

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119	C16	Benthos core	1994-10-22	524125.8	4984885.8	10.2	0-13	x	os	0-4 cm brown ooze, 4-13 cm sandy black ooze, mixed with shell and shell fragments, many oil globules, slight petroleum odour.
120	C17	Benthos core	1994-10-18	524177.6	4985002.4	9.1	0-10	x	-	0-9 cm ooze, firms with increasing depth, worm castings on surface, 0-4 cm light brown darkening near 10 cm, 9-10 cm increasing in sand content, oily sheen.
121	C18	Benthos core	1994-10-24	524227.0	4984943.3	10.8	0-10	m	o	Ooze, many oil globules, moderate petroleum odour, 0-2 cm light brown, 2-10 cm black.
122	C19	Benthos core	1994-10-20	524230.7	4985026.1	9.0	0-10	x	o	Gas bubbles, oil globules, slight petroleum odour, 0-2 cm ooze, flocculent, light brown, 2-6 cm mixed with sand, grayish, 6-10 cm black ooze, top very fine sparse shell and shell fragments.
123	C20	Benthos core	1994-10-20	524276.4	4985047.7	8.9	0-10	x	o	Very fine surface detritus, very sparse shell and shell fragments, ooze, oil globules, slight petroleum chemical odour, 0-5 cm light brown.
124	C21	Benthos core	1994-10-22	524279.6	4984979.8	10.4	0-10	x	od	0-4 cm brown sloppy ooze, 4-10 cm black ooze, many oil globules, moderate petroleum becomes sandy near 10 cm, few wood chips at 6 cm.
125	C22	Benthos core	1994-10-20	524276.4	4985047.7	11.2	0-10	m	o	0-5 cm ooze, 0-3 cm light brown, 5-10 cm firmer, oil globules, slight petroleum odour, 7-10 cm medium brown.
126	C23-1	Benthos core	1994-10-20	524321.4	4985044.2	10.2	0-10	m	o	0-1 cm flocculent ooze, many oil globules, slight petroleum odour, light brown, 2-10 cm black ooze , air pockets.
127	C23-2	Benthos core	1994-10-20	524321.6	4985047.1	9.8	0-10	x	o	Ooze, very oily, moderate petroleum odour, 0-1 cm light brown, 9-10 cm black.
128	C23-3	Benthos core	1994-10-20	524321.0	4985046.4	10.0	0-10	m	o	0-6 cm flocculent ooze, 0-1 cm light brown, 1-6 cm black, 6-10 cm very thick - oily, moderate petroleum odour.
129	C24-1	Benthos core	1994-10-20	524500.3	4985141.7	10.4	0-10	m	o	Ooze to soft, oil globules, slight petroleum odour, 0-5 cm lighter colour, 5-10 cm dark brown to gray.
130	C24-2	Benthos core	1994-10-20	524501.8	4985135.8	10.7	0-10	x	o	0-8 cm loose brown ooze, abundant oil globules, no odour, 8-10 cm black packed mud.
131	C24-3	Benthos core	1994-10-20	524501.4	4985134.1	10.7	0-10	x	o	Ooze, oil globules, slight petroleum odour, 0-4 cm light brown, 6-10 cm black.
132	C25	Benthos core	1994-10-20	524378.2	4985091.4	10.1	0-10	x	o	0-1 cm flocculent, light brown, 1-5 cm ooze, 1-4 cm light brown, 4-5 cm dark brown, 5-10 cm thicker ooze, dark brown, many oil globules, slight petroleum
133	C26	Benthos core	1994-10-24	524382.7	4985031.2	10.4	0-10	x	o	Black ooze, very oily, moderate petroleum odour, some detritus.
134	C27	Benthos core	1994-10-19	524401.6	4985071.8	11.4	0-10	s	s	0-9.5 cm sandy (especially after 1 cm), 0-1 cm light brown, 1-9.5 cm brown, 9.5-10 cm finer, brown, many shell and shell fragments.
135	C28	Benthos core	1994-10-22	524478.3	4985061.0	11.8	0-10	x	o	0-1.5 cm light brown ooze, 1.5-10 cm black mud, many oil globules, slight petroleum odour.
136	C29	Benthos core	1994-10-24	524345.1	4984992.9	10.8	0-10	x	od	0-3 cm silty sand with some wood chips, 3-6 cm many wood chips, sandy, 6-10 cm black ooze, very oily, strong petroleum odour.
137	C30	Benthos core	1994-10-24	524517.3	4985006.2	14.1	0-13	s	sd	0-5 cm silty sand, wood chips/detritus, 5-13 cm sand, with shell and shell fragments, slight petroleum odour, some oil globules.
138	C31	Benthos core	1994-10-21	524564.7	4985167.6	9.8	0-10	x	o	0-5 cm greenish/brown ooze, 5-10 cm black ooze, many oil globules, slight petroleum odour.
139	C32	Benthos core	1994-10-22	524620.1	4985190.8	9.9	0-10	x	o	Ooze, many oil globules, slight petroleum odour, 0-3 cm light brown over black.
140	C34	Benthos core	1994-10-19	524687.2	4985220.2	10.0	0-10	m	o	Very soft silt, thickening and darkening with increasing depth, oily sheen, little detritus, 0-3 cm light brown.
141	C35	Benthos core	1994-10-21	524722.7	4985276.6	7.9	0-10	m	o	Ooze, many oil globules, very faint petroleum odour 0-2 cm light brown, 2-10 cm black.
142	C36-1	Benthos core	1994-10-19	524768.9	4985291.4	8.4	0-10	x	-	0-2 cm ooze, light brown, 2-10 cm thicker with fine detritus, darker brown, no
143	C36-2	Benthos core	1994-10-19	524764.5	4985297.2	8.4	0-10	x	-	0-3 cm loose, light brown, 3-10 cm firms toward 10 cm, darker brown, 8-10 cm slight oil sheen, no odour.

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144	C36-3	Benthos core	1994-10-19	524766.3	4985294.7	8.4	0-10	x	-	0-2 cm wet loose consistency, light brown, 5-10 cm firmer, no odour, 8-10 cm very fine detritus.
145	C37	Benthos core	1994-10-21	524844.4	4985323.9	10.0	0-10	x	o	Ooze, little sand, many oil globules, slight petroleum odour, light over dark brown/green.
146	C38	Benthos core	1994-10-22	524858.4	4985365.3	8.9	0-10	m	o	Loose, oil globules, slight petroleum odour, 0-3 cm light brown, 3-10 cm dark gray to black.
147	C40	Benthos core	1994-10-19	524927.5	4985402.7	11.4	0-10	x	-	0-6 cm loose consistency, slight organic odour, 0-2 cm light brown, 2-6 cm darker, 6-10 cm slightly firmer to 10 cm, very light oil sheen, darker.
148	C41	Benthos core	1994-10-24	524927.5	4985357.6	12.3	0-10	x	o	Ooze, slight petroleum odour, oil globules, 0-3 cm light brown, 3-10 cm gray.
149	C42	Benthos core	1994-10-21	524970.2	4985443.6	10.4	0-10	x	o	Loose ooze, slight petroleum odour, few oil globules, light brown to darker brown.
150	C43	Benthos core	1994-10-22	525002.0	4985404.3	15.4	0-10	m	os	Oil globules, moderate petroleum odour, mixed with fine detritus, shell and shell fragments at 9 cm, 0-1 cm light brown, 1-10 cm gray-green.
151	C44	Benthos core	1994-10-19	525021.4	4985494.5	9.9	0-10	x	-	0-5 cm loose, 0-2 cm light brown, 5-10 cm slightly thicker, slight organic odour, darker brown.
152	C45	Benthos core	1994-10-19	525090.0	4985536.5	12.2	0-10	x	-	0-6 cm loose wet, 0-2 cm light brown, 6-10 cm thicker and darker brown.
153	C46	Benthos core	1994-10-22	525122.4	4985481.5	11.5	0-10	x	os	Oozy, fine shell and shell fragments, fine detritus, oil globules, slight petroleum odour, 0-2 cm light brown, 2-10 cm sand throughout, dark gray, 7-10 cm black mud, thick, 8 cm detritus.
154	C47	Benthos core	1994-10-21	525139.6	4985607.3	8.6	0-10	x	o	Ooze, very oily, slight petroleum odour, 0-8 cm light brown, 8-10 cm brown black.
155	C48	Benthos core	1994-10-24	525201.2	4985538.9	9.5	0-10	x	o	0-5 cm ooze with little sand, 0-2 cm light brown, 5-10 cm black oily ooze, many oil globules, moderate petroleum odour.
156	C49	Benthos core	1994-10-19	525227.7	4985659.6	8.1	0-10	x	o	Oil globules, 0-7 cm light brown (2-7 cm darker), 7-10 cm gray black.
157	C50	Benthos core	1994-10-24	525235.5	4985579.5	8.5	0-10	s	o	0-3 cm light brown sandy silt, 7-10 cm sand all mixed with sparse shell and shell fragments fine detritus, oily globules, slight petroleum odour.
158	C51-1	Benthos core	1994-10-19	525302.7	4985688.0	7.5	0-10	x	o	Very little fine detritus, oil globules, no odour, 0-3 cm light brown, darker brown to 10 cm.
159	C51-2	Benthos core	1994-10-19	525301.8	4985689.2	7.3	0-10	x	o	Fine detritus on surface, oil globules, very slight petroleum odour, sparse shell and shell fragments, 0-3 cm light brown, 4-10 cm black.
160	C51-3	Benthos core	1994-10-19	525300.7	4985689.6	7.3	0-10	x	o	0-8 cm ooze, 0-3 cm light brown 7-8 cm darker brown, 8-10 cm firmer, oil globules, slight petrochemical odour, sparse detritus, darker brown.
161	C52	Benthos core	1994-10-22	525334.2	4985593.4	8.3	0-10	s	os	0-3 cm ooze, light brown, 3-10 cm sand, mixed shell and shell fragments (fine), detritus at 9-10 cm, dark brown, oil globules, slight petroleum odour.
162	C53	Benthos core	1994-10-24	525403.9	4985630.5	9.7	0-10	s	s	0-3 cm silty sand, light brown, 3-10 cm sand, 3-5 cm light brown, 5-10 cm dark brown, fine shell and shell fragments, no odour, no oil globules.
163	C54	Benthos core	1994-10-20	525414.9	4985677.3	8.4	0-10	x	os	0-5 cm ooze, very little sand, chironomids, light brown, 5-10 cm darker mud, shell and shell fragments, oil globules, no odour.
164	C55	Benthos core	1994-10-24	525414.2	4985508.1	6.8	0-8	s	os	Silty sand, many shell and shell fragments especially for 0-2 cm, very few oil globules, no odour.
165	C56	Benthos core	1994-10-20	525503.0	4985722.6	9.4	0-10	x	-	Fine detritus on surface, sparse shell and shell fragments, no odour, very little fine sand, 0-3 cm light brown, 7-10 cm medium brown.
166	C57	Benthos core	1994-10-21	525508.0	4985630.1	8.9	0-11	s	s	0-2 cm silty sand, snail shells and shell fragments on surface, slight organic odour, shells to 2 cm, 2-11 cm darker brown sand (no silt).
167	C58	Benthos core	1994-10-21	525503.5	4985525.1	6.3	0-7	s	os	Sand, mixed with shell and shell fragments, no odour, little to no silt, many oil globules, 0-2 cm light brown, 2-7 cm dark brown.
168	C59	Benthos core	1994-10-22	525535.3	4985783.7	7.8	0-10	x	o	Ooze, fine detritus, oil globules, slight petroleum odour, 0-1 cm light brown, 1-10 cm gray-green.

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169	C60	Benthos core	1994-10-24	525559.9	4985589.3	6.6	0-17	s	sd	0-10 cm shell and shell fragments, 10-15 cm shell and shell fragments with some silty sand, 15-17 cm sand, wood chips, oil sheen, moderate petroleum odour.
170	C61	Benthos core	1994-10-20	525623.5	4985783.9	9.1	0-9	x	-	0-6 cm ooze, light brown, 6-9 cm more packed, slight organic odour, a few oil globules and shell and shell fragments, darker brown.
171	C62	Benthos core	1994-10-21	525636.4	4985712.9	12.2	0-15	s	d	0-3 cm softer, light brown, 3-15 cm more compact silty sand, 5-15 cm wood chips and wood fibre, drier with gradual darkening brown, moderate pulpy odour.
172	C63	Benthos core	1994-10-24	525700.7	4985765.2	13.1	0-14	s	sd	0-10 cm silty sand, zebras, shell and shell fragments to 4 cm, slight petroleum odour, 0-2 cm light brown, 2-10 cm black, 10-14 cm same with many wood fibres, few oil globules.
173	Stn A	Benthos core	1994-10-25	524056.6	4984953.3	6.1	0-10	m	of	0-10 cm ooze, 1-10 cm plant fibres, many oil globules, very slight petroleum odour, 0-1 cm light brown, 1-10 cm brown-black.
174	Stn C	Benthos core	1994-10-25	524224.4	4985046.6	6.3	0-10	x	o	Silty sand, many oil globules, slight petroleum odour, sparse shell and shell fragments, light brown surface.
175	1	Benthos core	1995-07-06	523839.0	4984737.0	2.3		H	-	Hard bottom, no core.
176	2	Benthos core	1995-07-06	523862.0	4984739.0	5.3		X	-	Muddy sand, discarded.
177	2-1	Benthos core	1995-07-06	523860.0	4984737.0	5.3		X	s	Shelly, muddy sand, discarded.
178	3	Benthos core	1995-07-06	523886.0	4984739.0	8.5	0-6	s	s	Shells.
179	3-1	Benthos core	1995-07-06	523889.0	4984737.0	6.8		X	s	Shelly, muddy sand, discarded.
180	4	Benthos core	1995-07-06	523910.0	4984740.0	7.9	0-3	x	s	Shells.
181	6	Benthos core	1995-07-06	523864.0	4984762.0	3.9		M	-	Lost 2 cm mud.
182	6-1	Benthos core	1995-07-06	523863.0	4984762.0	3.9		M	-	Lost mud core.
183	7	Benthos core	1995-07-06	523890.0	4984764.0	6.5	0-7	x	s	Shell fragments.
184	8	Benthos core	1995-07-06	523917.0	4984765.0	7.9	0-2	x	-	9 cm buff organic ooze.
185	8-1	Benthos core	1995-07-06	523912.0	4984761.0	7.7		X	s	10 cm of black, shelly, sand mud.
186	8-2	Benthos core	1995-07-06	523910.0	4984763.0	7.5		M	s	Black shelly mud.
187	9	Benthos core	1995-07-06	523865.0	4984786.0	2.4	0-3	m	f	Fibres.
188	9-1	Benthos core	1995-07-06	523861.0	4984791.0	3.0		G	-	Gravelly coarse black sand.
189	10	Benthos core	1995-07-06	523888.0	4984786.0	5.6		H	-	No core, end of tube crushed.
190	10-1	Benthos core	1995-07-06	523889.0	4984788.0	4.8		G	-	Sticky sandy black mud.
191	11	Benthos core	1995-07-06	523911.0	4984790.0	7.3	0-2	m	-	2 cm buff ooze.
192	12	Benthos core	1995-07-06	523889.0	4984813.0	4.2		M	-	2-3 cm buff ooze.
193	12-1	Benthos core	1995-07-06	523886.0	4984813.0	4.6		M	o	Stiff, greasy, oily black mud.
194	12-2	Benthos core	1995-07-06	523887.0	4984815.0	1.4	0-3	m	wfs	Fibres.
195	13	Benthos core	1995-07-06	523914.0	4984815.0	6.7		M	-	2-3 cm buff ooze.
196	13-2	Benthos core	1995-07-06	523913.0	4984814.0	6.7	0-3	m	f	Fibres.
197	2A	Tech Ops Core	1996-02-06	523927.2	4984795.6		0-2	x	f	Abundant fibres\organics.
198	3A	Tech Ops Core	1996-02-06	523897.9	4984775.8		0-2	x	fd	Fibres\woods\organics.
199	Pilon	Diver core	1996-03-16	526891.3	4985587.6		0-2	m		
200	TCTI	Diver core	1996-03-16	524943.3	4985416.6		0-2	m		
201	1	Shipek	1996-05-15	524957.7	4985409.5		0-3	m	f	Near FT3, full bucket, 1-2 cm brown ooze over soft black mud, 2 boxes in 1 vial.
202	2	Shipek	1996-05-15	525027.2	4985583.5		0-3	m	wf	Weeds on sampler and on sediment surface, black mud with weed fragments and scattered snail shells, 2 boxes in 1 vial.
203	3	Shipek	1996-05-15	525107.3	4985574.1		0-3	m	fd	Full bucket, inclined surface, many bubbles during retrieval, 1-2 cm brown ooze over black mud with organic fibres and some large wood fragments, 2 boxes in 1

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204	4	Shipek	1996-05-15	525121.9	4985668.6		0-3	s	wdp	Weed bottom visible, weeds on bucket, full bucket, disturbed mottled surface, black soft mud below with scattered snails, 2 boxes in 1 vial.
205	5	Shipek	1996-05-15	525392.7	4985639.2		0-3	x	fds	Many bubbles during retrieval, full bucket on its side, cohesive fibrous muddy sand with a few rock fragments and many snail shells, surface black-brown and black at depth, 2 boxes in 1 vial.
206	6	Shipek	1996-05-15	524818.2	4985230.4		0-3	m	fds	Full bucket, only minor bubbles, large clam shells and wood fragments on surface, coarse sand with snails, muddy sand below, 2 boxes in 1 vial.
207	7	Shipek	1996-05-15	524550.0	4985131.9		0-3	m	-	Full bucket, no bubbles, cohesive mud with minor sand, brown surface ooze 1-2 cm thick, large clam shell, no snails, 2 boxes in 1 vial.
208	8	Shipek	1996-05-15	523986.1	4984727.2			H	-	1st drop recovered a small amount of well-sorted sand, 2nd drop (11:45) the same, both discarded.
209	9	Shipek	1996-05-15	524228.3	4984707.3			H	p	Small sample of gravel and zebra mussels, all kept in 1 vial.
210	10	Shipek	1996-05-15	523917.6	4984575.1				p	
211	11	Shipek	1996-06-04	523917.6	4984575.1	11.4		G	w	1 cm gravel, sand, zebra mussels, 1 vial.
212	12	Shipek	1996-06-04	523797.5	4984597.3	5.2		H	w	recovered weeds, mud, zebra mussels, discarded.
213	13	Shipek	1996-06-04	523759.0	4984586.6	4.5		H	w	Recovered weeds, mud, zebra mussels, discarded.
214	14	Shipek	1996-06-04	523759.0	4984586.6	4.6		H	w	Recovered weeds, mud, zebra mussels, discarded.
215	15	Shipek	1996-06-04	523772.6	4984579.4	4.8		H	w	Recovered weeds, mud, zebra mussels, discarded.
216	16	Shipek	1996-06-04	523762.7	4984585.2	4.9		H	w	Recovered weeds, mud, zebra mussels, discarded.
217	17	Shipek	1996-06-04	523945.5	4984563.6	10.7		H	-	Clear water, a few granules.
218	18	Shipek	1996-06-04	523951.2	4984657.8	8.1		H	s	1-2 cm muddy shelly sand, discarded.
219	19	Shipek	1996-06-04	524193.8	4984716.0	11.8		G	sp	2-3 cm shelly gravel, 1 vial.
220	20	Shipek	1996-06-04	524871.9	4985344.0	11.1	0-3	m	f	Full bucket black mud, scattered clam-shell fragments, 1 cm buff surface ooze, 1 vial.
221	21	Shipek	1996-06-04	525120.0	4985297.8	11.8	0-3	s	ds	Full bucket, 1 cm buff surface ooze, black muddy sand with concentrated snail shells, a few wood fragments, 1 vial.
222	22	Shipek	1996-10-23	524328.5	4985042.4		0-3	s	fs	2 cm med-brown muddy sand, total sample in 2 vials.
223	23	Shipek	1996-10-23	524436.4	4985065.1		0-3	s	fds	Full bucket, 1 cm brown surface ooze over black mud with minor sand, many snail shells and wood fragments, 2 boxes in 1 vial.
224	24	Shipek	1996-10-24	524196.0	4984695.0			G	p	Small amount of gravel, discarded.
225	25	Shipek	1996-10-24	524201.0	4984693.0			H	-	Coarse sand with a few zebra mussels, discarded.
226	26	Shipek	1996-10-24	524243.0	4984664.0			H	-	Small amount of coarse sand, discarded.
227	27	Shipek	1996-10-24	524673.0	4985092.5	12.8	0-3	s	fds	Full bucket, 1-2 cm buff surface ooze over black med-coarse sand with snail shells and wood fragments, 2 boxes in 1 vial.
228	28	Shipek	1996-10-24	524824.5	4985108.0	12.4		G	sp	Small amount of medium sand, a few pebbles and shells, discarded.
229	29	Shipek	1996-10-24	524956.7	4985135.0	13.1	0-3	s	ds	Small amount of wood fragments, coarse sand, granules and snail shells.
230	31	Shipek	1996-10-24	525017.1	4985330.5	12.9	0-3	s	s	1-2 cm buff fine-med sand, some snail shells, all in 1 vial.
231	32	Shipek	1996-10-24	524886.5	4985208.6	11.9	0-3	s	ds	<1 cm buff fine-med sand, many snail shells, a few wood fragments.
232	34	Shipek	1996-10-24	525173.5	4985470.6	9.8		X	os	Small amount buff fine sand, snail shells, small cohesive chunks of black mud, oil slick, discarded.
233	35	Shipek	1996-10-24	525171.6	4985463.9	9.5		X	os	Same as above, discarded.
234	36	Shipek	1996-10-24	525175.2	4985465.7	9.7	0-3	s	fsp	Half bucket, disturbed sample, large live clam, mix of buff and black muddy sand, wood fibres and shells, sampled with vial.
235	37	Shipek	1996-10-24	525413.7	4985473.3	7.0	0-3	s	ds	Full bucket fine buff sand in top 2-3 cm, black below, many snail shells, a few wood fragments, 2 boxes in 1 vial.

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236	38	Shipek	1996-10-24	525488.5	4985641.0	10.3	0-3	s	fds	Full bucket, inclined surface, 1 cm buff sandy mud over cohesive black sandy mud with shells and wood fibres, 2 boxes in 1 vial.
237	39	Shipek	1996-10-24	525248.7	4985601.4	8.9	0-3	s	fs	Full bucket, slumped over, 0.5 cm buff fine sand over black cohesive sandy mud filled with wood fibres, 2 boxes in 1 vial.
238	40	Shipek	1996-10-24	525103.8	4985548.1	12.3	0-3	m	d	Full bucket, mud with buff surface and black and sticky below, no shells or fibres evident, 2 boxes in 1 vial.
239	41	Shipek	1996-10-24	524954.4	4985462.4	9.2	0-3	m	f	Full bucket, mud with buff surface and black and sticky below, similar to sample 4 above but slightly finer, 2 boxes in 1 vial.
240	42	Shipek	1996-10-24	524955.0	4985374.5	13.6	0-3	m	f	Full bucket, mud with buff surface and black and sticky below, some fine fibres, 1 pebble and small clam shell, 2 boxes in 1 vial.
241	43	Shipek	1996-10-24	524841.9	4985331.0	9.4	0-3	m	f	Full bucket, sticky mud with buff surface and black below, some fine fibres, 1 small pebble, 2 boxes in 1 vial.
242	44	Shipek	1996-10-24	524691.9	4985202.2	11.6	0-3	x	ofd	Full bucket, buff gritty mud on surface over black greasy cohesive mud, grease on sampler, 2 boxes in 1 vial.
243	45	Shipek	1996-10-24	524437.4	4985055.6	11.1	0-3	x	of	Full bucket, buff gritty mud over fibrous black mud with oil, dense wood fibres, 2 boxes in 1 vial.
244	46	Shipek	1996-10-24	524321.7	4985039.9	11.3	0-3	m	of	Full bucket, buff gritty surface mud over black oily mud with some fibres, 2 boxes in 1 vial.
245	47	Shipek	1996-10-24	524200.4	4984971.8	10.1	0-3	s	ds	Full bucket, buff surface ooze 2-3 cm thick over black-brown shelly (snails) medium-coarse sand, 2 boxes in 1 vial.
246	48	Shipek	1996-10-24	524204.4	4984907.9	10.2	0-3	x	sp	<1 cm buff fine sand and fecal material.
247	50	Shipek	1996-10-24	524938.2	4985124.2	12.9	0-3	s	sp	Full bucket, coarse sand and fine gravel, many snail shells, surface zebra mussels, 2 boxes in 1 vial.
248	2	Shipek	1997-04-16	523912.3	4984756.5	8.5	0-3	m	-	1-2 cm buff ooze over black gritty sand, scattered snail shells, full bucket with tilted surface, 2 boxes in 1 vial.
249	343avg	Shipek	1997-04-16	524338.8	4985030.8	11.7	0-3	x	w	1-2 cm buff ooze over black shelly (snails) gritty mud some of which is cohesive over well-sorted buff sand, full bucket with tilted surface, 2 boxes in 1 vial, separate vial of basal sand.
250	19	Shipek	1997-04-16	524931.5	4985486.8	3.8	0-3	s	s	Mixed buff ooze and soft black mud, surface weeds, scattered snail shells, full bucket, disturbed, 2 boxes in 1 vial.
251	20-1	Shipek	1997-04-16	524989.2	4985412.4	14.2		M	-	20-1: 2-4 cm buff mud, discarded.
252	20-2	Shipek	1997-04-16	524983.6	4985422.7	12.7	0-3	m	-	20-2: 1-2 cm orange-brown ooze over soft black smooth mud, no shells or sand, full bucket, 2 boxes in 1 vial.
253	21	Shipek	1997-04-16	525009.7	4985386.6	14.7	0-3	s	fs	1-2 cm brown spongy (fibrous) mud over black shelly (snails) fibrous gritty mud, full bucket, 2 boxes in 1 vial.
254	8-1,2	Shipek	1997-04-16	525025.6	4985365.9	13.3	0-3	s	-	8-1-1: <1 cm coarse brown sand, 8-1-2: <1 cm coarse brown sand with some snail shells, both samples combined in 1 vial.
255	22-1,2	Shipek	1997-04-16	525056.0	4985321.5	12.2	0-3	s	s	22-1: <1 cm brown shelly (snails) sand, 22-2: <1 cm brown shelly (snails) sand with carbonized wood fragments, both samples combined in 1 vial.
256	25-1	Shipek	1997-04-16	525169.8	4985586.8	11.0		X	-	25-1: <2 cm muddy black fine sand, discarded.
257	26-1	Shipek	1997-04-16	525181.1	4985538.5	11.1		X	-	26-1: mud on sampler, <2 cm muddy fine sand, discarded.
258	26-2	Shipek	1997-04-16	525181.6	4985532.8	11.0		X	-	26-2: mud on sampler, <2 cm muddy fine sand, discarded.
259	26-3	Shipek	1997-04-16	525178.8	4985537.4	11.1	0-3	s	f	26-3: 3-4 cm fibrous buff muddy sand over black fibrous sandy mud, full bucket with tilted surface, 2 boxes in 1 vial.
260	25-3	Shipek	1997-04-16	525172.2	4985591.4	10.8	0-3	x	fs	25-3: collected later, 3-4 cm fibrous shelly (snails) orange-brown mud over black gritty shelly mud (grit could be sand or broken shells), full bucket, 2 boxes in 1

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261	28	Shipek	1997-04-16	525257.3	4985442.0	7.1	0-3	s	fdsp	Snail shells, minor sand, carbonized wood and plant fragments, a few pebbles, 1/2 bucket, channel sample in 1 vial.
262	31	Shipek	1997-04-16	525368.5	4985679.1	8.4	0-3	x	fds	1-2 cm brown fibrous shelly mud over black fibrous shelly mud, large clam shell, many black carbonized wood fragments, full bucket, 2 boxes in 1 vial.
263	33	Shipek	1997-04-16	525422.6	4985588.5	7.9	0-3	s	fds	Brown fibrous sandy mud with many wood fragments and fibres, snail shells, carbonized and uncarbonized wood chips, 2/3 bucket, 2 boxes in 1 vial.
264	407	Shipek	1997-04-16	525558.1	4985827.6	5.8	0-3	m	f	2-3 cm very soft brown fibrous mud with Cabomba-like plant fragments and fecal tubes (no sand?), over black sticky mud with scattered shells, full bucket, 2 boxes in 1 vial
265	443	Shipek	1997-04-16	525589.8	4985772.0	9.6	0-3	x	fs	1-2 cm brown mud with shells, fibres and some fine sand over black sandy mud, large surface clam with zebra-mussel cluster, 3/4 bucket, 2 boxes in 1 vial
266	36	Shipek	1997-04-16	525640.7	4985681.9	11.8	0-3	s	fd	Spongy fibrous mud with minor? Sand and scattered snail shells, orange-brown at surface and dark brown at depth, many wood fragments, full bucket, 2 boxes in 1
267	96	Shipek	1997-07-23	525592.3	4985659.9	10.6	0-3	s	ofd	Black sandy mud with wood chips and oil and grease globules and a few zebra mussels on the surface, fewer wood fragments and some leaf fragments and fibres below the surface, full bucket, 2 boxes in 1 vial.
268	88	Shipek	1997-07-23	525453.5	4985584.2	7.4	0-3	s	s	Dark brown muddy sand with many surface snails and a dead clam, more cohesive with depth and fewer snails and some fingernail-clam shells, 1/2 bucket with tilted surface, 2 boxes in 1 vial.
269	84	Shipek	1997-07-23	525407.1	4985738.1	7.1	0-3	x	p	2 cobbles, several pebbles and stiff grey glacial clay or till fragments and grey-brown muddy sand, 1/3 bucket, 1 vial of the stiff clay and the 2nd of sand with some clay intermixed.
270	85	Shipek	1997-07-23	525406.6	4985741.0	6.2	0-3	x	ws	Brown muddy sand or sandy mud with a surface covered with broken shell fragments, below surface colour is black and there are fewer snail shells, the broken shells make the sediment feel like a gravelly sand, full bucket covered in weeds and with tilted surface, 2 boxes in 1 vial.
271	76	Shipek	1997-07-23	525311.8	4985648.4	8.5	0-3	x	ofd	Brown-black sandy mud with oil slick, fibrous and with small carbonized wood fragments, black colour below surface, full bucket, 2 boxes in 1 vial.
272	39-1,2	Shipek	1997-07-23	525148.7	4985405.4	8.8	0-3	s	ds	Small sample of snail shells, sand and small black wood fragments, 39-2: same in second drop, both samples combined in 1 vial.
273	71-1	Shipek	1997-07-23	525045.0	4985556.3	7.9		M	-	Did not trigger - mud on sampler.
274	71-2	Shipek	1997-07-23	525048.3	4985555.8	8.0		X	-	Triggered, mud on handle but small sample of sandy mud, discarded.
275	71-4	Shipek	1997-07-23	525046.0	4985555.9	8.0	0-3	m	ds	Brown surface ooze with scattered snail shells over very soft, black mud, few black wood fragments, 3/4 bucket, 2 vials in 1 box.
276	66	Shipek	1997-07-23	525034.8	4985539.2	7.0	0-3	m	ws	Soft black mud, weeds on surface, a few snail shells, 1/3 bucket.
277	36	Shipek	1997-07-23	525025.2	4985311.7	12.2	0-3	s	fs	Surface covered with snails, single dead clam (~4 cm), brown on surface and depth muddy sand, coarse fibres, live clam at depth collected for Janice, full bucket with tilted surface, 2 boxes in 1 vial.
278	7-1,2	Shipek	1997-07-23	525019.2	4985196.7	10.7	0-3	s	s	No recovery, hard bottom? 7-2: brown sand, about 1 cm fingernail clam shells, snail shells and live zebra mussels, total sample in 1 vial.
279	64	Shipek	1997-07-23	524894.0	4985304.6	12.7	0-3	s	fs	Brown soft fibrous ooze, over black, firm muddy sand with many snail shells and fibres, full bucket with tilted surface, 2 boxes in 1 vial.
280	59-1	Shipek	1997-07-23	524845.0	4985248.7	12.5			ds	Brown sand, zebra mussels, snail and fingernail clam shells, wood fragments, small sample (<1 cm) discarded.
281	59-2	Shipek	1997-07-23	524843.2	4985254.0	12.5	0-3	s	sp	Brown coarse sand on surface over black, surface snails and pebble, snails throughout, full bucket, 2 boxes in 1 vial.
282	27-1	Shipek	1997-07-23	524880.6	4985188.7	12.4	0-3	x	-	No recovery.

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283	27-2	Shipek	1997-07-23	524862.4	4985180.8	11.4		G	p	Stiff grey brown sandy gravel with zebra mussels, glacial fragments, small sample, 2 vials, 27-1 - glacial, 27-2 - gravel.
284	26-1	Shipek	1997-07-23	524855.2	4985169.2	10.8		H	s	Brown sand with a few zebra mussels, discarded.
285	26-2	Shipek	1997-07-23	524865.0	4985172.7	11.8	0-3	s	sp	Brown sand and pebbles, zebra mussels and large clam coated with zebras, small sample all in 1 vial, discarded the clam.
286	6	Shipek	1997-07-23	524791.2	4985045.8	12.9	0-3	s	ds	Coarse brown sand throughout with snail shells and large clam-shell fragment, black wood fragments and snails on surface, ½ bucket, channel sample in 1 vial, wood fragments not sampled.
287	16	Shipek	1997-07-23	524720.4	4985120.5	11.4	0-3	s	sp	Brown gravelly sand with a few zebra mussels and large clams, snails on surface, 2/3 bucket, 2 boxes in 1 vial.
288	14-1	Shipek	1997-07-23	524654.8	4985062.9	12.9		H	s	Small amount of brown sand, few zebras, discarded.
289	14-2	Shipek	1997-07-23	524655.4	4985064.3	12.7		H	s	Small amount of brown sand, mainly zebra mussels, small sample, discarded, no sample - hard bottom?
290	13-1	Shipek	1997-07-23	524566.3	4984977.2	12.8		G	sp	Brown sand, pebbles, zebras, small sample of sand in 1 vial.
291	51	Shipek	1997-07-23	524347.9	4984973.6	11.1	0-3	x	fsp	Brown ooze on surface with scattered shell fragments and a few fibres, over smooth black, medium firm mud, surface pebbles, full bucket with tilted surface, 2 boxes in 1 vial.
292	12-1	Shipek	1997-07-23	524205.5	4984789.0	12.6		G	sp	Brown sandy gravel, but mainly zebra mussels (live and dead) and snails, small sample.
293	12-2	Shipek	1997-07-23	524210.8	4984788.4	12.5		G	sp	Small sample, same as above but less gravel, no sample retained.
294	44	Shipek	1997-07-23	524100.1	4984799.2	10.1		H	s	Thick shell layer, mainly snails (some live), some zebras, photograph and channel sample of top 3 cm, shells to base, little inorganic, full bucket, 1 vial.
295	10	Shipek	1997-07-23	524102.1	4984676.4	11.4	0-3	g	sp	Sandy gravel with zebra mussels and snails, small sample, all retained in 2 vials.
296	9	Shipek	1997-07-23	524032.4	4984623.8	10.7	0-3	g	p	Very coarse gravel with minor sand, 1/4 bucket, entire sample bagged.
297	8	Shipek	1997-07-23	523951.6	4984596.8	10.9	0-3	s	-	Large slab of cohesive gray glacial clay, coarse brown sand otherwise - clay in 2 plastic cups 8-1-1 and 8-1-2, sand in vial 8-2.
298	35-1,2	Shipek	1997-07-23	524967.3	4984951.8	11.5	0-3	s	s	Brown sand and granular, snail and zebra shells, small sample, 35-2: same.
299	139	Shipek	1997-07-23	524956.2	4984793.8	6.5	0-3	m	s	Soft black smooth mud at surface, more cohesive with depth, 2 large dead clams and 1 live, not retained, full bucket, disturbed, 2 boxes in 1 vial.
300	146	Shipek	1997-07-23	525336.8	4984994.2	13.1		M	s	Sediment at base is soft, black mud, full bucket of snail shells, 1 dead clam, few zebras, channel sample of surface 3 cm in 1 vial.
301	152	Shipek	1997-07-23	525486.4	4984834.5	14.9	0-3	m	s	Brown ooze on surface, soft black mud below, smooth, a few snail and snail clam shells, full bucket, disturbed, 2 boxes in 1 vial.
302	154-1	Shipek	1997-07-23	525648.7	4984925.1	12.3	0-3	x	s	Very small mud sample, discarded, good sample of sticky black mud filled with small live and dead clams.
303	154-2	Shipek	1997-07-23	525651.0	4984923.8	12.2	0-3	s	ds	Soft black mud filled with small live and dead fingernail clams, few snails, wood fragments and large dead clam on surface, ½ bucket, disturbed.
304	156	Shipek	1997-07-23	525831.7	4985037.4	12.0		S	ws	Mainly snails and small clam shells in fine brown sand, several larger clam shells, zebra mussels, weed on bucket, 1/4 bucket, channel of most of sample in 1 vial.
305	157	Shipek	1997-07-23	525895.1	4985028.8	12.4		H	s	Mainly snail shells in fine brown sand, several clusters of zebra mussels, ½ bucket, no sample retained.
306	159	Shipek	1997-07-23	525780.9	4984682.9	12.0	0-3	m	s	Olive surface ooze over black soft mud with scattered small live clams, full bucket, disturbed, 2 boxes in 1 vial.
307	99	Shipek	1997-07-23	525896.6	4984782.0	15.0	0-3	m	s	Olive surface ooze with scattered small clam shells over soft black mud with sand, full bucket, 2 boxes in 1 vial.
308	163	Shipek	1997-07-23	526123.1	4984954.3	14.2	0-3	s	s	Several large surface clam shells with zebra-mussel clusters in soft sandy mud, many snail shells, ½ bucket, disturbed, 2 boxes in 1 vial.

Serial Number	Site Number	Sample Type	Date	Easting	Northing NAD27	Depth, m not IGLD	Interval (cm)	Size type see notes	Exotics see notes	Description
309	172	Shipek	1997-07-23	526364.7	4984874.4	12.0	0-3	x	s	Olive ooze over sticky black mud with many small live clams, zebra-mussel clusters on surface (not retained), full bucket with tilted surface, 2 boxes in 1 vial, zebras are clustered on large clam shell.
310	165	Shipek	1997-07-23	526285.9	4985124.6	14.6		G	sp	Snail and small clam shells in a brown sandy gravel with mixed pebbles, 1/3 bucket, no sample.
311	199	Shipek	1997-07-23	526814.3	4985643.2	9.4	0-3	m	ofds	Olive ooze over sticky black mud with oil slick, scattered wood chips, fibres and shell fragments, full bucket, disturbed, 2 boxes in 1 vial.
312	185	Shipek	1997-07-23	526946.9	4985639.0	9.6	0-3	x	ds	Brown ooze on surface with scattered small snails over sticky black mud with many carbonized wood fragments, full bucket with tilted surface, 2 boxes in 1 vial.
313	105	Box Core	1997-10-22	523938.0	4984819.6	5.5	0-10	m	odsp	Flat, light brown soft mud, oil/grease, photo.
314	109	Box Core	1997-10-22	523978.8	4984878.7	7.5	0-10	m	ofs	Flat, light brown ooze/soft mud, oil/grease almost like coal tar, extra sample from bottom of box core, photo.
315	115	Box Core	1997-10-22	524087.5	4984932.7	9.0	0-10	m	wod	Flat, light brown ooze/soft mud, oil/grease, weeds, 2 small plants, photo.
316	117	Box Core	1997-10-22	524182.0	4985001.0	9.5	0-10	x	dp	Irregular,light brown soft mud.
317	126	Box Core	1997-10-23	524381.7	4985038.2	10.5	0-10	x	wfdsp	Irregular,light brown soft mud, weeds, a few shells, photo.
318	127	Box Core	1997-10-22	524391.8	4985064.4	11.0	0-10	s	sp	Flat, light brown sandy mud, surface shells, photo.
319	128	Box Core	1997-10-23	524479.0	4985063.9	12.0	0-10	x	dsp	Flat, light brown sandy mud, zebra-mussel colony.
320	131	Box Core	1997-10-23	524567.2	4985169.2	10.0	0-10	x	odp	Light brown soft mud, oil/grease, photo.
321	132	Box Core	1997-10-23	524621.7	4985195.0	10.0	0-10	x	wsp	Irregular, light brown soft mud, weeds, small individual plants, photo.
322	135	Box Core	1997-10-23	524738.5	4985277.5	8.5	0-10	m	wfdsp	Irregular, light brown soft mud, weeds, scattered shells, photo.
323	156	Box Core	1997-10-21	525505.1	4985718.0		0-10	x	dsp	Flat, light brown sandy mud, a few scattered zebra mussels, photo.
324	164	Box Core	1997-10-22	524067.5	4984943.3	7.5	0-10	m	wofdsp	Flat, light brown soft mud, oil/grease, weeds, photo.
325	166	Box Core	1997-10-21	521105.6	4984027.0	7.9	0-10	m	-	Irregular, light brown soft mud, photo.
326	167	Box Core	1997-10-22	521149.9	4984039.0	7.5	0-10	m	wfdsp	Flat, light brown soft mud, weeds, 1 clump of several shells, photo.
327	168	Box Core	1997-10-21	521183.4	4984060.6	8.5	0-10	x	ofwp	Irregular, light brown soft mud, oil/grease film.
328	171	Box Core	1997-10-21	526865.0	4985668.0	10.5	0-10	x	ods	Flat, light gray sandy mud, oil/grease on core tube, photo.
329	172	Box Core	1997-10-21	527025.8	4985955.7	10.0	0-10	m	fs	Flat, light brown soft mud, several small zebra clumps, photo.
330	173	Box Core	1997-10-23	525372.6	4984838.0	11.5	0-10	m	s	Flat, light brown soft mud, a few zebra mussels.
331	175	Box Core	1997-10-23	525541.7	4984852.3	14.5	0-10	m	s	Flat, light brown soft mud, photo.
332	176	Box Core	1997-10-23	525632.6	4984773.9	14.0	0-10	m	s	Flat, light brown soft mud, a few zebra mussels.
333	177	Box Core	1997-10-23	525763.0	4984825.0	12.5	0-10	m	s	Flat, light brown soft mud, photo.
334	179	Box Core	1997-10-23	525940.0	4984798.6	NA	0-10	m	s	Flat, light brown soft mud, photo.
335	181	Box Core	1997-10-21	526195.0	4984785.0	10.0	0-10	m	wfs	Irregular, light brown soft mud, weeds, photo.
336	182	Box Core	1997-10-21	526295.7	4984827.9	11.5	0-10	m	ws	Irregular/rippled, light brown soft mud, weeds, scattered zebra mussels, photo.
337	109	Diver core	1997-11-19	523978.8	4984878.7	9.0	0-1	m	fod	Very soft sediment with some gas over hard "rock", lots of compression of sediment due to friction.
338	166	Diver core	1997-11-19	521105.6	4984027.0	7.6	0-1	m	f	Very soft sediment with some gas, 1.5-m core tubes would not reach the bottom, diver noted a lot of compression of sediment in the core due to friction, lots of gas around the site.
339	179	Diver core	1997-11-19	525940.0	4984798.6	15.2	2-3	m	fo	Soft sediment over possible glacial clay, bottom not hard like rock, no gas, lots of sediment compression.
340	182	Diver core	1997-11-19	526295.7	4984827.9	9.8		M	-	Soft sediment over possible glacial clay, bottom not hard like rock, no gas, lots of sediment compression.
341	1	Shipek	1998-10-27	521084.1	4984014.1	7.4		M	-	Full bucket, brown surface over smooth black mud, no wood chips or oil/grease, discarded.

Serial Number	Site Number	Sample Type	Date	Easting NAD27	Northing NAD27	Depth, m not IGLD	Interval (cm)	Size type see notes	Exotics see notes	Description
342	2	Shipek	1998-10-27	521122.7	4984026.3	8.0		M	-	Full bucket, brown surface over smooth black mud, no wood chips or oil/grease, discarded.
343	3	Shipek	1998-10-27	521174.3	4984067.9	8.1		M	-	Full bucket, brown surface over smooth black mud, no wood chips or oil/grease, discarded.
344	4	Shipek	1998-10-27	521214.4	4984099.7	8.5		X	fp	Full bucket, brown muddy sand over black muddy sand with clinkers, pebbles, cobbles, fibres and wood fragments, no wood chips or oil/grease, discarded.
345	5	Shipek	1998-10-27	523149.4	4984548.4	8.2		S	-	Full bucket, brown sand on surface over black sandy mud, no wood chips,
346	6	Shipek	1998-10-27	523076.5	4984566.2	5.8		X	wf	Full bucket, covered in weeds, dark-brown muddy sand, fibrous, wood fragments, no wood chips or oil/grease, discarded.
347	7	Shipek	1998-10-27	523130.2	4984555.7	8.0		M	fds	Full bucket, black fibrous mud with live clams and shells, a few bleached wood chips, no oil/grease, discarded.
348	8	Shipek	1998-10-27	523112.8	4984558.9	7.1		X	ods	Full bucket, fibrous sandy mud with white snail shells, plant and wood fragments, small wood chips, oil slick, photos and vial sample.
349	9	Shipek	1998-10-27	523128.7	4984554.2	8.2		X	ofd	2/3 bucket, surface wood chips, oil slick and grease, black fibrous muddy sand, photos and vial sample.

Notes:

Size type				Exotics
m	>66% silt + clay (measured)	g	>33% gravel (measured)	w - weeds
M	>66% silt + clay (estimated)	G	>33% gravel (estimated)	o - oil
x	33-66% silt + clay (measured)	H	hard bottom observed	f - fibrous
X	33-66% silt + clay (estimated)	W	weeds observed	d - wood chips
s	<33% silt + clay (measured)	B	boulders observed	s - shells
S	<33% silt + clay (estimated)			p - pebbles

Appendix 2. Field and descriptive data for sediment cores.

Serial Number	Site Number	Corer Type	Date	Easting NAD27, metres	Northing NAD27, metres	Depth, m not IGLD	Core Length(cm)	Interval (cm)	Description
1		Core	1993-05-05	522949.7	4984514.7				
2		Core	1993-05-05	523166.7	4984619.2				
3		Core	1993-05-05	523176.7	4984604.5				
4	C1	Benthos	1994-10-21	523873.0	4984735.0	6.0	13	0-13	Ooze, 0-2 cm light brown, 2-7 cm dark brown, mixed with shell and shell fragments and becomes sandy with fine gravel, many oil globules, no odour, 7-10 cm dark brown, 12-13 cm
5	C2	Benthos	1994-10-22	523891.1	4984693.0	9.0	12	0-12	Ooze, 0-1 cm light brown, 1-4 cm dark brown, sand, wood chips at bottom, moderate petroleum odour, oil globules.
6	C3	Benthos	1994-10-21	523907.5	4984731.9	7.6	31	0-10	0-3 cm ooze, light brown, 7-10 cm shell and shell fragments, some fine sand, oil globules, gravelly at 10 cm.
								10-20	Oily ooze, black, 10-18 cm fine wood fibre, 18-20 cm has lots of wood chips, slight petroleum odour.
								20-31	Very oily ooze, black, large wood chips throughout, slight petroleum odour.
7	C4	Benthos	1994-10-22	523918.8	4984809.3	7.4	52	0-10	Ooze, many oil globules, slight petroleum odour no detritus, 0-1 cm light brown, 1-10 cm gray.
								10-20	10-13 cm gray ooze, 13-19 cm sand with mixed shell and shell fragments, 19-20 cm packed mud, slight petroleum, oil globules.
								20-30	20-29 cm thick mud, oil globules, slight petroleum, 29-30 cm sandy with shell and shell
								30-40	Black mud with lots oil globules, moderate petroleum, wood chips at 38 cm.
								40-52	40-42 cm sand with shell and shell fragments, 42-52 cm black mud, sparse oil globules, no odour, sparse fine detritus.
8	C5	Benthos	1994-10-21	523925.8	4984856.3	4.1	18	0-10	Very oily ooze, slight odour, 0-5 cm brown, 5-10 cm black.
								10-18	Ooze, tons of oil globules, strong petroleum odour, black.
9	C6	Benthos	1994-10-21	523942.0	4984826.9	7.8	50	0-10	Ooze, very oily, slight petroleum odour, 0-2.5 cm light brown, darkens to black at 15 cm.
								10-20	10-13 cm black ooze, 13-20 cm sandy/fine gravel with shell and shell fragments, all very oily, moderate petroleum odour.
								20-30	20-26 cm oozy again, 26-30 cm sandy (some silt), some wood fibre, slight petroleum odour.
								30-40	30-31 cm sandy, 31-40 cm thick mud, very black from 33-40cm, very oily/globules, moderate petroleum odour.
								40-50	40-46 cm as 33-40cm, 46-50 cm is fine gravel, no silt, ooze is oily with moderate odour, line of sand and fine gravel at 47.5 cm.
10	C7	Benthos	1994-10-21	523939.1	4984793.6	7.8	37	0-10	0-7 cm ooze, oil globules throughout, slight petroleum odour, 0-4 cm light brown, 5-7 cm black, 7-10 cm fine gravel/sand, black.
								10-20	10-12 cm ooze and sandy gravel - very slight petroleum odour, 12-20 cm is fine gravel with shell and shell fragments.
								20-30	Very dry fine gravel, shell and shell fragments mixed through, slight petroleum odour.
								30-37	30-33 cm as 20-30 cm, 33-35 cm thick mud, black, 35-37 cm fine gravel with fine shell and shell fragments, moderate petroleum odour.
11	C8	Benthos	1994-10-22	523944.2	4984758.8	9.0	11	0-11	0-1 cm ooze, zebra mussel, light brown, 1-5 cm silty sand, dark gray, 5-10 cm sand fine gravel, dark gray, light brown, 10-11 cm more muddy, slight petroleum odour, dark gray.
12	C9	Benthos	1994-10-13	523966.0	4984887.7	4.6	8.6	0-8.6	Muddy silt, ooze, oily petroleum chemical odour, 0-5 cm dark gray, 5-8.6 cm black.
13	C10	Benthos	1994-10-22	523973.6	4984809.5	8.7	35	0-10	Oil globules, slight petroleum odour, 0-3 cm ooze, 0-2 cm light brown, 2-3 cm darker brown, 3-9 cm sand with shell and shell fragments, 3-8 cm darker brown, 8-9 cm gray, 9-10 cm sandy ooze with many shell and shell fragments, gray.
								10-20	10-15 cm silty sand, lots wood chips, shell and shell fragments, worm casings 15-20 cm sand, all very oily globules, moderate petroleum odour.

Serial Number	Site Number	Corer Type	Date	Easting NAD27, metres	Northing NAD27, metres	Depth, m not IGLD	Core Length(cm)	Interval (cm)	Description
13	C10	Benthos	1994-10-22	523973.6	4984809.5	8.7	35	20-35	20-33 cm sand, fine shell and shell fragments mixed in, 33-35 cm black mud with some sand and wood chips, 33-35 cm black mud with some sand and wood chips, all very oily, moderate petrochemical odour.
14	C11	Benthos	1994-10-24	523987.9	4984782.4	10.5	38	0-10	Ooze, slight to moderate petroleum odour, oil globules, ½ cm light brown over dark gray.
								10-20	Ooze, oily globules, moderate petroleum, black.
								20-38	20-36 cm black oily ooze, 36-38 cm more clay-like/packed, moderate petroleum odour.
15	C12-1	Benthos	1994-10-18	524008.9	4984859.3	8.8	27	0-10	0-4 cm light brown, flocculent, 4-10 cm slightly packed, petrochemical odour, oil sheen, black.
								10-20	Black, thick ooze, petroleum odour, no sand, fine sparse detritus.
								20-27	As 10-20 cm but moderately packed, moderate amount fine detritus.
16	C12-2	Benthos	1994-10-18	524011.8	4984862.2	9.0	26	0-10	0-3 cm light brown, worm castings, 4-10 cm oily black ooze, petroleum odour.
								10-26	15-20 cm shell and shell fragments, shells, general sheen.
17	C12-3	Benthos	1994-10-18	524009.3	4984856.3	8.7	39	0-10	0-2 cm loose, brown, 2-7.5 cm brown, sandy, 7.5-10 cm black, oozy, 8-9 cm shells, gritty, moderate odour.
								10-20	Oilier, thick ooze, strong odour, black.
								20-30	Plug-like packed ooze, very little detritus, black.
								30-39	Black, oozy, wood chips at 37-38 cm, closer packed.
18	C13	Benthos	1994-10-24	524046.2	4984840.1	9.5	34	0-10	0-5 cm ooze, 0-2 cm light brown, 2-5 cm black, 5-10 cm silty sand/fine gravel - oil globules, slight petroleum odour, shell and shell fragments mix in sandy layer.
								10-20	Black mud, very little sand, mixed sparse shell and shell fragments, strong petroleum, oil
								20-34	20-30 cm black mud, little sand, wood chips at 25 cm, 30-34 cm sand with lots wood chips, very oily/globules, moderate petroleum odour.
19	C14	Benthos	1994-10-18	524055.5	4984890.7	9.0	58	0-10	0-8.5 cm loose, light brown, 8.5-10 cm black, thicker, darker, strong sulphur odour.
								10-20	Thick black ooze, fine detritus.
								20-30	20-22 cm (as 10-20), 22-30 cm sandy silt with shell and shell fragments, black.
								30-40	More muddy with wood chips at 30-35 cm, black.
								40-58	Very thick mud with very strong sulphur odour, black.
20	C15-1	Benthos	1994-10-18	524086.0	4984934.0	8.8	72.5	0-10	Strong sulphur odour, wet loose ooze, 0-3 cm light brown, 3-10 cm black.
								10-20	Thicker black ooze, oil sheen, stronger odour.
								20-30	20-25 cm dark ooze, 25-30 cm more sandy, stronger odour.
								30-40	30-33 cm shells, 33-40 cm thick mud.
								40-50	"Tomato paste" consistency.
								50-60	"Tomato paste" with increasing odour.
								60-72.5	"Tomato paste" with increasing odour.
21	C15-2	Benthos	1994-10-18	524080.8	4984928.8	8.8	43	0-10	Strong sulphur odour, 0-9 cm flocculent, 0-1 cm light brown, 1-9 cm black, 9-10 cm wet mud, more sandy, black.
								10-20	Mud, strong odour oil sheen generally.
								20-30	"Tomato paste" mud, very odourous.
								30-43	30-32 cm muddy strong odour, 32-43 cm sandy plug with shells, strong odour.
22	C15-3	Benthos	1994-10-18	524084.8	4984930.6	8.8	28	0-10	0-6 cm ooze, 6-10 cm sandier grayish black, moderate sulphur odour.
								10-20	Oozy, black, odour.
								20-28	Oozy, black, strong sulphur odour (no sand).
23	C16	Benthos	1994-10-22	524125.8	4984885.8	10.2	13	0-13	0-4 cm brown ooze, 4-13 cm sandy black ooze, mixed with shell and shell fragments, many oil globules, slight petroleum odour.

Serial Number	Site Number	Corer Type	Date	Easting NAD27, metres	Northing NAD27, metres	Depth, m not IGLD	Core Length(cm)	Interval (cm)	Description
24	C17	Benthos	1994-10-18	524177.6	4985002.4	9.1	28	0-10	0-9 cm ooze, firms with increasing depth, worm castings on surface, 0-4 cm light brown darkening near 10 cm, 9-10 cm increasing in sand content, oily sheen.
								10-20	10-11 cm increasing in sand content, oily sheen, 11-20 cm mud again, sparse shell and shell fragments.
								20-28	Very muddy, black, no odour.
25	C18	Benthos	1994-10-24	524227.0	4984943.3	10.8	20	0-10	Ooze, many oil globules, moderate petroleum odour, 0-2 cm light brown, 2-10 cm black.
								10-20	Packed black ooze, very little sand, lots oil globules, slight odour.
26	C19	Benthos	1994-10-20	524230.7	4985026.1	9.0	21	0-10	Gas bubbles, oil globules, slight petroleum odour, 0-2 cm ooze, flocculent, light brown, 2-6 cm mixed with sand, grayish, 6-10 cm black ooze, top very fine sparse shell and shell fragments.
								10-21	Black ooze, oil globules, moderate petroleum, slightly more packed at 19-21cm.
27	C20	Benthos	1994-10-20	524276.4	4985047.7	8.9	10	0-10	Very fine surface detritus, very sparse shell and shell fragments, ooze, oil globules, slight petroleum chemical odour, 0-5 cm light brown.
28	C21	Benthos	1994-10-22	524279.6	4984979.8	10.4	31	0-10	0-4 cm brown sloppy ooze, 4-10 cm black ooze, many oil globules, moderate petroleum becomes sandy near 10 cm, few wood chips at 6 cm.
								10-20	10-15 cm silt sand, 15-19 cm black ooze, 19-20 cm more clay like, lots oil globules, all black moderate petroleum odour.
								20-31	Thick clay like mud, grayish blade, moderate oil globules, slight petroleum odour.
29	C22	Benthos	1994-10-20	524276.4	4985047.7	11.2	20	0-10	0-5 cm ooze, 0-3 cm light brown, 5-10 cm firmer, oil globules, slight petroleum odour, 7-10 cm medium brown.
								10-20	Brown-black ooze, slight detritus at 18 cm, oil globules, little to no odour, thicker near bottom.
30	C23-1	Benthos	1994-10-20	524321.4	4985044.2	10.2	28	0-10	0-1 cm flocculent ooze, many oil globules, slight petroleum odour, light brown, 2-10 cm black ooze , air pockets.
								10-20	10-15 cm black thick mud, lots oil globules, moderate odour, 15-20 cm more clay-like, thick.
								20-28	Clay-like, lots oil globules, moderate petroleum odour, grayer.
31	C23-2	Benthos	1994-10-20	524321.6	4985047.1	9.8	33	0-10	Ooze, very oily, moderate petroleum odour, 0-1 cm light brown, 9-10 cm black.
								10-20	Thicker mud, black, moderate petroleum odour, oil globules.
								20-33	20-30 cm as 10-20 cm, 30-33 cm more clay-like and more brownish.
32	C23-3	Benthos	1994-10-20	524321.0	4985046.4	10.0	21	0-10	0-6 cm flocculent ooze, 0-1 cm light brown, 1-6 cm black, 6-10 cm very thick - oily, moderate petroleum odour.
								10-21	10-15 cm black ooze, 15-21 cm grayish thicker mud, very oily, moderate petroleum odour, very little fine detritus.
33	C24-1	Benthos	1994-10-20	524500.3	4985141.7	10.4	64	0-10	Ooze to soft, oil globules, slight petroleum odour, 0-5 cm lighter colour, 5-10 cm dark brown to
								10-20	Black oily mud, abundant oil globules, petroleum odour increasingly strong.
								20-30	Black oily mud, oil globules (a lot), moderate petroleum odour.
								30-40	As 20-30 cm, 38-40 cm more packed, gray and clay-like.
								40-50	Plenty oil globules slight petroleum odour, 40-42 cm gray clay-like, 42-50 cm more dark mud.
								50-64	50-59 cm oily packed mud, oil globules, 52 cm moderate detritus/fibre, 59-64 cm more gray and clay-like with oil globules.
34	C24-2	Benthos	1994-10-20	524501.8	4985135.8	10.7	57	0-10	0-8 cm loose brown ooze, abundant oil globules, no odour, 8-10 cm black packed mud.
								10-20	Black thick mud, abundant oil globules, moderate petroleum chemical odour.
								20-30	Black thick mud, abundant oil globules, moderate petroleum chemical odour.
								30-40	Black thick mud, abundant oil globules, moderate petroleum chemical odour.
								40-57	40-50 cm as 10-20 cm, with sparse fine detritus at 43 cm, 50-57 cm becomes packed (loose clay-like).
35	C24-3	Benthos	1994-10-20	524501.4	4985134.1	10.7	75	0-10	Ooze, oil globules, slight petroleum odour, 0-4 cm light brown, 6-10 cm black.

Serial Number	Site Number	Corer Type	Date	Easting NAD27, metres	Northing	Depth, m not IGLD	Core Length(cm)	Interval (cm)	Description
35	C24-3	Benthos	1994-10-20	524501.4	4985134.1	10.7	75	10-20	Black thick mud, oil globules slight petroleum odour.
								20-30	As 10-20 cm, some fine detritus at 28 cm.
								30-40	As 10-20 cm but thicker mud.
								40-50	As 30-40 cm with little detritus at 48-50 cm.
								50-60	Much denser, clay-like, abundant oil globules, slight petroleum odour.
								60-75	Soft clay, oil globules, light brownish, sparse fibre and wood chips, some black mud mixed in.
36	C25	Benthos	1994-10-20	524378.2	4985091.4	10.1	18	0-10	0-1 cm flocculent, light brown, 1-5 cm ooze, 1-4 cm light brown, 4-5 cm dark brown, 5-10 cm thicker ooze, dark brown, many oil globules, slight petroleum odour.
								10-18	Dark brown ooze, lots oil globules, slight petroleum odour, 15-18 cm has sparse shell and shell fragments, small amount plant fibre/detritus.
37	C26	Benthos	1994-10-24	524382.7	4985031.2	10.4	36	0-10	Black ooze, very oily, moderate petroleum odour, some detritus.
								10-20	Black oily ooze, lots oil globules, moderate petroleum odour, sparse fine detritus.
								20-36	As 10-20 cm but thicker / less moist.
38	C27	Benthos	1994-10-19	524401.6	4985071.8	11.4	49	0-10	0-9.5 cm sandy (especially after 1 cm), 0-1 cm light brown, 1-9.5 cm brown, 9.5-10 cm finer, brown, many shell and shell fragments.
								10-20	Black "paste" mud, slight petroleum odour /sparse detritus.
								20-30	As 10-20 cm, with sparse detritus near 30 cm.
								30-40	Black "paste" mud, slight petroleum odour /sparse detritus.
								40-49	No odour, little detritus, dark gray.
39	C28	Benthos	1994-10-22	524478.3	4985061.0	11.8	54	0-10	0-1.5 cm light brown ooze, 1.5-10 cm black mud, many oil globules, slight petroleum odour.
								10-20	10-15 cm sandy mud.
								20-30	Gray clay-like mud, lots oil globules, slight petroleum odour, moderate medium detritus
								30-40	Sandy mud, lots detritus, especially at 5 cm, increasing sand at bottom, oil globules, moderate petroleum odour.
								40-54	Gray clay-like, slight medium detritus, oil globules, slight odour.
40	C29	Benthos	1994-10-24	524345.1	4984992.9	10.8	43	0-10	0-3 cm silty sand with some wood chips, 3-6 cm many wood chips, sandy, 6-10 cm black ooze, very oily, strong petroleum odour.
								10-20	10-13 cm black ooze, 13-15 cm is silty sand with wood chips, 15-20 cm ooze, little sand, fine detritus, lots oil globules, slight petroleum odour.
								20-30	Thick clay-like mud, lots oil globules, gray, very slight petroleum odour.
								30-43	Thick clay-like mud, lots oil globules, gray, very slight petroleum odour.
41	C30	Benthos	1994-10-24	524517.3	4985006.2	14.1	13	0-13	0-5 cm silty sand, wood chips/detritus, 5-13 cm sand, with shell and shell fragments, slight petroleum odour, some oil globules.
42	C31	Benthos	1994-10-21	524564.7	4985167.6	9.8	44	0-10	0-5 cm greenish/brown ooze, 5-10 cm black ooze, many oil globules, slight petroleum odour.
								10-20	Black ooze, oil globules (lots), slight odour.
								20-30	As 10-20 cm but some fine detritus, thicker.
								30-44	More gray and moderate packed clay-like material, lots oil globules, slight petroleum odour.
43	C32	Benthos	1994-10-22	524620.1	4985190.8	9.9	70	0-10	Ooze, many oil globules, slight petroleum odour, 0-3 cm light brown over black.
								10-20	Black oily ooze, slight petroleum odour, sparse fine detritus.
								20-30	As 10-20 cm, no detritus, few wood chips at 21 cm, moderate odour.
								30-40	Black mud, very oily, moderate odour, no detritus.
								40-50	As 30-40 cm, becoming more clay-like near bottom.
								50-60	50-58 cm as 40-50 cm, some detritus at 55 cm, 58-60 cm more clay-like, slight petroleum odour.

Serial Number	Site Number	Corer Type	Date	Easting NAD27, metres	Northing	Depth, m not IGLD	Core Length(cm)	Interval (cm)	Description
43	C32	Benthos	1994-10-22	524620.1	4985190.8	9.9	70	60-70	60-63 cm clay-like, 63-70 cm muddier with fine sand and fine detritus, much drier, few oil globules and slight petroleum odour.
44	C34	Benthos	1994-10-19	524687.2	4985220.2	10.0	45	0-10	Very soft silt, thickening and darkening with increasing depth, oily sheen, little detritus, 0-3 cm light brown.
								10-20	Very thick pastey mud, oily, no odour.
								20-30	As 10-20 cm, with slight petroleum odour, 27-30 cm sparse detritus.
								30-45	35-45 cm gray(dark), no odour, very thick mud.
45	C35	Benthos	1994-10-21	524722.7	4985276.6	7.9	28	0-10	Ooze, many oil globules, very faint petroleum odour 0-2 cm light brown, 2-10 cm black.
								10-20	Black ooze, slight odour, lots oil globules.
								20-28	Ditto, little more packed.
46	C36-1	Benthos	1994-10-19	524768.9	4985291.4	8.4	49	0-10	0-2 cm ooze, light brown, 2-10 cm thicker with fine detritus, darker brown, no odour.
								10-20	Thick mud, slight organic odour, 10-11 cm darker brown, 11-20 cm becomes black.
								20-30	Sparse fine detritus, thick mud, finer part, size compared to 10-20 cm, black.
								30-40	Black as 20-30 cm but no detritus, slight oil sheen.
								40-49	Oily sheen, very thick black mud, no odour.
47	C36-2	Benthos	1994-10-19	524764.5	4985297.2	8.4	47	0-10	0-3 cm loose, light brown, 3-10 cm firms toward 10 cm, darker brown, 8-10 cm slight oil sheen, no odour.
								10-20	10-15 cm thicker, darker, 15-20 cm slightly thicker, black.
								20-30	Very fine thick black mud, slight organic odour.
								30-40	Very fine thick mud, black, very slight organic odour, very slight oil sheen.
								40-47	As 30-40 cm.
48	C36-3	Benthos	1994-10-19	524766.3	4985294.7	8.4	53	0-10	0-2 cm wet loose consistency, light brown, 5-10 cm firmer, no odour, 8-10 cm very fine detritus.
								10-20	Moderately packed ooze, no odour, 10-17 cm darker brown, 17-20 cm black.
								20-30	Black, thick mud, no odour.
								30-40	Thick black mud, some detritus, no odour, very slight oil sheen.
								40-53	Thick black mud, no detritus, slight oil sheen.
49	C37	Benthos	1994-10-21	524844.4	4985323.9	10.0	55	0-10	Ooze, little sand, many oil globules, slight petroleum odour, light over dark brown/green.
								10-20	Thick mud, little fine sand, oil globules, slight petroleum, 10-18 cm green brown, 18-20 cm black.
								20-30	Thick black muck, oil globules, slight petroleum odour.
								30-40	Thick black muck, oil globules, slight petroleum odour.
								40-55	Thick black mud, 40-43 cm fine detritus, 50-55 cm more clay-like consistency, oil globules, slight petroleum odour.
50	C38	Benthos	1994-10-22	524858.4	4985365.3	8.9	40	0-10	Loose, oil globules, slight petroleum odour, 0-3 cm light brown, 3-10 cm dark gray to black.
								10-20	Dark gray-black mud, no odour, oil globules.
								20-30	Gray-black ooze, lots oil globules, slight petroleum odour.
								30-40	As 20-30 cm.
51	C40	Benthos	1994-10-19	524927.5	4985402.7	11.4	42	0-10	0-6 cm loose consistency, slight organic odour, 0-2 cm light brown, 2-6 cm darker, 6-10 cm slightly firmer to 10 cm, very light oil sheen, darker.
								10-20	Very dark brown, slight oil sheen.
								20-30	Black thick mud, sparse fine detritus.
								30-42	Black thick mud, slight oil sheen.
52	C41	Benthos	1994-10-24	524927.5	4985357.6	12.3	33	0-10	Ooze, slight petroleum odour, oil globules, 0-3 cm light brown, 3-10 cm gray.
								10-20	Oily black ooze, moderate petroleum odour, lots oil globules.

Serial Number	Site Number	Corer Type	Date	Easting NAD27, metres	Northing NAD27, metres	Depth, m not IGLD	Core Length(cm)	Interval (cm)	Description
52	C41	Benthos	1994-10-24	524927.5	4985357.6	12.3	33	20-33	20-30 cm black oily ooze, 30-33 cm soft gray clay, oil globules, moderate petroleum odour, sparse fine detritus.
53	C42	Benthos	1994-10-21	524970.2	4985443.6	10.4	50	0-10	Loose ooze, slight petroleum odour, few oil globules, light brown to darker brown.
								10-20	Greenish dark brown ooze, oil globules, slight petroleum odour, 19 cm fine detritus.
								20-30	All mud, some wood chips at 29 cm, oil globules, brown-green to 28 cm, 28-30 cm dark gray to black.
								30-40	Gray black mud, wood chips at 31 cm, oil globules, slight odour (petroleum).
								40-50	Gray black mud, fine detritus, oil globules, slight petroleum odour.
54	C43	Benthos	1994-10-22	525002.0	4985404.3	15.4	58	0-10	Oil globules, moderate petroleum odour, mixed with fine detritus, shell and shell fragments at 9 cm, 0-1 cm light brown, 1-10 cm gray-green.
								10-20	10-13 cm black mud, 13-20 cm sandy silt to dry sand at 20 cm, slight petroleum odour, sparse shell and shell fragments, oil globules.
								20-30	Black mud, lots oil globules, moderate petroleum odour, no detritus.
								30-40	As above but lots of detritus at 38-39 cm.
								40-50	40-48 cm as 30-40 cm, no detritus, 48-50 cm clay-like.
								50-58	Clay- like (more gray), oil globules, slight petroleum odour.
55	C44	Benthos	1994-10-19	525021.4	4985494.5	9.9	62	0-10	0-5 cm loose, 0-2 cm light brown, 5-10 cm slightly thicker, slight organic odour, darker brown.
								10-20	Thick mud, dark brown.
								20-30	Thicker mud, dark brown to gray (28-30 cm graying).
								30-40	Thicker mud, very slight organic odour, black.
								40-50	As above, little fine detritus with faint petroleum odour.
								50-62	Even thicker black mud, no detritus, no odour.
56	C45	Benthos	1994-10-19	525090.0	4985536.5	12.2	63	0-10	0-6 cm loose wet, 0-2 cm light brown, 6-10 cm thicker and darker brown.
								10-20	Thicker mud, dark brown, very slight sheen.
								20-30	20-25 cm dark brown, 25-30 cm sparse detritus with lighter brown centre.
								30-40	30-33 cm light brown inside, 33-40 cm dark gray, very fine detritus.
								40-50	Black, thick mud.
								50-63	As 40-50 cm, slight oil sheen, sparse fine detritus, slight petroleum odour.
57	C46	Benthos	1994-10-22	525122.4	4985481.5	11.5	31	0-10	Oozy, fine shell and shell fragments, fine detritus, oil globules, slight petroleum odour, 0-2 cm light brown, 2-10 cm sand throughout, dark gray, 7-10 cm black mud, thick, 8 cm detritus.
								10-20	Black mud, oil globules, slight petroleum odour, no detritus.
								20-31	Thick black mud, lots oil globules, moderate petroleum odour, very fine detritus.
58	C47	Benthos	1994-10-21	525139.6	4985607.3	8.6	66	0-10	Ooze, very oily, slight petroleum odour, 0-8 cm light brown, 8-10 cm brown black.
								10-20	Black/brown thicker mud, some oil globules, very slight petroleum odour.
								20-30	Black brown mud, oil globules, fine detritus.
								30-40	Mud, fine detritus, oil globules, slight petroleum odour, 30-35 cm black brown, 35-40 cm black.
								40-50	Thick black mud, slight petroleum odour, oil globules.
								50-66	As 40-50 cm, some detritus with patch at 52 cm.
59	C48	Benthos	1994-10-24	525201.2	4985538.9	9.5	42	0-10	0-5 cm ooze with little sand, 0-2 cm light brown, 5-10 cm black oily ooze, many oil globules, moderate petroleum odour.
								10-20	Black ooze, moderate petroleum odour, oil globules, 10 cm sparse detritus.
								20-30	Black ooze, detritus at 23 cm, increasingly packed, more clay-like and gray with depth, oil globules, slight petroleum odour.
								30-42	30-40 cm as 23-30 cm, 40-42 cm sandy plug.

Serial Number	Site Number	Corer Type	Date	Easting NAD27, metres	Northing	Depth, m not IGLD	Core Length(cm)	Interval (cm)	Description
60	C49	Benthos	1994-10-19	525227.7	4985659.6	8.1	63	0-10	Oil globules, 0-7 cm light brown (2-7 cm darker), 7-10 cm gray black.
								10-20	Black ooze, thicker, slight petroleum odour, oil globules.
								20-30	As 10-20 cm, stronger petroleum odour, 28-30 cm wood chips.
								30-40	As 20-30 cm with wood chips.
								40-50	Black ooze, moderate petroleum odour, wood chips 40 to 47 cm.
								50-63	Black ooze, moderate petroleum odour moderately thick.
61	C50	Benthos	1994-10-24	525235.5	4985579.5	8.5	42	0-10	0-3 cm light brown sandy silt, 7-10 cm sand all mixed with sparse shell and shell fragments fine detritus, oily globules, slight petroleum odour.
								10-20	10-13 cm sandy silt, 13-20 cm black, oily muck, fine detritus, slight petroleum odour.
								20-30	Black muck as 10-20 cm.
								30-42	As 20-30 cm with detritus layer at 32 cm, moderate petroleum odour, lots oil globules.
62	C51-1	Benthos	1994-10-19	525302.7	4985688.0	7.5	46	0-10	Very little fine detritus, oil globules, no odour, 0-3 cm light brown, darker brown to 10 cm.
								10-20	Thicker mud, oil globules, no odour, sparse detritus, 10-15 cm dark brown.
								20-30	Black thick mud, oil globules, slight petroleum odour.
								30-46	Moderate petroleum odour, thick black mud, oil globules.
63	C51-2	Benthos	1994-10-19	525301.8	4985689.2	7.3	40	0-10	Fine detritus on surface, oil globules, very slight petroleum odour, sparse shell and shell fragments, 0-3 cm light brown, 4-10 cm black.
								10-20	Black ooze, unpacked oil globules, slight petroleum odour.
								20-30	As above, moderate odour.
								30-40	Black ooze, more packed, mod. to strong odour, moderate oil globules.
64	C51-3	Benthos	1994-10-19	525300.7	4985689.6	7.3	36	0-10	0-8 cm ooze, 0-3 cm light brown 7-8 cm darker brown, 8-10 cm firmer, oil globules, slight petrochemical odour, sparse detritus, darker brown.
								10-20	More packed, moderate oil globules, mainly black, slight petroleum odour, 10-12 cm darker brown, 12-20 cm black.
								20-36	Black mud (packed), abundant oil globules, slight petroleum odour, 34-36 cm more grayish in
65	C52	Benthos	1994-10-22	525334.2	4985593.4	8.3	26	0-10	0-3 cm ooze, light brown, 3-10 cm sand, mixed shell and shell fragments (fine), detritus at 9-10 cm, dark brown, oil globules, slight petroleum odour.
								10-26	10-23 cm brown gray mud, at 23 cm some detritus, 23-26 cm more clay-like, moderate petroleum odour, lots oil globules.
66	C53	Benthos	1994-10-24	525403.9	4985630.5	9.7	10	0-10	0-3 cm silty sand, light brown, 3-10 cm sand, 3-5 cm light brown, 5-10 cm dark brown, fine shell and shell fragments, no odour, no oil globules.
67	C54	Benthos	1994-10-20	525414.9	4985677.3	8.4	28	0-10	0-5 cm ooze, very little sand, chironomids, light brown, 5-10 cm darker mud, shell and shell fragments, oil globules, no odour.
								10-20	Black/dark brown mud, moderate detritus, little wood fibre, oil globules, slight organic odour.
								20-28	Black mud, moderate wood fibre, dry content, oil globules, 26-28 cm abundant wood fibre.
68	C55	Benthos	1994-10-24	525414.2	4985508.1	6.8	8	0-8	Silty sand, many shell and shell fragments especially for 0-2 cm, very few oil globules, no odour.
69	C56	Benthos	1994-10-20	525503.0	4985722.6	9.4	56	0-10	Fine detritus on surface, sparse shell and shell fragments, no odour, very little fine sand, 0-3 cm light brown, 7-10 cm medium brown.
								10-20	Thicker mud, no sand, few oil globules, moderate fine detritus, slight petroleum odour, 10-18 cm darker brown.
								20-30	Black thicker mud, oil globules, slight petroleum odour.
								30-40	As 20-30 cm, more packed.
								40-56	As 20-30 cm, more packed, moderate fine detritus.
70	C57	Benthos	1994-10-21	525508.0	4985630.1	8.9	11	0-11	0-2 cm silty sand, snail shells and shell fragments on surface, slight organic odour, shells to 2 cm, 2-11 cm darker brown sand (no silt).

Serial Number	Site Number	Corer Type	Date	Easting NAD27, metres	Northing NAD27, metres	Depth, m not IGLD	Core Length(cm)	Interval (cm)	Description
71	C58	Benthos	1994-10-21	525503.5	4985525.1	6.3	7	0-7	Sand, mixed with shell and shell fragments, no odour, little to no silt, many oil globules, 0-2 cm light brown, 2-7 cm dark brown.
72	C59	Benthos	1994-10-22	525535.3	4985783.7	7.8	17	0-10	Ooze, fine detritus, oil globules, slight petroleum odour, 0-1 cm light brown, 1-10 cm
								10-17	Gray-green ooze, lots oil globules, moderate petroleum odour, very fine detritus.
73	C60	Benthos	1994-10-24	525559.9	4985589.3	6.6	17	0-17	0-10 cm shell and shell fragments, 10-15 cm shell and shell fragments with some silty sand, 15-17 cm sand, wood chips, oil sheen, moderate petroleum odour.
74	C61	Benthos	1994-10-20	525623.5	4985783.9	9.1	9	0-9	0-6 cm ooze, light brown, 6-9 cm more packed, slight organic odour, a few oil globules and shell and shell fragments, darker brown.
75	C62	Benthos	1994-10-21	525636.4	4985712.9	12.2	15	0-15	0-3 cm softer, light brown, 3-15 cm more compact silty sand, 5-15 cm wood chips and wood fibre, drier with gradual darkening brown, moderate pulpy odour.
76	C63	Benthos	1994-10-24	525700.7	4985765.2	13.1	14	0-14	0-10 cm silty sand, zebras, shell and shell fragments to 4 cm, slight petroleum odour, 0-2 cm light brown, 2-10 cm black, 10-14 cm same with many wood fibres, few oil globules.
77	Stn A	Benthos	1994-10-25	524056.6	4984953.3	6.1	36	0-10	0-10 cm ooze, 1-10 cm plant fibres, many oil globules, very slight petroleum odour, 0-1 cm light brown, 1-10 cm brown-black.
								10-20	Black ooze, lots oil globules, moderate petroleum odour.
								20-36	As 10-20 cm with strong petroleum odour.
78	Stn C	Benthos	1994-10-25	524224.4	4985046.6	6.3	10	0-10	Silty sand, many oil globules, slight petroleum odour, sparse shell and shell fragments, light brown surface.
79	1	Benthos	1995-07-06	523839.0	4984737.0	2.3	0		Hard bottom, no core.
80	2	Benthos	1995-07-06	523862.0	4984739.0	5.3	10		Muddy sand, discarded.
81	2-1	Benthos	1995-07-06	523860.0	4984737.0	5.3	1		Shelly, muddy sand, discarded.
82	3	Benthos	1995-07-06	523886.0	4984739.0	8.5	19	0-3	Buff ooze.
								3-13	Black mud with shells.
								13-19	Cracked black silt.
83	3-1	Benthos	1995-07-06	523889.0	4984737.0	6.8	10		Shelly, muddy sand, discarded.
84	4	Benthos	1995-07-06	523910.0	4984740.0	7.9	20	0-5	Brown, shelly sand or silt.
								5-20	Black mud.
85	6	Benthos	1995-07-06	523864.0	4984762.0	3.9	2		Lost 2 cm mud.
86	6-1	Benthos	1995-07-06	523863.0	4984762.0	3.9			Lost mud core.
87	7	Benthos	1995-07-06	523890.0	4984764.0	6.5	17	0-2	2-3 cm buff ooze.
								2-12	Black mud?
								12-17	Stiff grey-black mud.
88	8	Benthos	1995-07-06	523917.0	4984765.0	7.9	24	0-9	Buff organic ooze.
								9-24	Grey sand with mud? at base.
89	8-1	Benthos	1995-07-06	523912.0	4984761.0	7.7	40		40 cm penetration, lost lower 30 cm, 10 cm of black, shelly, sand mud, discarded.
90	8-2	Benthos	1995-07-06	523910.0	4984763.0	7.5	23	0-4	Buff ooze.
								4-8	Black shelly mud.
								8-23	Uniform grey-black silt.
91	9	Benthos	1995-07-06	523865.0	4984786.0	2.4	16	0-3	Fibres.
								0-11	Algae on surface, med-brown sand?
								11-16	Black silt.
92	9-1	Benthos	1995-07-06	523861.0	4984791.0	3.0	10		Gravelly coarse black sand, discarded.
93	10	Benthos	1995-07-06	523888.0	4984786.0	5.6	0		No core, end of tube crushed.
94	10-1	Benthos	1995-07-06	523889.0	4984788.0	4.8	10		10 cm sticky sandy black mud, 2-cm pebble or rock fragment, discarded.

Serial Number	Site Number	Corer Type	Date	Easting	Northing	Depth, m not IGLD	Core Length(cm)	Interval (cm)	Description
				NAD27, metres					
95	11	Benthos	1995-07-06	523911.0	4984790.0	7.3	37	0-2	Buff organic ooze.
								2-21	Black silt.
								21-37	Stiff? cracked black silt or clay.
96	12	Benthos	1995-07-06	523889.0	4984813.0	4.2	15	0-3	Buff ooze.
								3-15	Black mud?
97	12-1	Benthos	1995-07-06	523886.0	4984813.0	4.6	10		Stiff, greasy, oily black mud, fragment of dry grey clay, discarded.
98	12-2	Benthos	1995-07-06	523887.0	4984815.0	1.4	30	0-3	Buff ooze, weed fragments.
								3-9	Black and brown silt, minor shells.
								9-21	Uniform black silt.
99	13	Benthos	1995-07-06	523914.0	4984815.0	6.7	15	0-3	Buff ooze.
								3-15	Sticky black mud.
100	13-2	Benthos	1995-07-06	523913.0	4984814.0	6.7	36	0-1	Buff ooze.
								1-9	Buff and black silty sand?
								9-27	Black-gray cracked silt?
								27-36	Black mud?
101	2A	Tech. Ops.	1996-02-06	523927.2	4984795.6		20	0-2	Abundant fibres\organics.
102	3A	Tech. Ops.	1996-02-06	523897.9	4984775.8		16	0-2	Fibres\woods\organics.
103	Pilon	Diver	1996	526891.3	4985587.6		54		
104	TCTI	Diver	1996	524943.3	4985416.6		68		
105	105	Box	1997-10-22	523938.0	4984819.6	5.5	23	0-23	2-3 cm light brown over black, uniform structure, soft basal sediment, photo.
106	109	Box	1997-10-22	523978.8	4984878.7	7.5	30	0-30	6-7 cm light brown over black, uniform structure, soft basal sediment, smelly sample, photo.
107	115	Box	1997-10-22	524087.5	4984932.7	9.0	34	0-34	2 cm light brown over black, uniform structure, soft basal sediment, photo.
108	117	Box	1997-10-22	524182.0	4985001.0	9.5	19	0-10	Mottled dark brown-dark grey and brown/black, firm, mud with fine grit, earthy smell, shell fragments at 10 cm, very slight HCl reaction, fine textile-like fibres, top 2.5 cm desiccated.
								10-18	Mottled dark brown-dark grey and brown/black, firm, mud with fine grit, earthy smell, shells at 14 cm, moderate HCl reaction, H2S smell, fine textile-like fibres.
109	126	Box	1997-10-23	524381.7	4985038.2	10.5	21	0-7	Dark brown, minor black mottling, silty mud with a few granules, some fine wood fragments, almost dry, top 2 cm desiccated.
								7-16	Near black, massive, moist, muddy, some oil content, organic smell, edge of core oxidized.
								16-21	Black and brown sediment, high content of wood fragments, moist.
110	127	Box	1997-10-22	524391.8	4985064.4	11.0	18	0-18	2 cm light brown over black, skiff? of sand lying over top of other sediment.
111	128	Box	1997-10-23	524479.0	4985063.9	12.0	12	0-5.5	Dark brown, massive, mud, some white shell fragments, slight HCl reaction, H2S smell, top 2 cm desiccated.
								5.5-9	Mottled dark brown and black, dark brown sediment along edges of core, dry, Mud, moderate to high HCl reaction, H2S smell, some wood fragments and fibres.
								9-12	Buff, massive, firm, fine to medium sand, dark brown wood fragments and fibres, low to moderate HCl reaction, H2S smell.
112	131	Box	1997-10-23	524567.2	4985169.2	10.0	27	0-12	Medium brown, massive, moist, silty clay, earthy odour, smooth, uniform mud, top 2 cm
								12-22	Mottled medium brown and black, firm, clayey, earthy odour.
								22-25	Medium brown, massive, firm, mud, earthy odour.
113	132	Box	1997-10-23	524621.7	4985195.0	10.0	27	0-13	Mainly black in top 3 cm and black and brown otherwise, soft, clayey, oily odour, fast HCl reaction, H2S smell, top layer is gritty with fibres, X-ray photo shows thin light lens at 13 cm.
								13-27	black, massive, soupy, clayey, oily odour, fast HCl reaction, H2S smell.
114	135	Box	1997-10-23	524738.5	4985277.5	8.5	NA	NA	4 cm light brown over black, stiff basal sediment, photo.

Serial Number	Site Number	Corer Type	Date	Easting NAD27, metres	Northing NAD27, metres	Depth, m not IGLD	Core Length(cm)	Interval (cm)	Description
115	156	Box	1997-10-21	525505.1	4985718.0		16	0-7	Dark brown - some mottling, firm, silty, slight earthy smell, shells present, moderate HCl reaction, H2S smell, top 2 cm desiccated, some fine fibres.
								7-15	Mottled brown and black sediment, firm, silty, moderate HCl reaction, H2S smell.
116	164	Box	1997-10-22	524067.5	4984943.3	7.5	24	0-24	6 cm light brown over black, uniform structure, soft basal sediment, photo.
117	166	Box	1997-10-21	521105.6	4984027.0	7.9	29	0-29	6-7 cm light brown over black, uniform structure, soft basal sediment, photo.
118	167	Box	1997-10-22	521149.9	4984039.0	7.5	20	0-20	2 cm light brown over black, uniform structure, soft basal sediment, photo.
119	168	Box	1997-10-21	521183.4	4984060.6	8.5	23	0-9	Dark brown, massive, moist, Humic material and fine wood fibres, organic odour, top 2 cm desiccated, sharp interface with adjacent units.
								9-22	Lighter brown and dark grey centre, mottled, moist smooth fine grit, industrial odour. Lighter sediment zone between 14-16 cm in brown sediment. Fine fibres towards bottom layer.
120	171	Box	1997-10-21	526865.0	4985668.0	10.5	19	0-19	2 cm brown, 17cm black, uniform structure, gritty basal sediment. 1st drop did not trigger, 2nd discarded because of inclined surface, photo.
121	172	Box	1997-10-21	527025.8	4985955.7	10.0	25	0-12	Mottled dark brown and black, medium firm, muddy with fine grit and shells, oily odour, slight HCl reaction, H2S smell, shells in upper 6 cm, top 3 cm desiccated.
								12-23	Dark grey, massive, soft, clayey, oily odour, slight HCl reaction, H2S smell.
122	173	Box	1997-10-23	525372.6	4984838.0	11.5	NA	NA	6-7 cm light brown over black, uniform structure, stiff basal sediment.
123	175	Box	1997-10-23	525541.7	4984852.3	14.5	24	0-24	5-6 cm light brown over black, uniform structure, stiff basal sediment, photo.
124	176	Box	1997-10-23	525632.6	4984773.9	14.0	NA	NA	Stiff basal sediment, missing data because too dark.
125	177	Box	1997-10-23	525763.0	4984825.0	12.5	NA	NA	8 cm light brown over black, uniform structure, stiff basal sediment, photo.
126	179	Box	1997-10-23	525940.0	4984798.6	NA	20	0-20	7 cm light brown over black, uniform structure, stiff basal sediment, photo.
127	181	Box	1997-10-21	526195.0	4984785.0	10.0	24	0-24	2-4 cm light brown over dark gray, uniform structure, soft basal sediment, photo.
128	182	Box	1997-10-21	526295.7	4984827.9	11.5	25	0-5	Dark brown, greying with depth, massive, soft, top 2 cm desiccated, clayey with fine grit, earthy odour, slight HCl reaction, H2S smell.
								5-25	Dark grey, soft, silty fine grit, oily odour, moderate HCl reaction, H2S smell, some fine fibres.
129	109-2	Diver	1997-11-19	523978.8	4984878.7	9.0	61	0-23	Dark brown, massive, soupy , clayey with fine grit, strong diesel smell, moderate HCl reaction, H2S smell, sharp interface between the units, some oil sheen in water, fine fibres, X-ray photo shows light lens at 22 cm.
								23-61	Black, massive except for lighter lens at 48-50 cm, soupy, clayey with fine grit, strong Bunker C smell, moderate HCl reaction, H2S smell, wood chips at 50-55 cm, lens at 48-50 cm does not react with HCl and has the consistency of tooth paste and very strong H2S smell, oil sheen.
130	166-1	Diver	1997-11-19	521105.6	4984027.0	7.6	52	0-13	Black, massive, soupy, very fine grit, industrial odour, slight HCl reaction, H2S smell, fine fibres, interval 2-3 cm was skipped.
								13-42	Black with brown overtones, subtle layering, soft, very fine grit, industrial odour, slight HCl reaction, H2S smell.
								42-52	Black, 2-cm thick lighter layer over black, massive, soft, very fine grit, industrial odour, slight HCl reaction, H2S smell.
131	179-1	Diver	1997-11-19	525940.0	4984798.6	15.2	41	0-36	Mottled dark grey and brown at surface grading to brown at the base, massive, soft, gritty, oily odour, shells present, slight HCl reaction, H2S smell, fine fibres, interface at 10 cm on X-ray.
								36-41	Dark brown, massive, soft, gritty, earthy odour, slight HCl reaction, H2S smell.
132	182-1,2	Diver	1997-11-19	526295.7	4984827.9	9.8	44.5		Soft sediment over possible glacial clay, bottom not hard like rock, no gas, lots of sediment compression.

Appendix 3. Sediment-thickness data.

Serial Number	Site Number	Year	Type	Easting NAD27	Northing NAD27	Thickness cm
1	28	1993	UWTV	521086	4984000	40
2	M 32	1993	UWTV	521086	4984001	70
3	M 41	1993	UWTV	521080	4984025	45
4	M 45	1993	UWTV	521082	4984030	70
5	M 96	1993	UWTV	521120	4983927	10
6	103	1993	UWTV	521119	4983930	5
7	M104	1993	UWTV	521118	4983930	10
8	M137	1993	UWTV	521246	4984083	20
9	141	1993	UWTV	521245	4984080	15
10	M144	1993	UWTV	521245	4984080	35
11	176	1993	UWTV	521550	4984141	0
12	M178	1993	UWTV	521549	4984145	8
13	205	1993	UWTV	521703	4984198	3
14	M208	1993	UWTV	521703	4984200	0
15	209	1993	UWTV	521703	4984200	0
16	M215	1993	UWTV	521703	4984198	0
17	M258	1993	UWTV	522986	4984466	3
18	M264	1993	UWTV	522975	4984484	0
19	M290	1993	UWTV	522951	4984494	5
20	304	1993	UWTV	522964	4984492	10
21	305	1993	UWTV	522965	4984492	20
22	M306	1993	UWTV	522966	4984491	18
23	M310	1993	UWTV	522968	4984492	13
24	312	1993	UWTV	522971	4984493	10
25	418	1993	UWTV	523143	4984526	8
26	M420	1993	UWTV	523148	4984520	5
27	M421	1993	UWTV	523147	4984523	5
28	M441	1993	UWTV	523145	4984562	50
29	444	1993	UWTV	523143	4984564	50
30	M446	1993	UWTV	523146	4984565	30
31	M449	1993	UWTV	523146	4984563	50
32	M471	1993	UWTV	523142	4984584	10
33	M472	1993	UWTV	523140	4984584	25
34	M475	1993	UWTV	523141	4984587	30
35	M532	1993	UWTV	523154	4984619	25
36	114	1993	UWTV	523792	4984578	0
37	140	1993	UWTV	523781	4984607	5
38	144	1993	UWTV	523780	4984607	0
39	147	1993	UWTV	523779	4984606	8
40	165	1993	UWTV	523765	4984667	15
41	M172	1993	UWTV	523767	4984660	35
42	179	1993	UWTV	523763	4984658	10
43	181	1993	UWTV	523763	4984658	10
44	M109	1993	UWTV	523884	4984803	40
45	111	1993	UWTV	523884	4984803	20
46	113	1993	UWTV	523884	4984804	5
47	114	1993	UWTV	523885	4984807	5
48	M118	1993	UWTV	523886	4984805	50
49	M121	1993	UWTV	523886	4984803	15
50	123	1993	UWTV	523886	4984802	15
51	M145	1993	UWTV	523889	4984797	50
52	147	1993	UWTV	523888	4984796	50
53	148	1993	UWTV	523888	4984796	40
54	151	1993	UWTV	523892	4984795	40
55	M154	1993	UWTV	523890	4984796	40
56	M182	1993	UWTV	523890	4984793	45
57	M206	1993	UWTV	523994	4984677	5
58	210	1993	UWTV	523996	4984672	18
59	211	1993	UWTV	523996	4984671	0
60	244	1993	UWTV	524133	4984963	5
61	M248	1993	UWTV	524117	4984964	10
62	251	1993	UWTV	524126	4984960	10
63	M254	1993	UWTV	524121	4984958	20
64	257	1993	UWTV	524124	4984956	10
65	M258	1993	UWTV	524123	4984956	10
66	283	1993	UWTV	524148	4984925	10
67	284	1993	UWTV	524148	4984924	18
68	M286	1993	UWTV	524147	4984924	30
69	288	1993	UWTV	524145	4984924	23
70	315	1993	UWTV	524338	4985066	0
71	M317	1993	UWTV	524338	4985067	10
72	320	1993	UWTV	524338	4985068	3
73	336	1993	UWTV	524350	4985040	20
74	339	1993	UWTV	524347	4985039	30
75	340	1993	UWTV	524346	4985038	30
76	M343	1993	UWTV	524343	4985037	30
77	371	1993	UWTV	524949	4985457	45
78	M374	1993	UWTV	524949	4985455	50
79	M377	1993	UWTV	524947	4985453	60
80	M378	1993	UWTV	524946	4985452	60
81	M407	1993	UWTV	525555	4985823	40
82	409	1993	UWTV	525556	4985822	35
83	M416	1993	UWTV	525553	4985822	35
84	M437	1993	UWTV	525573	4985766	55
85	438	1993	UWTV	525573	4985767	45
86	M439	1993	UWTV	525574	4985768	55
87	M455	1993	UWTV	525631	4985623	60
88	M 72	1993	UWTV	524955	4985479	30
89	M125	1993	UWTV	524955	4985487	20
90	M127	1993	UWTV	524947	4985495	10
91	141	1993	UWTV	524963	4985469	55
92	143	1993	UWTV	524965	4985466	55
93	M148	1993	UWTV	524959	4985469	53
94	M173	1993	UWTV	524982	4985429	30
95	M175	1993	UWTV	524980	4985430	60
96	202	1993	UWTV	524998	4985392	40
97	203	1993	UWTV	524997	4985396	30
98	M205	1993	UWTV	525007	4985395	35
99	M 11	1993	UWTV	525031	4985354	30
100	M 41	1993	UWTV	524763	4985240	40
101	44	1993	UWTV	524762	4985241	60
102	M 47	1993	UWTV	524762	4985240	60
103	M 64	1993	UWTV	524744	4985291	15
104	M 65	1993	UWTV	524744	4985292	13
105	86	1993	UWTV	523900	4984769	20
106	87	1993	UWTV	523897	4984773	20
107	102	1993	UWTV	523913	4984774	20
108	M 103	1993	UWTV	523912	4984773	40
109	M 111	1993	UWTV	523910	4984769	20
110	M 114	1993	UWTV	523907	4984770	20
111	M 125	1993	UWTV	523903	4984769	20
112	M 126	1993	UWTV	523903	4984771	30
113	127	1993	UWTV	523902	4984771	20
114	134	1993	UWTV	523900	4984762	20

Serial Number	Site Number	Year	Type	Easting	Northing	Thickness
				NAD27		cm
115	135	1993	UWTV	523900	4984758	20
116	M 137	1993	UWTV	523899	4984756	40
117	M 15	1993	UWTV	523929	4984732	20
118	M 17	1993	UWTV	523933	4984731	20
119	M 21	1993	UWTV	523931	4984729	10
120	M 22	1993	UWTV	523931	4984730	20
121	71	1993	UWTV	523951	4984694	20
122	M 73	1993	UWTV	523951	4984696	20
123	M 78	1993	UWTV	523953	4984697	10
124	M 110	1993	UWTV	524097	4984997	20
125	M 113	1993	UWTV	524097	4984996	40
126	M 120	1993	UWTV	524099	4984998	30
127	M 128	1993	UWTV	524097	4984999	30
128	7	1993	UWTV	524174	4984880	0
129	M 9	1993	UWTV	524166	4984881	10
130	M 11	1993	UWTV	524164	4984883	0
131	12	1993	UWTV	524165	4984885	0
132	M 13	1993	UWTV	524165	4984885	10
133	15	1993	UWTV	524164	4984887	20
134	M 16	1993	UWTV	524164	4984887	30
135	M 85	1993	UWTV	524192	4984846	10
136	M 94	1993	UWTV	524185	4984856	10
137	104	1993	UWTV	524363	4985010	20
138	M 112	1993	UWTV	524366	4985004	30
139	M 116	1993	UWTV	524370	4985005	30
140	M 132	1993	UWTV	524384	4984980	15
141	141	1993	UWTV	524390	4984979	5
142	M 148	1993	UWTV	524379	4984990	20
143	149	1993	UWTV	524383	4984988	20
144	M 154	1993	UWTV	524403	4984967	13
145	178	1993	UWTV	524525	4985203	5
146	M 214	1993	UWTV	524549	4985143	13
147	M 227	1993	UWTV	524548	4985169	13
148	228	1993	UWTV	524543	4985170	5
149	231	1993	UWTV	524525	4985170	55
150	M 701	1993	UWTV	524581	4985112	10
151	M 710	1993	UWTV	524586	4985119	13
152	M 755	1993	UWTV	524615	4985071	10
153	756	1993	UWTV	524616	4985072	5
154	M 776	1993	UWTV	524622	4985083	15
155	M 807	1993	UWTV	524747	4985260	30
156	809	1993	UWTV	524746	4985261	30
157	811	1993	UWTV	524748	4985264	10
158	M 946	1993	UWTV	524788	4985221	5
159	M 949	1993	UWTV	524793	4985221	0
160	M 967	1993	UWTV	524812	4985188	10
161	M 975	1993	UWTV	524798	4985181	20
162	978	1993	UWTV	524805	4985188	5
163	M1043	1993	UWTV	524982	4985417	25
164	M1050	1993	UWTV	524982	4985418	25
165	M1054	1993	UWTV	524983	4985419	20
166	M 49	1993	UWTV	525015	4985381	50
167	M 58	1993	UWTV	525003	4985397	30
168	M 74	1993	UWTV	525005	4985390	15
169	M 99	1993	UWTV	525052	4985318	15
170	102	1993	UWTV	525054	4985326	5
171	M 106	1993	UWTV	525051	4985317	10

Serial Number	Site Number	Year	Type	Easting	Northing	Thickness
				NAD27		cm
172	M 107	1993	UWTV	525051	4985317	10
173	108	1993	UWTV	525050	4985317	25
174	M 110	1993	UWTV	525050	4985322	25
175	111	1993	UWTV	525050	4985324	5
176	M 113	1993	UWTV	525050	4985319	20
177	M 155	1993	UWTV	525127	4985615	30
178	M 162	1993	UWTV	525130	4985631	40
179	M 168	1993	UWTV	525127	4985618	25
180	M 183	1993	UWTV	525153	4985573	30
181	M 186	1993	UWTV	525155	4985577	55
182	M 198	1993	UWTV	525156	4985579	40
183	M 217	1993	UWTV	525187	4985527	50
184	M 220	1993	UWTV	525188	4985527	45
185	M 222	1993	UWTV	525188	4985529	25
186	M 236	1993	UWTV	525189	4985530	20
187	M 239	1993	UWTV	525186	4985527	55
188	240	1993	UWTV	525185	4985526	45
189	M 244	1993	UWTV	525189	4985533	25
190	246	1993	UWTV	525189	4985534	15
191	266	1993	UWTV	525251	4985435	0
192	M 267	1993	UWTV	525250	4985435	10
193	M 268	1993	UWTV	525249	4985446	0
194	271	1993	UWTV	525245	4985436	0
195	272	1993	UWTV	525243	4985437	15
196	M 278	1993	UWTV	525248	4985442	5
197	1	1994	Diver data	523791	4984660	5
198	2	1994	Diver data	523786	4984669	33
199	3	1994	Diver data	523782	4984674	31
200	4	1994	Diver data	523799	4984642	0
201	5	1994	Diver data	523806	4984639	2
202	6	1994	Diver data	523809	4984660	3
203	7	1994	Diver data	523804	4984670	3
204	8	1994	Diver data	523799	4984680	8
205	9	1994	Diver data	523792	4984688	28
206	10	1994	Diver data	523823	4984663	5
207	11	1994	Diver data	523821	4984668	5
208	12	1994	Diver data	523819	4984680	3
209	13	1994	Diver data	523815	4984690	3
210	14	1994	Diver data	523804	4984692	16
211	15	1994	Diver data	523796	4984698	15
212	16	1994	Diver data	523802	4984710	35
213	17	1994	Diver data	523811	4984703	16
214	18	1994	Diver data	523816	4984694	18
215	19	1994	Diver data	523817	4984684	5
216	20	1994	Diver data	523817	4984673	3
217	21	1994	Diver data	523821	4984664	7
218	22	1994	Diver data	523830	4984676	4
219	23	1994	Diver data	523829	4984685	13
220	24	1994	Diver data	523826	4984693	4
221	25	1994	Diver data	523820	4984704	22
222	26	1994	Diver data	523811	4984712	19
223	27	1994	Diver data	523916	4984669	2
224	28	1994	Diver data	523916	4984681	2
225	29	1994	Diver data	523911	4984690	2
226	30	1994	Diver data	523906	4984699	5
227	31	1994	Diver data	523904	4984709	2
228	32	1994	Diver data	523903	4984721	18

Serial Number	Site Number	Year	Type	Easting	Northing	Thickness
				NAD27		cm
229	33	1994	Diver data	523898	4984730	20
230	34	1994	Diver data	523887	4984736	28
231	35	1994	Diver data	523880	4984745	33
232	36	1994	Diver data	523873	4984755	17
233	37	1994	Diver data	523865	4984763	9
234	38	1994	Diver data	523862	4984773	25
235	39	1994	Diver data	523857	4984782	34
236	40	1994	Diver data	523873	4984796	65
237	41	1994	Diver data	523882	4984787	18
238	42	1994	Diver data	523885	4984777	15
239	43	1994	Diver data	523893	4984768	35
240	44	1994	Diver data	523899	4984759	21
241	45	1994	Diver data	523904	4984750	34
242	46	1994	Diver data	523908	4984740	30
243	47	1994	Diver data	523914	4984730	31
244	48	1994	Diver data	523889	4984810	61
245	49	1994	Diver data	523901	4984803	56
246	50	1994	Diver data	523907	4984795	59
247	51	1994	Diver data	523912	4984784	44
248	52	1994	Diver data	523919	4984775	19
249	53	1994	Diver data	523843	4984757	36
250	54	1994	Diver data	523854	4984752	11
251	55	1994	Diver data	523861	4984745	14
252	56	1994	Diver data	523870	4984739	16
253	57	1994	Diver data	523874	4984727	24
254	58	1994	Diver data	523879	4984717	10
255	59	1994	Diver data	523882	4984707	19
256	60	1994	Diver data	523889	4984698	24
257	61	1994	Diver data	523894	4984689	15
258	62	1994	Diver data	523893	4984676	1
259	63	1994	Diver data	523825	4984734	34
260	64	1994	Diver data	523836	4984747	33
261	65	1994	Diver data	523844	4984738	21
262	66	1994	Diver data	523859	4984733	16
263	67	1994	Diver data	523851	4984741	10
264	68	1994	Diver data	523846	4984751	43
265	69	1994	Diver data	523841	4984756	48
266	70	1994	Diver data	523877	4984733	17
267	71	1994	Diver data	523870	4984741	13
268	72	1994	Diver data	523865	4984750	6
269	73	1994	Diver data	523858	4984758	13
270	74	1994	Diver data	523848	4984764	28
271	75	1994	Diver data	523897	4984736	30
272	76	1994	Diver data	523890	4984744	49
273	77	1994	Diver data	523886	4984755	53
274	78	1994	Diver data	523878	4984760	22
275	79	1994	Diver data	523876	4984774	6
276	80	1994	Diver data	523870	4984785	43
277	81	1994	Diver data	523908	4984765	66
278	82	1994	Diver data	523901	4984774	73
279	83	1994	Diver data	523895	4984783	35
280	84	1994	Diver data	523887	4984790	24
281	85	1994	Diver data	523880	4984800	62
282	86	1994	Diver data	523878	4984805	38
283	87	1994	Diver data	523901	4984789	52
284	88	1994	Diver data	523893	4984797	58
285	89	1994	Diver data	523886	4984805	51

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				NAD27		cm
286	90	1994	Diver data	523896	4984816	69
287	91	1994	Diver data	523905	4984811	54
288	C-01	1994	Core	523873	4984735	13
289	C-02	1994	Core	523891	4984693	12
290	C-03	1994	Core	523908	4984732	31
291	C-04	1994	Core	523919	4984809	52
292	C-05	1994	Core	523926	4984856	18
293	C-06	1994	Core	523942	4984827	50
294	C-07	1994	Core	523939	4984794	37
295	C-08	1994	Core	523944	4984759	11
296	C-09	1994	Core	523966	4984888	9
297	C-10	1994	Core	523974	4984810	35
298	C-11	1994	Core	523988	4984782	38
299	C-12-1	1994	Core	524009	4984859	27
300	C-12-2	1994	Core	524012	4984862	26
301	C-12-3	1994	Core	524009	4984856	39
302	C-13	1994	Core	524046	4984840	34
303	C-14	1994	Core	524056	4984891	58
304	C-15-1	1994	Core	524086	4984934	73
305	C-15-2	1994	Core	524081	4984929	43
306	C-15-3	1994	Core	524085	4984931	28
307	C-16	1994	Core	524126	4984886	13
308	C-17	1994	Core	524178	4985002	28
309	C-18	1994	Core	524227	4984943	20
310	C-19	1994	Core	524231	4985026	21
311	C-20	1994	Core	524276	4985048	10
312	C-21	1994	Core	524280	4984980	31
313	C-22	1994	Core	524276	4984946	20
314	C-23-1	1994	Core	524321	4985044	28
315	C-23-2	1994	Core	524322	4985047	33
316	C-23-3	1994	Core	524321	4985046	21
317	C-24-1	1994	Core	524500	4985142	64
318	C-24-2	1994	Core	524502	4985136	57
319	C-24-3	1994	Core	524501	4985134	75
320	C-25	1994	Core	524378	4985091	18
321	C-26	1994	Core	524383	4985031	36
322	C-27	1994	Core	524402	4985072	49
323	C-28	1994	Core	524478	4985061	54
324	C-29	1994	Core	524345	4984993	43
325	C-30	1994	Core	524517	4985006	13
326	C-31	1994	Core	524565	4985168	44
327	C-32	1994	Core	524620	4985191	70
328	C-34	1994	Core	524687	4985220	45
329	C-35	1994	Core	524723	4985277	28
330	C-36-1	1994	Core	524769	4985291	49
331	C-36-2	1994	Core	524765	4985297	47
332	C-36-3	1994	Core	524766	4985295	53
333	C-37	1994	Core	524844	4985324	55
334	C-38	1994	Core	524858	4985365	40
335	C-40	1994	Core	524928	4985403	42
336	C-41	1994	Core	524928	4985358	33
337	C-42	1994	Core	524970	4985444	50
338	C-43	1994	Core	525002	4985404	58
339	C-44	1994	Core	525021	4985495	62
340	C-45	1994	Core	525090	4985537	63
341	C-46	1994	Core	525122	4985482	31
342	C-47	1994	Core	525140	4985607	66

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				NAD27		cm
343	C-48	1994	Core	525201	4985539	42
344	C-49	1994	Core	525228	4985660	63
345	C-50	1994	Core	525236	4985580	42
346	C-51-1	1994	Core	525303	4985688	46
347	C-51-2	1994	Core	525302	4985689	40
348	C-51-3	1994	Core	525301	4985690	36
349	C-52	1994	Core	525334	4985593	26
350	C-53	1994	Core	525404	4985631	10
351	C-54	1994	Core	525415	4985677	28
352	C-55	1994	Core	525414	4985508	8
353	C-56	1994	Core	525503	4985723	56
354	C-57	1994	Core	525508	4985630	11
355	C-58	1994	Core	525504	4985525	7
356	C-59	1994	Core	525535	4985784	17
357	C-60	1994	Core	525560	4985589	17
358	C-61	1994	Core	525624	4985784	9
359	C-62	1994	Core	525636	4985713	15
360	C-63	1994	Core	525701	4985765	14
361	Stn A	1994	Core	524057	4984953	36
362	Stn C	1994	Core	524224	4985047	10
363	1	1994	UWTV	524006	4984851	40
364	2	1994	UWTV	524004	4984850	50
365	3	1994	UWTV	524003	4984849	50
366	4	1994	UWTV	524000	4984847	50
367	5	1994	UWTV	524041	4984837	50
368	6	1994	UWTV	524052	4984830	20
369	7	1994	UWTV	524058	4984832	40
370	8	1994	UWTV	523990	4984755	40
371	9	1994	UWTV	523993	4984754	40
372	10	1994	UWTV	523962	4984789	40
373	11	1994	UWTV	523962	4984788	50
374	12	1994	UWTV	523963	4984788	50
375	13	1994	UWTV	523963	4984788	50
376	14	1994	UWTV	523963	4984788	50
377	15	1994	UWTV	523963	4984788	50
378	16	1994	UWTV	523950	4984803	50
379	17	1994	UWTV	523950	4984803	50
380	18	1994	UWTV	523950	4984802	50
381	19	1994	UWTV	523950	4984802	50
382	20	1994	UWTV	523950	4984802	50
383	21	1994	UWTV	523950	4984802	50
384	22	1994	UWTV	523923	4984828	50
385	23	1994	UWTV	523924	4984827	50
386	24	1994	UWTV	523885	4984728	20
387	25	1994	UWTV	523886	4984727	30
388	26	1994	UWTV	523886	4984726	30
389	27	1994	UWTV	523886	4984726	30
390	28	1994	UWTV	523886	4984725	15
391	29	1994	UWTV	523899	4984698	20
392	30	1994	UWTV	523899	4984698	20
393	31	1994	UWTV	523810	4984633	5
394	32	1994	UWTV	524014	4984886	50
395	33	1994	UWTV	524014	4984885	50
396	34	1994	UWTV	524014	4984885	50
397	35	1994	UWTV	524013	4984885	50
398	36	1994	UWTV	524013	4984885	50
399	37	1994	UWTV	524013	4984885	50

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				NAD27		cm
400	38	1994	UWTV	524013	4984885	50
401	39	1994	UWTV	524013	4984886	50
402	40	1994	UWTV	524011	4984881	50
403	41	1994	UWTV	524010	4984881	50
404	42	1994	UWTV	524010	4984881	50
405	43	1994	UWTV	524010	4984881	50
406	44	1994	UWTV	524010	4984881	50
407	45	1994	UWTV	524006	4984812	30
408	46	1994	UWTV	524013	4984815	5
409	47	1994	UWTV	524017	4984817	5
410	48	1994	UWTV	524011	4984821	5
411	49	1994	UWTV	524013	4984823	5
412	50	1994	UWTV	524014	4984824	5
413	51	1994	UWTV	524013	4984823	5
414	52	1994	UWTV	524013	4984823	5
415	53	1994	UWTV	524012	4984822	5
416	54	1994	UWTV	524011	4984822	5
417	55	1994	UWTV	524003	4984824	20
418	56	1994	UWTV	524224	4984845	20
419	57	1994	UWTV	524400	4984980	15
420	58	1994	UWTV	524434	4985001	20
421	59	1994	UWTV	524436	4985005	40
422	60	1994	UWTV	524438	4985011	15
423	61	1994	UWTV	524441	4985017	10
424	62	1994	UWTV	524454	4985030	20
425	63	1994	UWTV	524471	4985041	10
426	64	1994	UWTV	524473	4985042	10
427	65	1994	UWTV	524479	4985045	10
428	66	1994	UWTV	524491	4985050	20
429	67	1994	UWTV	524496	4985051	25
430	68	1994	UWTV	524530	4985063	50
431	69	1994	UWTV	524536	4985065	50
432	70	1994	UWTV	523004	4984490	40
433	71	1994	UWTV	523169	4984578	40
434	72	1994	UWTV	522906	4984463	5
435	73	1994	UWTV	522964	4984480	25
436	74	1994	UWTV	522964	4984481	25
437	75	1994	UWTV	522975	4984484	5
438	76	1994	UWTV	523040	4984502	10
439	77	1994	UWTV	523158	4984556	40
440	78	1994	UWTV	523163	4984561	25
441	79	1994	UWTV	523163	4984562	20
442	80	1994	UWTV	523162	4984563	10
443	81	1994	UWTV	523167	4984565	10
444	82	1994	UWTV	523167	4984588	10
445	83	1994	UWTV	523157	4984583	5
446	84	1994	UWTV	523147	4984579	20
447	85	1994	UWTV	523145	4984578	5
448	86	1994	UWTV	523146	4984579	30
449	87	1994	UWTV	523148	4984581	50
450	88	1994	UWTV	523149	4984583	50
451	1	1995	Core	523839	4984737	0
452	2	1995	Core	523862	4984739	10
453	2-1	1995	Core	523860	4984737	1
454	3	1995	Core	523886	4984739	19
455	3-1	1995	Core	523889	4984737	10
456	4	1995	Core	523910	4984740	20

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				NAD27		cm
457	6	1995	Core	523864	4984762	2
458	7	1995	Core	523890	4984764	17
459	8	1995	Core	523917	4984765	24
460	8-1	1995	Core	523912	4984761	40
461	8-2	1995	Core	523910	4984763	23
462	9	1995	Core	523865	4984786	16
463	9-1	1995	Core	523861	4984791	10
464	10	1995	Core	523888	4984786	0
465	10-1	1995	Core	523889	4984788	10
466	11	1995	Core	523911	4984790	37
467	12	1995	Core	523889	4984813	15
468	12-1	1995	Core	523886	4984813	10
469	12-2	1995	Core	523887	4984815	30
470	13	1995	Core	523914	4984815	15
471	13-2	1995	Core	523913	4984814	36
472	1	1995	UWTV	521484	4984153	1
473	2	1995	UWTV	521458	4984157	2
474	3	1995	UWTV	521455	4984155	2
475	4	1995	UWTV	521548	4984163	16
476	5	1995	UWTV	521549	4984172	1
477	6	1995	UWTV	521549	4984172	2
478	7	1995	UWTV	521611	4984170	1
479	8	1995	UWTV	521611	4984171	1
480	9	1995	UWTV	521275	4984046	1
481	10	1995	UWTV	521289	4984058	18
482	11	1995	UWTV	521291	4984059	3
483	12	1995	UWTV	521291	4984059	14
484	13	1995	UWTV	521291	4984063	3
485	14	1995	UWTV	521352	4984076	1
486	15	1995	UWTV	521352	4984076	1
487	16	1995	UWTV	521413	4984097	3
488	17	1995	UWTV	521412	4984096	2
489	18	1995	UWTV	521509	4984128	1
490	19	1995	UWTV	521514	4984125	8
491	20	1995	UWTV	521514	4984125	8
492	21	1995	UWTV	523892	4984417	1
493	22	1995	UWTV	523892	4984418	1
494	23	1995	UWTV	523807	4984560	19
495	24	1995	UWTV	523808	4984559	2
496	25	1995	UWTV	523809	4984559	21
497	26	1995	UWTV	523809	4984559	2
498	27	1995	UWTV	523809	4984559	3
499	28	1995	UWTV	523810	4984559	1
500	29	1995	UWTV	524071	4984718	1
501	30	1995	UWTV	524074	4984717	1
502	31	1995	UWTV	524076	4984718	1
503	32	1995	UWTV	524190	4984642	1
504	33	1995	UWTV	524190	4984642	1
505	34	1995	UWTV	524192	4984642	1
506	35	1995	UWTV	524370	4984751	1
507	36	1995	UWTV	524370	4984751	1
508	37	1995	UWTV	524378	4984748	1
509	38	1995	UWTV	524605	4984923	1
510	39	1995	UWTV	524605	4984922	1
511	40	1995	UWTV	524606	4984920	1
512	41	1995	UWTV	524632	4984928	1
513	42	1995	UWTV	524862	4985074	3

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				NAD27		cm
514	43	1995	UWTV	524862	4985074	7
515	44	1995	UWTV	524862	4985074	1
516	45	1995	UWTV	524862	4985073	1
517	46	1995	UWTV	525130	4985258	1
518	47	1995	UWTV	525130	4985257	14
519	48	1995	UWTV	525130	4985256	17
520	49	1995	UWTV	525134	4985256	6
521	50	1995	UWTV	525136	4985257	2
522	51	1995	UWTV	525139	4985258	4
523	52	1995	UWTV	525145	4985260	3
524	53	1995	UWTV	525146	4985259	1
525	54	1995	UWTV	525146	4985259	8
526	55	1995	UWTV	525145	4985259	2
527	58	1995	UWTV	525396	4985443	1
528	59	1995	UWTV	525395	4985442	9
529	60	1995	UWTV	525396	4985440	7
530	61	1995	UWTV	525395	4985438	22
531	62	1995	UWTV	525402	4985438	5
532	63	1995	UWTV	525399	4985436	3
533	64	1995	UWTV	525398	4985436	9
534	65	1995	UWTV	525625	4985596	39
535	66	1995	UWTV	525628	4985595	44
536	67	1995	UWTV	525635	4985597	44
537	68	1995	UWTV	525551	4985725	40
538	69	1995	UWTV	525550	4985722	40
539	70	1995	UWTV	525328	4985565	45
540	71	1995	UWTV	525328	4985566	70
541	72	1995	UWTV	525053	4985392	2
542	73	1995	UWTV	525054	4985393	36
543	74	1995	UWTV	525058	4985400	38
544	75	1995	UWTV	525060	4985405	5
545	76	1995	UWTV	525062	4985405	29
546	77	1995	UWTV	525064	4985405	35
547	78	1995	UWTV	525065	4985405	29
548	79	1995	UWTV	525065	4985405	30
549	80	1995	UWTV	525066	4985405	32
550	81	1995	UWTV	525069	4985408	16
551	82	1995	UWTV	525072	4985413	15
552	83	1995	UWTV	525073	4985414	20
553	84	1995	UWTV	524838	4985235	44
554	85	1995	UWTV	524836	4985234	45
555	86	1995	UWTV	524838	4985233	2
556	87	1995	UWTV	524840	4985234	24
557	88	1995	UWTV	524841	4985236	27
558	89	1995	UWTV	524844	4985243	41
559	90	1995	UWTV	524537	4985053	1
560	91	1995	UWTV	524537	4985054	8
561	92	1995	UWTV	524536	4985053	23
562	93	1995	UWTV	524534	4985053	12
563	94	1995	UWTV	524532	4985053	15
564	95	1995	UWTV	524528	4985051	15
565	96	1995	UWTV	524527	4985050	1
566	97	1995	UWTV	524526	4985050	1
567	98	1995	UWTV	524286	4984883	24
568	99	1995	UWTV	524281	4984883	12
569	100	1995	UWTV	524278	4984882	14
570	101	1995	UWTV	524273	4984883	15

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571	102	1995	UWTV	524268	4984885	16
572	103	1995	UWTV	524267	4984886	25
573	104	1995	UWTV	523983	4984848	30
574	105	1995	UWTV	523986	4984847	50
575	106	1995	UWTV	523984	4984852	50
576	107	1995	UWTV	523986	4984853	60
577	108	1995	UWTV	523987	4984849	60
578	111	1995	UWTV	524216	4985000	30
579	112	1995	UWTV	524216	4985000	32
580	113	1995	UWTV	524216	4985001	35
581	115	1995	UWTV	524458	4985149	16
582	116	1995	UWTV	524459	4985149	15
583	117	1995	UWTV	524457	4985149	15
584	118	1995	UWTV	524457	4985148	18
585	119	1995	UWTV	524460	4985145	1
586	120	1995	UWTV	524461	4985145	1
587	121	1995	UWTV	524473	4985153	35
588	122	1995	UWTV	524472	4985155	40
589	123	1995	UWTV	524473	4985154	10
590	124	1995	UWTV	524486	4985150	24
591	125	1995	UWTV	524486	4985151	30
592	126	1995	UWTV	524486	4985153	15
593	127	1995	UWTV	524488	4985153	32
594	128	1995	UWTV	524738	4985298	10
595	129	1995	UWTV	524741	4985300	10
596	131	1995	UWTV	524760	4985316	48
597	132	1995	UWTV	524759	4985315	28
598	133	1995	UWTV	524758	4985313	40
599	134	1995	UWTV	524945	4985489	15
600	135	1995	UWTV	524944	4985488	15
601	136	1995	UWTV	524945	4985488	12
602	137	1995	UWTV	524944	4985488	14
603	138	1995	UWTV	524944	4985487	15
604	139	1995	UWTV	524943	4985482	30
605	140	1995	UWTV	525119	4985609	15
606	141	1995	UWTV	525118	4985608	32
607	142	1995	UWTV	525116	4985609	70
608	143	1995	UWTV	525136	4985632	40
609	144	1995	UWTV	525181	4985664	40
610	145	1995	UWTV	525182	4985668	60
611	146	1995	UWTV	525238	4985651	60
612	147	1995	UWTV	525489	4985787	16
613	148	1995	UWTV	525489	4985786	30
614	149	1995	UWTV	525490	4985785	17
615	150	1995	UWTV	525490	4985783	20
616	151	1995	UWTV	525492	4985782	5
617	152	1995	UWTV	525492	4985782	15
618	153	1995	UWTV	525498	4985778	30
619	154	1995	UWTV	525500	4985776	60
620	155	1995	UWTV	525505	4985774	40
621	156	1995	UWTV	525505	4985774	21
622	157	1995	UWTV	523749	4984545	3
623	158	1995	UWTV	523748	4984545	3
624	159	1995	UWTV	523747	4984544	3
625	160	1995	UWTV	523754	4984546	5
626	161	1995	UWTV	523752	4984545	8
627	162	1995	UWTV	523804	4984619	15

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628	163	1995	UWTV	523804	4984619	10
629	164	1995	UWTV	523834	4984708	10
630	165	1995	UWTV	523834	4984708	30
631	166	1995	UWTV	523835	4984707	16
632	167	1995	UWTV	523834	4984707	15
633	168	1995	UWTV	523834	4984706	16
634	169	1995	UWTV	523835	4984706	20
635	170	1995	UWTV	523837	4984704	5
636	171	1995	UWTV	523838	4984702	10
637	172	1995	UWTV	523931	4984800	60
638	173	1995	UWTV	523928	4984796	70
639	174	1995	UWTV	523944	4984727	24
640	175	1995	UWTV	523944	4984727	17
641	176	1995	UWTV	523946	4984727	11
642	177	1995	UWTV	523972	4984717	2
643	178	1995	UWTV	523973	4984717	3
644	179	1995	UWTV	523974	4984721	1
645	180	1995	UWTV	523974	4984725	1
646	181	1995	UWTV	523974	4984728	1
647	182	1995	UWTV	523913	4984661	1
648	183	1995	UWTV	523913	4984661	1
649	184	1995	UWTV	523913	4984662	1
650	185	1995	UWTV	523886	4984596	3
651	186	1995	UWTV	523886	4984596	1
652	187	1995	UWTV	523887	4984597	1
653	188	1995	UWTV	523886	4984599	4
654	189	1995	UWTV	523886	4984599	1
655	190	1995	UWTV	523887	4984599	1
656	191	1995	UWTV	523887	4984599	1
657	2A	1996	Core	523927	4984796	20
658	3A	1996	Core	523898	4984776	16
659	Pilon	1996	Core	526891	4985588	54
660	TCTI	1996	Core	524943	4985417	68
661	m 26	1996	UWTV	523926	4984743	30
662	m 29	1996	UWTV	523934	4984735	35
663	m 36	1996	UWTV	523946	4984778	49
664	m 38	1996	UWTV	523947	4984772	35
665	m 43	1996	UWTV	523999	4984802	45
666	m 44	1996	UWTV	524000	4984803	70
667	m 52	1996	UWTV	524027	4984826	58
668	m 54	1996	UWTV	524028	4984827	65
669	m 58	1996	UWTV	524051	4984855	60
670	m 59	1996	UWTV	524052	4984850	70
671	m 66	1996	UWTV	524052	4984876	35
672	m 69	1996	UWTV	524047	4984877	80
673	m 76	1996	UWTV	524024	4984851	45
674	m 77	1996	UWTV	524023	4984852	45
675	m 78	1996	UWTV	524024	4984852	45
676	m 81	1996	UWTV	524028	4984848	40
677	m 86	1996	UWTV	523973	4984824	50
678	m 88	1996	UWTV	523974	4984820	63
679	m 93	1996	UWTV	523970	4984819	45
680	m 102	1996	UWTV	523948	4984850	70
681	m 104	1996	UWTV	523949	4984846	85
682	m 111	1996	UWTV	523974	4984873	80
683	m 114	1996	UWTV	523976	4984871	80
684	m 115	1996	UWTV	523977	4984871	80

Serial Number	Site Number	Year	Type	Easting	Northing	Thickness
				NAD27		cm
685	m 119	1996	UWTV	524001	4984874	85
686	m 121	1996	UWTV	524001	4984872	55
687	m 126	1996	UWTV	524025	4984874	50
688	m 132	1996	UWTV	524026	4984872	55
689	m 137	1996	UWTV	524024	4984901	8
690	m 139	1996	UWTV	524023	4984898	8
691	m 142	1996	UWTV	524000	4984898	30
692	m 143	1996	UWTV	523998	4984898	45
693	m 147	1996	UWTV	523976	4984893	20
694	m 148	1996	UWTV	523975	4984893	20
695	m 149	1996	UWTV	523971	4984893	20
696	m 153	1996	UWTV	523946	4984876	13
697	m 154	1996	UWTV	523946	4984878	13
698	m 155	1996	UWTV	523946	4984878	13
699	m 156	1996	UWTV	523946	4984879	13
700	m 157	1996	UWTV	523946	4984879	13
701	m 163	1996	UWTV	524025	4984925	25
702	m 165	1996	UWTV	524025	4984925	18
703	m 166	1996	UWTV	524025	4984922	13
704	13	1996	UWTV	524540	4985191	0
705	14	1996	UWTV	524353	4984800	0
706	15	1996	UWTV	524340	4984795	0
707	16	1996	UWTV	525160	4985638	50
708	18	1996	UWTV	525142	4985610	50
709	23	1996	UWTV	525085	4985469	50
710	24	1996	UWTV	525082	4985468	50
711	27	1996	UWTV	525070	4985345	35
712	30	1996	UWTV	525074	4985341	40
713	32	1996	UWTV	525079	4985339	40
714	34	1996	UWTV	525054	4985341	50
715	42	1996	UWTV	524582	4985056	10
716	44	1996	UWTV	524280	4984800	0
717	1	1997	UWTV	524942	4985509	45
718	2	1997	UWTV	524940	4985507	50
719	3	1997	UWTV	524931	4985512	0
720	4	1997	UWTV	524963	4985522	10
721	5	1997	UWTV	524962	4985504	10
722	6	1997	UWTV	524956	4985480	40
723	7	1997	UWTV	524959	4985450	50
724	8	1997	UWTV	524974	4985418	46
725	9	1997	UWTV	524975	4985421	50
726	10	1997	UWTV	524972	4985422	50
727	11	1997	UWTV	524981	4985401	70
728	12	1997	UWTV	524983	4985392	40
729	13	1997	UWTV	524989	4985390	70
730	14	1997	UWTV	524987	4985394	60
731	15	1997	UWTV	524994	4985377	25
732	16	1997	UWTV	524996	4985378	45
733	18	1997	UWTV	525023	4985380	60
734	19	1997	UWTV	525024	4985380	35
735	20	1997	UWTV	525024	4985383	40
736	21	1997	UWTV	525030	4985363	20
737	22	1997	UWTV	525046	4985344	35
738	23	1997	UWTV	525040	4985316	10
739	24	1997	UWTV	525044	4985316	15
740	26	1997	UWTV	524800	4985336	20
741	27	1997	UWTV	524833	4985357	30

Serial Number	Site Number	Year	Type	Easting	Northing	Thickness
				NAD27		cm
742	28	1997	UWTV	524859	4985366	50
743	30	1997	UWTV	524887	4985390	30
744	31	1997	UWTV	524928	4985419	55
745	32	1997	UWTV	524959	4985438	70
746	33	1997	UWTV	524941	4985430	50
747	34	1997	UWTV	524983	4985445	70
748	35	1997	UWTV	524974	4985449	70
749	36	1997	UWTV	525007	4985473	70
750	37	1997	UWTV	525038	4985485	70
751	38	1997	UWTV	525032	4985488	70
752	39	1997	UWTV	525023	4985497	70
753	40	1997	UWTV	525024	4985482	70
754	41	1997	UWTV	525023	4985482	70
755	42	1997	UWTV	525083	4985521	70
756	43	1997	UWTV	525077	4985527	70
757	44	1997	UWTV	525097	4985533	70
758	45	1997	UWTV	525149	4985564	70
759	46	1997	UWTV	525140	4985563	70
760	47	1997	UWTV	525018	4985353	10
761	48	1997	UWTV	525028	4985362	15
762	49	1997	UWTV	525055	4985330	20
763	50	1997	UWTV	525053	4985328	15
764	51	1997	UWTV	524947	4985443	80
765	52	1997	UWTV	525045	4985478	75
766	53	1997	UWTV	525278	4985541	0
767	54	1997	UWTV	525277	4985540	10
768	56	1997	UWTV	524820	4985230	20
769	57	1997	UWTV	524821	4985237	5
770	58	1997	UWTV	524814	4985235	10
771	59	1997	UWTV	524821	4985232	12
772	60	1997	UWTV	524821	4985235	15
773	61	1997	UWTV	524558	4985131	10
774	62	1997	UWTV	524549	4985130	50
775	63	1997	UWTV	524549	4985128	60
776	64	1997	UWTV	524550	4985132	60
777	65	1997	UWTV	524526	4985096	45
778	66	1997	UWTV	524527	4985098	40
779	67	1997	UWTV	524441	4985061	10
780	68	1997	UWTV	524445	4985060	65
781	69	1997	UWTV	524447	4985063	50
782	70	1997	UWTV	524311	4985032	30
783	71	1997	UWTV	524316	4985028	20
784	72	1997	UWTV	524329	4985025	20
785	1	1997	UWTV	523687	4984537	1
786	2	1997	UWTV	524126	4984878	40
787	3	1997	UWTV	524124	4984883	25
788	4	1997	UWTV	524122	4984880	15
789	5	1997	UWTV	524123	4984882	?
790	6	1997	UWTV	524117	4984929	30
791	7	1997	UWTV	524116	4984925	30
792	8	1997	UWTV	524520	4985003	10
793	9	1997	UWTV	524520	4985004	15
794	10	1997	UWTV	524212	4984719	3
795	11	1997	UWTV	525075	4985585	75
796	12	1997	UWTV	525074	4985587	70
797	13	1997	UWTV	525071	4985589	45
798	14	1997	UWTV	525076	4985584	80

Serial Number	Site Number	Year	Type	Easting	Northing	Thickness
				NAD27		cm
799	15	1997	UWTV	525076	4985587	75
800	16	1997	UWTV	525063	4985617	45
801	17	1997	UWTV	525064	4985613	45
802	18	1997	UWTV	525029	4985327	10
803	19	1997	UWTV	525039	4985324	45
804	20	1997	UWTV	525041	4985320	10
805	21	1997	UWTV	525037	4985318	30
806	22	1997	UWTV	525040	4985320	35
807	23	1997	UWTV	525039	4985321	40
808	24	1997	UWTV	525037	4985319	30
809	25	1997	UWTV	525036	4985318	38
810	26	1997	UWTV	525034	4985320	25
811	27	1997	UWTV	525038	4985311	20
812	28	1997	UWTV	525274	4985546	50
813	29	1997	UWTV	525276	4985548	45
814	30	1997	UWTV	525283	4985546	3
815	31	1997	UWTV	525281	4985536	5
816	32	1997	UWTV	524929	4985505	5
817	33	1997	UWTV	524927	4985503	5
818	34	1997	UWTV	524926	4985502	10
819	35	1997	UWTV	524934	4985463	20
820	36	1997	UWTV	524939	4985456	30
821	37	1997	UWTV	524941	4985454	35
822	38	1997	UWTV	524946	4985453	57
823	39	1997	UWTV	524947	4985455	45
824	40	1997	UWTV	524966	4985411	80
825	31	1997	UWTV	524114	4984800	10
826	30a	1997	UWTV	524334	4984939	15
827	30b	1997	UWTV	524339	4984946	15
828	30c	1997	UWTV	524347	4984962	15
829	29a	1997	UWTV	524670	4985160	45
830	29b	1997	UWTV	524686	4985172	35
831	28a	1997	UWTV	524895	4985293	20
832	28b	1997	UWTV	524896	4985296	20
833	25a	1997	UWTV	525045	4985552	45
834	25b	1997	UWTV	525048	4985551	65
835	25c	1997	UWTV	525048	4985559	65
836	27a	1997	UWTV	525313	4985637	40
837	27b	1997	UWTV	525314	4985646	58
838	27c	1997	UWTV	525318	4985651	50
839	27d	1997	UWTV	525322	4985655	72
840	24a	1997	UWTV	525404	4985733	32
841	24b	1997	UWTV	525405	4985734	32
842	1a	1997	UWTV	525442	4985579	40
843	1b	1997	UWTV	525445	4985581	40
844	1c	1997	UWTV	525452	4985583	40
845	1d	1997	UWTV	525456	4985584	40
846	23a	1997	UWTV	525586	4985658	30
847	23b	1997	UWTV	525584	4985657	20
848	23c	1997	UWTV	525590	4985661	20
849	32a	1997	UWTV	525899	4984784	68
850	32b	1997	UWTV	525900	4984787	68
851	32c	1997	UWTV	525904	4984790	69
852	33a	1997	UWTV	526113	4984794	65
853	33b	1997	UWTV	526109	4984796	72
854	33c	1997	UWTV	526109	4984797	72
855	33d	1997	UWTV	526110	4984798	71

Serial Number	Site Number	Year	Type	Easting	Northing	Thickness
				NAD27		cm
856	21	1997	UWTV	521074	4984022	75
857	22	1997	UWTV	521163	4984051	90
858	23	1997	UWTV	521259	4984103	90
859	24a	1997	UWTV	521381	4984100	8
860	24b	1997	UWTV	521379	4984100	8
861	24c	1997	UWTV	521379	4984101	8
862	24d	1997	UWTV	521376	4984104	8
863	17a	1997	UWTV	523085	4984568	38
864	17b	1997	UWTV	523081	4984565	78
865	17c	1997	UWTV	523080	4984562	78
866	18a	1997	UWTV	523117	4984519	30
867	18b	1997	UWTV	523118	4984516	28
868	18c	1997	UWTV	523116	4984515	28
869	19a	1997	UWTV	523013	4984524	10
870	19b	1997	UWTV	523010	4984523	10
871	20	1997	UWTV	523252	4984480	3
872	9a	1997	UWTV	524967	4984798	41
873	9b	1997	UWTV	524963	4984800	48
874	9c	1997	UWTV	524962	4984802	40
875	8a	1997	UWTV	525181	4984879	45
876	8b	1997	UWTV	525181	4984879	45
877	8c	1997	UWTV	525180	4984879	55
878	2a	1997	UWTV	525343	4985002	28
879	2b	1997	UWTV	525349	4985003	23
880	10a	1997	UWTV	525498	4984837	58
881	10b	1997	UWTV	525498	4984838	73
882	7a	1997	UWTV	525647	4984924	30
883	7b	1997	UWTV	525651	4984926	25
884	7c	1997	UWTV	525659	4984927	25
885	3	1997	UWTV	525826	4985043	3
886	15a	1997	UWTV	525787	4984685	20
887	15b	1997	UWTV	525783	4984690	28
888	11a	1997	UWTV	525927	4984845	60
889	11b	1997	UWTV	525927	4984848	65
890	6a	1997	UWTV	526132	4984949	10
891	6b	1997	UWTV	526138	4984953	10
892	4a	1997	UWTV	526281	4985122	10
893	4b	1997	UWTV	526300	4985123	10
894	14a	1997	UWTV	526138	4984716	35
895	14b	1997	UWTV	526137	4984717	35
896	14c	1997	UWTV	526133	4984719	35
897	12a	1997	UWTV	526355	4984870	60
898	12b	1997	UWTV	526359	4984872	63
899	5	1997	UWTV	526490	4985001	8
900	13	1997	UWTV	526490	4984737	3
901	27a	1997	UWTV	526853	4985539	46
902	27b	1997	UWTV	526854	4985543	46
903	27c	1997	UWTV	526856	4985547	45
904	28a	1997	UWTV	526945	4985643	48
905	28b	1997	UWTV	526950	4985638	65
906	29a	1997	UWTV	527054	4985681	38
907	29b	1997	UWTV	527057	4985680	25
908	29c	1997	UWTV	527065	4985685	38
909	29d	1997	UWTV	527068	4985685	38
910	31a	1997	UWTV	526979	4985932	43
911	31b	1997	UWTV	526985	4985933	43
912	31c	1997	UWTV	526990	4985935	40

Serial Number	Site Number	Year	Type	Easting	Northing	Thickness cm
				NAD27		
913	25a	1997	UWTV	526852	4985723	40
914	25b	1997	UWTV	526856	4985725	35
915	25c	1997	UWTV	526859	4985726	40
916	26a	1997	UWTV	526861	4985637	35
917	26b	1997	UWTV	526866	4985637	35
918	30a	1997	UWTV	526811	4985651	70
919	30b	1997	UWTV	526802	4985647	75
920	30c	1997	UWTV	526807	4985644	83
921	171	1997	UWTV	526858	4985666	45
922	172	1997	UWTV	527028	4985958	65
923	170	1997	UWTV	526381	4986237	5
924	169	1997	UWTV	526064	4986132	20
925	156	1997	UWTV	525521	4985721	68
926	180	1997	UWTV	526016	4984963	8
927	181	1997	UWTV	526188	4984799	65
928	182	1997	UWTV	526292	4984839	68
929	NAR 2	1997	UWTV	526350	4984772	60
930	NAR 7	1997	UWTV	526248	4984727	55
931	NAR 1	1997	UWTV	526369	4984697	50
932	105 ALT	1997	UWTV	523937	4984821	78
933	109	1997	UWTV	523963	4984886	35
934	109	1997	UWTV	523979	4984880	70
935	115	1997	UWTV	524085	4984932	68
936	164	1997	UWTV	524059	4984957	8
937	164	1997	UWTV	524064	4984946	60
938	117	1997	UWTV	524180	4985002	53
939	123	1997	UWTV	524321	4985042	45
940	126	1997	UWTV	524386	4985033	60
941	126	1997	UWTV	524386	4985033	68
942	NAR 21	1997	UWTV	525189	4984777	30
943	NAR 20	1997	UWTV	525356	4984750	33
944	NAR 16	1997	UWTV	525501	4984714	35

Serial Number	Site Number	Year	Type	Easting	Northing	Thickness cm
				NAD27		
945	NAR 14	1997	UWTV	525644	4984685	40
946	NAR 19	1997	UWTV	525345	4984878	28
947	NAR 17	1997	UWTV	525513	4984928	30
948	NAR 15	1997	UWTV	525659	4984811	45
949	NAR 11	1997	UWTV	525799	4984803	40
950	NAR 10	1997	UWTV	525979	4984718	40
951	127	1997	UWTV	524404	4985071	43
952	123 ALT	1997	UWTV	524404	4985031	23
953	128	1997	UWTV	524476	4985064	33
954	131	1997	UWTV	524566	4985169	60
955	132	1997	UWTV	524617	4985190	75
956	135	1997	UWTV	524722	4985278	40
957	135 ALT	1997	UWTV	524739	4985278	65
958	173	1997	UWTV	525373	4984844	58
959	174	1997	UWTV	525453	4984935	40
960	175	1997	UWTV	525535	4984855	60
961	176	1997	UWTV	525636	4984778	70
962	177	1997	UWTV	525760	4984833	58
963	179	1997	UWTV	525939	4984802	73
964	178	1997	UWTV	525823	4984957	8
965	109-1	1997	Diver Core	523979	4984879	53
966	109-2	1997	Diver Core	523979	4984879	62
967	166-1	1997	Diver Core	521106	4984027	73
968	166-2	1997	Diver Core	521106	4984027	51
969	166-3	1997	Diver Core	521106	4984027	56
970	179-1	1997	Diver Core	525940	4984799	40
971	179-2	1997	Diver Core	525940	4984799	48
972	179-3	1997	Diver Core	525940	4984799	51
973	182-1	1997	Diver Core	526296	4984828	47
974	182-2	1997	Diver Core	526296	4984828	40
975	182-3	1997	Diver Core	526296	4984828	47

Appendix 4. Sediment grain-size statistics.

Serial No.	Site #	Year	Easting NAD27, metres	Northing NAD27, metres	Depth, m not IGLD	Sample Type	Sample Interval	Gravel %	Sand %	Silt %	Clay %	Silt+Clay %	Folk Mean	Phi Med.	Lab Comments
1	1	1993	522545.8	4984310.0		shipek	0-3?					67.0			
2	5	1993	522587.0	4984294.7		shipek	0-3?					32.0			
3	6	1993	522921.5	4984535.6		shipek	0-3?					45.0			
4	7	1993	522949.7	4984514.7		core	?					55.0			
5	8	1993	522974.0	4984553.8		shipek	0-3?					55.0			
6	9	1993	522980.4	4984531.9		shipek	0-3?					52.0			
7	10	1993	522981.4	4984502.1		shipek	0-3?					15.0			
8	11	1993	523047.2	4984600.5		shipek	0-3?					60.0			
9	12	1993	523044.4	4984559.7		shipek	0-3?					25.0			
10	15	1993	523113.9	4984614.6		shipek	0-3?					72.0			
11	16	1993	523108.0	4984591.7		shipek	0-3?					10.0			
12	17	1993	523121.6	4984567.9		shipek	0-3?					37.0			
13	18	1993	523118.9	4984504.2		shipek	0-3?					27.0			
14	21	1993	523166.7	4984619.2		core	?					62.0			
15	22	1993	523176.7	4984604.5		core	?					62.0			
16	1av	1993	523770.0	4984633.0	1.3	shipek	0-3	1.9	66.4	11.7	20.1	31.8	4.2	2.5	Wood chips and shell fragments present in sample.
17	2	1993	523908.0	4984764.0	7.6	shipek	0-3	0.0	20.7	46.4	32.9	79.3	6.7	6.5	
18	3av	1993	523933.0	4984727.0	7.4	shipek	0-3	4.7	19.6	32.4	43.4	75.7		7.3	
19	4av	1993	523949.0	4984695.0	8.2	shipek	0-3	5.5	57.0	19.9	17.7	37.5	3.9	2.7	Shell fragments present in the sample.
20	5av	1993	524098.0	4984997.0	3.0	shipek	0-3	3.3	27.4	40.2	29.2	69.4	6.25	6.05	
21	6	1993	524163.0	4984887.0	10.8	shipek	0-3	6.0	58.6	20.6	14.9	35.5	3.6	2.7	Wood chips present in the sample.
22	6-1av	1993	524160.5	4984886.5		shipek	0-3	2.1	36.2	37.1	24.8	61.9	5.65	5	Shell pieces present in the sample.
23	7	1993	524185.0	4984852.0	11.4	shipek	0-3	3.9	68.7	13.2	14.2	27.4	3.7	2.5	
24	8-1	1993	525022.0	4985359.0	12.8	shipek	0-3	0.0	95.3	0.0	0.0	4.7	2	2	
25	8-2	1993	524315.0	4985099.0	3.0	shipek	0-3	0.2	3.8	53.5	42.5	96.0	7.6	7.5	Shell pieces present.
26	10	1993	524385.0	4984974.0	12.8	shipek	0-3	7.4	49.7	26.4	16.5	42.9	4.0	3.4	
27	12	1993	524560.0	4985157.0	10.8	shipek	0-3	0.4	18.2	47.1	34.3	81.4	6.9	6.7	Shells present in the sample.
28	13	1993	524581.0	4985114.0	12.0	shipek	0-3	0.0	31.8	43.0	25.2	68.2	5.5	5.9	
29	14	1993	524612.0	4985066.0	12.2	shipek	0-3	13.0	64.3	8.8	13.9	22.7	2.8	2	
30	17	1993	524810.0	4985180.0	10.8	shipek	0-3	16.5	81.0	0.0	0.0	2.5	0.8	1.1	
31	19	1993	524935.0	4985492.0	3.0	shipek	0-3	0.6	7.5	49.9	42.1	92.0	7.8	7.5	Shell and shell pieces present in the sample.
32	20	1993	524984.0	4985416.0	12.8	shipek	0-3	0.0	14.1	43.3	42.6	85.9	7.8	7.2	
33	21	1993	525012.0	4985396.0	14.6	shipek	0-3	0.3	51.5	20.3	27.9	48.2	5.2	3.9	
34	22	1993	525051.0	4985322.0	11.9	shipek	0-3	0.0	98.7	0.0	0.0	1.3	2.1	2.2	Numerous shell and shell fragments present.
35	23	1993	525100.0	4985667.0	2.0	shipek	0-3	0.6	27.0	40.6	31.8	72.4	6.2	6.3	Shell fragments in the sample.
36	24	1993	525126.0	4985621.0	7.2	shipek	0-3	0.0	19.3	49.8	30.9	80.7	6.9	6.1	
37	25	1993	525169.0	4985583.0	10.6	shipek	0-3	1.3	43.0	25.6	30.2	55.8	5.6	4.9	
38	26	1993	525178.0	4985531.0	10.7	shipek	0-3	0.3	55.4	20.5	23.8	44.3	5.7	3.8	
39	27	1993	525222.0	4985484.0	9.0	shipek	0-3	1.3	76.0	13.1	9.7	22.8	4	2.8	Shells present in the sample.
40	28	1993	525249.0	4985443.0	7.6	shipek	0-3	1.6	96.0	0.0	0.0	2.4	2.6	2.6	
41	30	1993	525350.0	4985716.0		shipek	0-3	0.0	16.8	42.4	40.8	83.2	7.5	6.9	
42	31	1993	525364.0	4985679.0	7.9	shipek	0-3	0.5	41.2	29.4	29.0	58.4	6.2	4.8	

Serial No.	Site #	Year	Easting NAD27, metres	Northing NAD27, metres	Depth, m not IGLD	Sample Type	Sample Interval	Gravel %	Sand %	Silt %	Clay %	Silt+Clay %	Folk Mean	Phi Med.	Lab Comments
43	32	1993	525397.0	4985627.0	9.1	shipek	0-3	0.1	88.3	4.2	7.4	11.6	2.6	2.4	Shell fragments present in the sample.
44	33	1993	525415.0	4985590.0		shipek	0-3	0.2	75.2	1.8	22.8	24.6		2.9	Wood chips present in -1.5 sieve weight = 0.0111gms
45	34	1993	525443.0	4985536.0	6.8	shipek	0-3	1.1	76.6	5.6	16.6	22.2	4.4	2.9	Shells present in the sample.
46	35	1993	525588.0	4985715.0	11.5	shipek	0-3	0.6	56.7	21.2	21.6	42.8	5.4	3.8	Shell fragments in the sample.
47	36	1993	525628.0	4985677.0	11.0	shipek	0-3	0.0	63.9	11.4	24.7	36.1		3.6	
48	37	1993	525665.0	4985594.0	6.0	shipek	0-3	0.0	60.9	16.4	22.7	39.1	5.4	3.7	
49	41	1993	524774.0	4985242.0	11.6	shipek	0-3	0.4	99.6	0.0	0.0	0.1	2.1	2.2	Shells present.
50	65	1993	524740.0	4985294.0	5.8	shipek	0-3	1.8	38.7	26.4	33.1	59.5	5.5	5.2	Shells present in the sample.
51	118	1993	523885.0	4984802.0	4.3	shipek	0-3	0.0	12.5	51.4	36.2	87.6	7.2	6.9	Clayey silt.
52	143	1993	523780.0	4984608.0	2.4	shipek	0-3	0.9	98.8	0.0	0.0	0.2	1.5	1.4	
53	172	1993	523773.0	4984652.0	2.5	shipek	0-3	3.2	49.5	17.3	30.1	47.4	5.5	3.7	
54	248	1993	524135.0	4984964.0	9.0	shipek	0-3	4.9	93.2	0.0	0.0	1.9	1.3	1.5	
55	281	1993	524157.0	4984926.0	9.5	shipek	0-3	3.6	54.1	16.8	25.5	42.3	3.6	2.2	
56	343	1993	524343.0	4985035.0	11.4	shipek	0-3	1.4	94.7	0.0	0.0	4.0	1.6	1.6	
57	407	1993	525548.0	4985824.0	4.8	shipek	0-3	0.3	16.9	45.3	37.5	82.8	7.3	6.7	Shell fragments present in the sample.
58	443	1993	525583.0	4985772.0	8.8	shipek	0-3	0.3	41.2	30.2	28.2	58.4	6.4	4.5	Small pieces of bark in the -2.0 sieve.
59	455	1993	525627.0	4985626.0	8.0	shipek	0-3	0.0	65.4	12.6	22.0	34.6	5.8	3.5	
60	FT	1993	524958.0	4985455.0	9.4	shipek	0-3	0.0	19.1	46.7	34.2	80.9	6.9	6.6	
61	S9	1994	523962.5	4984887.5	5.1	shipek	0-3	0.0	26.6	66.5	6.9	73.4			
62	S14	1994	524053.1	4984892.9	8.5	shipek	0-3	0.0	49.4	46.0	4.6	50.6			
63	S15-1a	1994	524086.3	4984929.9	8.8	shipek	0-3	0.0	59.2	37.2	3.6	40.8			
64	S15-2a	1994	524081.8	4984932.7	8.7	shipek	0-3	0.0	56.9	38.7	4.4	43.1			
65	S15-3a	1994	524081.3	4984930.5	8.7	shipek	0-3	0.0	41.1	53.3	5.6	58.9			
66	S17	1994	524180.5	4984991.1	9.5	shipek	0-3	0.0	65.4	30.1	4.6	34.6			
67	S23	1994	524324.1	4985044.9	11.5	shipek	0-3	0.0	24.3	68.1	7.6	75.7			
68	S27-1a	1994	524403.0	4985073.4	11.0	shipek	0-3	0.0	82.4	15.6	2.1	17.6			
69	S27-2a	1994	524401.9	4985076.9	11.2	shipek	0-3	0.0	91.5	7.4	1.1	8.5			
70	S27-3a	1994	524401.5	4985076.7	11.3	shipek	0-3	0.0	87.3	11.0	1.7	12.7			
71	S31	1994	524564.1	4985172.5	9.6	shipek	0-3	0.0	50.8	44.2	5.1	49.3			
72	S33	1994	524667.5	4985212.7	8.9	shipek	0-3	0.0	39.8	53.6	6.6	60.2			
73	S35-1a	1994	524723.9	4985273.8	7.8	shipek	0-3	0.0	48.1	46.7	5.2	51.9			
74	S35-2a	1994	524722.1	4985275.1	7.8	shipek	0-3	0.0	34.5	58.3	7.2	65.5			
75	S35-3a	1994	524723.2	4985275.5	7.8	shipek	0-3	0.0	37.8	55.9	6.3	62.2			
76	S37	1994	524845.3	4985319.3	10.2	shipek	0-3	0.0	55.1	40.4	4.5	44.9			
77	S39	1994	524918.4	4985448.9	4.8	shipek	0-3	0.0	10.6	79.5	10.0	89.4			
78	S42	1994	524967.6	4985442.7	11.1	shipek	0-3	0.0	29.0	64.3	6.7	71.0			
79	S47	1994	525137.8	4985605.6	9.6	shipek	0-3	0.0	41.0	53.4	5.6	59.0			
80	S57	1994	525505.4	4985628.9	8.8	shipek	0-3	0.0	72.4	23.5	4.1	27.6			
81	S58	1994	525502.4	4985529.9	6.3	shipek	0-3	0.0	77.4	19.0	3.6	22.6			
82	S62	1994	525632.1	4985718.4	12.1	shipek	0-3	0.0	81.1	16.4	2.5	18.9			
83	C1	1994	523873.0	4984735.0	6.0	benthos core	0-13	0.0	43.8	50.5	5.7	56.2			
84	C2	1994	523891.1	4984693.0	9.0	core	0-12	0.0	43.9	50.1	6.0	56.1			

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85	C3	1994	523907.5	4984731.9	7.6	benthos core	0-10	0.0	40.5	53.1	6.4	59.5			
						benthos core	20-31	0.0	47.4	47.5	5.1	52.6			
86	C4	1994	523918.8	4984809.3	7.4	benthos core	0-10	0.0	25.1	67.8	7.1	74.9			
						benthos core	40-52	0.0	34.1	59.3	6.6	65.9			
87	C5	1994	523925.8	4984856.3	4.1	benthos core	0-10	0.0	35.8	57.9	6.4	64.2			
						benthos core	10-18	0.0	21.1	70.9	8.0	78.9			
88	C6	1994	523942.0	4984826.9	7.8	benthos core	0-10	0.0	43.8	50.8	5.4	56.2			
						benthos core	40-50	0.0	37.3	56.5	6.2	62.8			
89	C7	1994	523939.1	4984793.6	7.8	benthos core	0-10	0.0	45.1	49.0	5.9	54.9			
						benthos core	30-37	0.0	50.3	43.5	6.2	49.7			
90	C8	1994	523944.2	4984758.8	9.0	benthos core	0-11	0.0	70.6	25.8	3.6	29.4			
91	C9	1994	523966.0	4984887.7	4.6	benthos core	0-8.6	0.0	29.6	61.8	8.6	70.4			
92	C10	1994	523973.6	4984809.5	8.7	benthos core	0-10	0.0	76.5	20.6	3.0	23.5			
						benthos core	20-35	0.0	70.8	26.0	3.2	29.2			
93	C11	1994	523987.9	4984782.4	10.5	benthos core	0-10	0.0	17.5	74.0	8.5	82.5			
						benthos core	20-38	0.0	27.2	65.3	7.5	72.8			
94	C12-1	1994	524008.9	4984859.3	8.8	benthos core	0-10	0.0	29.6	62.8	7.5	70.4			
						benthos core	20-27	0.0	47.3	48.1	4.7	52.7			
95	C12-2	1994	524011.8	4984862.2	9.0	benthos core	0-10	0.0	55.8	40.0	4.3	44.3			
						benthos core	20-26	0.0	50.3	44.9	4.9	49.7			
96	C12-3	1994	524009.3	4984856.3	8.7	benthos core	0-10	0.0	55.9	39.6	4.6	44.2			
						benthos core	30-39	0.0	62.3	33.4	4.4	37.8			
97	C13	1994	524046.2	4984840.1	9.5	benthos core	0-10	0.0	29.0	62.2	8.8	71.0			
						benthos core	20-34	0.0	68.5	28.4	3.1	31.5			
98	C14	1994	524055.5	4984890.7	9.0	benthos core	0-10	0.0	52.7	43.5	3.9	47.3			
						benthos core	40-58	0.0	33.6	59.0	7.3	66.4			
99	C15-1	1994	524086.0	4984934.0	8.8	benthos core	0-10	0.0	35.5	58.8	5.8	64.6			
						benthos core	60-72.5	0.0	13.3	77.0	9.7	86.7			
100	C15-2	1994	524080.8	4984928.8	8.8	benthos core	0-10	0.0	23.8	68.7	7.6	76.2			
						benthos core	30-43	0.0	49.9	44.8	5.3	50.1			
101	C15-3	1994	524084.8	4984930.6	8.8	benthos core	0-10	0.0	22.8	69.9	7.3	77.2			
						benthos core	20-28	0.0	31.7	61.7	6.6	68.3			
102	C16	1994	524125.8	4984885.8	10.2	benthos core	0-13	0.0	56.0	39.5	4.5	44.0			
103	C17	1994	524177.6	4985002.4	9.1	benthos core	0-10	0.0	57.7	37.3	5.0	42.3			
						benthos core	20-28	0.0	32.6	60.8	6.6	67.4			
104	C18	1994	524227.0	4984943.3	10.8	benthos core	0-10	0.0	23.5	68.6	7.9	76.5			
						benthos core	10-20	0.0	18.2	72.0	9.9	81.9			
105	C19	1994	524230.7	4985026.1	9.0	benthos core	0-10	0.0	41.5	52.4	6.1	58.5			
						benthos core	10-21	0.0	20.2	71.9	7.9	79.8			
106	C20	1994	524276.4	4985047.7	8.9	benthos core	0-10	0.0	33.9	59.1	6.9	66.1			
107	C21	1994	524279.6	4984979.8	10.4	benthos core	0-10	0.0	35.0	57.8	7.3	65.1			
						benthos core	20-31	0.0	26.9	65.6	7.5	73.1			

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108	C22	1994	524276.4	4985047.7	11.2	benthos core	0-10	0.0	25.6	67.2	7.3	74.4			
						benthos core	10-20	0.0	28.8	64.1	7.1	71.2			
109	C23-1	1994	524321.4	4985044.2	10.2	benthos core	0-10	0.0	22.5	69.5	8.0	77.5			
						benthos core	20-28	0.0	19.1	72.6	8.3	80.9			
110	C23-2	1994	524321.6	4985047.1	9.8	benthos core	0-10	0.0	33.8	59.8	6.4	66.2			
						benthos core	20-33	0.0	16.2	74.1	9.8	83.8			
111	C23-3	1994	524321.0	4985046.4	10.0	benthos core	0-10	0.0	26.8	65.7	7.5	73.2			
						benthos core	10-21	0.0	19.8	71.7	8.4	80.2			
112	C24-1	1994	524500.3	4985141.7	10.4	benthos core	0-10	0.0	31.9	60.3	7.8	68.1			
						benthos core	50-64	0.0	15.1	75.5	9.4	84.9			
113	C24-2	1994	524501.8	4985135.8	10.7	benthos core	0-10	0.0	43.0	50.7	6.3	57.0			
						benthos core	40-57	0.0	18.5	72.8	8.7	81.5			
114	C24-3	1994	524501.4	4985134.1	10.7	benthos core	0-10	0.0	41.7	52.1	6.3	58.4			
						benthos core	60-75	0.0	23.4	68.7	8.0	76.6			
115	C25	1994	524378.2	4985091.4	10.1	benthos core	0-10	0.0	37.4	56.9	5.7	62.6			
						benthos core	10-18	0.0	22.3	69.5	8.2	77.7			
116	C26	1994	524382.7	4985031.2	10.4	benthos core	0-10	0.0	33.7	59.0	7.4	66.3			
						benthos core	20-36	0.0	27.0	65.0	8.0	73.0			
117	C27	1994	524401.6	4985071.8	11.4	benthos core	0-10	0.0	81.2	16.4	2.3	18.8			
						benthos core	40-49	0.0	31.9	61.2	6.9	68.2			
118	C28	1994	524478.3	4985061.0		benthos core	0-10	0.0	38.3	55.0	6.7	61.7			
						benthos core	40-54	0.0	16.0	73.8	10.2	84.0			
119	C29	1994	524345.1	4984992.9	10.8	benthos core	0-10	0.0	47.6	46.3	6.1	52.4			
						benthos core	30-43	0.0	19.7	70.9	9.4	80.3			
120	C30	1994	524517.3	4985006.2	14.1	benthos core	0-13	0.0	71.6	24.2	4.3	28.4			
121	C31	1994	524564.7	4985167.6	9.8	benthos core	0-10	0.0	36.1	56.7	7.3	64.0			
						benthos core	30-44	0.0	14.1	76.0	10.0	85.9			
122	C32	1994	524620.1	4985190.8	9.9	benthos core	0-10	0.0	39.0	54.3	6.7	61.1			
						benthos core	60-70	0.0	23.2	68.6	8.2	76.8			
123	C34	1994	524687.2	4985220.2	10.0	benthos core	0-10	0.0	27.9	63.9	8.2	72.1			
						benthos core	30-45	0.0	18.7	71.5	9.8	81.3			
124	C35	1994	524722.7	4985276.6	7.9	benthos core	0-10	0.0	6.1	82.1	11.8	93.9			
						benthos core	20-28	0.0	7.7	82.5	9.9	92.3			
125	C36-1	1994	524768.9	4985291.4	8.4	benthos core	0-10	0.0	41.7	52.0	6.4	58.4			
						benthos core	40-49	0.0	23.9	68.3	7.8	76.1			
126	C36-2	1994	524764.5	4985297.2	8.4	benthos core	0-10	0.0	39.8	54.1	6.2	60.2			
						benthos core	40-47	0.0	20.9	70.9	8.3	79.2			
127	C36-3	1994	524766.3	4985294.7	8.4	benthos core	0-10	0.0	57.1	39.0	3.9	42.9			
						benthos core	40-53	0.0	23.8	69.1	7.2	76.3			
128	C37	1994	524844.4	4985323.9	10.0	benthos core	0-10	0.0	48.9	45.9	5.1	51.1			
						benthos core	40-55	0.0	17.6	74.1	8.3	82.4			
129	C38	1994	524858.4	4985365.3	8.9	benthos core	0-10	0.0	24.9	68.0	7.2	75.1			

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129	C38	1994	524858.4	4985365.3	8.9	benthos core	30-40	0.0	21.4	71.2	7.4	78.6			
130	C40	1994	524927.5	4985402.7	11.4	benthos core	0-10	0.0	40.9	53.7	5.4	59.1			
						benthos core	30-42	0.0	23.5	68.9	7.6	76.5			
131	C41	1994	524927.5	4985357.6	12.3	benthos core	0-10	0.0	36.0	57.2	6.8	64.0			
						benthos core	20-33	0.0	9.8	79.3	11.0	90.3			
132	C42	1994	524970.2	4985443.6	10.4	benthos core	0-10	0.0	45.2	49.5	5.3	54.8			
						benthos core	40-50	0.0	24.8	66.9	8.2	75.2			
133	C43	1994	525002.0	4985404.3	15.4	benthos core	0-10	0.0	21.4	69.8	8.8	78.6			
						benthos core	50-58	0.0	46.3	48.2	5.5	53.7			
134	C44	1994	525021.4	4985494.5	9.9	benthos core	0-10	0.0	40.4	54.3	5.4	59.6			
						benthos core	50-62	0.0	7.9	81.7	10.4	92.1			
135	C45	1994	525090.0	4985536.5	12.2	benthos core	0-10	0.0	49.0	46.2	4.8	51.0			
						benthos core	50-63	0.0	25.2	66.1	8.7	74.8			
136	C46	1994	525122.4	4985481.5	11.5	benthos core	0-10	0.0	34.3	59.5	6.2	65.7			
						benthos core	20-31	0.0	24.0	67.9	8.2	76.0			
137	C47	1994	525139.6	4985607.3	8.6	benthos core	0-10	0.0	50.6	45.2	4.1	49.4			
						benthos core	50-66	0.0	24.7	67.2	8.1	75.3			
138	C48	1994	525201.2	4985538.9	9.5	benthos core	0-10	0.0	36.4	55.8	7.9	63.6			
						benthos core	30-42	0.0	22.6	69.3	8.1	77.5			
139	C49	1994	525227.7	4985659.6	8.1	benthos core	0-10	0.0	45.9	49.3	4.8	54.1			
						benthos core	50-63	0.0	35.4	57.2	7.4	64.6			
140	C50	1994	525235.5	4985579.5	8.5	benthos core	0-10	0.0	71.2	25.1	3.7	28.8			
						benthos core	30-42	0.0	31.5	60.2	8.3	68.5			
141	C51-1	1994	525302.7	4985688.0	7.5	benthos core	0-10	0.0	43.4	51.1	5.6	56.6			
						benthos core	30-46	0.0	16.3	74.8	8.9	83.7			
142	C51-2	1994	525301.8	4985689.2	7.3	benthos core	0-10	0.0	39.1	55.0	5.9	61.0			
						benthos core	30-40	0.0	24.4	68.0	7.6	75.6			
143	C51-3	1994	525300.7	4985689.6	7.3	benthos core	0-10	0.0	41.1	53.2	5.7	58.9			
						benthos core	20-36	0.0	24.2	67.2	8.6	75.8			
144	C52	1994	525334.2	4985593.4	8.3	benthos core	0-10	0.0	72.7	23.4	3.9	27.3			
						benthos core	10-26	0.0	29.0	63.3	7.7	71.0			
145	C53	1994	525403.9	4985630.5	9.7	benthos core	0-10	0.0	68.2	27.6	4.2	31.9			
146	C54	1994	525414.9	4985677.3	8.4	benthos core	0-10	0.0	65.3	30.7	4.0	34.7			
						benthos core	10-28	0.0	52.4	42.4	5.3	47.6			
147	C55	1994	525414.2	4985508.1	6.8	benthos core	0-8	0.0	74.3	21.4	4.2	25.7			
148	C56	1994	525503.0	4985722.6	9.4	benthos core	0-10	0.0	59.6	36.4	4.1	40.4			
						benthos core	40-56	0.0	15.2	75.6	9.2	84.8			
149	C57	1994	525508.0	4985630.1	8.9	benthos core	0-11	0.0	77.4	19.3	3.3	22.6			
150	C58	1994	525503.5	4985525.1	6.3	benthos core	0-7	0.0	82.3	15.2	2.5	17.7			
151	C59	1994	525535.3	4985783.7	7.8	benthos core	0-10	0.0	51.5	43.9	4.6	48.5			
						benthos core	10-17	0.0	26.4	65.3	8.3	73.6			
152	C60	1994	525559.9	4985589.3	6.6	benthos core	0-17	0.0	86.5	11.4	2.1	13.5			

Serial No.	Site #	Year	Easting NAD27, metres	Northing	Depth, m not IGLD	Sample Type	Sample Interval	Gravel %	Sand %	Silt %	Clay %	Silt+Clay %	Folk Mean	Phi Med.	Lab Comments
153	C61	1994	525623.5	4985783.9	9.1	benthos core	0-9	0.0	61.4	34.6	4.0	38.6			
154	C62	1994	525636.4	4985712.9	12.2	benthos core	0-15	0.0	70.9	25.2	3.9	29.1			
155	C63	1994	525700.7	4985765.2	13.1	benthos core	0-14	0.0	69.2	26.6	4.2	30.8			
156	Stn A	1994	524056.6	4984953.3	6.1	benthos core	0-10	0.0	31.0	62.2	6.9	69.1			
						benthos core	20-36	0.0	17.4	73.8	8.8	82.6			
157	Stn C	1994	524224.4	4985046.6	6.3	benthos core	0-10	0.0	52.7	42.1	5.1	47.3			
158	3	1995	523886.0	4984739.0	8.5	benthos core	0-6	0.3	81.6	9.9	8.2	18.1	2.5	2.6	Shells.
						benthos core	6-12	0.0	99.0			1.0	2.2	2.2	Abundant shells, fibres.
						benthos core	12-19	0.5	56.8	27.4	15.2	42.6	3.9	4	Fibres.
159	4	1995	523910.0	4984740.0	7.9	benthos core	0-3	0.0	48.5	32.9	18.6	51.5	4.6	4.9	Shells.
						benthos core	3-20	0.9	33.9	33.8	31.4	65.2	5.7	6.1	Fibres.
160	7	1995	523890.0	4984764.0	6.5	benthos core	0-7	4.0	43.1	36.0	16.9	52.9	4.3	4.7	Shell fragments.
						benthos core	7-12	0.0	96.4			3.6	2.2	2.3	Abundant shell fragments.
						benthos core	12-17	0.0	16.1	56.9	27.0	83.9	6.2	6.6	Fibres.
161	8	1995	523917.0	4984765.0	7.9	benthos core	0-2	0.0	40.9	36.6	22.5	59.1	5	5.5	
						benthos core	2-17	0.0	98.7			1.4	2	2	Shells, fibres.
						benthos core	17-24	0.3	16.9	40.2	42.6	82.9	6.7	7.5	Fibres.
162	9	1995	523865.0	4984786.0	2.4	benthos core	0-3	0.0	20.3	47.1	32.6	79.7	5.7		Fibres.
						benthos core	3-16	6.0	60.4	20.6	13.0	33.6	3.2	3.6	Abundant spheres ofindustrial matter.
163	11	1995	523911.0	4984790.0	7.3	benthos core	0-2	0.0	18.9	53.1	28.0	81.1	5.7	6.6	
						benthos core	2-37	0.0	19.8	47.4	32.9	80.3	6	7	Fibres.
164	12-2	1995	523887.0	4984815.0	1.4	benthos core	0-3	0.0	15.9	53.2	30.9	84.1	6.1	7.2	Fibres.
						benthos core	3-30	0.7	16.5	51.3	31.5	82.8	6.3	6.7	Fibres.
165	13-2	1995	523913.0	4984814.0	6.7	benthos core	0-3	0.0	16.3	55.8	27.9	83.7	6	6.7	Fibres.
						benthos core	3-36	0.0	28.8	40.3	30.9	71.2	5.7	6.4	Fibres.
166	1	1996	524957.7	4985409.5		shipek	0-3	0.0	14.0	34.6	51.4	86.0	8.2	8.2	Abundant fibres/organics.
167	2	1996	525027.2	4985583.5		shipek	0-3	0.0	6.3	42.5	51.2	93.7	8.2	8.1	Abundant fibres.
168	3	1996	525107.3	4985574.1		shipek	0-3	0.0	22.8	33.7	43.5	77.2	7.5	7.1	Abundant wood chips/fibres.
169	4	1996	525121.9	4985668.6		shipek	0-3	10.4	88.9	0.0	0.0	0.7	0.9	1.2	Abundant shells/wood/gravel.
170	5	1996	525392.7	4985639.2		shipek	0-3	0.0	66.2	14.4	19.4	33.8	4.9	3.3	Shells and wood chips.
171	6	1996	524818.2	4985230.4		shipek	0-3	0.0	7.9	46.7	45.4	92.1	7.9	7.6	Abundant fibres and rare wood chips.
172	7	1996	524550.0	4985131.9		shipek	0-3	0.0	16.6	50.7	32.7	83.4	6.9	6.4	
173	20	1996	524871.9	4985344.0	11.1	shipek	0-3	0.0	15.7	41.5	42.9	84.3	7.5	7.1	Abundant fibres/organics.
174	21	1996	525120.0	4985297.8	11.8	shipek	0-3	0.0	99.6	0.0	0.0	0.4	2.2	2.2	Abundant shells and a few wood chips.
175	22	1996	524328.5	4985042.4		shipek	0-3	0.3	69.8	11.3	18.7	30.0			
176	23	1996	524436.4	4985065.1		shipek	0-3	0.0	73.3	11.4	15.3	26.7	3.8	2.4	Abundant organics and shells.
177	27	1996	524673.0	4985092.5	12.8	shipek	0-3	5.9	92.1	0.0	0.0	1.9	1.2	1.5	Abundant shells and organics.
178	29	1996	524956.7	4985135.0	13.1	shipek	0-3	8.0	88.1	0.0	0.0	4.0	1.2	1.5	Abundant wood chips and shells.
179	31	1996	525017.1	4985330.5	12.9	shipek	0-3	0.2	93.5	0.0	0.0	6.3	2.2	2.1	Abundant shells.
180	32	1996	524886.5	4985208.6	11.9	shipek	0-3	0.0	100.0	0.0	0.0	0.0	1.8	1.9	Very abundant shells & wood chips.
181	36	1996	525175.2	4985465.7	9.7	shipek	0-3	0.0	81.4	8.0	10.6	18.6	3.1	2.7	Abundant shells/organics & gravel.
182	37	1996	525413.7	4985473.3	7.0	shipek	0-3	0.0	86.3	3.6	10.2	13.8	3	2.8	Abundant shells with wood chips.

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183	38	1996	525488.5	4985641.0	10.3	shipek	0-3	0.0	80.2	9.0	10.8	19.8	3.8	2.8	Abundant shells/wood chips/organics.
184	39	1996	525248.7	4985601.4	8.9	shipek	0-3	0.0	69.4	15.6	15.1	30.7	4.4	3.3	Abundant organics and shells.
185	40	1996	525103.8	4985548.1	12.3	shipek	0-3	0.0	32.3	37.0	30.7	67.7	6.3	6.1	Rare wood chips.
186	41	1996	524954.4	4985462.4	9.2	shipek	0-3	0.0	10.6	43.9	45.5	89.4	7.8	7.7	Fine organics.
187	42	1996	524955.0	4985374.5	13.6	shipek	0-3	0.0	28.4	45.9	25.7	71.6	6.1	5.4	Fine organics.
188	43	1996	524841.9	4985331.0	9.4	shipek	0-3	0.0	27.3	44.6	28.1	72.7	6.3	5.3	
189	44	1996	524691.9	4985202.2	11.6	shipek	0-3	0.0	33.8	46.5	19.7	66.2	5.6	5.1	Wood chips/organics.
190	45	1996	524437.4	4985055.6	11.1	shipek	0-3	0.0	59.4	19.0	21.6	40.6	4.9	3.3	Abund. organics.
191	46	1996	524321.7	4985039.9	11.3	shipek	0-3	0.0	24.2	51.9	23.8	75.7	6.1	5.6	Organic rich.
192	47	1996	524200.4	4984971.8	10.1	shipek	0-3	0.8	75.3	11.3	12.6	23.9	3.1	2	Shells/wood chips.
193	48	1996	524204.4	4984907.9	10.2	shipek	0-3	2.0	42.5	20.9	34.5	55.4	5.7	5.4	Shells/gravels.
194	50	1996	524938.2	4985124.2	12.9	shipek	0-3	17.4	76.2	0.0	0.0	6.5	0.8	1.1	Abundant gravels/shells.
195	2A	1996	523927.2	4984795.6		Tech Ops core	0-2	0.0	34.2	31.5	34.3	65.8			Abundant fibres\organics.
	2A					Tech Ops core	2-4	0.0	31.2	32.3	36.5	68.8			Abundant fibres\organics.
	2A					Tech Ops core	4-6	0.0	62.1	17.9	20.0	37.9			Abundant fibres\organics.
	2A					Tech Ops core	6-8	1.3	58.4	19.2	21.1	40.2			Abundant fibres\organics.
	2A					Tech Ops core	8-10	0.0	96.6			3.4			Shells present.
	2A					Tech Ops core	10-12	0.0	66.9	15.0	18.1	33.1			Shells\organics.
	2A					Tech Ops core	12-14	0.0	54.1	21.0	24.9	45.9			Abundant fibres\organics.
	2A					Tech Ops core	14-16	0.0	98.4			1.6			Shell fragments.
	2A					Tech Ops core	16-18	0.0	95.0			5.0			Shell fragments.
	2A					Tech Ops core	18-20	0.0	19.8	37.2	43.0	80.2			Abundant fibres\organics.
196	3A	1996	523897.9	4984775.8		Tech Ops core	0-2	0.4	36.2	32.2	31.3	63.5			Fibres\woods\organics.
	3A					Tech Ops core	2-4	0.0	61.5	19.7	18.9	38.5			Shells\wood fragments\organics.
	3A					Tech Ops core	4-6	0.3	91.2			8.5			Wood fragments.
	3A					Tech Ops core	6-8	0.0	94.2			5.8			Shells\wood fragments.
	3A					Tech Ops core	8-10	0.3	99.4			0.3			Shell fragments\wood chips.
	3A					Tech Ops core	10-12	0.0	100.5	0.0	0.0	0.0			Wood fragments\shells.
	3A					Tech Ops core	12-14	0.7	32.1	37.7	29.5	67.3			Abundant fibres\organics.
	3A					Tech Ops core	14-16	0.0	4.3	59.9	35.9	95.7			Abundant fibres\organics.
197	Pilon	1996	526891.3	4985587.6		diver core	0-2	0.0	24.1		75.9	75.9			
	Pilon					diver core	2-4	0.0	29.1	26.1	44.8	70.9			
	Pilon					diver core	4-6	0.0	36.5	24.7	38.8	63.5			
	Pilon					diver core	6-8	0.0	48.4	19.2	32.4	51.6			
	Pilon					diver core	8-10	0.0	37.7	25.9	36.4	62.4			
	Pilon					diver core	10-12	0.0	26.9	28.6	44.5	73.1			
	Pilon					diver core	12-14	0.0	21.0	32.4	46.7	79.0			
	Pilon					diver core	14-16	0.4	36.6	24.5	38.4	62.9			
	Pilon					diver core	16-18	0.0	97.3		2.8	2.8			
	Pilon					diver core	18-20	0.0	94.2		5.8	5.8			
	Pilon					diver core	20-22	0.0	66.0	22.7	11.3	34.0			
	Pilon					diver core	22-24	0.0	93.9		6.1	6.1			

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197	Pilon	1996	526891.3	4985587.6		diver core	24-26	0.0	47.1	31.1	21.8	52.9			
	Pilon					diver core	26-28	0.0	28.7	47.5	23.8	71.3			
	Pilon					diver core	28-30	0.0	31.6	48.3	20.1	68.4			
	Pilon					diver core	30-32	0.0	33.0	56.4	10.6	67.0			
	Pilon					diver core	32-34	0.0	23.7	55.9	20.4	76.3			
	Pilon					diver core	34-36	0.0	12.9	64.7	22.5	87.2			
	Pilon					diver core	36-38	3.0	88.5		8.5	8.5			
	Pilon					diver core	38-40	2.2	97.1		0.7	0.7			
	Pilon					diver core	40-42	3.2	96.6		0.2	0.2			
	Pilon					diver core	42-44	4.5	95.3		0.2	0.2			
	Pilon					diver core	44-46	2.8	97.1		0.1	0.1			
	Pilon					diver core	46-48	11.7	86.4		2.0	2.0			
	Pilon					diver core	48-50	0.0	49.9	24.7	25.5	50.1			
	Pilon					diver core	50-52	1.5	61.8	17.6	19.2	36.8			
	Pilon					diver core	52-54	5.8	93.6		0.6	0.6			
198	TCTI	1996	524943.3	4985416.6		diver core	0-2	0.0	12.2	38.6	49.2	87.8	8	7.9	
	TCTI					diver core	2-4	0.0	27.2	23.8	49.0	72.8	7.6	7.9	
	TCTI					diver core	4-6	0.0	12.6	43.5	44.0	87.5	7.6	7.4	
	TCTI					diver core	6-8	0.0	14.0	30.0	56.0	86.0		8.6	
	TCTI					diver core	8-10	0.0	16.7	43.3	40.0	83.3	7.3	6.6	
	TCTI					diver core	10-12	0.0	18.2	31.6	50.2	81.8	8	8	
	TCTI					diver core	12-14	0.0	16.4	44.4	39.2	83.6	7.2	6.6	
	TCTI					diver core	14-16	0.0	16.6	44.3	39.1	83.4	7.3	6.6	
	TCTI					diver core	16-18	0.0	14.6	32.0	53.4	85.4	8.2	8.4	
	TCTI					diver core	18-20	0.0	17.5	42.1	40.4	82.5	7.5	6.8	
	TCTI					diver core	20-22	0.0	29.2	23.4	47.4	70.8	7.5	7.7	
	TCTI					diver core	22-24	0.0	23.9	45.5	30.7	76.2	6.5	5.5	
	TCTI					diver core	24-26	0.0	31.0	35.6	33.4	69.0	6.7	5.7	
	TCTI					diver core	26-28	0.0	18.4	31.0	50.6	81.6	7.8	8.1	
	TCTI					diver core	28-30	0.0	3.4	44.2	52.5	96.7	8.4	8.2	
	TCTI					diver core	30-32	0.0	9.7	23.6	66.6	90.3		9.6	
	TCTI					diver core	32-34	0.0	5.0	43.4	51.6	95.0	8.2	8.2	
	TCTI					diver core	34-36	0.0	5.5	42.9	51.6	94.5	8.2	8.2	
	TCTI					diver core	36-38	0.0	10.2	34.3	55.5	89.8	8.3	8.4	
199	TCTI	1996	524943.3	4985416.6		diver core	38-40	0.0	8.9	42.1	49.0	91.1	8	7.9	Abundant organics.
	TCTI					diver core	40-42	0.0	2.5	36.3	61.2	97.5	8.8	8.8	
	TCTI					diver core	42-44	0.0	3.7	43.1	53.2	96.3	8.2	8.2	
	TCTI					diver core	44-46	0.0	5.1	29.2	65.7	94.9		9.3	
	TCTI					diver core	46-48	0.0	3.1	36.6	60.4	96.9	8.9	8.8	
	TCTI					diver core	48-50	0.0	2.1	38.2	59.8	97.9	8.7	8.7	
	TCTI					diver core	50-52	0.0	2.9	35.5	61.6	97.1	8.9	8.9	
	TCTI					diver core	52-54	0.0	3.7	46.9	49.4	96.3	8.2	8	

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199	TCTI	1996	524943.3	4985416.6		diver core	54-56	0.0	5.8	42.0	52.3	94.2	8.4	8.2	
	TCTI					diver core	56-58	1.9	10.4	57.6	30.2	87.8	6.9	6.2	
	TCTI					diver core	58-60	0.0	9.0	59.8	31.2	91.1	7.1	6.5	
	TCTI					diver core	60-62	0.0	7.6	61.8	30.6	92.4	7.1	6.3	
	TCTI					diver core	62-64	0.0	8.5	51.1	40.5	91.5	7.7	7.2	
	TCTI					diver core	64-66	0.0	13.9	59.9	26.2	86.1	6.7	6.1	
	TCTI					diver core	66-68	0.0	10.9	62.7	26.5	89.1	6.9	6.4	
200	2	1997	523912.3	4984756.5	8.5	shipek	0-3	0.0	20.6	53.3	26.0	79.3	6.2	6.5	A few coal pieces.
201	343avg	1997	524338.8	4985030.8	11.7	shipek	0-3	0.0	44.2	37.8	18.0	55.8	4.6	4.4	Rich in fine organics.
202	19	1997	524931.5	4985486.8	3.8	shipek	0-3	0.0	68.7	16.1	15.2	31.3	3.7	2.0	Some shells (4 gms).
203	20-2	1997	524983.6	4985422.7	12.7	shipek	0-3	0.0	20.5	49.3	30.3	79.6	6.6	6.7	
204	21	1997	525009.7	4985386.6	14.7	shipek	0-3	0.0	67.8	19.2	12.9	32.1	4.1	3.0	Shell fragments.
205	8-1,2	1997	525025.6	4985365.9	13.3	shipek	0-3	0.0	88.4	4.1	7.5	11.6	2.4	2.1	
206	22-1,2	1997	525056.0	4985321.5	12.2	shipek	0-3	0.0	86.8	8.2	5.0	13.2	2.8	2.6	20% shells with wood chips.
207	26-3	1997	525178.8	4985537.4	11.1	shipek	0-3	0.0	75.8	13.5	10.7	24.2	3.7	2.4	
208	25-3	1997	525172.2	4985591.4	10.8	shipek	0-3	0.0	43.2	31.5	25.4	56.9	5.9	5.7	Shell & wood frags, high organics.
209	28	1997	525257.3	4985442.0	7.1	shipek	0-3	0.0	80.0	7.9	12.1	20.0	3.8	2.8	30% shell with pebbles/gravels.
210	31	1997	525368.5	4985679.1	8.4	shipek	0-3	0.0	44.8	30.1	25.1	55.2	5.9	5.1	8 to 10 shells, high organics.
211	33	1997	525422.6	4985588.5	7.9	shipek	0-3	0.0	80.0	6.4	13.7	20.1	4.2	3.0	High organics, wood chips, etc.
212	407	1997	525558.1	4985827.6	5.8	shipek	0-3	0.0	13.7	53.4	32.8	86.2	7.1	6.9	A few shells.
213	443	1997	525589.8	4985772.0	9.6	shipek	0-3	0.0	46.4	30.5	23.1	53.6	5.7	4.4	3 to 10 shells.
214	36	1997	525640.7	4985681.9	11.8	shipek	0-3	0.0	77.1	6.2	16.7	22.9	4.9	3.5	
215	96	1997	525592.3	4985659.9	10.6	shipek	0-3	0.0	77.6	10.1	12.3	22.4	4.1	3.1	Wood chips and shell fragments present.
216	88	1997	525453.5	4985584.2	7.4	shipek	0-3	0.0	95.9	0.0	0.0	4.1	2.3	2.2	Shell weight = 10.63 grams.
217	84	1997	525407.1	4985738.1	7.1	shipek	0-3	3.8	38.9	24.9	32.4	57.3	5.9	5.8	No shells present.
218	85	1997	525406.6	4985741.0	6.2	shipek	0-3	2.8	66.1	0.0	0.0	31.1		2.6	Shell fragments in abundance (no weight).
219	76	1997	525311.8	4985648.4	8.5	shipek	0-3	0.0	53.6	31.1	15.3	46.4	4.8	3.9	
220	39-1,2	1997	525148.7	4985405.4	8.8	shipek	0-3	0.0	91.2	0.0	0.0	8.8	1.8	1.7	Shell weight = 0.6165 grams.
221	71-4	1997	525046.0	4985555.9	8.0	shipek	0-3	0.0	13.9	50.8	35.4	86.2	7.8	6.8	
222	66	1997	525034.8	4985539.2	7.0	shipek	0-3	0.0	26.0	49.4	24.7	74.1	6.2	6.1	Shell fragments present - no weight.
223	36	1997	525025.2	4985311.7	12.2	shipek	0-3	3.8	84.5	0.0	0.0	11.7	1.7	1.6	Shell weight = 24.8791 grams.
224	7-1,2	1997	525019.2	4985196.7	10.7	shipek	0-3	22.2	71.7	0.0	0.0	6.1	0.4	1.0	Shell weight = 8.77 grams.
225	64	1997	524894.0	4985304.6	12.7	shipek	0-3	0.0	83.6	9.2	7.2	16.4	2.8	2.3	Organic fibres and wood pieces weight = 0.6676 gms.
226	59-2	1997	524843.2	4985254.0	12.5	shipek	0-3	8.8	88.7	0.0	0.0	2.5	0.7	0.8	Shell weight = 0.2032 grams.
227	27-1	1997	524880.6	4985188.7	12.4	shipek	0-3	7.7	30.2	28.4	33.6	62.0	6.0	6.0	Small amount of sample - no shells.
228	26-2	1997	524865.0	4985172.7	11.8	shipek	0-3	22.7	74.2	0.0	0.0	3.1	0.3	1.3	Shell weight = 0.2081 grams.
229	6	1997	524791.2	4985045.8	12.9	shipek	0-3	2.4	96.8	0.0	0.0	0.8	1.0	1.0	Shell weight = 9.89 grams
230	16	1997	524720.4	4985120.5	11.4	shipek	0-3	11.9	82.7	0.0	0.0	5.5	0.9	1.2	Shell weight = 0.5412 grams.
231	51	1997	524347.9	4984973.6	11.1	shipek	0-3	0.6	36.8	24.5	38.1	62.6		5.8	No shells present.
232	10	1997	524102.1	4984676.4	11.4	shipek	0-3	41.0	50.7	0.0	0.0	8.3	-0.5	-0.5	Small amount of shells present in sample.
233	9	1997	524032.4	4984623.8	10.7	shipek	0-3	76.9	9.6	0.0	0.0	13.5		-3.3	Very coarse gravel; 1 pebble -4.0 PHI = 8.5849 grams.
234	8	1997	523951.6	4984596.8	10.9	shipek	0-3	1.8	97.9	0.0	0.0	0.3	0.3	0.2	No shells present.

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235	35-1,2	1997	524967.3	4984951.8	11.5	shipek	0-3	7.8	79.0	0.0	0.0	13.1	0.8	0.5	Shell weight = 21.93 grams.
236	139	1997	524956.2	4984793.8	6.5	shipek	0-3	0.0	10.8	64.5	24.6	89.1	6.7	6.3	
237	152	1997	525486.4	4984834.5	14.9	shipek	0-3	0.0	7.8	68.9	23.3	92.2	6.6	6.4	
238	154-1	1997	525648.7	4984925.1	12.3	shipek	0-3	0.0	60.9	5.6	33.4	39.0		3.7	Shell weight = 0.1254 grams.
239	154-2	1997	525651.0	4984923.8	12.2	shipek	0-3	0.0	87.8	0.0	0.0	12.2	2.9	2.8	Shell weight = 6.34 grams.
240	159	1997	525780.9	4984682.9	12.0	shipek	0-3	0.0	6.2	63.3	30.5	93.8	7.2	6.7	Shell weight = 0.2023 grams.
241	99	1997	525896.6	4984782.0	15.0	shipek	0-3	0.0	15.2	58.9	25.9	84.8	6.5	6.3	Shell fragments - no weight.
242	163	1997	526123.1	4984954.3	14.2	shipek	0-3	0.0	78.1	11.8	10.0	21.8	3.6	2.7	Shell weight = 30.57 grams.
243	172	1997	526364.7	4984874.4	12.0	shipek	0-3	0.0	36.0	41.9	22.1	64.0	5.8	5.4	Shell weight = 0.0672 grams.
244	199	1997	526814.3	4985643.2	9.4	shipek	0-3	0.0	30.8	41.9	27.3	69.2	6.3	5.7	
245	185	1997	526946.9	4985639.0	9.6	shipek	0-3	0.0	42.9	35.3	21.8	57.1	5.7	5.0	
246	171	1997	526865.0	4985668.0	10.5	OME - box	0-10	0.0	35.2	43.6	21.1	64.7	5.8	4.8	
247	172	1997	527025.8	4985955.7	10.0	OME - box	0-10	0.0	9.9	59.4	30.6	90.0	6.9	6.5	
248	172	1997	527025.8	4985955.7	10.0	NWRI - box	04-05	0.0	8.2	57.8	33.9	91.7	7.2	6.8	
	172					NWRI - box	05-06	0.0	9.3	60.0	30.7	90.7	7.0	6.6	
	172					NWRI - box	06-07	0.0	8.4	60.9	30.6	91.5	7.0	6.5	
	172					NWRI - box	07-08	0.0	9.2	57.6	33.1	90.7	7.1	6.7	
	172					NWRI - box	08-09	0.0	6.4	63.5	30.0	93.5	7.0	6.6	
	172					NWRI - box	09-10	0.0	6.0	62.6	31.4	94.0	7.1	6.6	
	172					NWRI - box	10-12	0.0	6.6	61.8	31.6	93.4	7.1	6.7	
	172					NWRI - box	12-14	0.0	6.9	61.1	32.1	93.2	7.1	6.7	
	172					NWRI - box	14-16	0.0	8.0	60.1	31.9	92.0	7.1	6.7	
	172					NWRI - box	16-18	0.0	12.5	59.2	28.2	87.4	6.7	6.4	
	172					NWRI - box	18-20	0.0	15.9	59.0	25.2	84.2	6.3	5.8	
	172					NWRI - box	20-22	0.0	15.1	62.4	22.6	85.0	6.2	5.2	
	172					NWRI - box	22-24	0.0	10.1	66.4	23.6	90.0	6.3	5.4	
249	156	1997	525505.1	4985718.0		OME - box	0-10	0.0	48.6	31.7	19.7	51.4	5.4	4.1	
250	156	1997	525505.1	4985718.0		NWRI - box	02-03	0.0	61.3	26.1	12.7	38.8	4.6	3.7	
	156					NWRI - box	03-04	0.0	54.5	29.7	15.8	45.5	4.8	3.8	
	156					NWRI - box	04-05	0.0	49.1	33.1	17.8	50.9	5.1	4.1	
	156					NWRI - box	05-06	0.0	40.1	38.3	21.6	59.9	5.7	4.8	
	156					NWRI - box	06-07	0.0	50.5	30.7	18.8	49.5	5.1	4.0	
	156					NWRI - box	07-08	0.0	40.1	36.5	23.4	59.9	6.0	5.0	
	156					NWRI - box	08-09	0.0	51.0	32.6	16.4	49.0	5.1	4.0	
	156					NWRI - box	09-10	0.0	53.1	31.7	15.2	46.9	4.9	3.9	
	156					NWRI - box	10-12	0.0	41.0	37.8	21.1	58.9	5.6	4.6	
	156					NWRI - box	12-14	0.0	42.8	37.5	19.7	57.2	5.5	4.5	
	156					NWRI - box	14-15	0.0	49.1	33.9	17.0	50.9	5.1	4.1	Wood fragments present.
251	181	1997	526195.0	4984785.0	10.0	OME - box	0-10	0.0	11.5	62.2	26.3	88.5	6.6	6.1	Shells present.
	181					OME - box	14-24	0.0	16.2	59.6	24.2	83.8	6.5	5.9	
252	182	1997	526295.7	4984827.9	11.5	OME - box	0-10	0.0	14.0	56.1	29.9	86.0	6.7	6.2	Shells present.
253	182	1997	526295.7	4984827.9	11.5	NWRI - box	02-03	0.0	10.3	55.8	33.9	89.7	7.1	6.8	

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253	182	1997	526295.7	4984827.9	11.5	NWRI - box	03-04	0.0	12.4	54.9	32.8	87.7	7.0	6.7	
	182					NWRI - box	04-05	0.0	12.0	54.7	33.4	88.1	7.1	6.8	
	182					NWRI - box	05-06	0.0	9.2	54.7	36.2	90.9	7.3	7.0	
	182					NWRI - box	06-07	0.0	17.2	53.0	29.8	82.8	6.6	6.4	
	182					NWRI - box	07-08	0.0	8.2	57.6	34.2	91.8	7.2	6.9	
	182					NWRI - box	08-09	0.0	26.0	48.6	25.4	74.0	6.2	5.9	
	182					NWRI - box	09-10	0.0	21.2	55.6	23.1	78.7	6.2	5.8	Shell fragments weight = 0.0509 grams.
	182					NWRI - box	10-12	0.0	18.0	56.7	25.3	82.0	6.4	6.0	
	182					NWRI - box	12-14	0.0	30.5	49.5	20.0	69.5	5.8	5.3	
	182					NWRI - box	14-16	0.0	31.8	48.2	20.0	68.2	5.8	5.2	
	182					NWRI - box	16-18	0.0	24.3	52.6	23.1	75.7	6.2	5.6	
	182					NWRI - box	18-20	0.0	22.0	54.5	23.5	78.0	6.1	5.7	
	182					NWRI - box	20-22	0.0	31.4	47.2	21.4	68.6	5.9	5.3	
	182					NWRI - box	22-24	0.0	28.5	52.1	19.4	71.5	5.8	5.2	
	182					NWRI - box	24-26	0.0	5.2	70.7	24.1	94.8	7.1	6.9	
	182					NWRI - box	26-27	0.0	5.1	68.9	26.0	94.9	7.1	6.9	
254	166	1997	521105.6	4984027.0	7.9	OME - box	0-10	0.0	7.6	66.2	26.2	92.4	6.8	6.1	
	166					OME - box	19-29	0.0	6.1	65.4	28.5	93.9	6.9	6.3	
255	168	1997	521183.4	4984060.6	8.5	OME - box	0-10	0.0	42.1	42.1	15.9	58.0	5.3	4.3	
	168					OME - box	13-23	0.0	3.7	62.4	34.0	96.4	7.5	7.0	Organic weight = 0.8091 grams.
256	168	1997	521183.4	4984060.6	8.5	NWRI - box	02-03	0.0	40.3	42.3	17.4	59.7	5.4	4.6	
	168					NWRI - box	03-04	0.0	47.8	36.1	16.1	52.2	5.1	4.2	
	168					NWRI - box	04-05	0.0	45.4	36.6	18.0	54.6	5.3	4.3	
	168					NWRI - box	05-06	0.0	41.3	40.5	18.2	58.7	5.5	4.6	
	168					NWRI - box	06-07	0.0	44.1	39.9	16.0	55.9	5.1	4.4	
	168					NWRI - box	07-08	0.0	33.8	47.9	18.4	66.3	5.6	4.8	
	168					NWRI - box	08-09	0.0	28.0	47.8	24.1	71.9	6.1	5.4	
	168					NWRI - box	09-10	0.0	16.8	51.6	31.6	83.2	6.8	6.5	
	168					NWRI - box	10-12	0.0	8.7	59.2	32.1	91.3	7.1	6.7	
	168					NWRI - box	12-14	0.0	6.5	61.7	31.9	93.6	7.2	6.8	
	168					NWRI - box	14-16	0.0	21.0	53.7	25.3	79.0	6.3	6.5	Organic weight = 1.4202 grams.
	168					NWRI - box	16-18	0.0	8.0	59.9	32.1	92.0	7.1	6.7	
	168					NWRI - box	18-20	0.0	7.7	56.4	36.0	92.4	7.3	7.1	
	168					NWRI - box	20-22	0.0	19.6	55.1	25.3	80.4	6.4	6.4	
257	105	1997	523938.0	4984819.6	5.5	OME - box	0-10	0.0	15.7	52.4	31.9	84.3		6.6	Organic wt =0.5695 gm, shell wt =0.0063 gm.
258	109	1997	523978.8	4984878.7	7.5	OME - box	0-10	0.0	14.2	55.9	29.9	85.8	7.4	6.2	Organic wt =0.3468 gm, shell wt =0.0071 gm.
259	115	1997	524087.5	4984932.7	9.0	OME - box	0-10	0.0	17.6	60.9	21.5	82.4	6.2	5.7	Organic weight = 0.3384 grams
260	117	1997	524182.0	4985001.0	9.5	OME - box	0-10	0.0	51.2	33.3	15.5	48.8	4.7	3.9	
261	117	1997	524182.0	4985001.0	9.5	NWRI - box	02-03	0.0	21.9	52.6	25.5	78.1	6.3	5.6	
	117					NWRI - box	03-04	0.0	21.7	53.2	25.0	78.2	6.2	5.6	
	117					NWRI - box	04-05	0.0	24.1	50.4	25.4	75.8	6.2	5.6	
	117					NWRI - box	05-06	0.0	22.7	51.6	25.7	77.3	6.4	5.8	

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261	117	1997	524182.0	4985001.0	9.5	NWRI - box	06-07	0.0	28.7	51.8	19.5	71.3	5.7	5.4	
	117					NWRI - box	07-08	0.0	26.4	52.2	21.4	73.6	6.0	5.6	
	117					NWRI - box	08-09	0.0	38.9	43.3	17.7	61.0	5.4	4.8	
	117					NWRI - box	09-10	0.0	49.3	35.1	15.6	50.7	4.8	4.1	
	117					NWRI - box	10-12	0.0	36.0	43.1	20.9	64.0	5.5	4.9	
	117					NWRI - box	12-14	0.0	31.3	46.4	22.3	68.7	6.0	4.9	
	117					NWRI - box	14-16	0.0	57.0	29.1	13.9	43.0	4.5	3.6	
	117					NWRI - box	16-18	1.2	35.0	43.8	20.0	63.8	5.5	5.1	
262	164	1997	524067.5	4984943.3	7.5	OME - box	0-10	0.0	29.0	53.6	17.4	71.0	5.5	5.1	
263	167	1997	521149.9	4984039.0	7.5	OME - box	0-10	0.0	27.9	51.6	20.5	72.1	5.8	4.8	
	167					OME - box	10-20	0.0	8.7	60.6	30.6	91.2	7.1	6.6	Organic weight = 0.5809 grams.
264	127	1997	524391.8	4985064.4	11.0	OME - box	0-10	0.0	68.6	18.2	13.2	31.4	3.2	1.8	
265	131	1997	524567.2	4985169.2	10.0	OME - box	0-10	0.0	35.7	43.1	21.2	64.3	5.9	5.7	
266	131	1997	524567.2	4985169.2	10.0	NWRI - box	02-03	0.0	34.9	41.6	23.5	65.1	5.9	5.3	
	131					NWRI - box	03-04	0.0	29.7	45.6	24.7	70.3	6.1	6.1	
	131					NWRI - box	04-05	0.0	12.9	56.2	30.8	87.0	7.0	6.8	
	131					NWRI - box	05-06	0.0	2.8	60.3	36.9	97.2	7.6	7.2	
	131					NWRI - box	06-07	0.0	0.0	60.2	39.8	100.0	8.0	7.4	
	131					NWRI - box	07-08	0.0	4.2	58.9	36.9	95.8	7.6	7.3	
	131					NWRI - box	08-09	0.0	2.2	59.4	38.4	97.8	7.7	7.3	
	131					NWRI - box	10-12	0.0	4.9	62.2	32.9	95.1	7.5	7.1	
	131					NWRI - box	12-14	0.0	6.4	64.4	29.2	93.6	7.3	7.0	
	131					NWRI - box	14-16	0.0	2.9	66.1	31.0	97.1	7.2	7.0	
	131					NWRI - box	16-18	0.0	2.4	62.1	35.5	97.6	7.5	7.1	
	131					NWRI - box	18-20	0.0	1.8	64.6	33.6	98.2	7.5	7.2	
	131					NWRI - box	20-22	0.0	3.6	65.0	31.4	96.4	7.4	7.1	
	131					NWRI - box	22-24	0.0	2.8	62.7	34.4	97.1	7.5	7.1	
	131					NWRI - box	24-26	0.0	3.5	61.3	35.2	96.5	7.5	7.2	
267	126	1997	524381.7	4985038.2	10.5	OME - box	0-10	0.7	58.3	0.0	0.0	41.0		3.6	Organic weight = 1.0901 grams.
268	126	1997	524381.7	4985038.2	10.5	NWRI - box	02-03	0.0	60.3	24.6	15.1	39.7	4.4	3.5	
	126					NWRI - box	03-04	0.0	48.9	32.3	18.9	51.2	5.1	4.1	
	126					NWRI - box	04-05	0.0	50.0	31.7	18.2	49.9	5.0	4.0	
	126					NWRI - box	05-06	0.0	29.8	45.8	24.4	70.2	6.0	5.6	
	126					NWRI - box	06-07	0.0	12.0	56.4	31.6	88.0	7.0	6.8	
	126					NWRI - box	07-08	0.0	7.0	63.8	29.2	93.0	7.1	6.8	
	126					NWRI - box	08-09	0.0	33.2	45.5	21.3	66.8	5.7	5.2	
	126					NWRI - box	09-10	0.0	3.3	63.6	33.1	96.7	7.3	7.1	
	126					NWRI - box	10-12	0.0	31.3	48.4	20.3	68.7	5.7	5.9	
	126					NWRI - box	12-14	0.0	4.5	66.4	29.0	95.4	7.2	6.9	
	126					NWRI - box	14-16	0.0	3.4	67.9	28.7	96.6	7.2	6.9	Organic material present.
	126					NWRI - box	16-18	0.0	1.5	77.6	20.9	98.5	6.9	6.8	Organic weight = 2.6490 grams.
	126					NWRI - box	18-20	0.0	2.2	72.8	24.9	97.7	7.1	6.8	Organic weight = 2.0053 grams.

Serial No.	Site #	Year	Easting NAD27, metres	Northing NAD27, metres	Depth, m not IGLD	Sample Type	Sample Interval	Gravel %	Sand %	Silt %	Clay %	Silt+Clay %	Folk Mean	Phi Med.	Lab Comments
268	126	1997	524381.7	4985038.2	10.5	NWRI - box	20-22	0.0	27.2	50.5	22.3	72.8	5.9	6.0	Organic weight = 1.0243 grams.
269	132	1997	524621.7	4985195.0	10.0	OME - box	0-10	0.0	39.0	38.0	23.0	61.0	5.8	5.3	
270	132	1997	524621.7	4985195.0	10.0	NWRI - box	02-03	0.0	45.7	32.9	21.4	54.3	5.4	4.5	
	132					NWRI - box	03-04	0.0	39.3	39.4	21.3	60.7	5.7	4.7	
	132					NWRI - box	04-05	0.0	24.2	48.8	26.9	75.7	6.3	6.2	
	132					NWRI - box	05-06	0.0	17.6	55.1	27.3	82.4	6.6	6.6	
	132					NWRI - box	06-07	0.0	13.5	59.5	27.0	86.5	6.8	6.6	
	132					NWRI - box	07-08	0.0	8.9	60.6	30.5	91.1	7.1	6.9	
	132					NWRI - box	08-09	0.0	0.1	64.3	35.6	99.9	7.5	7.2	
	132					NWRI - box	09-10	0.0	3.4	65.6	31.0	96.6	7.2	7.0	
	132					NWRI - box	10-12	0.0	3.5	62.7	33.9	96.6	7.4	7.1	
	132					NWRI - box	12-14	0.0	4.3	59.1	36.6	95.7	7.5	7.2	
	132					NWRI - box	14-16	0.0	17.3	56.1	26.5	82.6	6.6	6.7	
	132					NWRI - box	16-18	0.0	3.1	69.5	27.3	96.8	7.1	6.8	
	132					NWRI - box	18-20	0.0	2.2	66.8	31.0	97.8	7.3	7.0	
	132					NWRI - box	20-22	0.0	2.3	70.8	26.9	97.7	7.2	6.9	
	132					NWRI - box	22-24	0.0	2.0	66.9	31.2	98.1	7.4	7.1	
271	128	1997	524479.0	4985063.9	12.0	OME - box	0-10	1.1	39.8	42.3	16.8	59.1	5.3	5.0	
272	128	1997	524479.0	4985063.9	12.0	NWRI - box	02-03	0.0	33.2	42.8	24.0	66.8	5.9	5.6	
	128					NWRI - box	03-04	0.0	47.3	35.3	17.5	52.8	5.1	4.5	
	128					NWRI - box	04-05	0.0	16.9	58.2	24.9	83.1	6.4	6.2	
	128					NWRI - box	05-06	0.0	6.8	65.3	27.9	93.2	7.0	6.6	
	128					NWRI - box	06-07	0.0	5.4	68.6	26.0	94.6	6.9	6.4	
	128					NWRI - box	07-08	0.0	5.3	66.0	28.7	94.7	6.9	6.7	
	128					NWRI - box	08-09	0.0	4.7	65.9	29.5	95.4	7.1	6.6	
	128					NWRI - box	09-10	0.0	70.7	17.2	12.1	29.3	4.3	3.2	
	128					NWRI - box	10-12	0.0	90.6	0.0	0.0	9.4	2.6	2.5	
273	135	1997	524738.5	4985277.5	8.5	OME - box	0-10	0.0	33.2	44.9	21.9	66.8	6.0	5.1	
274	175	1997	525541.7	4984852.3	14.5	OME - box	0-10	0.0	12.9	59.1	28.0	87.1	6.7	6.3	
	175					OME - box	14-24	0.0	13.7	64.8	21.5	86.3	6.2	5.9	Organic weight = 0.2789 grams.
275	179	1997	525940.0	4984798.6	NA	OME - box	0-10	0.0	14.2	57.7	28.1	85.8	6.6	6.2	
	179					OME - box	10-20	0.0	22.1	55.0	22.9	77.9	6.2	5.5	Organic weight = 0.2063 gms, shells present.
276	177	1997	525763.0	4984825.0	12.5	OME - box	0-10	0.0	13.5	58.4	28.2	86.6	6.7	6.3	
277	173	1997	525372.6	4984838.0	11.5	OME - box	0-10	0.0	5.4	66.0	28.6	94.6	7.0	6.5	
278	176	1997	525632.6	4984773.9	14.0	OME - box	0-10	0.0	6.2	65.0	28.8	93.8	7.0	6.5	
279	109-2	1997	523978.8	4984878.7	9.0	diver core	0-1	0.0	7.6	63.5	28.9	92.4	7.1	6.1	
	109-2					diver core	01-02	0.0	9.6	67.4	23.0	90.4	6.5	5.8	
	109-2					diver core	02-03	0.0	8.8	64.5	26.7	91.2	6.8	5.9	
	109-2					diver core	03-04	0.0	6.7	65.8	27.5	93.3	6.9	6.1	
	109-2					diver core	04-05	0.0	7.7	63.7	28.7	92.4	7.0	6.1	
	109-2					diver core	05-06	0.0	9.2	62.6	28.2	90.8	7.0	6.0	
	109-2					diver core	06-07	0.0	8.1	65.9	25.9	91.8	6.7	6.0	

Serial No.	Site #	Year	Easting NAD27, metres	Northing	Depth, m not IGLD	Sample Type	Sample Interval	Gravel %	Sand %	Silt %	Clay %	Silt+Clay %	Folk Mean	Phi Med.	Lab Comments
279	109-2	1997	523978.8	4984878.7	9.0	diver core	07-08	0.0	11.1	62.1	26.8	88.9	6.8	6.0	
	109-2					diver core	08-09	0.0	11.9	61.1	27.0	88.1	6.8	6.1	Shell fragments present.
	109-2					diver core	09-10	0.0	7.9	62.6	29.5	92.1	7.1	6.3	
	109-2					diver core	10-12	0.0	7.4	68.5	24.1	92.6	6.6	6.1	
	109-2					diver core	12-14	0.0	5.3	65.4	29.3	94.7	7.1	6.4	
	109-2					diver core	14-16	0.0	3.8	69.3	26.9	96.2	6.9	6.2	
	109-2					diver core	16-18	0.0	3.6	65.5	30.9	96.4	7.1	6.5	
	109-2					diver core	18-20	0.0	5.3	65.4	29.3	94.7	7.1	6.6	
	109-2					diver core	20-22	0.0	6.0	64.5	29.6	94.1	7.1	6.6	
	109-2					diver core	22-24	0.0	29.8	49.2	21.1	70.3	5.7	5.9	
	109-2					diver core	24-26	0.0	32.1	48.5	19.4	67.9	5.5	5.8	
	109-2					diver core	26-28	0.0	4.6	66.9	28.5	95.4	7.2	6.7	
	109-2					diver core	28-30	0.0	9.2	65.4	25.3	90.7	6.9	6.5	
	109-2					diver core	30-32	0.0	8.9	62.4	28.7	91.1	7.2	6.6	Shell fragments present.
	109-2					diver core	32-34	0.0	12.9	60.0	27.1	87.1	6.9	6.6	
	109-2					diver core	34-36	0.0	6.2	65.1	28.6	93.7	7.1	6.7	
	109-2					diver core	36-38	0.0	5.9	68.1	26.0	94.1	6.9	6.5	
	109-2					diver core	38-40	2.2	73.7	17.3	6.9	24.2	3.5	2.8	
	109-2					diver core	40-42	0.0	73.1	15.4	11.6	27.0	3.2	2.0	Organic material present.
	109-2					diver core	42-44	0.0	4.3	34.0	61.7	95.7		12.0	Styrofoam type material, sewage looking strands of hair like pieces.
	109-2					diver core	44-46	NA	NA	NA	NA	NA	NA	NA	
	109-2					diver core	46-48	0.0	30.1	40.9	29.0	69.9		6.2	Organic material present, wood fibres.
	109-2					diver core	48-50	NA	NA	NA	NA	NA	NA	NA	
	109-2					diver core	50-52	NA	NA	NA	NA	NA	NA	NA	
	109-2					diver core	52-54	0.0	14.3	60.7	25.0	85.7	6.9	6.3	High in organic material, wood fibre type pieces.
	109-2					diver core	54-56	0.0	5.1	70.4	24.5	94.9	6.9	6.5	High in organic material,wood like fibres.
	109-2					diver core	56-58	0.0	2.7	78.5	18.9	97.4	6.6	6.3	Organic debris present, sewage smell.
	109-2					diver core	58-60	0.0	2.7	84.7	12.6	97.3	6.0	5.7	High organic content,fibroues material present.
280	166-1	1997	521105.6	4984027.0	7.6	diver core	0-1	0.0	5.5	65.1	29.4	94.5	7.0	6.5	
	166-1					diver core	01-02	0.0	5.5	63.2	31.3	94.5	7.2	6.6	
	166-1					diver core	02-04	0.0	4.9	64.9	30.2	95.1	7.2	6.5	
	166-1					diver core	04-05	0.0	5.3	63.2	31.4	94.6	7.3	6.5	
	166-1					diver core	05-06	0.0	5.4	62.1	32.5	94.6	7.4	6.7	
	166-1					diver core	06-07	0.0	4.7	62.9	32.4	95.3	7.3	6.6	
	166-1					diver core	07-08	0.0	6.2	64.0	29.8	93.8	7.0	6.6	
	166-1					diver core	08-09	0.0	4.3	62.5	33.2	95.7	7.3	6.8	
	166-1					diver core	09-10	0.0	5.5	64.7	29.8	94.5	7.2	6.5	
	166-1					diver core	10-12	0.0	5.5	63.9	30.6	94.5	7.1	6.6	
	166-1					diver core	12-14	0.0	5.4	63.0	31.6	94.6	7.2	6.7	
	166-1					diver core	14-16	0.0	4.1	67.4	28.6	96.0	7.0	6.6	
	166-1					diver core	16-18	0.0	6.0	64.0	30.1	94.1	7.0	6.6	

Serial No.	Site #	Year	Easting NAD27, metres	Northing	Depth, m not IGLD	Sample Type	Sample Interval	Gravel %	Sand %	Silt %	Clay %	Silt+Clay %	Folk Mean	Phi Med.	Lab Comments
280	166-1	1997	521105.6	4984027.0	7.6	diver core	18-20	0.0	5.5	64.9	29.6	94.5	7.0	6.5	
	166-1					diver core	20-22	0.0	0.0	67.7	32.3	100.0	7.2	6.6	
	166-1					diver core	22-24	0.0	6.8	63.5	29.7	93.2	6.9	6.3	
	166-1					diver core	24-26	0.0	6.5	62.7	30.8	93.5	7.0	6.4	
	166-1					diver core	26-28	0.0	6.1	62.6	31.3	93.9	7.1	6.5	
	166-1					diver core	28-30	0.0	5.1	67.9	26.9	94.8	6.7	6.2	
	166-1					diver core	30-32	0.0	6.3	64.9	28.8	93.7	6.9	6.3	
	166-1					diver core	32-34	0.0	8.5	60.5	31.0	91.5	7.0	6.4	
	166-1					diver core	34-36	0.0	6.2	65.9	27.9	93.8	6.9	6.2	
	166-1					diver core	36-38	0.0	4.7	68.6	26.7	95.3	6.8	6.1	
	166-1					diver core	38-40	0.0	5.8	68.1	26.2	94.3	6.7	6.1	
	166-1					diver core	40-42	0.0	7.5	65.7	26.7	92.4	6.7	6.1	
	166-1					diver core	42-44	0.0	5.7	67.1	27.2	94.3	6.9	6.6	
	166-1					diver core	44-46	0.0	4.8	62.8	32.4	95.2	7.2	6.8	
	166-1					diver core	46-48	0.0	2.6	64.8	32.6	97.4	7.4	6.8	
	166-1					diver core	48-50	0.0	2.9	61.7	35.4	97.1	7.5	7.1	
	166-1					diver core	50-52	0.0	4.0	62.4	33.6	96.0	7.3	6.9	
281	179-1	1997	525940.0	4984798.6	15.2	diver core	02-03	0.0	28.2	44.4	27.4	71.8	6.3	6.0	
	179-1					diver core	03-04	0.0	22.3	53.8	23.9	77.7	6.2	5.9	
	179-1					diver core	04-05	0.0	13.4	56.5	30.1	86.6	6.8	6.5	Shells present weight= 0.0406 grams.
	179-1					diver core	05-06	0.0	16.4	58.5	25.1	83.6	6.4	6.2	Shells present weight=0.0243 grams.
	179-1					diver core	06-07	0.0	13.4	56.4	30.2	86.6	6.8	6.3	
	179-1					diver core	07-08	0.0	13.5	55.4	31.1	86.5	6.8	6.4	
	179-1					diver core	08-09	0.0	11.8	55.9	32.2	88.1	7.0	6.6	Shell fragments present.
	179-1					diver core	09-10	0.0	11.1	55.4	33.5	88.9	7.1	6.7	Shell fragments present.
	179-1					diver core	10-12	0.0	27.3	47.2	25.5	72.7	6.2	5.5	Shell fragments weight = 0.0344 grams.
	179-1					diver core	12-14	0.0	27.4	47.4	25.2	72.6	6.2	5.4	
	179-1					diver core	14-16	0.0	24.1	50.6	25.4	76.0	6.3	5.7	Shell fragments weight = 0.0209 grams.
	179-1					diver core	16-18	0.0	16.4	53.7	29.9	83.6	6.7	6.2	
	179-1					diver core	18-20	0.0	21.6	51.4	27.1	78.5	6.3	5.9	
	179-1					diver core	20-22	0.0	17.3	54.2	28.5	82.7	6.5	6.0	
	179-1					diver core	22-24	0.0	20.6	53.3	26.1	79.4	6.3	5.7	
	179-1					diver core	24-26	0.0	26.2	48.5	25.4	73.9	6.2	5.5	
	179-1					diver core	26-28	0.0	17.0	54.9	28.0	82.9	6.6	6.0	
	179-1					diver core	28-30	0.0	11.5	57.1	31.4	88.5	7.0	6.4	
	179-1					diver core	30-32	0.0	11.1	59.3	29.6	88.9	6.9	6.3	
	179-1					diver core	32-34	0.0	5.5	62.7	31.8	94.5	7.2	6.7	
	179-1					diver core	34-36	0.0	3.6	65.4	31.0	96.4	7.1	6.6	
	179-1					diver core	36-38	0.0	7.0	63.8	29.1	92.9	7.0	6.4	
	179-1					diver core	38-40	0.0	3.3	68.3	28.4	96.7	7.0	6.4	

Appendix 5. Shear-strength data for sediment cores.

Interval (cm)	Midpoint (cm)	Diver Core Pilon (1996)		Diver Core TCTI (1996)		Diver Core 109-2 (1997)		D.C. 166-1 (97)	D.C. 179-1 (97)
		Shear Strength kPa	Comments	Shear Strength kPa	Comments	Shear Strength kPa	Comments	Shear Strength kPa	Shear Strength kPa
0-2	1					ND		NA	NA
2-4	3					ND		NA	0.4996
4-6	5	0.6263		1.2056		ND		0.2454	0.4996
6-8	7	1.2056	reworked material	0.7659		ND		0.3828	0.9772
8-10	9	0.6794	reworked material	0.6574		ND		0.3828	0.9772
10-12	11	0.5372	reworked material, measure 2 doubtful	0.7659		ND		0.4541	1.0213
12-14	13	0.3645	reworked material	0.8866		ND		0.5746	0.8703
14-16	15	0.8382		1.0173		ND		0.5746	0.8703
16-18	17	3.7411		0.8703	edge effect for measure #2	ND		0.6538	1.2153
18-20	19	3.3738		0.7952		ND		0.7504	1.0213
20-22	21	3.0869		0.6367		ND		1.0213	1.2153
22-24	23	2.0588	organic debris	0.6807		ND		0.8703	1.0213
24-26	25	2.2683		0.7504		ND		0.8703	2.2968
26-28	27	2.3257		0.9565	hole for measure #1	ND		0.7504	1.4703
28-30	29	3.5324		0.7558		ND		0.8703	1.0213
30-32	31	5.9958	sinking cone - 31 &33 cm proximity of organic debris	0.8636		ND		0.7504	1.2153
32-34	33	4.6854	sinking cone for measure #2	0.8770		0.3828		0.7504	1.2153
34-36	35	4.7701	rsults will be doubtful due to sand content	0.6670		0.3828		0.8703	1.2153
36-38	37	9.9087	37-47 cm sand (result not valid)	0.7780	37-59 cm uneven surface	0.3828		1.0213	1.8150
38-40	39	4.8662		ND	hole	0.3828		1.2153	1.2153
40-42	41	5.7082		0.9488		0.3828		1.2153	
42-44	43	6.9030		1.0473		0.5746		1.2153	
44-46	45	5.6654	results will be doubtful due to sand content	0.9412		0.8703		1.2153	
46-48	47	6.5713	results will be doubtful due to sand content	1.2264		1.0213		1.2153	
48-50	49	8.2856	wood debris, result doubtful due to sand content	0.7504	hole	0.5746		0.8703	
50-52	51	6.1651	results will be doubtful due to sand content	0.8070		2.2968			
52-54	53	6.7897	results will be doubtful due to sand content	0.9338		5.8766			
54-56	55			1.1217	edge effect for measure #2	0.4541			
56-58	57			2.0347	hole	2.2968	Sample unreliable at end of core		
58-60	59			ND	hole				
60-62	61			1.3465					
62-64	63			1.4703					
64-66	65			3.3738					
66-68	67			5.8766	hole for measure #1				

Notes

NA - sample spooned out

ND - sampled before test done

Appendix 6. Water-content and loss-on-ignition data for sediment cores.

1994 OME Sample Number	Sample Interval (cm)	% H2O (wet-dry) /wet	LOI mg/g	1994 OME Sample Number	Sample Interval (cm)	% H2O (wet-dry) /wet	LOI mg/g	1994 OME Sample Number	Sample Interval (cm)	% H2O (wet-dry) /wet	LOI mg/g	1994 OME Sample Number	Sample Interval (cm)	% H2O (wet-dry) /wet	LOI mg/g
C1	0-13	46	33	C19-B	10-21	50	45	C36-2-B	40-47	57	75	C55	0-8	34	19
C2	0-12	53	50	C20-T	0-10	53	40	C36-3-T	0-10	57	51	C56-T	0-10	55	51
C3-T	0-10	60	56	C21-T	0-10	72	103	C36-3-B	40-53	43	36	C56-B	40-56	49	52
C3-B	20-31	72	147	C21-B	20-31	38	31	C37-T	0-10	58	50	C57	0-11	37	47
C4-T	0-10	74	82	C22-T	0-10	46	26	C37-B	40-55	46	44	C58	0-7	41	35
C4-B	40-52	44	60	C22-B	10-20	40	37	C38-T	0-10	74	86	C59-T	0-10	59	66
C5-T	0-10	73	105	C23-1-T	0-10	58	54	C38-B	30-40	51	56	C59-B	10-17	65	100
C5-B	10-18	65	96	C23-1-B	20-28	39	28	C40-T	0-10	73	82	C60	0-17	53	68
C6-T	0-10	67	63	C23-2-T	0-10	62	65	C40-B	30-42	56	59	C61	0-9	48	49
C6-B	40-50	40	34	C23-2-B	20-33	38	29	C41-T	0-10	66	65	C62	0-15	43	70
C7-T	0-10	50	27	C23-3-T	0-10	56	57	C41-B	20-33	42	33	C63	0-14	48	105
C7-B	30-37	36	26	C23-3-B	10-21	40	35	C42-T	0-10	76	79	Stn A-T	0-10	69	116
C8	0-11	38	27	C24-1-T	0-10	65	82	C42-B	40-50	65	93	Stn A-B	20-36	56	85
C9	0-8.6	50	37	C24-1-B	50-64	38	33	C43-T	0-10	56	34	Stn C	0-10	51	46
C10-T	0-10	41	18	C24-2-T	0-10	58	59	C43-B	50-58	38	52				
C10-B	20-35	33	42	C24-2-B	40-57	47	51	C44-T	0-10	71	78	S09	0-3	72	57
C11-T	0-10	69	64	C24-3-T	0-10	66	79	C44-B	50-62	50	52	S14	0-3	56	50
C11-B	20-38	60	68	C24-3-B	60-75	36	35	C45-T	0-10	69	76	S15-1a	0-3	62	53
C12-1-T	0-10	69	72	C25-T	0-10	47	35	C45-B	50-63	65	132	S15-2a	0-3	53	32
C12-1-B	20-27	57	96	C25-B	10-18	39	25	C46-T	0-10	49	42	S15-3a	0-3	65	58
C12-2-T	0-10	56	43	C26-T	0-10	66	96	C46-B	20-31	43	43	S17	0-3	43	23
C12-2-B	20-26	61	96	C26-B	20-36	52	66	C47-T	0-10	69	77	S23	0-3	55	49
C12-3-T	0-10	45	22	C27-T	0-10	29	17	C47-B	50-66	61	105	S27-1a	0-3	27	8
C12-3-B	30-39	53	89	C27-B	40-49	36	32	C48-T	0-10	55	64	S27-2a	0-3	35	8
C13-T	0-10	42	23	C28-T	0-10	65	89	C48-B	30-42	42	39	S27-3a	0-3	32	8
C13-B	20-34	48	66	C28-B	40-54	38	43	C49-T	0-10	69	80	S31	0-3	61	58
C14-T	0-10	65	68	C29-T	0-10	57	81	C49-B	50-63	68	144	S33	0-3	52	31
C14-B	40-58	59	143	C29-B	30-43	37	31	C50-T	0-10	38	37	S35-1a	0-3	61	57
C15-1-T	0-10	67	77	C30	0-13	38	39	C50-B	30-42	66	141	S35-2a	0-3	63	73
C15-1-B	60-72.5	63	133	C31-T	0-10	68	90	C51-1-T	0-10	62	69	S35-3a	0-3	61	60
C15-2-T	0-10	72	79	C31-B	30-44	40	37	C51-1-B	30-46	55	54	S37	0-3	63	57
C15-2-B	30-43	42	33	C32-T	0-10	65	76	C51-2-T	0-10	65	80	S39	0-3	76	89
C15-3-T	0-10	71	76	C32-B	60-70	37	34	C51-2-B	30-40	46	32	S42	0-3	73	83
C15-3-B	20-28	68	86	C34-T	0-10	70	106	C51-3-T	0-10	62	72	S47	0-3	67	79
C16	0-13	44	27	C34-B	30-45	37	36	C51-3-B	20-36	64	93	S57	0-3	37	27
C17-T	0-10	53	53	C35-T	0-10	71	90	C52-T	0-10	35	32	S58	0-3	44	29
C17-B	20-28	53	64	C35-B	20-28	59	66	C52-B	10-26	49	65	S62	0-3	46	56
C18-T	0-10	53	45	C36-1-T	0-10	54	49	C53	0-10	39	41				
C18-B	10-20	42	38	C36-1-B	40-49	53	59	C54-T	0-10	49	49				
C19-T	0-10	57	64	C36-2-T	0-10	60	57	C54-B	10-28	59	160				

Diver Core 166-1 (1997)			Diver Core 109-2 (1997)			Diver Core Pilon (1996)				Diver Core TCTI (1996)			
Interval (cm)	Water Content (Wet-Dry)/Dry	Percent LOI	Interval (cm)	Water Content (Wet-Dry)/Dry	Percent LOI	Interval (cm)	% H2O (Wet-Dry)/Wet	Water Content (Wet-Dry)/Dry	Percent LOI	Interval (cm)	% H2O (Wet-Dry)/Wet	Water Content (Wet-Dry)/Dry	Percent LOI
0-1	349.61	9.48	0-1	361.55	9.94	0-2	70.83	242.80	7.77	0-2	76.56	326.68	10.12
1-2	354.35	11.04	1-2	290.46	9.19	2-4	65.24	187.71	7.41	2-4	69.08	223.42	8.24
2-4	298.52	11.38	2-3	195.05	8.85	4-6	55.32	123.83	5.92	4-6	68.41	216.58	9.59
4-5	289.17	11.74	3-4	186.93	8.32	6-8	54.17	118.19	5.27	6-8	68.58	218.23	8.59
5-6	287.44	12.28	4-5	197.97	8.86	8-10	59.44	146.52	7.2	8-10	67.48	207.47	8.3
6-7	272.02	11.88	5-6	199.73	9.93	10-12	56.23	128.45	9.71	10-12	63.55	174.37	7.61
7-8	250.49	10.03	6-7	192.04	9.60	12-14	59.36	146.08	9.73	12-14	64.80	184.11	8.57
8-9	243.96	10.48	7-8	188.98	8.05	14-16	63.89	176.96	7.83	14-16	65.54	190.22	8.08
9-10	229.15	10.17	8-9	203.63	8.75	16-18	42.71	74.55	4.83	16-18	59.67	147.94	7.98
10-12	228.89	9.15	9-10	199.32	9.45	18-20	48.63	94.65	3.51	18-20	59.38	146.16	7.52
12-14	220.27	9.61	10-12	198.44	9.01	20-22	43.07	75.64	4.69	20-22	58.67	141.94	6.43
14-16	213.51	9.86	12-14	214.35	10.22	22-24	46.26	86.07	6.14	22-24	54.94	121.91	7.87
16-18	211.11	10.46	14-16	211.58	11.37	24-26	43.40	76.69	5.16	24-26	54.04	117.60	6.95
18-20	214.48	10.57	16-18	215.67	10.16	26-28	39.62	65.62	3.63	26-28	58.25	139.52	8.54
20-22	194.60	10.00	18-20	230.71	9.92	28-30	41.11	69.81	3.43	28-30	64.66	182.99	11.37
22-24	173.80	9.32	20-22	238.25	10.56	30-32	26.95	36.90	2.51	30-32	64.58	182.29	10.39
24-26	179.15	10.05	22-24	170.36	6.54	32-34	38.41	62.36	2.8	32-34	64.80	184.09	9.94
26-28	191.43	9.79	24-26	142.95	5.44	34-36	30.26	43.38	2.19	34-36	65.92	193.41	10.24
28-30	191.20	9.92	26-28	260.39	10.98	36-38	27.49	37.91	1.22	36-38	66.77	200.95	9.81
30-32	177.09	9.44	28-30	282.87	11.58	38-40	22.34	28.77	1.15	38-40	62.68	167.97	15.07
32-34	174.95	9.57	30-32	273.79	11.73	40-42	22.18	28.51	0.64	40-42	68.56	218.05	10.98
34-36	126.71	8.80	32-34	249.45	11.45	42-44	26.10	35.31	1.18	42-44	65.23	187.62	11.29
36-38	148.86	8.00	34-36	218.30	11.21	44-46	20.25	25.39	0.51	44-46	66.69	200.17	11.28
38-40	140.87	8.41	36-38	225.45	11.81	46-48	15.53	18.38	2.03	46-48	65.38	188.88	13.31
40-42	147.05	9.10	38-40	112.64	13.31	48-50	81.12	429.60	14.66	48-50	67.93	211.82	13.49
42-44	165.97	9.83	40-42	130.15	28.14	50-52	52.92	112.42	3.28	50-52	67.25	205.32	13.39
44-46	186.02	12.16	42-44	248.84	41.37	52-54	30.08	43.02	3.22	52-54	66.57	199.16	11.94
46-48	200.09	15.58	44-46	277.62	38.06					54-56	65.24	187.71	9.97
48-50	231.35	19.29	46-48	195.84	35.11					56-58	61.32	158.55	7.01
50-52	183.76	14.98	48-50	169.22	18.54					58-60	51.12	104.59	5
			50-52	155.01	22.30					60-62	44.56	80.38	5.44
			52-54	137.21	21.02					62-64	45.83	84.60	5.68
			54-56	160.64	17.88					64-66	47.79	91.53	6.02
			56-58	121.70	11.95					66-68	43.94	78.37	3.36
			58-60	103.14	10.07						33.48	50.33	

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