

RECONSTRUCTION OF MORPHOSTRATIGRAPHY AND DYNAMICS OF
FORMER TIDAL INLETS ALONG A WAVE-DOMINATED BARRIER ISLAND
AND IMPACTS ON ISLAND EVOLUTION: ASSATEAGUE ISLAND, MD-VA

by

Christopher Thomas Seminack
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Committee:

<u>Randolph A. McBride</u>	Dr. Randolph A. McBride, Dissertation Director
<u>R. J. Diecchio</u>	Dr. Richard J. Diecchio, Committee Member
<u>Mark D. Uhen</u>	Dr. Mark D. Uhen, Committee Member
<u>Ilya V. Buynevich</u>	Dr. Ilya V. Buynevich, Committee Member
<u>Albert Torzilli</u>	Dr. Albert Torzilli, Graduate Program Director
<u>Robert Jonas</u>	Dr. Robert Jonas, Department Chairperson
<u>Donna M. Fox</u>	Dr. Donna M. Fox, Associate Dean, Office of Student Affairs & Special Programs, College of Science
<u>P. Agouris</u>	Dr. Peggy Agouris, Dean, College of Science

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by

Christopher T. Seminack
Master of Science
Temple University, 2011
Bachelor of Arts
La Salle University, 2007

Director: Randolph A. McBride, Associate Professor
Department of Environmental Science and Public Policy and Department of
Atmospheric, Oceanic, and Earth Sciences

Spring Semester 2016
George Mason University
Fairfax, VA



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DEDICATION

This dissertation is dedicated to my parents, Tom and Valerie Seminack

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ABSTRACT

RECONSTRUCTION OF MORPHOSTRATIGRAPHY AND DYNAMICS OF FORMER TIDAL INLETS ALONG A WAVE-DOMINATED BARRIER ISLAND AND IMPACTS ON ISLAND EVOLUTION: ASSATEAGUE ISLAND, MD-VA

Christopher T. Seminack, Ph.D.

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Dissertation Project Director: Dr. Randolph A. McBride

This dissertation is a study of former tidal inlets along Assateague Island, Maryland-Virginia. A multi-technique approach, including analysis of historical nautical charts and maps, LIDAR datasets, true-color and infrared aerial imagery, ground-penetrating radar (GPR) surveys, and analysis of sediment cores, was pursued to reveal the dynamic nature of former tidal inlets along Assateague Island. Assateague Island has experienced many breaching events throughout its history as a result of extra-tropical and tropical storm impacts. An updated inlet chronology of the mixed-energy, wave-dominated barrier island concluded that 12 former tidal inlets and breach zones were identified from north to south: Northern Assateague Breach zone, North Sinepuxent Inlet, Sandy Point Inlet, North Beach Inlet, Sinepuxent Inlet, Fox Hills and Winter Quarter Breach zone, Slough Inlet, Green Run Bay Inlet, Green Run Inlet, Cherry Tree Inlet, Swan Pool Breach zone, and Tom's Cove Breach zone. Evidence of former tidal inlets

and breaches include such geomorphic features as relict recurved-spit ridges, relict flood-tidal deltas (FTD) and flood channels, relict inlet channel scars (topographic low areas of immature vegetation), relict-inlet ponds, and relict inlet-closure ridges. Inlet-closure ridges are more subtle than recurved-spit ridges, with the tallest inlet-closure ridge at about 1.6 m, which is equivalent in height to the shortest recurved-spit ridge (1.6 m). In general, recurved-spit ridges were also documented to decrease in height toward the inlet throat within the former inlets. In total, 34% of Assateague Island is estimated to be comprised of tidal-inlet fill.

A five stage, life-cycle model of Green Run Inlet was constructed utilizing the multi-technique method. GPR data revealed that the former Green Run Inlet migrated 680 m to the south and had a final channel position 100 m wide and 3.75 m deep resulting in a spring tidal prism of $2.79 \times 10^6 \text{ m}^3$. While active, Green Run Inlet established a well-developed FTD that was preserved along the backbarrier of Assateague Island. During the waning and shoaling stage of Green Run Inlet, the channel rotated 30° counterclockwise before infilling.

The former Sinepuxent Inlet was subjected to a more complex history and sediment cores yielded a three-stage evolutionary inlet model. Sediment cores and historical aerial photography suggest multiple breaching events occurred at Sinepuxent Inlet. Sediment cores also underscore the importance that energy pulses (i.e., higher flow velocities associated with increased tidal prism during storms, spring high tides, and perigean spring high tides) play in inlet-fill stratigraphy. Unlike the former Green Run Inlet, Sinepuxent Inlet does not exhibit a well-preserved FTD. Three hypotheses are

presented to explain why Sinepuxent Inlet lacks a well-developed FTD: 1) the former Sinepuxent Inlet was subjected to multiple ephemeral breaching events, which deposited small FTDs and possibly washover fans that over time coalesced to form a single amalgamated FTD; 2) Holocene-aged, paleo-barrier islands were preserved as backbarrier features along Assateague Island impeding tidal prism flow through Sinepuxent Inlet, thus restricting FTD deposits and causing the former inlet to infill quickly after opening; and 3) a combination of hypotheses 1 and 2 – multiple ephemeral breaches with FTDs and possibly washover fans constrained by a backbarrier, Holocene-aged, paleo-barrier-island chain. Sediment core data, surficial geomorphic features, and historical aerial photography suggest multiple breaching events within the former Sinepuxent Inlet area. More work is necessary to confirm the existence of a backbarrier, Holocene-aged, paleo-barrier-island chain. Reconstruction of the tidal prism of the former Sinepuxent Inlet yielded a value of $8.71 \times 10^6 \text{ m}^3$ when the inlet was open.

A regional overview of wave-dominated tidal inlets yielded a generalized life-cycle model based on the rotational nature of tidal inlets when they were active. Wave-dominated tidal inlets may form by landward- or seaward-directed breaching and are classified into three categories based on channel rotation direction: clockwise rotation, counterclockwise rotation, or non-rotation. The rotation of wave-dominated tidal inlets appears to be primarily controlled by the lateral shifting of the FTD depocenter in response to available accommodation space. Flood-tidal delta deposits will fill in and thus exhaust accommodation space locally within the estuary (i.e., creating bathymetric highs), and over time, cause the tidal inlet to become less hydraulically efficient. It

appears that the natural process of a wave-dominated tidal inlet is to rotate and wane, because of excess sediment deposition within the flood-tidal delta. The critical variables that are responsible for overall tidal inlet rotation are tidal prism, sediment supply, and accommodation space.

CHAPTER ONE: INTRODUCTION

Statement of the Problem

Barrier islands represent some of the most dynamic environments on Earth (Leatherman, 1979; Davis, 1994; McBride, 1999; Buynevich and Donnelly, 2006; Buynevich et al., 2007; Hayes and FitzGerald, 2013; McBride et al., 2013; Seminack and Buynevich, 2013; Seminack and McBride, 2015). One single storm event can drastically alter a barrier island. The most severe geologic signature of an intense storm is tidal-inlet formation. Tidal inlets serve as 1) a conduit between the open ocean and the backbarrier estuary; 2) as zones of sand storage and sediment exchange between adjacent barrier systems; 3) as areas of increased hydrodynamic activity (waves and currents affecting previously sheltered estuarine areas); and 4) as legal geographic boundaries (Kumar, 1973; FitzGerald, 1988). Former tidal-inlet channels can help provide insight into barrier-island evolution and its response to storms. Tidal inlets typically form during, and are modified by storms, and thus both inlet-related and post-inlet successions may be used to reconstruct storm activity (Buynevich, 2003; Buynevich and Donnelly, 2006). These geomorphic features can affect the distribution of sediment replenishment along the entire span of the barrier island (FitzGerald, 1988).

Although research has been conducted regarding location, morphology, and inlet-fill deposits of closed or relict tidal inlets (Fisher, 1962; Kumar and Sanders, 1974; Moslow and Tye, 1985; McBride and Moslow, 1991; McBride, 1999; Buynevich, 2003; Buynevich and FitzGerald, 2003; McBride and Robinson, 2003; Buynevich and

Donnelly, 2006; Seminack and Buynevich, 2013), little attention has focused on reconstructing the dynamics (i.e., tidal prism, activity phase, and migration direction & rate) of former tidal inlets and the evolutionary stages of inlet activity (e.g., tidal-inlet life-cycle model). Understanding the influence of tidal inlets and their associated sand shoals on barrier and back-barrier morphodynamics is a key step in assessing the response of minimally developed barriers to external forcings, such as intense storms and relative sea-level rise. Storm impacts, such as the November 2009 extra-tropical storm known as Nor'Ida (2009), Hurricane Irene (2011), and Hurricane Sandy (2012) underscore the importance of alongshore variability in barrier morphology. Whereas the fringing back-barrier saltmarsh has undergone minor changes within the historical period, former tidal-inlet sites have added geomorphic and subsurface complexity to the barrier lithosome and paleo-hydraulics. More information on the life cycles of tidal inlets is required in order to gain a better understanding of how these geomorphic features affect the barrier island as a whole. Further analysis of such events can provide valuable information regarding barrier-island evolution, breaching cyclicity, and localized temporal changes in tidal prism, thus leading to the development of a life-cycle model for tidal inlets. A detailed analysis of geomorphic features (e.g., inlet-closure ridges, beach ridges, and recurved-spit ridges) in conjunction with geophysical surveys and sediment coring, will provide the foundation for formulating a tidal-inlet life-cycle model along wave-dominated barrier islands.

Former tidal-inlet deposits may comprise a significant portion of barrier-island stratigraphy, as much as 30-50% in some locations (Moslow, 1984; Leatherman, 1985;

Moslow and Tye, 1985). Much information regarding barrier-island evolution and storm activity can be extracted by studying former inlet features. Fisher (1962) identified relict geomorphic features to locate former tidal inlets along the Outer Banks, NC. Geomorphic features of former tidal inlets include relict flood-tidal deltas, relict flood-tidal delta channels, relict-inlet ridges, relict-inlet ponds, and interrupted beach ridges (Fisher, 1962). Later, Fisher (1967a) followed up this study by identifying beach ridge sets (including recurved-inlet ridges) to create a new model of barrier-island formation by prograding spits. Many studies have shown that wave-dominated barrier islands are especially prone to breaching and tidal-inlet formation (Moslow and Heron, 1978; Fisher, 1982; Davis and Hayes, 1984; Oertel and Kraft, 1994; FitzGerald, 1996; McBride, 1999; FitzGerald et al., 2001; Buynevich and Donnelly, 2006; Buynevich et al., 2007; Hayes and FitzGerald, 2013; Seminack and McBride, 2015). Therefore, relict-inlet features serve as an excellent proxy to study barrier-island evolution along wave-dominated coasts.

Specific works of importance to this study are Kumar and Sanders (1974) and Moslow and Tye (1985). The qualitative findings of these studies documented a fining upward, vertical grain-size trend within tidal-inlet fill deposits. Unfortunately, both studies lacked quantitative grain-size data analysis. A more quantitative example is needed. Seminack and Buynevich (2013) may have been the first study to demonstrate detailed high-resolution grain-size analysis from an inlet-fill succession. Few studies have discussed the life-cycle process of a tidal inlet. Another study of importance is Greenwood and Keay (1979) in which they monitor a small breach in the Kouchibouguac

Bay, New Brunswick and analyze its morphologic and hydrodynamic changes throughout its lifespan. Finally, Krantz (2009) discussed geomorphic features along Assateague Island, especially within the areas that were affected by former tidal inlets. Much of the terminology he introduced is utilized in this study.

Research Questions

An in-depth analysis of former tidal inlets along Assateague Island, MD-VA may reveal valuable information regarding the evolution of the barrier island, as well as the manner in which Assateague Island is affecting other barrier islands along the Delmarva Peninsula (Figure 1). The following are the specific questions addressed in this research:

1. *What are the specific geomorphic features that are associated with former tidal inlets along Assateague Island?*
2. *What is the three-dimensional architecture of inlet-fill deposits of former tidal inlets along Assateague Island?*
3. *Does tidal-inlet fill always fine upward?*
4. *What were the activity phases and tidal prisms of former tidal inlets along Assateague Island, and how do they compare to similar inlet systems along other wave-dominated barrier islands, operating in a regime of Late Holocene sea-level rise?*
5. *What caused the former Green Run Inlet to close?*
6. *Why does the former Sinepuxent Inlet lack a well-developed flood-tidal delta?*
7. *Do updrift tidal-inlet dynamics influence the evolution of the recurved spit complex at the southern end of Assateague Island?*

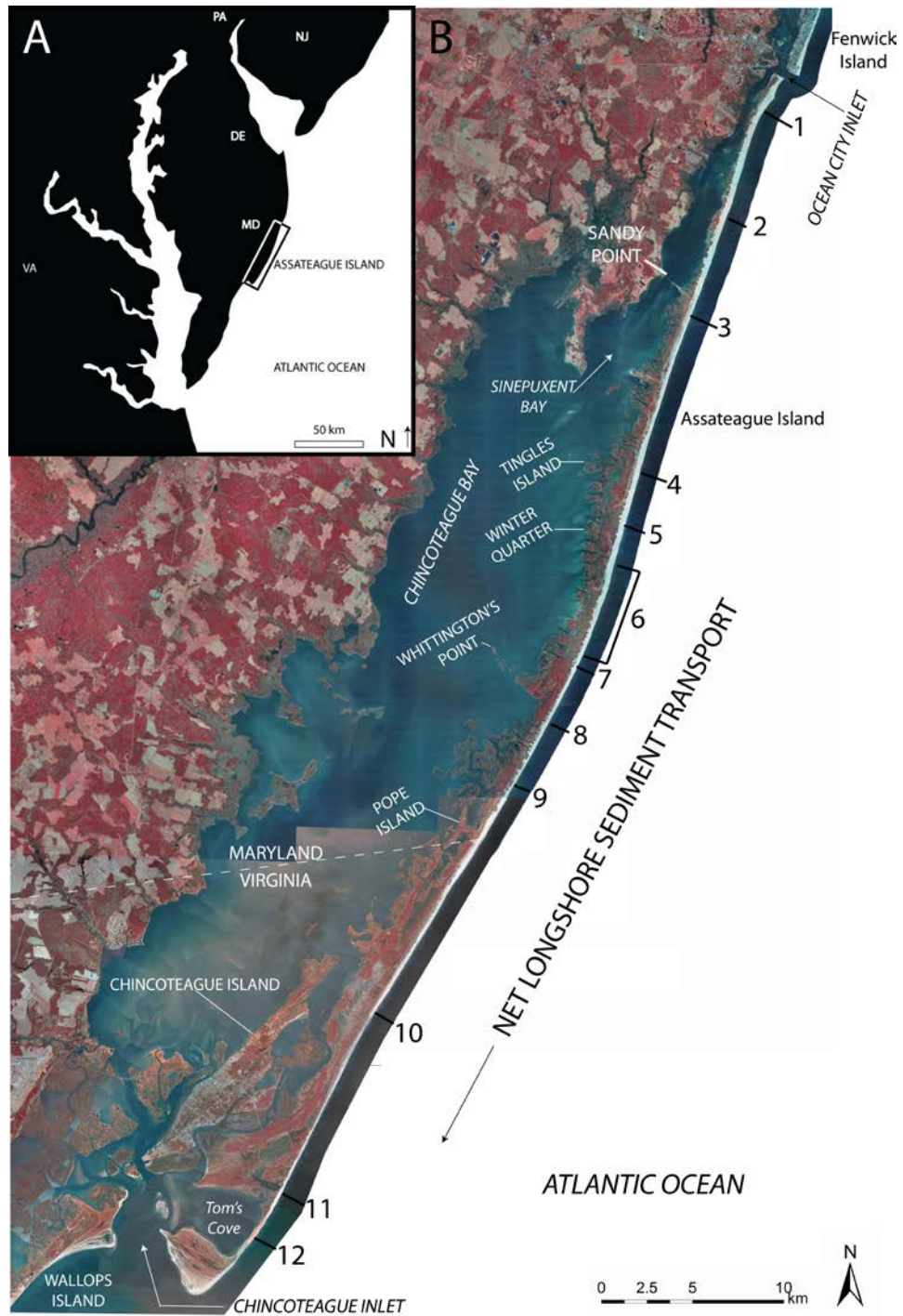


Figure 1: Site location map of the study site. A) Location of Assateague Island along the Delmarva Coast of Maryland and Virginia. The rectangular box indicates the position of Assateague Island. B) Site map of Assateague Island. Twelve former tidal inlets and breach zones were identified along the span of the barrier island: 1) Northern Assateague Breach zone, 2) North Sinepuxent, 3) Sandy Point Inlet, 4) North Beach Inlet, 5) Sinepuxent Inlet, 6) Fox Hills and Winter Quarter Breach zone, 7) Slough Inlet, 8) Green Run Bay Inlet, 9) Green Run Inlet, 10) Cherry Tree Inlet, 11) Swan Pool Breach, and 12) Tom's Cove Breach zone.

Multiple Working Hypotheses

The concept of “multiple working hypotheses” was developed by Chamberlin (1897). Subsequent explanations were provided by Railsback (2004) and Dalrymple (2010). The goal of this notion is to develop multiple hypotheses in order to explain natural phenomena. This exercise allows for the consideration of numerous possibilities and variables that drive natural phenomena. The goal is to be open minded regarding possibilities and not to let one hypothesis take primacy (Dalrymple, 2010). As a result of developing multiple hypotheses, one, multiple, or none of the hypotheses may be disproven. It is perfectly acceptable if some hypotheses contradict each other. On the contrary, all of the multiple working hypotheses may be disproven. In this case, further research is required to explain the natural phenomena. The end goal of creating multiple working hypotheses is to develop more meaningful research. The following multiple working hypotheses were developed:

Why doesn't the former Sinepuxent Inlet have a well-developed flood-tidal delta?

1. The former Sinepuxent Inlet was a breach zone, with multiple short-lived ephemeral breaches that were concentrated within a small area instead of a single channel open for a long duration. The short-lived breaches were not active long enough to deposit a well-developed flood-tidal delta. Instead, multiple, smaller flood-tidal deltas and washover fans were deposited and over time coalesced into one single, amalgamated flood-tidal delta.
2. Vestiges of the proposed Holocene-aged, paleo-barrier-island chain backing Assateague Island extend to the former Sinepuxent Inlet area. When Sinepuxent

Inlet was open, the paleo-barrier islands potentially blocked the inlet throat, thus reducing hydraulic efficiency and caused the inlet to infill soon after opening.

Any flood-tidal delta deposits would have been restricted and concentrated seaward of the hypothesized paleo-barrier islands.

3. The proposed paleo-barrier-island chain along the backbarrier shoreline of Assateague Island inhibited tidal prism of the multiple breaches within the Sinepuxent Inlet area.

What causes wave-dominated tidal inlets to rotate and close?

4. Sediment deposition patterns along the inlet throat cause a wave-dominated tidal inlet to rotate.
5. Wave-dominated tidal inlets rotate as a result of sediment supply and accommodation space.
6. Flood-tidal delta breaching causes a wave-dominated tidal inlet to rotate.

What are the life-cycle stages of a wave-dominated tidal inlet?

7. All wave-dominated tidal inlets have similar stages of evolution during their life cycle.
8. Wave-dominated tidal inlets can be classified into sub-categories based on different stages of evolution during their life cycle.

What updrift factors affect the evolution of the southern recurved-spit complex of Assateague Island?

9. Updrift tidal-inlet activity controls the growth of the southern recurved-spit complex of Assateague Island as described by Goettle (1978 and 1981).
10. Offshore accommodation space controls the growth of the southern recurved-spit complex of Assateague Island.
11. A flux in sediment volume transported alongshore affected the growth of the southern recurved-spit complex of Assateague Island.
12. The growth of the southern recurved-spit complex of Assateague Island is controlled by a combination of factors (e.g., updrift tidal-inlet activity, accommodation space, and flux in alongshore sediment volume.)

Overall Goal and Scientific Objectives

The primary goal of this study is to develop a general life-cycle model of wave-dominated tidal inlets and to evaluate the downdrift impacts of former tidal inlets on the evolution of the recurved spit complex at the southern end of Assateague Island. This study aims to accomplish these goals by evaluating geomorphic features of former inlets along the span of Assateague Island and constructing the geologic framework of the former Green Run and Sinepuxent Inlets based on ground-penetrating radar (GPR) data and sediment cores.

The primary objectives of this study are as follows:

1. Develop a detailed inlet chronology throughout the historical period for Assateague Island using historical maps, aerial photography, satellite imagery, and LIDAR data.
2. Construct detailed vertical grain-size trends from tidal-inlet-fill deposits using samples from sediment cores.
3. Reconstruct the three-dimensional stratigraphic architecture of Green Run and Sinepuxent Inlets utilizing sediment cores and GPR data.
4. Reconstruct the morphodynamics of the former Green Run and Sinepuxent Inlets, including inlet throat cross-sectional area and tidal prism.

Scope of the Study

The scope of the study is limited to former tidal inlets along Assateague Island, especially the detailed morphostratigraphic dynamics of the former Green Run Inlet and Sinepuxent Inlets. The data sets developed from this study will be compared to other life-cycle models of wave-dominated tidal inlets along the U.S. Atlantic coast.

Significance of Research

The study of former tidal inlets is of significance to municipalities within coastal settings. Tidal-inlet activity may cause sediment starvation along the barrier island for 10s of kilometers downdrift. A more in-depth understanding of tidal-inlet dynamics may lead to better prediction of the effects of these downdrift erosional hot spots, as well as

understanding significant variables in the development of offshore sand shoals utilized for beach replenishment.

In a regime of accelerated sea-level rise and increasing frequency of intense storms (Emanuel, 2005; Webster et al., 2005; Mann and Emanuel, 2006; Engelhart et al., 2009; and Kemp et al., 2009), barrier islands are prone to large-scale erosional events, as well as continued landward migration. The geological legacy of former tidal inlets can help provide insight into the evolution of the barrier island and its response to intense storms.

This study identifies and describes geomorphic features of wave-dominated tidal inlets that may have been overlooked in previous studies. Such geomorphic features may be a much more common occurrence than previously thought. Therefore, information within this study has wide applications to other mixed-energy, wave-dominated barrier islands within the United States (e.g., Outer Banks, North Carolina; central New Jersey; and Fire Island, New York; Texas coast) and throughout the world (e.g., Australia, Africa, southern Brazil.) In addition, applications from this study extend to the ancient rock record (FitzGerald et al., 2012).

Ancient lithified tidal-inlet deposits are an economically valuable resource in the oil and gas industry (Cheel and Leckie, 1990; Dalrymple et al., 1992). Sandstones formed from tidal-inlet deposits in conjunction with ebb-tidal delta sandstones serve as excellent reservoir rock and are often associated with estuarine shales, which thus create small-scale stratigraphic traps that house petroleum reserves (Willis and Moslow, 1994). Oil reservoirs such as Senlac Heavy Oil Pool, Saskatchewan; and Tyler Formation &

Madison Group, North Dakota originate from wave-dominated barrier island depositional settings (Barwis, 1990; Zaitlin and Schultz, 1992). Oil production from these reservoirs are significant, with total production from the Tyler Formation and Madison Group estimated at 150 million barrels of oil each (Barwis, 1990). A more detailed morphostratigraphic understanding of modern tidal-inlet complexes will aid in better delineation of these economically significant ancient depositional settings. A better understanding of depositional setting mechanics for these ancient coastal features can assist in more accurate stratigraphic trap identification, thus leading to more efficient oil production (Barwis, 1990; Willis and Moslow, 1994).

CHAPTER TWO: REGIONAL SETTING

Assateague Island is a mixed-energy, wave-dominated barrier island that straddles the Maryland-Virginia border (Figure 1). The 58-km long barrier island has an average significant wave height of 1.11 m at Ocean City Inlet, MD and 1.15 m at Chincoteague Inlet, VA (United States Army Corps of Engineers, 2015). The largest significant wave heights tend to come from a due east to an east-southeast direction (Figure 2; United States Army Corps of Engineers, 2015). Winds tend to originate from the northwest and south-southwest the majority of the time; however, the strongest winds occur from the north-northeast and northeast directions (Figure 2; United States Army Corps of Engineers, 2015). Tidal range along Assateague Island varies slightly between its northern and southern ends. It is bordered to the north by Ocean City Inlet, which has a mean tidal range of 0.64 m and a mean spring tidal range of 0.75 m, with a spring tidal prism of $2.3 \times 10^7 \text{ m}^3$ (Table 1; Dean and Perlin, 1977; National Oceanic and Atmospheric Administration, 2014). Assateague Island is bounded to the south by Chincoteague Inlet, which has a mean tidal range of 0.66 m and a spring tidal range of 0.76 m, with a spring tidal prism of $4.42 \times 10^7 \text{ m}^3$ (Table 1; Jarrett, 1976; National Oceanic and Atmospheric Administration, 2014). Net longshore sediment transport moves in a southerly direction with $1.15 - 1.50 \times 10^5 \text{ m}^3$ of transported sediment annually (Table 1; Dean and Perlin, 1977). Assateague Island is an excellent natural laboratory because it is uninhabited and subjected to minimal anthropogenic influences, allowing for excellent preservation of surficial geomorphic features and subsurface deposits. A two-

mile segment of Assateague Island is maintained by the Maryland Department of Natural Resources as a State Park, with the remainder of the Maryland portion of the barrier island federally maintained as a National Seashore by the U.S. National Park Service. The U.S. Fish and Wildlife Service maintains the Virginia portion of the barrier island as a wildlife refuge, with some exceptions.

Table 1: Quantified coastal processes of Assateague Island, MD-VA.

	Ocean City Inlet	Chincoteague Inlet
Mean tidal range (m)	0.64*	0.66†
Spring tidal range (m)	0.75*	0.76†
Average significant wave height (m)	1.15‡	1.11‡
Net longshore sediment transport direction	South	South
Net longshore sediment transport rate (m ³)	1.15×10^5 to 1.50×10^5 §	2.7×10^5 §
Tidal prism (m ³)	2.3×10^7 *	4.42×10^7 †
*Dean and Perlin, 1977; National Oceanic and Atmospheric Administration, 2014		
†Jarrett, 1976; National Oceanic and Atmospheric Administration, 2014		
‡U.S. Army Corps of Engineers, 2015		
§Dean and Perlin, 1977; Underwood and Hiland, 1995; Kraus, 2000		

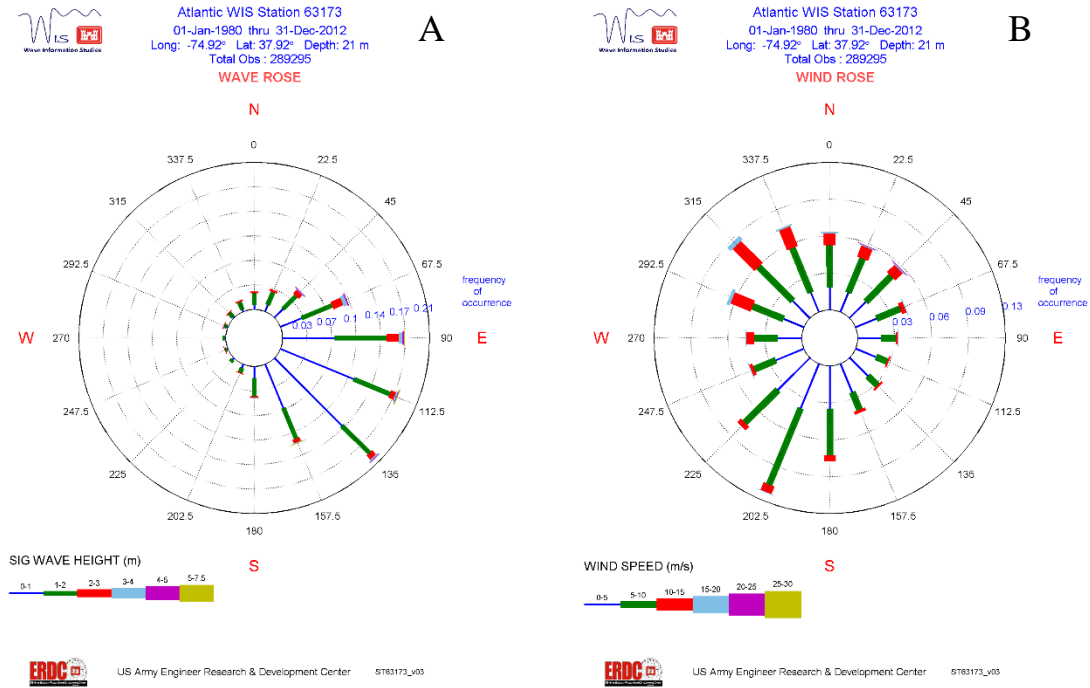


Figure 2: Rose diagrams showing direction and occurrence of waves and wind along Assateague Island, MD-VA. A) Rose diagram demonstrating significant wave height direction and duration. B) Rose diagram demonstrating wind direction and duration (United States Army Corps of Engineers, 2015).

Four coastal types or elements characterize the open-ocean coast of the Delmarva Peninsula: cusplate spit; eroding headland; mixed-energy, wave-dominated barrier spit and barrier islands; and mixed-energy, tide-dominated barrier islands (Figure 3; Fisher, 1967b, 1982; McBride and Moslow, 1991; Oertel and Kraft, 1994). The northern cusplate spit of the Delmarva Peninsula is Cape Henlopen, DE, which sits at the mouth of the Delaware Bay. Bethany Beach, DE is located along the eroding headland. Fenwick Island, MD and Assateague Island, MD-VA are representative of the mixed-energy, wave-dominated barrier spit and barrier islands, respectively, along the Delmarva Peninsula. Finally, the mixed-energy, tide-dominated barrier islands extend south from

Wallops Island, VA to Fishermans Island, VA at the mouth of the Chesapeake Bay and are collectively known as the Virginia barrier islands.

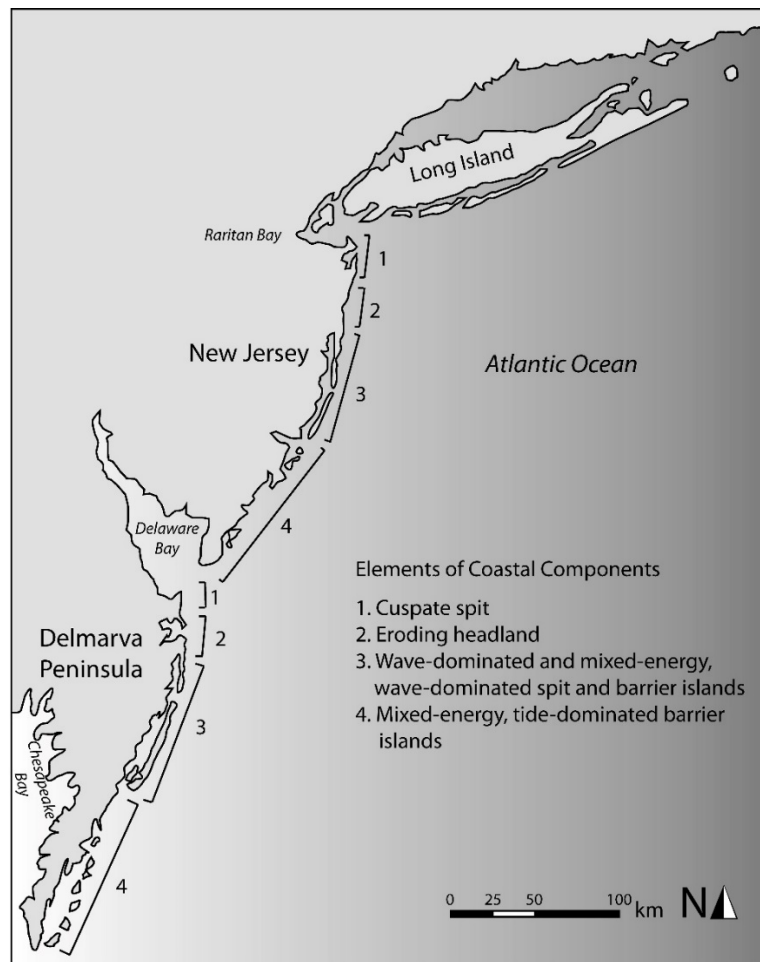


Figure 3: The four repeating shoreline elements or types along coastal compartments of the Mid-Atlantic Bight (modified from Fisher, 1967b, 1982; McBride and Moslow, 1991; and Oertel and Kraft, 1994).

Geologic History of the Delmarva Peninsula

The Delmarva Peninsula began to form at the end of the Pliocene. It was originally deposited as a large fluvial-dominated delta of the ancestral Susquehanna and

possibly Delaware Rivers during a sea-level highstand (Figure 4; Hobbs, 2004).

Throughout the Pliocene, sea-level fluctuations began to shape the Delmarva Peninsula into the spit that is visible today. During lowstands, the James, York, Rappahannock, Potomac, and Susquehanna Rivers would traverse across the land that the Delmarva Peninsula would later occupy and eventually across the continental shelf. The Susquehanna River likely drained into the Washington Canyon, while the more southerly rivers likely drained into the Norfolk Canyon (Figure 5; Hobbs, 2004).

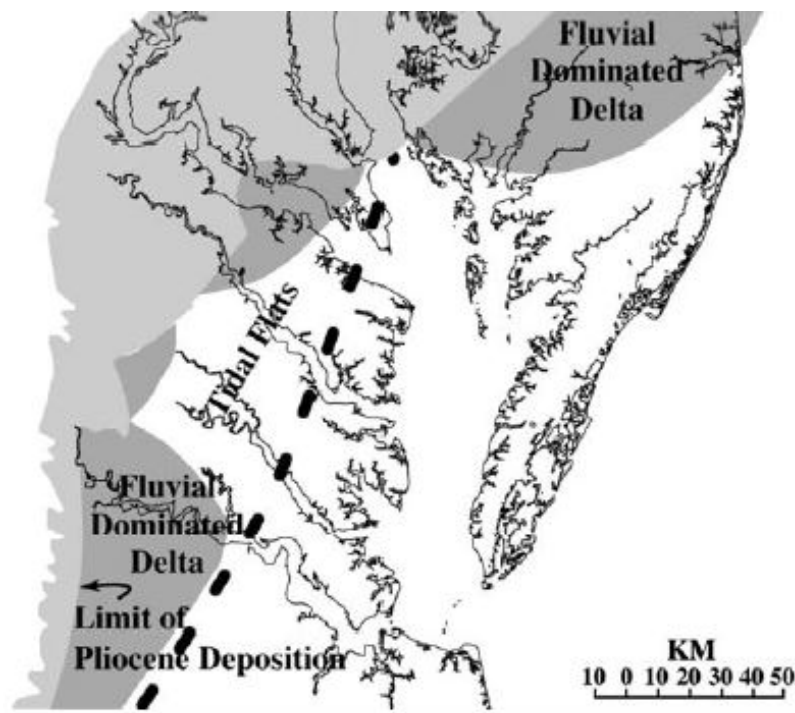


Figure 4: General geography of the Delmarva Peninsula region during a transgression in the late Pliocene (from Hobbs, 2004).

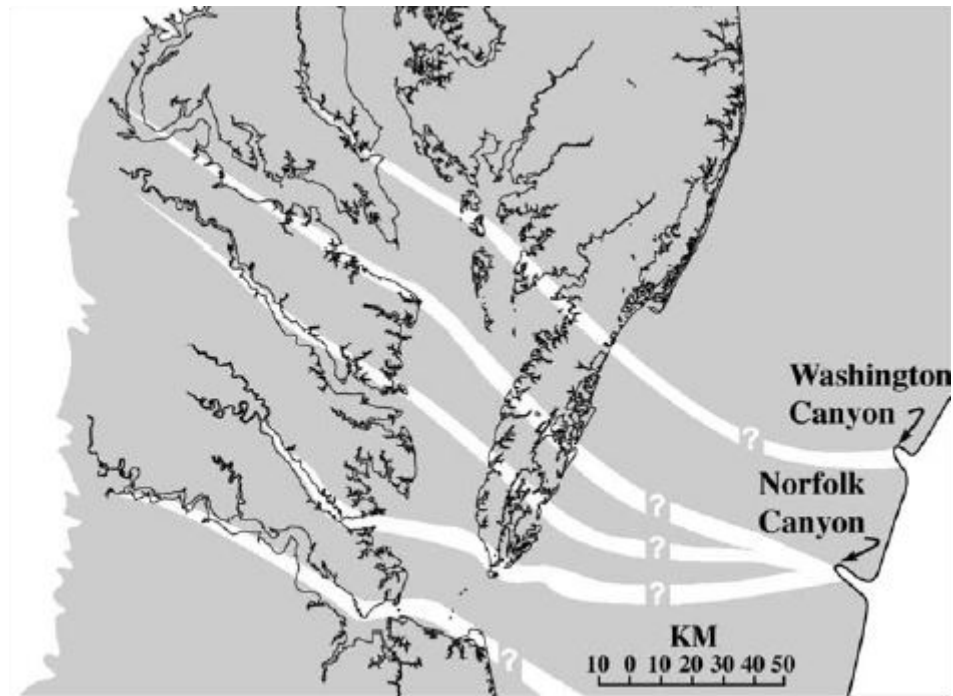


Figure 5: Evolution of the Delmarva Peninsula during a Late Pliocene lowstand (from Hobbs, 2004). The Susquehanna River likely flowed into the Washington Canyon during this time, while the more southerly rivers flowed into the Norfolk Canyon.

During a transgression in the early Pleistocene, the proto-Delmarva Peninsula, known as the Accomack Spit, extended south and thus created the first eastern boundary of the proto-Chesapeake Bay (Figure 6; Hobbs, 2004). As the proto-Delmarva Peninsula laterally extended further to the south, the fluvial drainage channels that now underlie it also migrated in a southerly direction (e.g., the Exmore and Belle Haven Channels; Figures 7 and 8). The Nassawadox Spit, an extension of the Accomack Spit, formed a configuration similar to the present day Delmarva Peninsula in Marine Isotope Stage (MIS) 9 or 7 (Figure 9; Hobbs, 2004). The sea-level lowstand of MIS 4 and 2 forced the drainage channels to further migrate south and eventually occupy Cape Charles Channel, beneath the present day Fishing Island, VA (Figure 10; Hobbs, 2004). Finally, the most

recent transgression of MIS 1 molded the Delmarva Peninsula into the configuration that exists today (Figure 11; Hobbs, 2004).

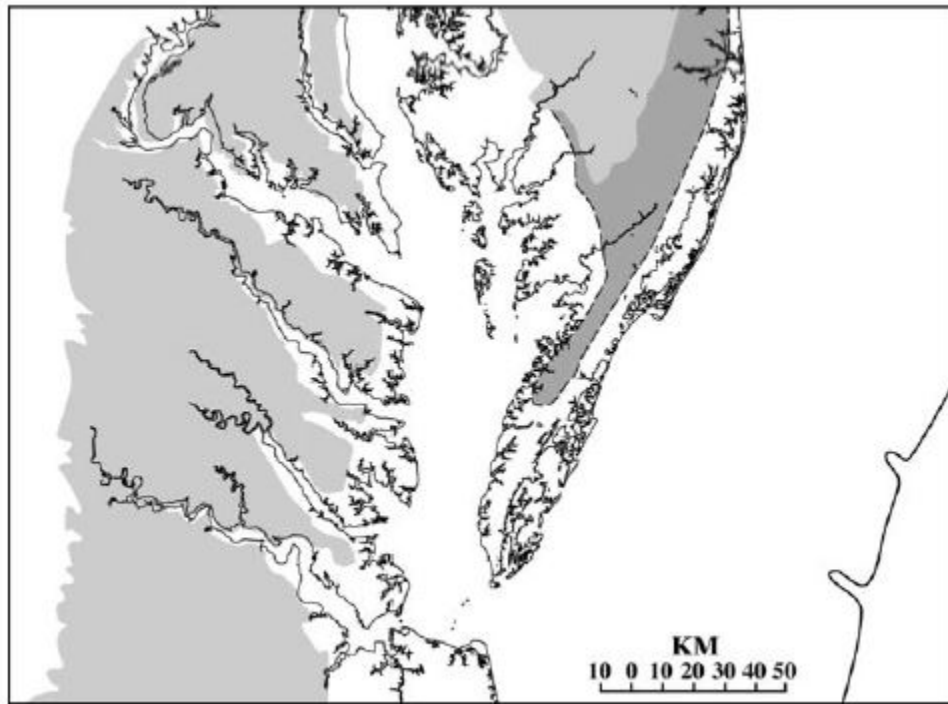


Figure 6: Highstand during the early Pleistocene (MIS 13 or 11) which shows the growth of the Accomack Spit (darker shaded area; from Hobbs, 2004).

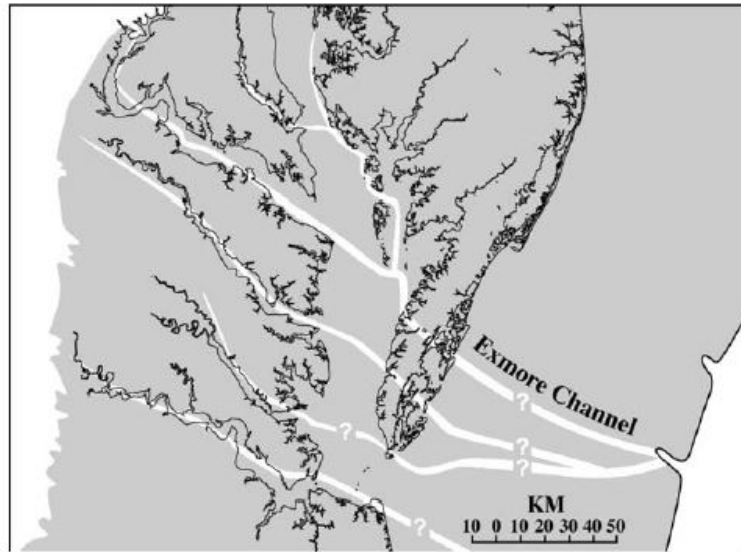


Figure 7: Pleistocene lowstand (MIS 12 or 10) showing the location of the Exmore Channel, which underlies the modern Delmarva Peninsula (from Hobbs, 2004).

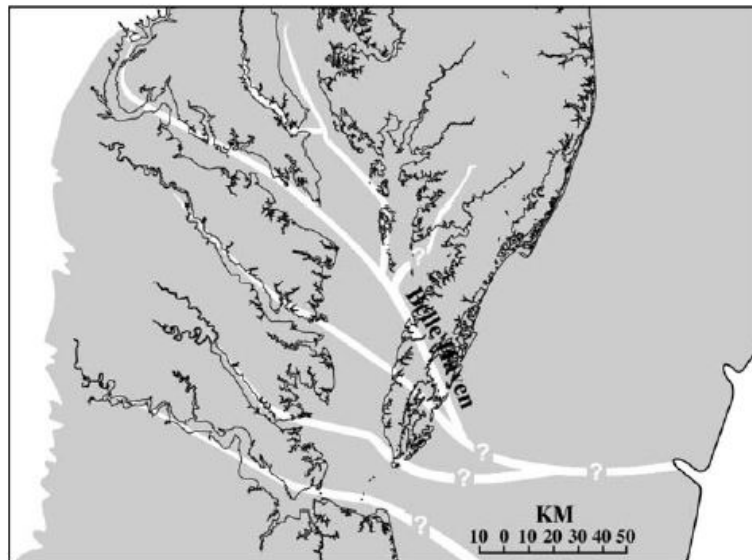


Figure 8: Pleistocene lowstand (MIS 10 or 8) showing the location of the Belle Haven Channel, which underlies the modern Delmarva Peninsula (from Hobbs, 2004).

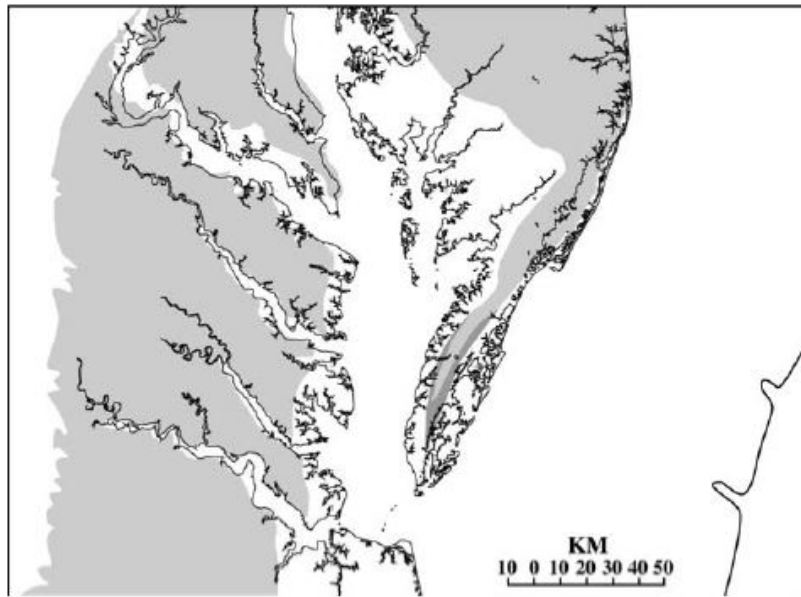


Figure 9: Pleistocene highstand (MIS 9 or 7) showing the growth of the Nassawadox Spit (dark gray shaded area; from Hobbs 2004).

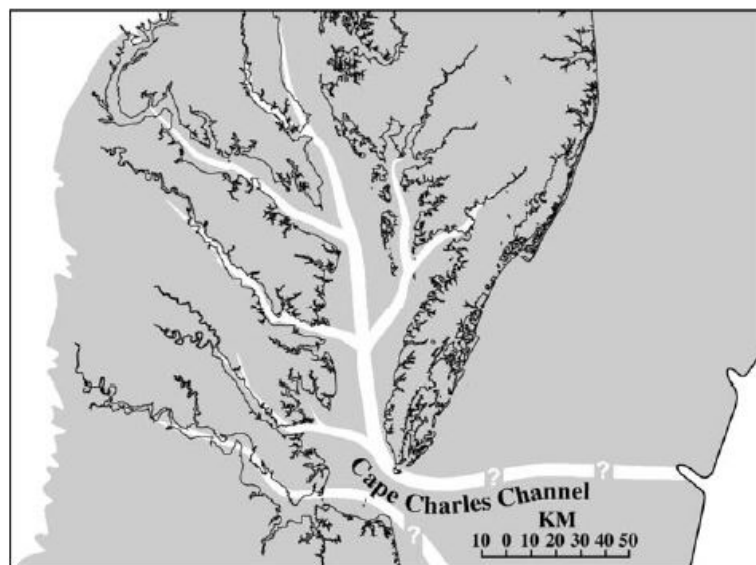


Figure 10: Pleistocene lowstand (MIS 4 and 2) showing the location of the Cape Charles Channel (from Hobbs, 2004).



Figure 11: The Delmarva Peninsula as it presently exists. "C" refers to the Chesapeake Channel (~10 km displacement of the Cape Charles Channel; Figure 10) and "TS" refers to the modern Thimble Shoals Channel (a lowstand channel of the James River; from Hobbs, 2004).

Storm History

Because of its location along the U.S. Mid-Atlantic open-ocean coast, Assateague Island is vulnerable to the impacts of tropical and extra-tropical storms. Extra-tropical storms usually affect the U.S. Mid-Atlantic coast from October to May. These storms are called "Northeasters" or "Nor'easters" when they move out over the Atlantic Ocean and travel along the coast because the wind circulation of the storms rotates counterclockwise and the strongest onshore winds are typically from the northeast (Davis and FitzGerald, 2004). Notable extra-tropical storms that have impacted Assateague Island are the 1962 Ash Wednesday storm, the February 1998 storm, and Nor'Ida in 2009. Tropical storms

and hurricanes have also had an extensive effect on Assateague Island. The most notable hurricane to affect Assateague Island was the 1933 (Chesapeake-Potomac) Hurricane, which breached the barrier and formed Ocean City Inlet, thus separating Assateague Island from Fenwick Spit. Other, more recent hurricanes that have impacted the island are Hurricanes Gloria (1985), Irene (2011) and Sandy (2012). See Table 2 for a summary of Assateague Island significant storm names, types, and dates of impact.

Table 2: Assateague Island storm names, types, and dates of impact.

Storm Name	Type	Date
Chesapeake–Potomac Hurricane	Tropical	August 23, 1933
Ash Wednesday Storm	Extra-tropical	March 6–8, 1962
Hurricane Gloria	Tropical	September 27, 1985
February 1998 Storm	Extra-tropical	February 4, 1998
Nor'Ida	Extra-tropical	November 12–13, 2009
Hurricane Irene	Tropical	August 27, 2011
Hurricane Sandy	Tropical	October 29–30, 2012

Overwash processes are a signature of a severe storm that impacts a coast.

Leatherman (1979) defines overwash as the continuation of the swash over the crest of the most landward berm (Figures 12 and 13; Shepard, 1973; Hennessy and Zarillo, 1987; Sedgwick and Davis, 2003). The surge entrains sediment from the beach, transports it landward, and deposits it along the backside of the barrier in a fan shape or sheet.

Overwash processes can deposit sediment as far landward as the estuary, depending on the magnitude of the storm (Leatherman and Williams, 1977). Washover fans and overwash processes have been well documented along Assateague Island (Fisher et al., 1974; Fisher and Stauble, 1977; Leatherman et al., 1977; Leatherman and Williams, 1977

and 1983; Leatherman, 1979). Washover fans are characterized by a textural discontinuity including truncated laminations, heavy mineral concentrations, transported roots and debris, shell placer deposits, and ripple marks (Figure 14; Leatherman and Williams, 1977).

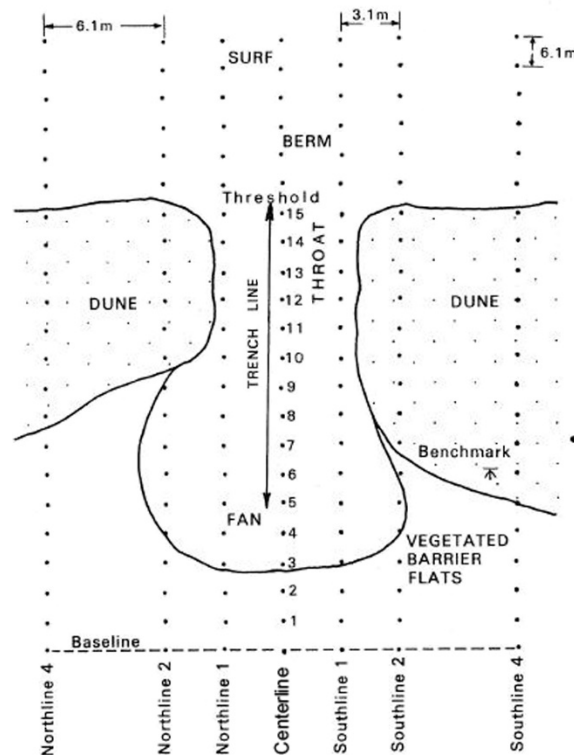


Figure 12: Basic morphology and lateral extent of a washover fan along Assateague Island, Maryland (from Leatherman and Williams, 1977).

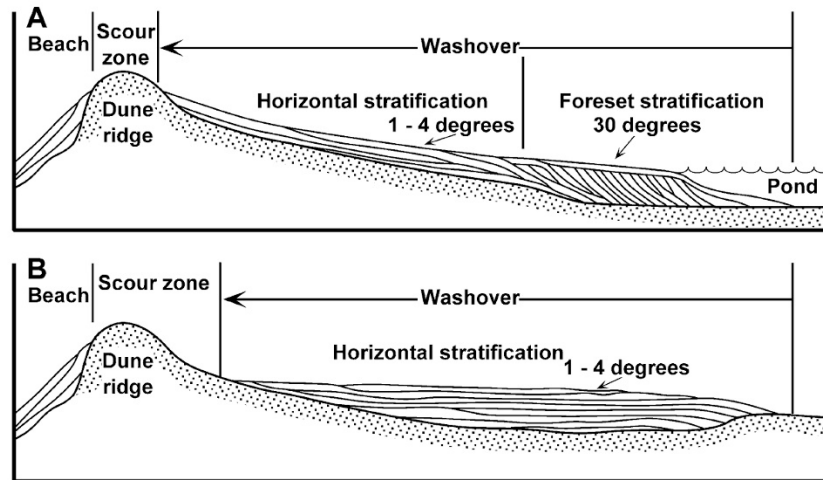


Figure 13: Two depositional models for washover stratification (from Sedgwick and Davis, 2003).

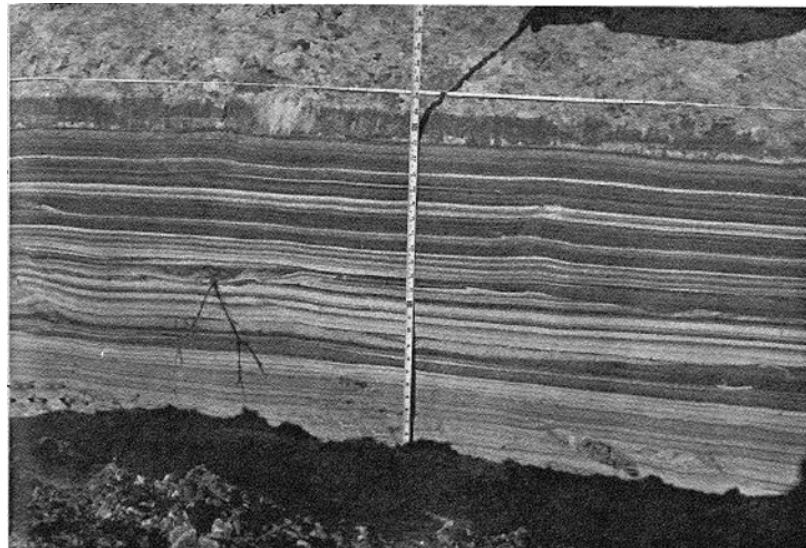


Figure 14: Sidewall of a trench excavated within a washover fan along Assateague Island, MD, showing horizontal stratification and some ripple marks (from Leatherman and Williams, 1977).

Washover fans typically demonstrate inverse grading because of grain-flow (shear sorting), allowing smaller heavy mineral grains to concentrate at the bottom of a unit.

(Sanders, 1965; Sallenger, 1979; Leatherman and Williams, 1982). Inverse grading may also result from dispersive pressures because of grain collision in the flow or a 'kinetic sieve' mechanism, which causes smaller grains to fall to the bottom of a deposit and force the larger grains upward (Figure 15; Bangold, 1954 and 1968; Middleton 1970). On the contrary, a mono-mineralogical depositional unit would demonstrate normal grading (Figure 16; Leatherman and Williams, 1982). In cross-section, washover fans demonstrate a wedge-shaped geometry, with their greatest thickness near the landward portion of the overwash throat (proximal), then thinning toward the estuary (distal), as described by Leatherman and Williams (1977). Tidal inlets and washover fans are genetically related, and therefore their associated deposits can be similar (Pierce, 1970). Hennessy and Zarillo (1987) distinguish between washover and flood-tidal delta deposits, describing washover deposits as tending to be dominated by parallel laminations and contain well-preserved roots, while active flood-tidal delta deposits are dominated by cross-laminae and rarely containing well-preserved roots. They conclude that grain-size characteristics were the least useful method for differentiating between flood-tidal delta and washover deposits, because both depositional settings have a similar sediment source area and grain size (Hennessy and Zarillo, 1987).

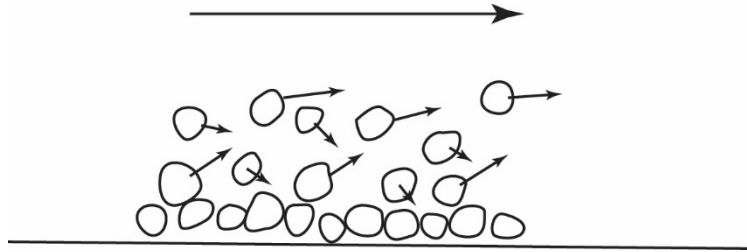


Figure 15: Example of dispersive pressures because of grain collision in the flow or a 'kinetic sieve' mechanism, which causes smaller grains to fall to the bottom of a deposit and force the larger grains upward (modified from Bangold, 1968).

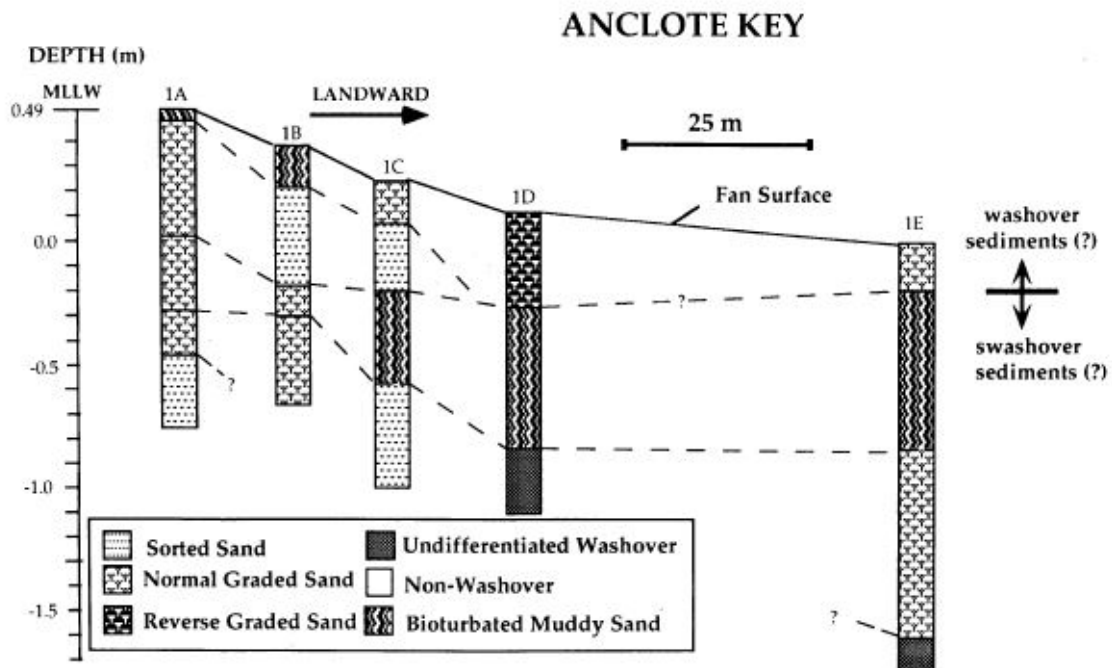


Figure 16: Stratigraphic cross-section from Ancloste Key, FL showing both normal and inverse grading associated with washover deposits (from Sedgwick and Davis, 2003).

The most destructive storm to impact Assateague Island during the historical period was the Ash Wednesday Storm, which occurred on 6-8 March 1962. It was an extra-tropical storm but had a higher than normal storm surge because it coincided with

syzygy and perigee, which were only 31 minutes apart (Wood, 1978). The large nor'easter stalled off the North Carolina coast so that storm surge and waves battered the coast over five perigean spring high tides, causing extensive beach erosion, overwash, and damage to coastal infrastructure. Morton and Sallenger (2003) examined the landward penetration limit of washover deposition and documented that the landward limit of washover deposition varied along Assateague Island from 400 m to 700 m (Figure 17; Morton and Sallenger, 2003).

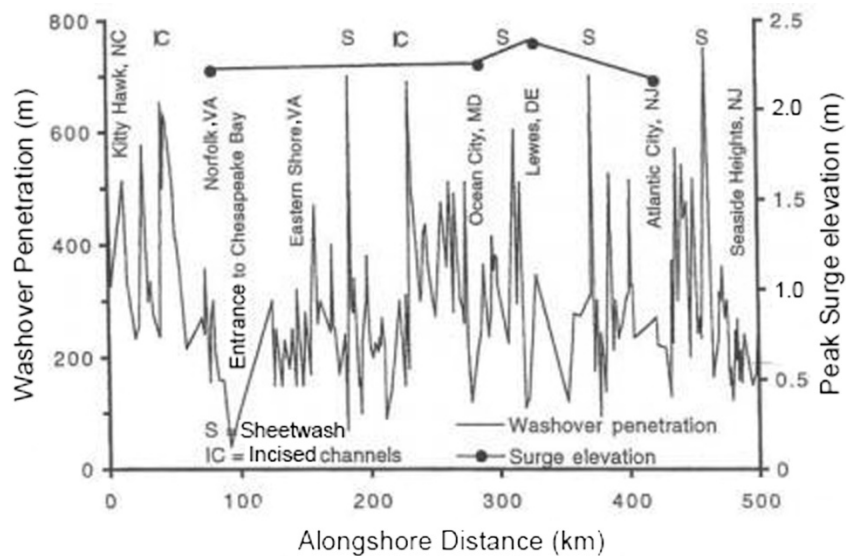


Figure 17: The landward extent of washover deposition from the 1962 Ash Wednesday Storm along the U.S. Atlantic Coast (from Morton and Sallenger, 2003).

Relative Sea-Level Changes

Relative sea-level change widely varies along the entire Delmarva Peninsula. The relative sea-level rates are rising along the Delmarva open-ocean coast at 3.41 mm/yr at

Lewes, DE; 5.73 mm/yr at Ocean City, MD; 3.60 mm/yr at Kiptopeake, VA; and 6.02 cm/yr at the Chesapeake Bay Bridge Tunnel, VA (NOAA, 2014).

Relative sea-level can be defined as the eustatic changes + isostatic changes. The eustatic change is any fluctuation in the volume of the global oceans. The current largest contributor to eustatic changes are melting continental glaciers (Scott et al., 2010).

Isostatic changes include regional or local tectonic changes (Scott et al., 2010). Other factors within the isostatic signal include glacioisostasy (forebulge collapse; Hetherington et al., 2004; Scott et al., 2010), hydroisostasy (the weight of an increased amount of water causing the land to subside; Potter and Lambeck, 2003; Gehrels et al., 2004), and lithoisostasy (the weight of sediment deposits causing the land to subside.; McBride et al., 2013).

During periods of glaciation, portions of the crust beneath continental glaciers subside, while regions peripheral to the ice are uplifted (known as a forebulge; Figure 18; Hetherington et al., 2004). The Delmarva Peninsula was heavily influenced by a forebulge caused by the North American ice sheets during the glacial maxima throughout MIS-6 and MIS-2 (Scott et al., 2010). Uplift as a result of the forebulge could have been as much as 40 m above MSL (Scott et al., 2010). Scott et al. (2010) suggested that the Delmarva Peninsula may be prone to larger amounts of forebulge uplift and collapse than previously thought. The Delmarva Peninsula may still be subjected to further forebulge subsidence, and could still be several tens of meters above its isostatic equilibrium (Scott et al., 2010).

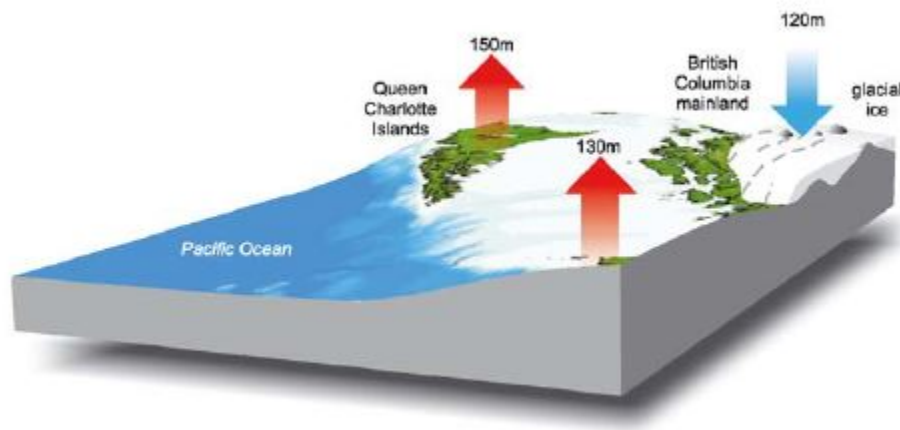


Figure 18: Example of glacial subsidence and forebulge in British Columbia, Canada (from Hetherington et al., 2004).

Historical Shoreline Changes

Hapke et al. (2010) analyzed historical shoreline change along the entire New England and Mid-Atlantic coast and divided the Delmarva Peninsula into two segments: Delmarva North Region and Delmarva South/Southern Virginia Region (Figures 19 and 20). The Delmarva North Region extends from 114 km from Cape Henlopen, DE to Chincoteague Inlet, VA. The Delmarva South/Southern Virginia Region extends 142 km from the south side of Chincoteague Inlet to the Virginia/North Carolina border (Hapke et al., 2010). The average long-term net change (early 1800s to 2006) along the Delmarva North Region was -0.5m/yr, while the short-term net change (1997 to 2006) was -0.8 m/yr (Figure 19; Hapke et al., 2010). The average long-term net change along the Delmarva South/Southern Virginia Region was -2.9 m/yr, while the short-term net change was -2.7 m/yr (Figure 20; Hapke et al., 2010).

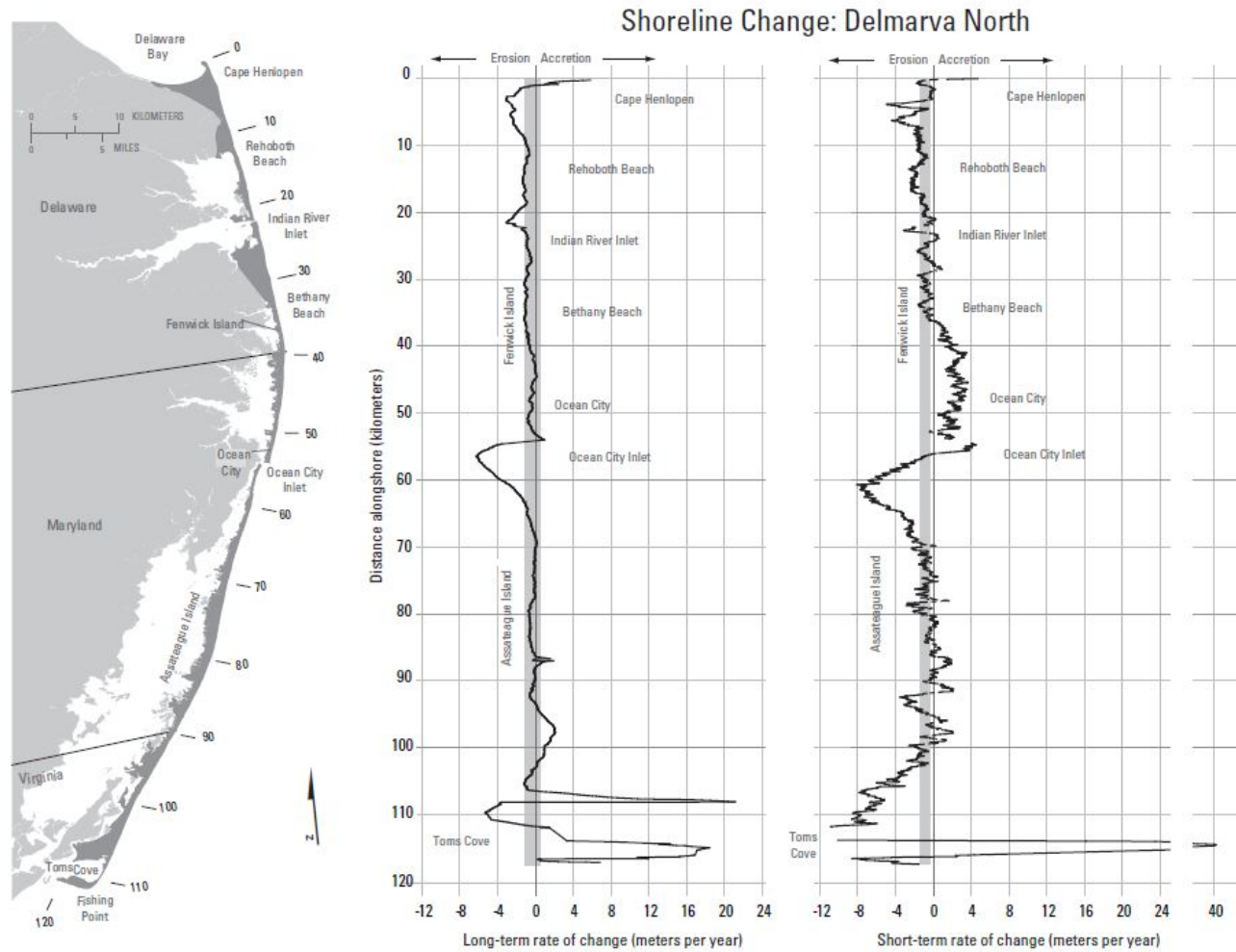


Figure 19: Long-term (early 1800s to 2006) and short-term (1997 to 2006) historical shoreline changes along northern Delmarva Peninsula (from Hapke et al., 2010).

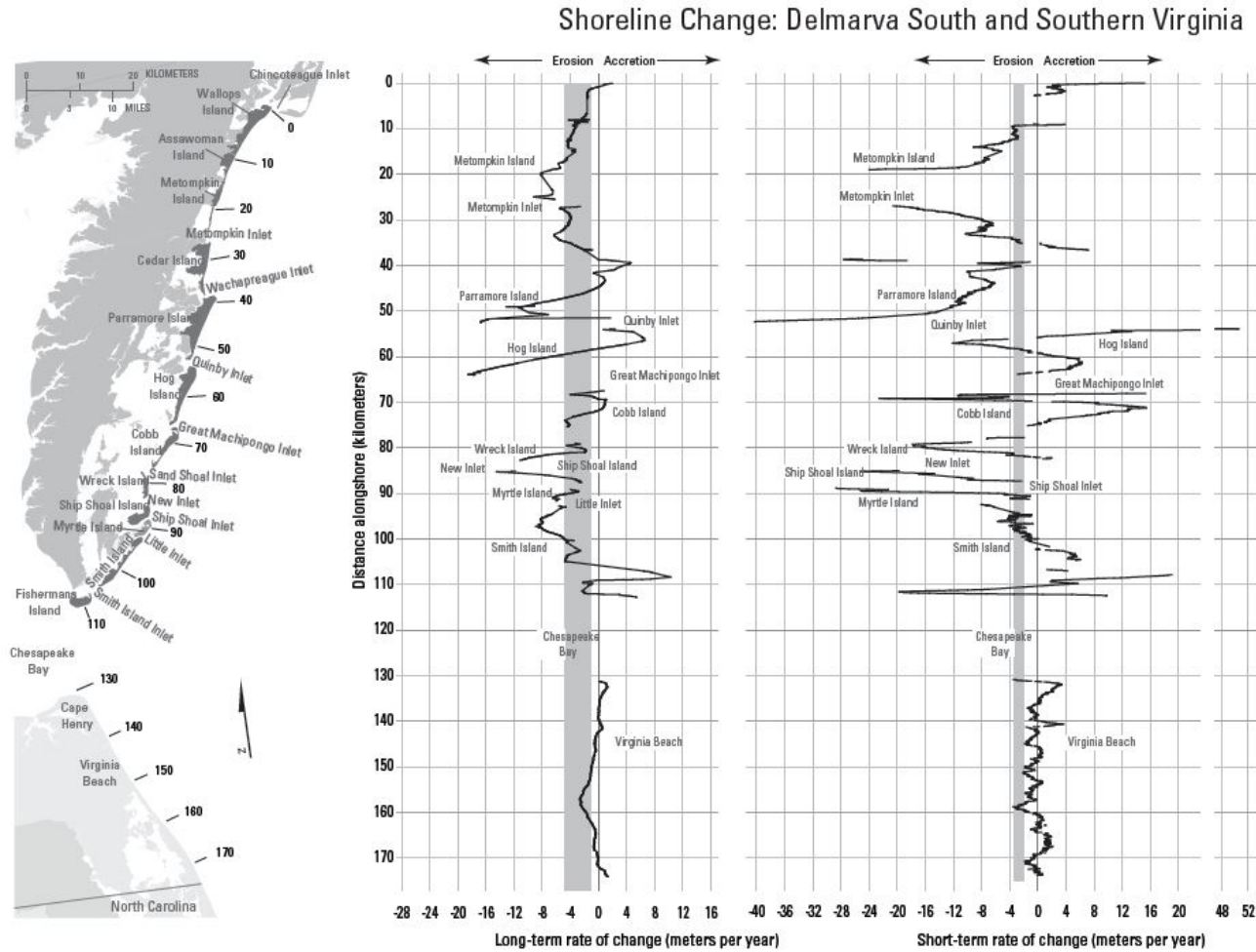


Figure 20: Long-term (early 1800s to 2006) and short-term (1997 to 2006) historical shoreline changes along southern Delmarva Peninsula and southern Virginia (from Hapke et al., 2010).

Historical shoreline changes along Assateague Island are well documented because of the landward migration of the northern 9.7 km portion of the island as a result of jetty construction at Ocean City Inlet in 1935 (Figure 21a; Leatherman, 1979; Pendleton et al., 2004). Downdrift of the inlet, this coastal engineering structure has caused a long-term (early 1800s to 2006) retreat rate of 6.2 m/yr and a short-term (1971 to 2006) retreat rate of 8 m/yr (Hapke et al., 2010). Updrift, Ocean City, MD, has been experiencing a maximum long-term (early 1800s to 2006) advance rate of 1 m/yr and a short-term (1971 to 2006) advance rate of 4 m/yr (Hapke et al., 2010). Leatherman (1979) states that the width of the northern segment of Assateague Island initially thinned because of the jetties; however, the island reached a critical barrier width of 120 m, in which overwash processes became effective in transporting enough sediment across the barrier to compensate for shoreline loss (Leatherman, 1979). This vulnerable barrier-island segment has been stabilized by recent beach replenishment efforts. A two-stage beach replenishment plan began in the mid- to late-1990s and was sponsored by the U.S. Army Corps of Engineers, National Park Service, the state of Maryland, and town of Ocean City. The first stage involved a short-term plan in which a one-time installation of 1.4 million m³ of sand was added in September 2002. The second stage was followed up by adding dredged sediment to the beach twice a year starting in January 2004 (National Park Service, 2006).

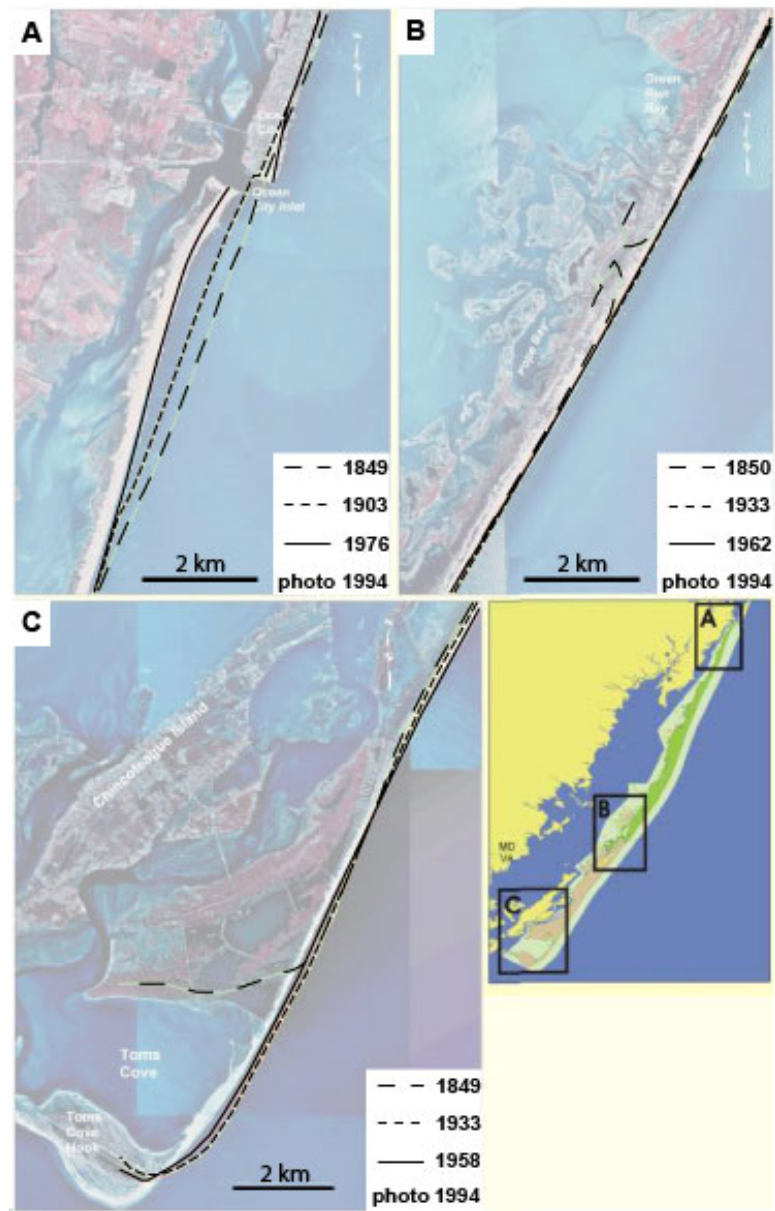


Figure 21: Historical shorelines from 1849 to 1994 of the (A) northern, (B) central, and (C) southern segments of Assateague Island, MD-VA (modified from Pendleton et al., 2004).

The central portion of Assateague Island has transformed from the most vulnerable area along the island to a resilient segment within the historical period (Figure 21b; Pendleton et al., 2004; Seminack and Buynevich, 2013). A breaching event in 1852

formed Green Run Inlet. Processes associated with inlet activity and closure in 1880 caused abundant sediment to be deposited, including a well-developed flood-tidal delta and multiple sets of ridges, including recurved-spit and shore-parallel ridges, thus transforming this barrier segment into a topographically higher area, adding to its resiliency (Seminack and Buynevich, 2013). Minor shoreline change has occurred along this barrier portion since the closure of Green Run Inlet (Pendleton et al., 2004).

The southern segment of Assateague Island is dominated by rapid lateral spit accretion to the south (Figure 21c; Fisher, 1968; Goettle, 1978, 1981). This portion of the island has prograded 6 km to the south since 1849. The large recurved-spit complex of southern Assateague Island and the adjacent Chincoteague Inlet are highly effective sediment traps that starve the downdrift barrier islands of sediment and have caused a large, distinct arc of erosion that extends 35 km downdrift to Parramore Island, VA (Galgano, 2007, 2009; Richardson, 2012; McBride et al., 2015). Goettle (1978 and 1981) hypothesized that lateral spit accretion to the south was controlled by the updrift closure of Green Run Inlet in 1880. While Green Run Inlet was active, it acted as a sediment sink, which was hypothesized to have caused a paucity of sediment along the southern recurved spit. Once it closed, longshore sediment transport was unimpeded to the south. Consequently, rapid lateral spit accretion was reestablished and continues to the present day. This portion of the island has the highest accretion rate in the Mid-Atlantic States, having a long-term advancement rate of 21.5 m/yr (Hapke et al., 2010).

Definitions

Regarding definitions of coastal geomorphic nomenclature, some terms require further clarification so their use is clear when used. The following section aims to elucidate certain terminology.

Breach vs. Tidal Inlet

The terms breach and tidal inlet have often been used interchangeably, especially in the historical record. In general, a breach is a short-term geomorphic feature that is formed in response to a storm impact and typically remains open or active for no more than several weeks or months before being sealed naturally by longshore sediment transport (Kraus et al., 2002; Buynevich and Donnelly, 2006). On the other hand, a tidal inlet develops when a breach captures enough tidal prism to remain open or active on the temporal scale of years to decades or longer (Kraus et al., 2002). It is important to note that in historical documents some inlets remain known as breaches, even though they may be active long enough to be defined as a tidal inlet.

Swash Aligned vs. Drift Aligned Shorelines or Ridges

Swash-aligned and drift-aligned shorelines express the dominant mode and direction of sediment transport along the coastline. Drift-aligned shorelines are dominated by longshore sediment transport, where wave crests are striking the shoreline obliquely (Orford et al., 1991). Recurved-spit ridges can develop when these obliquely-striking waves undergo refraction. Swash-aligned shorelines are formed as a result of wave crests impacting the coast shore parallel or nearly shore parallel, resulting in

onshore sediment transport (shore normal) with minimal or no longshore sediment transport (Orford et al., 1991).

Washaround

Krantz (2009) identifies circular, topographically expressed features formed from overwash processes and refers to them as “washaround” features. These geomorphic features range in size from several meters to 100+ meters wide and two to four meters in height (Krantz, 2009). Some of the larger washaround features have a series of recurved-spit ridges on their northern and southern sides, which extend in a landward direction. These recurved-spit ridges formed as a result of overwash processes wrapping around the topographic highs.

Accommodation Space

Accommodation space plays a critical role in understanding the dynamics of depositional environments. Dalrymple (2010) defines accommodation space as “the space available for potential sediment accumulation.” Within a flood-tidal delta depositional environment, the accommodation space will be the vertical space from the floor of the estuary to its water surface. Accommodation space within the estuary ultimately controls flood-tidal delta location and morphology. In order for a wave-dominated tidal inlet to remain open, the system must continually have access to accommodation space within the estuary.

CHAPTER THREE: LITERATURE REVIEW AND PREVIOUS STUDIES

This section will concisely synthesize the most significant works pertaining to this study. Topics such as barrier-island evolution and morphodynamics, tidal-inlet morphodynamics, tidal prism, and previous work along Assateague Island will be reviewed and the key points will be conveyed.

Barrier Islands

Davis (1994) provides an excellent synthesis of barrier islands. He provides the following definition of a barrier island, “A barrier island is an elongate, essentially shore-parallel island composed dominantly of unconsolidated sediment which protects the adjacent land mass and is separated from it by some combination of wetland environments (Davis, 1994).” Waves and tides represent the two major agents of barrier-island formation and evolution (Davis, 1994). Davies (1964) classified tidal range into three categories: microtidal (< 2 m), mesotidal (2-4 m), and macrotidal (> 4 m). Hayes (1979) and Davis and Hayes (1984) suggest that the morphologic conditions of barrier islands are influenced by the relationship of wave height vs. tidal range. In addition, they supply five coastal settings based on the relationship of wave height vs. tidal range: 1) tide-dominated (high); 2) tide-dominated (low); 3) mixed-energy, tide dominated; 4) mixed-energy, wave-dominated; and 5) wave-dominated (Figure 22; Hayes, 1979; Davis and Hayes, 1984). Barrier islands exist in wave-dominated and mixed-energy, wave-

dominated settings and mixed-energy, tide dominated settings; while barrier islands do not exist in most tide-dominated settings (Davis, 1994).

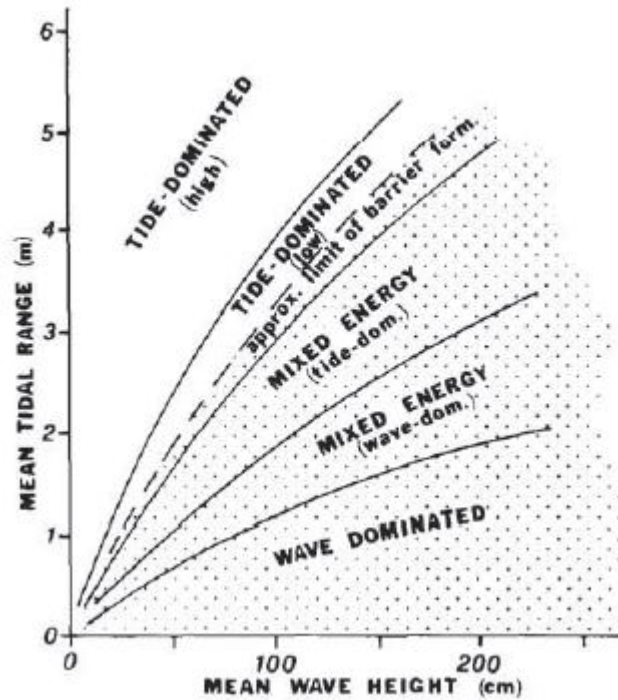


Figure 22: General relationship between tidal range and wave height for barrier island categorization (Hayes, 1979; Davis and Hayes, 1984)

Barrier-island formation has been a controversial topic and the subject of a longstanding debate. The three major theories of barrier-island origin have been proposed by Hoyt (1967), Fisher (1968), and Otvos (1981). Hoyt (1967) proposes that barrier islands originated by submergence. In this theory, Hoyt (1967) suggests barrier islands originate as mainland, shore-parallel, beach ridges. A rise in relative sea level flooded the landward side of the ridges, thus isolating the ridges from the mainland and forming an

estuary. Fisher (1968) proposed that barrier islands originally form as barrier spits. Wave refraction around the downdrift spit terminus causes sediment to weld onto the barrier and continue to grow in a downdrift direction. As the spit continues to grow, it is subjected to breaching events, which isolate the spit from the mainland, thus creating a barrier island. Otvos (1981) proposed a third barrier-island origin theory that involved the emergence of offshore bars.

Generally, three types of barrier morphologies exist: attached barriers, wave-dominated barriers, and mixed-energy barriers (Davis, 1994). The three barrier morphologies are generally unrelated to their mode of formation. Davis (1994) indicates that headlands (a type of barrier attached to the mainland) are common along leading edge, high-relief coasts (e.g., North and South America Pacific coast); however, they also occur along trailing edge, subtle relief coasts (e.g., U.S. Atlantic and Gulf coasts.) Wave-dominated coasts may cause a significant amount of headland erosion and subsequent longshore sediment transport, thus causing a spit to extend from the mainland and protect embayments (Davis, 1994).

A wave-dominated barrier island is characterized by wave action dominating over tidal influence (Figure 23; Hayes, 1979; Davis, 1994). This classification of barrier island produces long, smooth shorelines with few interruptions, in addition to having large, open estuaries (Hayes, 1979; Davis, 1994; Davis and FitzGerald, 2004). Tidal inlets associated with wave-dominated barrier-island settings tend to be unstable (Hayes, 1979; Davis, 1994). Tidal inlets along wave-dominated barrier islands are prone to migration in the direction of longshore sediment transport (Davis, 1994; McBride and Moslow, 1991).

Hayes (1980) characterizes a wave-dominated tidal inlet by having a well-developed flood-tidal delta (fan-shaped sand body deposited landward of the inlet throat) and poorly developed ebb-tidal delta (lobes of sediment deposited seaward of the inlet). Wave-dominated tidal inlets tend to have a smaller tidal prism than mixed-energy, tide-dominated inlets (Davis, 1994; Hayes and FitzGerald, 2013).

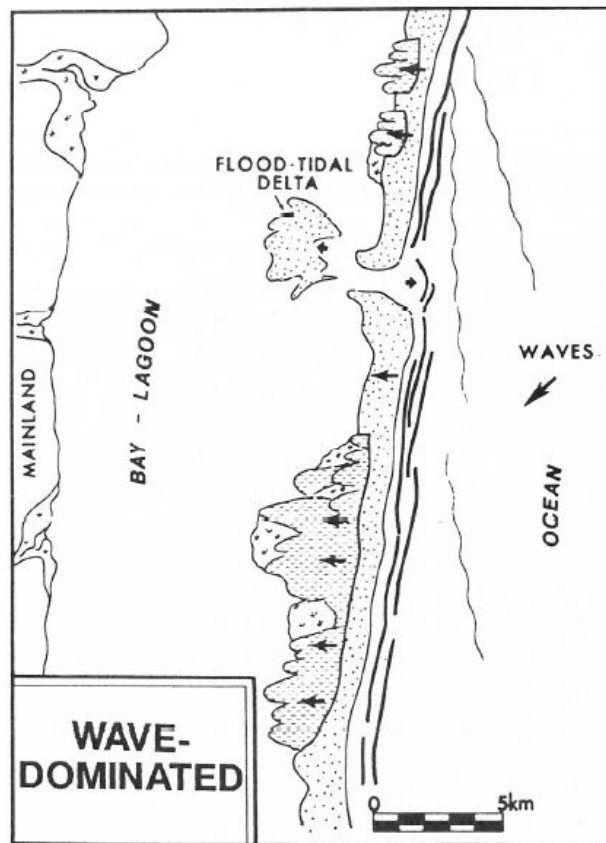


Figure 23: Sketch of a wave-dominated barrier-island system (from Hayes, 1979; and Davis and Hayes, 1984). Note the long and thin shape of the barrier island, an open estuary, and low frequency of active tidal inlets.

Mixed-energy barrier islands occur when the tidal force dominates over wave energy (Figure 24; Davis, 1994). This barrier-island setting tends to contain a higher frequency of tidal inlets (Davis, 1994). Tidal inlets in this setting have large tidal prisms and are characterized by extensive ebb-tidal deltas and poorly-developed flood-tidal deltas because of the estuary being filled with marsh deposits (Hayes, 1980; Davis, 1994; Hayes and FitzGerald, 2013). Wave refraction around the ebb-tidal delta causes a local reversal in the longshore sediment transport direction on the downdrift side of the tidal inlet (Hayes et al., 1970; Hayes and Kana, 1976; Galgano, 1998, 2007, and 2009; Richardson and McBride, 2007 and 2011; and Richardson, 2012). The local reversal in longshore sediment transport direction causes ebb-tidal delta shoals to migrate onshore and weld onto the barrier island involving ridge and runnel processes (Davis, 1994). This sediment welding zone causes the mixed-energy barrier island to have a drumstick shape, with the “meaty” end located on the updrift side of the barrier island and the thinner portion located on the downdrift end (Figure 25; Hayes, 1979; Davis, 1994).

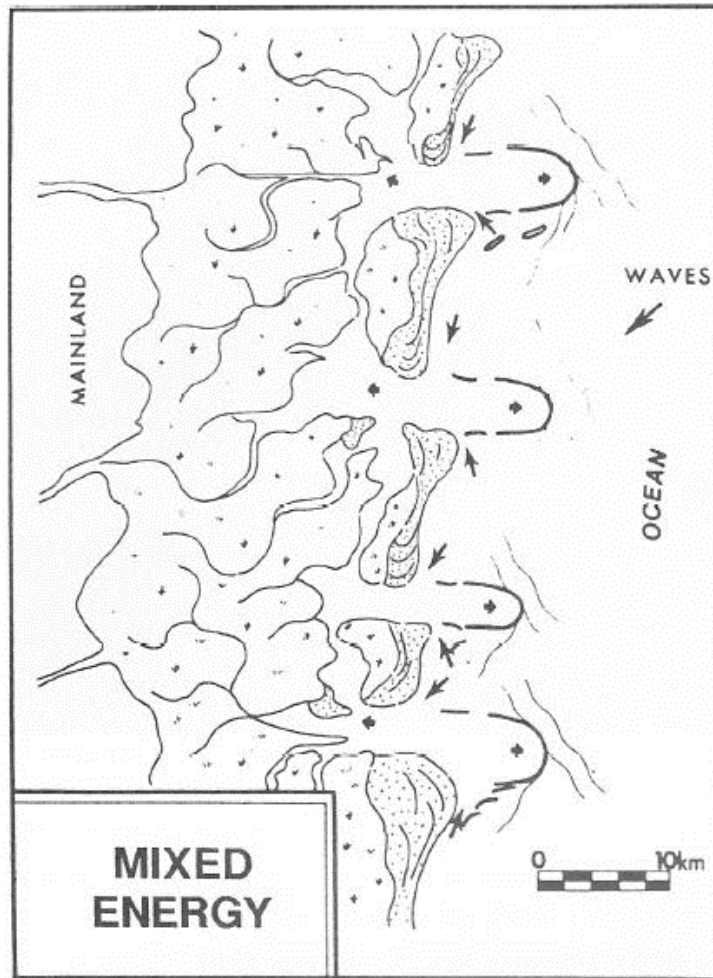


Figure 24: Sketch of a mixed-energy barrier-island system (from Hayes 1979; and Davis and Hayes, 1984). Note the short and stubby shape of the barrier islands, estuary filled with marsh, and high frequency of active tidal inlets.

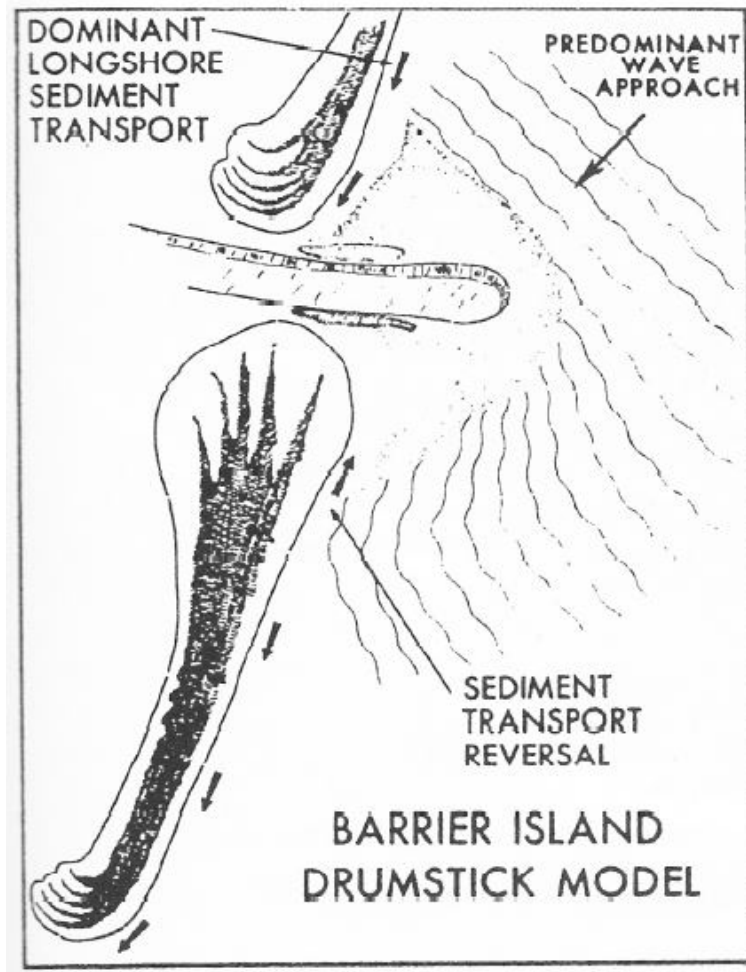


Figure 25: Drumstick model of a mixed-energy barrier island (from Hayes, 1979; and Davis, 1994).

Barrier Breaching

Few studies document the process of barrier breaching (Buynevich and Donnelly, 2006). Kraus et al. (2002) provide a concise summary of the barrier breaching process. Kraus et al. (2002) explain that barrier breaching can occur in one of two ways. A breach may form as a result of running surface water scouring a trough between the ocean and the estuary (Kraus et al., 2002). The surge may originate from the ocean or the estuary. Davis and FitzGerald (2004) suggest that the breach surge more often originates from the

estuary rather than the ocean, when the storm surge is falling but the estuary water levels are still heightened. Kraus et al. (2002) suggest that the contrary is true, and that breaches more often originate from the seaward side during a sustained storm surge. Basco and Shin (1999) developed a one-dimensional model to predict barrier breaching. In their model, they suggest that shorter duration storms produce stronger ebb flows, while longer duration storms produce stronger flood flows (Basco and Shin, 1999). The second mechanism for barrier breaching is for water to seep through the porous, unconsolidated sediment. This process liquefies the sediment and allows for large volumes of water and sediment to be transported as a slurry (Kraus et al., 2002). Kraus et al. (2002) suggest that the aforementioned process is more likely to occur along narrow barrier islands and usually originates from the estuary. The water level does not necessarily have to completely inundate the barrier island for this slurry process to occur (Kraus et al., 2002). Basco and Shin (1999) suggest mean grain size plays a large role in the location of a breach. They state that a mean grain size of 0.4 mm produced the maximum volume loss (Basco and Shin, 1999).

Tidal Prism

Tidal prism is defined as the volume of water flowing through a tidal inlet during one half of a tidal cycle (Jarrett, 1976). Although many studies have attempted to calculate tidal prism based on the relationship between cross-sectional area of the inlet and its tidal prism, four studies are most significant. O'Brien (1931) noted that large inlets were associated with large estuaries, and vice versa regarding small inlets. O'Brien

(1931) determined that the relationship between cross-sectional area of the inlet throat and tidal prism was described by Equation 1. O'Brien (1969) refined the tidal prism calculation to include a relationship with the cross-sectional area of the inlet throat in Equation 2. This refined equation included additional data points, totaling 28 inlets (nine U.S. Atlantic coast, 18 U.S. Pacific coast, and one U.S. Gulf coast; O'Brien, 1969). Jarrett (1976) analyzed the tidal prism to cross-sectional area relationship among the Atlantic, Pacific, and Gulf coasts in the United States for all non-jettied and single jettied inlets (none or only one side of the inlet jettied), double jetties (both sides of the inlet jettied), and all jetty types combined. He performed regression analysis of best fit within a 95 % confidence level for these data categories. In total Jarrett (1976) compiled 162 data points from 108 inlets. Jarrett (1976) concluded thatunjettied and single jettied inlets along the U.S. Atlantic, Pacific, and Gulf coasts exhibit different tidal prism vs. cross-sectional area relationships. Jarrett (1976) produced a total of 12 specific cross-sectional area to tidal prism relationships, of which only Equation 3 is relevant to this study (non-jettied and single jettied Atlantic coast inlets). Richardson (2012) further revised Jarrett's (1976) Atlantic coast, single or non-jettied inlet tidal prism formula to include only non-jettied, U.S. Atlantic coast tidal inlets, known as the Richardson, McBride, and Seminack modified tidal prism formula (Equation 4).

Equation 1: O'Brien (1931) formula demonstrating the relationship between inlet throat cross-sectional area and tidal prism. P represents the spring tidal prism and A represents the cross-sectional area of the inlet throat.

$$A = 4.69 \times 10^{-4} P^{0.85}$$

Equation 2: O'Brien (1969) formula demonstrating the relationship between inlet throat cross-sectional area and tidal prism. P represents the spring tidal prism and A represents the cross-sectional area of the inlet throat.

$$A = 2.0 \times 10^{-5} P$$

Equation 3: Jarrett (1976) formula demonstrating the relationship between inlet throat cross-sectional area and tidal prism for a U.S. Atlantic coast, non-jettied and single jettied inlets. P represents the spring tidal prism and A represents the cross-sectional area of the inlet throat.

$$A = 7.75 \times 10^{-6} P^{1.05}$$

Equation 4: Richardson (2012) formula demonstrating the relationship between inlet throat cross-sectional area and tidal prism for a U.S. Atlantic coast, non-jettied inlet. P represents the spring tidal prism and A represents the cross-sectional area of the inlet throat.

$$P = \left(\frac{A}{2.04 \times 10^{-5}} \right)^{0.926}$$

Tidal Inlet Evolution

Davis and Hayes (1984) suggest that tidal prism is the most important factor in the morphological evolution of a tidal inlet. Levin (1993) confirms this statement by Davis and Hayes (1984). Levin (1993) studied the evolution of tidal inlets along the Mississippi River Delta Plain and linked the evolution of tidal inlets to temporal changes in tidal prism and sediment supply. Greenwood and Keay (1979) tracked the evolution of an ephemeral tidal inlet in Kouchibouguac Bay, New Brunswick, which was active for about six years. During its lifespan, the wave-dominated tidal inlet migrated about 30 m/yr in the direction of longshore sediment transport and rotated in a clockwise (downdrift) orientation (Greenwood and Keay, 1979). The study served as a foundation for the creation of an evolutionary model of wave-dominated tidal inlets along

Assateague Island for this study. Aubrey and Speer (1984) studied the migration of the Nauset Inlet, Massachusetts, in a direction counter to longshore sediment transport. They developed three mechanisms that allow an inlet to migrate updrift: 1) growth of downdrift spit by sediment welding from ebb-tidal delta bars, 2) storm-related breaches on the updrift spit, and 3) updrift migration around a bend (caused by backbarrier sediment accretion) causing erosion on outside of bend and accretion on inside of bend during ebb tides (Figure 26; Aubrey and Speer, 1984). Finally, FitzGerald (1988) documents sediment bypassing for migrating inlets, stable inlets, and ebb-tidal delta breaching (Figure 27). These three models explain how tidal inlets nourish the adjacent updrift and downdrift spit with sediment.

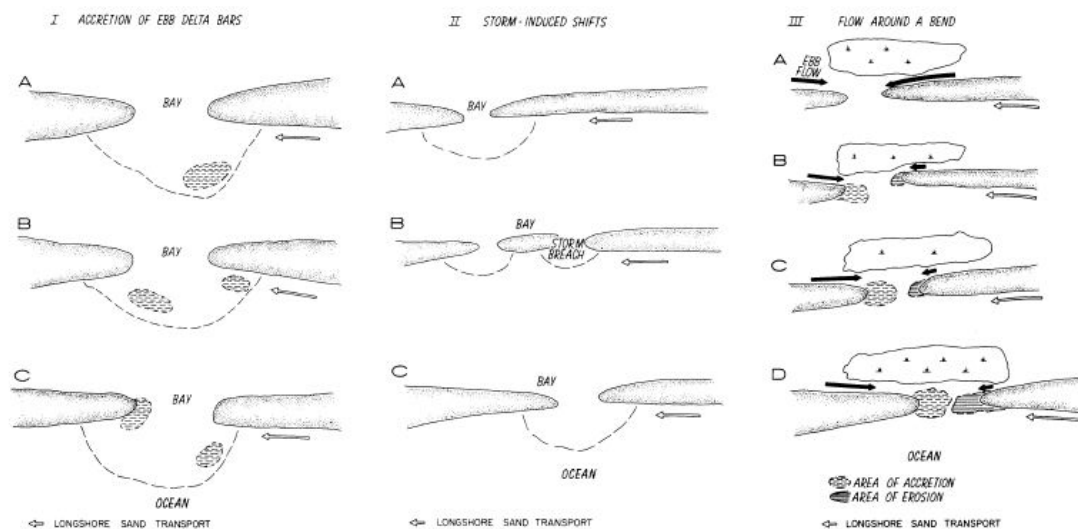


Figure 26: Three models of updrift inlet migration (from Aubrey and Speer, 1984).

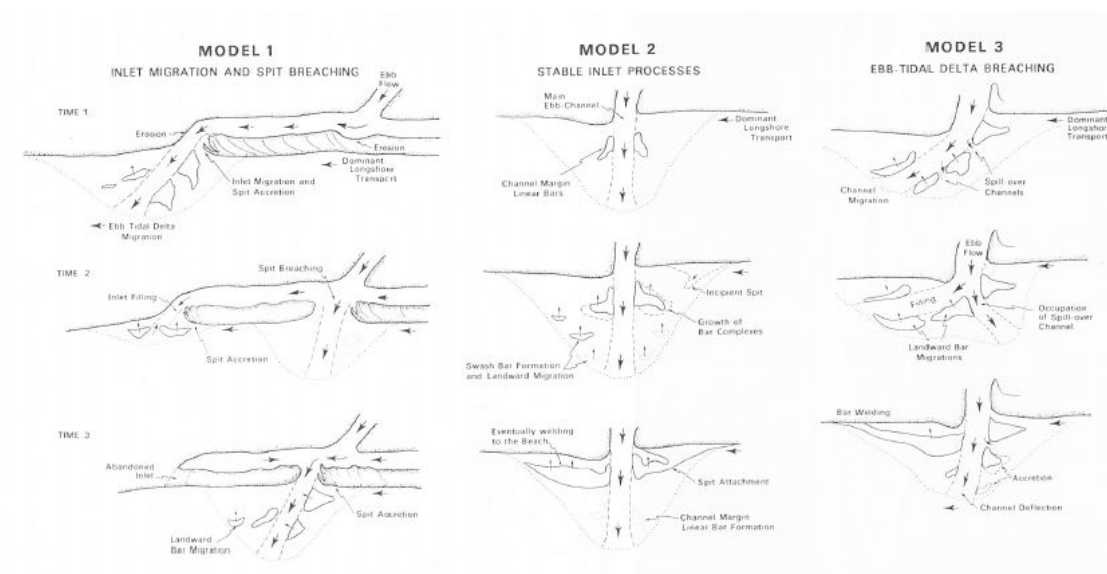


Figure 27: Models of inlet sediment bypassing for mixed-energy coasts (from FitzGerald, 1988).

Previous Studies Focusing on Assateague Island

Northern Assateague Island is known as a textbook case of landward migration as a result of the stabilization of the Ocean City Inlet in 1935 (Leatherman, 1979). Leatherman (1979) studied the effects of the jettied Ocean City Inlet on northern Assateague Island. Galgano (2007 and 2009) further studied the effect of the downdrift erosion from Ocean City Inlet. Assateague Island also has been the center of many extensive studies of overwash processes (Fisher et al., 1974; Fisher and Stauble, 1977; Leatherman et al., 1977; Leatherman and Williams, 1977 and 1983; Leatherman, 1979; Galgano, 1998, 2007, and 2009). However, a paucity of work exists regarding tidal inlet activity along the barrier island. Goettle (1978 and 1981) conducted a classic study of the evolution of the large recurved-spit complex at the southern end of Assateague Island and its relationship with tidal-inlet activity phases. She developed a six-stage evolutionary

model regarding the development of southern Assateague Island. Halsey (1978a, 1978b, and, 1979) developed the *Nexus Model* in which she suggests that the modern day barrier-island topography is linked to pre-Holocene topography (erosional surfaces) along the Delmarva Peninsula with a focus on Assateague Island. Work regarding the Assateague Island National Seashore was conducted by Krantz (2009) in which he utilized conductivity and GPR surveys to discuss groundwater dynamics of freshwater lenses. He also provides a detailed geomorphic map of the entire span of Assateague Island. Recent work was performed by Seminack and Buynevich (2013), in which they identified and reconstructed a previously unmapped former tidal inlet known as Green Run Bay Inlet.

Chronology of Former Tidal Inlets along Assateague Island

Four studies have been published regarding the chronology of former tidal inlets along Assateague Island: Truitt (1968), McBride (1999), Krantz et al. (2009), and Seminack and McBride (2015). Discrepancies existed throughout the works of Truitt (1968), McBride (1999), and Krantz et al. (2009) including location, nomenclature, and activity phase of the former inlets. Seminack and McBride (2015) created an updated inventory of former tidal inlets and their associated geomorphic features along the span of Assateague Island, MD-VA.

CHAPTER FOUR: DATA SETS AND METHODS

This study utilized multiple research techniques and data sets from previous studies in order to develop a historical inlet chronology of Assateague Island, MD-VA, as well as to reconstruct the geologic framework of the former Green Run and Sinepuxent Inlets. Research techniques employed in this study included an in-depth review of historical maps and charts, low-altitude aerial photography (both true-color and false-color infrared), GPR surveys, and sediment core analysis. Previously published data sets were analyzed as well and included Light Detection And Ranging (LIDAR) surveys, which were collected by the United States Geological Survey (Bonisteel-Cormier et al., 2011).

Historical Maps, NOS T-Sheets, and NOAA Nautical Charts

A geomorphic analysis of former tidal inlets along Assateague Island was conducted using historical maps and NOS & NOAA T-sheets (see Appendix A). The T-sheets were accessed from the NOAA Coastal Services Office (Charleston, South Carolina) in which an archive of more than 35,000 scanned maps and charts were made available to the public. Other historical maps were examined at the U.S. Library of Congress map archive in Washington, D.C. A total of 94 historical maps and T-Sheets were analyzed for geomorphic indicators of tidal-inlet activity along Assateague Island from 1590 to present.

Aerial Photography and Imagery

Both true-color and false-color infrared imagery were utilized to investigate the geomorphic expressions of former tidal inlets and breaches. The Virginia portion of infrared imagery was provided by the Virginia Base Mapping Program (VBMP) under the Virginia Information Technologies Agency (VITA). The data were collected in 2009 at 1-ft. resolution for coastal regions. Infrared imagery of the Maryland portion of Assateague Island was provided by the Maryland iMap service under the Maryland Department of Natural Resources at a 6-in. resolution collected in 2013. Finally, true-color imagery was analyzed from the Google Earth database with imagery from 2013.

Low-altitude, oblique aerial imagery was collected shortly after impacts of intense storms and was analyzed to observe present-day storm signatures. These datasets were compared to historical and ancient storm signatures. The datasets that were analyzed include baseline imagery (collected by the State of Maryland on 26 January 1956), post-Ash Wednesday storm (collected by the State of Maryland on 6 May 1962), 1989 Google Earth imagery of the former Sinepuxent Inlet, 1994 Google Earth imagery of the former Green Run Inlet, post-Nor'Ida (collected by the USGS on 4 December 2009; U.S. Geological Survey; 2009), post-Hurricane Irene (collected by George Mason University on 31 August 2011), and post-Hurricane Sandy (collected by the USGS on 4-6 November 2012; U.S. Geological Survey, 2012). Erosional features (i.e., scouring and breaching) and depositional features (i.e., washover fans and growth of the southern recurved spit) were observed and documented.

LIDAR Data Set

In 2010, LIDAR surveys were conducted by the United States Geological Survey (USGS) Experimental Advanced Airborne Research LIDAR (EAARL) on 19 and 24 March 2010 (Bonisteel-Cormier et al., 2011). The LIDAR data have a vertical resolution of 15 cm and a horizontal resolution of 2.5 m. LIDAR data serve as a critical tool for three-dimensional analysis of geomorphic features, allowing for the creation of topographic profiles of these features. Topographic profiles use the North American Datum of 1983 (NAD 83) for a horizontal datum and North American Vertical Datum of 1988 (NAVD88). See Figure 28 for an example of LIDAR imagery.

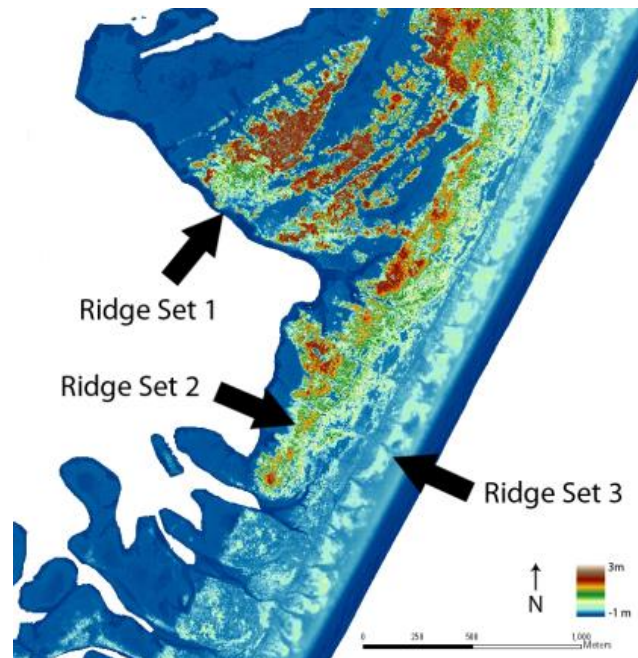


Figure 28: An example of LIDAR imagery from the 2010 USGS EAARL survey (Bonisteel-Cormier et al., 2011; Seminack and Buynevich, 2013). Note the ability to differentiate topographic features (three separate groups of beach ridge sets).

Ground-Penetrating Radar Survey

GPR can provide high-resolution continuous records of subsurface barrier-island geology, with penetration depths of up to 5-10 m for coastal regions (van Heteren et al., 1998; Buynevich et al., 2003). Although the electromagnetic radar signal is attenuated by salt water, the relatively high hydraulic permeability and width of many barrier systems allow for freshwater conditions to dominate the shallow subsurface, making GPR a viable imaging tool for these settings (Table 3; Figure 29; Buynevich et al., 2003; McBride et al., 2004).

Table 3: Geologic signatures of former tidal inlets (from Buynevich et al., 2003).

<i>Setting</i>	<i>Geomorphology</i>	<i>Subsurface Signatures</i>	
		<i>sedimentological</i>	<i>geophysical</i>
<i>Backbarrier</i>	relict FTD*	FTD litho/biofacies	FTD seismic facies
	relict channels	marsh-fringe sands	channel seismic facies
	FTD shoals		local resistivity anomalies
	marsh ridges		
<i>Barrier</i>	inlet-related ridges	Fining-upward succession	channel-fill reflections
	interrupted ridges	coarse channel lag	margin (contour) reflection
	relict channels	abandoned-channel fill	lateral migration surfaces
	inlet-related biofacies	inlet-related biofacies	local resistivity anomalies
	dendrochronology		
<i>Offshore</i>	ETD shoals	ETD facies	ETD seismic facies
	relict channels		channel seismic facies local resistivity anomalies

*FTD - flood-tidal delta, ETD – ebb-tidal delta

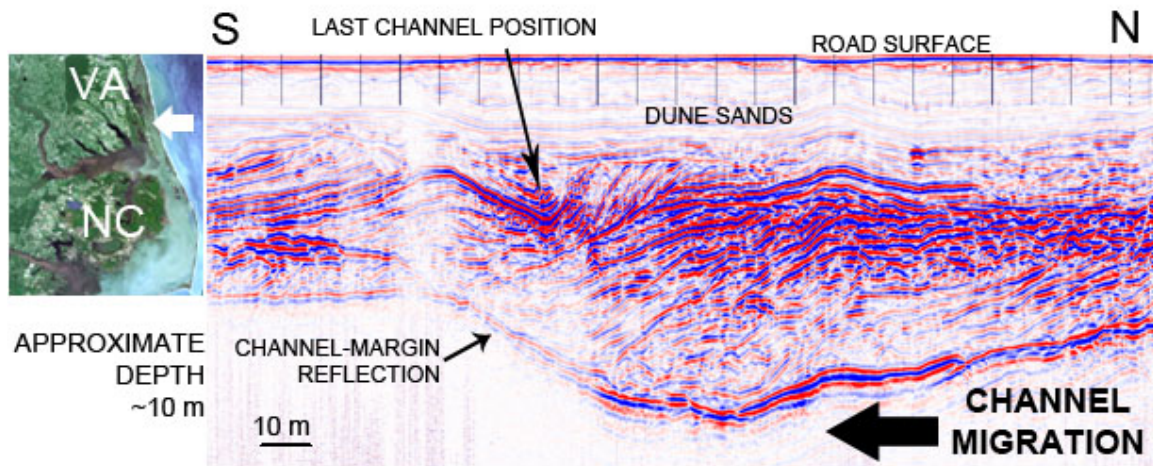


Figure 29: An example of a shore-parallel GPR profile in North Carolina. This profile demonstrates a large former inlet channel, similar dimensions to what will be expected along Assateague Island. The depth of signal penetration in this example profile is approximately 10 m (McBride et al., 2004).

Former tidal inlets exhibit diagnostic signatures in GPR profiles that include alongshore-dipping reflectors (spit terminus/channel margin migration) and may transition into opposite dip directions in the case of a complete channel structure. The dipping reflectors may be the only indication of a former inlet if saltwater attenuation becomes problematic and the inlet floor is not visible on the GPR profile. The location of the GPR profile lines were determined using the data collected from historical maps, nautical charts, and present-day aerial photographs. This information was compared with Truitt (1968), McBride (1999), and Krantz et al. (2009) in which they each provide a synthesis of historical inlet activity based on previous studies and documents. The GPS coordinates of the key radar survey points (start, end, sediment core sites, and major geomorphic features) were incorporated into a map database.

A Mala 250 MHz shielded antenna was utilized to collect GPR images, using a sample interval of 2 cm (Figure 30). A survey wheel attached to the antenna was

employed as a means of triggering data collection and providing distance measurements. Transects were collected in both shore-parallel and shore-perpendicular orientations. Shore-parallel transects are designed to capture features related to inlet migration (i.e., southerly-dipping clinoforms) and final channel position, whereas the shore-perpendicular transects were collected to examine bedforms within the inlet channel and the style of barrier progradation and erosion.



Figure 30: An image of the Mala 250 MHz GPR antenna employed for this study.

Post-processing of the GPR profiles were performed using the RadExplorer 1.4 software (for detailed treatment of GPR data collection, processing, and interpretation, see Jol and Bristow [2003], Buynevich et al. [2009], and Cassidy [2009]). Each profile was given a two-layer velocity model because of the electromagnetic (EM) wave velocity differences between unsaturated and saturated sand. Two polygons were assigned on the

profiles in the RadExplorer software to represent the differing velocity models (based on the water table position). Unsaturated sand was given a velocity of 15 cm/ns, while saturated sand was given a velocity value of 6 cm/ns (van Heteren et al., 1998).

Each processed profile was analyzed for bedding features related to former inlet activity and inlet filling. Features and bedforms of particular interest include truncated strata (indicative of a disconformity), clinoforms, bolded reflectors (indicating an abrupt change in density within the lithosome), aggradational infilling indicators, and signal attenuation (commonly caused by salt water in a coastal setting). These features were used to interpret radar facies and channel-fill patterns (Figures 31 and 32; van Heteren et al., 1998; FitzGerald et al., 2001).



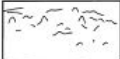









		HYPERBOLIC	BEDROCK
CHAOTIC		HIGH-FREQUENCY	COLLAPSED OUTWASH SAND AND GRAVEL, SAPROLITE, TILL (BARRIER ANCHOR POINTS, SOURCES OF BARRIER SEDIMENT)
		LOW-FREQUENCY	ARTIFICIAL FILL, BURIED UTILITY PIPES AND CABLES
PARALLEL		EVEN	DRAPED GLACIOMARINE MUD, OUTWASH-DELTA SILT AND SAND (SOURCE OF BARRIER SEDIMENT), BEACH SAND AND GRAVEL, TIDAL-INLET SAND AND GRAVEL
		WAVY	DRAPED GLACIOMARINE MUD
OBLIQUE		TANGENTIAL	OUTWASH-DELTA SILT AND SAND (SOURCE OF BARRIER SEDIMENT), WASHOVER SAND AND GRAVEL
		SIGMOIDAL	PROGRADATIONAL OR ACCRETIONARY BEACH SAND AND GRAVEL
		COMPLEX SIGMOIDAL	PROGRADATIONAL AND AGGRADATIONAL BEACH SAND AND GRAVEL
		HUMMOCKY	ACCRETIONARY SPIT-BEACH SAND AND GRAVEL
		BOUNDING SURFACE	DUNE SAND (INCLUDING PALAEOSOLS)
		REFLECTION-FREE	SIGNAL ATTENUATION BY SALTY GROUNDWATER OR PEAT LENSES, HOMOGENEOUS DUNE SAND
		BASIN-FILL	BACK-BARRIER MUD AND PEAT

Figure 31: Ground-penetrating radar facies (from van Heteren et al., 1998).

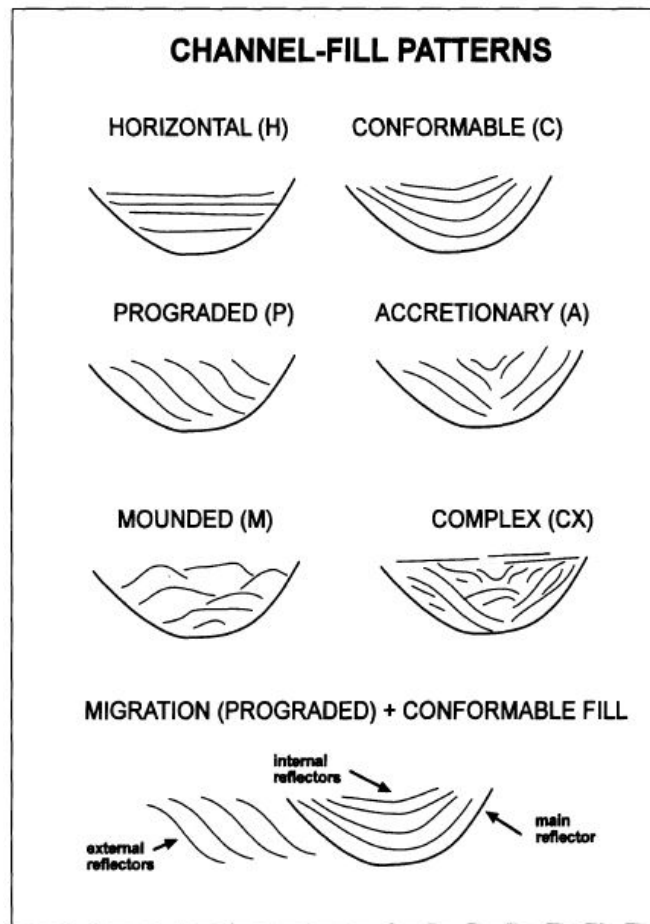


Figure 32: Inlet channel in-filling patterns (from FitzGerald et al., 2001).

Ground-penetrating radar can provide the most detailed means of reconstructing tidal prism of a former tidal inlet. Tidal prism is the volume of water that passes through an inlet during a 6-hour time period (half tidal cycle; Jarrett, 1976) , and can be calculated using the Richardson, McBride, and Seminack revised formula for unjettied inlets (Equation 4; Richardson, 2012), where P is the tidal prism and A is the cross-sectional area of the inlet throat. The parameters of the equation will be chosen from GPR observations that were confirmed through sediment coring.

Sediment Cores

Sediment cores were collected from the former Green Run and Sinepuxent Inlets in order to ground-truth the geophysical data and to observe the barrier and inlet-fill stratigraphy (FitzGerald et al., 2001; Buynevich and FitzGerald, 2003; Hein et al., 2012; Seminack and Buynevich, 2013). Two coring techniques were employed for this study, vibracoring and Eijkelkamp bailer borer (pulse auger) systems (Moslow and Tye, 1985; Buynevich and FitzGerald, 2003).

The vibracoring method was the preferred technique because of its ability to preserve sedimentary structures (Figure 33). Aluminum irrigation piping of 3-inch diameter was utilized in lengths of 20 and 30 feet. The 30-ft. pipes were drilled within portions of the former inlet believed to be related to the flood-tidal delta depositional environment, whereas the 20-ft. pipes were used for the inlet throat and recurved-spit depositional environments. This strategy was employed because the vibracoring technique typically does not penetrate as deep in the coarser sand sediments of the inlet throat, as compared to the finer-grained sediments of the flood-tidal delta.



Figure 33: An image demonstrating the collection of a sediment core with the vibracore technique.

A certain amount of compaction occurs within the sediments inside the aluminum pipes during the vibracoring process. The amount of compaction can be directly measured in the field. All sediment cores were adjusted for compaction in order to determine the underlying stratigraphy of each inlet within constructed geologic cross-sectional diagrams.

The Eijkelkamp bailer borer (a.k.a. pulse auger) technique is another common coring technique used in unconsolidated coastal sediments (Buynevich, 2001; Buynevich and FitzGerald, 2003). In this study, the technique was utilized in locations where the vibracore method was limited by access or penetration (Figure 34). Coarse sand does not impede the penetration depth of the pulse auger method, thus this technique was used in locations hypothesized to be dominated by thicker and coarser sand deposits.



Figure 34: An image showing collection of a sediment core with the Eijkelkamp bailer borer system (pulse auger) technique.

Vibracores were cut into 1-meter sections and then split open longitudinally in the Coastal Geology Laboratory at George Mason University (Figure 35). Cores were photographed, visually described, and subsampled at 10 cm intervals for textural analysis and microfossils. Core descriptions focused on physical and biogenic sedimentary structures, sediment texture, sediment color, and remains of benthic organisms. Sedimentary structures of particular interest are cross laminae, planar laminae, graded bedding, ripples, rip-up clasts, bioturbation, flaser bedding, and lenticular bedding. Sediment color can help determine the depositional environment and associated facies. Sediment color was documented using the Munsell Color System. Sediments deposited in an estuarine setting are subjected to an anoxic environment with an abundance of organics. These reducing conditions will result in gray to dark gray colored sediments. In

contrast, beach and inlet sediments are characterized by light gray to tan colored sediments because of oxygen-rich conditions and the lack of organic material. Identification of macroscopic shells is an important step in identifying former inlet successions. A former tidal inlet will display a mixed faunal diversity of estuarine and open marine organisms because of alternating ebb and flood currents within an inlet system (Barwis and Makurath, 1978; Cheel and Leckie, 1990). The shells will also be abraded because of the high-energy environment of a tidal inlet (Barwis and Makurath, 1978).



Figure 35: Example of a vibracore cut into 1-meter sections, split open longitudinally, and photographed.

Dalrymple (2010) defines the term facies as “A body of rock characterized by a particular combination of lithology and physical and biological structures that bestow an aspect that is different from the bodies of rock [or sediment] above, below, and laterally adjacent. The characteristics used to define facies are generally those that have genetic significance.” Facies, in this study represents a purely descriptive term, such as “cross-laminated sand facies.” Each facies unit was interpreted and labeled with a depositional environment (Walker, 1984). The term depositional environment refers to the physical processes that operate (Dalrymple, 2010). Facies units were determined by grouping genetically linked sediments based on similar grain size, color, sedimentary structures, and biogenic material (Dalrymple, 2010). Depositional environments may consist of multiple related facies units. Both vertical and lateral boundaries of depositional environments will be determined mostly by abrupt changes in sediment textural trends (i.e., mean grain size and sorting), biogenic material (e.g., shell-dominated material transitioning to root-dominated material), and sedimentary structures, which suggest differing depositional processes. It is important to note that a facies analysis was not conducted on sediment samples collected using the pulse auger method. The nature of the pulse auger method destroys all sediment structures, and thus, only grain-size analysis can be performed on such sediment samples.

Grain-size samples were collected from the sediment cores at 10 cm intervals, offering sufficient resolution to delineate the varying facies of the sediment deposits. Each sample was transferred into a glass beaker and dried in an oven at ~60°C for at least 12 hours. Sediment samples were disaggregated using a mortar and pestle, if necessary.

Grain-size analysis followed that of Folk (1980). Grain-size analysis for sand sized sediment was conducted using a Gilsonic AutoSiever with sieves stacked at $1/4 \phi$ intervals ranging from -1 to 4ϕ (2 to 0.063 mm; Figure 36; Folk, 1980). Three additional sieves, 4.2 , 4.5 , and 4.7ϕ (0.053, 0.045, and 0.038 mm), were utilized for silty samples. Each sediment sample was weighed using an Ohaus chemical balance before and after analysis to ensure that no more than 2% of the sample was lost during the sieving process. The sediment captured in each sieve was weighed and recorded by weight in grams, percentage of the whole, and cumulative percentage. See Table 4 for an example output table from the sieve analysis of one sediment sample.



Figure 36: The Gilsonic Auto Siever used for sediment grain-size analysis.

Table 4: Example of the output data sheet from sieving.

starting weight (g)	10.002	ending weight	9.824	Pct. Error	1.78%
Standard Sieve	Opening in mm	Phi (F)	Retained weight (g)	Retained weight (%)	Cumulative %
10	2	-1	0	0.00%	0.00%
12	1.7	-0.7655347464	0	0.00%	0.00%
14	1.4	-0.4854268272	0.005	0.05%	0.05%
16	1.18	-0.2387868596	0.003	0.03%	0.08%
18	1	0	0.003	0.03%	0.11%
20	0.85	0.2344652536	0.004	0.04%	0.15%
25	0.71	0.4941090703	0.003	0.03%	0.18%
30	0.6	0.7369655942	0.007	0.07%	0.25%
35	0.5	1	0.008	0.08%	0.33%
40	0.425	1.234465254	0.011	0.11%	0.44%
45	0.355	1.49410907	0.025	0.25%	0.69%
50	0.3	1.736965594	0.099	0.99%	1.68%
60	0.25	2	0.51	5.10%	6.78%
70	0.212	2.23786383	1.267	12.67%	19.45%
80	0.18	2.473931188	1.908	19.08%	38.52%
100	0.15	2.736965594	2.629	26.28%	64.81%
120	0.125	3	1.454	14.54%	79.34%
140	0.106	3.23786383	0.685	6.85%	86.19%
170	0.09	3.473931188	0.309	3.09%	89.28%
200	0.075	3.736965594	0.288	2.88%	92.16%
230	0.063	3.988504361	0.184	1.84%	94.00%
270	0.053		0.122	1.22%	95.22%
Fines Collector		<4.0	0.3	3.00%	98.22%
		TOTAL	9.824		

The pipette method was utilized for grain-size analysis of sediment finer than sand (< 0.063 mm, 4 ϕ). The procedure for this type of grain-size analysis followed the recommendations by Folk (1980). Pipette analysis utilizes the settling velocity of sediment as determined by Stokes Law in order to calculate the population of a given grain size (Folk, 1980). This analysis was performed down to 4.88×10^{-4} mm (11 ϕ) because Folk (1980) states that sediment finer than this size is interfered by Brownian motion; and therefore, pipette analysis is unreliable. The time and depths of sample withdraws were calculated by Equation 5 (Folk, 1980). Only one representative pipette sample was analyzed per mud unit. See

Table 5 for the times and depths of pipette sample withdrawals used for this study.

Equation 5: Formula to calculate time and depth of pipette sample withdrawals for a particular grain size (from Folk, 1980).

$$T_{min} = \frac{Depth (cm)}{1500 \times A \times d^2(mm)}$$

Table 5: Time and depths of sample withdrawals for pipette analysis. Note: the sample is to be stirred and time reset between the 1m 45s sample at 20 cm and the 1m 45s sample at 10 cm (from Folk, 1980).

Depth (cm)	ϕ	Mm	Time of Withdrawal
20	4.0	0.0625	20 s
20	4.5	0.044	1m 45s
10	5.0	0.031	1m 45s
10	5.5	0.0221	3m 28s
10	6.0	0.0156	6m 58s
10	7.0	0.0078	28 m
10	8.0	0.0039	1h 51m
10	9.0	0.0020	7h 24m
5	10.0	0.00098	14h 50m
5	11.0	0.00049	59h 20m

Textural analysis based on the size distribution was performed to determine grain size (mean and median), sorting, skewness, and kurtosis using the graphic method. The GRADISTAT macro for Microsoft Excel was used to calculate grain-size distribution and textural analysis statistics (Blott and Pye, 2001). See Figures 37 and 38 for an example of the GRADISTAT statistical output. Vertical grain-size trends for each core were constructed utilizing the textural analysis statistics output from GRADISTAT. The vertical grain size trends were utilized to determine fining- and coarsening-upward sedimentary successions, which provides information regarding the depositional

environment of the sediments. Barrier islands maintain a coarsening-upward succession of grain sizes because of the migration of sands overtop of either intra-/sub-tidal zones and thus coarser grains are superimposed upon the clay and silt rich sediments of the nearshore and back-bay areas (Moslow and Heron, 1978). However, in the case of tidal inlets, the lateral migration or waning energy of a shoaling inlet channel leads to a fining-upward sedimentary succession (Kumar and Sanders, 1974; Moslow and Heron, 1978; Moslow and Tye, 1985). Equation 6 - 10 demonstrate the textural analysis statistical calculations employed in this study (Folk, 1980).

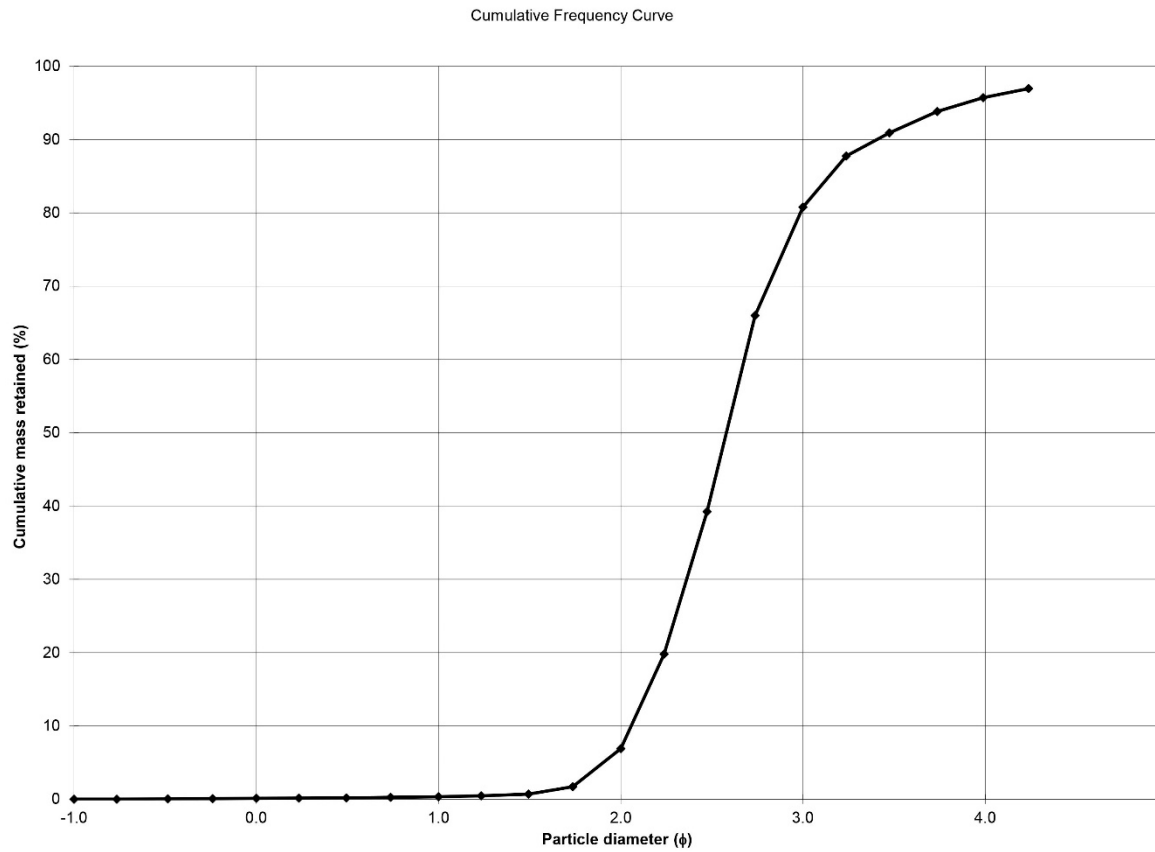


Figure 38: Example of the cumulative frequency curve outputted from GRADISTAT (Blott and Pye, 2001).

Equation 6: Graphic mean formula (Folk, 1980).

$$M_z = \frac{\phi_{16} + \phi_{50} + \phi_{84}}{3}$$

Equation 7: Graphic median formula. The graphic median represents the 50th percentile of population distribution (Folk, 1980).

$$\phi_{50}$$

Equation 8: Graphic sorting (standard deviation) formula (Folk, 1980).

$$\sigma_I = \frac{\phi_{84} - \phi_{16}}{4} + \frac{\phi_{95} - \phi_5}{6.6}$$

Equation 9: Graphic skewness formula (Folk, 1980).

$$Sk_I = \frac{\varphi 16 + \varphi 84 - 2\varphi 50}{2(\varphi 84 - \varphi 16)} + \frac{\varphi 5 + \varphi 95 - 2\varphi 50}{2(\varphi 95 - \varphi 5)}$$

Equation 10 : Graphic kurtosis formula (Folk, 1980).

$$K_G = \frac{\varphi 95 - \varphi 5}{2.44(\varphi 75 - \varphi 25)}$$

CHAPTER FIVE: RESULTS OF INLET CHRONOLOGY, HISTORICAL AERIAL PHOTOGRAPHY, GROUND-PENETRATING RADAR SURVEYS, AND SEDIMENT CORE ANALYSIS ALONG ASSATEAGUE ISLAND

This chapter presents the results of the analysis of historical maps, aerial imagery, and geomorphic analysis of the former tidal inlets along Assateague Island, MD-VA. In addition, GPR data, sediment cores, and sediment textural analysis are presented for the former Green Run and Sinepuxent Inlets.

Review of Historical Maps, NOS T-Sheets, and NOAA Nautical Charts

Twelve former tidal inlets and breaches were verified and investigated. The geomorphic expression of each breach and inlet was analyzed to help reconstruct their past morphodynamics. Of the twelve former inlets and breaches identified along Assateague Island in the historical record, only the former Sinepuxent and Green Run Inlets had sufficiently preserved geomorphic features to develop life-cycle models. The remaining former inlets and breaches likely had geomorphic features reworked and modified by storm activity, estuary wave action, or landward barrier-island migration. See Table 6 for the listing of the historical maps analyzed and if they were of use to the study. Many historical maps lacked the resolution required to positively identify the name and location of a former inlet. See Appendix A for a collection of the historical maps and charts that were of significance to the study.

Table 6: Listing of each historical map analyzed and its importance to the study (see Appendix A for details).

YEAR	WAS THE MAP OF USE	YEAR	WAS THE MAP OF USE	YEAR	WAS THE MAP OF USE	YEAR	WAS THE MAP OF USE
1590	NO	1787	NO	1906	YES	1966	YES
1606	NO	1794	NO	1910	YES	1967	YES
1673	NO	1825	YES	1912	YES	1968	YES
1676	NO	1827	YES	1913	YES	1969	YES
1685	NO	1831	YES	1915	YES	1970	YES
1687	NO	1840	YES	1919	YES	1971	YES
1700	NO	1852	YES	1920	YES	1972	YES
1717	NO	1855	YES	1922	YES	1973	YES
1719	NO	1860	YES	1925	YES	1974	YES
1731	NO	1862	YES	1930	YES	1975	YES
1732	NO	1863	YES	1931	YES	1976	YES
1751	NO	1865	YES	1932	YES	1977	YES
1752	NO	1866	YES	1933	YES	1978	YES
1755	YES	1871	YES	1934	YES	1979	YES
1756	NO	1875	YES	1935	YES	1980	YES
1758	YES	1878	YES	1936	YES	1985	YES
1762	NO	1880	YES	1937	YES	1990	YES
1765	YES	1882	YES	1938	YES	1994	YES
1767	NO	1887	YES	1939	YES	1997	YES
1771	YES	1890	YES	1942	YES	2000	YES
1776	YES	1892	YES	1943	YES	2004	YES
1777	NO	1893	YES	1945	YES	2011	YES
1778	YES	1900	YES	1949	YES		
1780	NO	1901	YES	1951	YES		

Northern Assateague Breach Zone

The northern portion of Assateague Island, which extends about 5 km south of Ocean City Inlet (Figure 39), was subjected to multiple short-lived, ephemeral breaching events (Truitt, 1968). Leatherman (1979) states that this section of the barrier island was affected by intense overwash processes during the Ash Wednesday storm and that the actual breach occurred later in the year because of a hurricane impact. However, two

breaches are identified along this portion of the barrier island in January 1962 aerial photography collected by the State of Maryland, nearly two months prior to the Ash Wednesday Storm (State of Maryland, 1962). Two small breaches are observed adjacent to the southern jetty of Ocean City Inlet, while a larger breach is located 2 km south of the inlet. Rosati (2005) states that the breaches initially opened in early November 1961. The May 1962 photograph shows enlarged breaches adjacent to Ocean City Inlet and a two-channel breach occurred 2 km south of the inlet (Figure 39b; State of Maryland, 1962). The 1966 NOS nautical chart displays the breach adjacent to the southern jetty wall as no longer active (Figure 39c). The 1966 map also shows the breach 2 km south of Ocean City Inlet as active, indicating that it may have captured enough tidal prism to be classified as a tidal inlet. In addition, a third smaller breach within this breach zone, is depicted as active 3 km south of Ocean City Inlet (Figure 39c).

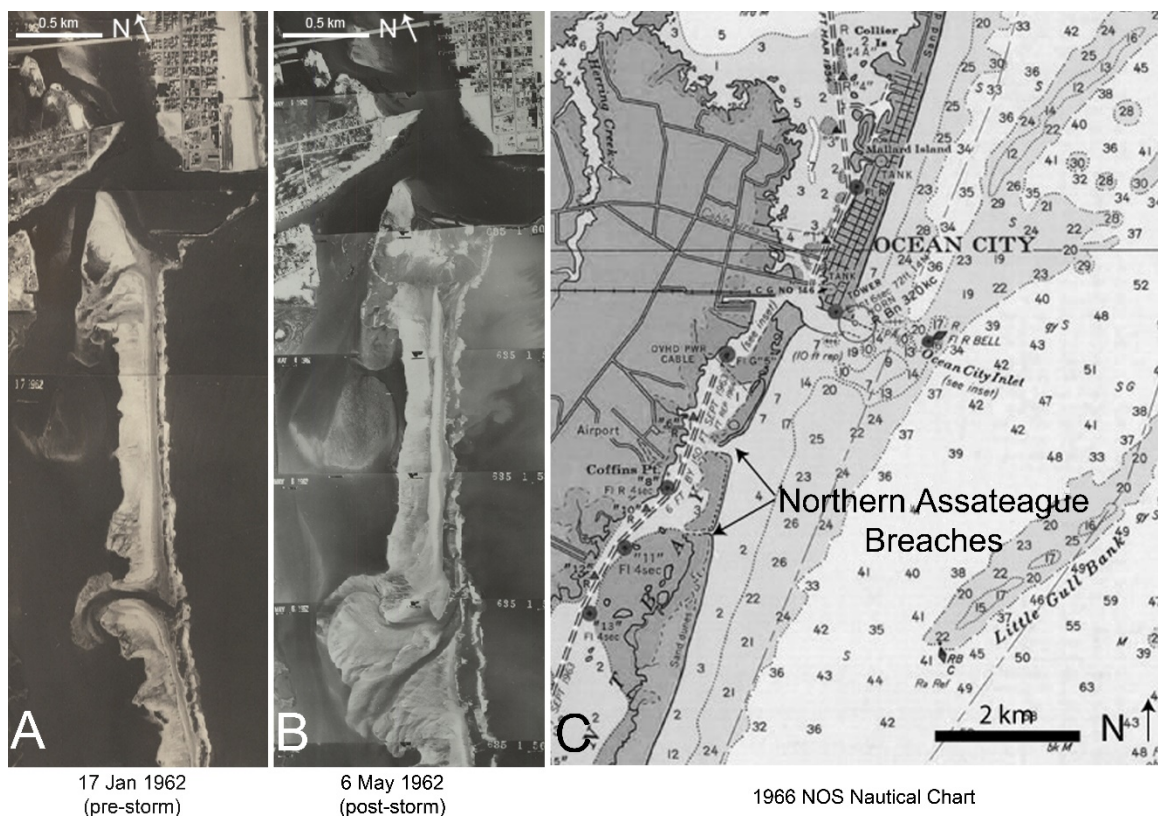


Figure 39: Images of the Northern Assateague Breach zone. A) January 1962 aerial photograph of northern Assateague Island. This photograph was taken prior to the 1962 Ash Wednesday Storm (State of Maryland, 1962). B) May 1962 aerial photograph of northern Assateague Island. This photograph was taken after the Ash Wednesday Storm (State of Maryland, 1962). C) 1966 NOS nautical chart in which the Northern Assateague Breaches are depicted as active. The breaches closed between 1974 and 1978 (United States Coast and Geodetic Survey, 1966).

Another discrepancy exists regarding the closing date of the breaches.

Leatherman's (1979) aerial analysis of the area portrays the breaches as inactive by 1974.

According to historical nautical charts, the breaches closed by 1978 (National Oceanic and Atmospheric Administration, 1980). This portion of Assateague Island is low lying and extremely vulnerable to overwash processes and breaching events. Multiple ephemeral breaches likely occurred within this vulnerable zone between the early 1960s and 1978 (Table 7). No geomorphic features were preserved as a result of the breaches

(Table 8) because of a paucity of available sediment and the localized landward migration of the northern end of the barrier island in response to the updrift jetties at Ocean City Inlet (Leatherman 1979; Fenster and Dolan 1996; Galgano 1998, 2007, and 2009). These breaches affected a 600 m swath of the barrier island.

Table 7: Chronology of named former tidal inlets and breaches along Assateague Island (synthesized and expanded from Truitt, 1968; McBride, 1999, and Krantz et al., 2009). See Figure 1 for specific tidal inlet and breach locations along the barrier island. The number associated with the former tidal inlet or breach name corresponds to its number in Figure 1.

Former Tidal Inlet or Breach Name	Date Opened	Date Closed
1. Northern Assateague Breaches	Between 1960 and 1962	1978
2. North Sinepuxent Inlet	1920	1929
3. Sandy Point Breach	1920	1920
4. North Beach Inlet	1770	1841 (ephemeral until 1870s)
5. Sinepuxent Inlet	1755	1832 (possibly ephemeral since 1819)
6. Fox Hills and Winter Quarter Breach zone	late 1800s	late 1800s
7. Slough Inlet	1766	1770? - short lived
8. Green Run Bay Inlet	?	between 1220 and 1360
9. Green Run Inlet	ephemeral late 1700s to 1852	1880
10. Cherry Tree Inlet	ephemeral 1755-1827	1831
11. Swan Pool Breach	2011, 2012, and 2016 (short lived)	
12. Tom's Cove Breach zone	2016 (short lived)	

Table 8: Geomorphic features associated with former tidal inlets and breaches of Assateague Island. See Figure 1 for specific tidal inlet and breach locations along the barrier island. The number associated with the former tidal inlet or breach name corresponds to its number in Figure 1.

Former Tidal Inlet or Breach Name	Geomorphic Features
1. Ash Wednesday Breaches	none, because of landward barrier-island migration
2. North Sinepuxent Inlet	none, because of landward barrier-island migration
3. Sandy Point Breach	none, because of landward barrier-island migration
4. North Beach Inlet	possible relict flood-tidal delta possible relict flood-tidal delta channels relict-inlet ponds inlet channel scar (immature vegetation) possible recurved-spit ridges
5. Sinepuxent Inlet	recurved-spit ridges poorly preserved relict flood-tidal delta relict flood-tidal delta channels relict-inlet ponds inlet-closure ridges inlet channel scar (immature vegetation)
6. Fox Hills and Winter Quarter Breach zone	inlet channel scar (immature vegetation) poorly preserved relict flood-tidal delta relict flood-tidal delta channels truncated ridges many small washaround features recurved-spit ridges
7. Slough Inlet	recurved-spit ridges poorly preserved relict flood-tidal delta relict flood-tidal delta channels possible inlet-closure ridges inlet channel scar (immature vegetation) truncated ridges
8. Green Run Bay Inlet	backbarrier channel
9. Green Run Inlet	large, well developed relict flood-tidal delta relict flood-tidal delta channels recurved-spit ridges relict-inlet ponds well-preserved inlet-closure ridges truncated ridges

Former Tidal Inlet or Breach Name	Geomorphic Features
10. Cherry Tree Inlet	truncated ridges possible relict flood-tidal delta recurved-spit ridges inlet channel scar (immature vegetation) relict-inlet ponds
11. Swan Pool Breach	Subtle inlet-closure ridges Small, poorly developed relict flood-tidal delta
12. Tom's Cove Breach Zone	None observed due to lack of aerial imagery following the infilling of the breach zone

North Sinepuxent Inlet

North Sinepuxent Inlet (a breach referred to as Sinepuxent Inlet in the 1925 historical nautical chart) is shown in Figure 40. This inlet opened in 1922 and remained active until 1930 (Table 7; Truitt, 1968). Although the inlet was active long enough to have developed geomorphic expressions, no features were preserved because of a paucity of available sediment and localized landward migration because of the proximity to the jetties at Ocean City Inlet (Table 8; Leatherman, 1979; Fenster and Dolan, 1996; Galgano, 1998, 2007, and 2009). For a detailed explanation of the landward migration of northern Assateague Island caused by the construction of the jetties at Ocean City Inlet, see Leatherman (1979) and Galgano (1998, 2007, and 2009). It is likely that this inlet affected a 480 m stretch of Assateague Island. North Sinepuxent Inlet is not to be confused with the older Sinepuxent Inlet located 15-km further south, which was active from pre-1755 to about 1831 and completely unrelated to the North Sinepuxent Inlet (Truitt, 1968).

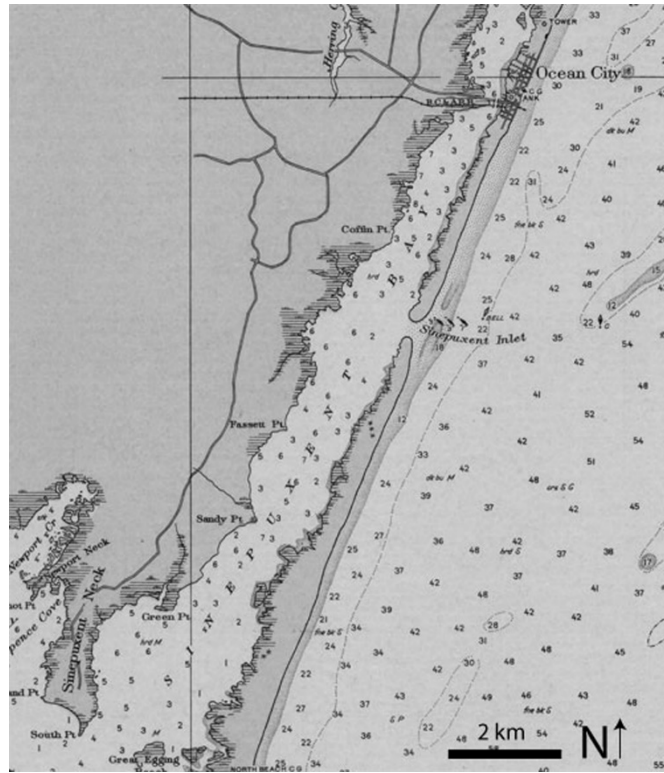


Figure 40: A 1925 NOS nautical chart showing the active North Sinepuxent Inlet. Because the name "Sinepuxent Inlet" has been used multiple times for different breaches throughout the history of Assateague Island, this inlet will now be referred to as North Sinepuxent Inlet. This inlet is recorded as active in 1922 and closed by 1930 NOS T-sheets.

Sandy Point Inlet

The history of Sandy Point Inlet is unclear (Figure 41a). Truitt (1968) states that this former inlet was also listed as Sinepuxent Inlet (the aforementioned North Sinepuxent Inlet) and was active in the 1920s and after the 1962 Ash Wednesday storm (Table 7). However, Truitt (1968) labels Sandy Point Inlet 3 km south of the location of North Sinepuxent Inlet according to historical nautical charts. Backbarrier geomorphic features, which resemble a relict flood-tidal delta, are apparent 11 km south of Ocean City Inlet, just south of the Varrazano Bridge within the State Park portion of the island

(Table 8; Figure 41b). Other geomorphic features (i.e., recurved-spit ridges and inlet-throat scarring) are not visible because of anthropogenic development (i.e. roads, buildings, and campgrounds). No breaches were observed in this location in the historical literature. The proposed Sandy Point Inlet location likely modified a 1.25 km portion of Assateague Island.

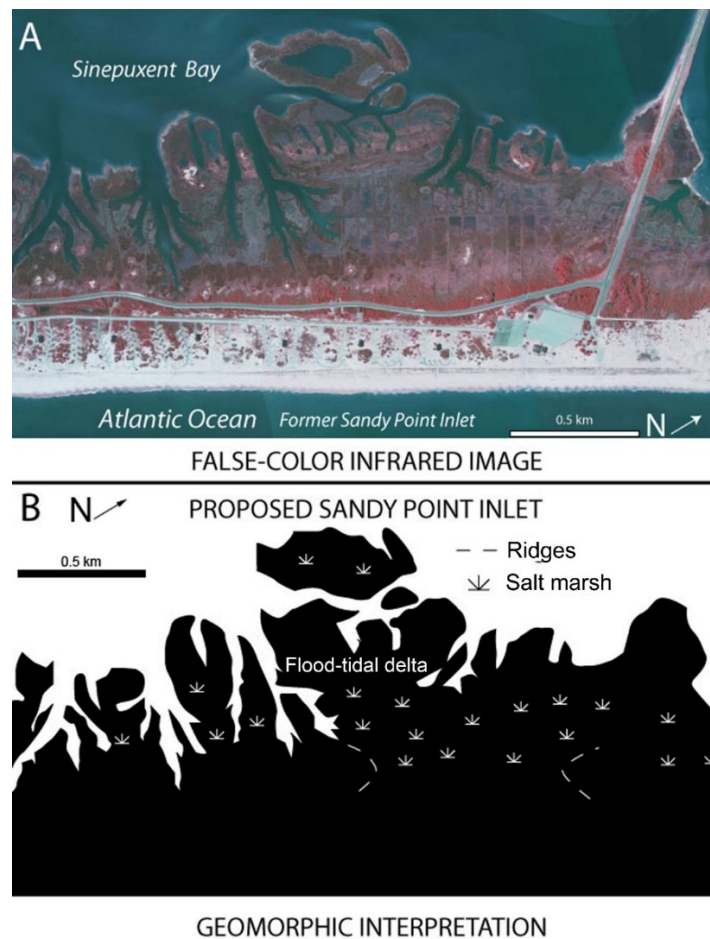


Figure 41: Sandy Point Inlet zone located 11 km south of Ocean City Inlet. A) False-color infrared image of the refined Sandy Point Inlet zone. B) Geomorphic interpretation of the false-color infrared image of the refined Sandy Point Inlet zone. Subtle recurved-spit ridges can be observed in the infrared image, as well as a likely flood-tidal delta. This segment of the barrier island has been subject to anthropogenic modification (i.e., roads, parking lots, and campsites).

North Beach Inlet

Based on geomorphic features and available literature (Truitt, 1968), North Beach Inlet was likely located in the area shown in Figure 42 and its influence when open totals 2.4 km in length. Although not listed on any NOS T-Sheets or historical maps, Truitt (1968) states, “This inlet was navigable in the American Revolutionary period and co-existed with the adjacent Sinepuxent Inlet (Table 7).” This inlet may have also co-existed with the historical Green Run Inlet in the 1800s (Table 7; Figure 1). North Beach Inlet was reportedly confused and mislabeled on maps (Truitt 1968). The exact location of the inlet remains unknown.

The large backbarrier island in Figure 42 represents a potential relict flood-tidal delta of the North Beach Inlet (Table 8). Much of the barrier-island topography is low lying within this proposed inlet zone as evidenced by the ponding and lack of ridges fronting the proposed relict flood-tidal delta. A large washaround is present in the southern portion of the area shown in Figure 42. The northern recurved-spit ridge of the washaround may mark the southern recurved-spit ridges of the former North Beach Inlet. Backbarrier beach ridges fronting the relict flood-tidal delta are not contiguous and appear to be truncated in some areas. It is possible that the North Beach Inlet modified 2.4 km of the barrier island when open.

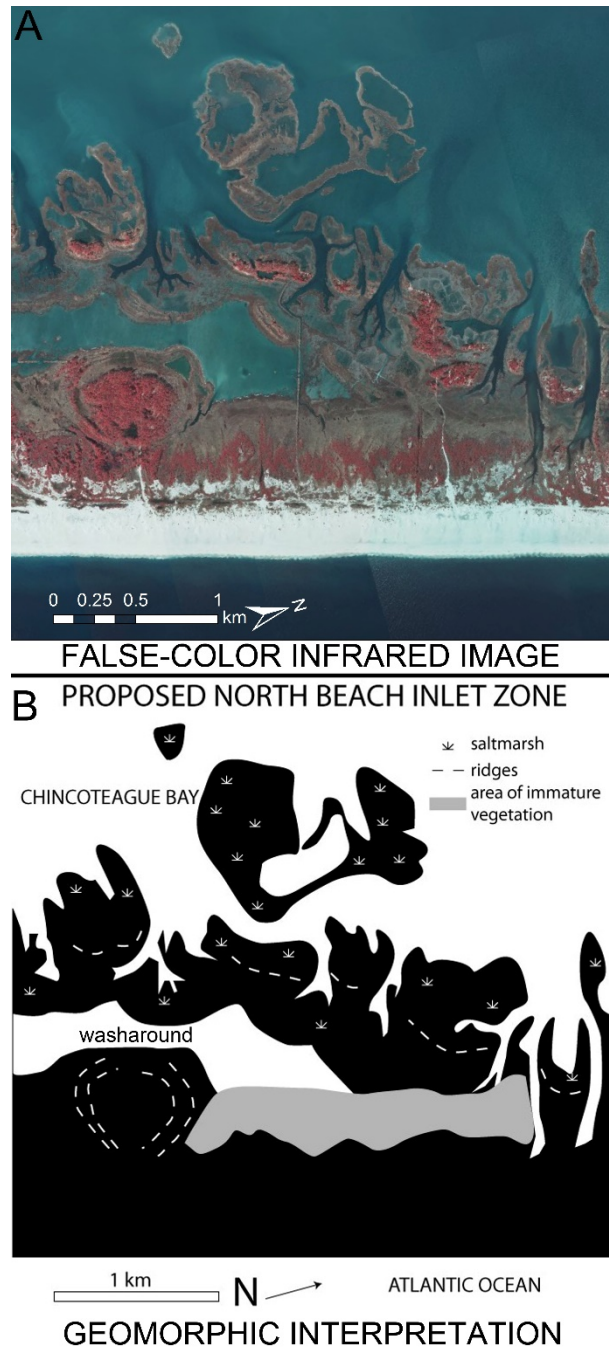


Figure 42: The North Beach Inlet zone. A) False-color infrared image of the refined North Beach Inlet zone. B) Geomorphic interpretation of the false-color infrared image of the refined North Beach Inlet zone. The large backbarrier island represents the proposed relict flood-tidal delta associated with the former inlet. Directly seaward, fronting the potential relict flood-tidal delta is a low lying area, lacking ridges, with immature vegetation. This topographic low possibly corresponds to the inlet channel scar. A large washaround is present on the southern portion of the image. The northern recurved-spit ridges of the washaround may have formed as a result of the North Beach Inlet.

Sinepuxent Inlet

The geomorphic expression of the inlet throat and adjacent relict recurved spits at Sinepuxent Inlet are well preserved, displaying some of the best examples along not only the entire reach of Assateague Island but also the entire U.S. Atlantic coast (Figure 43). Sinepuxent Inlet is well documented on historical maps; however, the inlet's opening date is uncertain. Sinepuxent Inlet first appeared active on the 1755 map (a.k.a. Senepuxen), which was the earliest map with sufficient resolution to identify Assateague Island (Table 7; Figure 44; Evans, 1755). Sinepuxent Inlet remained open until the 1831 map (Hinton et al., 1831). The 1840 historical map identifies Sinepuxent Inlet as being closed since 1819, indicating that this inlet may have been ephemeral for the last years of its existence (Fielding, 1840). Thus, Sinepuxent Inlet was open from pre-1775 to 1819 and possibly as late as 1831 (Table 7).

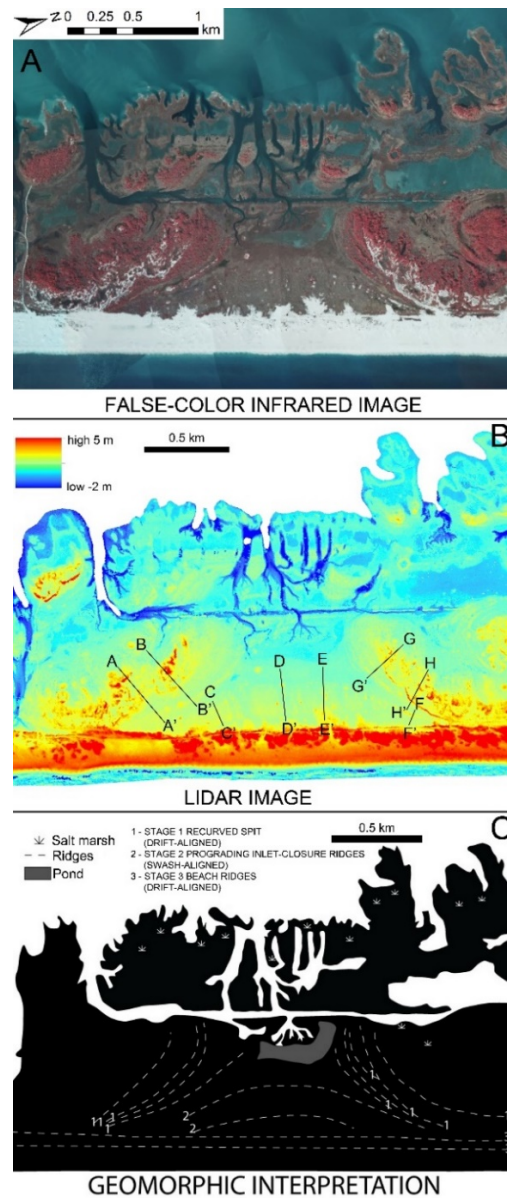


Figure 43: Sinepuxent Inlet. A) False-color infrared image of the former Sinepuxent Inlet showing well-developed recurved-spit ridges of the inlet's northern and southern shorelines, an inlet channel scar, and inlet-closure ridges. B) LIDAR image of the former Sinepuxent Inlet (Bonisteel-Cormier et al., 2011), including the locations of the topographic profiles presented in Figures 45, 46, and 47. See Figure 45 for the topographic profiles of A-A' and B-B'; Figure 46 for topographic profiles G-G' and H-H'; and Figure 47 for topographic profiles C-C', D-D', E-E' and F-F'. C) Geomorphic interpretation of the former Sinepuxent Inlet. This inlet closed in three stages. Stage 1 of closure is represented by two sets of drift-aligned, concave-landward recurved-spit ridges. These ridges were formed as the inlet throat was narrowing. Stage 2 is represented by the swash-aligned, concave-seaward inlet-closure ridges. Post-Ash Wednesday storm aerial photography indicated that these ridges formed from a likely breach event caused by the storm. As the inlet throat closed, these swash-aligned ridges prograded. Stage 3 is marked by the swash-aligned ridges grading back to drift-aligned, shore-parallel ridges. Stage 3 ridges prograded, eventually becoming flush with the adjacent open-ocean shoreline.

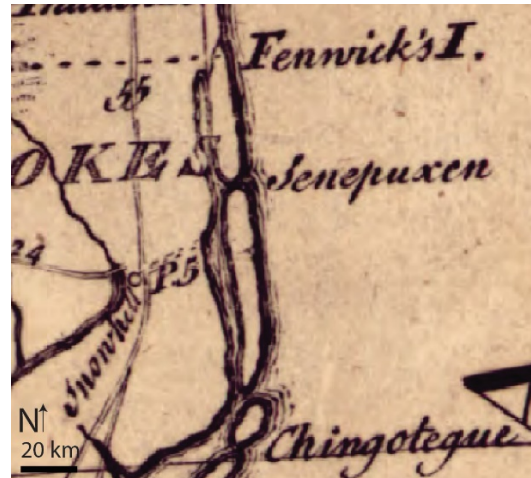


Figure 44: 1755 historical map displaying the Senepuxen (Sinepuxent) Inlet as active (from Evans, 1755).

Sinepuxent Inlet has two sets of well-preserved recurved-spit ridges to the north and south, which clearly delineate the former inlet throat (Table 8; Figures 45, 46, and 47). Topographic profiles show that the recurved-spit ridges reach a height of 3.4 m to the south and 2.5 m to the north (Figures 45 and 46). These ridges are depicted in Figure 43c as Ridge Set 1. The inlet throat is defined by an area of immature vegetation and low-lying, flat topography, with some ponding. A relict, marsh-covered flood-tidal delta and associated channels are visible along the backbarrier (Figure 43a). Subtle inlet-closure ridges are present radiating from the bounding recurved-spit ridges across the inlet throat (Figure 43b & c). The inlet-closure ridges have a maximum height of 1.8 m and are better expressed along the northern segment of the former inlet throat (Figure 47). The inlet-closure ridges are swash-aligned, concave seaward, as indicated in Figure 43c as Ridge Set 2. Fronting Ridge Set 2 is Ridge Set 3, which are shore-parallel, drift-aligned beach

ridges (Figure 43c). When active, Sinepuxent Inlet modified a 2.1 km stretch of Assateague Island.

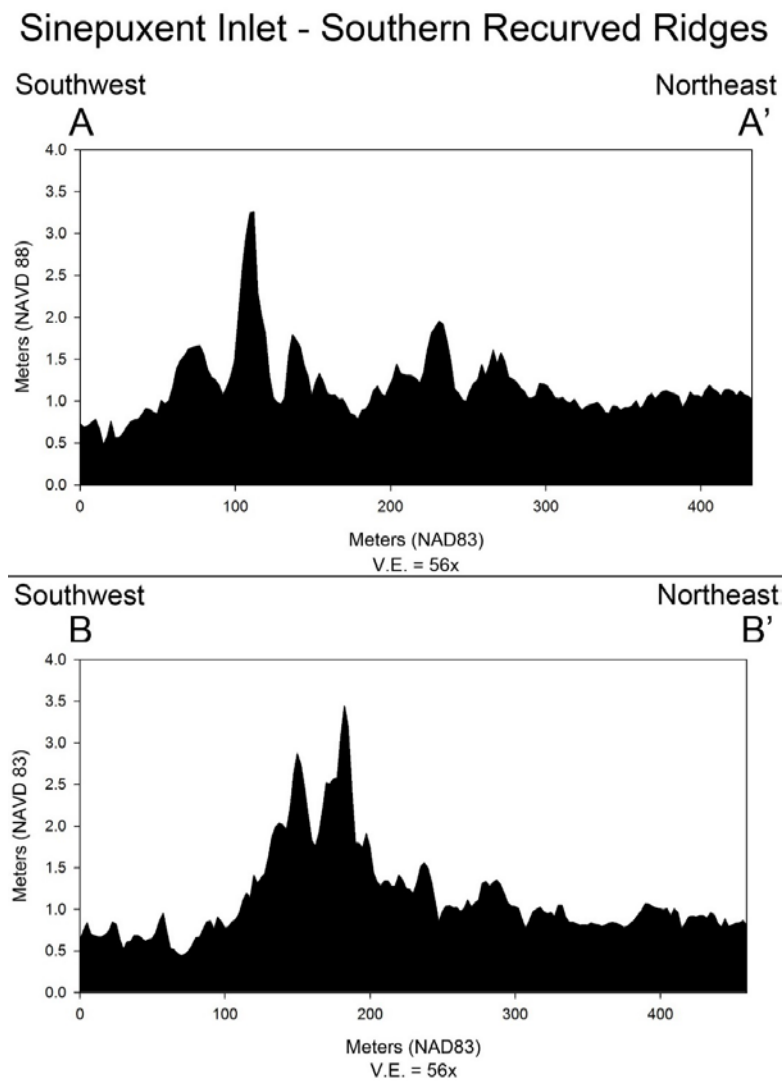


Figure 45: Topographic profiles of the southern recurved-spit ridges associated with the former Sinepuxent Inlet. The southern recurved-spit ridges reach a maximum height of 3.4 m and then gradually decrease in height towards the inlet throat. See Figure 43b for locations of the topographic profiles.

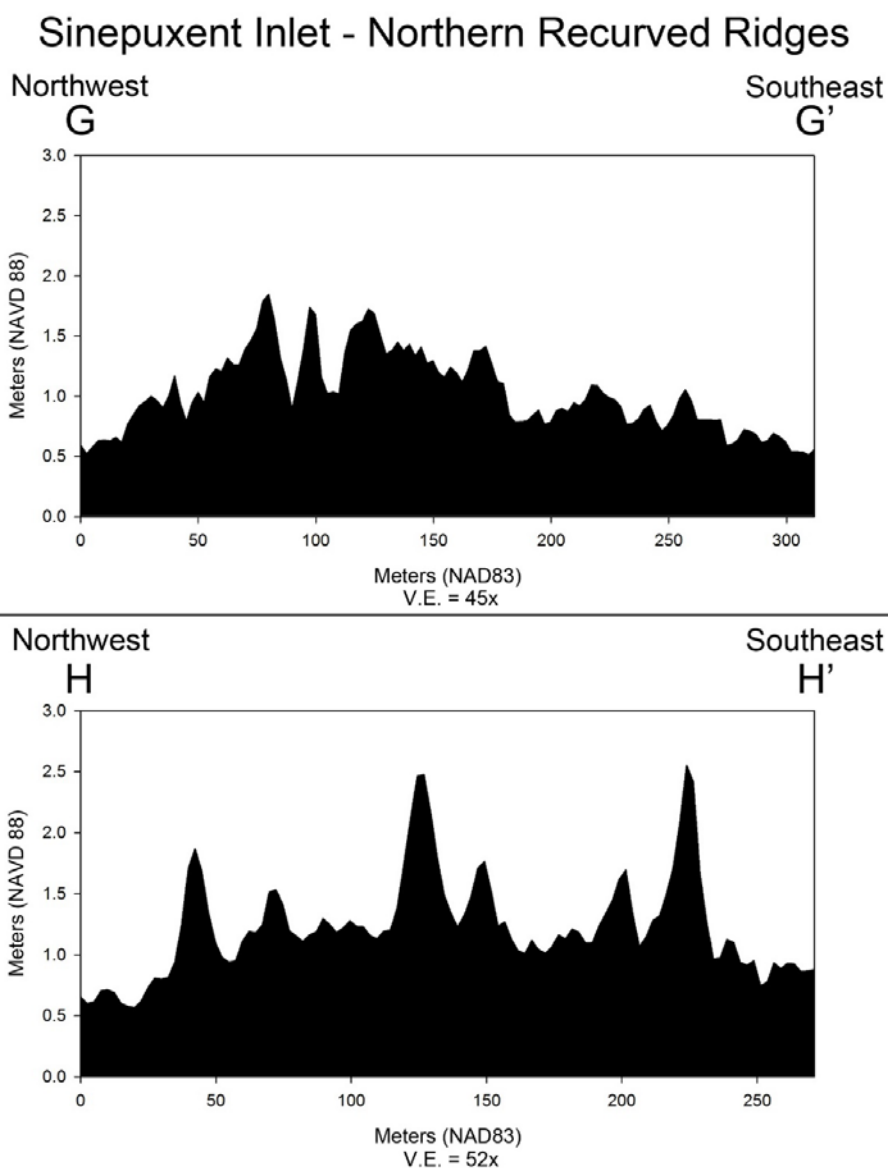


Figure 46: Topographic profiles of the northern recurved-spit ridges of Sinepuxent Inlet. These ridges reach a maximum height of 2.5 m. Along Profile G-G', ridges reach a maximum height then gradually decrease towards the inlet throat. While the ridges of Profile H-H' increase towards the inlet throat, the swales generally decrease towards the inlet throat. See Figure 43b for the locations of the topographic profiles.

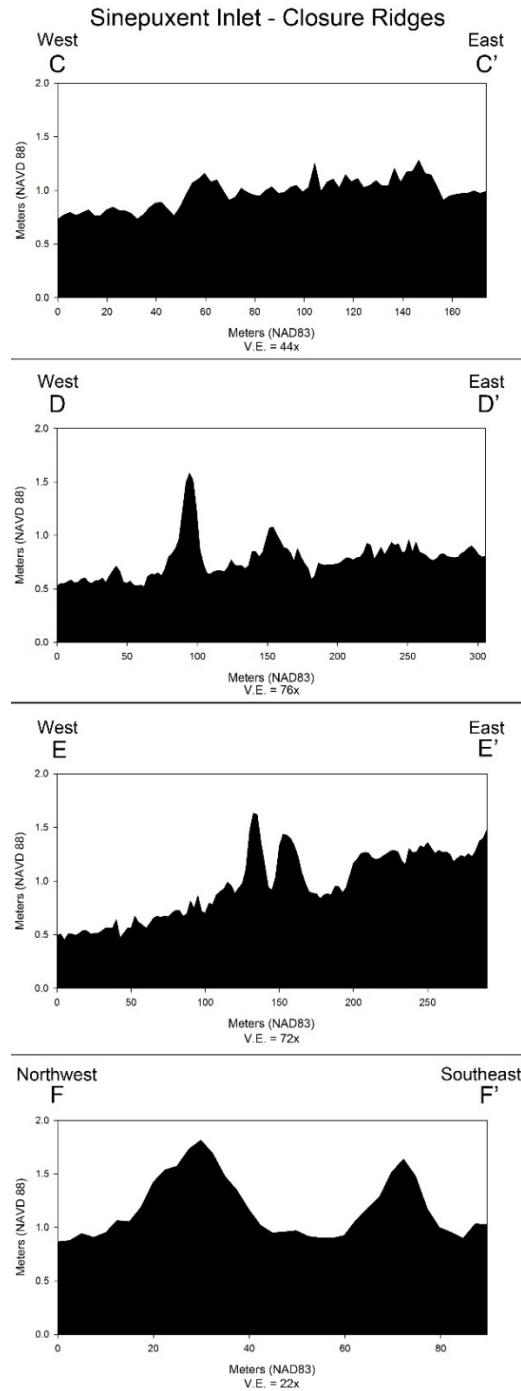


Figure 47: Topographic profiles of the inlet-closure ridges (1.8 m maximum height) associated with the former Sinepuxent Inlet. These ridges become better defined towards the northern (updrift) portion of the former inlet. In general, these profiles increase in height to the east (seaward) because they are transitioning from inlet fill to a washover terrace depositional environment. See Figure 43b for locations of the topographic profiles.

Slough Inlet and Fox Hills & Winter Quarter Breach Zone

The breach zone that includes Slough Inlet, Fox Hills, and Winter Quarter, most likely was created by multiple breaching events that occurred within a low-lying, vulnerable segment of the barrier island (Figure 48a and b). Truitt (1968) states that Fox Hills Level was likely composed of four separate, short-lived breaches in the late 1800s (Table 7). Slough Inlet was briefly active in the Colonial Period (i.e., 1607 to 1776) but was not navigable (Truitt, 1968). No inlets were observed within this area on historical nautical charts or maps.

Slough Inlet and the Fox Hills & Winter Quarter Breach zone is an extensive, low lying area with multiple sets of recurved-spit ridges spanning 6 km along the barrier island (Table 8; Figures 48 and 49). The former Slough Inlet is located at the southern end of this breach zone and is delineated by well-preserved recurved-spit ridges on its northern and southern boundaries, which decrease in height toward the former inlet throat (Figures 48c and 49). Backbarrier islands adjacent to the former inlet have truncated ridges as a result of the inlet activity. A poorly defined relict flood-tidal delta and channels may be associated with this former inlet. Subtle inlet-closure ridges may be present fronting the former inlet.

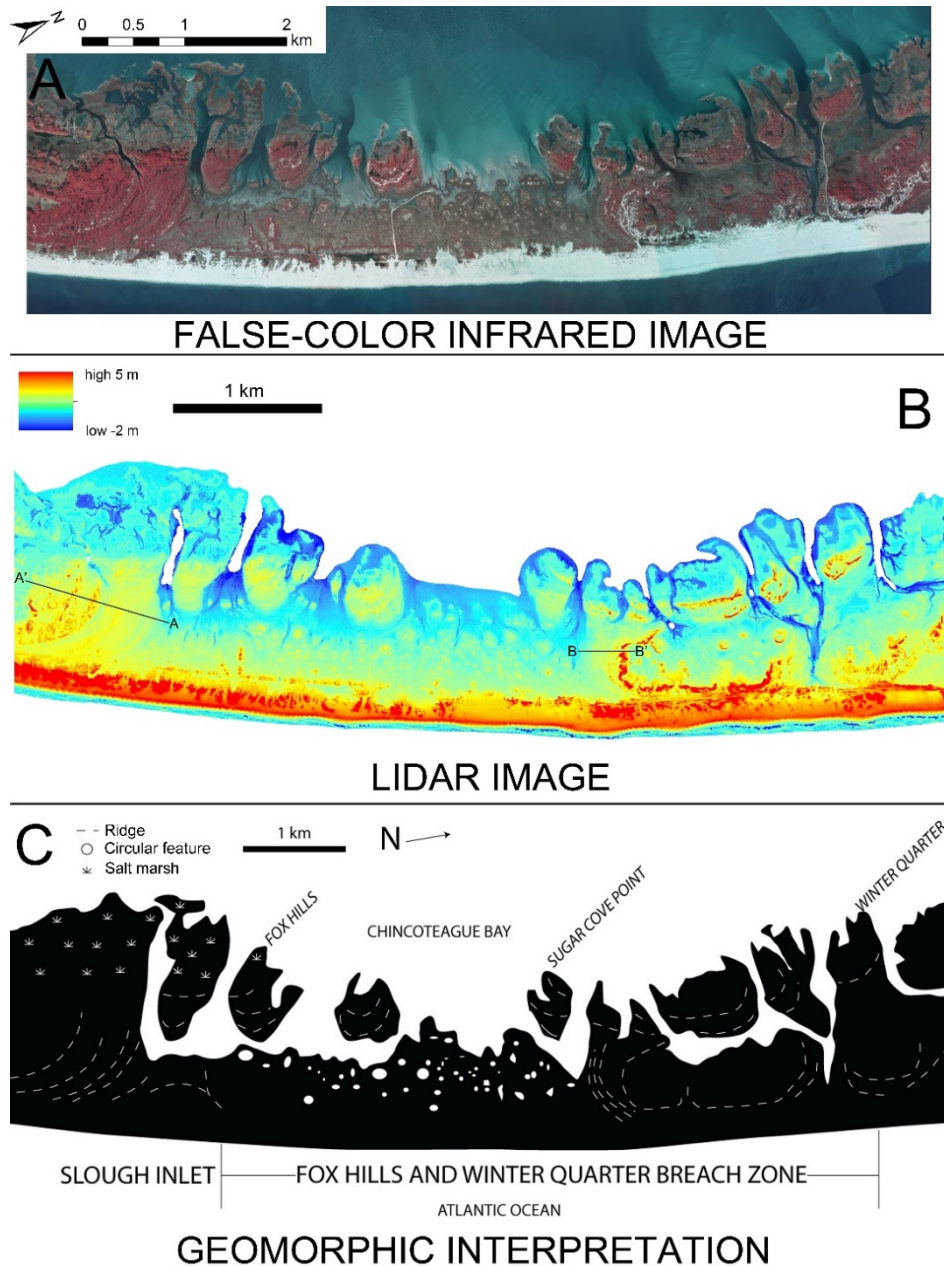


Figure 48: The Slough Inlet and Fox Hills & Winter Quarter Breach zone. A) False-color infrared image of the former breach zone including Slough Inlet, Fox Hills, and Winter Quarter. B) LIDAR image of the former multiple breach zone (Bonisteel-Cormier et al., 2011). See Figure 49 for the topographic profiles of A-A' and B-B'. C) A geomorphic interpretation of the former multiple breach zone. The Slough Inlet area is delineated by well-defined recurved-spit ridges. A subtle swash-aligned inlet-closure ridge is visible, which fronts the former inlet. Poorly preserved, relict flood-tidal delta deposits may be associated with the former Slough Inlet along the backbarrier. The Fox Hills & Winter Quarter Breach zone is characterized by low-lying topography with immature vegetation. The southern portion of the breach zone is characterized by many small circular pimple mounds and/or washaround features. Well-defined recurved-spit ridges can be observed within the area indicating multiple breaching events.

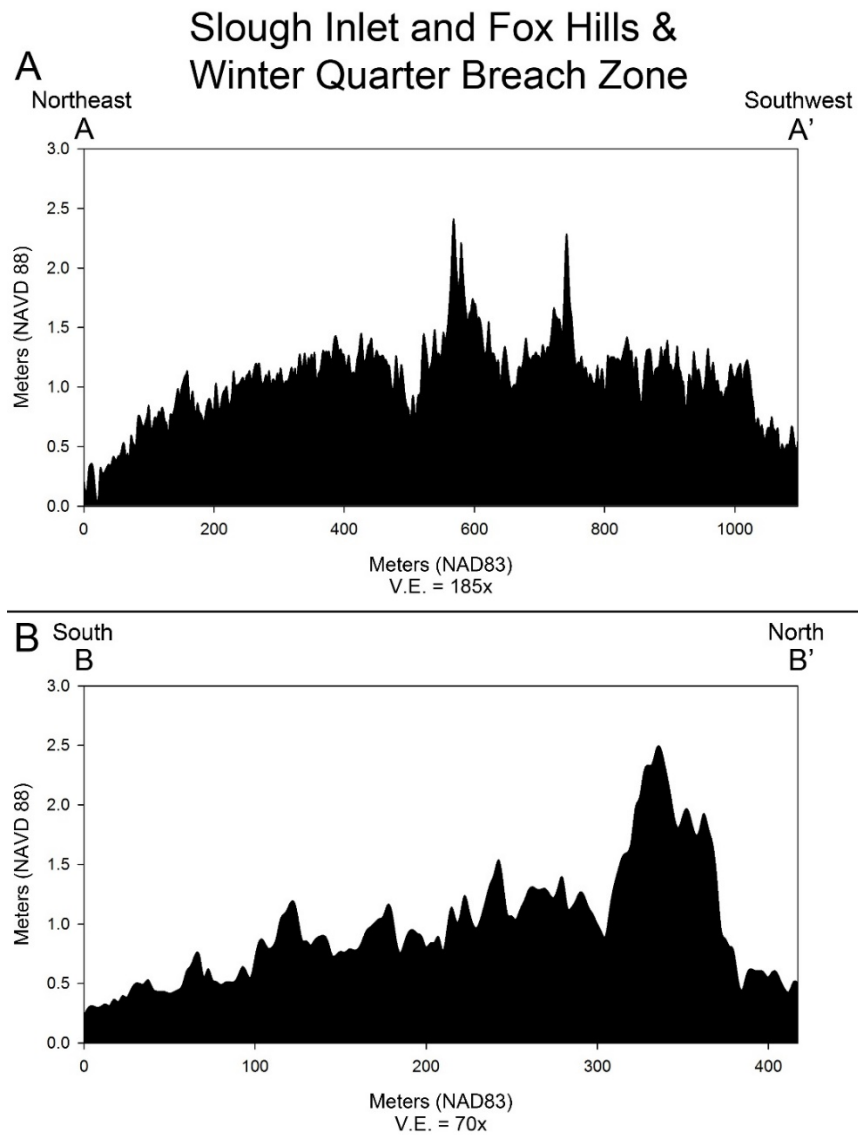


Figure 49: Topographic profiles of geomorphic features associated with the former Slough Inlet and Fox Hills & Winter Quarter Breach zone. A) Topographic profiles of the southern recurved-spit ridges of Slough Inlet. A number of ridge crests are included in this transect with two prominent crests apparent in the topographic profile. The height of the recurved-spit ridges decrease toward the inlet throat. B) Topographic profile of well-defined recurved-spit ridges in the Fox Hills & Winter Quarter Breach zone. The topographic profile includes at least four smaller ridge crests and one prominent ridge crest. The topographic profiles display a distinctive decrease in ridge heights toward the inlet throat.

The area spanning from Fox Hills to Sugar Cove Point is characterized by relatively flat topography with immature vegetation (Table 8). Backbarrier islands adjacent to this breach zone demonstrate pre-inlet ridges, which were truncated by the erosive nature of the multiple breaches within this span. This segment is also characterized by many circular pimple mounds and/or washaround features. A well-defined set of recurved-spit ridges delineate the northern boundary of this low-lying, vulnerable area. At least two smaller breaches may be present in the area north of these well-defined recurved-spit ridges, near Winter Quarter (Figure 48c).

Green Run Bay Inlet

Green Run Bay Inlet was first documented by Seminack and Buynevich (2013) within the area between Whittington's Point and Green Run Inlet (Figure 50). C¹⁴ and OSL dating yielded an in-filling age of 1220-1360 AD (Table 7; Seminack and Buynevich, 2013). This former inlet lacks surficial geomorphic evidence, such as inlet channel scars, recurved-spit ridges, or a relict flood-tidal delta. However, a backbarrier channel landward of the former inlet is visible in aerial imagery (Table 8; Figure 50). A GPR survey imaged the location of the former inlet channel and was ground-truthed by sediment cores (Seminack and Buynevich, 2013). This former tidal inlet modified a 460 m segment of the barrier island while it was active.

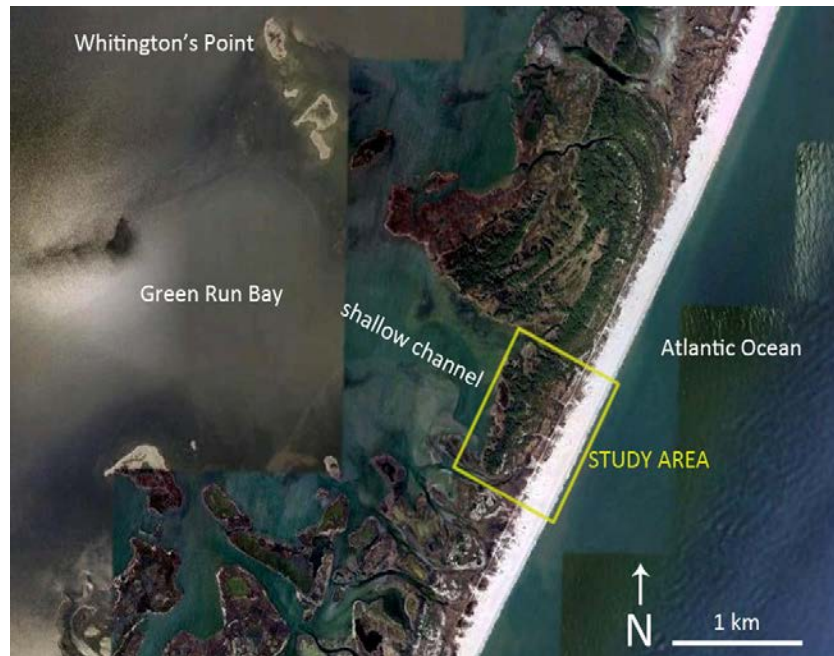


Figure 50: The location of the former Green Run Bay Inlet (Seminack and Buynevich, 2013). This former tidal inlet was shoaling between 1220 and 1360 AD. No surficial geomorphic features exist that are related to this former inlet, except for a shallow backbarrier channel landward of the inlet complex. GPR and sediment cores confirmed the existence of this former inlet.

Green Run Inlet

Green Run Inlet was historically active from 1852 to 1880 and was located 3 km north of the Maryland-Virginia border (Table 7; Figures 51 and 52). Truitt (1968) mistakenly refers to this inlet as Pope Bay Inlet; however, it is clearly defined as Green Run Inlet on historical T-Sheets (Figure 52).

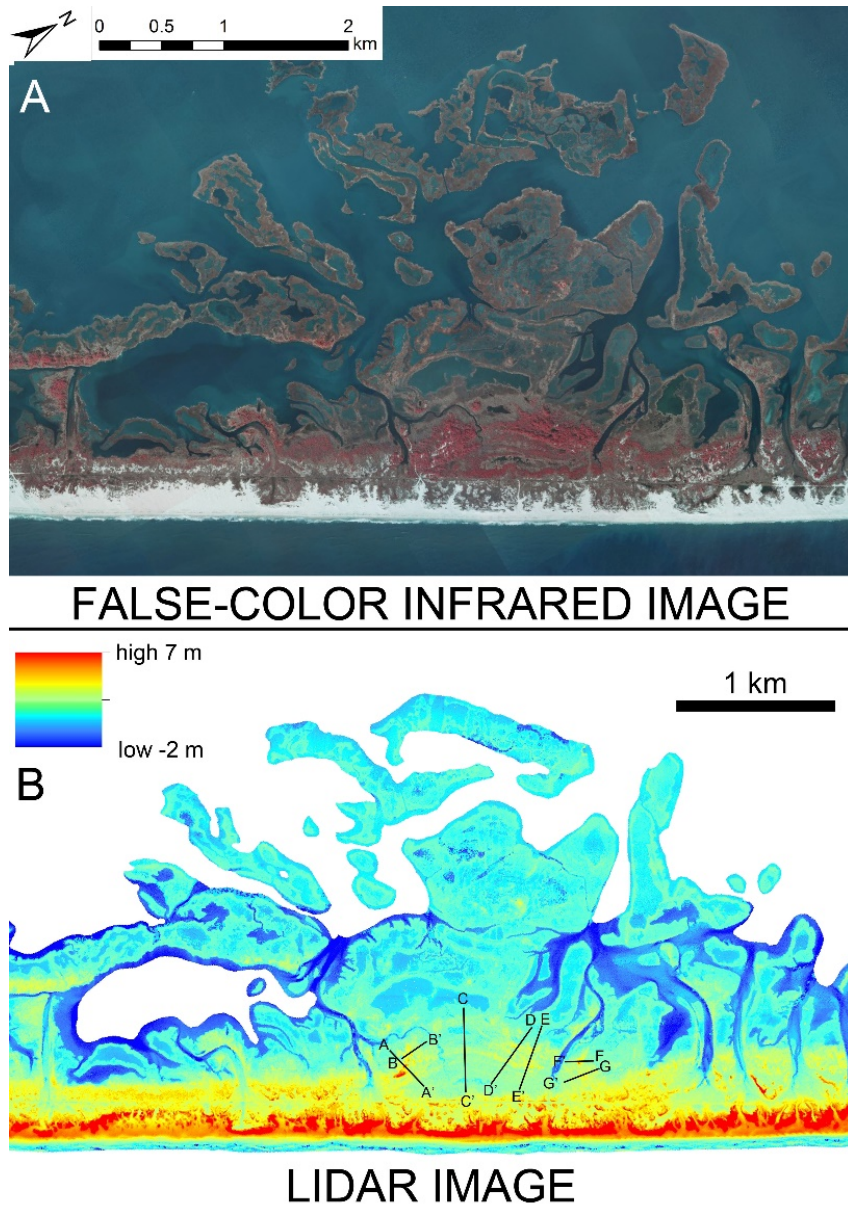


Figure 51: Green Run Inlet. A) False-color infrared image of the former Green Run Inlet showing a large, well-developed relict flood-tidal delta, relict flood-tidal delta channels, two sets of recurved-spit ridges delineating the former inlet's northern and southern shorelines, relict-inlet ponds, and inlet-closure ridges. B) LIDAR image of the former Green Run Inlet (Bonisteel-Cormier et al., 2011). See Figures 53, 54, and 55 for the topographic profiles of A-A' through G-G'.

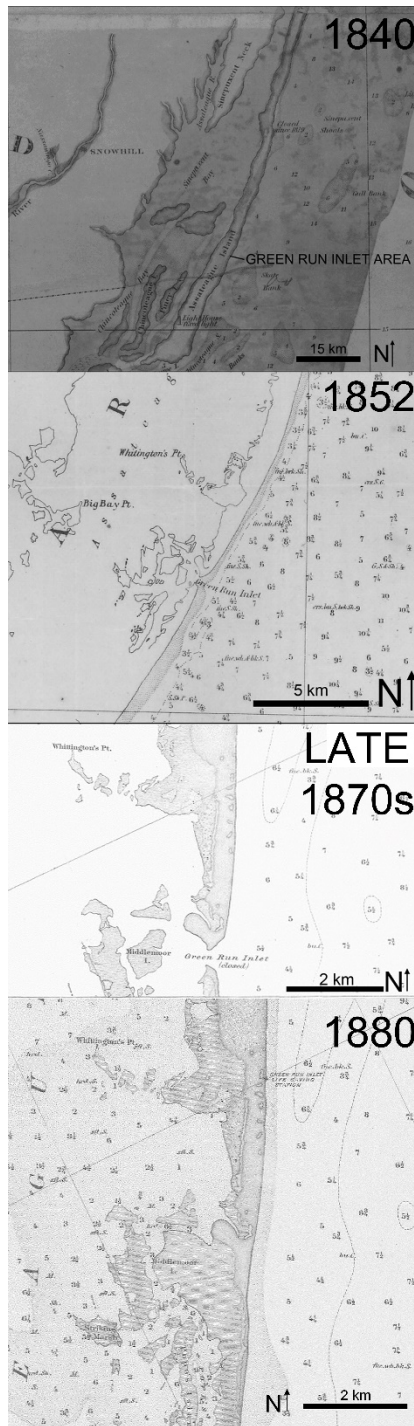


Figure 52: Sequential historical map and NOS T-Sheets displaying the pre-inlet (1840), active (1852), waning inlet (late 1870s), and closed inlet (1880) for Green Run Inlet (Fielding, 1840; United States Coast Survey, 1852 and 1880; United States Coast and Geodetic Survey, 1882).

The former tidal inlet has well-defined recurved-spit ridges, which delineate its northern and southern shorelines or boundaries and exhibits a well-developed flood-tidal delta and associated flood channels (Table 8; Figures 51, 53, and 54). These recurved-spit ridges have maximum heights ranging from 1.4 to 2.7 m (Figures 53 and 54). The flood-tidal delta extends 2.53 km into the Chincoteague Bay and along the backbarrier shoreline for 4.2 km. Shore-parallel beach ridges are truncated fronting the former inlet throat, delineating a 1.5 km zone of influence for the historical inlet. Relict-inlet ponds can be found in the former inlet throat area. Finally, this former tidal inlet has the best preserved inlet-closure ridges along the entire island (Figures 51b and 55; Krantz, 2009). Inlet-closure ridges associated with Green Run Inlet are subtle features that have a maximum height of 1.6 m (Figure 55).

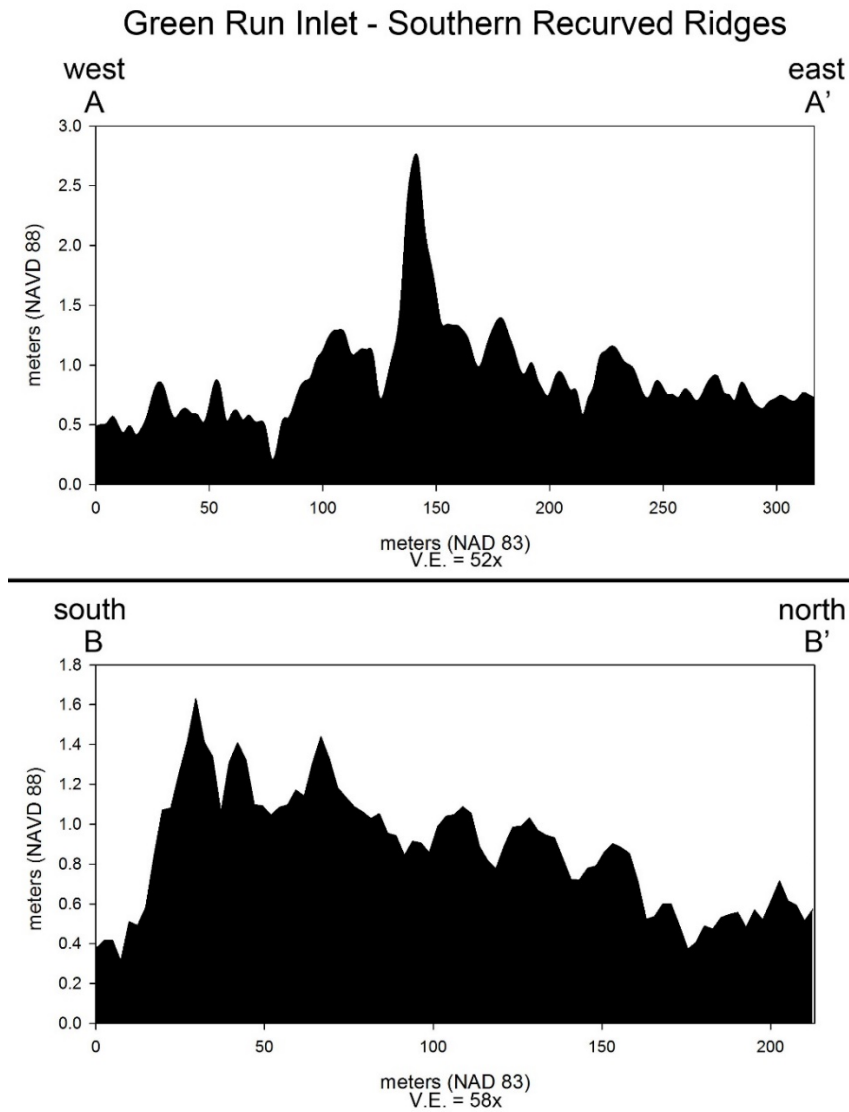


Figure 53: Topographic profiles of the southern recurved-spit ridges of the former Green Run Inlet. See Figure 51 for the locations of the topographic profiles. Profile A-A' has a maximum height of 2.7 m at the 142 m mark in the profile and gradually decreases toward the former inlet throat (eastward). Profile B-B' has a maximum height of 1.6 m at the 30 m mark in the profile and gradually decreases towards the former inlet throat (northward).

Green Run Inlet - Northern Recurved Ridges

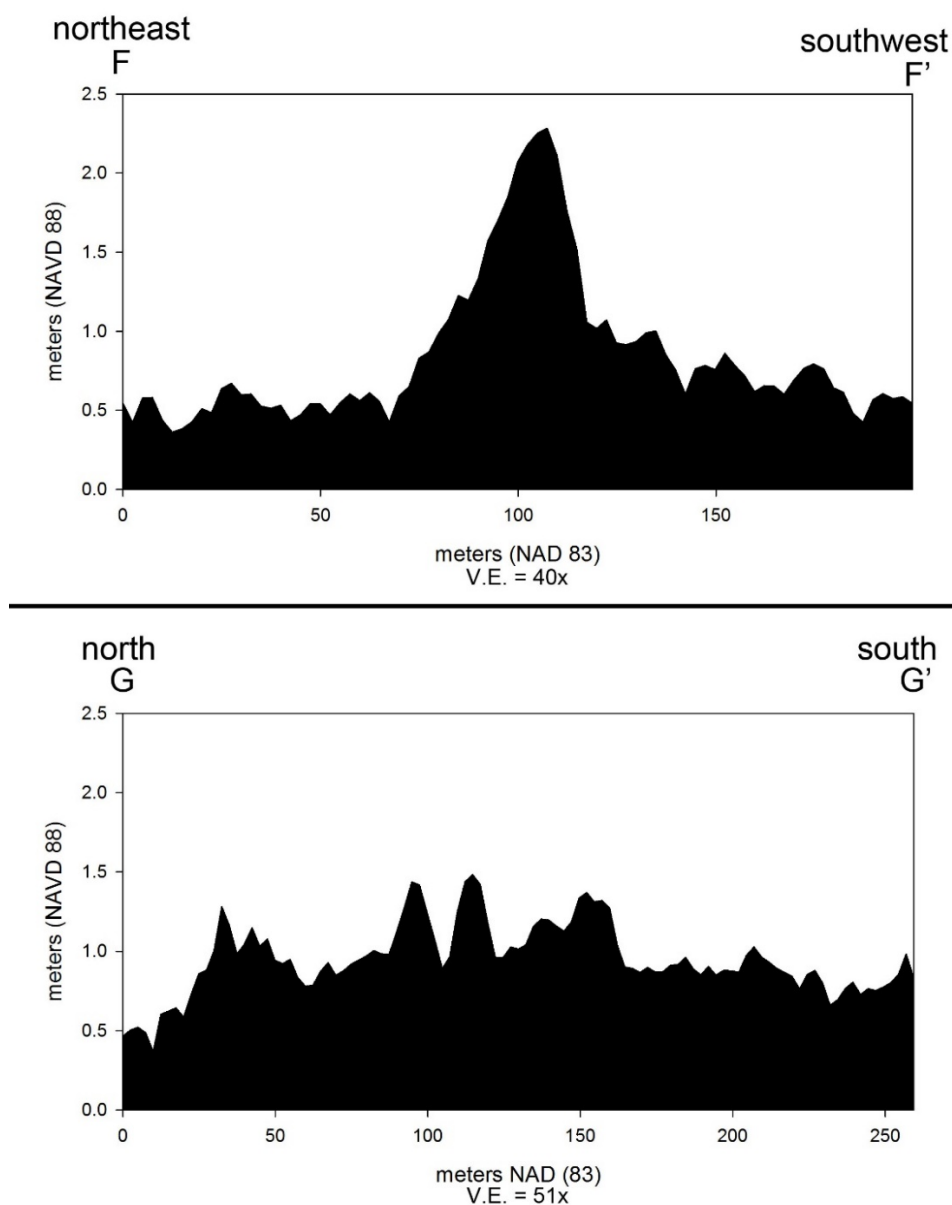


Figure 54: Topographic profiles of the northern recurved-spit ridges of the former Green Run Inlet. See Figure 51 for the locations of the topographic profiles. Profile F-F' has a maximum height of 2.3 m at the 107 m mark in the profile. Both profiles demonstrate a gradual decrease in elevation towards the former inlet throat (a general southerly direction).

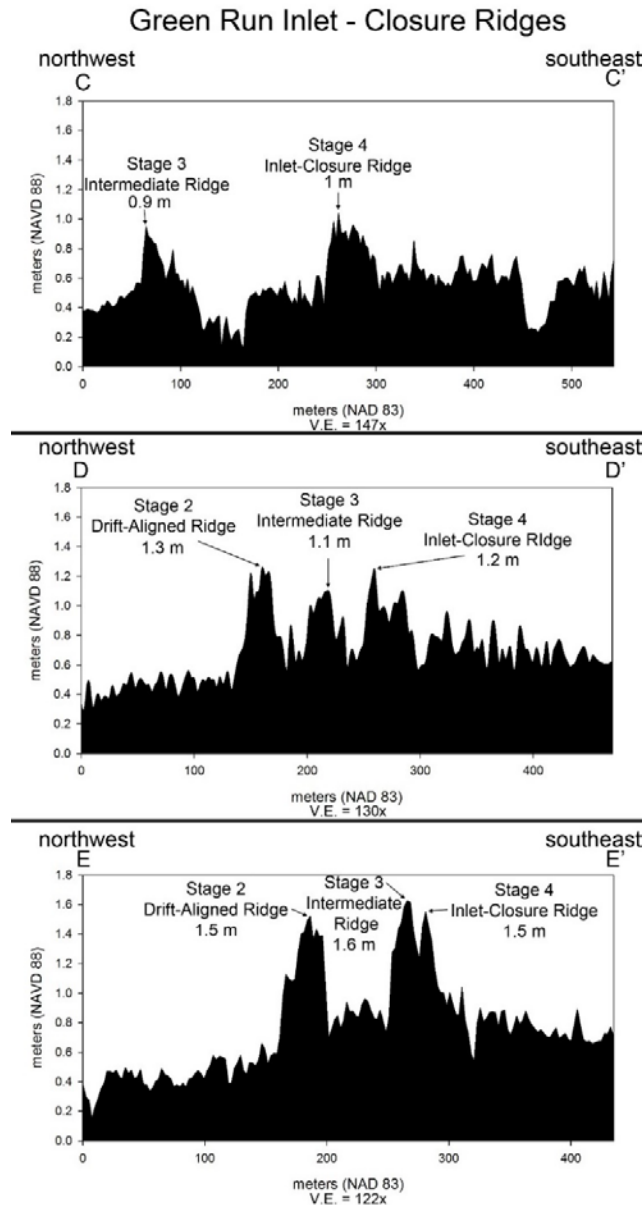


Figure 55: Topographic profiles of inlet-closure ridges. Profile C-C' contains ridges from Stages 3 and 4 of the Green Run Inlet life-cycle model. See Figure 51 for the location of the topographic profiles and Figure 157 for the various stages of the Green Run Inlet life-cycle model. The peak of the 0.9 m at the 65 m mark of the profile is the Stage 3 intermediate ridge. The peak of 1 m at the 260 m mark in the profile is the Stage 4 inlet-closure ridge. Profile D-D' contains ridges from Stages 2, 3, and 4 of the Green Run Inlet life-cycle model. The peak of the 1.3 m at the 160 m mark of the profile is a Stage 2 drift-aligned ridge. The Stage 3 intermediate ridge is represented by the peak of 1.1 m at the 217 m mark in the profile. Finally, a Stage 4 inlet-closure ridge is demonstrated at the 260 m mark in the profile with a peak of 1.2 m. Profile E-E' also contains Stage 2, 3, and 4 ridges of the Green Run Inlet life-cycle model. The Stage 2, drift-aligned ridge is shown at the 186 m mark in the profile with a prominent peak at 1.5 m. The prominent peak of 1.6 m at the 266 m mark in the profile represents the Stage 3 intermediate ridge. Finally, the peak of 1.5 m at the 280 m mark in the profile is representative of the Stage 4 swash-aligned inlet-closure ridge.

Cherry Tree Inlet

Cherry Tree Inlet was first described by Goettle (1978) as an unnamed inlet (Figure 56). This inlet will now be referred to as Cherry Tree Inlet. The inlet was indicated as active on the 1827 historical map labeled as Salt Works (Table 7; Figure 57). Cherry Tree Inlet may have been active ephemerally in the past; however, poor resolution of prior historical maps made the activity phase of this inlet difficult to ascertain.

Geomorphic features associated with this former tidal inlet include a large area of inlet channel scarring, a result of the erosive nature of the former inlet (Table 8). Well-defined recurved-spit ridges delineate the former channel width on the northern boundary and less prominent recurved-spit ridges define its southern border, totaling a 4.9 km zone of influence by the former inlet (Figure 56c). A proposed relict flood-tidal delta likely welded onto the northernmost end of Chincoteague Island during inlet activity. The former inlet first truncated a shore-parallel ridge set along Chincoteague Island and later deposited a flood-tidal delta against the island. Several breaching events likely occurred in this location because of the presence of backbarrier recurved-spit ridges.

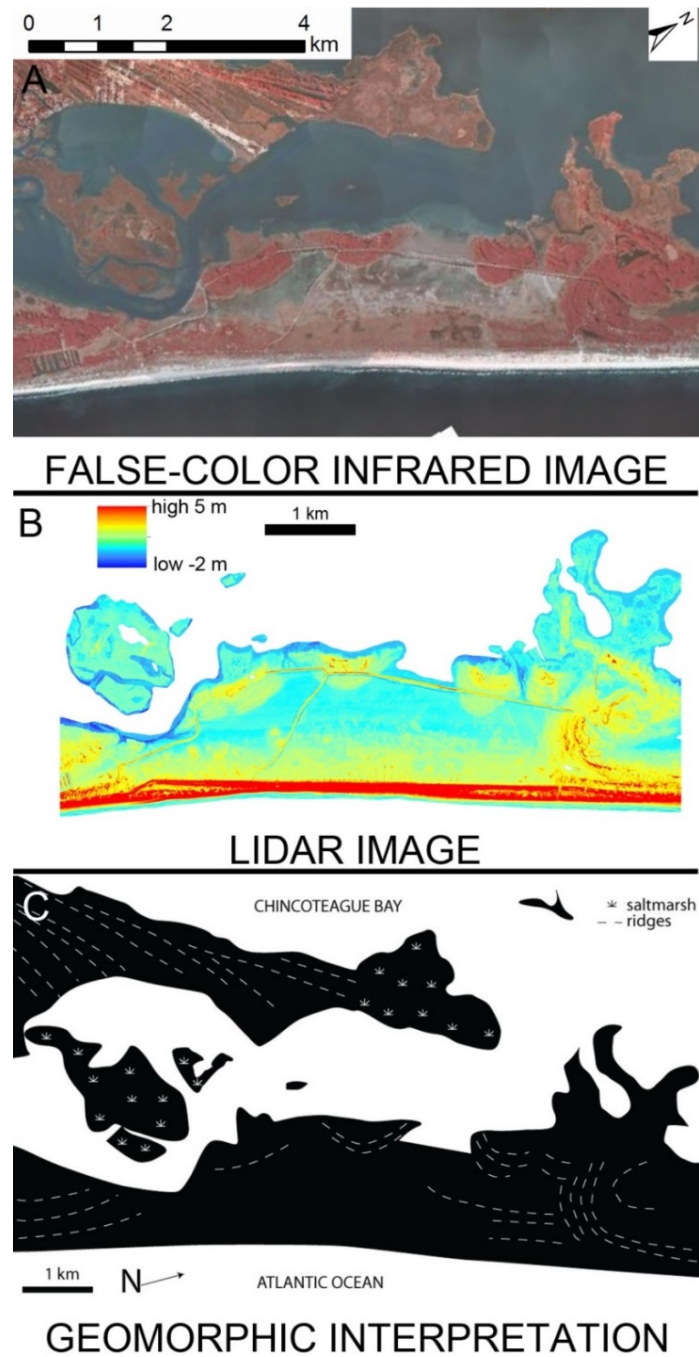


Figure 56: The Cherry Tree Inlet. A) False-color infrared image of the former Cherry Tree Inlet. B) LIDAR image of the former Cherry Tree Inlet (Bonisteel-Cormier et al., 2011). C) Geomorphic interpretation of the former Cherry Tree Inlet. The former inlet is delineated by well-defined recurved-spit ridges on its northern boundary and less prominent recurved-spit ridges on its southern boundary. The ridges of Chincoteague Island were likely truncated from inlet activity and a flood-tidal delta has welded onto the northern portion of Chincoteague Island. A set of shore-parallel ridges radiating from the northern recurves of the inlet appear to be truncated as well.



Figure 57: 1827 historical map demonstrating the Cherry Tree Inlet as active. Note: the Cherry Tree Inlet is labeled as Salt Works in this figure.

Swan Pool Breach

The segment of Assateague Island fronting Swan Pool has been recently subjected to breaching following Hurricane Irene (2011), Hurricane Sandy (2012), and Nor'easter Jonas (2016) as found in Table 7; Figures 58 and 59 (United States Geological Survey, 2012). Each breach was short lived, lasting no more than 2 weeks (Bill Hulslander, personal communication, 2013). Crude swash-aligned, inlet-closure ridges can be observed extending from the northern recurved-spit ridges in the post-breach imagery following Hurricane Sandy (Table 8; Figure 58). This short-lived breach affected a 160-

m segment of Assateague Island. Imagery documenting the closure of this breach following Nor'easter Jonas is not yet available.

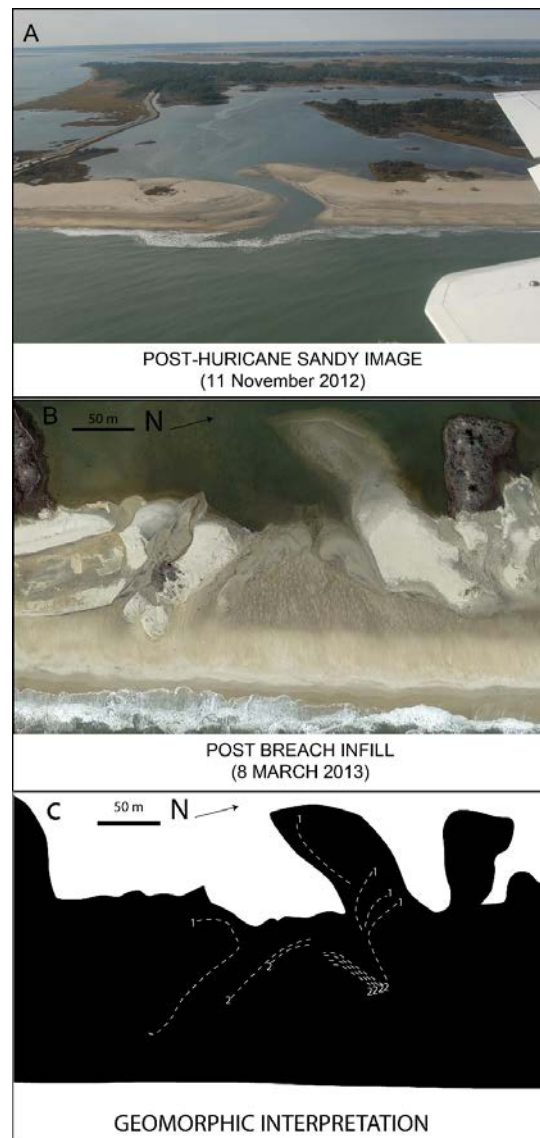


Figure 58: Swan Pool Breach. A) Image of the island breach fronting Swan Pool that was activated as a result of Hurricane Sandy (United States Geological Survey, 2012). B) Image of the Swan Pool Breach following its closure. C) Geomorphic interpretation of the infilled breach. Swash-aligned, concave seaward inlet-closure ridges from the northern drift-aligned recurved-spit ridges.



Figure 59: Breaches resulting from Nor'easter Jonas on 22-24 January 2016 (Hendrickson, 2016).

Tom's Cove Breach Zone

Several shallow breaches fronting Tom's Cove were formed as a result of Nor'easter Jonas (2016; Figures 1 and 59). The breaches were shallow and lasted for 2-to-3 weeks (Bill Hulslander, personal communication). No low-altitude aerial imagery is currently available documenting the closure of this breach zone.

Inlet and Breach Zone of Influence

It is well documented that wave-dominated barrier islands are prone to breaching events and that inlet fill may comprise a significant portion of barrier-island deposits (Fisher, 1962; Moslow and Heron, 1978; Fisher, 1982; Moslow, 1984; Leatherman, 1985; Moslow and Tye, 1985). Moslow and Heron (1978) estimate that 14-16% of Holocene barrier-island deposits along Core Banks, North Carolina are composed of Holocene inlet fill. Moslow (1984) and Moslow and Tye (1985) suggest that 30-50% of the Holocene barrier islands have been affected and modified by coastal processes associated with tidal inlets. Along Fire Island, New York, Leatherman (1985) estimated that 25% of the barrier is comprised of inlet fill and that this value could possibly be as much as 85%. In total, 12 former breaches and inlets have been documented along Assateague Island, which account for modifying 34% of the barrier-island lithosome of the 58 km span of the barrier island (Seminack and McBride, 2015).

Inlet Chronology

Truitt (1968), McBride (1999), and Krantz et al. (2009) have compiled inlet chronologies for Assateague Island; however, discrepancies exist among the three

published studies. Truitt (1968) developed an inlet chronology within Maryland and documents eight former breaches or breach zones (i.e., multiple breaches within a proximal area) along Assateague Island. McBride (1999) compiled an inlet chronology along the New Jersey and Delmarva coasts and identified 11 former tidal inlets and breaches along Assateague Island. Finally, Krantz et al. (2009) recorded 10 inlets and breaches, which occurred during the historical period along Assateague Island.

Northern Assateague Breach Zone

All three studies document breaches along the northernmost portion of Assateague Island in response to the Ash Wednesday 1962 extra-tropical storm (Figures 1 and 39). Aerial photography (Figure 39a) and Rosati (2005) both indicate that the island was breached prior to the Ash Wednesday storm; the Ash Wednesday storm enlarged the breaches (Figure 39b). Truitt (1968) and McBride (1999) refer to these breaches as Inlet Shallows. Krantz et al. (2009) refer to the breaches as 1962 Storm Inlet. The name Northern Assateague Breach zone is proposed for this vulnerable segment of the barrier island. Historical nautical charts and Leatherman (1979) recorded that the breaches closed between 1974 and 1979.

North Sinepuxent and Sandy Point Inlets

Truitt (1968) refers to this inlet as Sandy Point Inlet; however, he does acknowledge that the historical nautical charts document this short lived inlet as Sinepuxent Inlet (Figures 1, 40, and 41). McBride (1999) and Krantz et al. (2009) refer to

two inlets within this area: Sinepuxent and Sandy Point Inlets. Sinepuxent Inlet is documented as a short lived breach, which was activated in 1920, while Sandy Point Inlet was open from 1920 to 1929 and 1962 (McBride, 1999). Findings from the present study suggest that Sandy Point Inlet (1920-1929) is the inlet that was observed as Sinepuxent Inlet in historical nautical charts. Because the name “Sinepuxent” has been used more than once in the historical inlet nomenclature, the name North Sinepuxent Inlet is proposed. The North Sinepuxent Inlet was first identified on the 1925 nautical chart and closed by the 1930 map. Geomorphic features exist at Sandy Point, which may represent a relict flood-tidal delta. This may be the location of the short-lived 1920 inlet; however, no historical nautical charts documented a breach in this location (Figures 13 and 41).

North Beach and Sinepuxent Inlets

Truitt (1968) documents that North Beach Inlet was located close to Sinepuxent Inlet and the two channels may have coexisted during the Revolutionary period (1765-1783), and again in 1841 (Figures 1 and 42). It is important to note that Truitt (1968) states that the two inlets were often confused because of similar activity phases, proximity, and crude mapping techniques. Truitt (1968) also suggests that North Beach Inlet may have coexisted with Green Run Inlet in the late 1870s. Krantz et al. (2009) documents North Beach Inlet as active in the 1870s. McBride (1999) lists two closely located breaches during the same time period: North Beach Inlet (1770-1841?) and an unnamed inlet (pre-1890). These breaching events documented by McBride (1999) may

have both been related to the North Beach Inlet because of mapping errors. No historical nautical charts or maps utilized in this study identified an active North Beach Inlet.

Sinepuxent Inlet is documented as active from 1757 to 1832 by Truitt (1968). Truitt (1968) also notes that this was a major commercially utilized inlet. McBride (1999) documents the activity phase of Sinepuxent Inlet the same as Truitt (1968). McBride (1999) also documents a second unnamed inlet slightly south of Sinepuxent as active before 1790. Krantz et al. (2009) have similar results as McBride (1999). Krantz et al. (2009) only document a closing date for Sinepuxent Inlet (ca. 1830) and lists the unnamed inlet as active ca. 1790. Sinepuxent and the unnamed inlet may likely be the same feature because of similar activity phases and locations. Findings from the present study regarding the activity phase of Sinepuxent Inlet generally agree with Truitt (1968), McBride (1999), and Krantz et al. (2009). An active Sinepuxent Inlet was documented on the 1755 historical map. The 1831 map depicts the inlet as closed; however, the 1840 map noted that the inlet closed in 1819, indicating that it may have existed as an ephemeral inlet for the last years of its existence.

North Beach and Sinepuxent Inlets may be mapped incorrectly on all three documents (Truitt 1968; McBride 1999; Krantz et al. 2009). Truitt (1968) explains the commercial importance of Sinepuxent Inlet, indicating that this was at one time a major inlet. The geomorphic expression of a large former tidal inlet exists slightly south of the suggested location of Sinepuxent Inlet, which is not listed in the three studies (Figure 1 and 43). The correct location of Sinepuxent Inlet based on excellent geomorphic evidence

is proposed in Figure 43. The area just to the north of Sinepuxent Inlet expresses a possible relict flood-tidal delta and may be the location of North Beach Inlet.

Fox Hills and Winter Quarter Breach Zone

Truitt (1968), McBride (1999), and Krantz et al. (2009) all agree on the location and activity phase of Fox Hills and Winter Quarter Breach zone (Figures 1 and 48). Truitt (1968) states that four short-lived breaches occurred within this area in the late 1800s. McBride (1999) states that this area was sporadically breached in the late 1800s. Krantz et al. (2009) document this breach as Fox Hills Inlets, which occurred in the late 1800s. I was unable to locate any historical maps or nautical charts that identified this breach zone.

Slough Inlet

Truitt (1968), McBride (1999), and Krantz et al. (2009) all agree on the age and location of the Slough Inlet (Figure 48). Truitt (1968) and McBride (1999) document Slough Inlet as active in 1766 and Krantz et al. (2009) list Slough Inlet as active in ca. 1760. I was unable to obtain any historical documents, which recorded the activity phase of the Slough Inlet but the geomorphic expression of this former inlet is good.

Green Run Inlet

Truitt (1968) and McBride (1999) have similar information regarding Green Run Inlet (Figures 1 and 51). Truitt (1968) states that the Green Run area was subjected to multiple breaching events in the late 1700s and early 1800s. Truitt (1968) also states that

Green Run Inlet may have been open ephemerally from 1831 to 1855, and closed in 1880. McBride (1999) agrees with Truitt (1968) by stating that Green Run Inlet was open from 1790 to ~1882, with the inlet being closed in 1877 and 1880. Krantz et al. (2009) agree with the activity phase of Green Run Inlet (ca. 1790 to ca. 1890); however, they suggest a more southerly location of the former inlet. The inlet location that Krantz et al. (2009) suggest is correct based on historical nautical charts and the excellent expression of geomorphic features. My findings state that Green Run Inlet was open from 1852 to 1880.

Moreover, Truitt (1968) and McBride (1999) specify the location of Pope Island Inlet in the same site as Green Run Inlet as documented by Krantz et al. (2009). Truitt (1968) states that Pope Island and Green Run Inlets were often confused with each other. Both Truitt (1968) and McBride (1999) document Pope Island Inlet as opening in 1850. Truitt (1968) states that the inlet was still active in 1877 and McBride (1999) documents the inlet as closing in ~1890. Krantz et al. (2009) do not list this former inlet at all. It is likely that Pope Island and Green Run Inlets represent the same inlet because of evidence from historical nautical charts and present-day geomorphic features. Thus, since no geomorphic or nautical chart evidence exists for a separate Pope Island Inlet, the name of this former inlet will be dropped, and Green Run Inlet will remain as the only primary inlet in this area as shown in Figures 51 and 52.

Cherry Tree Inlet

Krantz et al. (2009) identify a former inlet within the Virginia portion of Assateague Island (Figures 1 and 56). Truitt (1968) did not include Virginia within his scope of work and McBride (1999) did not note any former inlets in this location. Krantz et al. (2009) document an unnamed inlet, slightly north of Chincoteague Island and does not provide an activity phase. Goettle (1978) suggests that a former inlet existed adjacent to the northern boundary of Chincoteague Island because of geomorphic features and truncated beach ridges along Chincoteague Island. Halsey (1979) identifies the Morris Inlet at this location during the early Colonial Period. It is possible that Krantz et al. (2009) may be referring to this inlet, which Seminack and McBride (2015) proposed the name Cherry Tree Inlet (Figure 56). Historical nautical charts depict this inlet as possibly being open ephemerally starting in 1755. Unfortunately, the historical maps lack the resolution to determine the exact opening date of the inlet. The first and last map with sufficient resolution to portray the Cherry Tree Inlet as active was in 1827; Cherry Tree Inlet was closed on the 1831 map.

Historical Aerial Photography

Historical aerial photography along Assateague Island was reviewed for this study. The main purpose of this review was to determine the intensity of storm impacts affecting the former Sinepuxent and Green Run Inlets. This in turn, would serve as a modern analogue and thus provide valuable information as to how past or ancient storms may have affected the barrier island.

1956 Aerial Photography

Aerial photography collected in 1956 along the Maryland portion of Assateague Island served as the baseline to compare the impacts of later storms. The former Green Run Inlet in 1956 closely resembles its present day appearance (Figure 60). A series of well-developed, shore-parallel ridge sets are observed extending over the former inlet throat. This portion of the barrier island has been resilient and was subjected to minimal geomorphic changes throughout the past 60 years.

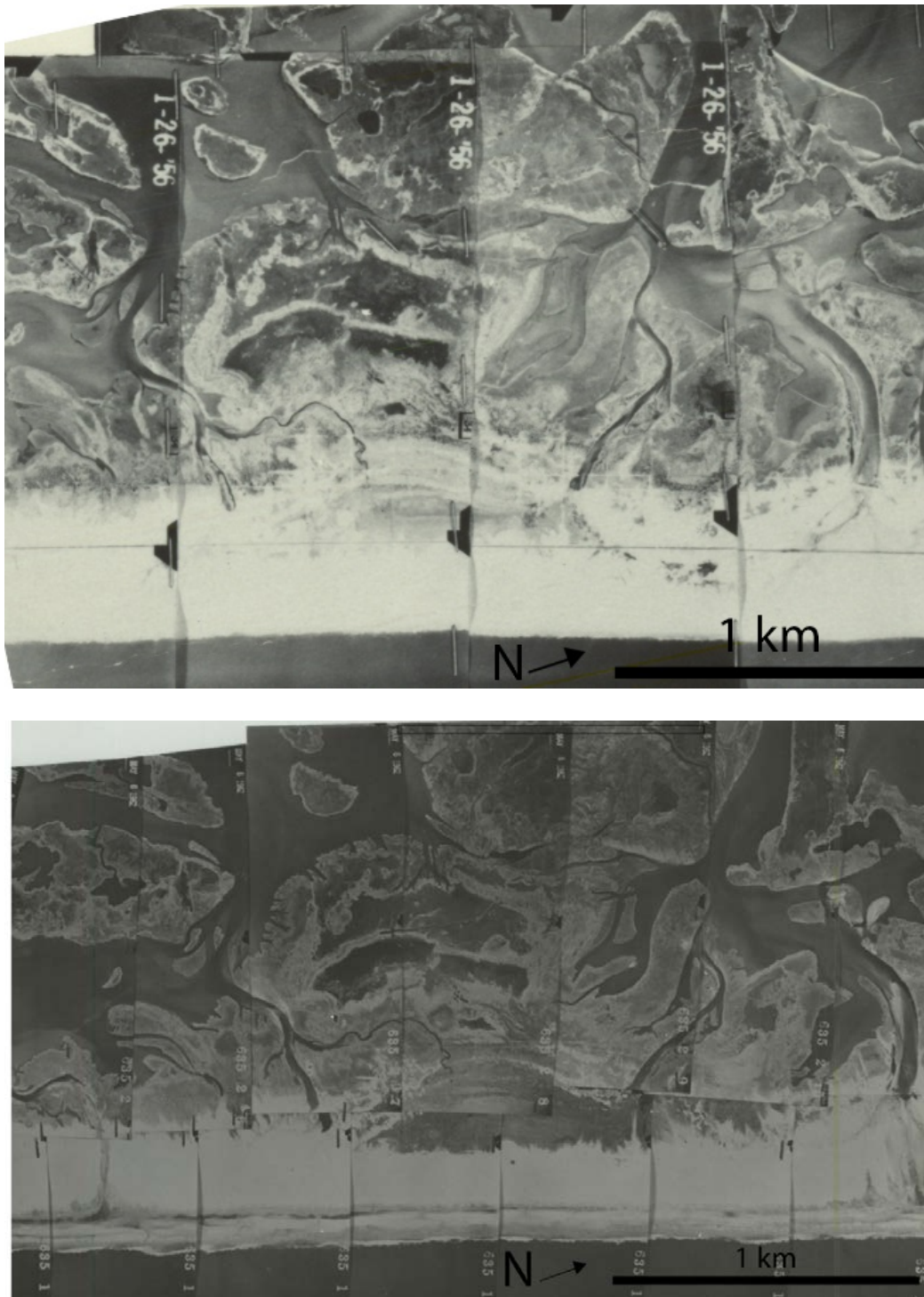


Figure 60: Aerial photographs of the former Green Run Inlet collected on 26 January 1956 (top) and 6 May 1962 (bottom), following the March 6-8 Ash Wednesday Nor'easter (State of Maryland, 1956 and 1962).

The former Sinepuxent Inlet, in contrast to the former Green Run Inlet, has undergone drastic changes over the past 60 years (Figure 61). The former inlet throat appears extremely flat. No shore-parallel ridges are observed extending across the former inlet throat. Some freshly deposited washover fans are present protruding landward over the northern recurved spit of the former inlet.

1962 Aerial Photography – Post Ash Wednesday Storm

The former Green Run Inlet area proved to be one of the most resilient segments of Assateague Island following the Ash Wednesday storm. In a comparison between the 1956 and 1962 post-Ash Wednesday photography, the only change that occurred was the deposition of a washover platform, which did not extend much landward past the foredune (Figure 60). Overall, the majority of the barrier island along the former Green Run Inlet was virtually unaffected by the nor'easter.

In direct contrast to the former Green Run Inlet area, the Ash Wednesday storm greatly impacted the former Sinepuxent Inlet area (Figure 61). It is likely that this area was breached as a result of the intense storm. Freshly deposited flame structures are observed extending from the landward-most portion of tidal creeks along the backbarrier.

Extensive amounts of newly deposited sand was observed along the poorly developed flood-tidal delta of the former Sinepuxent Inlet. The recurved-spit ridges (both northern and southern sides) of the former inlet appear to have been breached by overwash processes. A wider, more extensive washover apron is now observed along the northern recurved-spit ridges, while some less extensive washover deposits appear to have

breached the southern recurved-spit ridges. A large pond, likely formed from a surge channel as a result of the storm, now occupies nearly three-quarters of the width of the former inlet throat, extending from the northern recurved spit. Finally, an extensive washover platform, with many associated shore-normal surge channels was deposited as a result of the Ash Wednesday Storm. The washover platform extends landward to nearly the middle of the former inlet throat. The landward edge of the washover platform forms a swash-aligned, concave-landward ridge.

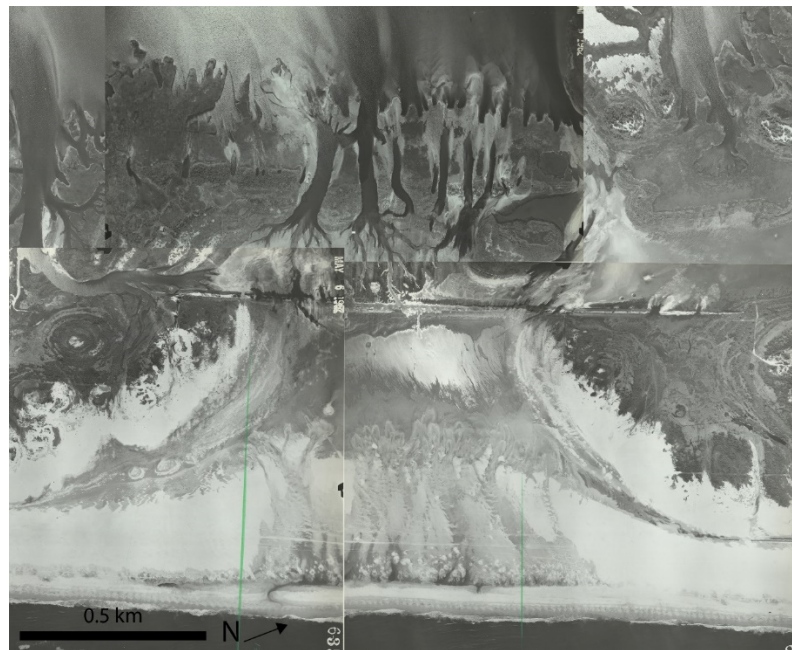
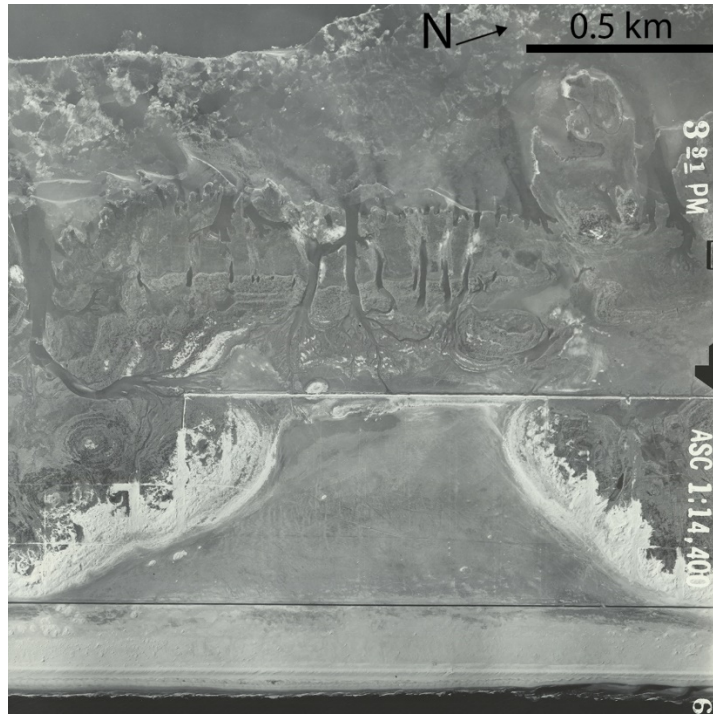


Figure 61: Aerial photographs of the former Sinepuxent Inlet taken on 26 January 1956 (top) and 6 May 1962 (bottom) following the Ash Wednesday Nor'easter (State of Maryland, 1956 and 1962).

1989/1994 Aerial Photography

Little change has occurred at the former Green Run Inlet between 1962 and 1994 (Figure 62). Vegetation has begun to occupy the washover deposits from the 1962 storm. Because this area still closely resembles the 1962 photographs and the present day imagery, no further changes were described in future imagery for the former Green Run Inlet.

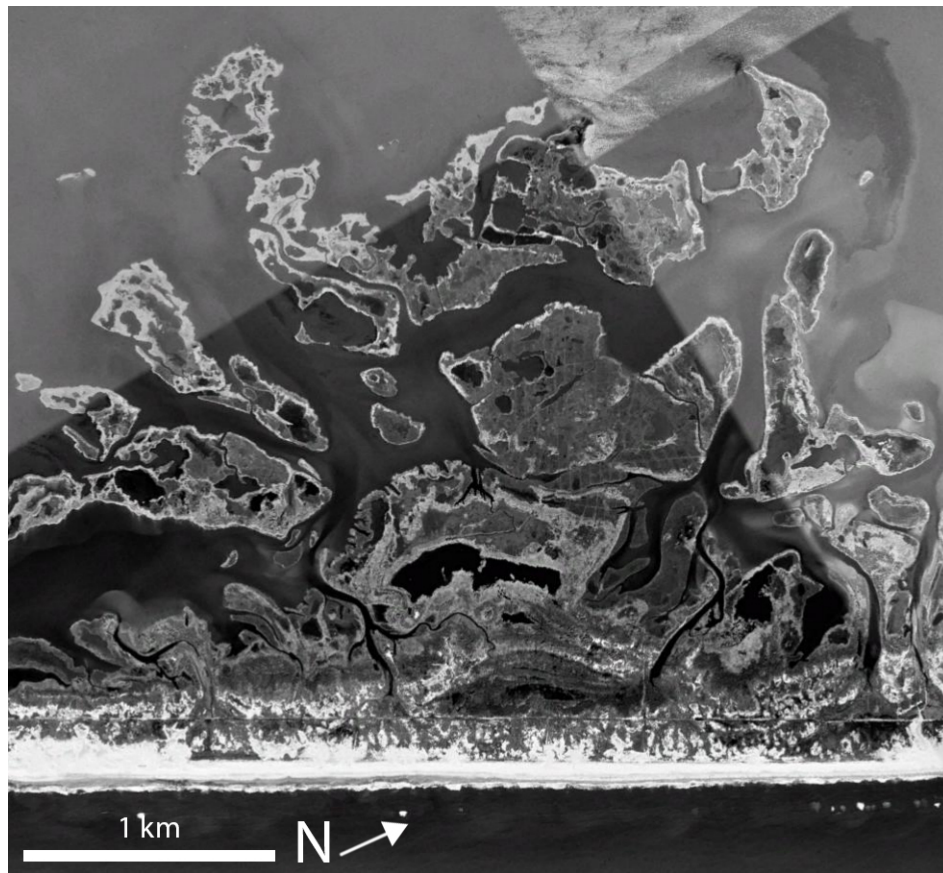


Figure 62: Aerial image collected in 1994 of the former Green Run Inlet (Google Earth, 2015).

Much change occurred between 1962 and 1989 along the dynamic segment of the barrier island where Sinepuxent Inlet once existed (Figure 63). The backbarrier portion of the former Sinepuxent inlet is relatively unchanged compared to the 1962 aerial photography. A small dendritically-shaped tidal creek now protrudes into the inlet throat area. The most obvious change occurred behind the foredune area, into the most landward portion of the former inlet throat. Features known as pimple mounds and small-scale washarounds are now present where the extensive washover platform was deposited during the Ash Wednesday storm. A second, more seaward swash-aligned, concave-seaward ridge is present, fronting the pimple mounds/washarounds.

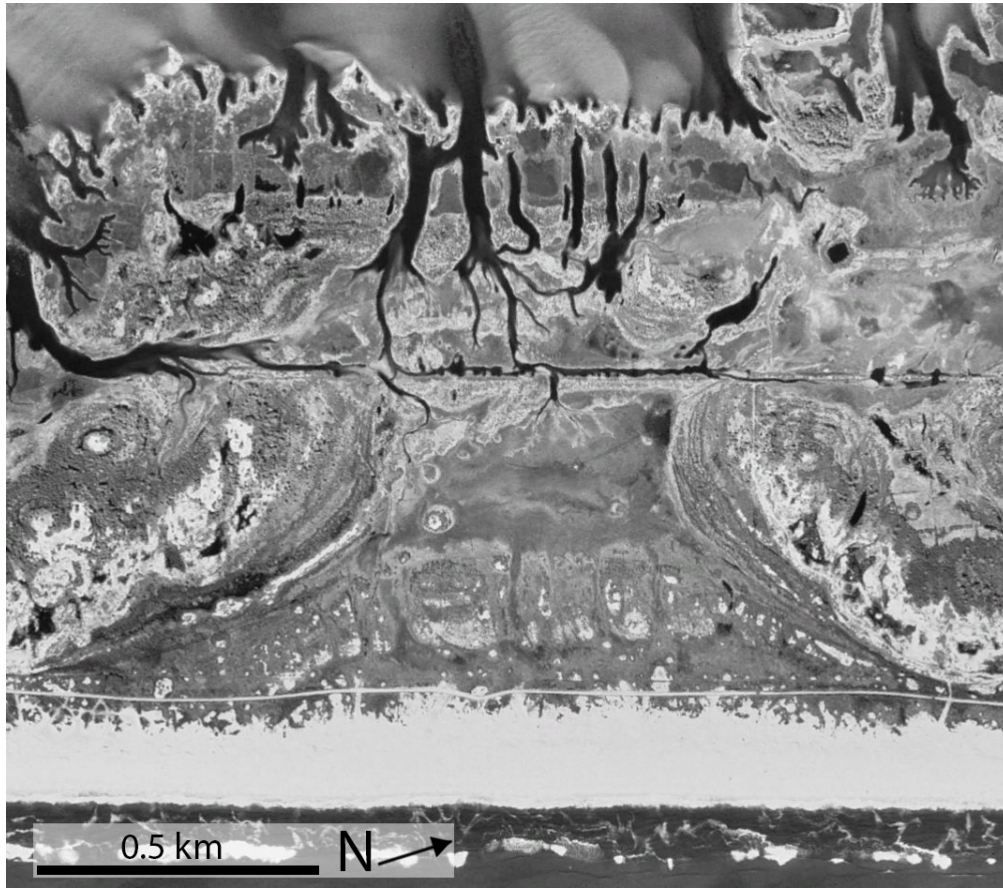


Figure 63: Aerial photograph of the former Sinepuxent Inlet collected in 1989 (Google Earth, 2015).

2009/2011/2012 Aerial Imagery

Three major storms have impacted Assateague Island since 2009. Those three storms are Nor'Ida in November 2009 (Figure 64), Hurricane Irene in August 2011 (Figure 65), and Hurricane Sandy in late October 2012 (Figure 66). Relatively little change occurred along the former Sinepuxent Inlet area. The most obvious changes were some isolated washover fan deposits. Other than the foredune being breached by overwash processes in several locations, no major changes occurred as a result of these three intense storms.



Figure 64: Oblique aerial image of the former Sinepuxent Inlet following Nor'Ida (USGS, 2009).



Figure 65: Oblique aerial image of the former Sinepuxent Inlet following Hurricane Irene.



Figure 66: Oblique aerial image of the former Sinepuxent Inlet following Hurricane Sandy (USGS, 2012).

Ground-Penetrating Radar Survey

GPR surveys were performed at the former Sinepuxent and Green Run Inlets.

Saltwater attenuation played a large role in limiting the penetration depths at both former inlet sites. The radar profiles produced penetration depths of 1 to 2 m on average; however, one transect, a strike-section of the former Green Run Inlet, produced signal penetration depths greater than 4 meters and will be described in this section.

Strike-Section Transect of the Former Green Run Inlet

GPR profile 362 was collected as a strike-section transect along the former Green Run Inlet and allowed a signal penetration depth deep enough for a reliable interpretation of the lithosome (Figure 67). This strike-section profile was approximately 1.2 km long with a maximum penetration depth of 4 m.

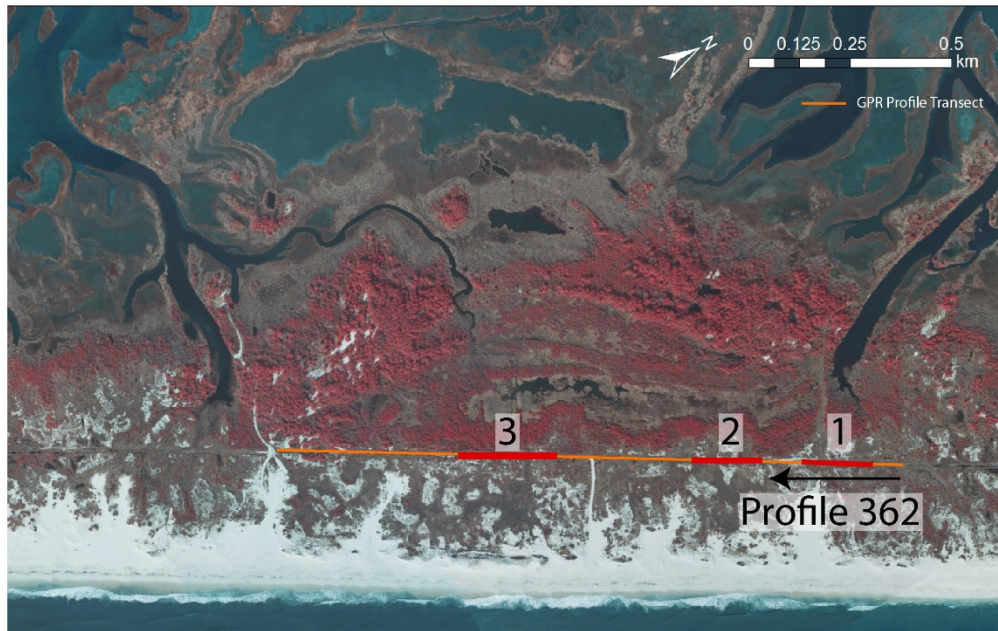


Figure 67: The location of the GPR profile along the former Green Run Inlet. The red portion of the line and accompanied numbers represent critical data segments. Segment 1 is displayed in Figure 68, segment 2 is displayed in Figure 69, and segment 3 is displayed in Figure 70.

Even-parallel radar facies dominate the northernmost segment of this shore-parallel profile (Figure 68). These parallel features are abruptly truncated by a steeply-dipping, sigmoidal-oblique, bold reflector at the 98 m mark. This reflector is most obvious at a depth of approximately 3 m. The reflectors south of this truncation change to sigmoidal-oblique radar facies for the remainder of the Figure 68, extending 680 m to the south. The top 1 m of this portion of the radar profile is capped with even-parallel radar facies.

Southerly dipping sigmoidal-oblique reflectors dominate Figure 69. A mounded structure is present from 310 to 365 m (Figure 69). A bold horizontal reflector is present

at ~3 m in depth, which extends from 305 to 360 m, under the mounded structure. In order to ground-truth the geophysical data, a sediment core was collected from the 370 m mark in Figure 69.

The southerly dipping clinoforms continue until the 740 mark (Figure 70). At this point, a channel feature extends from the 740 m to the 840 m mark, totaling 100 m in width. The channel extends to a depth of 3.75 m. It is filled with aggrading clinoforms dipping to the north, the opposite direction of longshore sediment transport. Even-parallel radar facies cover the channel-shaped structure extending from a depth of 0 to 1 m.

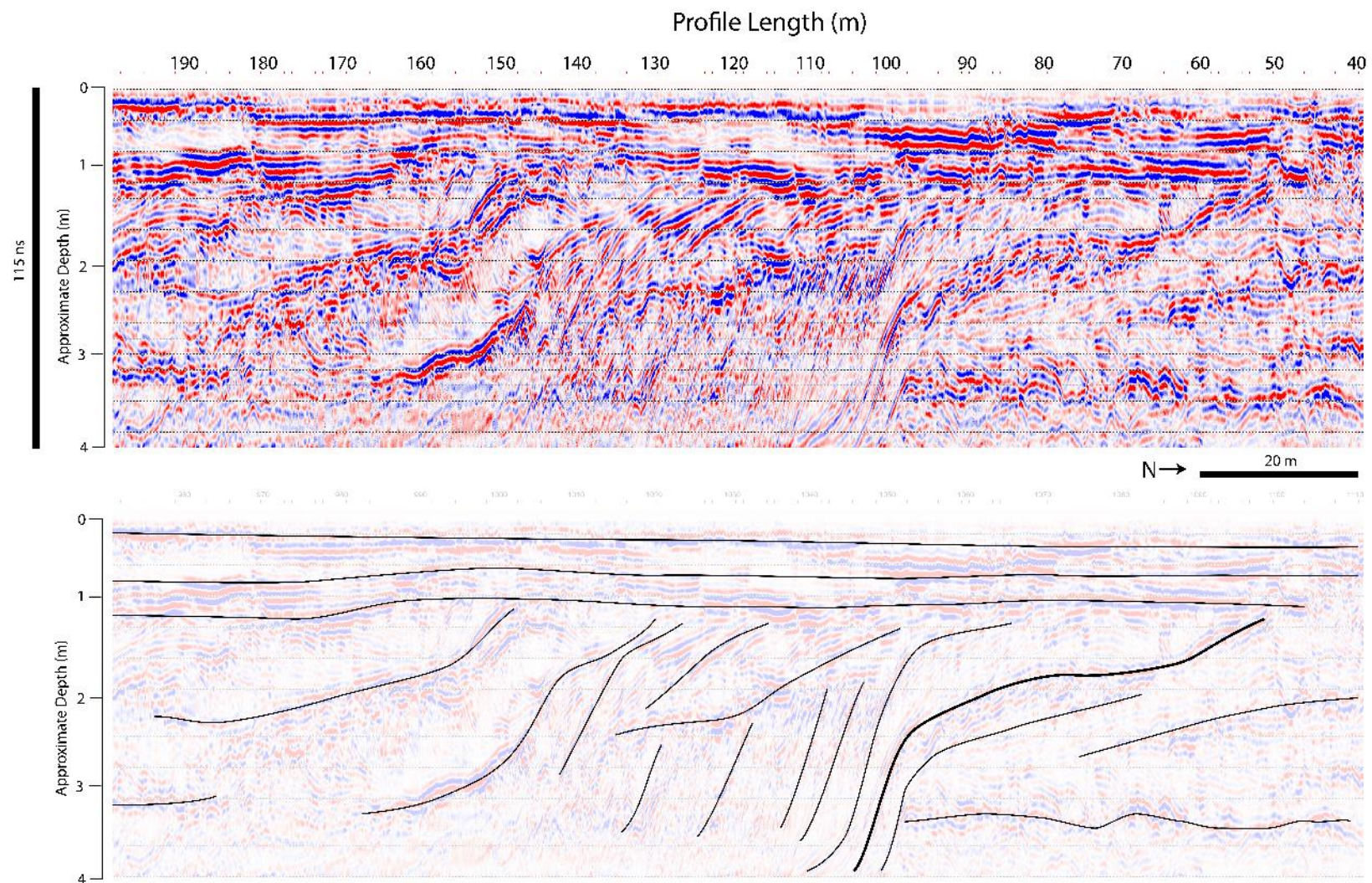


Figure 68: Strike-oriented GPR Profile (Segment 1 of Profile 362) showing the start of the Green Run Inlet channel at the 98 m mark. See Figure 67 for the location of the GPR profile.

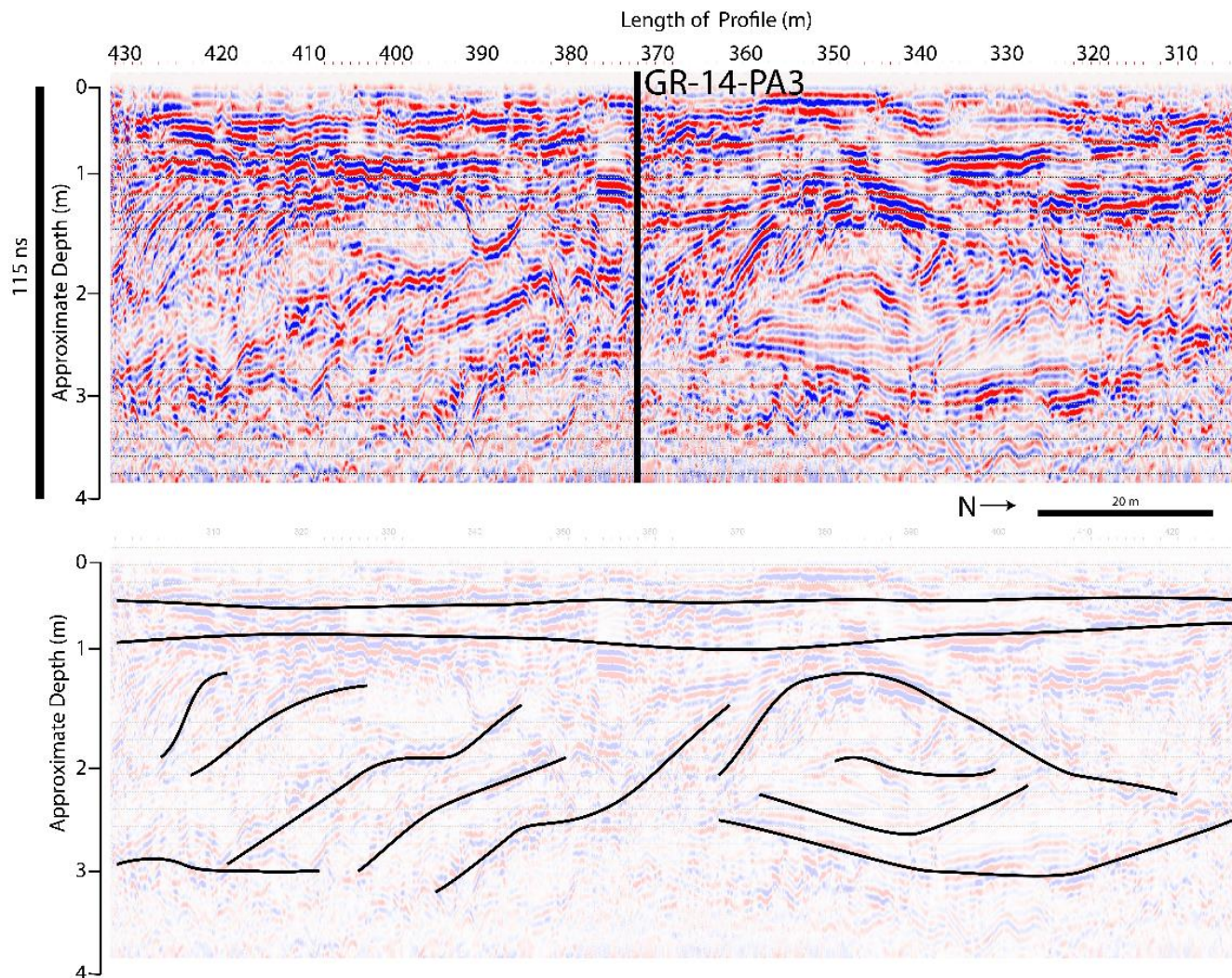


Figure 69: Strike-oriented GPR profile (Segment 2 of Profile 362) along the former Green Run Inlet showing migratory facies. Sediment core GR-14-PA3 was collected at the 370 m mark to ground-truth the geophysical data. See Figure 67 for the location of the GPR profile.

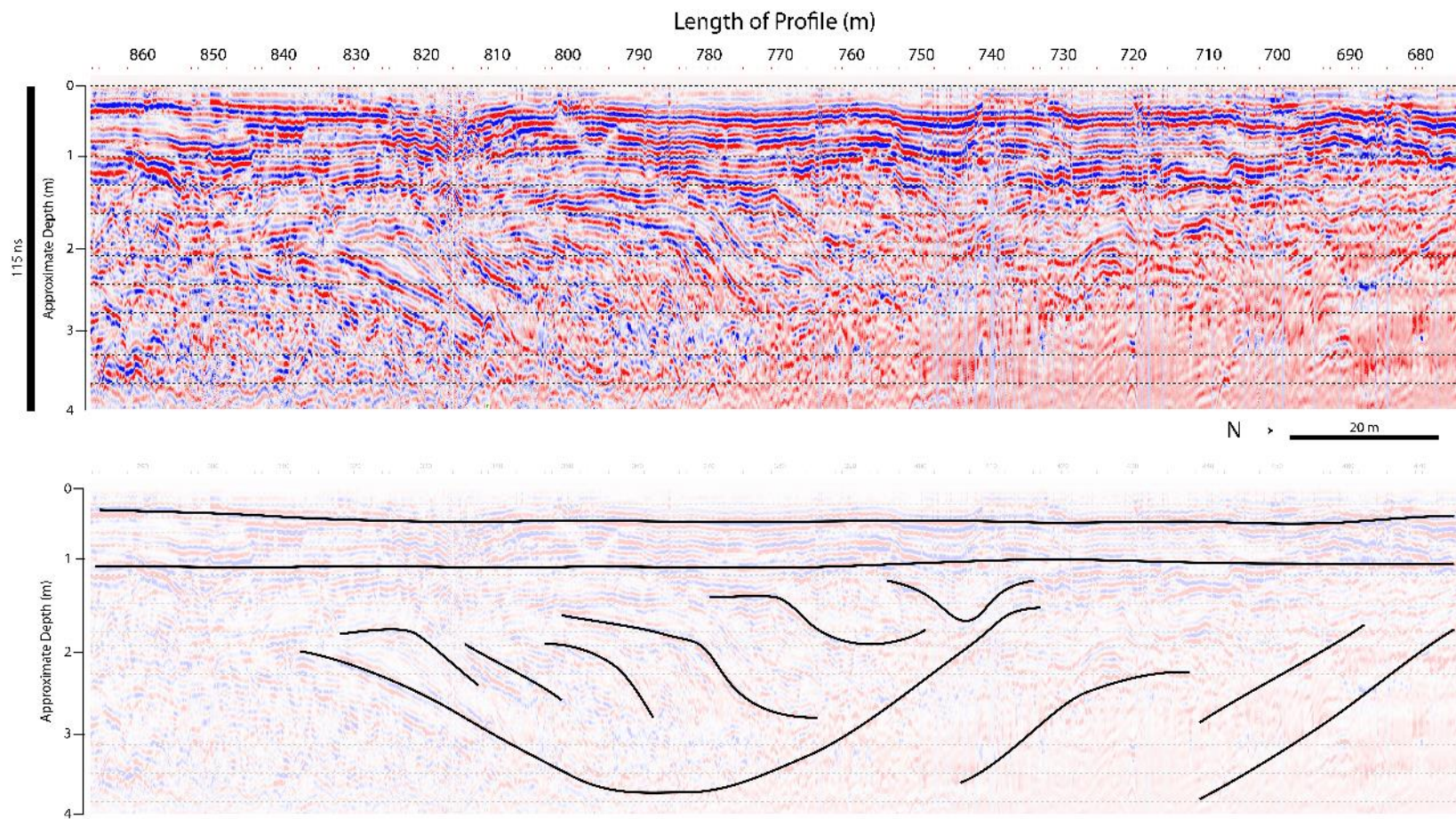


Figure 70: Strike-oriented GPR profile (Segment 3 of Profile 362) showing the final channel location of the former Green Run Inlet. See Figure 67 for the location of the GPR profile.

Sediment Core Analysis

In total, 30 sediment cores were collected for this study, yielding 850 sediment samples. The following section provides a facies analysis, and vertical grain size trend for each core. Core identities with a “PA” in the name (i.e. GR-14-PA1) were collected by the pulse auger technique (6 in total), while the remaining cores were collected by the vibracoring technique. See Figure 71 for the core location map from the former Green Run Inlet and Figure 72 for the core location map of the former Sinepuxent Inlet. See Table 9 for a summary of core ID, length, compaction, total depth, surface elevation and number of samples, and Table 10 for a summary of facies described from sediment cores. See Appendix B for the core descriptions sheets, and Appendix C for individual sediment sample analysis results.



Figure 71: The former Green Run Inlet area showing sediment core locations and geologic cross section transects.



Figure 72: The former Sinepuxent Inlet showing sediment core locations and geologic cross section transects.

Table 9: Summary of core ID, length, compaction, total length, surface elevation, and number of sediment samples.

Core ID	Length (cm)	Compaction (cm)	Total Core Length (cm)	Surface Elevation (m, NAVD88)	Number of Sediment Samples
GR-14-01	239	89	328	0.32	19
GR-14-02	201	105	306	0.10	21
GR-14-03	298	98	396	0.16	29
GR-14-04	331	74	405	0.71	21
GR-14-05	243	270	513	0.53	23
GR-15-07	378	113	491	0.31	20
GR-14-08	296	155	451	0.57	19
GR-15-09	381	126	507	1.11	29
GR-15-10	300	212	512	1.56	30
GR-15-11	335	205	540	1.39	35
GR-15-12	236	159	395	0.36	19
GR-15-13	320	92	412	0.50	26
GR-15-14	276	192	468	1.09	29
GR-14-PA1	430	0	430	0.64	41
GR-14-PA2	230	0	230	0.54	20
GR-14-PA3	390	0	390	1.07	38
SI-14-01	221	68	289	0.36	21
SI-14-02	347	56	403	0.40	35
SI-14-03	262	32	294	0.33	29
SI-15-04	458	119	577	1.53	33
SI-15-05	338	26	364	1.63	35
SI-14-06	142	60	202	1.07	13
SI-15-07	255	41	293	0.33	25
SI-15-08	362	11	373	0.78	30
SI-15-09	330	72	402	0.42	17
SI-15-10	420	121	541	0.97	29
SI-15-11	355	45	400	1.34	29
SI-14-PA1	583	0	583	0.53	50
SI-14-PA2	584	0	584	0.62	57
SI-14-PA3	300	0	300	1.24	30

Table 10: Summary of facies described from sediment cores.

Facies	Description
Planar and cross-laminated sand	light gray to yellowish brown, very-well to moderately sorted, medium to fine sand
Bioturbated sand	light to dark gray, well to poorly sorted, very-fine to medium sand
Massive-bedded sand	gray to grayish-orange, very-well to poorly sorted, fine to coarse sand
Organic-rich sand	dark gray to brown, well to poorly sorted, medium to very-fine sand
Organic-rich mud	dark brown clay
Cross-laminated sand	gray to very-pale orange, very-well to moderate sorting, medium to fine sand
Massive-bedded silt	medium-gray to greenish-black, very-poorly sorted silt
Planar-laminated sand	medium-dark gray to very-pale orange, moderately to well sorted, medium to fine sand
Sand facies with deformed structures	medium gray to pale yellowish orange, moderately to well sorted, medium to fine sand
Bioturbated, cross-laminated sand	dark gray to very-light gray, moderately to well sorted, medium to fine sand
Bioturbated silt	dark-greenish gray to grayish black, very-poorly sorted silt
Organic-rich, planar-laminated sand	brownish black to yellowish brown to gray, moderately to well sorted, coarse to fine sand
Organic rich, cross-laminated sand	very-pale-orange, moderately-well sorted, medium sand
Organic-rich sand and silt	dark-gray, very-poorly sorted, fine sand and silt
Bioturbated planar-laminated sand	dark-greenish to light gray moderately-well to well sorted, fine to medium sand
Bioturbated, massive-bedded sand	medium-light gray, moderately-well to very-well sorted, fine sand
Bioturbated, normally-graded sand	very-light gray, moderately sorted, medium sand
Normally-graded sand	light to medium gray, well sorted, fine to medium sand

Facies	Description
Bioturbated, massive-bedded silt	medium-dark gray, very-poorly sorted silt
Normally-graded, cross-laminated sand	very-light gray grading to medium-dark gray, moderately well sorted, fine sand to silt
Planar- and flaser-laminated sand and silt	medium-gray, very-poorly-sorted, alternating layers of fine sand and silt

GR-14-01

Core GR-14-01 is 239 cm long and measured 89 cm of compaction resulting in a total length of 328 cm (Table 9; Figures 71, 73 and 74). The core top had an elevation of 0.32 m (NAVD88). GR-14-01 yielded 19 sediment samples. In total, six sedimentary facies were delineated in this core (Table 10).

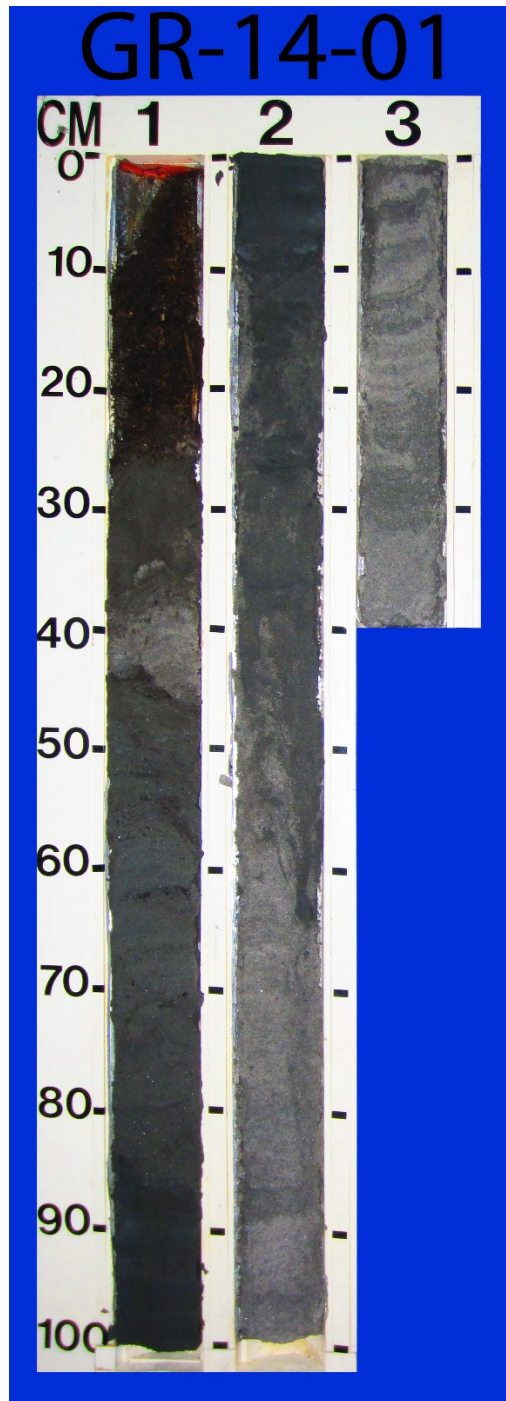


Figure 73: Core GR-14-01. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 71 for core location.

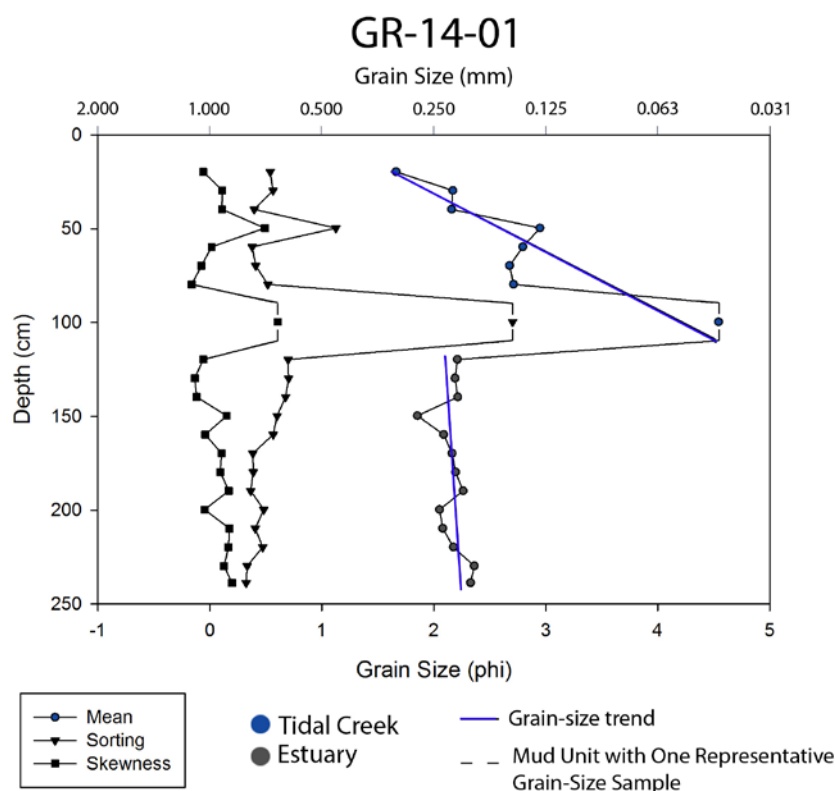


Figure 74: Vertical grain-size trends for core GR-14-01. See Figure 71 for core location.

As shown in Figure 73 (i.e., core photograph), planar- and cross-laminated sand facies occupied the bottom 84 cm of the core, extending from the core base (239 cm) to 155 cm. It consisted of a light gray, very-well- to moderately-well-sorted, fine sand that generally fined upward and graded into the overlying facies. The overlying unit is a bioturbated sand facies, consisting of light- and dark-gray, moderately-well-sorted, medium- to very-fine sand. This unit spanned 44 cm, extending from 155 to 109 cm and graded into the overlying massive-bedded sand facies. The massive-bedded sand facies consists of a dark-gray, very-poorly-sorted, very-fine sand that is 24 cm thick, which extends from 109 to 85 cm. An organic-rich sand facies, consisting of a medium-dark-

gray, well- to poorly-sorted, fine, micaceous sand extended from 85 to 44 cm, totaling 41 cm in thickness. Multiple, thin organic horizons were observed at 70, 61, 53, 51, and 44 cm. This facies unit demonstrated an abrupt color and grain size change at the contact with the overlying bioturbated sand facies. This bioturbated sand facies consists of a fine- to-medium sand, grading from light gray at its base (44 cm) to dark gray at its top (25 cm), totaling 19 cm thick. An organic horizon was present at 39 cm containing scattered root rhizomes. Some bioturbation is present above this organic horizon at a depth of 36 cm. An organic-rich mud facies is present, consisting of a dense root mat, extending from 25 cm to the surface. Little to no sediment is present within this portion of the core. This unit is a dark brown color.

In general, core GR-14-01 contains two vertical grain-size trends (Figure 74). Grain size remains relatively stable to a slight coarsening upward trend from 2.33 ϕ at 239 cm to 2.21 ϕ at 120 cm. A coarsening upward succession extends from 110 to 20 cm, in which sediment coarsens from 4.54 to 1.66 ϕ .

GR-14-02

Core GR-14-02 is 201 cm long and measured 105 cm of compaction, resulting in a total depth of 306 cm (Table 9; Figures 71, 75, and 76). The core top had an elevation of 0.10 m (NAVD88). GR-14-02 yielded 21 sediment samples. In total, four sedimentary facies were delineated in this core (Table 10).

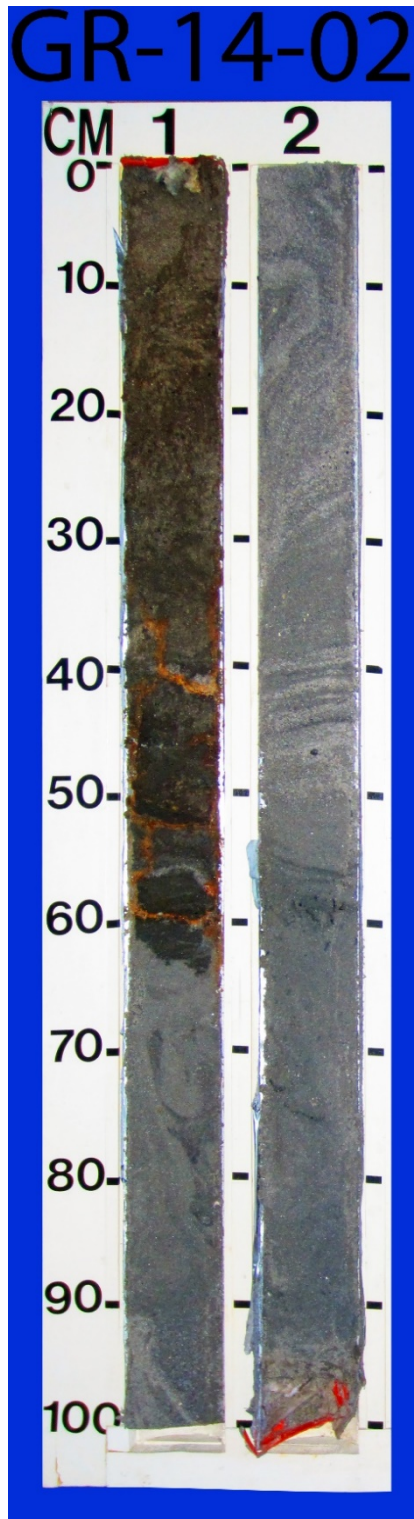


Figure 75: Core GR-14-02. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 71 for core location.

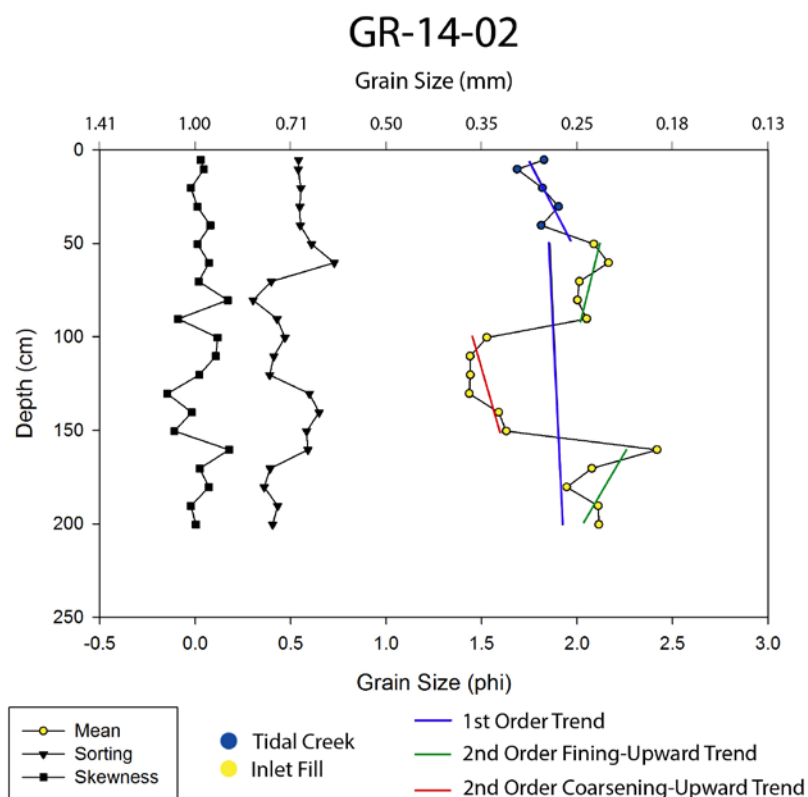


Figure 76: Vertical grain-size trends for core GR-14-02. See Figure 71 for the location of the core.

As shown in Figure 75, the base of core GR-14-02 is characterized by a bioturbated sand facies. This unit is 37 cm thick and extends from the core base at 196 cm to 159 cm. It consists of a medium-gray, well- to moderately-well-sorted sand. This sand unit fined upward from a fine-to-medium sand to a fine sand. Some bioturbation was observed within this unit. The boundary between the bioturbated facies and its overlying unit is marked by an organic horizon characterized by root rhizomes. The next overlying unit is a cross-laminated sand facies that is 64 cm thick, spanning from 159 cm to 95 cm. It contains medium-light-gray, moderately-well- to well-sorted, medium sand. Cross-laminated structures are present from a depth of 150 to 140 cm. The core contains

deformed sedimentary structures above this depth, which are likely cross-laminated features. Some mollusk shell fragments are observed throughout this unit. A bioturbated sand facies characterizes the next overlying unit. It is 32 cm thick and extends from 95 cm to 63 cm. This facies unit consists of medium-gray, very-well- to well-sorted, fine sand. Bioturbation can be seen from 69 cm to 78 cm. This unit is massive-bedded. Another bioturbated sand facies extends from 63 cm to the surface. This heavily bioturbated facies unit coarsens upward from fine-to-medium sand and is dark-brown in color. The sediment in this unit is moderately- to moderately-well sorted. Organics dominate the upper 25 cm of the core.

GR-14-02 is characterized by two 1st order coarsening-upward successions (Figure 76). The lower fining-upward succession occurs from 196 cm to 50 cm where sediment fines from 2.12 ϕ to 2.09 ϕ . Within this 1st order trend are three 2nd order trends: a fining-upward unit from 2.12 ϕ at 196 cm to 2.42 ϕ at 160 cm, a coarsening-upward unit from 1.64 ϕ at 150 cm to 1.53 ϕ at 100 cm, and finally a fining-upward unit from 2.06 ϕ at 90 cm to 2.09 ϕ at 50 cm. The next 1st order grain-size trend is characterized by a coarsening upward succession from 40 to 5 cm, where sediments generally coarsen from a minimum of 1.91 ϕ at 30 cm to a maximum of 1.69 ϕ at 10 cm.

GR-14-03

Core GR-14-03 is 298 cm long with 98 cm of compaction, resulting in a total depth of 396 cm (Table 9; Figures 71, 77, and 78). The core top had an elevation of 0.16

m (NAVD88). GR-14-03 yielded 29 sediment samples. In total, 5 sedimentary facies were observed in this core (Table 10).

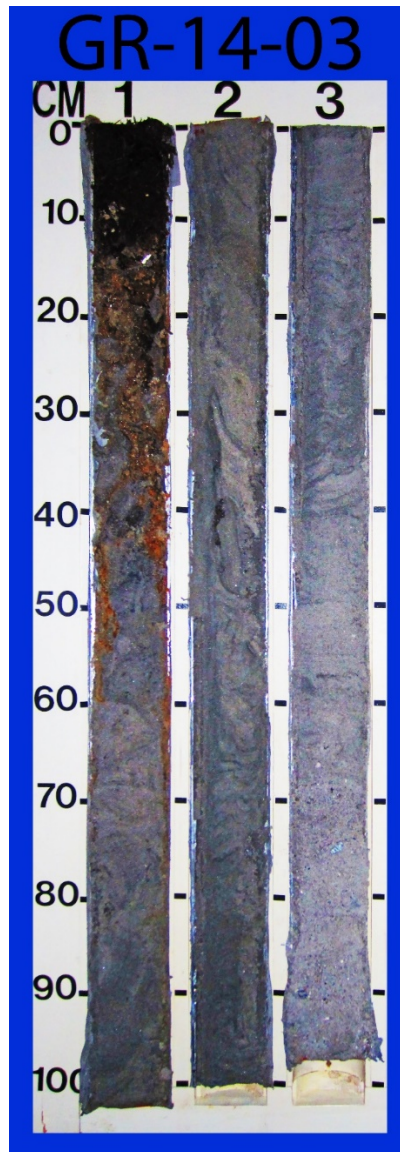


Figure 77: Core GR-14-03. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 71 for core location.

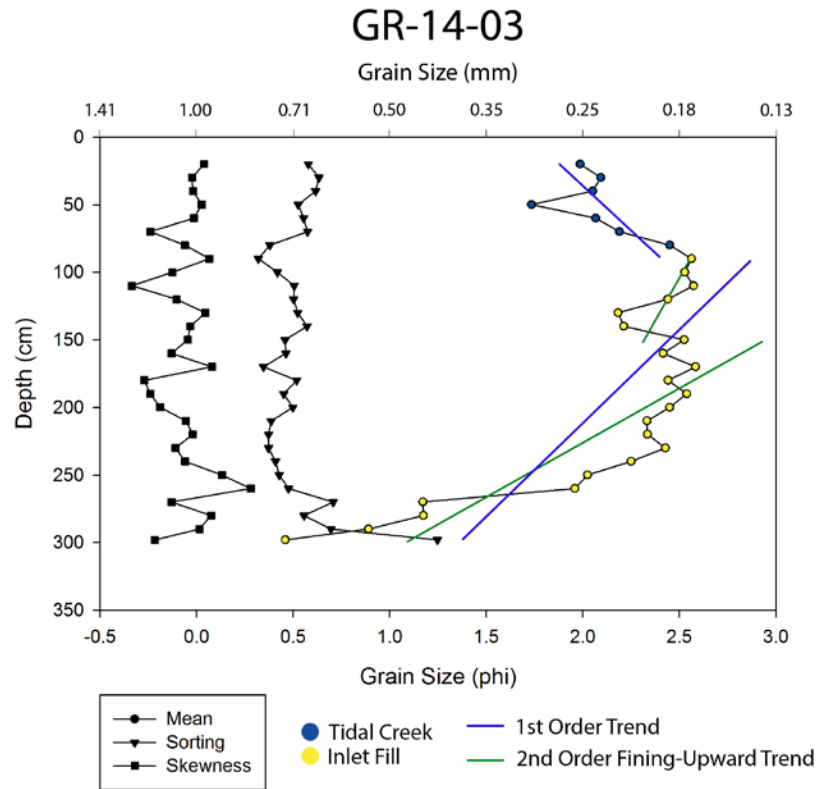


Figure 78: Vertical grain-size trends for core GR-14-03. See Figure 71 for the location of the core.

As shown in Figure 77, the base of core GR-14-03 is characterized by a massive bedded sand facies. The facies unit is 122 cm thick, spanning from 298 cm to 240 cm. This unit is characterized by a medium-light-gray, poorly- to well-sorted, fining-upward succession from coarse to fine sand. Shell hash was observed at the base of this unit. The facies unit contains some horizontal laminations, but is mostly massive. A cross-laminated sand facies extends from 240 cm to 140 cm and is 100 cm thick. This segment contains medium-gray, very-well- to moderately-well-sorted, fine sand. Some subtle cross-laminated structures are present from 240 cm to 235 cm; however, the sedimentary

structures of this unit are heavily deformed. Some organic material is present at a depth ranging from 146 cm to 141 cm. The overlying unit is once again characterized by a cross-laminated facies. The facies unit consists of a medium-gray, moderately-well-sorted, fine sand. It is 8 cm thick, spanning from 140 cm to 132 cm. Steeply dipping cross-laminated structures are present throughout this unit. A third consecutive cross-laminated sand facies unit occurs from 132 cm to 110, with a total thickness of 22 cm. This unit consists of medium-gray, moderately-well-sorted, fine sand. Sedimentary structures within this facies unit are heavily deformed, but are likely cross-laminated features. Bioturbated sand facies extend from 110 to 50 cm, totaling 60 cm in thickness. Sediments within this facies unit generally coarsen upward. This unit consists of medium-gray, moderately-well- to very-well-sorted, fine-to-medium sand with deformed sedimentary structures. Subtle bioturbation structures were observed throughout this unit. Organic-rich sand facies span from 50 cm to 14 cm, totaling 36 cm in thickness. It is characterized by medium-dark-gray, moderately-well-sorted, medium-to-fine sand. This unit includes many root rhizomes. Finally, an organic-rich mud facies occupies the uppermost 14 cm of the core. This unit consists of a dark-yellowish-brown color and is dominated by organic material. Little to no sediment is present in this unit.

Two vertical grain-size trends were observed within core GR-14-03 as shown in Figure 78. A 1st order fining-upward succession occurs from 298 cm to 90 cm with a fining from 0.457 ϕ to 2.56 ϕ . Two 2nd order fining-upward successions are stacked on top of each other within this 1st order fining-upward succession. The first subset fines from 0.46 ϕ at 298 cm to 2.52 ϕ at 150 cm. The second fining upward subset fines from

2.21 ϕ at 140 cm and to 2.56 ϕ at 90 cm. From 90 cm to 20 cm, grain size coarsens upwards in a 1st order trend to 1.98 ϕ .

GR-14-04

Core GR-14-04 is 331 cm long with 74 cm of compaction, resulting in a total depth of 405 cm (Table 9; Figures 71, 79, and 80). The core top had an elevation of 0.71 m (NAVD88). GR-14-04 yielded 21 sediment samples. In total, 8 sedimentary facies were observed in this core (Table 10).

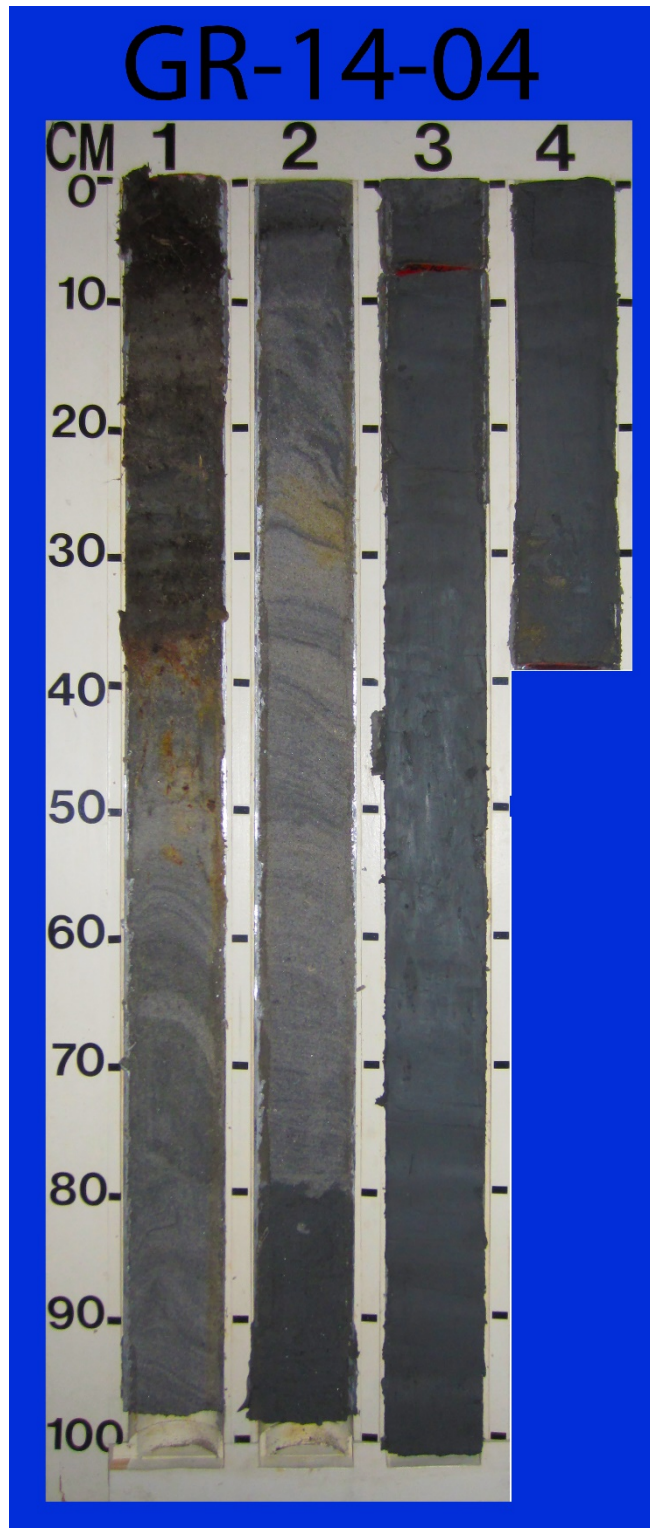


Figure 79: Core GR-14-04. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 71 for core location.

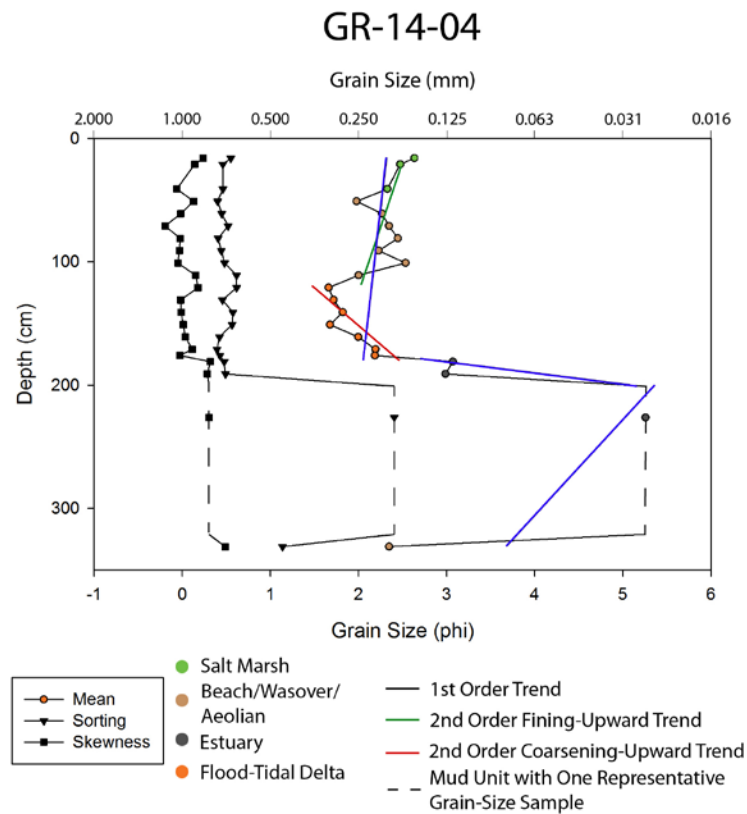


Figure 80: Vertical grain-size trends for core GR-14-04. See Figure 71 for the location of the core.

As shown in Figure 79, bioturbated sand facies occupied the bottommost segment of core GR-14-04 spanning from 331 cm to 322 cm, for a total of 9 cm in thickness. This unit consisted of organic-rich, greenish-black, poorly-sorted, fine sand, with lenses of medium sand. Bioturbated structures were observed throughout this facies unit. Massive-bedded silt facies extend from 322 to 197 cm (125 cm thick). It is characterized by a greenish-black, very-poorly-sorted, massive silt. Some shell fragments are present throughout this segment. A thin horizon of root rhizomes are present from 288 cm to 287 cm. A sharp, disconformable contact separates the massive silt facies with the overlying

planar-laminated sand facies. The planar-laminated sand facies spans from 197 to 176 cm, totaling 21 cm in thickness. It consists of medium-dark-gray, well-sorted, very-fine to fine, micaceous sand. Closely spaced horizontal laminations are present throughout this unit. In addition, some root rhizomes are present in this segment as well. An abrupt disconformable contact separates the planar-laminated sand facies from the overlying cross-laminated sand facies. The cross-laminated sand facies is 74 cm in length, extending from 176 cm to 101 cm. It is characterized by light-gray, well- to moderately-well-sorted, fine- to medium sand. This unit is dominated by unidirectional cross laminations. Some shell fragments are present in this segment between 176 cm and 141 cm. The cross-laminated sand facies is capped by a brownish-black, organic horizon spanning from 102 to 101 cm. Planar/cross-laminated sand facies extend from 101 to 36 cm, totaling 65 cm in thickness. It consists of light-gray, well- to moderately-well-sorted, fine-to-medium sand. The sedimentary structures present in this unit are deformed; however, planar laminae are likely present from 101 to 97 cm and cross-laminae are likely present from 97 to 56 cm. Root rhizomes are present from 57 to 37 cm. An organic-rich sand facies spans from 37 to 27 cm and is 10 cm in length. The unit is characterized by three distinct organic-rich mud laminations at 33, 31, and 28 cm. These organic-rich mud laminations are separated by an olive-black, fine sand. Another organic-rich sand facies extends from 27 to 10 cm and is 17 cm thick. This unit consists of dark-yellowish-brown, well-sorted, fine sand. Horizontal lamination are present throughout this unit. An abundance of root rhizomes characterize this segment of the

core. Finally, an organic-rich mud facies spans the uppermost 10 cm of the core. It consists of a dark-brown mud facies, dominated by organics.

Three general vertical grain-size trends are present in core GR-14-04 as shown in Figure 80. A general 1st order fining-upward succession is located from 331 cm to 200 cm. This unit fines upward from 2.33 ϕ at 331 cm to 5.24 ϕ at 200 cm. From 200 to 175 cm, the grain size increases from 5.24 to 3.05 ϕ in another 1st order trend. The disconformable contact at 175 cm halts this coarsening-upward succession. Generally, the sediments slightly fine upward throughout the remainder of the core in a 1st order succession. However, two 2nd order packages are present within this 1st order general trend. A 2nd order trend exists from 175 to 120 cm, in which grain size slightly coarsens upwards from 2.17 to 1.64 ϕ . The next 2nd order grain-size trend exhibits a fining-upward succession from 1.65 ϕ at 120 cm to 2.62 ϕ at 15 cm.

GR-14-05

Core GR-14-05 is 243 cm long with 270 cm of compaction, resulting in a total depth of 513 cm (Table 9; Figures 71, 81, and 82). The core top had an elevation of 0.53 m (NAVD88). GR-14-05 yielded 23 sediment samples. In total, five sedimentary facies were observed in this core (Table 10).

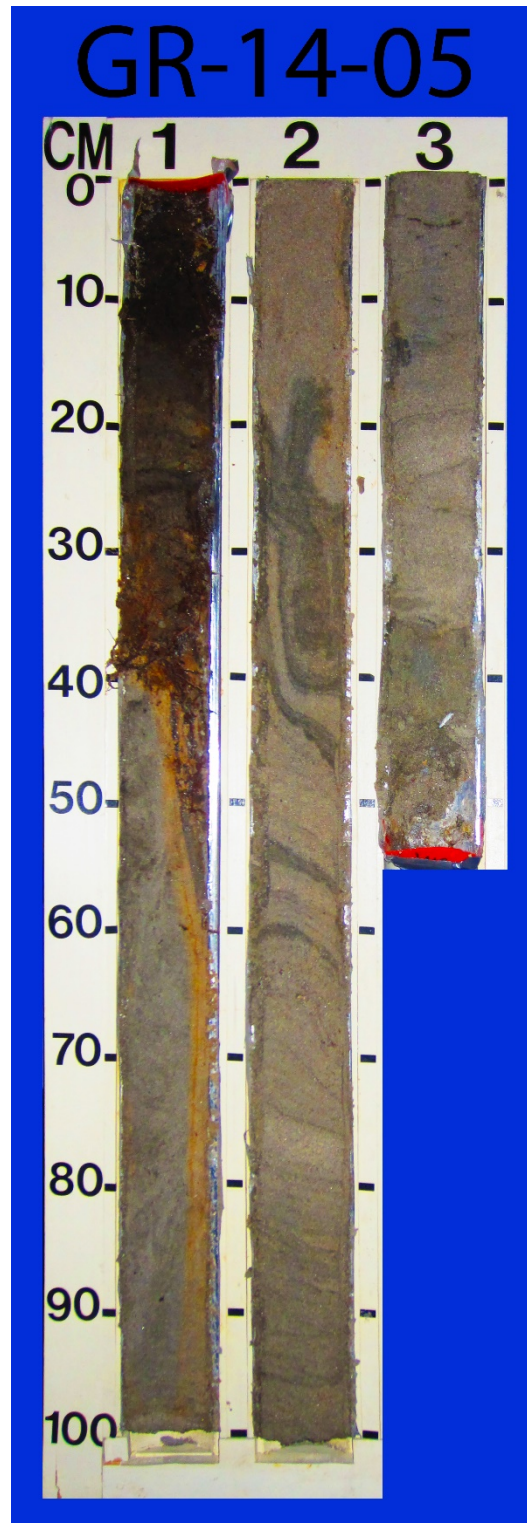


Figure 81: Core GR-14-05. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 71 for core location.

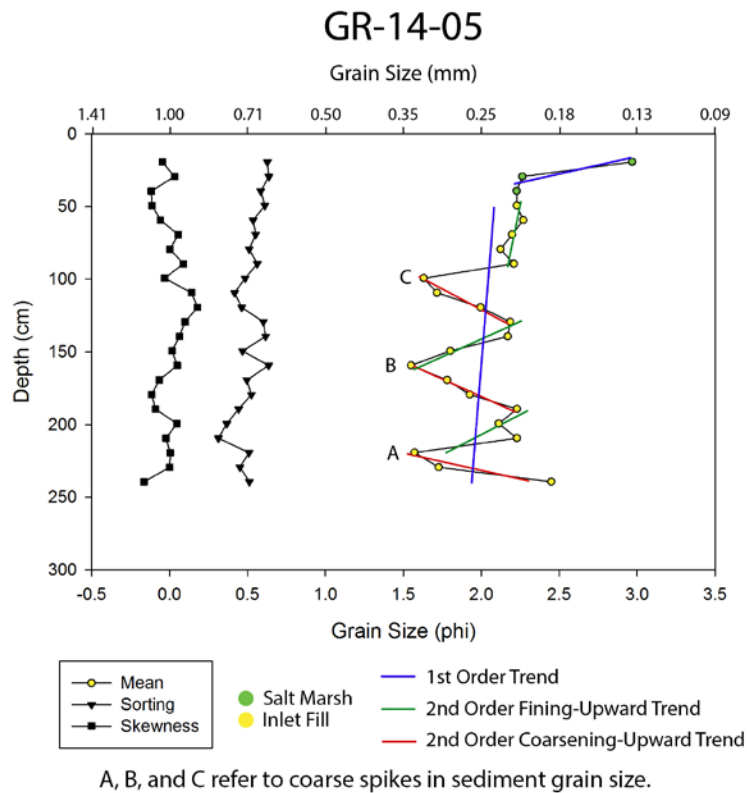


Figure 82: Vertical grain-size trends for core GR-14-05. See Figure 71 for the location of the core.

As shown in Figure 81, cross-laminated sand facies occupy the bottommost segment of the core, extending from 243 cm to 140 cm and is 103 cm thick. It consists of very-light-gray, very-well- to moderately-well-sorted, fine-to-medium sand. Bi-directional cross laminae are present within this unit. Sand facies with unknown deformed sedimentary structures span from 140 cm to 120 cm, totaling 20 cm in thickness. It is composed of medium-gray, moderately-well- to well-sorted, fine-to-medium sand. This unit is characterized by a large amount of deformation. Massive bedded sand facies are present from 120 to 40 cm, extending 80 cm in length. This unit consists of medium-light-gray, well- to moderately-well-sorted, medium-to-fine sand.

Organic-rich sand facies span 26 cm from 40 to 14 cm. This unit is dark-yellowish-brown, moderately-well-sorted, and is comprised of a fine-to-very-fine sand. It is characterized by deformed sedimentary structures and organic material. Two organic-rich mud laminations are present at 22 and 23 cm in depth. Finally, brownish-red, organic-rich mud facies occupies the top 14 cm of the core and contains little sediment.

Two 1st order vertical grain-size trends are apparent in core GR-14-05 as shown in Figure 82. A general 1st order coarsening-upward succession is present from 240 to 100 cm. In addition, five 2nd order grain-size trends are present within this 1st order feature. The 2nd order grain-size trends consist of an alternating pattern from coarse-to-fine spikes (A through C in Figure 82). Sediments coarsen upward from 2.45 ϕ at 240 cm to 1.57 ϕ at 220 cm (spike A in Figure 82). The upward trend then reverses to fining-upward succession from 1.57 ϕ at 220 cm to 2.23 ϕ at 190 cm. The next coarsening-upward trend occurs from 2.23 ϕ at 190 cm to 1.55 ϕ at 160 cm (spike B in Figure 82). This trend once again reverses to a fining-upward trend from 1.55 ϕ at 160 cm to 2.19 ϕ at 130 cm. Finally, sediments coarsen upward from 2.19 ϕ at 130 cm to 1.63 ϕ at 100 cm (spike C in Figure 82). The next 1st order fining-upward succession consists of the mean grain size decreasing from 2.21 ϕ at 90 cm to 2.97 ϕ at 20 cm.

GR-14-07

Core GR-14-07 is 378 cm long with 113 cm of compaction, resulting in a total depth of 491 cm (Table 9; Figures 71, 83, and 84). The core top had an elevation of 0.31

m (NAVD88). GR-14-07 yielded 20 sediment samples. In total, nine sedimentary facies were observed in this core (Table 10).

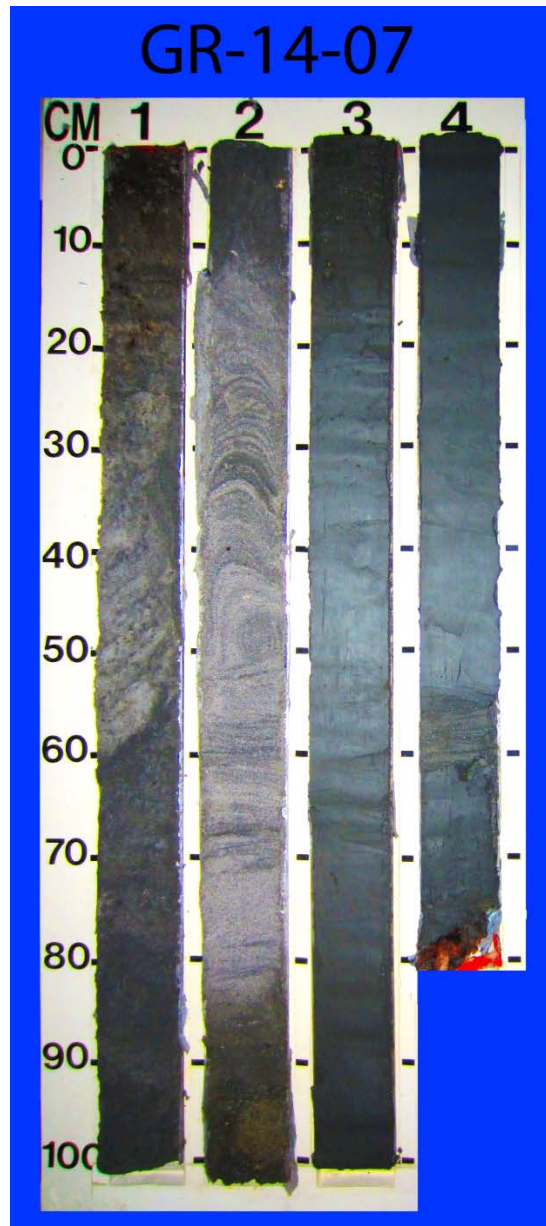


Figure 83: Core GR-14-07. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 71 for core location.

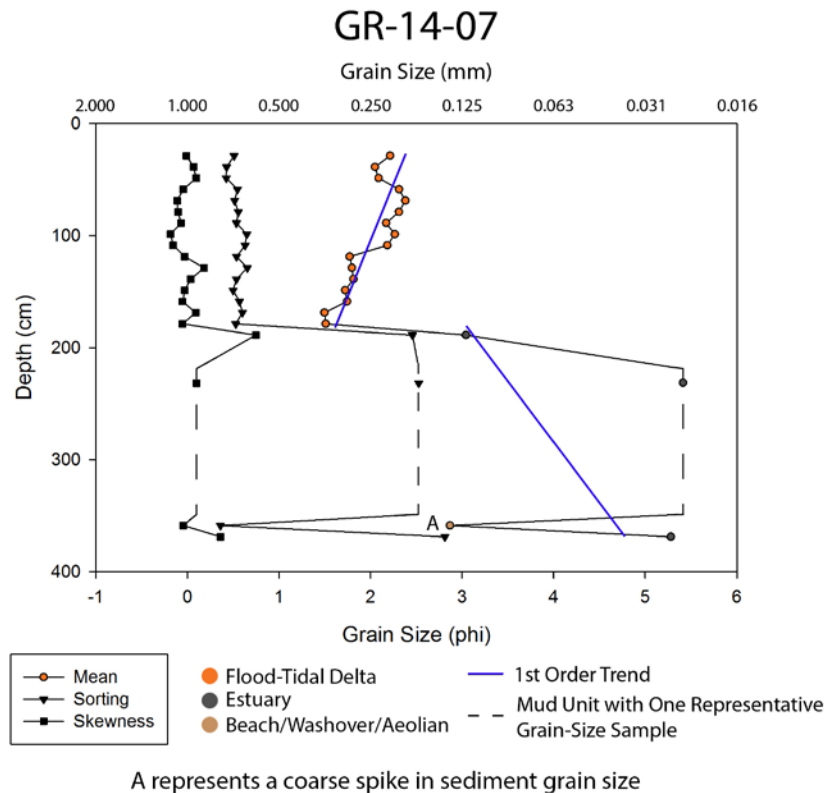


Figure 84: Vertical grain-size trends for core GR-14-07. See Figure 71 for the location of the core.

As shown in, Figure 83, massive-bedded silt facies extends 17 cm, from 378 cm to 361 cm. It is composed of dark-gray, very-poorly-sorted, fining-upward silt. Planar-laminated sand facies consisted of a 6 cm package from 361 to 355 cm. It is a medium-dark-gray, well-sorted, fine sand. This package contains horizontal laminations. A massive-bedded silt facies spans 141 cm, from 355 to 214 cm. This unit consists of massive-bedded, dark-gray, very-poorly-sorted, silt. A bioturbated sand facies measuring 35 cm in thickness extends from 214 to 189 cm. This unit is comprised of medium-gray, very-poorly-sorted, very-fine sand. Extensive bioturbation is present in this segment. In addition, gastropods and worm tubes were present in this facies unit. Planar/cross-

laminated sand facies span from 189 to 149 cm, totaling 40 cm in thickness. This unit slightly fines upward. It consists of light-gray, moderately-well-sorted, medium sand. Planar-laminated structures are present from 189 to 168 cm followed by cross-laminated structures from 168 to 149 cm. Finally, some shell fragments are present throughout this unit. Cross-laminated sand facies are present from 149 to 110 cm, extending 39 cm. It consists of light-gray, moderately-well-sorted, medium-to-fine sand. This unit is characterized by deformed bedding features, which are likely cross-laminated structures. Some shell fragments are present throughout this package. Bioturbated and cross-laminated sand facies span 62 cm in thickness, from 110 to 52 cm. This facies unit consists of a dark-gray, moderately-well-sorted, fine sand. Some cross-laminated structures, as well as shell fragments and bioturbation, are present in this unit. A second bioturbated and cross-laminated sand facies is present from 52 to 23 cm, extending 29 cm. This unit is composed of medium-light-gray, well- to moderately-well-sorted, medium sand. Some cross-laminated structures are present in addition to some bioturbation. An organic-rich sand facies extends from 23 to 0 cm. It consists of dark brown, medium sand.

Two general vertical trends are apparent in core GR-14-07 as shown in Figure 84. A coarsening-upward succession extends from the base of the core from 5.29 ϕ at 370 cm to 1.52 ϕ at 180 cm, with the exception of the isolated 6 cm thick sand lens, which demonstrates a strong spike in grain size of 2.88 ϕ at 360 cm (coarse spike A in Figure 84). At 180 cm, the vertical mean grain-size trend reverses to a fining-upward succession.

This fining-upward trend is characterized by mean grain size decreasing upward from 2.88 ϕ at 190 cm to 2.23 ϕ at 30 cm.

GR-14-08

Core GR-14-08 is 296 cm long with 155 cm of compaction, resulting in a total depth of 451 cm (Table 9; Figures 71, 85, and 86). The core top had an elevation of 0.57 m (NAVD88). GR-14-08 yielded 19 sediment samples. In total, five sedimentary facies were observed in this core (Table 10).

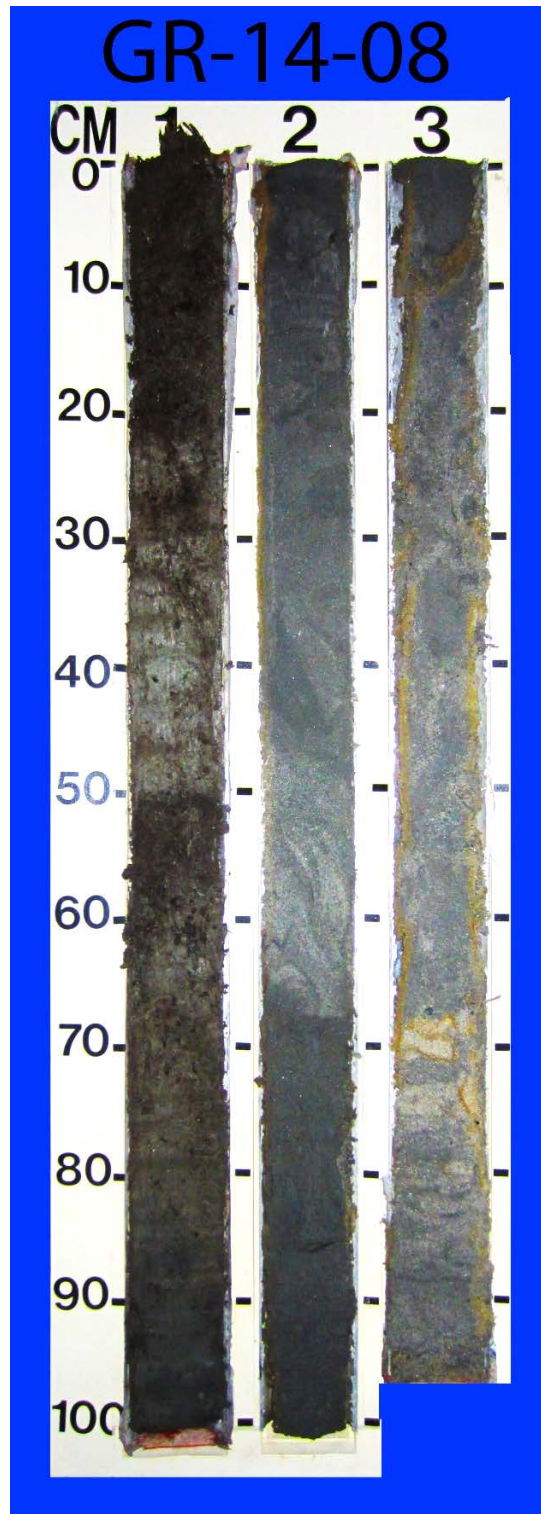


Figure 85: Core GR-14-08. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 71 for core location.

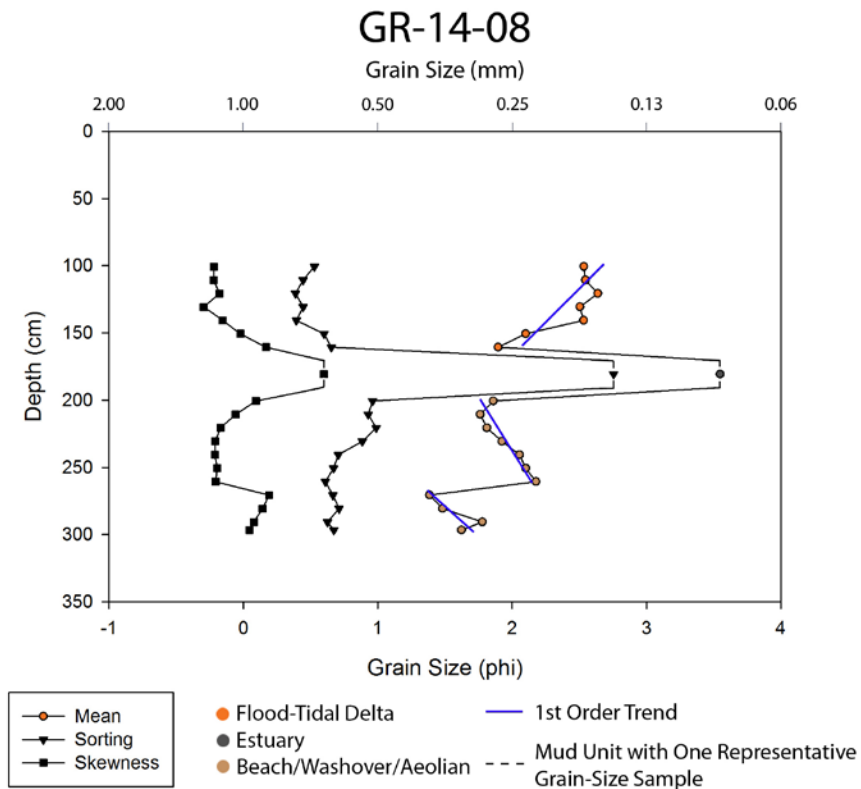


Figure 86: Vertical grain-size trends for core GR-14-08. See Figure 71 for the location of the core.

As shown in Figure 86, a planar-laminated sand facies occupies the bottom 29 cm of core GR-14-08, from 296 to 267 cm. It consists of medium-light-gray, moderately-well-sorted, medium sand. Some horizontal laminations are found within this unit. Bioturbated sand facies occupies 67 cm and extends from 267 to 200 cm. This unit consists of medium-light-gray, moderately-well- to moderately-sorted, fine-to-medium sand. The grain size gradually coarsens upward from 2.23 to 1.80 ϕ . Bioturbation in the form of worm borrows are present throughout this segment. An oyster shell is present at 267 cm and some root rhizomes are present at 231 cm. Bioturbated sand facies extend 33

cm, from 200 cm to 167 cm. This unit consists of medium-dark-gray, very-poorly-sorted, very-fine sand. A worm borrow is present at 180 cm. An abrupt change in mean grain size and color separates the bioturbated sand facies from the overlying heavily deformed sand facies. Heavily deformed sand facies extends 83 cm from 167 to 84 cm. The unit consists of light-gray to dark-gray, moderately-well to well-sorted, medium-to-fine sand. The sedimentary structures present in this unit were deformed during the vibracoring process and were unable to be interpreted. Finally, three repeating organic-rich mud facies occupies the uppermost 84 cm of core GR-14-08. The three mud units are present from 84 to 50 cm, 50 to 23 cm, and 23 to 0 cm. Each repeating mud unit is mostly composed of dark-brown organic material. Some silt-rich sediment is located at the base of each mud unit.

In general, three vertical trends were observed within GR-14-08 as shown in Figure 86. Two consecutive coarsening-upward successions were observed. The first coarsening-upward succession is present extending from 296 cm to 270 cm with grain size increasing from 1.59 to 1.30 ϕ . The second coarsening-upward succession from 2.23 to 1.80 ϕ extends from 260 to 200 cm. A very-fine sand unit separates this coarsening-upward succession from the topmost fining-upward succession. This uppermost vertical grain-size trend fines upward from 1.79 to 2.56 ϕ from 160 cm to 100 cm.

GR-15-09

Core GR-15-09 is 381 cm long with 126 cm of compaction, resulting in a total depth of 507 cm (Table 9; Figures 71, 87, and 88). The core top had an elevation of 1.11

m (NAVD88). GR-15-09 yielded 29 sediment samples. In total, 12 sedimentary facies were observed in this core (Table 10).

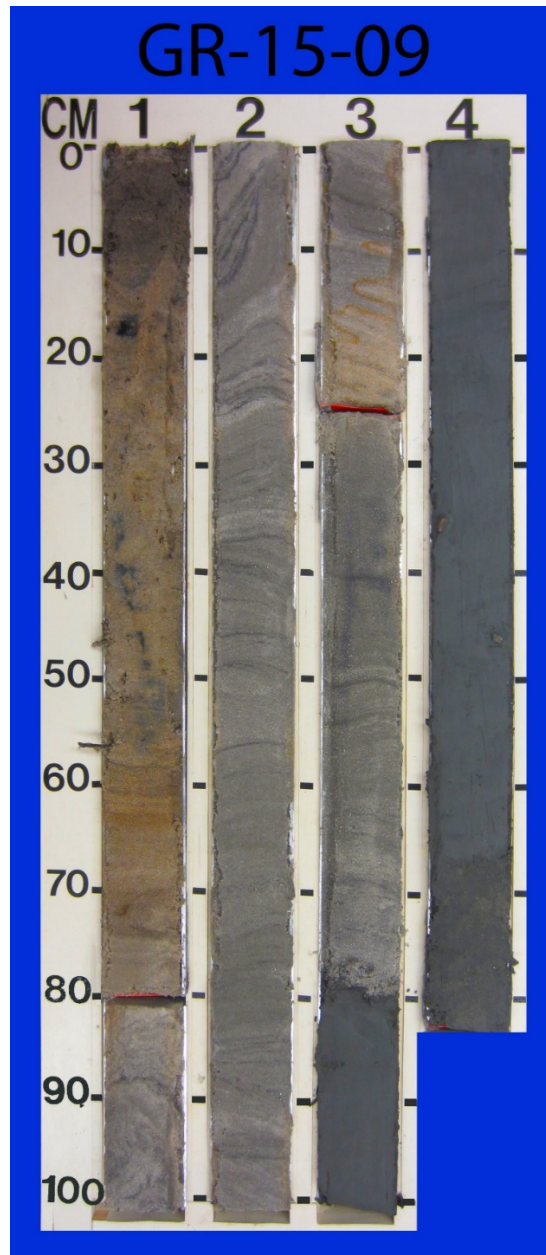


Figure 87: Core GR-15-09. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 71 for core location.

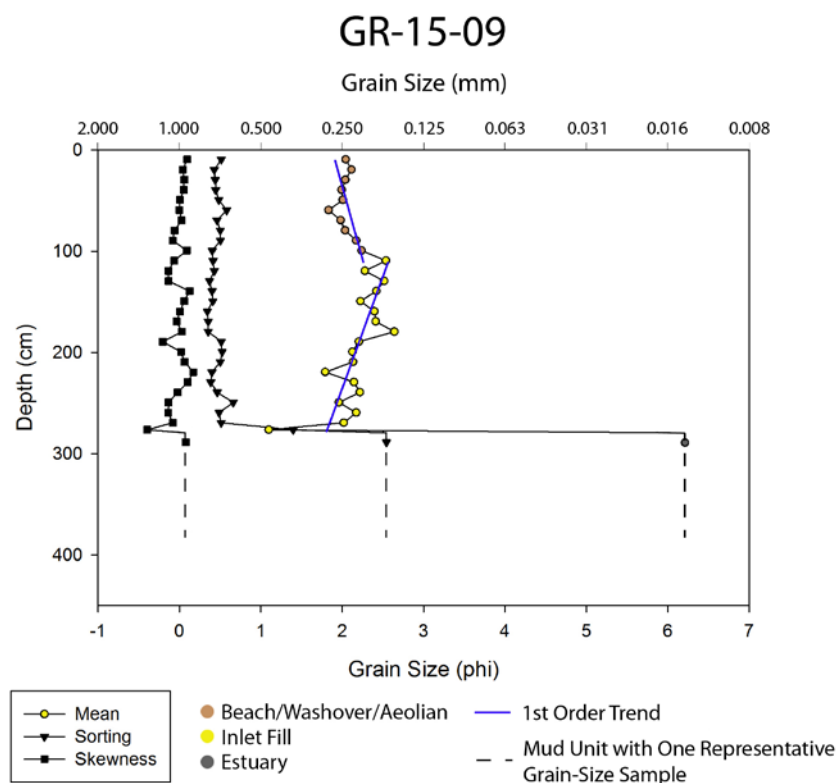


Figure 88: Vertical grain-size trends for core GR-14-09. See Figure 71 for the location of the core.

As shown in Figure 87, bioturbated silt facies extend 17 cm, spanning from 383 cm to 366 cm. The facies unit consists of dark-greenish-gray, very-poorly-sorted silt. The unit is heavily bioturbated. A massive-bedded silt facies is present from 366 to 278 cm, and extend 88 cm. The facies unit consists of a greenish-black, very-poorly sorted, massively-bedded, silt unit. Two gastropods are present in this unit at 346 and 335 cm. A disconformable contact separates the massive silt facies from the overlying planar/cross-laminated sand facies. The contact is undulatory and sediment size abruptly increases from silt (6.21 ϕ) to medium sand (1.09 ϕ). Some silt rip-up clasts are associated with the

disconformable contact as well. Planar/cross-laminated sand facies extend 165 cm from 278 to 113 cm. This unit consists of medium sand and some shell hash at the base and fines upward to fine sand. Bi-directional cross-laminae dominate this unit. Interspersed planar laminae, which sometimes truncates the cross-laminated structures, can be found throughout the core as well. This is most notably present at a depth of 196 cm (Figure 89). This facies unit varies from medium-light-gray to light-gray, and is poorly-to-well sorted. A cross-laminated sand facies extends from 113 to 73 cm and is 40 cm thick. This unit consists of light-gray, moderately-well-sorted, fine sand. The bedding structures throughout this segment are deformed, but are likely cross-laminated structures. Planar-laminated sand facies extends 17 cm and spans from 73 to 56 cm. It consists of grayish-orange, well- to moderately-well-sorted, medium sand. Planar lamination is present throughout this unit. Finally, organic-rich, planar-laminated sand characterizes the uppermost 56 cm of this core. This unit consists of grayish orange, well-sorted, medium-to-fine sand. Planar lamination is present from 56 to 49 cm. Concentrations of heavy minerals are present from 34 to 50 and 16 to 18 cm. Root rhizomes are also present throughout this unit.



Figure 89: Close up of cross-laminated features truncated by planar-laminated features within core GR-15-09 from the 185 to 200 cm interval.

In general, three vertical grain-size trends are present in core GR-15-09 as shown in Figure 88. The silty unit at the base of the core visually appears to be fining upward; however, only one representative sediment sample was collected and analyzed from this muddy unit. A fining-upward succession is present from 277 to 110 cm, in which sediment grain size fines from 1.09 to 2.53 ϕ . A coarsening-upward succession exists from 110 to 10 cm. In this coarsening-upward trend, grain size increases from 2.53 to 2.04 ϕ .

GR-15-10

Core GR-15-10 is 300 cm long with 212 cm of compaction, resulting in a total depth of 512 cm (Table 9; Figures 71, 90, and 91). The core top had an elevation of 1.56

m (NAVD88). GR-15-10 yielded 30 sediment samples. In total, five sedimentary facies were observed in this core (Table 10).

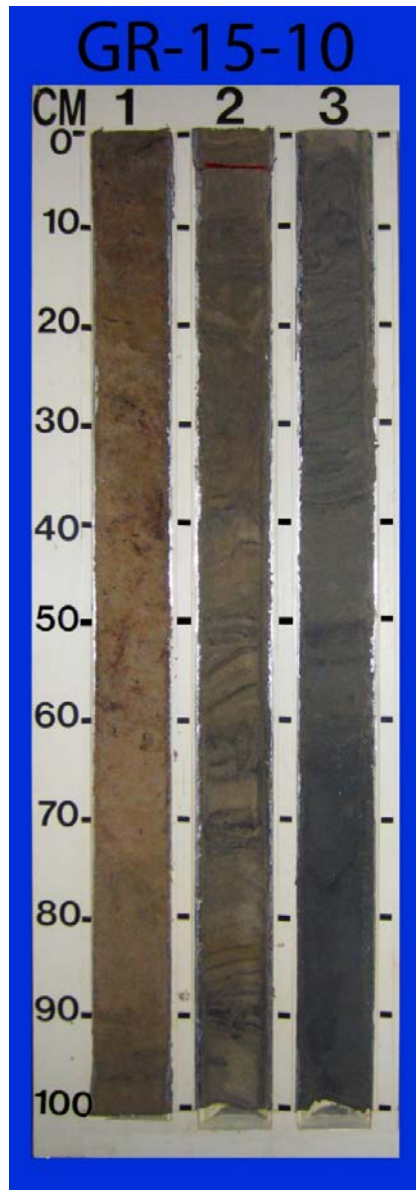


Figure 90: Core GR-15-10. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 71 for core location.

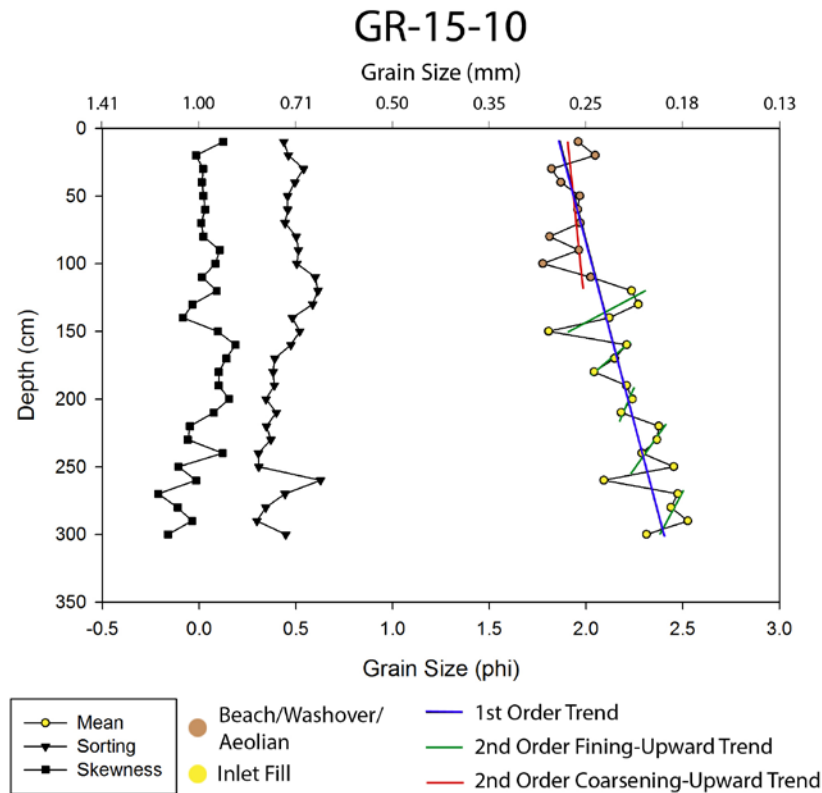


Figure 91: Vertical grain-size trends for core GR-14-10. See Figure 71 for the location of the core.

As shown in Figure 90, a massive-bedded sand facies occupies the bottom 41 cm of core GR-15-10, and spans from 300 to 259 cm. It consists of medium-dark-gray, very-well- to moderately-well-sorted, medium sand. Planar/cross-laminated sand facies extends from 259 to 203 cm, totaling 62 cm in thickness. It consists of medium-light-gray, very-well to well-sorted, medium sand. Both cross-laminated and planar laminated structures dominate this unit. Bedform deformation increases towards the top of this unit. A second consecutive planar/cross-laminated sand facies of 113 cm in length extends from 203 to 90 cm. It consists of yellowish-gray, moderately-well-sorted, coarse-to-

medium sand. Both cross-laminated and planar-laminated structures are present in this unit. Sedimentary structures are deformed between 140 and 110 cm. A massive-bedded sand facies occupies 27 cm from 90 to 63 cm. The facies unit consists of very-pale-orange, well- to moderately-well-sorted, coarse sand. Finally, organic-rich, planar-laminated sand facies occupies the uppermost 63 cm of the core. This unit consists of pale-yellowish-brown, moderately-well- to well-sorted, medium-to-coarse sand. Subtle horizontal laminations are present throughout this unit. Many root rhizomes are also present.

The vertical grain-size trend for GR-15-10 is complex and consists of one 1st order coarsening-upward succession spanning the entire core length with six 2nd order packages (Figure 91). Mean sediment grain size increases from 2.31 ϕ at the core base to 1.96 ϕ at the core top. Five 2nd order fining-upward successions and one 2nd order coarsening-upward succession are present within the 1st order trend. The five 2nd order fining-upward trends are present from 300 to 270 cm, fining from 2.31 to 2.47 ϕ ; from 260 to 220 cm, fining from 2.09 to 2.38 ϕ ; from 210 to 190 cm, fining from 2.18 to 2.21 ϕ ; from 180 to 160 cm, fining from 2.04 to 2.21 ϕ ; and from 150 to 120 cm, fining from 1.80 to 2.23 ϕ . The 2nd order coarsening upward trend extends from 120 cm (2.23 ϕ) to 10 cm (1.95 ϕ .)

GR-15-11

Core GR-15-11 is 335 cm long and had 205 cm of compaction, resulting in a total depth of 540 cm (Table 9; Figures 71, 92, and 93). The core top had an elevation of 1.39

m (NAVD88). GR-15-11 yielded 35 sediment samples. In total, eight sedimentary facies were observed in this core (Table 10).

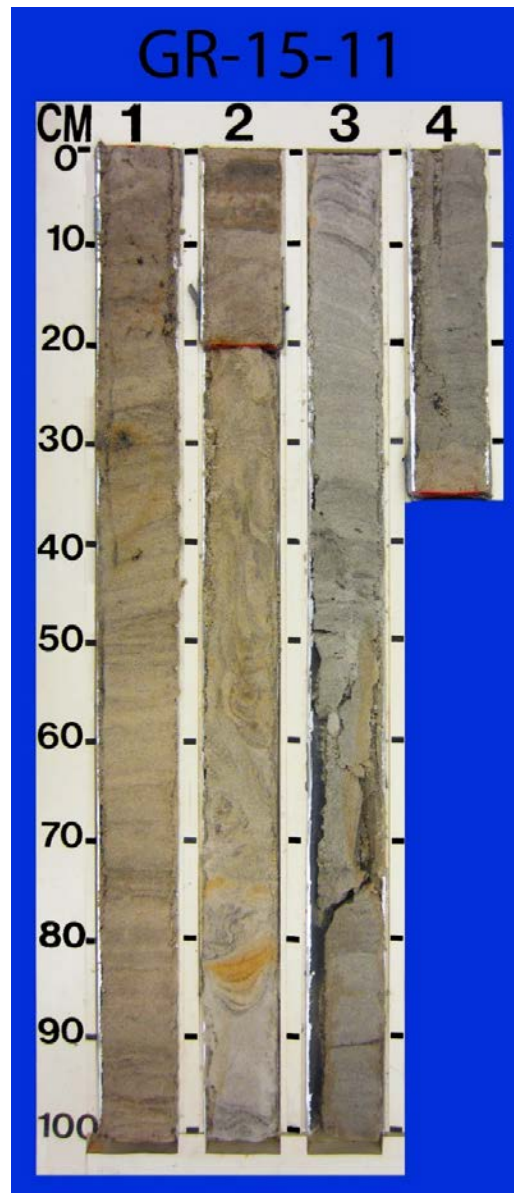


Figure 92: Core GR-15-11. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 71 for core location.

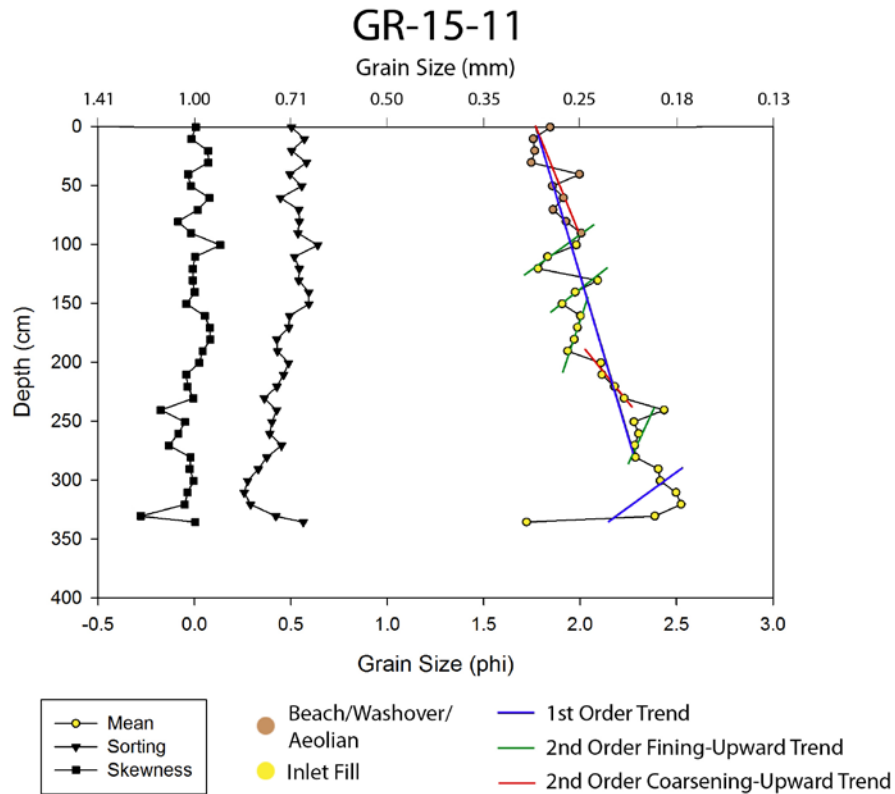


Figure 93: Vertical grain-size trends for core GR-14-11. See Figure 71 for the location of the core.

As shown in, Figure 92, a massive-bedded sand facies occupies 4 cm, extending from the base of the core at 335 cm to 331 cm. It consists of grayish-orange, moderately-well- to well-sorted, medium sand. Cross-laminated sand facies spanned from 331 to 279 cm and totaled 52 cm in length. This facies consists of medium-gray, well- to very-well-sorted, fine sand. This unit is characterized by subtle cross-laminated structures. A root rhizome is present at 326 cm. The cross-laminated sand facies spans from 279 to 235 cm, totaling 44 cm in thickness. It consists of light-gray, well-sorted, fine sand. The majority of the sedimentary structures were destroyed during the vibracoring process. Shallow-

dipping, cross-laminated structures are present from 245 to 235 cm. Cross-laminated sand facies extends 42 cm from 235 to 196 cm. This unit consists of light-gray, well-sorted, fine sand. This unit is dominated by steeply-dipping, cross-laminae. The clinoforms in this unit dip in the opposite direction as the cross-laminated sand facies spanning from 331 to 279 cm, indicating bi-directionality in current. A sand facies with heavily deformed sedimentary structures spans 87 cm from 196 to 109 cm. It is comprised of pale-yellowish-orange, well- to moderately-well-sorted, medium-to-fine sand. This core segment is characterized by heavily deformed sedimentary structures that are unable to be interpreted. Planar-laminated sand facies extends from 109 to 50 cm, totaling 59 cm in length. This unit consists of very-pale-orange, moderately-well-sorted, medium sand. Planar laminae dominate this unit. Finally, organic-rich, cross-laminated sand facies occupy the uppermost 50 cm of the core. This unit consists of very-pale-orange, moderately-well-sorted, medium sand. Cross-laminated sedimentary structures are present within this core segment, dipping the same direction as the cross-laminated sand facies extending from 331 to 279 cm. Root rhizomes become more common towards the top of this facies.

Two orders of vertical grain size trends were observed in GR-15-11: two general 1st order trends and seven 2nd order coarsening- and fining-upward trends as shown in Figure 93. A 1st order fining upward trend begins at 335 cm with a mean grain size of 1.72 ϕ and fines upward to 2.41 ϕ at 290 cm. The next 1st order trend continues from 280 to 0 cm, in which sediment coarsens upward from 2.28 to 1.85 ϕ . The upper 1st order coarsening-upward trend can be divided into seven 2nd order vertical grain-size trends.

Beginning at 280 cm, a fining-upward trend extends to 240 cm, with mean grain size decreasing from 2.29 to 2.44 ϕ . The next trend shows a coarsening-upward succession with mean grain size increasing from 2.23 ϕ at 230 cm to 2.11 ϕ at 200 cm. Next, three consecutive fining-upward packages are present: 1.94 ϕ at 190 cm and fining to 2.00 ϕ at 160 cm, 1.91 ϕ at 150 cm and fining to 2.09 ϕ at 130 cm, and 1.78 ϕ at 120 cm and fining upward to 2.01 ϕ at 90 cm. Finally, a coarsening upward 2nd order package occupies the top 90 cm and coarsens upward from 2.01 to 1.85 ϕ .

GR-15-12

Core GR-15-12 is 236 cm long with 159 cm of compaction, resulting in a total depth of 395 cm (Table 9; Figures 71, 94, and 95). The core top had an elevation of 0.36 m (NAVD88). GR-15-12 yielded 19 sediment samples. In total, six sedimentary facies were observed in this core (Table 10).

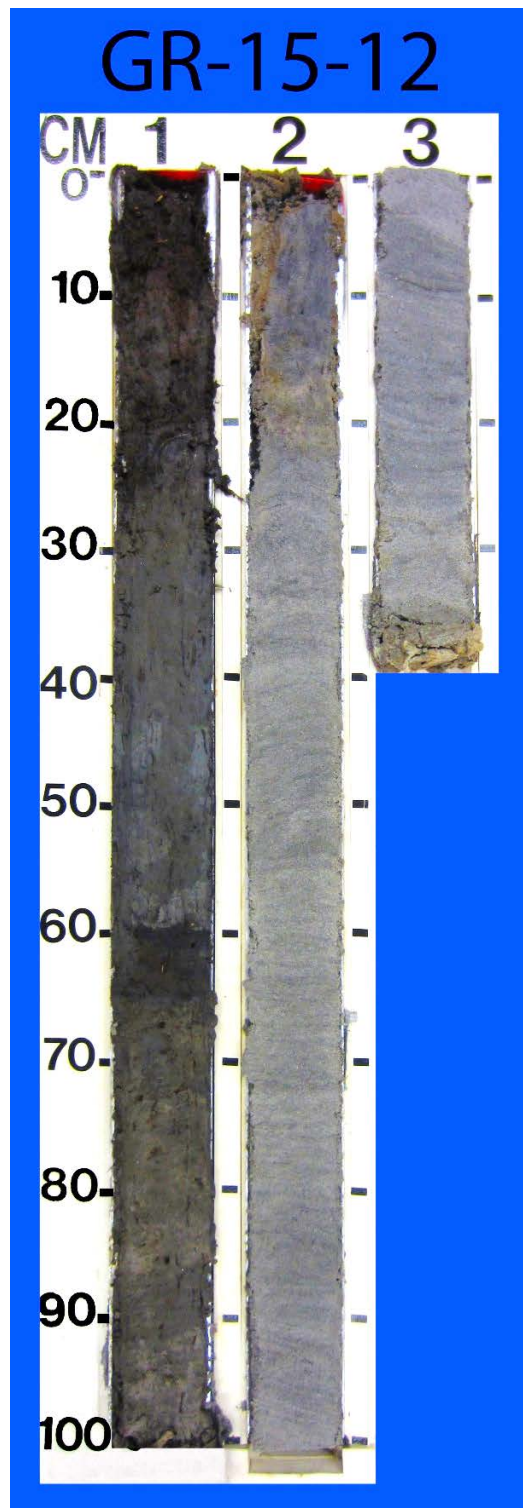


Figure 94: Core GR-15-12. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 71 for core location.

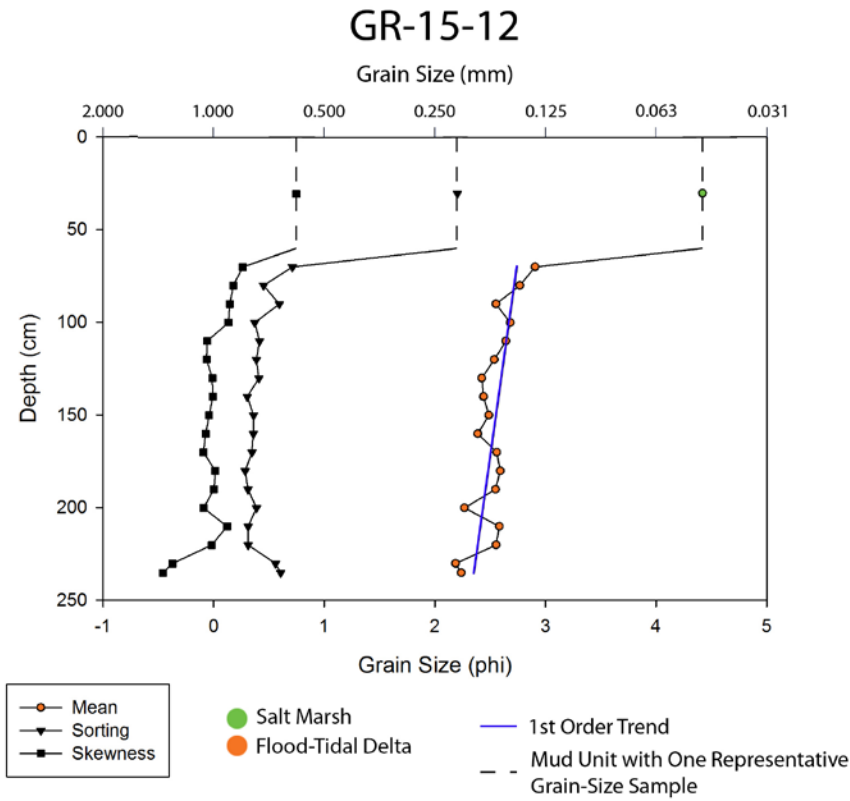


Figure 95: Vertical grain-size trends for core GR-14-12. See Figure 71 for the location of the core.

As shown in Figure 94, planar/cross-laminated sand facies span from the base of the core at 236 cm to 204 cm, totaling 32 cm in thickness. It consists of medium-light-gray, moderately-well- to very-well-sorted, fine sand. This unit contains planar laminae from 228 to 221 cm, followed by cross laminae from 221 to 204 cm. Sediment grain size within this unit fines upward slightly. A second unit of planar/cross-laminated sand facies extends from 204 to 91cm, totaling 113 cm in thickness. The facies unit consists of medium-light-gray, well- to moderately-well-sorted, fine sand. Cross-laminated structures dominate the lower portion of this unit from 204 to 178 cm, followed by planar laminae extending from 178 to 155 cm. From 155 to 130 cm, cross-laminated structures

are again present; however, this set of cross laminae dip in the opposite direction of lower set of cross laminae, indicating current bi-directionality. The sedimentary structures are deformed from 130 to 91 cm. Root rhizomes become more common from 130 to 91 cm as well. Organic-rich, planar-laminated sand facies occur from 91 to 65 cm, totaling 16 cm in thickness. This unit consists of olive-gray, moderately-well- to well-sorted, fine sand. Horizontal laminations are present throughout this unit, as are root rhizomes. A dark-gray, organic-rich, mud facies is 6 cm thick and extends from 65 to 59 cm. A massive-bedded silt facies occurs from 59 to 30 cm and is 29 cm thick. It consists of medium-dark-gray, sandy silt. Finally, an organic-rich, mud facies is 30 cm thick and spans from 30 to 0 cm. This unit is a dark brown, dense root mat, with little sediment.

Core GR-15-12 consists of a 1st order general fining-upward succession, spanning the entire core length as shown in Figure 95. In this 1st order fining-upward trend, grain size decreases from 2.25 ϕ at 235 cm to 4.43 ϕ at 70 cm. Only one representative grain-size sample was analyzed from the uppermost silt unit, therefore no vertical grain-size trends were observed.

GR-15-13

Core GR-15-13 is 320 cm long with 92 cm of compaction, resulting in a total depth of 412 cm (Table 9; Figures 71, 96, and 97). The core top had an elevation of 0.50 m (NAVD88). GR-15-13 yielded 26 sediment samples. In total, seven sedimentary facies were observed in this core (Table 10).

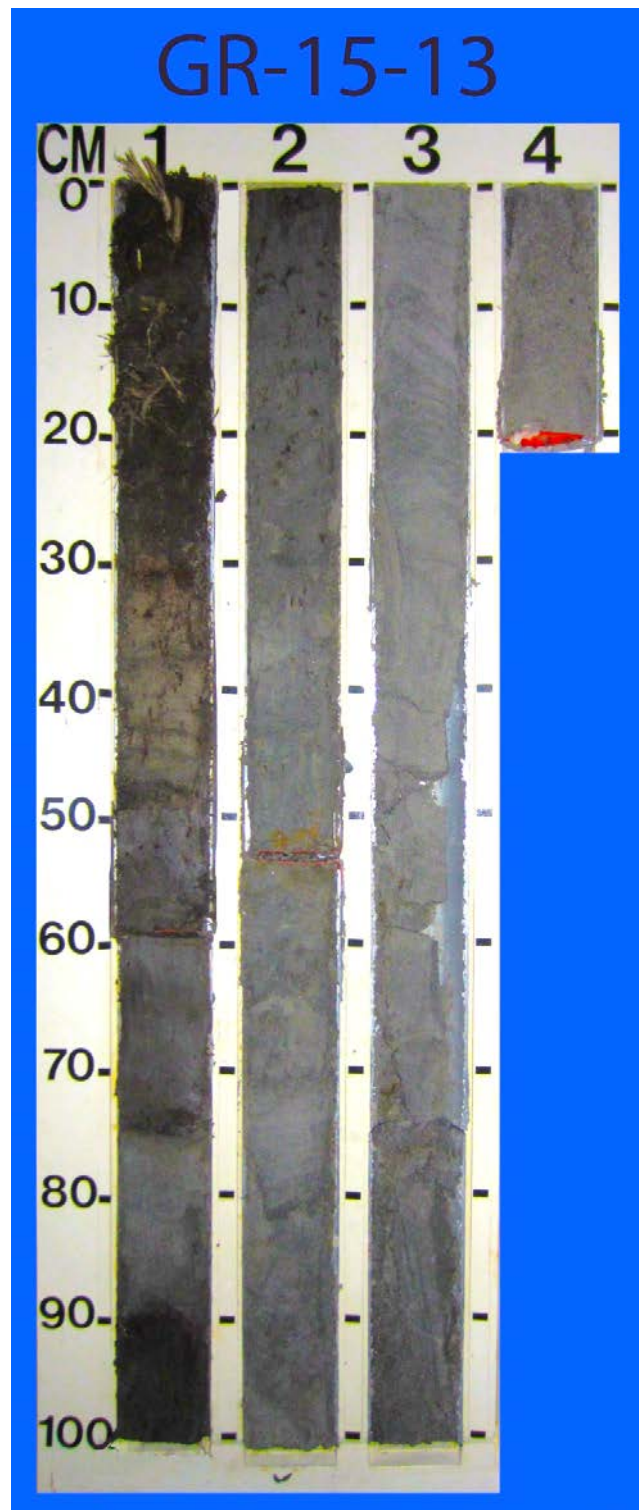


Figure 96: Core GR-15-13. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 71 for core location.

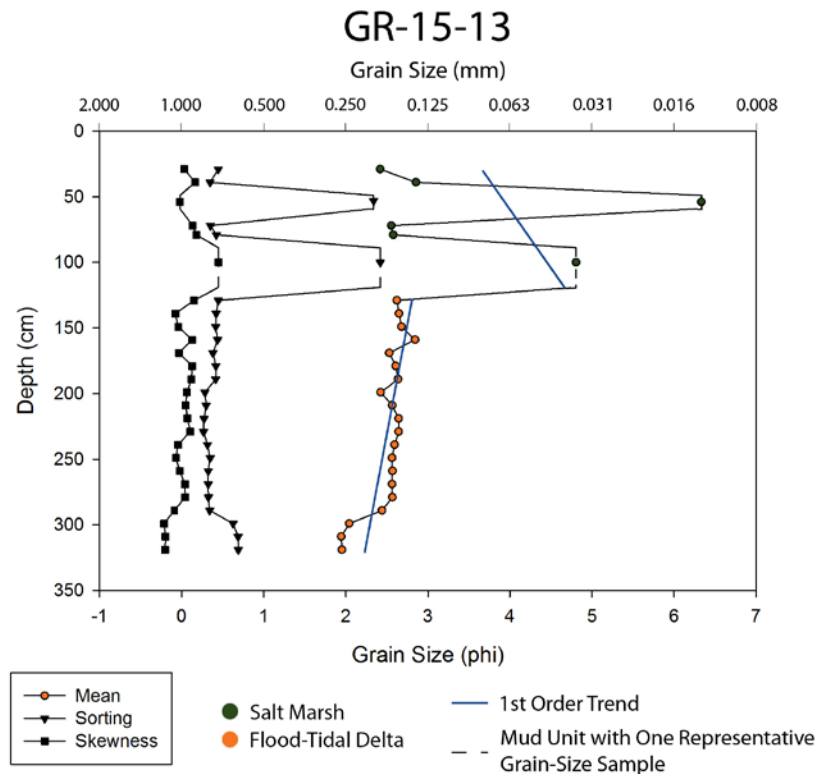


Figure 97: Vertical grain-size trends for core GR-14-13. See Figure 71 for the location of the core.

As shown in Figure 96, a cross-laminated sand facies extends from the base of the core at 320 cm to 196 cm, totaling 124 cm in thickness. The unit consists of light-gray, moderately-well- to very-well-sorted, fine sand. All sedimentary structures were destroyed below 225 cm during the vibracoring process. Cross-laminated features are present from 225 to 210 cm. Bioturbated sand facies spans 93 cm and extends from 196 to 103 cm. It consists of medium-dark-gray, well-sorted, fine-to-very-fine sand. This unit is dominated by bioturbation that extends its entire length. Root rhizomes are present from 140 to 103 cm. An organic-rich mud facies is 13 cm thick and extends from 103 to 90 cm. This unit is brownish black, characterized by very-poorly-sorted, sandy silt. A

massive-bedded sand facies is 15 cm thick and spans from 90 to 75 cm. It consist of medium-light-gray, well-sorted, fine sand. Organic-rich sand and silt facies extends from 75 to 50 cm and is 25 cm thick. The unit is composed of dark-gray, very-poorly-sorted, fine sand and silt. This unit is characterized by high organic content, and contains many root rhizomes. Organic-rich, planar-laminated sand facies spans from 50 to 30 cm and is 20 cm thick. It is a dark-yellowish-brown, well-sorted, fine sand. Some horizontal laminations are present from 50 to 42 cm. Root rhizomes are abundant in this unit. Finally, organic-rich, mud facies occupy the top 30 cm of the core. This unit is dark-yellowish-brown, with little sediment, and consisting mostly of a root mat.

Core GR-15-13 displays two vertical grain size trends, a coarsening- and fining-upward succession as shown in Figure 97. The base of the core has a grain size of 1.96 ϕ at 320 cm and fines upward to a 2.63 ϕ at 130 cm. The coarsening-upward succession extends from 4.82 ϕ at 120 cm to 2.43 ϕ at 30 cm.

GR-15-14

Core GR-15-14 is 276 cm long with 192 cm of compaction, resulting in a total depth of 468 cm (Table 9; Figures 71, 98, and 99). The core top had an elevation of 1.09 m (NAVD88). GR-15-14 yielded 29 sediment samples. In total, 11 sedimentary facies were observed in this core (Table 10).

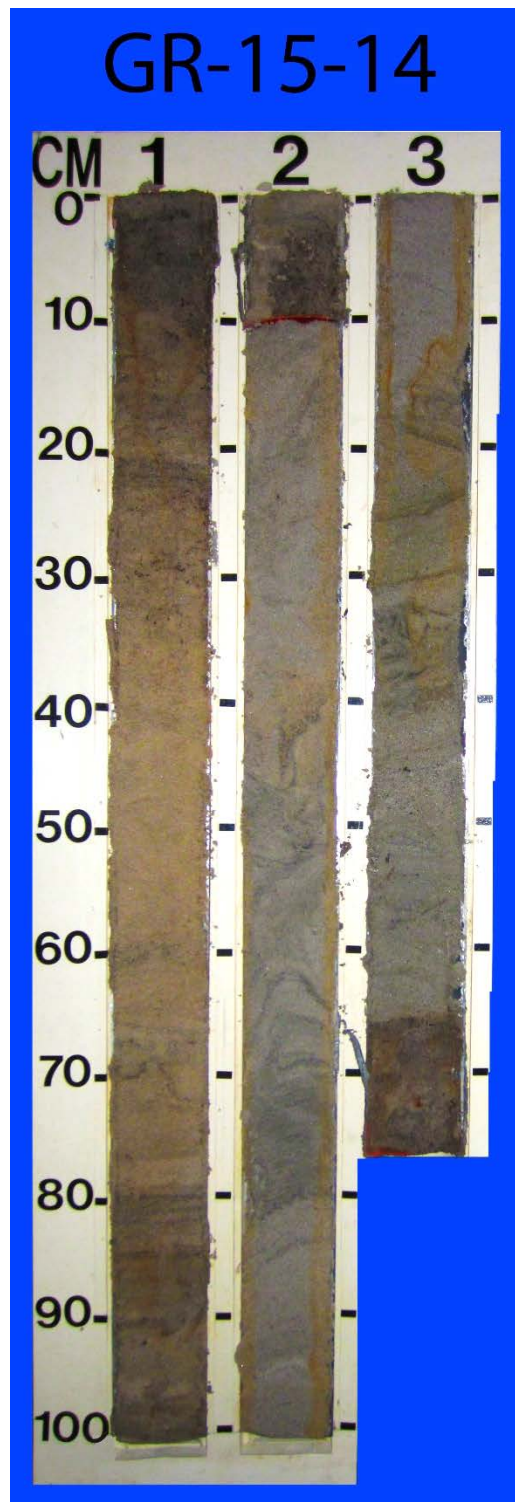


Figure 98: Core GR-15-14. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 71 for core location.

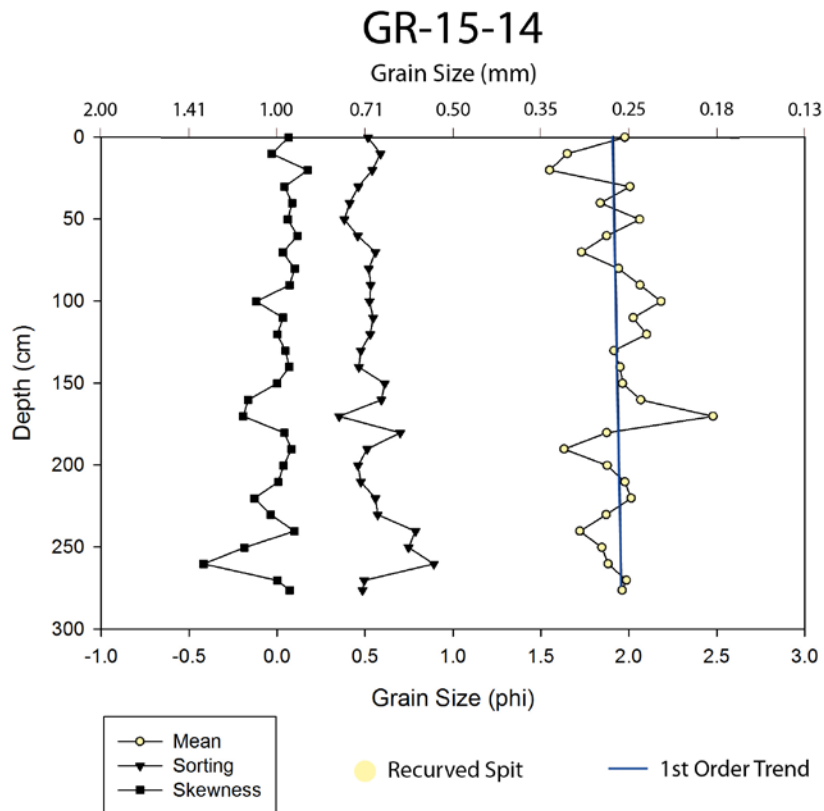


Figure 99: Vertical grain-size trends for core GR-14-14. See Figure 71 for the location of the core.

As shown in Figure 98, a bioturbated sand facies spans from the base of the core (at 277 cm) to 266 cm, totaling 11 cm in thickness. It consists of dark-yellowish-brown, well- to moderately-well-sorted, medium sand. The unit contained bioturbated sedimentary structures and root rhizomes. A cross-laminated sand facies is 87 cm long and extends from 266 to 179 cm. It consists of light-gray, moderately- to well-sorted, medium sand. Cross-laminated structures are present in this unit and demonstrate opposite dip directions, thus indicating a bi-directional current. Shell fragments are present from 266 to 246 cm. A second unit of cross-laminated sand facies spans from 179 to 140 cm and is 39 cm thick. It consists of medium-gray, moderately-well to well-sorted,

medium-to-fine sand. This unit is characterized by deformed laminations that are likely cross-laminated structures. A massive-bedded sand facies occurs from 140 to 110 cm and is 30 cm thick. The facies unit consists of light-gray, well-sorted, medium-to-fine sand. A planar-laminated sand facies extends from 110 to 77 cm and is 33 cm long. It consists of pale-yellowish-brown, moderately-well-sorted, medium-to fine sand. Planar laminae dominate this unit. The laminae become more closely spaced towards the top of the unit. Some root rhizomes can be found from 110 to 103 cm. Cross-laminated sand facies extends from 77 to 59 cm and is 18 cm thick. It consists of pale-orange, moderately-well-to well-sorted, medium sand. A massive-bedded sand facies unit is 36 cm thick, spanning from 59 to 23 cm. It consists of pale-orange, moderately-well-sorted, medium-to-fine sand. Root rhizomes can be found from 34 to 23 cm. Planar-laminated sand facies occupies 13 cm, extending from 23 to 10 cm. It consists of pale-orange, moderately-well sorted, medium sand. Horizontal laminations and some root rhizomes are present in this unit. Finally, an organic-rich sand facies occupies the top 10 cm of the core. It consists of medium-light-gray, moderately-well-sorted, medium sand. The unit contains many root rhizomes.

Core GR-15-14 slightly fines upward in sediment size throughout the core as shown in Figure 99. The core is characterized by frequent, slight variations in grain size. The grain size stays relatively stable ranging from 1.55 to 2.48 ϕ .

GR-14-PA1

In general, core GR-14-PA1 is 430 cm long and yielded 41 sediment samples (Table 9; Figures 71 and 100). The core top had an elevation of 0.64 m (NAVD88). Overall, GR-14-PA1 consists of a general 1st order fining-upward trend and six 2nd order fining- and coarsening-upward trends. The 1st order coarsening-upward trend spans the entire core length with grain size fluctuating between 0.51 and 2.35 ϕ . The 2nd order trends include multiple reversing trends including: a coarsening-upward trend from 1.83 ϕ at 430 cm to 0.51 ϕ at 340 cm (coarse spike A in Figure 100), a fining-upward trend from 0.51 ϕ at 340 cm to 2.35 ϕ at 260 cm, a coarsening-upward trend from 2.35 ϕ at 260 cm to 1.37 ϕ at 190 cm (coarse spike B in Figure 100), a fining-upward trend from 1.37 ϕ at 190 cm to 2.16 ϕ at 130 cm, coarsening-upward trend from 2.16 ϕ at 130 cm to 1.64 ϕ at 75 cm (coarse spike C in Figure 100), and finally fining upward again from 1.64 ϕ at 75 cm to 2.16 ϕ at 12 cm. The core sediments were generally well-to-moderately-well sorted, with the exception of the interval from 350 to 270 cm, which demonstrated poor sorting.

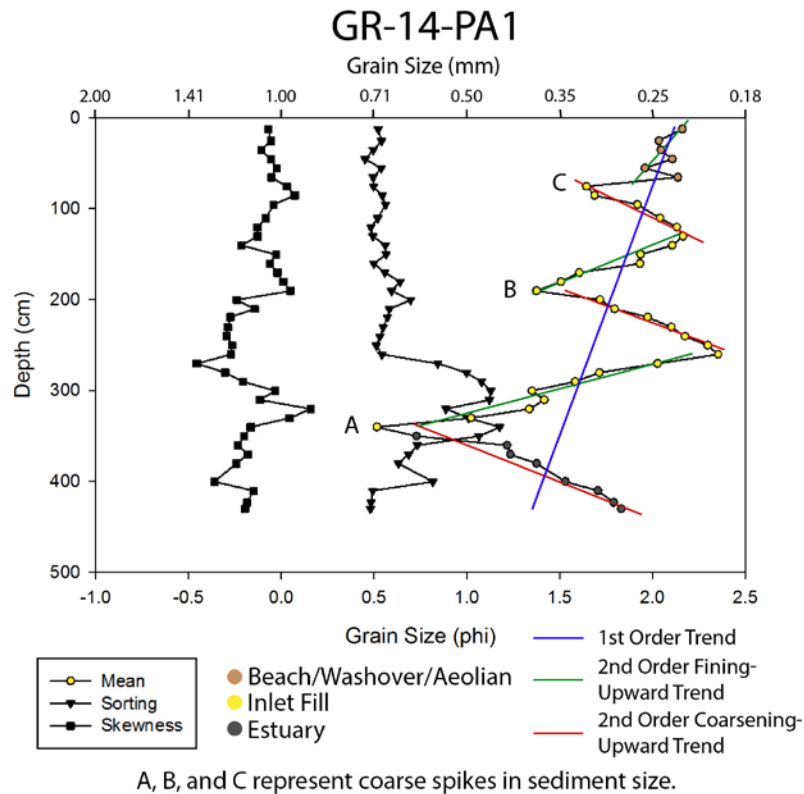


Figure 100: Vertical grain-size trends for core GR-14-PA1. See Figure 71 for the location of the core.

GR-14-PA2

Core GR-14-02 is 230 cm long and yielded 20 sediment samples (Table 9; Figures 71 and 101). The core top had an elevation of 0.54 m (NAVD88). Three grain size trends were observed in GR-14-PA2. A fining-upward succession occurs from its base at 230 cm to 131 cm with sediment grain size decreasing from 2.31 to 2.63 ϕ . Sorting increases upward within this interval improving from moderately-well sorted to very-well sorted. The next grain size trend is a coarsening-upward succession from 2.63 ϕ at 131 cm to 1.66 ϕ at 80 cm. Sorting decreases upward within this trend from very-well sorted to moderately-well sorted. Finally, the uppermost portion of the core consists

of a fining-upward succession from 1.66 ϕ at 80 cm to 2.17 ϕ at 40 cm. Sorting within this uppermost trend varies between moderately-well sorted to well sorted.

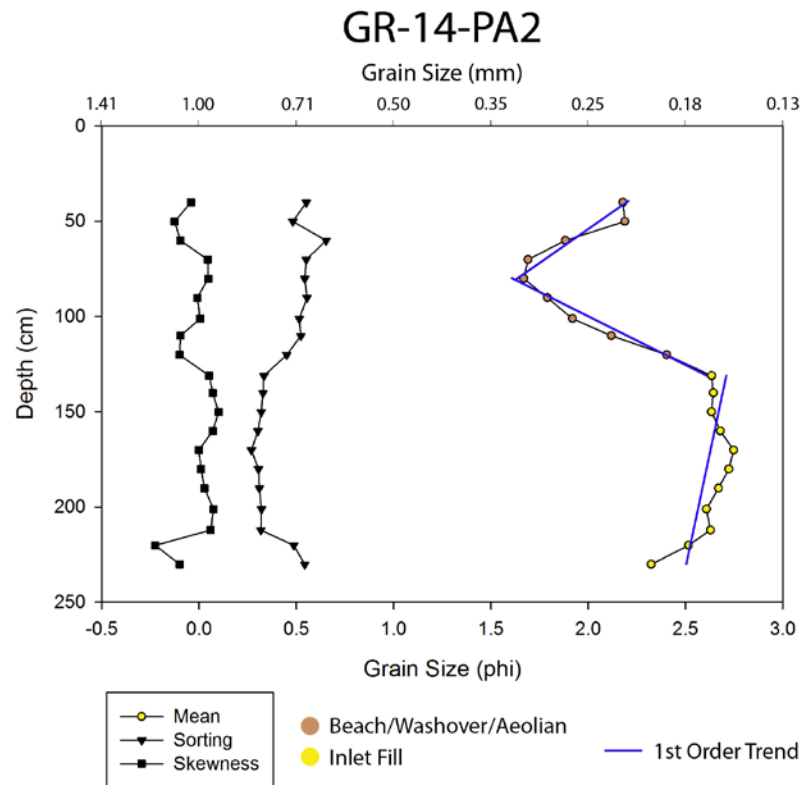


Figure 101: Vertical grain-size trends for core GR-14-PA2. See Figure 71 for the location of the core.

GR-14-PA3

Core GR-14-PA3 is 390 cm long and yielded 38 sediment samples (Table 9; Figures 71 and 102). The core top had an elevation of 1.07 m (NAVD88). A coarsening-upward succession extends from 1.75 ϕ at 390 cm to 0.85 ϕ at 300 cm. The sorting decreases from well sorted at the base of the unit to moderately-well sorted at the top of

the unit. A 1st order fining-upward succession extends from 0.85 ϕ at 300 cm to 2.24 ϕ at 90 cm. The sorting generally increases from moderately sorted to well sorted throughout this vertical trend. This unit contains multiple spikes of coarse sediment, located at 300 cm (spike A in Figure 102), 260 cm (spike B in Figure 102), and 160 cm (spike C in Figure 102). Three 2nd order trends exist within this 1st order fining upward trend: a fining-upward trend from 0.85 ϕ at 300 cm to 2.08 ϕ at 200 cm, a coarsening-upward trend from 2.08 ϕ at 200 cm to 1.64 ϕ at 160 cm and a fining-upward trend from 1.64 ϕ at 160 cm to 2.24 ϕ at 90 cm. The next 1st order trend exhibits a mean grain size coarsening upward from 2.24 ϕ at 90 cm to 1.40 ϕ at 60 cm, with well- to moderately-well sorting. Finally, mean grain size fines upward from 1.40 ϕ at 60 cm to 2.21 ϕ at 30 cm. Sorting once again fluctuated between moderately-well and well sorting.

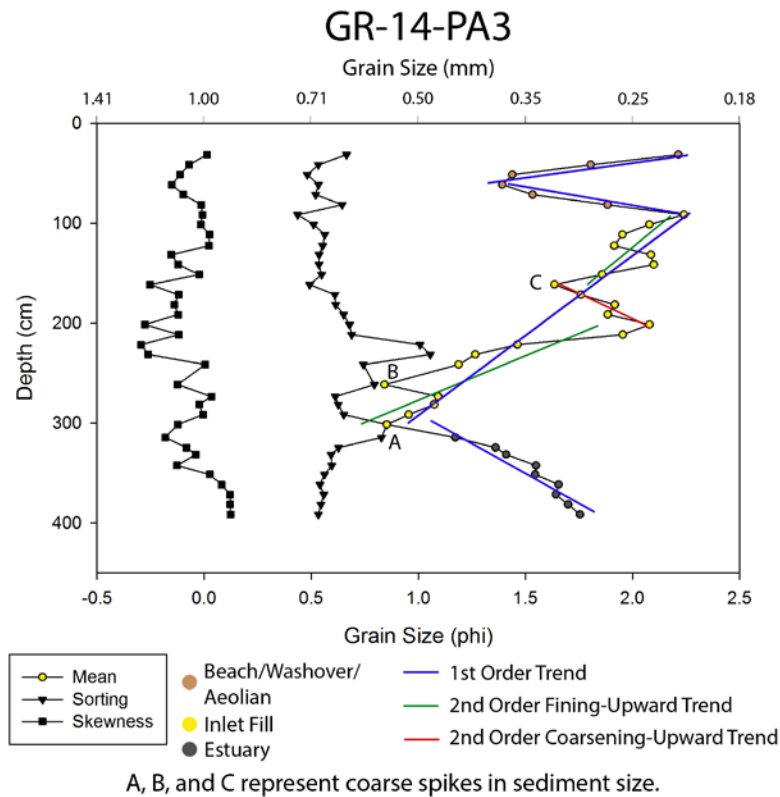


Figure 102: Vertical grain-size trends for core GR-14-PA3. See Figure 71 for the location of the core.

SI-14-01

Core SI-14-01 is 221 cm long with 68 cm of compaction, resulting in a total depth of 289 cm (Table 9; Figures 72, 103, and 104). The core top had an elevation of 0.36 m (NAVD88). SI-14-01 yielded 21 sediment samples. In total, seven sedimentary facies were delineated in this core (Table 10).

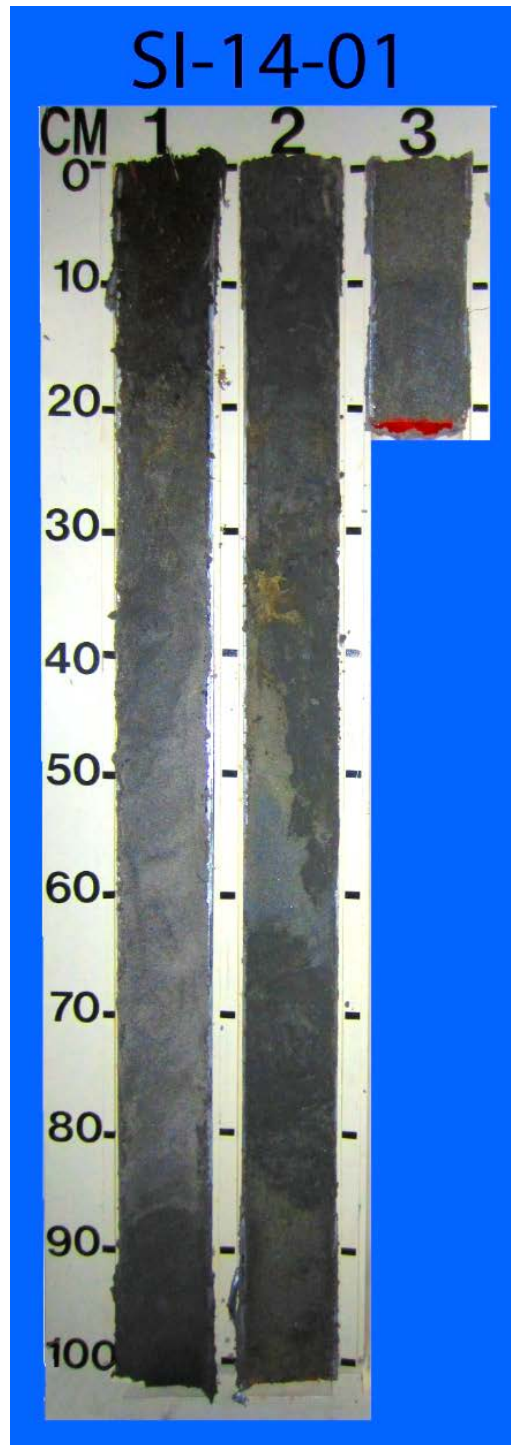


Figure 103: Core SI-14-01. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 72 for the location of the core.

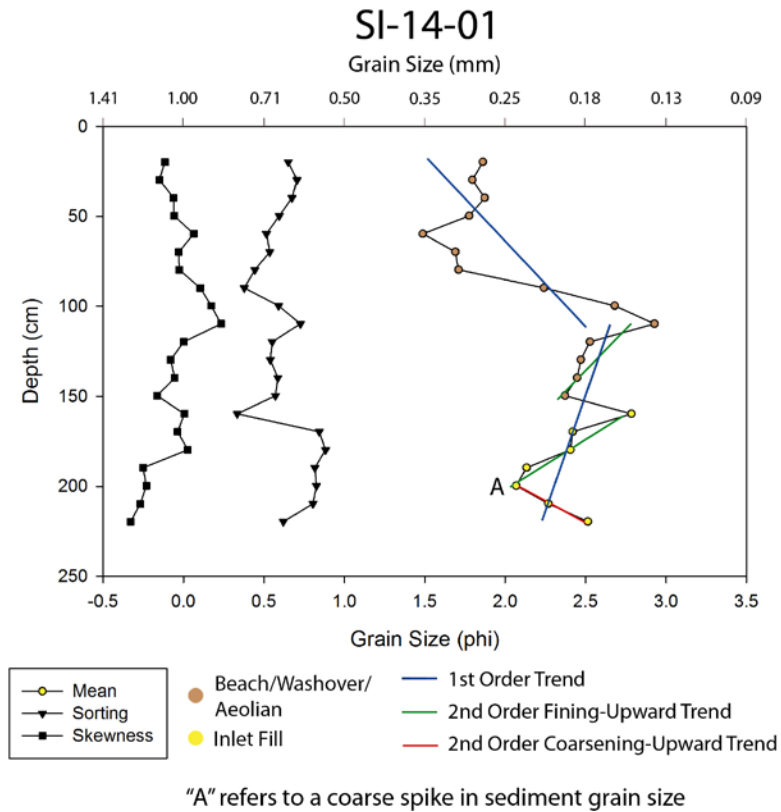


Figure 104: Vertical grain-size trends for core SI-14-01. See Figure 72 for the location of the core.

As shown in Figure 103, a massive-bedded sand facies extends from the core base at 221 to 186 cm, totaling 35 cm in thickness. It consists of medium-gray, moderately-well- to moderately-sorted, fine sand. This unit contains massive bedding with some shell hash. Bioturbated sand facies extends from 186 to 164 cm and is 22 cm thick. It contains medium-dark-gray, moderately-sorted, fine sand. This unit is heavily bioturbated. A massive-bedded sand facies spans from 164 to 150 cm, totaling 14 cm in thickness. It consists of light-gray, very-well-sorted to moderately-well-sorted, fine sand. Bioturbated sand facies extends from 150 to 108 cm, for a total thickness of 42 cm. It consists of

medium-dark-gray, moderately-well- to moderately-sorted, fine sand. This unit is heavily bioturbated. Massive-bedded sand facies span from 108 to 84 cm, totaling 24 cm in thickness. It consists of medium-light-gray, moderately-well- to well-sorted, fine sand. A cross-laminated sand facies extends from 84 to 17 cm and is 67 cm thick. It consists of very-light-gray, moderately-well-sorted, medium sand. Cross-laminated structures were observed throughout this unit. A dark-yellowish-brown, organic-rich mud facies occupies the top 17 cm of the core. This unit is dominated by organic material and contains little sediment.

Two 1st order vertical grain-size trends were observed within core SI-14-01 as shown in Figure 104. A 1st order fining-upward succession occurs from the base of the core at 221 cm to 110 cm. This unit consists of two 2nd order fining-upward trends. The vertical trend begins at the base of the core, where mean grain size coarsens from 2.51 ϕ at 220 cm to 2.07 ϕ at 200 cm (coarse spike A in Figure 104). From 200 cm, the lowermost fining upward 2nd order unit fines from 2.07 to 2.78 ϕ at 160 cm. The next 2nd order unit extends from 2.37 ϕ at 150 cm and fines upwards to 2.93 ϕ at 110 cm. The core is topped by a 1st order coarsening-upward succession from 2.93 ϕ at 110 cm to 1.86 ϕ at 20 cm.

SI-14-02

Core SI-14-02 is 347 cm long with 56 cm of compaction, resulting in a total depth of 403 cm (Table 9; Figures 72, 105, and 106). The core top had an elevation of 0.40 m (NAVD88). SI-14-02 yielded 35 sediment samples. In total, seven sedimentary facies were observed in this core (Table 10).

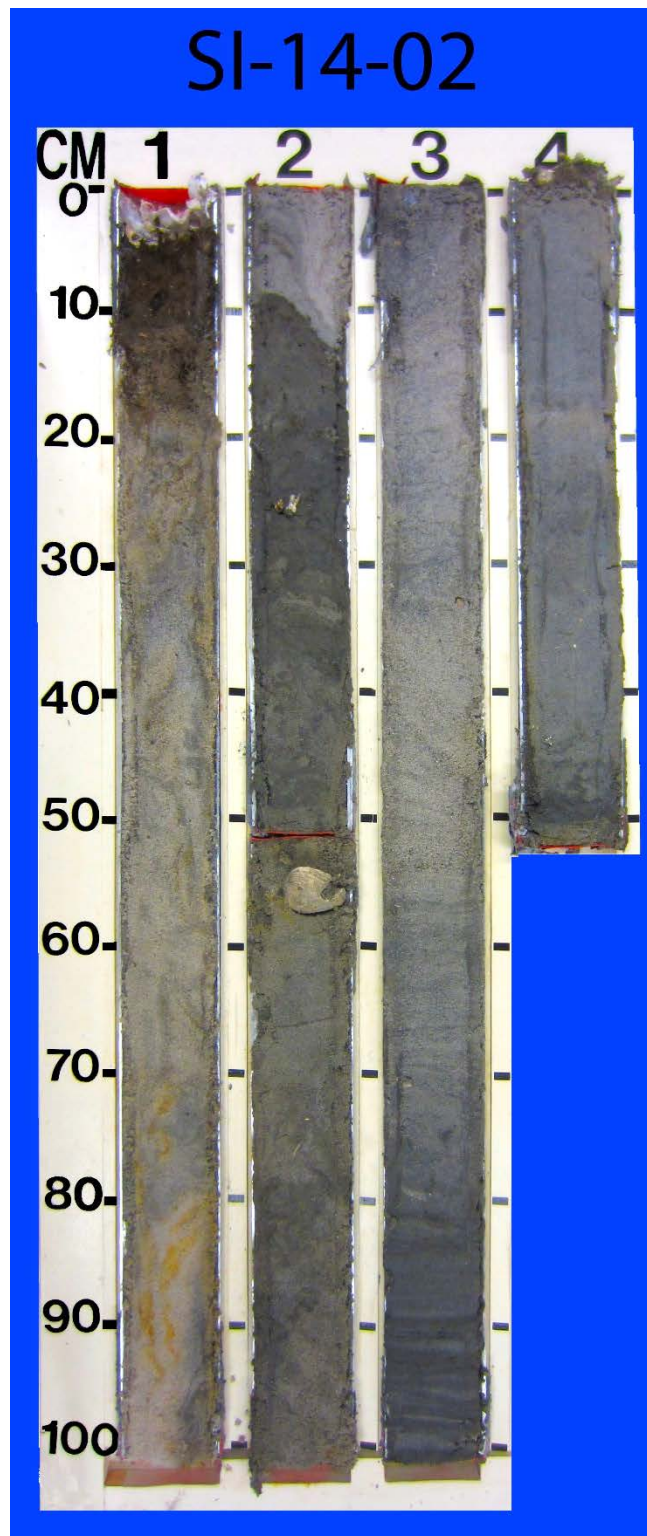
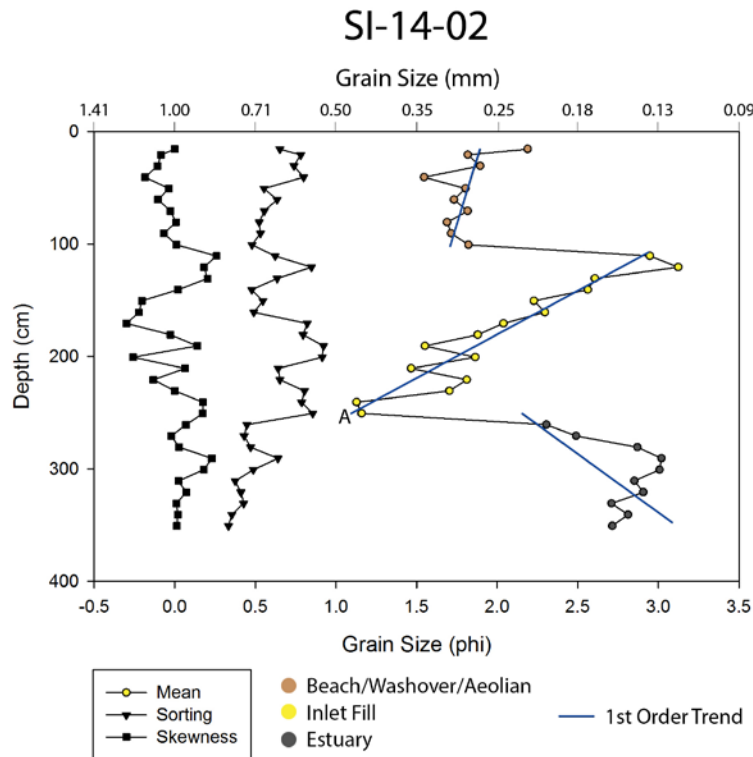


Figure 105: Core SI-14-02. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 72 for the location of the core.



"A" refers to a coarse spike in sediment grain size

Figure 106: Vertical grain-size trends for core SI-14-02. See Figure 72 for the location of the core.

As shown in Figure 105, bioturbated sand facies extend from the core base of the core at 350 cm to 304 cm, totaling 46 cm in thickness. It consists of medium-light-gray, very-well- to moderately-well-sorted, fine sand. Some shell hash was observed throughout the unit, along with bioturbation present from 307 to 304 cm. Planar-laminated sand facies occurs from 304 to 280 cm and totals 24 cm in thickness. It is composed of medium-dark-gray, moderately- to well-sorted, fine sand. Lenticular bedding is present from 300 to 289 cm (Figure 107). Planar laminae extend from 389 to 280 cm. Another planar-laminated sand facies characterizes the next overlying package, which is 27 cm thick and spans from 280 to 253 cm. It consists of light-gray, well-sorted,

fine- to medium sand. The unit is characterized by planar laminae with a small amount of shell hash distributed throughout. Bioturbated, cross-laminated sand facies occurs from 253 to 136 cm and is 117 cm thick. It consists of very-light-gray, moderately- to well-sorted, fining upward, medium-to-fine sand. Some shells, as well as subtle cross-laminated structures, are present within the lower half of this unit. Gastropods are present at 232 and 205 cm. An oyster shell fragment is located at 202 cm, as well as a large bivalve shell at 155 cm. Bioturbation dominated the upper 10 cm of this unit (253-243 cm). Bioturbated sand facies extends from 130 to 111 cm and is 25 cm in thickness. This unit consists of dark-gray, moderately- to moderately-well-sorted, fine-to-very-fine sand. It is heavily bioturbated and contains a razor clam at 123 cm. Some root rhizomes are present along the upper portion of this unit. An abrupt color and mean grain size contrast separates the bioturbated sand facies from the overlying cross-laminated sand facies. A cross-laminated sand facies extends from 111 to 15 cm and is 92 cm thick. The unit contains moderately- to moderately-well sorted, medium sand. The color gradually transitions from very-light gray at the base of the package to light-gray at the top. Bedding structures are deformed throughout the entire unit, but are likely cross-laminated features. Finally, a brownish-black, organic-rich, mud facies occupies the uppermost 15 cm of the core. The unit has a mean grain size of 2.19 ϕ at 15 cm; however, above this mark, organic material dominates and the unit lacks sediment.



Figure 107: Close up of lenticular bedding. This image is from the 287 to 300 cm interval of core SI-14-02.

Three vertical mean grain size trends are present in core SI-14-02 as shown in Figure 106. A coarsening-upward succession is present at the core bottom. This vertical trend increases in mean grain size from 2.17 ϕ at 350 cm to 1.16 ϕ at 250 cm (coarse spike A in Figure 106). A fining-upward succession extends from 250 cm to 110 cm, with grain size decreasing from 1.16 ϕ to 2.95 ϕ . The uppermost 100 cm of the core demonstrates a slight fining-upward succession. The mean grain size decreases from 1.83 ϕ at 100 cm to 2.19 ϕ at 15 cm.

SI-14-03

Core SI-14-03 is 262 cm long with 32 cm of compaction, resulting in a total depth of 294 cm (Table 9; Figures 72, 108, and 109). The core top had an elevation of 0.33 m (NAVD88). SI-14-03 yielded 29 sediment samples. In total, six sedimentary facies were observed in this core (Table 10).

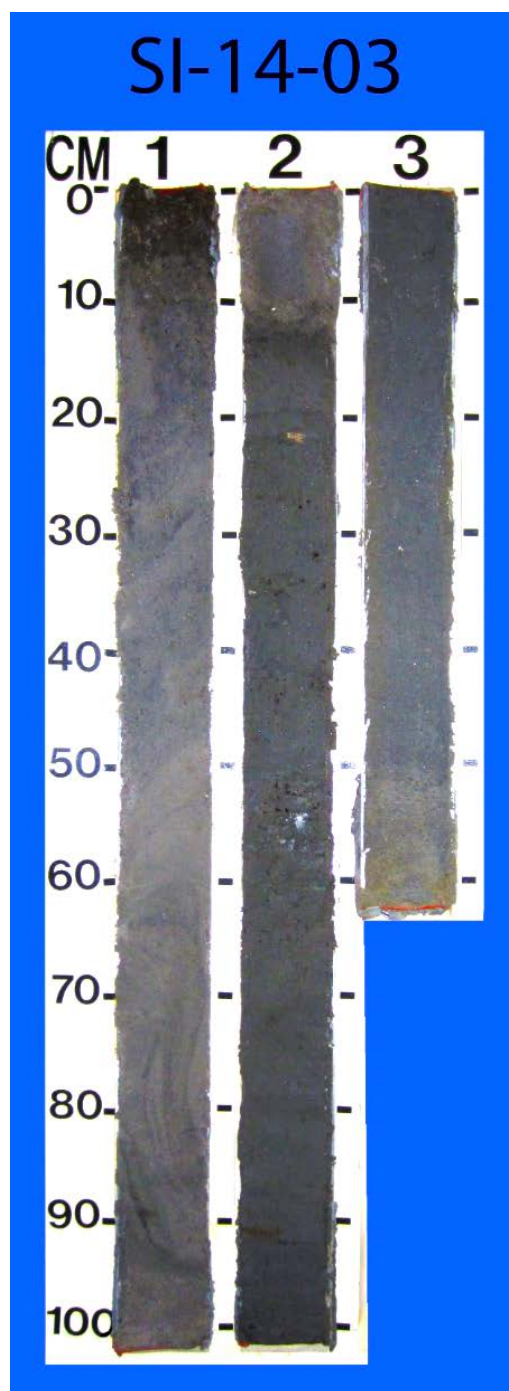
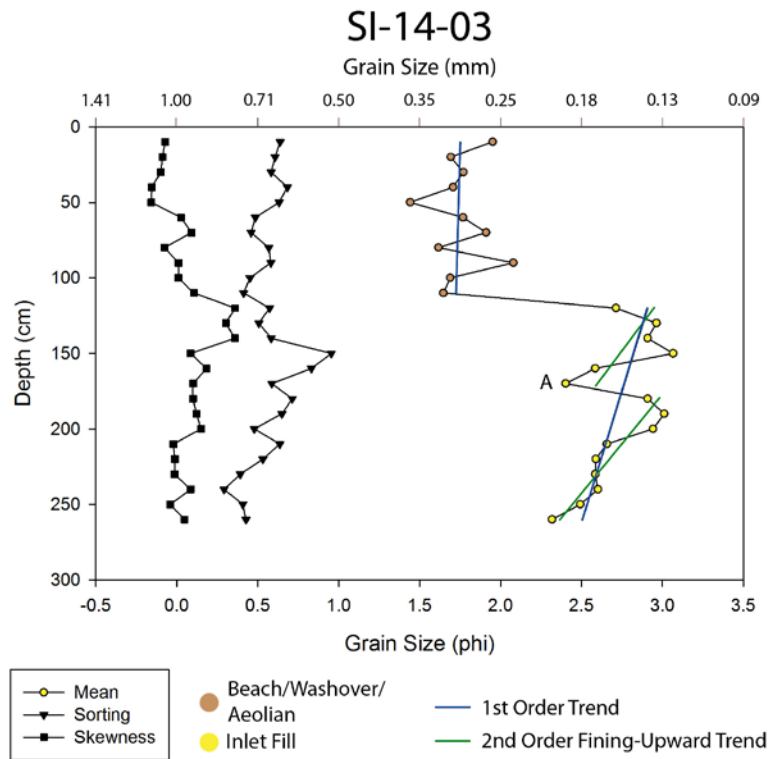


Figure 108: Core SI-14-03. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 72 for the location of the core.



"A" refers to a coarse spike in sediment grain size

Figure 109: Vertical grain-size trends for core SI-14-03. See Figure 72 for the location of the core.

As shown in Figure 108, a massive-bedded sand facies extends from the core base at 262 cm to 220 cm, totaling 42 cm in thickness. It consists of medium-gray, very-well- to moderately-sorted, fine sand. Some small shell fragments are present within the sand. A bioturbated, planar-laminated sand facies occurs from 220 to 165 cm and is 55 cm in thickness. The unit is composed of dark-greenish-gray, moderately-well- to well-sorted, fine, micaceous sand. Subtle horizontal laminations are present throughout this unit. A bioturbated sand facies extends from 165 to 113 cm, totaling 52 cm in length. It consists of olive-gray, moderately- to moderately-well-sorted, fine-to-very-fine sand. A gastropod is present at 121 cm as well as root rhizomes are present throughout the unit. A massive-

bedded sand facies spans from 113 to 94 cm, totaling 19 cm in thickness. It consists of light-gray, well-sorted, medium sand. A sharp contact separates the massive-bedded sand facies from the overlying cross-laminated sand facies, which is characterized by an abrupt mean grain size increase and a shift in color. A cross-laminated sand facies extends from 94 to 5 cm, totaling 89 cm in thickness. The sedimentary structures were deformed within this core segment, but they are likely cross-laminated features. Some root rhizomes are present from 28 to 5 cm. Finally, organic-rich, mud facies occupy the uppermost 5 cm of core SI-14-03. This unit is brownish-black in color and consists of mostly all organic material, containing little sediment.

Core SI-14-03 contains two general vertical mean grain-size trends as shown in Figure 109. A 1st order fining-upward succession is present from 260 to 120 cm, in which mean grain size decreases upward from 2.32 to 2.71 ϕ . This lowermost vertical grain-size trend is separated into two 2nd order fining-upward successions: fining upward from 2.32 ϕ at 260 cm to 2.91 ϕ at 180 cm and fining from 2.40 ϕ at 170 cm (coarse spike A in Figure 109) to 2.71 ϕ at 120 cm. The uppermost 110 cm display a relatively consistent mean grain size, varying from 2.08 to 1.49 ϕ .

SI-15-04

Core SI-15-04 is 458 cm long with 119 cm of compaction, resulting in a total depth of 577 cm (Table 9; Figures 72, 110, and 111). The core top had an elevation of 1.53 m (NAVD88). SI-15-04 yielded 33 sediment samples. In total, six sedimentary facies were delineated in this core (Table 10).

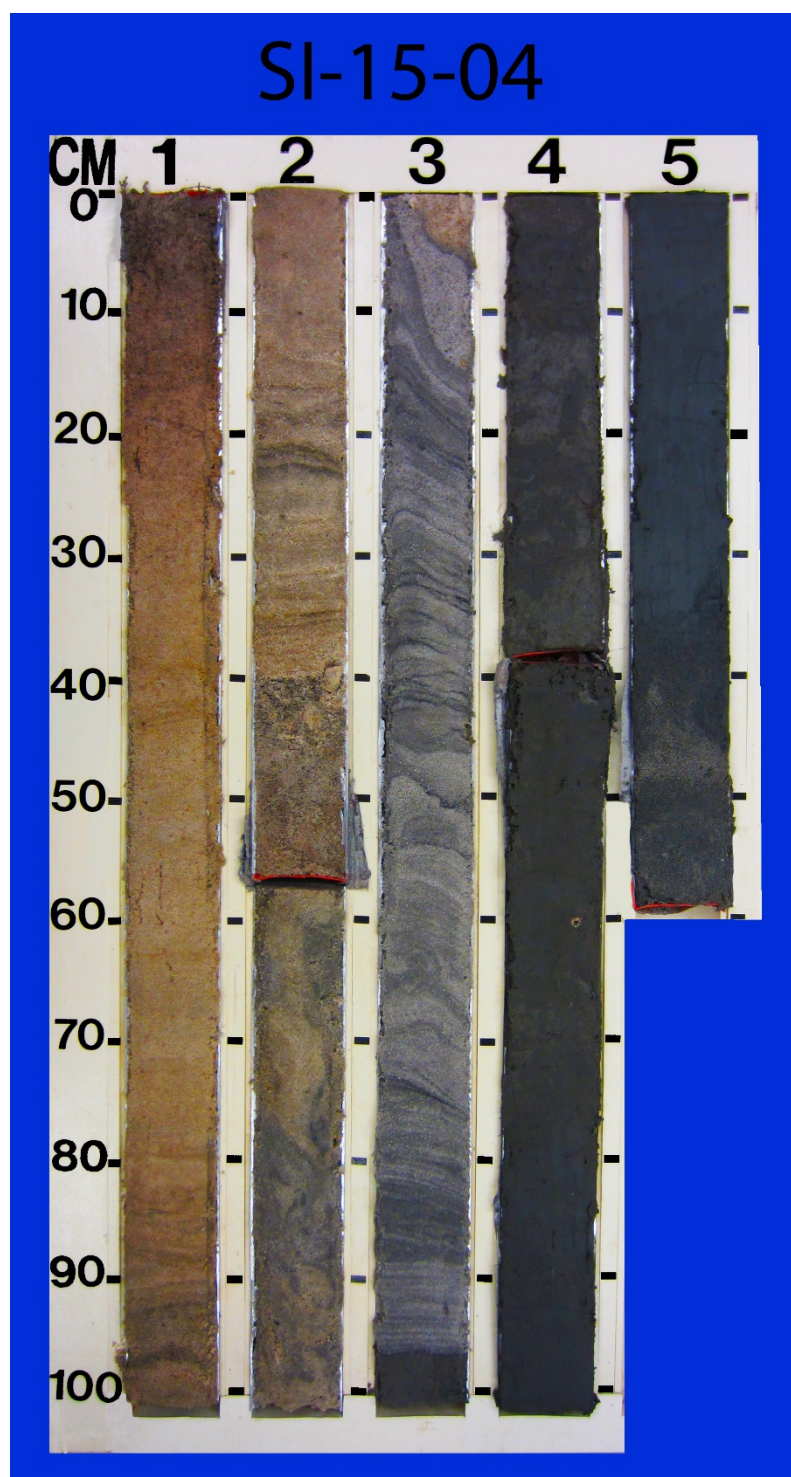


Figure 110: Core SI-15-04. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 72 for the location of the core.

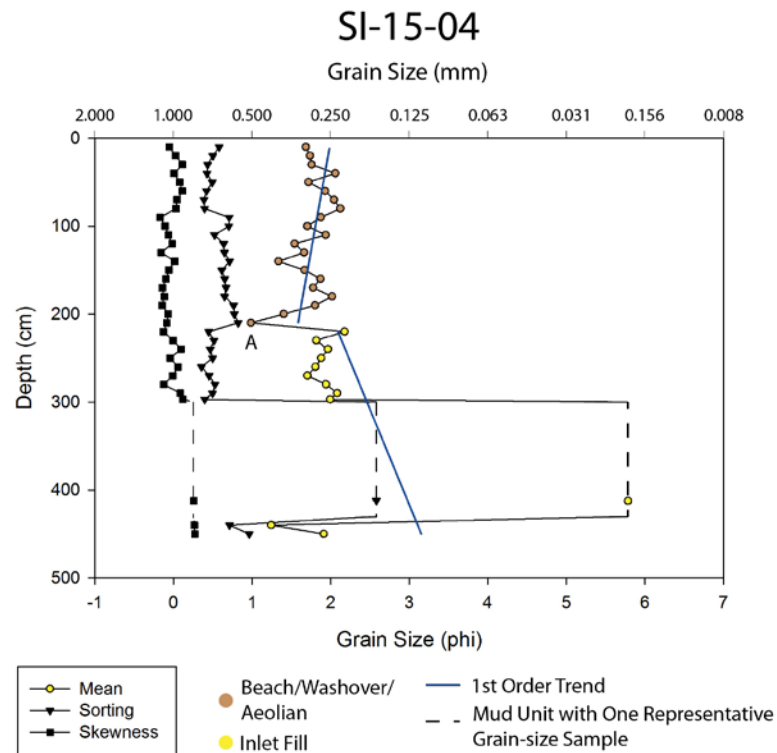


Figure 111: Vertical grain-size trends for core SI-14-04. See Figure 72 for the location of the core.

As shown in Figure 110, a bioturbated sand facies extends from the core base at 458 cm to 435 cm and is 23 cm thick. It consists of medium-dark-gray, moderately-sorted, medium sand. A bioturbated silt facies occurs from 435 to 296 cm, totaling 139 cm in thickness. It consists of medium-dark-gray, very-poorly-sorted, silt. A gastropod is present at 359 cm. The bioturbated silt facies and the overlying planar/cross-laminated sand facies are separated by a sharp contact characterized by an abrupt change in grain size and color, representative of a disconformity. A planar and cross-laminated sand facies occurs from 296 to 215 cm, totaling 81 cm in thickness. It consists of medium-gray, well- to moderately-well-sorted, medium-to-fine sand. The unit is characterized by

its distinct sedimentary structures. Planar laminae are present from 296 to 289 cm, overlain by cross laminae from 289 to 215 cm. A sand facies with deformed sedimentary structures extends from 215 to 140 cm and is 75 cm thick. It consists of medium-light-gray, moderately- to moderately-well-sorted, coarse-to-medium sand. This unit is characterized by deformed sedimentary structures of unknown origin. Some shell hash is interspersed throughout the unit. Planar- and cross-laminated sand facies occurs from 140 to 76 cm, totaling 64 cm in thickness. This unit is composed of pale-yellowish-brown, moderately- to well-sorted, medium-to-fine sand. A massive-bedded sand facies occupies the uppermost 76 cm of the core. It consists of grayish-orange, well- to moderately-well-sorted, fine-to-medium sand. Some root rhizomes are dispersed throughout the unit; however, the largest concentration of root rhizomes are found within the top 10 cm of the unit.

Two 1st order vertical grain-size trends were observed throughout core SI-15-04 as shown in Figure 111. A 1st order coarsening-upward succession spans from 450 to 220 cm. One 2nd order fining-upward succession is present within the 1st order vertical trend. An erosional disconformity is located at 296 cm. A 2nd order feature occurs from 296 to 220 cm, in which sediment fines upward from 2.00 to 2.19 ϕ . Another possible disconformity may mark the uppermost extent of this fining-upward succession. The 1st order vertical trend is characterized by a fining-upward succession spanning from 210 cm (coarse spike A in Figure 111) to 10 cm, in which the mean grain size fines upward from 0.99 to 1.70 ϕ .

SI-15-05

Core SI-15-05 is 338 cm long measured with 26 cm of compaction, resulting in a total depth of 364 cm (Table 9; Figures 72, 112, and 113). The core top had an elevation of 1.63 m (NAVD88). SI-15-05 yielded 35 sediment samples. In total, six sedimentary facies were delineated in this core (Table 10).

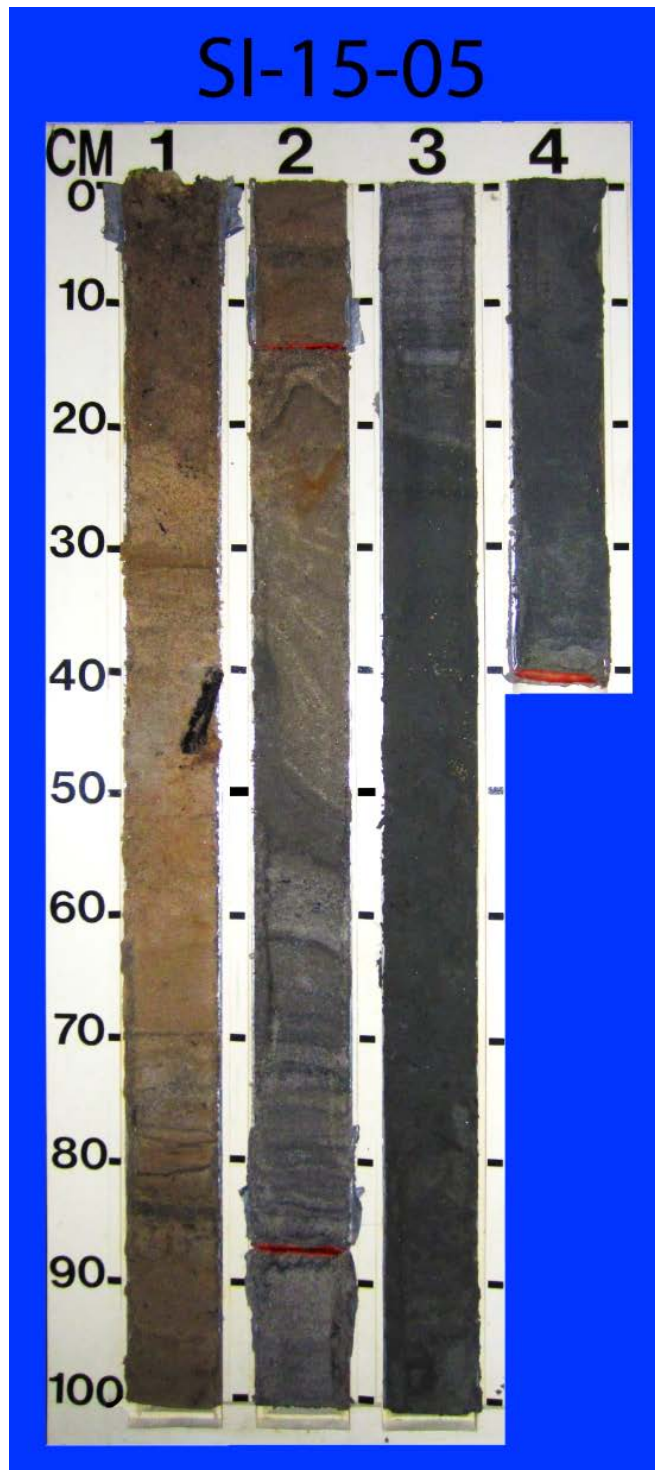


Figure 112: Core SI-14-05. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 72 for the location of the core.

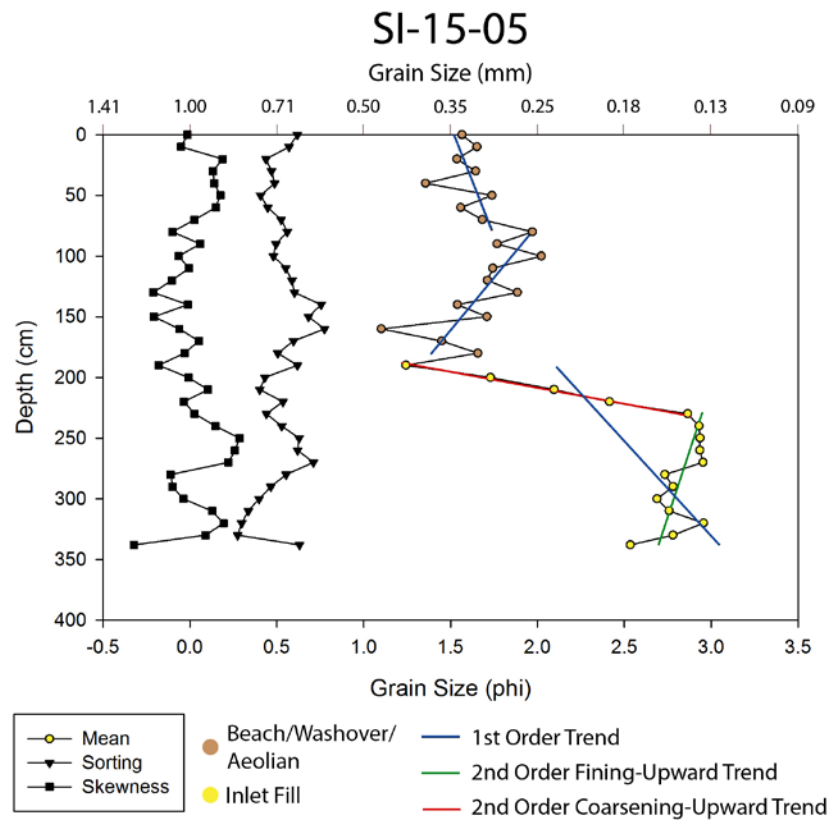


Figure 113: Vertical grain-size trends for core SI-15-05. See Figure 72 for the location of the core.

As shown in Figure 112, a bioturbated, massive-bedded sand facies occurs from 338 to 223 cm and is 125 cm thick. It consists of medium-light-gray to medium-dark-gray, moderately-well- to very-well-sorted, fine sand. Bioturbation is apparent throughout the unit. A cluster of worm tubes are present from 249 to 235 cm. A planar-laminated sand facies extends from 223 to 150 cm, totaling 73 cm in thickness. The unit is composed of medium-light-gray, well- to moderately-sorted, fine- to medium sand. A second planar-laminated sand facies unit extends from 150 to 105 cm and is 45 cm thick. It consists of light-gray, moderately- to moderately-well-sorted, medium sand. Deformed laminations are present throughout the entire unit, but are likely planar laminae. A third

consecutive planar-laminated sand facies extends from 105 to 69 cm, totaling 36 cm in thickness. It consists of grayish-orange, well- to moderately-well-sorted, fine- to medium sand. A massive-bedded sand facies occurs from 69 to 40 cm, totaling 29 cm in thickness. The unit is comprised of grayish-orange, moderately-well- to well-sorted, medium sand. Finally, planar and cross-laminated sand facies occupies the top 40 cm of the core. It consists of dark-yellowish-brown, well- to moderately-well-sorted, medium sand. Root rhizomes are present within the upper 25 cm of the unit.

In general, three 1st order vertical grain size trends are present within core SI-15-05 as shown in Figure 113. A 1st order coarsening-upward succession is present from the core base at 338 cm to 190 cm. Within this trend, mean grain size coarsens upwards from 2.53 to 1.24 ϕ . Two 2nd order trends are present within the 1st order trend: a fining-upward trend from 2.53 ϕ at 338 cm to 2.92 ϕ at 240 cm, and a coarsening-upward trend from 2.86 ϕ at 230 cm to 1.24 ϕ at 190 cm. The next overlying 1st order trend fines upward from 1.66 ϕ at 180 cm to 1.96 ϕ at 80 cm. Finally, the third 1st order trend is characterized by a coarsening-upward succession, extending from 1.97 ϕ at 80 cm to 1.56 ϕ at the core top.

SI-14-06

Core SI-14-06 is 142 cm long with 60 cm of compaction, resulting in a total depth of 202 cm (Table 9; Figures 72, 114, and 115). The core top had an elevation of 1.07 m (NAVD88). SI-14-06 yielded 13 sediment samples. In total, six sedimentary facies were delineated in this core (Table 10).

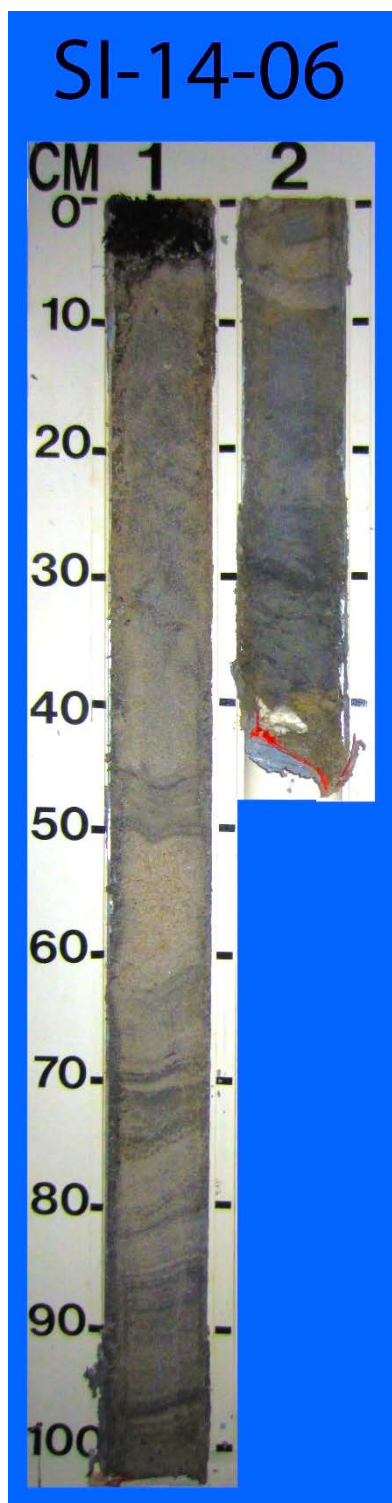


Figure 114: Core SI-14-06. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 72 for the location of the core.

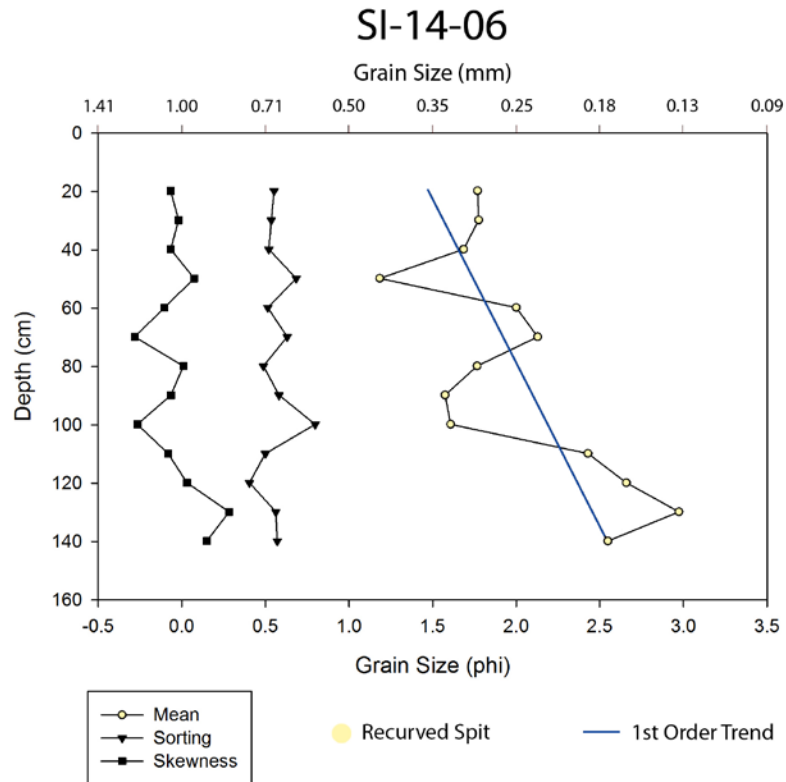


Figure 115: Vertical grain-size trends for core SI-14-06. See Figure 72 for the location of the core.

As shown in Figure 114, a cross-laminated sand facies extends from the core base at 142 cm to 109 cm, totaling 33 cm in thickness. It consists of medium-gray, moderately-well- to well-sorted, fine sand. A second cross-laminated sand facies unit spans from 109 to 62 cm and is 47 cm in thickness. It consists of very-light-gray, well- to moderately-sorted, fine-to-medium sand. A massive-bedded sand facies extends from 62 to 50 cm and is 12 cm thick. It consists of pale-orange, moderately-well-sorted, medium sand. A planar-laminated sand facies occurs from 50 to 45 cm, totaling 5 cm in thickness. This unit consists of medium-gray, moderately-well-sorted, medium sand. A cross-

laminated sand facies extends from 45 to 5 cm and is 40 cm thick. It consists of medium-light-gray, moderately-well sorted, medium sand. The package contains some deformed, cross-laminated features. Finally, a black organic-rich, mud facies occupies the uppermost 5 cm of the core. This unit contains mostly organic material and little sediment.

SI-14-06 contains one single general coarsening-upward succession as shown in Figure 115. The mean sediment size coarsens upward from 2.55 ϕ at the core base at 140 cm to 1.77 ϕ at 20 cm.

SI-15-07

Core SI-15-07 is 255 cm long with 41 cm of compaction, resulting in a total depth of 293 cm (Table 9; Figures 72, 116, and 117). The core top had an elevation of 0.33 m (NAVD88). SI-15-07 yielded 25 sediment samples. In total, four sedimentary facies were delineated in this core (Table 10). The core was cut at 98 cm instead of 100 cm for photography in order to preserve the contact that occurs at 100 cm.

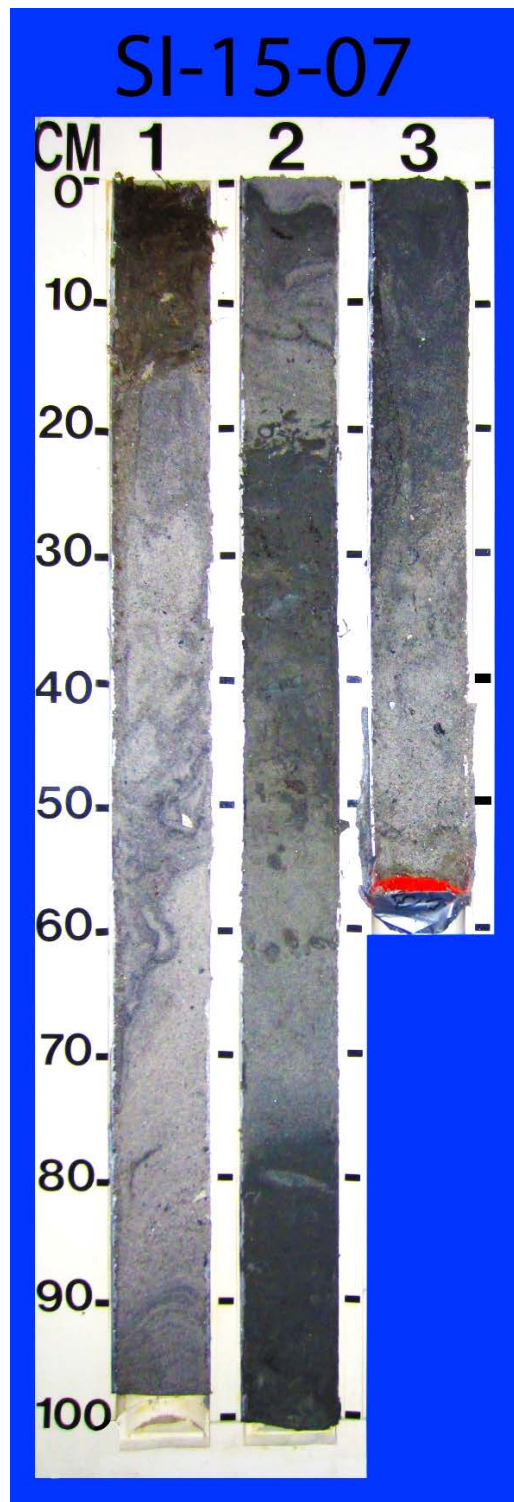


Figure 116: Core SI-15-07. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 72 for the location of the core. Note: the core was cut at 98 cm instead of 100 cm in order to preserve the contact that occurs at 100 cm.

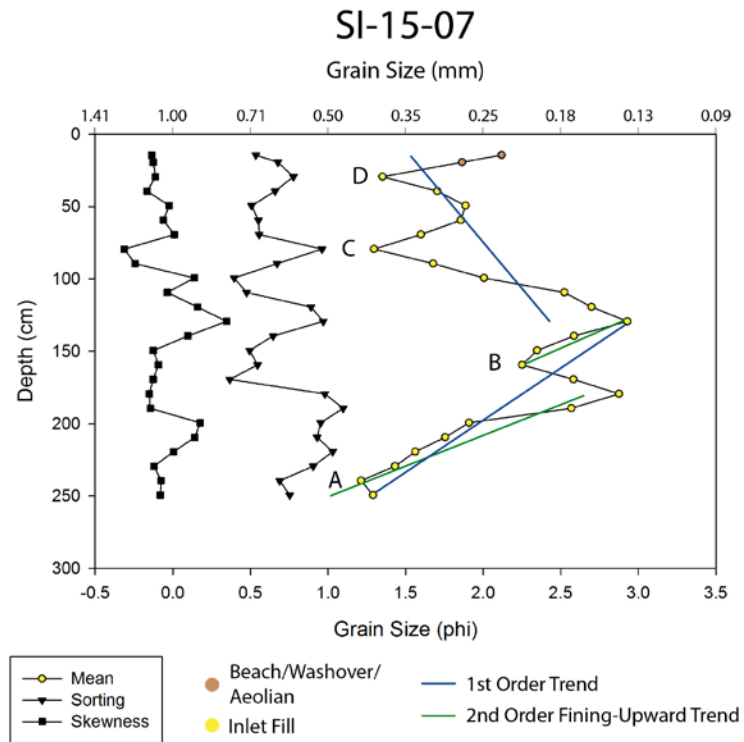


Figure 117: Vertical grain-size trends for core SI-15-07. See Figure 72 for the location of the core.

As shown in Figure 116, a bioturbated, normally-graded sand facies occurs from 255 to 175 cm, totaling 80 cm in thickness. The base of this facies consists of very-light-gray, moderately-sorted, medium sand. This unit fines upward to fine sand, and is characterized by a medium-dark-gray color. Sorting decreases towards the top of the unit. Some bioturbation is present throughout the unit. The bioturbated, normally-graded sand grades into the overlying normally-graded facies unit at 175 cm. The normally-graded sand facies extends from 175 to 120, spanning 55 cm. This facies consists of light-gray, well-sorted, fine sand at its base. Sediment color gradually transitions to dark gray and

sorting decreases to moderately sorted. Mean grain size also fines to very-fine sand at the top of the normally-graded sand facies. A distinctly sharp contact separates the normally-graded sand facies from the overlying normally-graded bedding at 120 cm, in which grain size and sorting abruptly increase, in addition to a sharp color change from dark gray to light gray. This facies contact is indicative of an erosional disconformity. A combination of rip-up clasts and bioturbation is present at the facies contact. A third package of normally-graded sand facies extends from 120 to 100 cm, totaling 20 cm in thickness. The fining upward grain-size trend is not apparent within the textural analysis results because this fining upward package occurred at a resolution smaller than the 10 cm sampling resolution. The color changes from medium-light gray at the base of the unit to medium-dark gray at the top. This unit is well sorted. A sand facies with deformed sedimentary structures extends from 100 to 15 cm and is 85 cm thick. The facies unit is characterized by its multiple spikes in coarse grain size. It consists of medium-gray to very-light-gray, medium-to-fine sand. Sedimentary structures are deformed throughout the unit, and were unable to be deciphered. Some shell hash is also present in the facies unit. Finally, the uppermost 15 cm of core SI-15-07 is characterized by an organic-rich, mud facies. This unit contains mostly organic material with little sediment.

Core SI-15-07 displays a complex series of fining-upward and coarsening-upward successions as shown in Figure 117. The vertical mean grain-size trends may better be described by alternating spikes of coarse then fine sand. Coarse spikes occur at depths of 240 cm (coarse spike A in Figure 117), 160 cm (coarse spike B in Figure 117), 80 cm (coarse spike C in Figure 117), and 30 cm (coarse spike D in Figure 117). Fine spikes

occur at 180 cm, 130 cm, and 60-50 cm. A 1st order fining-upward succession occurs from 250 to 130 cm. Two 2nd order fining-upward successions are present within this 1st order feature. They are represented by a fining upward trend from 1.29 ϕ at 250 cm to 2.59 ϕ at 170 cm, and a 2.25 ϕ at 160 cm to 2.93 ϕ at 130 cm. A coarsening-upward succession occurs from 130 to 15 cm with mean grain size increasing from 2.93 to 2.12 ϕ .

SI-15-08

Core SI-15-08 is 362 cm long with 11 cm of compaction, resulting in a total depth of 373 cm (Table 9; Figures 72, 118, and 119). The core top had an elevation of 0.78 m (NAVD88). SI-15-08 yielded 30 sediment samples. In total, 11 sedimentary facies were delineated in this core (Table 10).

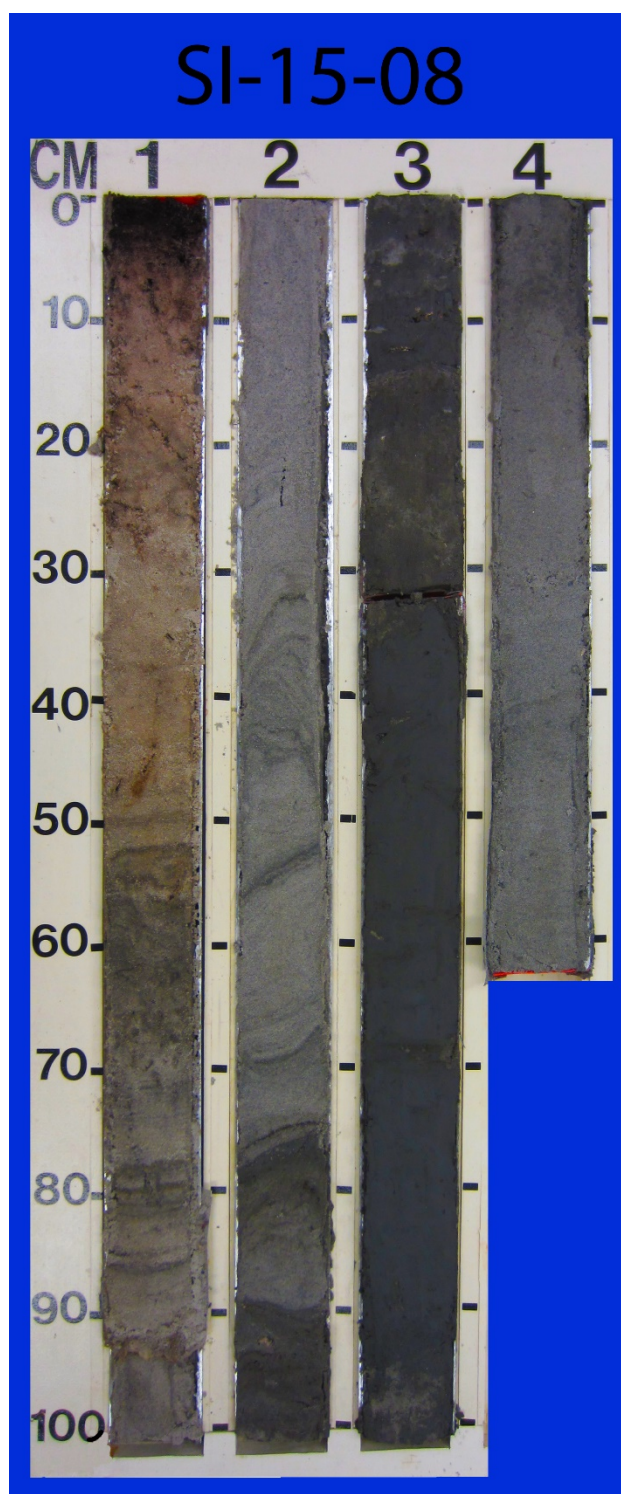


Figure 118: Core SI-15-08. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 72 for the location of the core.

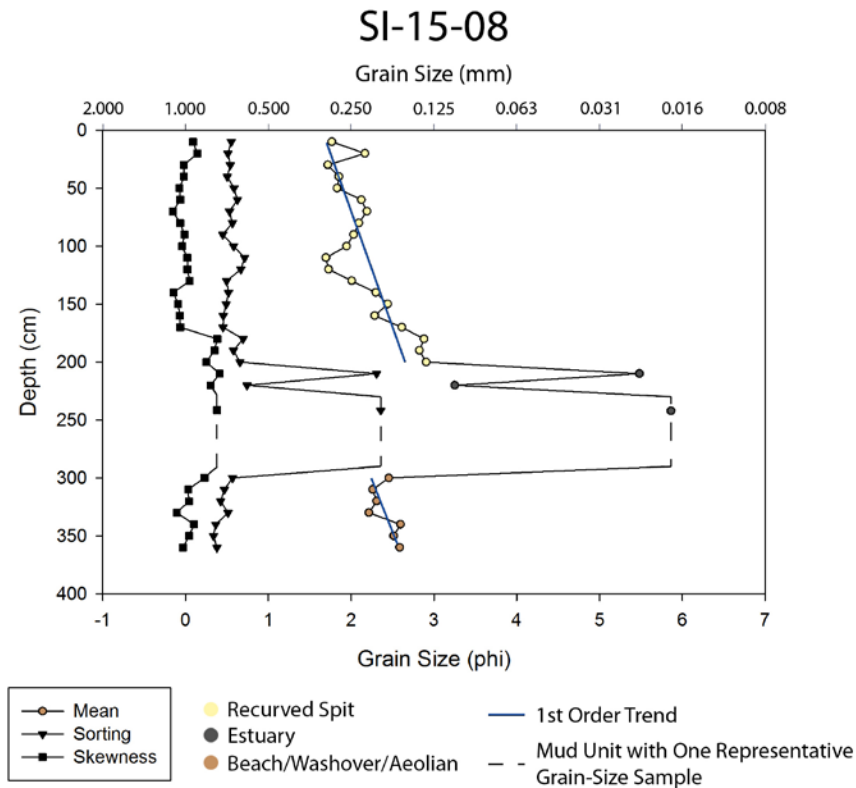


Figure 119: Vertical grain-size trends for core SI-15-08. See Figure 72 for the location of the core.

As shown in Figure 118, a massive-bedded sand facies occurs from 362 to 293 cm and is 69 cm thick. It consists of light-gray, well-sorted, fine sand. Gastropods are present at 338 and 331 cm. A bioturbated, massive-bedded silt facies extends from 293 to 233 cm and is 60 cm thick. This unit consists of medium-dark-gray, very-poorly-sorted silt. Worm borrows are present at 269 cm, 260 cm, and 242 cm. A bioturbated sand facies extends from 233 to 214 cm, totaling 19 cm in thickness. This unit is composed of medium-gray, moderately-sorted, fine sand. This facies is heavily bioturbated. A bioturbated silt facies, extending from 214 to 208 cm, totaled 16 cm in thickness. The

unit consists of medium-dark-gray, very-poorly-sorted silt. A scallop shell is present at 212 cm and three gastropods are present at 210 cm. A bioturbated sand facies extends from 208 to 189 cm and is 19 cm thick. It is a medium-gray, moderately-well-sorted, fine sand. This unit is heavily bioturbated. Two thin (< 1 cm) organic horizons are located at 194 and 193 cm. A gastropod is present at 192 cm. A normally-graded, cross-laminated sand facies unit is 6 cm thick, spanning from 189 to 175 cm. The unit consists of light-gray grading to a medium-dark-gray, moderately-well-sorted, fine sand, fining upward to silt. A cross-laminated sand facies occurs from 175 to 121 cm, totaling 54 cm in thickness. This facies consists of light-gray, moderately-well- to well-sorted, fine-to-medium sand. Bedding structures from 144 to 132 cm are deformed, but are likely cross-laminated features. A massive-bedded sand facies was delineated from 121 to 93 cm, totaling 28 cm in thickness. This package consists of light-gray, moderately-well- to well-sorted, fine-to-medium sand. A bioturbated, planar-laminated sand facies extends 42 cm, from 93 to 51 cm. The facies unit consists of light-gray, moderately-well- to well-sorted, fine-to-medium sand. The upper 25 cm of this facies is heavily bioturbated. A planar-laminated sand facies extends from 51 to 3 cm and is 48 cm thick. It consists of pale-orange, moderately-well- to well-sorted, medium-to-fine sand. Root rhizomes are present throughout. Finally, an organic-rich mud facies occupies the uppermost 3 cm of core SI-15-08. It consists of a brownish-black, organic-rich, with little sediment.

Two vertical mean grain-size trends are present in core SI-15-08 as shown in Figure 119. The first trend extends from 360 to 300 cm in which the grain size coarsens upwards from 2.58 to 2.45 ϕ . A mud unit is present from 290 to 210 cm, which was not

subjected to detailed grain size analysis. The second vertical grain-size trend represents another coarsening-upward succession, which extends from 200 to 10 cm, in which the sediment coarsens from 2.90 to 1.76 ϕ .

SI-15-09

Core SI-15-09 is 330 cm long with 72 cm of compaction, resulting in a total depth of 402 cm (Table 9; Figures 72, 120, and 121). The core top had an elevation of 0.42 m (NAVD88). SI-15-09 yielded 17 sediment samples. In total, nine sedimentary facies were delineated in this core (Table 10).

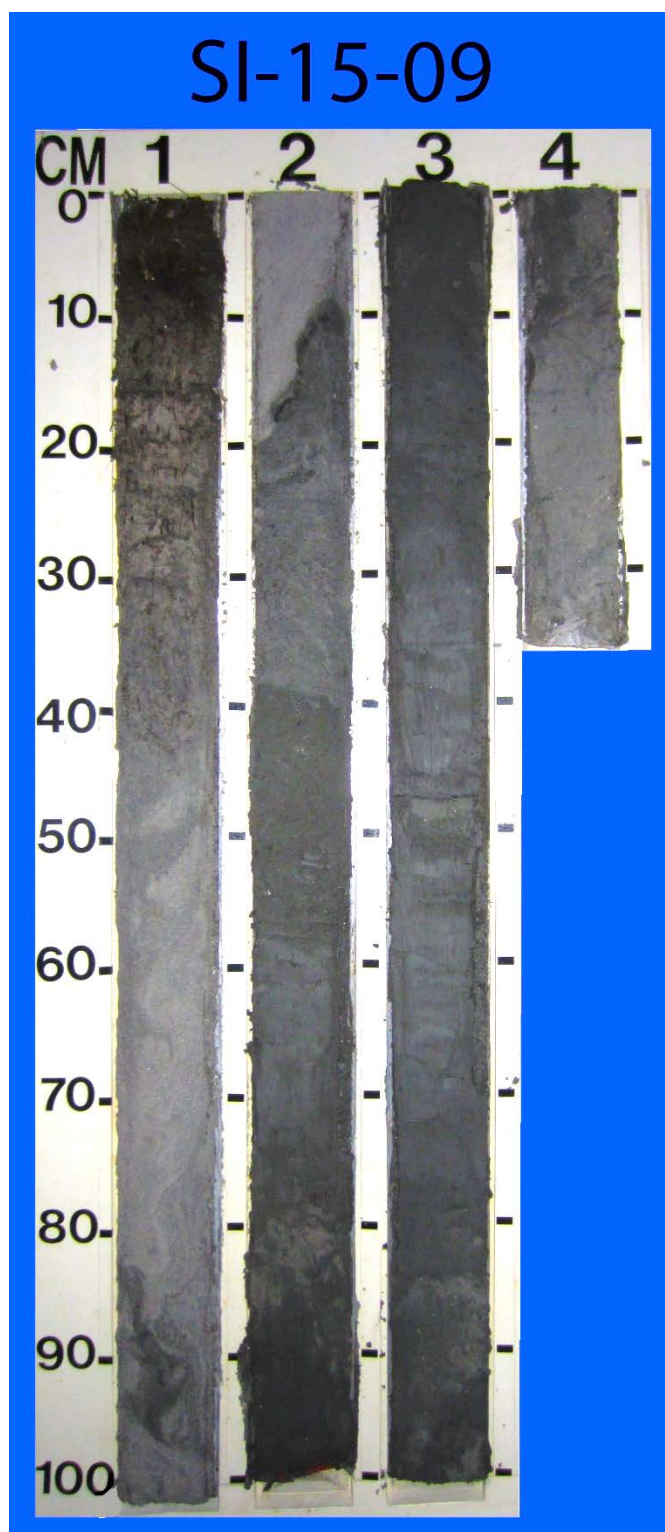


Figure 120: Core SI-15-09. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 72 for the location of the core.

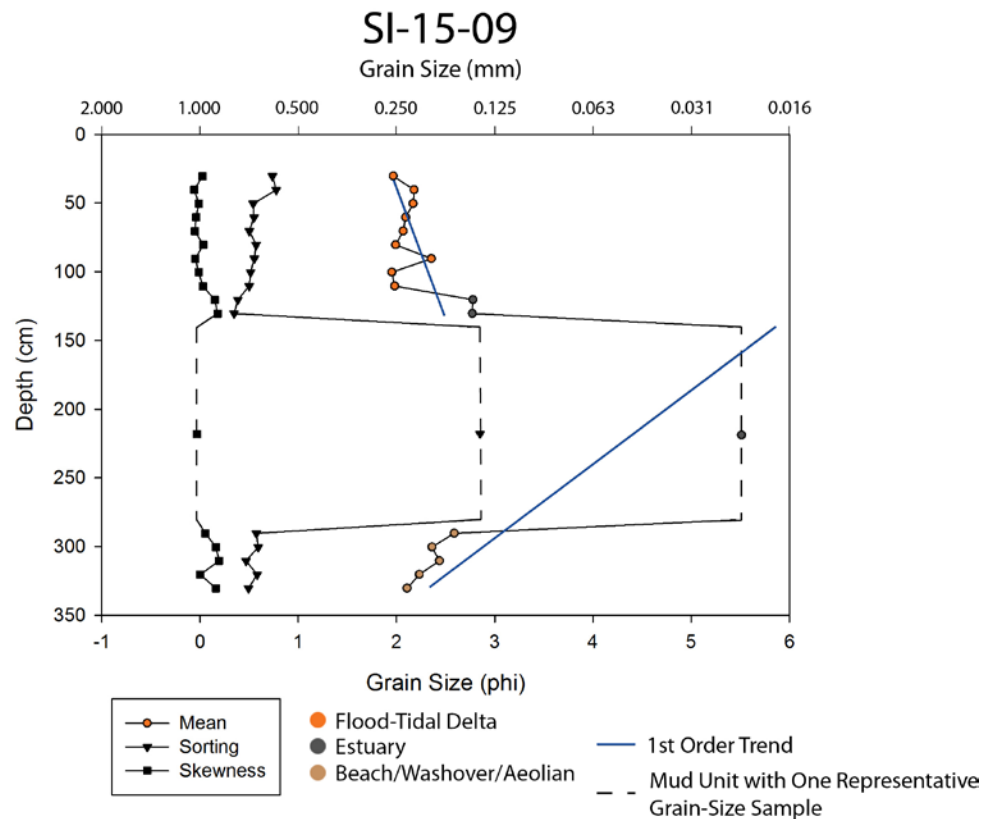


Figure 121: Vertical grain-size trends for core SI-15-09. See Figure 72 for the location of the core.

As shown in Figure 120, a bioturbated, massive-bedded sand facies occurs from the core base at 330 cm to 312 cm and is 18 cm thick. The unit consists of medium-light-gray, well- to moderately-well sorted, fine sand. Some shell hash was observed throughout this unit. A bioturbated sand facies spans from 312 to 283 cm, totaling 29 cm in thickness. It consists of medium-gray, moderately-well-sorted, fine sand. A bioturbated silt facies extend from 283 to 139 cm and is 144 cm in thickness. The unit is composed of grayish-black, very-poorly-sorted, silt. Some finely crushed shell hash is present throughout the unit. A massive-bedded sand facies extends from 139 to 110 cm, totaling

29 cm in thickness. It consists of medium-gray, well-sorted, fine-to-medium sand. A second consecutive massive-bedded sand facies occurs from 110 to 96 cm and totals 14 cm in thickness. The unit consists of very-light-gray, well-sorted, medium sand. A sand facies unit with deformed sedimentary structures spans from 96 to 43 cm, and is 53 cm in thickness. It consists of medium light-gray, moderately-well-sorted, fine-to-medium sand. The unit contains deformed sedimentary structures that were unable to be interpreted. An organic-rich, planar-laminated sand facies unit spans from 43 to 6 cm, totaling 37cm in thickness. It consists of brownish-black, moderately-sorted, medium sand. The facies unit contains an abundance of organic material (root rhizomes), as well as horizontal laminations consisting of organic material. A dark-yellowish-brown, organic-rich, mud facies occupies the top 8 cm of the core. In general, this unit contains little sediment.

Two vertical grain size trends are contained within core SI-15-09 as shown in Figure 121. A fining-upward succession extends from 330 to 140 cm where grain size decreases from 2.09 ϕ to 5.50 ϕ . A coarsening-upward succession then occurs from 2.76 ϕ at 130 cm to 1.95 ϕ at 30 cm.

SI-15-10

Core SI-15-10 is 420 cm long with 121 cm of compaction, resulting in a total depth of 541 cm (Table 9; Figures 72, 122, and 123). The core top had an elevation of 0.97 m (NAVD88). SI-15-10 yielded 29 sediment samples. In total, 10 sedimentary facies were delineated in this core (Table 10).

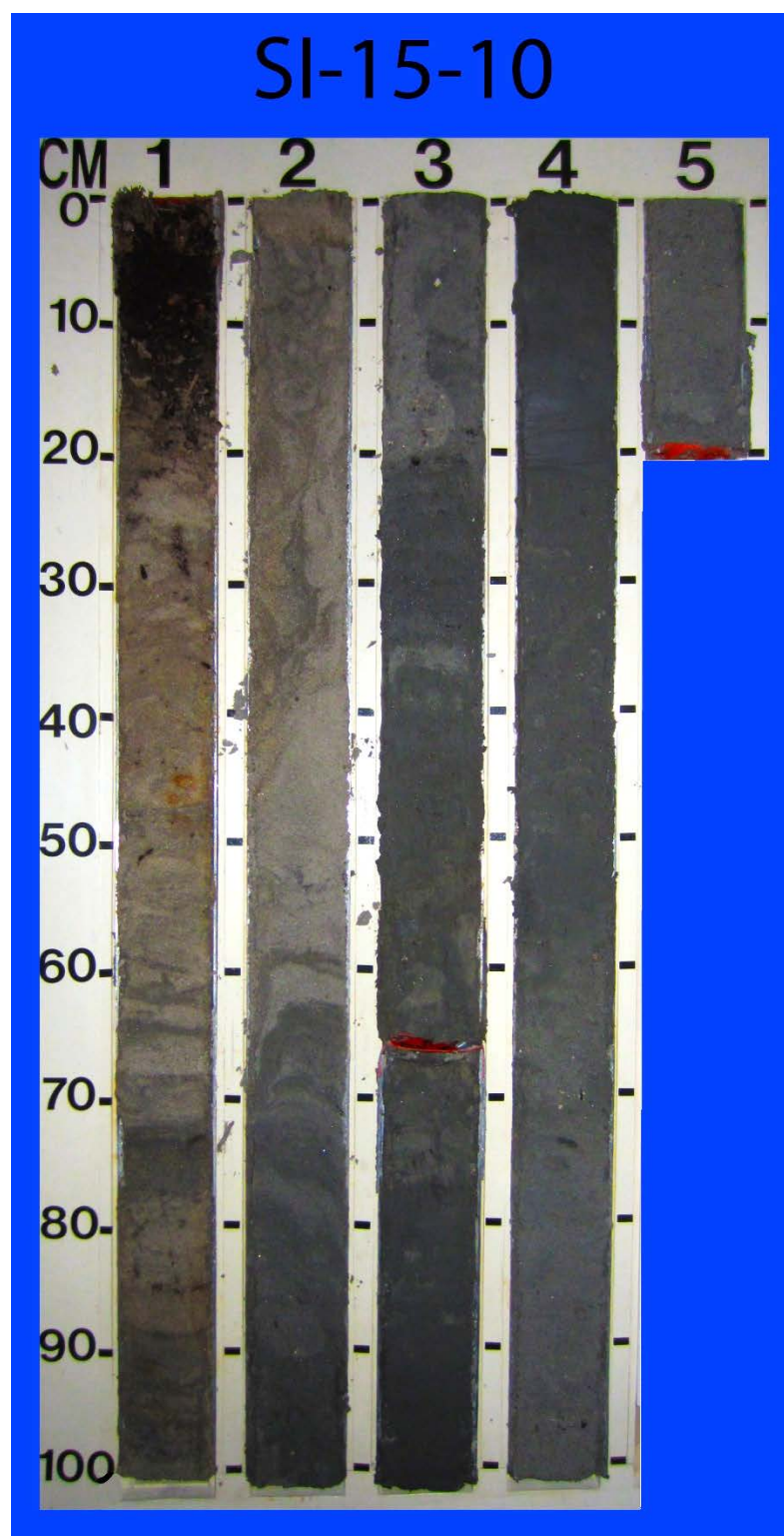


Figure 122: Core SI-15-10. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 72 for the location of the core.

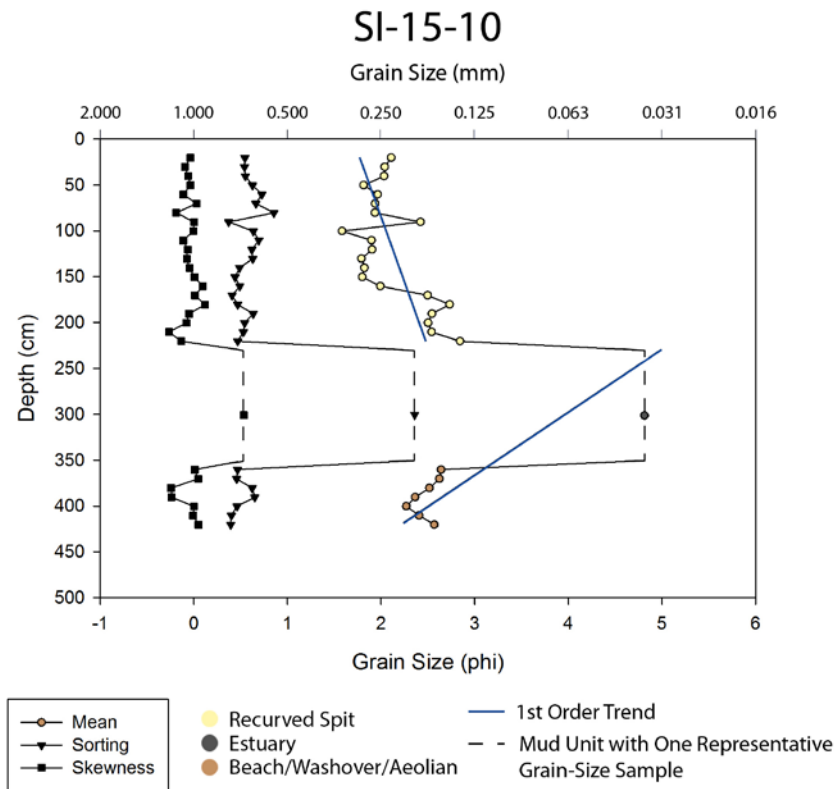


Figure 123: Vertical grain-size trends for core SI-15-10. See Figure 72 for the location of the core.

As shown in Figure 122, a massive-bedded sand facies occurs from 420 to 357 cm, and totals 63 cm in thickness. It consists of medium-light-gray, well- to moderately-well sorted, fine sand. Some shell hash is dispersed throughout this facies. A bioturbated silt facies extends from 357 to 322 cm, totaling 136 cm in thickness. It consists of medium-dark-gray, very-poorly-sorted, mica-rich silt. Bioturbation and some small shell fragments were present throughout the unit. A bioturbated, cross-laminated sand facies extends from 221 to 162 cm, totaling 69 cm in thickness. It consists of medium-gray, well- to moderately-well-sorted, fine, micaceous sand. The portion from 221 to 205 cm is

heavily bioturbated, with seven gastropod shells present. Less bioturbation is present throughout the remainder of the unit. Some deformed cross-laminated structures are present in this core segment. A sand facies with deformed sedimentary structures extend from 162 to 99 cm, and total 63 cm in thickness. It consists of light-gray, well- to moderately-well-sorted, medium sand. This unit is characterized by sedimentary structures deformed by the vibracoring process, which were unable to be deciphered. A planar and cross-laminated sand facies extends from 99 to 60 cm, and is 39 cm thick. This unit consists of pale-yellowish-brown, well- to moderately-sorted, medium-to-fine sand. It contains planar laminae from 99 to 68 cm and cross laminae from 68 to 60 cm. The unit also contains alternating lenses of coarse then fine sand. A cross-laminated sand facies extends from 60 to 20 cm, totaling 40 cm in thickness. It consists of pale-yellowish-brown, moderately- to moderately-well-sorted, medium-to-fine sand. This unit contains subtle cross laminae and some root rhizomes. Finally, a dark-yellowish-brown, organic-rich, mud facies occupies the uppermost 20 cm of the core. It is dominated by organic material and contains little sediment.

Two general vertical grain size trends are present within core SI-15-10 (Figure 123). The lowermost trend extends from 420 to 230 cm and demonstrates a fining-upward succession with grain size decreasing from 2.56 to 4.80 ϕ . The next upward trend is a general coarsening-upward succession. This trend begins with a grain size of 2.84 ϕ at 220 cm and coarsens upward to 2.10 ϕ at 20 cm.

SI-15-11

Core SI-15-11 is 355 cm long with 45 cm of compaction, resulting in a total depth of 400 cm (Table 9; Figures 72, 124, 125). The core top had an elevation of 1.34 m (NAVD88). SI-15-11 yielded 29 sediment samples. In total, six sedimentary facies were delineated in this core (Table 10).

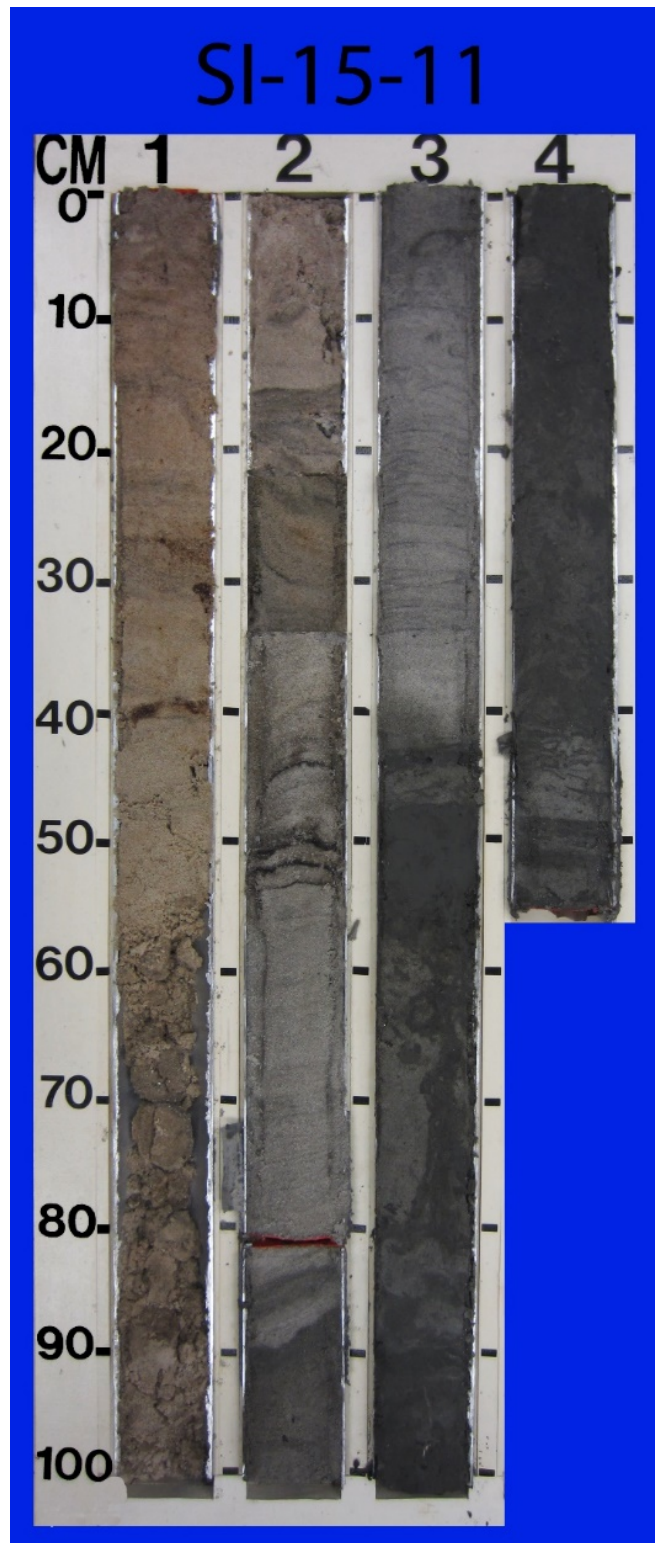


Figure 124: Core SI-15-11. Core bottom is lower right and core top is upper left. Scale in centimeters. See Figure 72 for the location of the core.

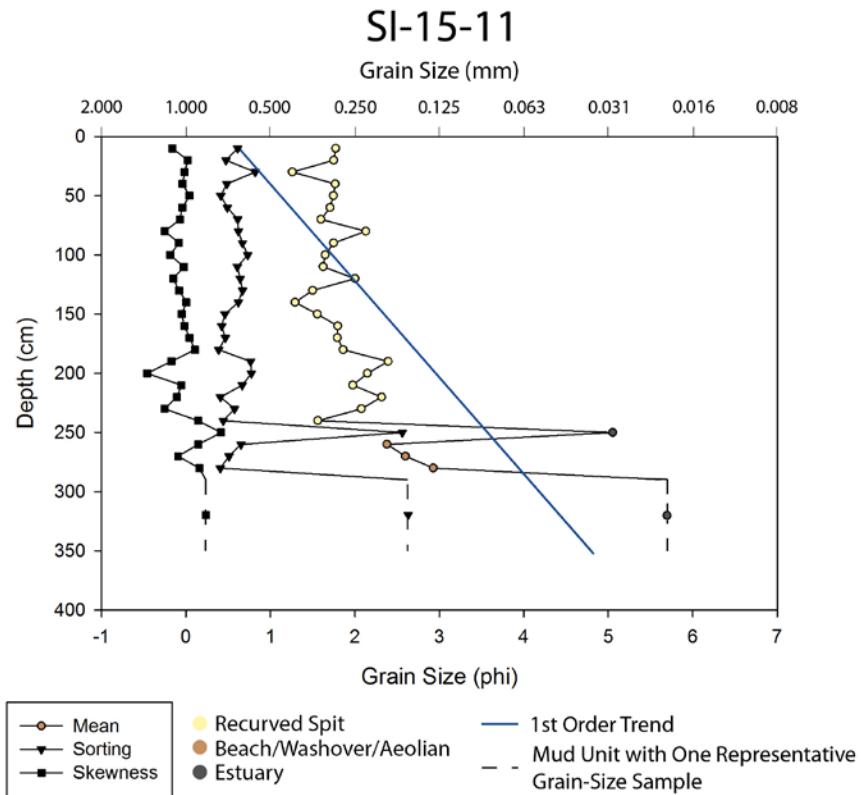


Figure 125: Vertical grain-size trends for core SI-15-11. See Figure 72 for the location of the core.

As shown in Figure 124, a planar-laminae and flaser-bedded sand and silt facies extends from 355 to 342 cm, totaling 13 cm in thickness. It consists of medium-gray, very-poorly-sorted, alternating layers of fine sand and silt. Some planar laminae are present from 352 to 348 cm. Subtle flaser bedding is present from 346 to 342 cm (Figure 126). A bioturbated silt facies extends from 342 to 247 cm, and is 95 cm thick. It consists of medium-dark-gray, very-poorly-sorted silt. This facies contains bioturbation throughout, with a heavy concentration from 290 to 258 cm. A gastropod shell is present

at 295 cm. A planar- and cross-laminated sand facies extends from 242 to 185 cm, and is 57 cm in thickness. It consists of light-gray, moderately- to well-sorted, medium-to-fine sand. The unit contains subtle cross-laminated features and more obvious planar-laminated features. A cross-laminated sand facies occurs from 185 to 116 cm, totaling 69 cm in thickness. The unit is characterized by light-gray, well- to moderately-well-sorted, medium sand. Shallow dipping cross-laminae are present within this unit. Some of the cross laminae are deformed, such as the interval from 148 to 130 cm. A second consecutive cross-laminated sand facies spans the uppermost 116 cm of core SI-15-11. It consists of pale-orange, moderately- to well-sorted, medium sand. The sedimentary structures from the interval of 116 to 55 cm were destroyed during the core retrieval process. Subtle dipping cross-laminae are present throughout this unit. Much organic material is present within this segment as well. An organic-rich horizon is present at 40 cm, as well as root rhizomes throughout the unit.

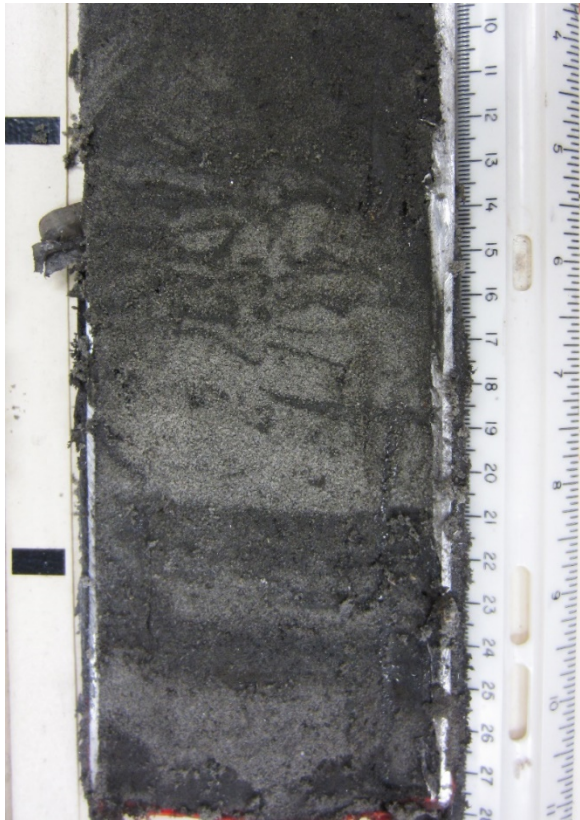


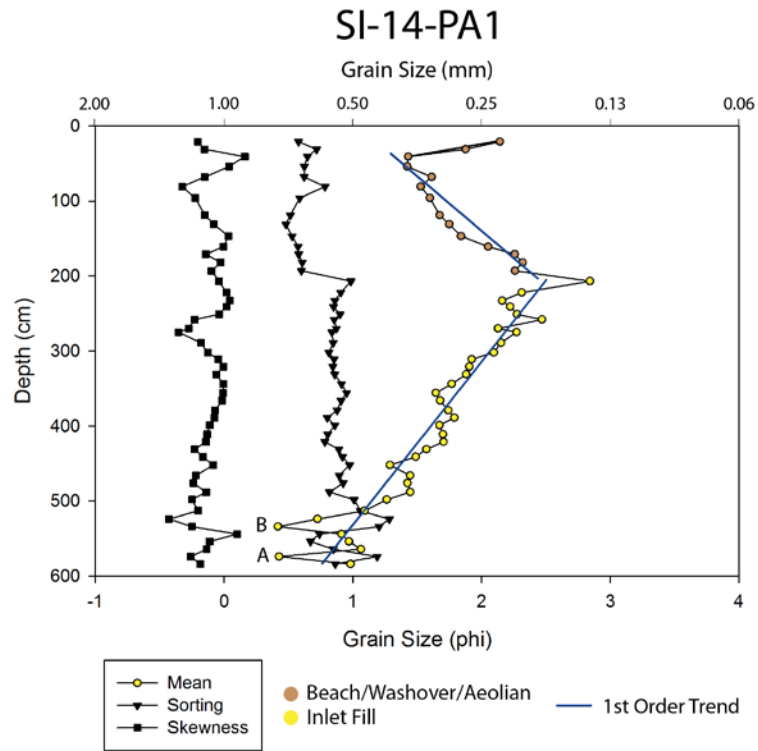
Figure 126: Close up of flaser bedding within core SI-15-11. This image shows the interval from 338 to 355 cm.

In general, the entire core consists of a single fining-upward succession as shown in Figure 126. Mean grain size fines from 5.70 ϕ at the core base to 1.77 ϕ at the core top. One 110-cm thick silt package is present within the lower portion of the core. The sand unit within this silt package extends from 290 to 258 cm.

SI-14-PA1

In general, core SI-14-PA1 is 583 cm long and yielded 50 sediment samples (Table 9; Figures 72 and 127). The core contains three vertical trends, two fining-upward

successions and one coarsening-upward succession. The bottommost fining-upward succession extends from the core base at 583 cm to 206 cm. Within this trend, sediment gradually fines from 0.98 ϕ at core base at 583 cm to 2.84 ϕ at 206 cm. Sorting within the lower portion of this trend (the interval between 583-523 cm) alternated between moderately-well sorted and poorly sorted. The upper portion of this trend (512-206 cm) contained moderately-sorted sediment. Two sharp spikes in grain size occur at 573 cm (0.43 ϕ ; spike A in Figure 127) and at 533 cm (0.42 ϕ ; spike B in Figure 127). A coarsening-upward succession extends from 206 to 40 cm where sediment size increases from 2.84 to 1.43 ϕ . Sediment within this interval is moderately-to-well sorted. Finally, the uppermost mean grain size trend is characterized by a fining-upward succession. This fining-upward trend extends from 40 to 20 cm, displaying a decrease in mean grain size from 1.43 to 2.14 ϕ and exhibiting moderately- to moderately-well sorting.



A and B represent coarse spikes in sediment size

Figure 127: Vertical grain-size trends for core SI-14-PA1. See Figure 72 for the location of the core.

SI-14-PA2

Core SI-14-PA2 is 584 cm long and yielded 57 sediment samples (Table 9; Figures 72 and 128). In general, an alternating pattern of coarsening- to fining-upward successions were observed in the core. The lowermost vertical trend consisted of a coarsening-upward succession from 584 to 490 cm (coarse spike A in Figure 128) with grain size increasing from 2.04 to 1.31 ϕ . The vertical trend displays moderately-to moderately-well sorting. This vertical grain-size trend transitions to a 1st order fining-upward succession from 1.31 ϕ at 490 cm to 2.59 ϕ at 210 cm. Included within this 1st

order fining-upward trend are three 2nd order trends: fining upward from 1.31 ϕ at 490 cm to 2.76 ϕ at 390 cm, displaying well-to-poor sorting; coarsening upward from 2.76 ϕ at 390 cm to 2.23 ϕ at 231 cm, displaying well-to-moderate sorting; and finally, fining upward again from 2.23 ϕ at 231 cm to 2.59 at 210 cm, displaying moderately-well-to-moderate sorting. The next general coarsening-upward trend occurs from 210 to 56 cm, which is characterized by an increase in mean grain size from 2.59 to 0.92 ϕ with well-to-moderate sorting. Finally, a fining-upward trend characterizes the sediment extending from 56 to 21 cm fining upward from 0.92 to 2.11 ϕ with well-to-moderate sorting.

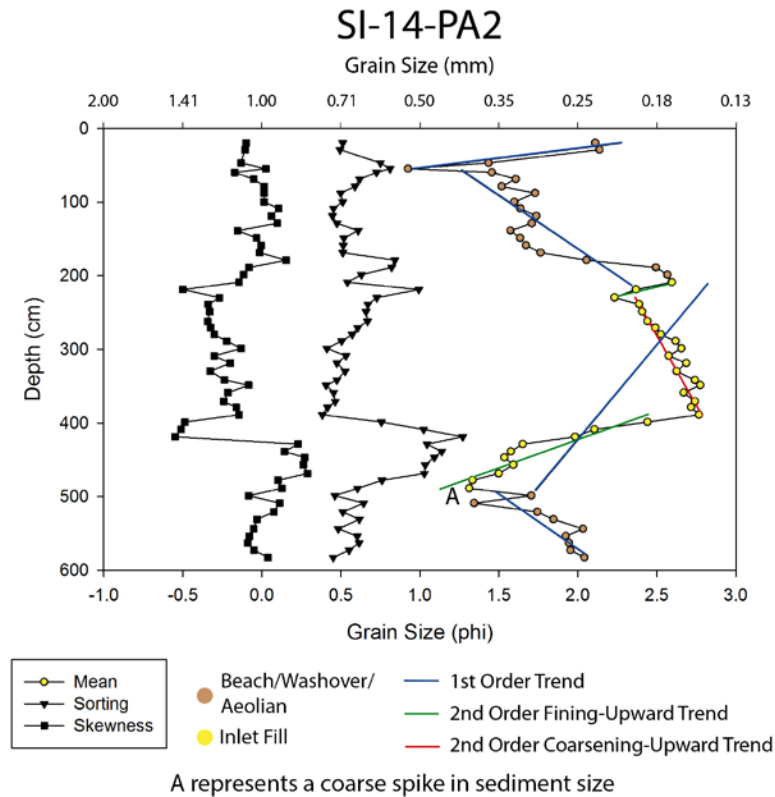


Figure 128: Vertical grain-size trends for core SI-14-PA2. See Figure 72 for the location of the core.

SI-14-PA3

Core SI-14-PA3 is 300 cm long and yielded 30 sediment samples (Table 9; Figures 72 and 129). Overall, the core displayed two 1st order vertical grain-size trends: a fining-upward and coarsening-upward succession. Sediments slightly coarsen upward from 2.85 ϕ at 300 cm to 2.41 ϕ at 170 cm. Sediments within this interval are well-to-moderately sorted. The fining upward succession extends from 1.75 ϕ at 160 cm to 1.45 ϕ at 12 cm with sorting increasing upward from moderate to moderately-well.

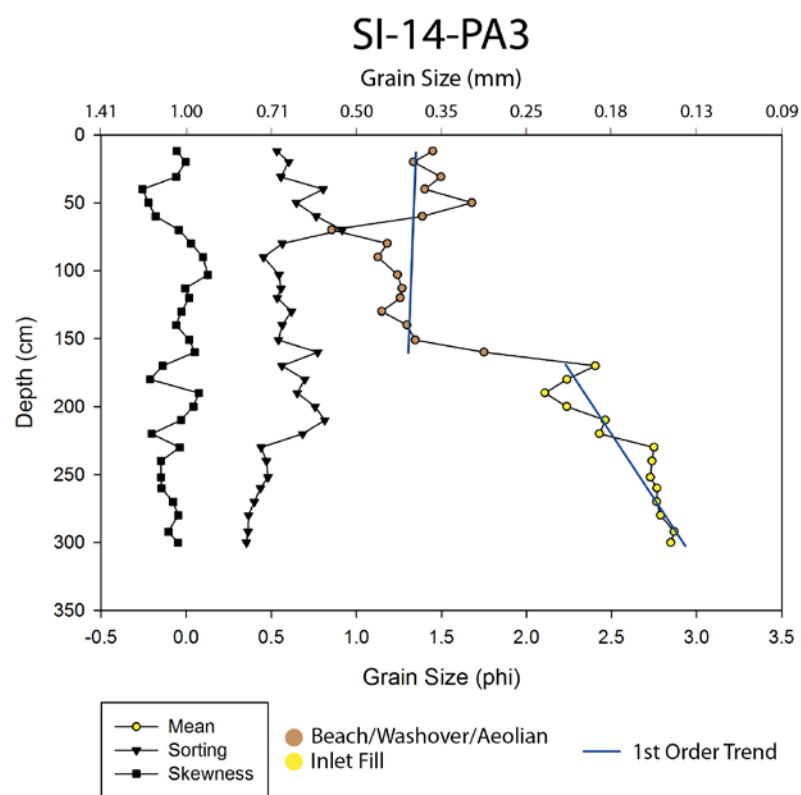


Figure 129: Vertical grain-size trends for core SI-14-PA3. See Figure 72 for the location of the core.

CHAPTER SIX: DISCUSSION OF HISTORICAL INLET CHRONOLOGY OF ASSATEAGUE ISLAND AND MORPHOSTRATIGRAPHY OF THE FORMER GREEN RUN AND SINEPUXENT INLETS

This chapter will discuss the interpretation of a ground-penetrating radar survey of the former Green Run Inlet and sediment cores collected from the former Green Run and Sinepuxent Inlets. Cross sections were constructed based on the findings from sediment core data, GPR, and surficial geomorphic features. Finally, life-cycle models of the two former inlets are discussed, in addition to a discussion as to how these two former tidal inlets compare to other wave-dominated tidal inlets.

Significance of Inlet-Closure Ridges

Inlet-closure ridges are poorly understood because only a few studies occur in the literature regarding their existence. These geomorphic features occur as a series of supratidal ridges within the seaward portion of a once active tidal-inlet system and are separated by swales or cat-eye ponds. Leatherman (1985) first delineated curvilinear ridges extending across former inlets; however, he did not specifically name them or discuss any details regarding their origin or distribution. Krantz (2009) identified and coined the term “inlet-closure ridge” within the former Green Run Inlet of Assateague Island (Figure 51). These ridge sets are critically important in recording the infilling process of a waning tidal inlet and provide invaluable insight into the understanding of the life cycle of wave-dominated tidal inlets. Although the inlet-closure ridges at Green Run Inlet are the best expressed along the entire length of Assateague Island, these

geomorphic features are found at other former inlet sites along the barrier island but are more subtle (ex., Sinepuxent Inlet, Slough Inlet, and Swan Pool Breach; Figures 43, 48, and 58).

Inlet-closure ridges are usually relatively low-relief features, which extend across the former inlet throat. At the former Green Run Inlet, the tallest inlet-closure ridge reached 1.6 m in height (NAVD88; Profile E-E' - Figure 55), which is equivalent to the height of the shortest recurved-spit ridge (Profile G-G' - Figure 54). The following hypothesis is proposed as to why the inlet-closure ridges are topographically lower than the recurved-spit ridges. Time is proposed as the key variable that controls ridge height. The recurved spits formed first by berm-ridge development and thus had the greatest amount of time to vertically aggrade as it was subjected to aeolian activity (see Hine, 1979). Inlets most likely close relatively quickly (weeks to months) compared to the amount of time they can remain open (years to decades to centuries). Moreover, the inlet-closure ridges are quickly covered in vegetation once the inlet seals, thus impeding upward growth by aeolian processes.

Inlet-closure ridges are apparent in other wave-dominated settings along the U.S. Atlantic coast, and thus have broad applications for developing life-cycle and closure models of former tidal inlets, especially wave-dominated tidal inlets. The formation of inlet-closure ridges are observed within the Pea Island breach that occurred in response to the impact of Hurricane Irene (2011) along Outer Banks, North Carolina (Figure 130). Landward sediment transport occurs into the inlet channel and forms a swash-aligned, concave-seaward bar because of incident wave energy. This incipient swash-aligned

geometry is similar to the inlet-closure ridges found at Green Run and Sinepuxent Inlets along Assateague Island.

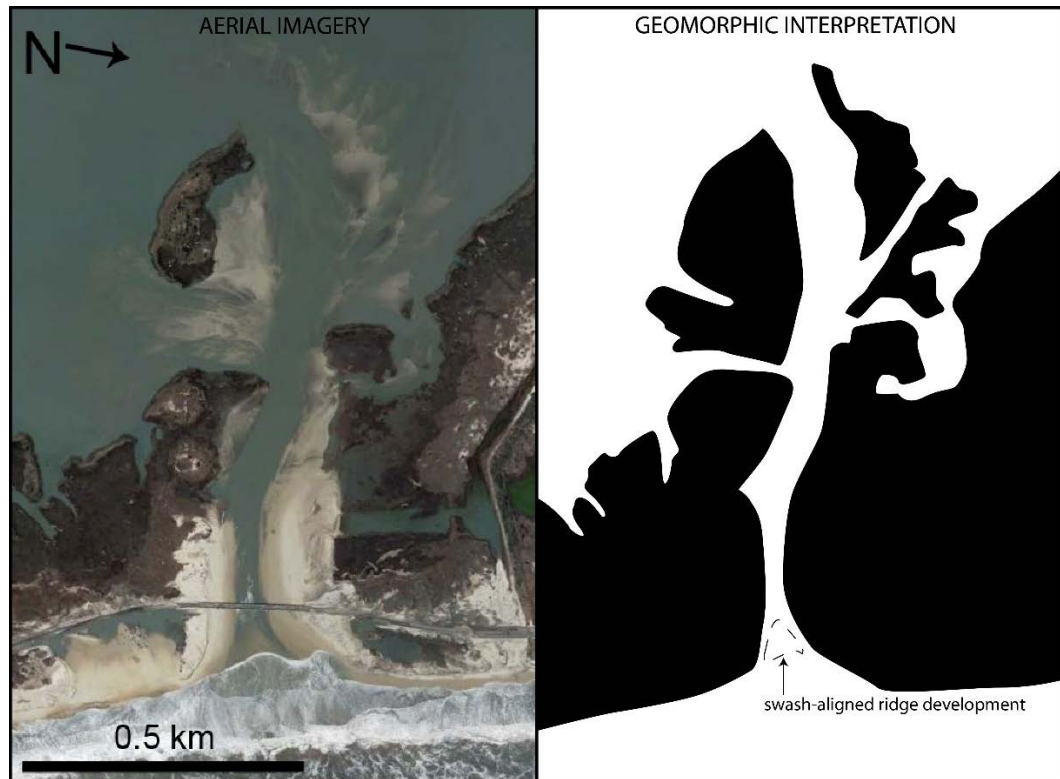


Figure 130: Aerial imagery and geomorphic interpretation of the inlet closure process forming a swash-aligned, concave seaward ridge along Pea Island Breach, Outer Banks, North Carolina. This breach formed as a result of Hurricane Irene (2011).

Leatherman (1985) delineated these swash-aligned, concave-seaward ridges along Fire Island, New York but he did not describe or explain them. Two of the best examples of inlet-closure ridges along Fire Island are found at the former Old Inlet and Smith Inlet (Figure 131). Old Inlet contains well-expressed recurved-spit ridges delineating its western boundary. The eastern recurved-spit ridges have been eroded because of a nearby

breaching event known as the Wilderness Breach associated with Hurricane Sandy's impact. Swash-aligned, concave-seaward ridges are observed extending from the western recurved-spit ridge of Old Inlet. Smith Inlet displays subtle recurved-spit ridges along its eastern and western boundaries. The swash-aligned closure ridges are well expressed and span the gap between the bounding recurved-spit ridges of the former inlet. The image of the former Smith Inlet was captured in 2010 (Figure 131c and d). Subsequent washover deposits from intense storms have since covered the swash-aligned ridges.

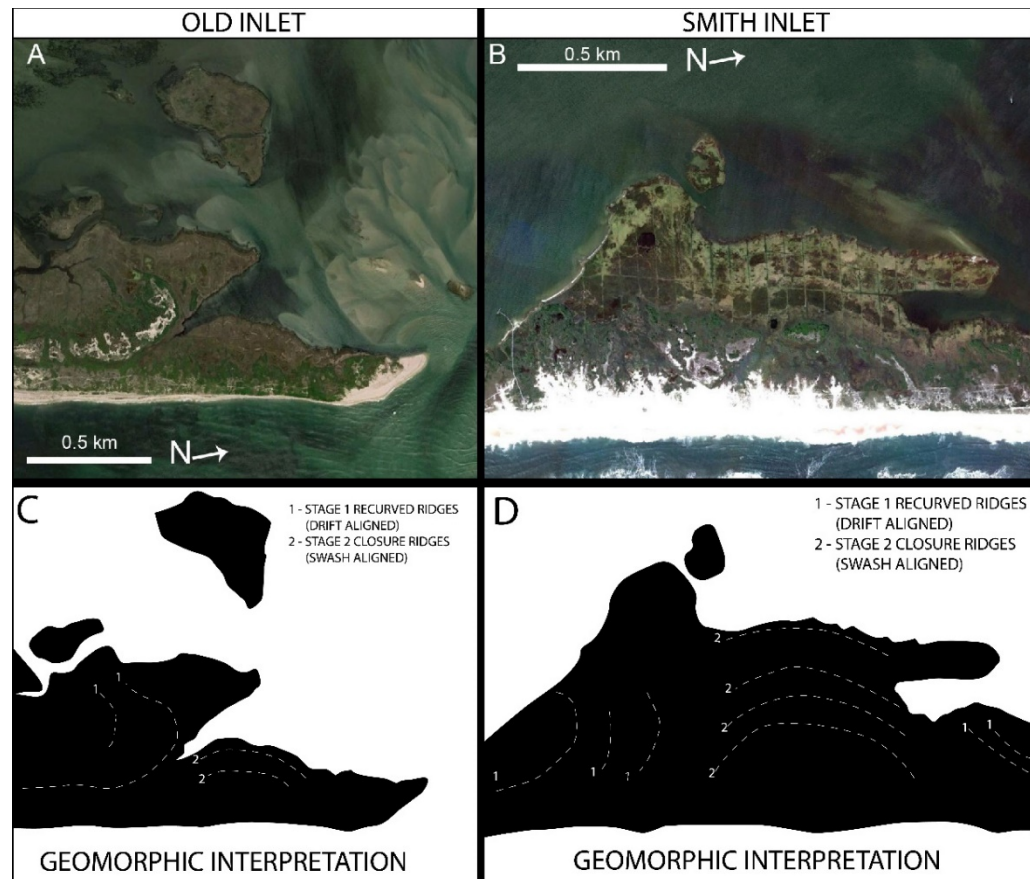


Figure 131: Relict ridges of the former Old and Smith Inlets along Fire Island, NY. A) Aerial image of the former Old Inlet along Fire Island, NY. The active inlet adjacent to the north is recent and unrelated to Old Inlet. B) Aerial image of the former Smith Inlet along Fire Island, NY. C) Geomorphic interpretation of the relict ridges of Old Inlet. D) Geomorphic interpretation of the relict ridges of Smith Inlet.

Finally, the formation of inlet-closure ridges is displayed at the former Cedar Island Inlet along Cedar Island, VA (Figure 132). Cedar Island Inlet was an ephemeral inlet that was active at least three times since the 1950s and stayed open for four to nine years each time (Moyer, 2007; Hanley, 2015). Three stages of ridge development documented the closure process of the former Cedar Island Inlet. A series of drift-aligned, recurved-spit ridges are observed on the northern (updrift) side of the inlet. These ridges formed as a result of the inlet migrating in a southerly direction. A drift-

aligned, recurved-spit ridge is observed in the 2008 aerial imagery, demarcating the southern extend of the former tidal inlet. Stage 2 represents the genesis of a second set of ridges that are drift-aligned, recurved-spit ridges. These ridges prograde laterally in a northerly direction, against the direction of net longshore sediment transport. This signifies that the inlet is rotating in a counterclockwise motion that causes channel lengthening and results in decreased hydraulic efficiency. In response to the decreased hydraulic efficiency, the inlet throat narrows and shoals as the Stage 2 recurved-spit ridges extend to the north. Finally, Stage 3 is characterized by at least two swash-aligned, concave-seaward, inlet-closure ridges. These features are visible spanning across the former inlet throat. Once the inlet was sealed, the barrier shoreline prograded seaward at rates up to about 30 m/yr (Richardson, 2012). Cedar Island is a low-profile barrier island and is subjected to rapid landward barrier migration. Therefore, overwash processes have since reworked most of these subtle geomorphic features associated with the once active Cedar Island Inlet.

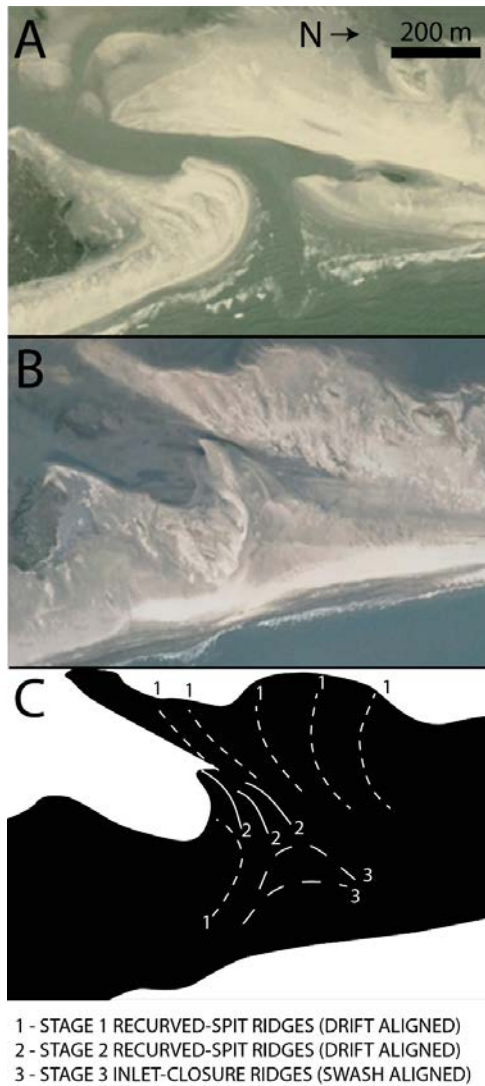


Figure 132: Cedar Island Inlet and the geomorphic features that explain its closure process. A) The active Cedar Island Inlet imaged on 29 October 2006 showing recurved spits along the northern and southern shorelines of the active tidal inlet (Google Earth, 2015). B) The former Cedar Island Inlet as imaged on 30 October 2008 (Google Earth, 2015). C) Geomorphic interpretation of the geomorphic features associated with the closure of the Cedar Island Inlet. Three sets of ridges explain the closure process of the former inlet. Stage 1 – Drift-aligned, recurved-spit ridges delineate southerly inlet migration. Stage 2 – Drift-aligned, recurved-spit ridges extending to the north, against the direction of net longshore sediment transport indicate channel rotation. Stage 3 – swash-aligned, inlet-closure ridges prograding seaward as the inlet is sealed and the shoreline advances up to 30m/yr (Richardson, 2012).

Ground-Penetrating Radar Interpretations

GPR surveys were conducted along five former inlet or breach zones. However, the penetration depth for the majority of survey profiles was limited because of an excess of salt-water attenuation. Only one transect yielded enough penetration depth to image an entire inlet succession. This transect was a strike section of the former Green Run Inlet.

Virtually the entire life-cycle of the former Green Run Inlet was imaged by the GPR survey. Figure 68 shows the initial breaching location of Green Run Inlet, as demonstrated by the truncated strata at the ~110 m mark at a depth of 3.25 m. The bolded sigmoidal-oblique reflector that truncates the horizontal strata represents the northernmost extent of the former tidal inlet. Following this truncation to the south are steep, southerly-dipping clinoforms (complimentary to the direction of net longshore sediment transport), illustrating the southerly migration of Green Run Inlet. These data are contradictory to the historical maps that depicted Green Run Inlet as a non-migrating inlet.

Green Run Inlet ultimately migrated 680 m to the south (Figures 69 and 70). Figure 69 shows Green Run Inlet continuing to migrate in a southerly direction. Sediment core GR-14-PA3 was collected from along this profile in order to ground-truth the geophysical data (Figures 71 and 102). The core shows a fining-upward succession from a depth of 300 cm to 90 cm, thus confirming the presence of inlet fill and confirming the accuracy of the interpretation of the GPR data. A bounding reflector is present at about 300 cm, which represents the inlet-channel floor. An estuarine depositional environment is interpreted to be located below this bounding reflector, as evident by the coarsening-upward succession from 390 to 300 cm in core GR-14-PA3. The inlet-channel floor

appears to be fluctuating in depth between 3 and 4 m throughout its southerly migration in Figure 69.

While the majority of sediments were deposited by downdrift progradation (southerly dipping clinoforms), some mounded fill is present in Figure 69 between the 310 to 365 m mark at a depth ranging from 1 to 2 m. FitzGerald et al. (2001) suggest that the sediments forming a mounded fill originate from a more seaward or landward origin, while the progradational fill is associated with longshore sediment transport.

Figure 70 displays the final channel position of Green Run Inlet. Southerly dipping clinoforms are laterally prograding to the 750 m mark in the GPR profile. The northern extent of the final channel position begins at the 730 m mark at a depth of 1.5 m below the surface. The half-ellipse shape of the final channel position extends to a maximum depth of 3.75 m at the 790 m mark. The channel shape then decreases in depth at this point until it reaches its southernmost extent at the 840 m mark in the GPR profile (Figure 70).

The final channel of the former Green Run Inlet fills in a northerly direction, against the direction of net longshore sediment transport, as indicated by the northerly dipping clinoforms within the final channel (Figure 70). This in-filling pattern may be associated with a counterclockwise rotational instability that affected the former inlet while it was in its waning stages. This counterclockwise rotation of the inlet channel would also explain the extension of the flood ramp to the south. Because of the surficial geomorphic evidence for counterclockwise inlet rotation, in conjunction with the GPR data, it is unlikely that that northerly-dipping clinoforms could have been formed by a

temporary reversal in longshore sediment transport during the final in-filling stages of the inlet.

Sediment Core Interpretations

The following section will interpret the sediment cores collected from the former Green Run and Sinepuxent Inlets and present geologic cross sections based on the facies interpretations. It is important to note that the vibracore depths in all the geologic cross sections have been adjusted for compaction that occurred during the vibracoring process.

Former Green Run Inlet

Four geologic cross sections were constructed, which demonstrate the three-dimensional stratigraphic architecture of the former Green Run Inlet (see Figure 71).

Cross Section A-A'

Cross section A-A' represents the seaward-most strike-oriented cross section of the former Green Run Inlet (Figure 133). In total, five depositional environments are interpreted from the facies analysis. The bottom-most depositional environment is represented by the estuarine depositional setting. The upper boundary of the estuarine unit is observed in cores GR-14-01, GR-14-PA1 and GR-14-PA3. The southern recurved spit occurs between cores GR-14-01 and GR-14-PA1 and was interpreted by aerial imagery. The entire core length of GR-15-14 is interpreted as the northern recurved spit. No obvious facies changes exist that indicate a change in depositional environment within GR-15-14. Both the northern and southern recurved spits have lateral facies changes into units interpreted as tidal-inlet fill. Tidal-inlet fill was interpreted by fining-

upward successions in vertical grain-size plots (Figure 74; Kumar and Sanders, 1974; Moslow and Tye, 1985). Cores GR-14-PA1, GR-14-PA3, and GR-14-03 show sharp spikes in coarse sand and fine upwards to fine sand. The coarse sand is interpreted as the inlet-channel floor and the finer sand represents tidal-inlet fill. The tidal-inlet fill overlays the estuarine depositional environment. A sharp erosional channel diastem separates the estuarine and tidal-inlet fill environments (Nummedal and Swift, 1987). The tidal-inlet fill succession is overlain by a beach/washover/aeolian unit and is separated by a gradual contact.

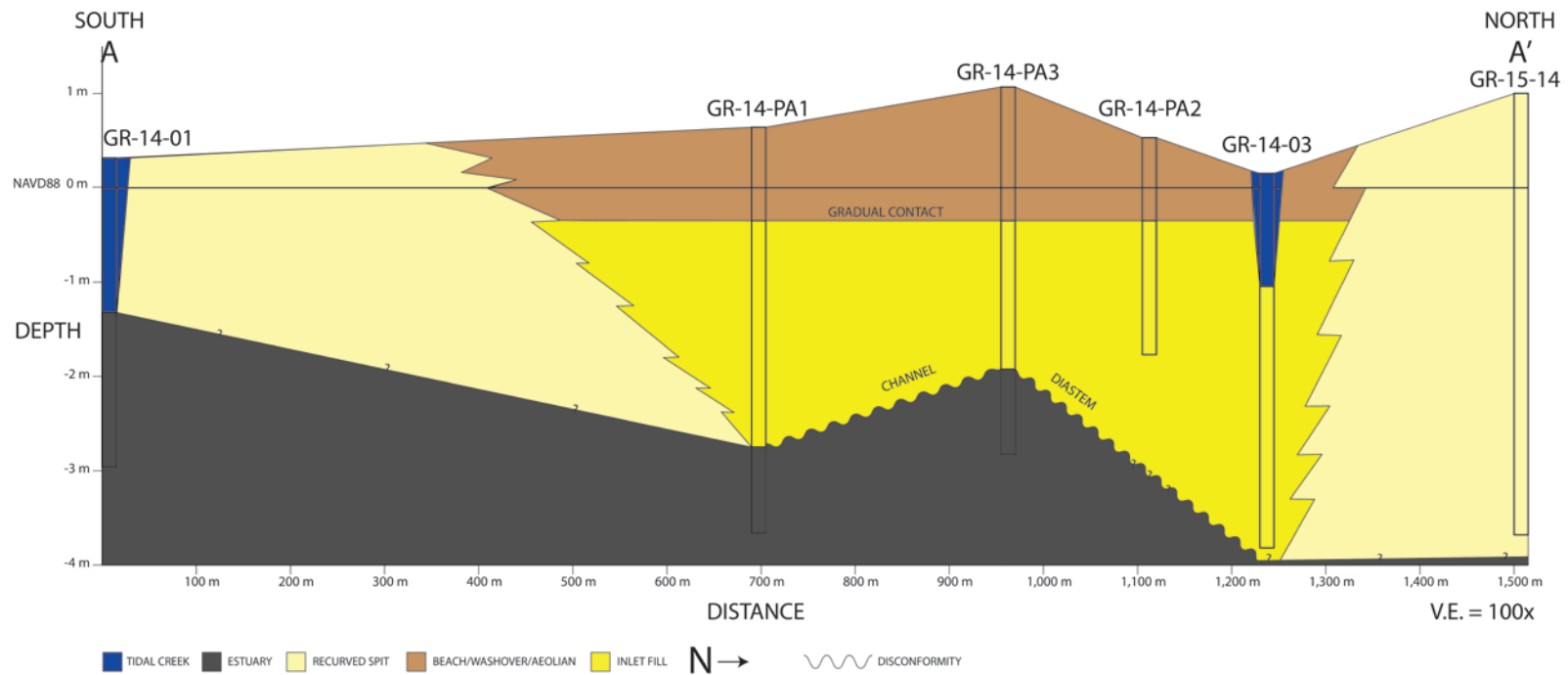


Figure 133: Cross section A-A' of the former Green Run Inlet. See Figure 71 for the location of the cross section.

Cross Section B-B'

Cross section B-B' represents the middle of the three strike-oriented cross-sections of the former Green Run Inlet (Figure 134). This cross-section shows eight depositional environments (Figure 134). Estuarine deposits represent the bottom-most depositional environment. This unit was evident at the base of core GR-15-09. The beach/washover/aeolian unit that Halsey (1978b) described was observed in core GR-14-04. Overlaying this unit within the two cores is a continuation of the estuarine deposits. Inlet-fill deposits were present in cores GR-14-05, GR-14-02, and GR-15-09. GR-15-09 penetrated the entire inlet-fill succession, while GR-14-05 and GR-14-02 did not. Tidal-inlet fill overlays the estuarine depositional environment. A sharp erosional channel diastem separates the estuarine and tidal-inlet fill environments, as observed in core GR-15-09. The inlet-fill deposits laterally transition into flood-tidal delta deposits between GR-14-05 and GR-14-04. A disconformity observed in GR-14-04 demarcates the boundary between estuarine and flood-tidal-delta deposits. GR-15-14 is interpreted as a recurved-spit depositional environment throughout its entire length. GR-14-02 contains a tidal creek above the inlet fill deposits. This tidal creek laterally transitions into beach/washover/aeolian depositional setting to the north, where it is present in GR-15-09. Tidal-inlet fill is overlain by beach/washover/aeolian and salt marsh depositional environments, and is separated by a gradual contact.

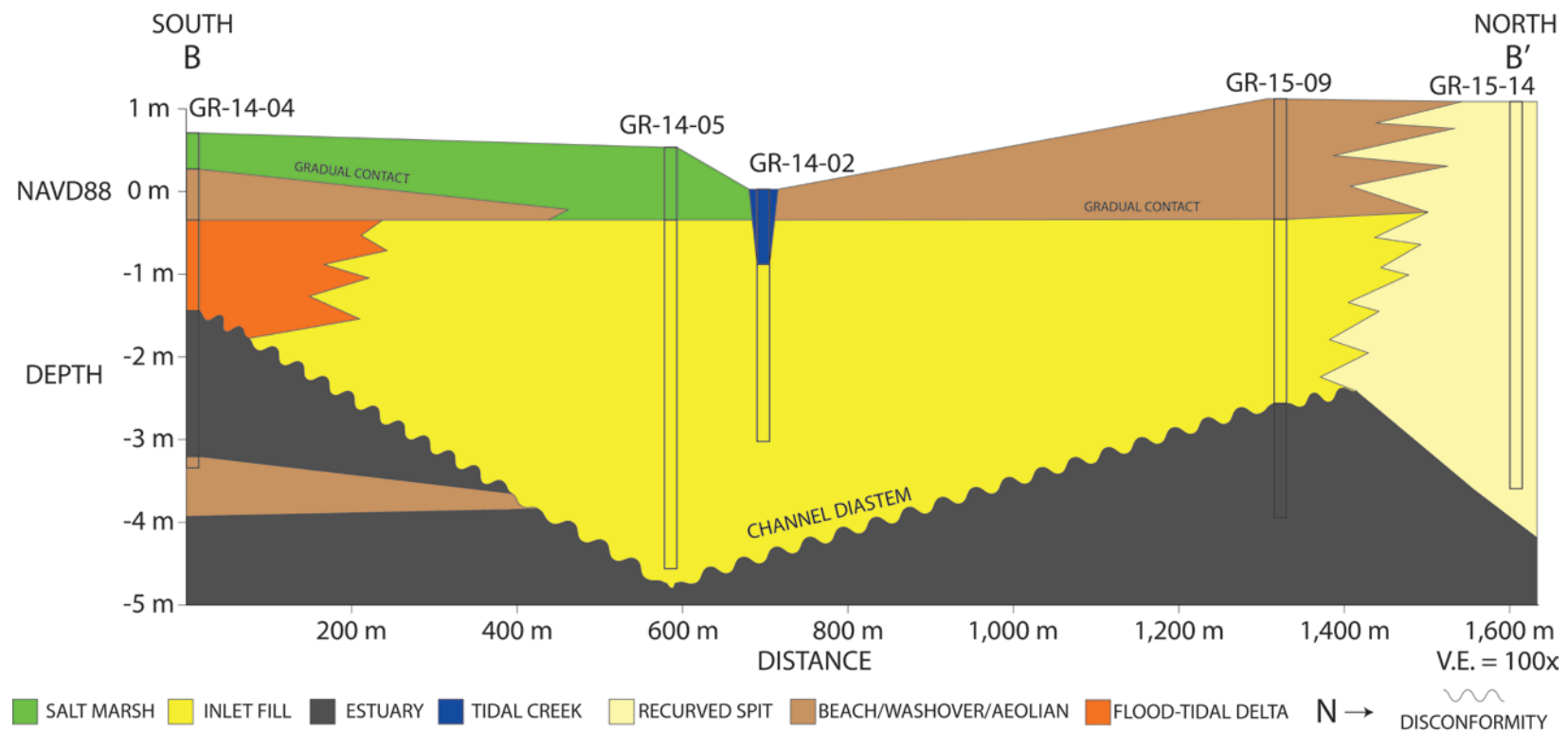


Figure 134: Cross section B-B' of the former Green Run Inlet. See Figure 71 for the location of the cross section.

Cross Section C-C'

Cross section C-C' is the landward-most, strike-oriented transect of the former Green Run Inlet (Figure 135). This cross section extends across the flood-tidal delta complex (Figure 135). An estuarine unit represents the bottom-most depositional environment. Only core GR-14-08 contained facies interpreted to be from an estuarine depositional environment. Two sand units each characterized by a coarsening-upward succession are located at the base of core GR-14-08. These two units stacked on top of each other were interpreted by Halsey (1978b) along the Tingles Island segment of Assateague Island as a beach/washover/aeolian unit. Another hypothesis is that the sand unit was deposited by an older flood-tidal delta, before the Green Run Inlet opened in 1851. Subsequent overlying estuarine deposits could have been deposited during the time between the hypothesized older flood-tidal delta and the deposition of the flood-tidal delta from the Green Run Inlet. Cores GR-15-12 and GR-15-13 did not reach the contact between the estuarine and flood-tidal delta depositional environments. The contact between the estuary and flood-tidal delta depositional environments in GR-14-08 is characterized by a gradual contact. The thickness of the flood-tidal delta deposits in GR-15-12 extends at least 276 cm and 251 cm in GR-15-13. This contact was, however, reached in GR-14-08 at a depth of 200 cm. The total flood-tidal delta package was 160 cm thick. Flood-tidal delta deposits grade into salt marsh deposit in cores GR-14-08, GR-15-12, and GR-15-13.

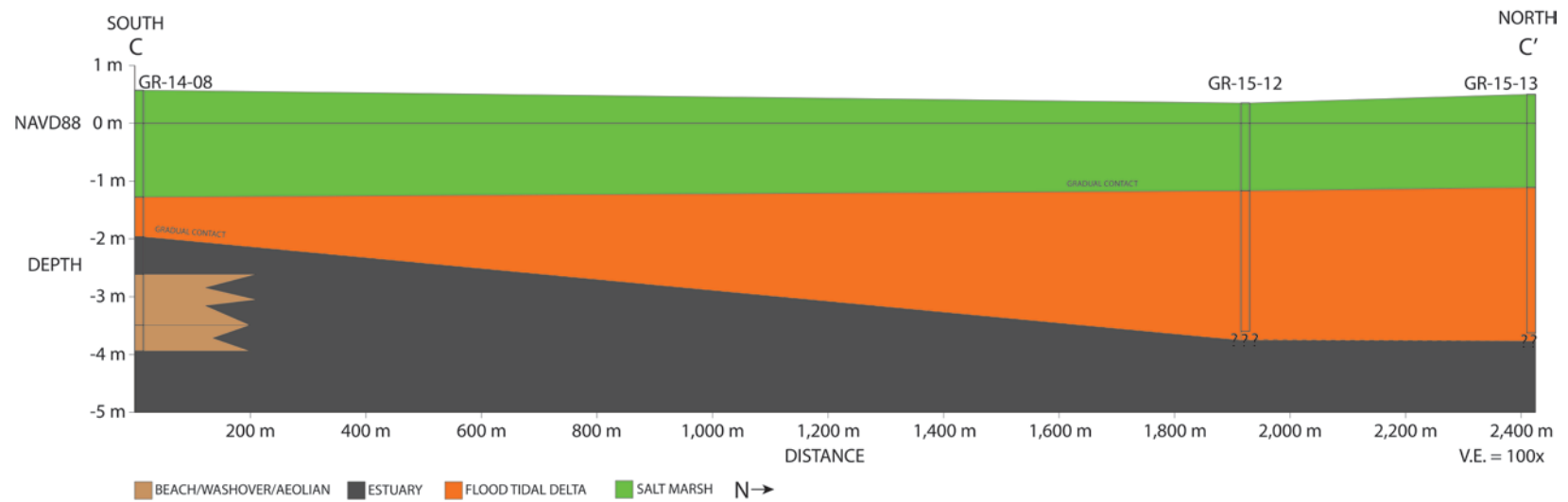


Figure 135: Cross Section C-C' of the former Green Run Inlet. See Figure 71 for the location of the cross section.

Cross Section D-D'

Cross section D-D' is a dip-oriented cross section that extends over the inlet-closure ridge, transitional ridge, and recurved-spit ridge (Figure 136). The bottom of the cross section is characterized by estuarine deposits. A thin, fine sand lens is present near the base of GR-14-07. This unit is interpreted as beach/washover/aeolian deposits as described by Halsey, (1978b). The depth to the top of the estuarine deposits ranges from nearly -2 to -3.75 m NAVD88. Tidal-inlet fill overlays the estuarine depositional environment. A sharp erosional channel diastem separates the estuarine and tidal-inlet fill environments, as observed in core GR-15-09. A full inlet-fill succession is present in GR-14-PA3 and GR-15-09. The thickness of the inlet-fill deposits are similar between the two cores; GR-14-PA3 displayed a thickness of 170 cm while GR-14-09 displayed a thickness of 223 cm. Cores GR-14-02, GR-15-11, and GR-15-10 do not penetrate the entire inlet-fill succession; therefore, the maximum scour depth is unknown, although it is likely not much more than -4 m (NAVD88). The inlet-fill succession transitions laterally into a flood-tidal delta succession. The flood-tidal delta succession is present within GR-14-07 and GR-15-12. A gradual contact separates flood-tidal delta deposits from estuary deposits, as well as salt marsh deposits.

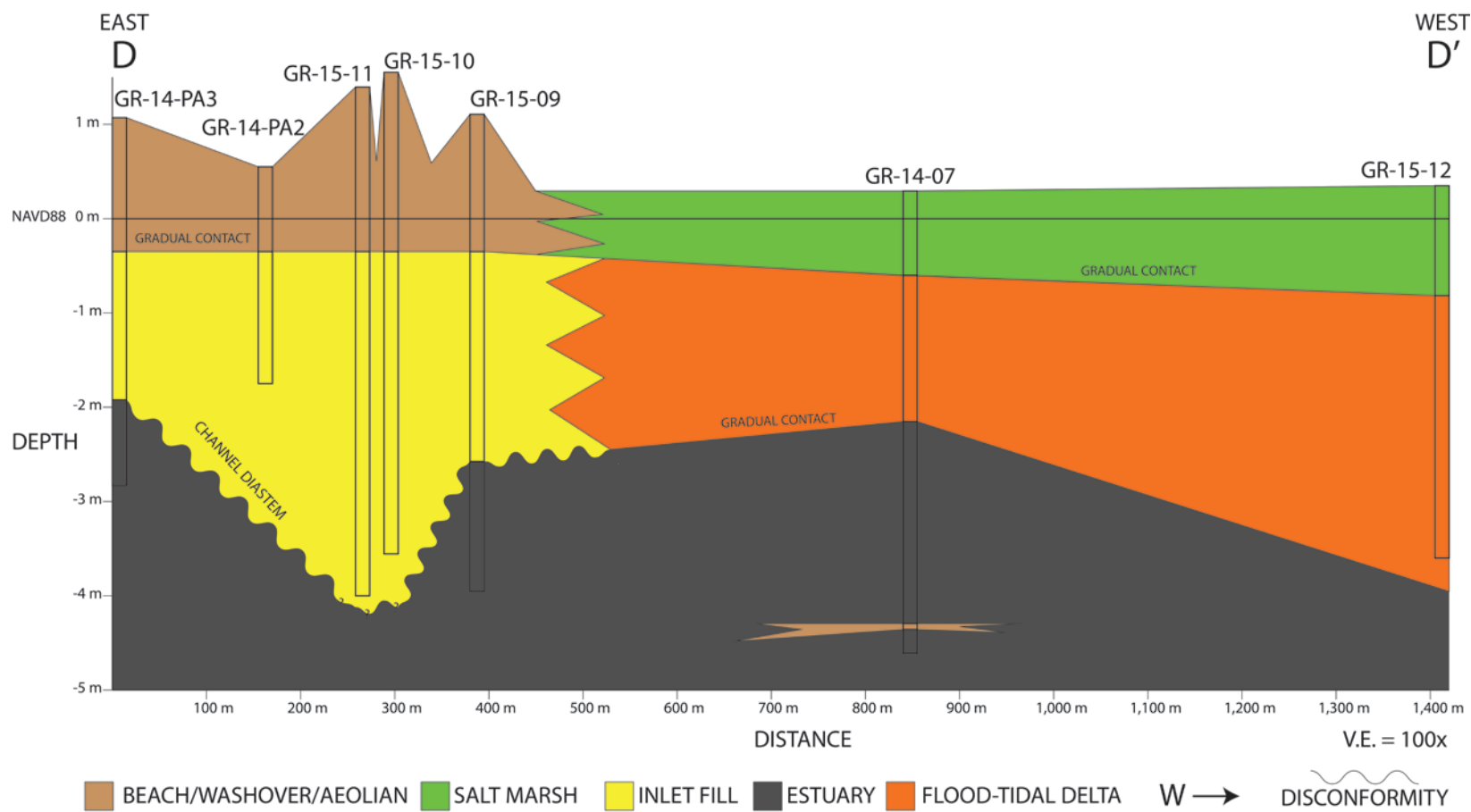


Figure 136: Cross section D-D' of the former Green Run Inlet. See Figure 71 for the location of the cross section.

This cross section extends over a series of four ridges, including the first ever sediment core collected from an inlet-closure ridge. GR-14-PA3 is representative of a shore-parallel, progradational beach ridge; GR-15-11 was collected from the landward-most inlet-closure ridge; GR-15-10 was collected from the transitional ridge; and GR-15-09 was collected from a recurved-spit ridge. All three cores are similar, in that they all coarsen upward above the inlet fill. These deposits show well- to moderately-well sorted, mostly positive or near-symmetrically skewed sediment. The cores also demonstrate a gradual contact between inlet-fill deposits and the overlying beach/washover/aeolian deposits.

Former Sinepuxent Inlet

Four geologic cross sections were constructed, which illustrate the three-dimensional stratigraphic architecture of the former Sinepuxent Inlet (see Figure 72).

Cross Section A-A'

Cross section A-A' is a strike-oriented cross section (north-south), spanning the width of the former Sinepuxent Inlet (Figure 137). The bottom-most unit of cross section A-A' is interpreted as an estuarine unit. Core SI-15-11 is the only core which displays estuarine sediment at its base. A lens of fine sand, interpreted as beach/washover/aeolian by Halsey (1978b), correlates in SI-15-11 (near the base), SI-14-PA2 (at the base), and SI-15-08 (at the base). This sandy unit appears to have been truncated by inlet activity forming a channel diastem. Although the sand unit was only 30 cm thick in SI-15-11, it shows evidence of being thicker as it extends to the south. More estuarine deposits

continue to overlie this lower beach/washover/aeolian unit within the cores unaffected by inlet activity. Inlet-fill deposits were present in cores SI-14-PA1, SI-15-04, SI-14-PA2, SI-15-05, and SI-14-PA3. Although SI-14-PA2 is the only core along this transect interpreted to have penetrated through the entire inlet-fill unit, the inlet-fill deposit is thicker as it extends to the south, with SI-14-PA1 penetrating to -529 cm (NAVD88) and not encountering the inlet fill-estuary contact. Beach/washover/aeolian deposits overlie the inlet-fill depositional environment. A gradual contact separates the beach/washover/aeolian deposits from the inlet deposits. Cores SI-14-PA1, SI-15-04, SI-14-PA2, SI-15-05, and SI-14-PA3 were collected from the large washover platform that was deposited during the Ash Wednesday storm, first imaged in the May 1962 aerial photography. The upper portion of the inlet-fill deposits and the beach/washover/aeolian deposits laterally transition north and south into recurved-spit deposits towards SI-15-11 and SI-15-08, respectively. A gradual contact separates estuarine deposits from recurved-spit deposits.

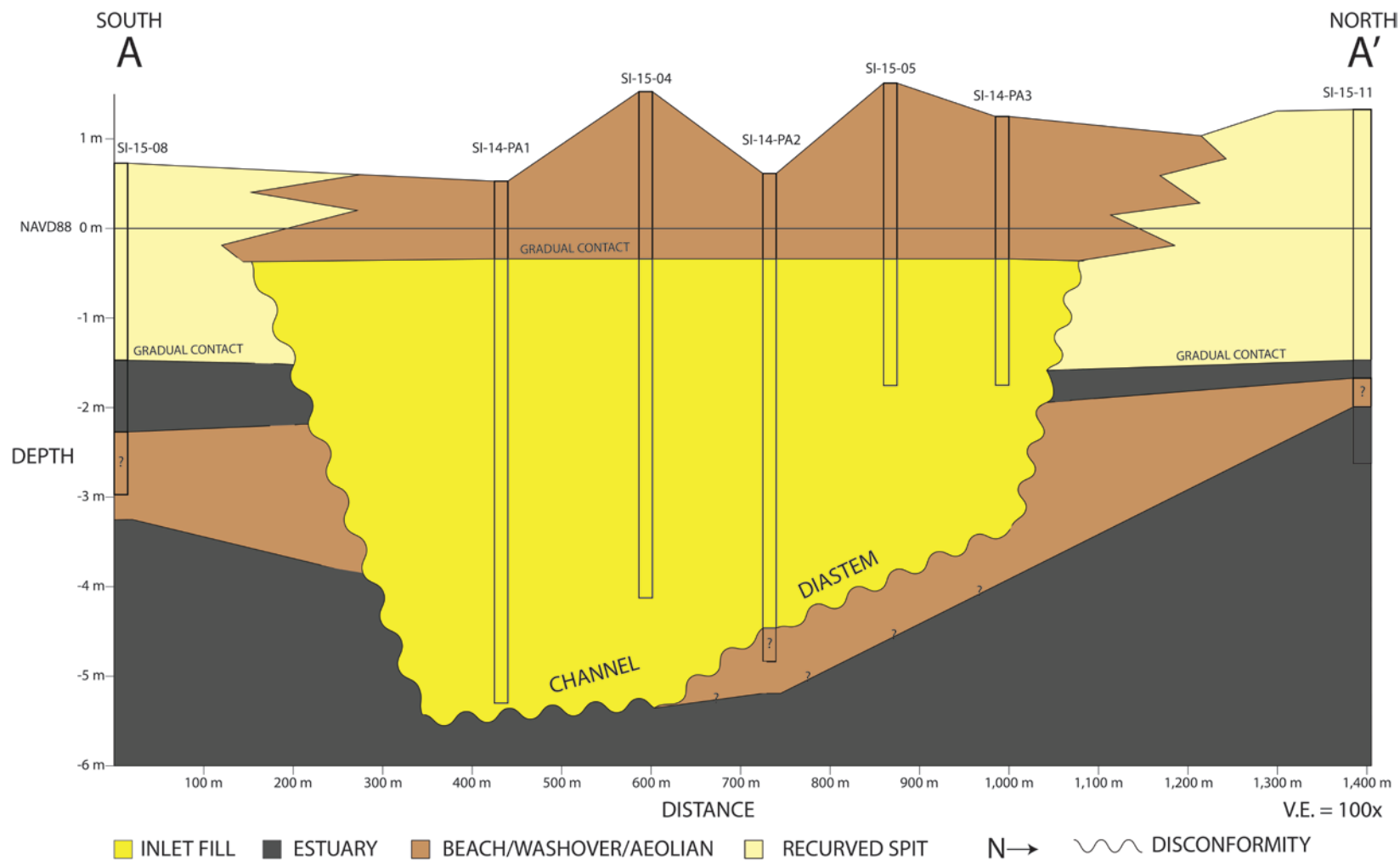


Figure 137: Cross Section A-A' of the former Sinepuxent Inlet. See Figure 72 for the location of the cross section.

Cross Section B-B'

Cross section B-B' represents the landward-most strike-oriented cross section, spanning the width of the former Sinepuxent Inlet (Figure 138). The bottommost unit of the cross section is a fine sand which is interpreted to be the same fine sand unit that Halsey (1978b) interpreted as a beach/washover/aeolian unit. The thickness of this sand unit is unknown. The sand unit correlates across SI-15-08, SI-14-02, and SI-15-10. Estuarine deposits overlie this sand unit in cores SI-15-08 and SI-15-10. Overlying the sand body are estuarine deposits in SI-15-08 and SI-15-10. A channel diastem separates estuarine deposits from inlet-fill deposits. SI-14-02 was the only core which penetrated the entire inlet-fill succession. The base of the tidal-inlet fill in SI-14-02 was observed at a depth of -293 cm (NAVD88). Inlet-fill deposits are overlain by beach/washover/aeolian deposits and are separated by a gradual contact. The beach/washover/aeolian deposits transition laterally north and south into recurved-spit units towards cores SI-15-08 and SI-15-10, respectively. A gradual contact separates estuarine deposits from recurved-spit deposits.

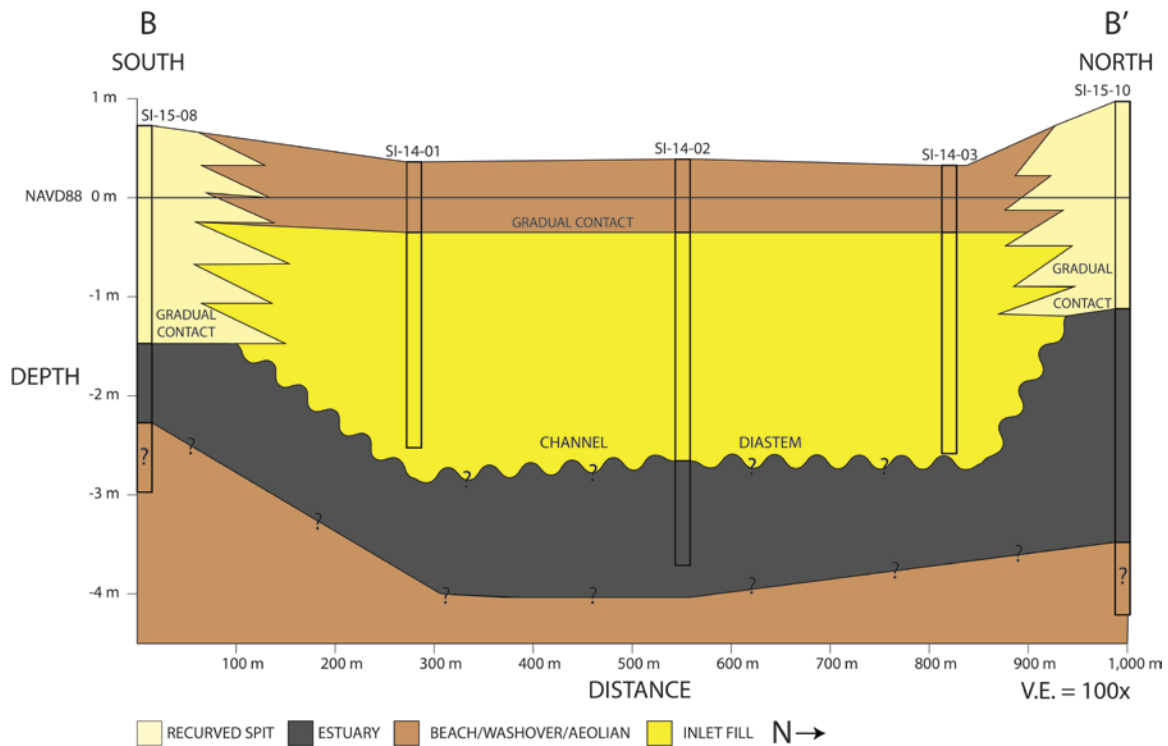


Figure 138: Cross section B-B' of the former Sinepuxent Inlet. Figure 72 for the location of the cross section.

Cross Section C-C'

Cross section C-C' extended from the middle of the former Sinepuxent Inlet throat to the flood-tidal delta, oriented in a dip-section direction (Figure 139). The bottommost unit of the cross section is the lower beach/washover/aeolian sand unit interpreted by Halsey (1978b). This sand body correlates in SI-14-PA2 and SI-14-09. The bottom extent of this fine sand unit is unknown. Overlaying the sandy beach/washover/aeolian unit are estuarine deposits in cores SI-14-02 and SI-14-09. The estuarine unit decreases in thickness in a seaward direction, until it pinches out between SI-14-02 and SI-14-PA2. The seaward decreasing thickness is likely because of the erosional nature of the inlet. Inlet-fill deposits overlie the beach/washover/aeolian

deposits in core SI-14-PA2, and overlie estuarine deposits in SI-14-02. A gradual contact separates the estuarine and inlet-fill deposits in SI-14-02. The thickness of the inlet-fill unit increases seaward, as core SI-14-PA2 likely represents one of the deepest portions of the inlet throat. Inlet-fill deposits in SI-14-PA2 scour into estuarine deposits and represent the channel diastem. Inlet-fill deposits laterally transition to flood-tidal delta deposits landward, as observed in core SI-14-09. Overlying the flood-tidal delta deposits are organic-rich salt marsh deposits. Finally, inlet-fill deposits grade upward into beach/washover/aeolian deposits within cores SI-14-PA2, SI-15-07, and SI-14-02. These deposits extend down to a maximum depth of -127 cm (NAVD88). A likely explanation for this unusually deep beach/washover/aeolian unit is because of the scouring that occurred during the Ash Wednesday storm in March 1962. The former inlet throat was likely breached during the storm and infilled by landward prograding washover deposits.

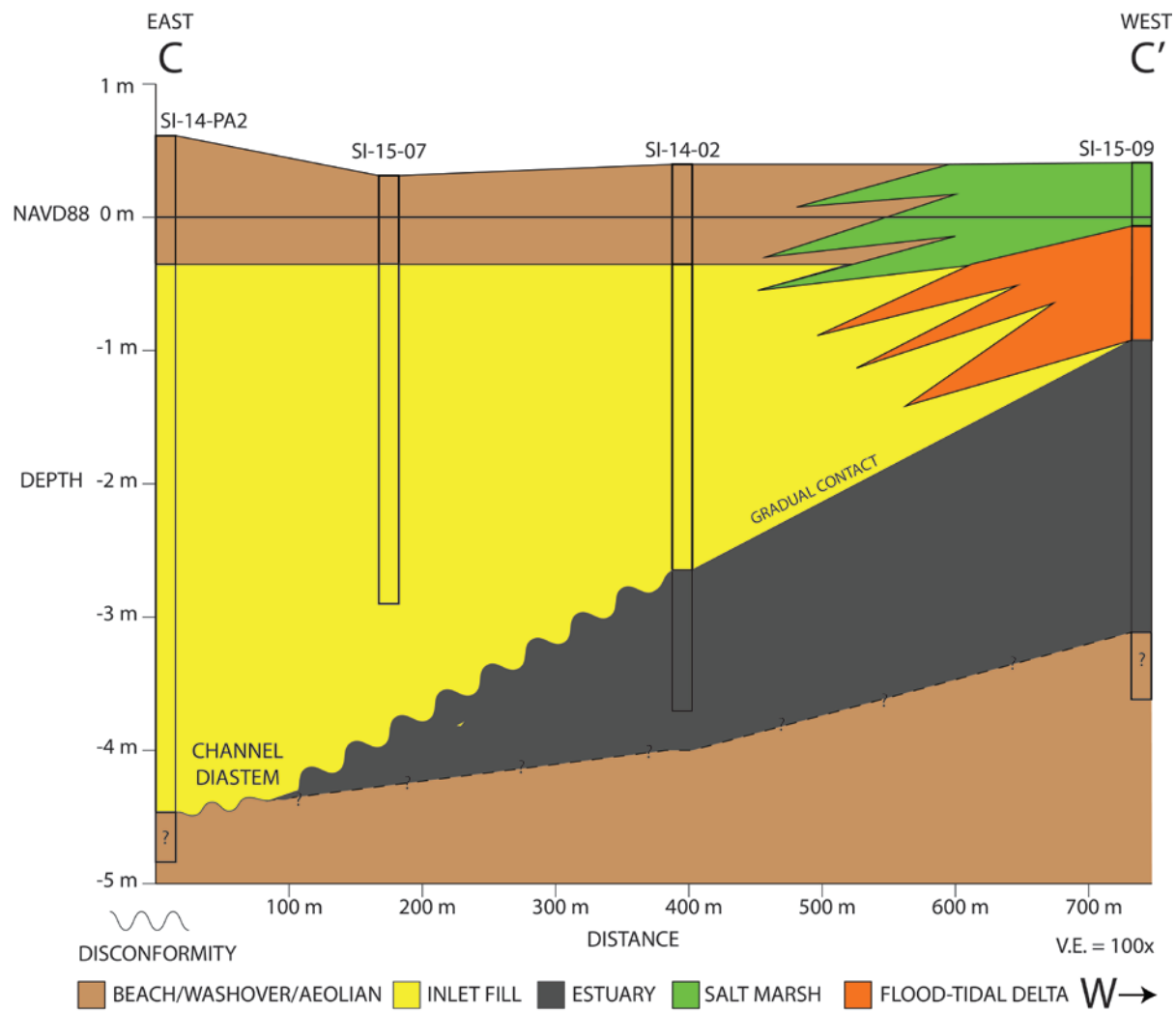


Figure 139: Cross section C-C' of the former Sinepuxent Inlet. See Figure 72 for the location of the cross section.

Cross Section D-D'

Cross section D-D' is a shore-normal oriented cross section, along the northern recurved-spit ridges of the former Sinepuxent Inlet (Figure 140). The bottom unit is an estuarine depositional environment and is observed on SI-15-11. The beach/washover/aeolian sandy unit interpreted by Halsey (1978b) correlates between SI-15-11 and SI-15-10. The thickness of this sandy unit is unknown in SI-15-10. Estuarine deposits overly the sandy unit and were correlated in SI-15-11 and SI-15-10. A gradual contact separates the two depositional environments. Recurved spit deposits represent the uppermost depositional environment and correlate among SI-15-11, SI-14-06, and SI-15-10.

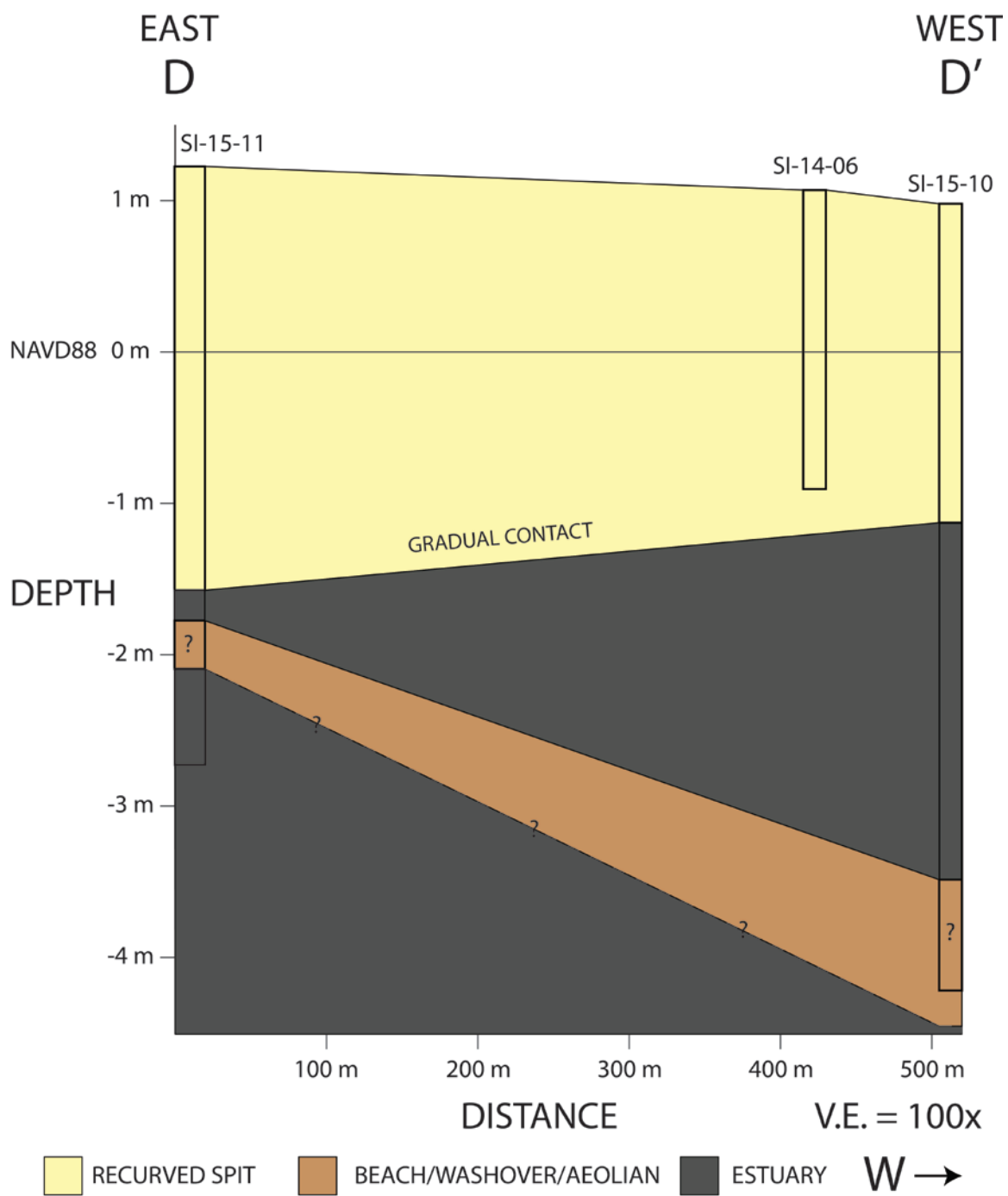


Figure 140: Cross section D-D' of the former Sinepuxent Inlet. Figure 72 for the location of the cross section.

CHAPTER SEVEN: DISCUSSION OF TIDAL PRISM, VERTICAL GRAIN-SIZE TRENDS, GEOMORPHIC FEATURES, AND LIFE-CYCLE MODELS OF WAVE-DOMINATED TIDAL INLETS

This chapter will discuss the process and calculation of spring tidal prism, vertical grain-size trends, and comparison of flood-tidal deltas for the former Green Run and Sinepuxent Inlets. In addition, the former Green Run and Sinepuxent Inlets will be compared to other wave-dominated tidal inlets located along the U.S. Atlantic coast. The comparison will include a discussion on inlet rotation and yield a generalized life-cycle model of wave-dominated tidal inlets.

Comparison of Tidal Prism

Tidal prism of the former Green Run Inlet was determined by measuring the cross-sectional area of the final channel position of the inlet within the GPR data. The final position of the former tidal inlet yielded a width of 100 m and depth of 3.75m, allowing for a cross-sectional area of 179 m². The Richardson, McBride, and Seminack modified Jarrett (1976) equation (Equation 4; Richardson, 2012), calculates the spring tidal prism in relation to the cross-sectional area of the inlet throat. Five cross-sectional area measurements were made as former Green Run Inlet was infilling (Table 11). The spring tidal prism of the final position of the former Green Run Inlet was calculated to be $2.79 \times 10^6 \text{ m}^3$. As the former tidal inlet filled, tidal prism decreased in such order: 1.70×10^6 , 8.13×10^5 , 2.28×10^5 , and $1.72 \times 10^5 \text{ m}^3$ (Table 11; Figure 70).

Table 11: Tidal prism calculated from the former Green Run Inlet as it was in filling. See Figure 70 for the position measurements.

Position	1	2	3	4	5
Cross-sectional area (m²)	179	105	48	12	9
Spring tidal prism (m³)	2.79 x 10 ⁶	1.70 x 10 ⁶	8.13x 10 ⁵	2.28 x 10 ⁵	1.72 x 10 ⁵

Unfortunately the GPR survey along the former Sinepuxent Inlet was heavily affected by salt-water attenuation and did not yield penetration depths that imaged the former inlet. Therefore, the cross-sectional area was calculated from core data. Cores SI-14-PA1 and SI-14-PA2 were the only cores collected from the seaward-most transect of the inlet throat that penetrated through the entire inlet-fill succession. An inlet-floor model was constructed using four points, two points representing the northern and southern terminus of the inlet throat which had a depth of 0 cm and the two points from SI-14-PA1 and SI-14-PA2 showing the channel floor at -530 and -448 cm (NAVD88), respectively (Figure 141). Present day measurements between the northern and southern recurved spits of the former Sinepuxent Inlet yield an inlet throat width of 620 m. These inlet dimensions yielded a cross-sectional area of 2,306 m² and a tidal prism of 3.04 X 10⁷ m³.

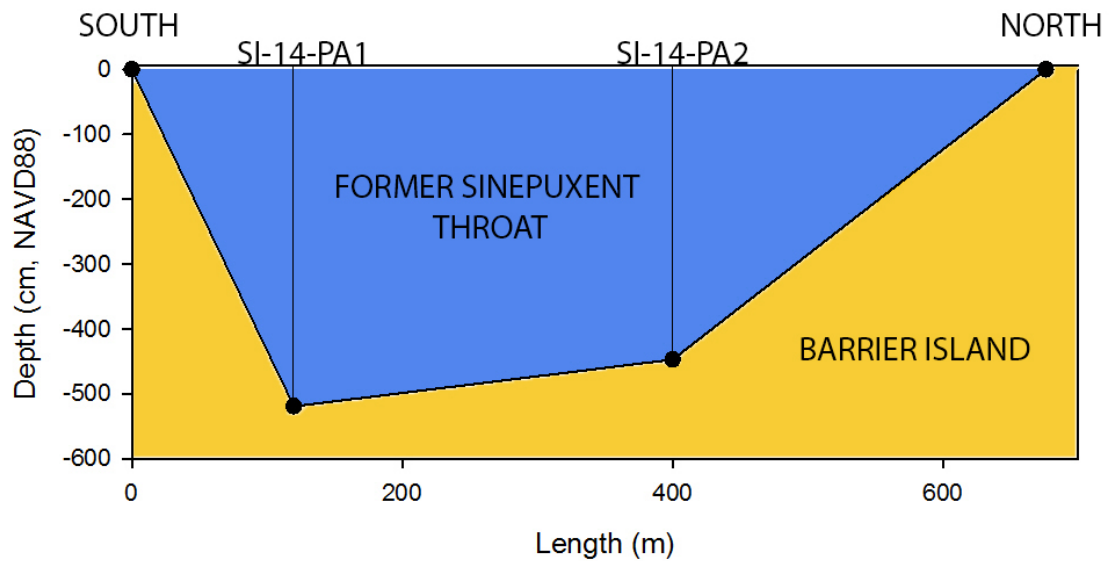


Figure 141: Cross-section model of the former Sinepuxent Inlet throat with depths determined by core data and width measured from the northern recurved spit to the southern recurved spit. This model yields a spring tidal prism comparable with a tide-dominated inlet. Thus, the inlet throat width cannot be always measured by the distance between recurved spits.

This spring tidal prism value is an order of magnitude greater than the tidal prism of the former Green Run Inlet. In fact, this tidal prism value is comparable with Wachapreague Inlet (Figure 142). Wachapreague Inlet is located 48 km south of Assateague Island and separates Cedar Island, to the north, from Parramore Island, to the south. This well-studied, tide-dominated inlet is 391 m wide, has a maximum depth of 21.9 m, a cross-sectional area of 4,800m², and a tidal prism of 5.64 X 10⁷ m³ (Richardson, 2012).



Figure 142: Wachapreague Inlet, Virginia. This tide-dominated inlet is located ~48 km south of Assateague Island. It has a spring tidal prism of $5.64 \times 10^7 \text{ m}^3$ (see Richardson, 2012).

It is unlikely that the former Sinepuxent Inlet, a wave-dominated tidal inlet, yielded parameters comparable to a tide-dominated inlet. While still employing a maximum inlet depth of 5.19 m, a smaller inlet throat width is used. In order to calculate a tidal prism comparable to the former Green Run Inlet for Sinepuxent Inlet, the inlet throat width would have to be $\leq 200 \text{ m}$ wide.

The Slough Inlet and Fox Hills Level Breach zone has been prone to multiple breaches throughout its history. However, only one pair of recurved-spit ridges demarcates the breaching zone which harbored the Slough Inlet and Fox Hills Level breaches (Figure 48). The distance between the northern and southern recurved spits is 3.1 km, roughly 30 times the confirmed final channel width of the former Green Run

Inlet. Thus, the inlet throat width cannot always be measured by the distance between recurved spits.

Utilizing an inlet throat width of 200 m for Sinepuxent Inlet would indicate that cores SI-15-05, SI-14-PA2, SI-15-04, and SI-14-PA3 (Figure 137) would not have been a part of the open tidal inlet at the same time as SI-15-PA1. This situation could be explained by a migrating inlet or multiple breaching events. A simple spline curve was constructed utilizing a three point model of the deepest portion of the former Sinepuxent Inlet throat and extended 200 m north from the southern recurved spit (Figure 143). This simple spline curve resulted in a cross-sectional area of 602 m^2 and a tidal prism of $8.71 \times 10^6 \text{ m}^3$. These revised dimensions yield a more likely tidal prism value and is now comparable to the former Green Run Inlet.

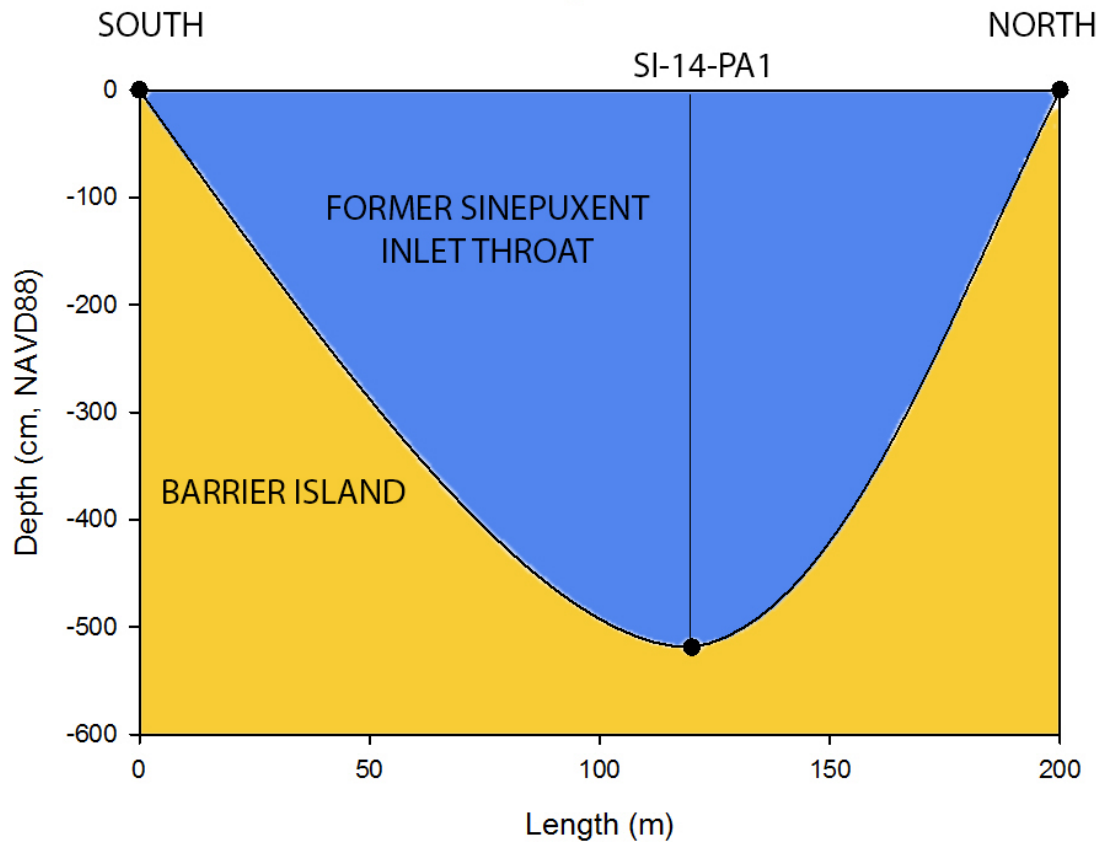


Figure 143: A more accurate representation of the cross-sectional area model of the former Sinepuxent Inlet. This model has an inlet throat width of 200 m and a maximum depth of -520 cm (NAVD88).

Vertical Grain-Size Trends within Inlet Fill

Tidal-inlet fill deposits have been documented over the years to demonstrate a fining-upward succession (Kumar and Sanders, 1974; Moslow and Tye, 1985). Unfortunately, detailed grain size analysis from inlet-fill deposits associated with a former inlet throat has been lacking in the literature. Seminack and Buynevich (2013) may have been the first published study showing a detailed grain-size analysis of inlet-fill deposits. In their study, Seminack and Buynevich (2013) collected GPR profiles to image

the former Green Run Bay Inlet (Figure 144a). They collected two sediment cores from within inlet fill in order to ground-truth their geophysical data (Figure 144b). The former Green Run Bay Inlet deposits display a conformable fill pattern within the radar data. Core GRA-4 demonstrates a relatively smooth fining-upward succession within the inlet fill. GRA-5, however, demonstrates a 1st order general fining-upward succession characterized by two 2nd order fining upward successions. The fluctuation in grain size from 305 to 160 cm is indicative of a gradual increase, and then decrease in the energy setting (i.e., water flow velocity). Thus, the 1st order fining upward succession contains 2nd order successions documenting an upward fining-coarsening-fining trend, indicating fluctuations in energy as the inlet wanes and fills.

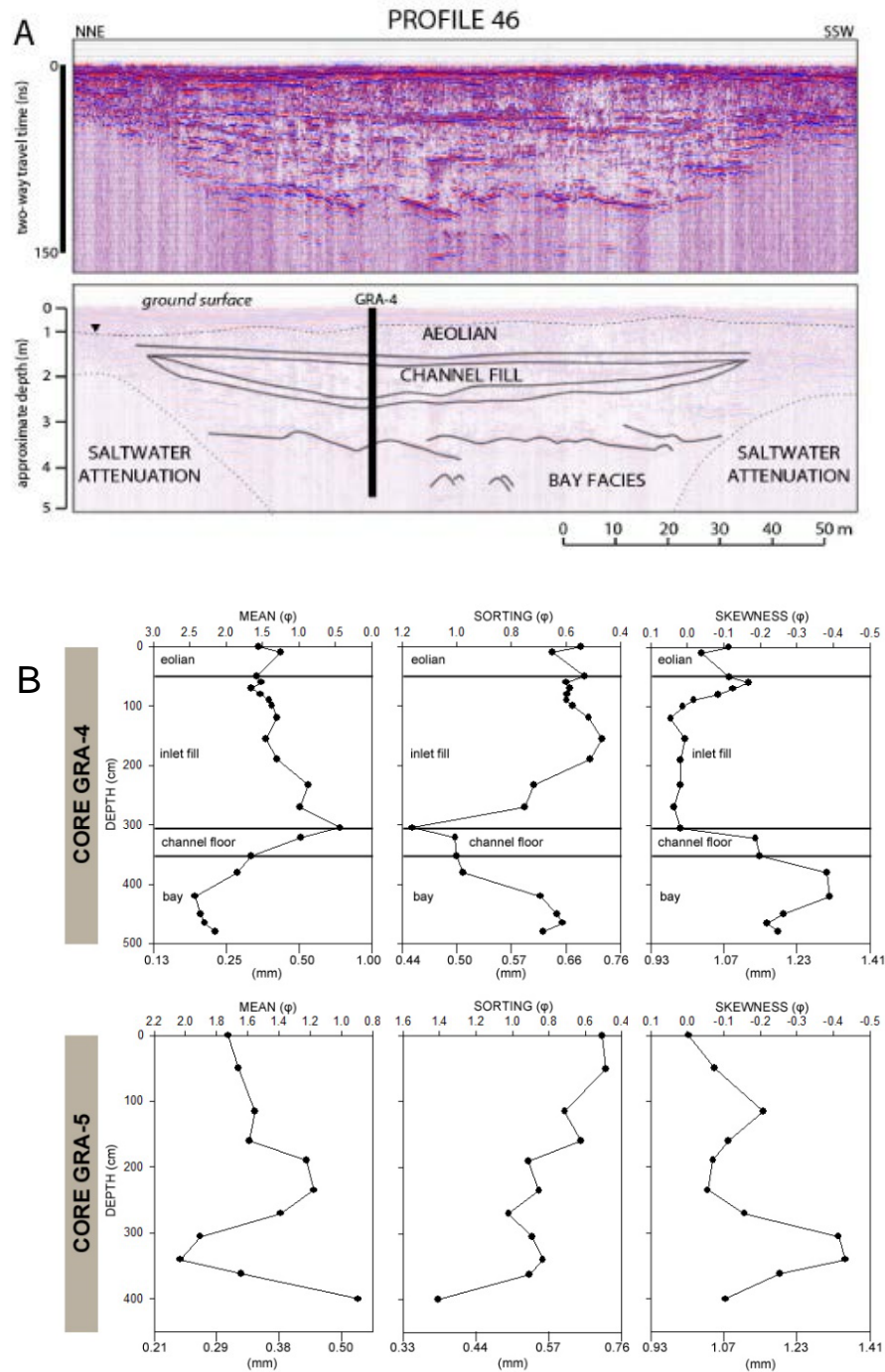


Figure 144: GPR and detailed grain-size analysis from the former Green Run Bay Inlet (from Seminack and Buynevich, 2013). A) Strike section GPR profile of the former Green Run Bay Inlet. The radar data suggest the former inlet filled in a conformable pattern. B) Detailed grain size data from two cores collected within the inlet fill of the former Green Run Bay Inlet (from Seminack and Buynevich, 2013).

Hanley (2015) collected 18 sediment cores to construct a high-resolution, three-dimensional stratigraphic model of the former Cedar Island Inlet, located along Cedar Island, VA. This ephemeral inlet has been open on at least three separate occasions since 1950. Hanley (2015) identified tidal-inlet fill deposits that generally coarsen upwards on a 1st order scale (Figure 145). 2nd order pulses of energy, as demonstrated by spikes in coarser grain sizes at ~178 cm, ~150 cm, and ~130 cm, influenced the inlet fill and vertical mean grain size trend.

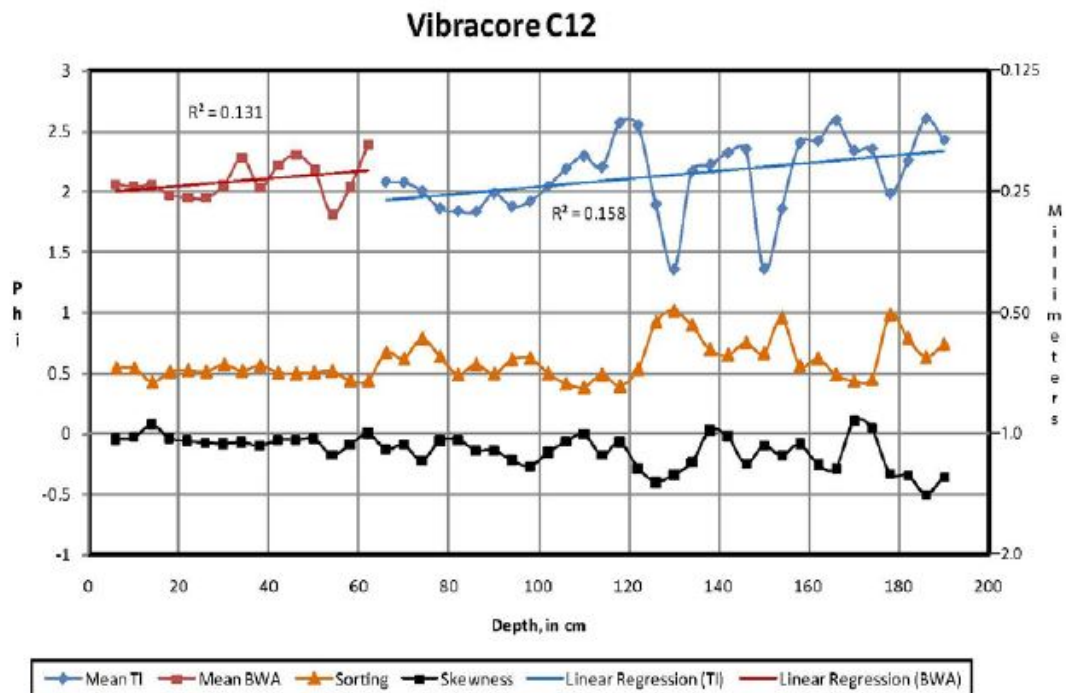


Figure 145: Sediment core collected from the former Cedar Island Inlet, which is located along the southern portion of Cedar Island, VA (from Hanley, 2015). The former Cedar Island Inlet was a wave-dominated tidal inlet. TI = tidal inlet and BWA = beach/washover/aeolian depositional settings.

For the present study, 17 sediment cores were collected from within tidal-inlet fill deposits (eight cores from the former Green Run Inlet and nine cores from within the former Sinepuxent Inlet). Of the nine cores collected within the inlet throat of the former Green Run Inlet, three general vertical grain-size trends were observed: fining-upward succession, fining upward with multiple coarse spikes, and general coarsening-upward succession.

Former Green Run Inlet

Cores GR-14-PA2, GR-14-03, and GR-15-09 all show a distinctive fining-upward succession. This trend is smooth with little to no coarse spikes (Figure 146). GR-14-PA2 only extended down to -174 cm (NAVD88) and therefore did not penetrate the majority of the inlet-fill succession. This succession type is indicative of a gradual waning of energy setting. These three cores complement the past work completed by Kumar and Sanders (1974) and Moslow and Tye (1985).

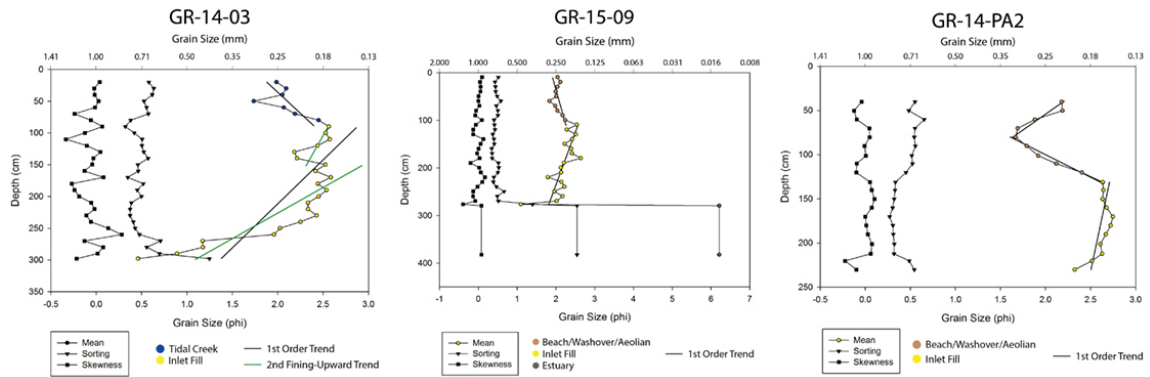


Figure 146: Cores within the former Green Run Inlet showing smooth fining-upward successions. See Figure 71 for the location of the cores.

Cores GR-14-PA1, GR-14-PA3, and GR-14-05 all demonstrate a general fining-upward succession with sharp spikes in coarser grain sizes within the inlet-fill succession (Figure 147). The cores contain 2nd order coarsening-upward packages within the broad 1st order fining-upward succession of the inlet-fill unit. The sharp spikes in coarser grain sizes indicate pulses of increased energy. These pulses of increased energy (coarse spikes) may be associated with more cyclic increases in tidal prism, such as spring high tides, perigean spring high tides, or storm impacts.

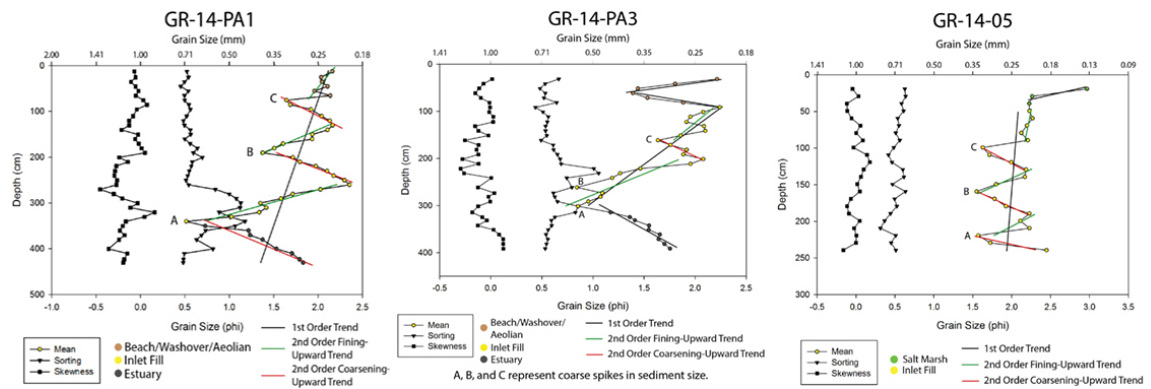


Figure 147: Cores within the former Green Run Inlet showing coarse spikes within a fining upward inlet-fill succession. See Figure 71 for the location of the cores.

Cores GR-14-02, GR-14-05, GR-15-10, and GR-15-11 all exhibit a general coarsening-upward succession within the inlet fill depositional setting (Figure 148). GR-15-11 and GR-14-02 both show a gradual coarsening upward trend, with minimal grain size spikes. GR-15-10 depicts a general coarsening upward trend with many spikes in coarse sediment. The coarse spikes may represent the base of many smaller, 2nd order fining-upward sediment packages. As many as five 2nd order, fining-upward packages may be present within the inlet fill deposits of GR-15-10.

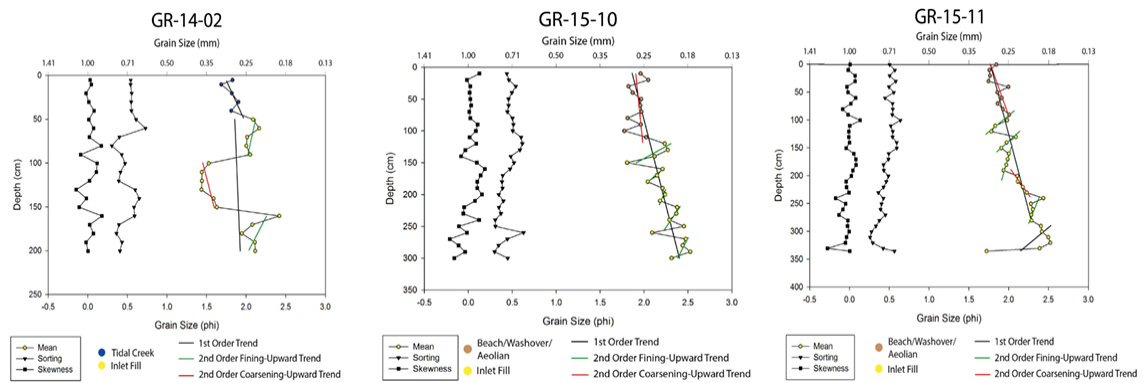


Figure 148: Cores within the former Green Run Inlet demonstrating a general coarsening upward succession within an inlet-fill succession. See Figure 71 for the location of the cores.

These coarsening upward trends are in direct contrast to the findings of Kumar and Sanders (1974) and Moslow and Tye (1985). As a tidal inlet is closing, the inlet channel is lengthening and becoming hydrologically inefficient. This results in a decrease in flow velocities and therefore resulting in the deposition of smaller grain sizes. Just the opposite was observed in these three cores along the former Green Run Inlet. Two lines of evidence show that Green Run Inlet was active in these core locations: historical nautical charts and GPR data. GR-15-10 and GR-15-11 are located within the vicinity of the original channel position, while GR-14-02 is located near the final channel position. Two hypotheses are proposed to explain a coarsening upward trend within tidal-inlet fill. The first hypothesis is that the waning energy is not reflected upward by grain-size trends alone. Heavy mineral grains are smaller but more dense than quartz grains and thus concentrated in the lower portion of the succession in association with the higher flow regime. Thus, these coarsening upward trends may actually show an increase in heavy minerals at the base which are hydraulically equivalent to larger quartz grains (Sallenger,

1979). An upward decrease in the population of denser, smaller heavy minerals would be the hydraulic equivalent to a fining-upward succession (Bangold, 1968; Sanders, 1965; Sallenger, 1979).

The second hypothesis is that the signature of an inlet-closure ridge is a coarsening-upward succession. The swash-aligned, inlet-closure ridges may be acting much like a prograding barrier island, thus creating the same stratigraphic signal (Figure 149; Moslow and Tye, 1985; Davis, 1994). Richardson (2012) stated that when the Cedar Island Inlet closed in 2007 that segment of the barrier-island shoreline prograded up to 30 m/yr.

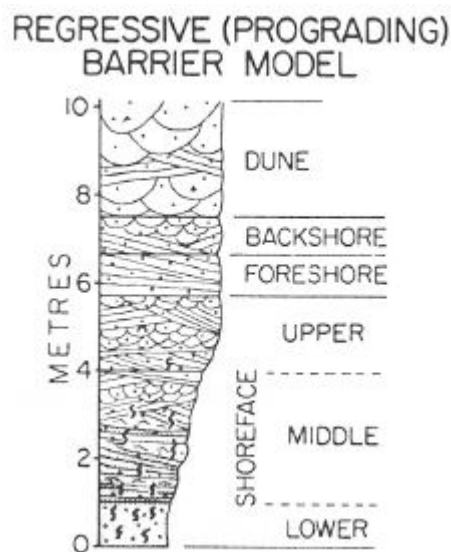


Figure 149: Stratigraphic model of a prograding barrier island (from Davis, 1994).

GR-15-11 and GR-14-02 were collected along the landward-most inlet closure ridge, while GR-15-10 was collected from the transitional ridge. GR-15-11, GR-15-10,

and GR-15-09, although collected from a proximal location, demonstrate different sedimentological signatures of inlet fill (Figure 71). GR-15-11 (collected from the inlet-closure ridge) displays a gradual coarsening-upward succession, with the exception of its coarser base. GR-15-09 (collected from the recurved-spit ridge) shows a smooth and gradual fining-upward succession. GR-15-10 (transitional ridge) resembles a hybrid of the two adjacent cores. Its 1st order grain-size trend is coarsening upward, while its 2nd order trend contains higher resolution fining-upward packages. Not only is the surficial geomorphology of the transitional ridge a hybrid of the drift-aligned recurved-spit ridge and the swash-aligned, inlet-closure ridge, but its stratigraphic signature of the inlet fill is a hybrid as well.

The swash-aligned, inlet-closure ridges prograded and eventually transitioned into shore-parallel, drift-aligned beach ridges. Cores GR-14-PA1, GR-14-PA2, and GR14-PA3 were collected within this segment of shore-parallel beach ridges and displayed a fining-upward succession.

Hanley (2015) stated that 64% of the cores he analyzed from the Cedar Island Inlet showed a 1st order coarsening-upward succession. It is likely that Hanley (2015) collected some cores from inlet-closure ridges. Aerial imagey from 2008 show the inlet-closure ridges from within the vicinity of where Hanley (2015) documented coarsening-upward successions within the inlet-fill deposits (Figure 132).

Former Sinepuxent Inlet

All of the cores collected from within the former Sinepuxent Inlet demonstrate a general fining-upward succession with multiple spikes of coarser grain size, thus indicating energy pulses (increased flow velocities) to the depositional setting. The only exception is SI-14-PA3, which demonstrates a slight coarsening-upward succession within the inlet fill. This core only penetrated down to -176 cm (NAVD88) and most likely did not penetrate through the majority of the inlet-fill deposit.

Sinepuxent Inlet was likely breached multiple times as an ephemeral inlet. Aerial photography collected after the Ash Wednesday storm indicates that the former Sinepuxent Inlet area may have been breached for a short time as a result of the storm. Tidal prism calculations demonstrate that the inlet throat width is far too wide to support a tidal prism comparable to a wave-dominated tidal inlet. It is likely that some of these energy pulses may be related to multiple breaching events. The area between the recurved spits that appears to be the former inlet throat may likely be more of a breach zone.

Core SI-15-07 is perhaps the best example demonstrating energy pulses within tidal-inlet fill (Figures 116 and 117). A 1st order fining-upward succession extends from the core base at 250 cm to 50 cm. However, three energy pulses (increases in flow regime as indicated by coarse spike in mean grain size) are found within this general fining-upward succession, creating 2nd order fining- and coarsening-upward successions. The coarse spikes in mean grain size could be related to energy pulses such as spring high tides, perigean spring high tides, or storms. Spikes in grain size are present at 240 cm, 160 cm, and 80 cm; indicating increased flow regime conditions. Grain size gradually fluctuates from 1.29 to 2.93 ϕ between 250 cm and 130 cm. A disconformable contact is

present at 120 cm, indicating an even higher energy pulse, such as another breach or increased tidal prism because of a severe storm. It is challenging to decipher between signatures of multiple breaches and an intense storm impact. The two events would have similar signatures within the stratigraphic record. An intense storm signature would have a more widespread impact along the barrier island than a localized breach.

Comparison of Flood-Tidal Deltas

Flood-tidal deltas are a signature of wave-dominated tidal inlets (Hayes, 1980; Davis and Hayes, 1984). The former Green Run Inlet has the best preserved flood-tidal delta along the span of Assateague Island. While on the contrary, the former Sinepuxent Inlet does not have a well preserved flood-tidal delta. The two former inlets were active at about the same time period, with Green Run Inlet being active 1852 to 1880 and Sinepuxent Inlet being active 1755 to 1832. Chincoteague Bay occupies enough open water to allow the capture of enough tidal prism by the former Sinepuxent Inlet to create a well-developed flood-tidal delta. Three hypotheses are presented as to why a well-developed flood-tidal delta is not associated with the former Sinepuxent Inlet.

The first hypothesis is that the backbarrier deposits consist of multiple, small flood-tidal deltas and washover fans that have coalesced as a result of multiple breaching events. The tidal prism calculation exercise stressed the likelihood of the former Sinepuxent Inlet being more of a concentrated breach zone. Multiple short-lived, ephemeral breaches may have been characterized by small flood-tidal deltas and washover fans, and thus lacked the time required to allow for the deposition a well-

developed flood-tidal delta. Over time, these smaller flood-tidal deltas and washover fans coalesced onto one single amalgamated flood-tidal delta.

The second hypothesis is that a Holocene-aged paleo-barrier-island chain backs Assateague Island within the Sinepuxent Inlet area. As Sinepuxent Inlet was activated, the paleo-barrier-island chain severely reduced the inlet's hydraulic efficiency, and thus reduced tidal prism. The paleo-barrier islands would have also restricted any flood-tidal delta deposits to the seaward side of the paleo-island chain, thus attributing to the poorly-developed flood-tidal delta landward of the former Sinepuxent Inlet.

Krantz et al. (2009 and 2015) hypothesized that this Holocene-aged, paleo-barrier-island chain extended north from Chincoteague Island (Figure 150). As Assateague Island was growing southward by lateral spit accretion, it may have overlapped an entire chain of open-ocean barrier islands. Assateague Island has completely overlapped Chincoteague Island and is currently overlapping Wallops Island. These Holocene, paleo-barrier islands may extend north to the Green Run Bay portion of Assateague Island (Krantz et al., 2015). Krantz et al. (2015) suggest the names Pope Island for the paleo-barrier island just south of the former Green Run Inlet and Green Run Island, for the paleo-barrier island just north of the former Green Run Inlet. The former Green Run Inlet may have been controlled by the mid-Holocene antecedent topography of the paleo-barrier islands. The former Green Run Inlet may likely overlie an ancient Green Run Inlet, which likely separated the Pope Island and Green Run Island.

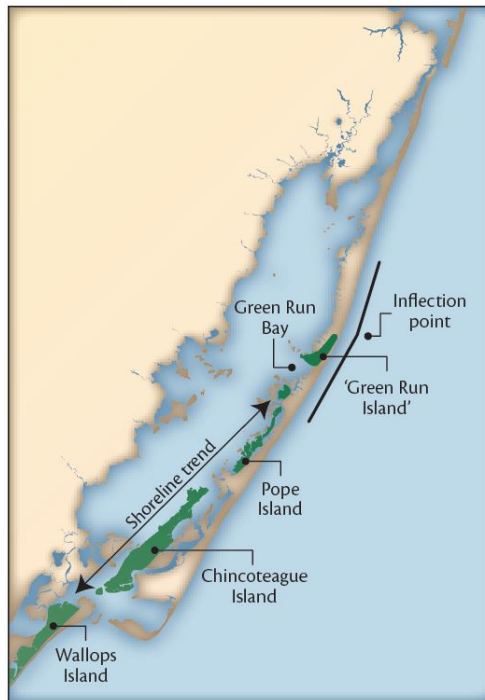


Figure 150: Proposed location of Holocene-aged paleo-barrier-island chain (from Krantz et al., 2009).

If Hypothesis #2 is correct, the Holocene-aged, paleo-barrier-island chain may have extended even farther north than what Krantz et al. (2015) suggested. A series of backbarrier features, from Whittington's Point extending north to the North Beach Breach zone, contain elongated ridges that are mostly separated from the main barrier-island core (Figures 1, 42, and 151). These elongated features are oriented at a slightly oblique angle to the present day shoreline.



Figure 151: Proposed location of hypothesized Holocene-aged paleo-barrier-island chain.

Hypothesis #3 suggests some combination of the previously mentioned two hypotheses, where the former Sinepuxent Inlet area was subjected to multiple breaching events that were affected by the paleo-barrier-island chain. The hypothesized paleo-barrier-islands limited the amount of available tidal prism, and thus the breaches quickly closed without depositing extensive flood-tidal deltas and washover fans.

At the moment, evidence is lacking in order to decisively reject or confirm any of the three multiple working hypotheses as to why the former Sinepuxent Inlet is lacking a well-developed flood-tidal delta. Ultimately, the common denominator among all three hypotheses is time. Whether Sinepuxent Inlet existed as a series of multiple ephemeral breaches, or flood-tidal delta growth was constrained by a Holocene-aged paleo-barrier-island chain, each of these scenarios limit the amount of time Sinepuxent Inlet would have been active, thus, limiting the extent of flood-tidal delta deposition.

Inlet Rotation

Initially, Green Run Inlet likely migrated to the south in a shore-normal orientation, as indicated by the evenly distributed southerly dipping clinoforms in the GPR data. After migrating 680 m to the south, Green Run Inlet was subjected to counterclockwise rotation of approximately 30° in its waning stages. This rotation was interpreted from the GPR profile, which showed Green Run Inlet filling in the opposite direction of its initial southerly migration and net longshore sediment transport. In addition, a southerly extension of the flood ramp can be observed in aerial photography, as well as the both drift-aligned and swash-aligned transitional ridge indicating a curvilinear shape of the former inlet channel.

Another, more hydraulically efficient inlet opening along the barrier island could have pirated tidal prism from Green Run Inlet. Historical nautical charts do not show any evidence of another inlet being active contemporaneously with Green Run Inlet. This scenario was not observed within the historical record; therefore, refuting Hypothesis #4 as a cause for closure of Green Run Inlet.

The ridge sets spanning the former Green Run Inlet throat record valuable information regarding the morphodynamic and hydrodynamic properties of the inlet throughout its life cycle. Thus, utilizing geomorphic features of former tidal inlets can allow the comparison to present day wave-dominated inlets.

New Drum Inlet is located along Outer Banks, NC and was artificially opened by the Army Corps of Engineers in 1971 for the use of commercial fishing vessels (Mallinson et al., 2008). No ships actually sailed through the artificially induced inlet because it immediately began to infill (Mallinson et al., 2008). This inlet migrated to the

south and merged with Ophelia Inlet by 2009. Figure 152 shows New Drum Inlet in 1989 and the counterclockwise rotation by 1993. Longshore sediment transport moves in a net southwesterly direction. The northern spit is extending from the landward updrift corner of the inlet in Figure 152. This lateral extension is similar to the drift-aligned, recurved-spit ridges within the former Green Run Inlet. Sand shoals are also welding onto the barrier island along the downdrift, seaward corner, a likely process that may have caused the northerly dipping clinoforms in the final position of the former Green Run Inlet (Figure 70).

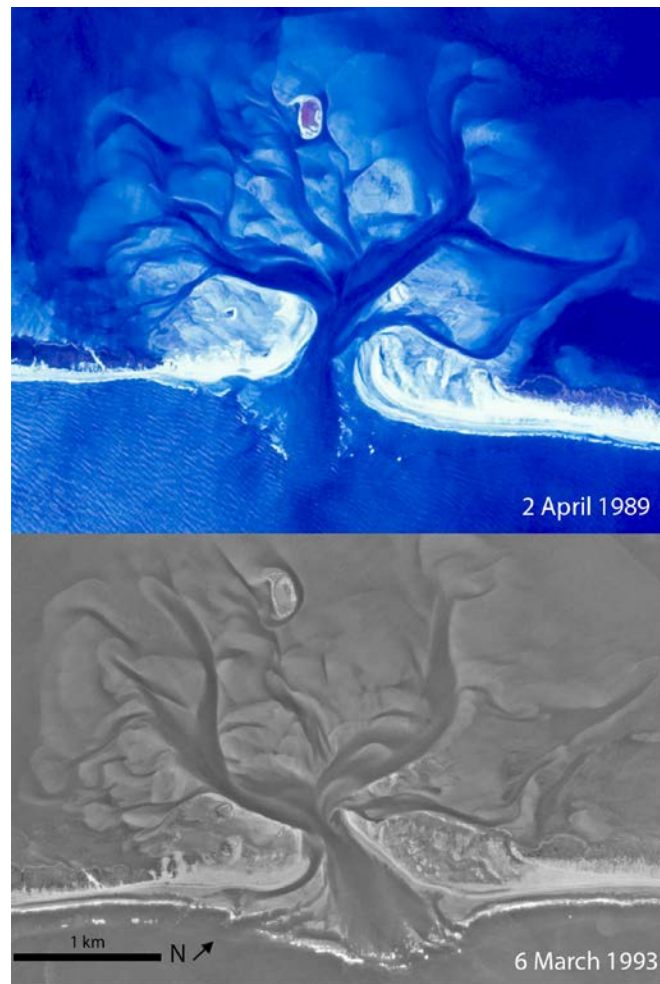


Figure 152: New Drum Inlet, Outer Banks, NC from 2 April 1989 and 6 March 1993 (Google Earth, 2015). The inlet is rotating counterclockwise. The northern recurved spit is extending from the landward updrift corner of the inlet throat. Sand shoals are also welding onto the downdrift seaward corner of the inlet throat.

New Old Drum Inlet is located along the Outer Banks, NC and has been open twice since 1999 (Figure 153; Mallinson et al., 2008). The inlet first opened in 1999 and was closed by 2009. During this first activity period, New Old Drum Inlet rotated clockwise within the decade that it was open (Figure 153). Effectively, a marsh platform backing New Old Drum inlet was not allowing for sufficient accommodation space for flood-tidal delta deposits. Consequently, the inlet rotated away from the marsh platform

(clockwise) in order to seek additional accommodation space and to maintain hydraulic efficiency.

New Old Drum Inlet was open a second time between 2009 and 2013 (Figure 153). Once again, the tidal inlet rotated clockwise, likely linked to the lack of accommodation space because of its proximity to the marsh platform. The images from 6 April 2013 and 9 March 2014 demonstrate that the channel length shortened through time and became more hydraulically efficient (1,600 m in length in the 2013 image and 1,500 m in length in the 2014 image; Figure 153). The 3 July 2014 image was collected shortly after Hurricane Arthur made landfall over North Carolina. This image displays a wider inlet channel than the 9 March 2014 image; however the channel length remained the same, at 1,500 m. It is likely that storm surge associated with Hurricane Arthur eroded sediments from the inlet throat, thus creating a larger cross-sectional area to accommodate for the increase in tidal prism.

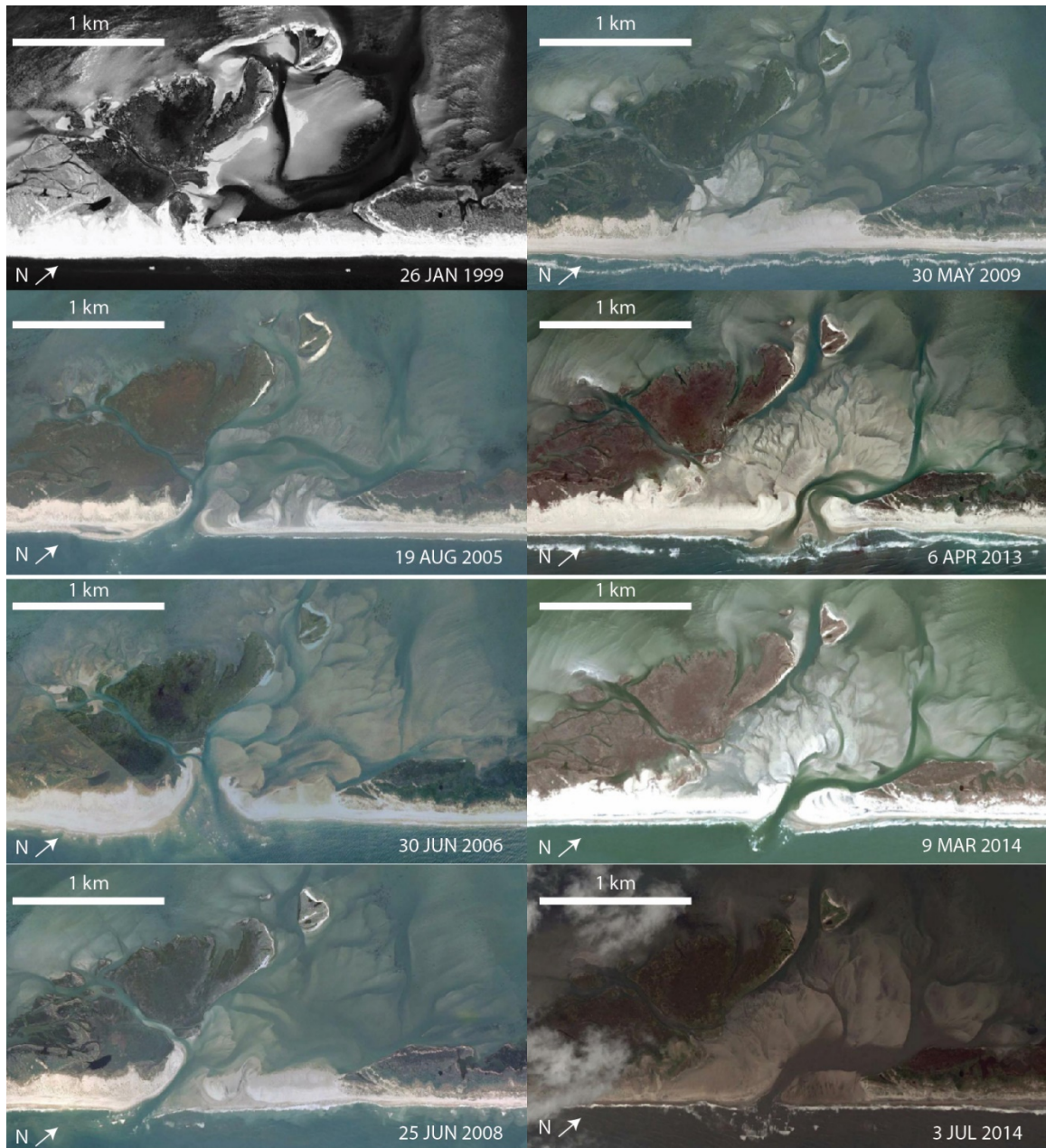


Figure 153: New Old Drum Inlet along Outer Banks, NC. This inlet has been active twice since 1999. The tidal inlet rotated clockwise each time.

The former Cedar Island Inlet was last active from March 1998 to December 2006 or January 2007 (Figures 132 and 154; Hanley, 2015). Cedar Island Inlet had rotated

counterclockwise by September 2005 (Figure 154d). Longshore sediment transport moves in a net southerly direction along this segment of Cedar Island. The northern recurved spit, much like New Drum and Green Run Inlets, extended from the updrift, landward corner of the inlet throat. Sand shoals are observed welding onto the barrier along the downdrift, seaward corner of the inlet in the 2005 image (Figure 154d). Cedar Island Inlet is unique because its northern recurved spit offset the southern recurved spit by the entire width of the barrier island and actually began extending behind the barrier island. A spit is observed beginning to extend to the south along the updrift, seaward corner of the inlet throat (Figure 154d). By 2006, this spit extended across the inlet throat (once again offset from the downdrift side of the inlet) and caused the seaward segment of the inlet throat to rotate clockwise (Figure 154e). Cedar Island Inlet likely rotated clockwise because the tidal prism jet was no longer efficient at removing sediment from the incoming updrift spit. The 2007 image shows the Cedar Island Inlet as closed and it appears that the seaward portion of the inlet throat further rotated clockwise (Figure 154f).

Wilderness Breach, along Fire Island, NY (formed from the impact of Hurricane Sandy in October 2012) has rotated in a clockwise manner (Figure 155). Aerial imagery from March 2012 shows a backbarrier channel of unknown origin (Figure 155a). Imagery following Hurricane Sandy shows the newly formed breach not affected by the backbarrier channel (Figure 155b). The Wilderness Breach appears to have rotated clockwise into the pre-existing channel by September 2013 and is still situated within this pre-existing channel in 2015 imagery (Figure 155c). It appears that Wilderness Breach

initially filled in its accommodation space in the estuary to the south. As the channel rotated clockwise to become more hydraulically efficient and reach additional accommodation space, it migrated into the pre-existing backbarrier channel. As a result of this increased hydraulic efficiency and accommodation space, Wilderness Breach appears to have transitioned into a tidal inlet.

Greenwood and Keay (1979) studied an ephemeral, wave-dominated tidal inlet named North Inlet within the Kouchibouguac Bay of New Brunswick, Canada (Figure 156). This portion of the barrier spit had been subjected to breaching at least twice before the opening of North Inlet. North Inlet was opened between 1970 and 1971 and closed in 1977. Throughout its life span, North Inlet migrated to the south, which is consistent with the direction of longshore sediment transport. The inlet was initially positioned relatively perpendicular to the nearly north-south oriented shoreline. However, over time, the main channel through the flood-tidal delta began infilling (channel #1 in Figure 156). A second channel, oriented northwest-southeast formed and received the flow as the initial channel waned (channel #2 in Figure 156). This northwest-southeast channel configuration aided in eroding the southern (downdrift) side of the inlet throat, attributing to migration rates of ~30 m/yr. North Inlet continued to become more parallel to the barrier-spit shoreline until it infilled in 1977 (Greenwood and Keay, 1979). Greenwood and Keay (1979) attribute the closure of North Inlet to the expansion of the flood-tidal delta, restriction of tidal channels, and rotation of the main flood channel.

Two hypotheses are proposed to explain why the flood-tidal delta of North Inlet was breached. The first hypothesis is that the tidal inlet was rotating to find additional

accommodation space. Significant flood-tidal delta deposits were laid down along channel #1. Channel #2 breached the flood-tidal delta as a result of a lack of accommodation space. The second hypothesis suggests that the flood-tidal delta breach that formed channel #2 was caused by a storm event and the new channel orientation is aligned with the prevalent wind direction of the storm. Channel #1 was 400 m in length and channel #2 was 300 m in length; thus, channel #2 represents the shortest, most efficient path to the estuary. As a result, channel #1 began to infill following the formation of channel. #2.

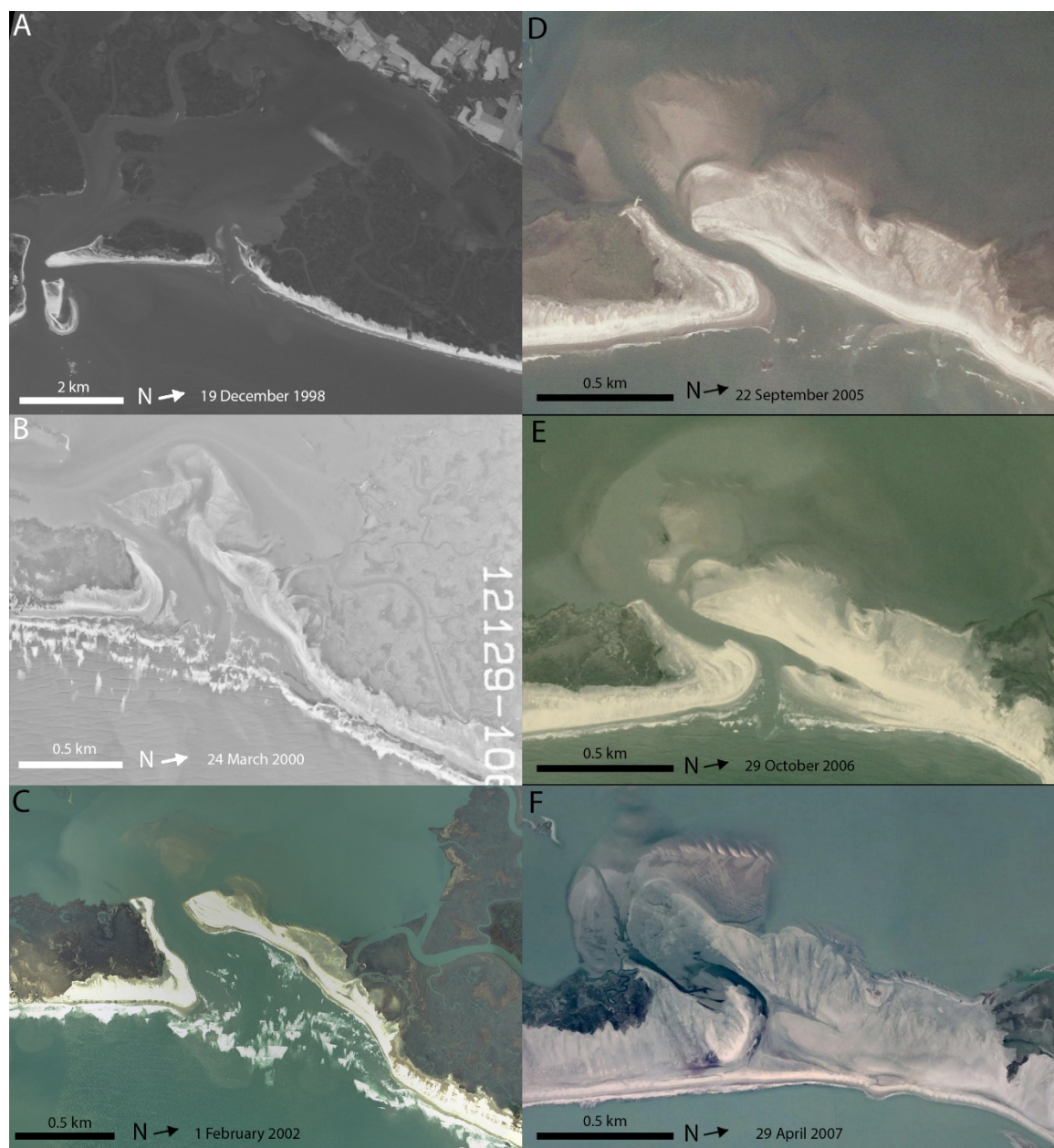


Figure 154: Aerial imagery of the closure of Cedar Island Inlet (Google Earth, 2015). A) Image collected on 19 December 1998 showing Cedar Island Inlet beginning to rotate counterclockwise. B) Image collected on 24 March 2000 showing the inlet continuing to rotate counterclockwise. C) Image collected 1 February 2002 showing the inlet channel narrowing from the backbarrier. D) Image collected on 22 September 2005 displaying the entire length of the channel narrowing. E) Image collected on 29 October 2006 showing the inlet in its waning stages as it rotates clockwise. F) Image collected 29 April 2007 displaying the inlet as filled. The final channel position is still visible in the image.

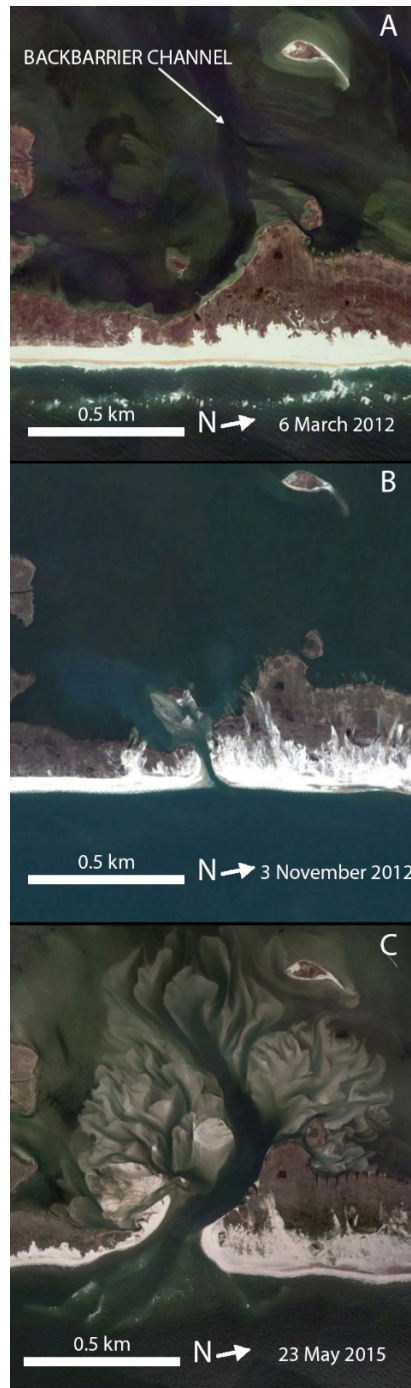


Figure 155: Wilderness Breach, Fire Island, NY (Google Earth, 2015). A) Imagery from 6 March 2012 before Hurricane Sandy impacted Fire Island. Note the location of the pre-existing backbarrier channel. B) Imagery from 3 November 2012. A newly formed breach is observed along Fire Island several days following the impact of Hurricane Sandy. C) Imagery from 23 May 2015 shows the breach transformed into a mature wave-dominated tidal inlet characterized by a well-developed flood-tidal delta. The inlet throat has rotated clockwise and migrated into the pre-existing backbarrier channel.



Figure 156: North Inlet, Kouchibouguac Bay, New Brunswick. A) A 1973 photo of the inlet at a two-channel system. Channel 1 was the original channel of the inlet. Channel 2 represents a newer channel that breached the flood-tidal delta. B) A 1974 photo of the North Inlet rotating clockwise and displaying Channel 2 as the more hydraulically efficient channel and Channel 1 as waning (modified from Greenwood and Keay, 1979).

Militello and Kraus (2001) observed inlet throat rotation of Shinnecock Inlet along Long Island, NY. Their study included hydrodynamic numerical modeling of Shinnecock Inlet and concluded that the channel realignment was caused by eddies created by ebb-tidal jets. It is important to note that Shinnecock Inlet is artificially stabilized as a double jettied inlet, in addition to being regularly dredged. It is unknown if the eddies are related to the hydrodynamics caused by the jetties. No hydrodynamic numerical modeling was conducted on naturally occurring wave-dominated tidal inlets. It appears that inlet channel rotation in naturally occurring wave-dominated tidal inlets is

connected to flood-tidal delta dynamics and availability of accommodation space in the estuary.

Wave-dominated tidal inlets tend to migrate in a counterclockwise motion as demonstrated by Green Run, New Drum, and Cedar Island Inlets, when unimpeded by external influences. Inlets that migrated in a clockwise fashion, such as Wilderness Breach Old New Drum Inlet, and Cedar Island Inlet (in its waning stages) tend to have done so because of external influences (i.e. rotation into a pre-existing backbarrier channel, impeding marsh platform or recurved spit). North Inlet, as studied by Greenwood and Keay (1979), rotated clockwise as a result of flood-tidal delta breaching; however, imagery was not available to determine the presence of any pre-existing barrier or backbarrier features that may have influenced rotation.

Three factors are critically important in the life-cycle of a wave-dominated tidal inlet: tidal prism, sediment supply, and accommodation space. A wave-dominated tidal inlet will remain open so long as the tidal prism jet can entrain and remove sediment deposited within the inlet throat. In the case of wave-dominated tidal inlets, the majority of sediment deposited will be in the flood-tidal delta. Flood-tidal delta deposits will fill in and thus exhaust accommodation space within the estuary (creating bathymetric highs), and thus over time, cause the tidal inlet to become less hydraulically efficient. It appears that the natural process of a wave-dominated tidal inlet is to rotate and wane, because of excess sediment deposition within the flood-tidal delta. The depositional dynamics within the flood-tidal delta ultimately control the rotational habits of the inlet. During rotation, the inlet channel lengthens and thus decreases its hydraulic efficiency and tidal prism.

In order for the wave-dominated tidal inlet to remain active, one of two scenarios must occur: rapid migration or a rejuvenation event. A rapidly migrating inlet will continually expose new accommodation space in the estuary. Tidal inlets that rotated counterclockwise in this study had flood-tidal delta channels migrate downdrift and the inlet throat migrate updrift. This downdrift migration of flood-tidal delta channels enables the depocenter of the flood-tidal delta to be exposed to additional accommodation space; thus allowing the tidal prism to adequately handle the sediment influx. While the flood-tidal delta is mostly a depositional environment, it may periodically be subjected to erosional events, such as flood-tidal delta breaching. A flood-tidal delta breach could rejuvenate the tidal inlet by allowing it access to additional accommodation space within the estuary in addition to a shorter, more hydraulically efficient path.

Geomorphic features suggest that during the counterclockwise rotation of Green Run Inlet, sediment was deposited in the form of lateral spit extension along the updrift, landward corner of the inlet throat, much like in the modern-day analogues. However, ultimately controlling this rotation was the relationship between tidal prism, sediment availability, and backbarrier accommodation space. GPR data demonstrate that Green Run Inlet was migrating in a southerly direction. As it migrated, the flood-tidal delta depocenter shifted downdrift (south) to be exposed to additional accommodation space. None of the provided hypotheses can be rejected as to why wave-dominated tidal inlets rotate and infill. However, Hypothesis #5 (wave-dominated tidal inlets rotate as a result of the relationship between tidal prism, sediment supply, and accommodation space) is

the strongest statement, as the other two hypotheses ultimately are related to Hypothesis #5.

Life-Cycle Models of the Former Green Run and Sinepuxent Inlets

The following section will discuss the life-cycle models of the former Sinepuxent and Green Run Inlets. The inlet life-cycles were developed as a result of geomorphic interpretation, ground-penetrating radar survey (former Green Run Inlet only), analysis of historical aerial photography, and analysis of sediment cores.

Former Sinepuxent Inlet

The closure of this inlet occurred in three stages, indicated by the three distinct groups of ridge sets (Figure 43c). Stage 1 is marked by the formation of the drift-aligned, concave-landward, recurved-spit ridges, which delineated the northern and southern shorelines of the once active inlet. Two hypotheses exist regarding the genesis of the recurved-spit ridges. If Sinepuxent Inlet only breached the barrier island once, then the breach likely occurred along the present northern spit and the inlet migrated in a southerly direction to the southern recurved-spit ridges. The second scenario suggests that the area between the northern and southern recurved-spit ridges served as a breach zone, involving multiple breaches within a concentrated area. Stage 2 is represented by the formation of the swash-aligned, concave-seaward inlet-closure ridges. These ridges formed as the Ash Wednesday storm waned and the resulting short-lived breach that quickly infilled. The inlet-closure ridges first spanned the breach width, closing it. Once

closed, the inlet-closure ridges prograded seaward. Finally, the formation of drift-aligned, shore-parallel beach ridges marked Stage 3 of inlet closure. These ridges prograded to become flush with the adjacent open-ocean shoreline.

Former Green Run Inlet

A five-stage life-cycle model of Green Run Inlet was developed utilizing the aforementioned geomorphic features observed (Figures 157 and 158). The pre-inlet stage is thought to be a narrow, mixed-energy, wave-dominated barrier island containing no recurved-spit ridges. Stage 1 is marked by the opening of Green Run Inlet and the formation of concave-landward, drift-aligned recurved-spit ridges, which delineate the northern and southern extent of the inlet throat. Core GR-15-14 was collected from the Stage 1, drift-aligned, recurved-spit ridge (Figures 98 and 99). Sediments within this core do not demonstrate any significant changes in vertical grain size trends (i.e., no significant fining- or coarsening-upward trends were observed.) Stage 2 marks the start of lateral inlet migration to the south in the direction of net longshore sediment transport. Three drift-aligned, concave-landward ridges begin to extend across the inlet throat. The radius of curvature of each ridge increases seaward. Core GR-15-09 was collected from a Stage 2, drift-aligned, recurved-spit ridge (Figures 87 and 88). The inlet-fill sediments within GR-15-09 fine upward. In Stage 3, the inlet begins to wane and is defined by the formation of a sigmoidal shaped, intermediate inlet-closure ridge, which transitions from a drift- to swash-aligned ridge, further extending across the inlet throat. This stage is characterized by the lengthening of the inlet channel, decreased hydraulic efficiency (i.e.,

decreased tidal prism), and inlet rotation of 30° counterclockwise (highlighted by the depocenter of the flood-tidal delta shifting south). Core GR-15-10 was collected from this intermediate inlet-closure ridge. The core is characterized by a general 1st order coarsening upward succession; however, multiple 2nd order fining and coarsening upward successions were observed within the inlet-fill sediments (Figure 91). Four swash-aligned, concave-seaward beach ridges prograde seaward during Stage 4 of inlet closure. Core GR-15-11 was collected from a Stage 4 swash-aligned ridge (Figure 93). It demonstrates a 1st order fining-upward succession along the bottom of the inlet-fill followed by a 1st order coarsening-upward succession extending to the surface. Three 2nd order fining-upward successions and one 2nd order coarsening-upward succession was observed within the inlet-fill sediments of the overlying 1st order coarsening-upward succession. Cores GR-15-10 (Stage 3 intermediate ridge; Figure 91) and GR-15-11 (Stage 4 inlet-closure ridge) demonstrate 1st order coarsening-upward successions with 2nd order fining-upward trends (with the exception of one 2nd order coarsening-upward trend within GR-15-11) within the inlet-fill deposits. The 1st order trends extend 60 cm or more, while the 2nd order trends span 30 to 50 cm. Stage 5 is defined by the subsequent transition of the beach ridges back to a drift-aligned orientation through beachface accretion and foredune formation along most of the island. Core GR-14-PA3 was collected from this ridge set (Figure 102). The sediments within the inlet fill display a fining-upward succession with several coarse peaks (spikes A, B, and C in Figure 102).

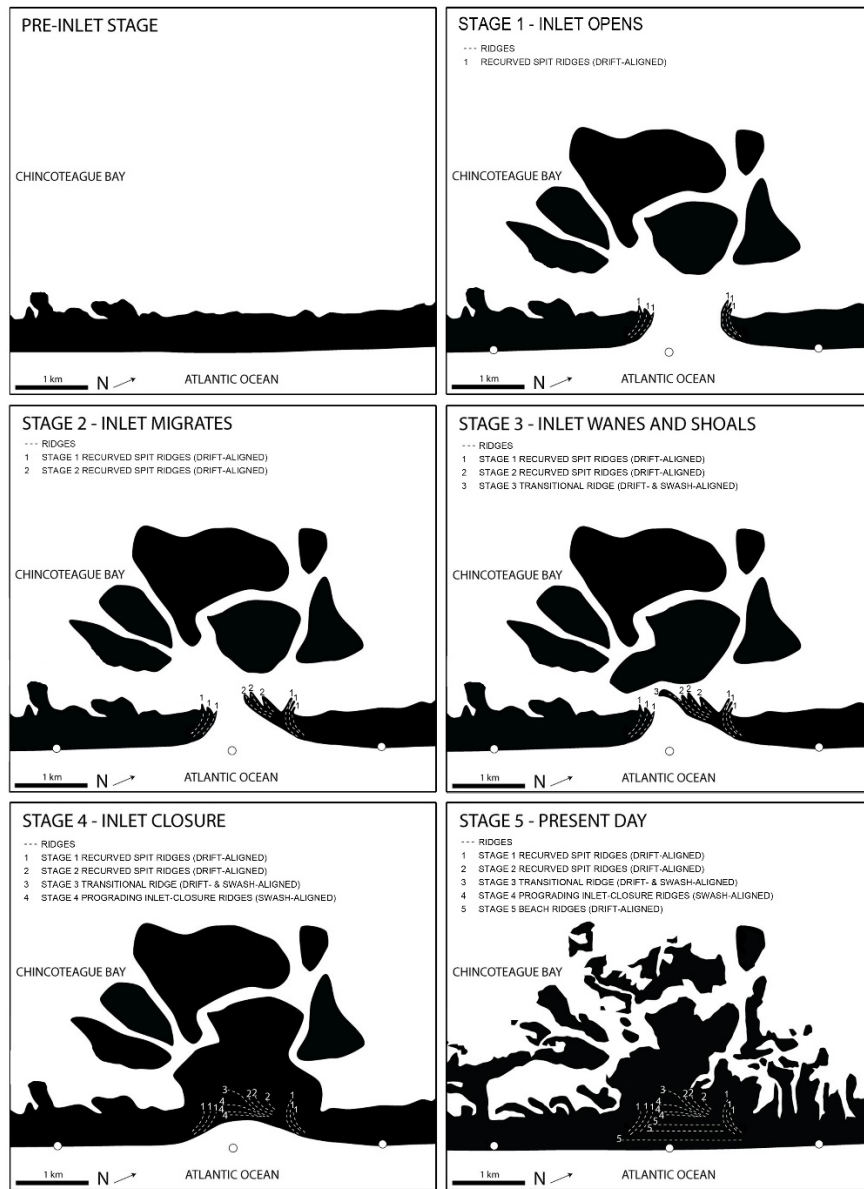


Figure 157: Five-stage life-cycle model of the former Green Run Inlet, a wave-dominated tidal inlet along Assateague Island, MD. A) Pre-inlet stage: No recurved-spit ridges are present along this portion of the barrier island during this stage. **B) Stage 1 – Inlet Open:** The active inlet formed concave landward, drift-aligned recurved-spit ridges, which delineate the width of the inlet throat. **C) Stage 2 – Inlet Migrates:** The inlet begins to migrate laterally to the south in the direction of net longshore sediment transport and a set of concave landward, drift-aligned recurved-spit ridges extend across the inlet throat. **D) Stage 3 – Inlet Wanes and Shoals:** The inlet starts to wane as a sigmoidal shaped intermediate inlet-closure ridge (i.e., drift aligned and swash aligned) extends further across the inlet throat. The inlet channel rotated 30° counterclockwise at this stage, causing the flood-tidal delta to extend to the south. **E) Stage 4 – Inlet Closure:** The inlet is closed indicated by a set of swash-aligned, concave seaward ridges, fully extended across the inlet throat, in-filling the channel. **F) Stage 5 – Present Day:** Prograding beach ridges transitioning back to a drift-aligned orientation and depicts current conditions.



--- RIDGES

1 - STAGE 1 RECURVED-SPIT RIDGES (DRIFT-ALIGNED)

2 - STAGE 2 RECURVED-SPIT RIDGES (DRIFT-ALIGNED)

3 - STAGE 3 TRANSITIONAL RIDGE (DRIFT- & SWASH-ALIGNED)

4 - STAGE 4 PROGRADING INLET-CLOSURE RIDGES (SWASH-ALIGNED)

5 - STAGE 5 BEACH RIDGES (DRIFT-ALIGNED)

Figure 158: Zoomed-in false-color infrared image of the former Green Run Inlet demarcating the ridges associated with the evolution of the former inlet.

Life-Cycle Model for Wave-Dominated Tidal Inlets

A generalized six-stage life-cycle model of a wave-dominated tidal inlet was developed, which describes the evolution of a wave-dominated tidal inlets from their pre-breach stage to post-closure stages (Figure 159). The pre-breach stage represents the most vulnerable segment of the barrier island to breaching. This portion of the barrier island is usually represented by a narrow width (distance from ocean shoreline to backbarrier

shoreline) and lowest topography. Mean grain size may also play a role in the breach location. Basco and Shin (1999) suggest that a mean grain size of 0.4 mm produced the maximum volume loss during a breaching event. Stage 1 represents the barrier breaching event. The breach surge may be landward directed or seaward directed (Davis and FitzGerald, 2004; Kraus et al., 2002). Basco and Shin (1999) suggest that shorter duration storms produce stronger ebb flows while longer duration storms produce stronger flood flows. The breaching event may last hours to days, depending on storm duration. If the breach captures enough tidal prism, it will transition into Stage 2. Stage 2 is characterized by the formation of a flood-tidal delta. Wave-dominated tidal inlets tend to have a tidal prism on the order of 10^6 m^3 (Jarrett, 1976; Seminack and Buynevich, 2013; Hanley, 2015; McBride et al. 2015). From Stage 2, wave-dominated tidal inlets may evolve into one of three migration and rotational categories: counterclockwise, clockwise, or no rotation. As a result, Hypothesis #7, which states that all wave-dominated tidal inlets have similar stages of evolution during their life cycle is not supported. Therefore, Hypothesis #8, which states that wave-dominated tidal inlets can be classified into sub-categories based on different stages of evolution during their life cycle, is supported.

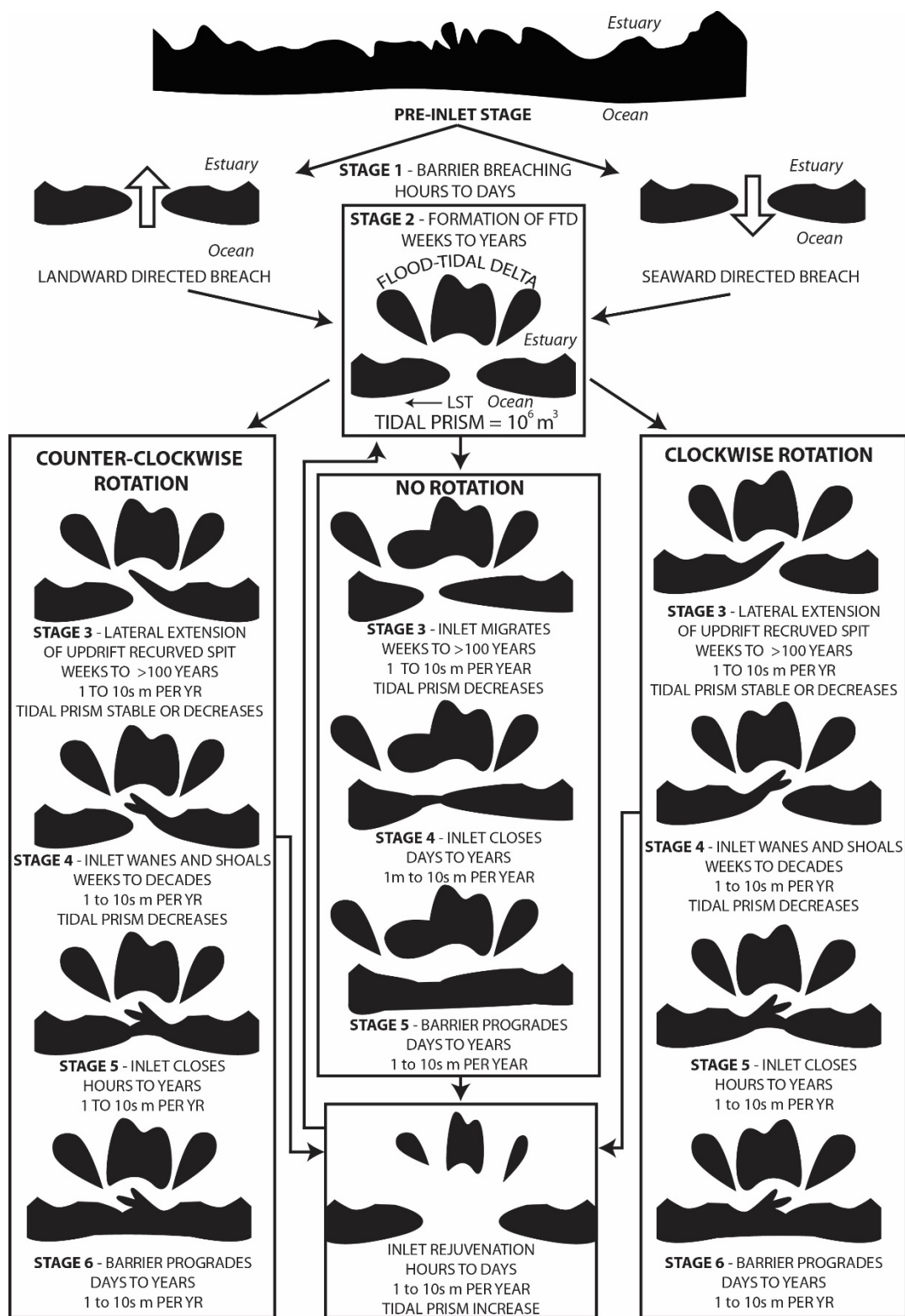


Figure 159: General life-cycle model of wave-dominated tidal inlets.

Stage 3 in counterclockwise rotating inlets is characterized by a lateral, downdrift shift in the flood-tidal delta depocenter. This depocenter shift is a result of the inlet seeking additional accommodation space as the inlet as a whole migrates downdrift. In addition to the flood-tidal delta depocenter shift, extension of the updrift recurved spit occurs in the direction of longshore sediment transport. Sediment accretes laterally along the landward corner of the updrift spit. The downdrift recurved spit may laterally extend against the direction of longshore sediment transport as well. Eventually, the updrift recurved spit will laterally extend downdrift and landward of the downdrift recurved spit. This process may span from weeks to >100 years with sediment accreting from 1 to 10s m per year. Tidal prism may remain stable or decrease during Stage 3 of the wave-dominated tidal-inlet life-cycle model. Tidal inlets that demonstrated counterclockwise rotation include the former Green Run Inlet, Swan Pool Breach, Cedar Island Inlet, and Old Drum Inlet.

In clockwise rotating inlets, Stage 3 will be characterized by lateral, updrift shift in the flood-tidal delta depocenter. This scenario may occur if the flood-tidal delta is limited in accommodation space and/or downdrift inlet migration is slow. Extension of the downdrift recurved spit against the direction of net longshore sediment transport will occur as a result. Sediments accrete laterally along the landward corner of the downdrift spit. The updrift recurved spit may laterally extend in the direction of net longshore sediment transport as well. Eventually, the downdrift recurved spit will laterally extend updrift and landward of the updrift recurved spit. New Old Drum Inlet (Outer Banks, NC); Wilderness Breach (Fire Island, NY); and North Inlet (Kouchibouguac Bay of New

Brunswick) rotated clockwise. New Old Drum Inlet opened seaward of a large protruding marsh platform (Figure 153). The tidal inlet was unable to rotate counterclockwise because the position of the marsh platform had blocked the southerly accommodation space, thus the tidal inlet rotated clockwise on the two occasions it was open. Wilderness Breach eventually flowed into a pre-existing backbarrier channel, which became the path of least resistance and thus created the most hydraulic efficiency (Figure 155). North Beach Inlet rotated clockwise as a result of a new channel breaching its flood-tidal delta (Figure 156). The new channel was more hydraulically efficient and captured tidal prism from the old channel. Within a year, the older channel began to wane and infill. This process may span from weeks to >100 years with the barrier island prograding from 1 to 10s m per year. Tidal prism may remain stable or decrease during this stage of the wave-dominated tidal-inlet life-cycle model.

The remaining stages are the same for clockwise and counterclockwise rotating inlets, while non-rotating inlets exhibit a slightly different evolutionary track. Stage 4 is characterized by the inlet waning and shoaling. An intermediate ridge (both swash- and drift-aligned) extends from the updrift recurved spit in counterclockwise rotating inlets or from the downdrift recurved spit in clockwise rotating inlets, thus increasing the channel length and decreasing the hydraulic efficiency. This stage may last weeks to decades, and the inlet may migrate 1 to 10s m per year. The tidal prism will decrease in Stage 4 for clockwise and counterclockwise rotating wave-dominated tidal inlets. Stage 5 marks the closure of the clockwise and counterclockwise rotating inlet. A swash-aligned, inlet-closure ridge connects the updrift recurved spit to the downdrift recurved spit. This

process may take hours to years, and the outer shoreline in front of the former inlet may accrete 1 to 10s m per year. Tidal prism is terminated during Stage 5 for clockwise and counterclockwise rotating inlets. Stage 6 is characterized by barrier progradation. The barrier progrades to be flush with its updrift and downdrift shorelines. This process may take weeks to years, and the barrier may prograde from 1 to 10s m per year. Richardson (2012) documented that the Cedar Island Inlet prograded up to 30 m/year after it closed.

Inlets that do not rotate close in a different manner than rotating inlets. Tidal inlets that likely experienced little to no rotation include the former Sinepuxent, Old Currituck (VA-NC; McBride and Robinson, 2003; McBride et al., 2004), and Green Run Bay Inlets (Seminack and Buynevich, 2013). Stage 3 for non-rotating inlets is characterized by minimal downdrift migration and the exhaustion of accommodation space within the proximal area of the estuary. The inlet throat will remain at a shore-normal orientation. This stage can last for weeks to >100 years, and the tidal inlet may migrate from 1 to 10 m per year. Tidal prism will eventually decrease in Stage 3 for non-rotating wave-dominated tidal inlets. Stage 4 occurs when the tidal inlet closes. A swash-aligned, inlet-closure ridge connects the updrift recurved spit to the downdrift recurved spit. This process may last days to years, and sediment may accrete at a rate of 1 to 10m per year. Stage 5 is represented by the barrier prograding to be flush with its updrift and downdrift shorelines. This process may last days to years, and the barrier may prograde from 1 to 10m per year.

Storms play a major role in the life-cycle of a wave-dominated tidal inlet. These geomorphic features may be created by the surge produced from an intense storm. Storms

may also cause a tidal inlet to close. A tidal inlet may lose tidal prism and infill because of a more hydraulically efficient tidal inlet is created as a result of an intense storm. However, storm impacts may also keep tidal inlets open. A moderate storm may entrain sediment and deposit it in the flood-tidal delta, eventually causing the tidal inlet to become hydraulically efficient. However, an intense storm may create an energy pulse strong enough to erode portions of the flood-tidal delta or widen the inlet throat, thus allowing the tidal inlet to become more hydraulically efficient after the storm. At any point after Stage 2 in the wave-dominated tidal-inlet life-cycle model, a storm may erode the flood-tidal delta or widen the inlet throat, and thus rejuvenate the inlet, bringing it back to Stage 2. This was observed at New Old Drum Inlet, between 9 March and 23 July 2014 (Figure 153). The July 2014 image was collected shortly after the impact of Hurricane Arthur. The July 2014 image displays a wider, more hydraulically efficient inlet channel than in the March image.

CHAPTER EIGHT: DISCUSSION OF UPDRIFT INFLUENCES ON THE EVOLUTION OF THE SOUTHERN RECURVED SPIT OF ASSATEAGUE ISLAND AND THE EVOLUTION OF OFFSHORE SAND RIDGES

This chapter will analyze Goettle's (1978 and 1981) hypothesis that the former Green Run Inlet directly controlled the evolution of the southern recurved spit complex of Assateague Island, in addition to providing further multiple working hypotheses. The chapter will also discuss the impact that tidal inlets have on the genesis of offshore sand ridges in a sequence stratigraphic context.

Impact of Updrift Tidal-Inlet Dynamics on the Downdrift Evolution of the Large Recurved Spit Complex at the Southern End of Assateague Island

Hapke et al. (2010) demonstrated that the southern recurved spit of Assateague Island is the most efficient sediment trap along the Delmarva Peninsula. The southern recurved spit complex is currently accreting sediment at a rate of approximately 40 m/yr. Goettle (1978 and 1981) hypothesized that the Green Run Inlet, when open (1852-1880), served as a sediment trap and starved the downdrift portion of Assateague Island of sediment. The southern recurved spit of Assateague Island began to rapidly grow once Green Run Inlet closed in 1880 as southerly longshore sediment transport was unimpeded. No tidal inlets were active along Assateague Island from 1880 to 1920 (Goettle, 1978 and 1981). It was during this time period that the southern recurved spit of Assateague Island was experiencing its maximum accretion (Goettle, 1978 and 1981). Goettle (1978 and 1981) states that the lateral extension of the southern recurved spit of

Assateague Island slowed due to the updrift activity of North Sinepuxent Inlet (1920-1929) and Ocean City Inlet (1933-present). However, Hapke et al. (2010) state that the southern recurved spit of Assateague Island is currently undergoing rapid lateral accretion. Since 1880, Assateague Island's southern recurved spit complex has accreted laterally approximately 6 km.

Several studies have documented the effectiveness of tidal inlets as sediment traps (Leatherman et al., 1982; Galgano, 1998, 2007, and 2009; Richardson, 2012; and McBride et al., 2015). As the tidal inlet traps sediment transported alongshore, the downdrift area is starved of sediment. Such examples are Ocean City Inlet and Chincoteague Inlet/southern recurved spit of Assateague Island system. The arc of erosion resulting from Ocean City Inlet extends approximately 12 km to the south, while the arc of erosion resulting from the Chincoteague Inlet/southern recurved spit of Assateague Island extends approximately 35 km to the south, from Wallops Island to Cedar Island (Leatherman et al., 1982; Galgano, 1998, 2007, 2009; Richardson, 2012; McBride et al., 2015). The downdrift arc of erosion that results from the recurved-spit complex and Chincoteague Inlet is also known as the Chincoteague Bight (McBride et al., 2015). Richardson (2012) documents that Parramore Island, VA is now undergoing shoreline retreat along its entire outer shoreline, and thus hypothesizes that the arc of erosion from Chincoteague Inlet is now extending south to Parramore Island.

In order to fully test Goettle's (1978 and 1981) hypothesis (Hypothesis #9), a detailed sediment budget of the southern recurved spit of Assateague Island must be developed. Detailed historical nautical charts are lacking as well, which are another

critical piece of information necessary to test this hypothesis. Historical nautical charts showing detailed bathymetric soundings and shoreline surveys of Assateague Island are non-existent before 1852. The growth rate of the southern recurved spit of Assateague Island before 1850 (pre-Green Run Inlet) is unknown; therefore, it cannot be tested that the closure of Green Run Inlet was the sole cause of the rapid lateral growth of the southern recurved spit of Assateague Island. More detailed studies need to be conducted regarding the amount of accommodation space available offshore, south of Assateague Island's southern recurved spit (Hypothesis #10). Other hypotheses which may explain the rapid growth of the southern recurved spit of Assateague Island include a sudden bathymetric shallowing in the vicinity of Tom's Cove (Figure 160) or fluxes in the sediment volume transported alongshore (Hypothesis #10).

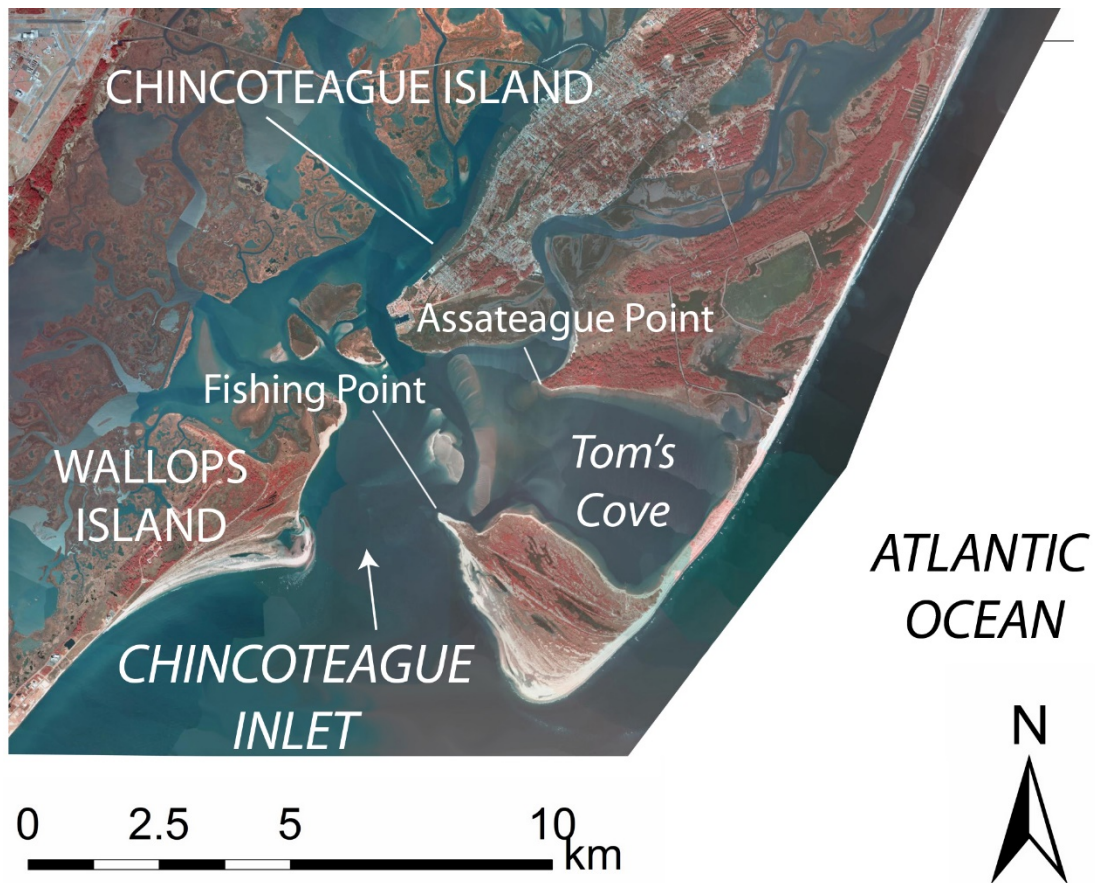


Figure 160: The recurved spit complex at the southern end of Assateague Island.

Assateague Point was the southern terminus of Assateague Island on the 1880 nautical chart (Figure 161). In 1880, sand shoals are observed extending to the south from Fishing Point (different from the present day Fishing Point) to Ship Shoal. By the 1882 nautical chart, Assateague Island extended laterally, mimicking the shallower bathymetry of the southerly extending shoals to Ship Shoal (Figure 162). The 1920 nautical chart depicts the formation of the present day recurved spit (Figure 163). It is possible that wave refraction caused by a deepening in bathymetric soundings may be influencing the recurved geometry of the southern spit of Assateague Island at this location.

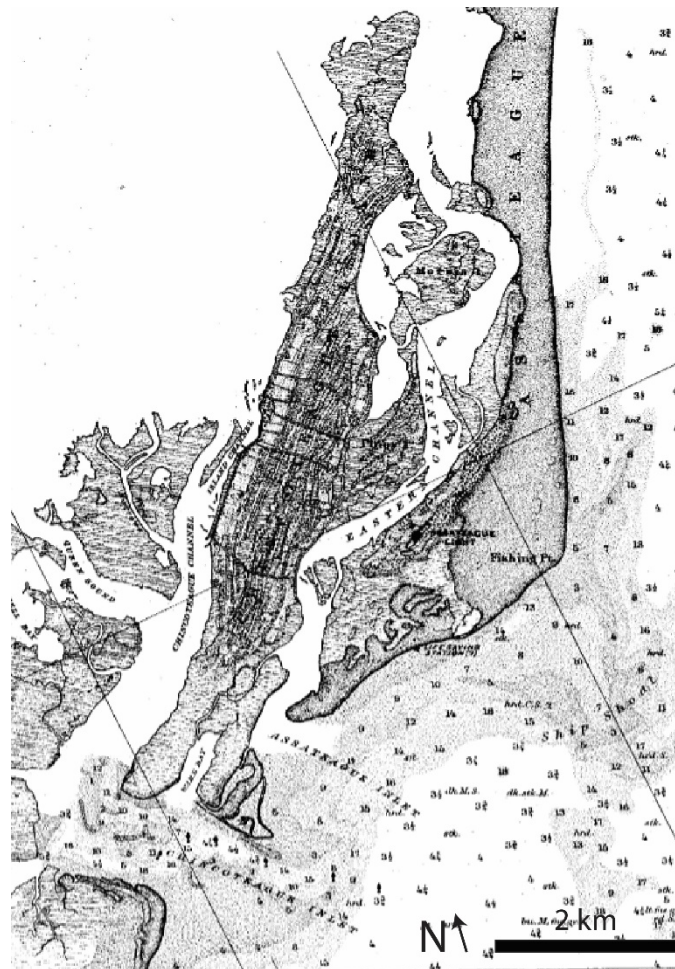


Figure 161: The 1880 shoreline of the southern recurved spit of Assateague Island.

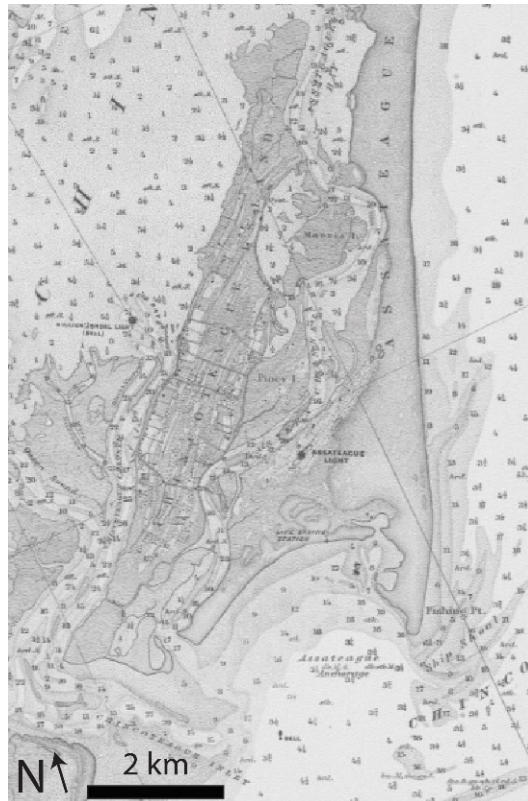


Figure 162: The 1882 shoreline of the southern recurved spit of Assateague Island.

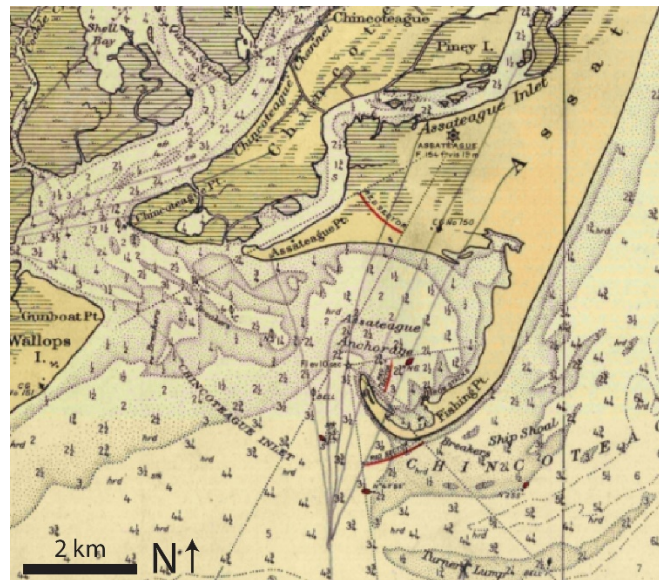


Figure 163: The 1920 shoreline of the southern recurved spit of Assateague Island.

Changes in offshore accommodation space may have played a larger role in the formation of the southern recurved spit of Assateague Island. It appears that the southern recurved spit growth since 1880 has been influenced by offshore bathymetry. Variations in sediment flux may also be playing a large role in the evolution of the southern recurved spit of Assateague Island; however, that hypothesis is more difficult to test. Sediment transported alongshore by the increased energy setting of storm activity may provide a significant sediment volume to the southern recurved spit of Assateague Island. Not enough evidence is present to decide which hypothesis plays the greatest role in the evolution of the southern recurved spit of Assateague Island, or if it is a combination of the aforementioned hypotheses.

Wave-Dominated Tidal Inlets, Ebb-Tidal Deltas, and the Evolution of Shelf Sand Ridges

The U.S. Atlantic shoreline is currently being influenced by transgression. The U.S. Mid-Atlantic, open-ocean coast is experiencing the second greatest rates of sea-level rise, after the Louisiana Gulf Coast (Hapke, 2010; NOAA, 2014). Assateague Island formed ~2,000 kya (Goettle, 1981) by lateral spit extension (Fisher, 1968a). Under the influence of a transgression, little of the barrier-island is preserved. A thin sand veneer may be left behind as the transgression drives the barrier island landward (Swift, 1975). The most likely part of a barrier island that will be preserved during a transgression will be the lower portion of the tidal-inlet fill which scours into the underlying strata, both of which must lie below the marine ravinement surface (Moslow and Heron, 1978; Foyle and Oertel, 1997). However, wave-dominated tidal inlets do not scour as deep as tide-

dominated inlets. For example, the former Green Run Inlet scoured down 3.75 m and the former Sinepuxent Inlet scoured down to a maximum of 5.19 m. The tide-dominated Wachapreague Inlet reaches depths of 21.9 m, an order of magnitude greater than the wave-dominated tidal inlets of Assateague Island. Thus, tidal-inlet fill is more likely to be preserved associated with a mixed-energy, tide-dominated barrier-island setting.

As a transgression continues to move a barrier island landward, shoreface sand ridges may form. The continental shelf offshore Assateague Island has one of the best developed sand ridge fields globally (McBride and Moslow, 1991). Three ridge types exist along the Assateague coast: shoreface ridges, nearshore ridges, and offshore ridges (Swift and Field, 1981). A systematic morphologic change reflects the changing hydraulic regime among the three categories of sand ridges (Swift and Field, 1981). In a seaward direction, the slope of the ridges decrease, ridges become more symmetrical, and ridge cross-sectional area increases (Swift and Field, 1981). Grain size is coarsest between the axis of the landward trough and the ridge crest (Swift and Field, 1981). One notable ridge is offshore the former Green Run Inlet (Figure 164). McBride and Moslow (1991) proposed a six-stage model for the origin and evolution of shoreface sand ridges and postulated that the origin of these shore-oblique sand ridges is related to the reworking of ebb-tidal deltas of former wave-dominated tidal inlets (Figure 165).

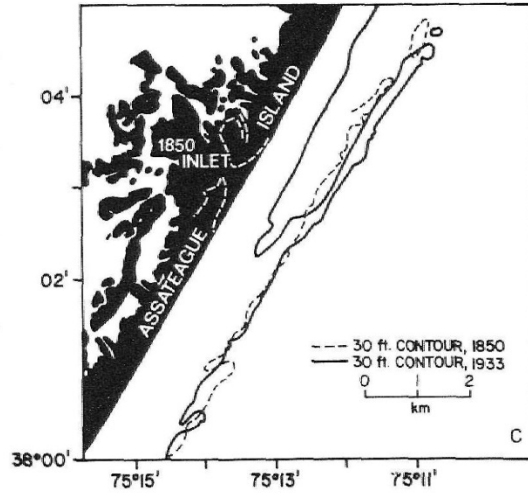


Figure 164: Shore-oblique sand ridge fronting the former Green Run Inlet (from Swift and Field, 1981).

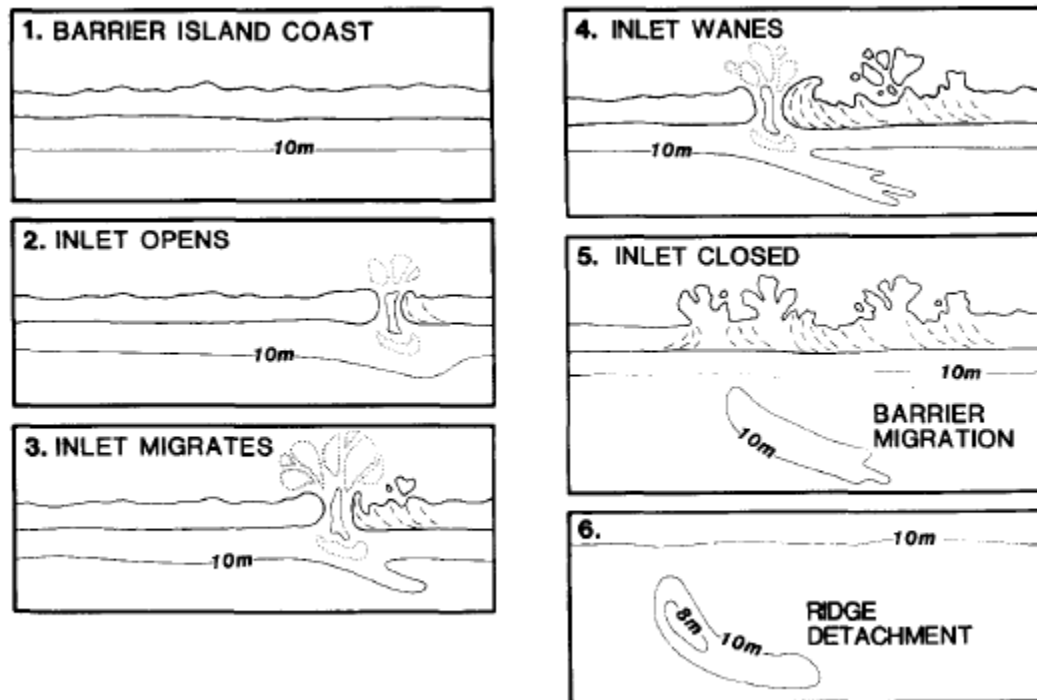


Figure 165: Six-stage model for the origin, evolution and distribution of shoreface sand ridges (from McBride and Moslow, 1991).

Robinson and McBride (2008) state that a series of offshore sand ridges along the VA-NC inner shelf contain a base of estuary mud truncated by a transgressive ravinement surface. Overlying the ravinement surface are offshore deposits which owe a portion of their genesis to ebb-tidal delta deposits. Similar findings were also documented in modern shelf sand ridges along the New Jersey coast by Snedden et al. (1999). Snedden et al. (1999) suggest that the lower ridge sands originated within the vicinity of tidal inlets, while upper ridge sands form in open marine conditions. They also document inlet channel features directly underlying the swales associated with the offshore ridges (Figure 166; Snedden et al., 1999). Snedden et al. (1999) concluded that tidal inlet and ebb-tidal delta complexes may form the nucleus for sand ridge development. Snedden et al. (2011) created a migrational model for offshore sand ridges which described ebb-tidal delta deposits evolving into shoreface attached sand ridges, which detach and migrate (Figure 167). In their model, Snedden et al. (2011) documented the detached sand ridges migrating along the modern transgressive ravinement surface and over a Pleistocene aged paleo-channel. The paleo-channel is hypothesized to be partially filled with Holocene-aged estuarine deposits. Lower ridge sands completely fill the paleo-channel as the ridge migrates over the feature (Snedden et al., 2011).

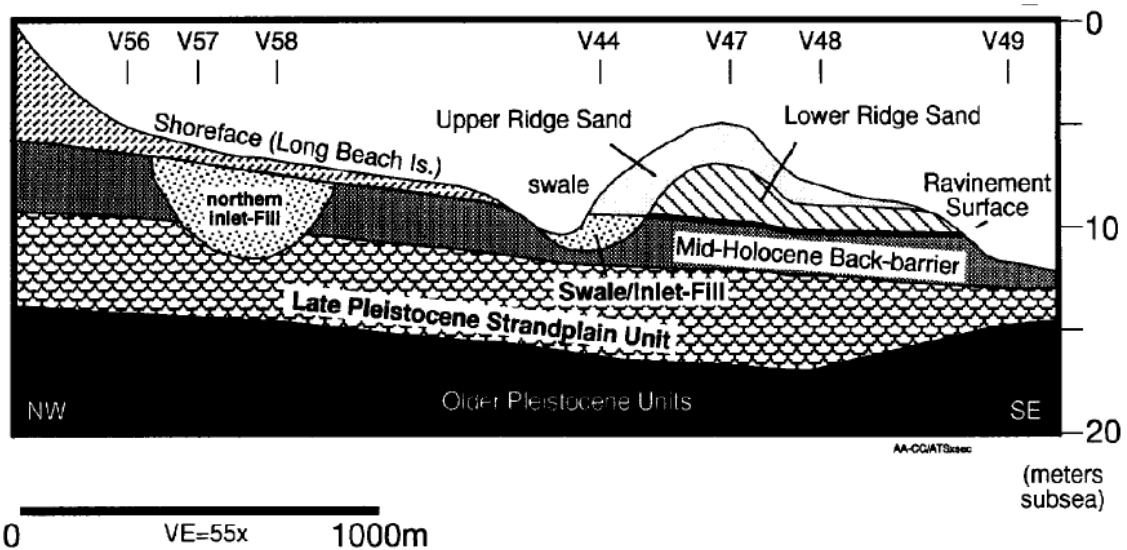


Figure 166: Evolution of offshore sand ridges. Note how tidal-inlet-fill deposits directly underlie swales associated with the sand ridges (from Snedden et al., 1999).

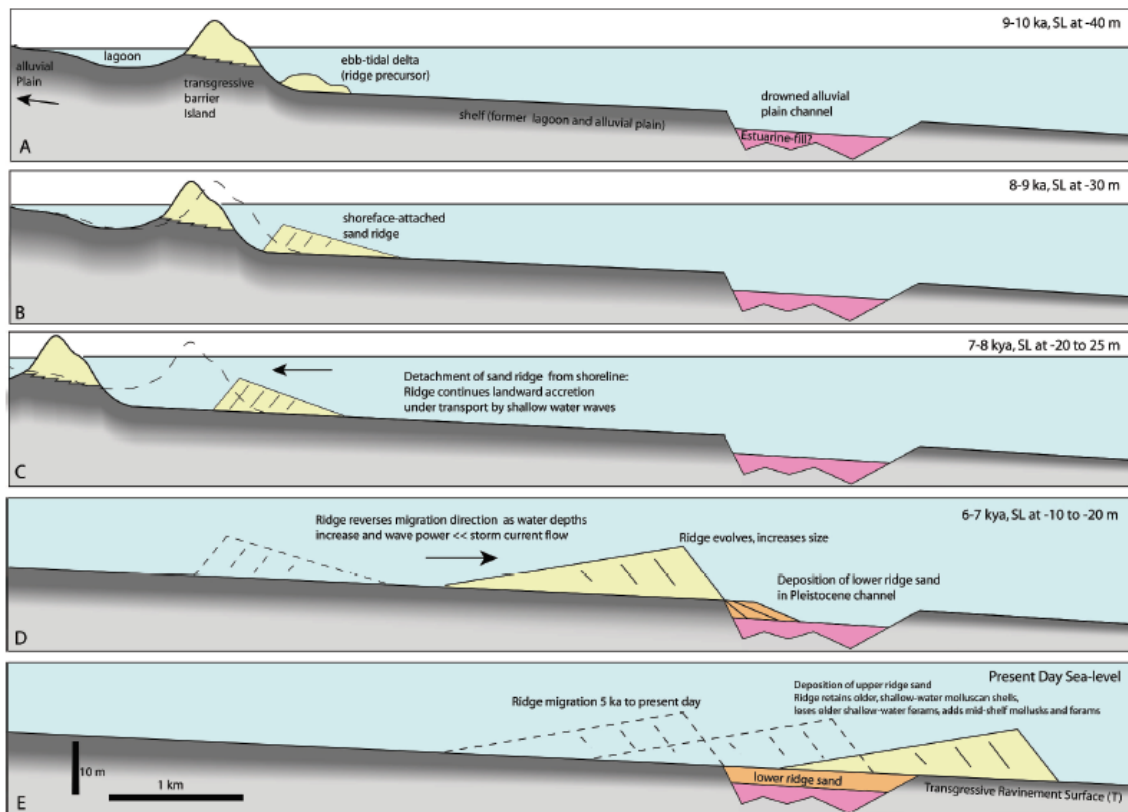


Figure 167: Evolutionary model of offshore sand ridges (from Snedden et al., 2011).

Figure 168 shows the former inlet locations of Assateague Island overlaid on a bathymetric map (Swift and Field, 1981). Of the 12 former tidal inlets and breaches along Assateague Island, only the former Sinepuxent, Green Run Bay, Green Run, and Cherry Tree Inlets presently have associated shoreface sand ridges. The ridge associated with the former Sinepuxent Inlet spans 3.2 km. It is oriented on an azimuth of 25° and forms an angle of 10° with the adjacent coastline. The crests of this shoreface sand ridge occur between -7.6 and -9.1 m mean lower low water (MLLW). A shore-oblique ridge extends across the former Green Run and Green Run Bay Inlets (as documented by Swift and Field, 1981; Figure 164), extending 5.6 km, from the southernmost extent of Green Run Inlet, northward to Whittington's Point. This ridge is oriented on an azimuth of 30° and is nearly parallel with the adjacent coastline. The crests of this shoreface sand ridge occur between -6.1 and -8.5 m MLLW. Finally, the shoreface sand ridge associated with the former Cherry Tree Inlet is 6.4 km in length. This ridge is oriented on an azimuth of 53° and forms an angle of 21° with the adjacent shoreline. The crests of this shoreface sand ridge occur between -3.7 and -9.1 m MLLW.

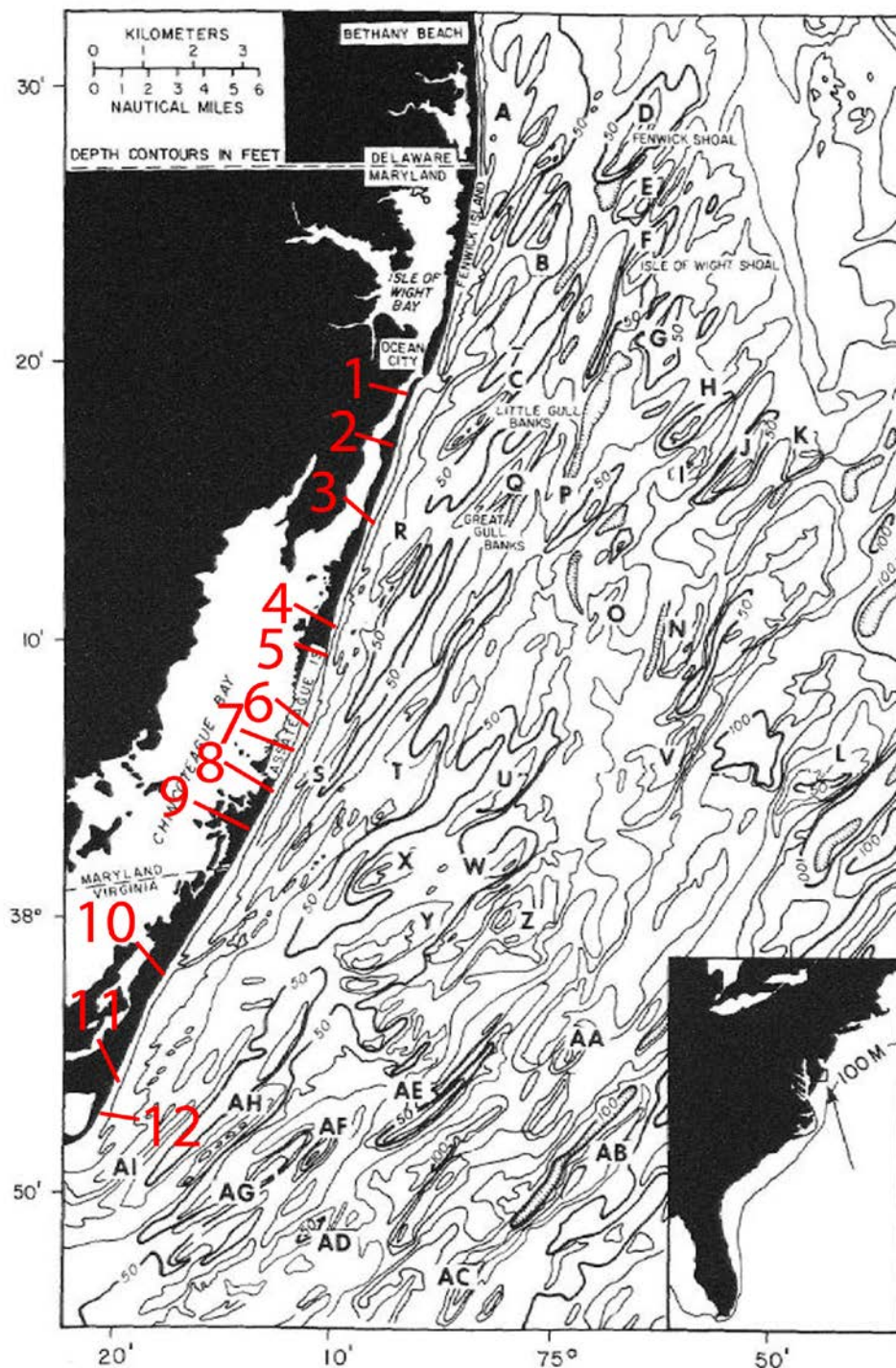


Figure 168: Bathymetric map of the area surrounding Assateague Island, MD-VA with former inlet and breach locations indicated (modified from Swift and Field, 1981). Bathymetric soundings are in feet. The numbering of inlet and breach locations are as follows 1) Northern Assateague Breach zone, 2) North Sinepuxent, 3) Sandy Point Inlet, 4) North Beach Inlet, 5) Sinepuxent Inlet, 6) Fox Hills and Winter Quarter Breach zone, 7) Slough

Inlet, 8) Green Run Bay Inlet, 9) Green Run Inlet, 10) Cherry Tree Inlet, 11) Swan Pool Breach, and 12) Tom's Cove Breach zone.

Former tidal inlets play an important role in the development of offshore sand ridges (McBride, 1991; Snedden et al., 1994, 1999; Snedden and Dalrymple, 1999; Robinson and McBride, 2008; Snedden et al., 2011). Because wave-dominated barrier islands are especially prone to breaching events and inlet formation, this coastal setting may host a significant population of offshore sand ridges. Offshore sand ridges along with tidal-inlet-fill deposits have the best chances of being preserved in the rock record following a transgression. Offshore sand ridges continue to be of interest to the petroleum industry and therefore are an economically valuable resource (Snedden et al., 1999).

CHAPTER NINE: CONCLUSIONS

This study analyzed the historical tidal-inlet chronology of Assateague Island, MD-VA, as well as the morphodynamics of these former tidal inlets and compared them to other wave-dominated settings. Multiple techniques, such as analysis of historical nautical charts and maps, true-color and infrared aerial imagery, LIDAR data sets, analysis of sediment cores, and ground-penetrating radar surveys, were required to develop high-resolution reconstructions of the former Green Run and Sinepuxent Inlets. The primary goal of this study was to develop a life-cycle model of wave-dominated tidal inlets. The objectives addressed by the study are: 1) develop a detailed inlet chronology throughout the historical period for Assateague Island; 2) conduct detailed vertical grain size trend analyses of inlet fill deposits; 3) reconstruct the three-dimensional stratigraphic architecture of Green Run and Sinepuxent Inlets utilizing sediment cores and GPR data; and 4) reconstruct the morphodynamics of the former Green Run and Sinepuxent Inlets including the calculation of inlet throat cross sectional areas and tidal prisms.

The following primary conclusions were developed regarding the Assateague Island barrier-island system and its wave-dominated tidal-inlet complexes:

1. At least 12 former tidal inlets and breach zones existed along Assateague Island in the past and account for 34% of the barrier-island deposits. These former inlets and breaches include the Northern Assateague Breach zone, North Sinepuxent

Inlet, Sandy Point Inlet, North Beach Inlet, Sinepuxent Inlet, Fox Hills and Winter Quarter Breach zone, Slough Inlet, Green Run Bay Inlet, Green Run Inlet, Cherry Tree Inlet, Swan Pool Breach, and Tom's Cove Breach zone. Previous studies contained a number of discrepancies in tidal-inlet nomenclature and locations primarily because of the lack of high-resolution base maps upon which tidal-inlet information was compiled.

2. The quality of geomorphic expression at these former tidal inlets and breaches varies based on a number of natural and anthropogenic variables. The Northern Assateague Breach zone and North Sinepuxent Inlet preserve few to no inlet-related geomorphic features because of the landward migration of northern Assateague Island as a result of the downdrift erosion caused by the jettied Ocean City Inlet. Locations of the North Beach and Sinepuxent Inlets have been adjusted based on historical context and geomorphic features. The former Sinepuxent Inlet displays excellent geomorphic features, most notably well pronounced recurved-spit ridges and more subtle inlet-closure ridges. In total, three ridge sets were identified at the former Sinepuxent Inlet, which were utilized to create a three-stage life-cycle model of the former inlet. The Fox Hills and Winter Quarter Breach zone, as well as the Slough Inlet, likely consisted of multiple short-lived breaches and therefore, do not depict the geomorphic expression of a single, mature tidal inlet. The area is characterized by recurved-spit ridges, possible inlet-closure ridges, and inlet channel scars. Green Run Bay Inlet is an example of an older former inlet that no longer expresses subaerial geomorphic features; the

only surficial evidence of the former inlet is a channel within the Chincoteague Bay extending landward from the barrier island. Green Run Inlet is characterized by recurved-spit ridges; a large, well-developed relict flood-tidal delta; relict inlet ponds; and inlet-closure ridges. The aforementioned geomorphic features were utilized to develop a five-stage life-cycle model of the historical Green Run Inlet. Cherry Tree Inlet was located in the Virginia portion of the barrier island and displays recurved-spit ridges and inlet channel scars on southern Assateague Island, as well as truncated beach ridges along nearby Chincoteague Island. Swan Pool Breach was characterized by subtle inlet-closure ridges and a poorly developed relict flood-tidal delta. No geomorphic features from Tom's Cove Breach zone were observed because of a lack of aerial imagery following the infilling of the breach zone.

3. Fisher (1962) identified geomorphic features of former tidal inlets, including relict flood-tidal deltas, relict flood-tidal delta channels, relict recurved-spit ridges, relict-inlet ponds, and interrupted beach ridges. Inlet-closure ridges were first delineated by Leatherman (1985). Subsequently, Krantz (2009) defined and described inlet-closure ridges, and he discussed a possible closure model utilizing these geomorphic features. In general, inlet-closure ridges are < 2 m in height and more subtle than adjacent recurved-spit ridges. The tallest inlet-closure ridges (~ 1.6 m) are equivalent in height to the shortest recurved-spit ridges. It appears as though inlet-closure ridges exist along other wave-dominated tidal inlets, such as Outer Banks, NC; Fire Island, NY; Cedar Island, VA, and likely elsewhere. The

identification of these subtle geomorphic features aid in the understanding of tidal-inlet dynamics and are a critical tool in developing accurate life-cycle models of former wave-dominated tidal inlets.

4. In total, 21 sedimentary facies were identified within the subsurface deposits of the former Green Run and Sinepuxent Inlets. Primary facies include sand and silt deposits, characterized by planar laminations, cross laminations, massive bedding, normally-graded bedding, and bioturbation. Seven depositional environments were interpreted from the facies and include: inlet fill, estuary, beach/washover/aeolian, recurved spit, salt marsh, flood-tidal delta, and tidal creek. In general, the barrier-island deposits are underlain by estuarine sediments. An erosional surface (channel diastem) separates the estuarine deposits and the overlying inlet fill. Inlet-fill deposits along the former Sinepuxent Inlet reached a maximum thickness of ~5.5 m. Inlet-fill deposits along the former Green Run Inlet reached a maximum thickness of ~4.5 m. A gradual contact laterally separates inlet-fill deposits from flood-tidal delta deposits. The flood-tidal delta deposits reached a thickness of 1 to >4 m. Inlet-fill deposits were generally overlain by beach/washover/aeolian deposits and separated by gradual contacts. Flood-tidal delta deposits were overlain by salt marsh deposits and separated by gradual contacts. Finally, inlet-fill deposits transitioned laterally to the north and south into recurved-spit deposits. Recurved-spit deposits varied in thickness from 2 to >4 m.

5. Kumar and Sanders (1974) and Moslow and Tye (1985) concluded that inlet-fill deposits are characterized by a fining-upward succession, with a coarse channel lag at the base and fine aeolian sands at the top. Most of the sediment cores collected from the former inlet throat did agree with the finding of these two previously mentioned studies. However, three cores within the former Green Run Inlet exhibited a coarsening-upward succession. Two of the cores were collected from an inlet-closure ridge and one was collected from a transitional ridge. The fill succession from transitional and inlet-closure ridges appear to have the same sedimentological signature as that of a prograding barrier-island succession.
6. Some sediment cores exhibited 2nd order grain-size trends within a 1st order grain-size trend (e.g., 2nd order fining-upward successions within a general 1st order coarsening-upward succession). These 2nd order grain-size trends, specifically the upward coarsening trends, most likely occur because of energy pulses (i.e., higher flow velocities associated with increased tidal prism) within the system. These short-term increases in flow velocities are likely caused by spring high tides, perigean spring high tides, and/or storm impacts.
7. The former Green Run and Sinepuxent Inlets were subjected to the same coastal processes, yet have different preserved geomorphic features. A large, well-developed flood-tidal delta is preserved at the former Green Run Inlet site, whereas a poorly-developed flood-tidal inlet is found at the former Sinepuxent Inlet location. Although no definitive answer was concluded, three hypotheses were developed to explain the lack of a well-developed flood-tidal delta at the

former Sinepuxent Inlet: 1) the former Sinepuxent Inlet was subjected to multiple ephemeral breaching events, which deposited small flood-tidal deltas and/or washover fans that overtime coalesced to form a single amalgamated but poorly defined flood-tidal delta; 2) the possible existence of Holocene-aged, paleo-barrier islands located along the backbarrier of Assateague Island, which impeded tidal and/or overwash flow through Sinepuxent Inlet, thus restricting any flood-tidal delta and/or washover fan deposits in a landward direction thus causing the former inlet to infill quickly after opening; and 3) a combination of hypotheses 1 and 2 – multiple ephemeral breaches whose flood-tidal deltas and/or washover fans were restricted by a backbarrier, Holocene-aged, paleo-barrier-island chain. Sediment core data, surficial geomorphic features, and historical aerial photography suggest multiple breaching events were likely within the former Sinepuxent Inlet area. More data are required to confirm the existence of a backbarrier, Holocene-aged, paleo-barrier-island chain.

8. Life-cycle models were constructed for the former Green Run and Sinepuxent Inlets. A five-stage life-cycle model was developed for the former Green Run Inlet. In Stage 1, the inlet opens and drift-aligned, recurved-spit ridges are formed that delineate inlet width. Stage-2 occurs as the inlet begins to migrate in a southerly direction. Drift-aligned, recurved-spit ridges extend from the northern Stage 1, recurved-spit ridges. Stage 3 occurs as the former inlet channel begins to lengthen and experiences increased hydraulic inefficiency. The sigmoidal shaped transitional ridge forms as the inlet channel rotates counterclockwise 30° and, in

response, the flood ramp extends to the south. The inlet channel narrows, wanes, and eventually closes. Stage 4 occurs as the swash-aligned, inlet-closure ridges extend across the inlet-throat. Stage 5 is characterized by progradation of drift-aligned beach ridges to thus depict present conditions. A GPR survey imaged the final channel position and dimensions of Green Run Inlet, which was used to calculate a tidal prism of $2.79 \times 10^6 \text{ m}^3$ for the former inlet. The former Sinepuxent had a more complex history than Green Run Inlet. Analysis of the pre- and post-Ash Wednesday aerial photography suggest that the preserved geomorphic features were heavily reworked as a result of past intense storms. Stage 1 of the former Sinepuxent Inlet is represented by the formation of the northern and southern drift-aligned recurved-spit ridges. These ridges delineate the extent of the breach zone. Stage-2 ridges are represented by swash-aligned inlet-closure ridges resulting from a likely breach event during the 1962 Ash Wednesday storm. The swash-aligned ridges grade back to drift-aligned, shore-parallel beach ridges in the third and final stage of the inlet life-cycle. Tidal prism for the former Sinepuxent Inlet was calculated utilizing core data to determine maximum depths of inlet scouring, as well as a comparison to the former Green Run Inlet. The former Sinepuxent Inlet likely exhibited a tidal prism of $\sim 8.71 \times 10^6 \text{ m}^3$ when open.

9. Three factors are critically important in the life-cycle of a wave-dominated tidal inlet: tidal prism, sediment supply, and accommodation space. A wave-dominated tidal inlet will remain open so long as the tidal prism jet can entrain and remove

sediment deposited within the inlet throat. In the case of wave-dominated tidal inlets, the majority of sediment deposited will be in the flood-tidal delta. Flood-tidal delta deposits will fill in accommodation space within the estuary, and thus over time, cause the tidal inlet to become less hydraulically efficient. It appears that the natural process of a wave-dominated tidal inlet is to rotate and wane, because of excess sediment deposition within the flood-tidal delta. The depositional dynamics within the flood-tidal delta ultimately control the rotational habits of the tidal inlet. During rotation, the inlet channel lengthens, hydraulic efficiency decreases, and tidal prism decreases. In order for a wave-dominated tidal inlet to remain active, one of two scenarios must occur: rapid migration or a rejuvenation event. A rapidly migrating inlet will subsequently expose new accommodation space in the estuary. Tidal inlets that rotated counterclockwise in this study had flood-tidal delta channels migrate downdrift and the inlet throat migrate updrift. This downdrift migration of flood-tidal delta channels allows the depocenter of the flood-tidal delta to be exposed to additional accommodation space. Intense storm events may also increase the accommodation space within the flood-tidal delta. Such rejuvenation events may breach a more hydraulically efficient path through the flood-tidal delta or entrain flood-tidal deposits, thus enabling the inlet access to additional accommodation space.

10. A generalized life-cycle model was developed for wave-dominated tidal inlets based on initial breaching direction (landward or seaward) and rotation direction (clockwise-downdrift, counterclockwise-updrift, or non-rotation). Rotating tidal

inlets follow a six-stage evolutionary model, while non-rotating tidal inlets follow a five-stage evolutionary model.

11. Goettle (1978 and 1981) hypothesized that the Green Run Inlet served as a sediment trap and starved the downdrift portion of Assateague Island of sediment. The southern recurved spit of Assateague Island began to rapidly grow once Green Run Inlet closed in 1880. Since 1880, the Assateague Island's southern recurved spit has accreted laterally approximately 6 km. However, changes in offshore accommodation space may have played a larger role in the formation of the southern recurved spit of Assateague Island. It appears that the southern recurved spit growth since 1880 may have been influenced by offshore bathymetry. Variations in sediment flux transported alongshore may have also played a role in the evolution of the southern recurved-spit complex of Assateague Island. Not enough evidence is present to determine which hypothesis plays the greatest role in the evolution of the southern recurved spit complex of Assateague Island, or if it is a combination of the aforementioned hypotheses.
12. Sand from tidal inlet systems along barrier islands are incorporated into shoreface sand ridges. McBride and Moslow (1991) proposed a model synthesizing the genetic relationship among former tidal inlets, ebb-tidal deltas, and shoreface sand ridges where ebb tidal deltas evolve into shoreface sand ridges. The location and morphodynamics of former wave-dominated tidal inlets along Assateague Island most likely played a primary role in the development of the extensive shelf sand ridge field offshore Assateague Island. Four of the 12 former tidal inlets and

breaches along Assateague Island, Sinepuxent, Green Run Bay, Green Run, and Cherry Tree Inlets, presently have associated shoreface-attached sand ridges.

Future Research

Future research that needs to be addressed includes continued coring and age-dating of the additional former tidal inlets along Assateague Island, including North Beach Inlet, Slough Inlet, Fox Hills and Winter Quarter Breach zones, and Cherry Tree Inlet. Dating of the former inlets will be critical in determining the average activity phase of a wave-dominated inlet and lateral migration rates. Additional work that is also needed includes coring and age dating of the hypothesized Holocene-aged, paleo-barrier-island chain which Krantz et al., (2009 and 2015) suggest extends north from Chincoteague Island to the former Green Run Inlet, but may even extend to the North Beach Inlet zone. Continued research on the potential paleo-barrier-island chain backing Assateague Island will serve as an ancient analogue for the barrier-island overlapping that has occurred as Chincoteague Island and is presently occurring at Wallops Island.

Finally, a detailed sediment budget is needed along the southern recurved spit complex of Assateague Island. A sediment budget will assist in a better understanding of updrift inlet dynamics along Assateague Island, as well as assist in analyzing the arc of erosion that is affecting the Virginia barrier islands south of Assateague Island to Parramore Island. Such work could help prove or disprove the Goettle (1978 and 1981) hypothesis.

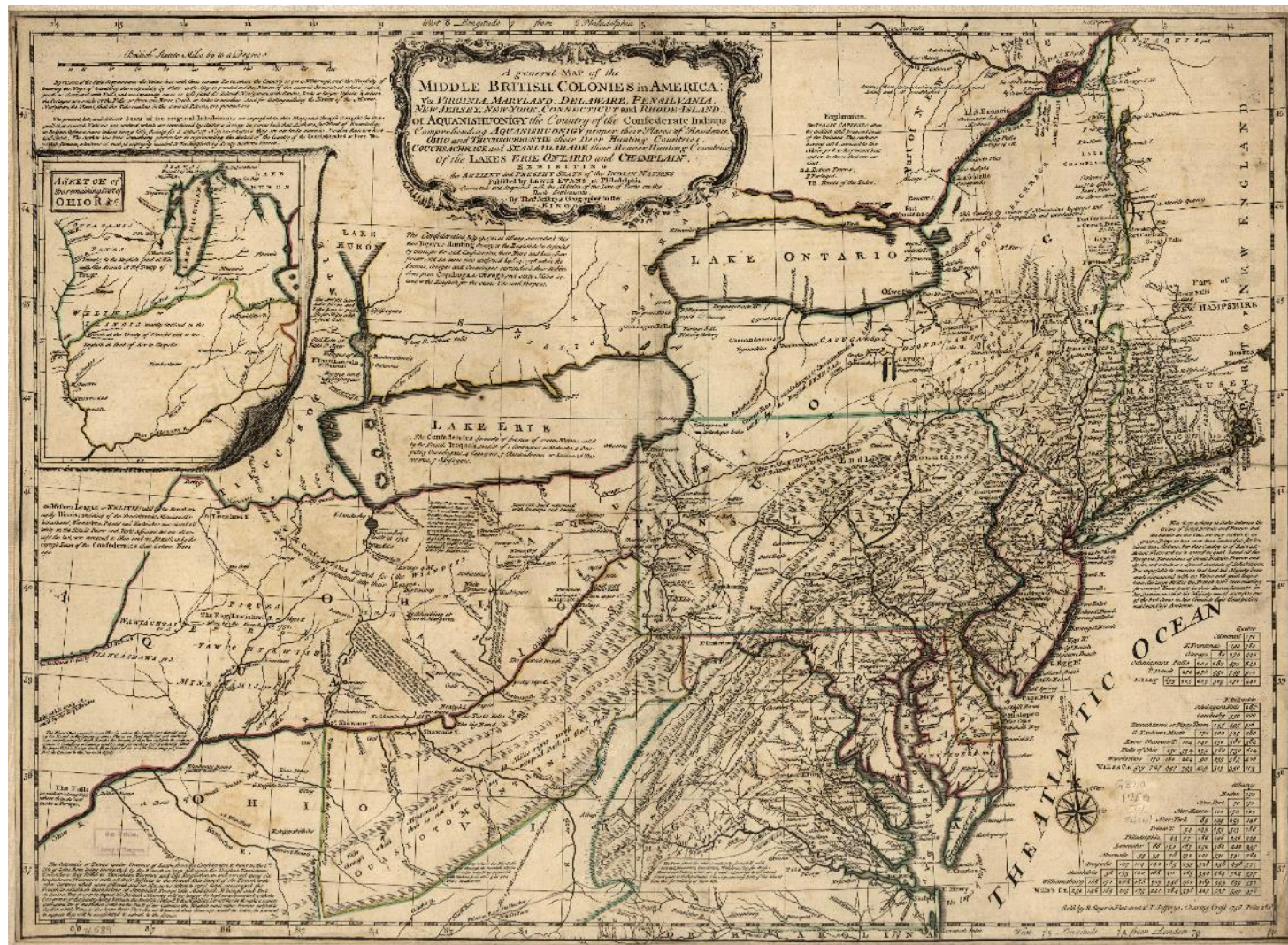
APPENDIX A – HISTORICAL MAPS AND CHARTS

Appendix A (29 pages): Historical maps and nautical charts that were of significance in developing the inlet chronology of Assateague Island, MD-VA. T-sheets were accessed from the NOAA Coastal Services Office (Charleston, South Carolina). Other historical maps were examined at the U.S. Library of Congress map archive in Washington, D.C. The 29 most important maps and charts to the study are provided and range in age from 1755 to 1980. The following charts and maps are provided in chronological order.

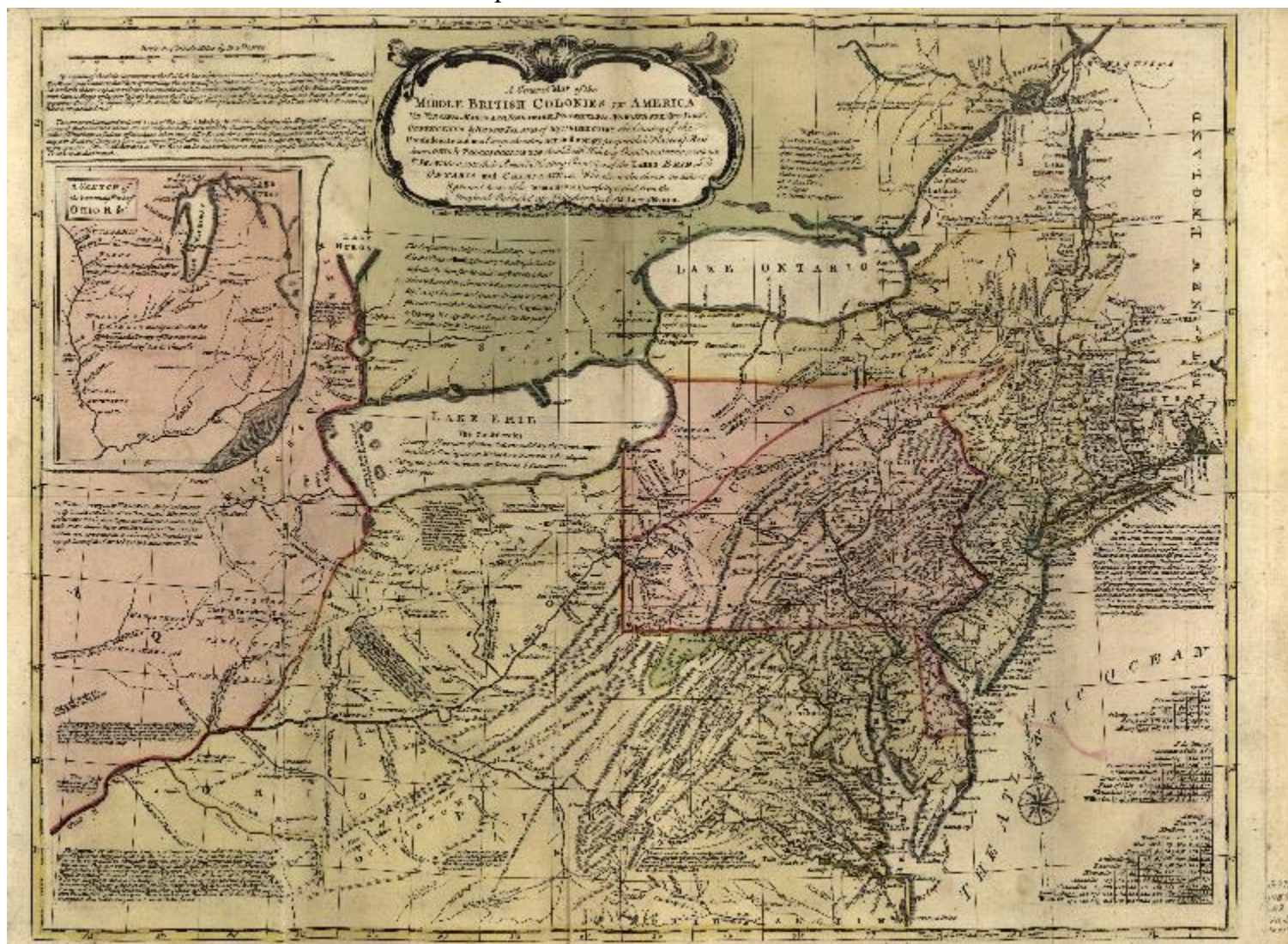
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Plate 5: A General Map of the Middle British Colonies in America - 1776



[illegible]

Plate 7: Map of Virginia and Maryland – 1825

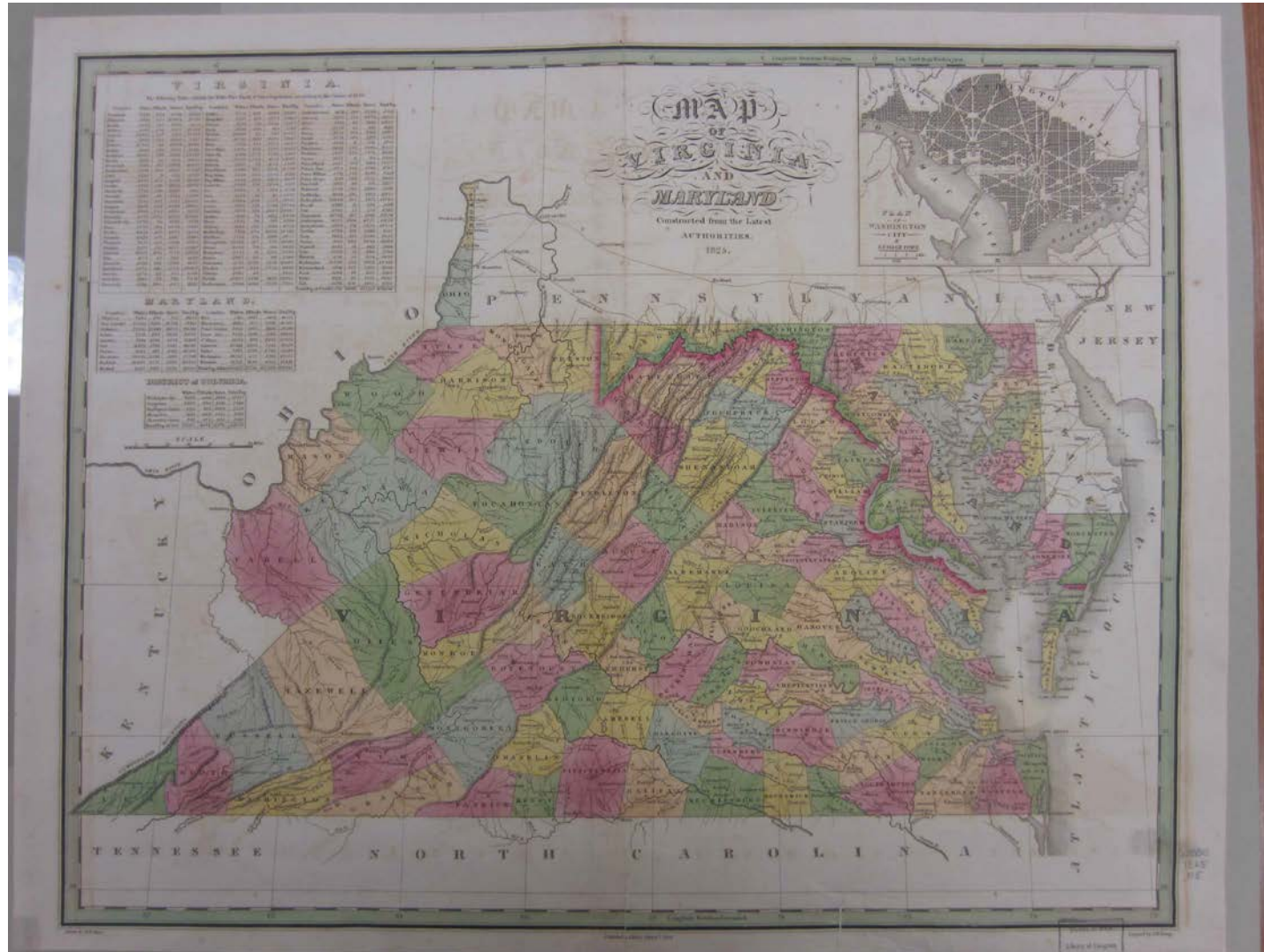


Plate 8: Map of the State of Virginia - 1827

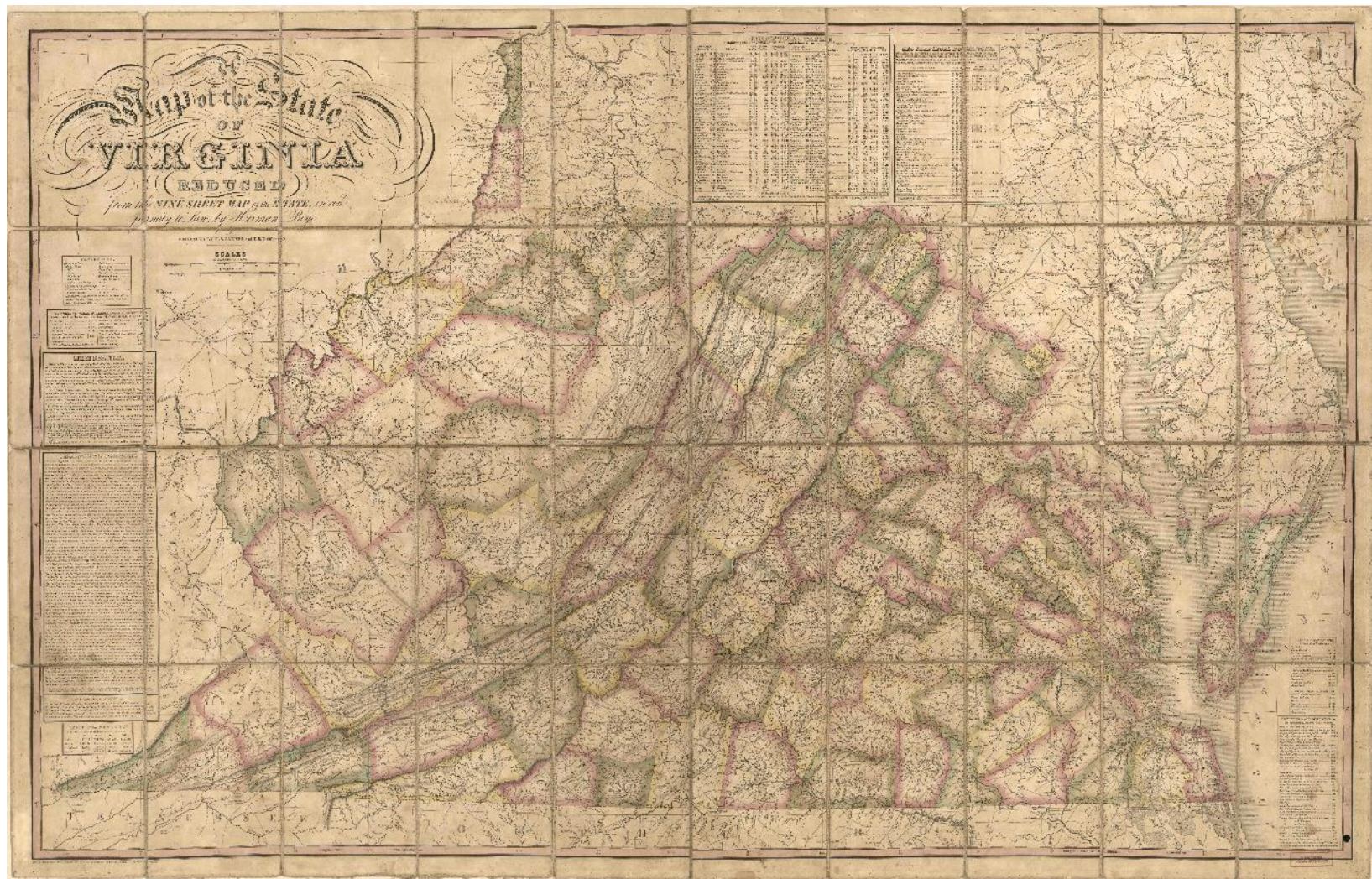


Plate 9: Map of the State of Virginia and Maryland - 1831



Plate 10: A Chart of the Chesapeake and Delaware Bays - 1840



[illegible]

Plate 12: Preliminary Chart of Delaware and Chesapeake Bays and the Sea Coast from Cape Henlopen to Cape Charles - 1855

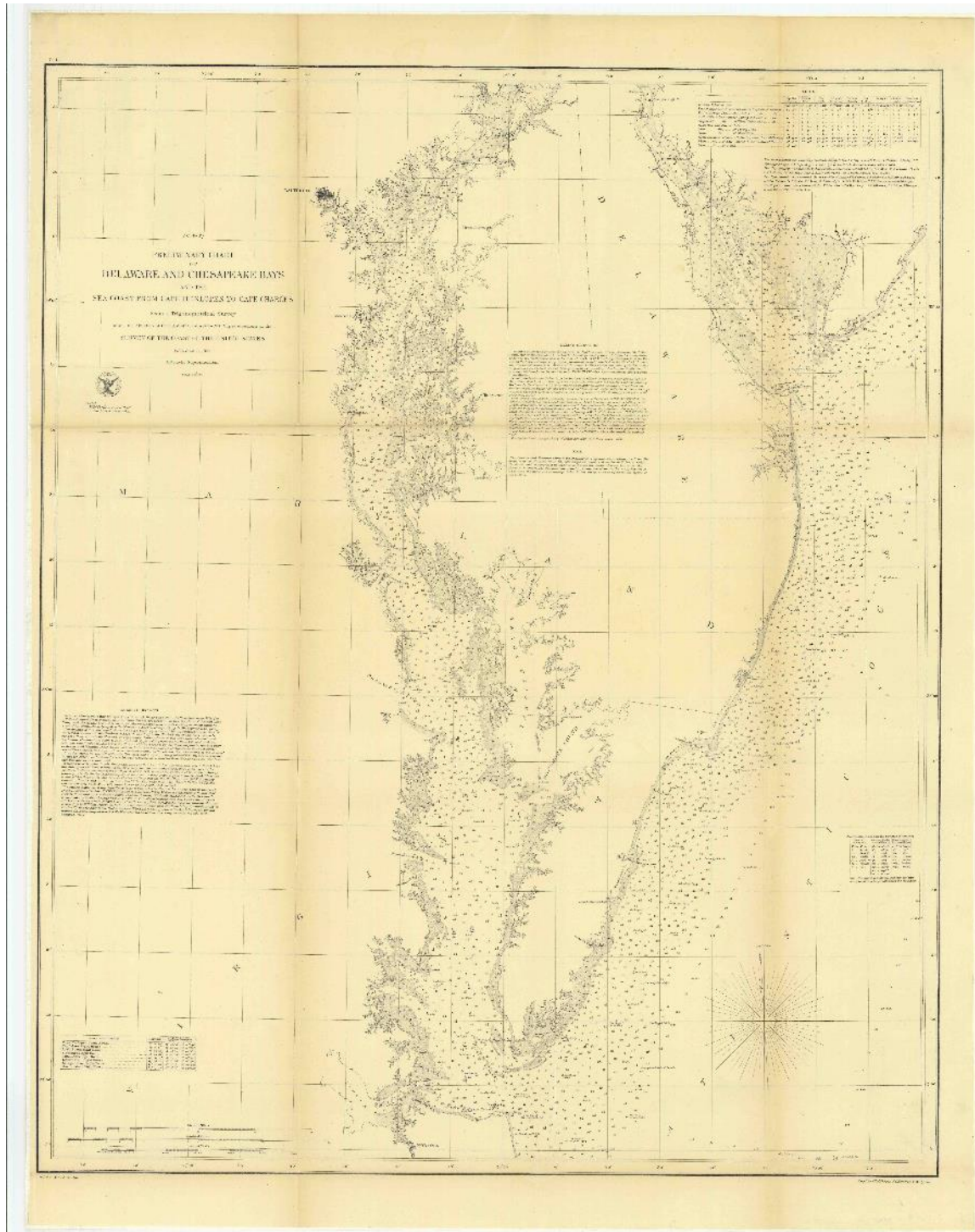


Plate 13: Southern Boundary of Maryland between Smith's Point and the Atlantic - 1860

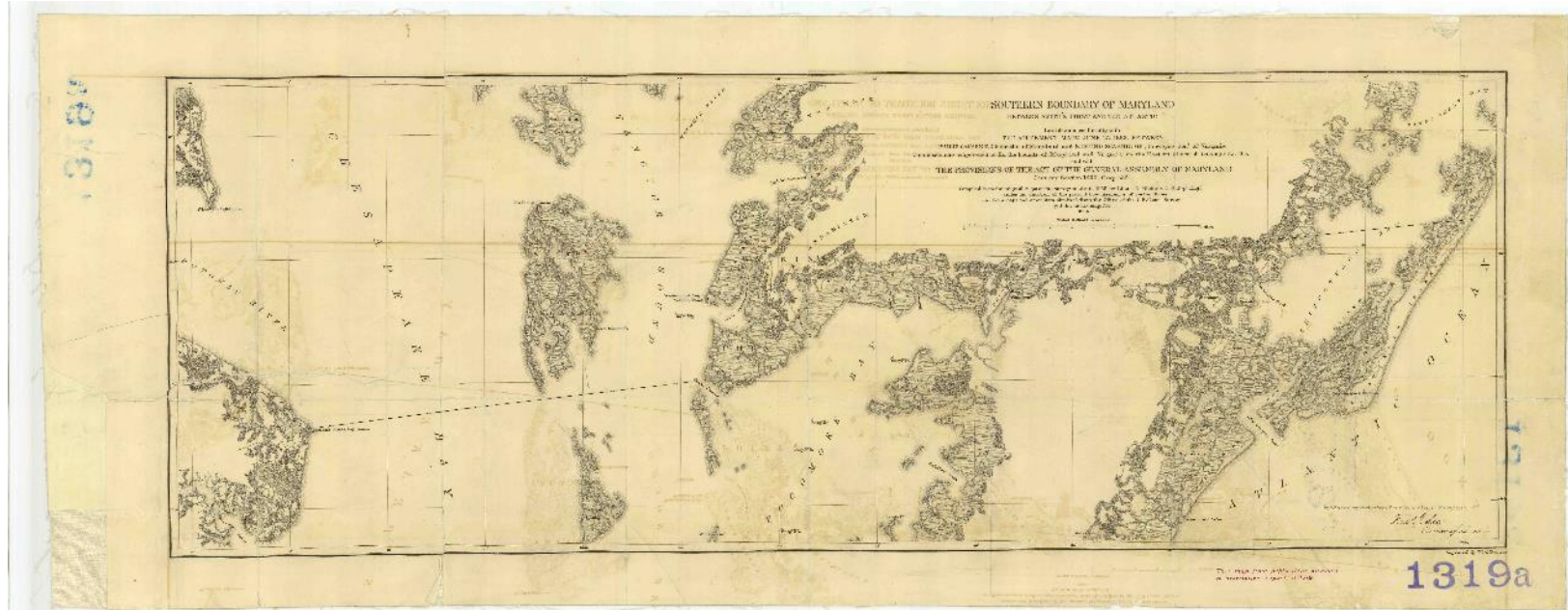


Plate 14: General Chart of the Coast from Cape May to Cape Henry - 1862

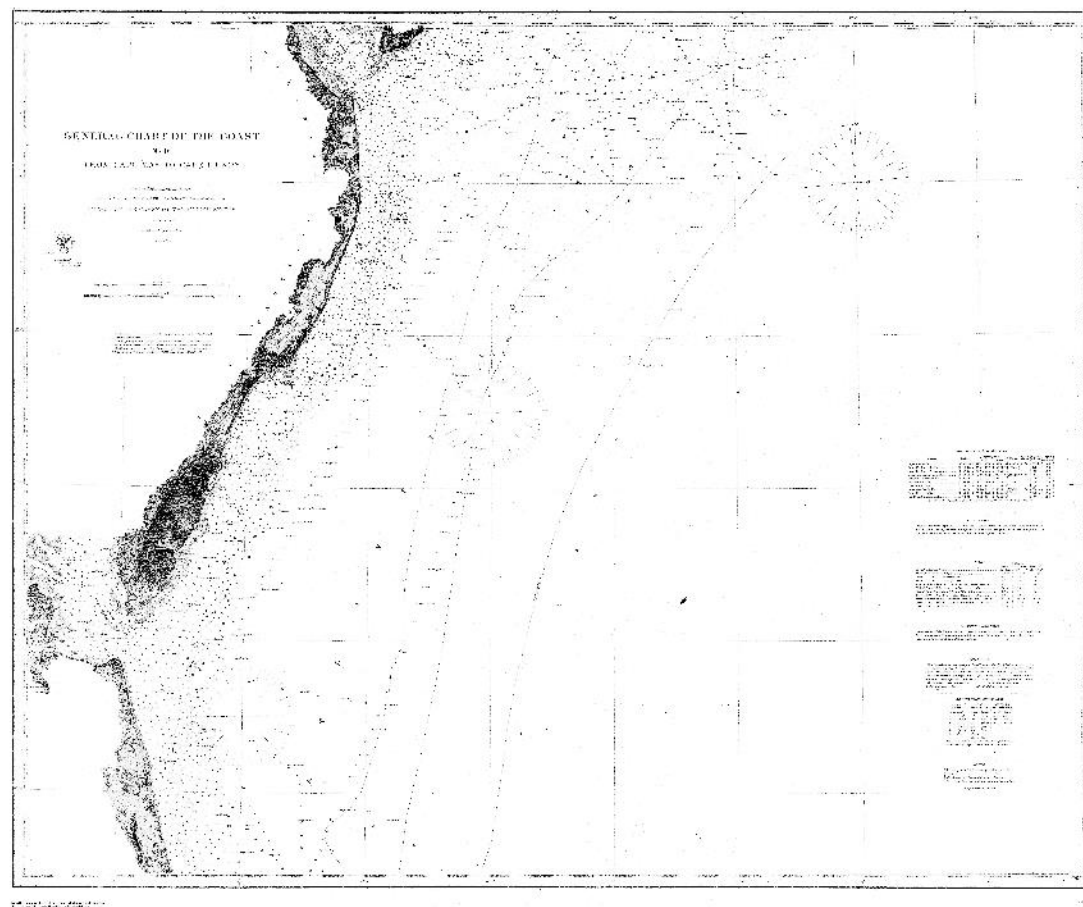
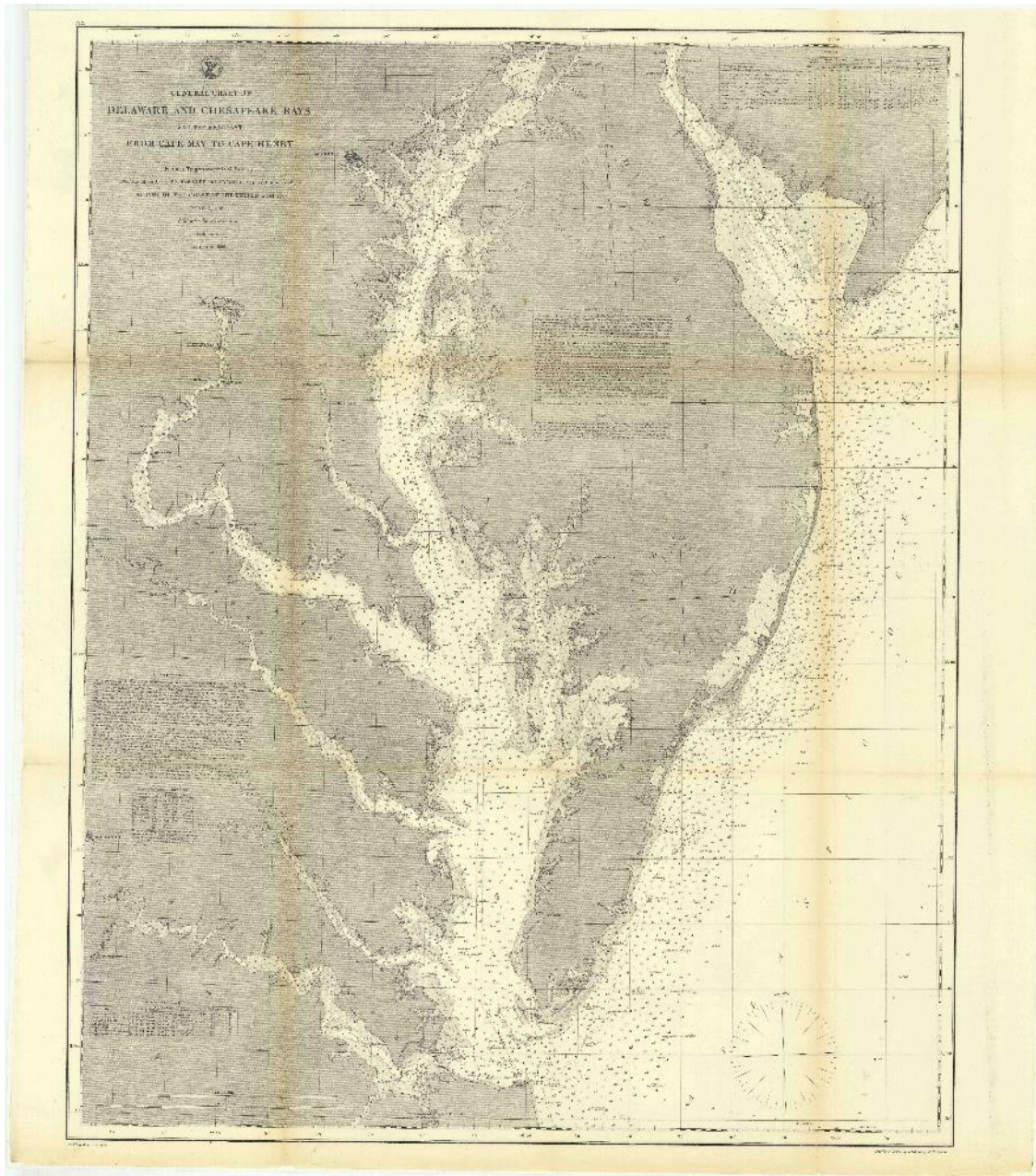


Plate 15: General Chart of Delaware and Chesapeake Bays and the Seacoast from Cape
May to Cape Charles - 1865



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Plate 17: General Chart of the Coast from Cape May to Cape Henry - 1871

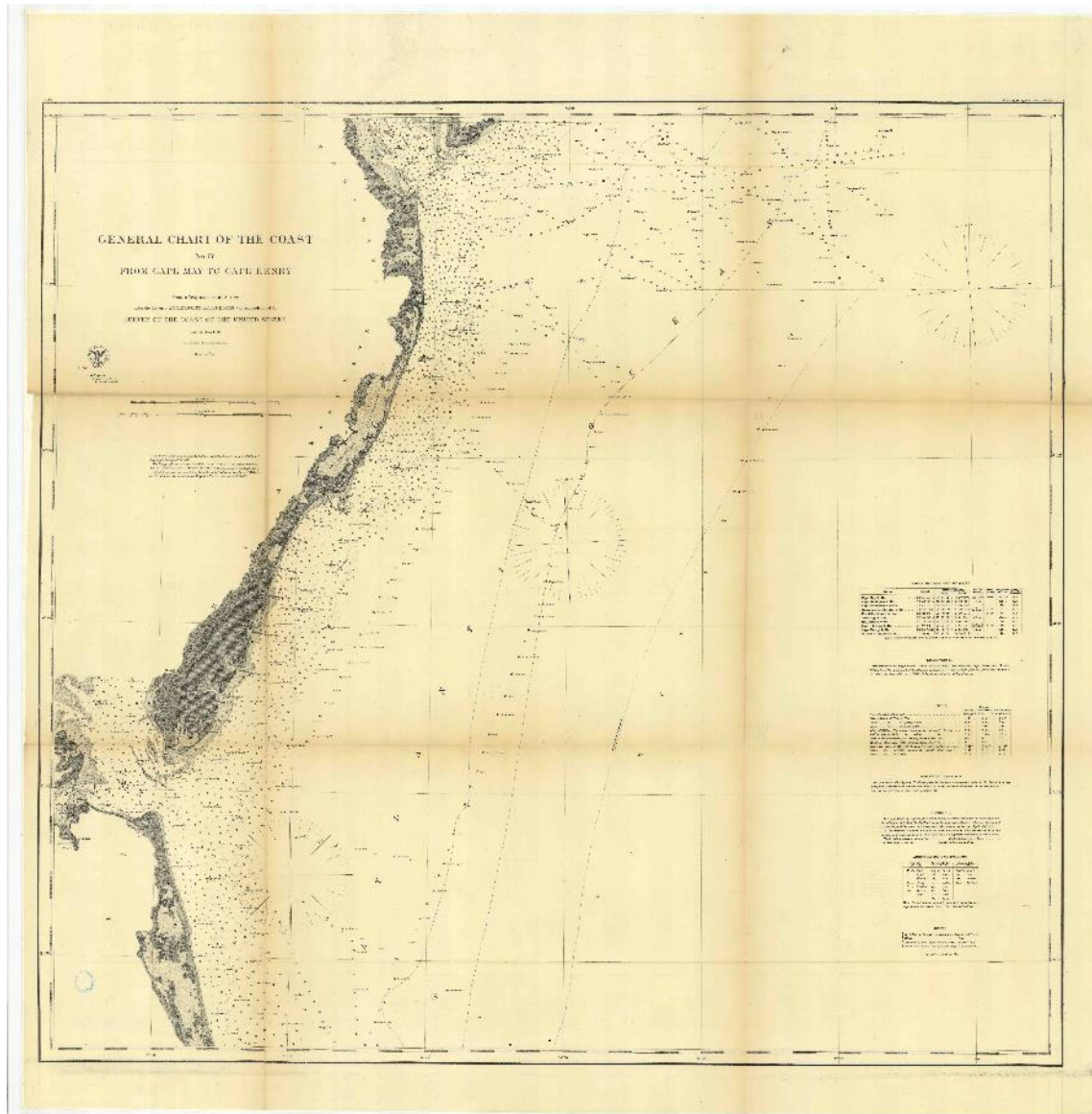


Plate 18: General Chart of the Coast from Cape May to Cape Henry - 1878

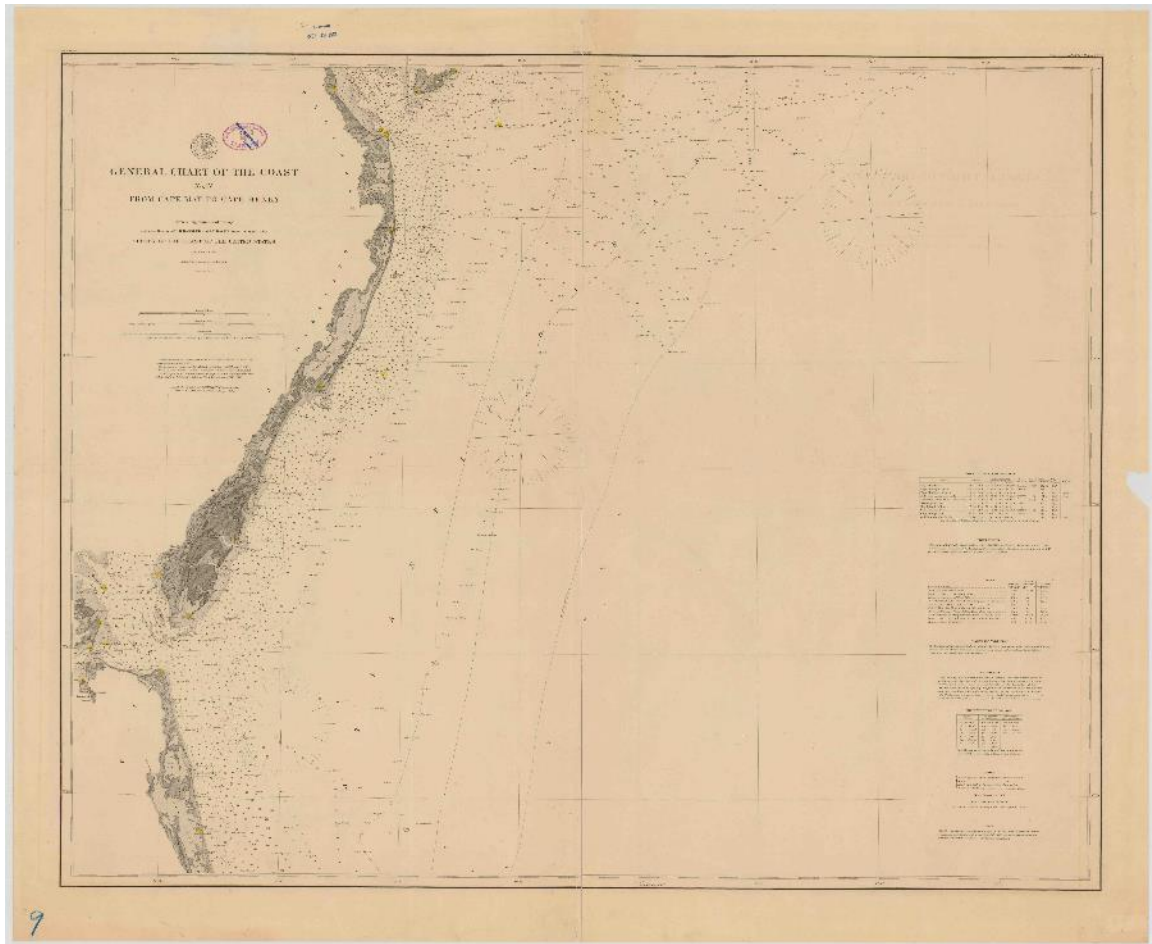


Plate 19: Coast from Green Run Inlet to Chincoteague - 1880

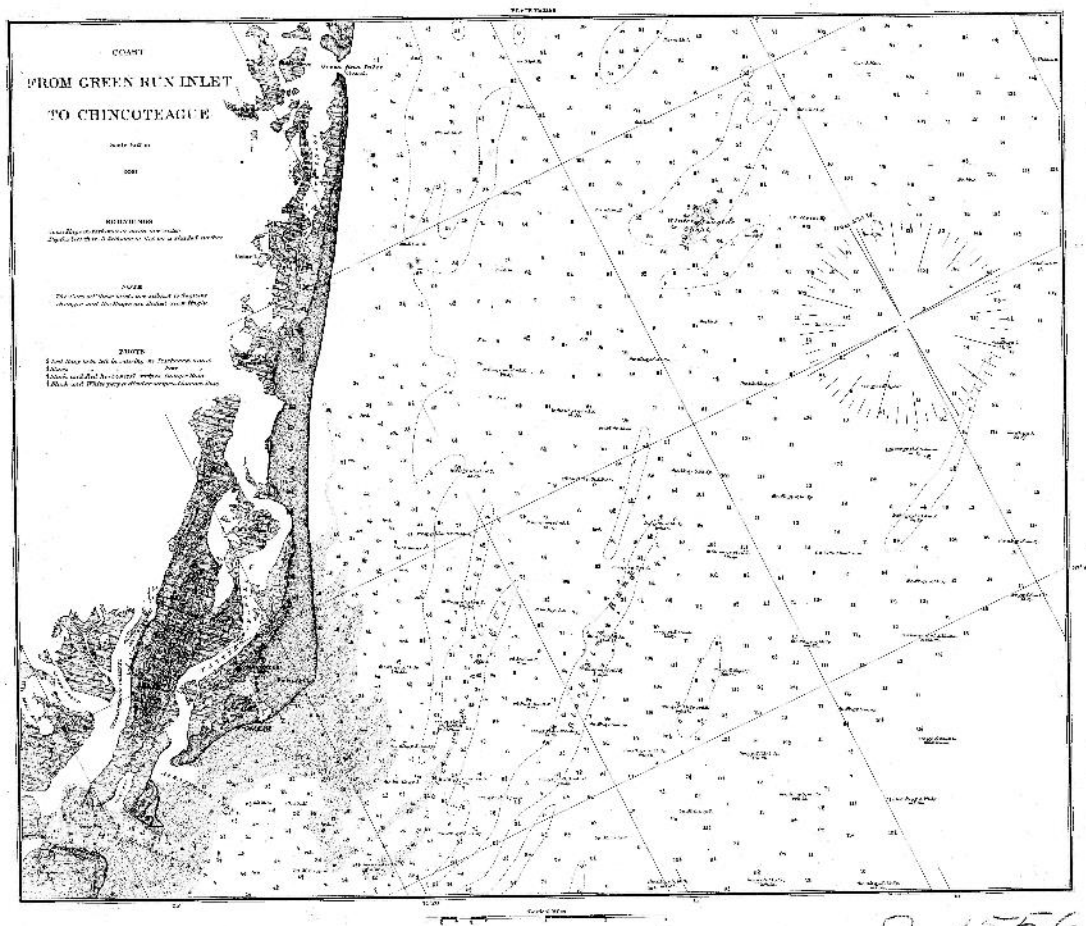


Plate 20: General Chart of the Coast from Cape May to Cape Henry - 1887

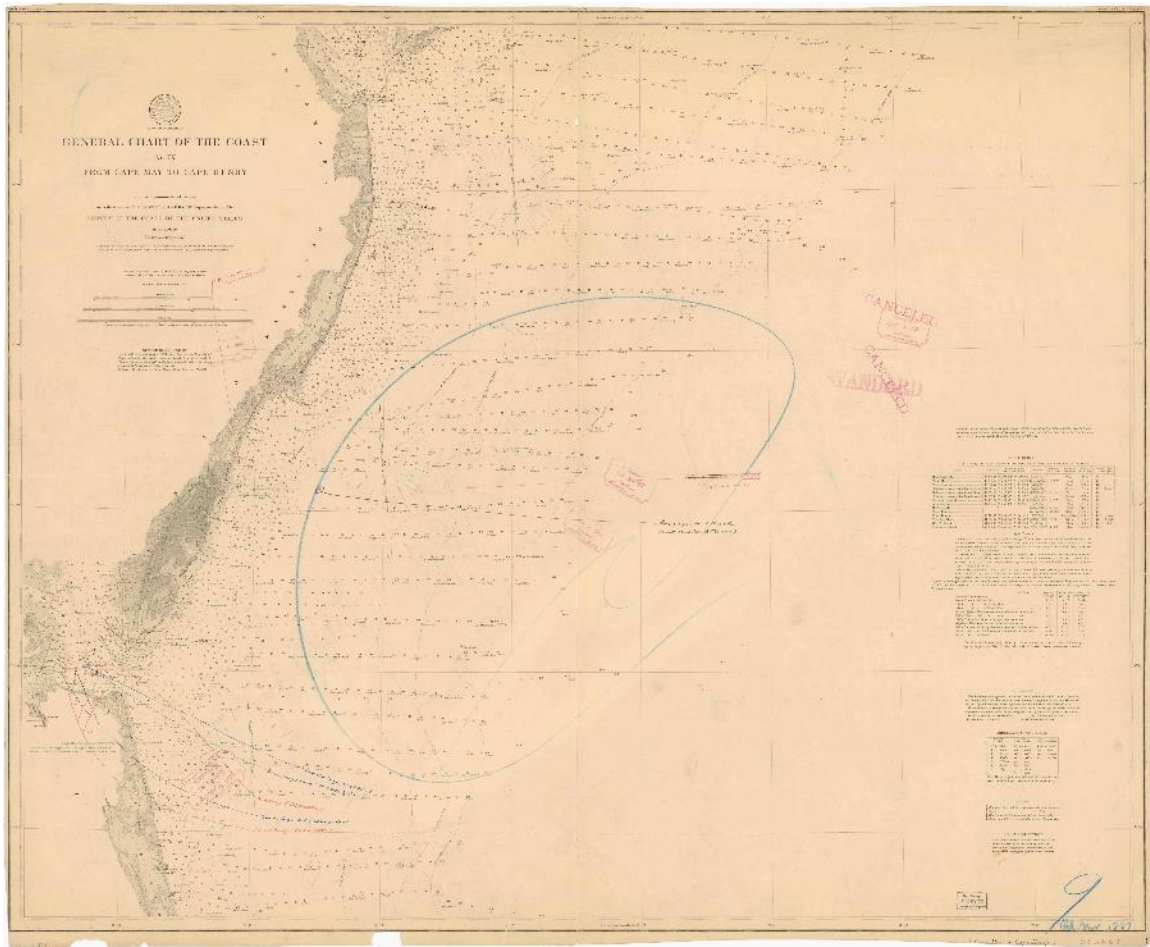


Plate 21: Fenwick Island Light to Chincoteague Inlet - 1912

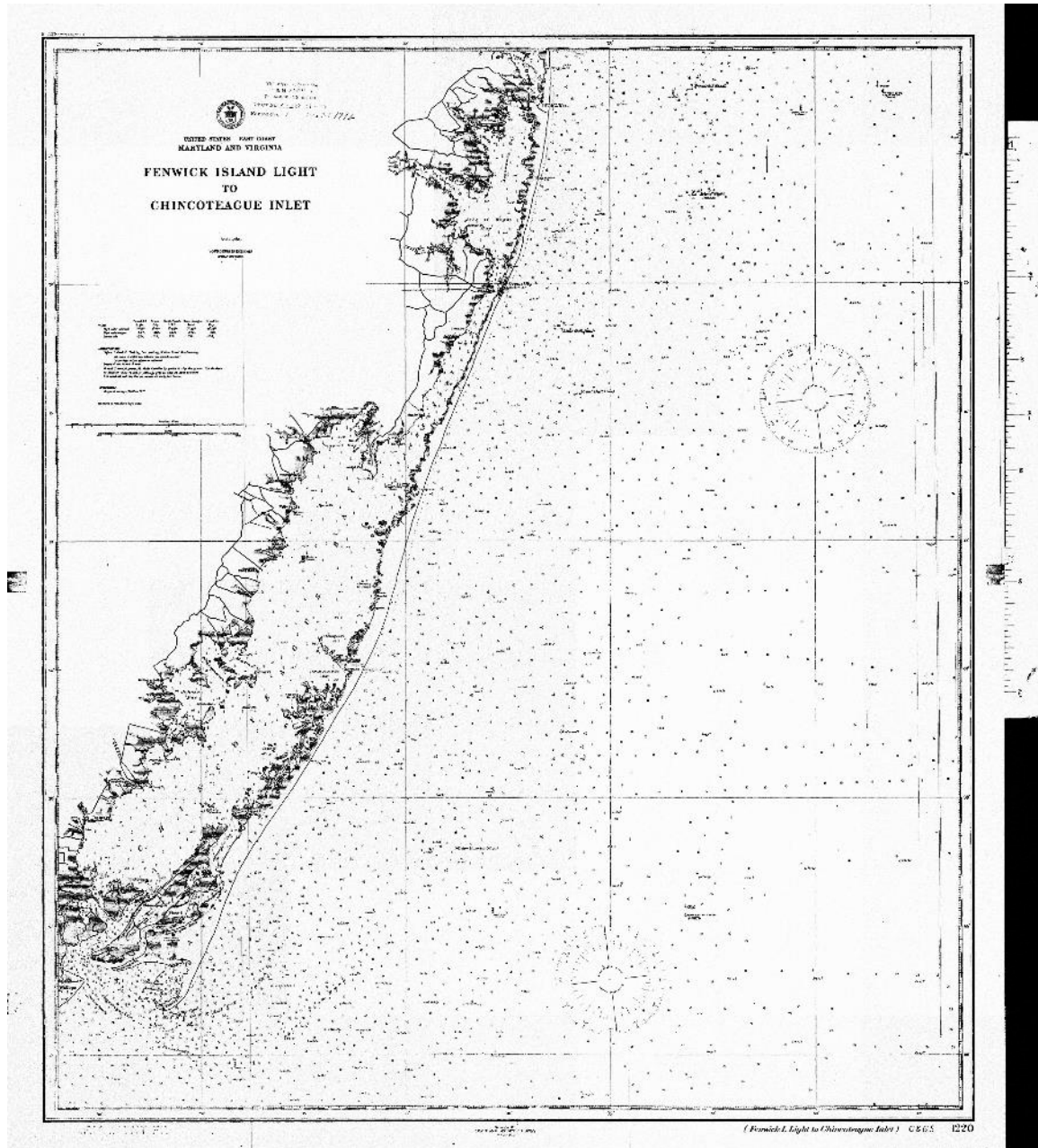


Plate 22: Fenwick Island Light to Chincoteague Inlet - 1915

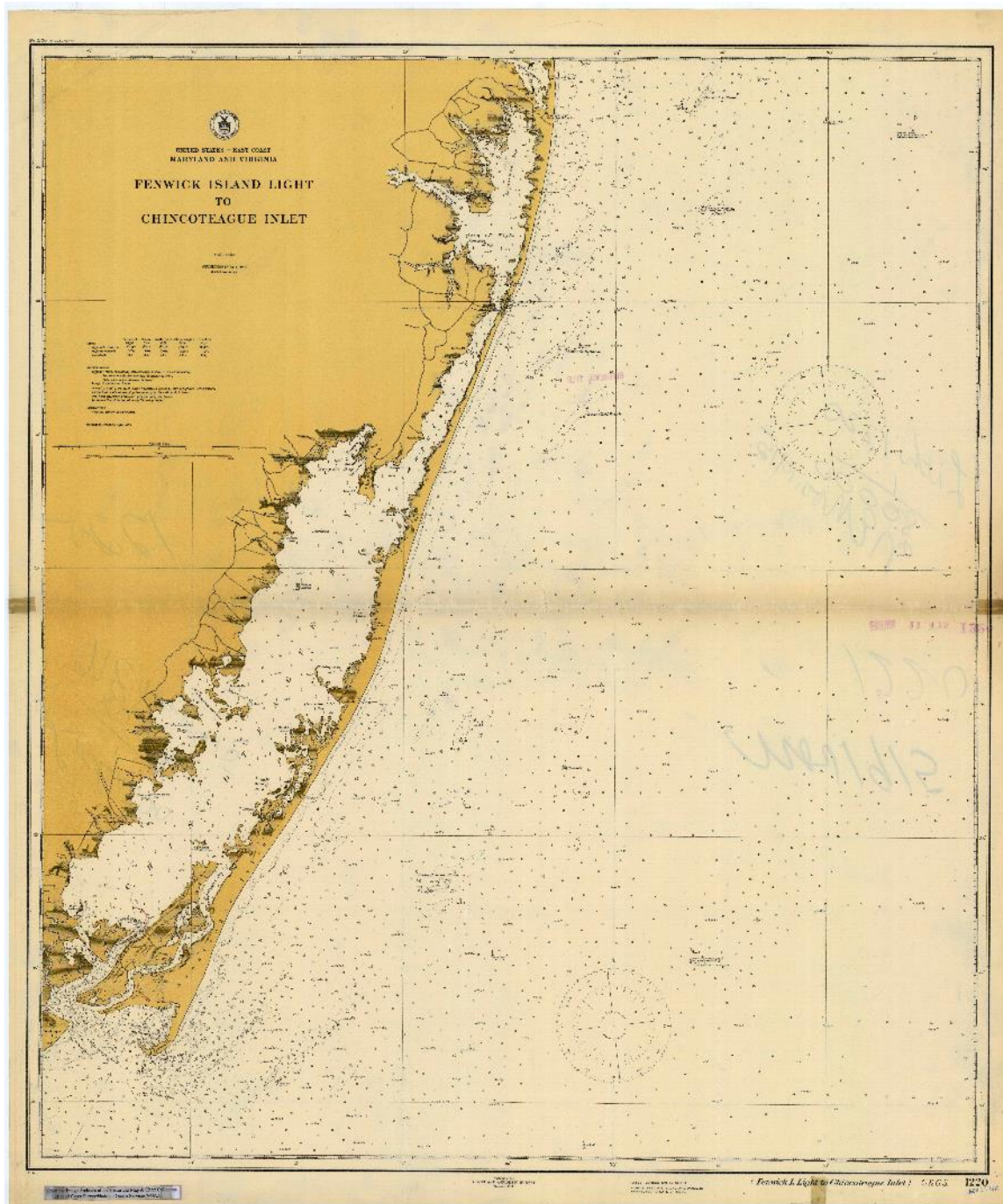


Plate 23: Cape May to Cape Hatteras - 1922

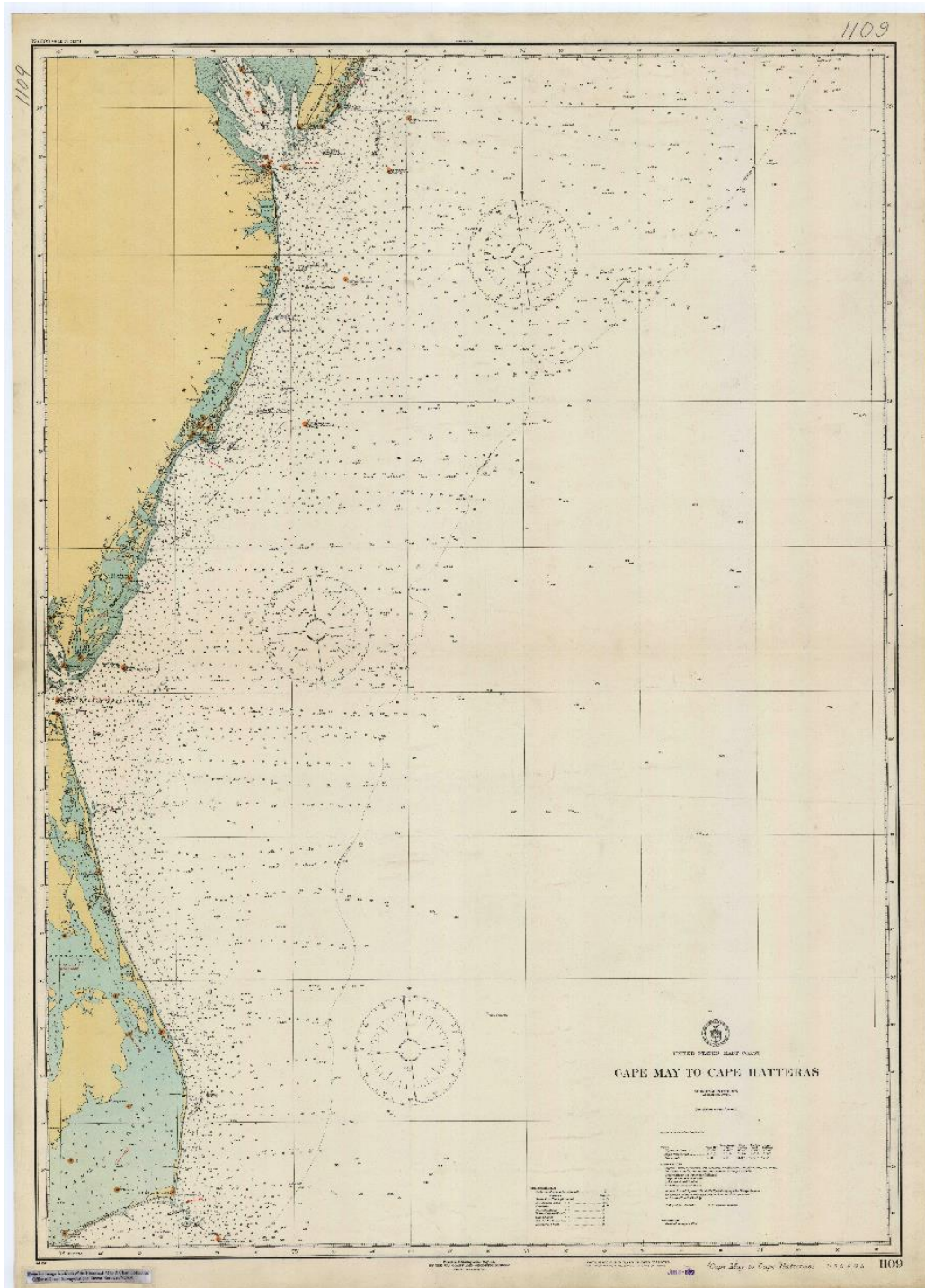
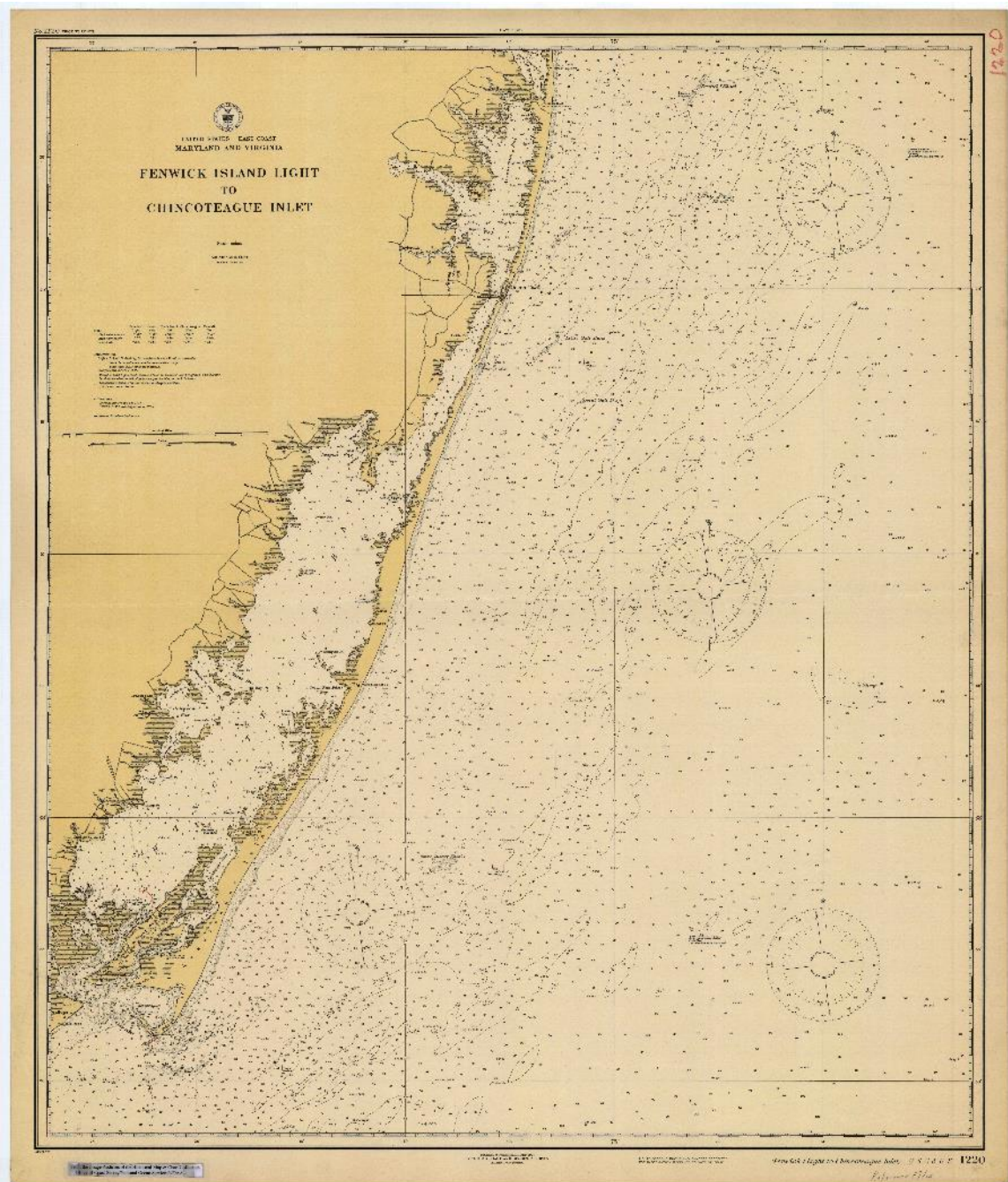


Plate 24: Fenwick Island Light to Chincoteague Inlet - 1925



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Plate 26: Fenwick Island Light to Chincoteague Inlet - 1931

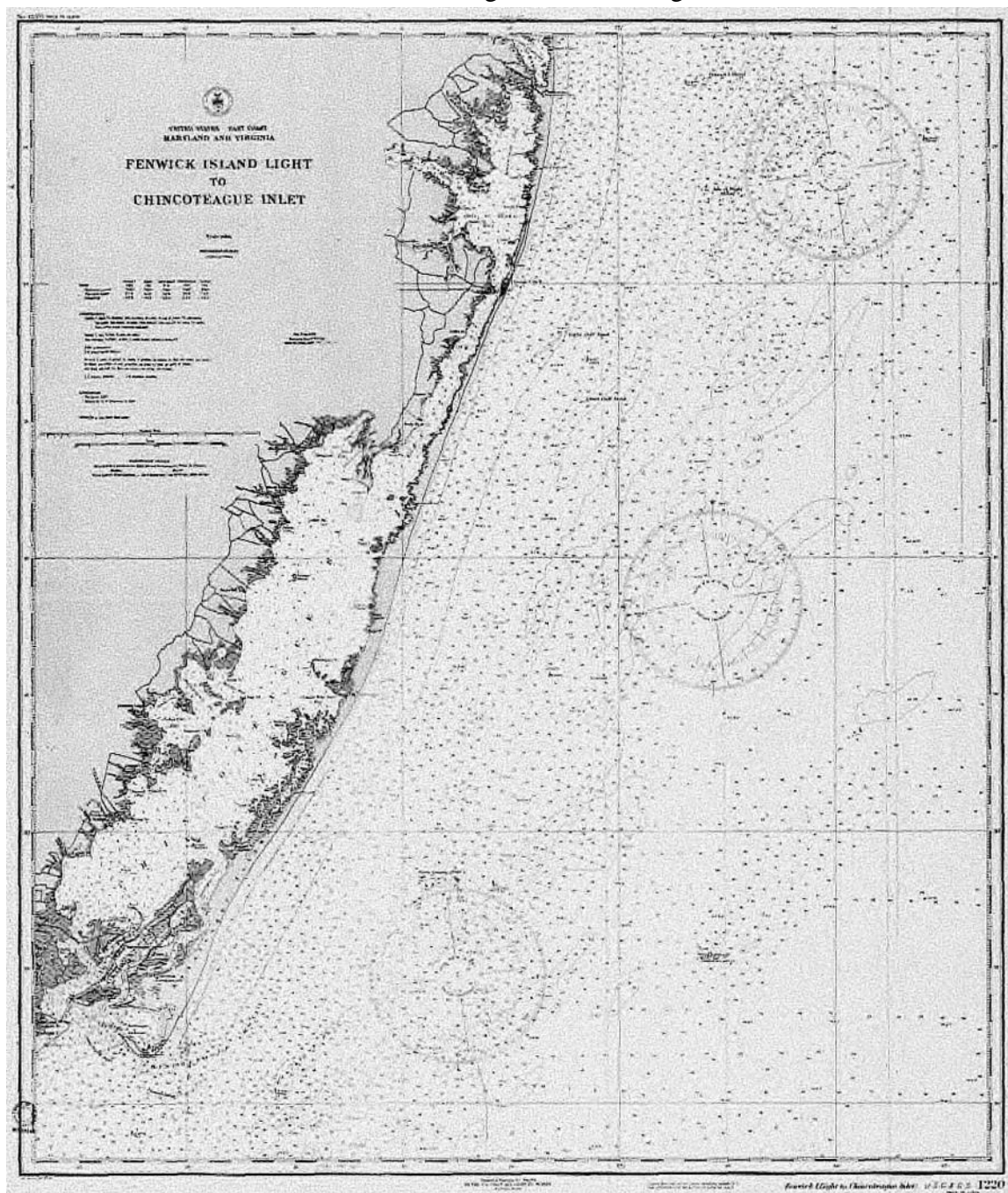


Plate 27: Cape May to Cape Hatteras - 1934

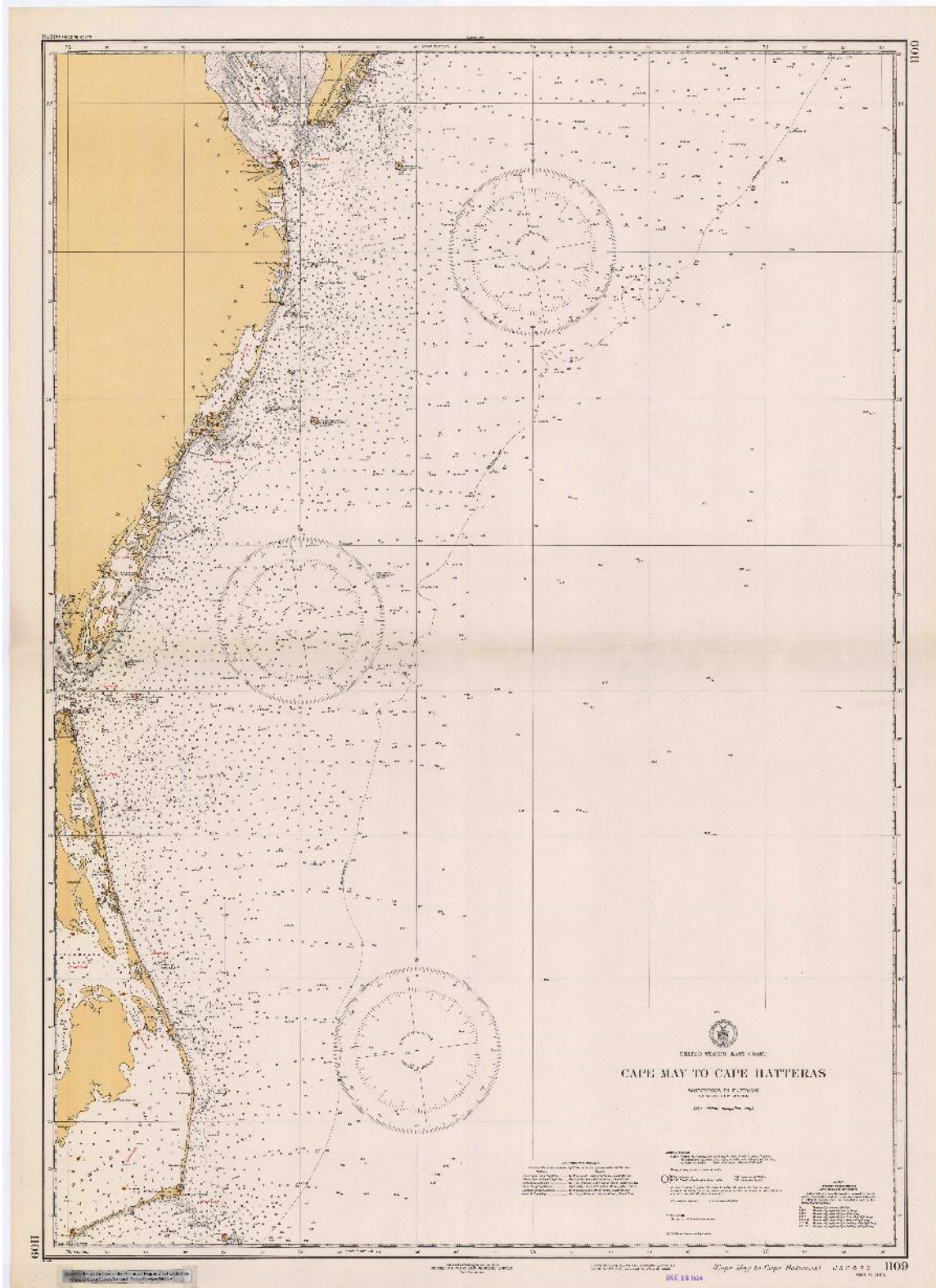


Plate 28: Fenwick Island Light to Chincoteague Inlet - 1966

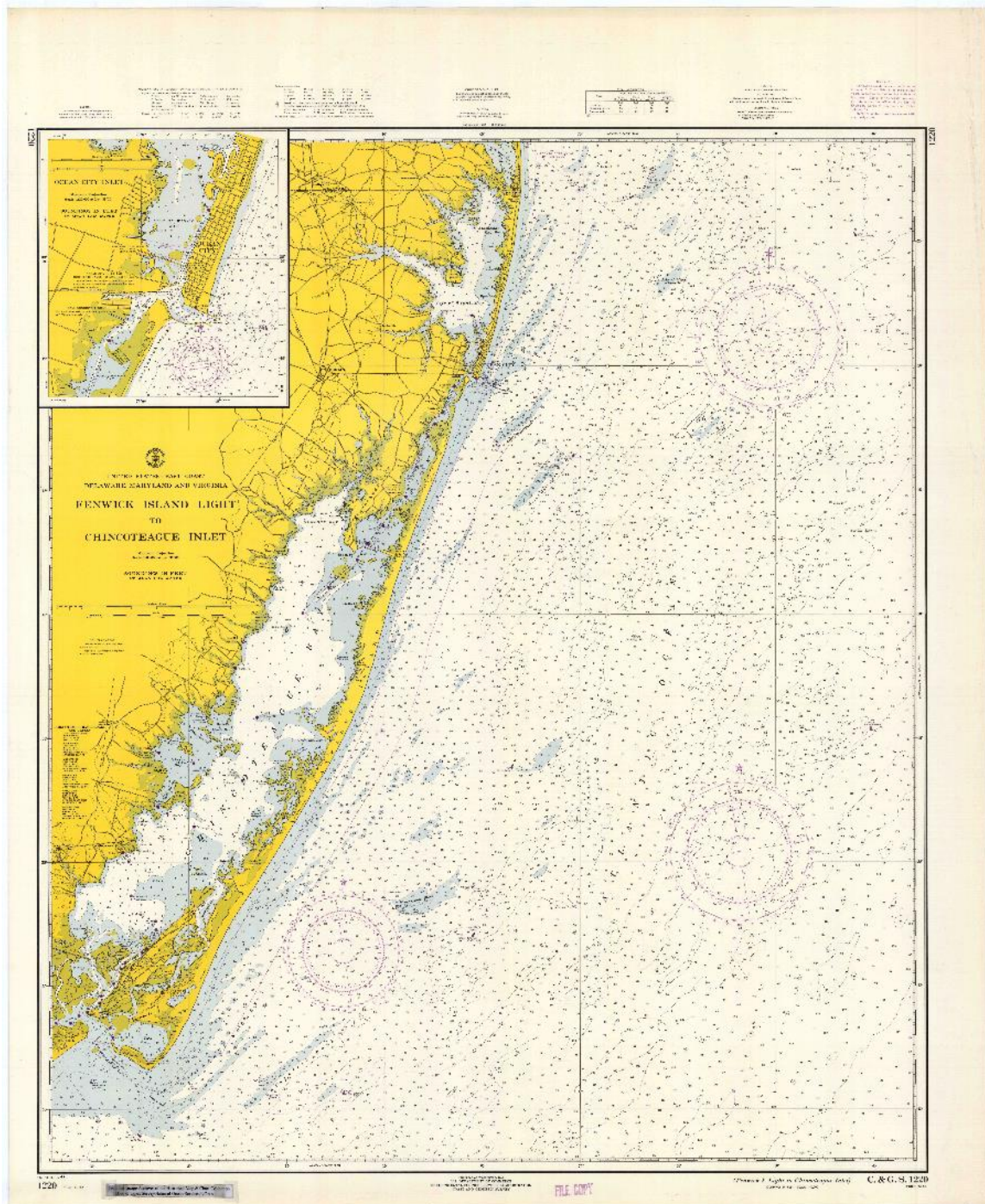
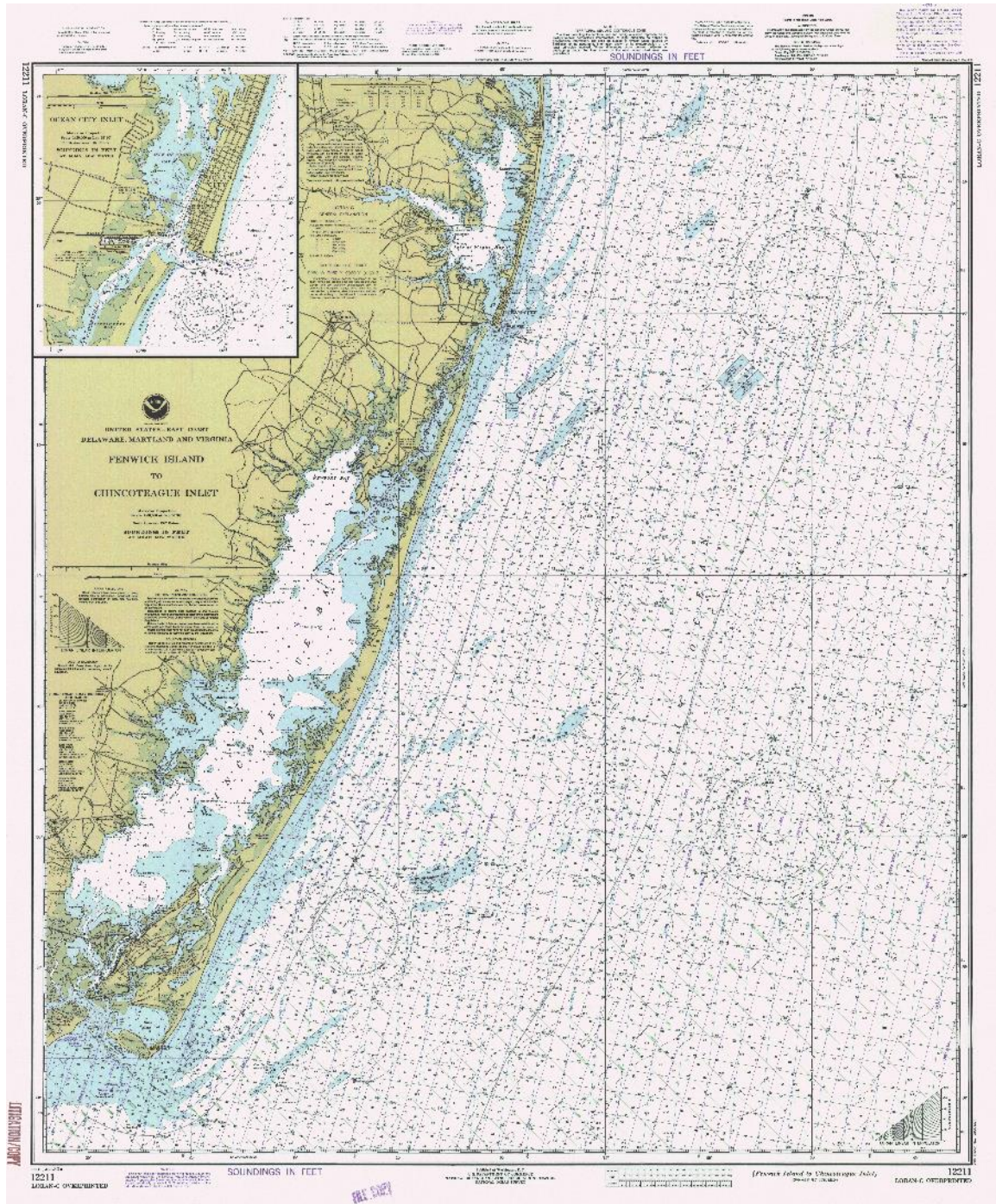


Plate 29: Fenwick Island to Chincoteague Inlet - 1980



APPENDIX B – CORE DESCRIPTION SHEETS

Appendix B (33 pages): The follow section includes the physical core description sheets. These sheets document the initial visual core analysis including: facies, color, grain size, sedimentary structures, and biological features. Core details such as identification number, date collected, elevation, compaction, total depth, location are also included. Finally, sampling intervals for grain-size analysis, microfossil analysis, and photography are indicated for each core. The identification scheme for each core follows the proceeding formula: inlet name (GR for Green Run Inlet and SI for Sinepuxent Inlet): last two digits of year collected: core number. For example, core GR-14-01 was collected from Green Run Inlet in 2014 and was numbered as 1. Visual description sheets were not completed for cores collected by the pulse-auger method. The visual core description sheets are separated first by inlet name (i.e., GR and then SI) and then by core number (i.e., 1 through 14 for Green Run Inlet, and 1 through 11 for Sinepuxent Inlet.) In total, 24 visual descriptions for vibracores are provided.

VIBRACORE DESCRIPTION SHEET

VIBRACORE DESCRIPTION SHEET

CORE ID: 02-14-01

DATE COLLECTED: 9/18/14

DESCRIBED BY: Chris

ELEVATION: 0.318 m

COLLECTED: 11/01
COMPACTION: 89 cm

DATE DESCRIBED: 9/19/14

CORE LENGTH: 239 cm

LAT/LONG: 38° 2' 49.79" N 75° 13' 55.21" W

TOTAL DEPTH: 328 cm

LOCATION: Green Run S. recurve / tidal creek

DESCRIPTION AND REMARKS

facies 6, 0-25cm (25cm)

- Organics
- Soil horizon
- Root rhizomes

Facies 5 25-44 cm (19 cm)

- Dk. gray f. sand

Facies 4 44-85m (41cm)

- coarsening upward (fine mica-sand \rightarrow M. sand)

- organik horiz. @ 70, 61, 53, 51 cm

- abrupt change at top - Bioturbated

facies 3 83-109 (24cm)

- Sandy clay

May 21

Facies 2 155-109 (44 cm)

- Lt. & dark gray m. sand

- some Bioirradiation @ Bfom

facies | 239-155 cm (84 cm)

- Lt. gray, li. sand

- horiz. laminations

VIBRACORE DESCRIPTION SHEET

CORE ID: GR-14-02

ELEVATION: 0.098 m MSL

CORE LENGTH: 201 cm

TOTAL DEPTH: 306 cm

T
DATE COLLECTED: April 20, 2014

COMPACTION: 105 cm

LAT/LONG: N 38° 03'

LOCATION: Green Run Tr

DESCRIBED BY: Chakris

DATE DESCRIBED: 9/5/14

W 75° 13' 51.9"

et, Assateague Island MD

DESCRIPTION AND REMARKS

Facies 4 63-top (0.63m)

- Dusky Brown
- Fine Sand grading coarse Sand at top
- Much Disturbance
- Some laminations of Med. to Gray coarse sand

Facies 3 95-6.3 cm (0.32 m)

- Med gray Sand
- Some Bioturbation
- Massive Bedding

Facies 2, 159-95 cm (0.64 m)

- Horizontal laminations
- Deformed laminations
- Some Mollusk fragments
- Med. light gray sand

facies 1

196-159 cm (0.37 m)

- Med Gray sand
- Med-fine Sand at Base grading to fine Sand at top of facies
- some Bioturbation (worm Burrows?)
- Much Bioturbation at top Boundary

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VIBRACORE DESCRIPTION SHEET

CORE ID: GR-14-03 DATE COLLECTED: 4/20/14 DESCRIBED BY: Chris
 ELEVATION: 0.155 m COMPACTION: 98cm DATE DESCRIBED: 10/25/14
 CORE LENGTH: 298cm LAT/LONG: 38°3'23.36"N 75°13'33.77"W
 TOTAL DEPTH: 396 cm LOCATION: Green Run Inlet - Assateague Island

SEDIMENTARY TEXTURE AND STRUCTURES								% SAND	PHYSICAL CHARACTERISTICS				STRATIFICATION TYPE				SAMPLE				DESCRIPTION AND REMARKS										
CLAY	SILT	VERY FINE SAND	FINE SAND	MEDIUM SAND	COARSE SAND	VERY COARSE SAND	GRANULE	ORGANICS	INTERVAL	0	50	100	DEFORMATION	BED THICKNESS	% SHELL	% ORGANIC	% BIOTURBATION	WAVE	FLASER	LENTICULAR		CROSS BED	MASSIVE BED	INCLINED BED	HORIZ. LAMINATION	GRAIN SIZE	HEAVY MINERAL	MICRO FOSSILS	RADIOMETRIC	RADIOGRAPH	PHOTOGRAPH
✓	✓	✓	✓	✓	✓	✓	✓	✓	0																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	10																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	20																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	30																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	40																						
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✓	✓	✓	✓	✓	✓	✓	✓	✓	60																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	70																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	80																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	90																						
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✓	✓	✓	✓	✓	✓	✓	✓	✓	110																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	120																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	130																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	140																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	150																						
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✓	✓	✓	✓	✓	✓	✓	✓	✓	200																						
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✓	✓	✓	✓	✓	✓	✓	✓	✓	220																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	230																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	240																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	250																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	260																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	270																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	280																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	290																						
✓	✓	✓	✓	✓	✓	✓	✓	✓	300																						

Facies 1 14-0cm (14cm)
Soil
Root rhizomes
no sediment

Facies 3 60-14cm (46cm)
M-C Sand
dark gray
Lots of organics (root rhizomes)
oxidized sand
Black organics inclusions

Facies 2 176-60cm (116cm)
m-sand
organics (root trace?) @ 14-146cm
deformed sed structures
light gray

Facies 1 298-176cm (122cm)
coarse sand fining upward to
m-f sand
shell high at base of coarse sand
horiz. lam.
light gray

Facies 1 14-0cm (14cm)
 Soil
 Root rhizomes
 no sediment

Facies 3 60-14cm (46cm)
 M-C Sand
 dark gray
 Lots of organics (Root rhizomes)
 oxidized sand
 Black organics inclusions

Facies 2 176-60cm (116cm)
 m-Sand
 organics (Root trace?) @ 14-146cm
 deformed Sed structures
 light gray

Facies 1 298-176cm (122cm)
 coarse sand fining upward to
 M-F sand
 Shell high at Base of coarse sand
 horiz. lam.
 light gray

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1 of 2

VIBRACORE DESCRIPTION SHEET

CORE ID: GR-14-04 DATE COLLECTED: 4/19/14 DESCRIBED BY: Chris
ELEVATION: 0.705 m COMPACTION: 74 cm DATE DESCRIBED: 8/6/15
CORE LENGTH: 331 cm LAT/LONG: N 38° 2' 51.0" W 75° 14' 9.9"
TOTAL DEPTH: 405 cm LOCATION: South FTD Green Run Inlet

SEDIMENTARY TEXTURE AND STRUCTURES							% SAND	PHYSICAL CHARAC- TERISTICS				STRATI- FICATION TYPE				SAMPLE				DESCRIPTION AND REMARKS						
CLAY	SILT	VERY FINE SAND	FINE SAND	MEDIUM SAND	COARSE SAND	VERY COARSE SAND	GRAVEL	COLOR	DEFORMATION	BED THICKNESS	% SHELL	% ORGANIC	% BIOTURBATION	WAVE	FLASER	LENTICULAR	CROSS BED	MASSIVE BED	INCLINED BED		HORIZ. LAMINATION	GRAIN SIZE	HEAVY MINERAL	MICRO FOSSILS	RADIOGRAPH	PHOTOGRAPH
Interval							Interval	0																		
							50																			
							100																			
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VIBRACORE DESCRIPTION SHEET

CORE ID: GR-14-05 DATE COLLECTED: 4/20/14 DESCRIBED BY: Chris
ELEVATION: 0.533 m COMPACTION: 270 u DATE DESCRIBED: 2/14/15
CORE LENGTH: 243 cm LAT/LONG: N 38° 3' 0.4" 175° 13' 50.5" W
TOTAL DEPTH: 513 cm LOCATION:

SEDIMENTARY TEXTURE AND STRUCTURES		% SAND	PHYSICAL CHARACTERISTICS	STRATIFICATION TYPE	SAMPLE
CLAY	SILT		COLOR	WAVE	GRAIN SIZE
VERY FINE SAND			DEFORMATION	FLASER	HEAVY MINERAL
FINE SAND			BED THICKNESS	LENTICULAR	MICRO FOSSILS
MEDIUM SAND			% SHELL	CROSS BED	RADIOMETRIC
COARSE SAND			% ORGANIC	MASSIVE BED	RADIOGRAPH
VERY COARSE SAND			% BIOTURBATION	INCLINED BED	PHOTOGRAPH
GRANULE				HORIZ. LAMINATION	
Interval					
0					
50					
100					
110					
120					
130					
140					
150					
160					
170					
180					
190					
200					
210					
220					
230					
240					

DESCRIPTION AND REMARKS

- facies 1 0-40 cm (40 cm)**
- D-horizon (0-14 cm)
 - root rhizomes (0-14 cm) (30-40 cm)
 - Bioburbation (0-25 cm)
 - Deformed horizon structures (19-26 cm)
 - flaser bedding (?) - 11-26 cm
- facies 2 40 cm - 243 cm (203 cm)**
- Coarsening upward succession
 - med. fine sand - 40-97 cm
 - med. sand 97-125 cm
 - structureless
 - Med grading to coarse sand 125-235 cm
 - X Bedded
 - deformed Bedding
 - Med. sand - 235-243 cm
 - structureless

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VIBRACORE DESCRIPTION SHEET

CORE ID: G2-14-07 DATE COLLECTED: 4/10/15 DESCRIBED BY: Chris
ELEVATION: 0.305 m COMPACTION: 113 cm DATE DESCRIBED: 9/19/14
CORE LENGTH: 378 cm LAT/LONG: N 38° 3' 38.4" W 75° 13' 43.5"
TOTAL DEPTH: 491 cm LOCATION: Green Run FTD

SEDIMENTARY TEXTURE AND STRUCTURES	% SAND	PHYSICAL CHARAC- TERISTICS	STRATI- FICATION TYPE	SAMPLE
CLAY SILT VERY FINE SAND FINE SAND MEDIUM SAND COARSE SAND VERY COARSE SAND GRANULE ORGANICS INTERVAL	0 50 100	COLOR DEFORMATION BED THICKNESS % SHELL % ORGANIC % BIOTURBATION	WAVE FLASER LENTICULAR CROSS BED MASSIVE BED INCLINED BED HORZ. LAMINATION Deformed Bedding	GRAIN SIZE HEAVY MINERAL MICRO FOSSILS RADIOGRAPH PHOTOGRAPH
		<p>Dark gray, fine grained, silty clay with some shell fragments and organic matter.</p>	<p>Horizontal lamination (top), cross-bedding (middle), massive bedding (bottom).</p>	

DESCRIPTION AND REMARKS

- Facies 7 0-23 cm (23 cm)
- M. Sand, Organics, foot phrynes, horz. lam, soil at top
- Facies 6 23-52 cm (29 cm)
- M. sand, X-Beds?, Bioturbated, horz. lam
- Facies 5 52-110 cm (62 cm)
- M/F sand - shell frags
- some cross beds
- some Bioturbation
- Facies 4 110-149 cm (39 cm)
- M/C sand
- Deformed sed structures
- some shell frags.
- Facies 5 149-189 cm (40 cm)
- fining upward package (c.sand → c/m sand)
- some shell frags
- horizontal Bedding
- Facies 4 189-214 cm (35 cm)
- Coarsening upward package
- silty clay (lean) → silty sand (top)
- gastropods & worm tubes(?)
- Facies 3 214-355 cm (141 cm)
- Massive Bedded clay
- Facies 2 355-361 cm (6 cm)
- M-F sand
- Horizontal laminations
- Facies 1 361-378 cm (17 cm)
- fining upward package (fine sand to clay)

CORE ID: GR-14-08

LOCATION: Flood Eidan Delta - Green / Con lmer

360

1 of 2

LOCATION: Green Run Drift aligned closure ridge

361

2 of 2

CORE ID: 62-15-09

VIBRACORE DESCRIPTION SHEET

CORE ID: GR-15-10

ELEVATION: 1555 m

ELEVATION: 1555 m

CORE LENGTH: 300cm

TOTAL DEPTH: 651 cm

COMPACTION: 351cm

COMPACTION: 351cm

LAT/LONG: N 38° 3'

LOCATION: Green Run

DATE DESCRIBED: 7/4/15

W 75° 13' 37.9"

let - transitional closure

DESCRIPTION AND REMARKS

Facies 1 0-63cm (63cm)

- Med/Coarse sand
- Many Root Rhizomes
- Very subtle horiz. laminations
- color - pale yellowish brown

Facies 2 63-90cm, (27cm)

- Med/coarse Sand
- No Root Rhizomes
- No Sed Structures
- Quartzase Sand
- color - very pale orange

Facies 3, 90-203cm (113cm)

- Med/coarse sand
- very distinct heavy min
Laminations
- Much horizontal laminations
 - Many are deformed
- Quartzose sand
- color - yellowish gray

Facies 4 203-259cm (62cm)

- Med. sand
- horiz. laminations of heavy mins
 - deformed laminations
- Quartzose sand
- color - Med. light gray

Facies 5 259-300 cm (41 cm)

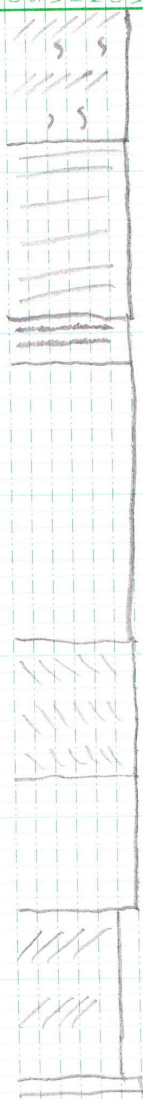
- Medium sand
- Medium dark gray sand
- some light gray laminations
 - light gray = coarser sand
- Most structureless

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VIBRACORE DESCRIPTION SHEET

VIBROCORE DESCRIPTION SHEET

CORE ID: GR-15-11	DATE COLLECTED: 9/11/15	DESCRIBED BY: CJR/JS
ELEVATION: 1,393 m	COMPACTION: 248 cm	DATE DESCRIBED: 7/21/15
CORE LENGTH: 335 cm	LAT/LONG: N 38° 3' 20.2" W 75° 13' 37.3"	
TOTAL DEPTH: 583 cm	LOCATION: GR Swash aligned Closure Ridge	

SEDIMENTARY TEXTURE AND STRUCTURES								% SAND	PHYSICAL CHARACTERISTICS				STRATIFICATION TYPE				SAMPLE						DESCRIPTION AND REMARKS											
CLAY	SILT	VERY FINE SAND	FINE SAND	MEDIUM SAND	COARSE SAND	VERY COARSE SAND	GRANULE	INTERVAL	COLOR	DEFORMATION	BED THICKNESS	% SHELL	% ORGANIC	% BIOTURBATION	WAVEY	FLASER	LENTICULAR	CROSS BED	MASSIVE BED	INCLINED BED	HORIZ. LAMINATION	GRAIN SIZE		HEAVY MINERAL	MICRO FOSSILS	RADIO METRIC	RADIOGRAPH	PHOTOGRAPH						
								0																										
								100																										
								200																										
								300																										
								400																										

2 of 2

CORE ID: GR-15-11

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VIBRACORE DESCRIPTION SHEET

CORE ID: 6K-15-12 DATE COLLECTED: 4/12/15 DESCRIBED BY: Chris
ELEVATION: 0.355 m COMPACTION: 159 cm DATE DESCRIBED: 8/17/15
CORE LENGTH: 236 cm LAT/LONG: N 38° 3' 39.5" W 75° 14' 6.7"
TOTAL DEPTH: 395 cm LOCATION: Green Run Middle FTD

SEDIMENTARY TEXTURE AND STRUCTURES		% SAND	PHYSICAL CHARACTERISTICS		STRATIFICATION TYPE	SAMPLE		DESCRIPTION AND REMARKS
CLAY	SILT		COLOR	DEFORMATION		GRAIN SIZE		
VERY FINE SAND		0		BED THICKNESS	WAVE	HEAVY MINERAL		
FINE SAND		50		% SHELL	FLASER	MICRO FOSSILS		
MEDIUM SAND		100		% ORGANIC	LENTICULAR	RADIOMETRIC		
COARSE SAND				% BIOTURBATION	CROSS BED	RADIOGRAPH		
VERY COARSE SAND					MASSIVE BED	PHOTOGRAPH		
GRAINULE					INCLINED BED			
INTERVAL					HORIZ. LAMINATION			
0-30 cm (30 cm)								Facies 1 0-30 cm (30 cm)
								- color Dusky Brown
								- Root Mat
								- 75% Roots 25% soil/mud
30-59 cm (29 cm)								Facies 2 30-59 cm (29 cm)
								- Silty Sand
								- color Med dark gray
								- some Roots
								- No sed structures
59-65 cm (6 cm)								Facies 3 59-65 cm (6 cm)
								- Soil Horizon
								- Silty Sand
								- some Roots
								- color Dark Gray
65-91 cm (16 cm)								Facies 4 65-91 cm (16 cm)
								- fine sand
								- Root Rhizomes
								- Horiz. Laminations
								- color Olive Gray
91-204 cm (113 cm)								Facies 5 91-204 cm (113 cm)
								- Med coarsening downward to coarse sand
								- Planar bedding 91-178 cm
								- X-Bedding 178-204 cm
								- color Med Lt. Gray
204-236 cm (32 cm)								Facies 6 204-236 cm (32 cm)
								- Med coarsening downward to coarse sand
								- X-Bedded
								- color Med Lt. Gray

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COASTAL STUDIES INSTITUTE

VIBRACORE DESCRIPTION SHEET

CORE ID: <u>CR-15-13</u>	DATE COLLECTED: <u>4/12/15</u>	DESCRIBED BY: <u>CHRIS</u>
ELEVATION: <u>0.5 m</u>	COMPACTION: <u>92%</u>	DATE DESCRIBED: <u>8/17/15</u>
CORE LENGTH: <u>320 cm</u>	LAT/LONG: <u>N 38° 3' 50.5" W 75° 13' 52.9"</u>	
TOTAL DEPTH: <u>412 cm</u>	LOCATION: <u>Green Run FTD North</u>	

DESCRIPTION AND REMARKS

Facies 1 0-30 cm (30 cm)

- Soil horizon
- Root Mat
- Color - Dusky yellowish Brown

Facies 2 30-50cm (20cm)

- Medi. Sand color - Dark Yellowish Brown
- Root Rhizomes
- lenses of silty sand
- 42-50 cm - Horiz Bedding?

Facies 3 50-75cm (25cm)

- Sandy silt
- Root Rhizomes (some)
- Organics
- Soil horizon 74-75 cm
- distinct contact at Bottom

color - Dark Gray

Facies 4 75-90 cm (15 cm)

- Coarse sand
- No Bedding features
- color - Med Lt. Gray
- distinct contact at Bm

Facies 5 90-103 cm (13 cm)

- Soil Horizon
- Much Roots
- sandy silt
- color - Brownish Black

Facies 6-103-196a (93a)

- Fining upward, coarse to fine sand
- Bioturbation
- Root Rhizomes 103-140cm
- color - Med. Dark Gray

2 of 2

[illegible]

DESCRIPTION AND REMARKS

- facies 7 196-320a (24a)
- coarse sand
- X-Beds 200-225m
- all sed structures destroyed below 225m
- color - light gray

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1 of 2

VIBRACORE DESCRIPTION SHEET

CORE ID: GR-15-14 DATE COLLECTED: 4/12/15 DESCRIBED BY: Chris
ELEVATION: 1.086 m COMPACTION: 192 cm DATE DESCRIBED: 8/31/15
CORE LENGTH: 276 cm LAT/LONG: N 38° 03' 32.1" W 75° 13' 34.0"
TOTAL DEPTH: 468 cm LOCATION: Green Run N. Recurve

SEDIMENTARY TEXTURE AND STRUCTURES								% SAND	PHYSICAL CHARACTERISTICS				STRATIFICATION TYPE				SAMPLE				DESCRIPTION AND REMARKS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
CLAY	SILT	VERY FINE SAND	FINE SAND	MEDIUM SAND	COARSE SAND	VERY COARSE SAND	GRANULE	INTERVAL	COLOR	DEFORMATION	BED THICKNESS	% SHELL	% ORGANIC	% BIOTURBATION	WAVE	FLASER	LENTICULAR	GROSS BED	MASSIVE BED	INCLINED BED		HORIZ. LAMINATION	GRAIN SIZE	HEAVY MINERAL	MICRO FOSSILS	RADIOMETRIC	RADIOGRAPH	PHOTOGRAPH																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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VIBRACORE DESCRIPTION SHEET

CORE ID: G-2-15-14 DATE COLLECTED: _____ DESCRIBED BY: _____
ELEVATION: _____ COMPACTION: _____ DATE DESCRIBED: _____
CORE LENGTH: _____ LAT/LONG: _____
TOTAL DEPTH: _____ LOCATION: _____

SEDIMENTARY TEXTURE AND STRUCTURES							% SAND			PHYSICAL CHARACTERISTICS				STRATIFICATION TYPE				SAMPLE				DESCRIPTION AND REMARKS								
CLAY	SILT	VERY FINE SAND	FINE SAND	MEDIUM SAND	COARSE SAND	VERY COARSE SAND	INTERVAL	0	50	100	COLOR	DEFORMATION	BED THICKNESS	% SHELL	% ORGANIC	% BIOTURBATION	WAVEY	FLASER	LENTICULAR	CROSS BED	MASSIVE BED		INCLINED BED	HORIZ. LAMINATION	GRAIN SIZE	HEAVY MINERAL	MICRO FOSSILS	RADIO METRIC	RADIOGRAPH	PHOTOGRAPH
																														<u>Facies 8</u> 110-140 cm (30 cm) - med. sand - massive bedding - color - light gray
																														<u>Facies 9</u> 140-179 cm (39 cm) - Med. Sand - deformed laminations - color - Med. gray
																														<u>Facies 10</u> 179-246 cm (87 cm) - Med/coarse sand - Bidirectional cross Bedding - shell frags from 246-266 cm - color - light gray
																														<u>Facies 11</u> 266-277 (11 cm) - med/coarse sand - Root Rhizomes - color - Dark yellowish Brown

VIBRACORE DESCRIPTION SHEET

VIBRACORE DESCRIPTION SHEET

HYDROCORE DESCRIPTION SHEET

CORE ID: <u>SI-14-1</u>	DATE COLLECTED: <u>11-8-14</u>	DESCRIBED BY: <u>CHRIS</u>
ELEVATION: <u>0.36m</u>	COMPACTION: <u>108cm</u>	DATE DESCRIBED: <u>8/31/15</u>
CORE LENGTH: <u>221</u>	LAT/LONG: <u>38° 9' 4.30" N 75° 10' 49.20" W</u>	
TOTAL DEPTH: <u>289 cm</u>	LOCATION: <u>Sinepuxent South inlet throat</u>	

ELEVATION: 1036m

CORE LENGTH: 221

TOTAL DEPTH: 289 cm

COLLECTED: 11-8-14

COMPACTION: 108 cm

LAT/LONG: 38° 9' 0"

LOCATION: Sinepu

DESCRIBED BY: Chris

DATE DESCRIBED: 8/31

"N 75° 10' 49.23" W

South inlet Phr

DESCRIPTION AND REMARKS

Facies 1 0-17cm (17cm)
- Root Mat
- color - Dark yellowish Brown

Facies 2 17-84cm (67cm)
- coarse Sand fining upward to Med sand
- X-Beds
- color - very light gray

Facies 3 84-108cm (24cm)
- Med. sand
- No bedding structures
- color - Med. lt. gray

Facies 4 108-150 (42cm)
- Very fine sand
- Bioturbation throughout
- color - Med. dark gray

Facies 5 150-164 (14cm)
- med sand
- No sed structures
- color - light gray

Facies 6 164-186 (22cm)
- fine sand
- Bioturbated
- color - Med. dark gray

Facies 7 186-221 (35cm)
- coarse sand
- Some shell hash
- No Bedding features
- color - Med. gray

1 of 2

CORE ID: S1-14-2

HYDROCORE DESCRIPTION SHEET

CORE ID: <u>S1-14-2</u>	DATE COLLECTED: <u>11/8/14</u>	DESCRIBED BY: <u>Chr25</u>
ELEVATION: <u>0.395</u>	COMPACTION: <u>56cm</u>	DATE DESCRIBED: <u>8/31/14</u>
CORE LENGTH: <u>347 cm</u>	LAT/LONG: <u>38°9'12.69"N 75°10'46.29"W</u>	
TOTAL DEPTH: <u>403 cm</u>	LOCATION: <u>Sinepuxent Inlet throat Middle</u>	

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VIBRACORE DESCRIPTION SHEET

CORE ID: SI-15-04 DATE COLLECTED: 4/4/15 DESCRIBED BY: Chris
ELEVATION: 1.532m COMPACTION: 166cm DATE DESCRIBED: 6/24/15
CORE LENGTH: 458cm LAT/LONG: N 38° 09' 05.8" N 75° 10' 34.1"
TOTAL DEPTH: 624cm LOCATION: Sinepuxent South closure Ridge

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SEDIMENTARY TEXTURE AND STRUCTURES								% SAND		PHYSICAL CHARACTERISTICS		STRATIFICATION TYPE		SAMPLE		DESCRIPTION AND REMARKS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
CLAY	SILT	VERY FINE SAND	FINE SAND	MEDIUM SAND	COARSE SAND	VERY COARSE SAND	GRANULE	INTERVAL	0	50	100	COLOR	DEFORMATION	BED THICKNESS	% SHELL		% ORGANIC	% BIOTURBATION	WAVEY	FLASER	LENTICULAR	CROSS BED	MASSIVE BED	INCLINED BED	HORIZ. LAMINATION	GRAIN SIZE	HEAVY MINERAL	MICRO FOSSILS	RADIOGRAPH	PHOTOGRAPH																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

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VIBRACORE DESCRIPTION SHEET

CORE ID: SI-15-05 DATE COLLECTED: 4/4/15 DESCRIBED BY: Chris
ELEVATION: 1.625 m COMPACTION: 15.3 cm DATE DESCRIBED: 6/20/15
CORE LENGTH: 338 cm LAT/LONG: N 38° 4' 13.5" W 75° 10' 28.9"
TOTAL DEPTH: 491 cm LOCATION: Sinepuxent Closure Ridge

SEDIMENTARY TEXTURE AND STRUCTURES							% SAND	PHYSICAL CHARACTERISTICS				STRATIFICATION TYPE				SAMPLE				DESCRIPTION AND REMARKS						
CLAY	SILT	VERY FINE SAND	FINE SAND	MEDIUM SAND	COARSE SAND	VERY COARSE SAND	INTERVAL	COLOR	DEFORMATION	BED THICKNESS	% SHELL	% ORGANIC	% BIOTURBATION	WAVE	FLASER	LENTICULAR	CROSS BED	MASSIVE BED	INCLINED BED		HORIZ. LAMINATION	GRAIN SIZE	HEAVY MINERAL	MICRO FOSSILS	RADIOMETRIC	PHOTOGRAPH
							0																			
							50																			
							100																			
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							60																			
							80																			
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							200																			
							250																			
							300																			
							350																			

Facies 1 - 0-40cm (40cm)

- Coarse Sand
- horiz. & X bedding
- Scattered root rhizomes
- color - 0-20 Dark yellowish Brown
- 20-40cm Grayish orange

Facies 2 - 40-69 (29cm)

- Med. Sand
- Massive Bedded
- Graded slight coarsening upward
- large Root at 40-46cm
- Color - Grayish orange

Facies 3 - 69-88cm (19cm)

- coarse Sand
- heavy min X-Bedding
- color - Grayish Orange

Facies 4 - 88-105cm (17cm)

- Med. Sand
- Massive bedding
- Grayish Orange

Facies 5 - 105-150cm (45cm)

- Deformed laminations
- Coarse sand w/ lenses of coarser sand
- slight fining upward
- light gray

Facies 6 - 150-223cm (73cm)

- fining upward (v. coarse - coarse)
- v. coarse large w/ granules 150-160cm
- Many horiz. laminations
- Med. light gray

Facies 7 - 223-279cm (56cm)

- very fine sand
- Massive bedding
- worm tubes 235-249cm
- Dark Gray

Facies 8 - 279-338cm (69cm)

- Med-fine Sand
- fining upward
- subtle horiz. lam. 326-338cm
- Medium light gray

VIBRACORE DESCRIPTION SHEET

VIBRACORE DESCRIPTION SHEET

CORE ID: 51-14-6

DATE COLLECTED: 11/8/14

DESCRIBED BY: Chris

ELEVATION: 1.074 m

COMPACTION: 148 cm

DATE DESCRIBED: 8/31/15

CORE LENGTH: 142 cm

LAT/LONG: 38°4'25.23"N 75°10'38.57"W

TOTAL DEPTH: 290 cm

LOCATION: Singuixent N reserve

375

1 of 3

CORE ID: 51-15-7

CORE ID: 51-15-7

ELEVATION: 0.323 m

CORE LENGTH: 25.5 cm

TOTAL DEPTH: 293 cm

DATE COLLECTED: 4/4/13

COMPACTION: 41 cm

LAT/LONG: N 38°

LOCATION: Sinepux

DESCRIBED BY: Chris

DATE DESCRIBED: 7/30

W 75° 10' 38.4"

also inlet throat

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2 of 3

CORE ID: 51-15-7

DESCRIBED BY:

DATE DESCRIBED:

CORE LENGTH:

LAT/LONG:

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VIBRACORE DESCRIPTION SHEET

CORE ID: SI-15-7 DATE COLLECTED: _____ DESCRIBED BY: _____
 ELEVATION: _____ COMPACTION: _____ DATE DESCRIBED: _____
 CORE LENGTH: _____ LAT/LONG: _____
 TOTAL DEPTH: _____ LOCATION: _____

SEDIMENTARY TEXTURE AND STRUCTURES							% SAND	PHYSICAL CHARACTERISTICS				STRATIFICATION TYPE				SAMPLE				DESCRIPTION AND REMARKS							
CLAY	SILT	VERY FINE SAND	FINE SAND	MEDIUM SAND	COARSE SAND	VERY COARSE SAND	INTERVAL	COLOR	DEFORMATION	BED THICKNESS	% SHELL	% ORGANIC	% BIOTURBATION	WAVE	FLASER	LENTICULAR	CROSS BED	MASSIVE BED	INCLINED BED		HORZ. LAMINATION	GRAIN SIZE	HEAVY MINERAL	MICRO FOSSILS	RADIO METRIC	RADIOGRAPH	PHOTOGRAPH
							0																				Facies 12 175-194 (19cm) - v. fine sand - some med. sand lenses - no bedding features - color - Med. dark gray
							50																				Facies 13 194-220 (26cm) - coarse sand - deformed bedding structures - some fine shell hash - color - Med. gray
							100																				Facies 14 220-255 (35cm) - v. coarse sand - shell frags - granules - no sed structures - color - Very light gray

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VIBRACORE DESCRIPTION SHEET

CORE ID: SI-15-08 DATE COLLECTED: 9/19/15 DESCRIBED BY: Chris
ELEVATION: -0.776 m COMPACTION: 49cm DATE DESCRIBED: 9/22/15
CORE LENGTH: 362 cm LAT/LONG: N 38° 08' 56.2" W 75° 10' 53.8"
TOTAL DEPTH: 911 cm LOCATION: Sinepuxent Southern Recurve

SEDIMENTARY TEXTURE AND STRUCTURES								% SAND	PHYSICAL CHARACTERISTICS				STRATIFICATION TYPE				SAMPLE				DESCRIPTION AND REMARKS												
CLAY	SILT	VERY FINE SAND	FINE SAND	MEDIUM SAND	COARSE SAND	VERY COARSE SAND	GRAVEL	ORGANICS INTERVAL	COLOR	DEFORMATION	BED THICKNESS	% SHELL	% ORGANIC	% BIOTURBATION	WAVEY	FLASER	LENTICULAR	CROSS BED	MASSIVE BED	INCLINED BED		HORZ. LAMINATION	GRAIN SIZE	HEAVY MINERAL	MICRO FOSSILS	RADIO METRIC	PHOTOGRAPH						
								0																									
								50																									
								100																									

GeoMarine Research Laboratory Coastal Studies Institute

2 of 2

VIBRACORE DESCRIPTION SHEET

CORE ID: SI-15-8 DATE COLLECTED: _____ DESCRIBED BY: _____
ELEVATION: _____ COMPACTION: _____ DATE DESCRIBED: _____
CORE LENGTH: _____ LAT/LONG: _____
TOTAL DEPTH: _____ LOCATION: _____

SEDIMENTARY TEXTURE AND STRUCTURES							% SAND	PHYSICAL CHARACTERISTICS				STRATIFICATION TYPE				SAMPLE				DESCRIPTION AND REMARKS							
CLAY	SILT	VERY FINE SAND	FINE SAND	MEDIUM SAND	COARSE SAND	VERY COARSE SAND	INTERVAL	COLOR	DEFORMATION	BED THICKNESS	% SHELL	% ORGANIC	% BIOTURBATION	WAVE	FLASER	LENTICULAR	CROSS BED	MASSIVE BED	INCLINED BED		HORIZ. LAMINATION	GRAIN SIZE	HEAVY MINERAL	MICRO FOSSILS	RADIOMETRIC	RADIOGRAPH	PHOTOGRAPH
							0																				<p><u>Facies 7</u> 214-233 cm</p> <ul style="list-style-type: none"> - heavily bioturbated - silty sand - abrupt contact at top of unit - color - med. gray <p><u>Facies 8</u> 233-293</p> <ul style="list-style-type: none"> - clay - some burrows - color - Med. dark gray <p><u>Facies 9</u> 293-362</p> <ul style="list-style-type: none"> - Med. sand - gradual contact at top of unit - snail shells at 331 cm + 338 cm - color - light gray
							50																				
							100																				

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VIBRACORE DESCRIPTION SHEET

CORE ID: SI-15-9 DATE COLLECTED: 4/5/15 DESCRIBED BY: Chris
ELEVATION: 0.418 m COMPACTION: 7.2 cm DATE DESCRIBED: 8/24/15
CORE LENGTH: 330 cm LAT/LONG: 38° 9' 13.20" N 75° 11' 0.06" W
TOTAL DEPTH: 402 cm LOCATION: Sinepuxent Middle of FTD

SEDIMENTARY TEXTURE AND STRUCTURES							% SAND	PHYSICAL CHARACTERISTICS			STRATIFICATION TYPE				SAMPLE				DESCRIPTION AND REMARKS												
CLAY	SILT	VERY FINE SAND	FINE SAND	MEDIUM SAND	COARSE SAND	VERY COARSE SAND	ORGANICS	COLOR	DEFORMATION	BED THICKNESS	% SHELL	% ORGANIC	% BIOTURBATION	WAVE	FLASER	LENTICULAR	CROSS BED	MASSIVE BED		INCLINED BED	HORIZ. LAMINATION	GRAIN SIZE	HEAVY MINERAL	MICRO FOSSILS	RADIO METRIC	RADIOGRAPH	PHOTOGRAPH				
							0																								
							50																								
							100																								
							200																								
							300																								
							400																								

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2 of 2

VIBRACORE DESCRIPTION SHEET

CORE ID: SI-15-9 DATE COLLECTED: _____ DESCRIBED BY: _____
ELEVATION: _____ COMPACTION: _____ DATE DESCRIBED: _____
CORE LENGTH: _____ LAT/LONG: _____
TOTAL DEPTH: _____ LOCATION: _____

SEDIMENTARY TEXTURE AND STRUCTURES							% SAND			PHYSICAL CHARACTERISTICS				STRATIFICATION TYPE				SAMPLE				DESCRIPTION AND REMARKS								
CLAY	SILT	VERY FINE SAND	FINE SAND	MEDIUM SAND	COARSE SAND	VERY COARSE SAND	INTERVAL	0	50	100	COLOR	DEFORMATION	BED THICKNESS	% SHELL	% ORGANIC	% BIOTURBATION	WAVEY	FLASER	LENTICULAR	CROSS BED	MASSIVE BED		INCLINED BED	HORIZ. LAMINATION	GRAIN SIZE	HEAVY MINERAL	MICRO FOSSILS	RADIOMETRIC	RADIOGRAPH	PHOTOGRAPH
																														<p><u>Facies 6</u> 139-155 (16m)</p> <ul style="list-style-type: none"> - Very fine sand (silty sand) - Some crushed shells (very finely crushed - 1/3 unidentifiable) 153 cm - No Bedding features - color - Med. Dark gray
																														<p><u>Facies 7</u> 155-283</p> <ul style="list-style-type: none"> - clayey silt - lens of med. sand at 179-182 cm w/ likely bioturbation, 182-190 cm - lens of med/coarse sand 247-249 cm - color - Grayish Black
																														<p><u>Facies 8</u> 283-312 cm (29 cm)</p> <ul style="list-style-type: none"> - Med. Sand - Bioturbation - deformed structures from Vibracoring - some crushed shells @ 287-290 cm & 300-310 - Snail shells - color - Med. gray
																														<p><u>Facies 9</u> 312-330 cm (18 cm)</p> <ul style="list-style-type: none"> - coarse sand - No Bedding features - color - Med. light gray - some crushed shells

1 of 2

CORE ID: S1-15-10

ELEVATION: 0.973 m COMPACTION: 121 cm DATE DESCRIBED: 8/21/15

CORE LENGTH: 420 cm LAT/LONG: 38° 9' 26.4" N 75° 10' 41.7" W

TOTAL DEPTH: 541 cm LOCATION: Sinepuxent N. Recurve

DESCRIPTION AND REMARKS

2 of 2

CORE ID: 51-15-10

VIBRACORE DESCRIPTION SHEET

VIBRACORE DESCRIPTION SHEET

CORE ID: SI-15-11

DATE COLLECTED: 9/19/15

DESCRIBED BY: Chris

ELEVATION: 1,34 m

DATE DESCRIBED: 9/22/15

CORE LENGTH: 355 cm

LAT/LONG: N 38° 9' 29.4" W 75° 10' 22.5"

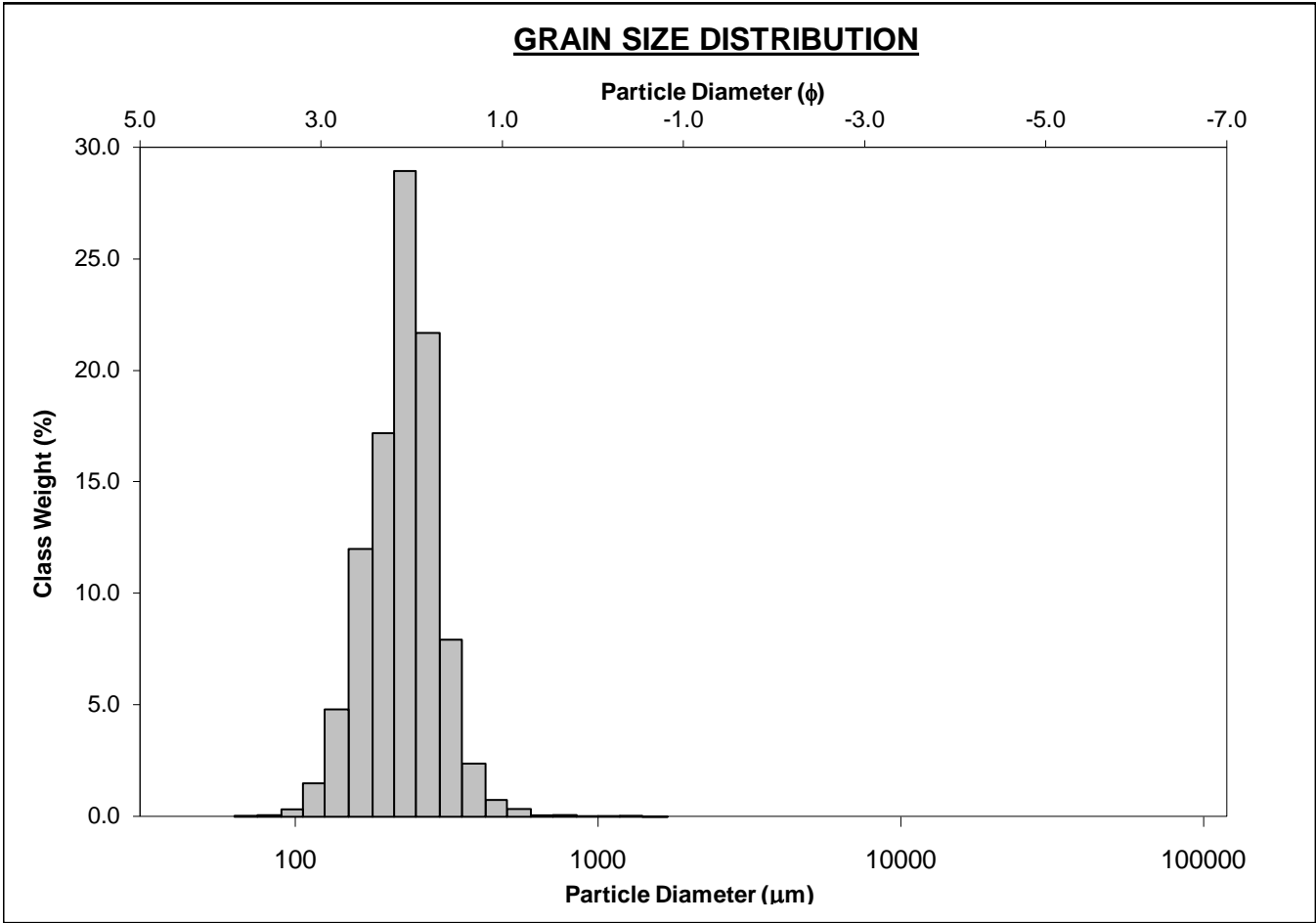
TOTAL DEPTH: 456 cm

LOCATION: Sinepuxent N. Reserve

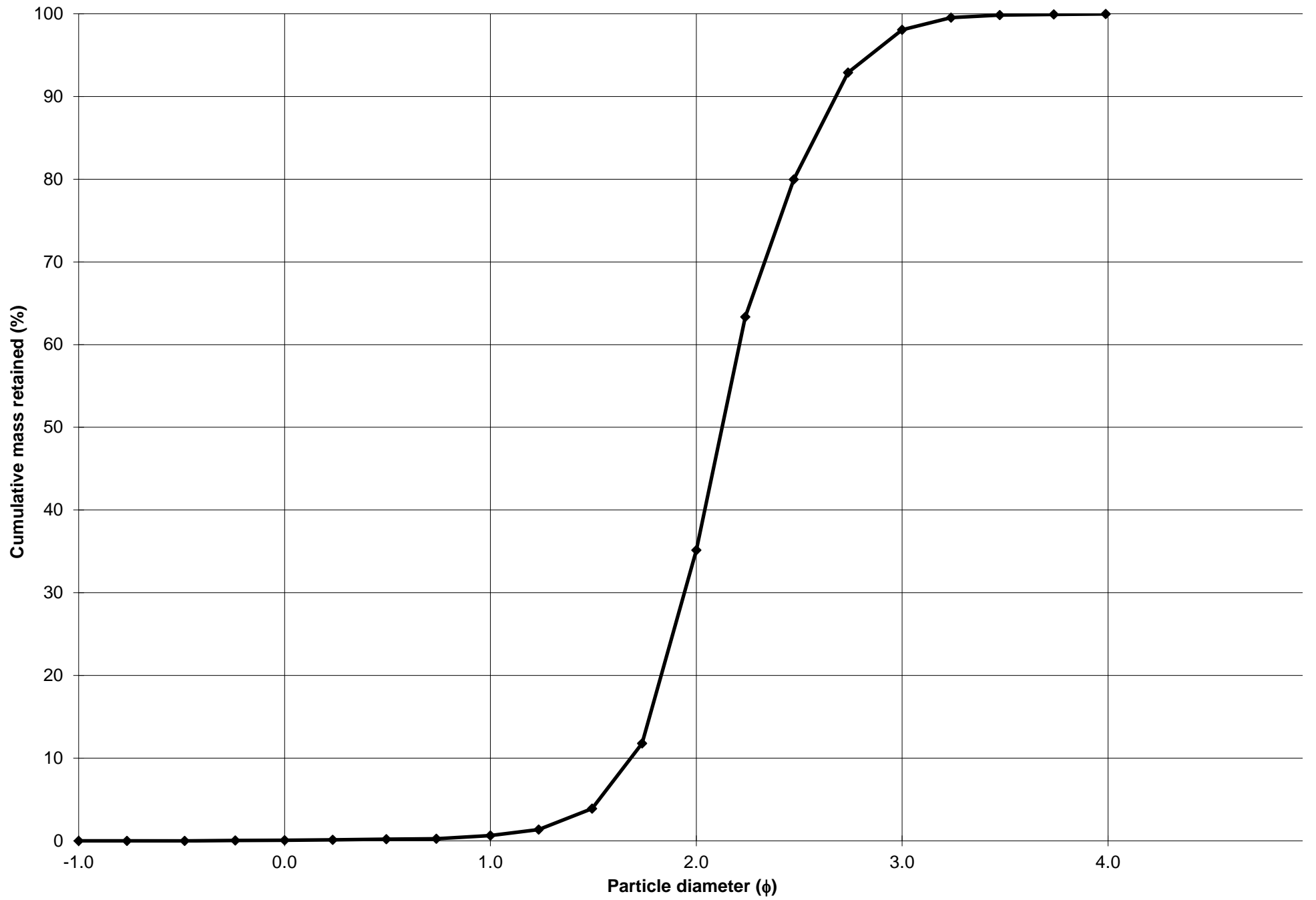
APPENDIX C – GRAIN SIZE ANALYSIS RESULTS

Appendix B (1677 pages): The following section contains the statistical output sheets from the GRADISTAT software package for each sediment textural analysis sample. Statistical output follows both the Folk and Ward Method as well as the Method of Moments. In addition, sieving error, analyst, date, and sediment textural group are included in the output sheets. Grain-size distribution is displayed by weight contained in each individual sieve as well as cumulative weight. Each sample consists of a 2-page output sheet. The identification scheme for each core follows the proceeding formula: inlet name (GR for Green Run Inlet and SI for Sinepuxent Inlet): last two digits of year collected: core number: sample interval. For example, sample GR-14-01-40cm was collected from Green Run Inlet in 2014 from core number 1 at a depth of 40 cm. The GRADISTAT output sheets are separated first by inlet name (i.e., GR and then SI) and then by core number (i.e., 1 through 14, and PA1-PA3 for Green Run Inlet; and 1 through 11, and PA1-PA3 for Sinepuxent Inlet), and finally by sample depth. In total, 30 sediment cores were collected for this study, yielding 850 sediment samples.

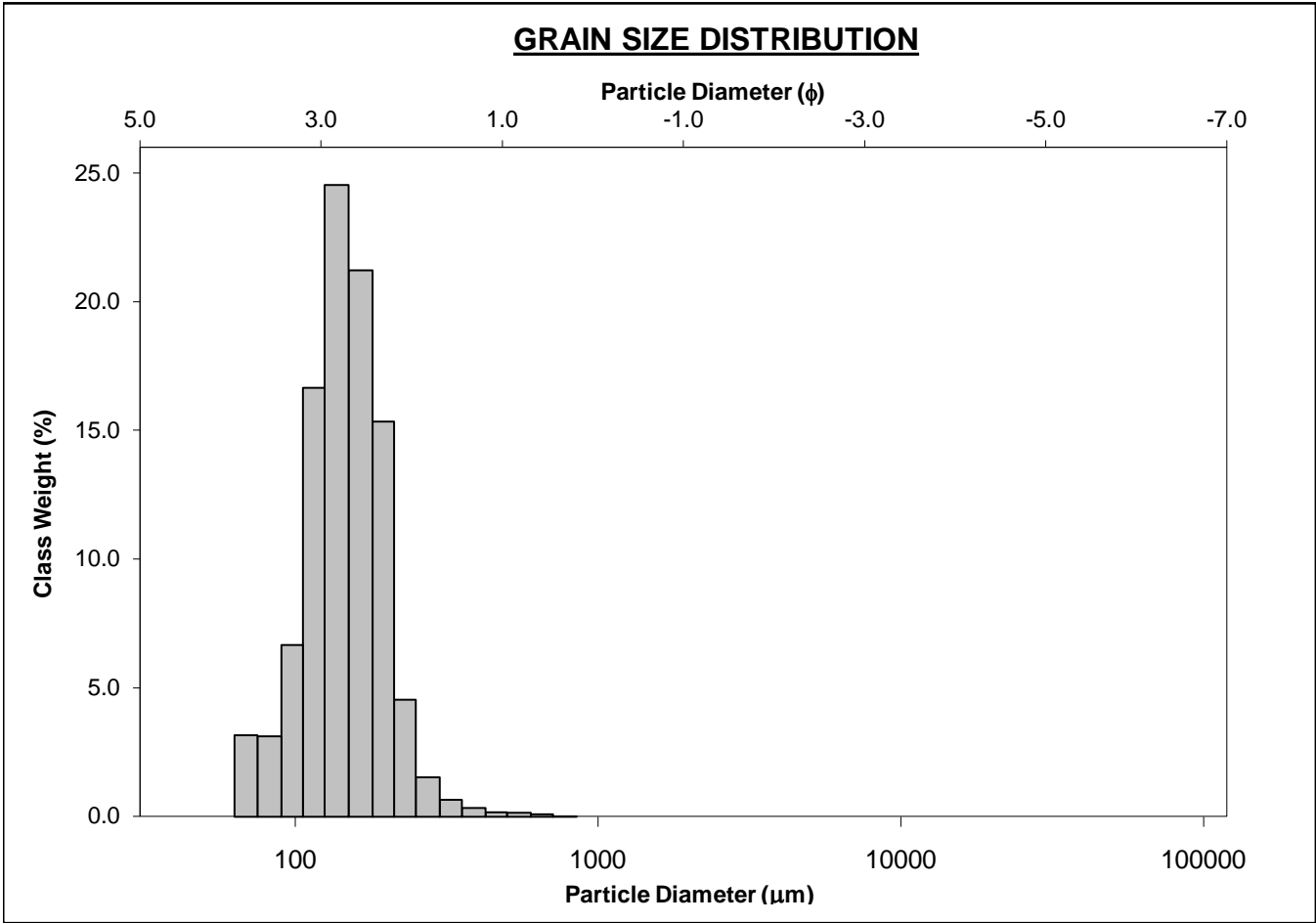
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-01-40cm			ANALYST & DATE: Chris, 10/2/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.6%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 34.5%	
MODE 3:			MUD: 0.0%		FINE SAND: 62.9%	
D ₁₀ :	156.2	1.682			V FINE SAND: 1.9%	
MEDIAN or D ₅₀ :	229.2	2.125	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	311.7	2.678	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.995	1.592	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	155.4	0.996	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.432	1.275	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	81.61	0.518	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	236.0	225.7	2.147	224.5	2.155	Fine Sand
SORTING (σ):	73.62	1.329	0.410	1.313	0.392	Well Sorted
SKEWNESS (Sk):	3.335	-0.210	0.210	-0.104	0.104	Fine Skewed
KURTOSIS (K):	37.79	8.614	8.614	1.042	1.042	Mesokurtic



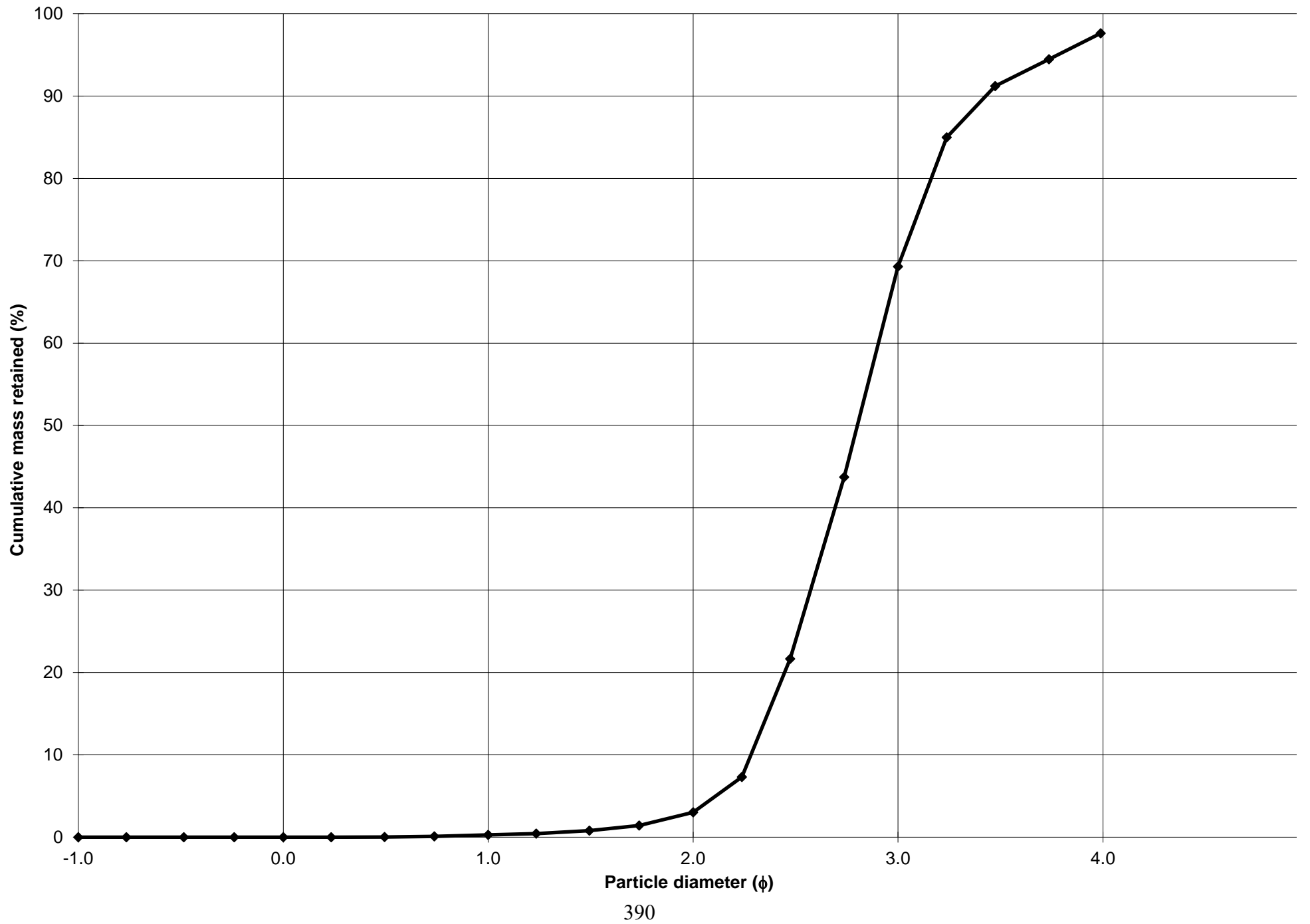
Cumulative Frequency Curve



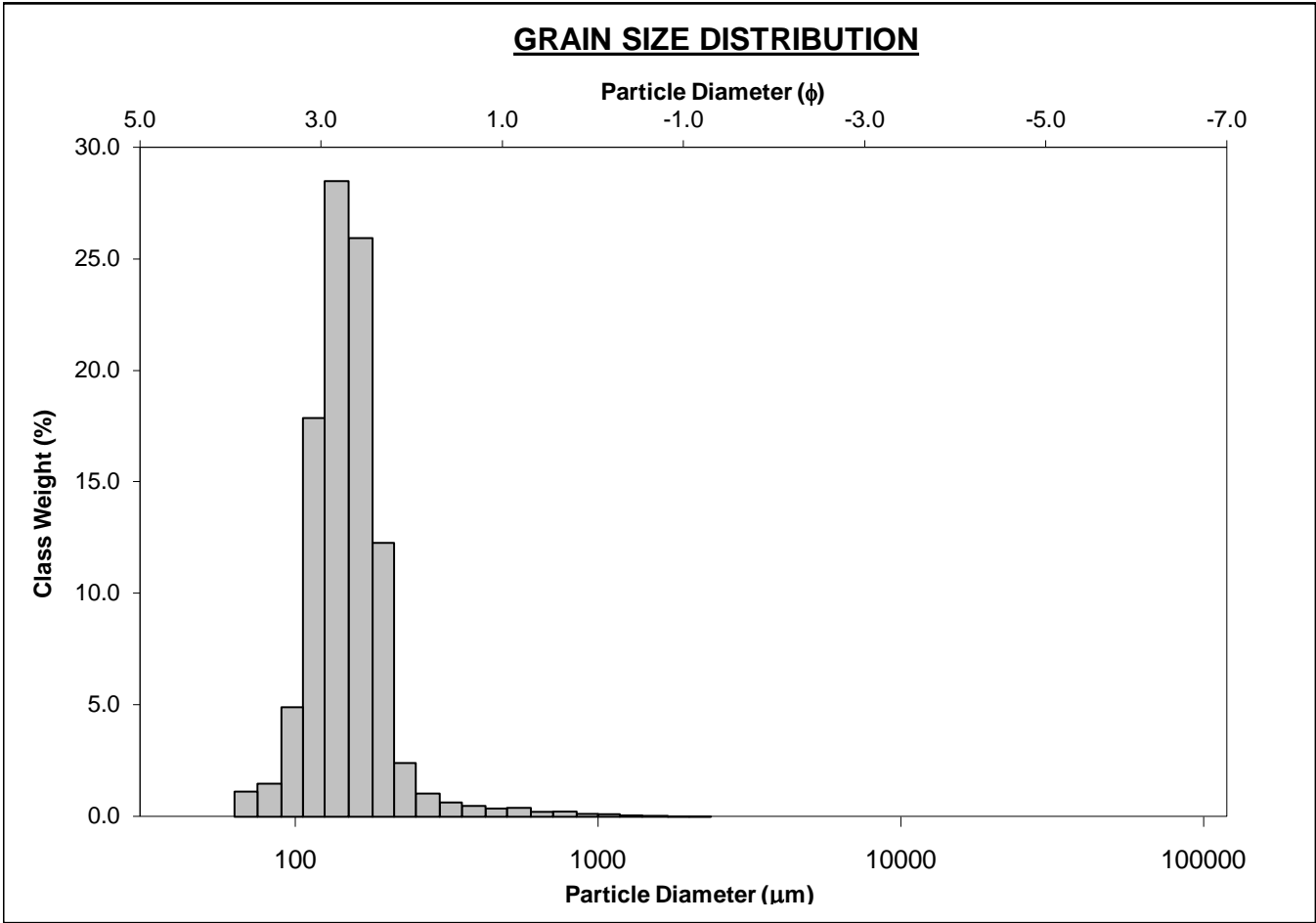
SIEVING ERROR: 1.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-01-50cm			ANALYST & DATE: Chris, 10/2/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.3%			
MODE 2:			SAND: 97.6% MEDIUM SAND: 2.7%			
MODE 3:			MUD: 2.4% FINE SAND: 66.3%			
D ₁₀ :	92.90	2.282	V FINE SAND: 28.3%			
MEDIAN or D ₅₀ :	143.4	2.801	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.4%			
D ₉₀ :	205.6	3.428	COARSE GRAVEL: 0.0% COARSE SILT: 0.4%			
(D ₉₀ / D ₁₀):	2.213	1.502	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.4%			
(D ₉₀ - D ₁₀):	112.7	1.146	FINE GRAVEL: 0.0% FINE SILT: 0.4%			
(D ₇₅ / D ₂₅):	1.487	1.228	V FINE GRAVEL: 0.0% V FINE SILT: 0.4%			
(D ₇₅ - D ₂₅):	57.36	0.573	V COARSE SAND: 0.0% CLAY: 0.4%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	149.7	134.9	2.890	143.4	2.802	Fine Sand
SORTING (σ):	55.57	1.716	0.779	1.379	0.463	Well Sorted
SKEWNESS (Sk):	2.261	-3.323	3.323	-0.087	0.087	Symmetrical
KURTOSIS (K):	18.37	18.90	18.90	1.195	1.195	Leptokurtic



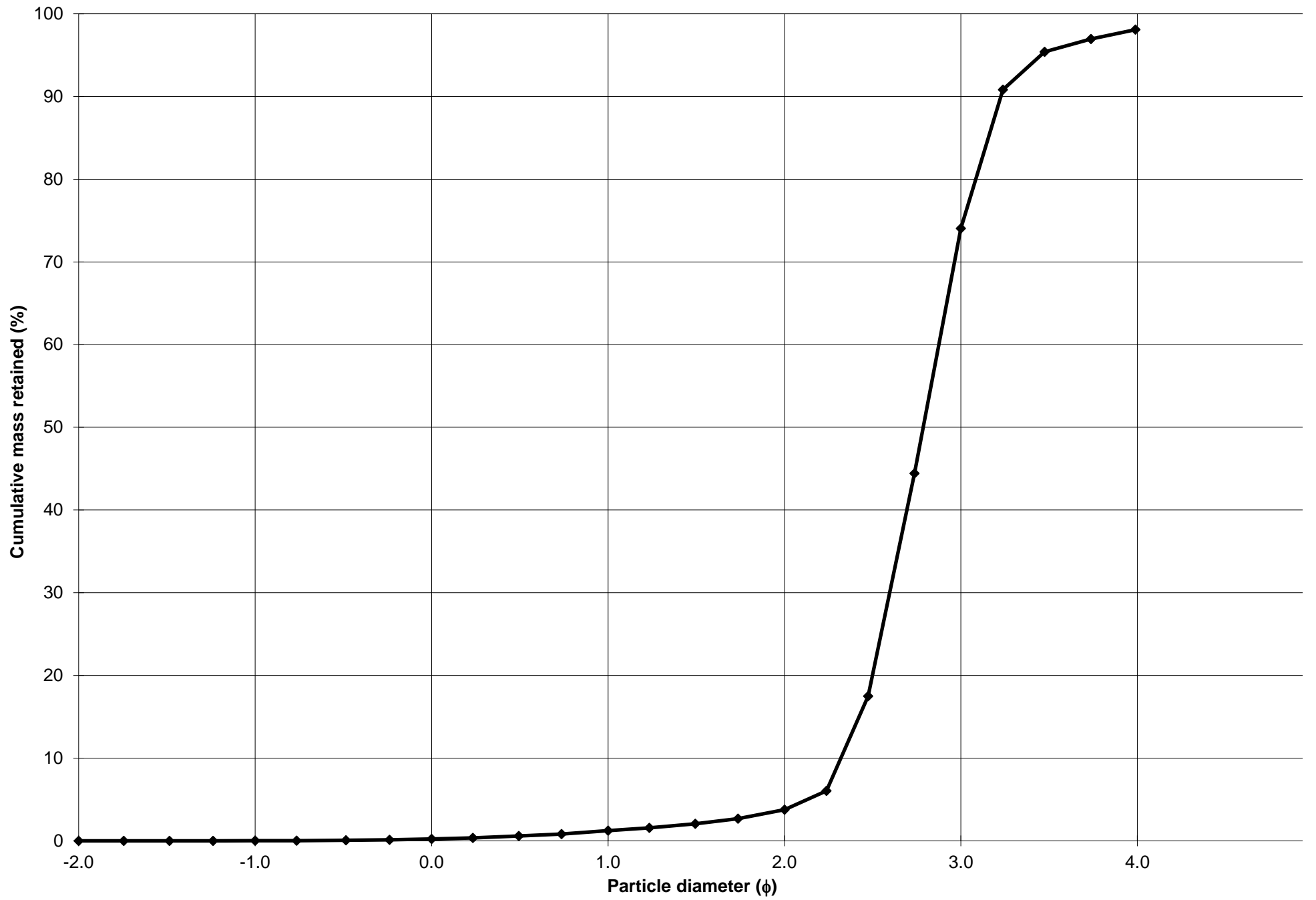
Cumulative Frequency Curve



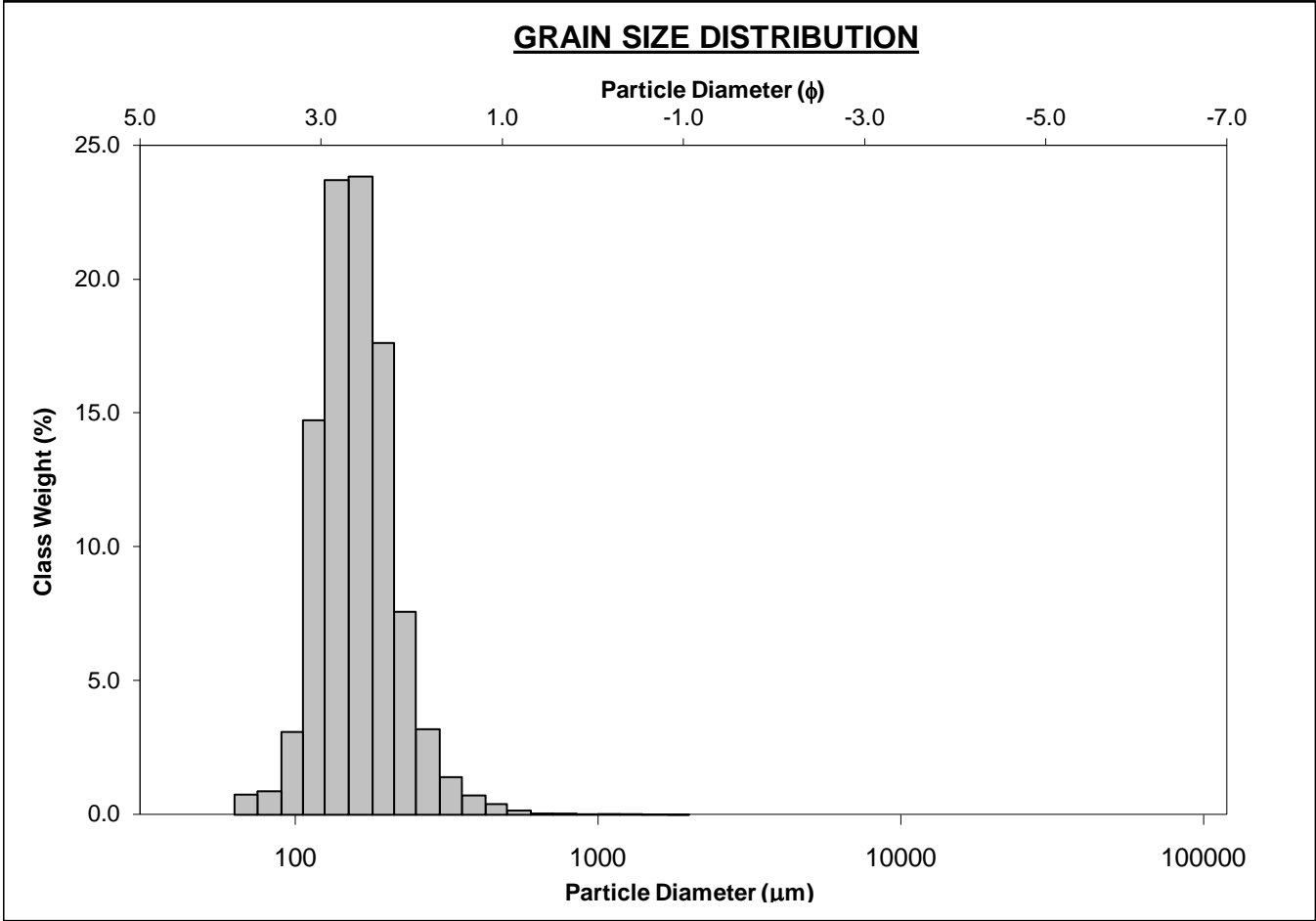
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-01-60cm			ANALYST & DATE: Chris, 10/2/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 1.0%	
MODE 2:			SAND: 98.1%		MEDIUM SAND: 2.5%	
MODE 3:			MUD: 1.9%		FINE SAND: 70.3%	
D_{10} :	106.9	2.320			V FINE SAND: 24.0%	
MEDIAN or D_{50} :	144.9	2.786	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.3%	
D_{90} :	200.3	3.226	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D_{90} / D_{10}) :	1.874	1.391	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
$(D_{90} - D_{10})$:	93.44	0.906	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D_{75} / D_{25}) :	1.382	1.183	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
$(D_{75} - D_{25})$:	47.25	0.466	V COARSE SAND: 0.2%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	157.7	141.0	2.826	144.6	2.790	Fine Sand
SORTING (σ):	91.68	1.670	0.739	1.297	0.375	Well Sorted
SKEWNESS (Sk):	7.926	-2.861	2.861	-0.012	0.012	Symmetrical
KURTOSIS (K):	100.8	21.53	21.53	1.163	1.163	Leptokurtic



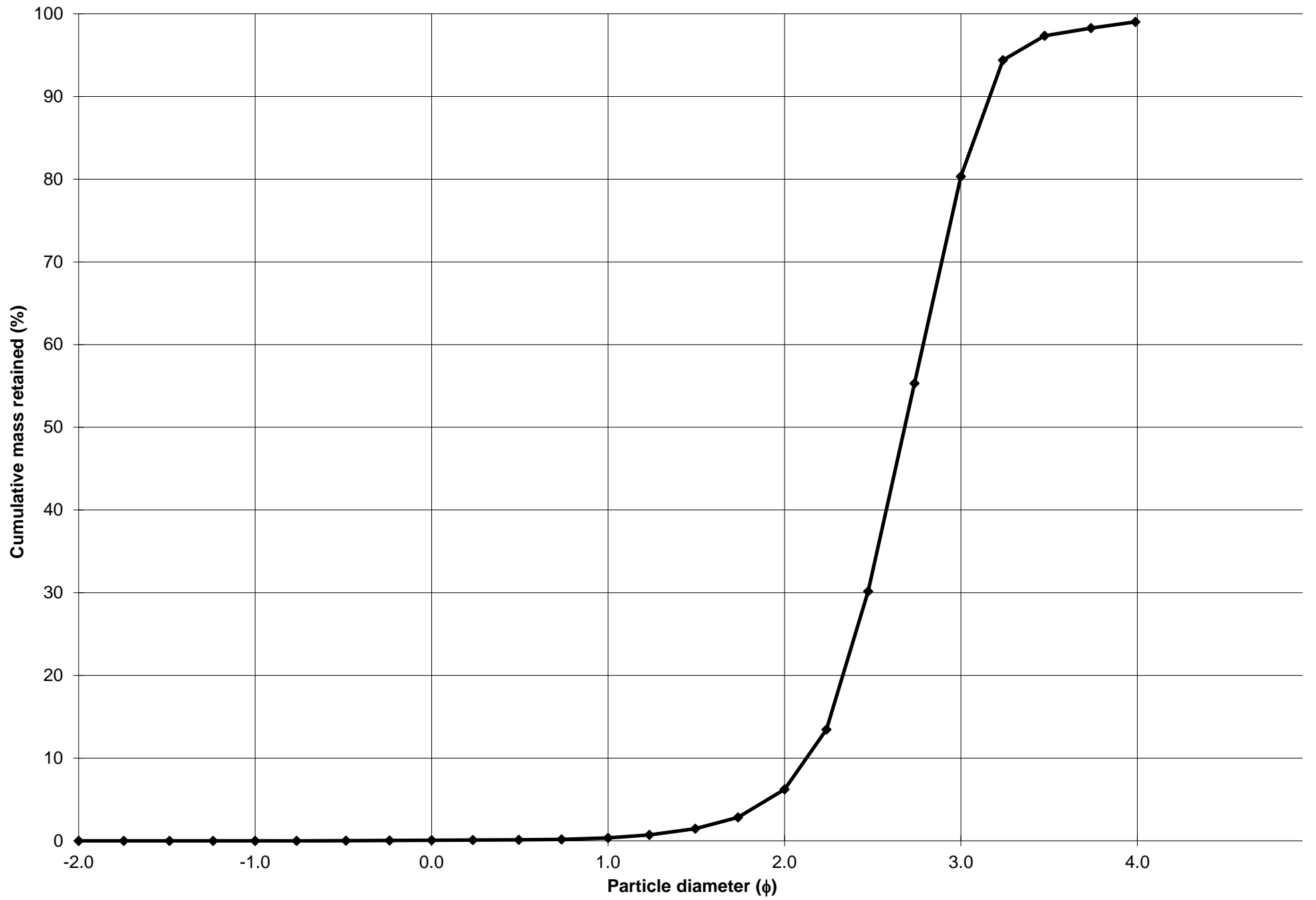
Cumulative Frequency Curve



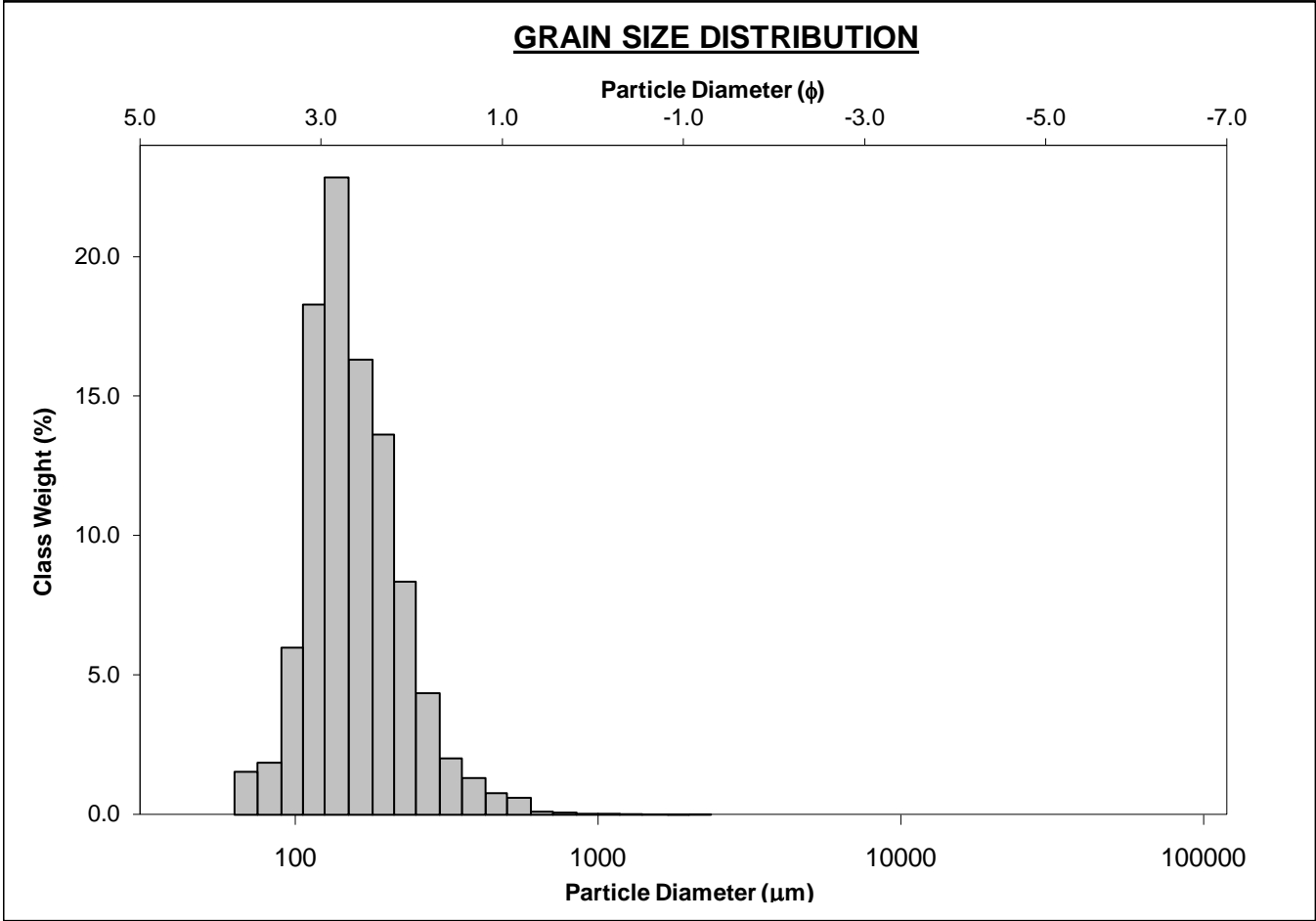
SIEVING ERROR: 0.8%		<u>SAMPLE STATISTICS</u>				
SAMPLE IDENTITY: GR-14-01-70cm			ANALYST & DATE: Chris, 10/2/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.3%			
MODE 2:			SAND: 99.0% MEDIUM SAND: 5.9%			
MODE 3:			MUD: 1.0% FINE SAND: 74.1%			
D ₁₀ :	111.6	2.124	V FINE SAND: 18.7%			
MEDIAN or D ₅₀ :	155.9	2.681	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.2%			
D ₉₀ :	229.4	3.163	COARSE GRAVEL: 0.0% COARSE SILT: 0.2%			
(D ₉₀ / D ₁₀):	2.055	1.489	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.2%			
(D ₉₀ - D ₁₀):	117.8	1.039	FINE GRAVEL: 0.0% FINE SILT: 0.2%			
(D ₇₅ / D ₂₅):	1.457	1.226	V FINE GRAVEL: 0.0% V FINE SILT: 0.2%			
(D ₇₅ - D ₂₅):	59.37	0.543	V COARSE SAND: 0.1% CLAY: 0.2%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	167.1	155.0	2.690	156.9	2.672	Fine Sand
SORTING (σ):	66.61	1.524	0.607	1.325	0.406	Well Sorted
SKEWNESS (Sk):	5.433	-3.084	3.084	0.079	-0.079	Symmetrical
KURTOSIS (K):	79.53	26.35	26.35	1.043	1.043	Mesokurtic



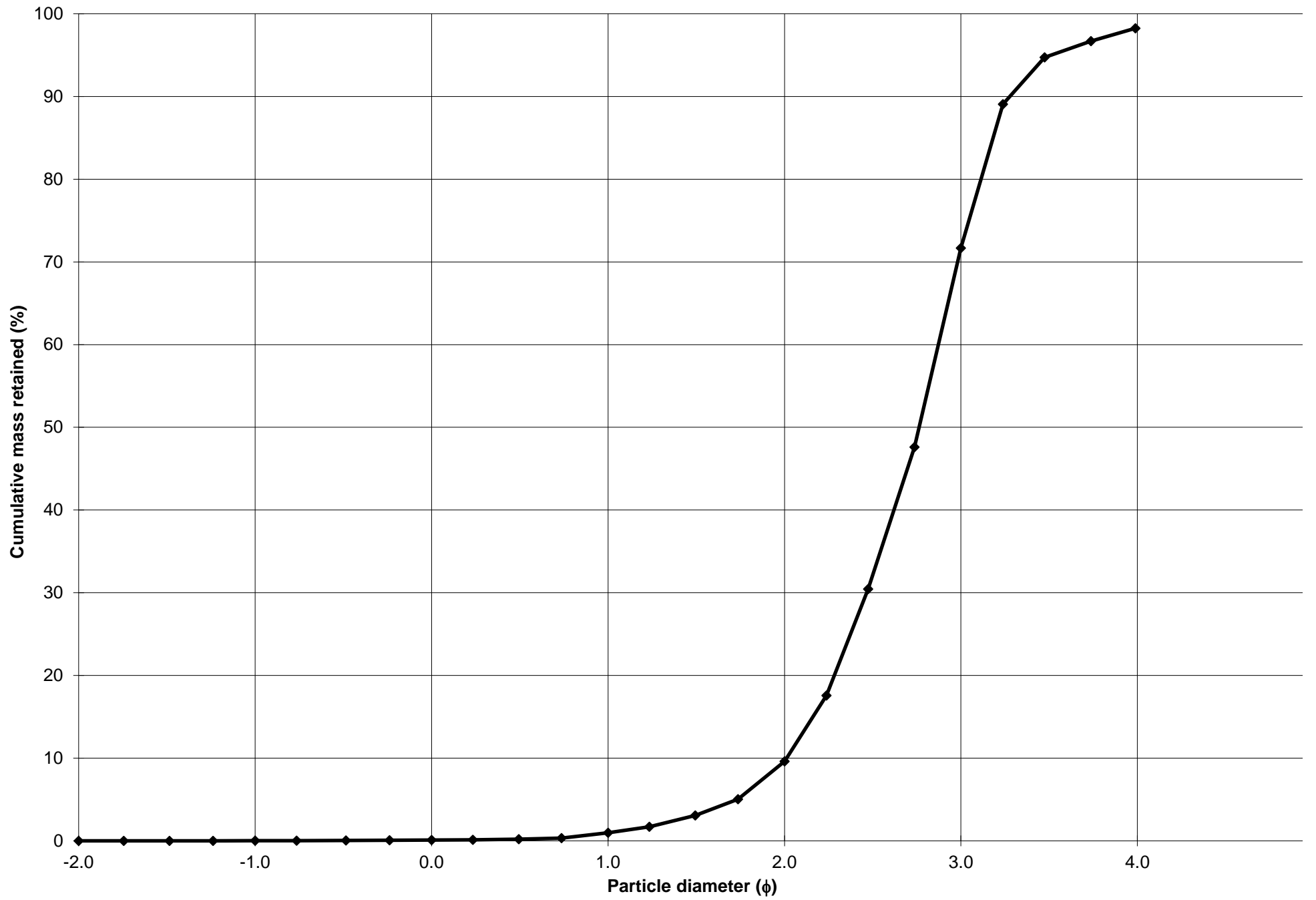
Cumulative Frequency Curve



SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-01-80cm			ANALYST & DATE: Chris, 10/2/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 0.9%	
MODE 2:			SAND: 98.2%		MEDIUM SAND: 8.7%	
MODE 3:			MUD: 1.7%		FINE SAND: 62.0%	
D ₁₀ :	103.2	2.012			V FINE SAND: 26.6%	
MEDIAN or D ₅₀ :	147.3	2.763	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.3%	
D ₉₀ :	248.0	3.277	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D ₉₀ / D ₁₀):	2.403	1.629	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
(D ₉₀ - D ₁₀):	144.8	1.265	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D ₇₅ / D ₂₅):	1.593	1.283	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
(D ₇₅ - D ₂₅):	71.78	0.671	V COARSE SAND: 0.1%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	168.3	149.1	2.746	153.1	2.708	Fine Sand
SORTING (σ):	88.19	1.714	0.777	1.428	0.514	Moderately Well Sorted
SKEWNESS (Sk):	5.575	-2.433	2.433	0.165	-0.165	Coarse Skewed
KURTOSIS (K):	80.70	16.97	16.97	1.084	1.084	Mesokurtic



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-01-100cm**

ANALYST & DATE: Chris, 10/3/15

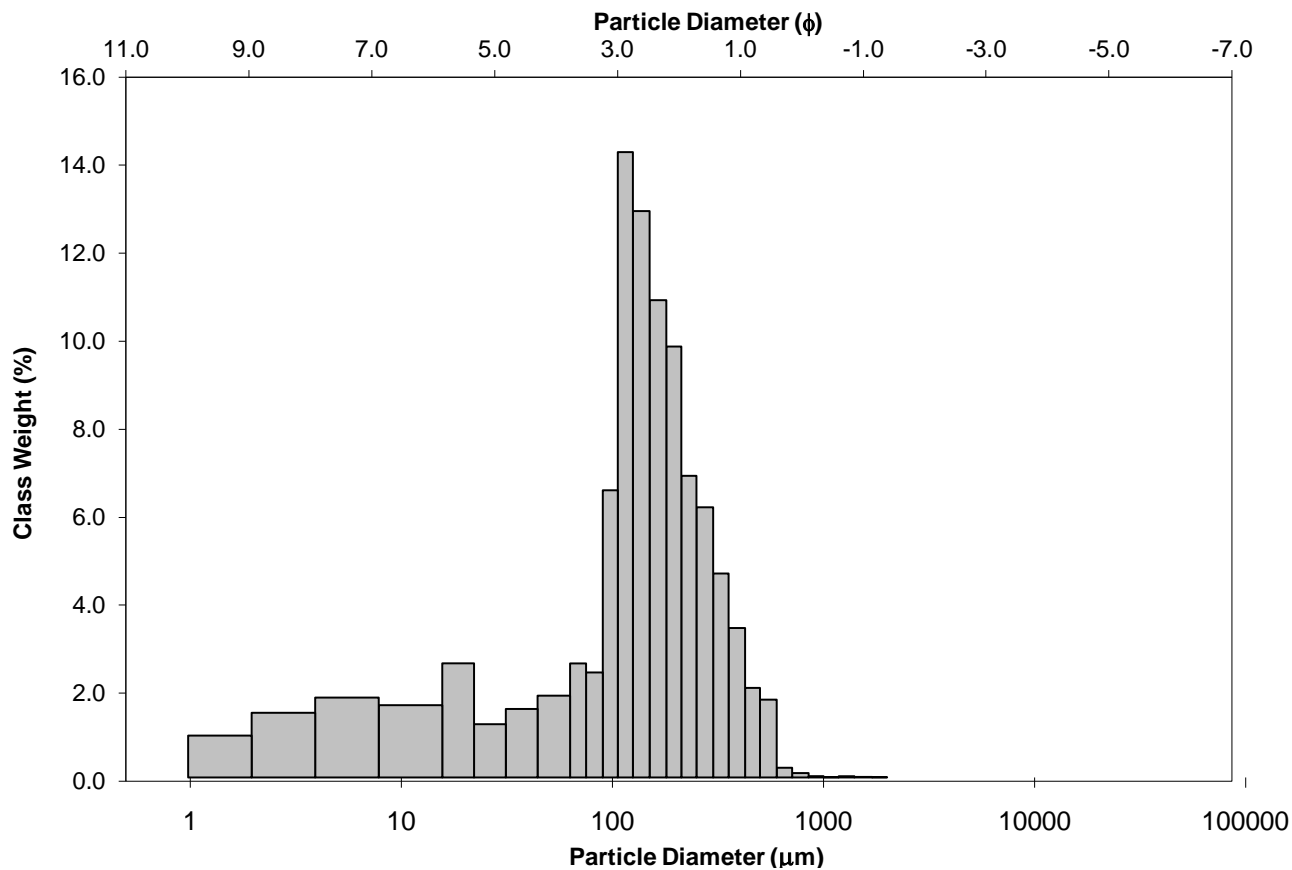
SAMPLE TYPE: Trimodal, Very Poorly Sorted

TEXTURAL GROUP: Muddy Sand

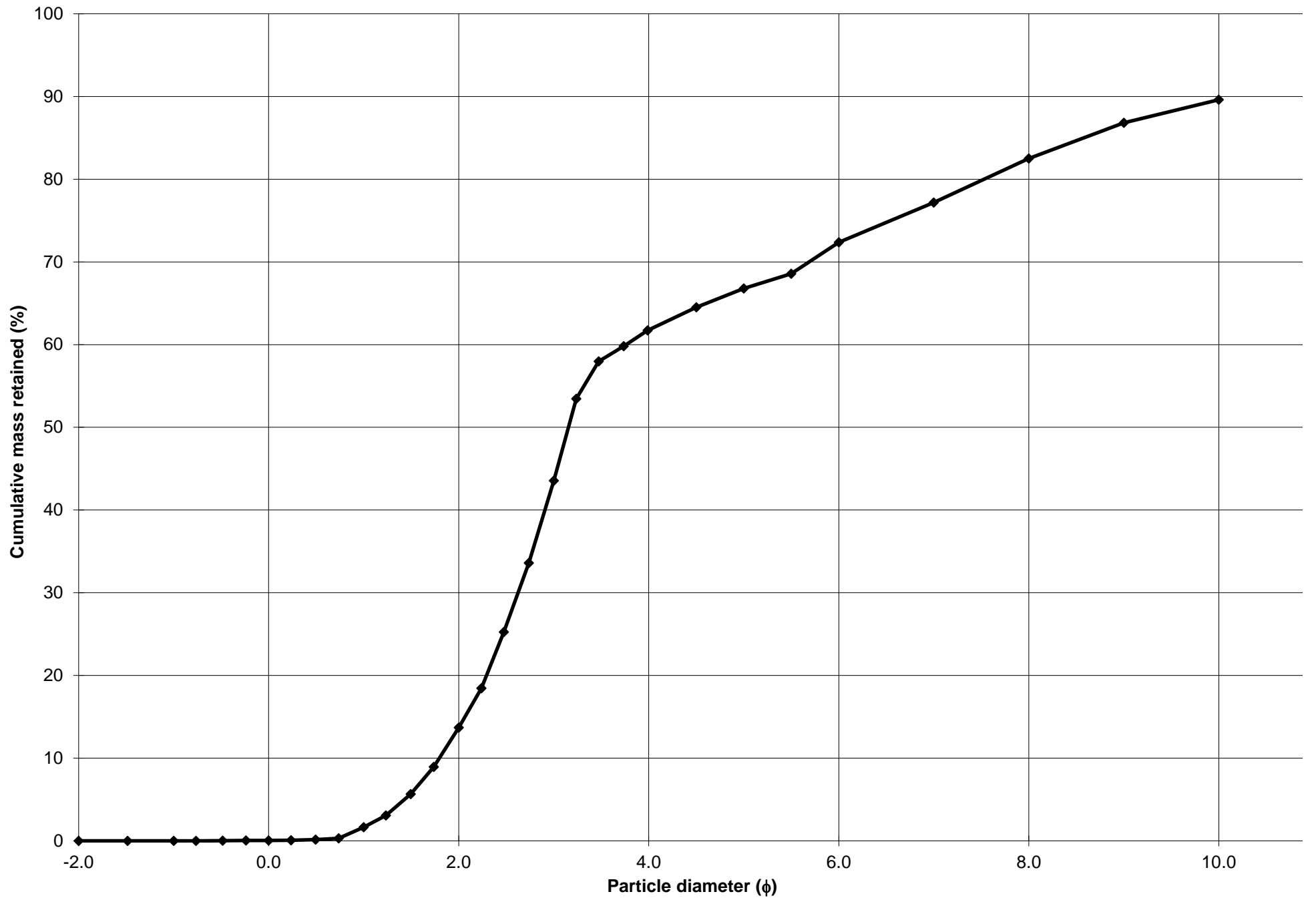
SEDIMENT NAME: Muddy Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	115.5	3.119	GRAVEL: 0.0%	COARSE SAND: 1.6%		
MODE 2:	18.86	5.750	SAND: 61.8%	MEDIUM SAND: 12.0%		
MODE 3:	69.00	3.863	MUD: 38.2%	FINE SAND: 29.9%		
D_{10} :	1.030	1.796		V FINE SAND: 18.2%		
MEDIAN or D_{50} :	112.3	3.155	V COARSE GRAVEL: 0.0%	V COARSE SILT: 5.0%		
D_{90} :	288.1	9.923	COARSE GRAVEL: 0.0%	COARSE SILT: 5.6%		
(D_{90} / D_{10}) :	279.7	5.527	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 4.8%		
$(D_{90} - D_{10})$:	287.0	8.128	FINE GRAVEL: 0.0%	FINE SILT: 5.3%		
(D_{75} / D_{25}) :	16.93	2.655	V FINE GRAVEL: 0.0%	V FINE SILT: 4.3%		
$(D_{75} - D_{25})$:	170.4	4.081	V COARSE SAND: 0.0%	CLAY: 13.2%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	125.5	44.44	4.492	43.01	4.539	Very Coarse Silt
SORTING (σ):	126.4	7.051	2.818	6.494	2.699	Very Poorly Sorted
SKEWNESS (Sk):	1.708	-0.854	0.854	-0.604	0.604	Very Fine Skewed
KURTOSIS (K):	9.915	2.327	2.327	0.756	0.756	Platykurtic

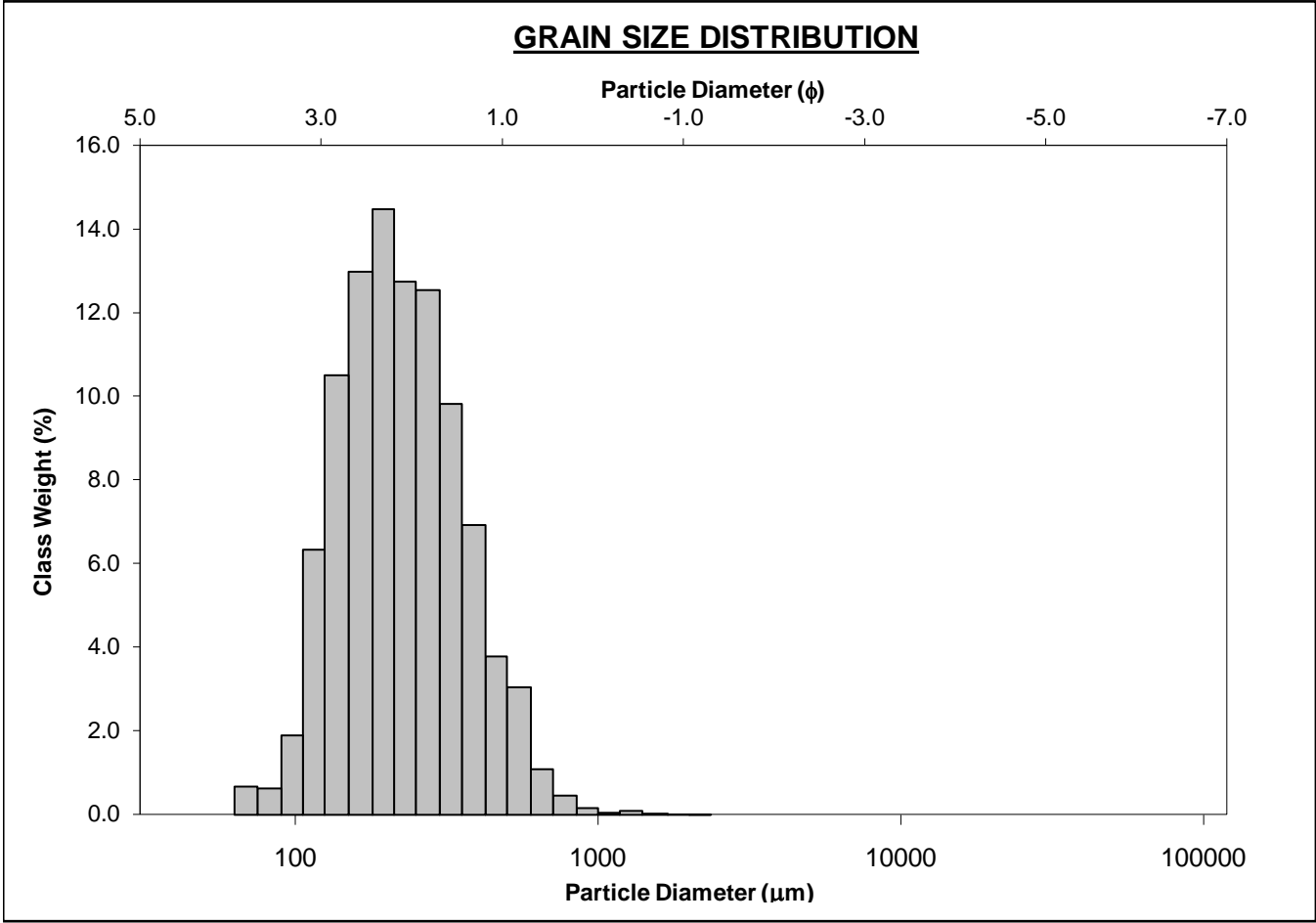
GRAIN SIZE DISTRIBUTION



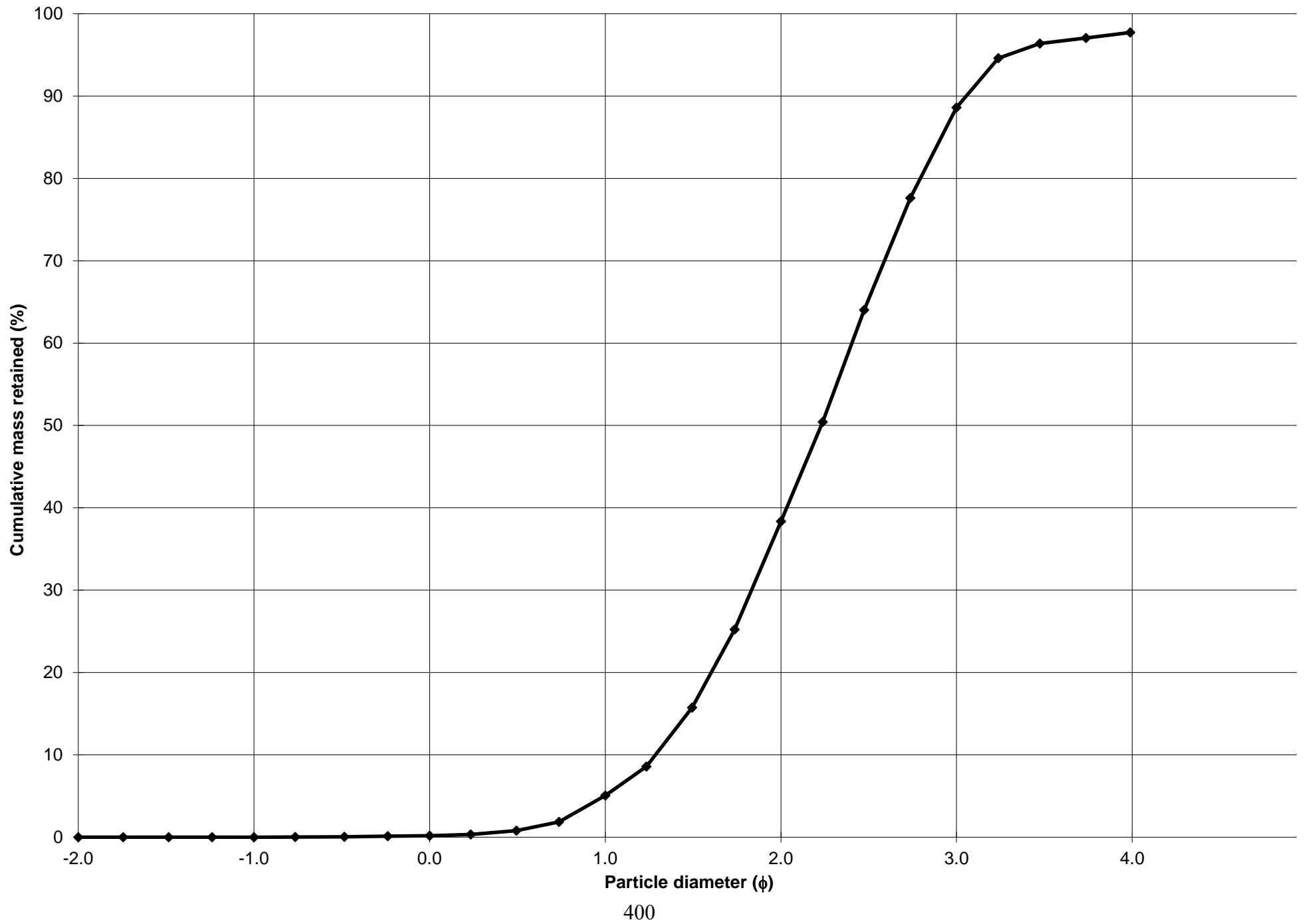
Cumulative Frequency Curve



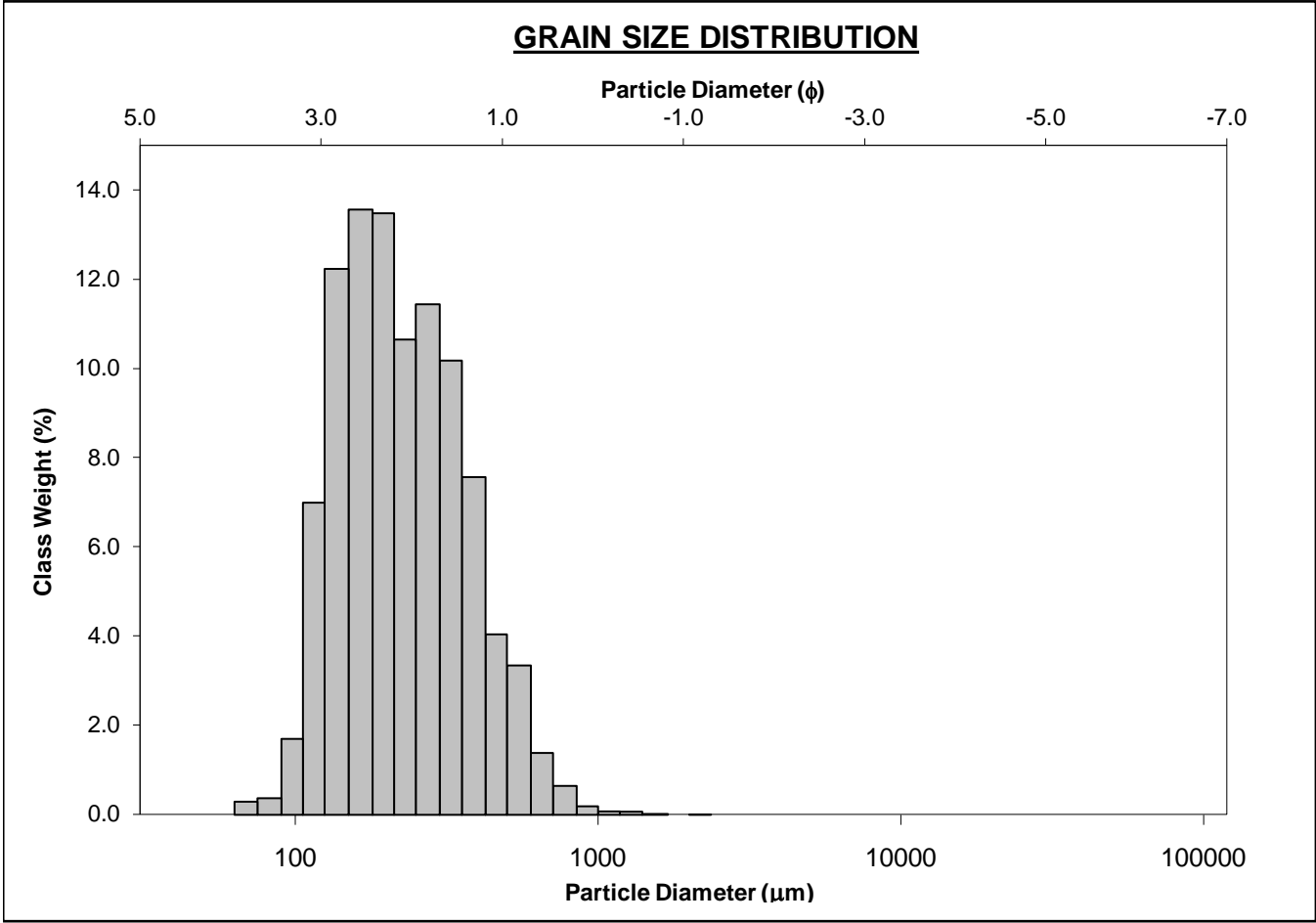
SIEVING ERROR: 1.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-01-120cm			ANALYST & DATE: Chris, 10/2/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 4.9%	
MODE 2:			SAND: 97.7%		MEDIUM SAND: 33.3%	
MODE 3:			MUD: 2.3%		FINE SAND: 50.2%	
D ₁₀ :	120.3	1.286			V FINE SAND: 9.1%	
MEDIAN or D ₅₀ :	213.2	2.230	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.4%	
D ₉₀ :	410.1	3.055	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D ₉₀ / D ₁₀):	3.410	2.376	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
(D ₉₀ - D ₁₀):	289.8	1.770	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D ₇₅ / D ₂₅):	1.939	1.552	V FINE GRAVEL: 0.0%		V FINE SILT: 0.4%	
(D ₇₅ - D ₂₅):	145.9	0.955	V COARSE SAND: 0.2%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	245.9	206.9	2.273	216.6	2.207	Fine Sand
SORTING (σ):	135.1	1.970	0.978	1.619	0.695	Moderately Well Sorted
SKEWNESS (Sk):	2.171	-2.316	2.316	0.062	-0.062	Symmetrical
KURTOSIS (K):	14.34	13.11	13.11	0.984	0.984	Mesokurtic



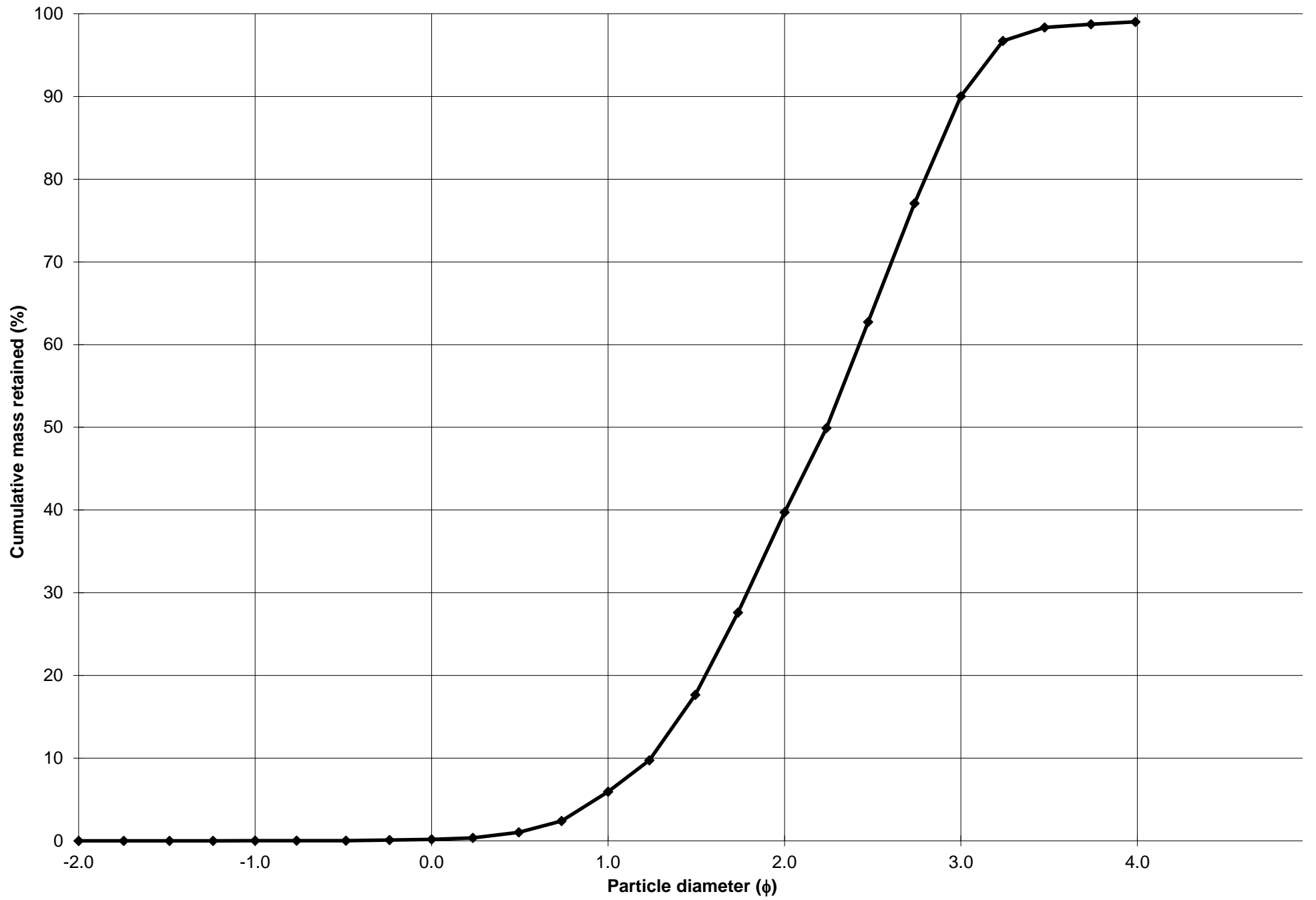
Cumulative Frequency Curve



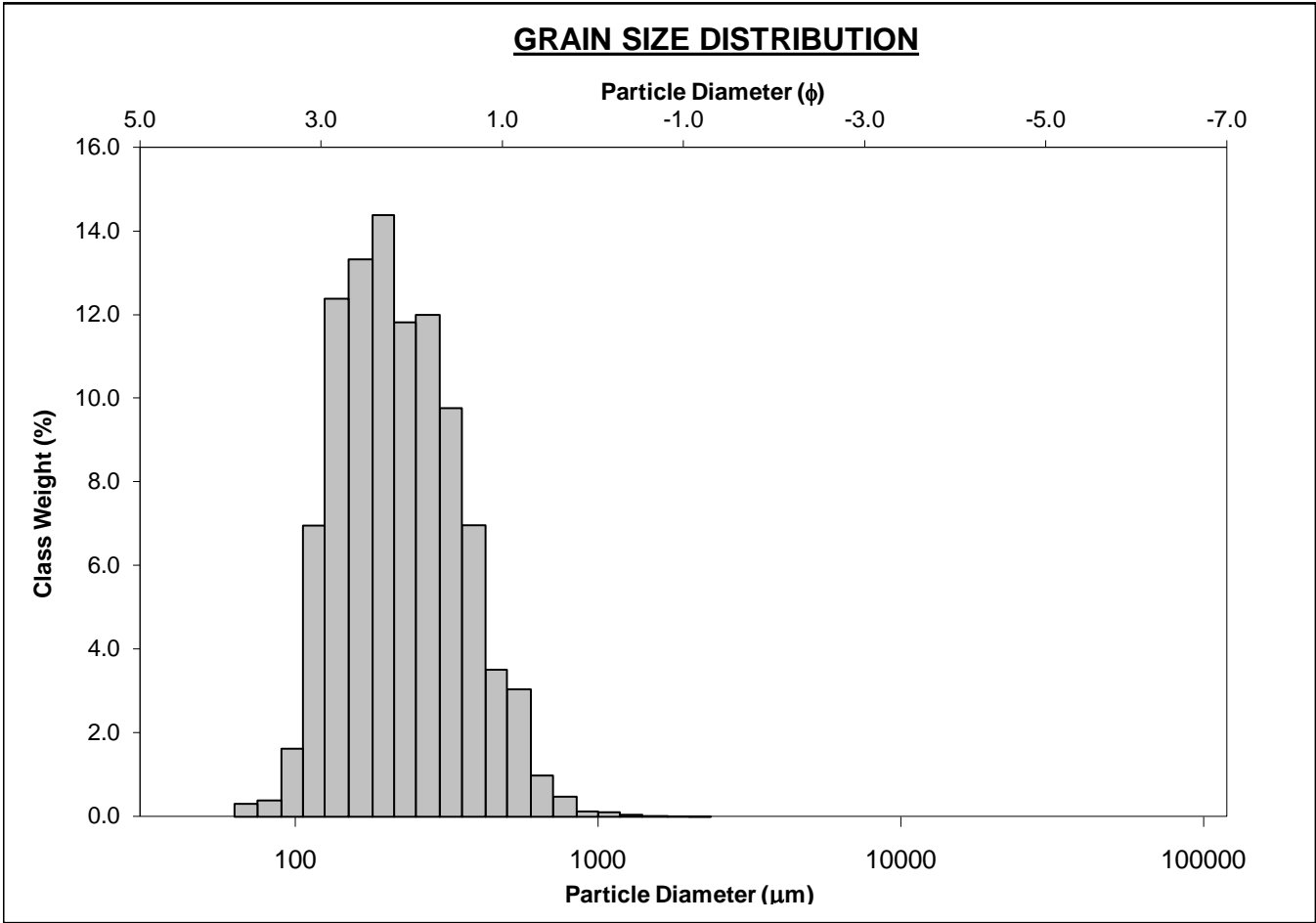
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-01-130			ANALYST & DATE: Chris, 10/2/14			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 5.8%	
MODE 2:	275.0	1.868	SAND: 99.0%		MEDIUM SAND: 33.8%	
MODE 3:			MUD: 1.0%		FINE SAND: 50.3%	
D ₁₀ :	125.0	1.243			V FINE SAND: 9.0%	
MEDIAN or D ₅₀ :	211.8	2.240	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	422.5	3.000	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	3.379	2.414	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	297.5	1.757	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	2.036	1.613	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	159.5	1.026	V COARSE SAND: 0.2%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	252.2	217.8	2.199	219.8	2.186	Fine Sand
SORTING (σ):	139.1	1.778	0.830	1.624	0.700	Moderately Well Sorted
SKEWNESS (Sk):	2.049	-1.541	1.541	0.139	-0.139	Coarse Skewed
KURTOSIS (K):	12.16	12.16	12.16	0.897	0.897	Platykurtic



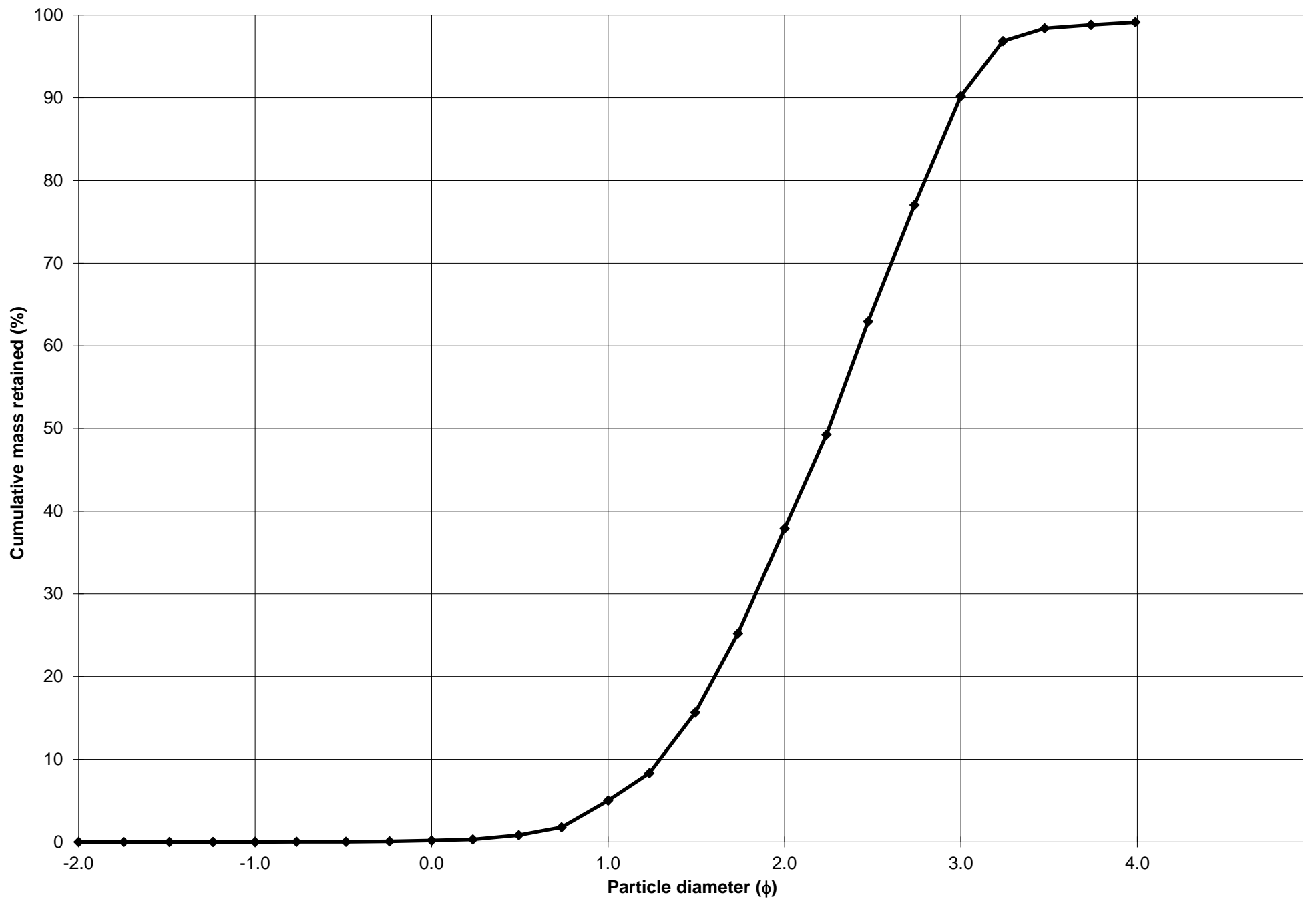
Cumulative Frequency Curve



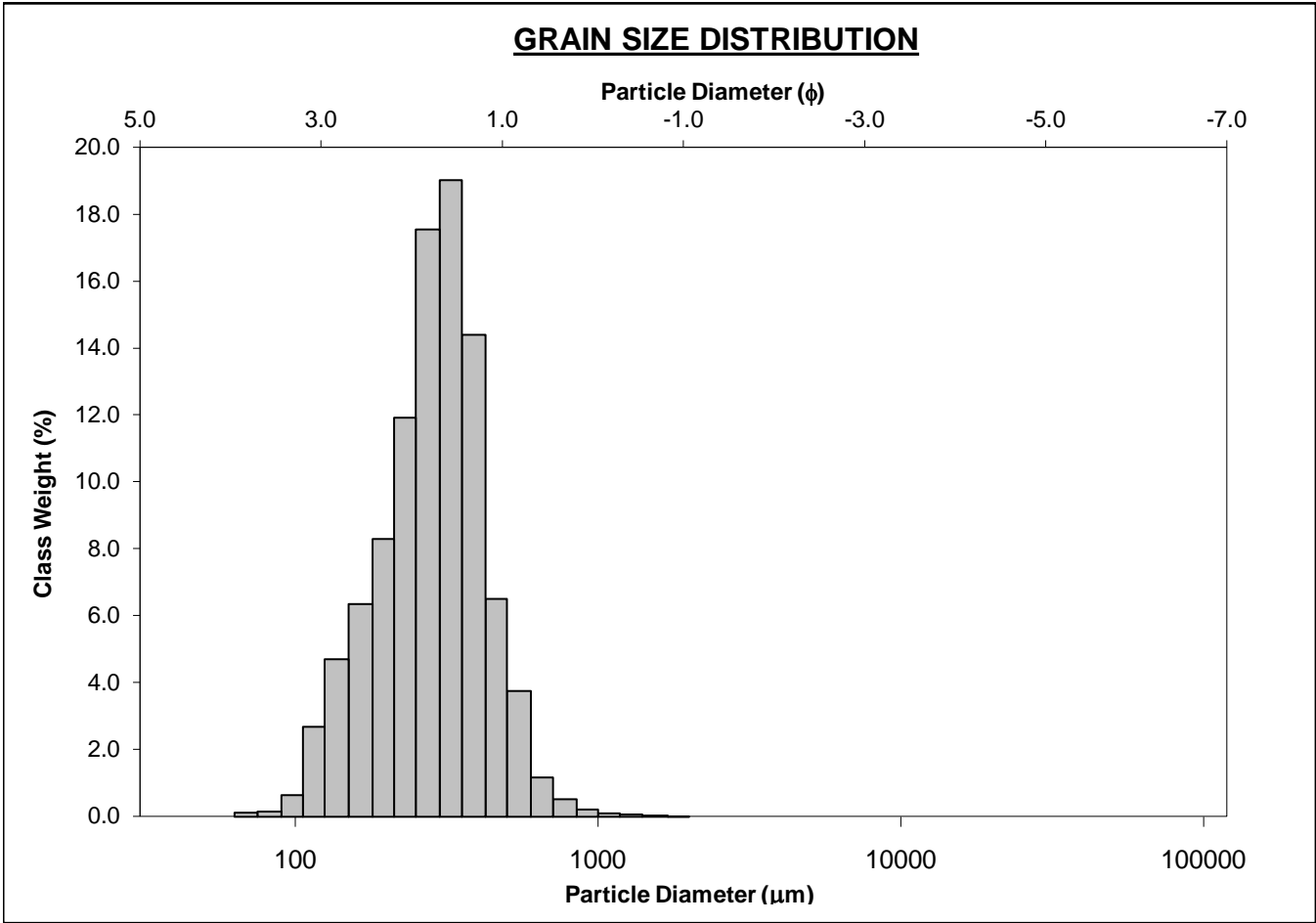
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-01-140cm			ANALYST & DATE: Chris, 10/2/14			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 4.8%	
MODE 2:	275.0	1.868	SAND: 99.1%		MEDIUM SAND: 32.9%	
MODE 3:			MUD: 0.9%		FINE SAND: 52.3%	
D ₁₀ :	125.3	1.294			V FINE SAND: 9.0%	
MEDIAN or D ₅₀ :	210.1	2.251	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	407.8	2.996	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.254	2.316	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	282.5	1.702	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.954	1.558	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	146.9	0.966	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	246.0	214.7	2.219	216.1	2.210	Fine Sand
SORTING (σ):	131.5	1.734	0.794	1.593	0.672	Moderately Well Sorted
SKEWNESS (Sk):	2.194	-1.545	1.545	0.121	-0.121	Coarse Skewed
KURTOSIS (K):	13.97	12.76	12.76	0.921	0.921	Mesokurtic



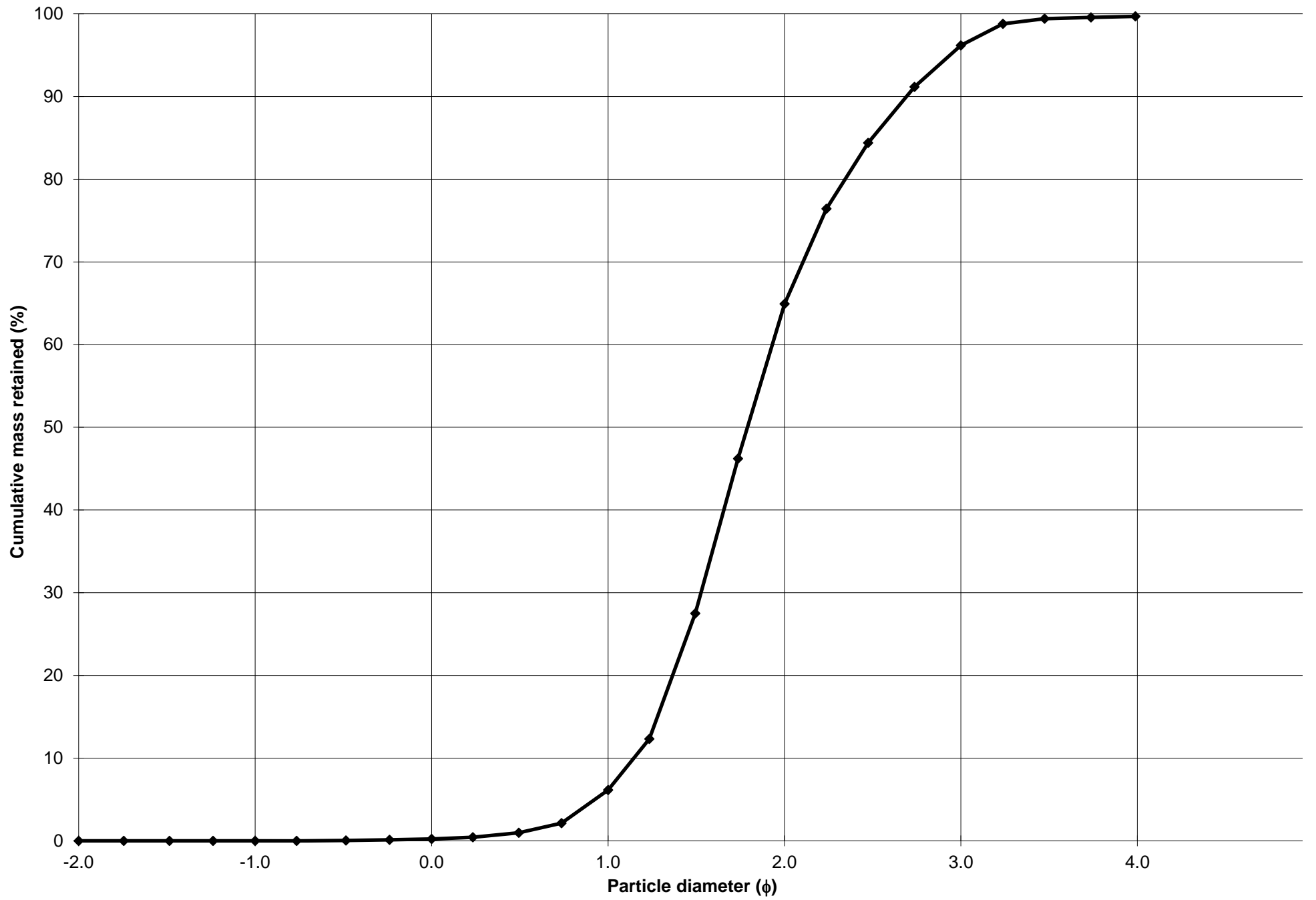
Cumulative Frequency Curve



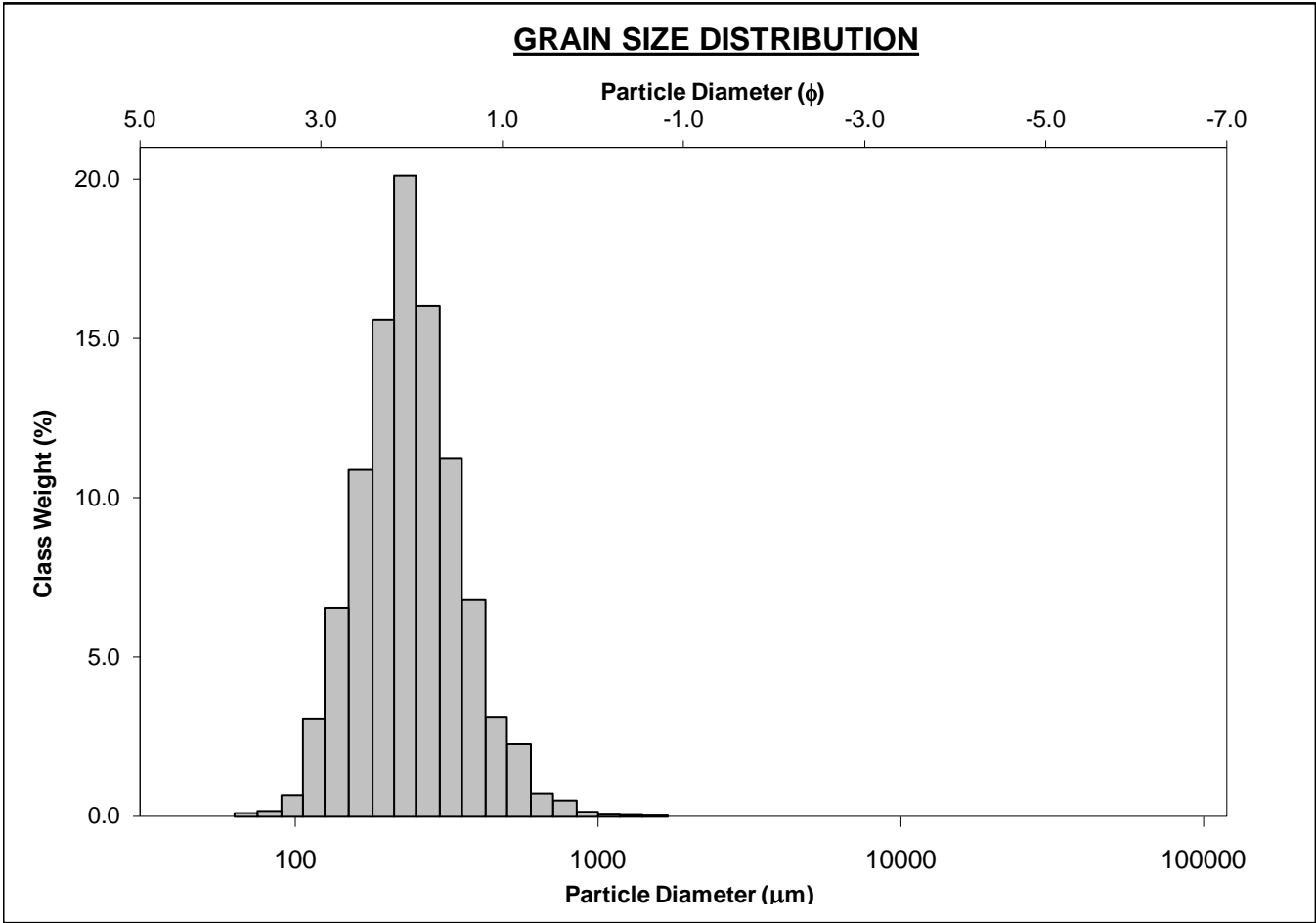
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-01-150cm			ANALYST & DATE: Chris, 10/2/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 5.9%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 58.8%	
MODE 3:			MUD: 0.3%		FINE SAND: 31.2%	
D ₁₀ :	154.8	1.146			V FINE SAND: 3.5%	
MEDIAN or D ₅₀ :	289.2	1.790	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	451.8	2.692	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.919	2.348	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	297.0	1.546	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.690	1.521	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	149.2	0.757	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	303.3	275.9	1.858	277.4	1.850	Medium Sand
SORTING (σ):	129.2	1.578	0.658	1.512	0.596	Moderately Well Sorted
SKEWNESS (Sk):	1.775	-1.583	1.583	-0.147	0.147	Fine Skewed
KURTOSIS (K):	12.43	13.83	13.83	1.090	1.090	Mesokurtic



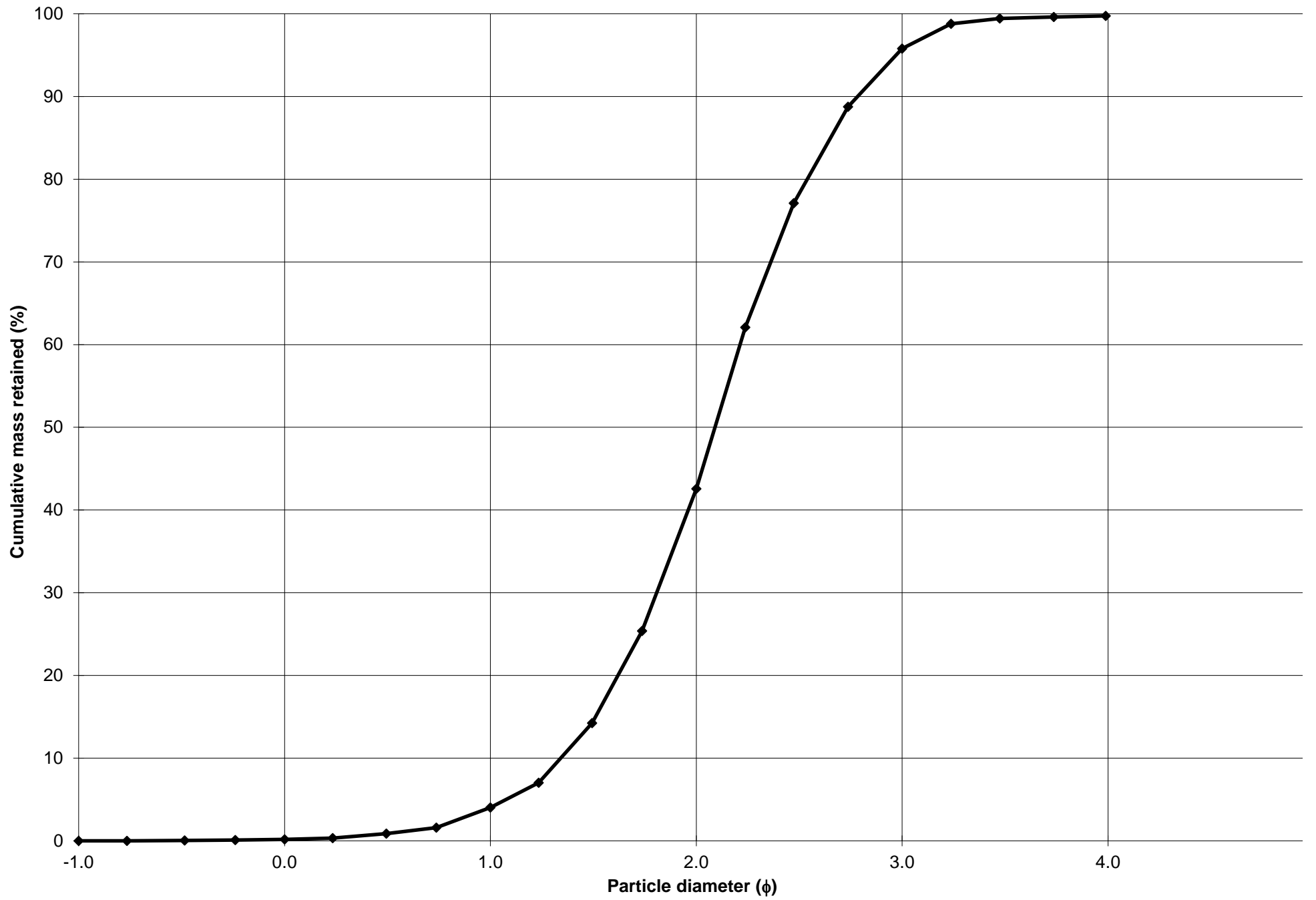
Cumulative Frequency Curve



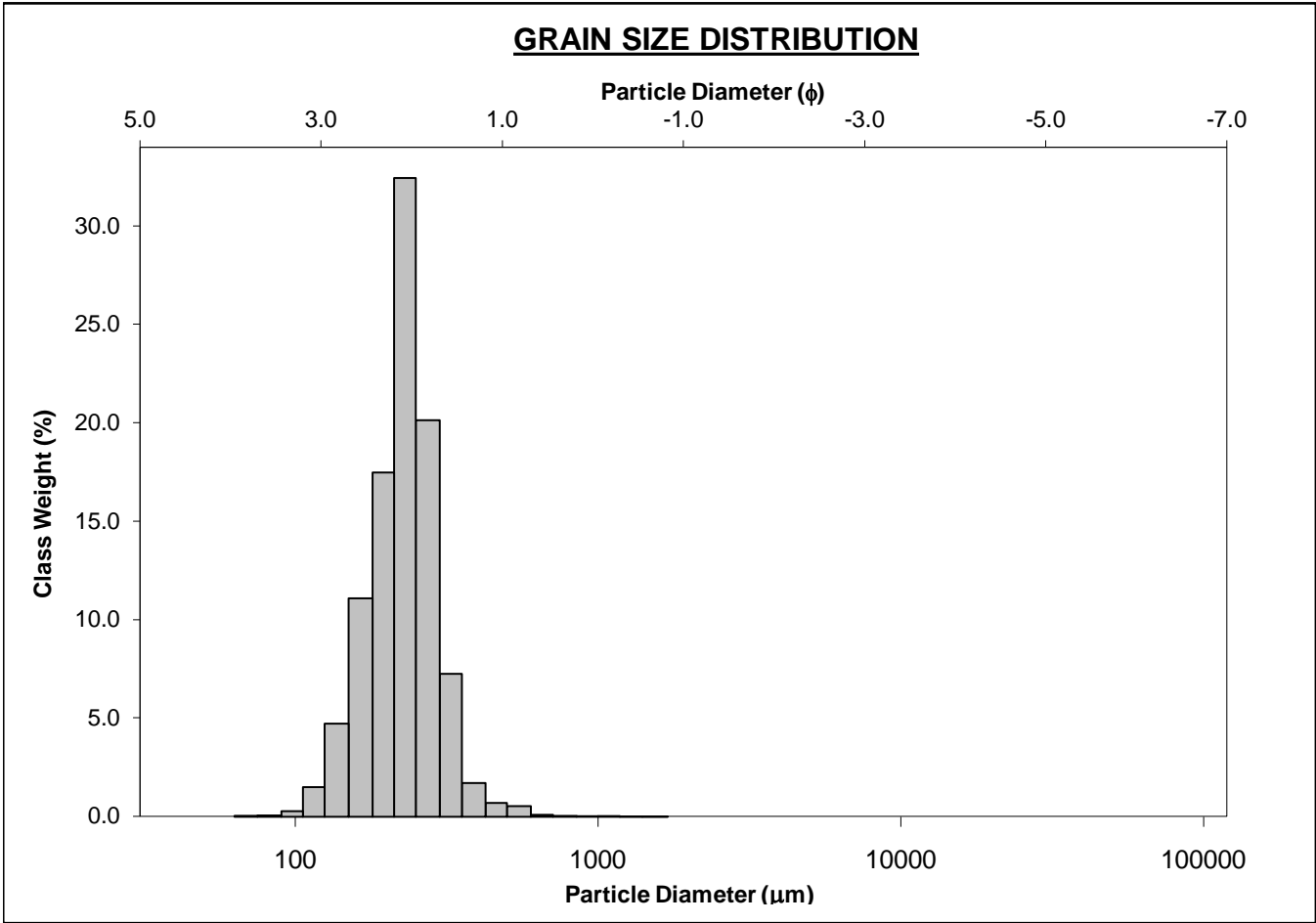
SIEVING ERROR: -0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-01-160cm			ANALYST & DATE: Chris, 10/2/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 3.9%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 38.5%	
MODE 3:			MUD: 0.3%		FINE SAND: 53.2%	
D ₁₀ :	145.3	1.342			V FINE SAND: 4.0%	
MEDIAN or D ₅₀ :	234.8	2.091	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	394.6	2.783	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.717	2.075	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	249.3	1.442	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.638	1.412	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	117.6	0.712	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	259.5	236.9	2.078	235.8	2.084	Fine Sand
SORTING (σ):	118.6	1.534	0.617	1.476	0.561	Moderately Well Sorted
SKEWNESS (Sk):	2.552	-0.971	0.971	0.044	-0.044	Symmetrical
KURTOSIS (K):	17.21	12.98	12.98	1.090	1.090	Mesokurtic



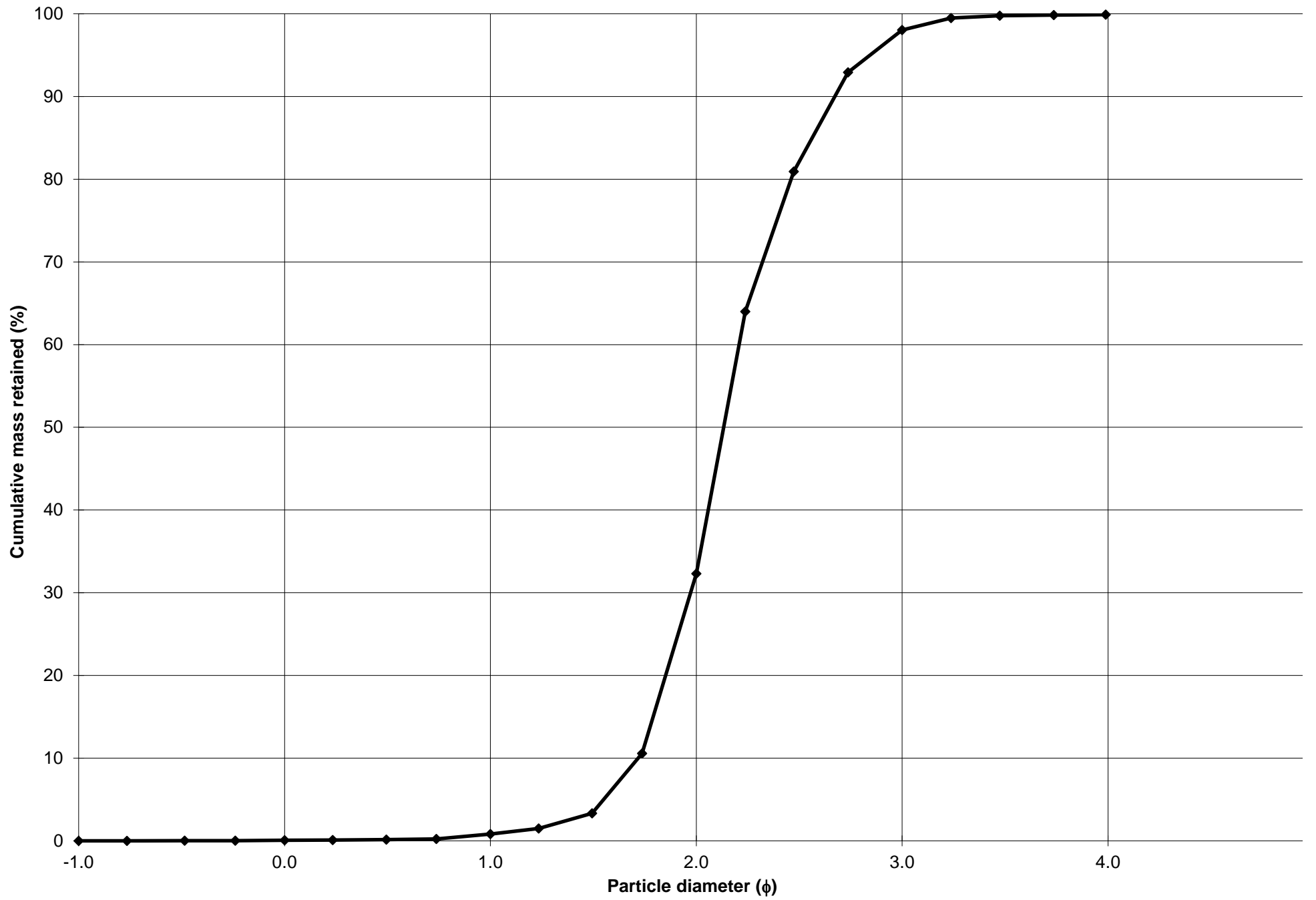
Cumulative Frequency Curve



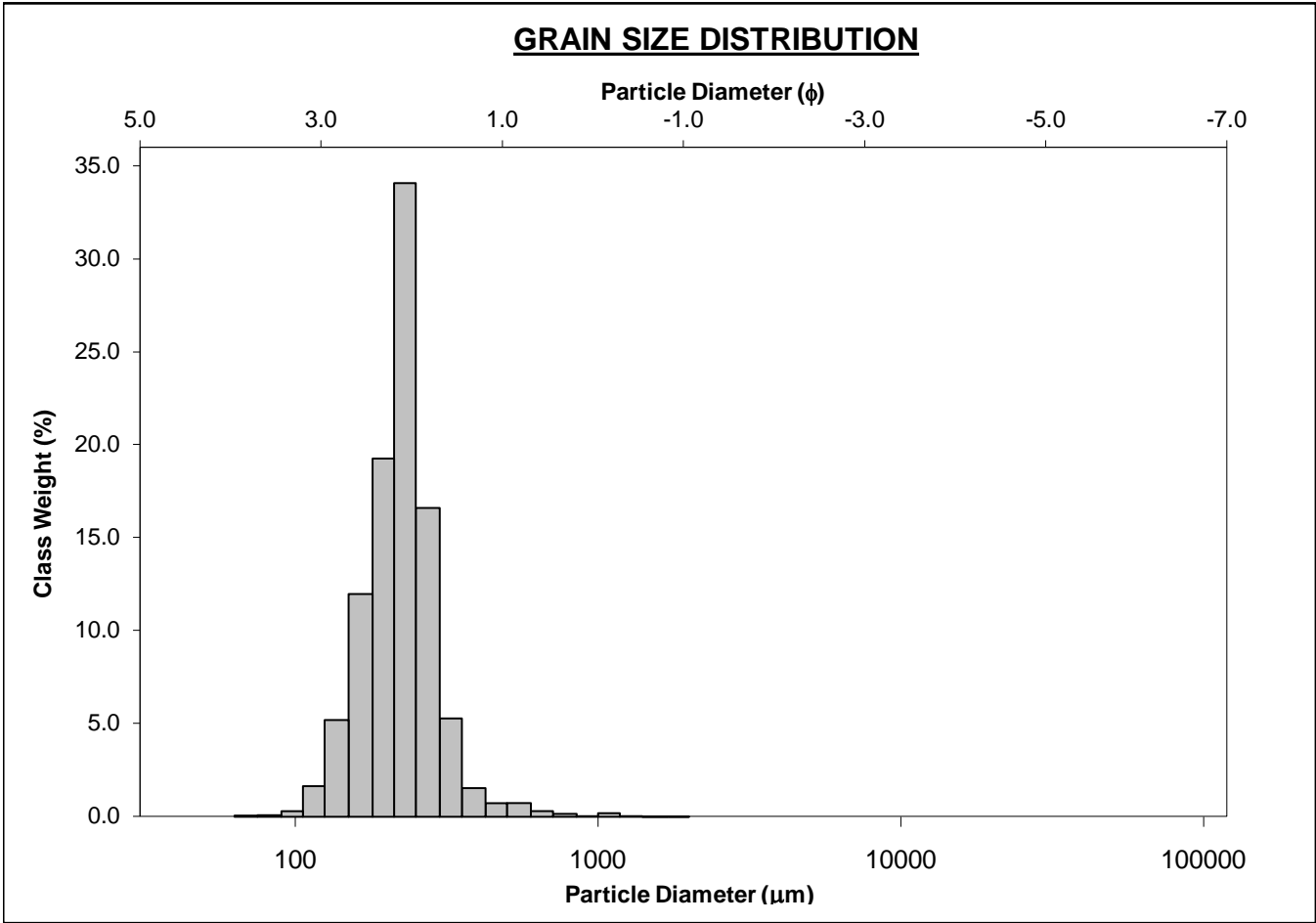
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-01-170cm			ANALYST & DATE: Chris, 10/2/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.8%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 31.5%	
MODE 3:			MUD: 0.1%		FINE SAND: 65.7%	
D_{10} :	156.8	1.718			V FINE SAND: 1.9%	
MEDIAN or D_{50} :	228.0	2.133	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	304.0	2.673	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	1.939	1.556	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	147.2	0.955	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.394	1.251	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	75.19	0.480	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	234.3	224.1	2.158	223.9	2.159	Fine Sand
SORTING (σ):	71.33	1.340	0.422	1.302	0.381	Well Sorted
SKEWNESS (Sk):	3.248	-1.399	1.399	-0.103	0.103	Fine Skewed
KURTOSIS (K):	37.90	21.48	21.48	1.106	1.106	Mesokurtic



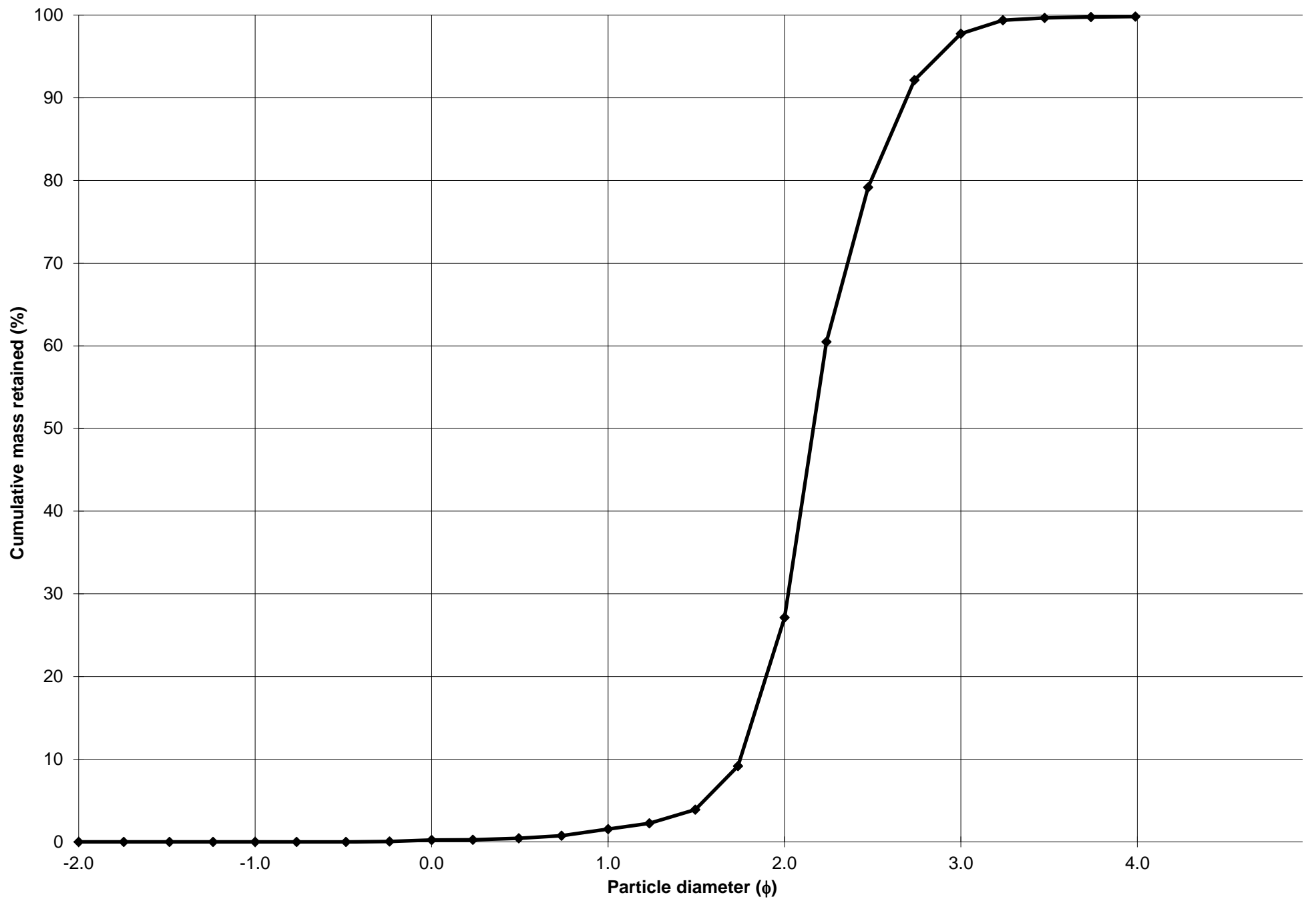
Cumulative Frequency Curve



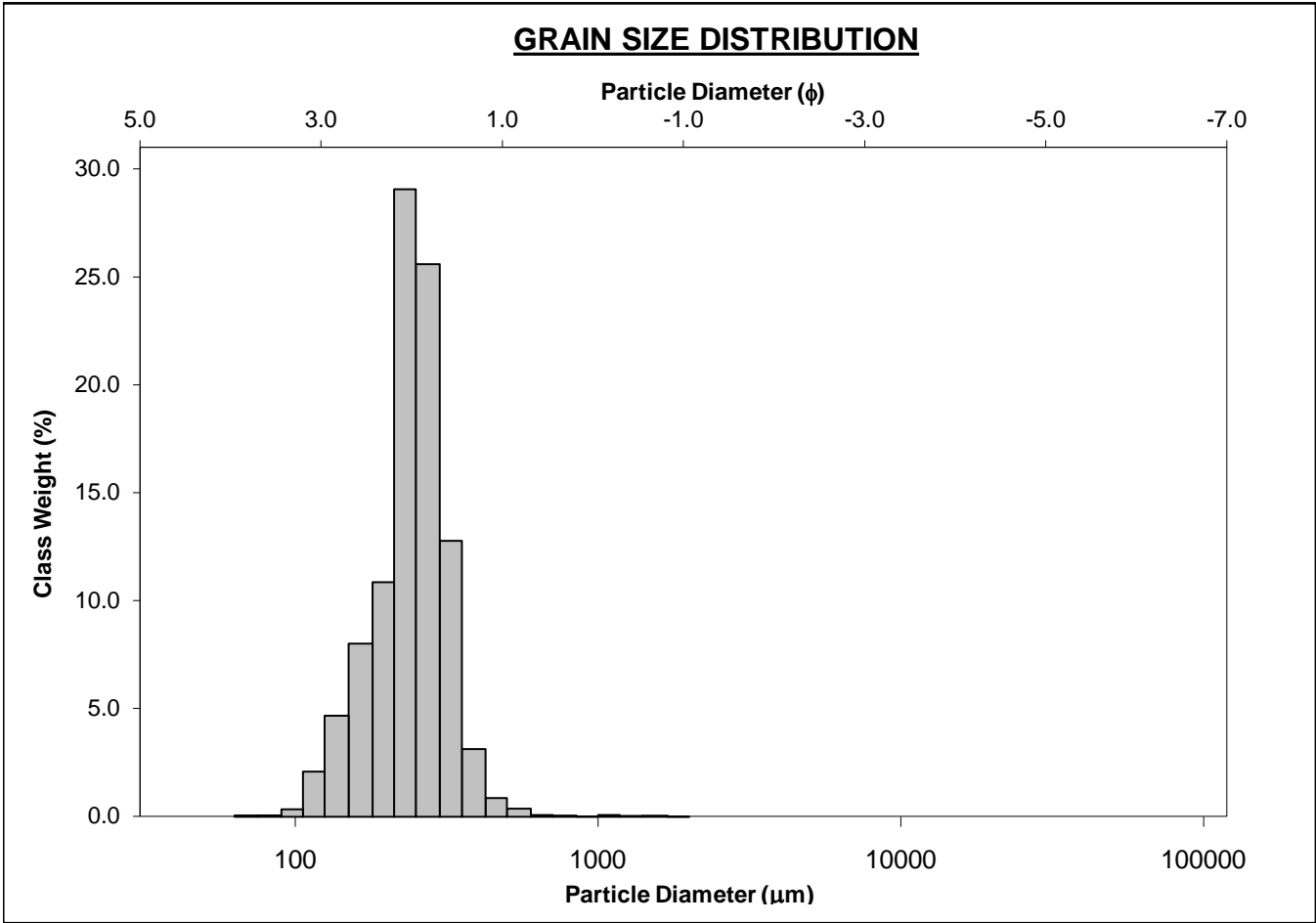
SIEVING ERROR: 0.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-01-180cm			ANALYST & DATE: Chris, 10.2.14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 1.3%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 25.6%	
MODE 3:			MUD: 0.2%		FINE SAND: 70.6%	
D_{10} :	154.6	1.749			V FINE SAND: 2.1%	
MEDIAN or D_{50} :	223.3	2.163	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	297.5	2.694	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	1.925	1.540	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	142.9	0.945	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.368	1.230	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	68.78	0.453	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	232.1	220.0	2.185	219.1	2.191	Fine Sand
SORTING (σ):	85.16	1.378	0.462	1.305	0.385	Well Sorted
SKEWNESS (Sk):	4.466	-1.414	1.414	-0.090	0.090	Symmetrical
KURTOSIS (K):	42.57	24.99	24.99	1.201	1.201	Leptokurtic



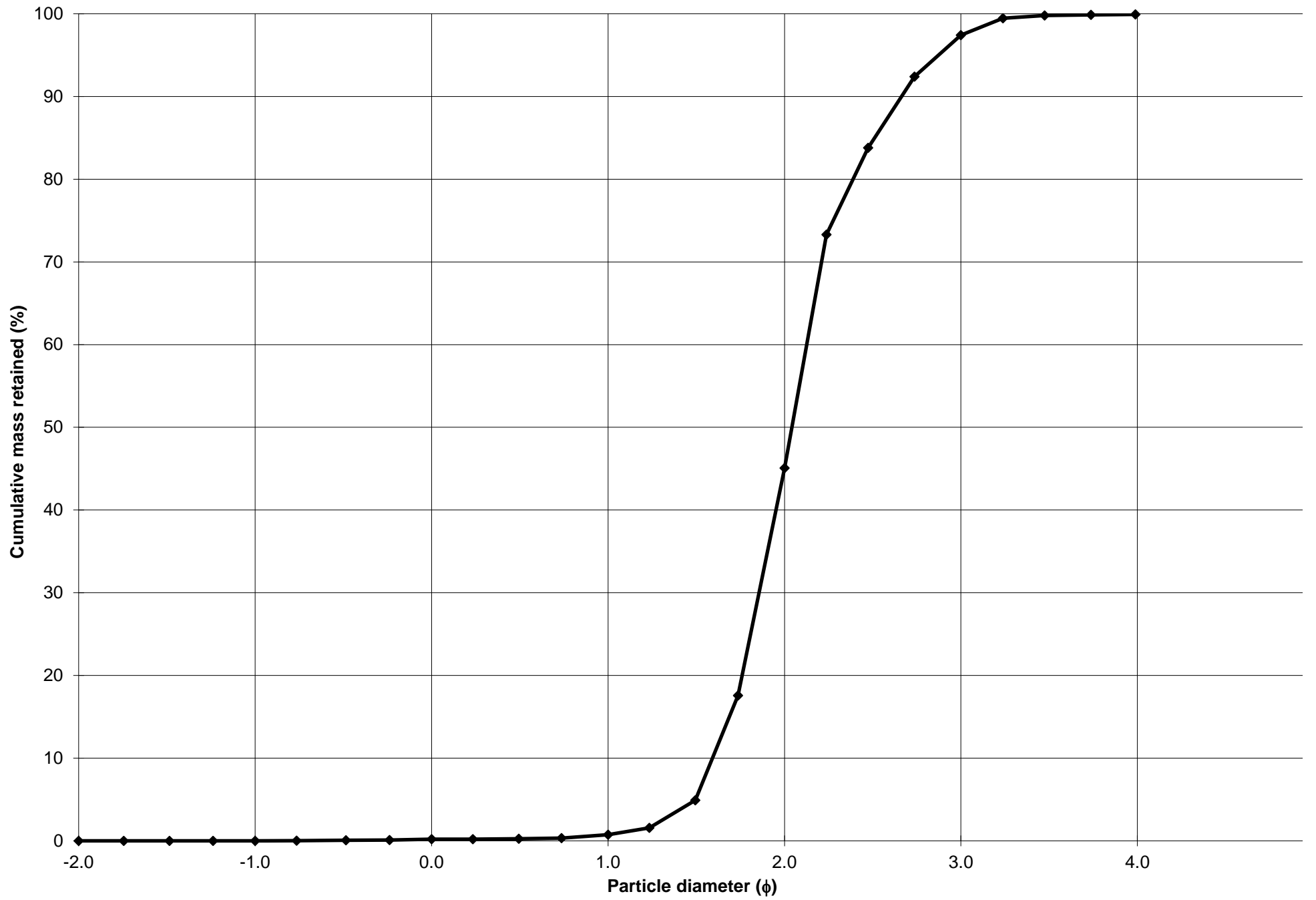
Cumulative Frequency Curve



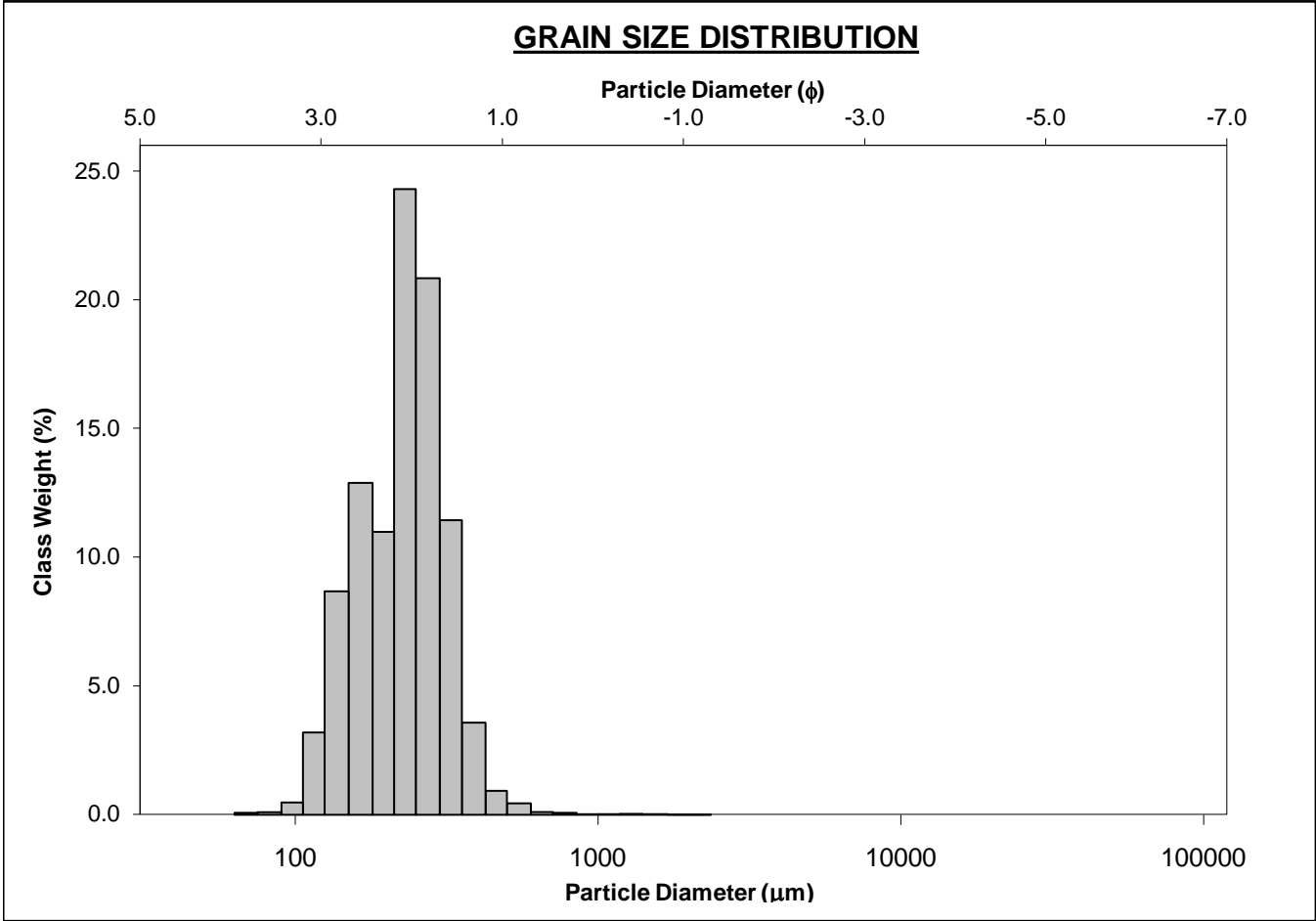
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-01-210cm			ANALYST & DATE: Chris, 10/2/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%	COARSE SAND: 0.6%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 44.3%		
MODE 3:			MUD: 0.1%	FINE SAND: 52.4%		
D ₁₀ :	157.8	1.592		V FINE SAND: 2.5%		
MEDIAN or D ₅₀ :	242.9	2.042	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	331.8	2.664	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.102	1.673	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	173.9	1.072	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.383	1.259	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	79.13	0.468	V COARSE SAND: 0.2%	CLAY: 0.0%		
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	249.4	237.3	2.075	237.1	2.076	Fine Sand
SORTING (σ):	83.96	1.362	0.446	1.321	0.402	Well Sorted
SKEWNESS (Sk):	4.797	-1.051	1.051	-0.171	0.171	Fine Skewed
KURTOSIS (K):	64.93	16.06	16.06	1.206	1.206	Leptokurtic



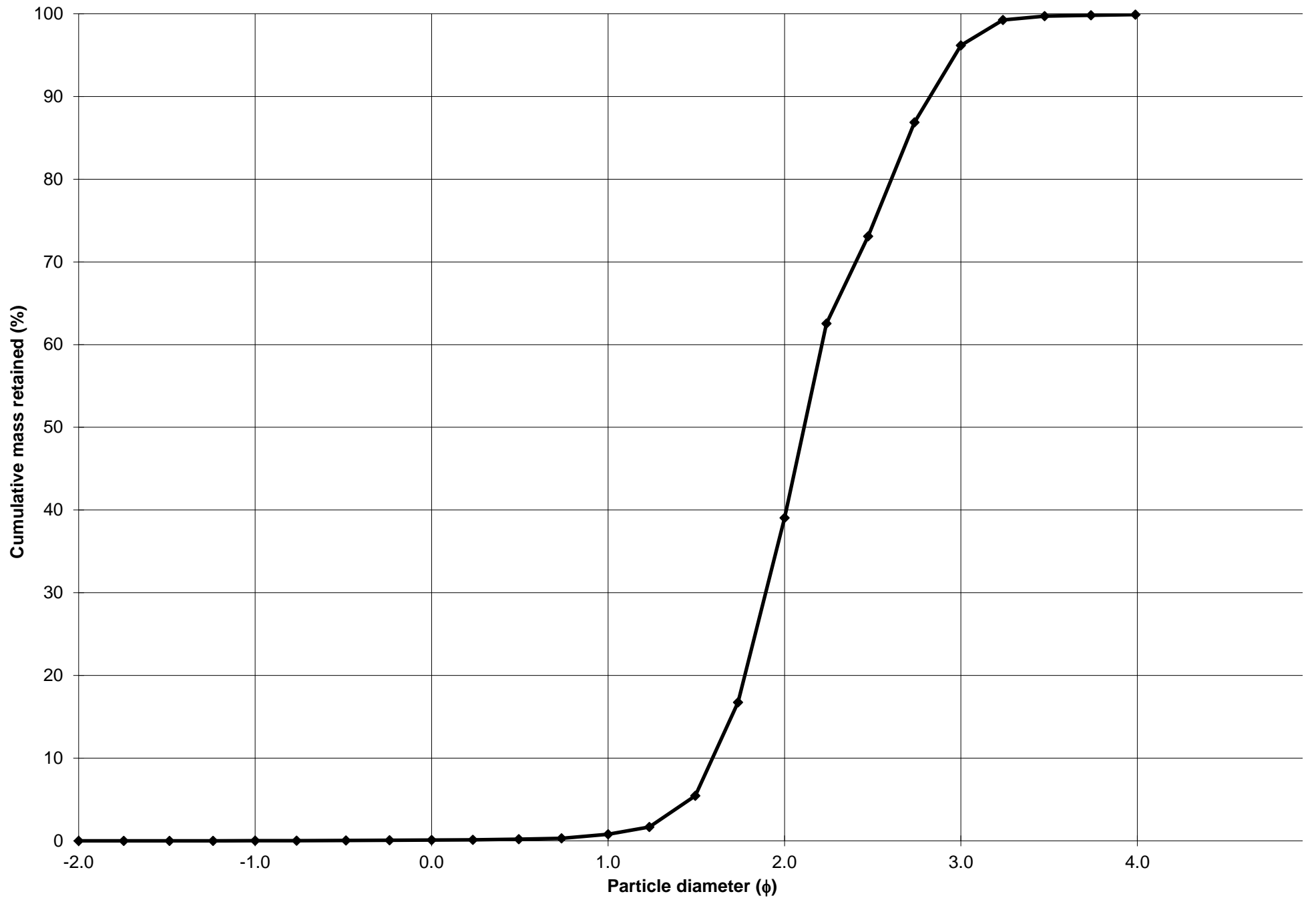
Cumulative Frequency Curve



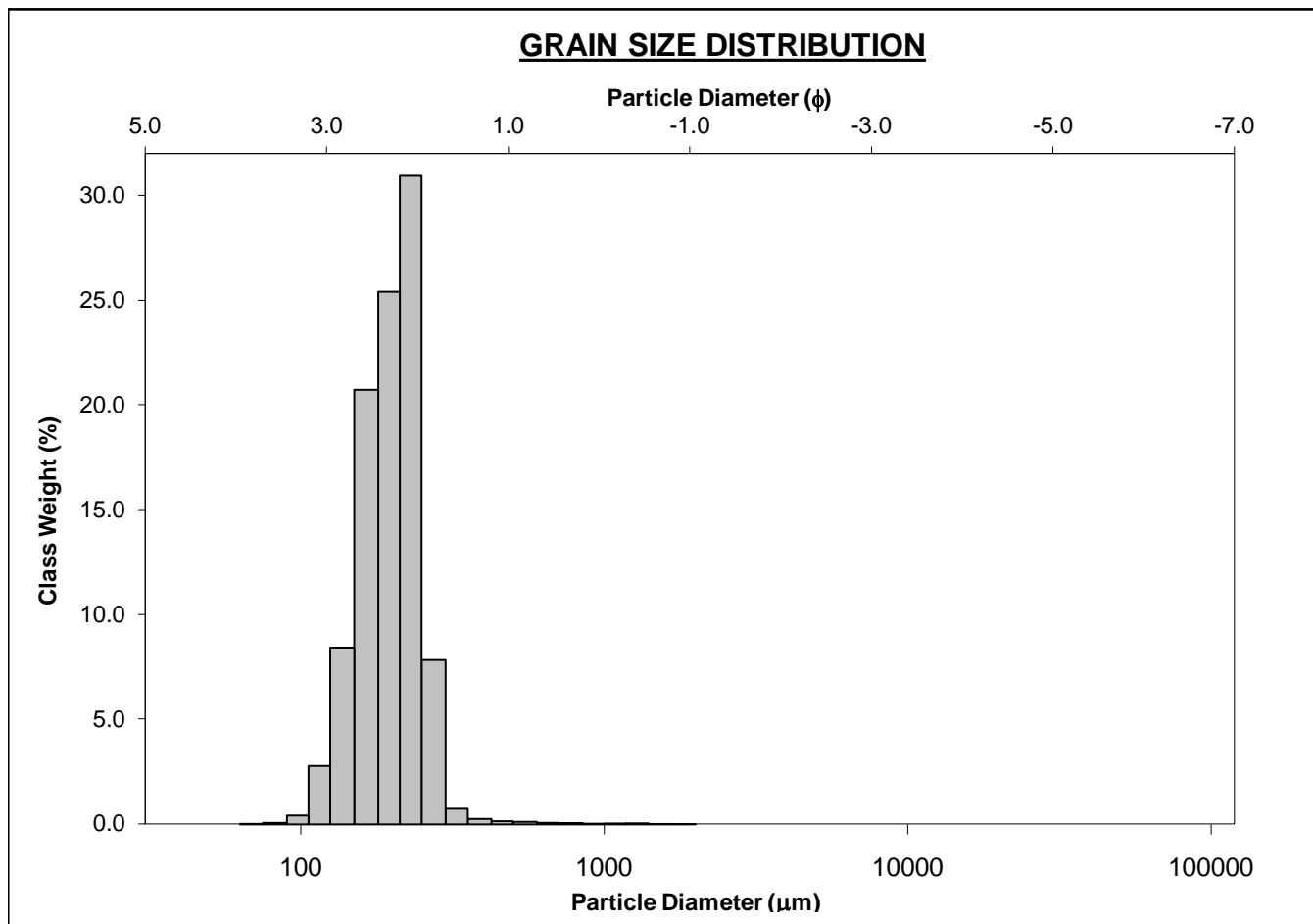
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-01-220cm			ANALYST & DATE: Chris, 10/2/14			
SAMPLE TYPE: Bimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.7%	
MODE 2:	165.0	2.605	SAND: 99.9%		MEDIUM SAND: 38.3%	
MODE 3:			MUD: 0.1%		FINE SAND: 57.1%	
D_{10} :	141.1	1.592			V FINE SAND: 3.7%	
MEDIAN or D_{50} :	231.5	2.111	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	331.8	2.825	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.352	1.775	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	190.7	1.234	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.598	1.369	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	104.9	0.676	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	237.4	223.3	2.163	222.0	2.171	Fine Sand
SORTING (σ):	86.97	1.412	0.498	1.383	0.468	Well Sorted
SKEWNESS (Sk):	3.905	-0.845	0.845	-0.163	0.163	Fine Skewed
KURTOSIS (K):	56.18	11.93	11.93	0.912	0.912	Mesokurtic



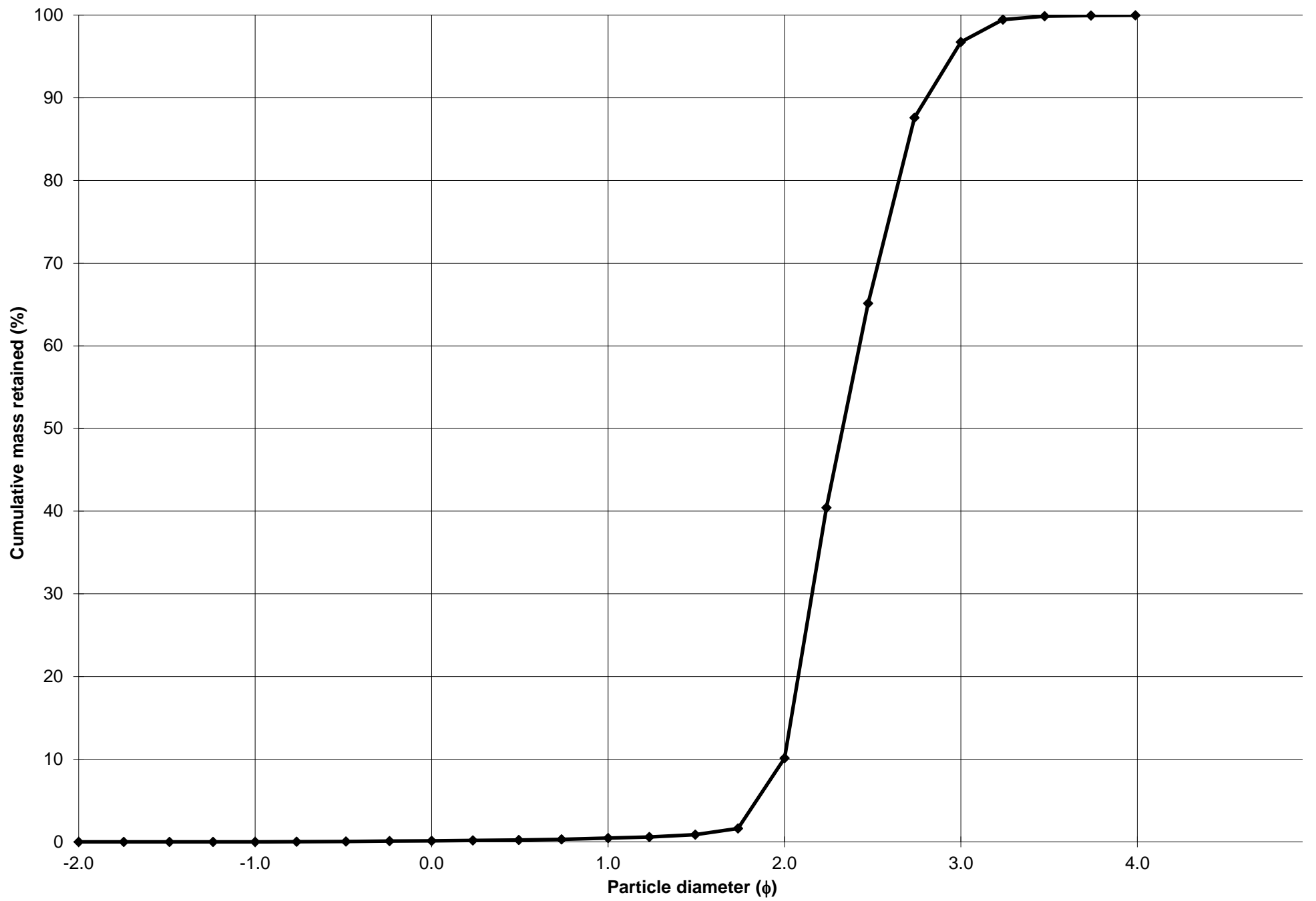
Cumulative Frequency Curve



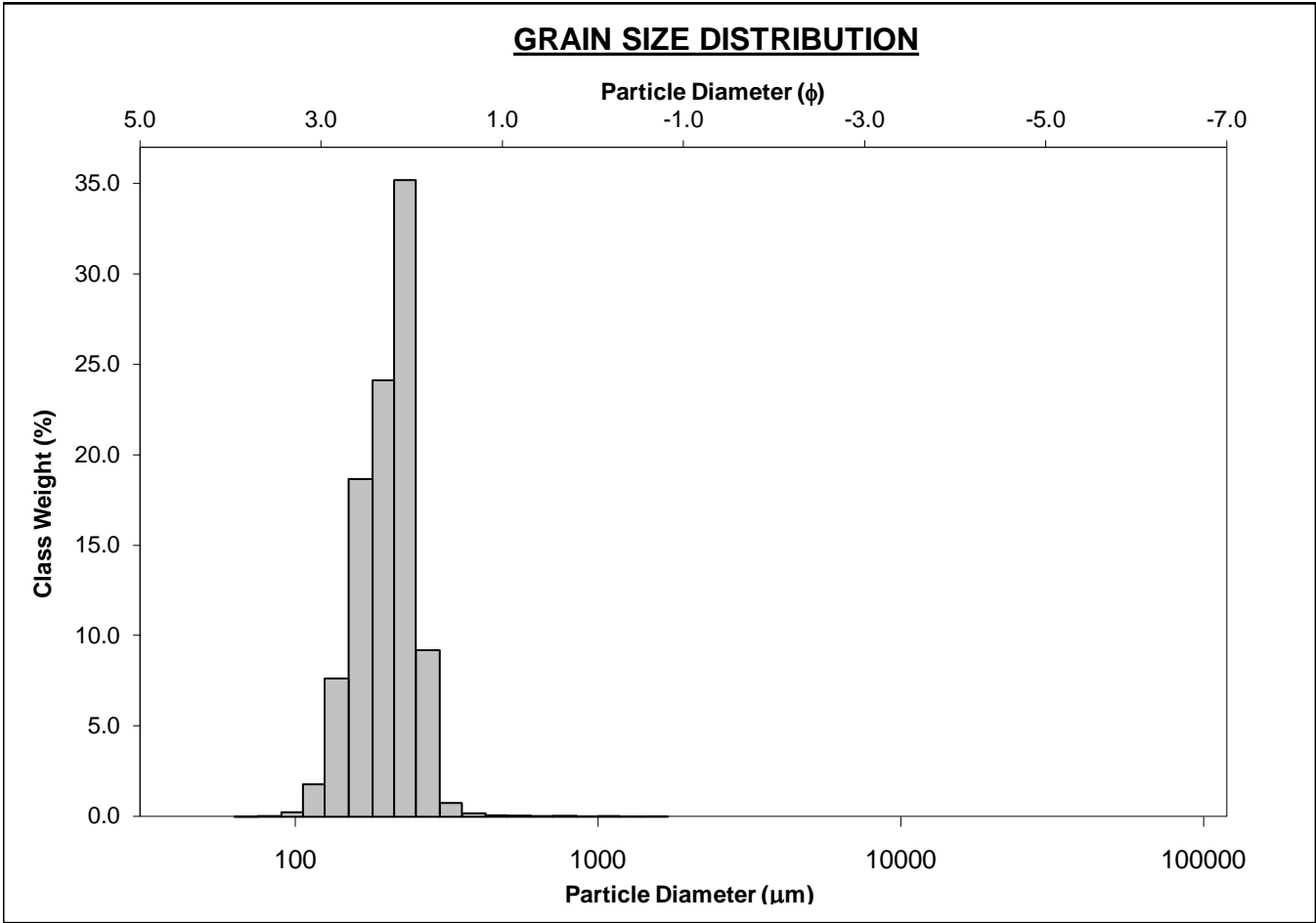
SIEVING ERROR: 1.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-01-230cm			ANALYST & DATE: Chris, 10/2/14			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.3%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 9.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 86.6%	
D ₁₀ :	143.0	1.996			V FINE SAND: 3.3%	
MEDIAN or D ₅₀ :	199.0	2.329	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	250.6	2.806	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.753	1.406	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	107.7	0.810	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.388	1.223	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	64.41	0.473	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	203.2	195.7	2.353	195.2	2.357	Fine Sand
SORTING (σ):	67.47	1.284	0.360	1.257	0.330	Very Well Sorted
SKEWNESS (Sk):	8.793	0.364	-0.364	-0.123	0.123	Fine Skewed
KURTOSIS (K):	155.4	13.58	13.58	0.961	0.961	Mesokurtic



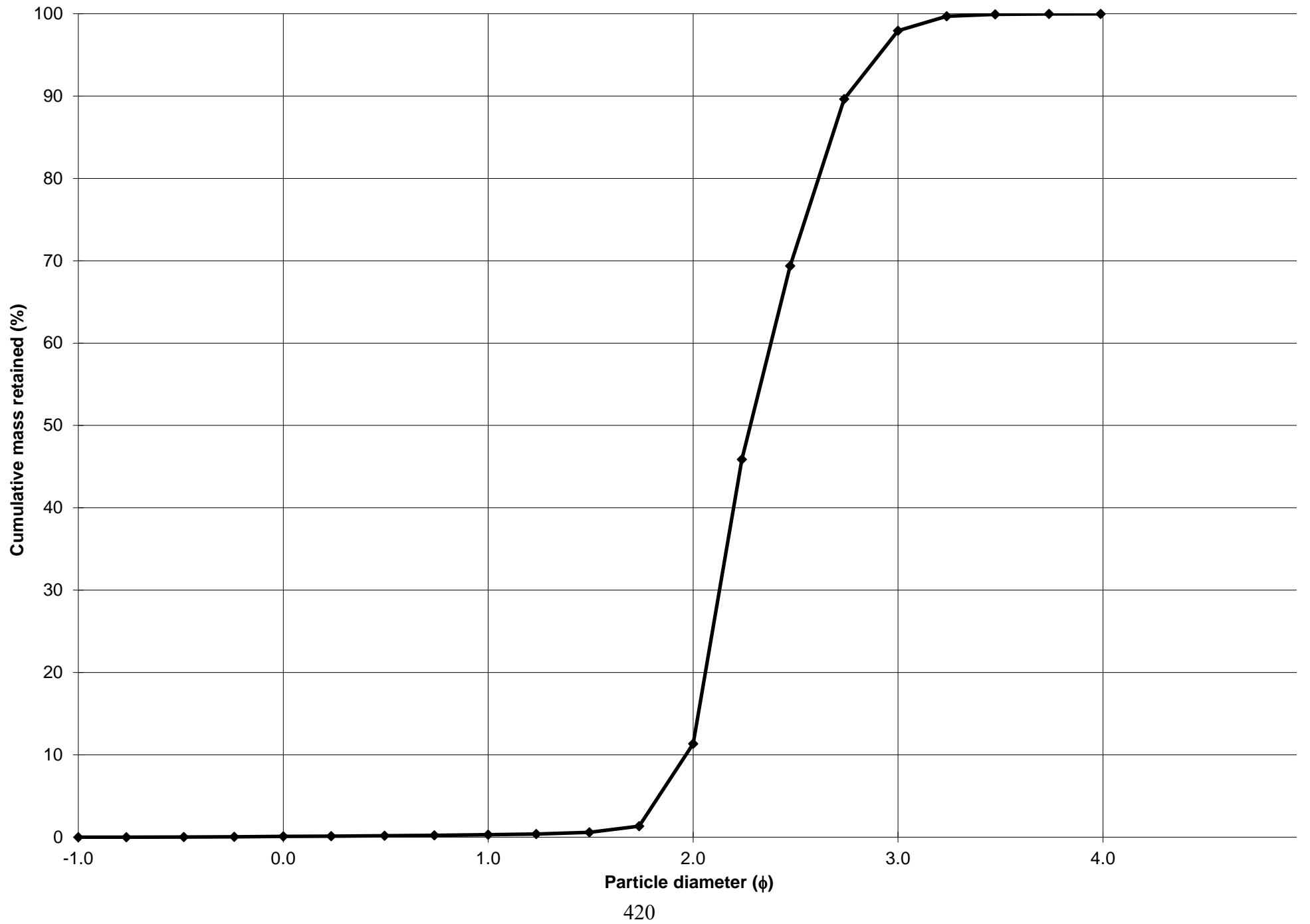
Cumulative Frequency Curve



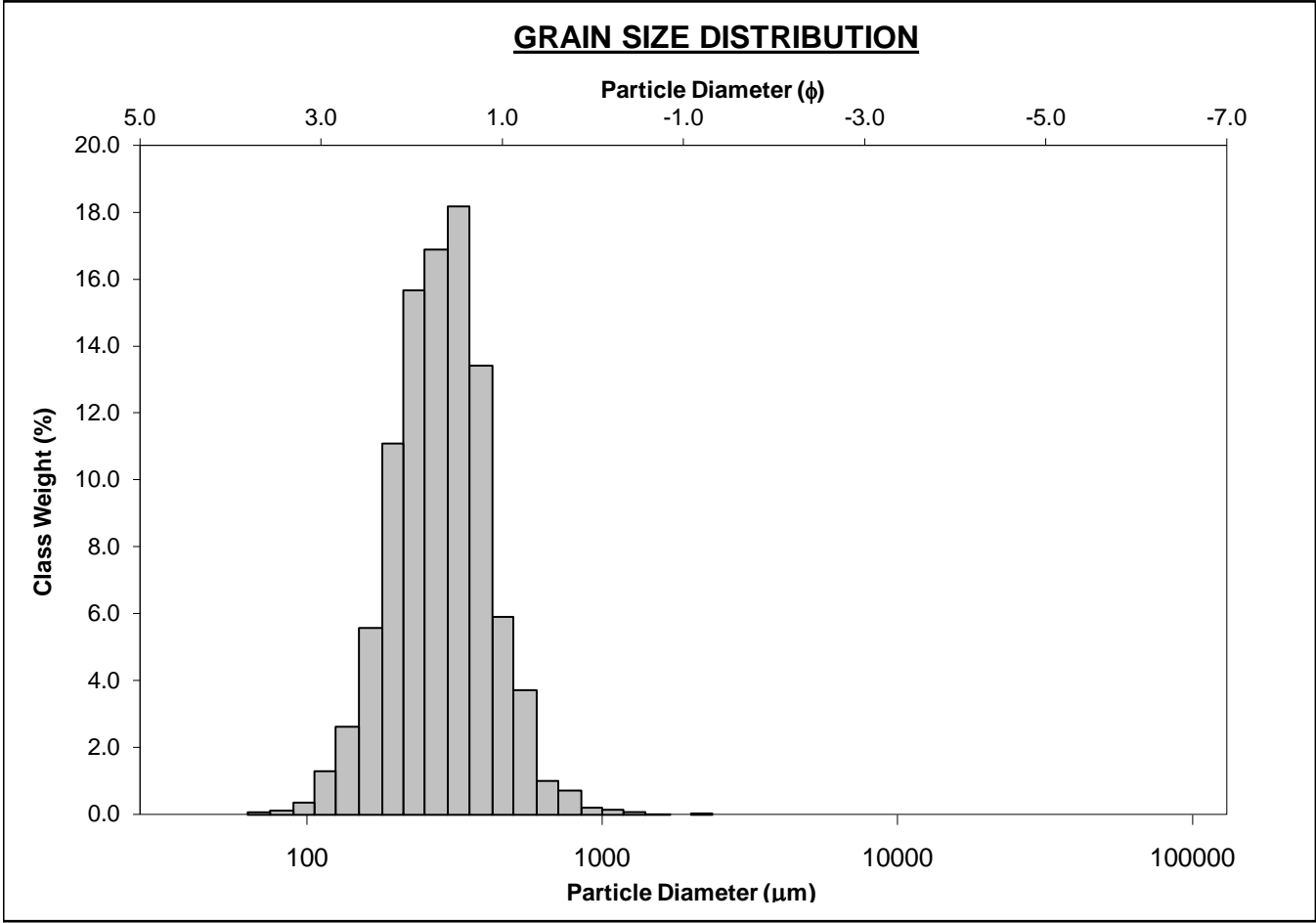
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-01-239cm			ANALYST & DATE: Chris, 10/2/14			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0% COARSE SAND: 0.2%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 11.0%			
MODE 3:			MUD: 0.0% FINE SAND: 86.6%			
D ₁₀ :	148.8	1.965	V FINE SAND: 2.1%			
MEDIAN or D ₅₀ :	206.0	2.279	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	256.2	2.749	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.722	1.399	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	107.4	0.784	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.369	1.216	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	63.11	0.453	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	206.8	200.1	2.321	199.6	2.325	Fine Sand
SORTING (σ):	59.59	1.264	0.338	1.249	0.321	Very Well Sorted
SKEWNESS (Sk):	7.768	0.039	-0.039	-0.193	0.193	Fine Skewed
KURTOSIS (K):	140.4	13.46	13.46	0.972	0.972	Mesokurtic



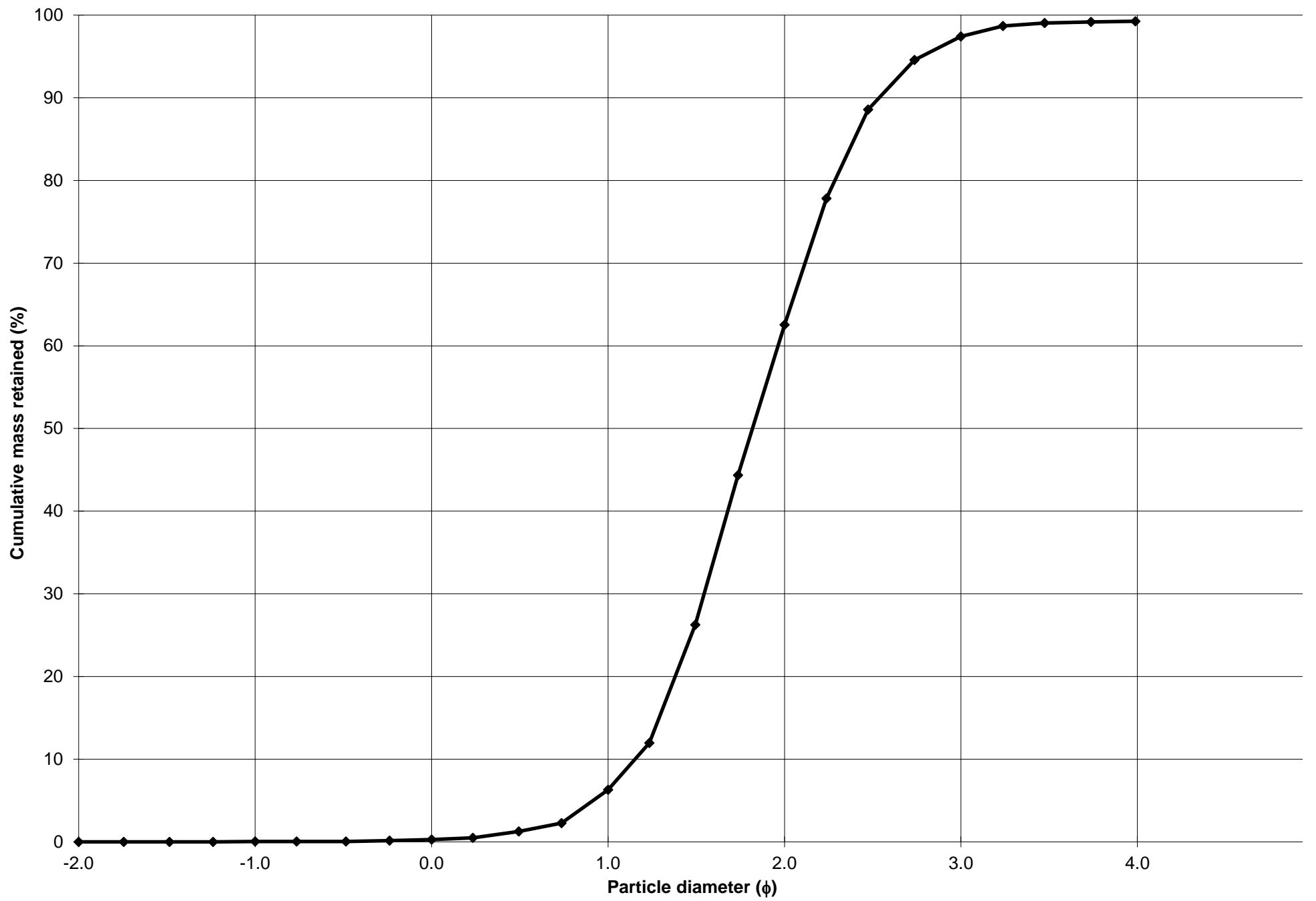
Cumulative Frequency Curve



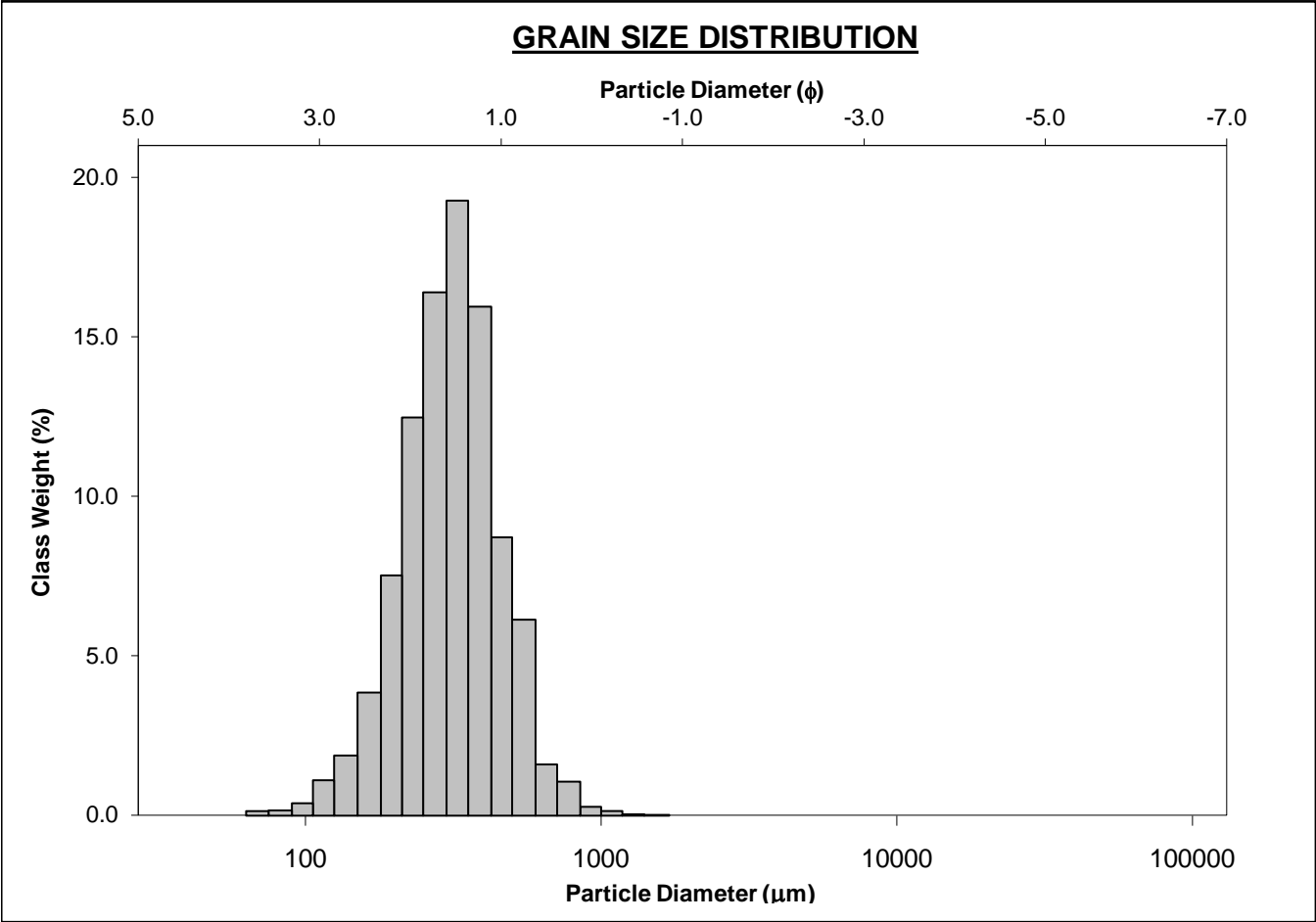
SIEVING ERROR: -0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-05cm			ANALYST & DATE: Chris, 9/9/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 6.0%	
MODE 2:			SAND: 99.2%		MEDIUM SAND: 56.3%	
MODE 3:			MUD: 0.7%		FINE SAND: 34.9%	
D ₁₀ :	172.3	1.153			V FINE SAND: 1.8%	
MEDIAN or D ₅₀ :	283.5	1.819	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	449.7	2.537	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.609	2.200	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	277.3	1.384	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.650	1.491	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	142.1	0.722	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	304.1	275.5	1.860	280.6	1.833	Medium Sand
SORTING (σ):	132.7	1.633	0.707	1.462	0.548	Moderately Well Sorted
SKEWNESS (Sk):	2.713	-2.692	2.692	-0.035	0.035	Symmetrical
KURTOSIS (K):	25.21	22.04	22.04	1.055	1.055	Mesokurtic



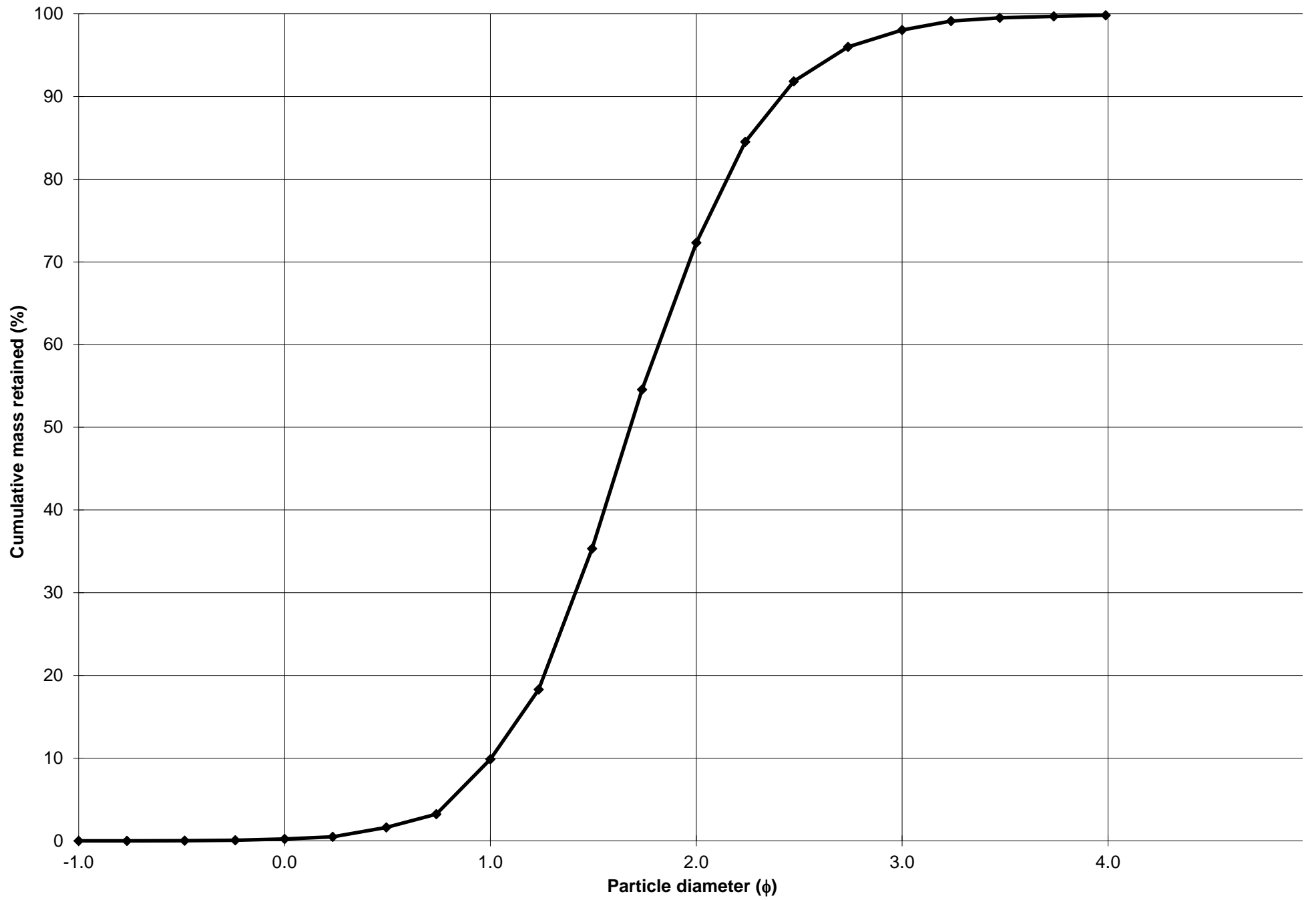
Cumulative Frequency Curve



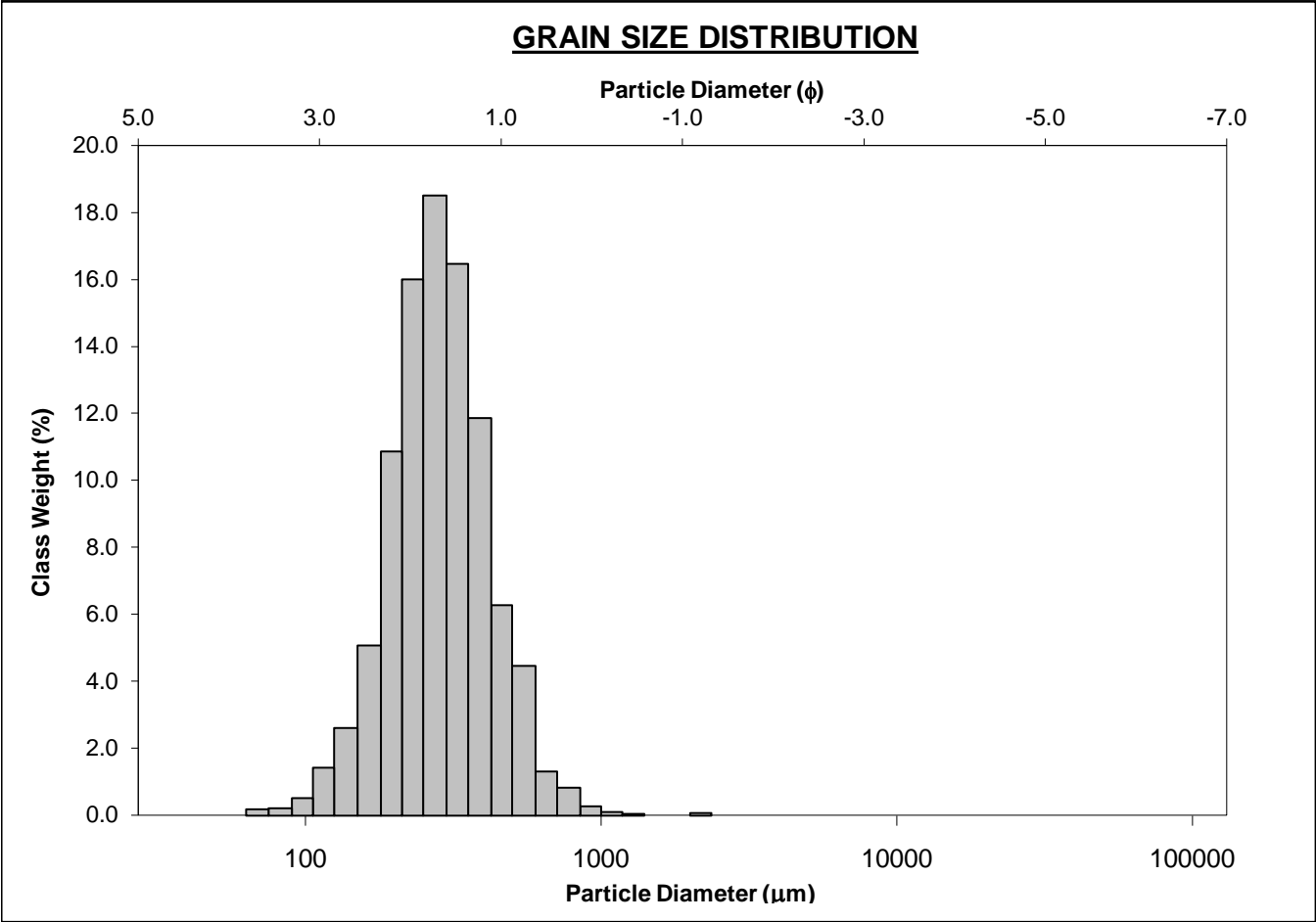
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-10cm			ANALYST & DATE: Chris, 9/9/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 9.7%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 62.4%	
MODE 3:			MUD: 0.2%		FINE SAND: 25.7%	
D ₁₀ :	187.5	1.004			V FINE SAND: 1.8%	
MEDIAN or D ₅₀ :	312.2	1.679	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	498.8	2.415	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.660	2.406	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	311.3	1.411	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.642	1.535	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	154.8	0.716	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	332.3	305.8	1.709	309.3	1.693	Medium Sand
SORTING (σ):	133.8	1.518	0.602	1.461	0.547	Moderately Well Sorted
SKEWNESS (Sk):	1.499	-1.278	1.278	-0.052	0.052	Symmetrical
KURTOSIS (K):	8.638	12.95	12.95	1.069	1.069	Mesokurtic



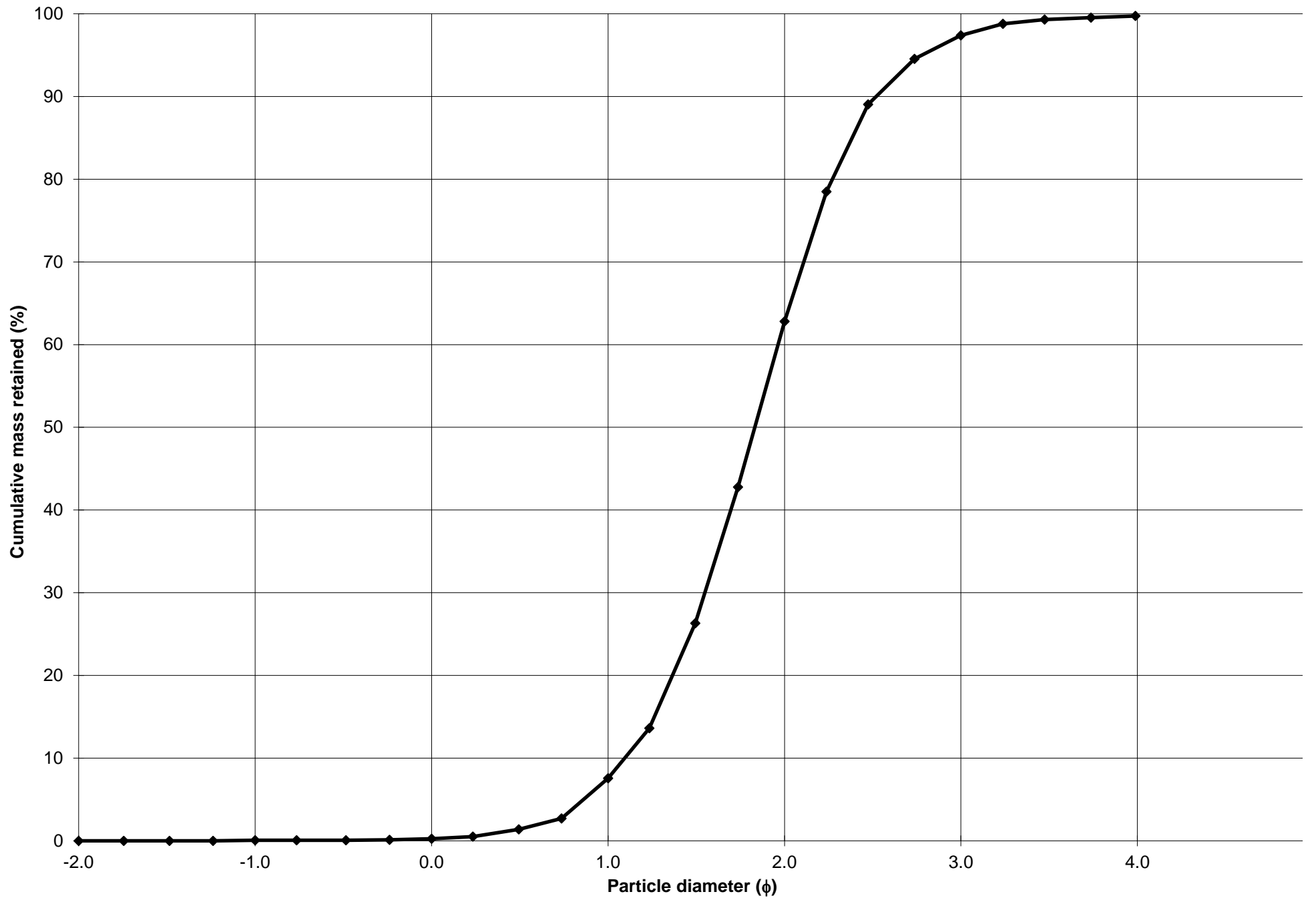
Cumulative Frequency Curve



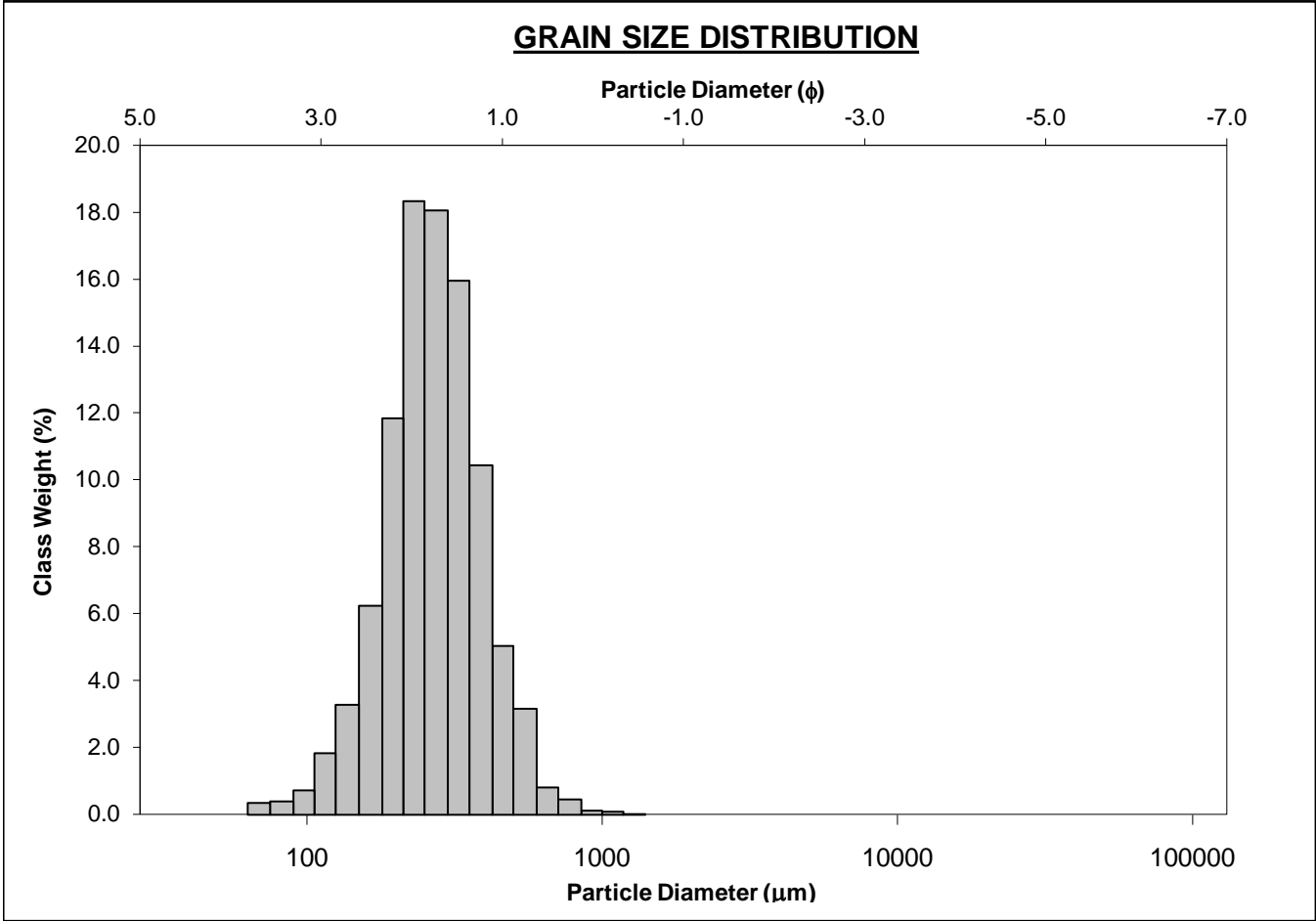
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-20cm			ANALYST & DATE: Chris, 9/9/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.1%		COARSE SAND: 7.3%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 55.3%	
MODE 3:			MUD: 0.3%		FINE SAND: 34.6%	
D ₁₀ :	174.4	1.094			V FINE SAND: 2.3%	
MEDIAN or D ₅₀ :	280.9	1.832	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	468.4	2.519	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.685	2.302	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	293.9	1.425	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.644	1.489	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	141.7	0.718	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	307.2	280.2	1.835	282.2	1.825	Medium Sand
SORTING (σ):	139.0	1.550	0.632	1.474	0.560	Moderately Well Sorted
SKEWNESS (Sk):	3.166	-1.351	1.351	0.015	-0.015	Symmetrical
KURTOSIS (K):	31.78	14.65	14.65	1.095	1.095	Mesokurtic



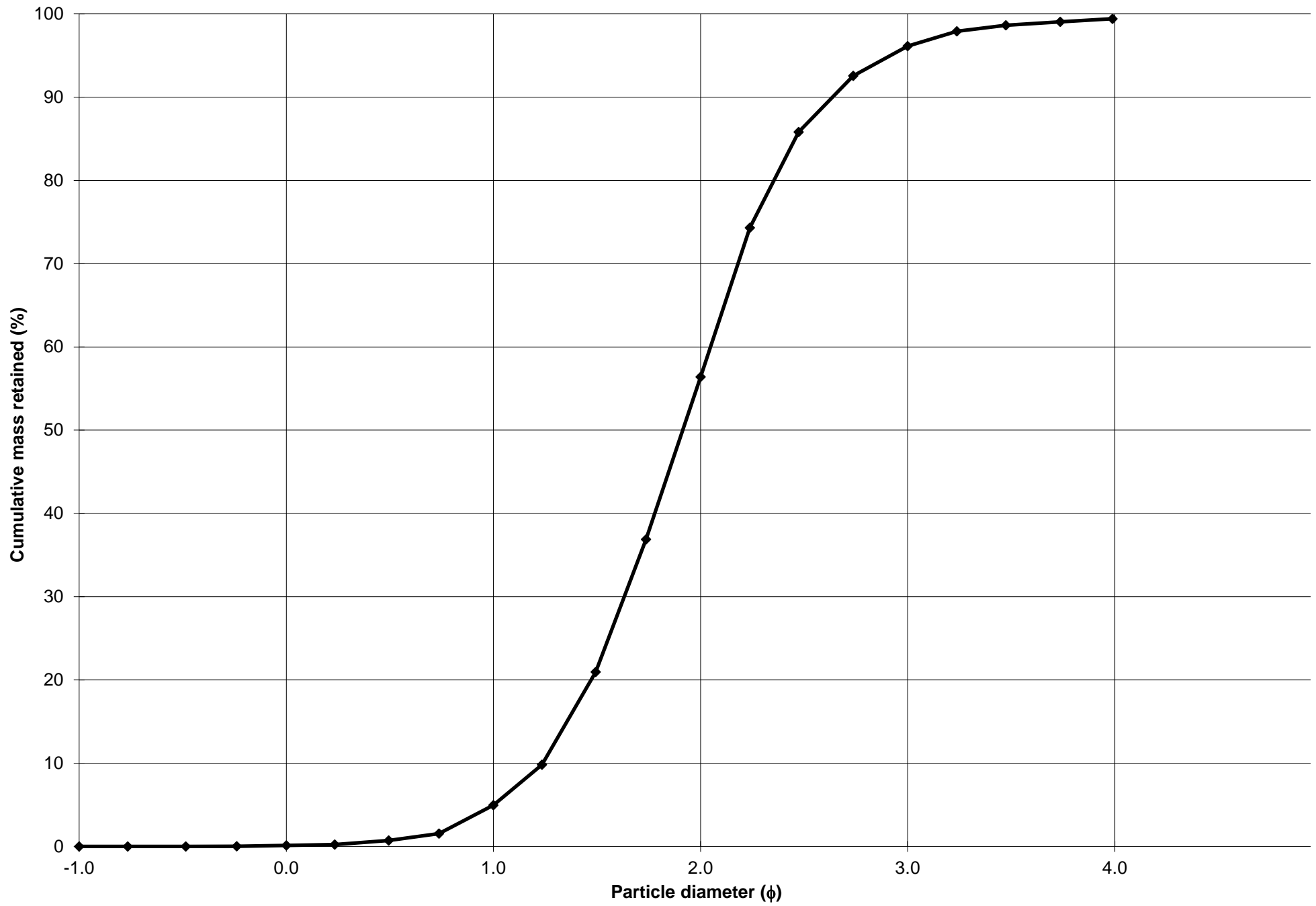
Cumulative Frequency Curve



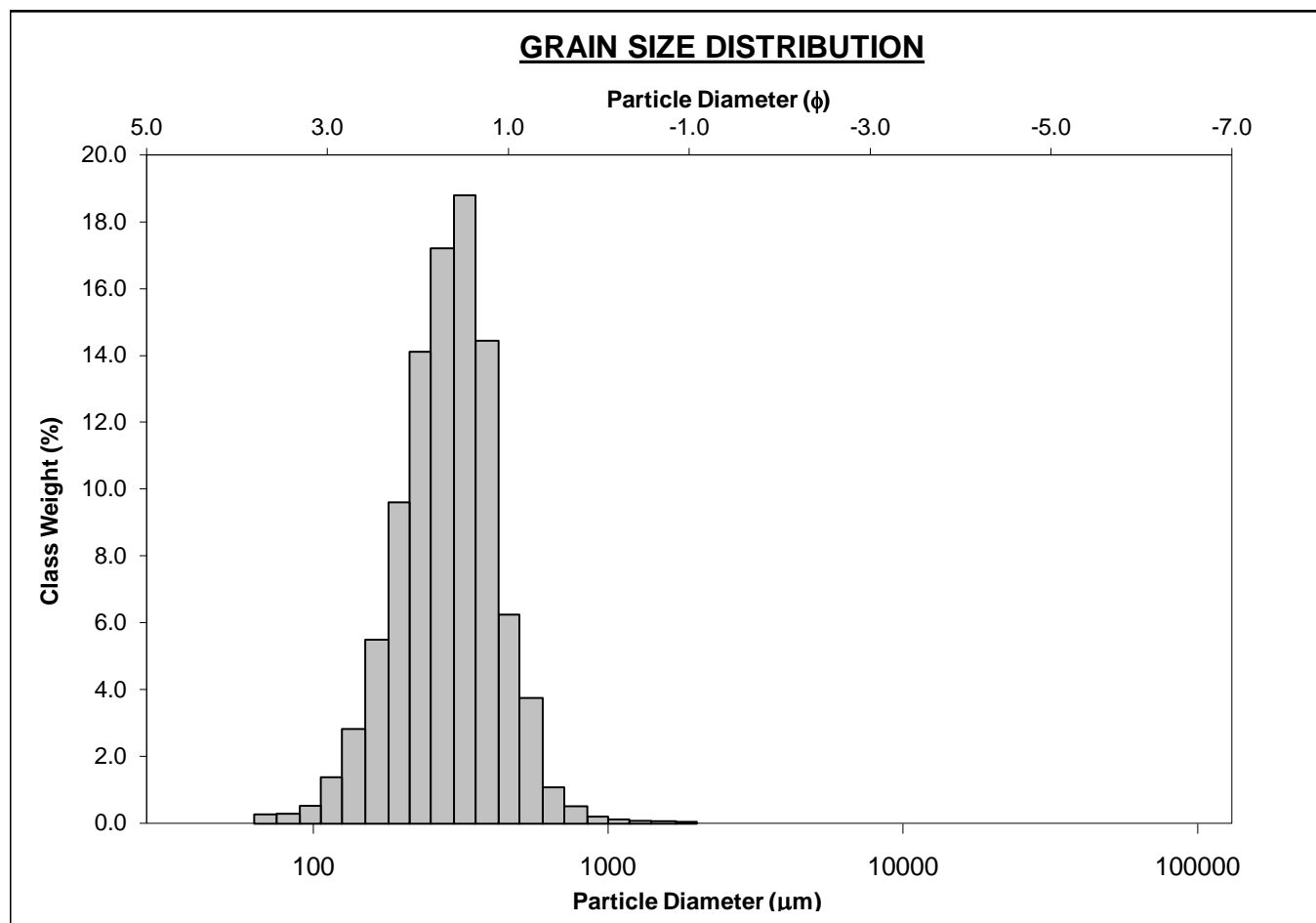
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-30cm			ANALYST & DATE: Chris, 9/9/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 4.8%	
MODE 2:			SAND: 99.4%		MEDIUM SAND: 51.4%	
MODE 3:			MUD: 0.6%		FINE SAND: 39.7%	
D ₁₀ :	160.7	1.239			V FINE SAND: 3.3%	
MEDIAN or D ₅₀ :	265.4	1.914	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	423.8	2.637	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.636	2.129	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	263.0	1.399	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.620	1.447	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	130.2	0.696	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	285.6	260.0	1.943	266.2	1.910	Medium Sand
SORTING (σ):	117.2	1.602	0.680	1.469	0.555	Moderately Well Sorted
SKEWNESS (Sk):	1.482	-2.390	2.390	-0.018	0.018	Symmetrical
KURTOSIS (K):	8.296	19.48	19.48	1.128	1.128	Leptokurtic



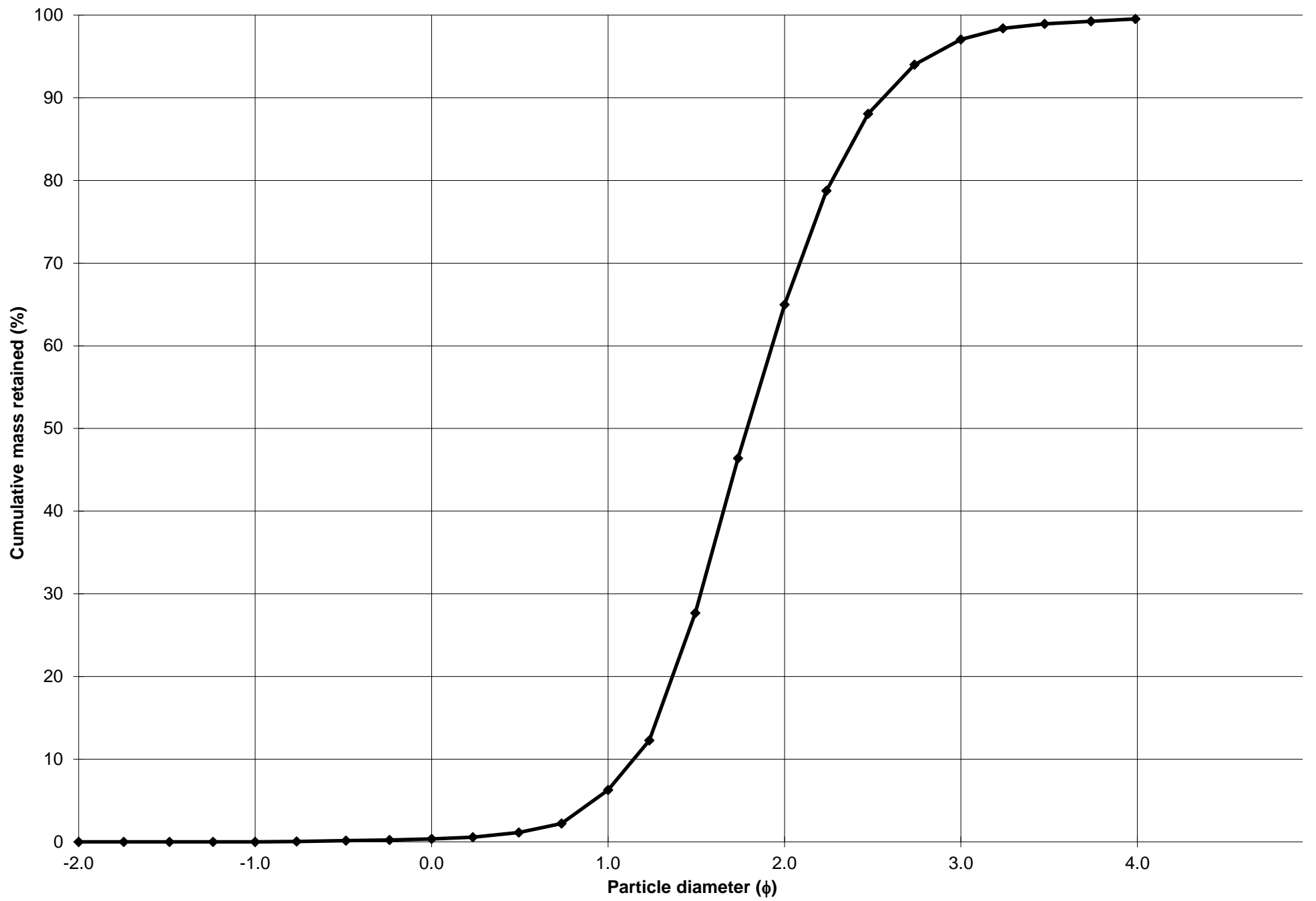
Cumulative Frequency Curve



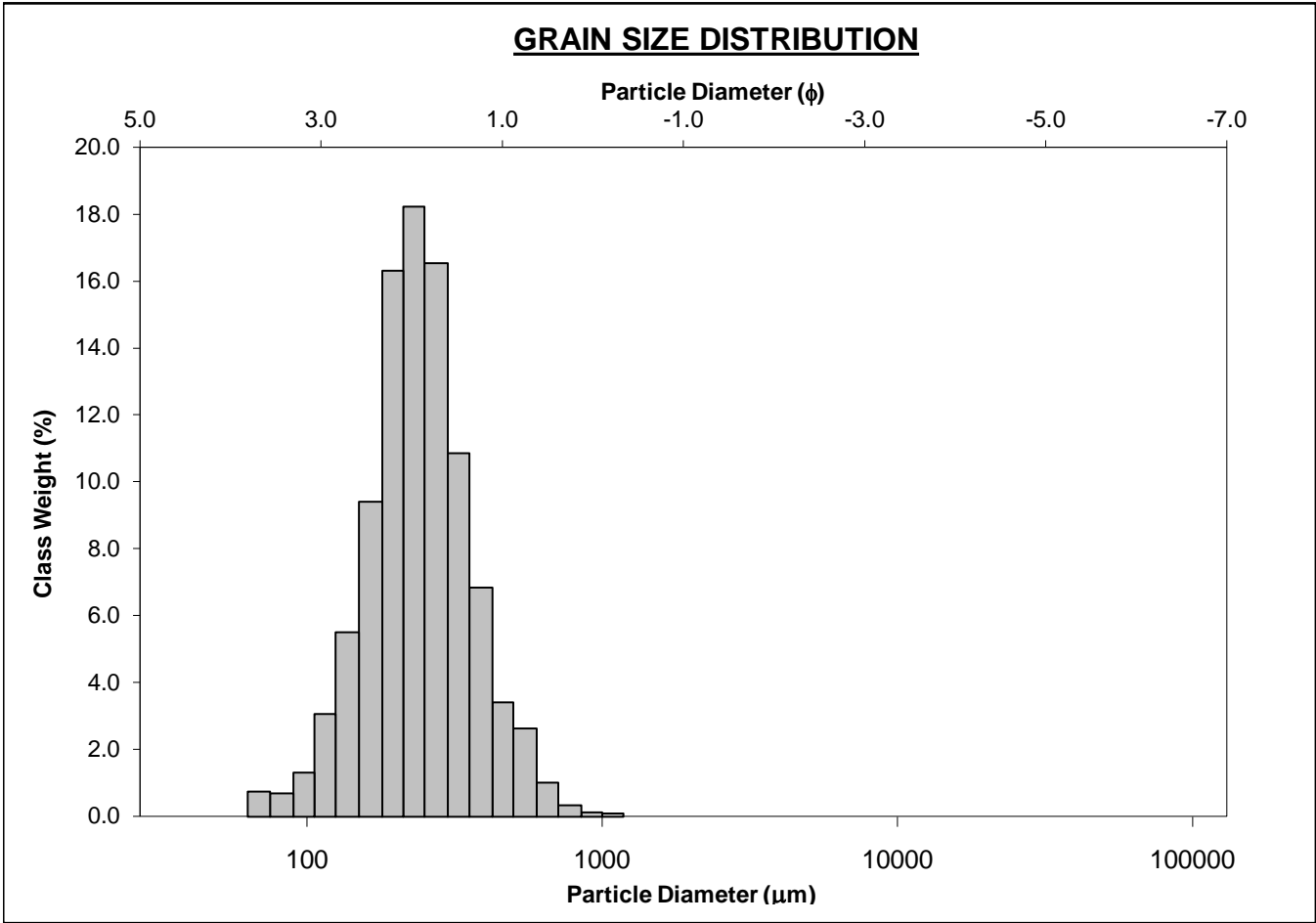
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-40cm			ANALYST & DATE: Stephen, 9/11/2014			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 5.9%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 58.7%	
MODE 3:			MUD: 0.5%		FINE SAND: 32.1%	
D ₁₀ :	169.6	1.146			V FINE SAND: 2.5%	
MEDIAN or D ₅₀ :	289.6	1.788	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	452.0	2.560	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.666	2.235	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	282.4	1.415	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.652	1.500	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	144.5	0.724	V COARSE SAND: 0.4%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	307.6	279.7	1.838	283.5	1.819	Medium Sand
SORTING (σ):	135.0	1.591	0.669	1.471	0.557	Moderately Well Sorted
SKEWNESS (Sk):	2.725	-2.092	2.092	-0.087	0.087	Symmetrical
KURTOSIS (K):	22.68	18.39	18.39	1.078	1.078	Mesokurtic



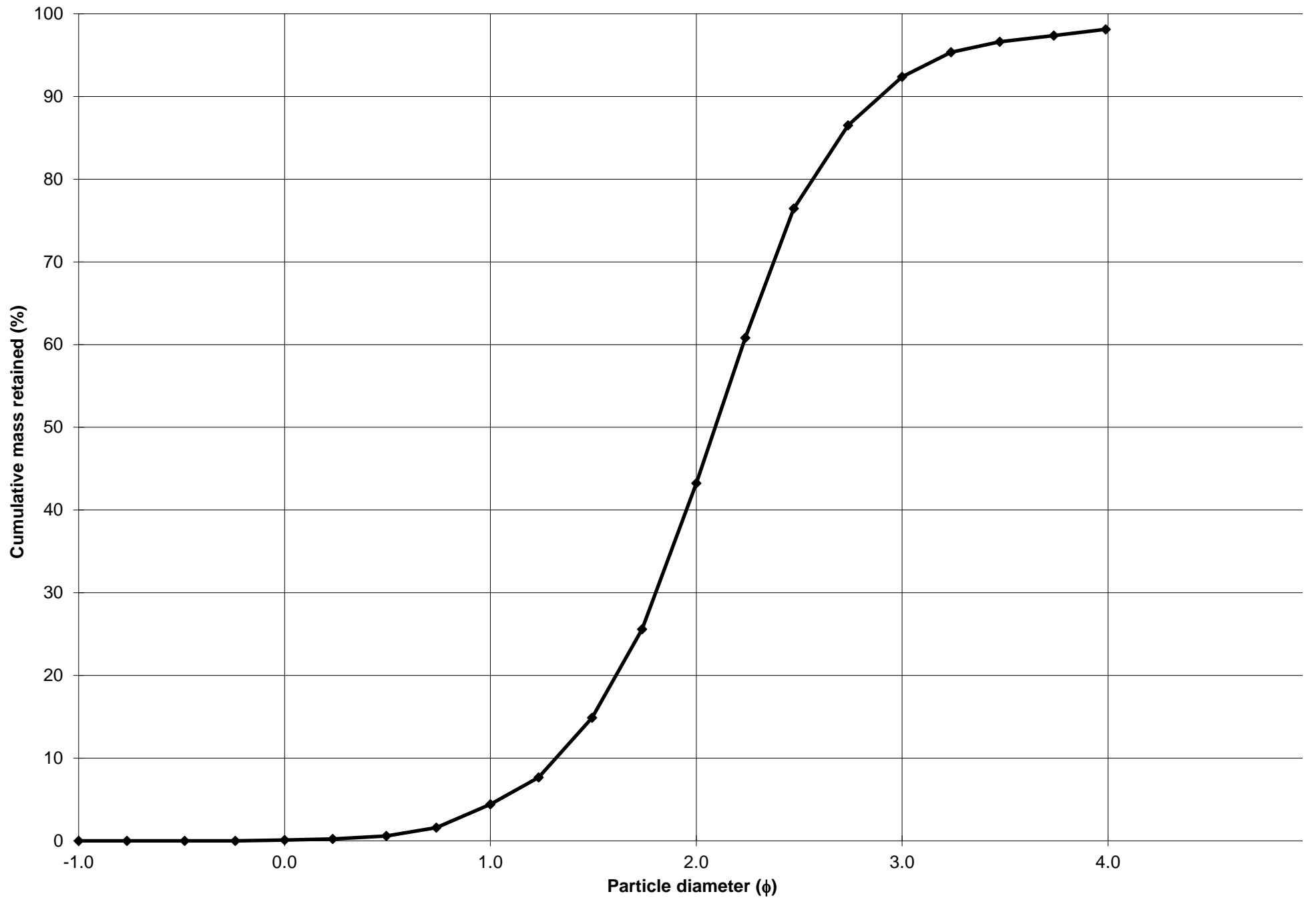
Cumulative Frequency Curve



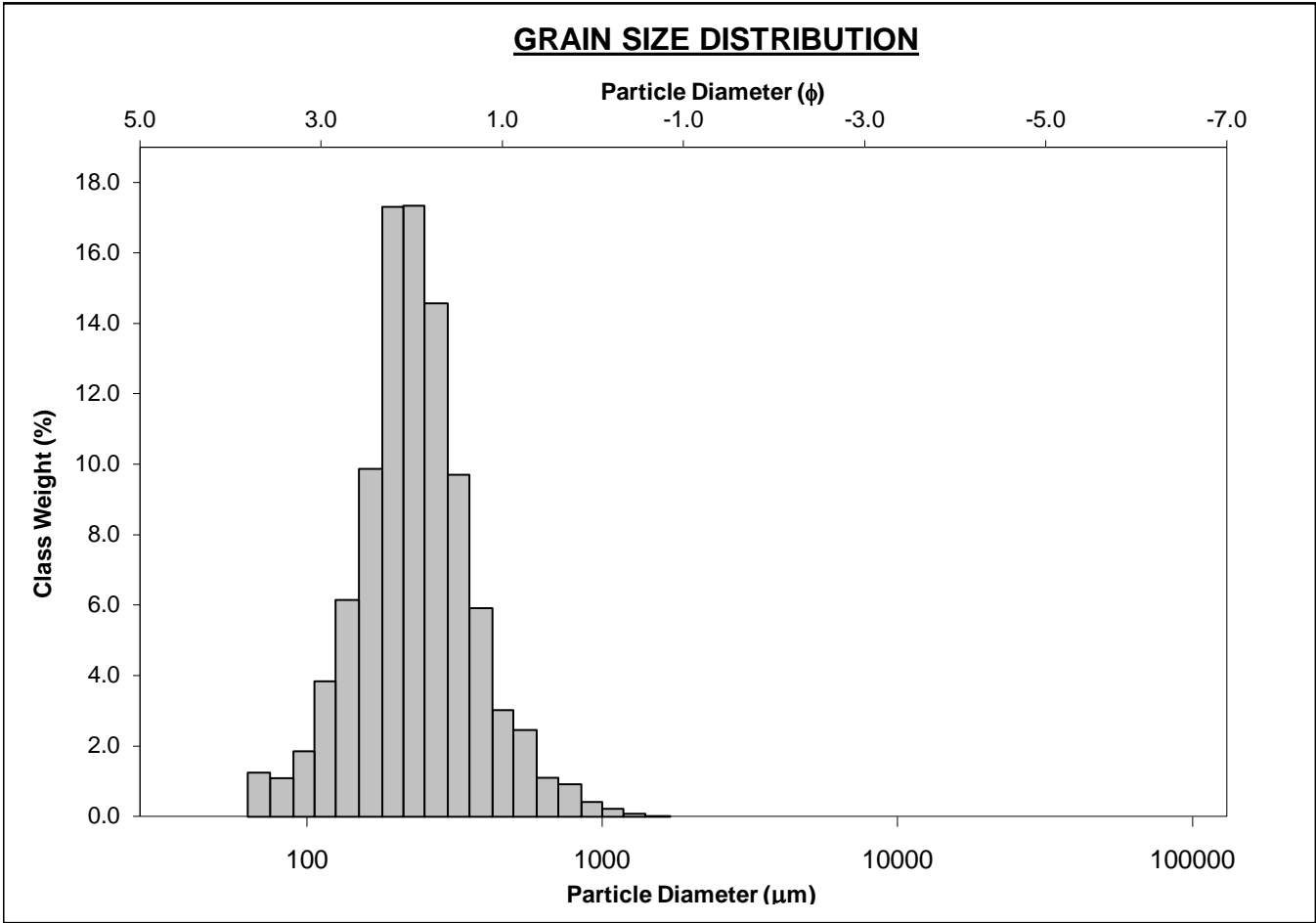
SIEVING ERROR: 1.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-50cm			ANALYST & DATE: Chris, 9/10/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 4.3%	
MODE 2:			SAND: 98.1%		MEDIUM SAND: 38.8%	
MODE 3:			MUD: 1.9%		FINE SAND: 49.1%	
D ₁₀ :	134.6	1.319			V FINE SAND: 5.7%	
MEDIAN or D ₅₀ :	234.6	2.092	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.3%	
D ₉₀ :	400.9	2.894	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D ₉₀ / D ₁₀):	2.979	2.194	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
(D ₉₀ - D ₁₀):	266.3	1.575	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D ₇₅ / D ₂₅):	1.657	1.422	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
(D ₇₅ - D ₂₅):	120.0	0.728	V COARSE SAND: 0.1%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	256.2	223.2	2.164	234.2	2.094	Fine Sand
SORTING (σ):	119.3	1.858	0.894	1.533	0.616	Moderately Well Sorted
SKEWNESS (Sk):	1.567	-2.825	2.825	-0.020	0.020	Symmetrical
KURTOSIS (K):	8.115	16.77	16.77	1.220	1.220	Leptokurtic



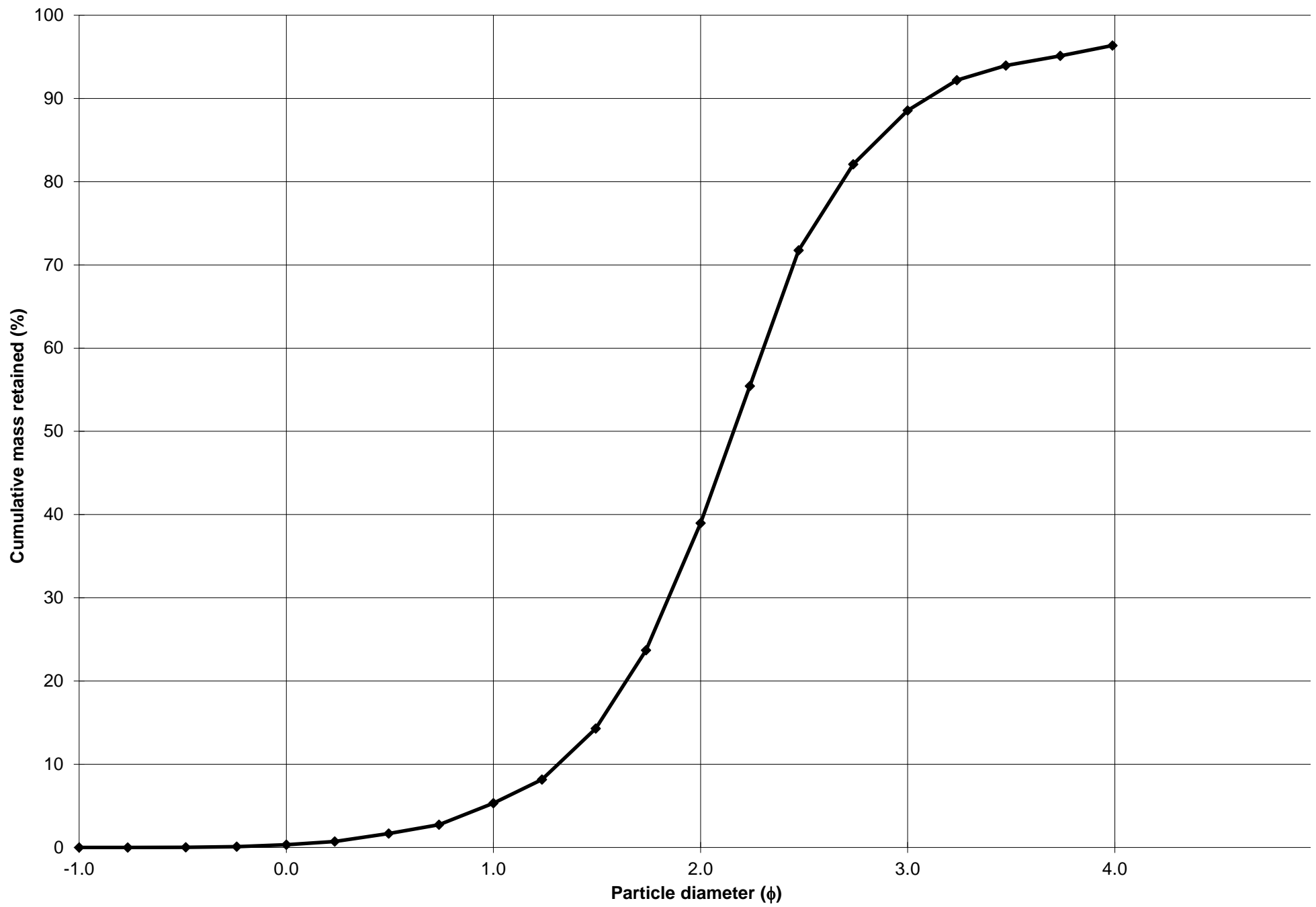
Cumulative Frequency Curve



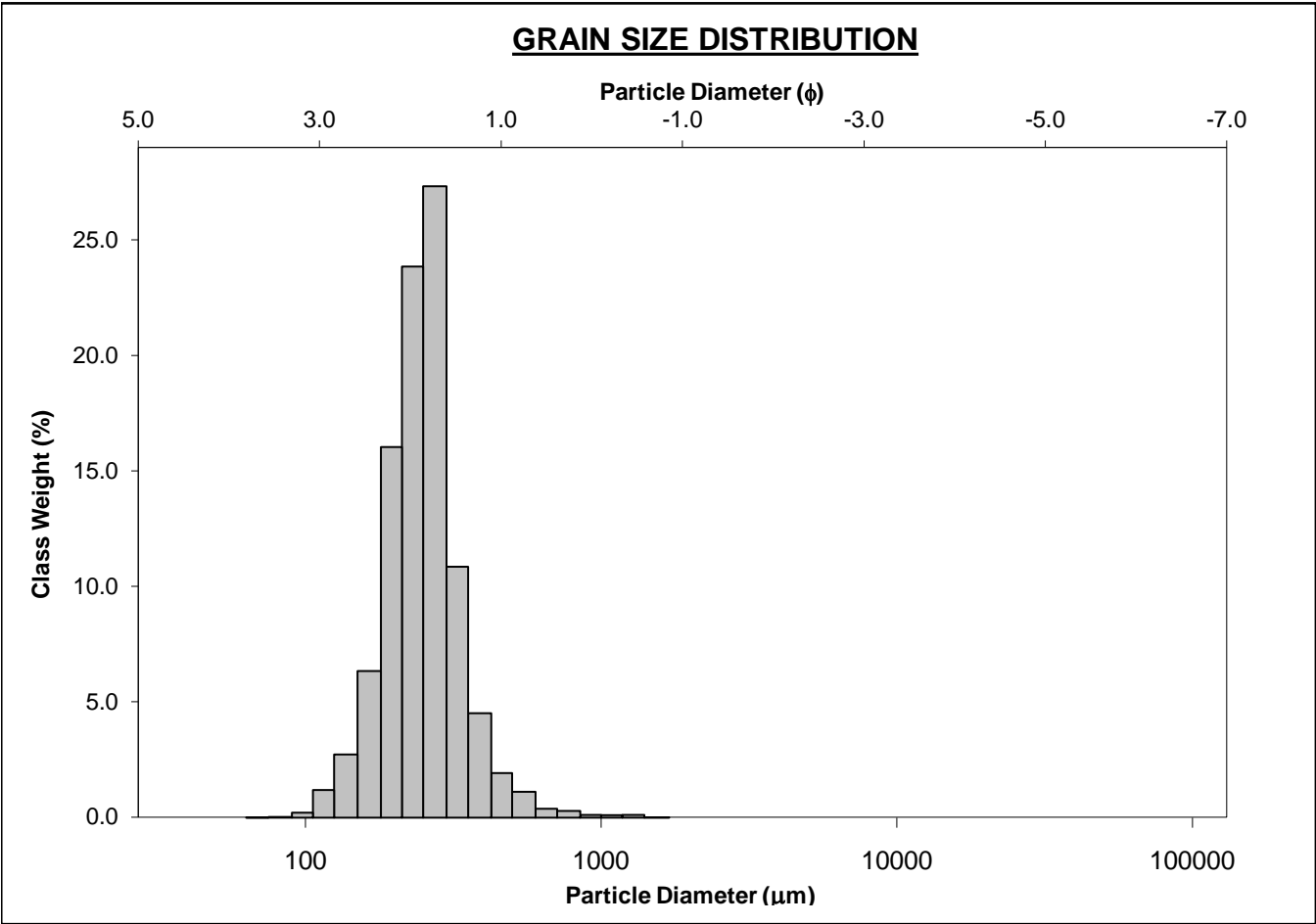
SIEVING ERROR: 1.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-60cm			ANALYST & DATE: Chris, 9/9/14			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 5.0%	
MODE 2:			SAND: 96.4%		MEDIUM SAND: 33.7%	
MODE 3:			MUD: 3.6%		FINE SAND: 49.6%	
D_{10} :	117.1	1.312			V FINE SAND: 7.8%	
MEDIAN or D_{50} :	223.9	2.159	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.6%	
D_{90} :	402.7	3.094	COARSE GRAVEL: 0.0%		COARSE SILT: 0.6%	
(D_{90} / D_{10}) :	3.439	2.358	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.6%	
$(D_{90} - D_{10})$:	285.6	1.782	FINE GRAVEL: 0.0%		FINE SILT: 0.6%	
(D_{75} / D_{25}) :	1.738	1.453	V FINE GRAVEL: 0.0%		V FINE SILT: 0.6%	
$(D_{75} - D_{25})$:	125.4	0.797	V COARSE SAND: 0.3%		CLAY: 0.6%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	250.8	204.5	2.290	222.1	2.171	Fine Sand
SORTING (σ):	142.0	2.175	1.121	1.665	0.735	Moderately Sorted
SKEWNESS (Sk):	2.230	-2.484	2.484	-0.079	0.079	Symmetrical
KURTOSIS (K):	12.31	11.80	11.80	1.412	1.412	Leptokurtic



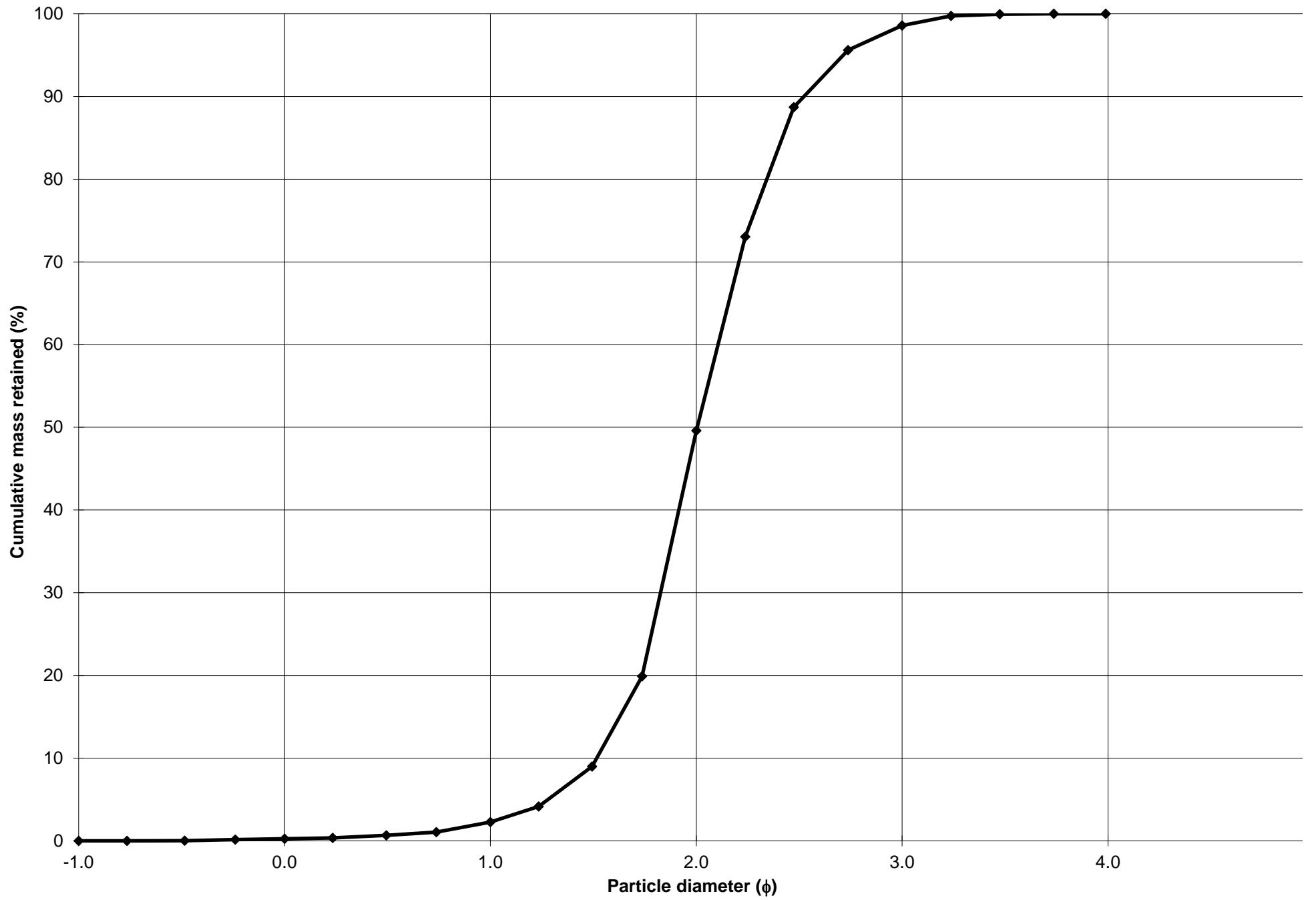
Cumulative Frequency Curve



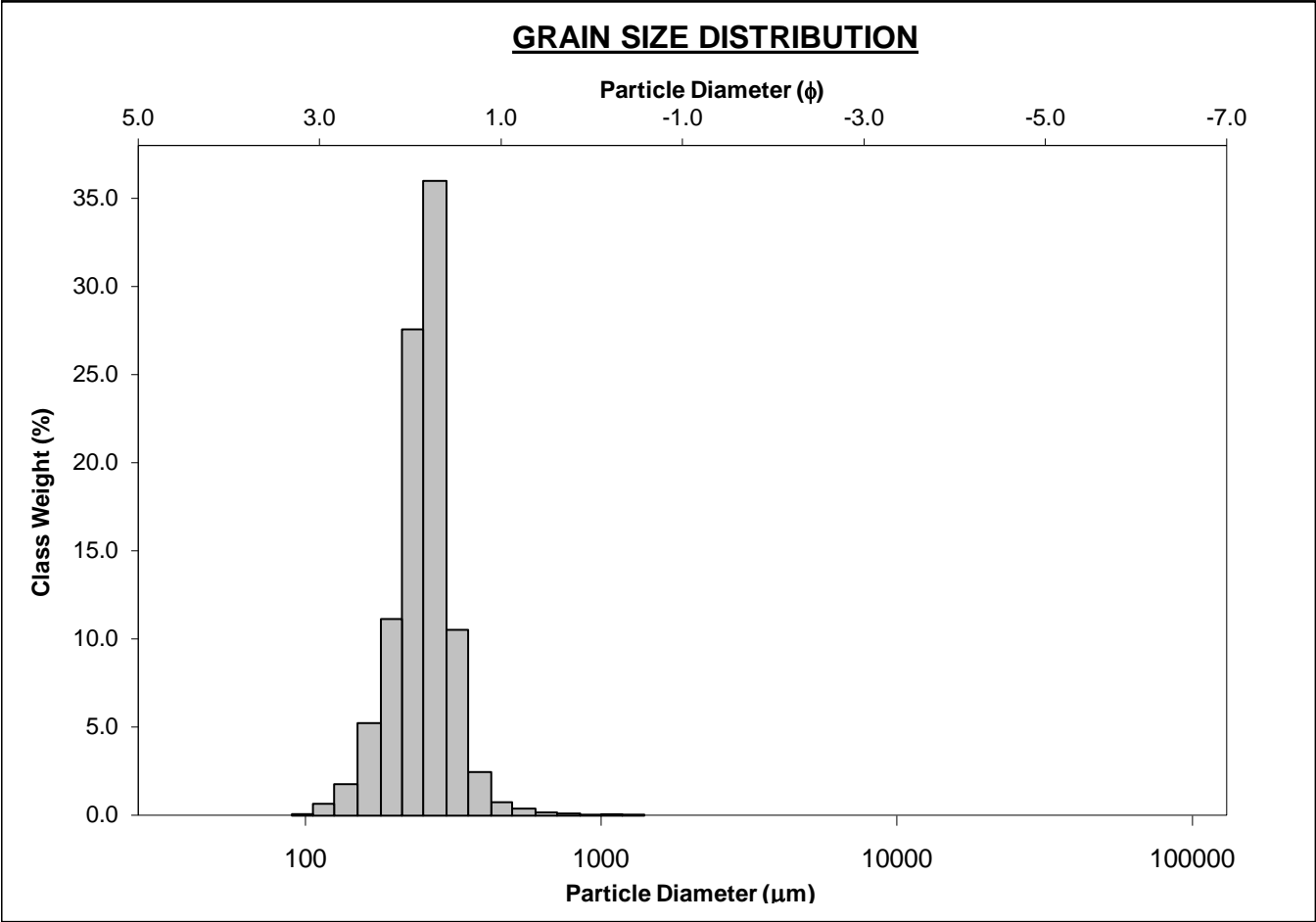
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-70cm			ANALYST & DATE: Chris, 9/9/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 2.0%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 47.3%			
MODE 3:			MUD: 0.0% FINE SAND: 49.0%			
D ₁₀ :	173.9	1.516	V FINE SAND: 1.4%			
MEDIAN or D ₅₀ :	249.3	2.004	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	349.6	2.524	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.010	1.664	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	175.6	1.007	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.400	1.272	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	83.03	0.485	V COARSE SAND: 0.2% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	262.6	248.7	2.008	246.7	2.019	Fine Sand
SORTING (σ):	98.12	1.357	0.441	1.325	0.406	Well Sorted
SKEWNESS (Sk):	3.793	0.574	-0.574	-0.025	0.025	Symmetrical
KURTOSIS (K):	31.71	5.793	5.793	1.212	1.212	Leptokurtic



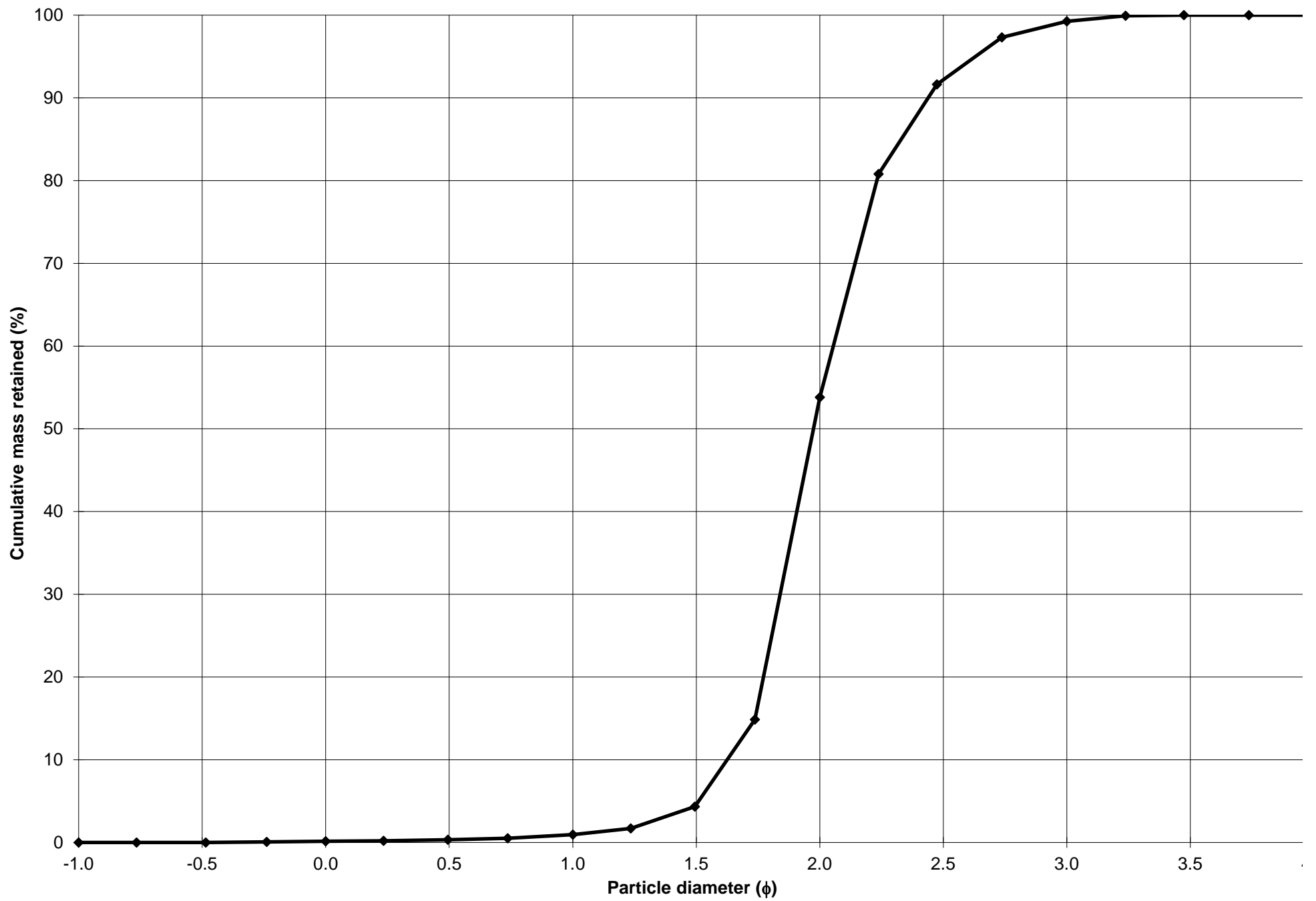
Cumulative Frequency Curve



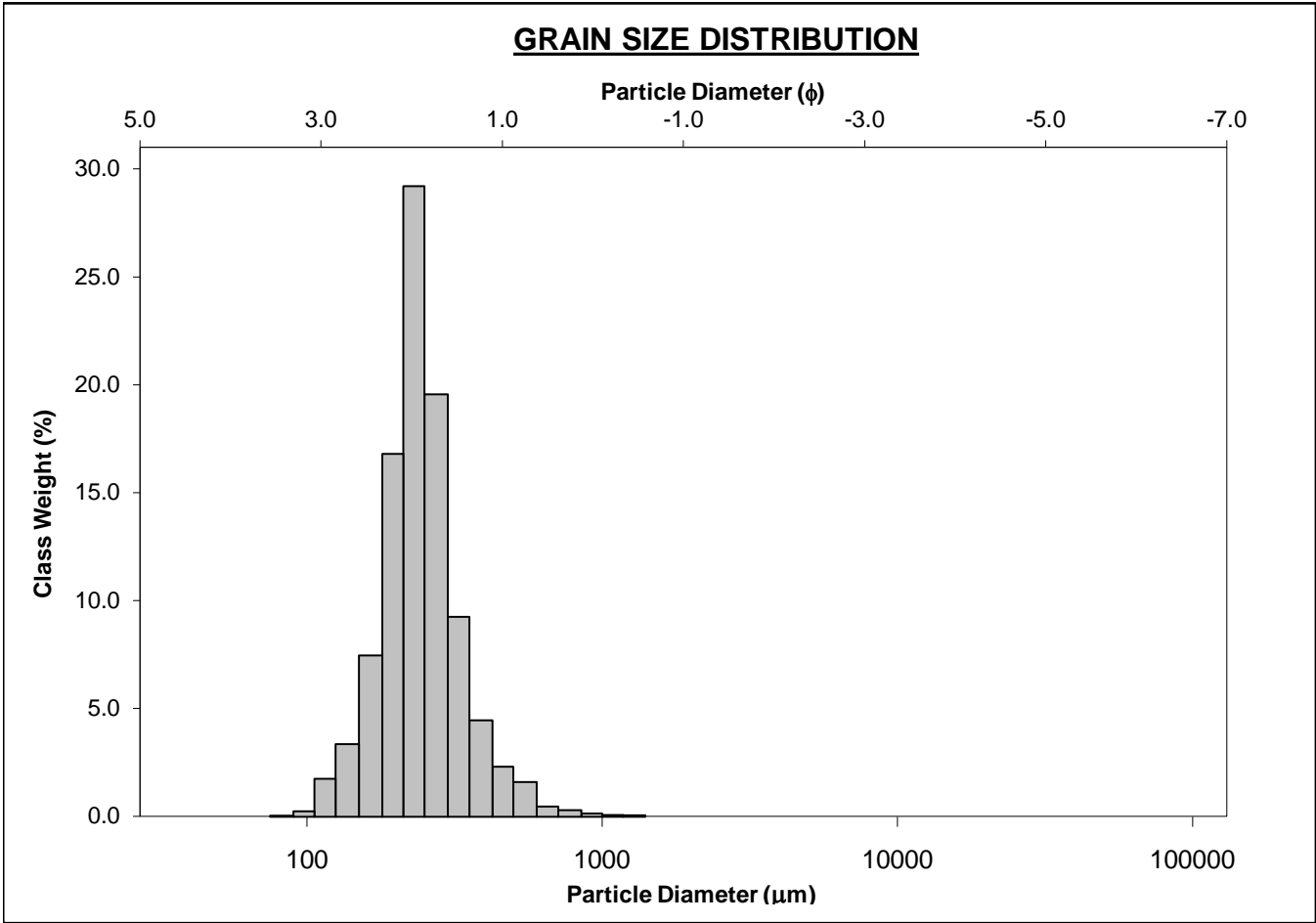
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-80cm			ANALYST & DATE: Chris, 9/9/14			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 0.8%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 52.9%			
MODE 3:			MUD: 0.0% FINE SAND: 45.4%			
D ₁₀ :	184.5	1.625	V FINE SAND: 0.7%			
MEDIAN or D ₅₀ :	254.5	1.974	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	324.2	2.438	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.757	1.501	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	139.7	0.813	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.302	1.211	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	66.44	0.381	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	258.6	249.7	2.001	248.5	2.009	Fine Sand
SORTING (σ):	73.65	1.276	0.351	1.240	0.310	Very Well Sorted
SKEWNESS (Sk):	4.362	0.321	-0.321	-0.177	0.177	Fine Skewed
KURTOSIS (K):	47.85	7.310	7.310	1.204	1.204	Leptokurtic



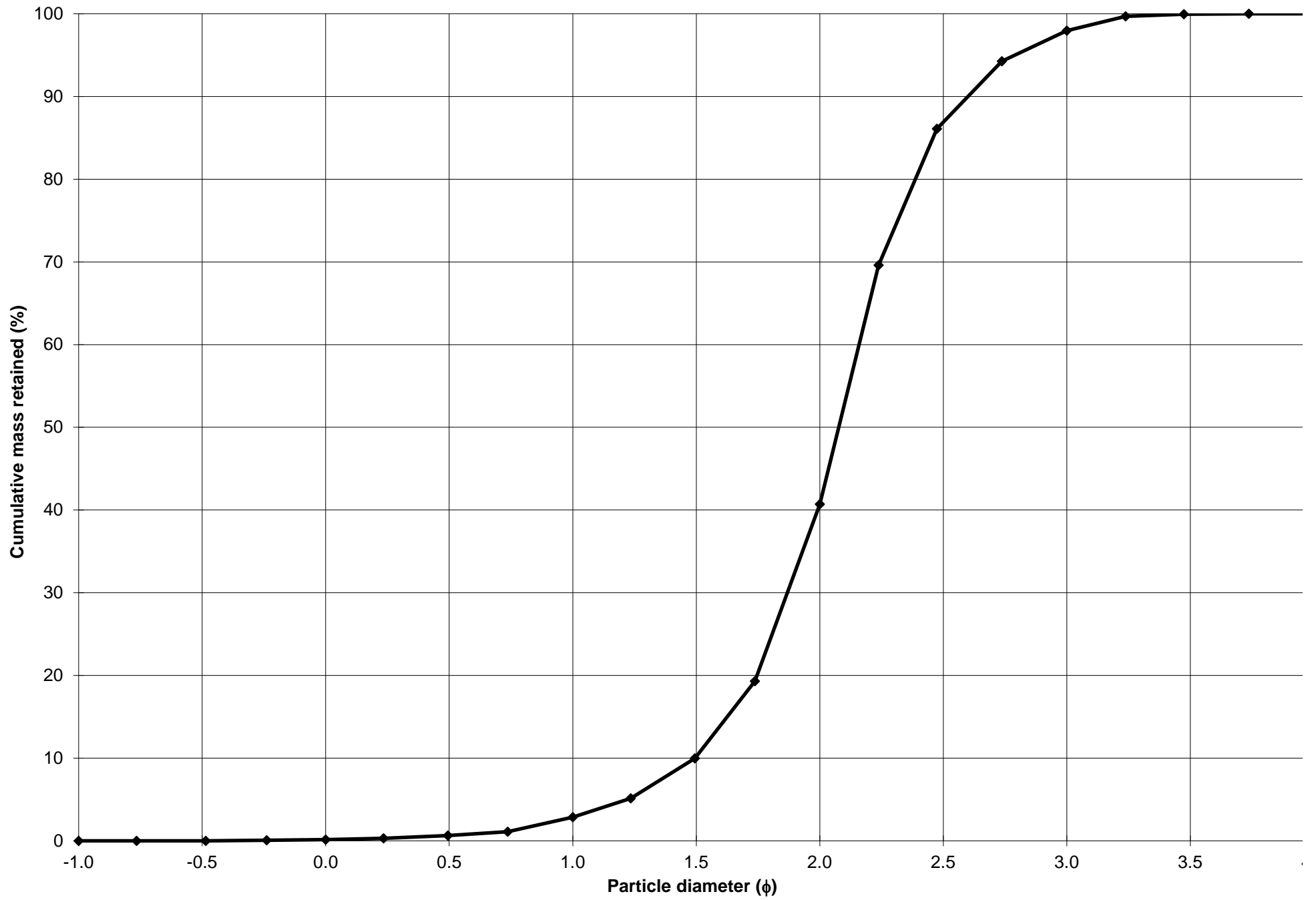
Cumulative Frequency Curve



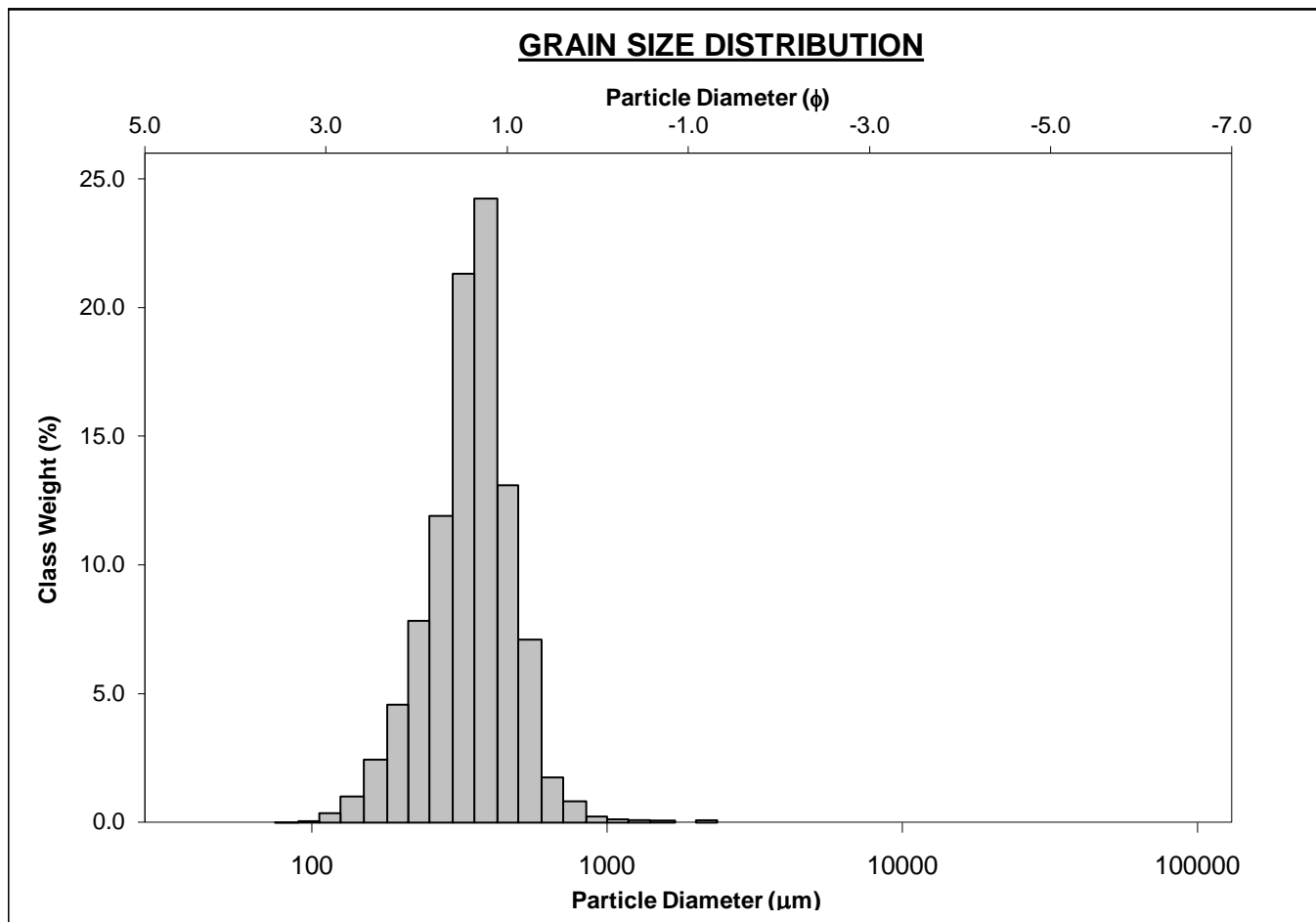
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-90cm			ANALYST & DATE: Chris & Stephen, 9/11/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0% COARSE SAND: 2.7%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 37.8%			
MODE 3:			MUD: 0.0% FINE SAND: 57.2%			
D ₁₀ :	165.0	1.495	V FINE SAND: 2.0%			
MEDIAN or D ₅₀ :	237.1	2.076	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	354.7	2.599	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.150	1.739	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	189.7	1.104	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.422	1.281	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	84.86	0.508	V COARSE SAND: 0.2% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	257.3	242.3	2.045	240.3	2.057	Fine Sand
SORTING (σ):	99.84	1.381	0.465	1.353	0.436	Well Sorted
SKEWNESS (Sk):	3.041	0.596	-0.596	0.082	-0.082	Symmetrical
KURTOSIS (K):	20.93	4.977	4.977	1.265	1.265	Leptokurtic



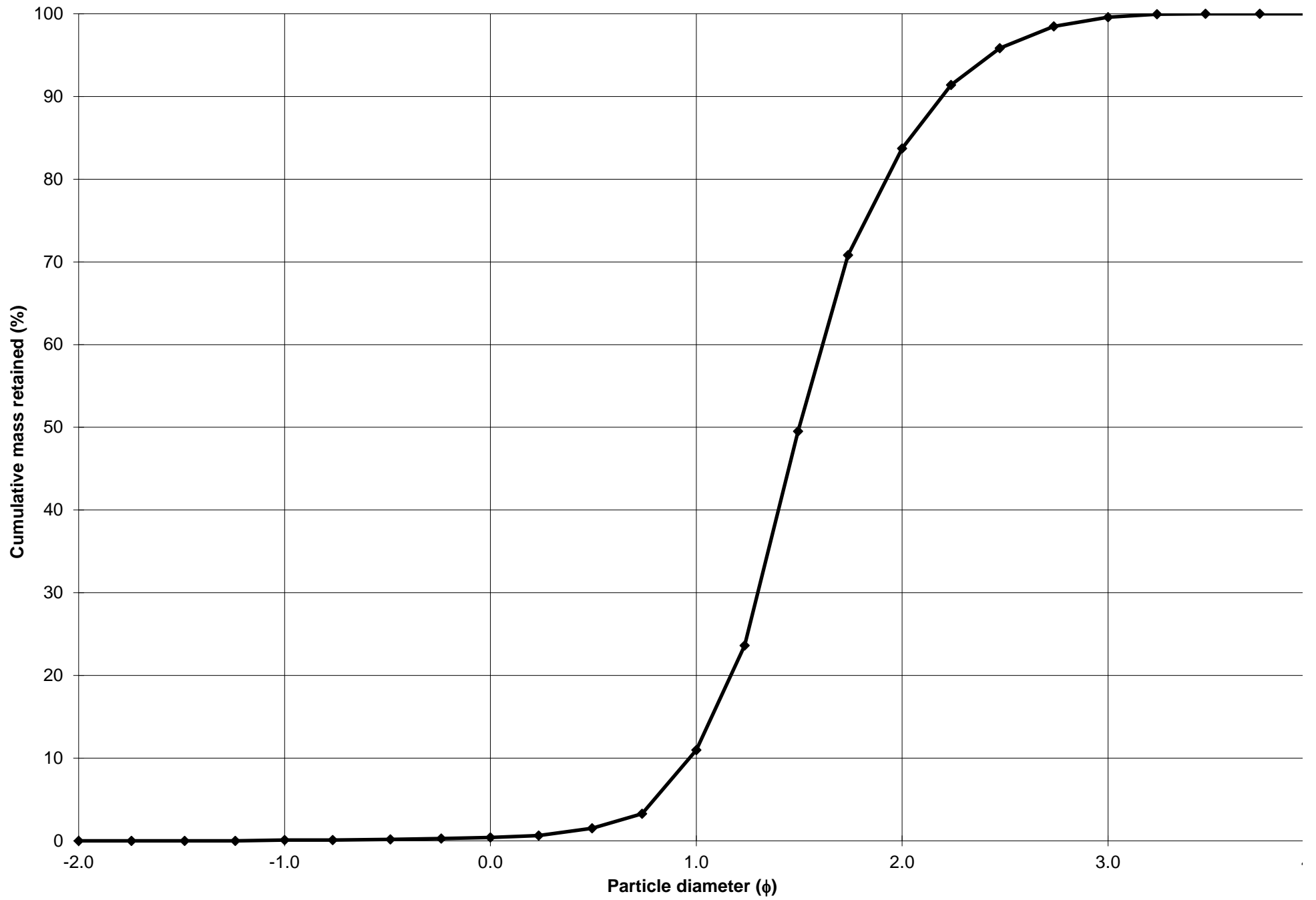
Cumulative Frequency Curve



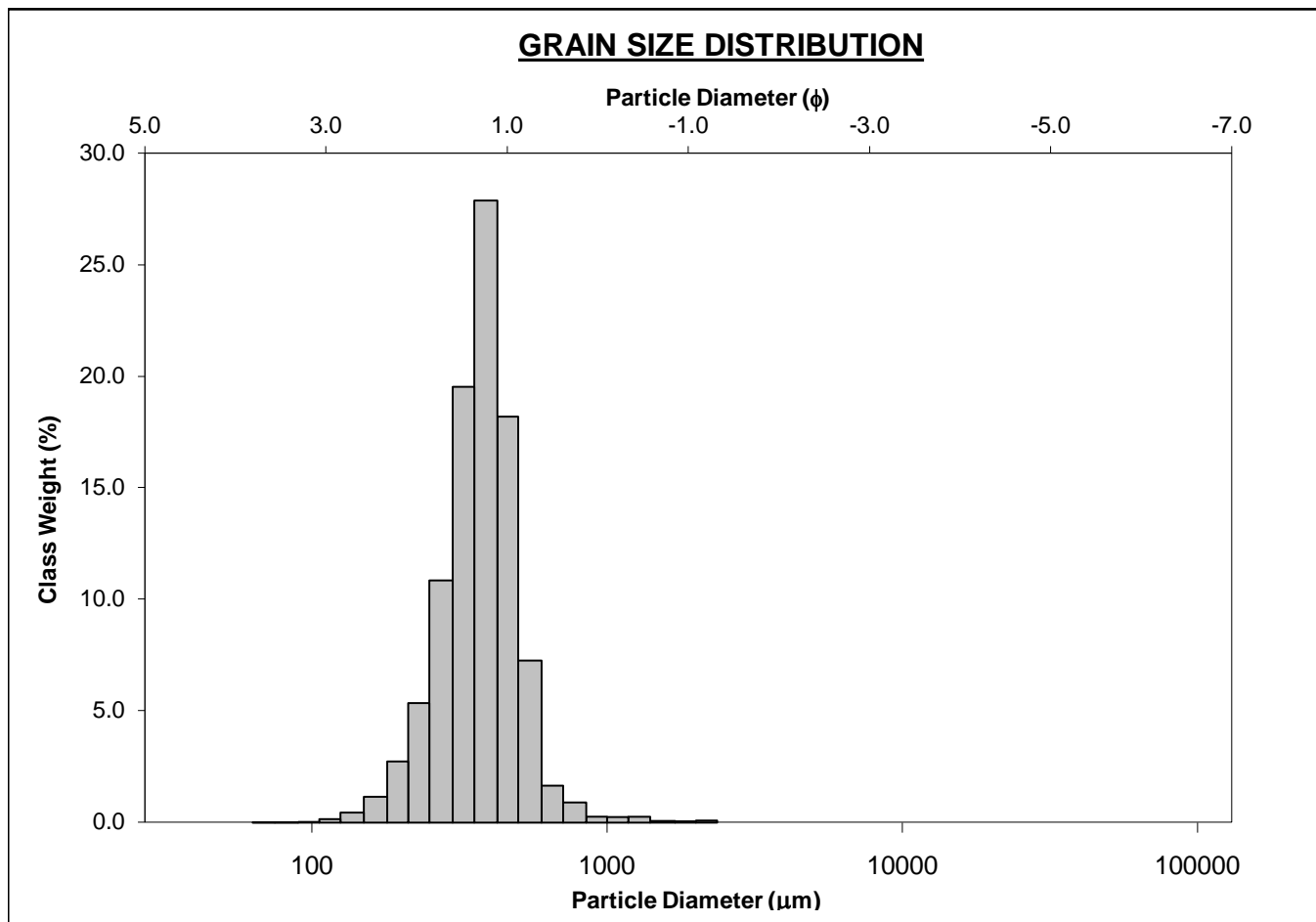
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-100cm			ANALYST & DATE: Stephen, 9/11/2014			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.1%		COARSE SAND: 10.6%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 72.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 15.9%	
D ₁₀ :	218.4	0.967			V FINE SAND: 0.4%	
MEDIAN or D ₅₀ :	353.6	1.500	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	511.7	2.195	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.343	2.271	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	293.3	1.228	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.489	1.460	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	138.2	0.574	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	366.4	343.9	1.540	345.3	1.534	Medium Sand
SORTING (σ):	139.4	1.410	0.496	1.391	0.477	Well Sorted
SKEWNESS (Sk):	3.450	-0.093	0.093	-0.125	0.125	Fine Skewed
KURTOSIS (K):	36.06	4.554	4.554	1.167	1.167	Leptokurtic



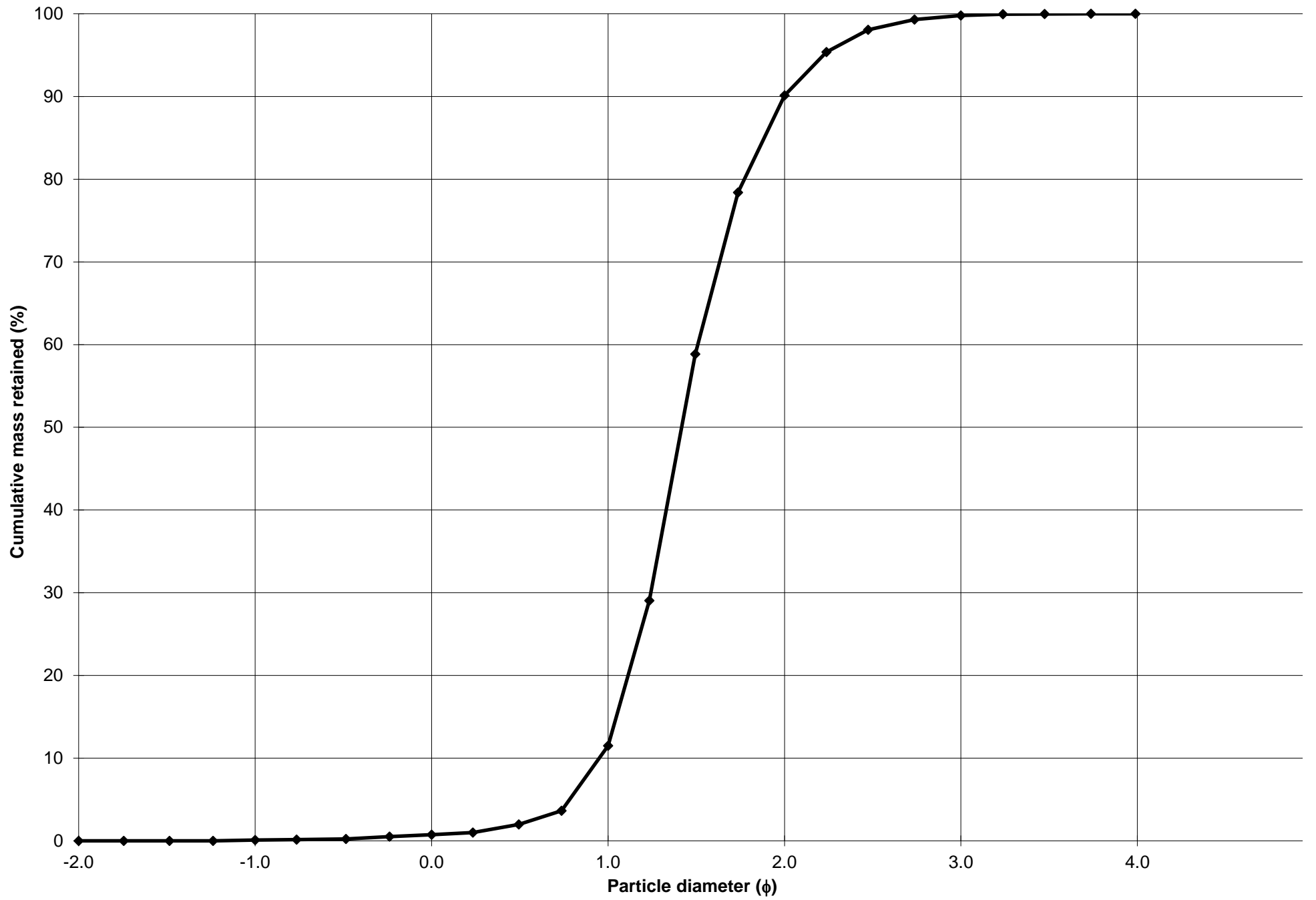
Cumulative Frequency Curve



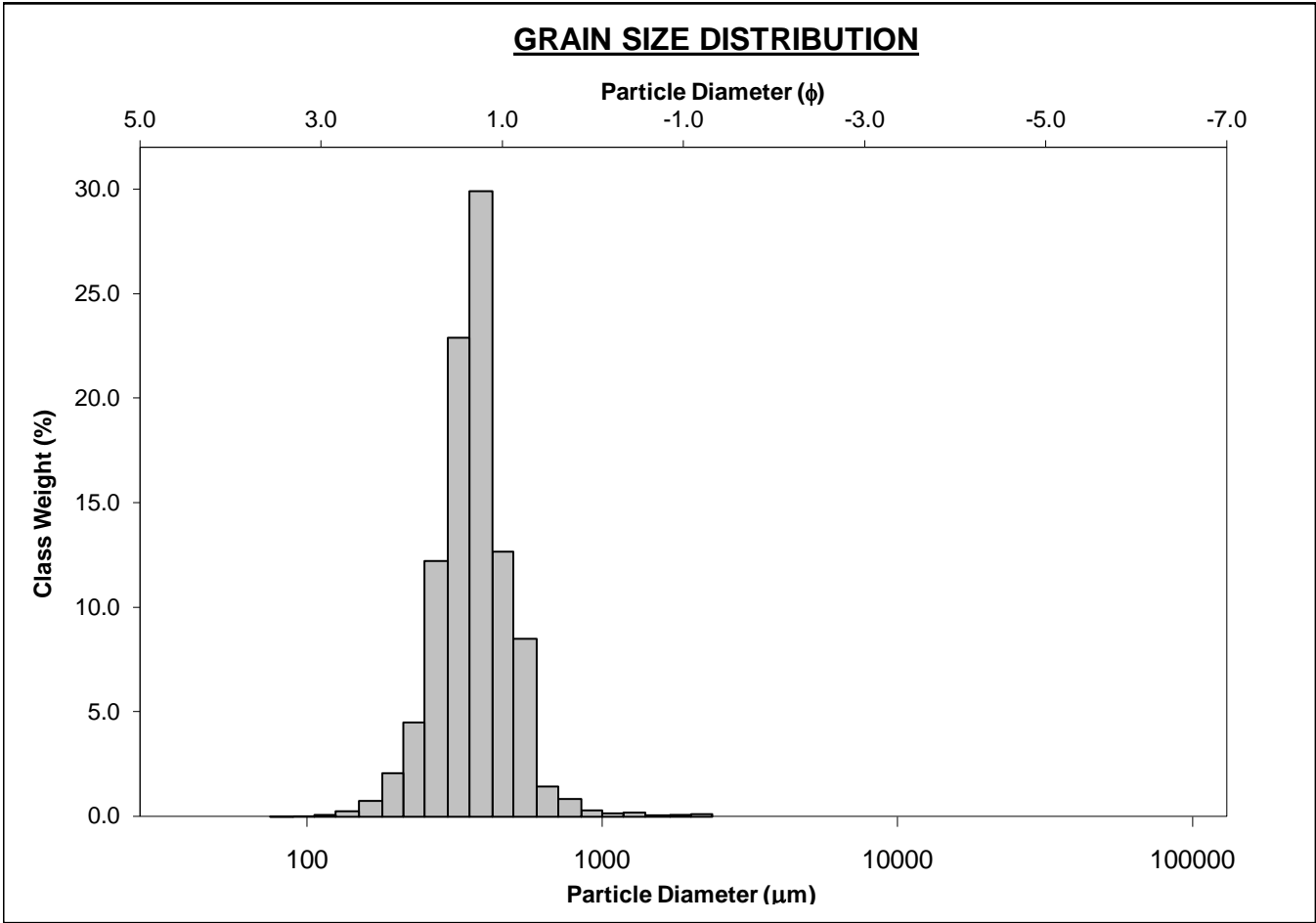
SIEVING ERROR: 0.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-110cm			ANALYST & DATE: Stephen, 9/11/2014			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.1%		COARSE SAND: 10.7%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 78.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 9.7%	
D ₁₀ :	250.5	0.950			V FINE SAND: 0.2%	
MEDIAN or D ₅₀ :	374.5	1.417	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	517.7	1.997	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.066	2.102	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	267.1	1.047	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.429	1.436	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	132.4	0.515	V COARSE SAND: 0.7%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	388.6	367.5	1.444	366.9	1.447	Medium Sand
SORTING (σ):	144.2	1.372	0.456	1.336	0.418	Well Sorted
SKEWNESS (Sk):	4.032	0.133	-0.133	-0.114	0.114	Fine Skewed
KURTOSIS (K):	38.89	5.870	5.870	1.145	1.145	Leptokurtic



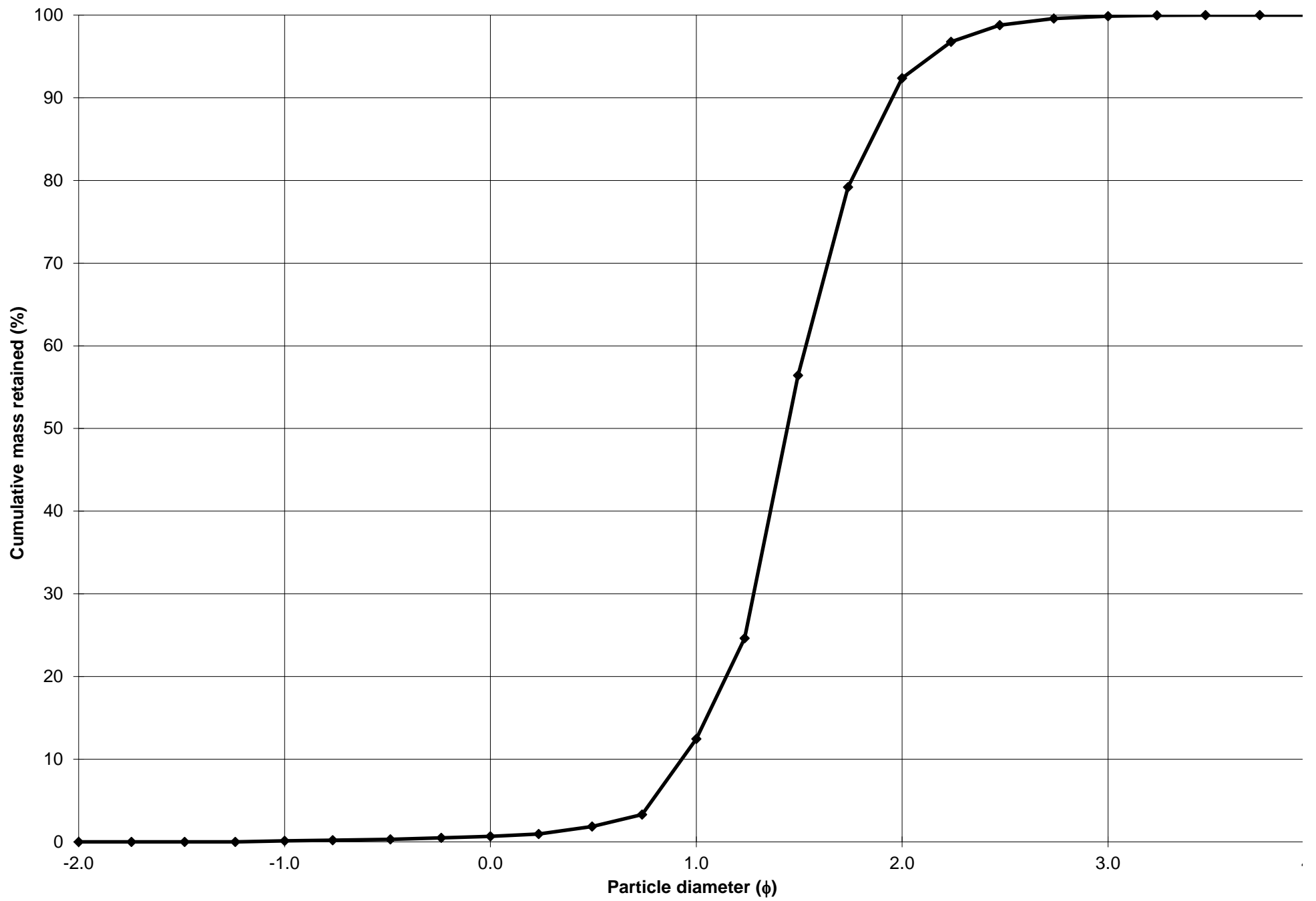
Cumulative Frequency Curve



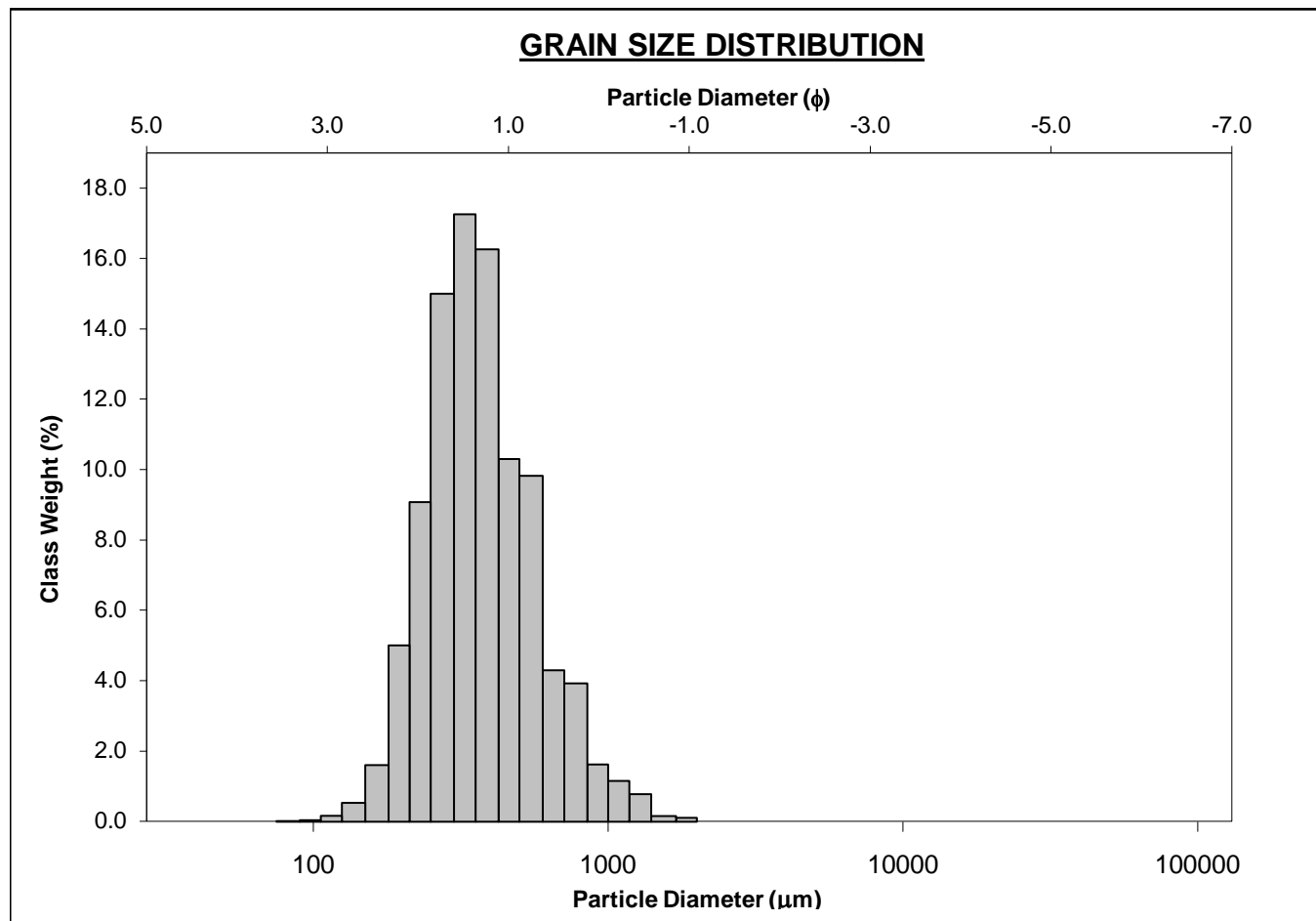
SIEVING ERROR: 0.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-120cm			ANALYST & DATE: Stephen, 9/11/2014			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.1%	COARSE SAND: 11.8%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 79.9%		
MODE 3:			MUD: 0.0%	FINE SAND: 7.5%		
D ₁₀ :	258.3	0.929		V FINE SAND: 0.1%		
MEDIAN or D ₅₀ :	368.2	1.442	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	525.1	1.953	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.033	2.101	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	266.8	1.023	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.370	1.367	V FINE GRAVEL: 0.1%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	114.7	0.455	V COARSE SAND: 0.5%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	386.6	367.0	1.446	366.6	1.448	Medium Sand
SORTING (σ):	144.1	1.348	0.431	1.317	0.397	Well Sorted
SKEWNESS (Sk):	4.775	0.489	-0.489	-0.028	0.028	Symmetrical
KURTOSIS (K):	48.24	6.718	6.718	1.223	1.223	Leptokurtic



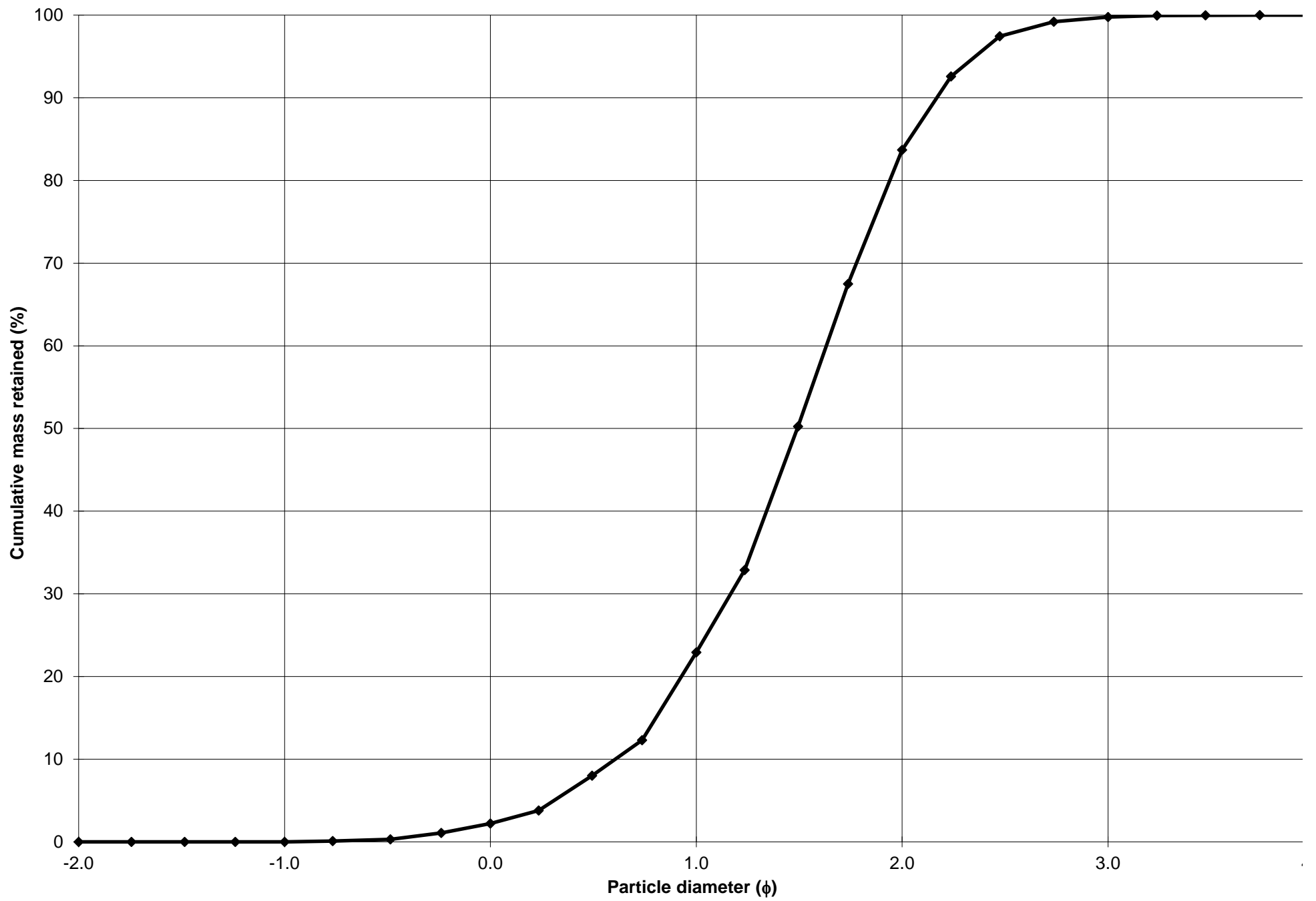
Cumulative Frequency Curve



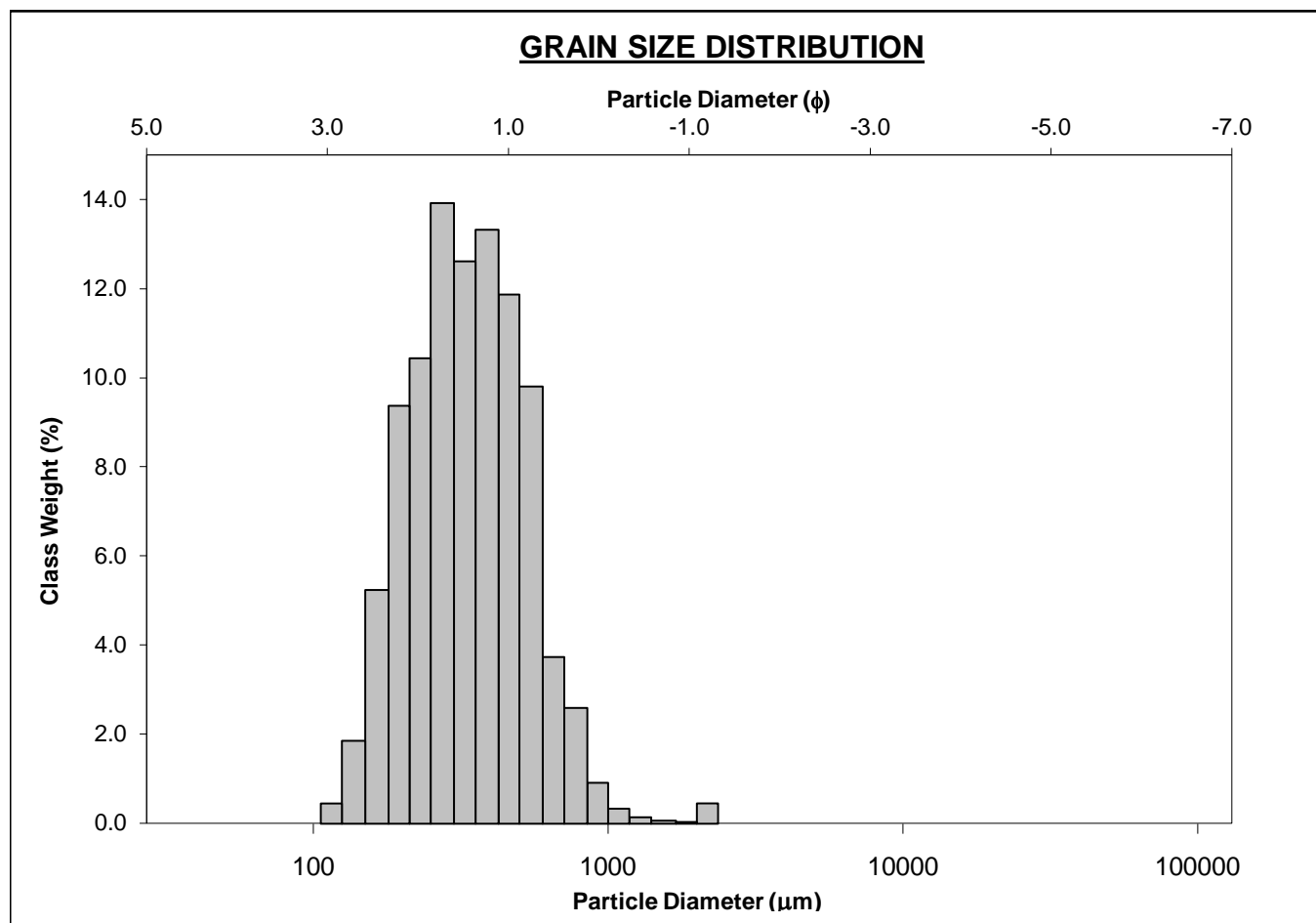
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-130cm			ANALYST & DATE: Stephen, 9/11/2014			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 20.7%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 60.8%	
MODE 3:			MUD: 0.0%		FINE SAND: 16.1%	
D_{10} :	222.4	0.607			V FINE SAND: 0.2%	
MEDIAN or D_{50} :	355.9	1.491	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	656.4	2.169	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.951	3.571	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	434.0	1.561	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.753	1.772	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	207.7	0.810	V COARSE SAND: 2.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	410.2	370.7	1.432	367.9	1.442	Medium Sand
SORTING (σ):	204.7	1.531	0.615	1.521	0.605	Moderately Well Sorted
SKEWNESS (Sk):	2.127	0.471	-0.471	0.139	-0.139	Coarse Skewed
KURTOSIS (K):	9.927	3.411	3.411	1.035	1.035	Mesokurtic



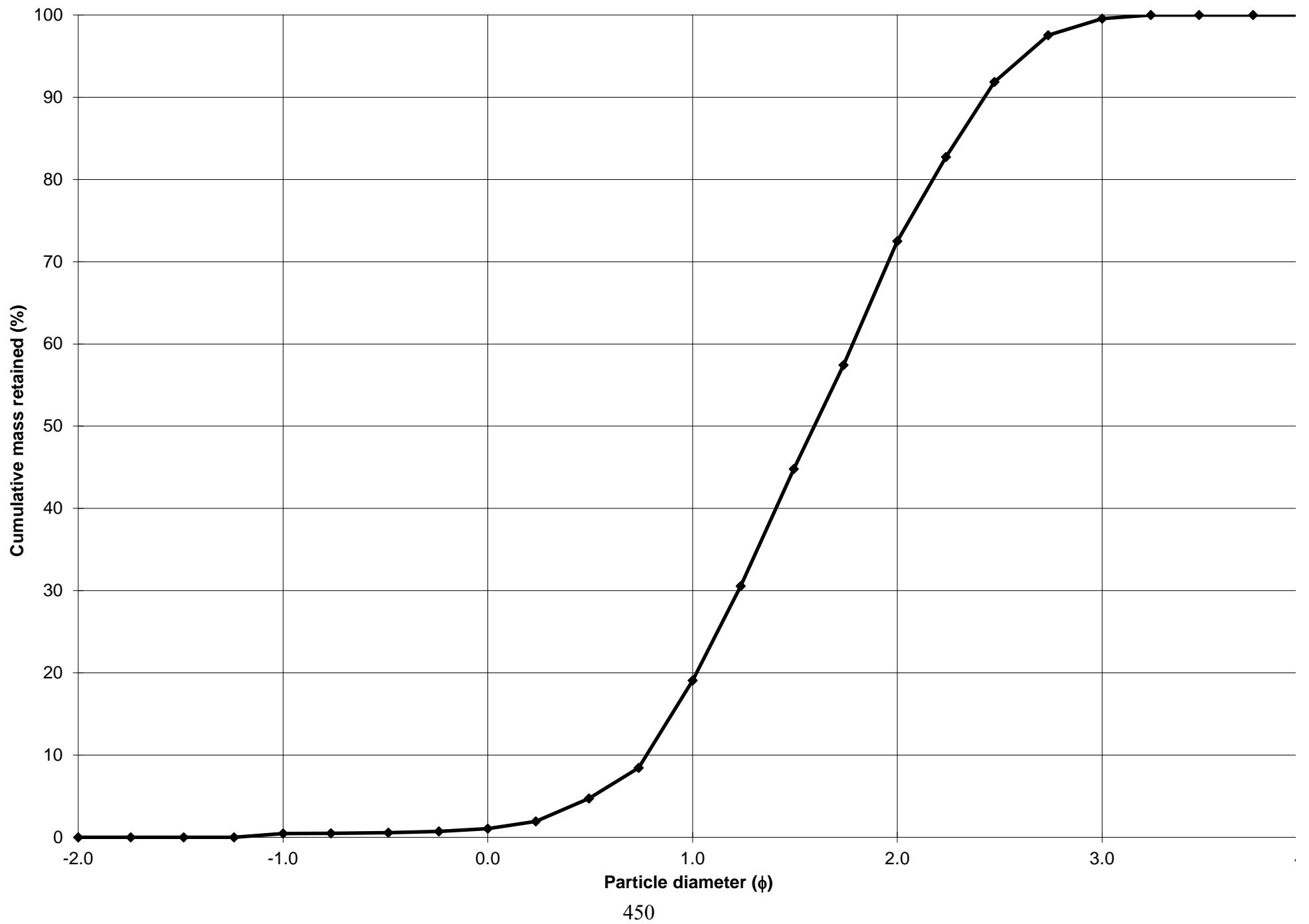
Cumulative Frequency Curve



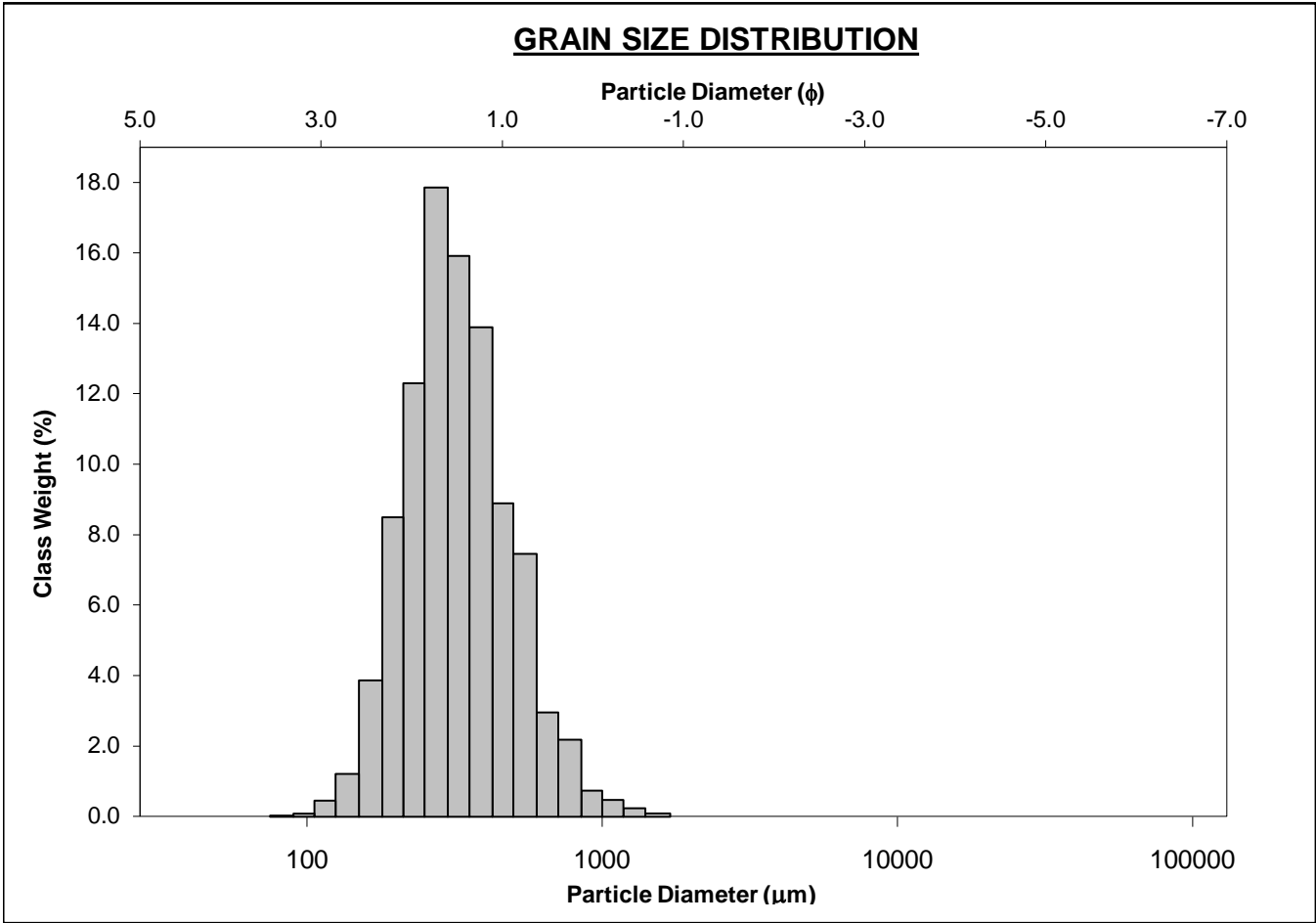
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-140cm			ANALYST & DATE: Stephen, 9/11/2014			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.4%		COARSE SAND: 18.0%	
MODE 2:	390.0	1.364	SAND: 99.6%		MEDIUM SAND: 53.4%	
MODE 3:			MUD: 0.0%		FINE SAND: 27.0%	
D ₁₀ :	186.1	0.775			V FINE SAND: 0.4%	
MEDIAN or D ₅₀ :	331.2	1.594	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	584.3	2.426	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.140	3.129	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	398.2	1.651	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.914	1.836	V FINE GRAVEL: 0.4%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	219.6	0.937	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	375.7	334.6	1.579	330.8	1.596	Medium Sand
SORTING (σ):	211.2	1.580	0.660	1.576	0.656	Moderately Well Sorted
SKEWNESS (Sk):	3.619	0.378	-0.378	0.011	-0.011	Symmetrical
KURTOSIS (K):	27.66	3.553	3.553	0.922	0.922	Mesokurtic



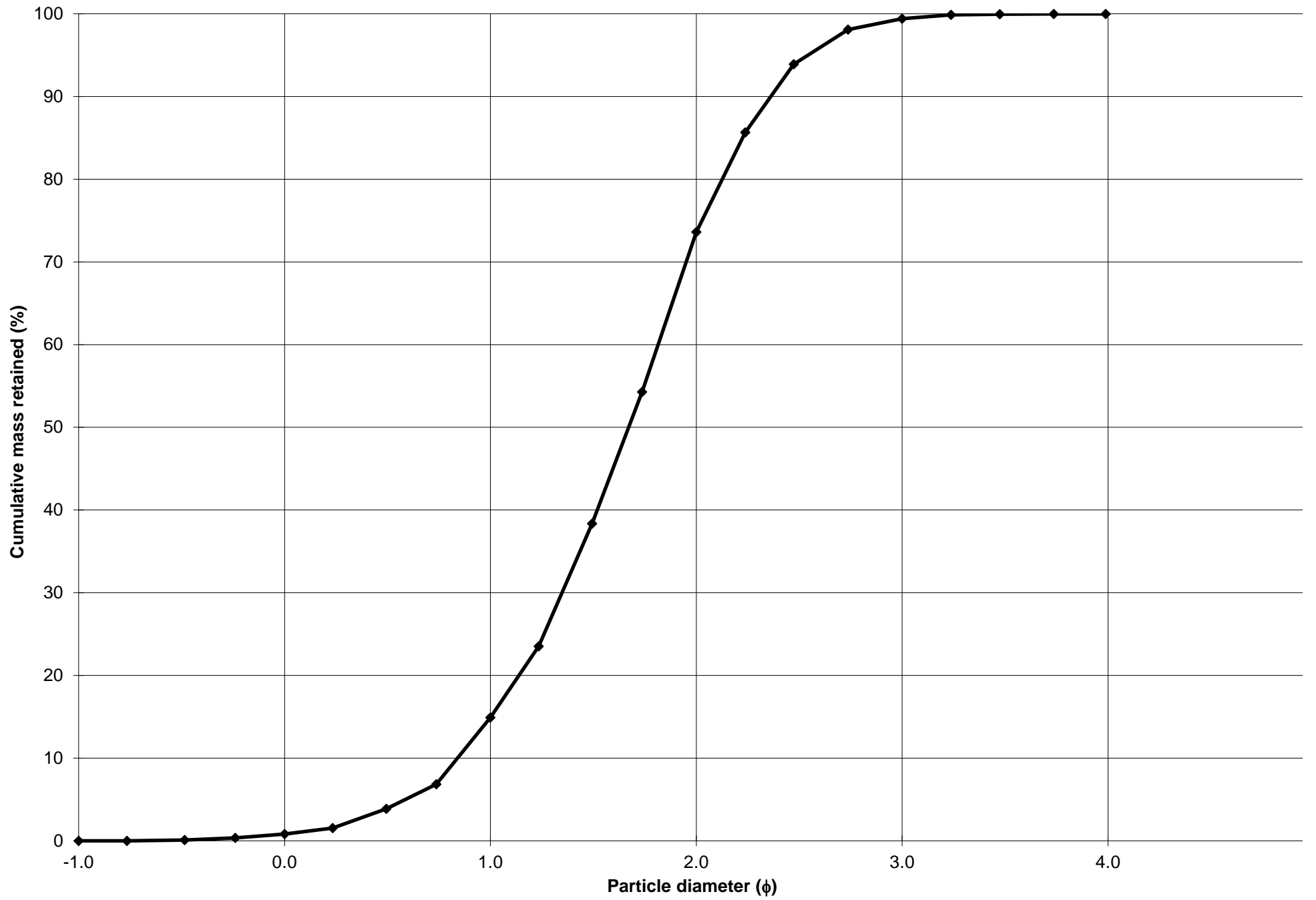
Cumulative Frequency Curve



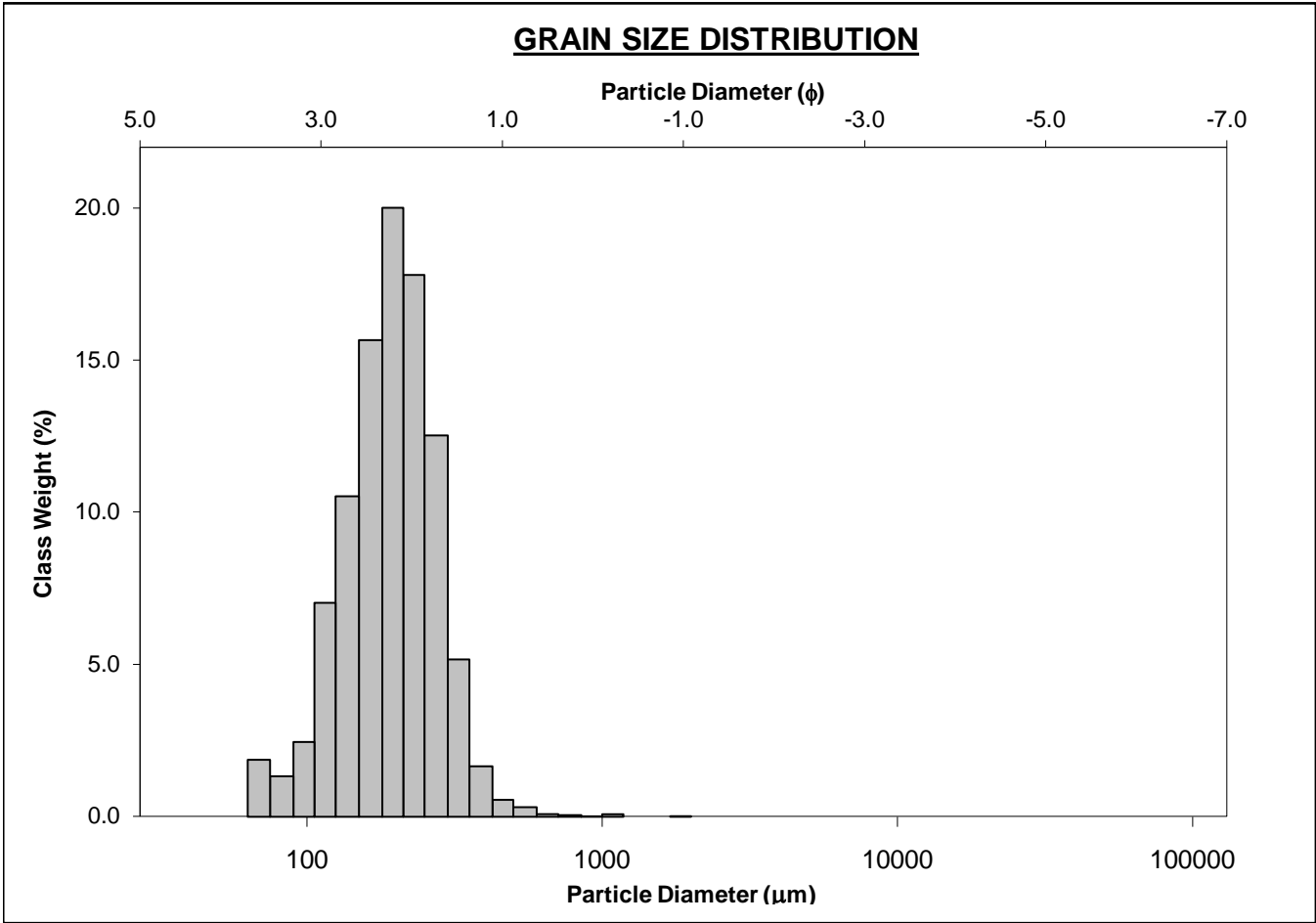
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-150cm			ANALYST & DATE: Chris & Brian, 9/11/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 14.1%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 58.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 25.8%	
D ₁₀ :	194.5	0.840			V FINE SAND: 0.6%	
MEDIAN or D ₅₀ :	313.8	1.672	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	558.7	2.362	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.873	2.813	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	364.2	1.523	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.702	1.608	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	172.1	0.767	V COARSE SAND: 0.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	355.0	323.4	1.628	321.8	1.636	Medium Sand
SORTING (σ):	165.8	1.512	0.596	1.506	0.590	Moderately Well Sorted
SKEWNESS (Sk):	2.016	0.245	-0.245	0.101	-0.101	Coarse Skewed
KURTOSIS (K):	9.990	4.178	4.178	1.045	1.045	Mesokurtic



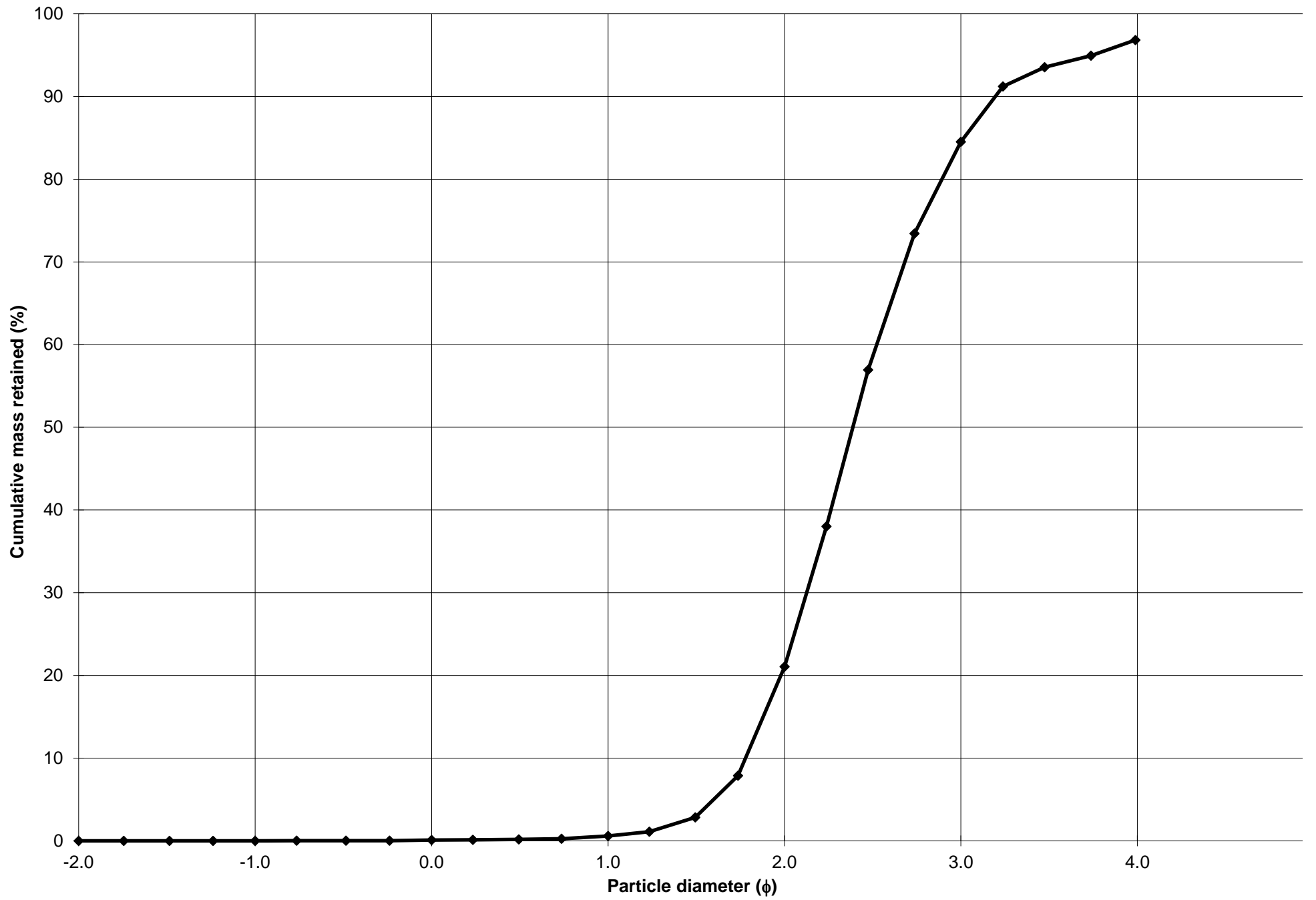
Cumulative Frequency Curve



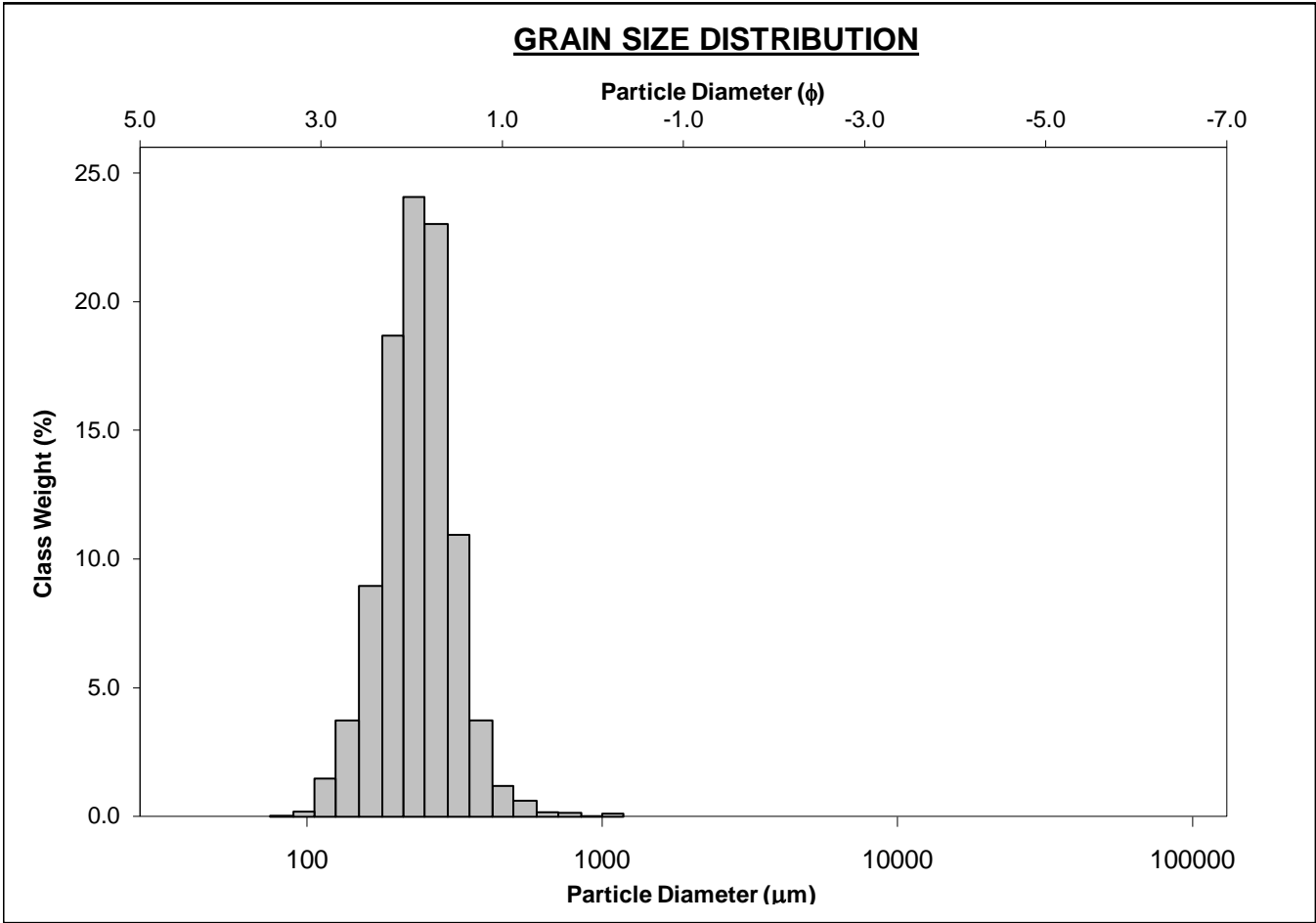
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-160cm			ANALYST & DATE: Chris, 9/11/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 0.5%	
MODE 2:			SAND: 96.8%		MEDIUM SAND: 20.5%	
MODE 3:			MUD: 3.2%		FINE SAND: 63.5%	
D_{10} :	109.2	1.780			V FINE SAND: 12.3%	
MEDIAN or D_{50} :	191.1	2.387	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.5%	
D_{90} :	291.3	3.195	COARSE GRAVEL: 0.0%		COARSE SILT: 0.5%	
(D_{90} / D_{10}) :	2.667	1.795	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.5%	
$(D_{90} - D_{10})$:	182.1	1.415	FINE GRAVEL: 0.0%		FINE SILT: 0.5%	
(D_{75} / D_{25}) :	1.646	1.350	V FINE GRAVEL: 0.0%		V FINE SILT: 0.5%	
$(D_{75} - D_{25})$:	94.44	0.719	V COARSE SAND: 0.1%		CLAY: 0.5%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	198.3	171.3	2.546	186.2	2.425	Fine Sand
SORTING (σ):	86.50	1.949	0.963	1.513	0.597	Moderately Well Sorted
SKEWNESS (Sk):	2.956	-3.017	3.017	-0.184	0.184	Fine Skewed
KURTOSIS (K):	39.75	14.88	14.88	1.223	1.223	Leptokurtic



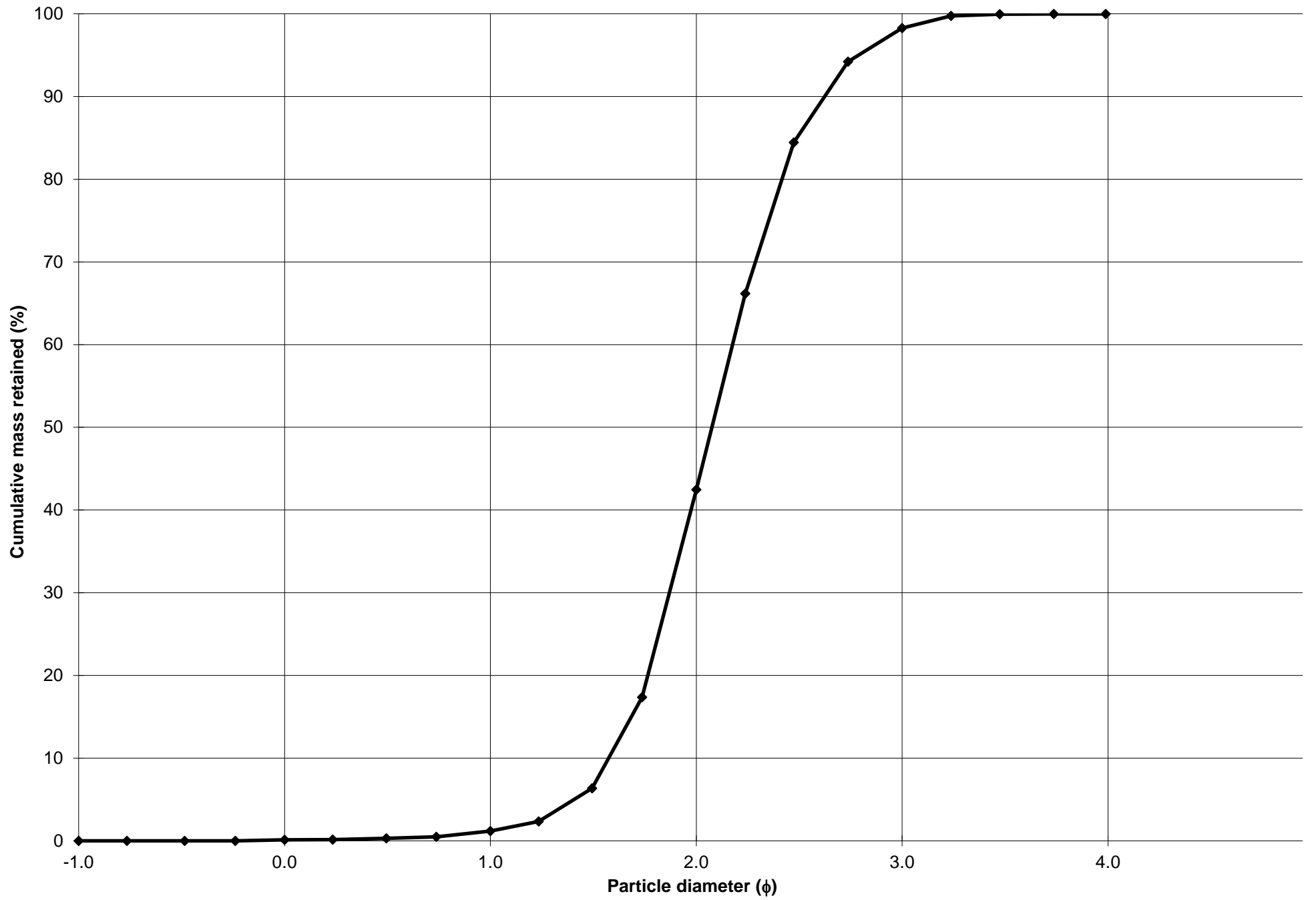
Cumulative Frequency Curve



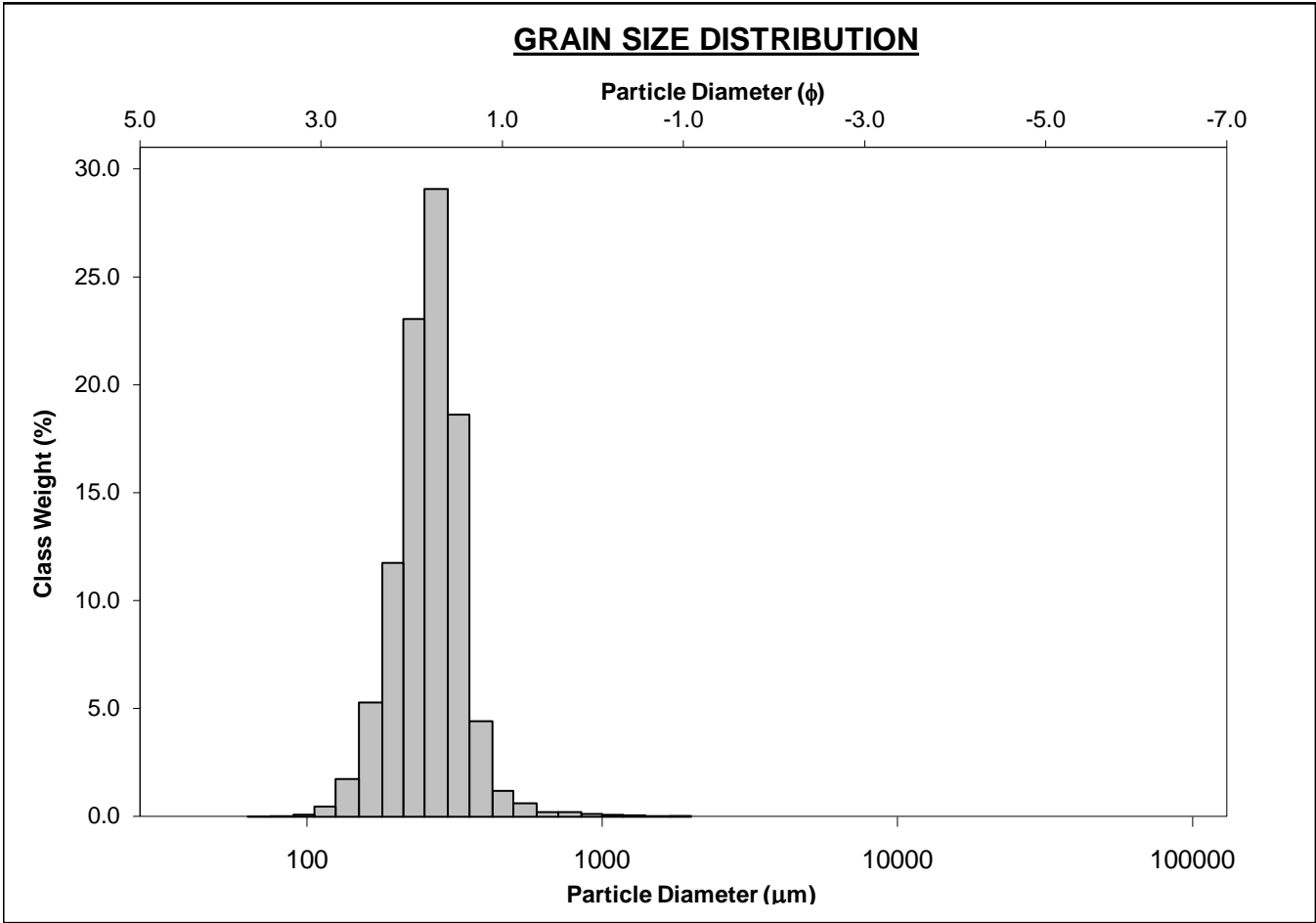
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-170cm			ANALYST & DATE: Chris, 9/15/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0% COARSE SAND: 1.0%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 41.3%			
MODE 3:			MUD: 0.0% FINE SAND: 55.8%			
D ₁₀ :	162.2	1.574	V FINE SAND: 1.7%			
MEDIAN or D ₅₀ :	237.2	2.076	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	335.8	2.624	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.070	1.667	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	173.5	1.049	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.449	1.294	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	87.95	0.535	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	248.1	236.3	2.081	235.9	2.084	Fine Sand
SORTING (σ):	81.47	1.345	0.428	1.319	0.400	Well Sorted
SKEWNESS (Sk):	2.705	-0.033	0.033	-0.031	0.031	Symmetrical
KURTOSIS (K):	21.83	7.624	7.624	1.059	1.059	Mesokurtic



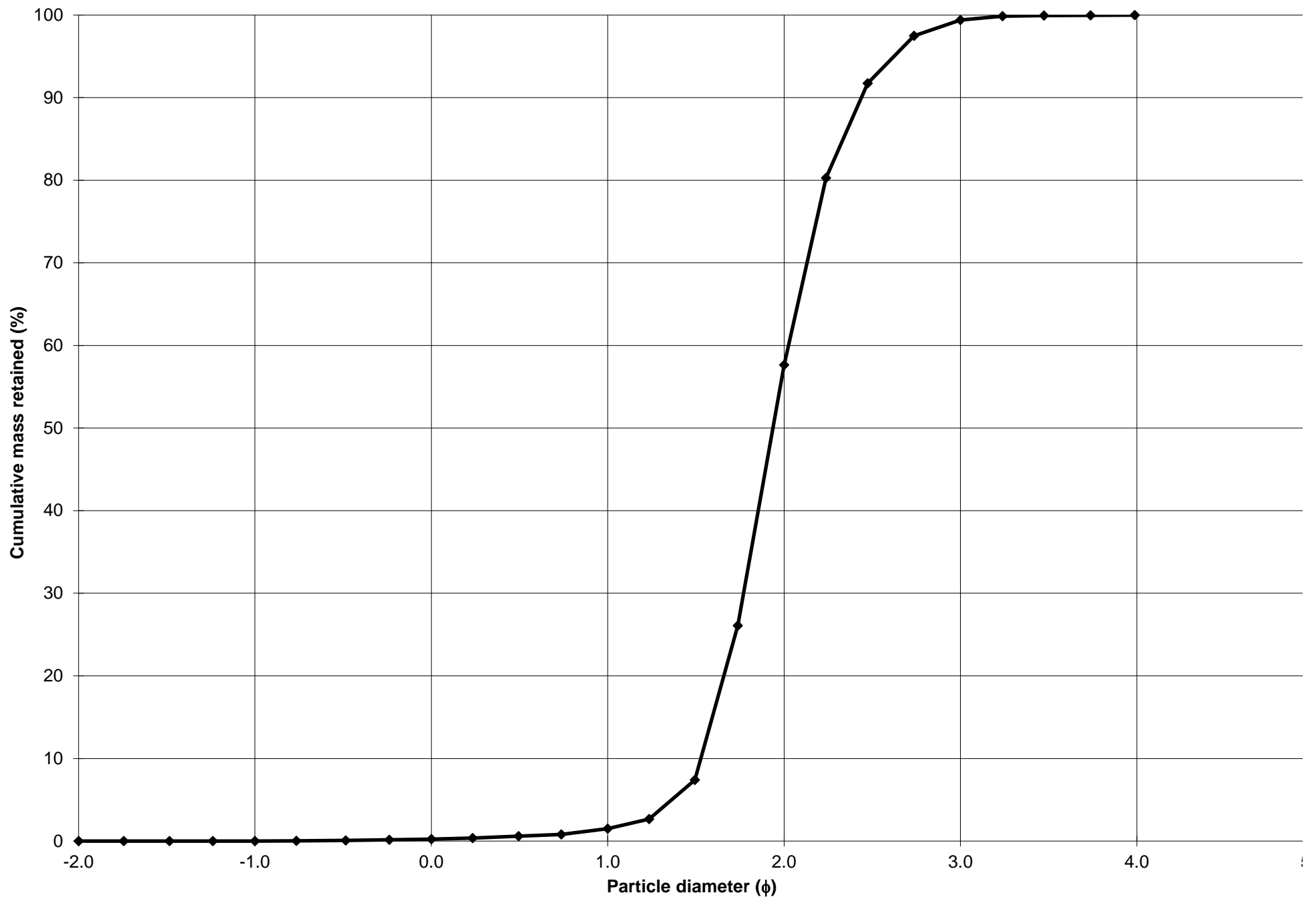
Cumulative Frequency Curve



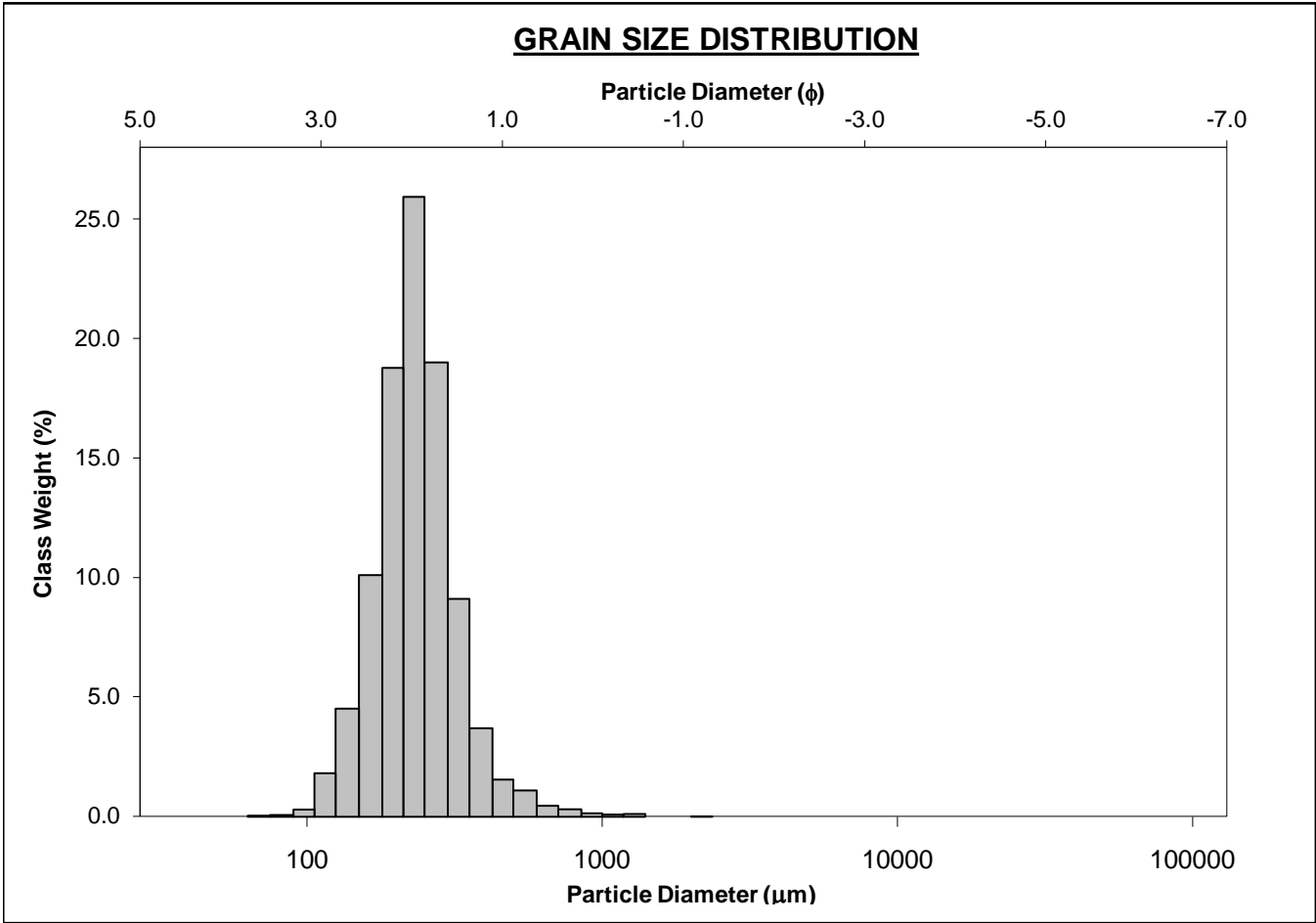
SIEVING ERROR: 0.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-180cm			ANALYST & DATE: Chris, 9/16/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 1.3%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 56.2%			
MODE 3:			MUD: 0.0% FINE SAND: 41.7%			
D ₁₀ :	184.5	1.528	V FINE SAND: 0.6%			
MEDIAN or D ₅₀ :	261.3	1.936	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	346.8	2.438	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.879	1.596	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	162.2	0.910	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.375	1.267	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	82.60	0.459	V COARSE SAND: 0.2% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	270.7	258.8	1.950	258.4	1.952	Medium Sand
SORTING (σ):	93.30	1.317	0.398	1.291	0.368	Well Sorted
SKEWNESS (Sk):	5.420	0.531	-0.531	-0.079	0.079	Symmetrical
KURTOSIS (K):	65.80	7.195	7.195	1.124	1.124	Leptokurtic



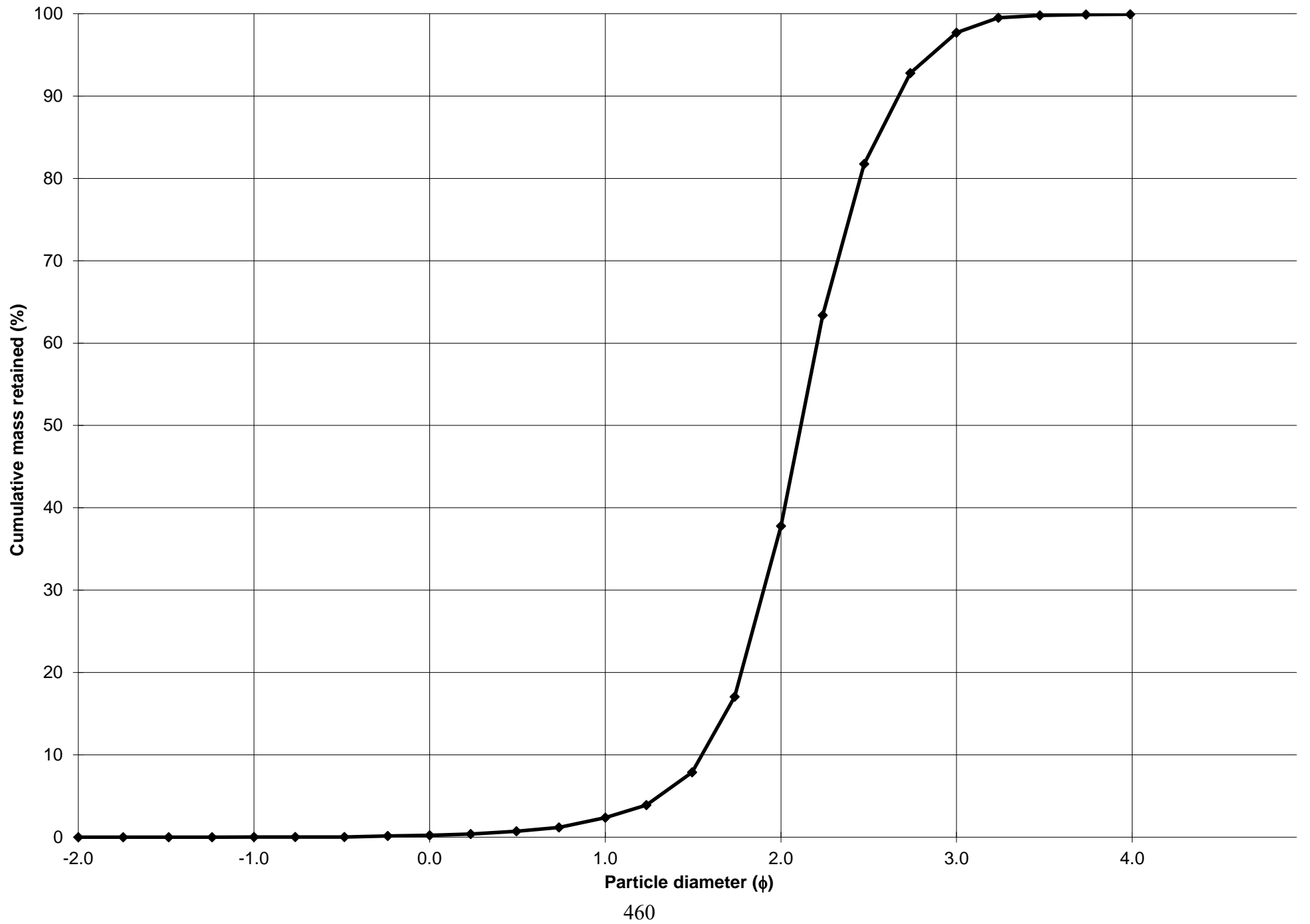
Cumulative Frequency Curve



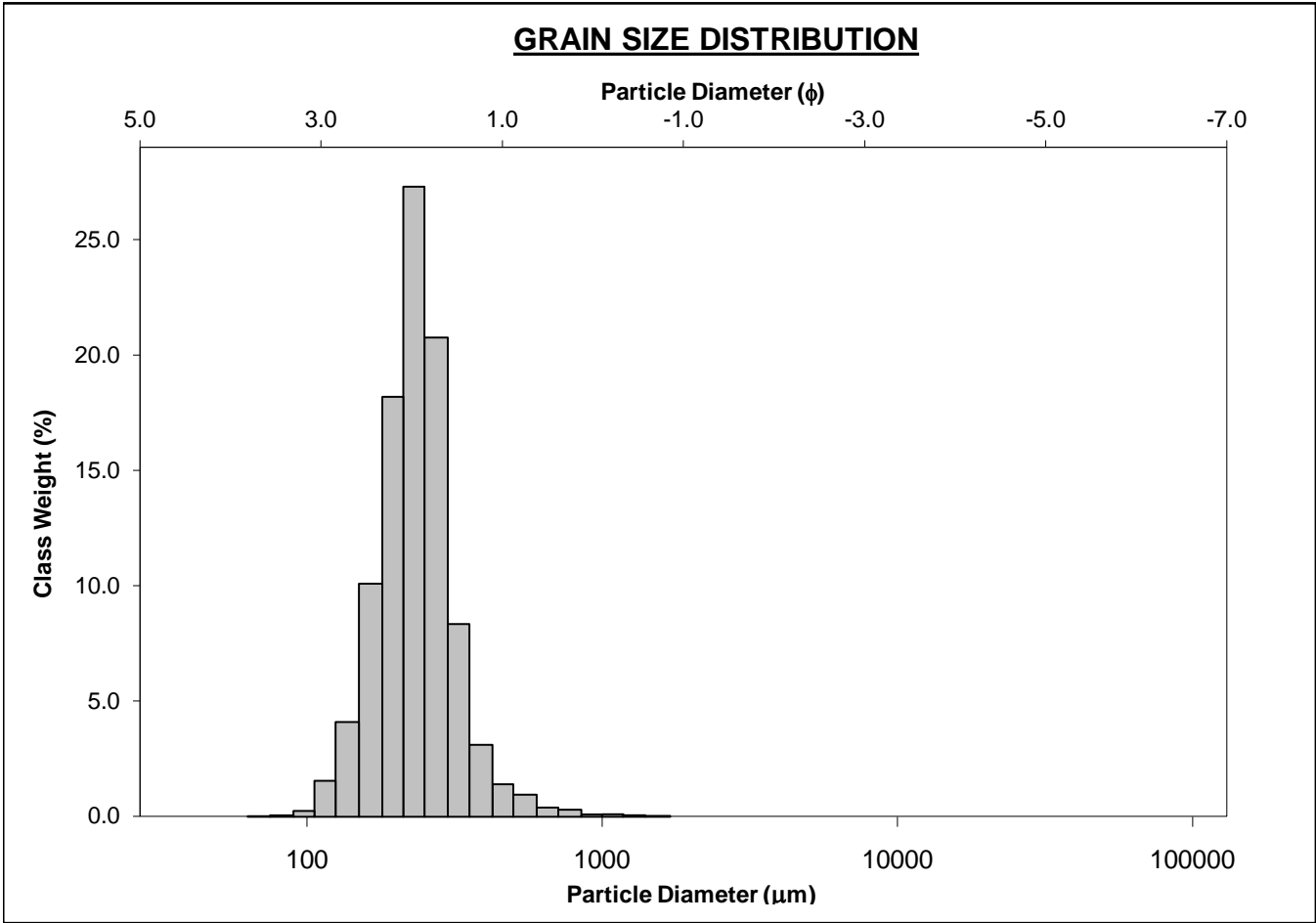
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-190cm			ANALYST & DATE: Chris, 9/16/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%	COARSE SAND: 2.1%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 35.4%		
MODE 3:			MUD: 0.1%	FINE SAND: 59.9%		
D ₁₀ :	157.0	1.550		V FINE SAND: 2.2%		
MEDIAN or D ₅₀ :	231.1	2.114	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	341.5	2.671	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.174	1.723	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	184.4	1.121	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.464	1.299	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	88.62	0.550	V COARSE SAND: 0.2%	CLAY: 0.0%		
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	248.7	233.2	2.100	230.6	2.117	Fine Sand
SORTING (σ):	103.3	1.403	0.488	1.356	0.439	Well Sorted
SKEWNESS (Sk):	4.321	-0.030	0.030	0.015	-0.015	Symmetrical
KURTOSIS (K):	44.18	11.53	11.53	1.155	1.155	Leptokurtic



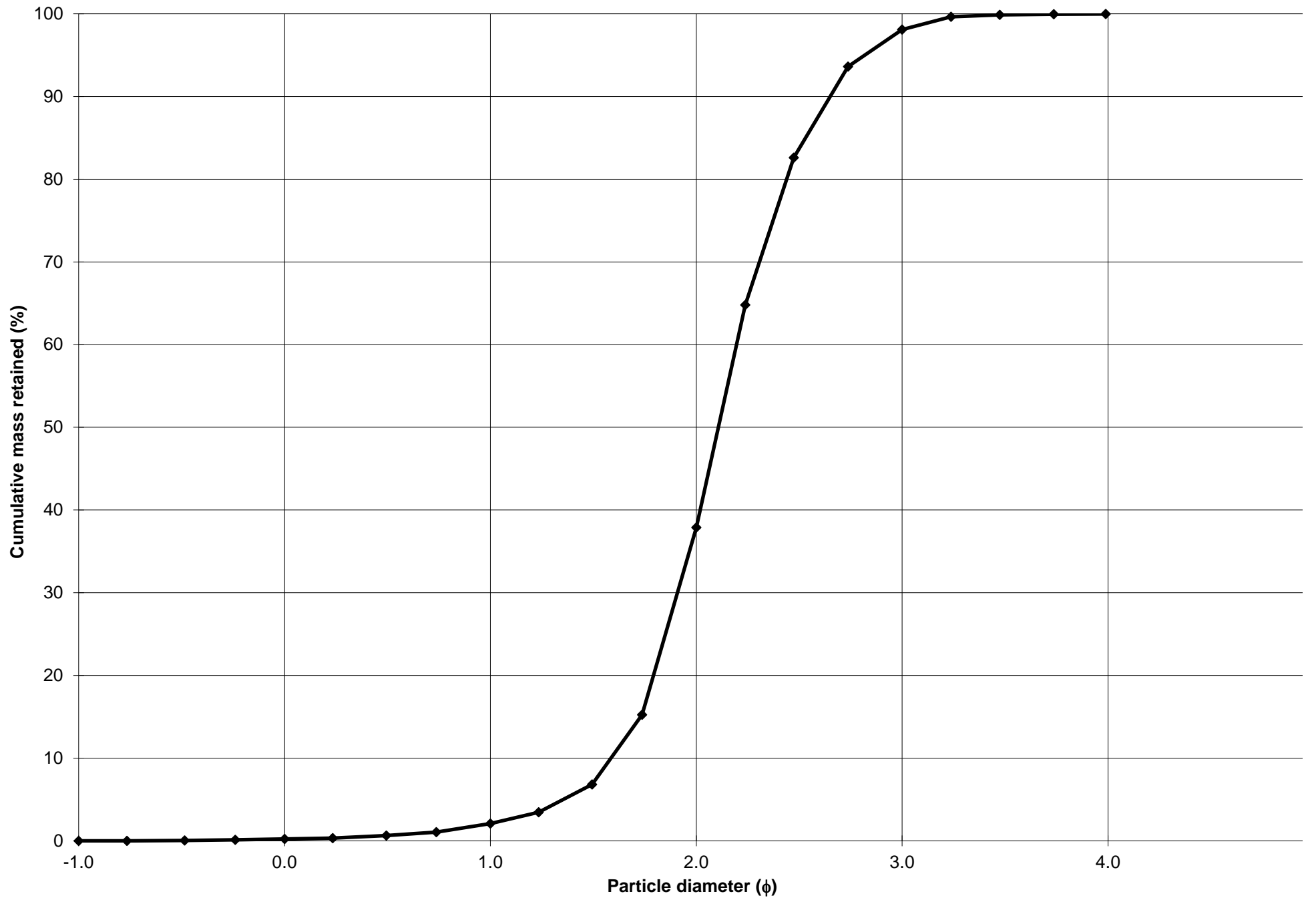
Cumulative Frequency Curve



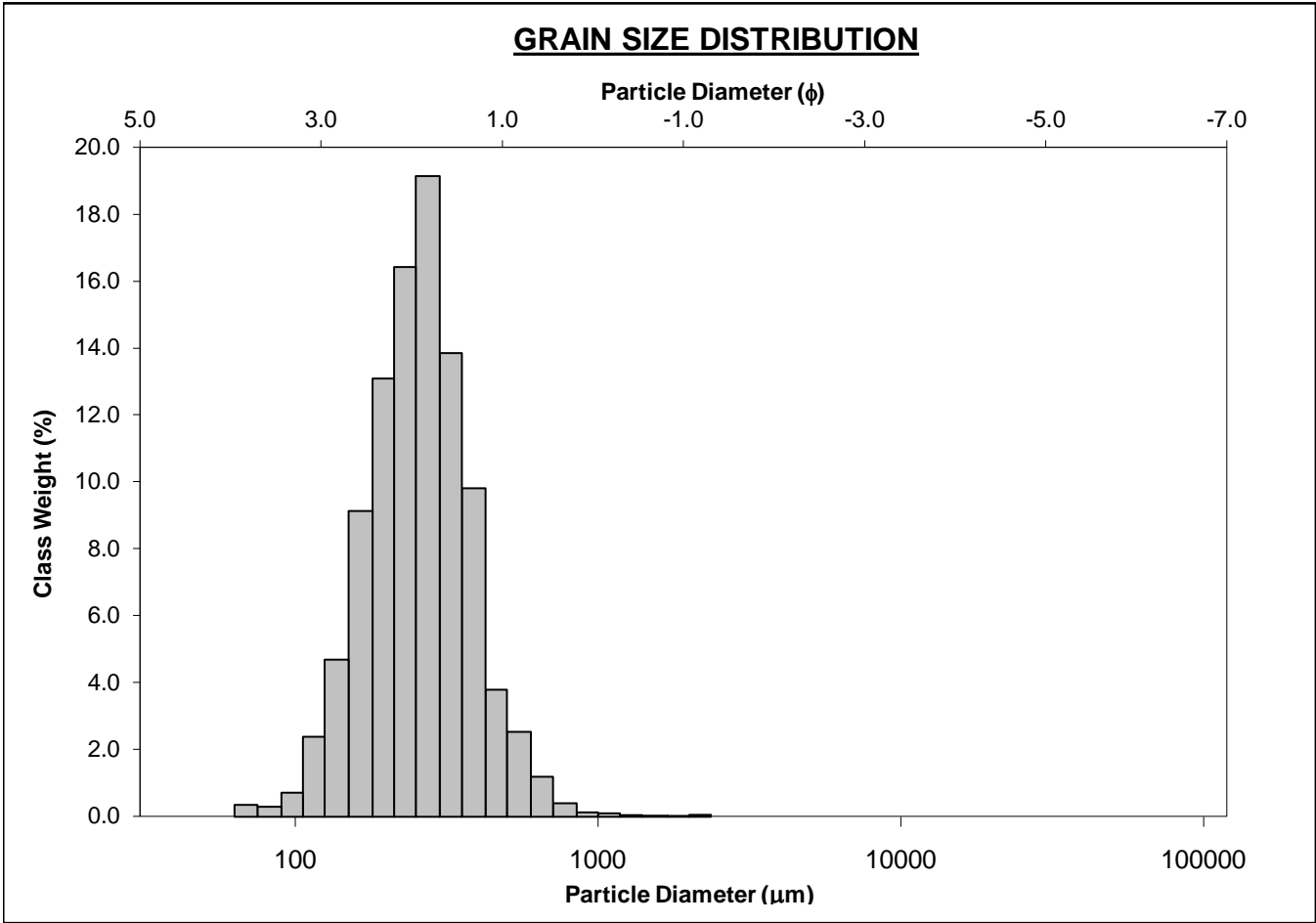
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-02-200cm			ANALYST & DATE: Chris, 9/16/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%	COARSE SAND: 1.9%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 35.8%		
MODE 3:			MUD: 0.0%	FINE SAND: 60.2%		
D ₁₀ :	159.2	1.586		V FINE SAND: 1.9%		
MEDIAN or D ₅₀ :	232.1	2.107	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	333.1	2.651	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.092	1.671	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	173.9	1.065	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.437	1.282	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	84.29	0.523	V COARSE SAND: 0.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	247.4	233.4	2.099	230.0	2.120	Fine Sand
SORTING (σ):	97.55	1.374	0.458	1.331	0.412	Well Sorted
SKEWNESS (Sk):	4.172	0.341	-0.341	-0.011	0.011	Symmetrical
KURTOSIS (K):	37.45	9.115	9.115	1.149	1.149	Leptokurtic



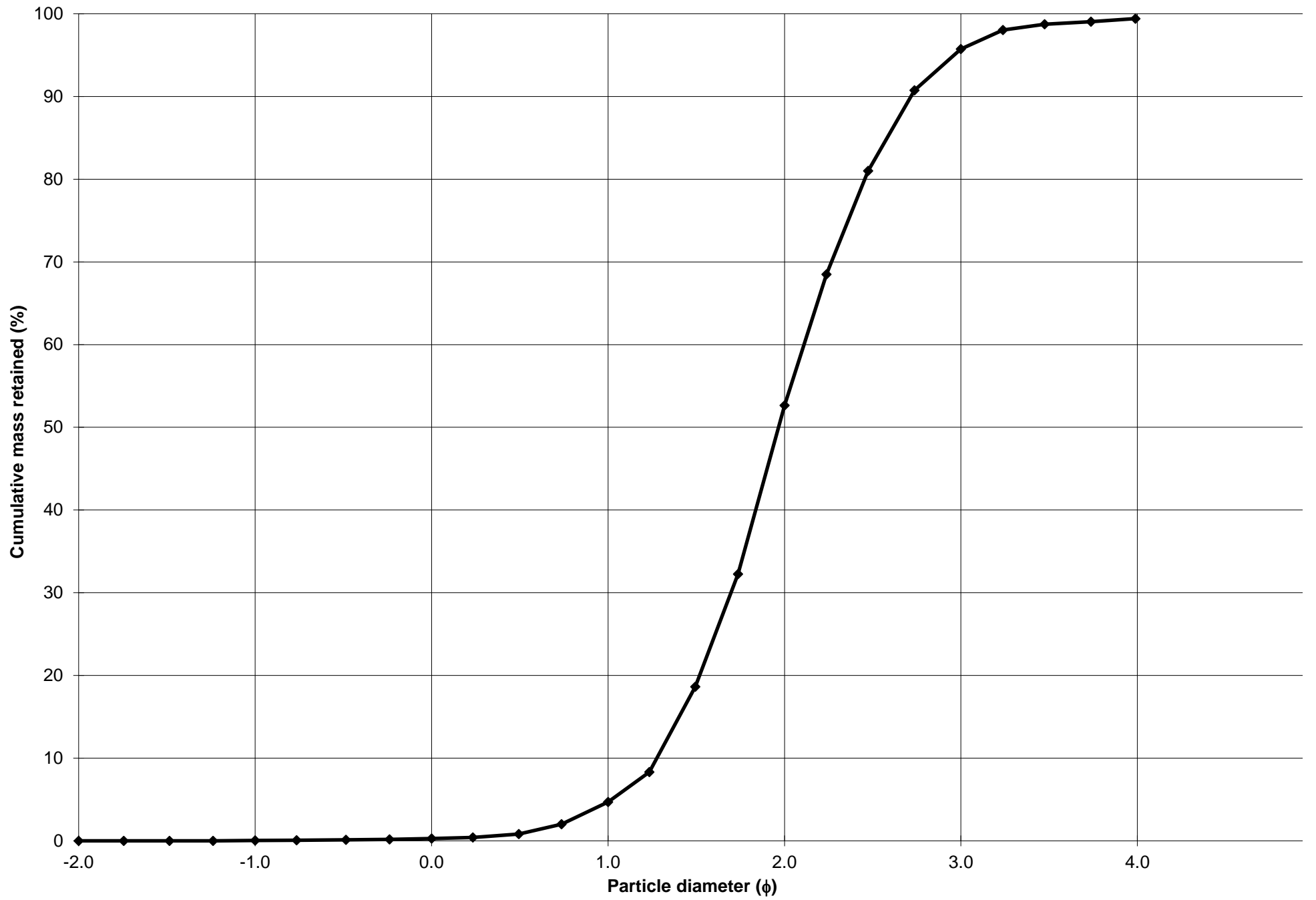
Cumulative Frequency Curve



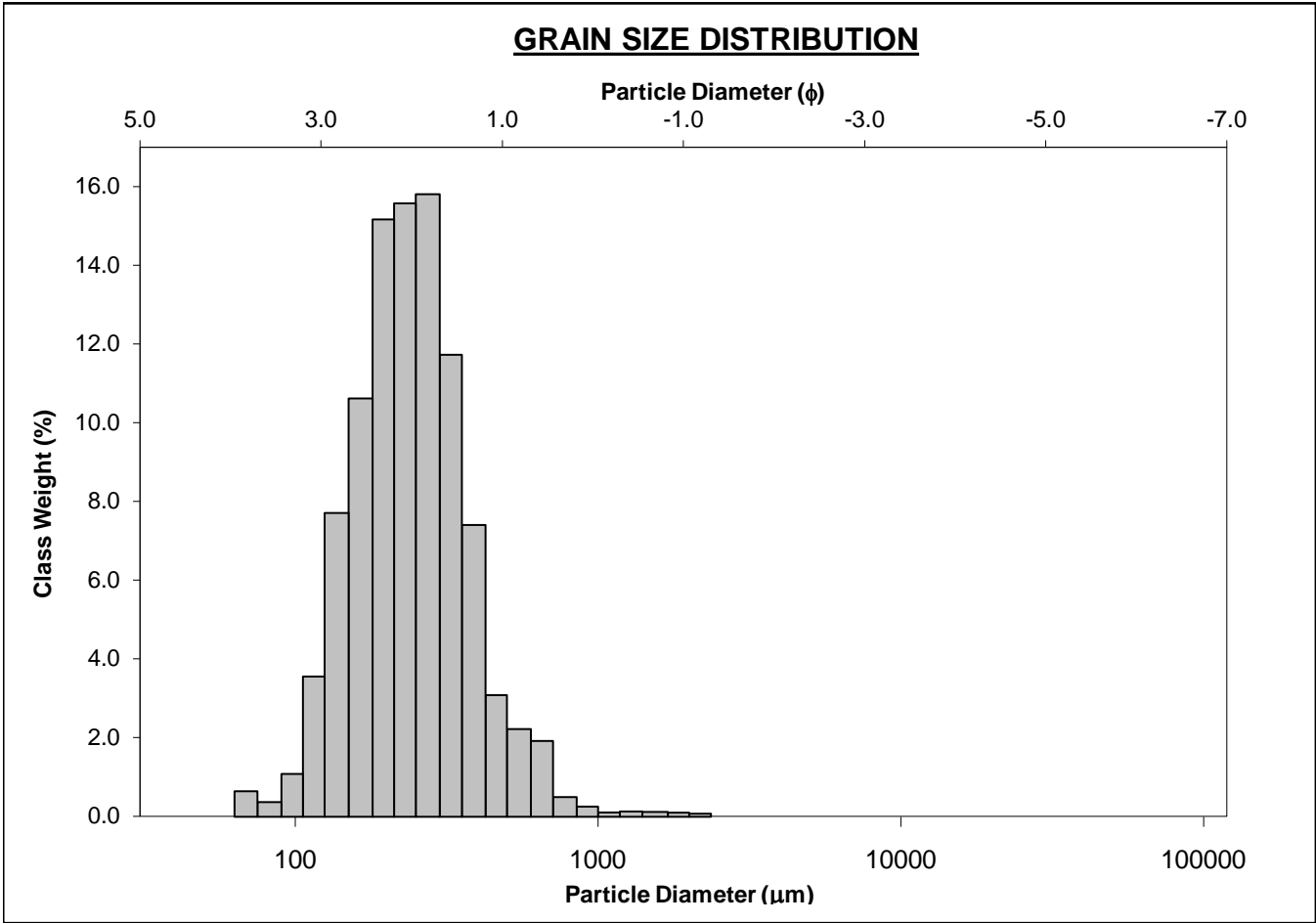
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-20cm			ANALYST & DATE: Chris, 11/29/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.1%		COARSE SAND: 4.4%	
MODE 2:			SAND: 99.4%		MEDIUM SAND: 48.0%	
MODE 3:			MUD: 0.6%		FINE SAND: 43.1%	
D ₁₀ :	152.1	1.277			V FINE SAND: 3.7%	
MEDIAN or D ₅₀ :	256.0	1.966	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	412.6	2.717	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.713	2.128	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	260.6	1.440	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.685	1.468	V FINE GRAVEL: 0.1%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	133.5	0.753	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	276.8	249.6	2.002	253.0	1.983	Medium Sand
SORTING (σ):	132.1	1.619	0.695	1.491	0.576	Moderately Well Sorted
SKEWNESS (Sk):	3.701	-1.983	1.983	-0.035	0.035	Symmetrical
KURTOSIS (K):	39.13	17.51	17.51	1.057	1.057	Mesokurtic



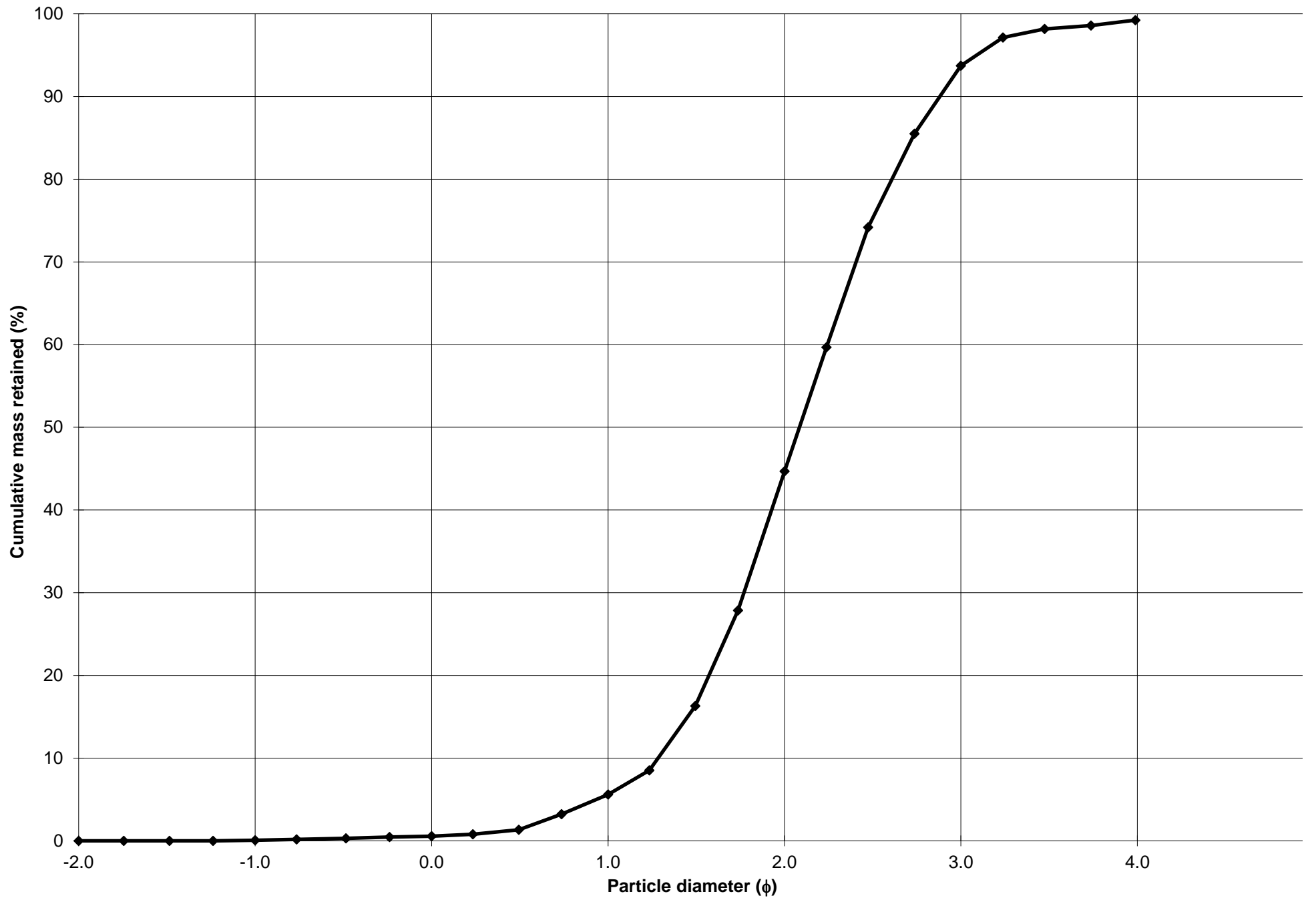
Cumulative Frequency Curve



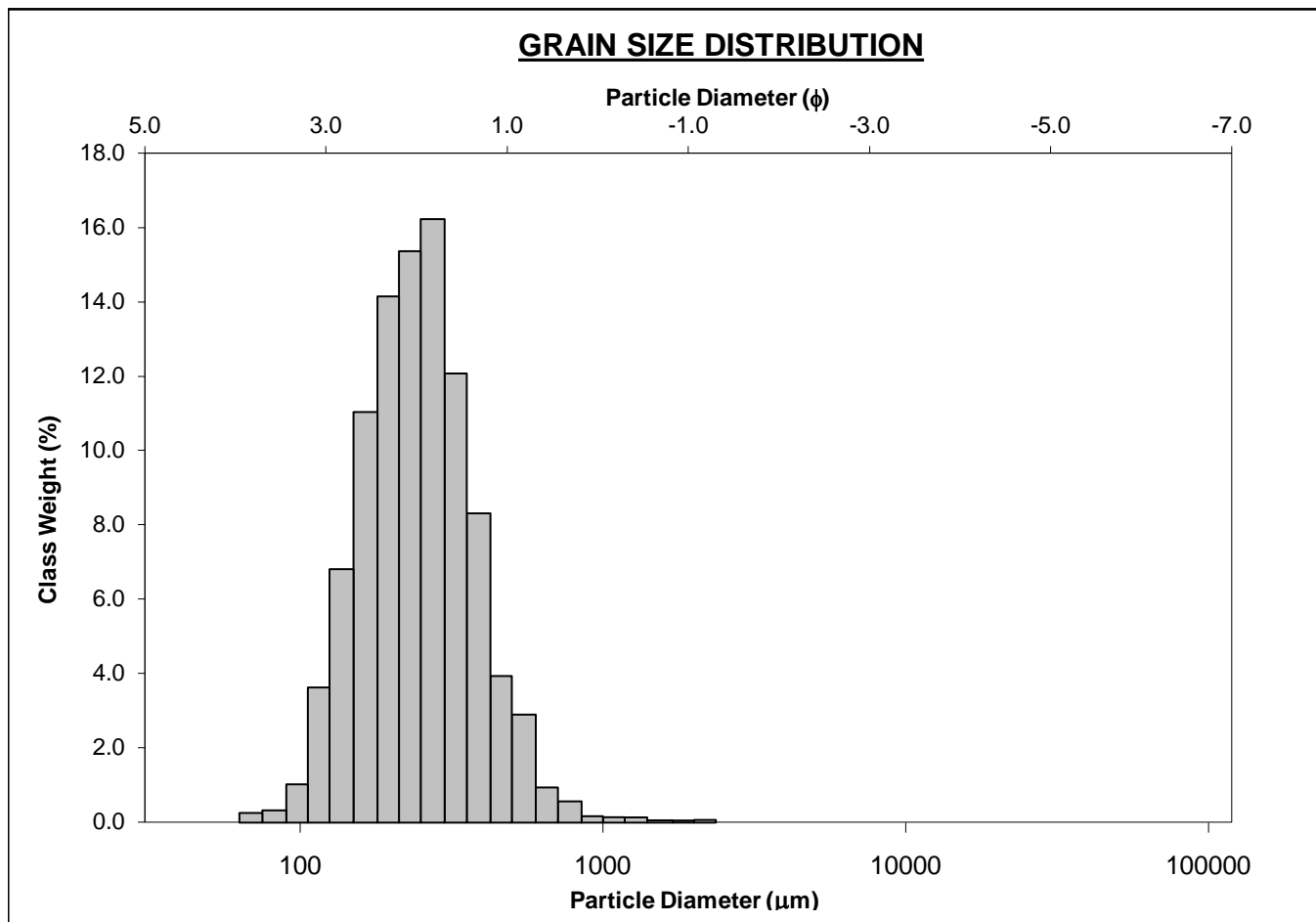
SIEVING ERROR: 0.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-30cm			ANALYST & DATE: Chris, 11/29/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.1%		COARSE SAND: 5.0%	
MODE 2:			SAND: 99.2%		MEDIUM SAND: 39.1%	
MODE 3:			MUD: 0.8%		FINE SAND: 49.0%	
D ₁₀ :	135.7	1.284			V FINE SAND: 5.5%	
MEDIAN or D ₅₀ :	235.8	2.084	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	410.8	2.881	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.027	2.245	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	275.0	1.598	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.761	1.487	V FINE GRAVEL: 0.1%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	135.1	0.816	V COARSE SAND: 0.5%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	267.4	233.9	2.096	234.9	2.090	Fine Sand
SORTING (σ):	158.1	1.712	0.776	1.549	0.631	Moderately Well Sorted
SKEWNESS (Sk):	4.287	-1.555	1.555	0.026	-0.026	Symmetrical
KURTOSIS (K):	37.91	14.31	14.31	1.082	1.082	Mesokurtic



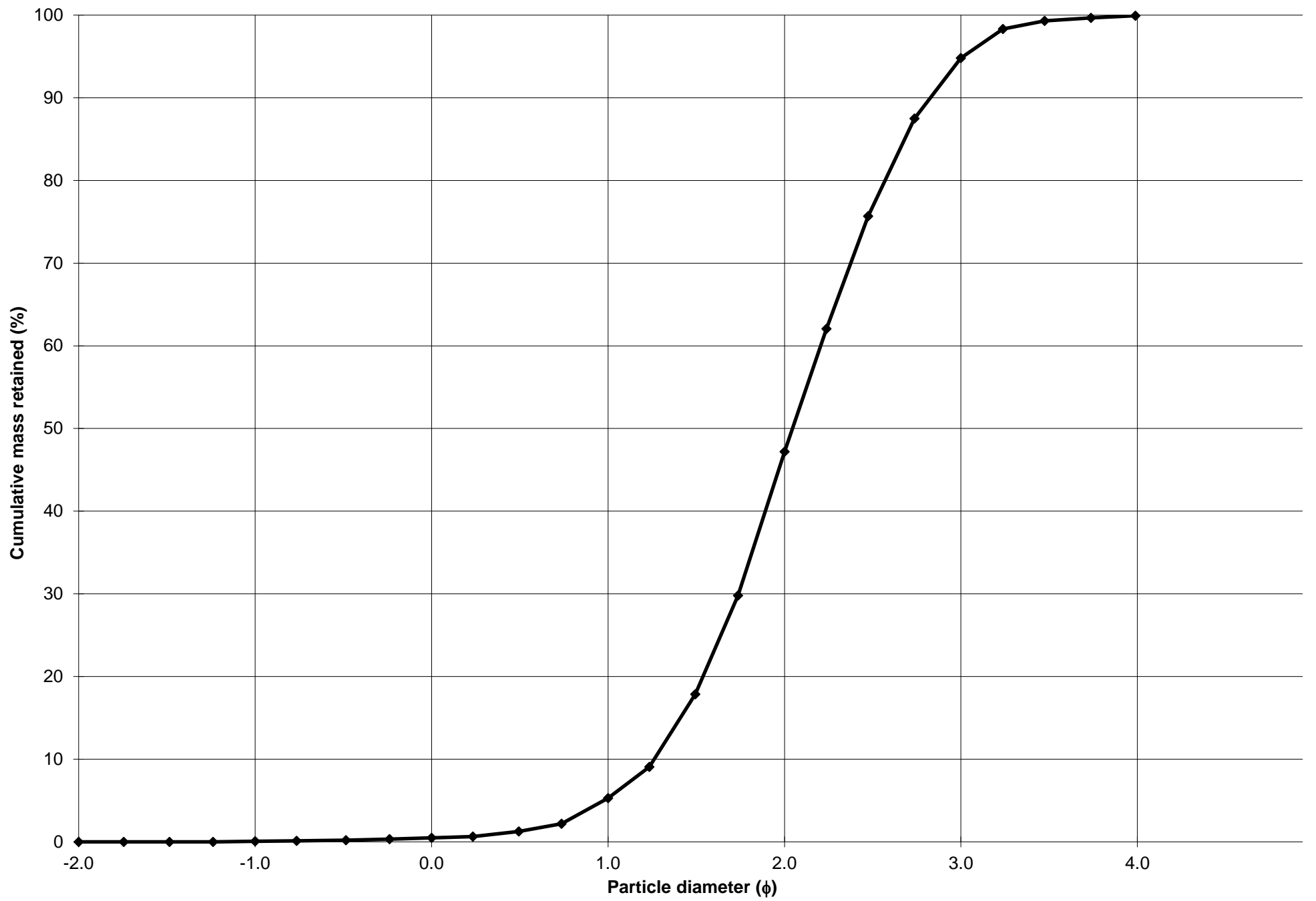
Cumulative Frequency Curve



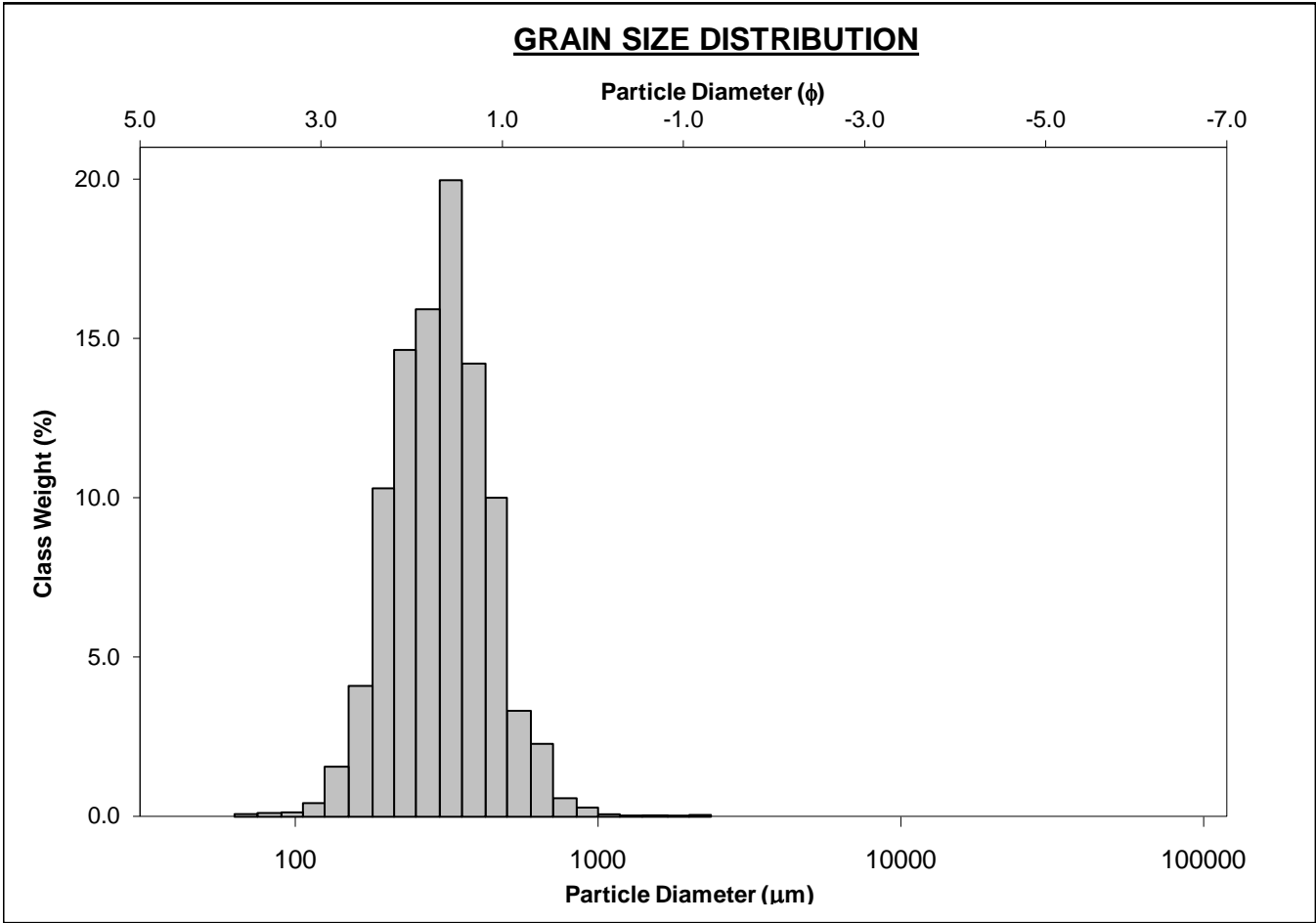
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-40cm			ANALYST & DATE: Chris, 11/29/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.1%		COARSE SAND: 4.8%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 41.9%	
MODE 3:			MUD: 0.1%		FINE SAND: 47.6%	
D_{10} :	140.9	1.262			V FINE SAND: 5.1%	
MEDIAN or D_{50} :	242.3	2.045	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	416.9	2.827	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.959	2.240	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	276.0	1.565	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.769	1.502	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	139.5	0.823	V COARSE SAND: 0.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	271.3	243.7	2.037	241.8	2.048	Fine Sand
SORTING (σ):	147.2	1.559	0.641	1.530	0.614	Moderately Well Sorted
SKEWNESS (Sk):	4.108	0.053	-0.053	0.021	-0.021	Symmetrical
KURTOSIS (K):	38.58	6.187	6.187	1.015	1.015	Mesokurtic



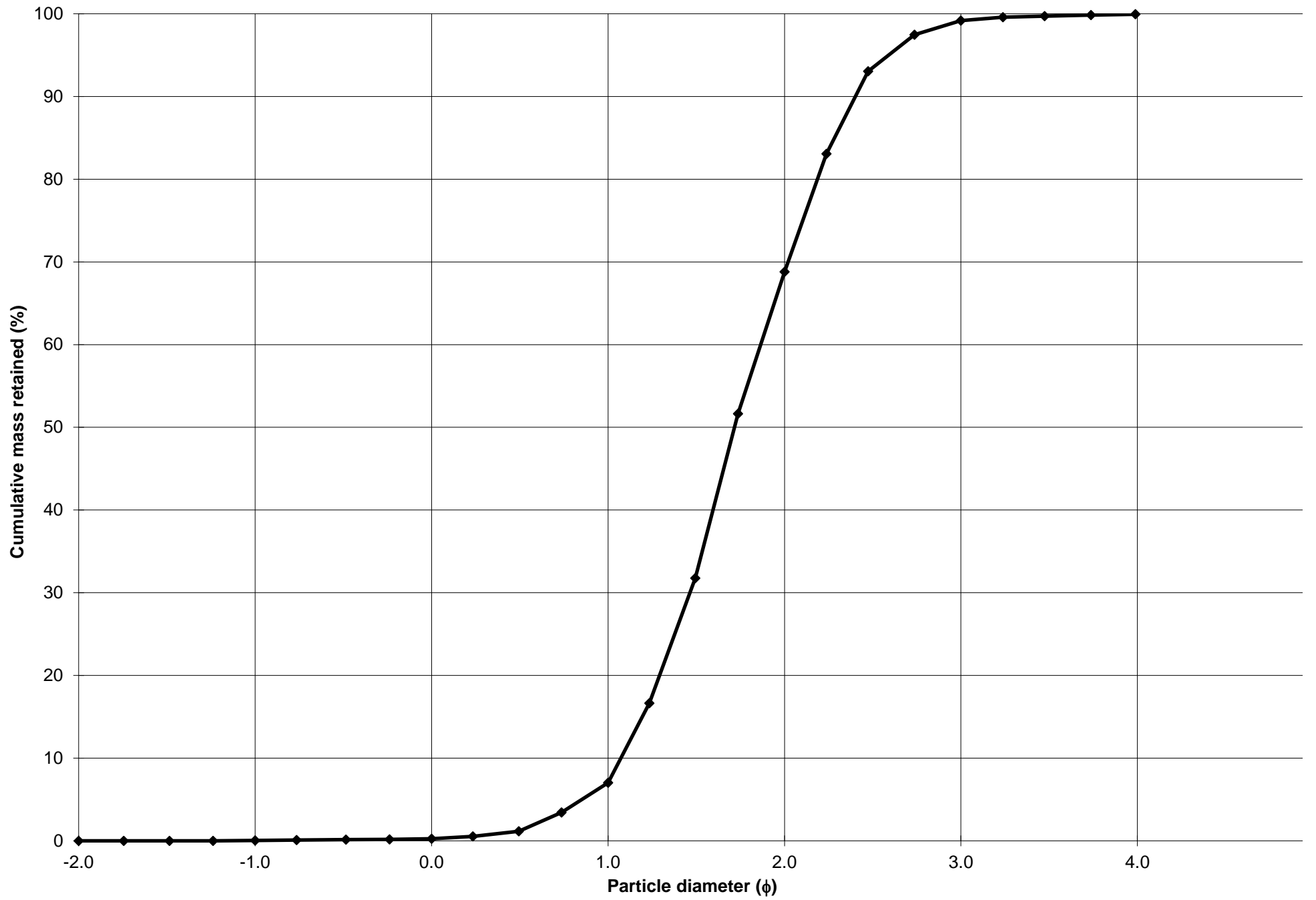
Cumulative Frequency Curve



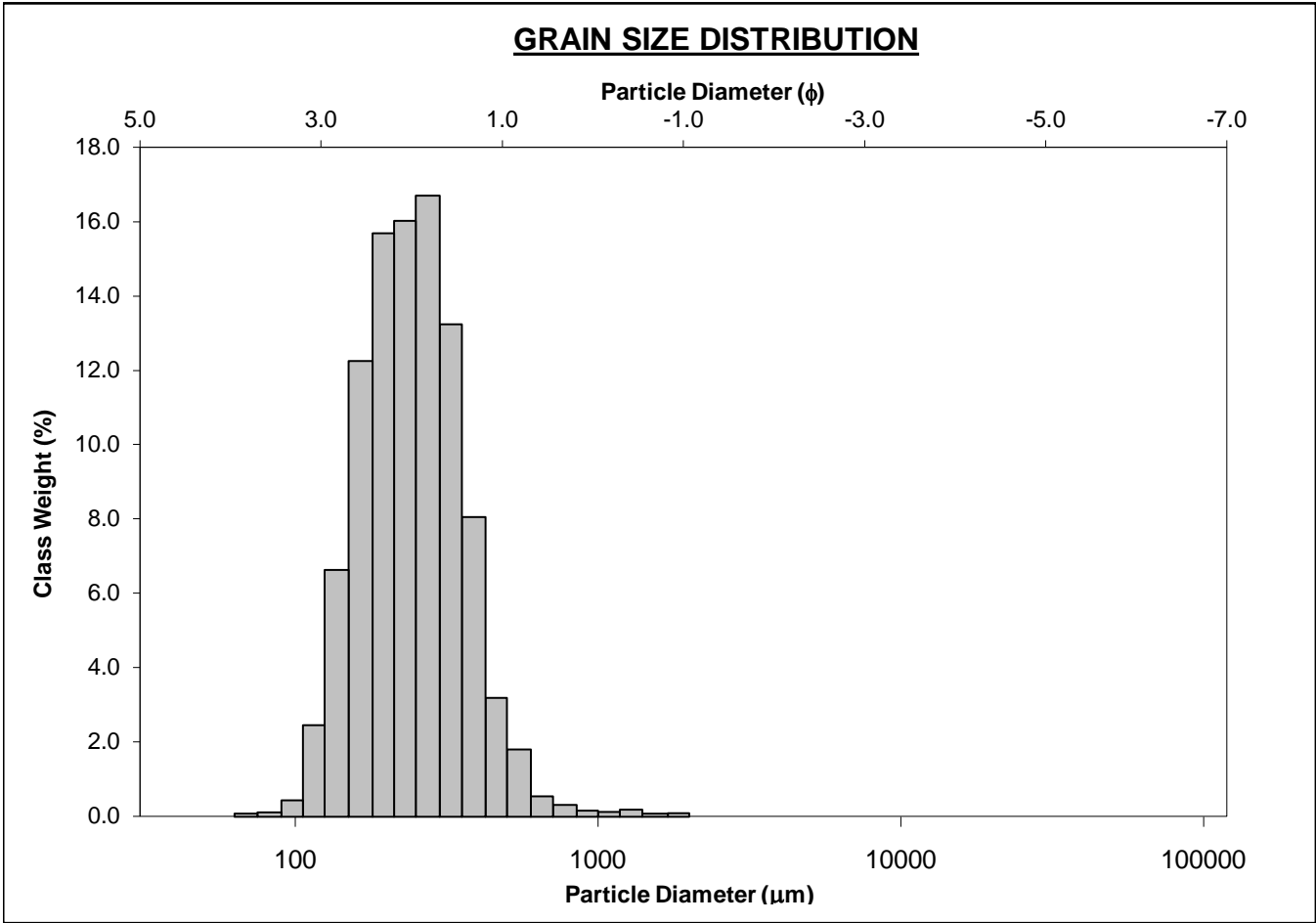
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-50cm			ANALYST & DATE: Chris, 11/29/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.1%		COARSE SAND: 6.8%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 61.8%	
MODE 3:			MUD: 0.1%		FINE SAND: 30.4%	
D_{10} :	189.2	1.073			V FINE SAND: 0.8%	
MEDIAN or D_{50} :	304.2	1.717	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	475.5	2.402	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.513	2.239	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	286.2	1.329	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.653	1.526	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	152.0	0.725	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	324.8	300.8	1.733	301.1	1.732	Medium Sand
SORTING (σ):	137.7	1.466	0.552	1.438	0.524	Moderately Well Sorted
SKEWNESS (Sk):	3.269	-0.375	0.375	-0.024	0.024	Symmetrical
KURTOSIS (K):	32.29	8.712	8.712	0.982	0.982	Mesokurtic



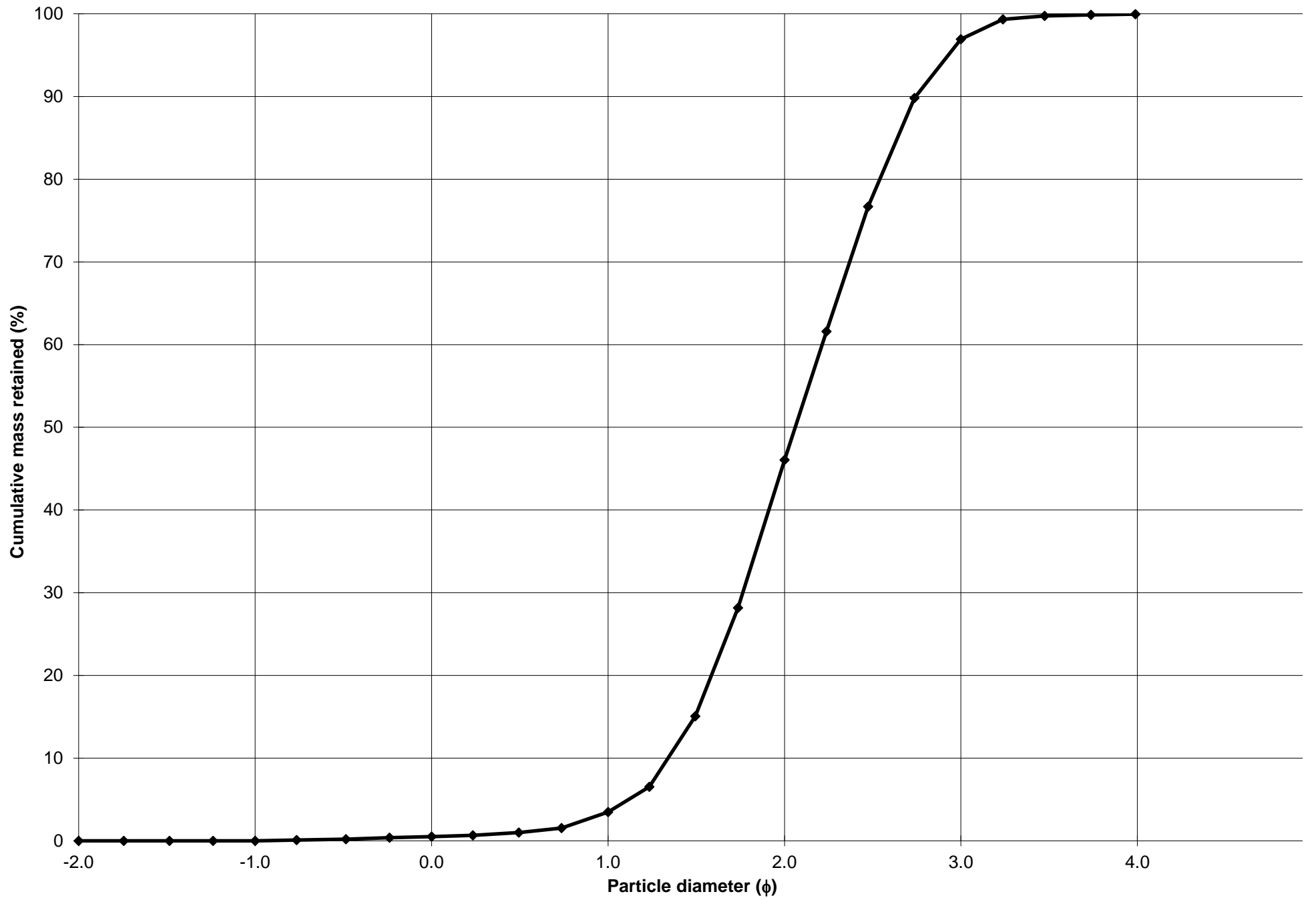
Cumulative Frequency Curve



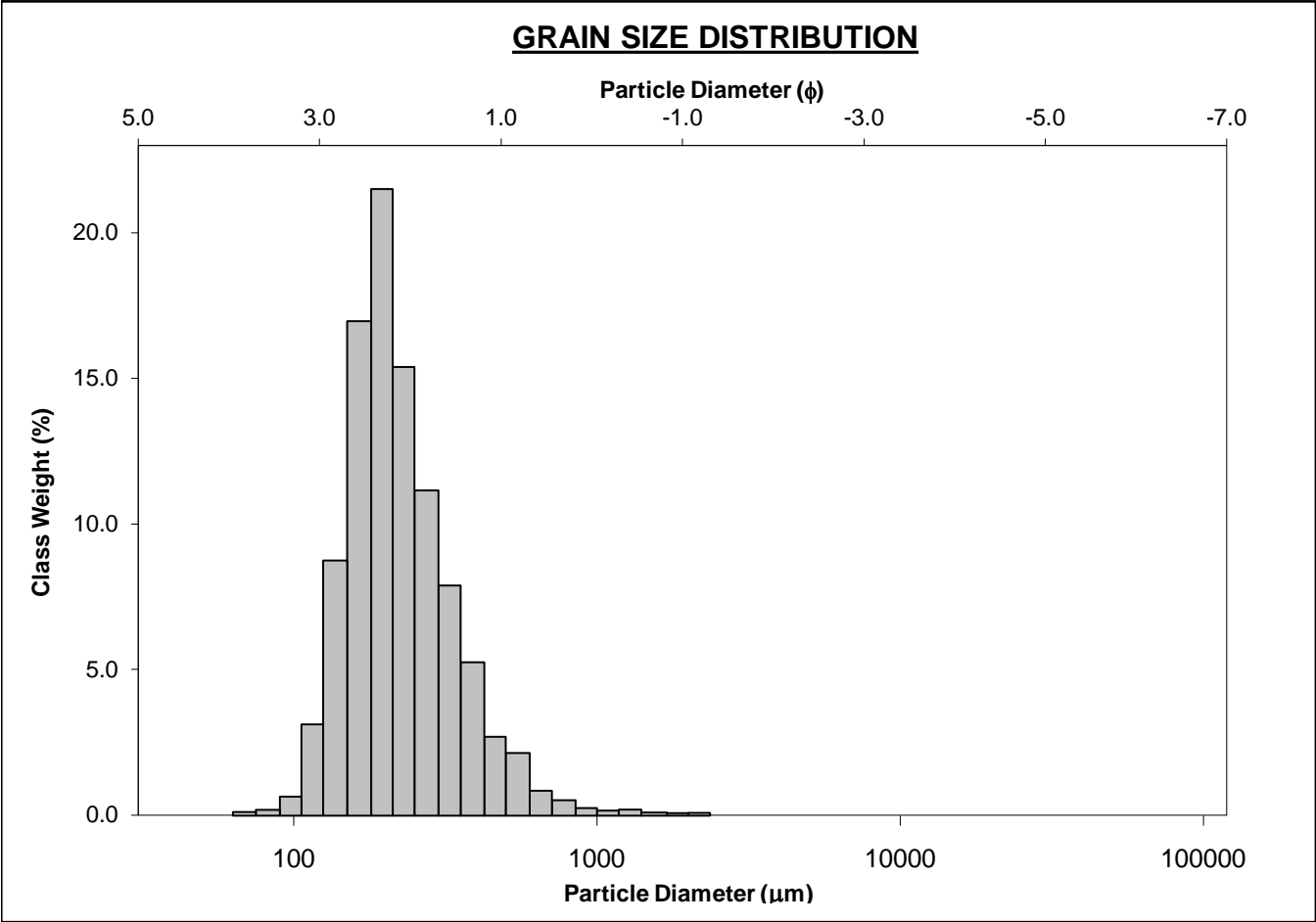
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-60cm			ANALYST & DATE: Chris, 11/29/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 3.0%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 42.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 50.9%	
D ₁₀ :	149.3	1.340			V FINE SAND: 3.0%	
MEDIAN or D ₅₀ :	239.8	2.060	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	395.1	2.744	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.646	2.048	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	245.8	1.404	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.705	1.458	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	129.2	0.769	V COARSE SAND: 0.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	265.2	242.1	2.046	239.1	2.064	Fine Sand
SORTING (σ):	134.0	1.496	0.581	1.466	0.552	Moderately Well Sorted
SKEWNESS (Sk):	4.224	0.256	-0.256	0.016	-0.016	Symmetrical
KURTOSIS (K):	37.43	6.466	6.466	0.966	0.966	Mesokurtic



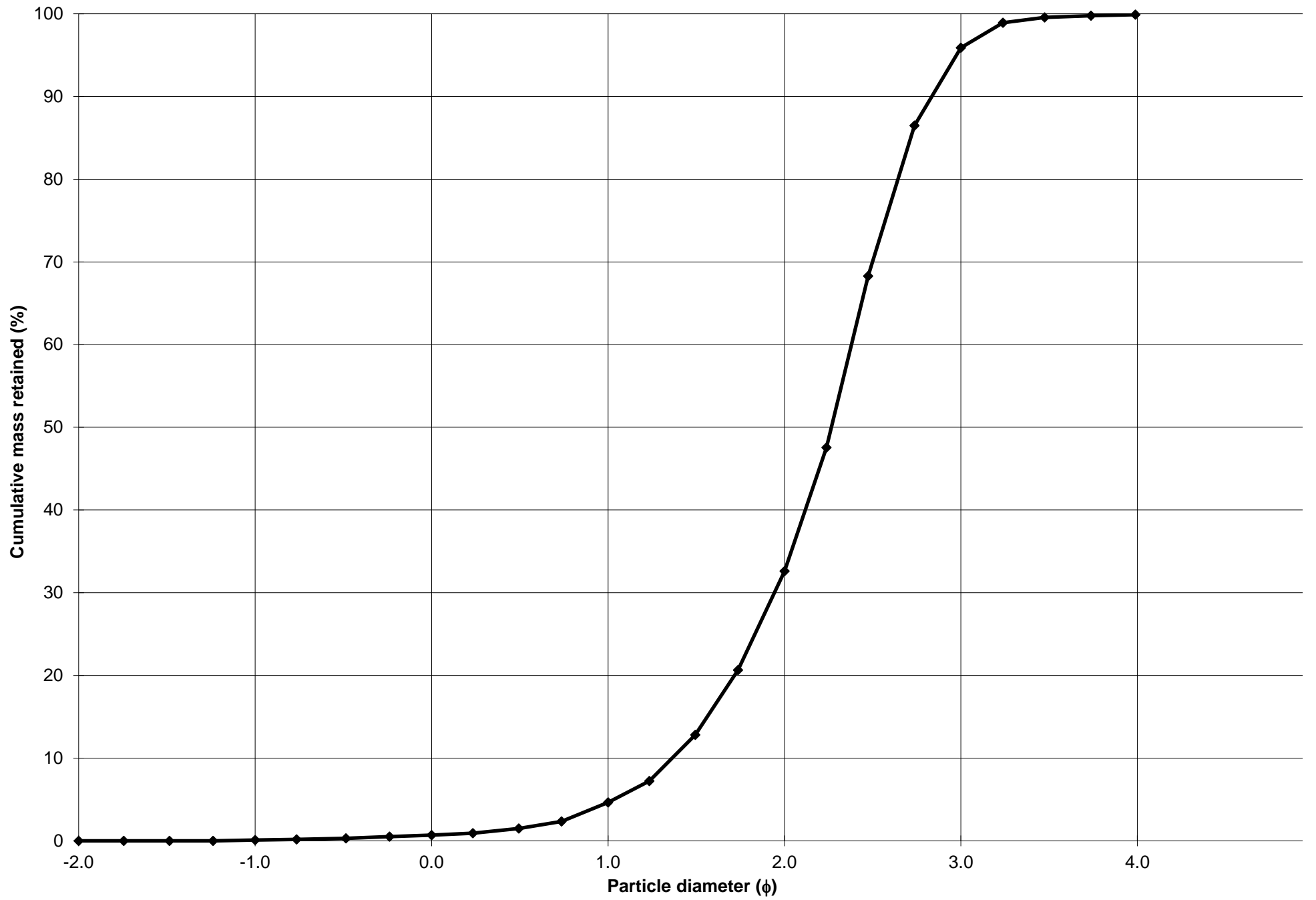
Cumulative Frequency Curve



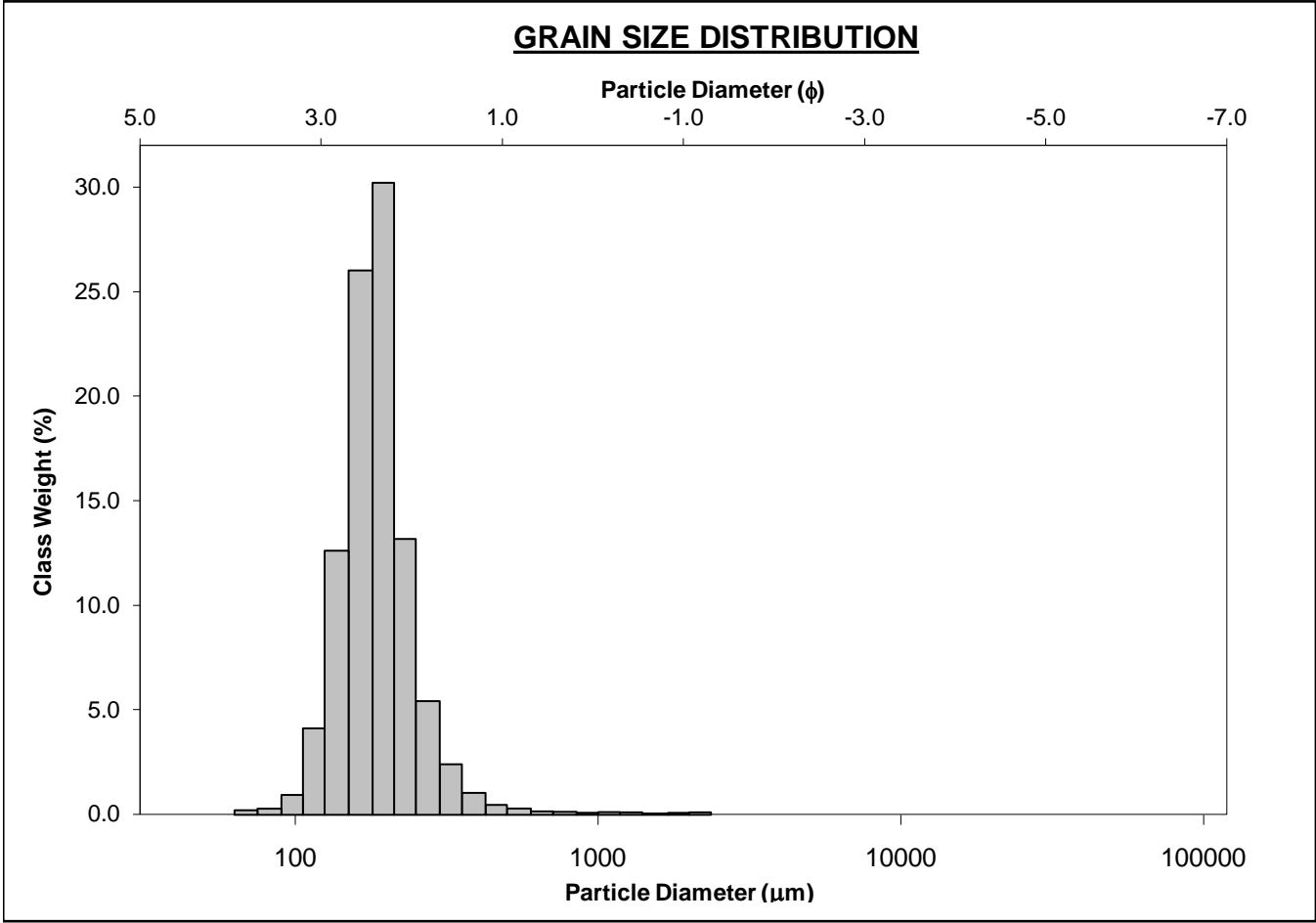
SIEVING ERROR: 0.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-70cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.1%		COARSE SAND: 4.0%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 28.0%	
MODE 3:			MUD: 0.1%		FINE SAND: 63.3%	
D ₁₀ :	140.1	1.363			V FINE SAND: 4.0%	
MEDIAN or D ₅₀ :	208.0	2.266	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	388.8	2.835	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.775	2.080	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	248.7	1.472	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.668	1.403	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	112.5	0.738	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	249.8	223.1	2.164	219.7	2.187	Fine Sand
SORTING (σ):	155.7	1.546	0.629	1.486	0.572	Moderately Well Sorted
SKEWNESS (Sk):	5.076	0.514	-0.514	0.242	-0.242	Coarse Skewed
KURTOSIS (K):	45.83	8.557	8.557	1.079	1.079	Mesokurtic



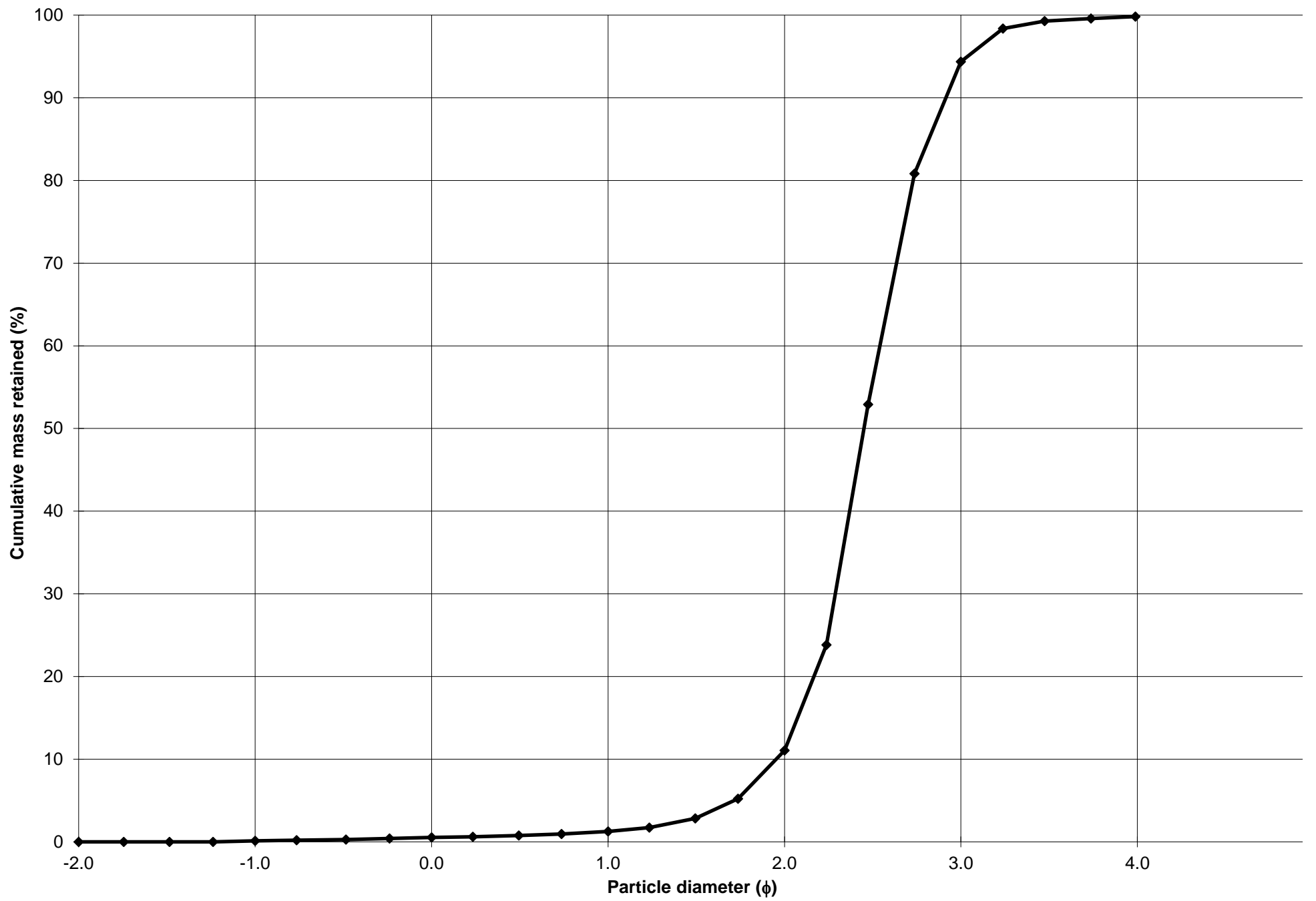
Cumulative Frequency Curve



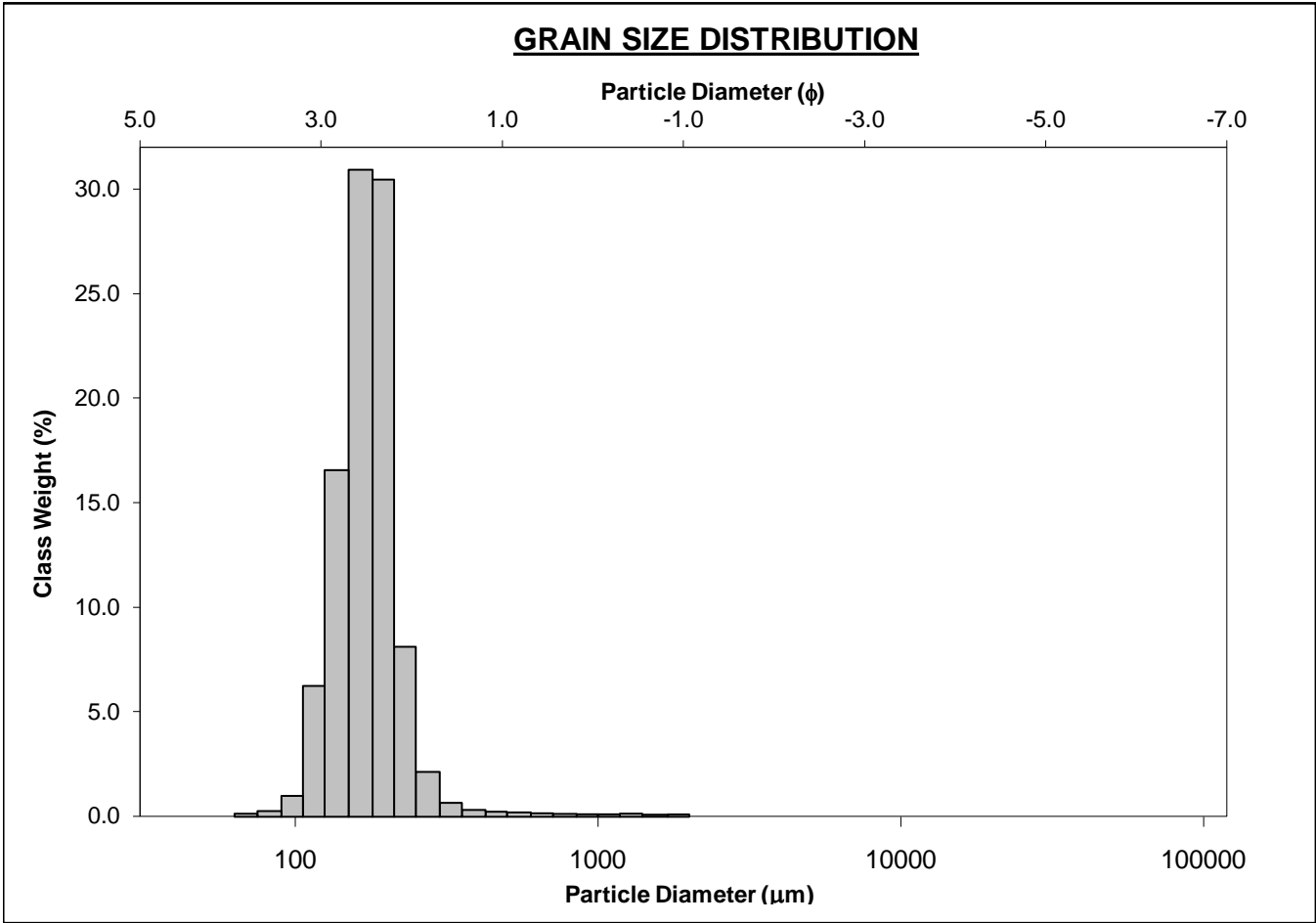
SIEVING ERROR: 0.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-80cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.1%		COARSE SAND: 0.7%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 9.8%	
MODE 3:			MUD: 0.2%		FINE SAND: 83.3%	
D_{10} :	132.6	1.953			V FINE SAND: 5.5%	
MEDIAN or D_{50} :	183.0	2.450	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	258.3	2.915	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	1.949	1.493	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	125.8	0.963	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.352	1.193	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	54.81	0.435	V COARSE SAND: 0.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	200.7	185.7	2.429	183.4	2.447	Fine Sand
SORTING (σ):	124.4	1.414	0.500	1.299	0.377	Well Sorted
SKEWNESS (Sk):	9.560	0.287	-0.287	0.063	-0.063	Symmetrical
KURTOSIS (K):	125.6	22.86	22.86	1.247	1.247	Leptokurtic



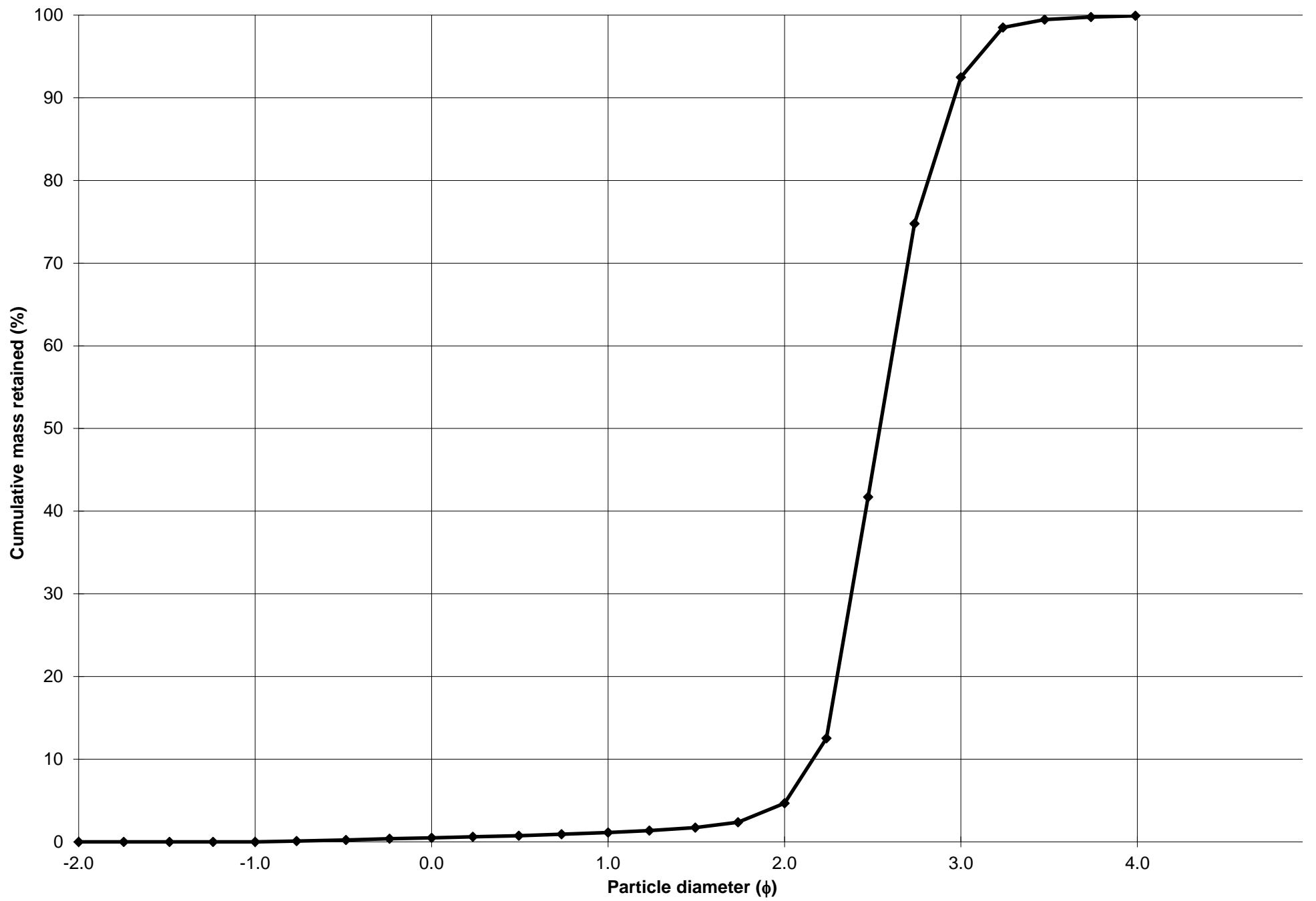
Cumulative Frequency Curve



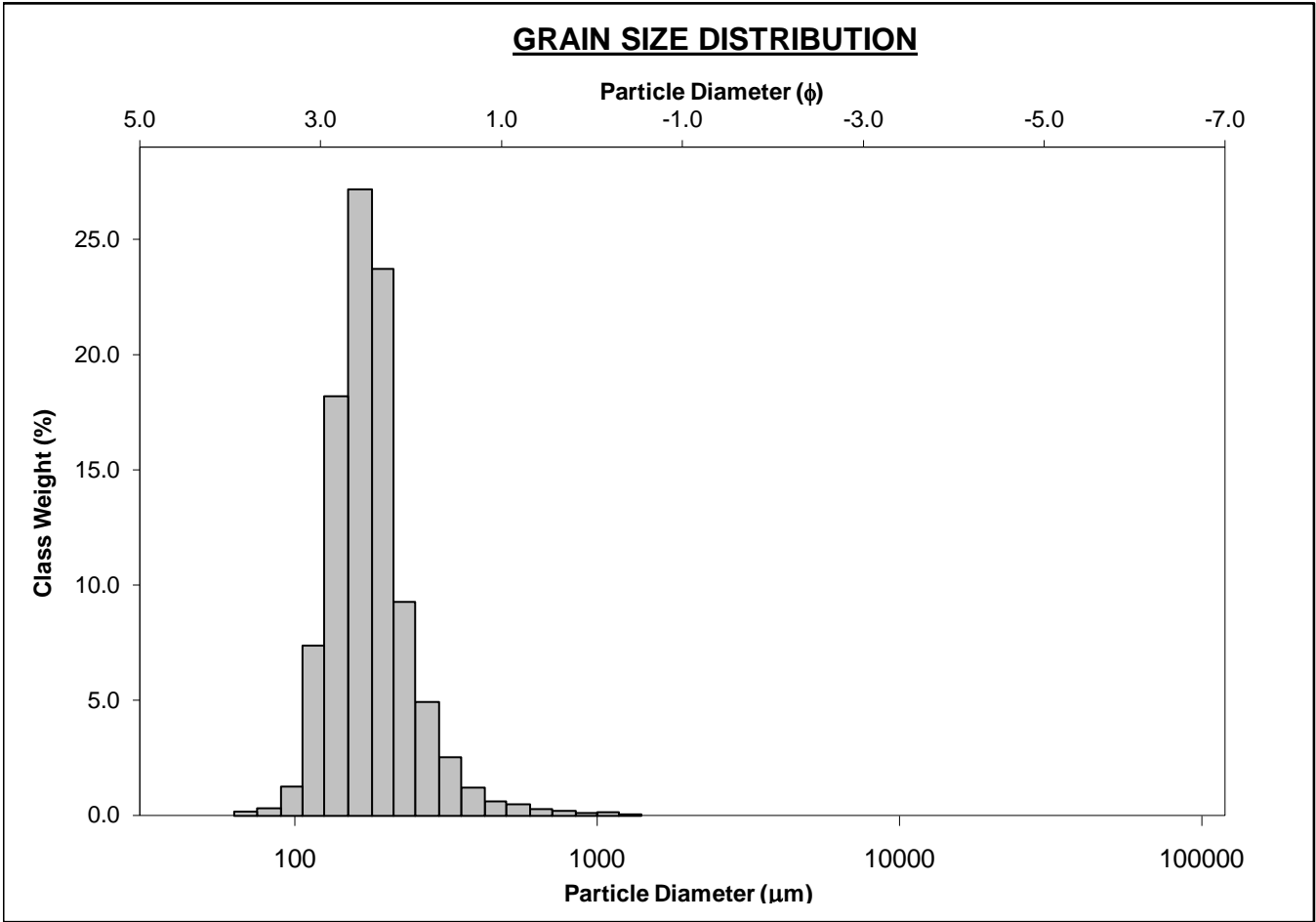
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-90cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.7%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 3.5%			
MODE 3:			MUD: 0.1% FINE SAND: 87.8%			
D ₁₀ :	128.2	2.162	V FINE SAND: 7.4%			
MEDIAN or D ₅₀ :	172.0	2.540	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	223.5	2.963	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.743	1.371	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	95.29	0.802	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.321	1.172	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	48.04	0.402	V COARSE SAND: 0.5% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	184.9	173.3	2.528	169.6	2.560	Fine Sand
SORTING (σ):	107.4	1.354	0.437	1.246	0.317	Very Well Sorted
SKEWNESS (Sk):	9.612	1.305	-1.305	-0.064	0.064	Symmetrical
KURTOSIS (K):	120.0	25.64	25.64	1.112	1.112	Leptokurtic



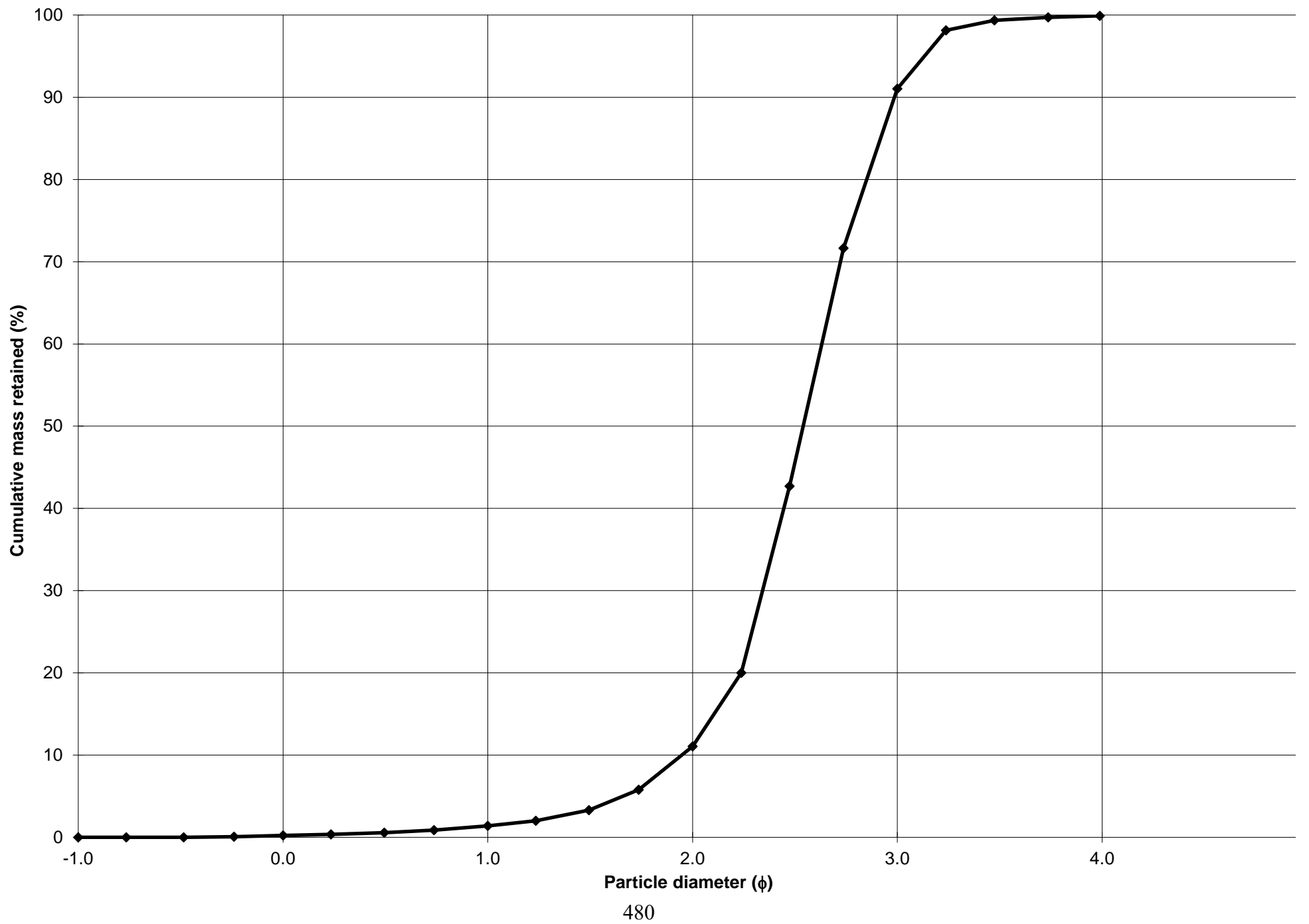
Cumulative Frequency Curve



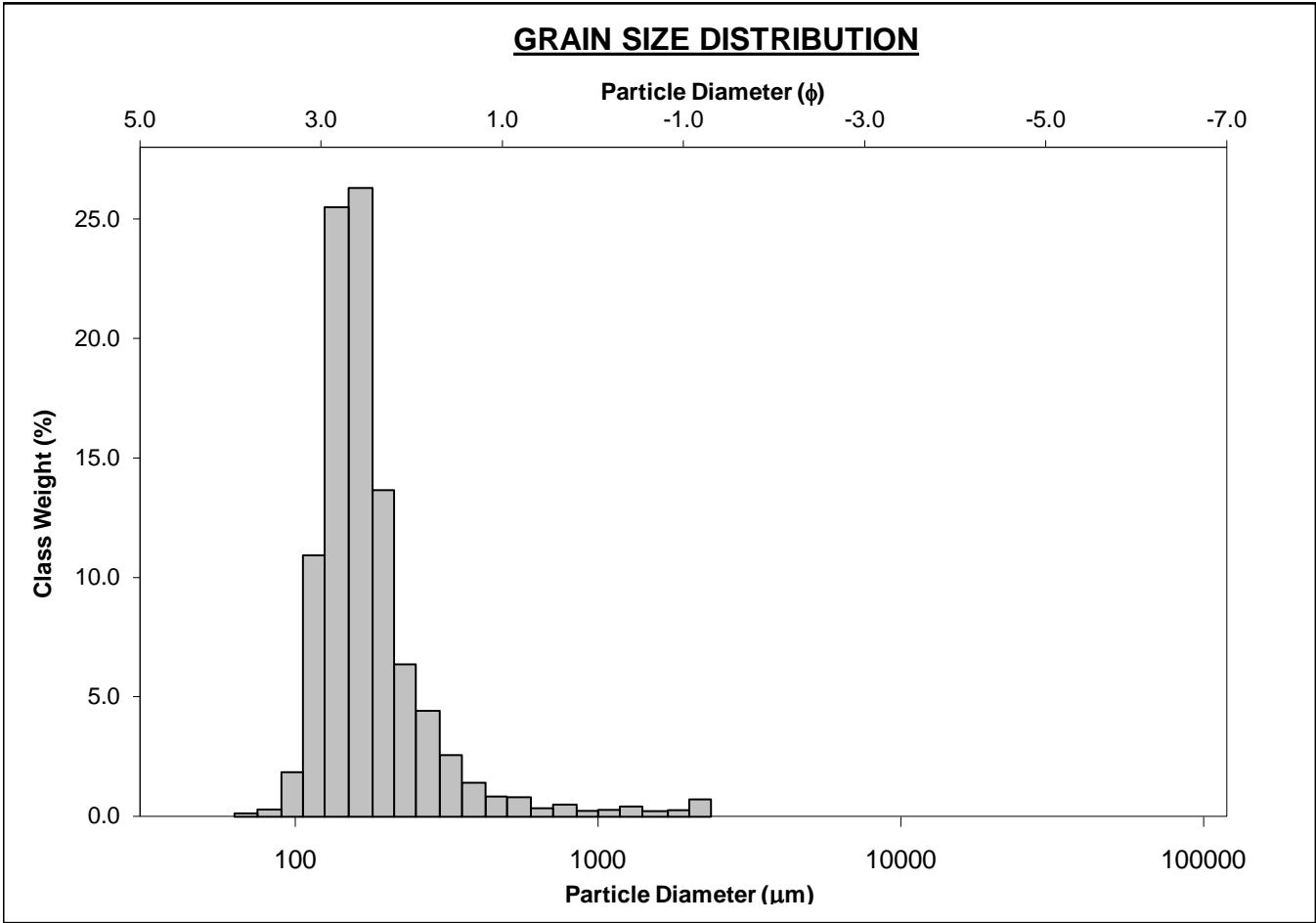
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-100cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 1.2%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 9.7%			
MODE 3:			MUD: 0.1% FINE SAND: 80.0%			
D ₁₀ :	126.2	1.947	V FINE SAND: 8.9%			
MEDIAN or D ₅₀ :	171.9	2.540	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	259.3	2.986	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.055	1.534	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	133.1	1.039	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.407	1.215	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	59.16	0.493	V COARSE SAND: 0.2% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	190.2	177.5	2.494	173.7	2.525	Fine Sand
SORTING (σ):	90.16	1.401	0.487	1.335	0.416	Well Sorted
SKEWNESS (Sk):	5.138	0.543	-0.543	0.127	-0.127	Coarse Skewed
KURTOSIS (K):	44.42	13.58	13.58	1.225	1.225	Leptokurtic



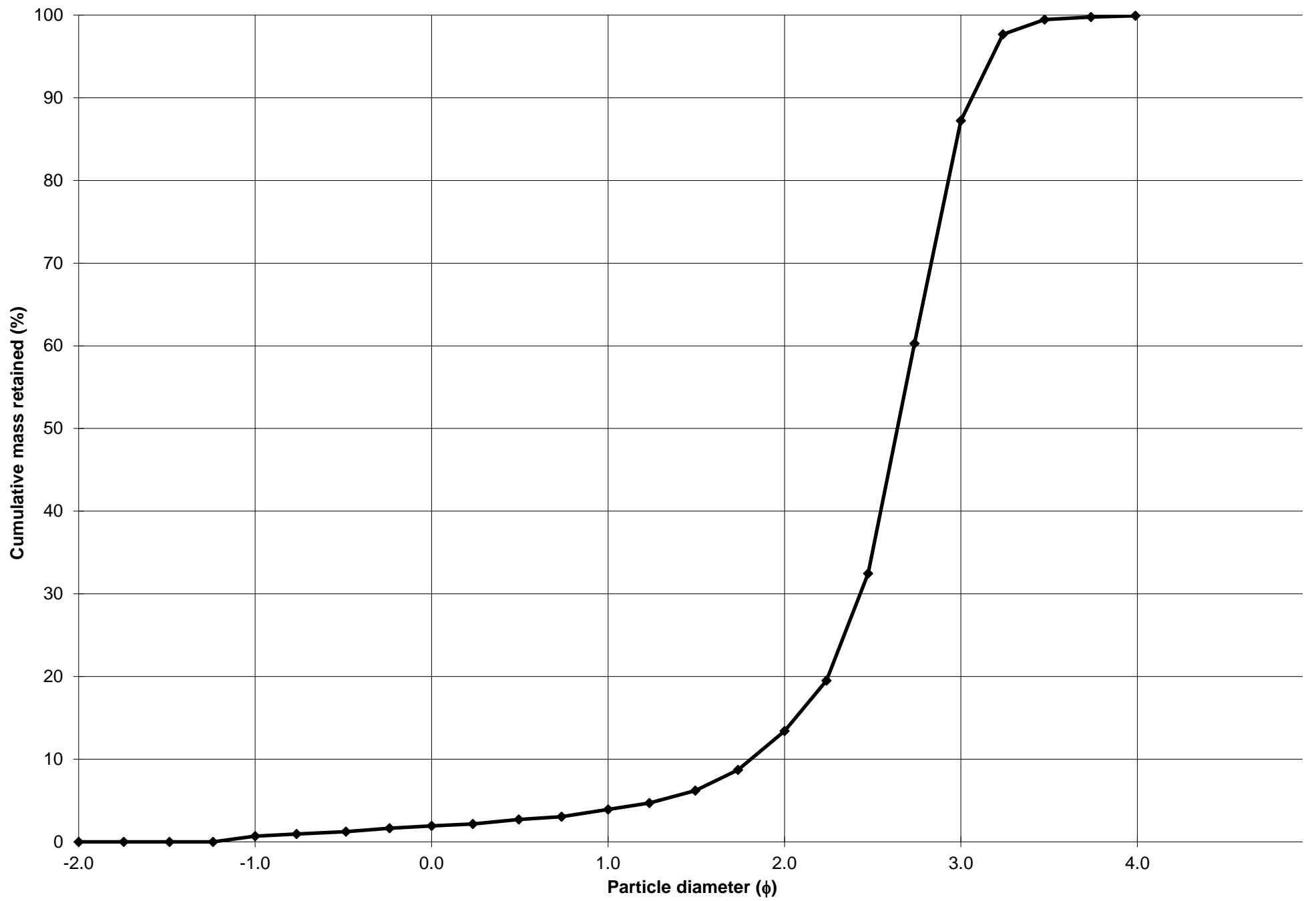
Cumulative Frequency Curve



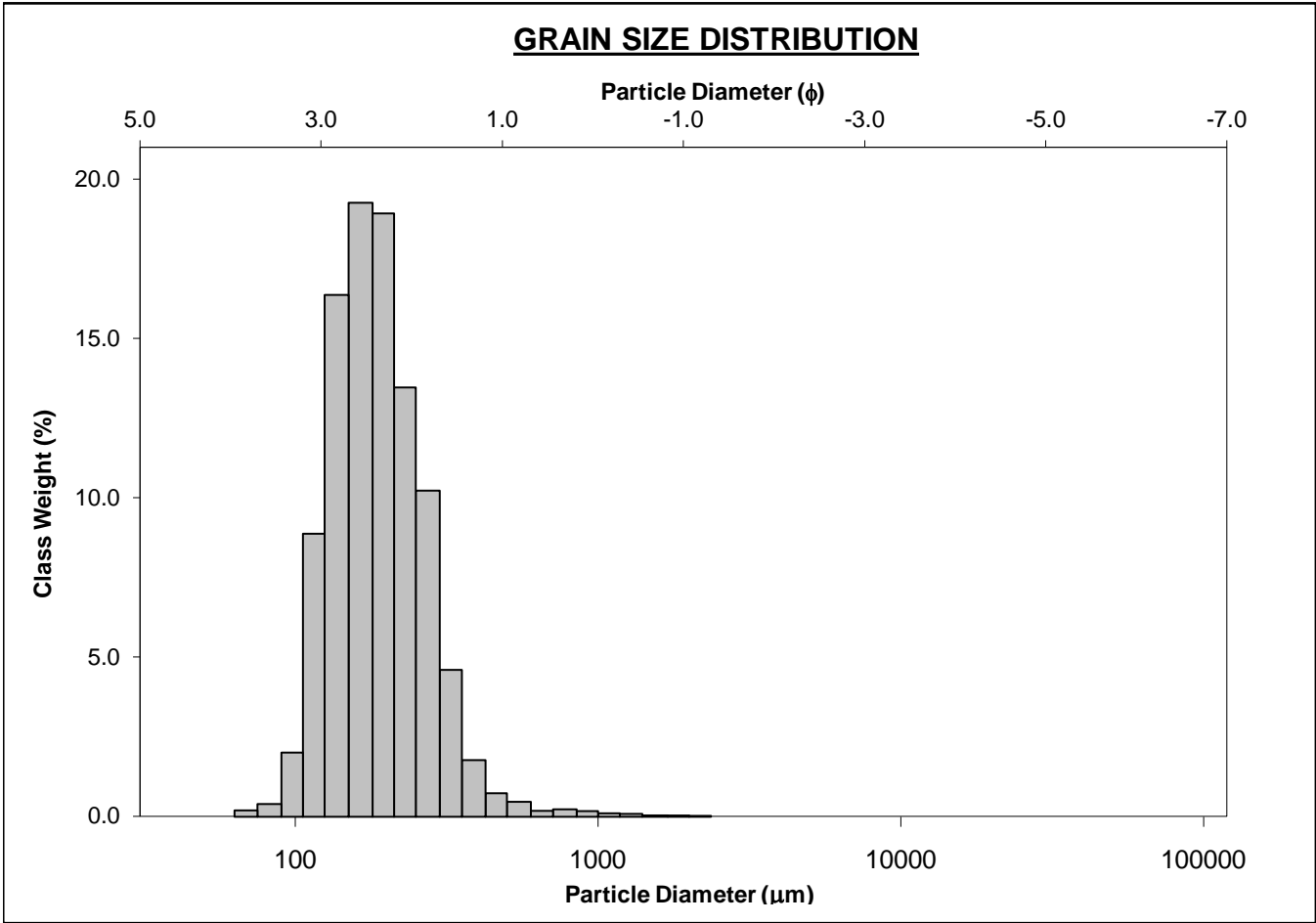
SIEVING ERROR: 1.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-110cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.7%		COARSE SAND: 2.0%	
MODE 2:			SAND: 99.2%		MEDIUM SAND: 9.5%	
MODE 3:			MUD: 0.1%		FINE SAND: 73.8%	
D ₁₀ :	119.6	1.809			V FINE SAND: 12.7%	
MEDIAN or D ₅₀ :	160.4	2.640	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	285.4	3.063	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.385	1.693	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	165.7	1.254	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.457	1.232	V FINE GRAVEL: 0.7%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	62.00	0.543	V COARSE SAND: 1.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	213.3	177.2	2.497	168.4	2.570	Fine Sand
SORTING (σ):	235.5	1.612	0.689	1.418	0.503	Moderately Well Sorted
SKEWNESS (Sk):	6.164	2.279	-2.279	0.337	-0.337	Very Coarse Skewed
KURTOSIS (K):	45.68	13.08	13.08	1.429	1.429	Leptokurtic



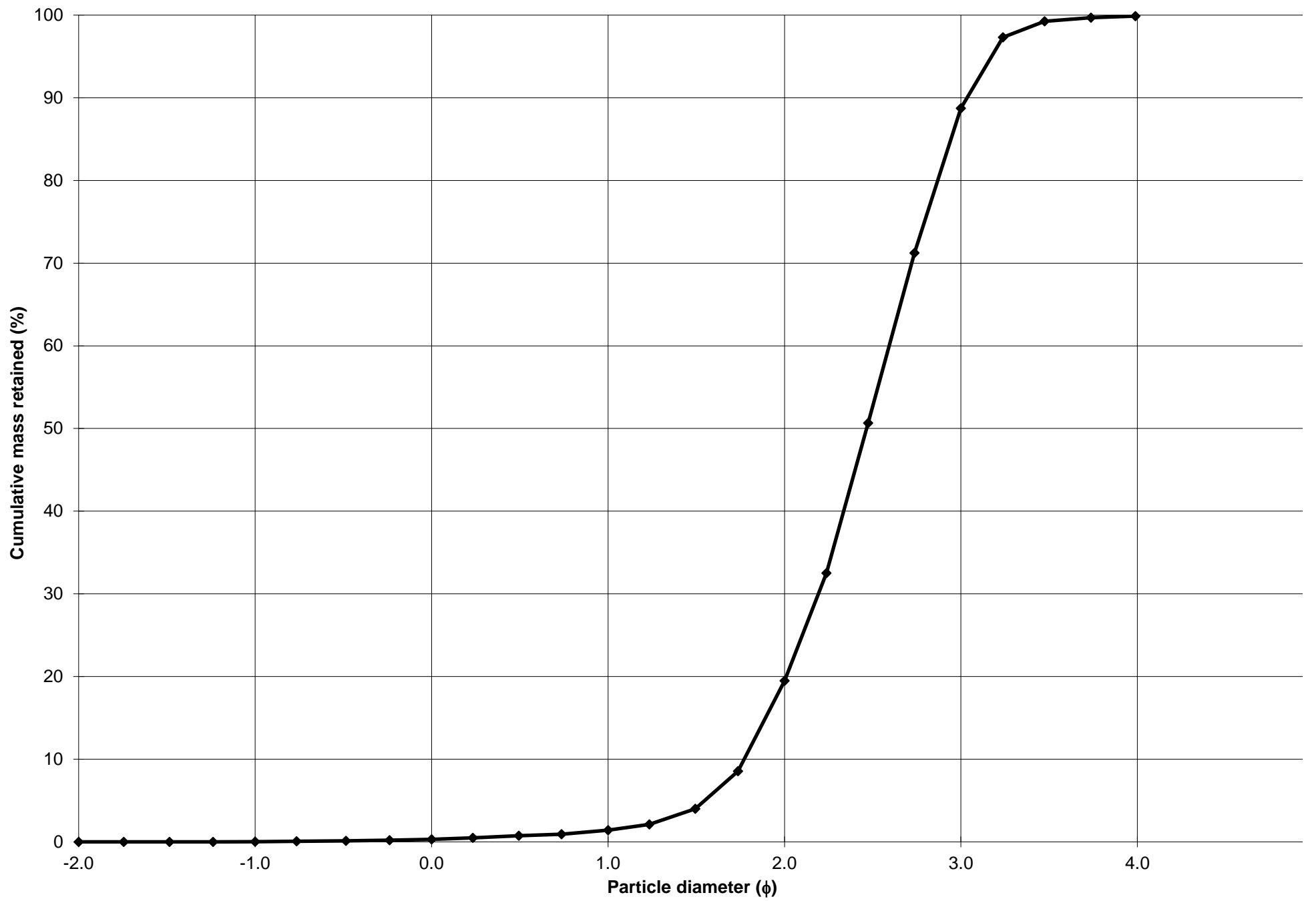
Cumulative Frequency Curve



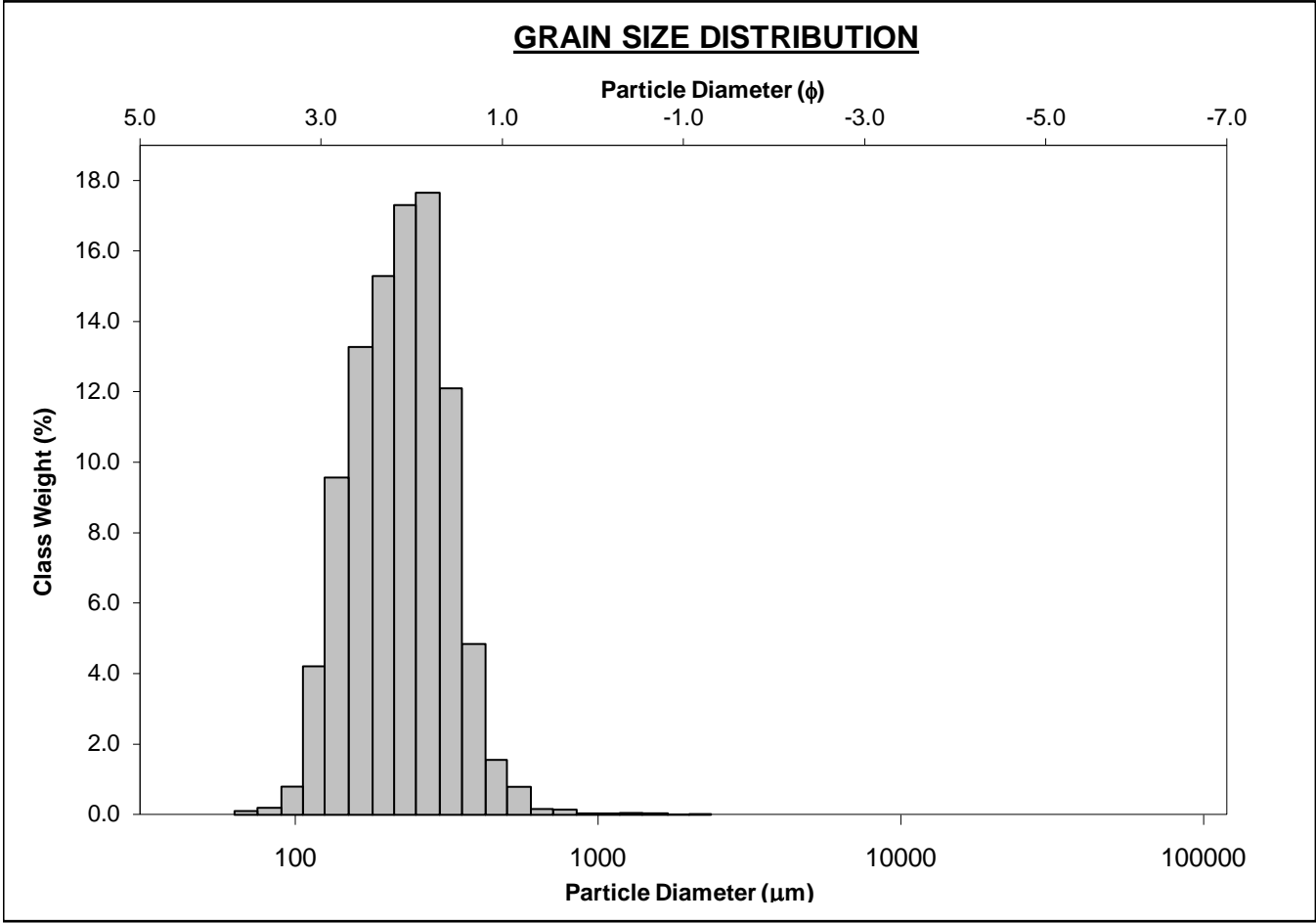
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-120cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 1.1%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 18.1%	
MODE 3:			MUD: 0.1%		FINE SAND: 69.3%	
D_{10} :	122.0	1.772			V FINE SAND: 11.1%	
MEDIAN or D_{50} :	181.1	2.465	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	292.8	3.035	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.400	1.713	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	170.8	1.263	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.616	1.330	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	88.89	0.693	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	203.5	186.6	2.422	184.7	2.437	Fine Sand
SORTING (σ):	110.6	1.469	0.555	1.414	0.500	Well Sorted
SKEWNESS (Sk):	6.467	0.279	-0.279	0.107	-0.107	Coarse Skewed
KURTOSIS (K):	78.20	10.75	10.75	0.962	0.962	Mesokurtic



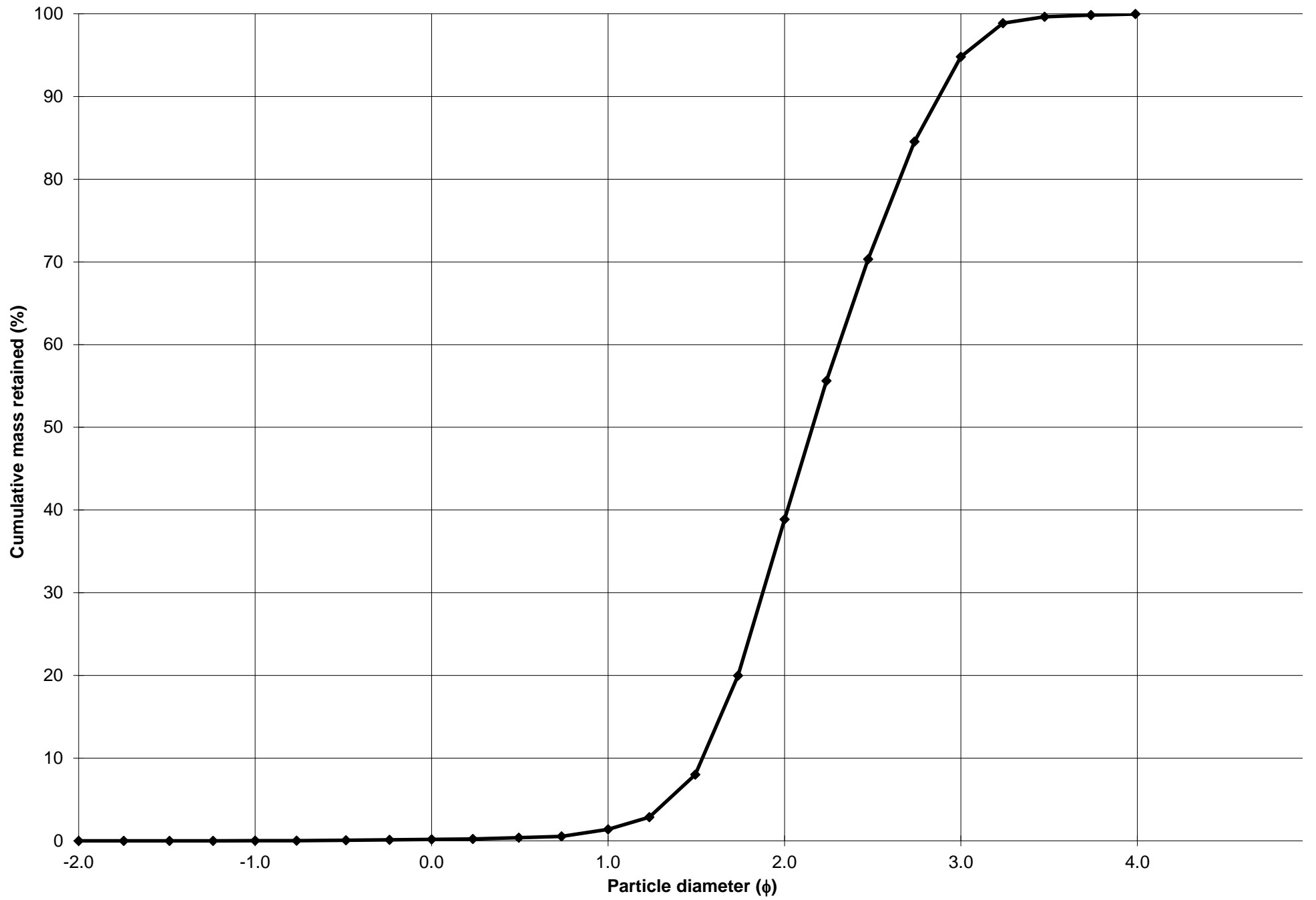
Cumulative Frequency Curve



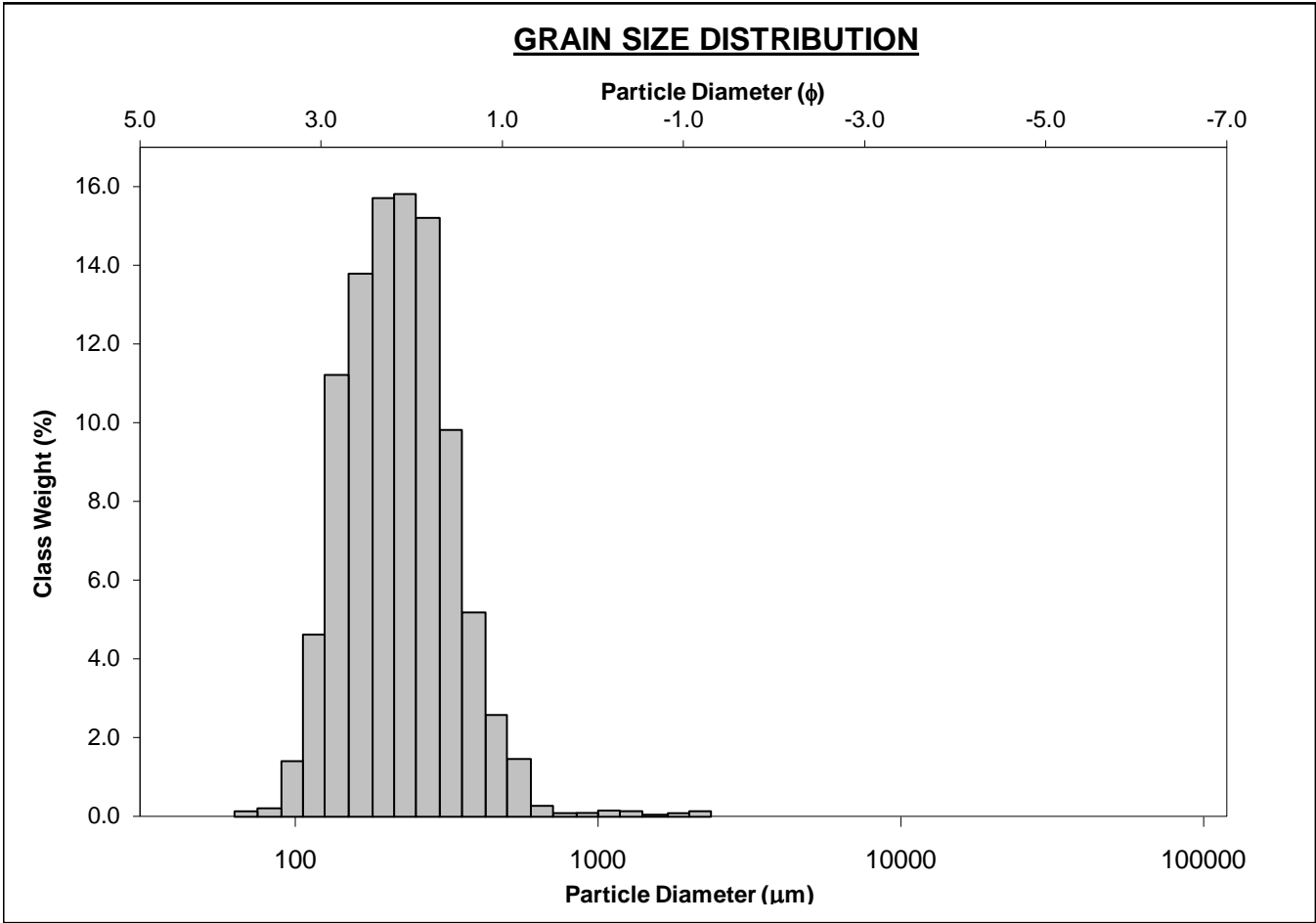
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-130cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.2%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 37.5%	
MODE 3:			MUD: 0.0%		FINE SAND: 55.9%	
D ₁₀ :	136.1	1.535			V FINE SAND: 5.2%	
MEDIAN or D ₅₀ :	224.1	2.158	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	345.1	2.877	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.536	1.875	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	209.0	1.342	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.686	1.417	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	116.3	0.753	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	238.7	221.5	2.174	220.6	2.180	Fine Sand
SORTING (σ):	103.2	1.449	0.535	1.435	0.521	Moderately Well Sorted
SKEWNESS (Sk):	4.454	0.019	-0.019	-0.043	0.043	Symmetrical
KURTOSIS (K):	57.68	5.813	5.813	0.908	0.908	Mesokurtic



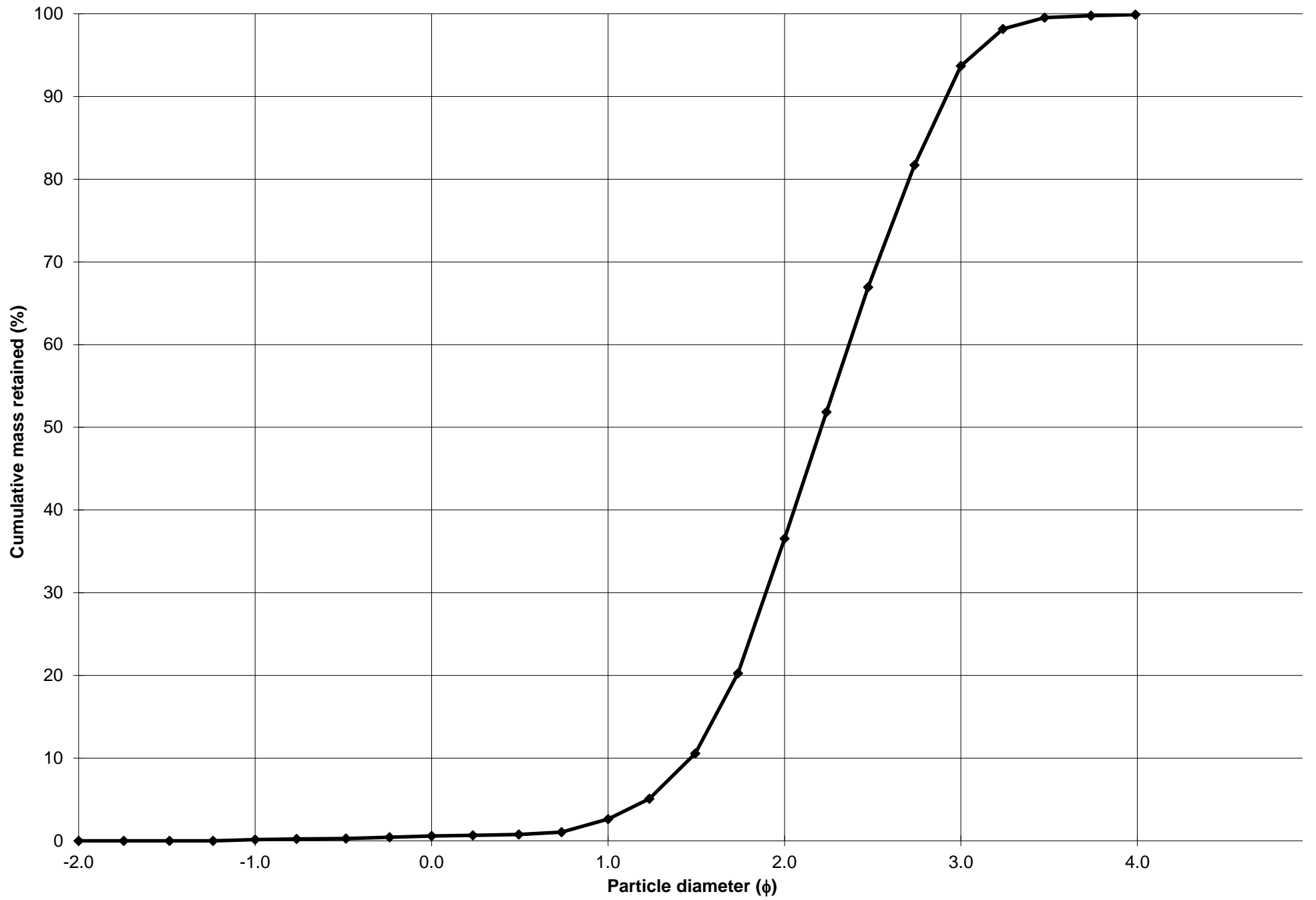
Cumulative Frequency Curve



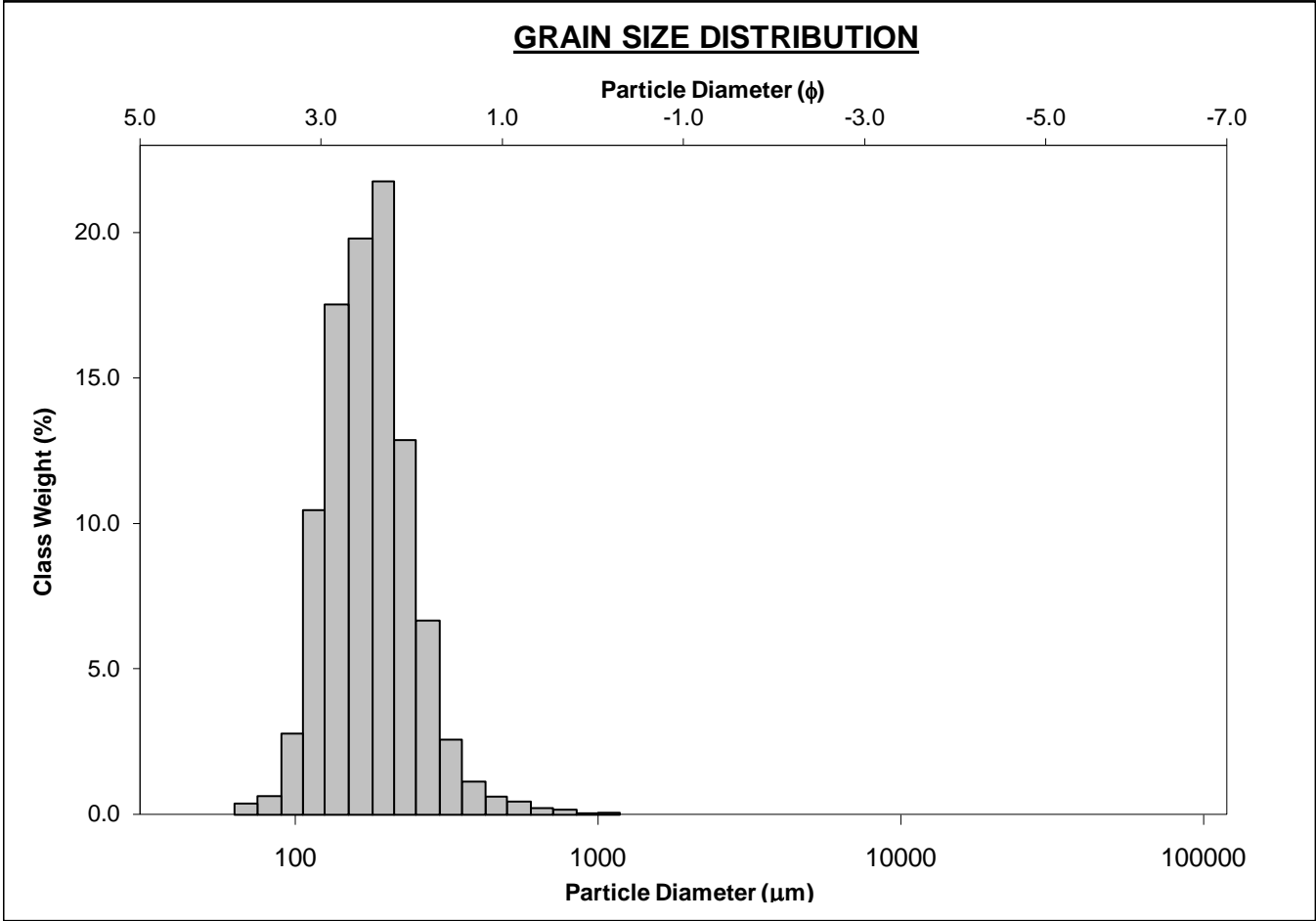
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-140cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.1%		COARSE SAND: 2.0%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 33.9%	
MODE 3:			MUD: 0.1%		FINE SAND: 57.2%	
D ₁₀ :	132.2	1.467			V FINE SAND: 6.2%	
MEDIAN or D ₅₀ :	216.3	2.209	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	361.7	2.919	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.735	1.989	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	229.5	1.452	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.746	1.444	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	121.6	0.804	V COARSE SAND: 0.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	243.1	219.2	2.190	216.3	2.209	Fine Sand
SORTING (σ):	144.1	1.530	0.613	1.483	0.569	Moderately Well Sorted
SKEWNESS (Sk):	6.265	0.212	-0.212	0.034	-0.034	Symmetrical
KURTOSIS (K):	69.76	8.379	8.379	0.939	0.939	Mesokurtic



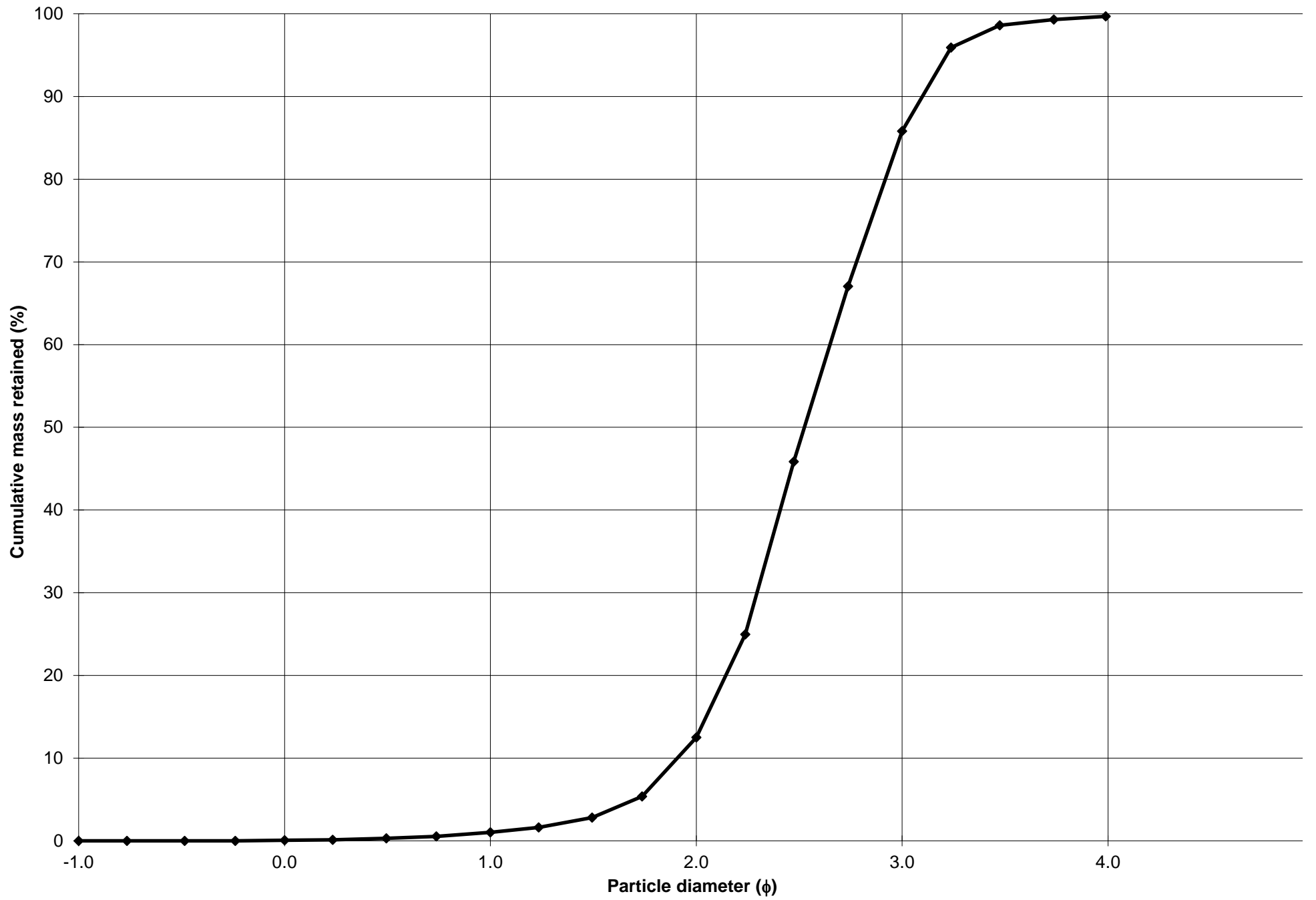
Cumulative Frequency Curve



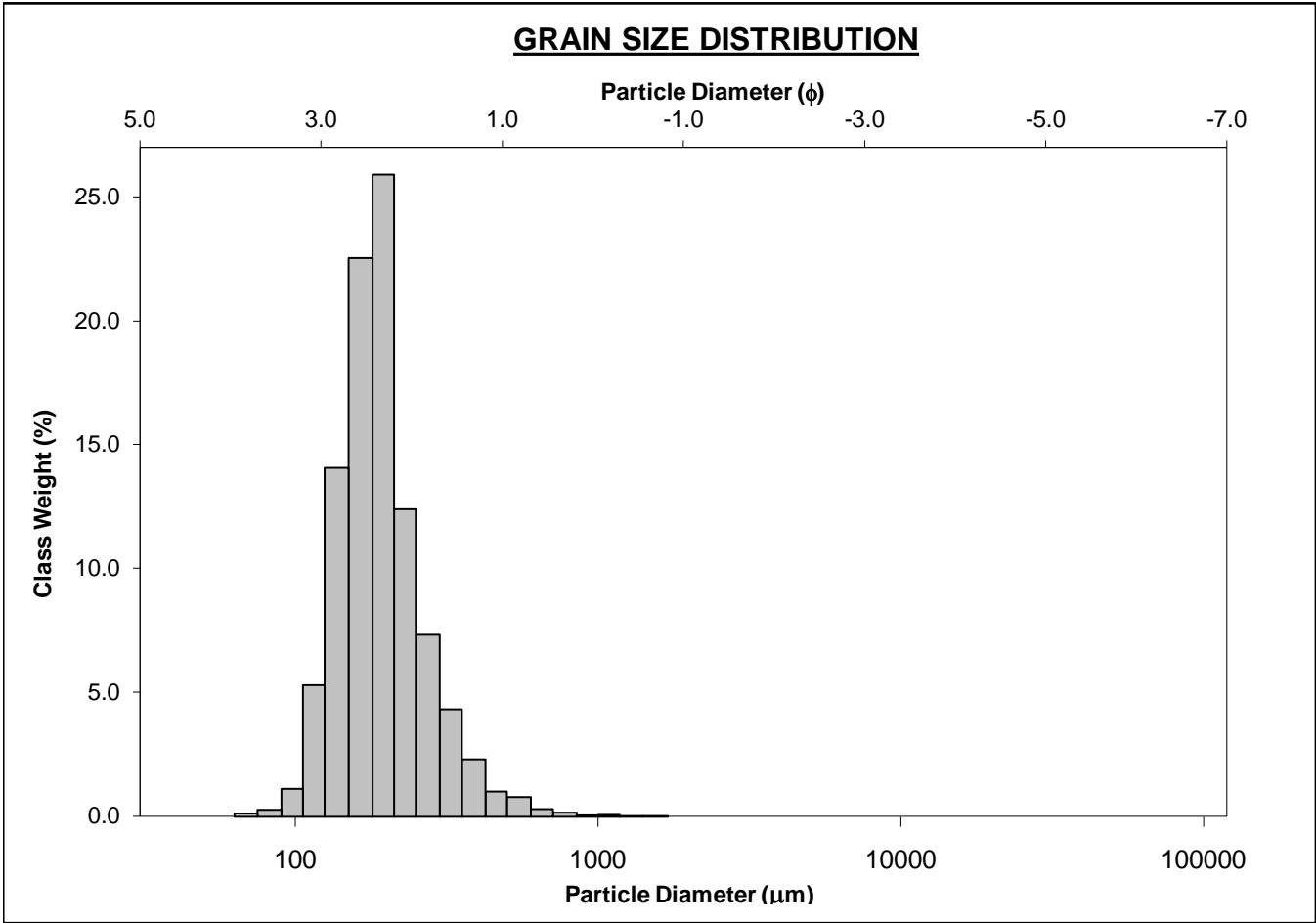
SIEVING ERROR: 0.8%		<u>SAMPLE STATISTICS</u>				
SAMPLE IDENTITY: GR-14-03-150cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 1.0%			
MODE 2:			SAND: 99.7% MEDIUM SAND: 11.5%			
MODE 3:			MUD: 0.3% FINE SAND: 73.3%			
D ₁₀ :	116.7	1.908	V FINE SAND: 13.9%			
MEDIAN or D ₅₀ :	173.7	2.525	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%			
D ₉₀ :	266.5	3.099	COARSE GRAVEL: 0.0% COARSE SILT: 0.1%			
(D ₉₀ / D ₁₀):	2.283	1.624	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%			
(D ₉₀ - D ₁₀):	149.8	1.191	FINE GRAVEL: 0.0% FINE SILT: 0.1%			
(D ₇₅ / D ₂₅):	1.527	1.273	V FINE GRAVEL: 0.0% V FINE SILT: 0.1%			
(D ₇₅ - D ₂₅):	73.11	0.610	V COARSE SAND: 0.1% CLAY: 0.1%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	188.0	174.6	2.518	174.1	2.522	Fine Sand
SORTING (σ):	79.89	1.462	0.548	1.372	0.456	Well Sorted
SKEWNESS (Sk):	3.505	-1.148	1.148	0.049	-0.049	Symmetrical
KURTOSIS (K):	26.93	17.17	17.17	1.017	1.017	Mesokurtic



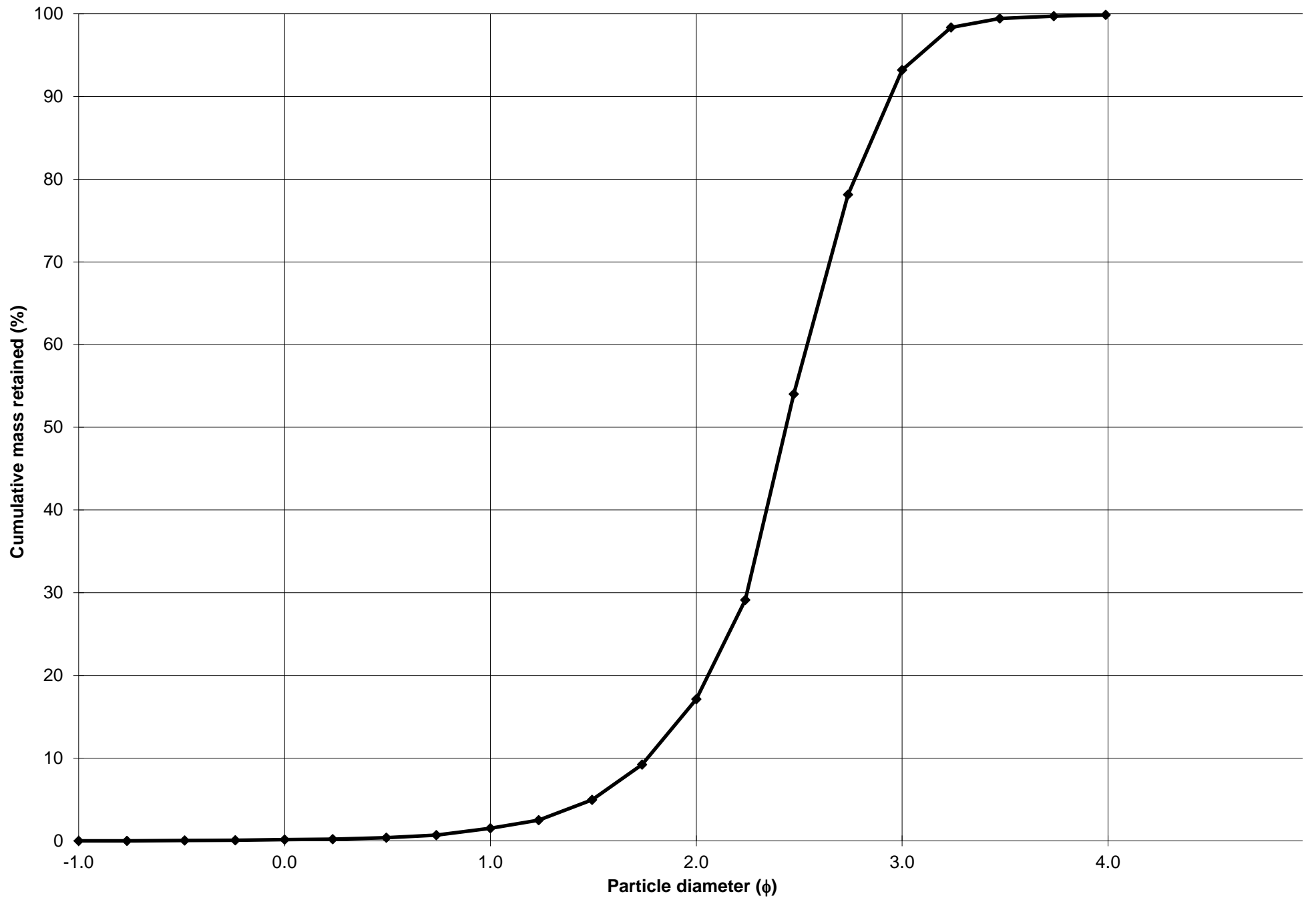
Cumulative Frequency Curve



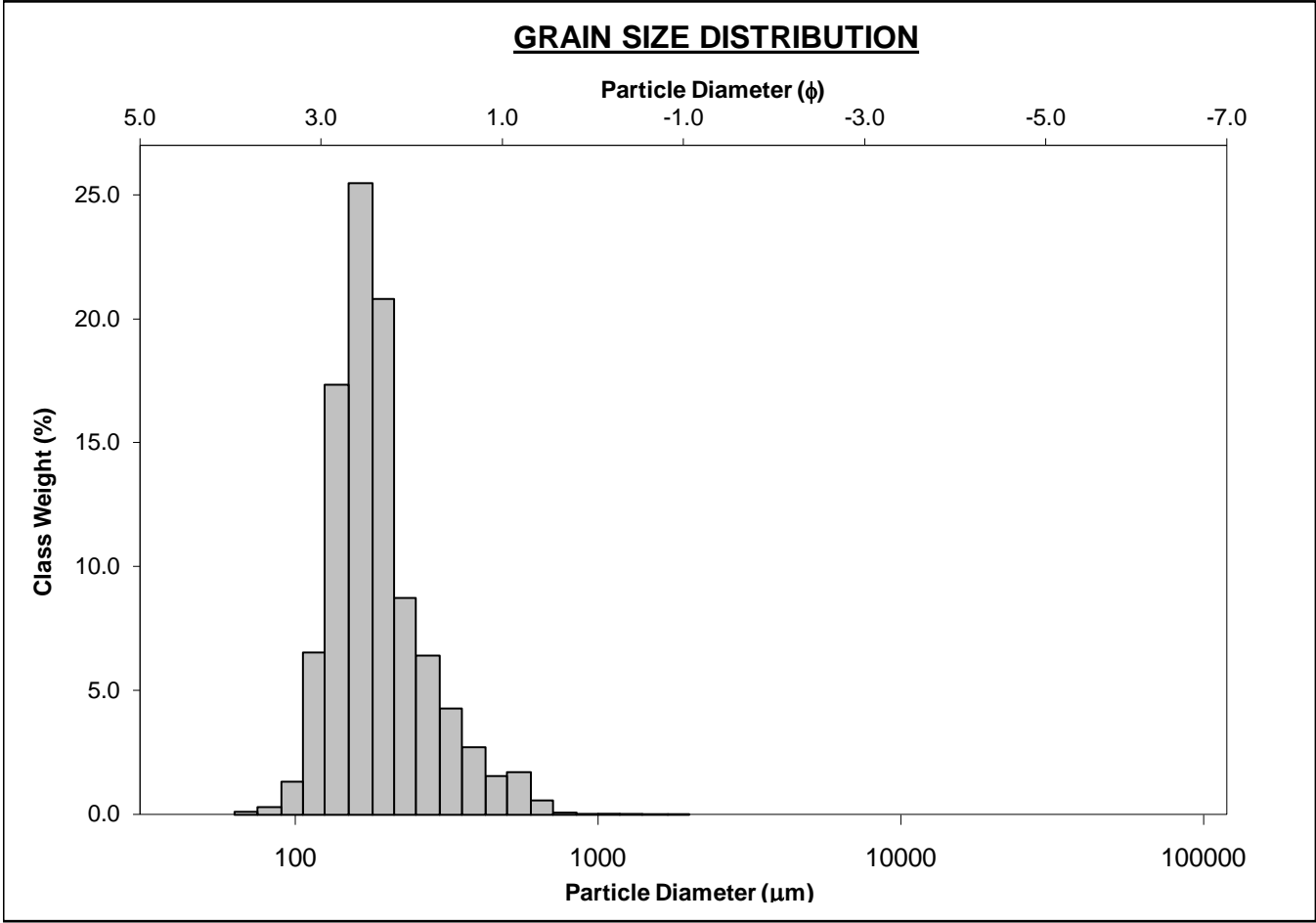
SIEVING ERROR: 1.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-160cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 1.4%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 15.6%	
MODE 3:			MUD: 0.1%		FINE SAND: 76.1%	
D_{10} :	129.9	1.763			V FINE SAND: 6.7%	
MEDIAN or D_{50} :	184.8	2.436	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	294.7	2.944	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.268	1.670	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	164.8	1.181	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.461	1.254	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	70.77	0.547	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	204.5	190.2	2.394	187.8	2.413	Fine Sand
SORTING (σ):	91.77	1.431	0.517	1.375	0.460	Well Sorted
SKEWNESS (Sk):	4.206	-0.118	0.118	0.132	-0.132	Coarse Skewed
KURTOSIS (K):	38.41	13.25	13.25	1.189	1.189	Leptokurtic



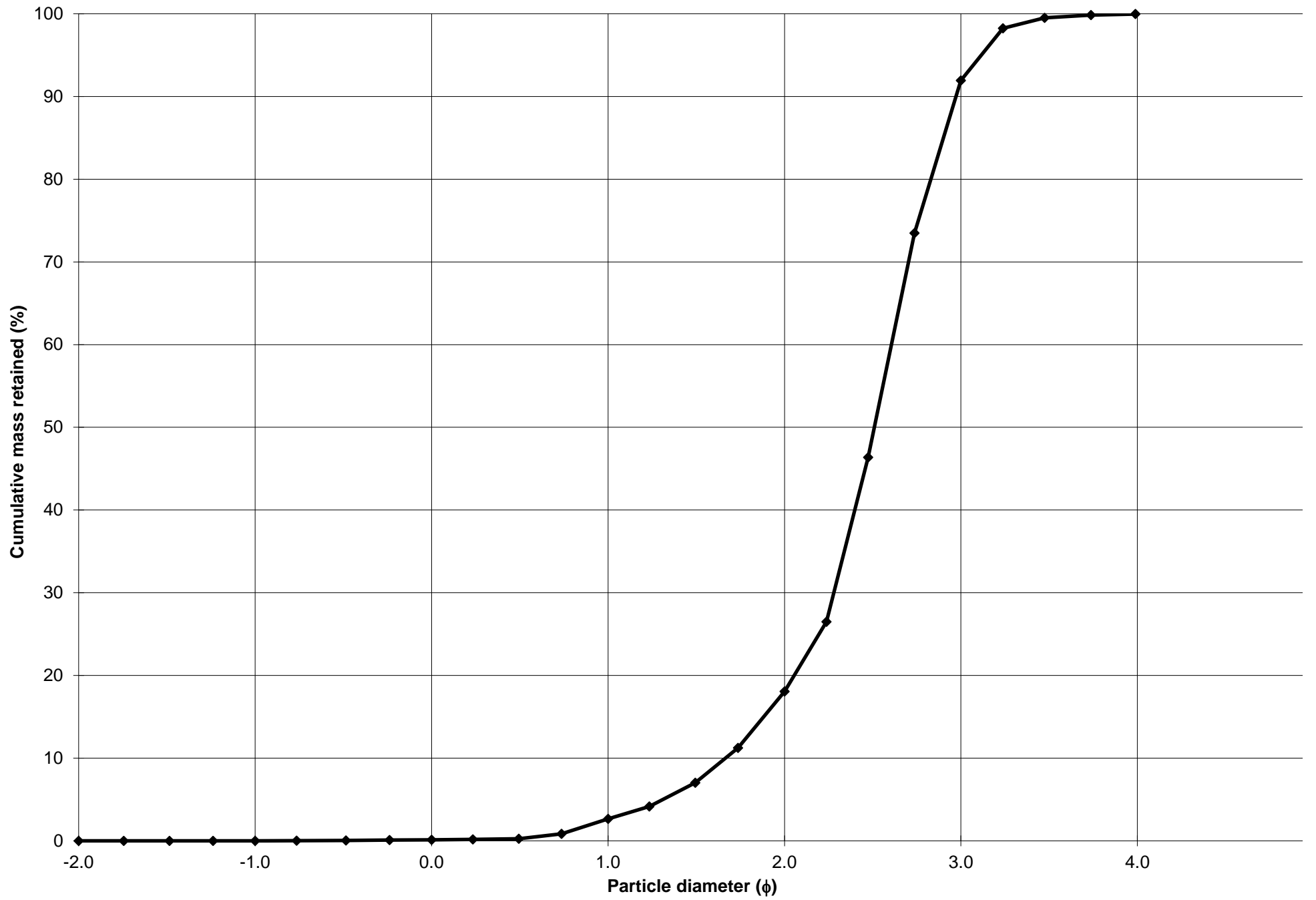
Cumulative Frequency Curve



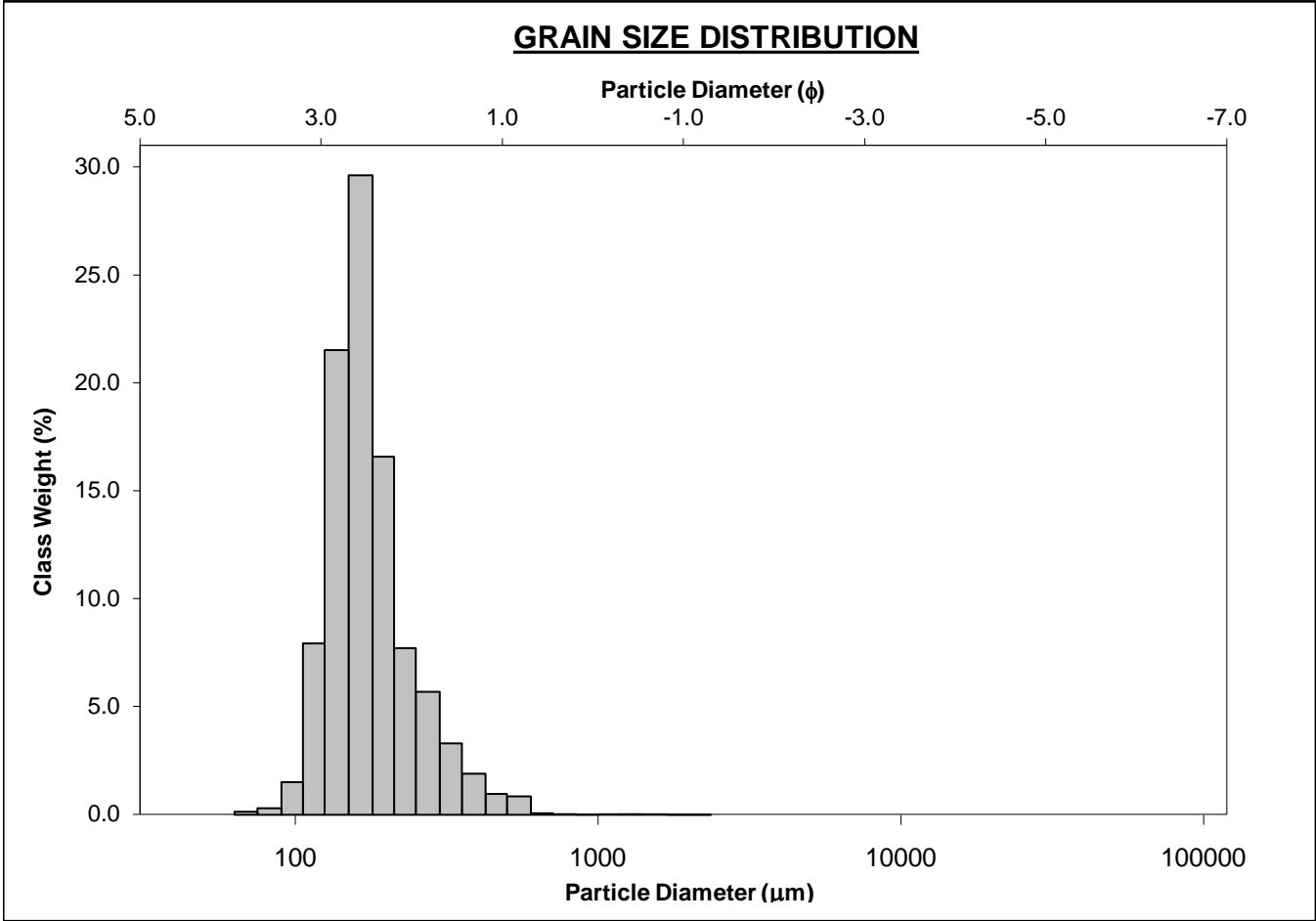
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-180cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 2.5%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 15.4%	
MODE 3:			MUD: 0.0%		FINE SAND: 73.9%	
D ₁₀ :	127.4	1.666			V FINE SAND: 8.0%	
MEDIAN or D ₅₀ :	175.6	2.509	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	315.1	2.973	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.473	1.784	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	187.7	1.306	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.477	1.256	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	70.50	0.563	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	204.8	187.9	2.412	184.4	2.439	Fine Sand
SORTING (σ):	104.2	1.459	0.545	1.429	0.515	Moderately Well Sorted
SKEWNESS (Sk):	4.103	0.916	-0.916	0.273	-0.273	Coarse Skewed
KURTOSIS (K):	38.07	6.728	6.728	1.314	1.314	Leptokurtic



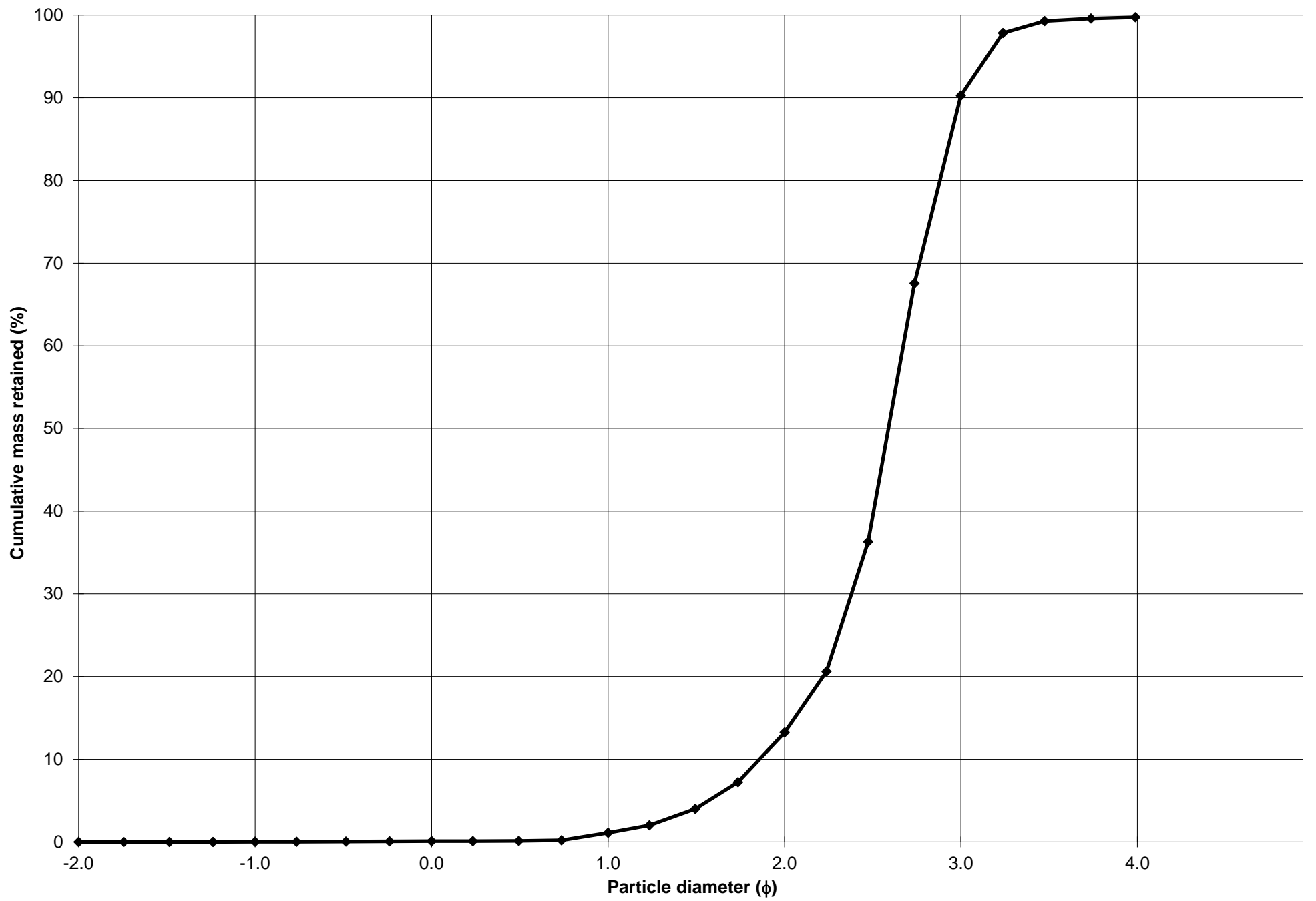
Cumulative Frequency Curve



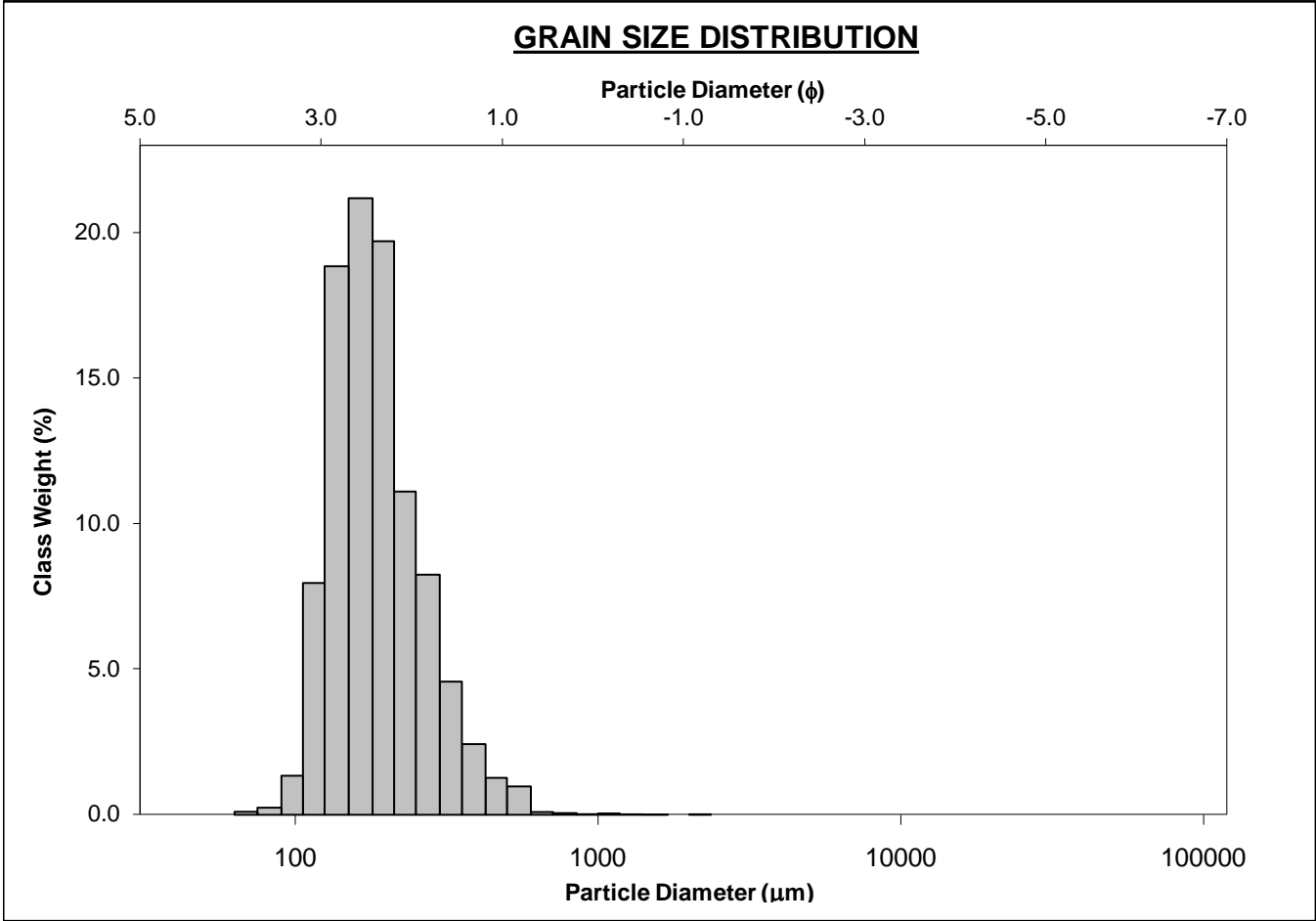
SIEVING ERROR: 1.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-190cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 1.0%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 12.1%	
MODE 3:			MUD: 0.3%		FINE SAND: 77.0%	
D_{10} :	125.3	1.859			V FINE SAND: 9.5%	
MEDIAN or D_{50} :	166.2	2.589	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	275.7	2.997	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.201	1.612	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	150.5	1.138	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.433	1.225	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	61.20	0.519	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	187.3	174.2	2.521	172.5	2.535	Fine Sand
SORTING (σ):	84.48	1.440	0.526	1.365	0.449	Well Sorted
SKEWNESS (Sk):	5.295	-0.698	0.698	0.242	-0.242	Coarse Skewed
KURTOSIS (K):	71.74	17.86	17.86	1.247	1.247	Leptokurtic



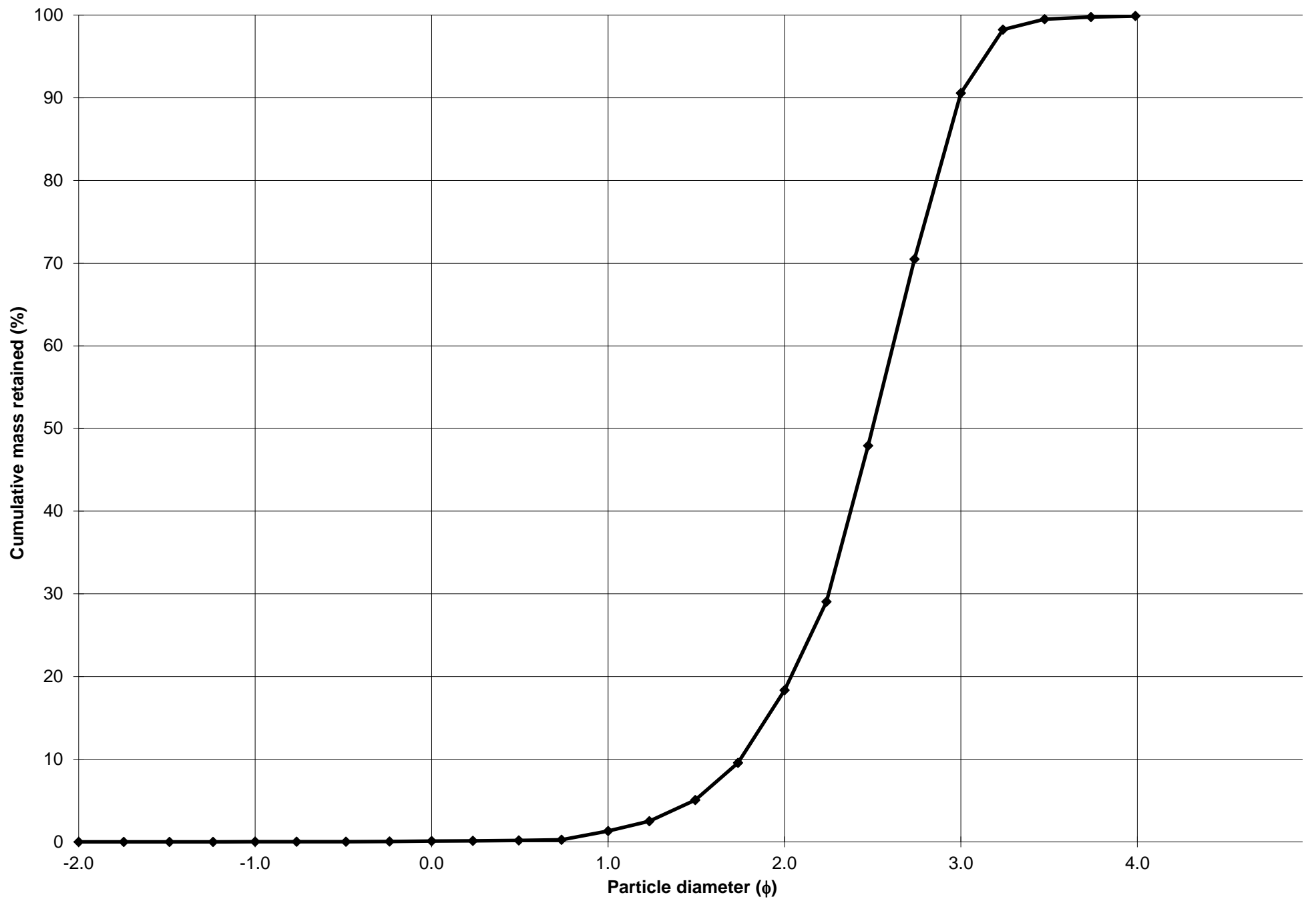
Cumulative Frequency Curve



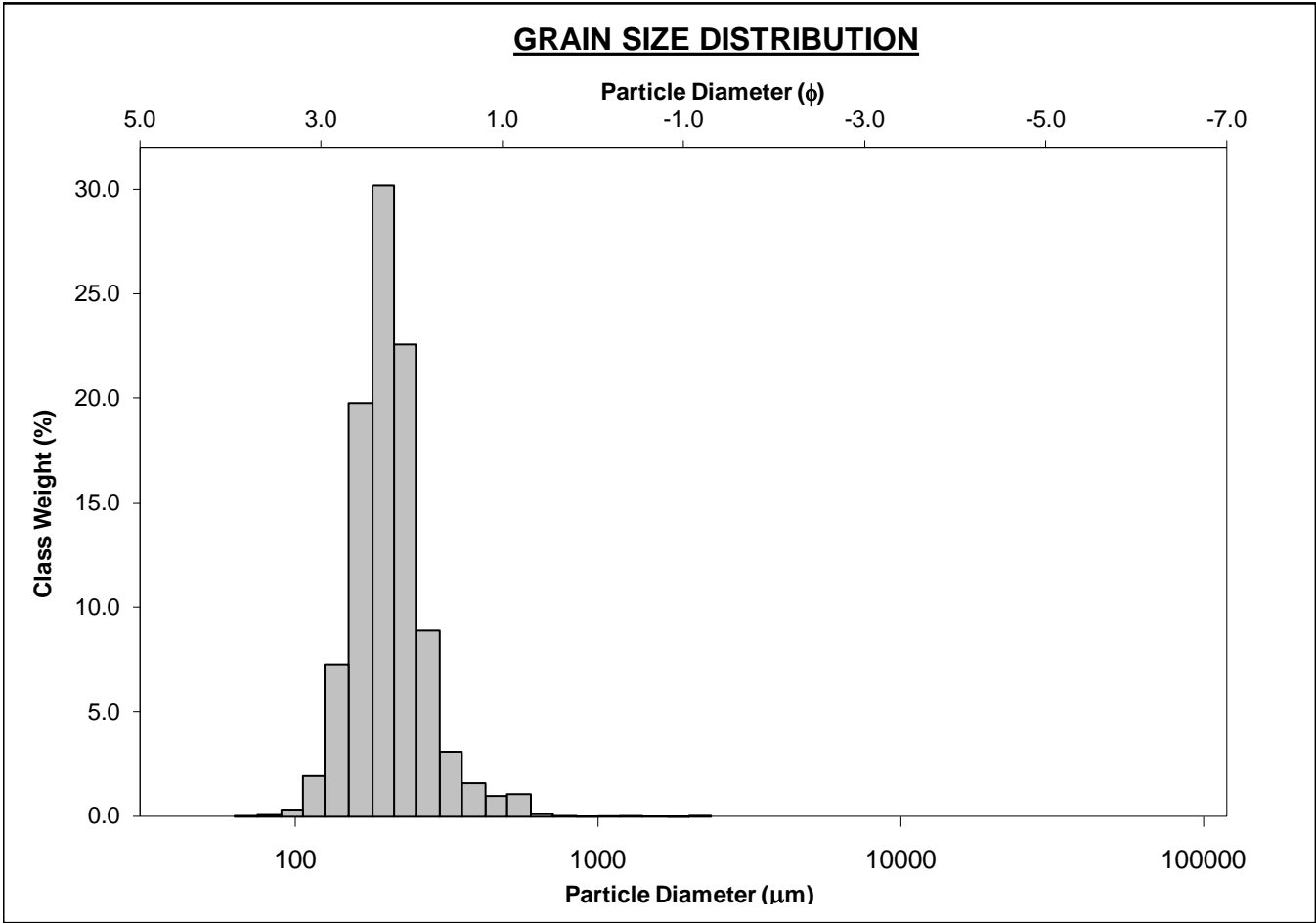
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-200cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 1.2%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 17.1%	
MODE 3:			MUD: 0.1%		FINE SAND: 72.2%	
D ₁₀ :	125.6	1.750			V FINE SAND: 9.3%	
MEDIAN or D ₅₀ :	177.0	2.498	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	297.3	2.993	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.366	1.710	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	171.7	1.243	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.568	1.302	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	81.71	0.649	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	199.7	185.1	2.434	183.4	2.447	Fine Sand
SORTING (σ):	90.02	1.444	0.530	1.410	0.496	Well Sorted
SKEWNESS (Sk):	4.425	0.067	-0.067	0.190	-0.190	Coarse Skewed
KURTOSIS (K):	58.83	10.04	10.04	1.043	1.043	Mesokurtic



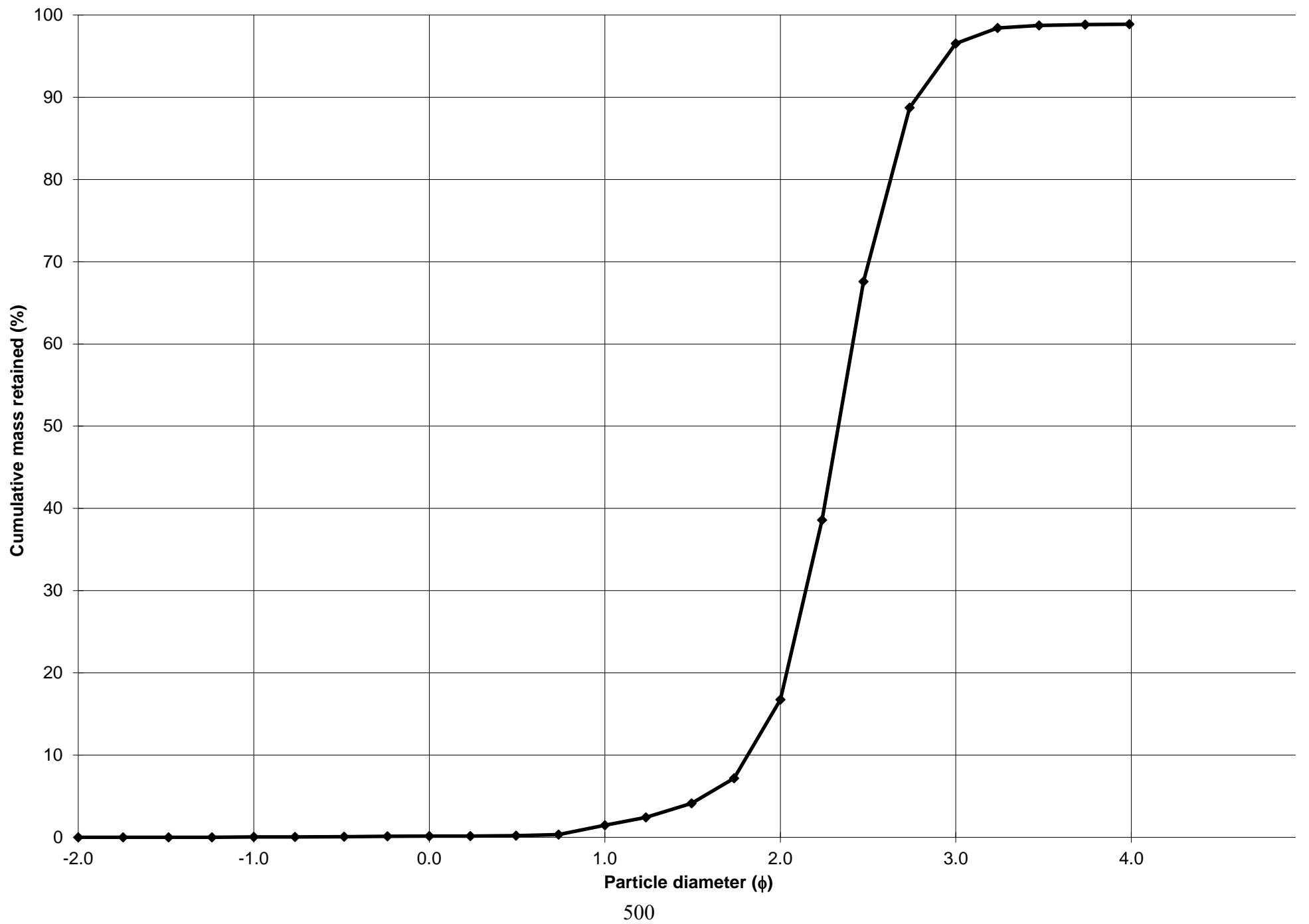
Cumulative Frequency Curve



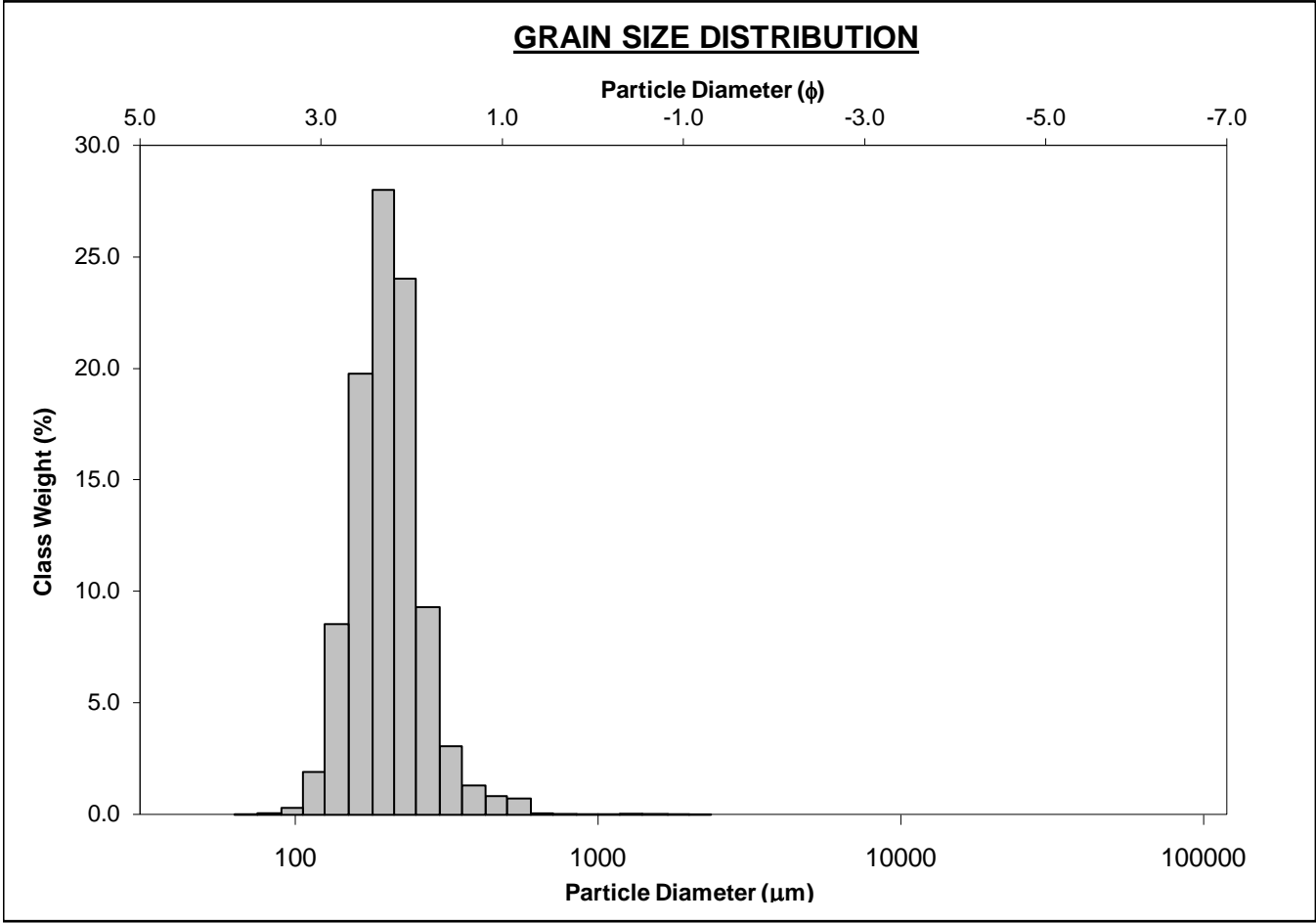
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-210cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 1.3%	
MODE 2:			SAND: 98.8%		MEDIUM SAND: 15.3%	
MODE 3:			MUD: 1.1%		FINE SAND: 79.8%	
D ₁₀ :	145.6	1.815			V FINE SAND: 2.3%	
MEDIAN or D ₅₀ :	198.8	2.331	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	284.3	2.779	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	1.952	1.532	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	138.7	0.965	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.391	1.228	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	66.04	0.476	V COARSE SAND: 0.1%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	213.1	196.7	2.346	199.0	2.330	Fine Sand
SORTING (σ):	91.46	1.566	0.647	1.305	0.384	Well Sorted
SKEWNESS (Sk):	7.649	-3.730	3.730	0.057	-0.057	Symmetrical
KURTOSIS (K):	131.3	31.38	31.38	1.191	1.191	Leptokurtic



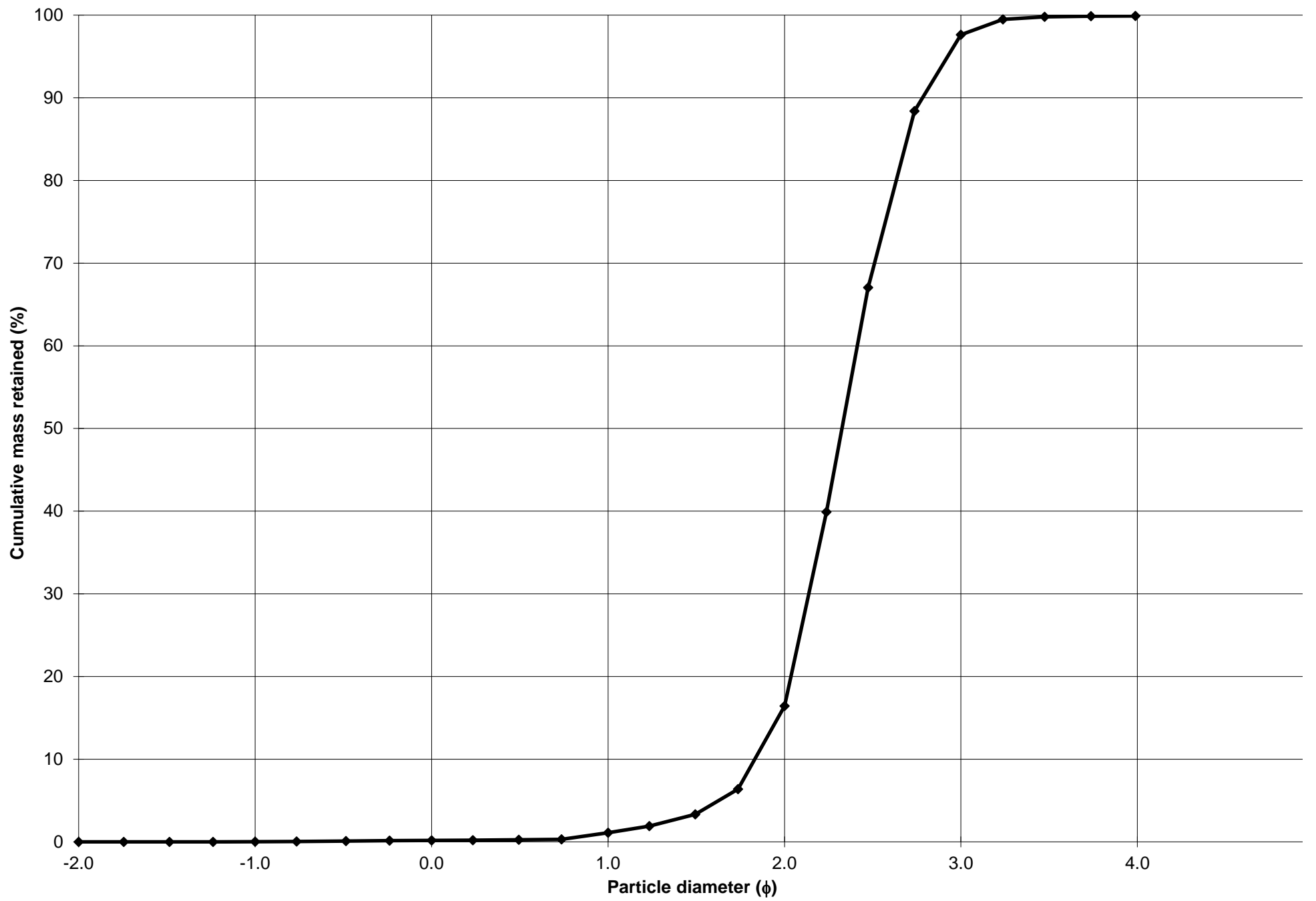
Cumulative Frequency Curve



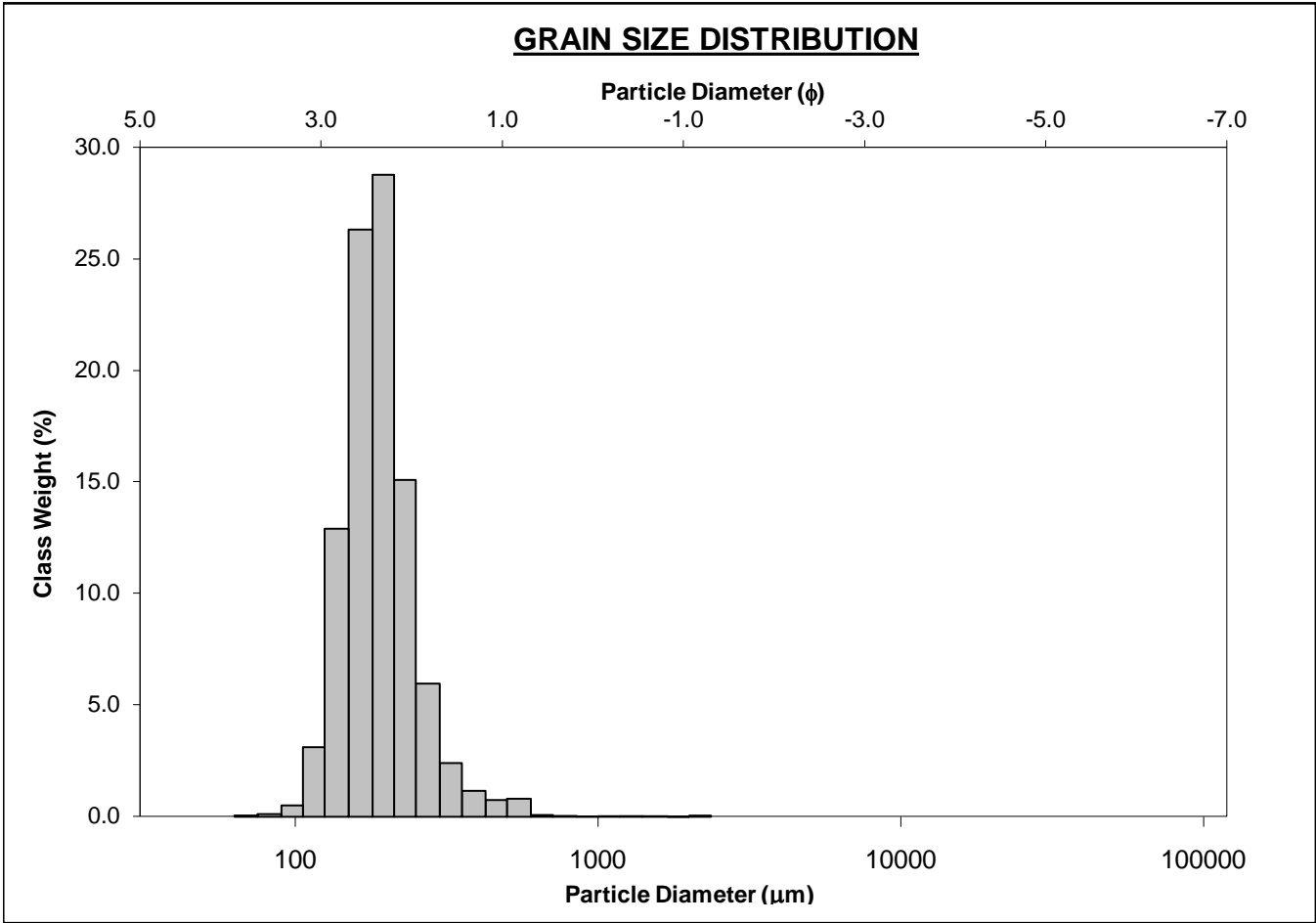
SIEVING ERROR: 1.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-220cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 0.9%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 15.3%	
MODE 3:			MUD: 0.1%		FINE SAND: 81.2%	
D ₁₀ :	145.3	1.832			V FINE SAND: 2.3%	
MEDIAN or D ₅₀ :	199.5	2.326	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	280.9	2.783	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.934	1.519	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	135.7	0.951	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.400	1.233	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	67.23	0.485	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	212.8	201.8	2.309	198.5	2.332	Fine Sand
SORTING (σ):	87.76	1.354	0.437	1.293	0.370	Well Sorted
SKEWNESS (Sk):	8.170	-0.262	0.262	0.023	-0.023	Symmetrical
KURTOSIS (K):	132.7	20.33	20.33	1.096	1.096	Mesokurtic



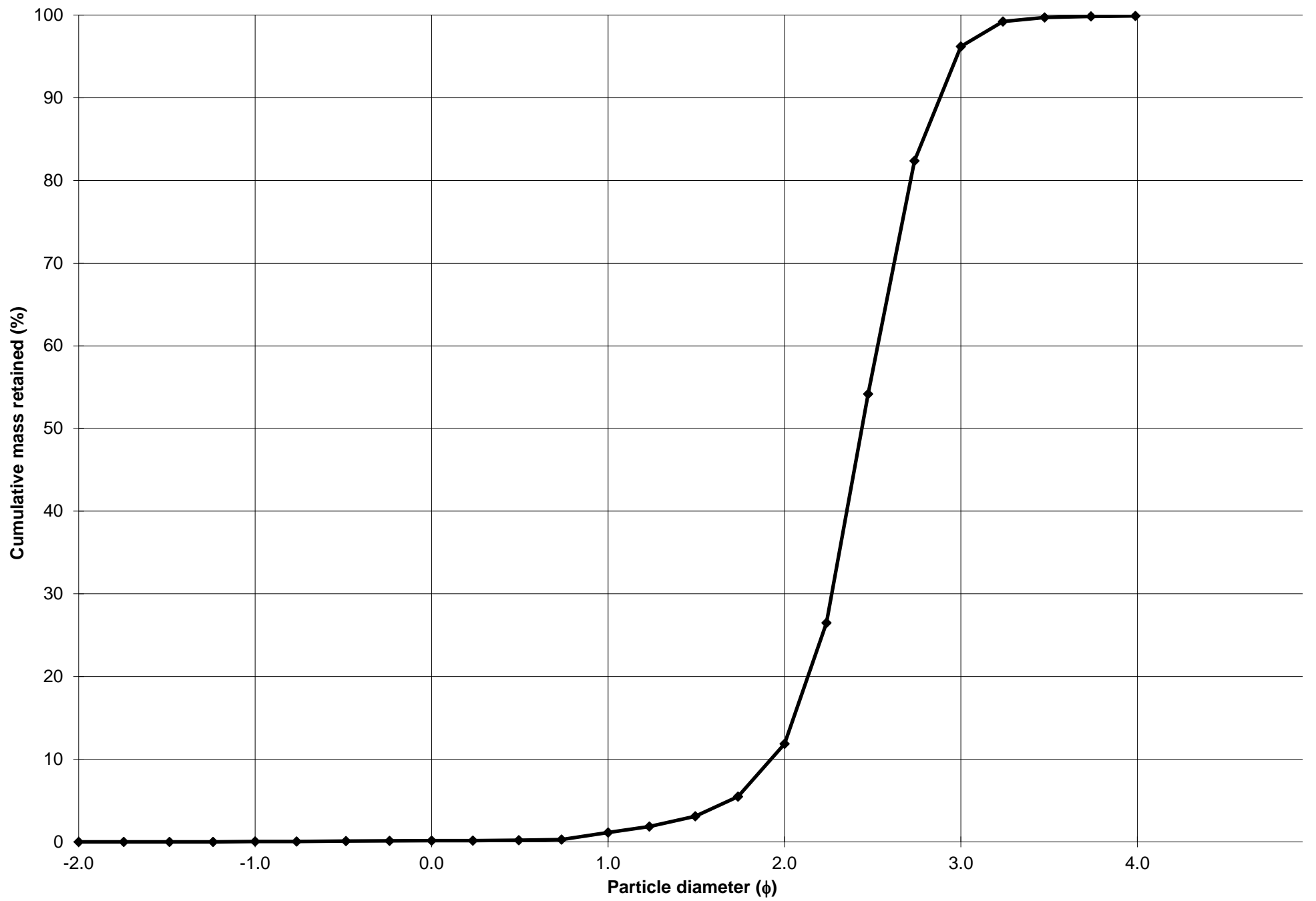
Cumulative Frequency Curve



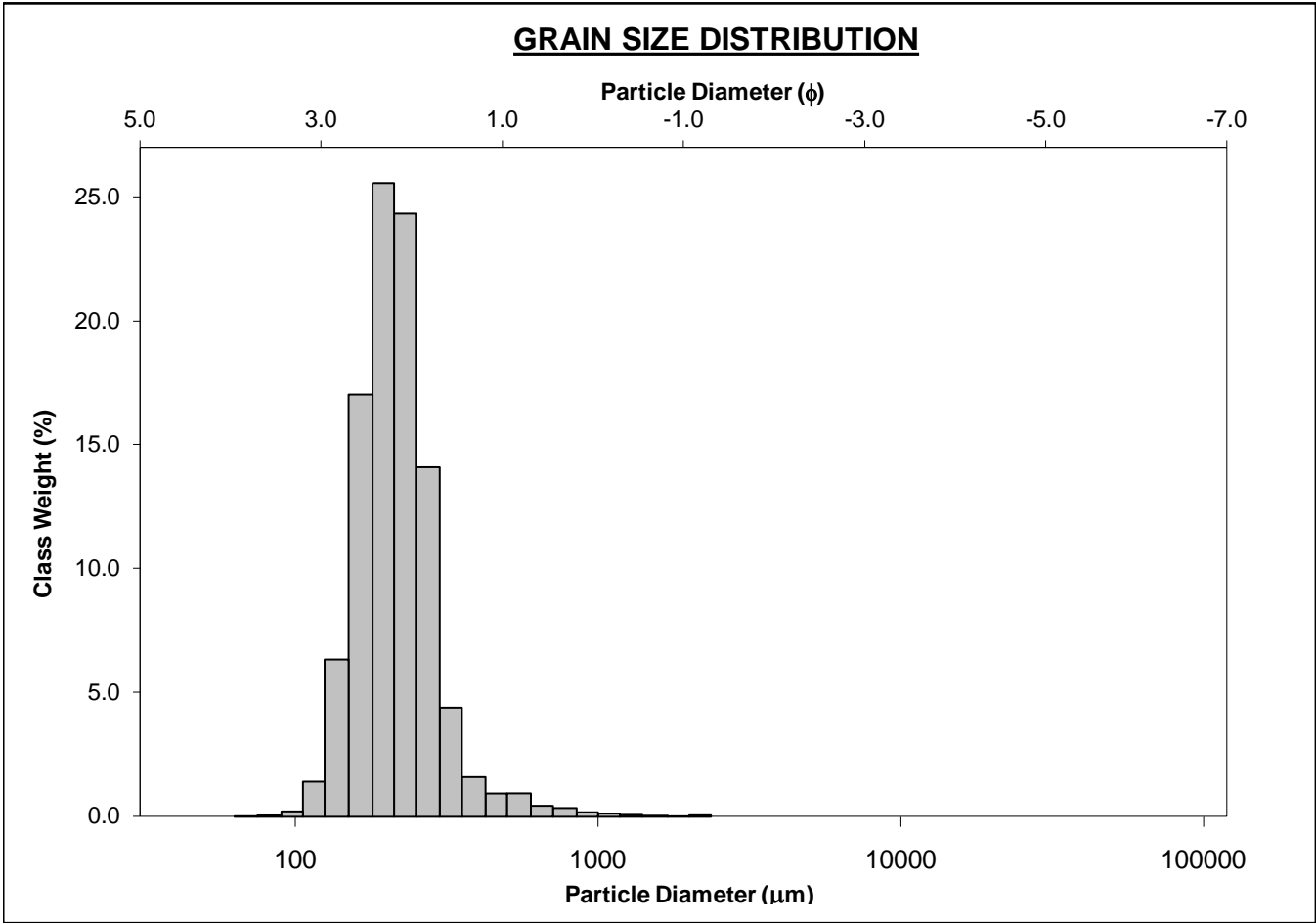
SIEVING ERROR: 1.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-230cm			ANALYST & DATE: Chris, 12/8/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.1%		COARSE SAND: 1.0%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 10.7%	
MODE 3:			MUD: 0.1%		FINE SAND: 84.3%	
D ₁₀ :	135.7	1.923			V FINE SAND: 3.7%	
MEDIAN or D ₅₀ :	184.5	2.438	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	263.6	2.882	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.944	1.498	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	128.0	0.959	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.370	1.205	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	58.28	0.455	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	199.3	188.4	2.408	186.3	2.425	Fine Sand
SORTING (σ):	87.58	1.357	0.440	1.293	0.370	Well Sorted
SKEWNESS (Sk):	9.324	0.150	-0.150	0.111	-0.111	Coarse Skewed
KURTOSIS (K):	171.6	18.53	18.53	1.161	1.161	Leptokurtic



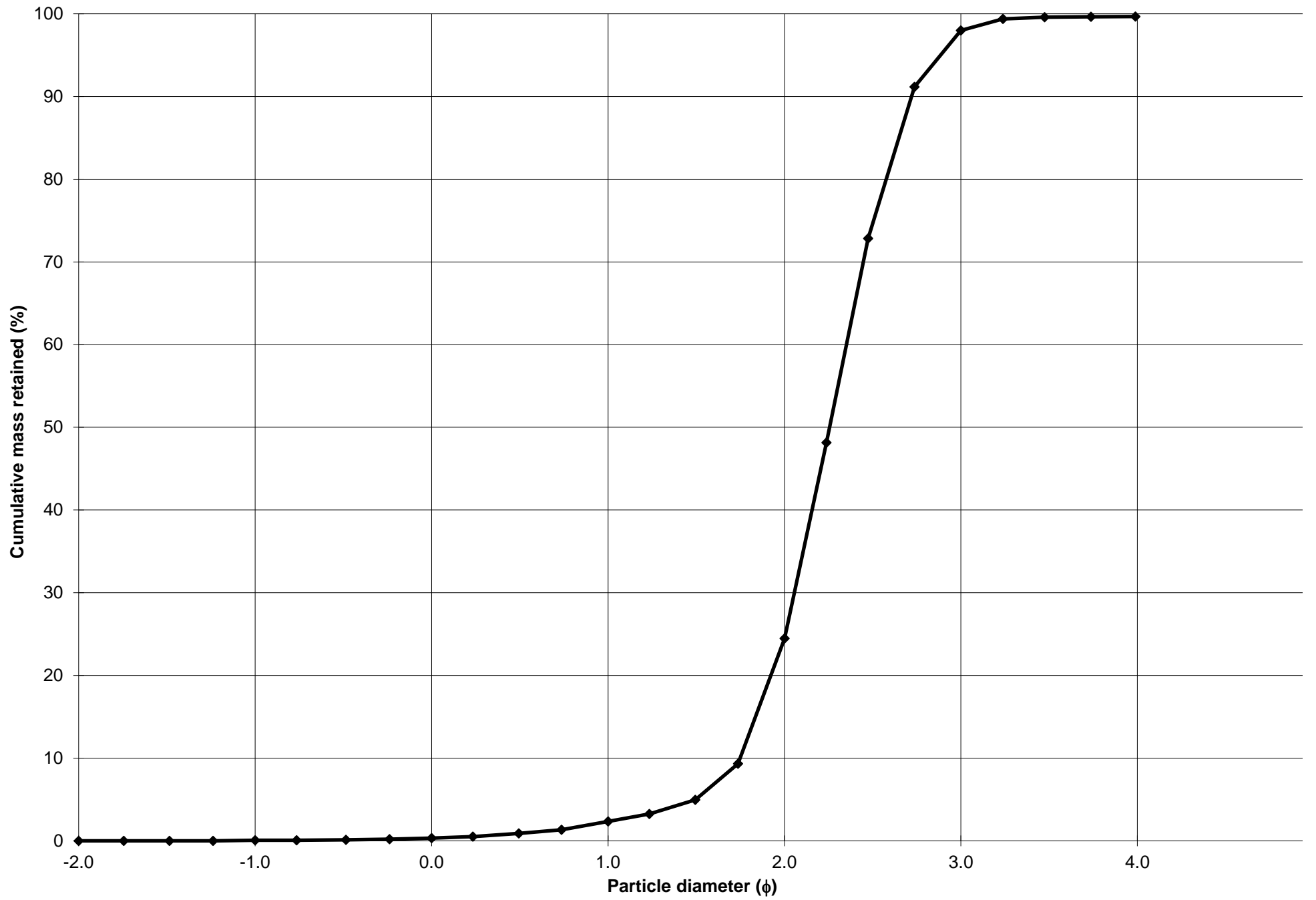
Cumulative Frequency Curve



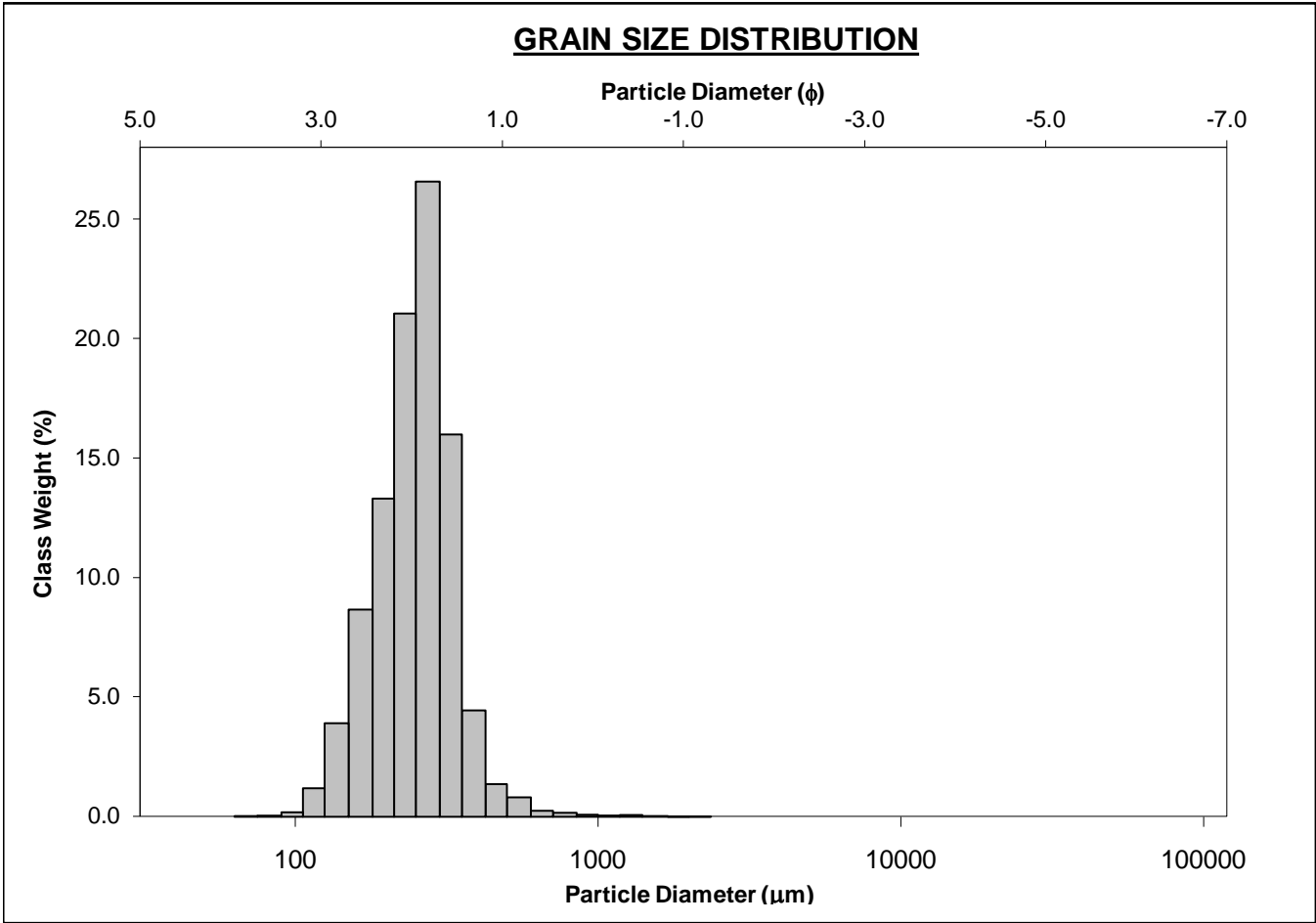
SIEVING ERROR: 2.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-240cm			ANALYST & DATE: Chris, 12/8/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.1%		COARSE SAND: 2.0%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 22.1%	
MODE 3:			MUD: 0.3%		FINE SAND: 73.5%	
D ₁₀ :	151.8	1.749			V FINE SAND: 1.7%	
MEDIAN or D ₅₀ :	209.4	2.255	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	297.5	2.720	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	1.961	1.555	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	145.8	0.971	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.414	1.249	V FINE GRAVEL: 0.1%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	72.92	0.500	V COARSE SAND: 0.3%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	229.4	212.9	2.232	210.6	2.247	Fine Sand
SORTING (σ):	114.0	1.450	0.536	1.325	0.406	Well Sorted
SKEWNESS (Sk):	6.885	-1.316	1.316	0.062	-0.062	Symmetrical
KURTOSIS (K):	85.23	25.57	25.57	1.138	1.138	Leptokurtic



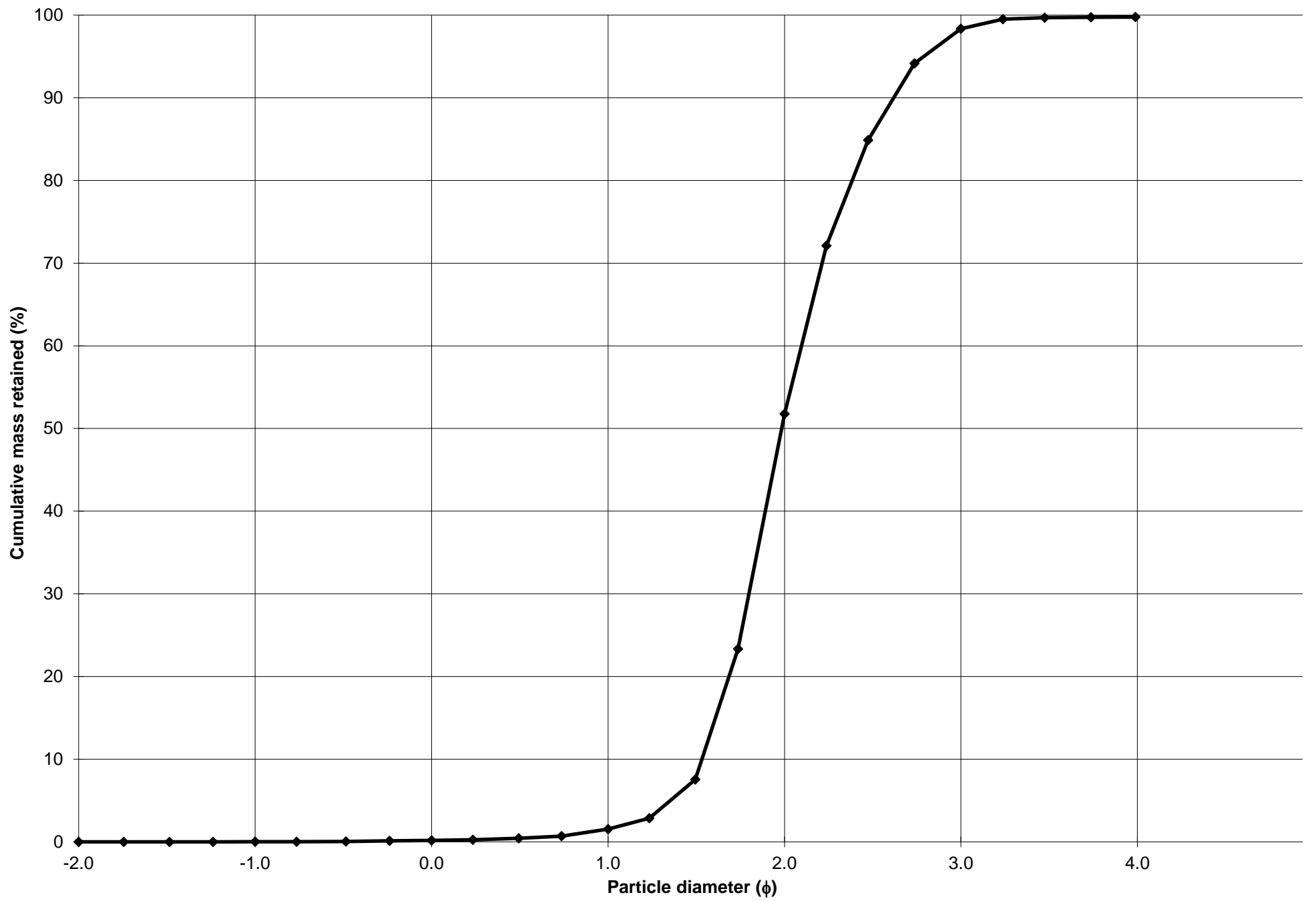
Cumulative Frequency Curve



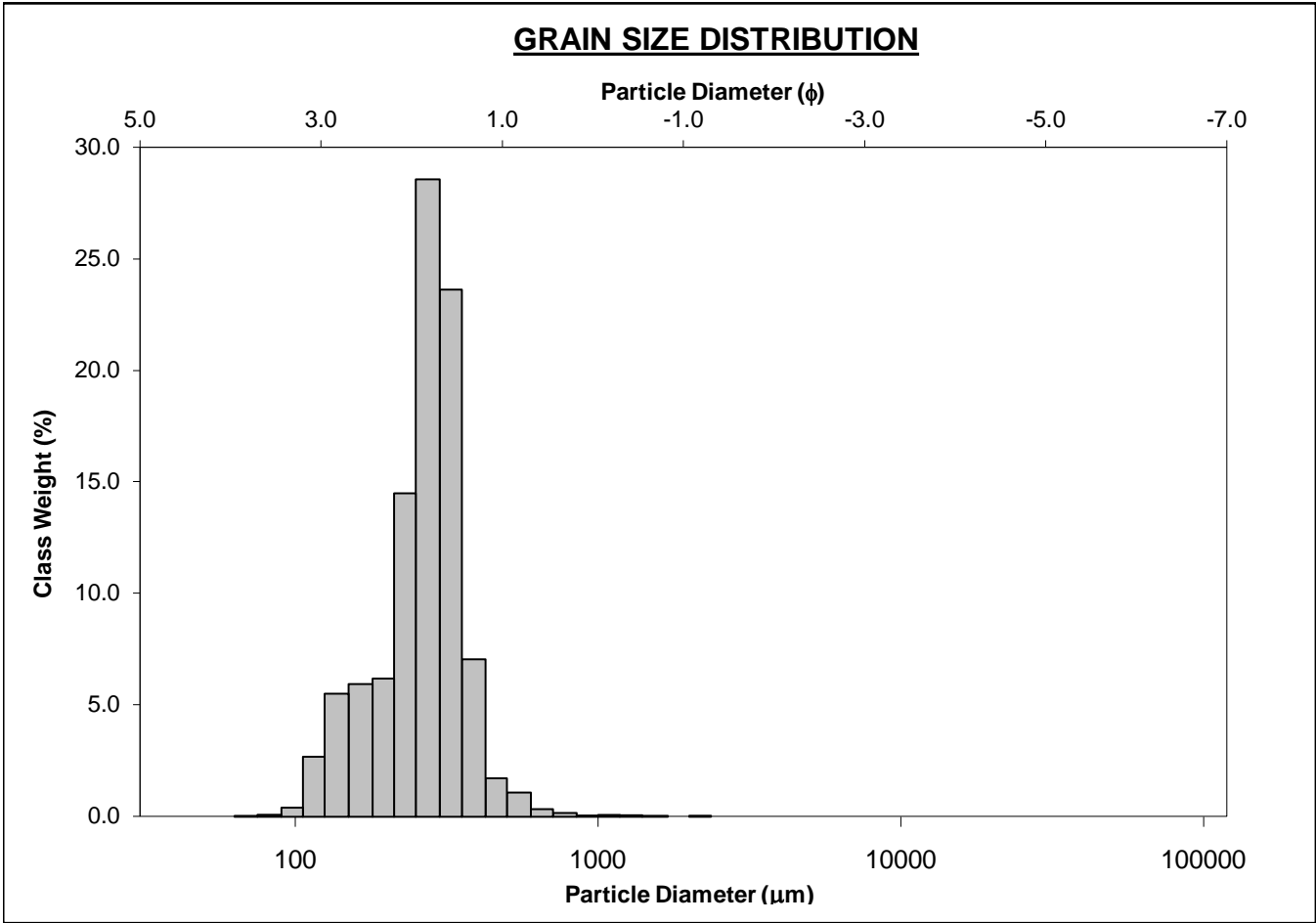
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-250cm			ANALYST & DATE: Chris, 12/8/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.4%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 50.2%	
MODE 3:			MUD: 0.2%		FINE SAND: 46.6%	
D ₁₀ :	162.8	1.532			V FINE SAND: 1.4%	
MEDIAN or D ₅₀ :	252.8	1.984	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	345.9	2.619	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.125	1.710	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	183.1	1.087	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.453	1.308	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	92.52	0.539	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	259.8	245.0	2.029	246.3	2.022	Fine Sand
SORTING (σ):	93.81	1.418	0.504	1.344	0.426	Well Sorted
SKEWNESS (Sk):	4.166	-2.058	2.058	-0.129	0.129	Fine Skewed
KURTOSIS (K):	50.05	25.35	25.35	1.093	1.093	Mesokurtic



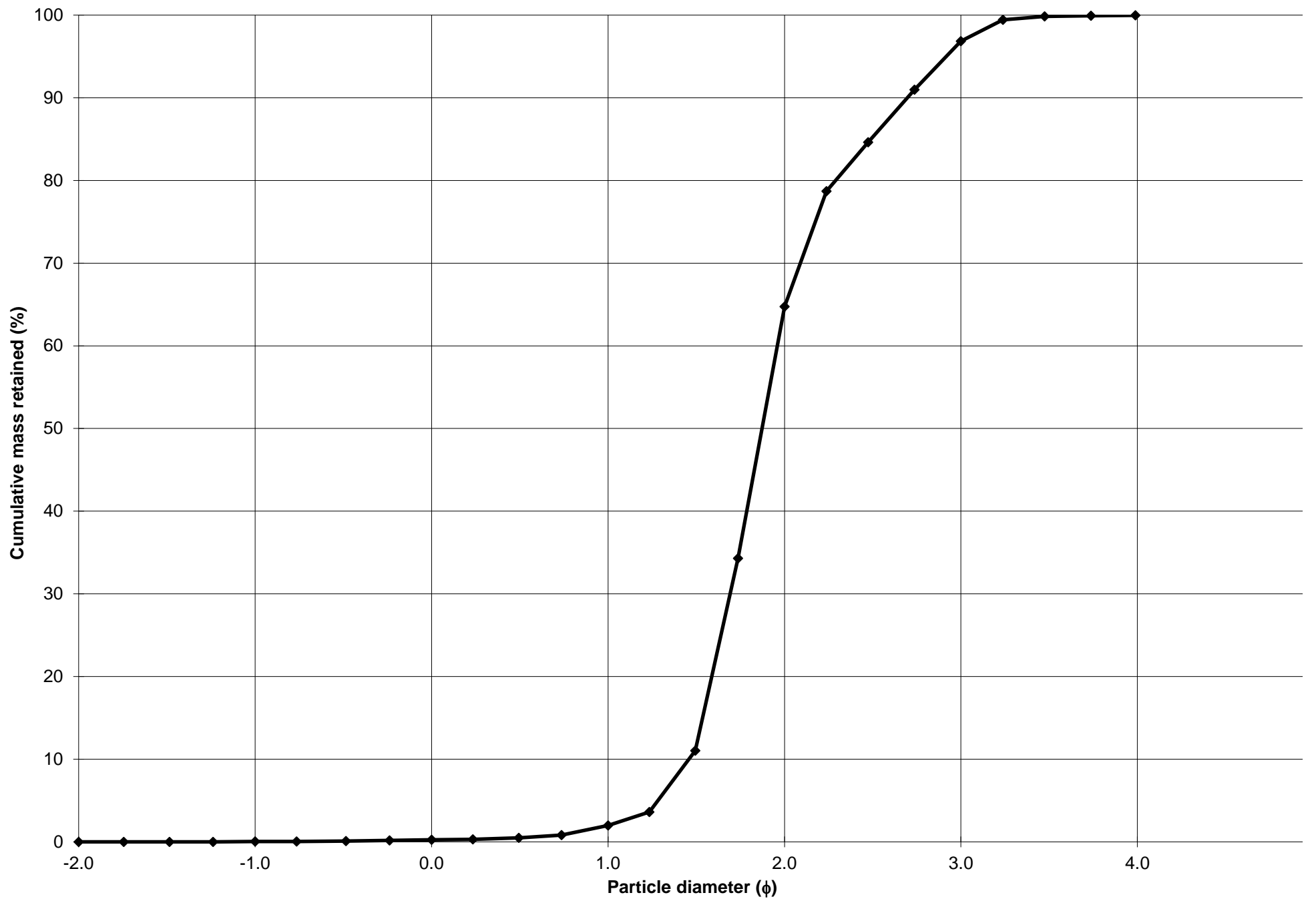
Cumulative Frequency Curve



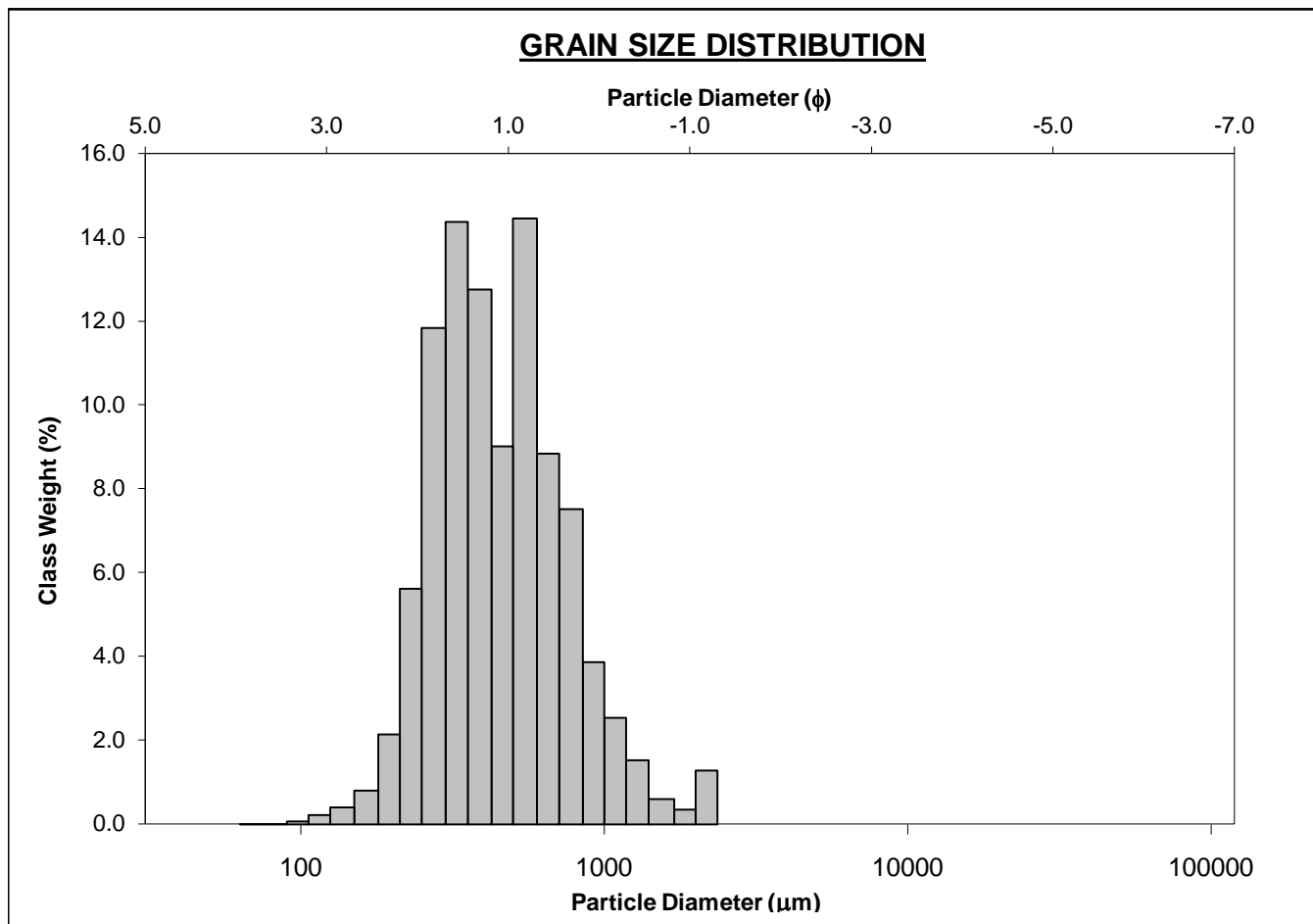
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-260cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%	COARSE SAND: 1.7%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 62.8%		
MODE 3:			MUD: 0.0%	FINE SAND: 32.1%		
D ₁₀ :	154.2	1.458		V FINE SAND: 3.1%		
MEDIAN or D ₅₀ :	273.1	1.873	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	364.1	2.697	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.360	1.850	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	209.8	1.239	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.449	1.326	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	99.39	0.535	V COARSE SAND: 0.2%	CLAY: 0.0%		
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	276.4	259.5	1.946	257.8	1.956	Medium Sand
SORTING (σ):	106.5	1.415	0.500	1.388	0.473	Well Sorted
SKEWNESS (Sk):	4.939	-0.487	0.487	-0.277	0.277	Fine Skewed
KURTOSIS (K):	68.96	7.462	7.462	1.252	1.252	Leptokurtic



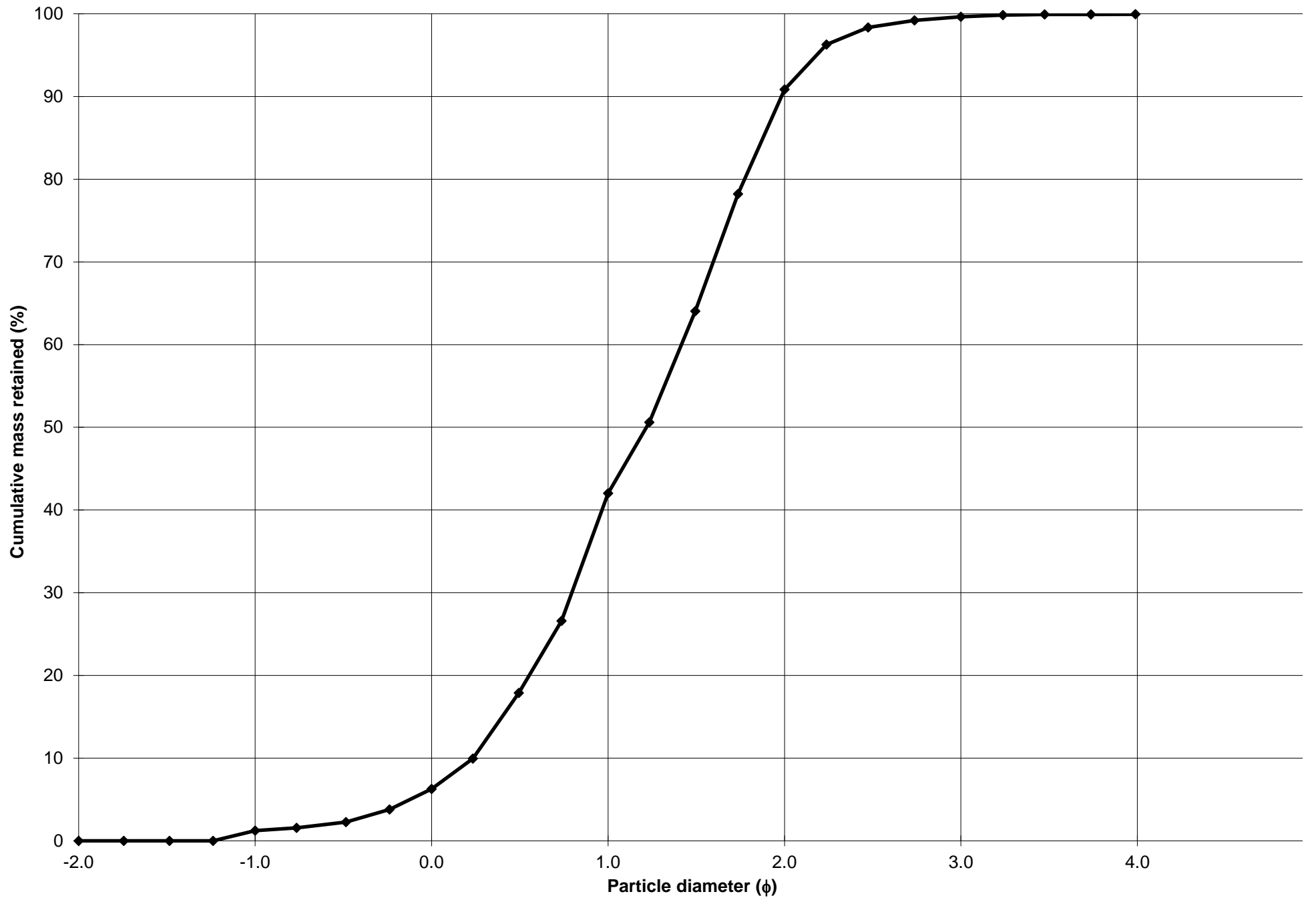
Cumulative Frequency Curve



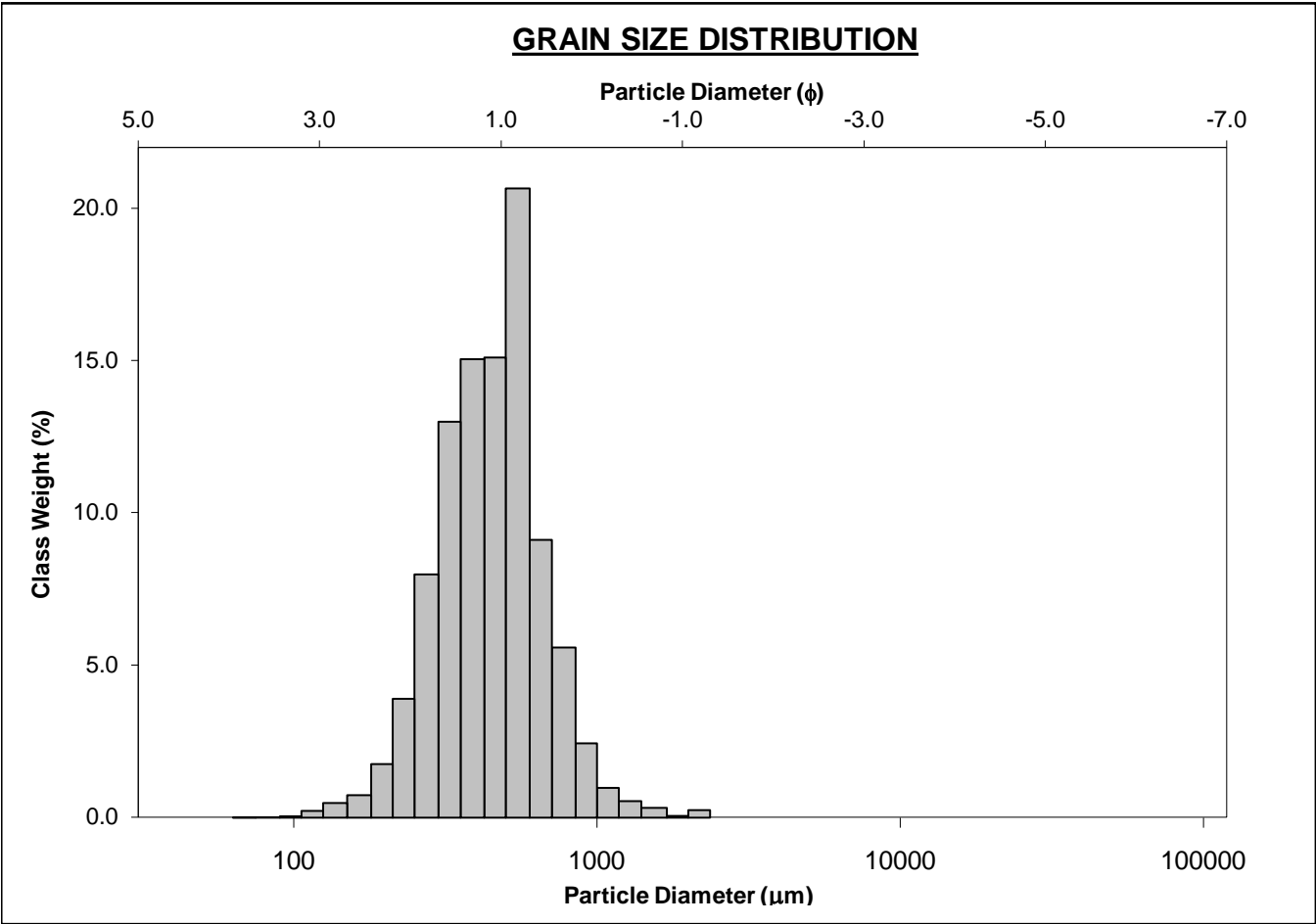
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-270cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 1.2%		COARSE SAND: 35.8%	
MODE 2:	327.5	1.616	SAND: 98.7%		MEDIUM SAND: 48.8%	
MODE 3:			MUD: 0.1%		FINE SAND: 8.8%	
D_{10} :	253.1	0.236			V FINE SAND: 0.3%	
MEDIAN or D_{50} :	429.9	1.218	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	849.0	1.982	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	3.354	8.393	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	595.9	1.746	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.985	2.428	V FINE GRAVEL: 1.2%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	307.0	0.989	V COARSE SAND: 5.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	520.7	451.3	1.148	444.6	1.169	Medium Sand
SORTING (σ):	319.7	1.671	0.741	1.630	0.705	Moderately Sorted
SKEWNESS (Sk):	2.499	0.141	-0.141	0.133	-0.133	Coarse Skewed
KURTOSIS (K):	11.83	5.624	5.624	0.955	0.955	Mesokurtic



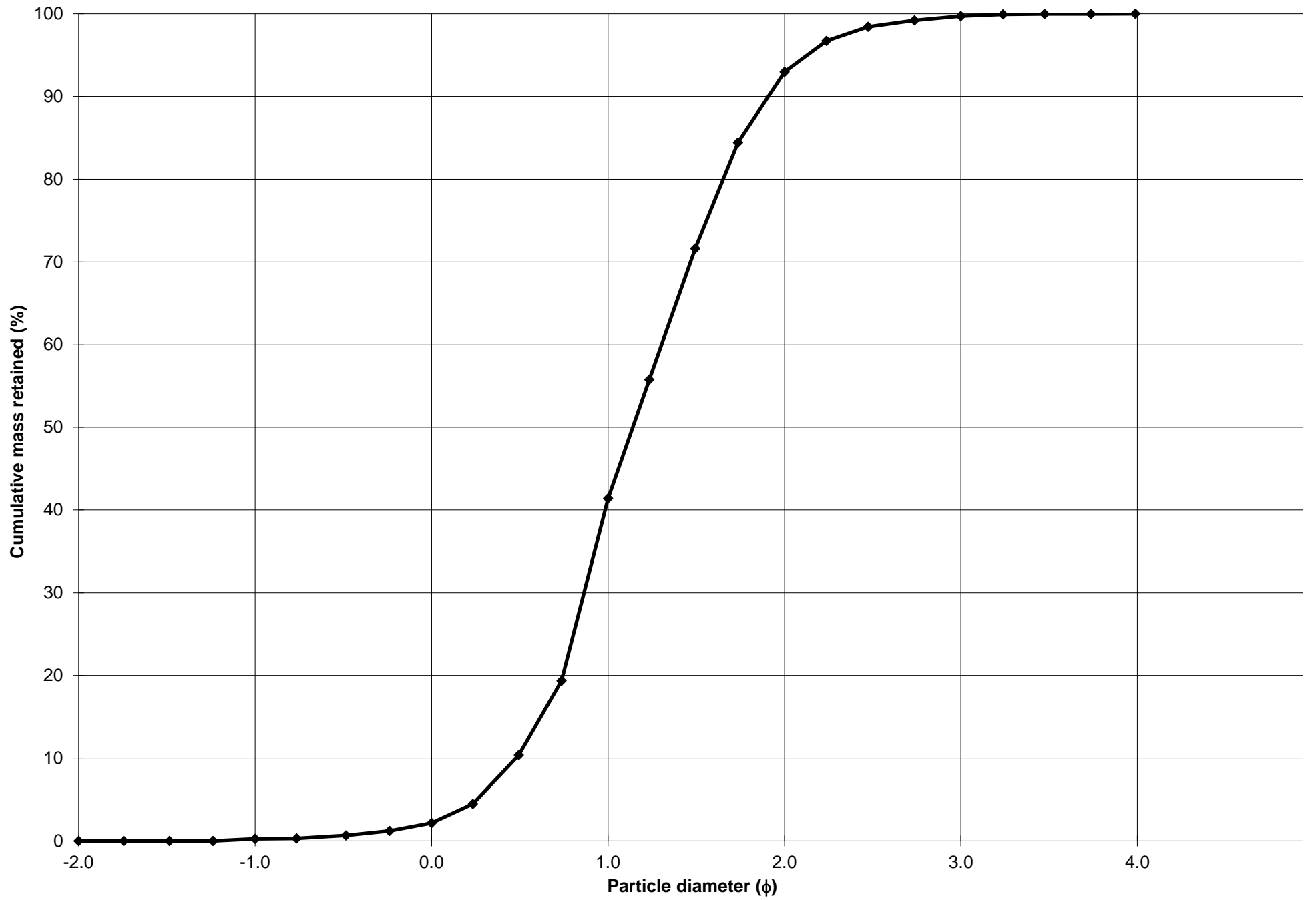
Cumulative Frequency Curve



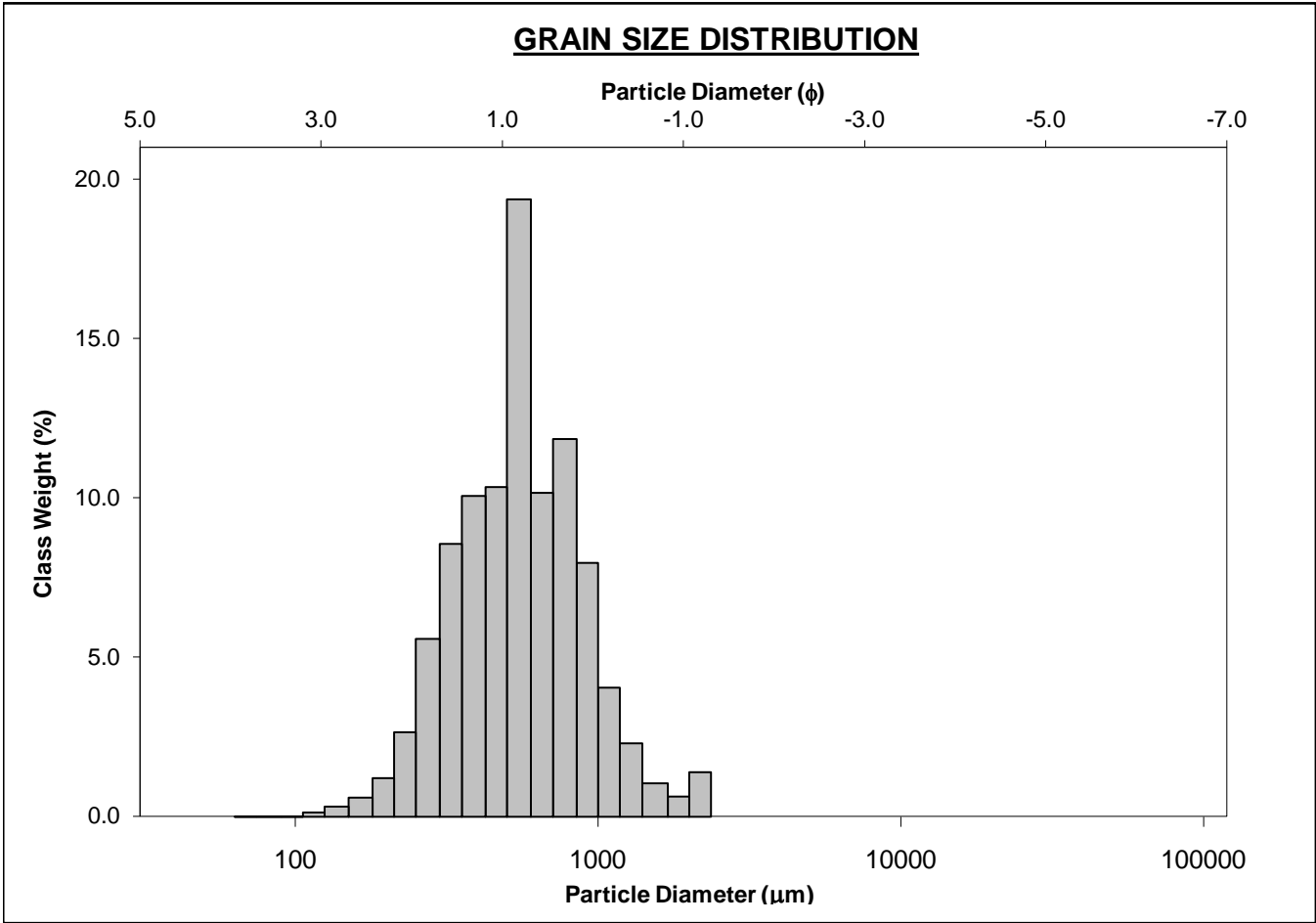
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-280cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 0.2%		COARSE SAND: 39.2%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 51.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 6.8%	
D ₁₀ :	266.3	0.478			V FINE SAND: 0.3%	
MEDIAN or D ₅₀ :	453.6	1.140	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	717.9	1.909	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.695	3.991	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	451.5	1.430	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.686	1.937	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	233.0	0.754	V COARSE SAND: 1.9%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	484.8	444.5	1.170	443.9	1.172	Medium Sand
SORTING (σ):	215.2	1.501	0.586	1.468	0.554	Moderately Well Sorted
SKEWNESS (Sk):	2.345	-0.085	0.085	-0.072	0.072	Symmetrical
KURTOSIS (K):	14.98	4.630	4.630	1.018	1.018	Mesokurtic



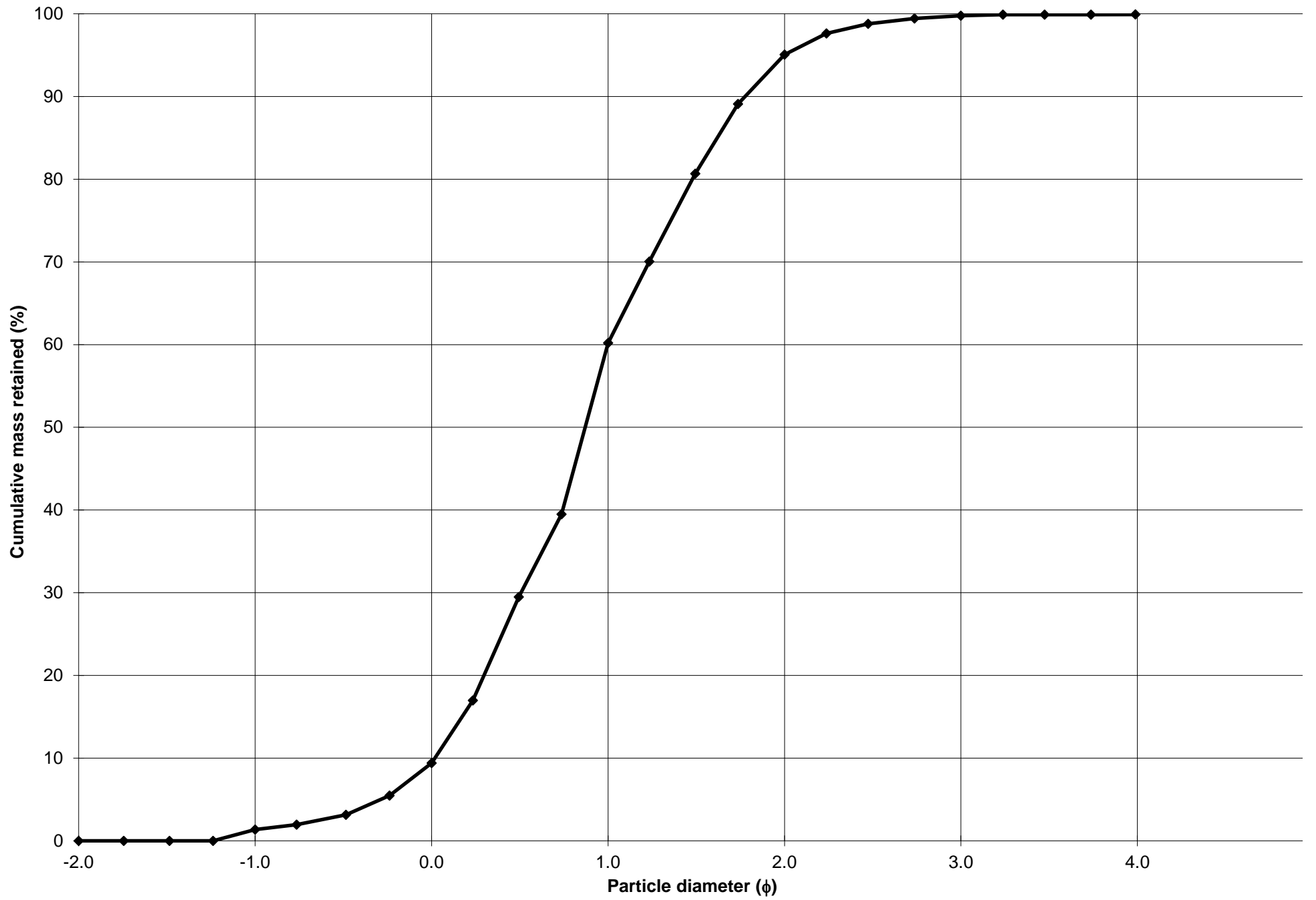
Cumulative Frequency Curve



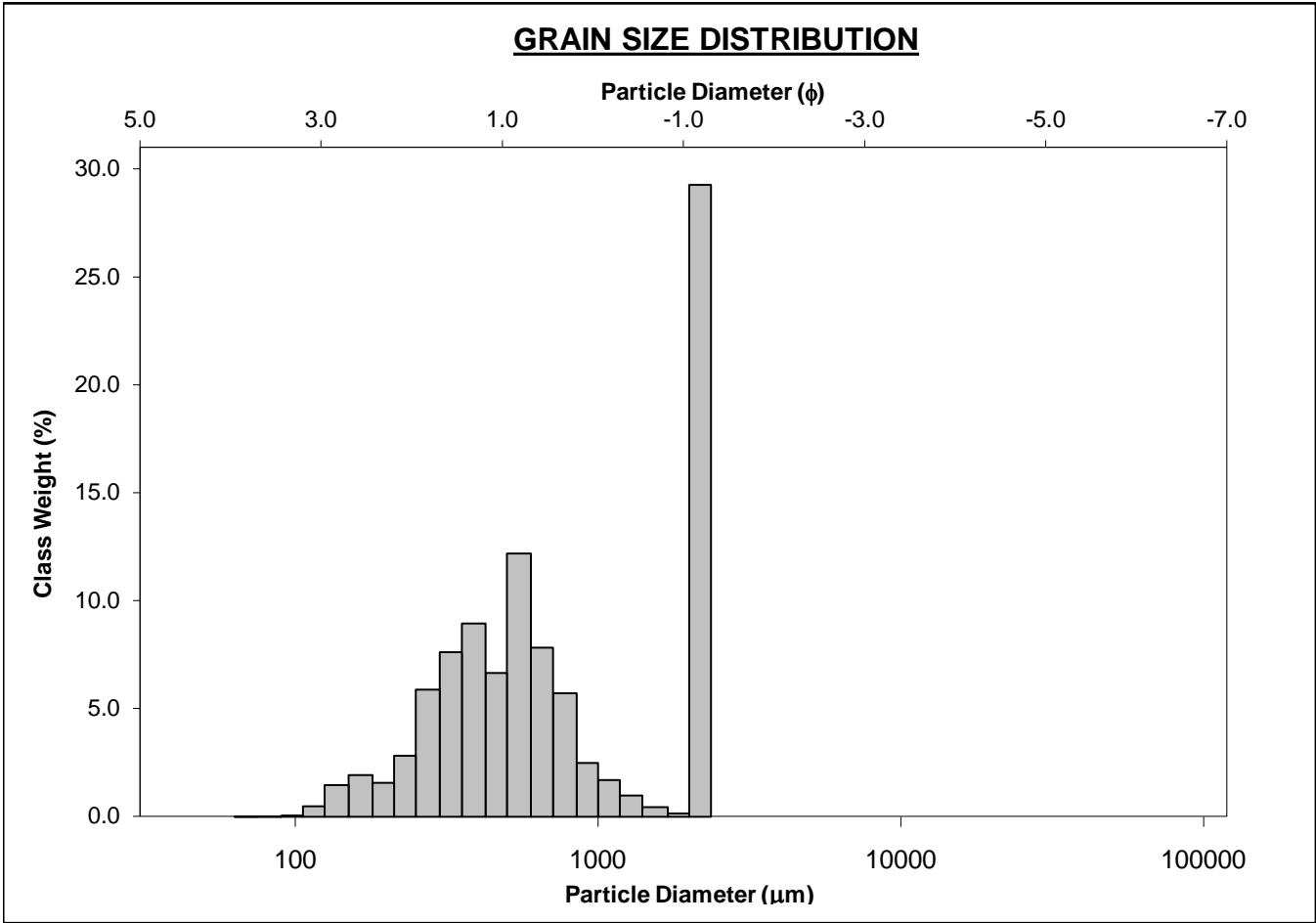
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-290cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Coarse Sand						
	μm	φ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 1.4%		COARSE SAND: 50.8%	
MODE 2:	780.0	0.364	SAND: 98.6%		MEDIUM SAND: 34.9%	
MODE 3:			MUD: 0.1%		FINE SAND: 4.7%	
D ₁₀ :	291.9	0.019			V FINE SAND: 0.1%	
MEDIAN or D ₅₀ :	547.0	0.870	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	987.1	1.777	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.382	94.70	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	695.2	1.758	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.938	3.380	V FINE GRAVEL: 1.4%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	366.5	0.955	V COARSE SAND: 8.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	φ	μm	φ	
MEAN (\bar{x}):	619.9	544.8	0.876	540.2	0.888	Coarse Sand
SORTING (σ):	337.7	1.658	0.729	1.616	0.693	Moderately Well Sorted
SKEWNESS (Sk):	1.974	-0.411	0.411	-0.012	0.012	Symmetrical
KURTOSIS (K):	8.754	7.331	7.331	0.981	0.981	Mesokurtic



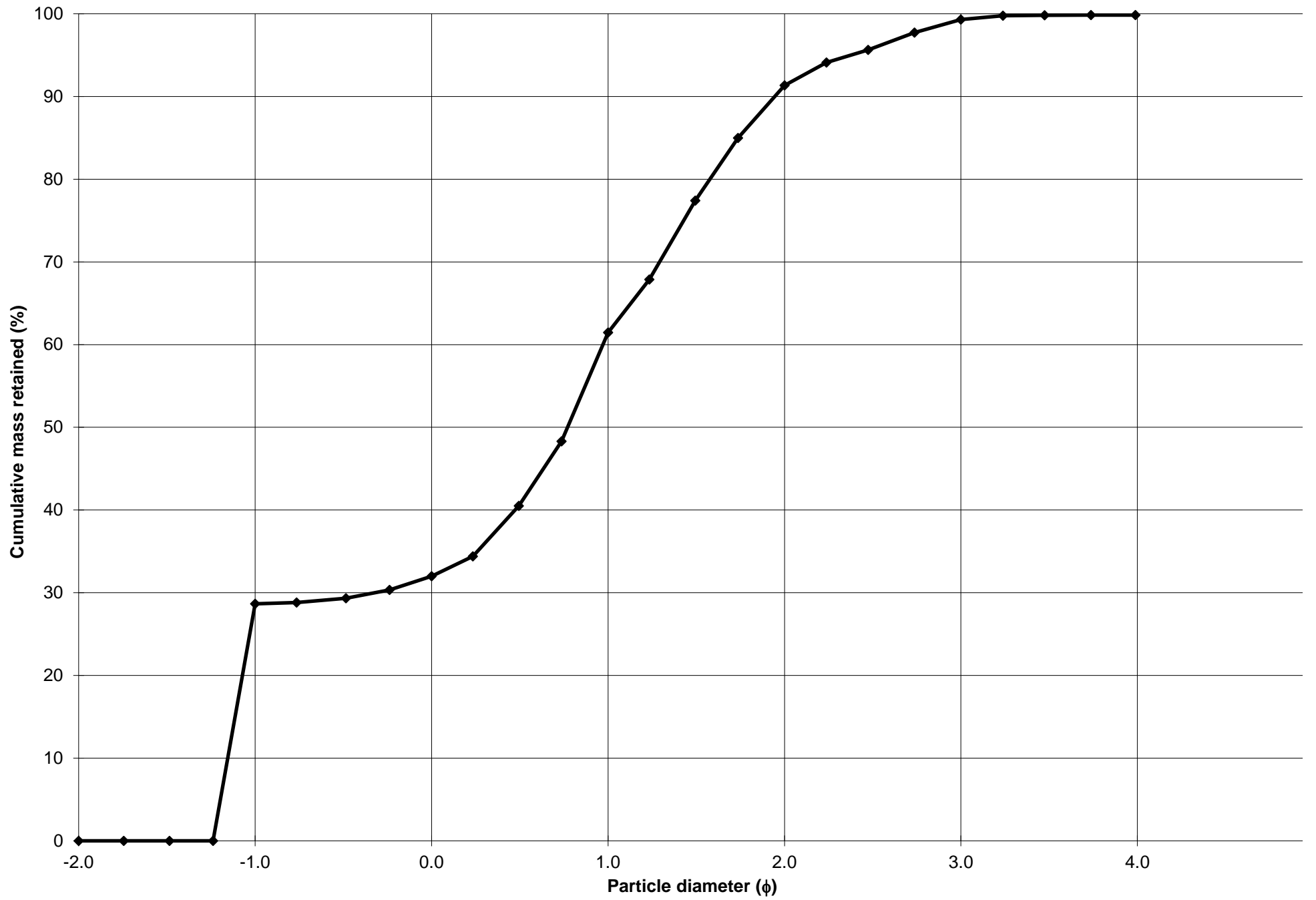
Cumulative Frequency Curve



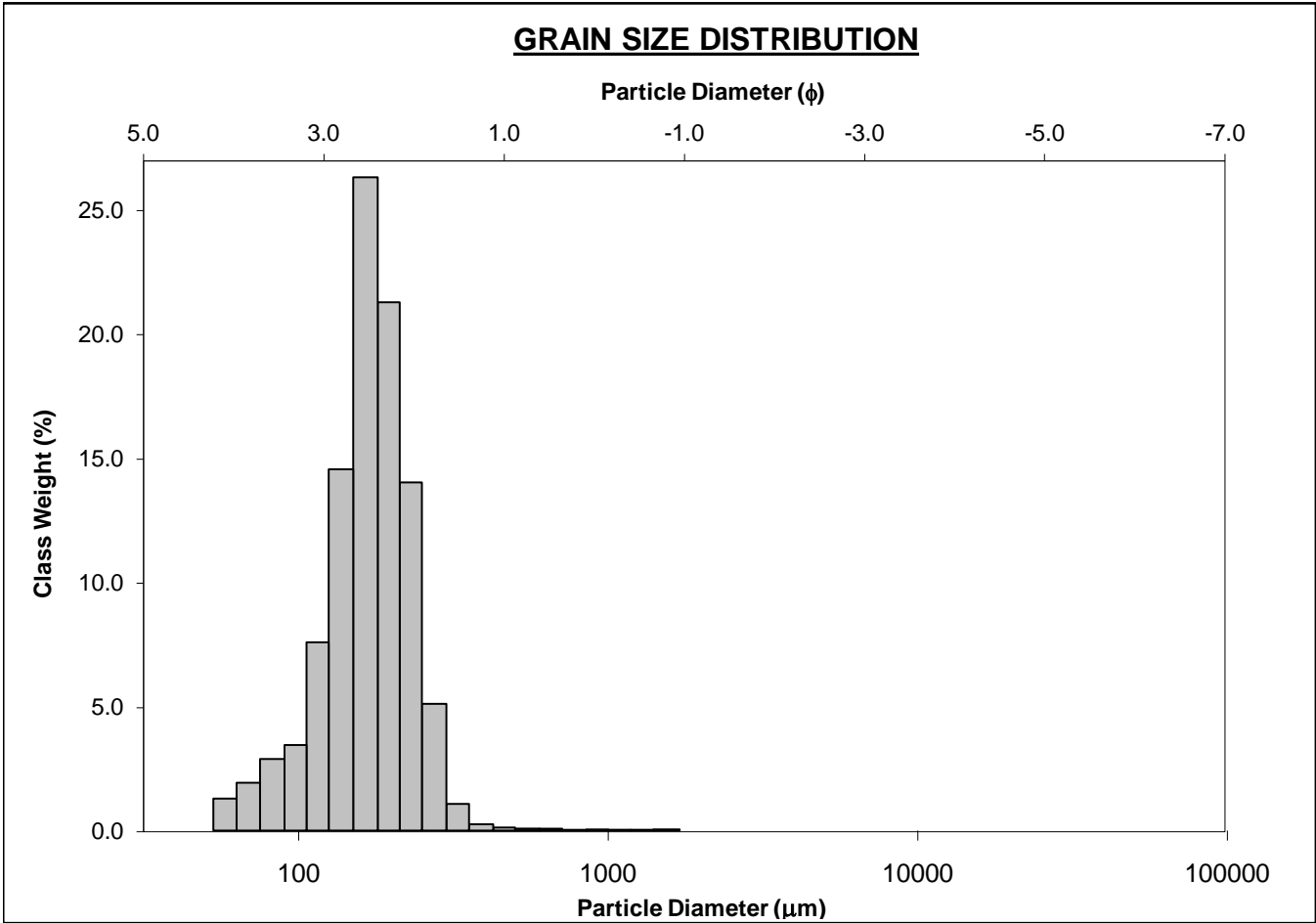
SIEVING ERROR: 1.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-03-298cm			ANALYST & DATE: Chris, 11/30/14			
SAMPLE TYPE: Trimodal, Poorly Sorted			TEXTURAL GROUP: Gravelly Sand			
SEDIMENT NAME: Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	2180.0	-1.119	GRAVEL: 28.7%		COARSE SAND: 29.5%	
MODE 2:	550.0	0.868	SAND: 71.2%		MEDIUM SAND: 29.9%	
MODE 3:	390.0	1.364	MUD: 0.2%		FINE SAND: 8.0%	
D ₁₀ :	259.8	-1.156			V FINE SAND: 0.5%	
MEDIAN or D ₅₀ :	586.0	0.771	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	2227.6	1.944	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	8.573	-1.683	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	1967.8	3.100	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	5.500	-1.386	V FINE GRAVEL: 28.7%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	1671.4	2.459	V COARSE SAND: 3.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	984.8	696.6	0.522	728.5	0.457	Coarse Sand
SORTING (σ):	788.4	2.349	1.232	2.369	1.244	Poorly Sorted
SKEWNESS (Sk):	0.732	-0.088	0.088	0.218	-0.218	Coarse Skewed
KURTOSIS (K):	1.750	2.917	2.917	0.595	0.595	Very Platykurtic



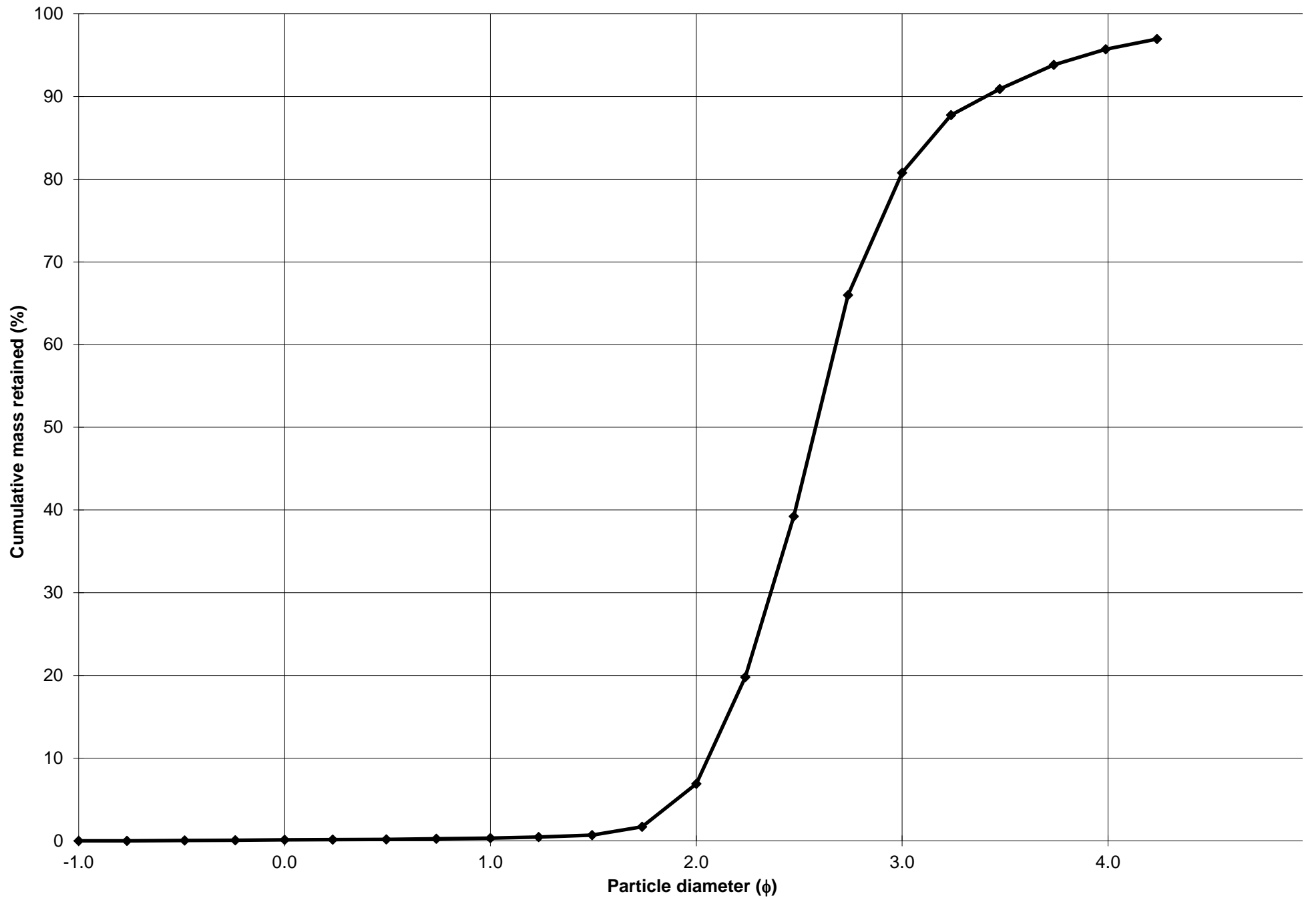
Cumulative Frequency Curve



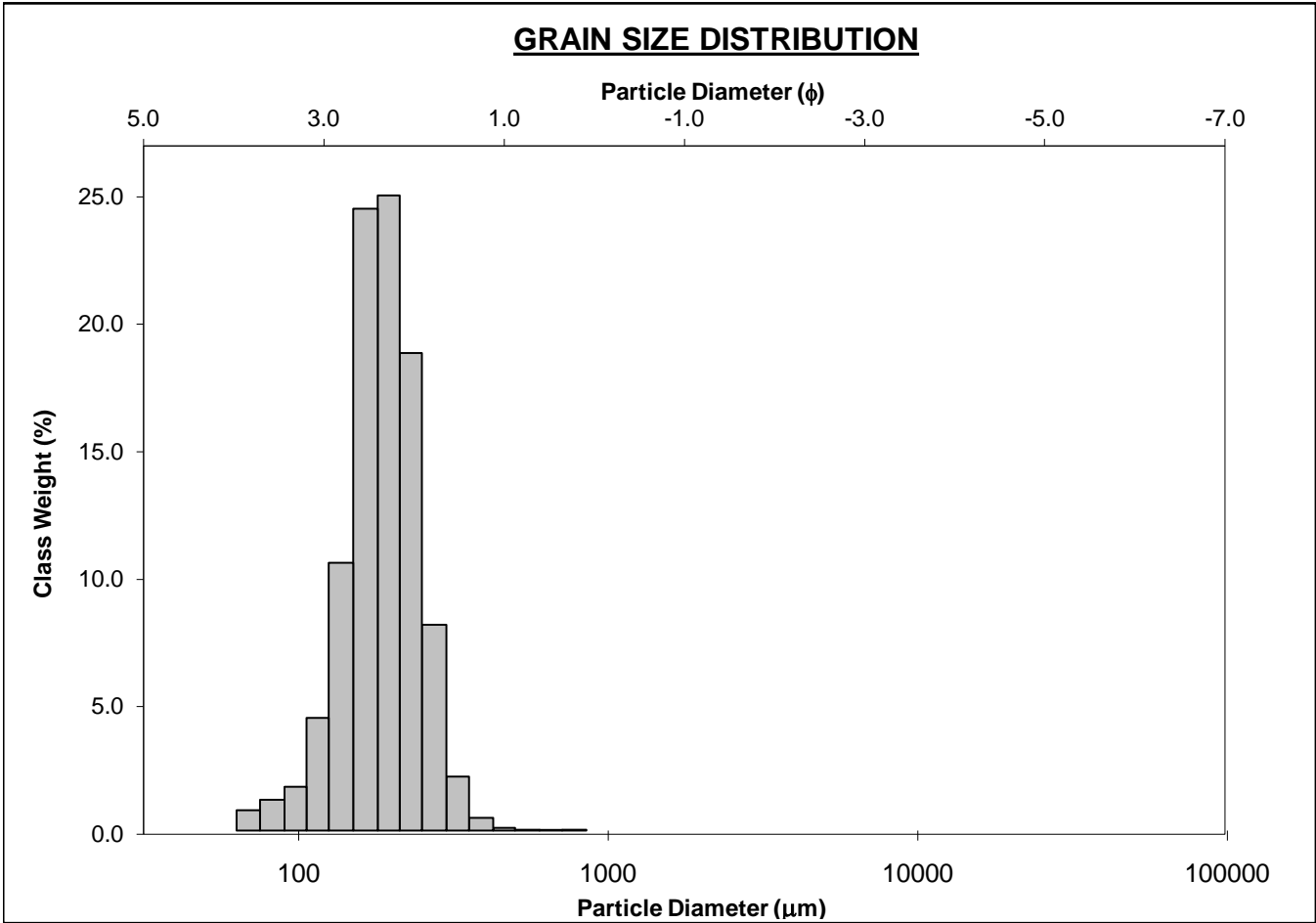
SIEVING ERROR: 1.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-15cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.2%	
MODE 2:			SAND: 95.8%		MEDIUM SAND: 6.6%	
MODE 3:			MUD: 4.2%		FINE SAND: 73.9%	
D ₁₀ :	94.31	2.057			V FINE SAND: 15.0%	
MEDIAN or D ₅₀ :	167.3	2.580	V COARSE GRAVEL: 0.0%		V COARSE SILT: 1.6%	
D ₉₀ :	240.3	3.406	COARSE GRAVEL: 0.0%		COARSE SILT: 0.5%	
(D ₉₀ / D ₁₀):	2.548	1.656	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.5%	
(D ₉₀ - D ₁₀):	146.0	1.349	FINE GRAVEL: 0.0%		FINE SILT: 0.5%	
(D ₇₅ / D ₂₅):	1.512	1.259	V FINE GRAVEL: 0.0%		V FINE SILT: 0.5%	
(D ₇₅ - D ₂₅):	68.68	0.596	V COARSE SAND: 0.1%		CLAY: 0.5%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	170.9	149.6	2.741	162.8	2.619	Fine Sand
SORTING (σ):	74.98	1.890	0.919	1.451	0.537	Moderately Well Sorted
SKEWNESS (Sk):	5.630	-3.210	3.210	-0.223	0.223	Fine Skewed
KURTOSIS (K):	89.09	16.24	16.24	1.368	1.368	Leptokurtic



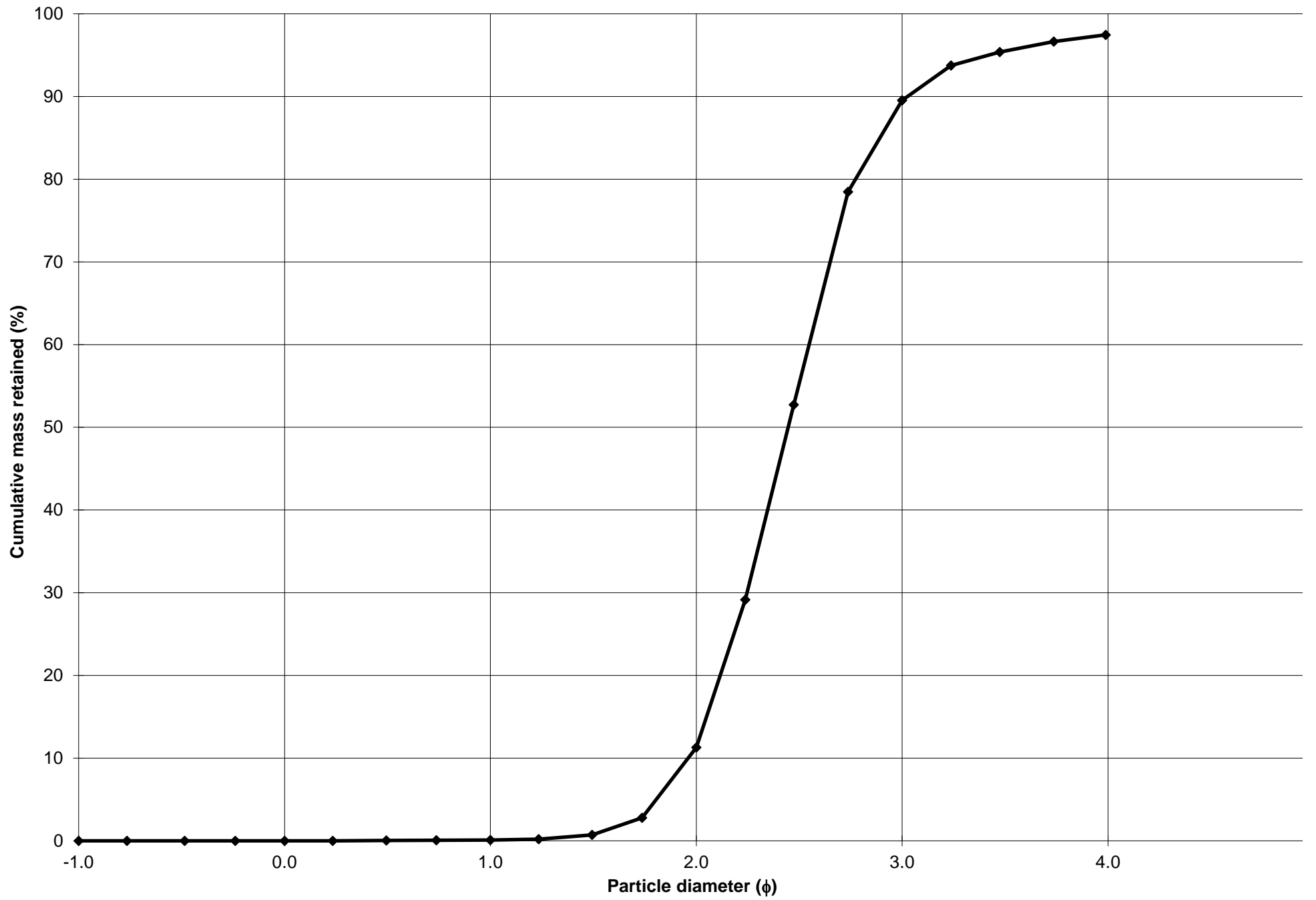
Cumulative Frequency Curve



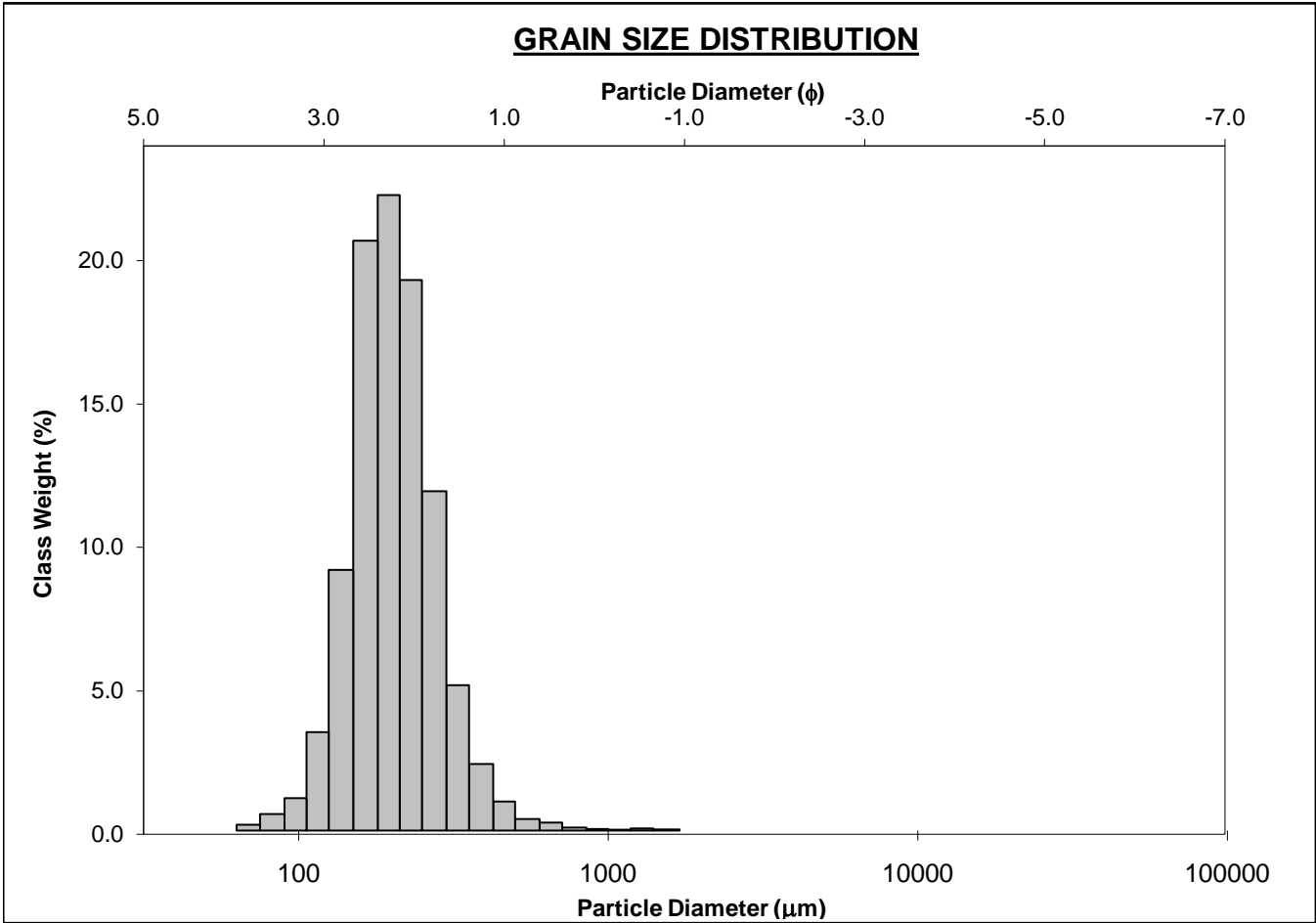
SIEVING ERROR: 1.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-20cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 0.1%		
MODE 2:			SAND: 97.5%	MEDIUM SAND: 11.2%		
MODE 3:			MUD: 2.5%	FINE SAND: 78.2%		
D ₁₀ :	122.7	1.960		V FINE SAND: 7.9%		
MEDIAN or D ₅₀ :	183.4	2.447	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.4%		
D ₉₀ :	257.0	3.026	COARSE GRAVEL: 0.0%	COARSE SILT: 0.4%		
(D ₉₀ / D ₁₀):	2.094	1.544	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.4%		
(D ₉₀ - D ₁₀):	134.2	1.066	FINE GRAVEL: 0.0%	FINE SILT: 0.4%		
(D ₇₅ / D ₂₅):	1.433	1.238	V FINE GRAVEL: 0.0%	V FINE SILT: 0.4%		
(D ₇₅ - D ₂₅):	66.56	0.519	V COARSE SAND: 0.0%	CLAY: 0.4%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	187.3	169.1	2.564	181.8	2.459	Fine Sand
SORTING (σ):	59.51	1.771	0.824	1.362	0.446	Well Sorted
SKEWNESS (Sk):	0.654	-3.893	3.893	-0.127	0.127	Fine Skewed
KURTOSIS (K):	8.626	21.50	21.50	1.274	1.274	Leptokurtic



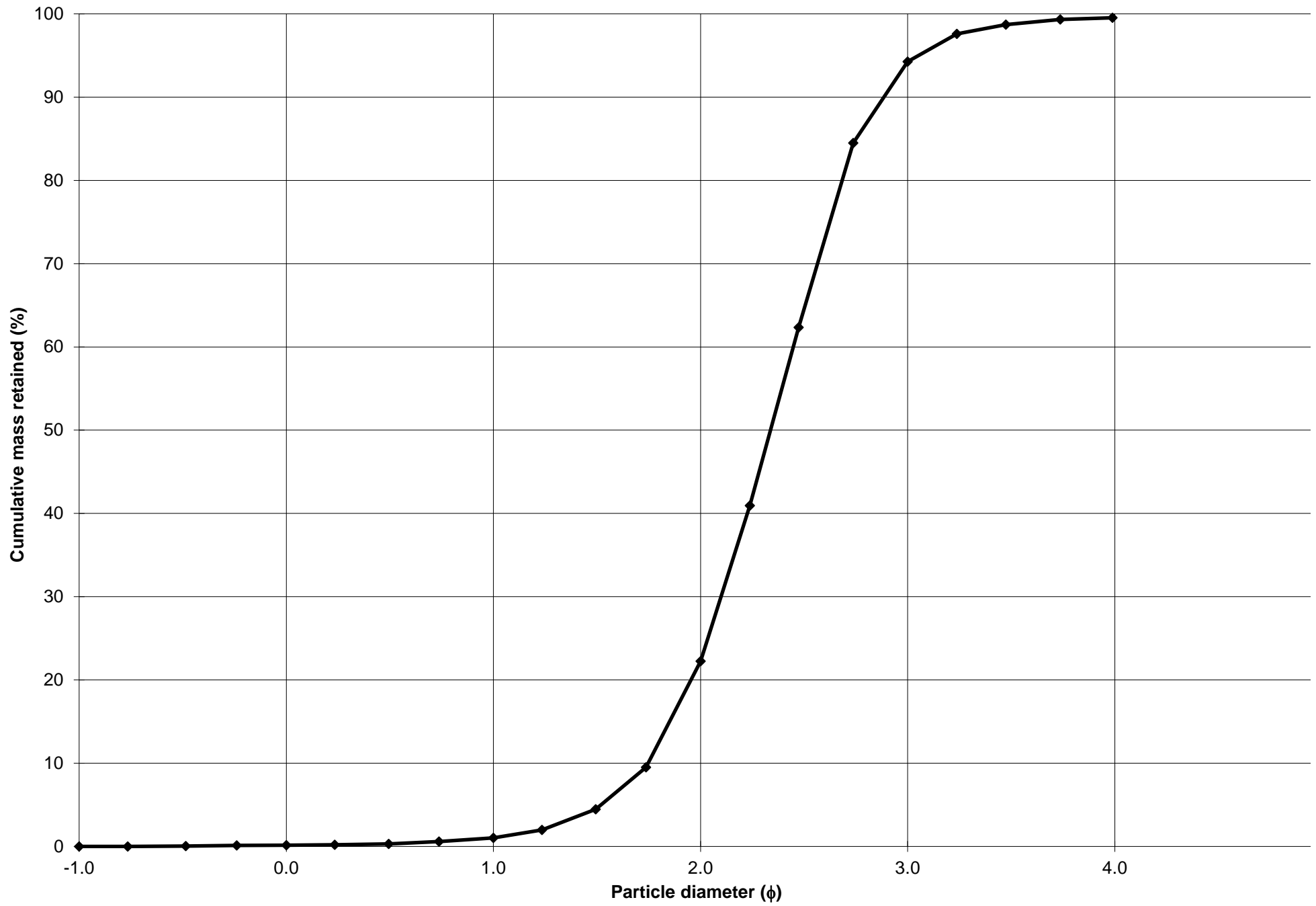
Cumulative Frequency Curve



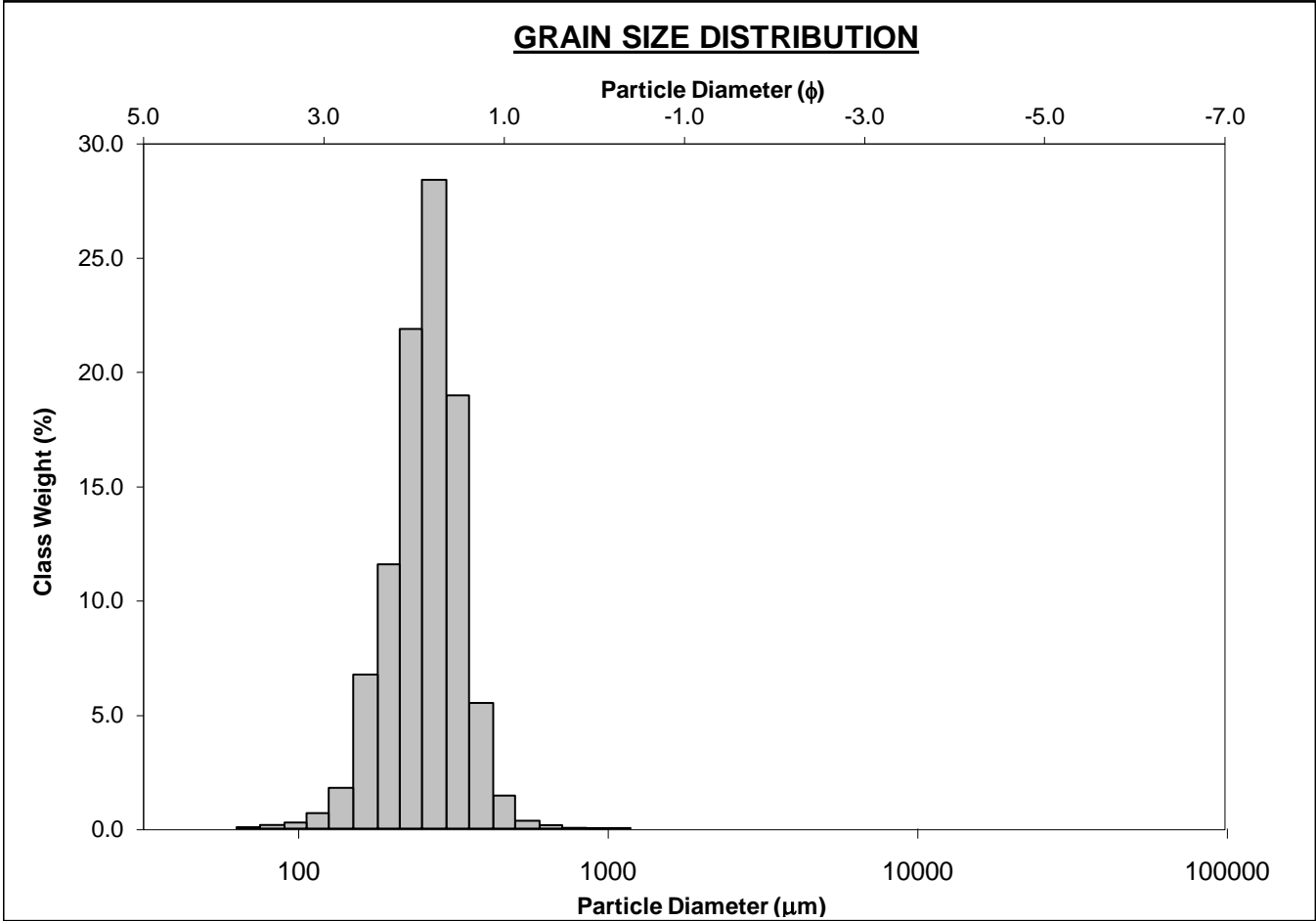
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-40cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 0.9%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 21.2%	
MODE 3:			MUD: 0.5%		FINE SAND: 72.0%	
D ₁₀ :	135.3	1.747			V FINE SAND: 5.3%	
MEDIAN or D ₅₀ :	197.8	2.338	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	297.9	2.885	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.201	1.651	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	162.5	1.138	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.504	1.290	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	81.81	0.589	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	214.0	198.7	2.332	201.2	2.313	Fine Sand
SORTING (σ):	89.67	1.488	0.574	1.363	0.447	Well Sorted
SKEWNESS (Sk):	4.455	-2.123	2.123	0.076	-0.076	Symmetrical
KURTOSIS (K):	48.01	23.18	23.18	1.066	1.066	Mesokurtic



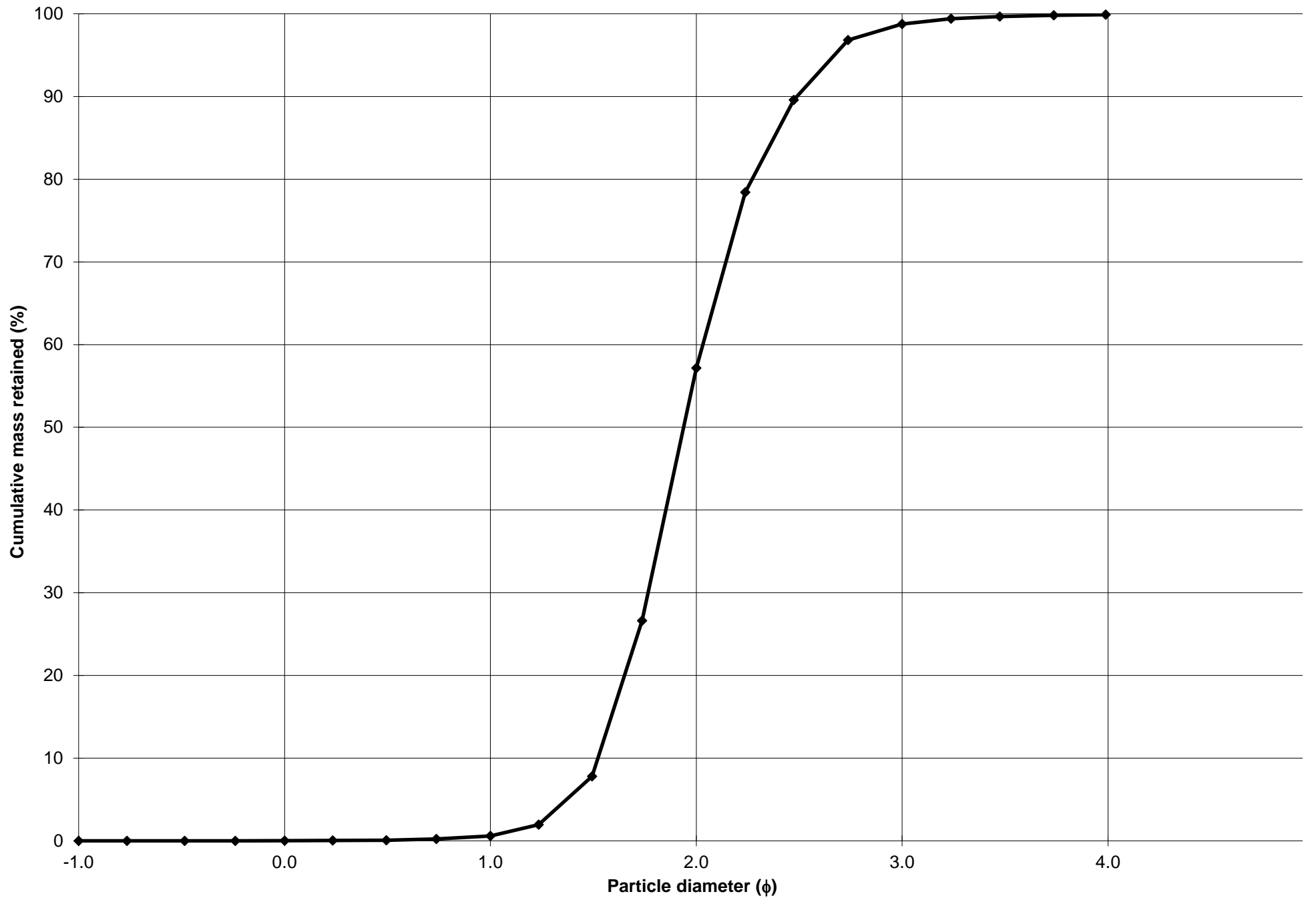
Cumulative Frequency Curve



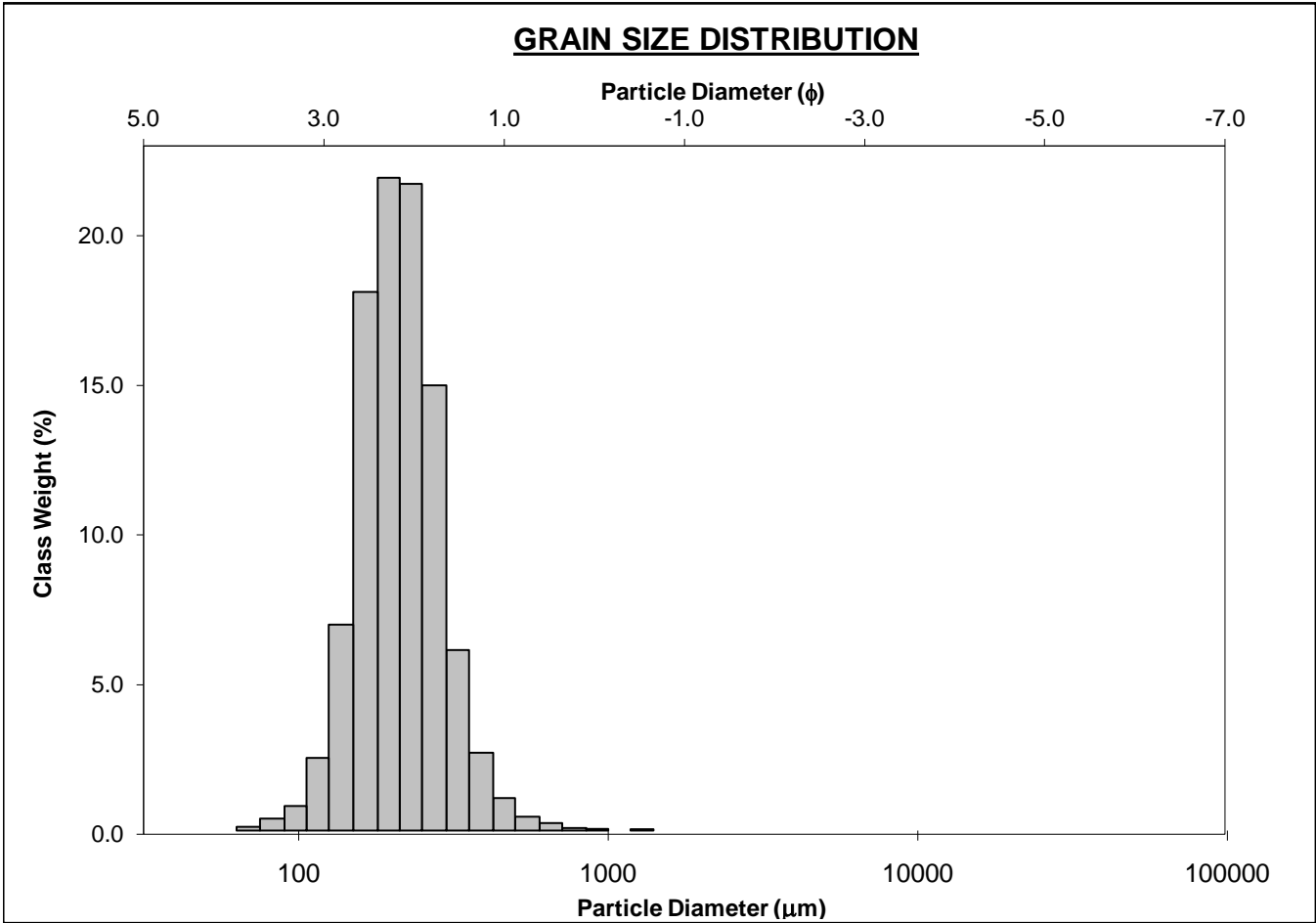
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-50cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 0.6%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 56.6%			
MODE 3:			MUD: 0.1% FINE SAND: 41.6%			
D ₁₀ :	178.1	1.522	V FINE SAND: 1.1%			
MEDIAN or D ₅₀ :	260.9	1.938	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	348.1	2.489	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.954	1.635	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	170.0	0.967	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.398	1.282	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	86.70	0.484	V COARSE SAND: 0.0% CLAY: 0.0%			
			METHOD OF MOMENTS			
			FOLK & WARD METHOD			
			Arithmetic	Geometric	Logarithmic	Description
			μm	μm	ϕ	
MEAN (\bar{x}):	265.2	254.1	1.976	256.2	1.965	Medium Sand
SORTING (σ):	72.15	1.343	0.426	1.307	0.386	Well Sorted
SKEWNESS (Sk):	1.127	-2.049	2.049	-0.115	0.115	Fine Skewed
KURTOSIS (K):	10.08	23.94	23.94	1.103	1.103	Mesokurtic



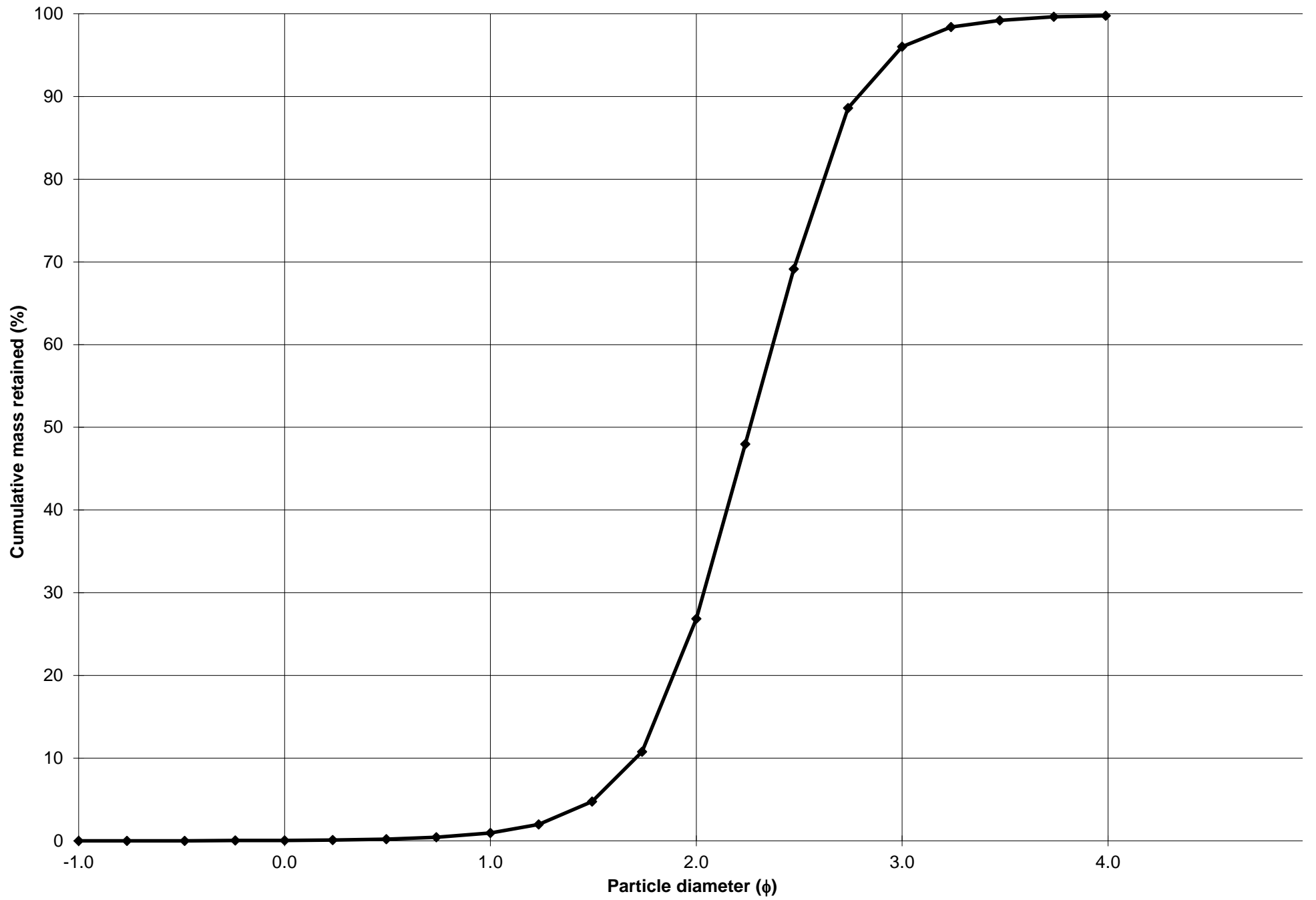
Cumulative Frequency Curve



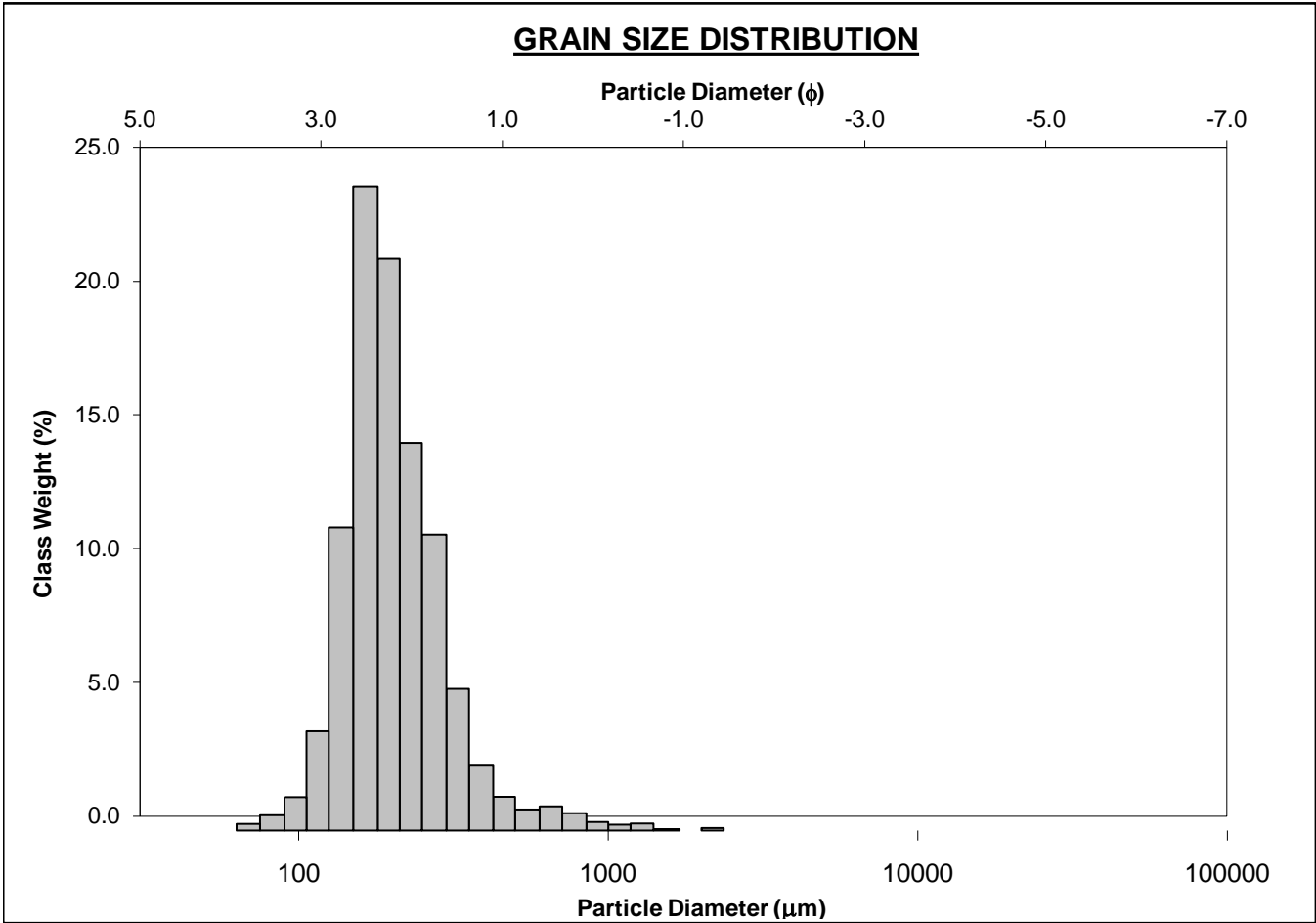
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-60cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 0.9%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 25.9%	
MODE 3:			MUD: 0.2%		FINE SAND: 69.2%	
D ₁₀ :	144.9	1.705			V FINE SAND: 3.7%	
MEDIAN or D ₅₀ :	208.7	2.260	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	306.6	2.787	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.116	1.634	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	161.7	1.081	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.499	1.296	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	84.95	0.584	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	222.4	209.1	2.258	209.9	2.253	Fine Sand
SORTING (σ):	80.61	1.424	0.510	1.351	0.434	Well Sorted
SKEWNESS (Sk):	2.824	-1.652	1.652	0.032	-0.032	Symmetrical
KURTOSIS (K):	24.52	20.84	20.84	1.025	1.025	Mesokurtic



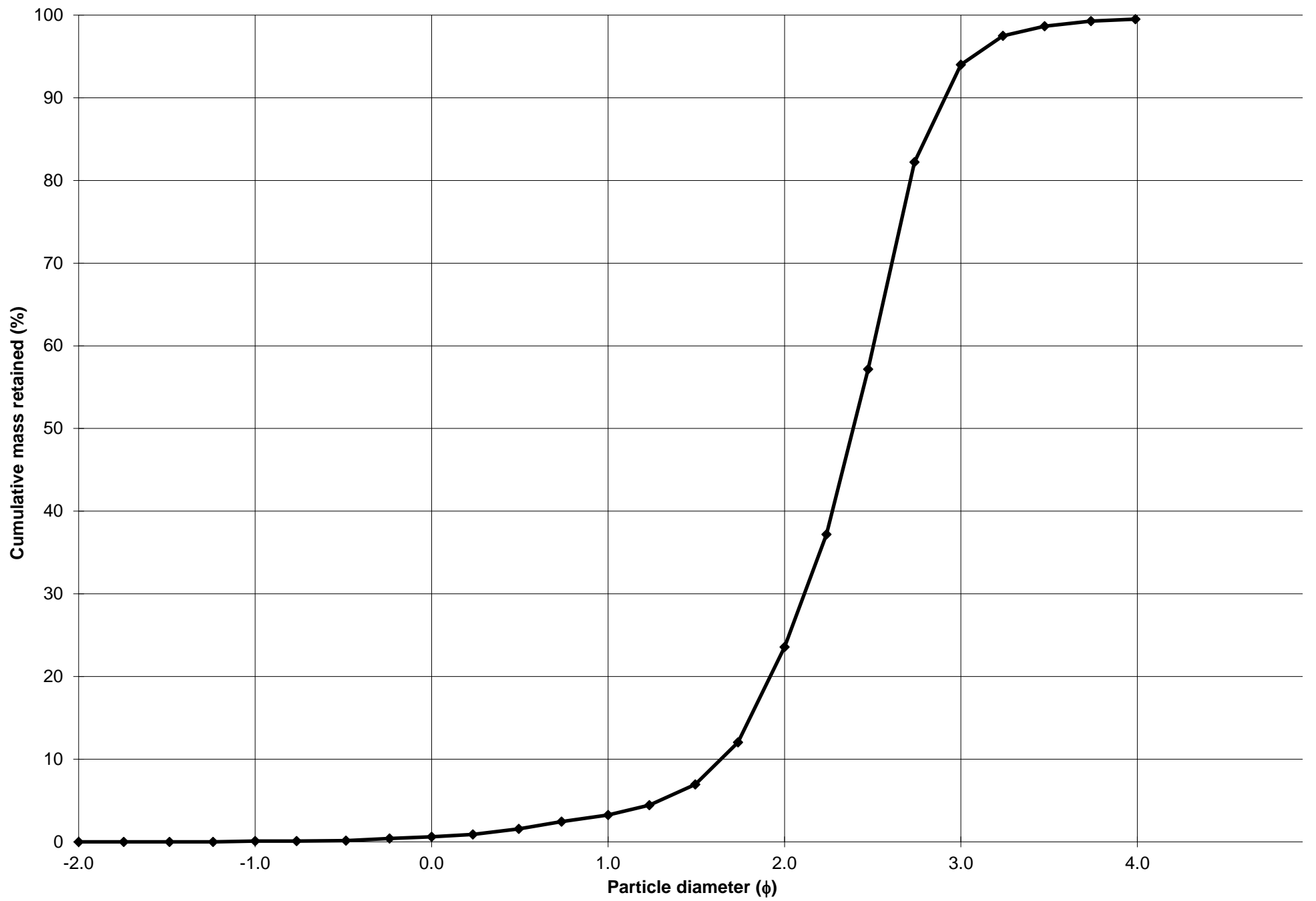
Cumulative Frequency Curve



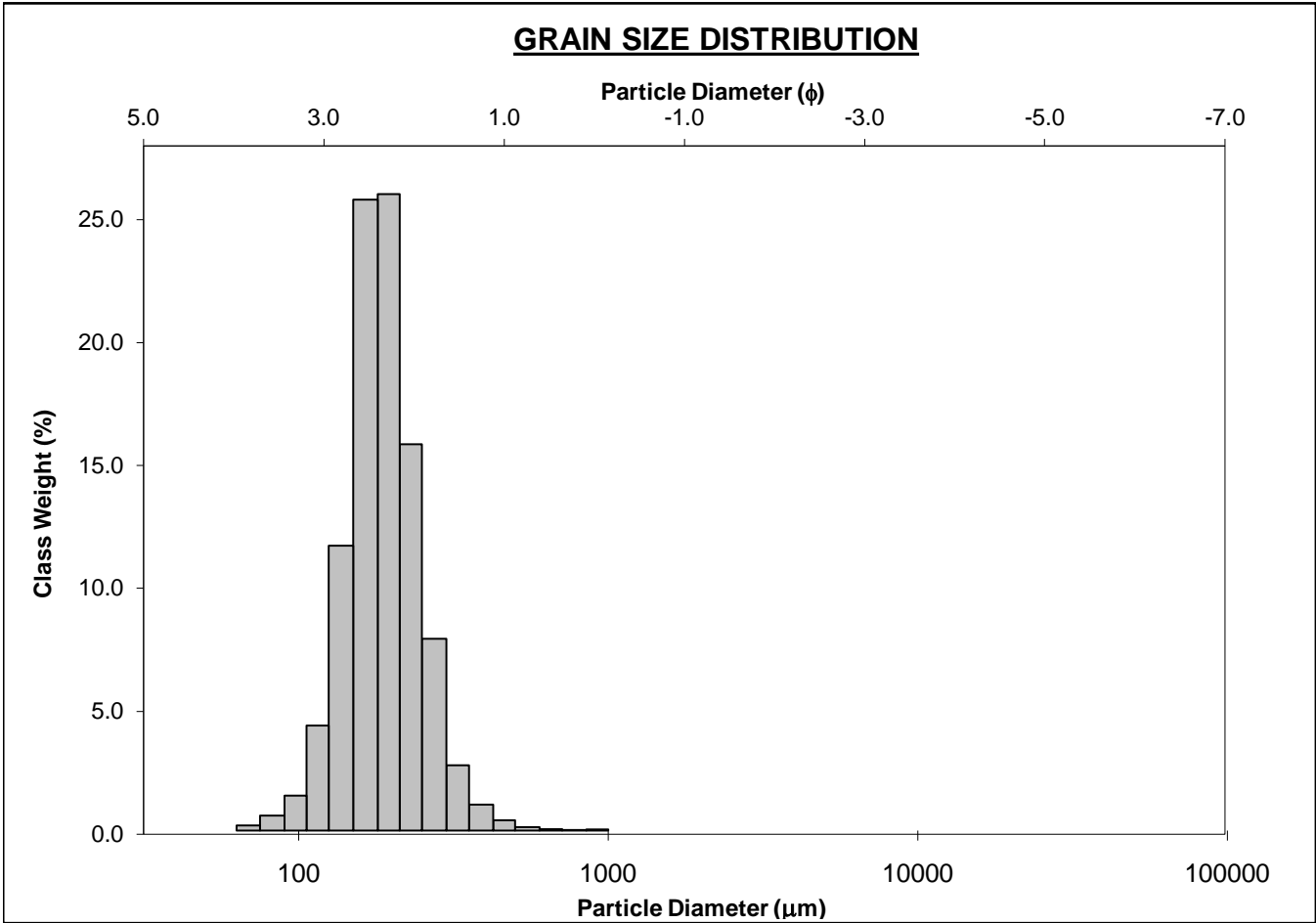
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-70cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.1%		COARSE SAND: 2.6%	
MODE 2:			SAND: 99.4%		MEDIUM SAND: 20.3%	
MODE 3:			MUD: 0.5%		FINE SAND: 70.5%	
D ₁₀ :	133.0	1.639			V FINE SAND: 5.5%	
MEDIAN or D ₅₀ :	190.9	2.389	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	321.0	2.910	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.413	1.775	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	188.0	1.271	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.554	1.314	V FINE GRAVEL: 0.1%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	87.59	0.636	V COARSE SAND: 0.5%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	224.3	200.1	2.321	198.7	2.331	Fine Sand
SORTING (σ):	141.3	1.581	0.660	1.420	0.506	Moderately Well Sorted
SKEWNESS (Sk):	5.555	-0.773	0.773	0.210	-0.210	Coarse Skewed
KURTOSIS (K):	52.91	16.37	16.37	1.143	1.143	Leptokurtic



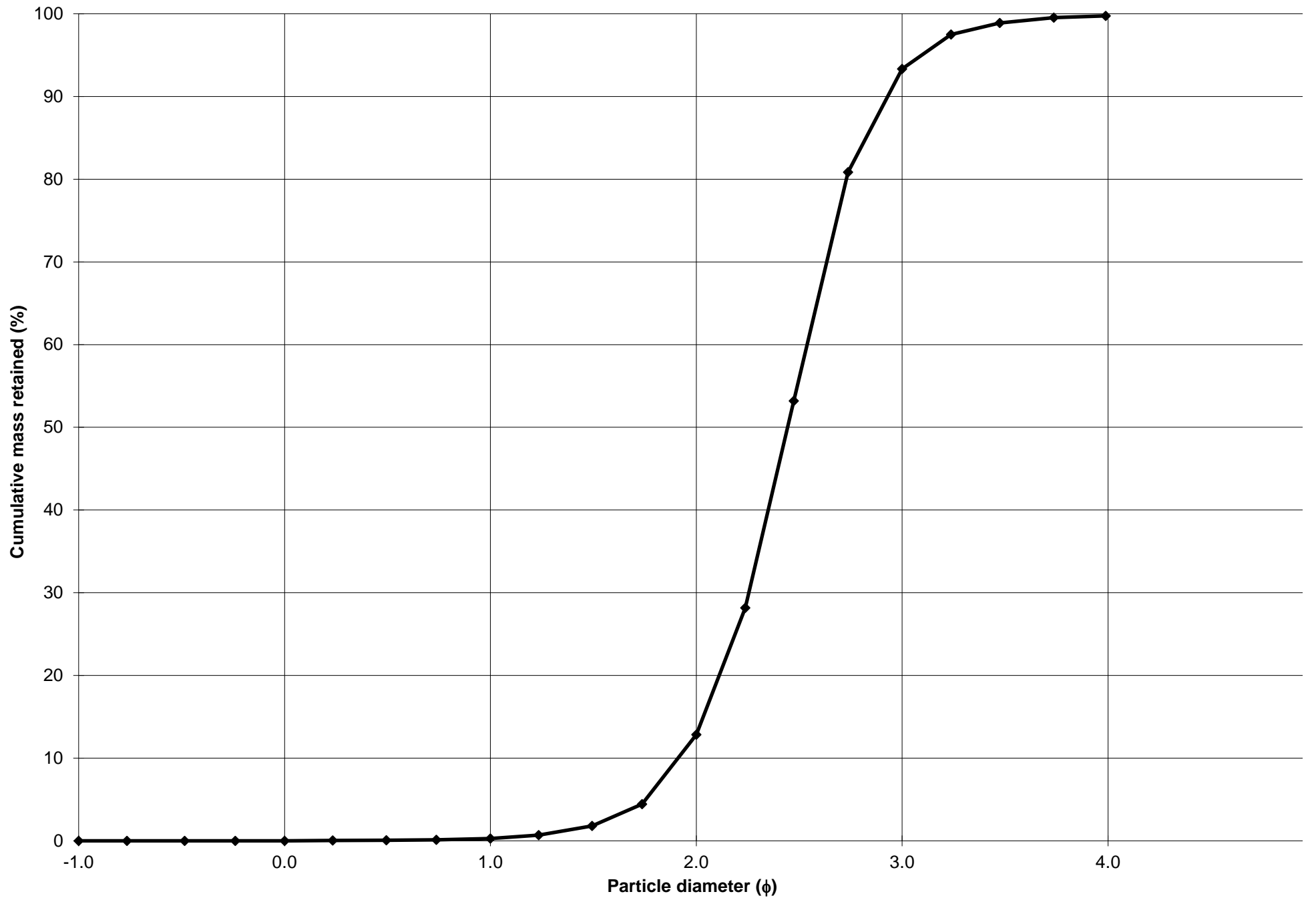
Cumulative Frequency Curve



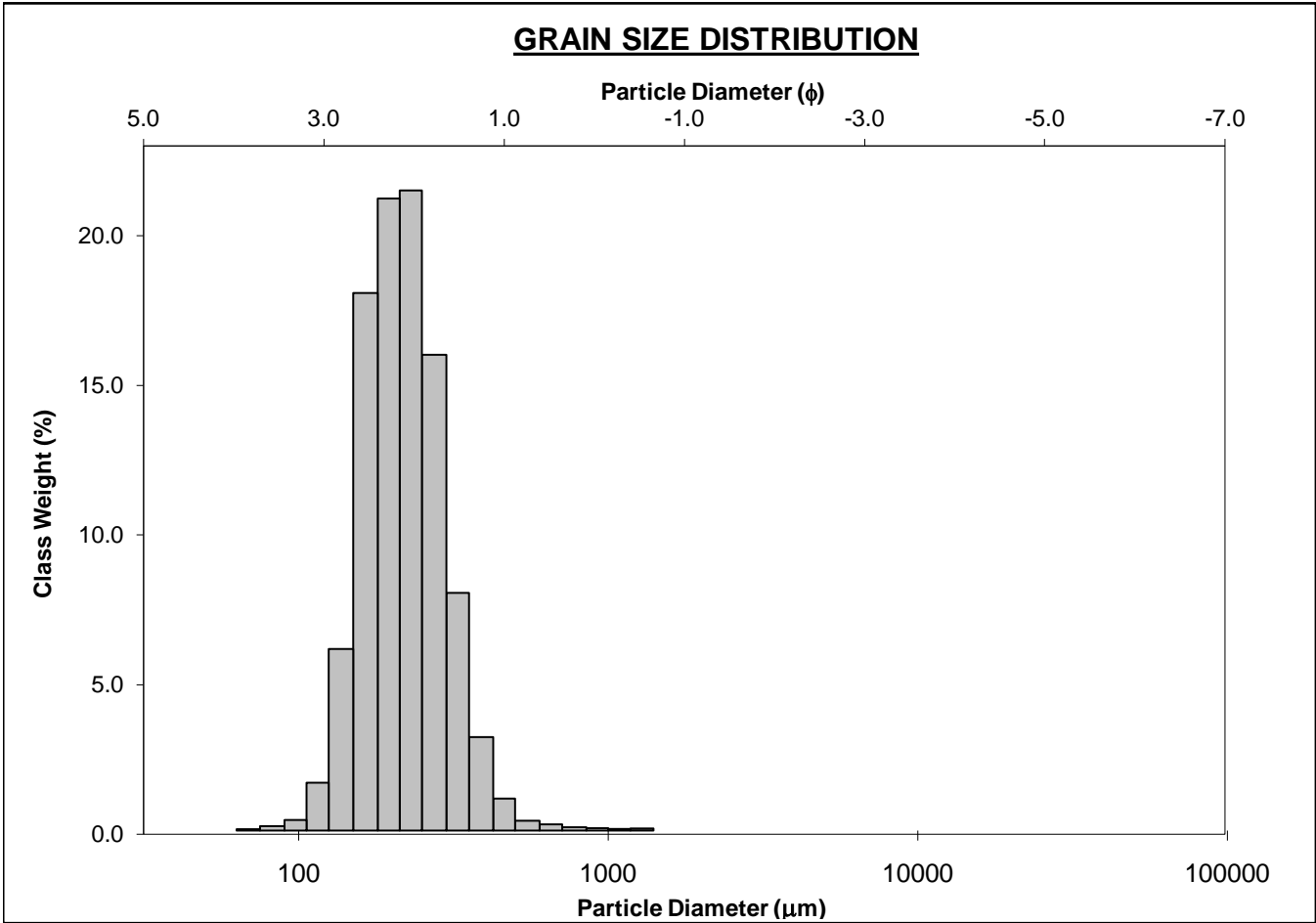
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-80cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 0.3%			
MODE 2:			SAND: 99.7% MEDIUM SAND: 12.6%			
MODE 3:			MUD: 0.3% FINE SAND: 80.5%			
D ₁₀ :	131.2	1.911	V FINE SAND: 6.4%			
MEDIAN or D ₅₀ :	183.8	2.444	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	266.0	2.930	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.026	1.533	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	134.7	1.019	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.407	1.225	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	63.45	0.493	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	194.0	184.3	2.440	185.3	2.432	Fine Sand
SORTING (σ):	61.53	1.383	0.468	1.312	0.392	Well Sorted
SKEWNESS (Sk):	2.316	-2.084	2.084	0.038	-0.038	Symmetrical
KURTOSIS (K):	18.36	25.30	25.30	1.115	1.115	Leptokurtic



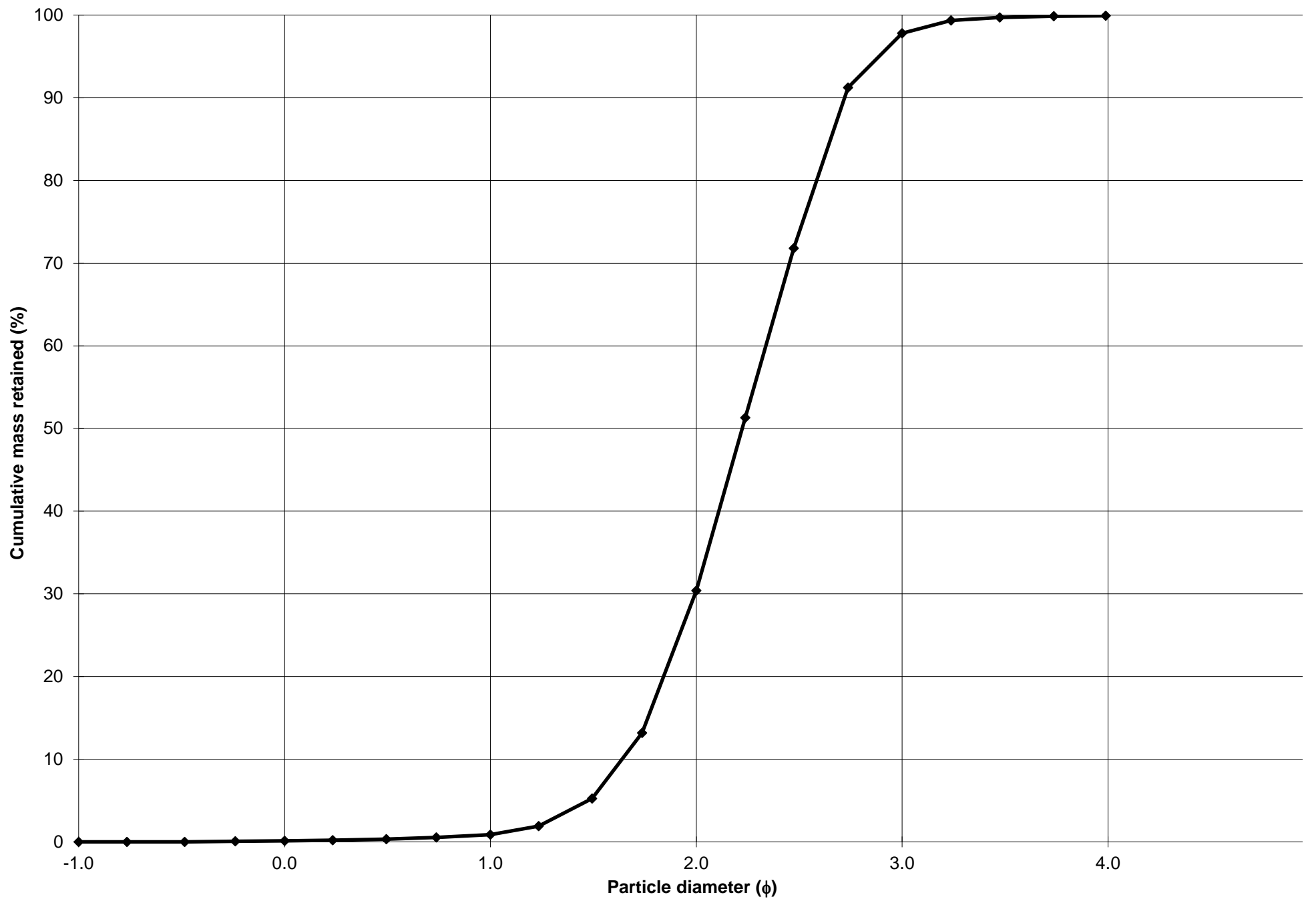
Cumulative Frequency Curve



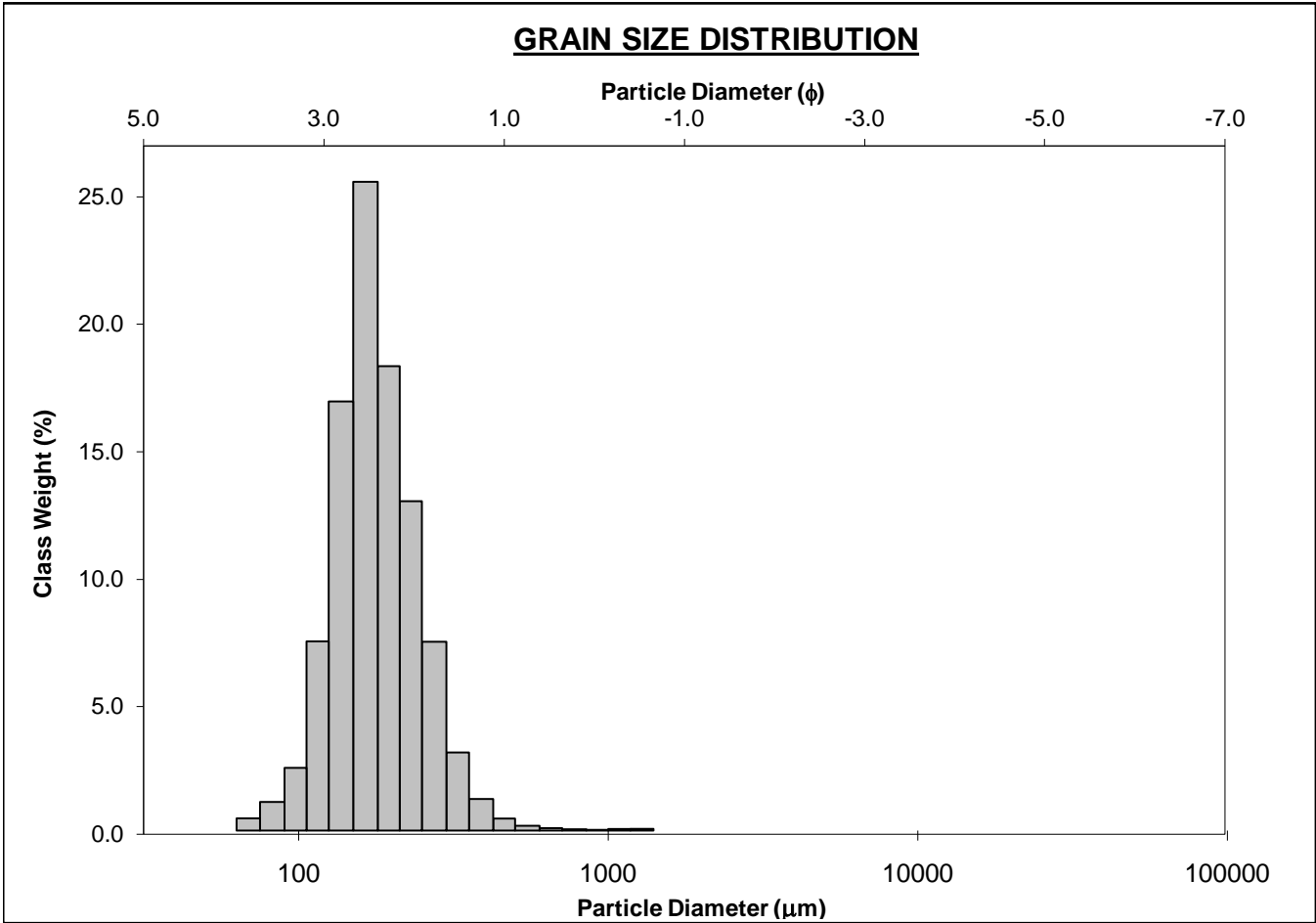
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-90cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.8%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 29.5%	
MODE 3:			MUD: 0.1%		FINE SAND: 67.4%	
D ₁₀ :	151.8	1.640			V FINE SAND: 2.1%	
MEDIAN or D ₅₀ :	214.2	2.223	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	321.0	2.720	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.115	1.659	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	169.2	1.081	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.515	1.313	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	89.98	0.599	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	229.4	216.8	2.206	215.5	2.214	Fine Sand
SORTING (σ):	84.50	1.381	0.465	1.346	0.429	Well Sorted
SKEWNESS (Sk):	3.525	-0.404	0.404	0.045	-0.045	Symmetrical
KURTOSIS (K):	32.59	13.27	13.27	0.966	0.966	Mesokurtic



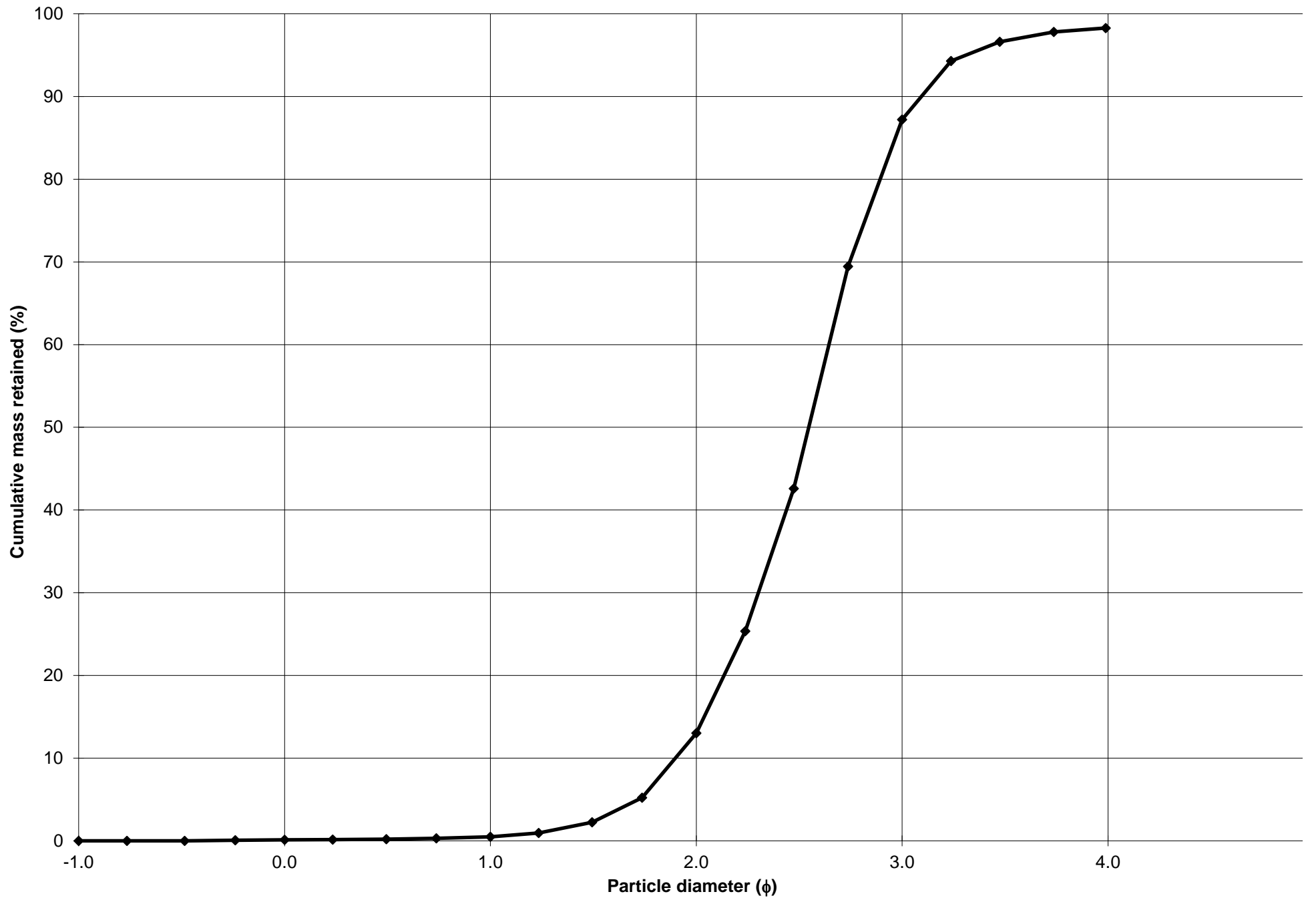
Cumulative Frequency Curve



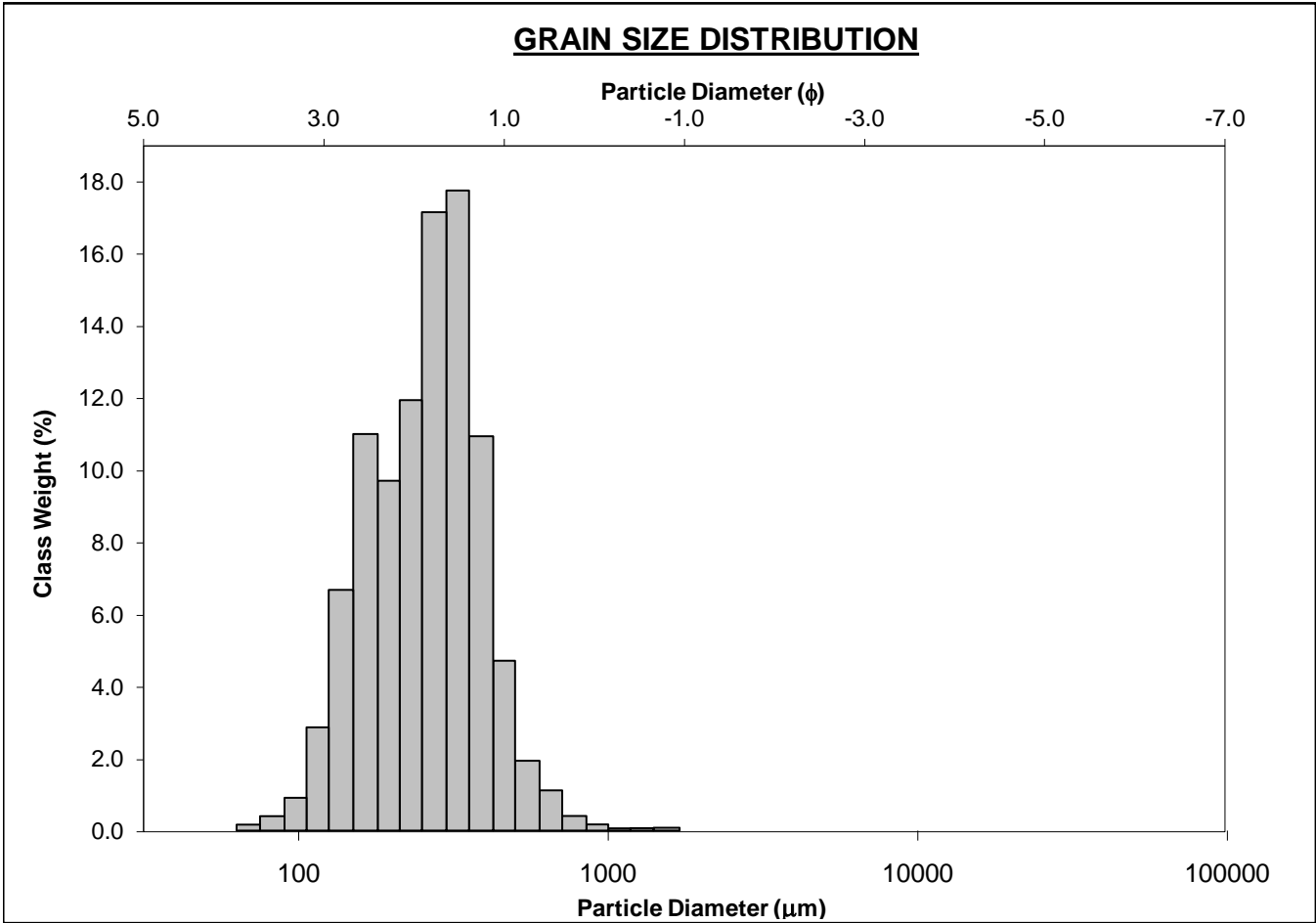
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-100cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.4%	
MODE 2:			SAND: 98.3%		MEDIUM SAND: 12.5%	
MODE 3:			MUD: 1.7%		FINE SAND: 74.2%	
D_{10} :	117.1	1.898			V FINE SAND: 11.1%	
MEDIAN or D_{50} :	171.2	2.546	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.3%	
D_{90} :	268.3	3.094	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D_{90} / D_{10}) :	2.291	1.630	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
$(D_{90} - D_{10})$:	151.2	1.196	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D_{75} / D_{25}) :	1.503	1.264	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
$(D_{75} - D_{25})$:	71.31	0.588	V COARSE SAND: 0.1%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	185.5	167.7	2.576	174.5	2.519	Fine Sand
SORTING (σ):	78.22	1.679	0.748	1.380	0.465	Well Sorted
SKEWNESS (Sk):	4.085	-3.284	3.284	0.066	-0.066	Symmetrical
KURTOSIS (K):	45.15	21.82	21.82	1.109	1.109	Mesokurtic



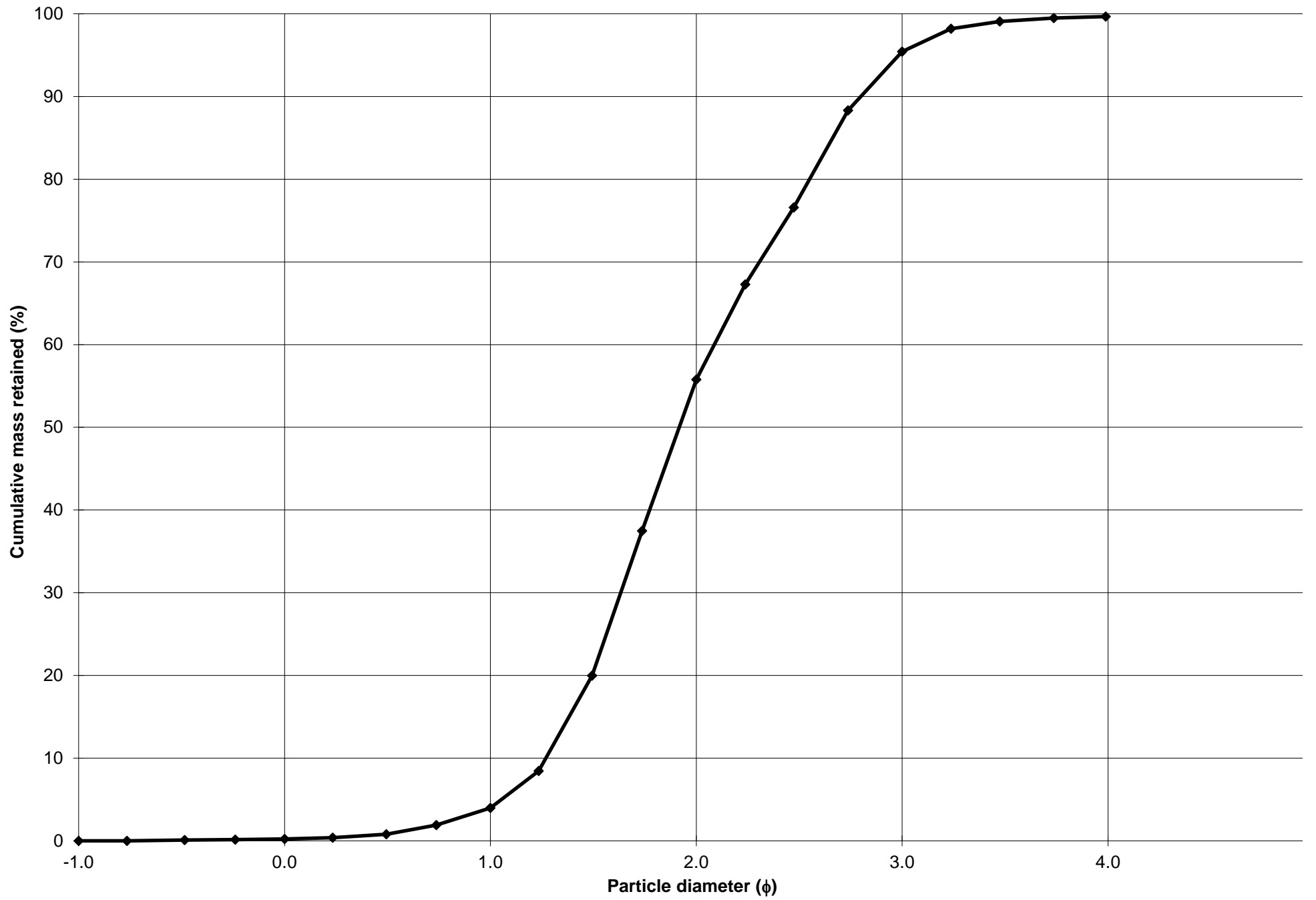
Cumulative Frequency Curve



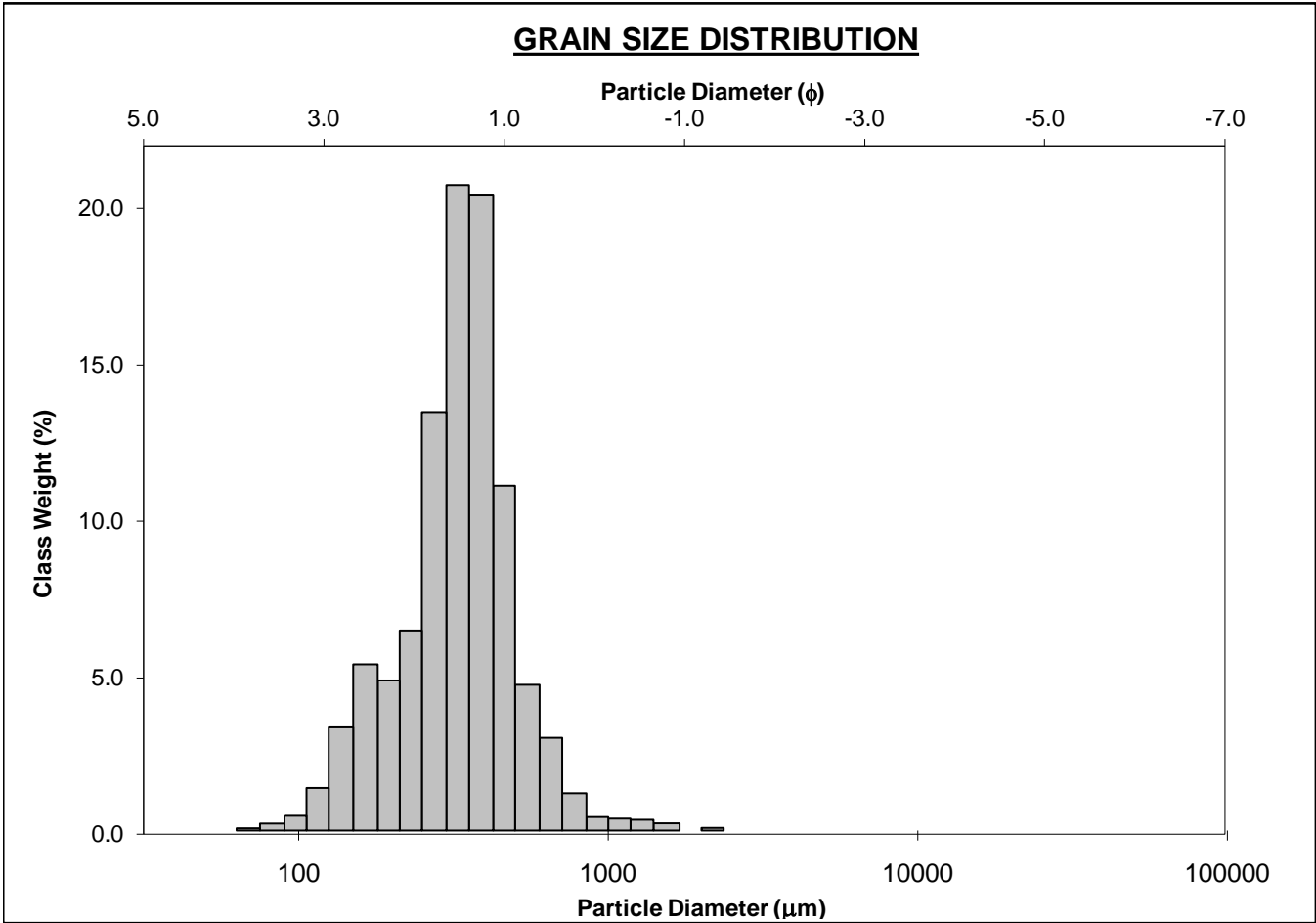
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-110cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 3.8%	
MODE 2:	165.0	2.605	SAND: 99.7%		MEDIUM SAND: 51.8%	
MODE 3:			MUD: 0.3%		FINE SAND: 39.7%	
D ₁₀ :	143.7	1.269			V FINE SAND: 4.2%	
MEDIAN or D ₅₀ :	264.8	1.917	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	414.8	2.799	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.888	2.205	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	271.2	1.530	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.828	1.556	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	153.2	0.870	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	278.2	251.5	1.991	252.2	1.987	Medium Sand
SORTING (σ):	126.5	1.591	0.670	1.517	0.601	Moderately Well Sorted
SKEWNESS (Sk):	2.273	-1.351	1.351	-0.138	0.138	Fine Skewed
KURTOSIS (K):	17.06	12.57	12.57	0.909	0.909	Mesokurtic



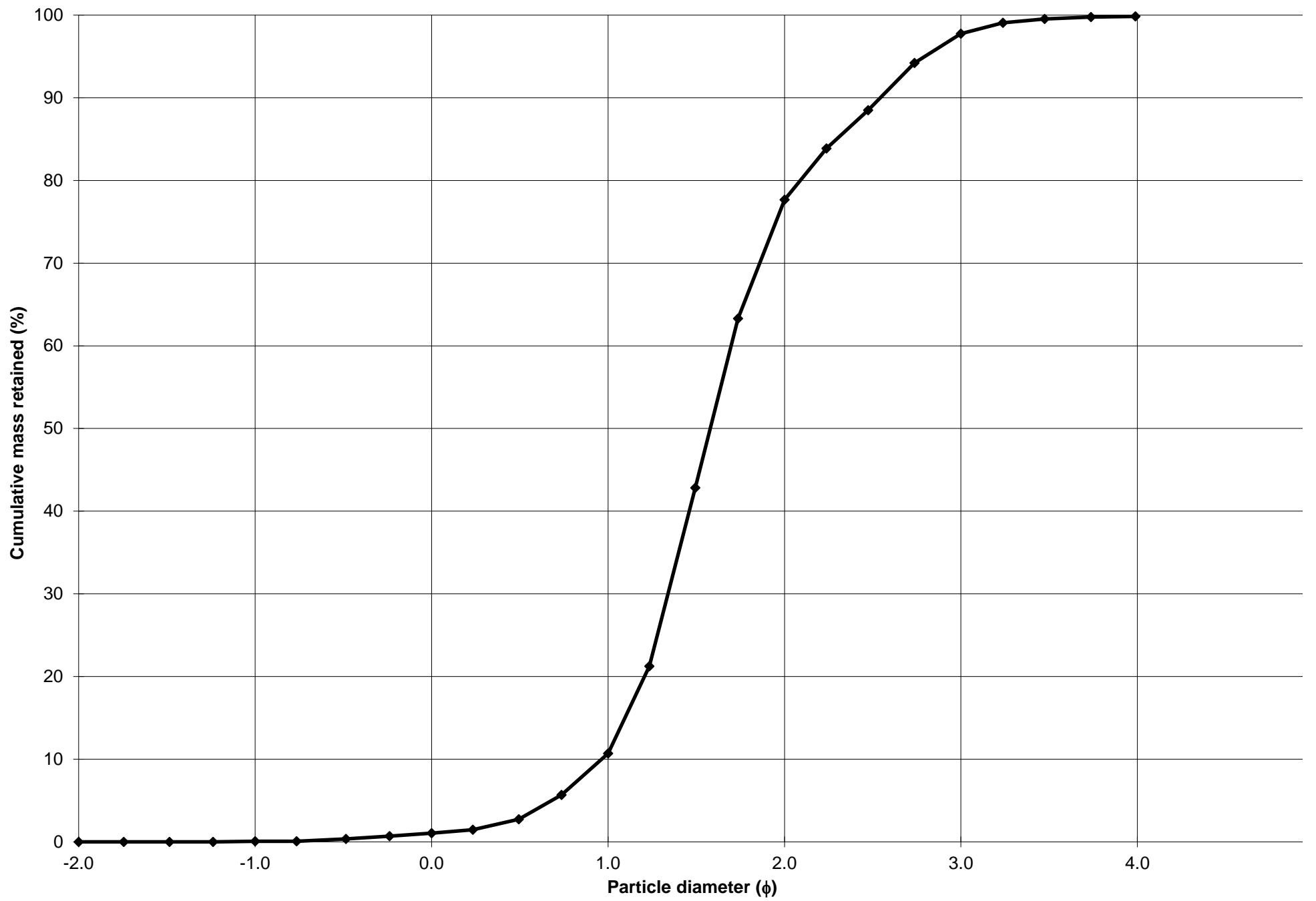
Cumulative Frequency Curve



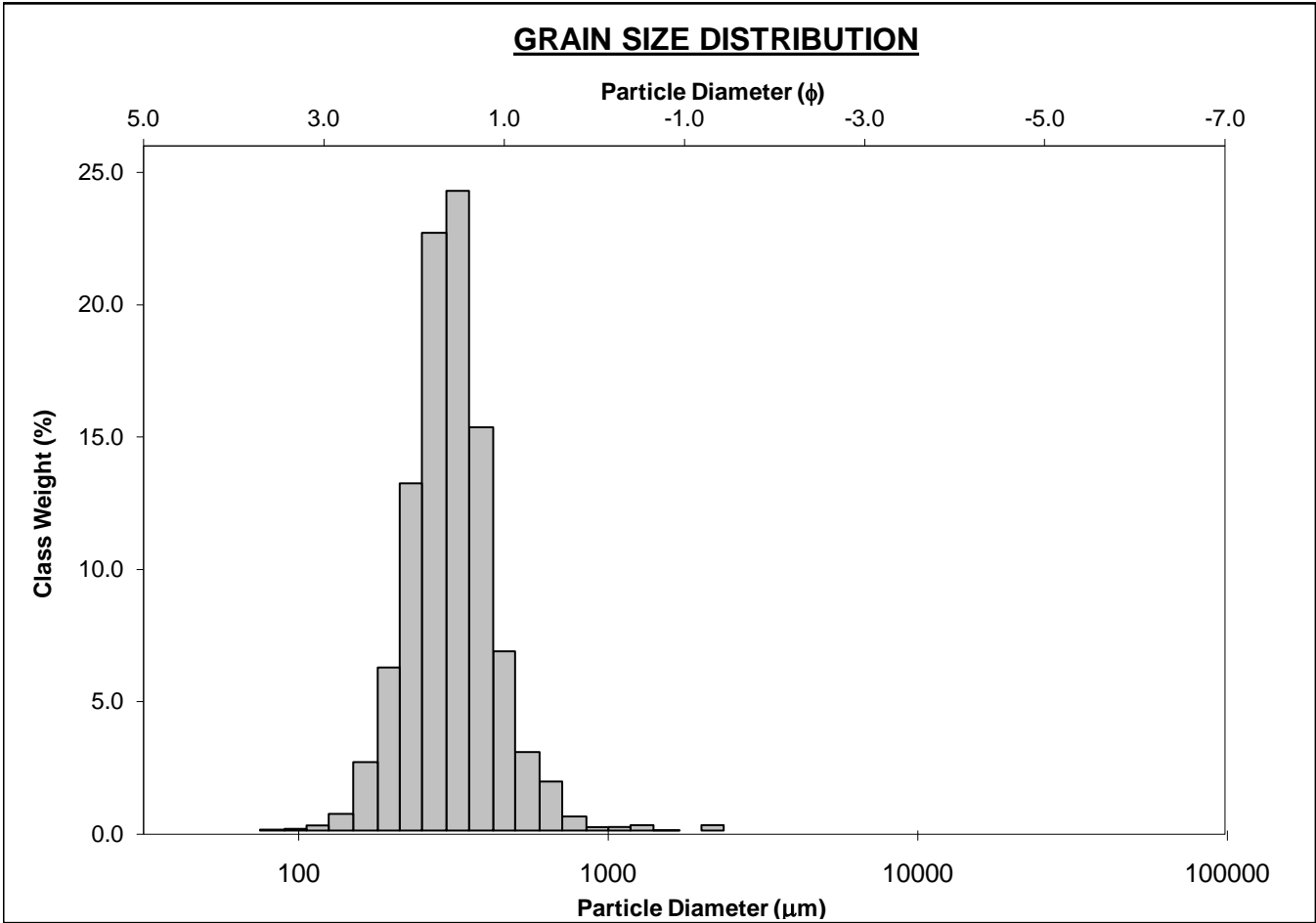
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-120cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.1%		COARSE SAND: 9.6%	
MODE 2:	165.0	2.605	SAND: 99.8%		MEDIUM SAND: 67.0%	
MODE 3:			MUD: 0.2%		FINE SAND: 20.1%	
D_{10} :	171.6	0.964			V FINE SAND: 2.1%	
MEDIAN or D_{50} :	334.6	1.579	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	512.7	2.543	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.988	2.639	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	341.2	1.579	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.593	1.525	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	153.3	0.672	V COARSE SAND: 1.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	354.4	320.0	1.644	319.3	1.647	Medium Sand
SORTING (σ):	172.1	1.579	0.659	1.518	0.602	Moderately Well Sorted
SKEWNESS (Sk):	3.025	-0.907	0.907	-0.165	0.165	Fine Skewed
KURTOSIS (K):	22.56	10.16	10.16	1.291	1.291	Leptokurtic



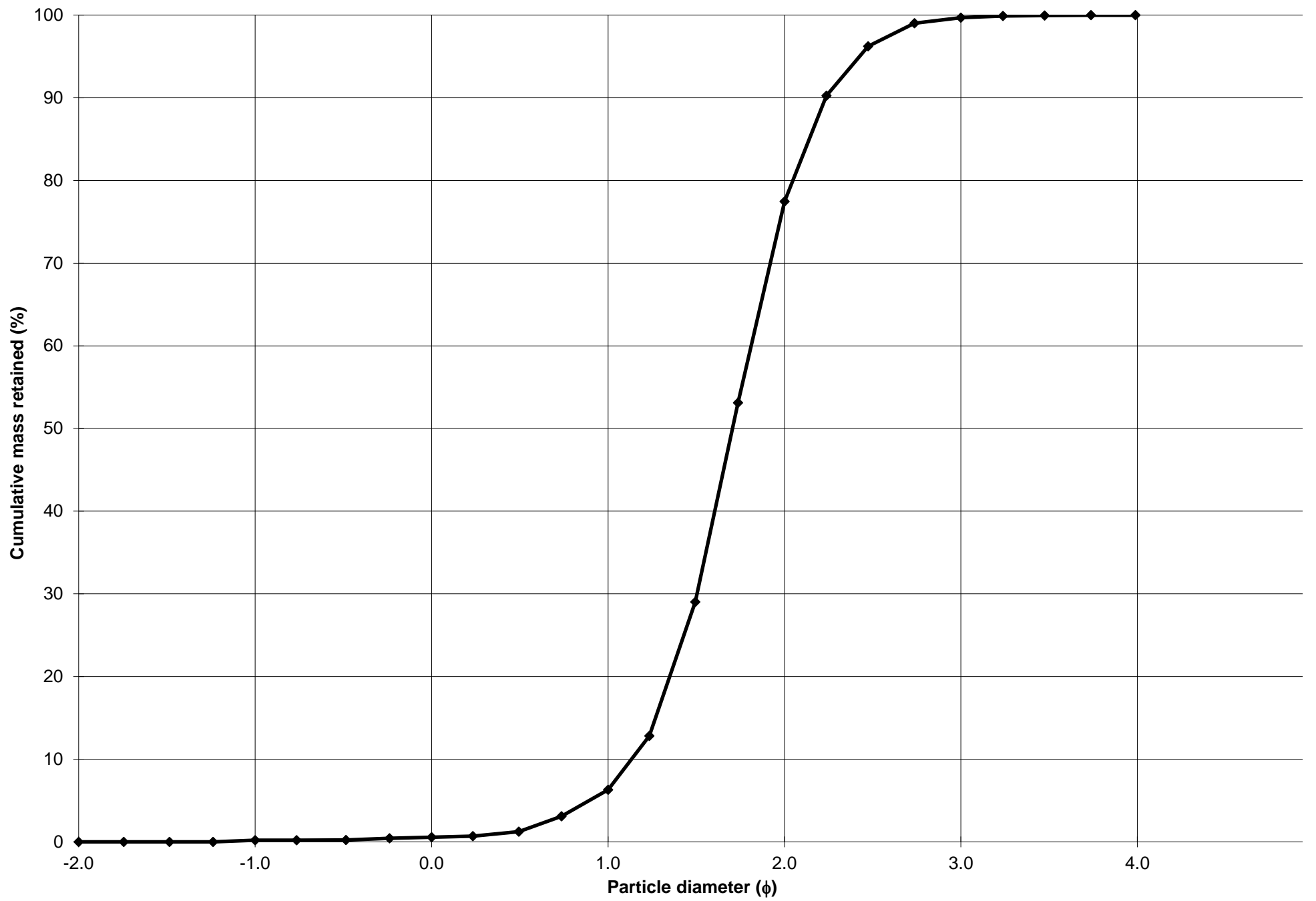
Cumulative Frequency Curve



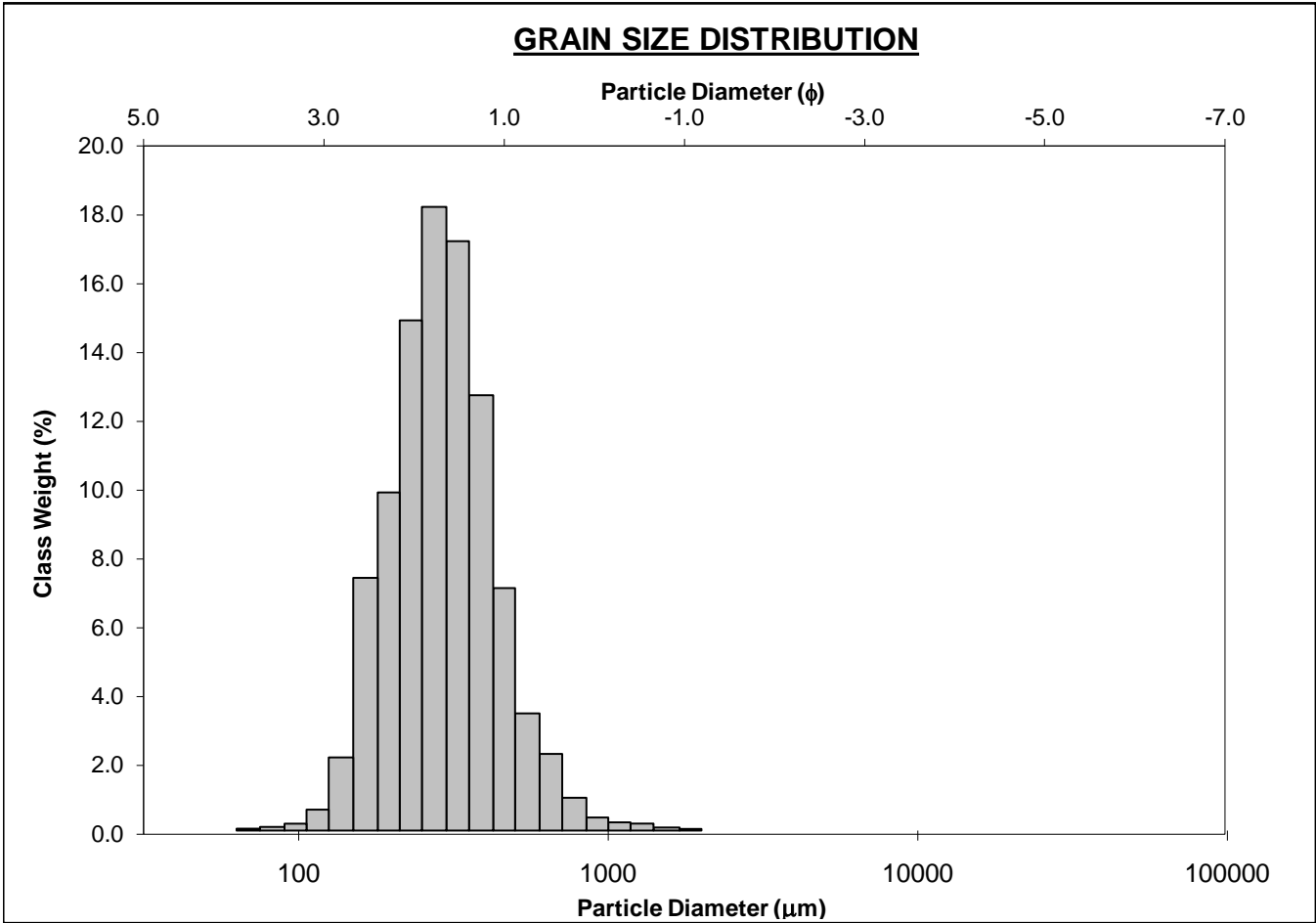
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-130cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.2%	COARSE SAND: 5.7%		
MODE 2:			SAND: 99.8%	MEDIUM SAND: 71.2%		
MODE 3:			MUD: 0.0%	FINE SAND: 22.2%		
D ₁₀ :	212.7	1.133		V FINE SAND: 0.3%		
MEDIAN or D ₅₀ :	306.6	1.706	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	455.8	2.233	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.143	1.970	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	243.1	1.099	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.458	1.380	V FINE GRAVEL: 0.2%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	116.6	0.544	V COARSE SAND: 0.4%	CLAY: 0.0%		
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	330.3	309.8	1.691	306.9	1.704	Medium Sand
SORTING (σ):	144.3	1.391	0.476	1.358	0.441	Well Sorted
SKEWNESS (Sk):	5.599	0.533	-0.533	0.033	-0.033	Symmetrical
KURTOSIS (K):	61.94	8.176	8.176	1.154	1.154	Leptokurtic



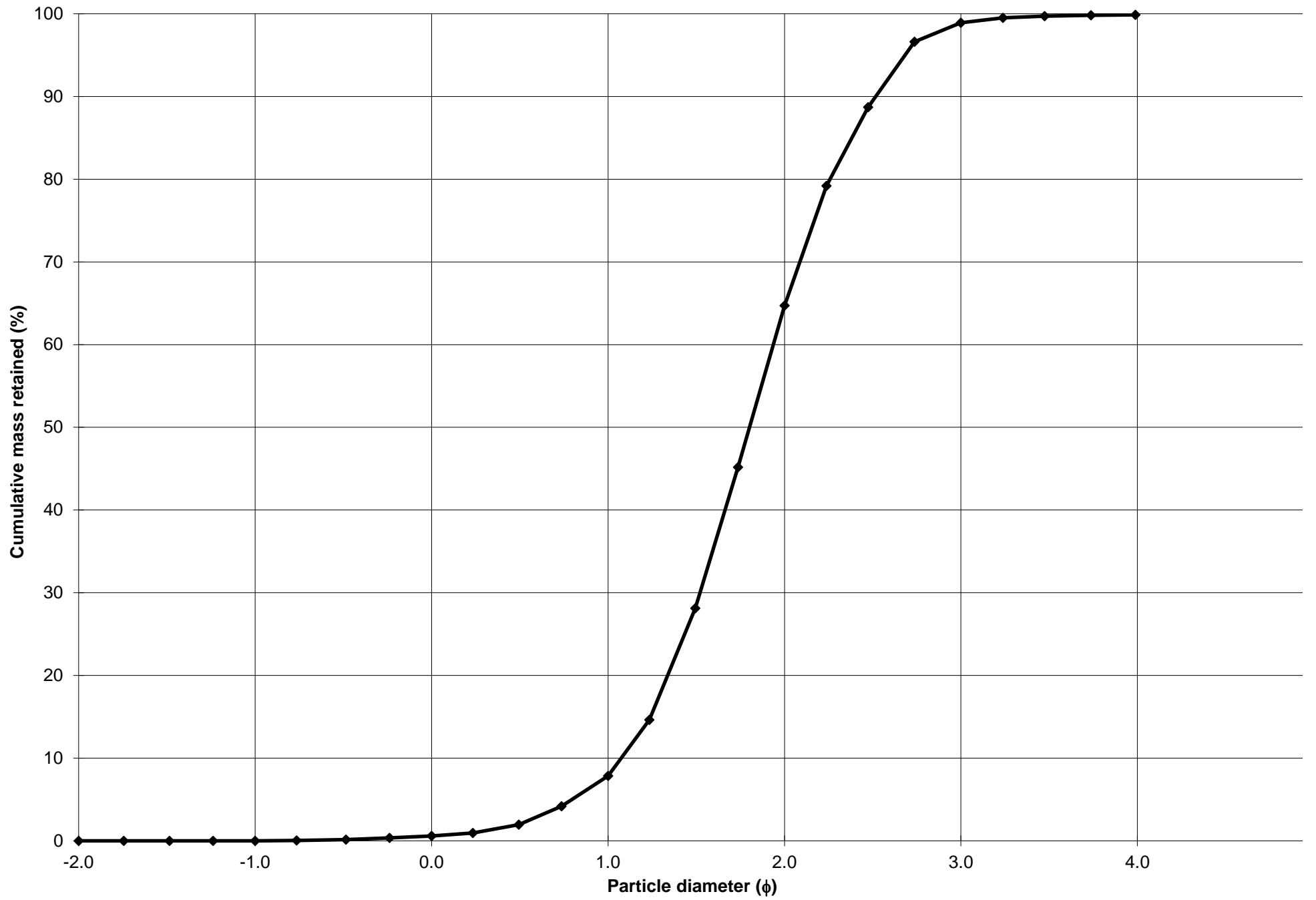
Cumulative Frequency Curve



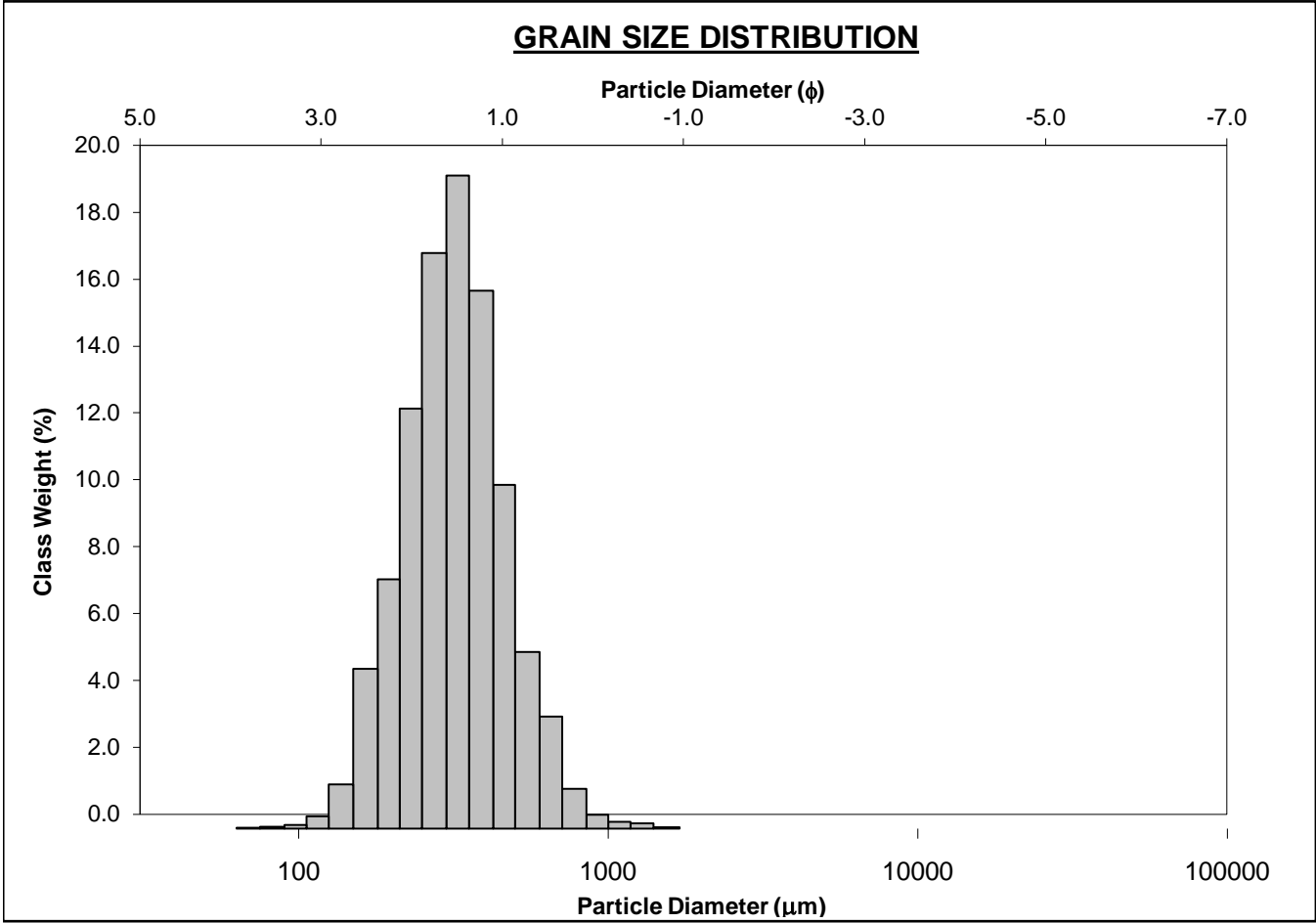
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-140cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 7.3%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 56.9%	
MODE 3:			MUD: 0.1%		FINE SAND: 34.2%	
D ₁₀ :	174.7	1.074			V FINE SAND: 1.0%	
MEDIAN or D ₅₀ :	286.8	1.802	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	475.0	2.517	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.719	2.344	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	300.3	1.443	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.664	1.512	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	147.7	0.735	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	316.5	289.0	1.791	285.9	1.807	Medium Sand
SORTING (σ):	148.7	1.518	0.602	1.474	0.560	Moderately Well Sorted
SKEWNESS (Sk):	2.791	-0.459	0.459	0.027	-0.027	Symmetrical
KURTOSIS (K):	18.63	10.22	10.22	1.053	1.053	Mesokurtic



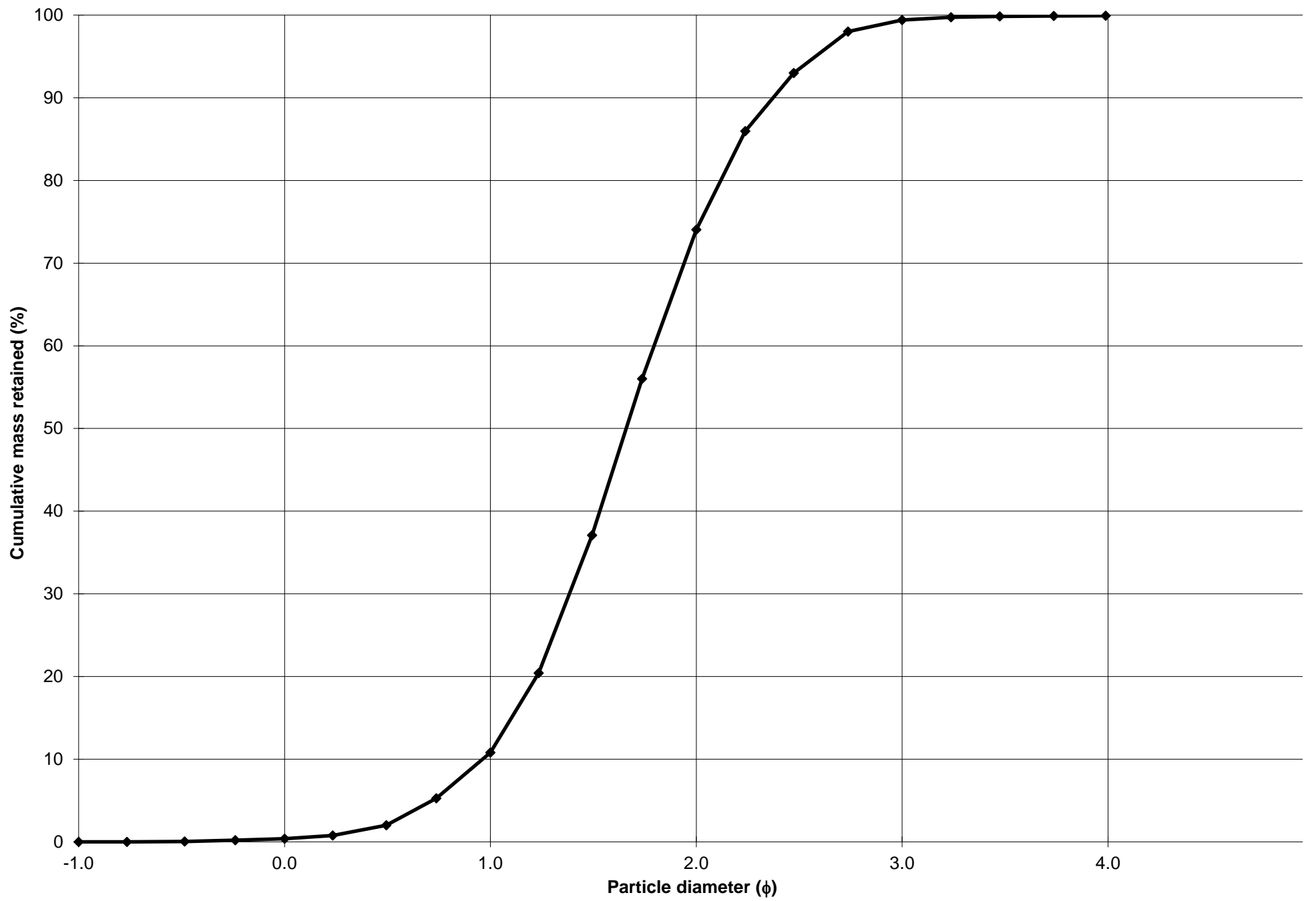
Cumulative Frequency Curve



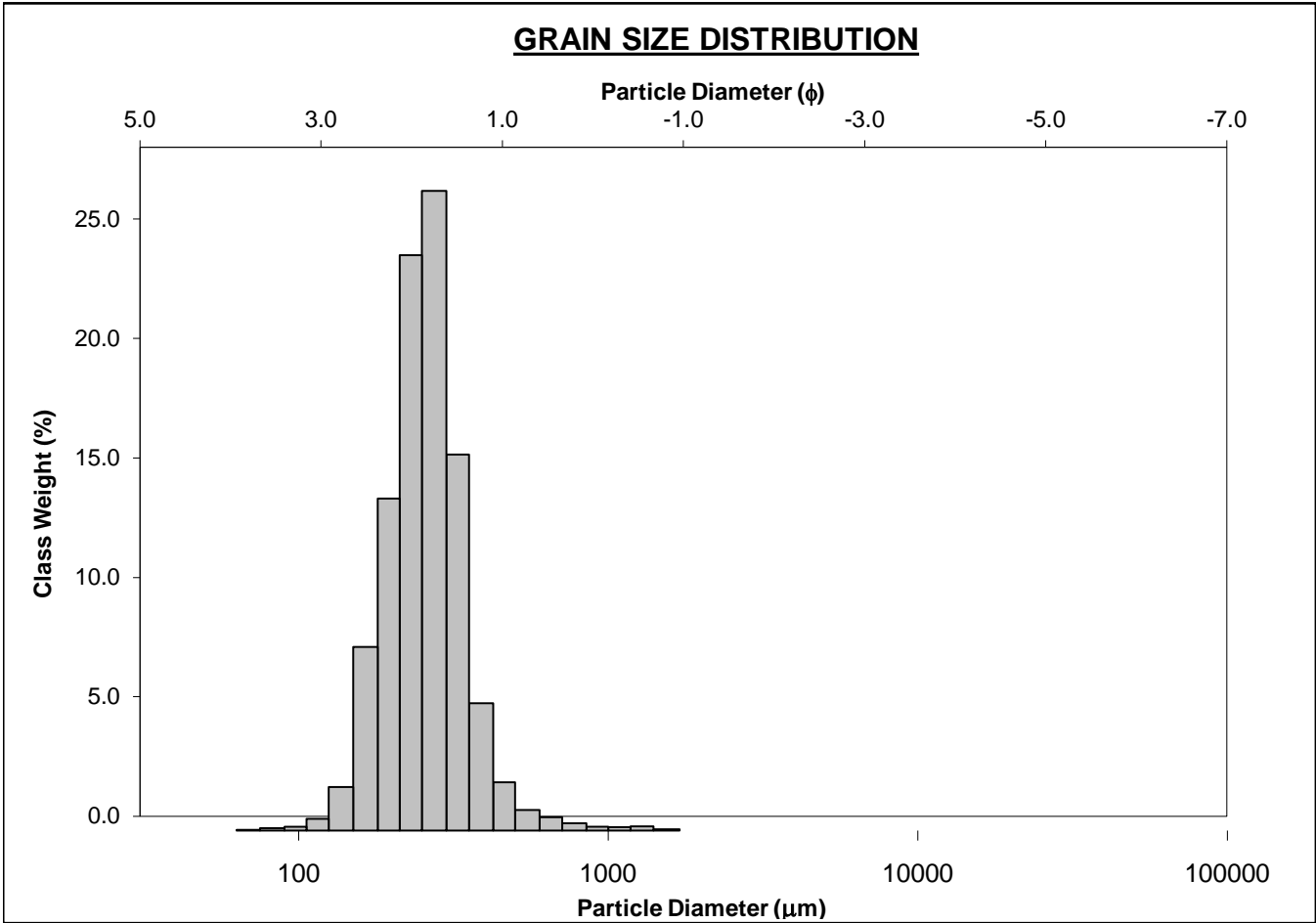
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-150cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 10.4%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 63.3%	
MODE 3:			MUD: 0.1%		FINE SAND: 25.3%	
D ₁₀ :	193.0	0.962			V FINE SAND: 0.5%	
MEDIAN or D ₅₀ :	316.4	1.660	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	513.4	2.373	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.660	2.467	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	320.4	1.411	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.639	1.546	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	157.7	0.713	V COARSE SAND: 0.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	342.9	316.3	1.661	316.1	1.662	Medium Sand
SORTING (σ):	143.2	1.484	0.569	1.464	0.550	Moderately Well Sorted
SKEWNESS (Sk):	1.850	-0.431	0.431	0.004	-0.004	Symmetrical
KURTOSIS (K):	10.20	8.462	8.462	1.070	1.070	Mesokurtic



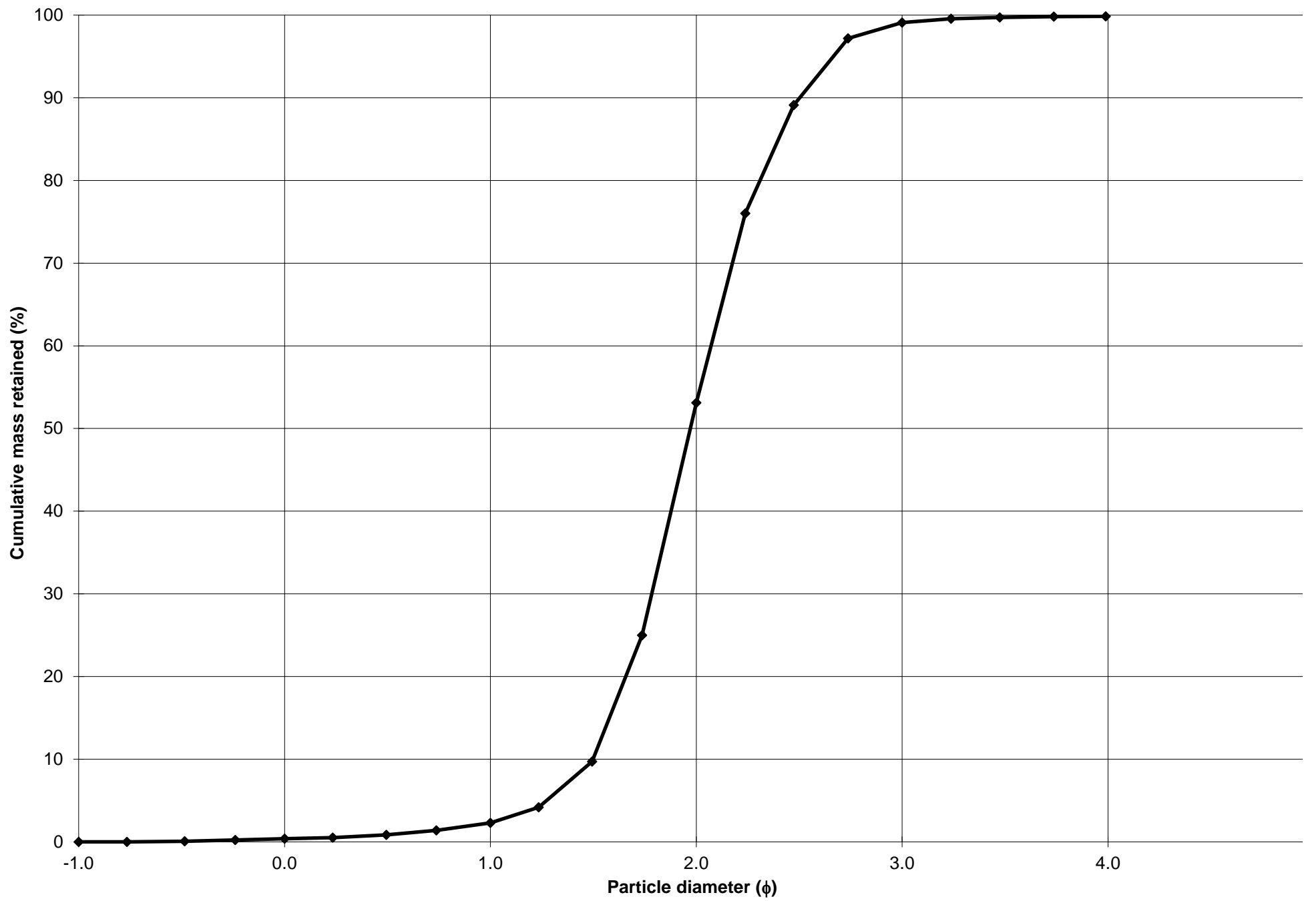
Cumulative Frequency Curve



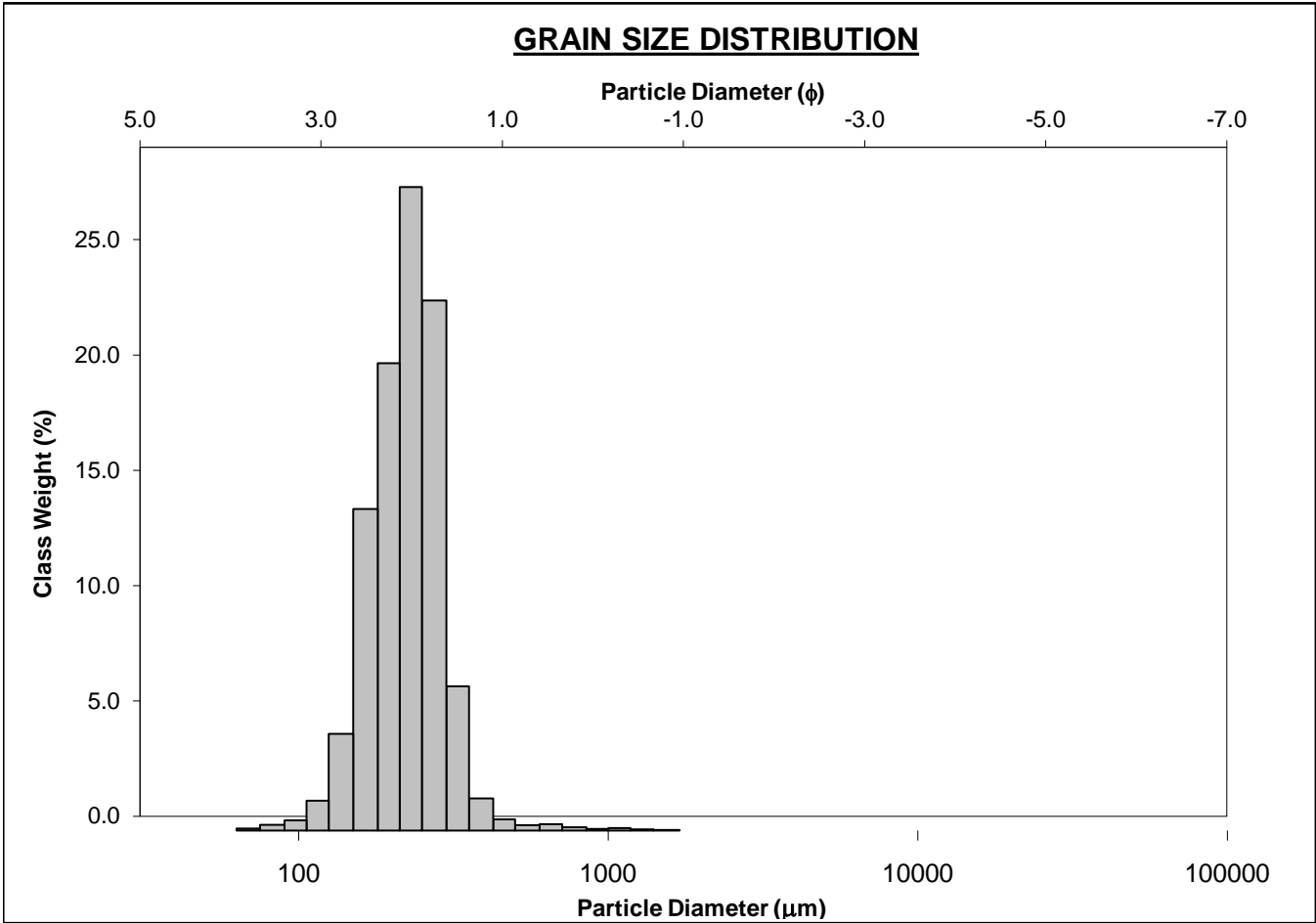
SIEVING ERROR: 1.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-160cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 1.9%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 50.8%			
MODE 3:			MUD: 0.1% FINE SAND: 46.0%			
D ₁₀ :	176.4	1.499	V FINE SAND: 0.8%			
MEDIAN or D ₅₀ :	255.1	1.971	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	353.9	2.503	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.006	1.670	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	177.4	1.004	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.405	1.282	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	86.42	0.490	V COARSE SAND: 0.4% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	270.1	254.5	1.974	253.1	1.982	Medium Sand
SORTING (σ):	106.2	1.396	0.481	1.327	0.408	Well Sorted
SKEWNESS (Sk):	4.344	-1.033	1.033	-0.021	0.021	Symmetrical
KURTOSIS (K):	38.08	21.61	21.61	1.164	1.164	Leptokurtic



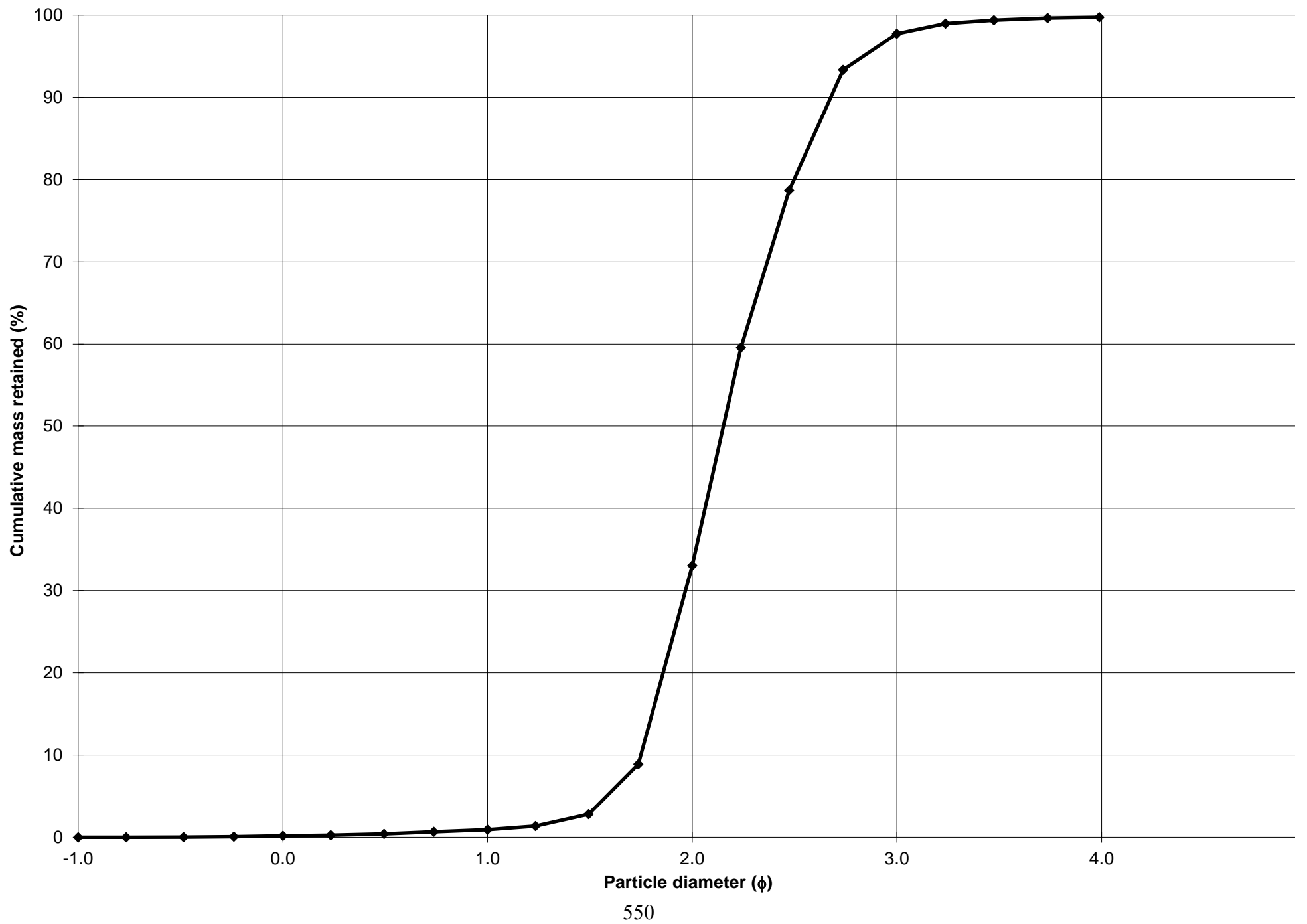
Cumulative Frequency Curve



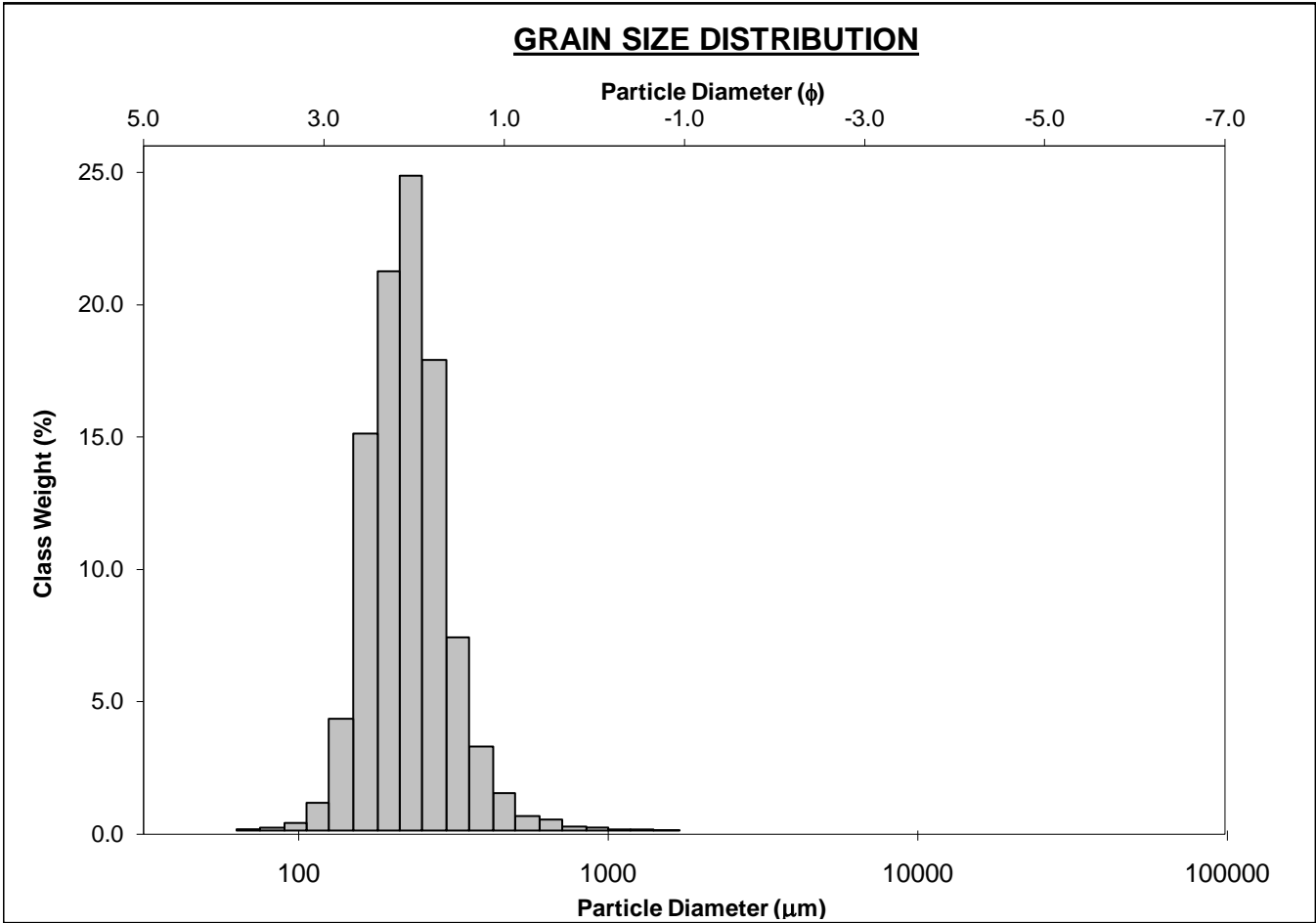
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-170cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%	COARSE SAND: 0.7%		
MODE 2:			SAND: 99.7%	MEDIUM SAND: 32.1%		
MODE 3:			MUD: 0.3%	FINE SAND: 64.7%		
D ₁₀ :	156.3	1.749		V FINE SAND: 2.0%		
MEDIAN or D ₅₀ :	225.0	2.152	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	297.5	2.677	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	1.903	1.531	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	141.2	0.928	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.430	1.270	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	79.90	0.516	V COARSE SAND: 0.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	232.4	220.3	2.182	220.9	2.179	Fine Sand
SORTING (σ):	81.88	1.393	0.478	1.300	0.379	Well Sorted
SKEWNESS (Sk):	4.983	-2.412	2.412	-0.098	0.098	Symmetrical
KURTOSIS (K):	56.97	31.29	31.29	0.997	0.997	Mesokurtic



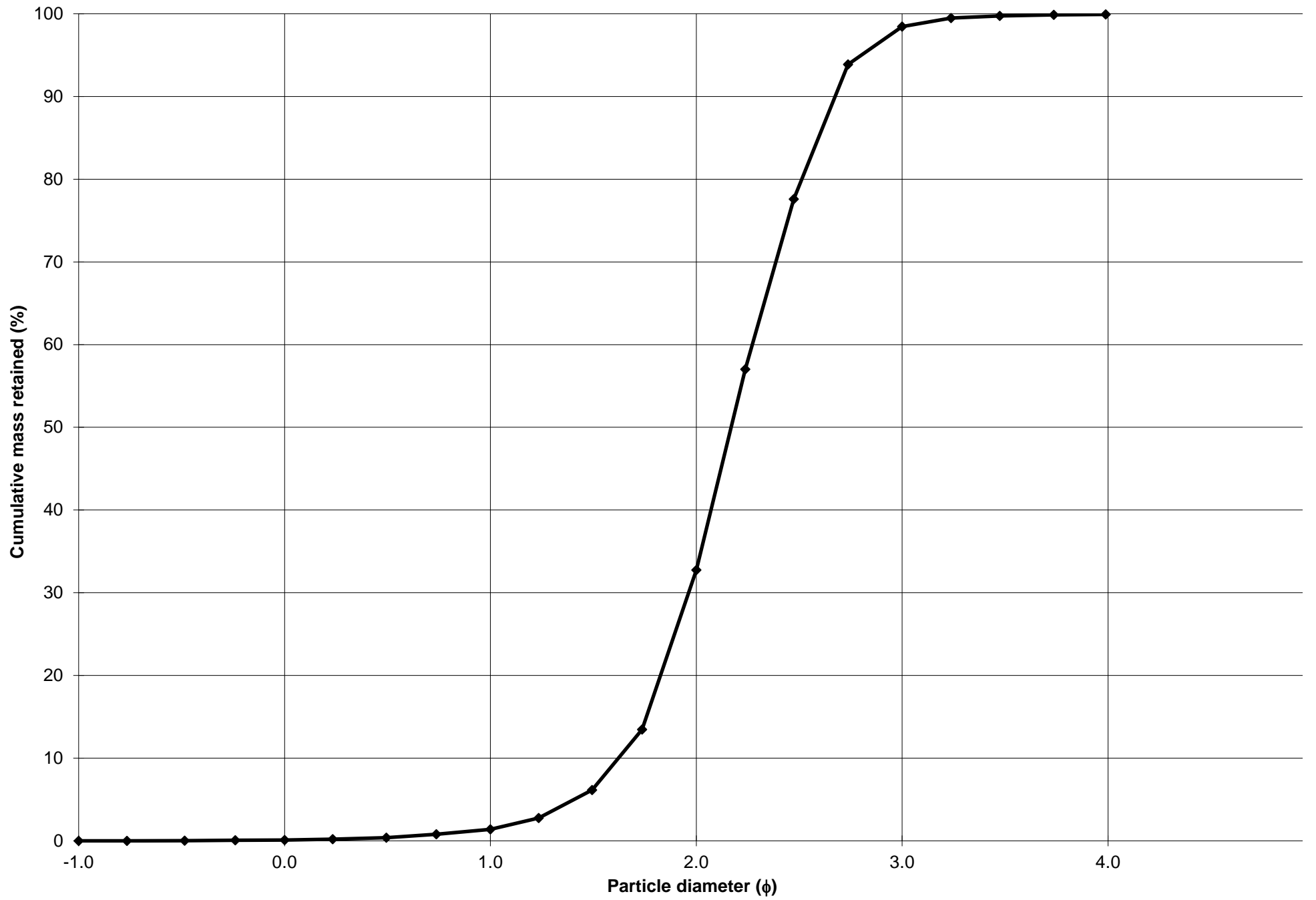
Cumulative Frequency Curve



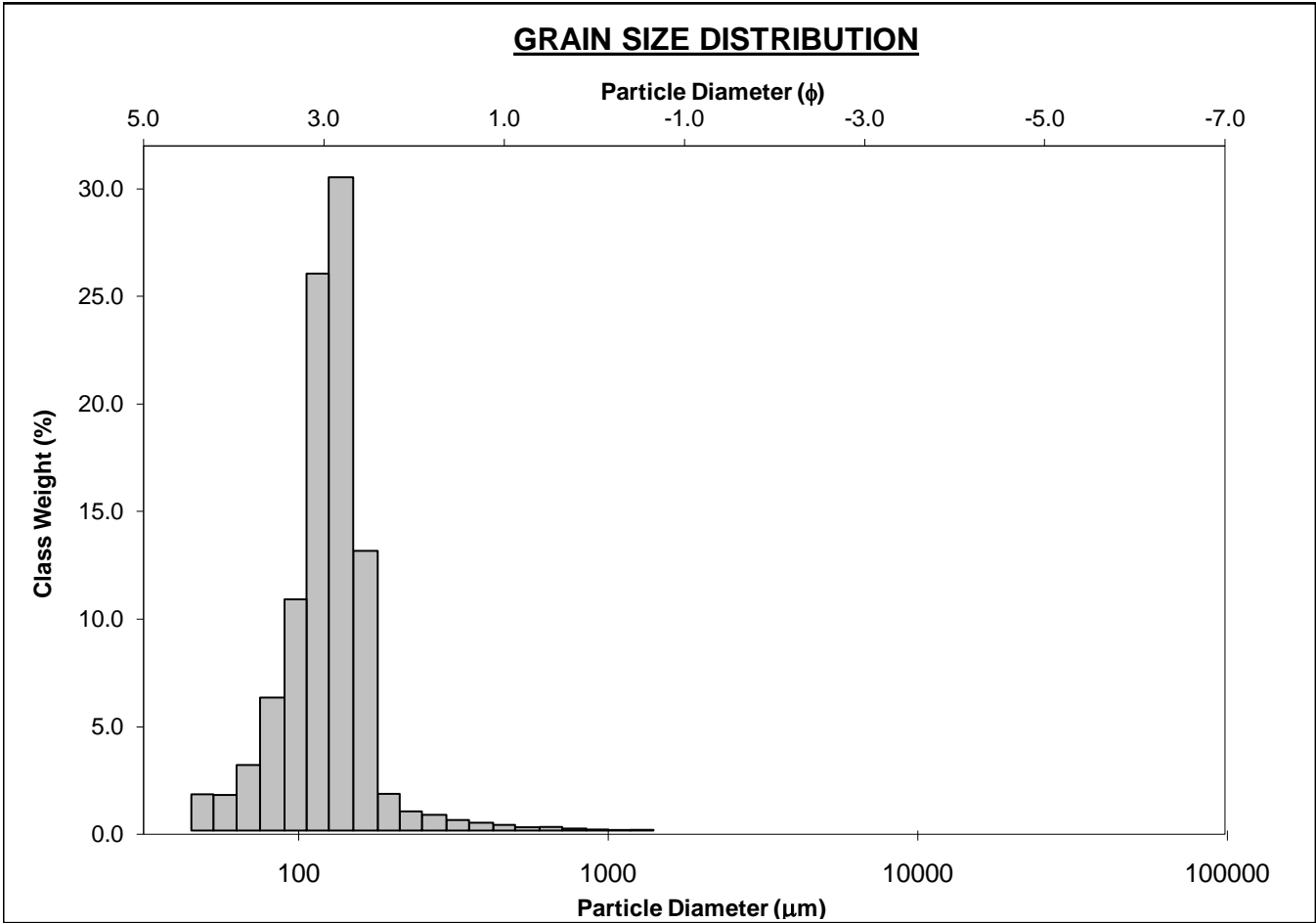
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-175cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 1.3%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 31.4%	
MODE 3:			MUD: 0.1%		FINE SAND: 65.7%	
D ₁₀ :	156.6	1.622			V FINE SAND: 1.5%	
MEDIAN or D ₅₀ :	222.4	2.169	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	324.9	2.675	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.074	1.649	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	168.3	1.053	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.464	1.290	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	85.26	0.550	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	237.3	224.4	2.156	221.8	2.173	Fine Sand
SORTING (σ):	87.67	1.373	0.457	1.332	0.413	Well Sorted
SKEWNESS (Sk):	3.603	-0.310	0.310	0.040	-0.040	Symmetrical
KURTOSIS (K):	32.12	14.01	14.01	1.041	1.041	Mesokurtic



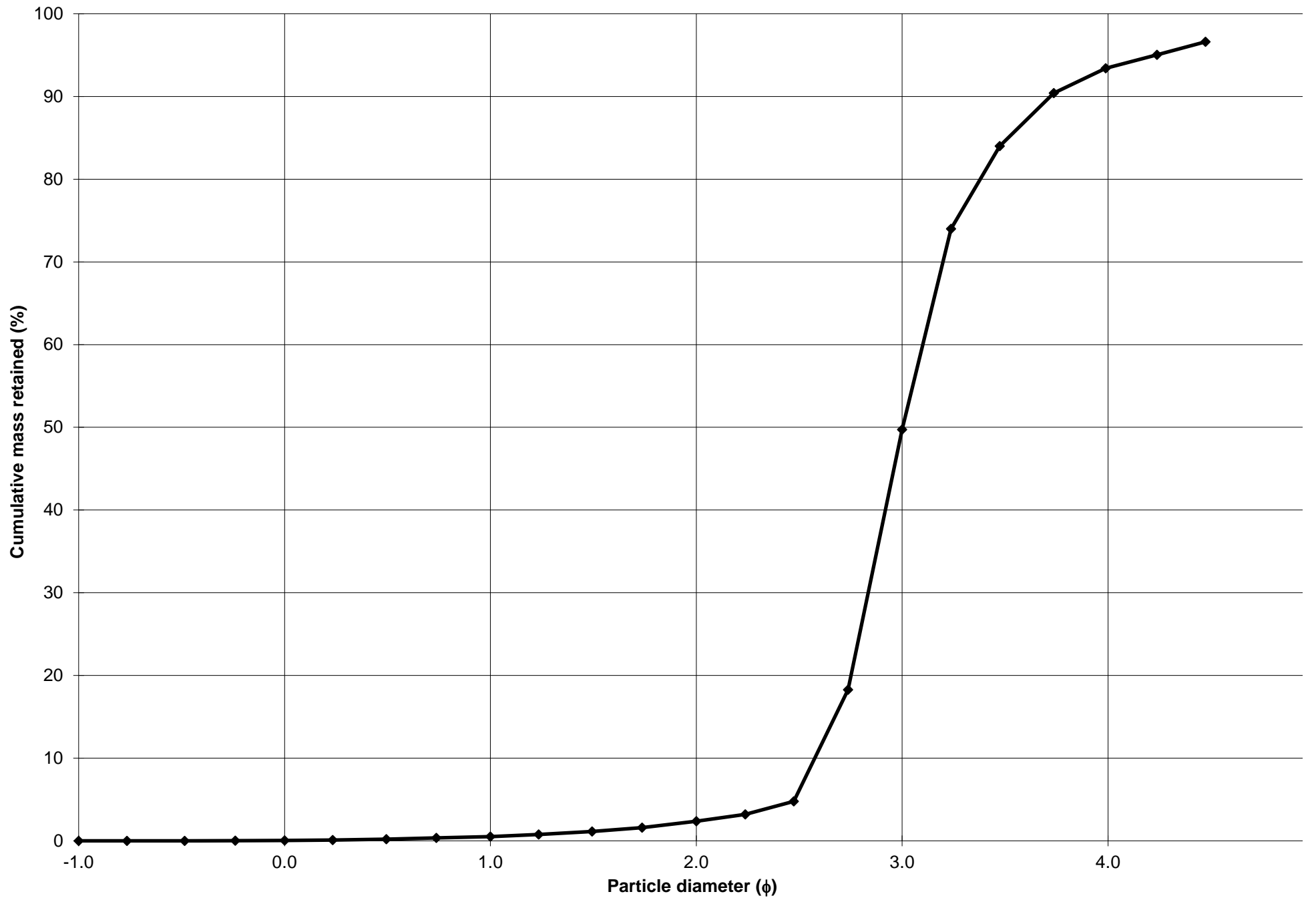
Cumulative Frequency Curve



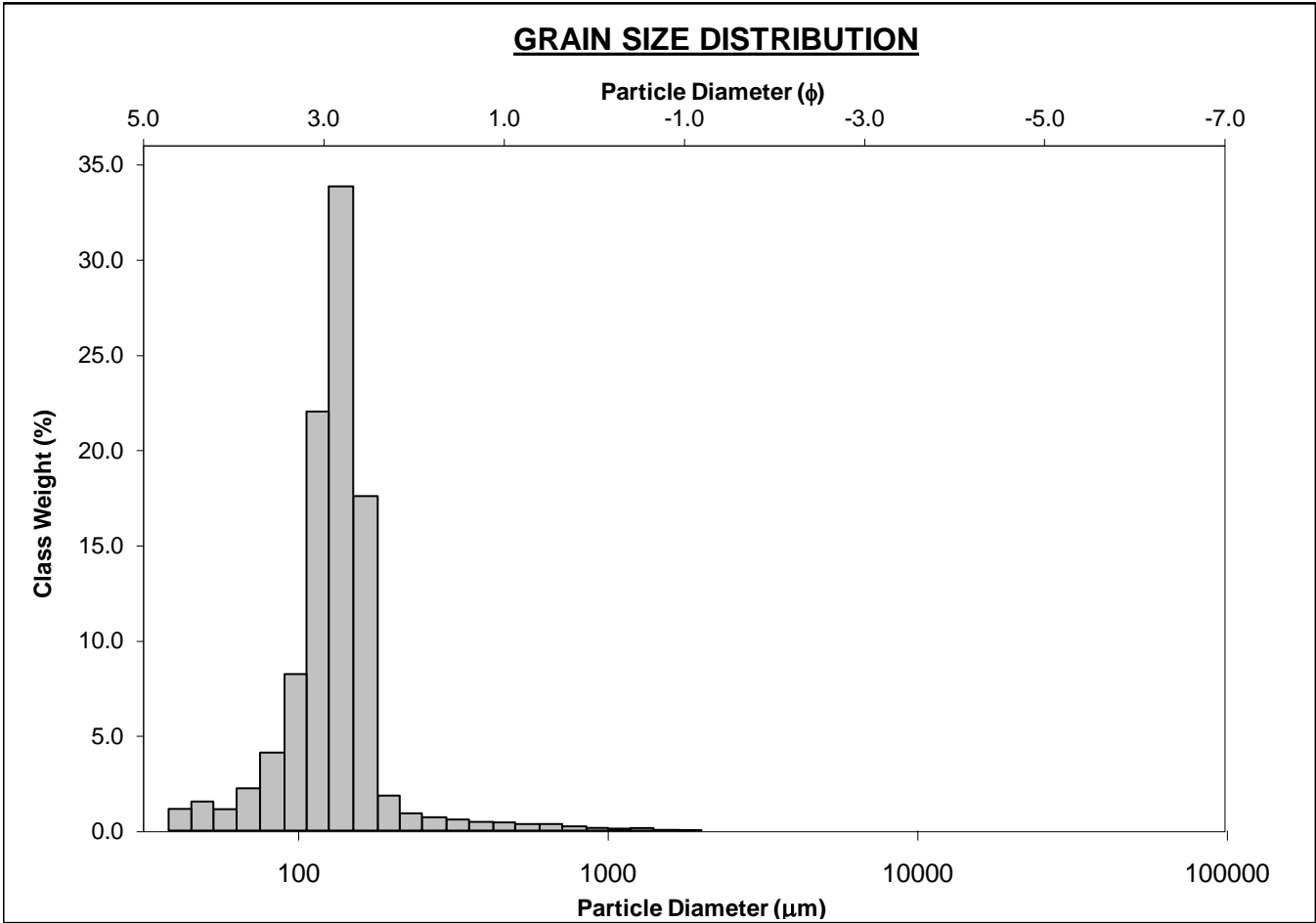
SIEVING ERROR: 1.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-180cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.5%			
MODE 2:			SAND: 93.5% MEDIUM SAND: 1.8%			
MODE 3:			MUD: 6.5% FINE SAND: 47.4%			
D ₁₀ :	75.86	2.576	V FINE SAND: 43.8%			
MEDIAN or D ₅₀ :	124.8	3.003	V COARSE GRAVEL: 0.0% V COARSE SILT: 3.4%			
D ₉₀ :	167.7	3.721	COARSE GRAVEL: 0.0% COARSE SILT: 0.6%			
(D ₉₀ / D ₁₀):	2.211	1.444	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.6%			
(D ₉₀ - D ₁₀):	91.88	1.145	FINE GRAVEL: 0.0% FINE SILT: 0.6%			
(D ₇₅ / D ₂₅):	1.383	1.168	V FINE GRAVEL: 0.0% V FINE SILT: 0.6%			
(D ₇₅ - D ₂₅):	39.98	0.468	V COARSE SAND: 0.1% CLAY: 0.6%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	128.2	111.8	3.161	120.2	3.057	Very Fine Sand
SORTING (σ):	65.35	1.861	0.896	1.376	0.461	Well Sorted
SKEWNESS (Sk):	6.284	-2.951	2.951	-0.304	0.304	Very Fine Skewed
KURTOSIS (K):	76.84	15.28	15.28	1.534	1.534	Very Leptokurtic



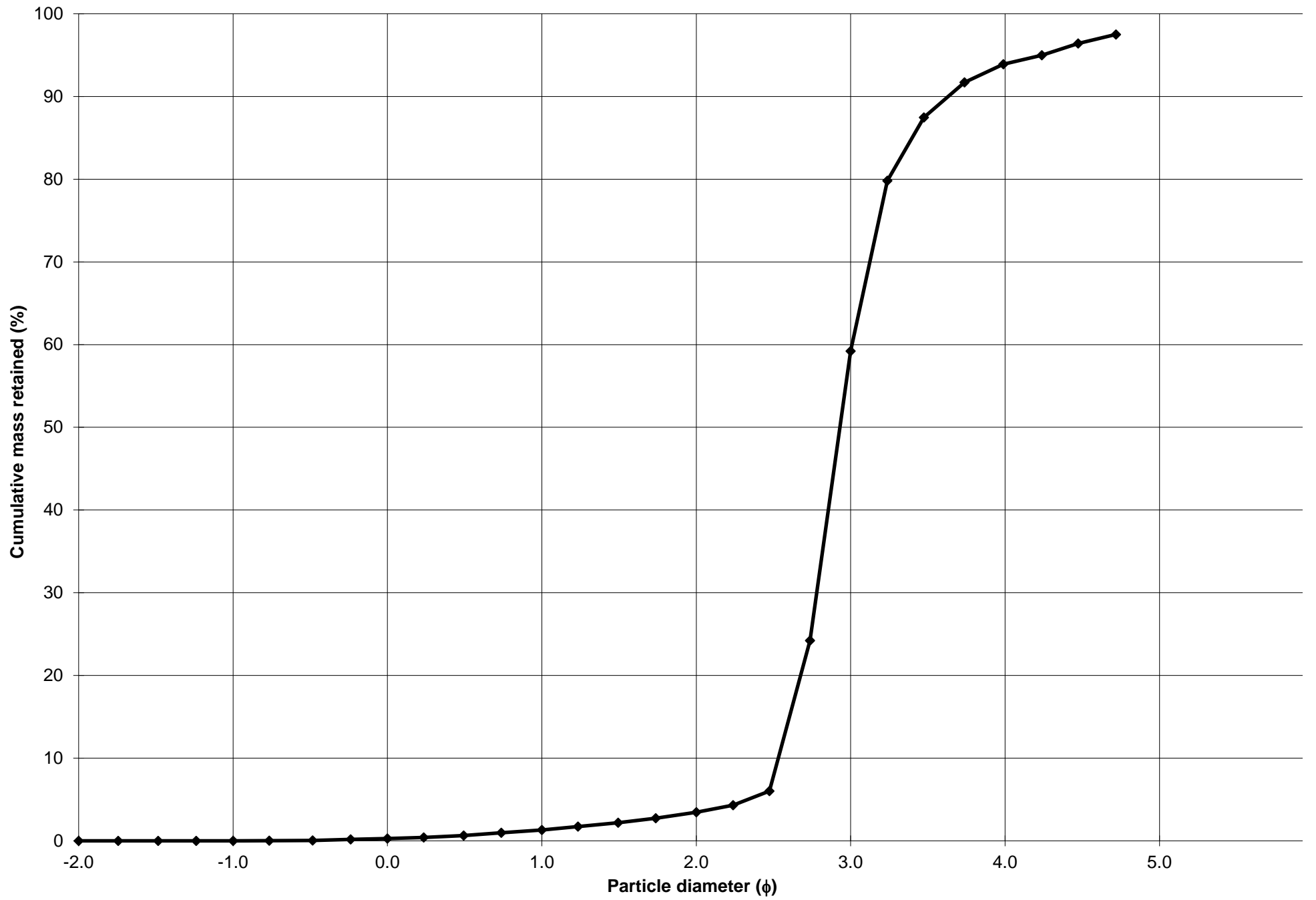
Cumulative Frequency Curve



SIEVING ERROR: 1.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-190cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 1.0%			
MODE 2:			SAND: 93.9% MEDIUM SAND: 2.1%			
MODE 3:			MUD: 6.1% FINE SAND: 55.8%			
D ₁₀ :	80.67	2.531	V FINE SAND: 34.7%			
MEDIAN or D ₅₀ :	131.1	2.931	V COARSE GRAVEL: 0.0% V COARSE SILT: 3.7%			
D ₉₀ :	173.0	3.632	COARSE GRAVEL: 0.0% COARSE SILT: 0.5%			
(D ₉₀ / D ₁₀):	2.144	1.435	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.5%			
(D ₉₀ - D ₁₀):	92.29	1.100	FINE GRAVEL: 0.0% FINE SILT: 0.5%			
(D ₇₅ / D ₂₅):	1.356	1.160	V FINE GRAVEL: 0.0% V FINE SILT: 0.5%			
(D ₇₅ - D ₂₅):	39.21	0.439	V COARSE SAND: 0.3% CLAY: 0.5%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	140.2	120.6	3.052	127.4	2.972	Fine Sand
SORTING (σ):	97.63	1.838	0.878	1.391	0.476	Well Sorted
SKEWNESS (Sk):	7.403	-2.532	2.532	-0.269	0.269	Fine Skewed
KURTOSIS (K):	81.72	16.25	16.25	1.779	1.779	Very Leptokurtic



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-04**

ANALYST & DATE: Chris, 10/3/15

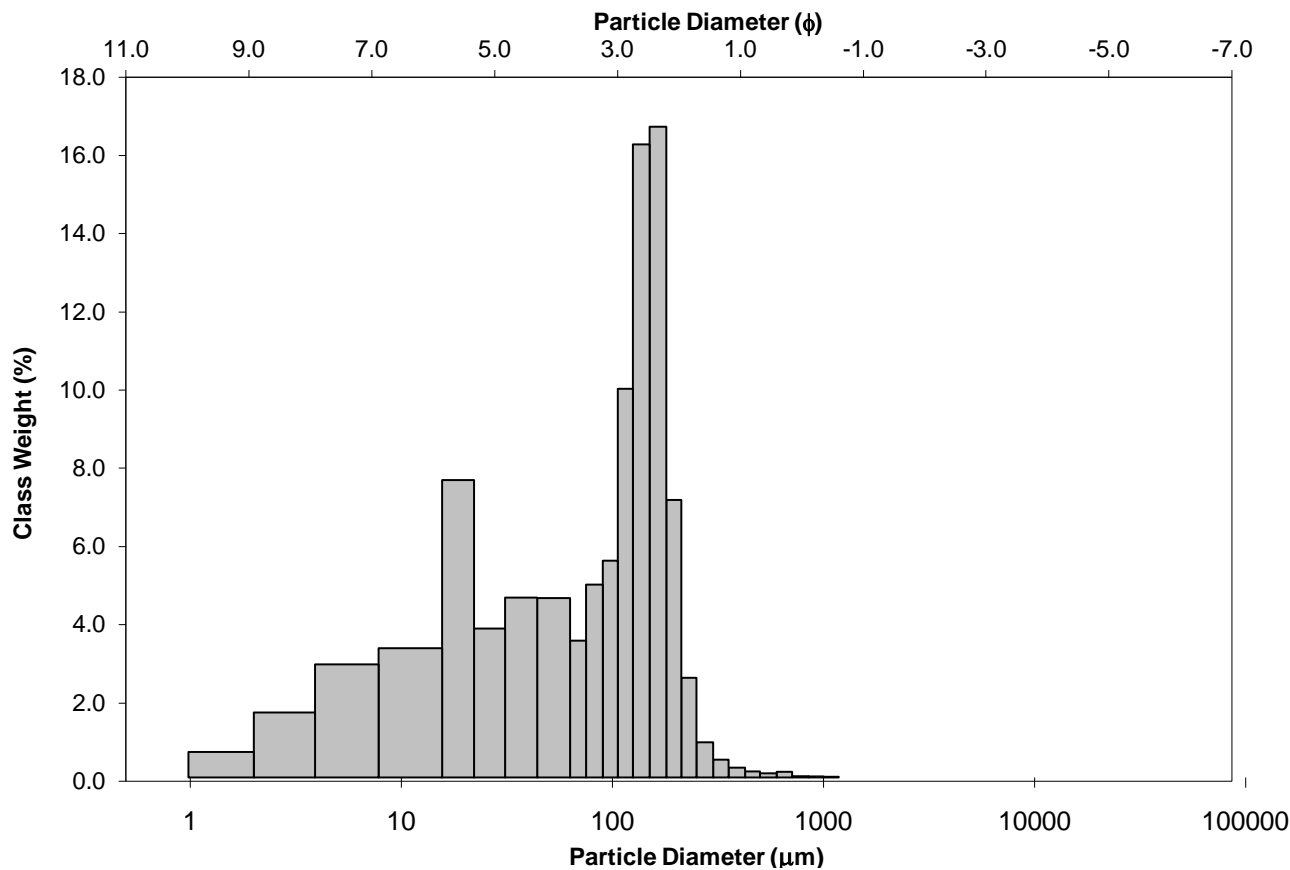
SAMPLE TYPE: Trimodal, Very Poorly Sorted

TEXTURAL GROUP: Sandy Mud

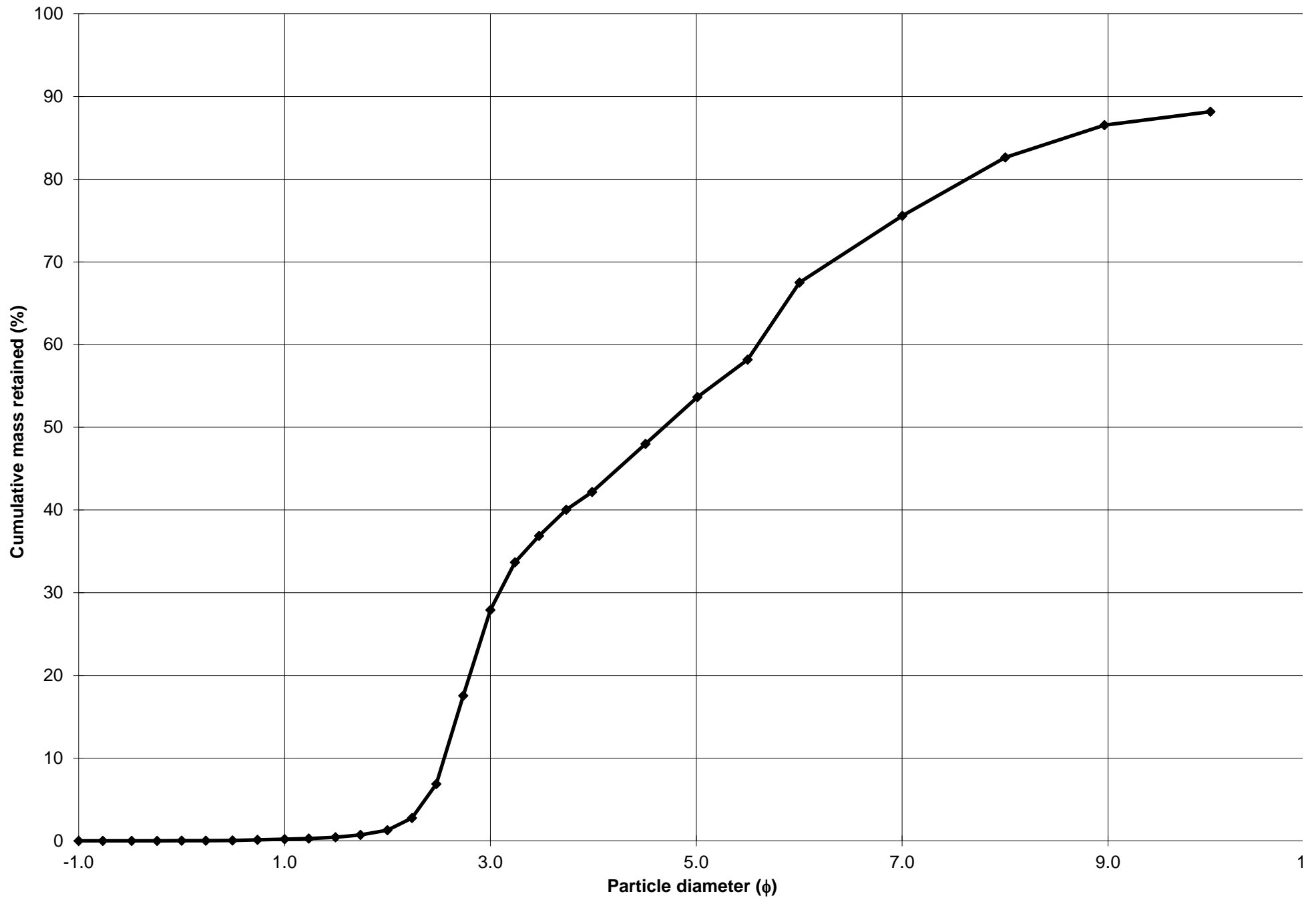
SEDIMENT NAME: Fine Sandy Coarse Silt

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%	COARSE SAND: 0.2%		
MODE 2:	18.85	5.751	SAND: 42.3%	MEDIUM SAND: 1.1%		
MODE 3:	37.50	4.759	MUD: 57.7%	FINE SAND: 26.6%		
D_{10} :	1.215	2.551		V FINE SAND: 14.4%		
MEDIAN or D_{50} :	38.84	4.686	V COARSE GRAVEL: 0.0%	V COARSE SILT: 11.2%		
D_{90} :	170.6	9.685	COARSE GRAVEL: 0.0%	COARSE SILT: 13.9%		
(D_{90} / D_{10}) :	140.4	3.796	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 8.1%		
$(D_{90} - D_{10})$:	169.4	7.134	FINE GRAVEL: 0.0%	FINE SILT: 7.1%		
(D_{75} / D_{25}) :	16.07	2.369	V FINE GRAVEL: 0.0%	V FINE SILT: 4.0%		
$(D_{75} - D_{25})$:	123.4	4.006	V COARSE SAND: 0.0%	CLAY: 13.4%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	71.83	26.82	5.221	26.41	5.243	Coarse Silt
SORTING (σ):	76.72	5.821	2.541	5.250	2.392	Very Poorly Sorted
SKEWNESS (Sk):	1.889	-0.622	0.622	-0.290	0.290	Fine Skewed
KURTOSIS (K):	13.53	2.169	2.169	0.662	0.662	Very Platykurtic

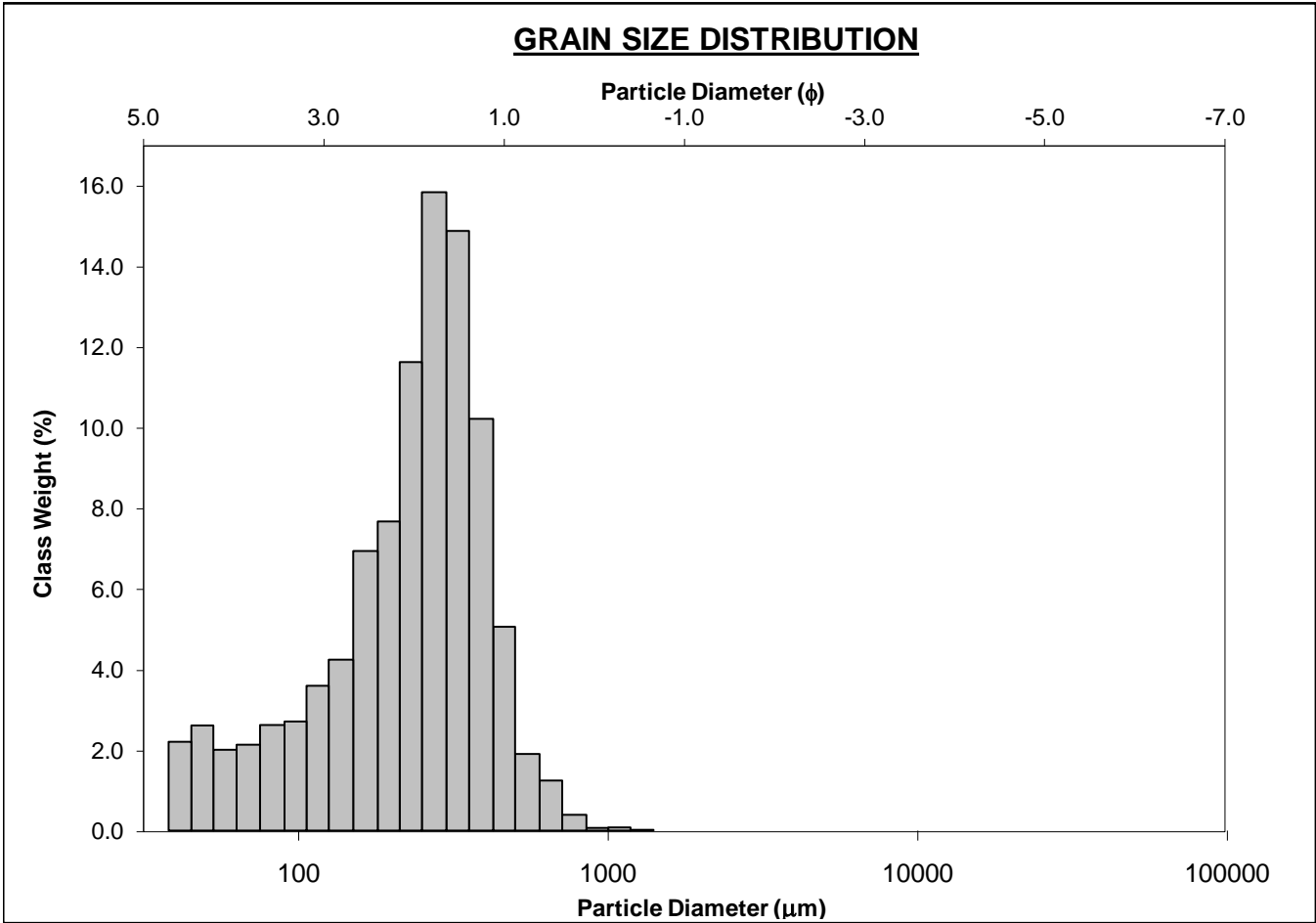
GRAIN SIZE DISTRIBUTION



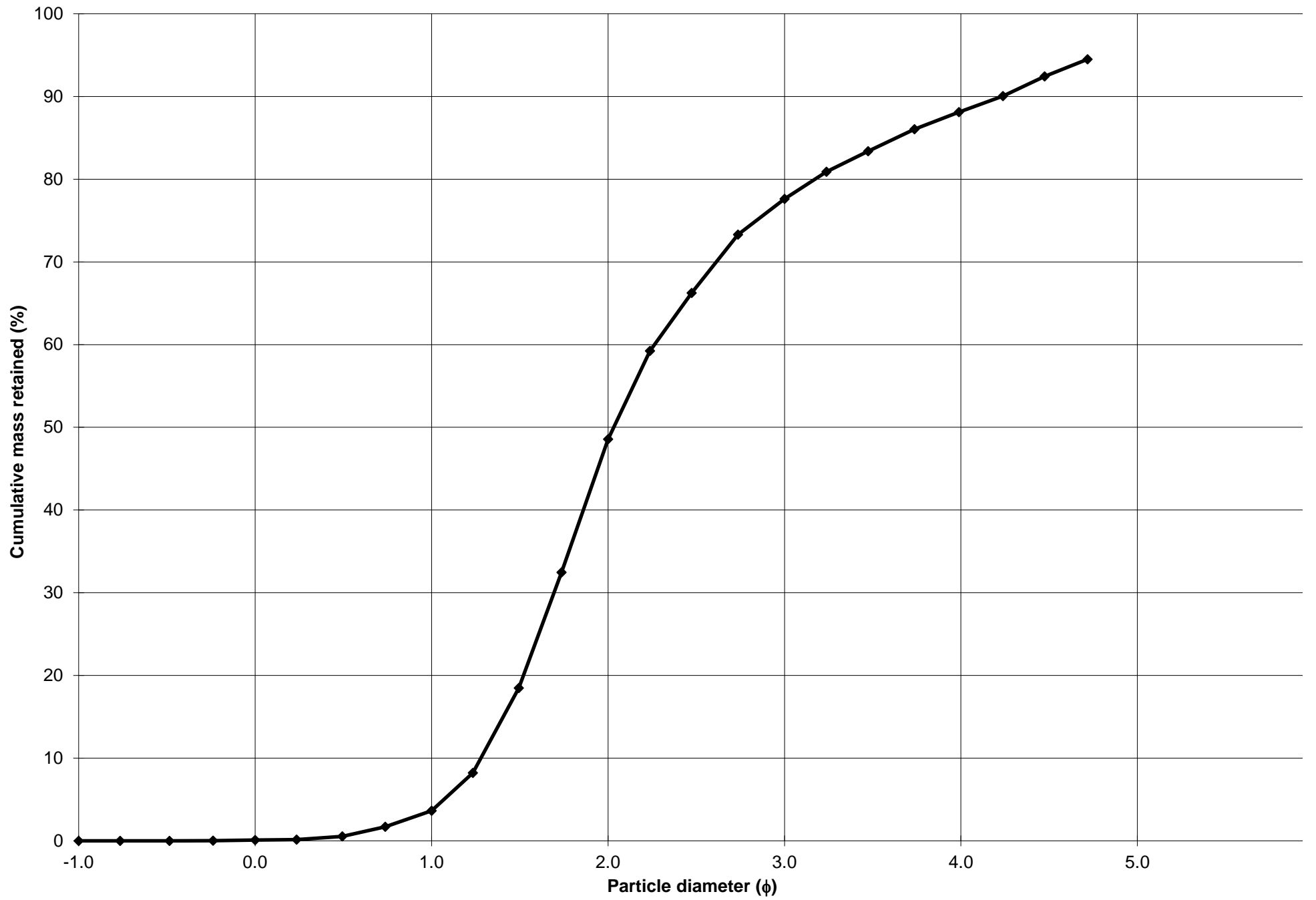
Cumulative Frequency Curve



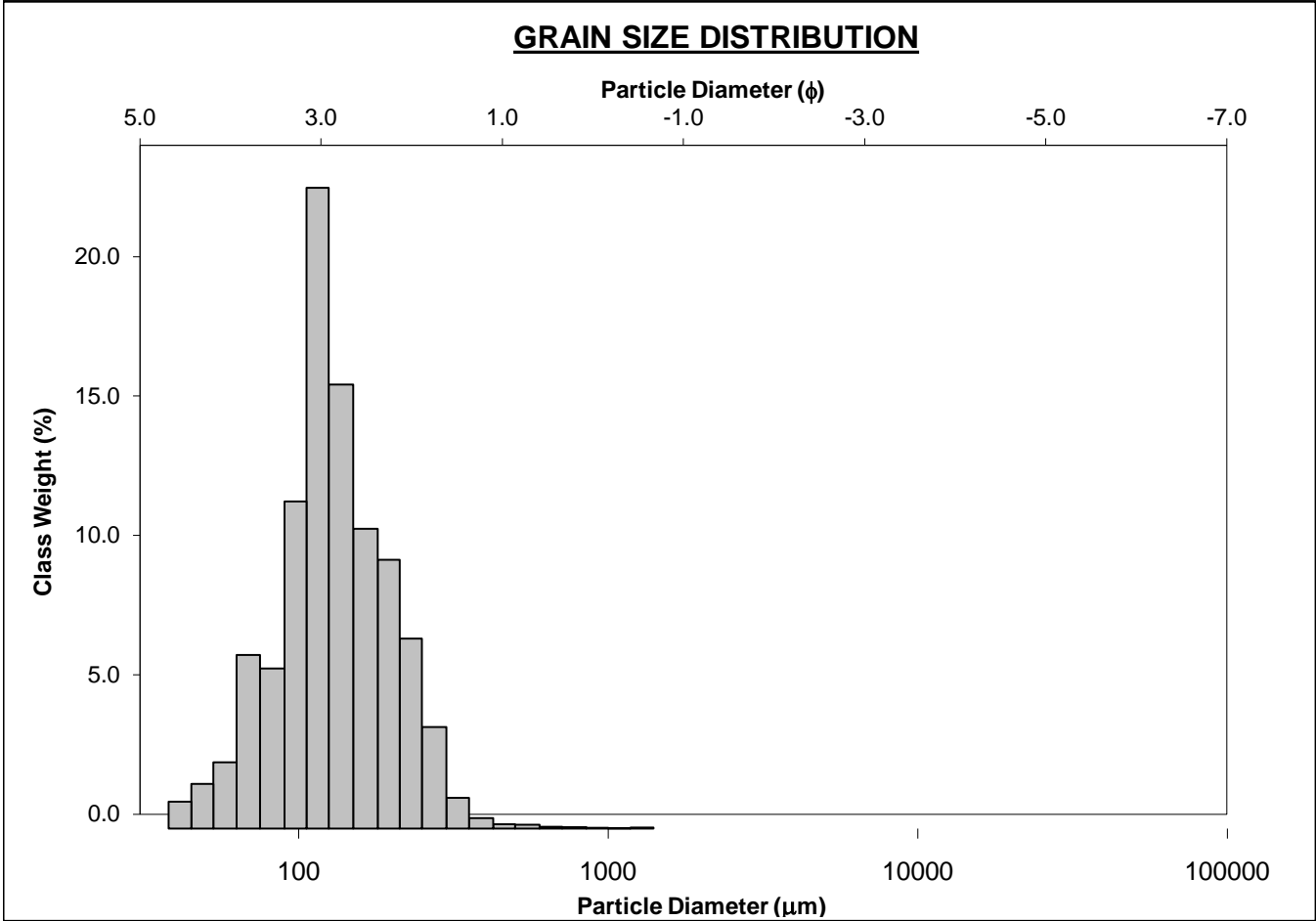
SIEVING ERROR: 1.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-04-330cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Bimodal, Poorly Sorted			TEXTURAL GROUP: Muddy Sand			
SEDIMENT NAME: Very Coarse Silty Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 3.6%	
MODE 2:	49.00	4.356	SAND: 88.2%		MEDIUM SAND: 44.9%	
MODE 3:			MUD: 11.8%		FINE SAND: 29.1%	
D_{10} :	53.23	1.279			V FINE SAND: 10.6%	
MEDIAN or D_{50} :	244.5	2.032	V COARSE GRAVEL: 0.0%		V COARSE SILT: 6.6%	
D_{90} :	412.0	4.232	COARSE GRAVEL: 0.0%		COARSE SILT: 1.0%	
(D_{90} / D_{10}) :	7.740	3.308	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 1.0%	
$(D_{90} - D_{10})$:	358.7	2.952	FINE GRAVEL: 0.0%		FINE SILT: 1.0%	
(D_{75} / D_{25}) :	2.351	1.767	V FINE GRAVEL: 0.0%		V FINE SILT: 1.0%	
$(D_{75} - D_{25})$:	188.6	1.233	V COARSE SAND: 0.1%		CLAY: 1.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	244.2	178.4	2.487	198.5	2.333	Fine Sand
SORTING (σ):	141.8	2.770	1.470	2.179	1.124	Poorly Sorted
SKEWNESS (Sk):	0.742	-1.980	1.980	-0.470	0.470	Very Fine Skewed
KURTOSIS (K):	4.942	7.026	7.026	1.311	1.311	Leptokurtic



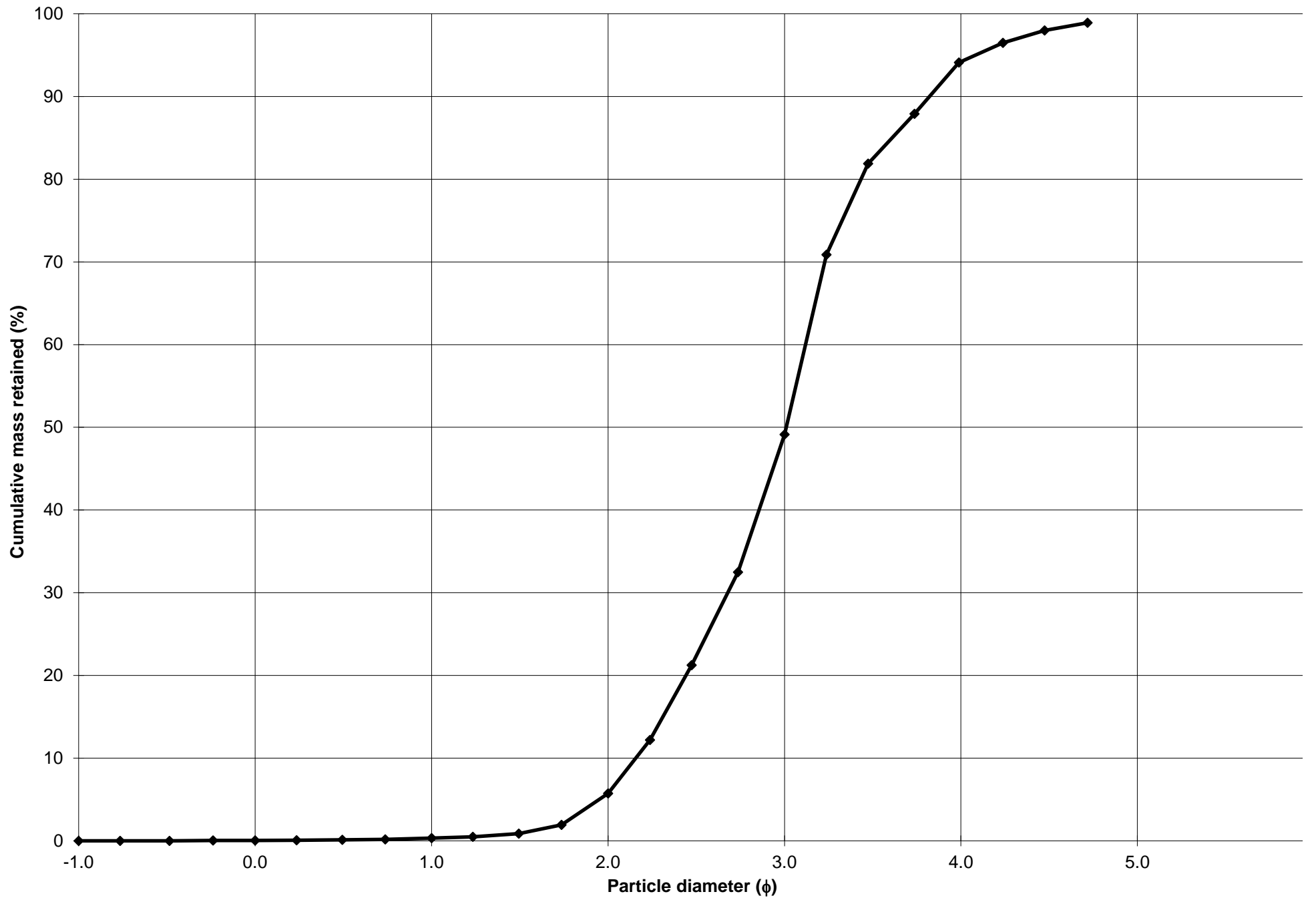
Cumulative Frequency Curve



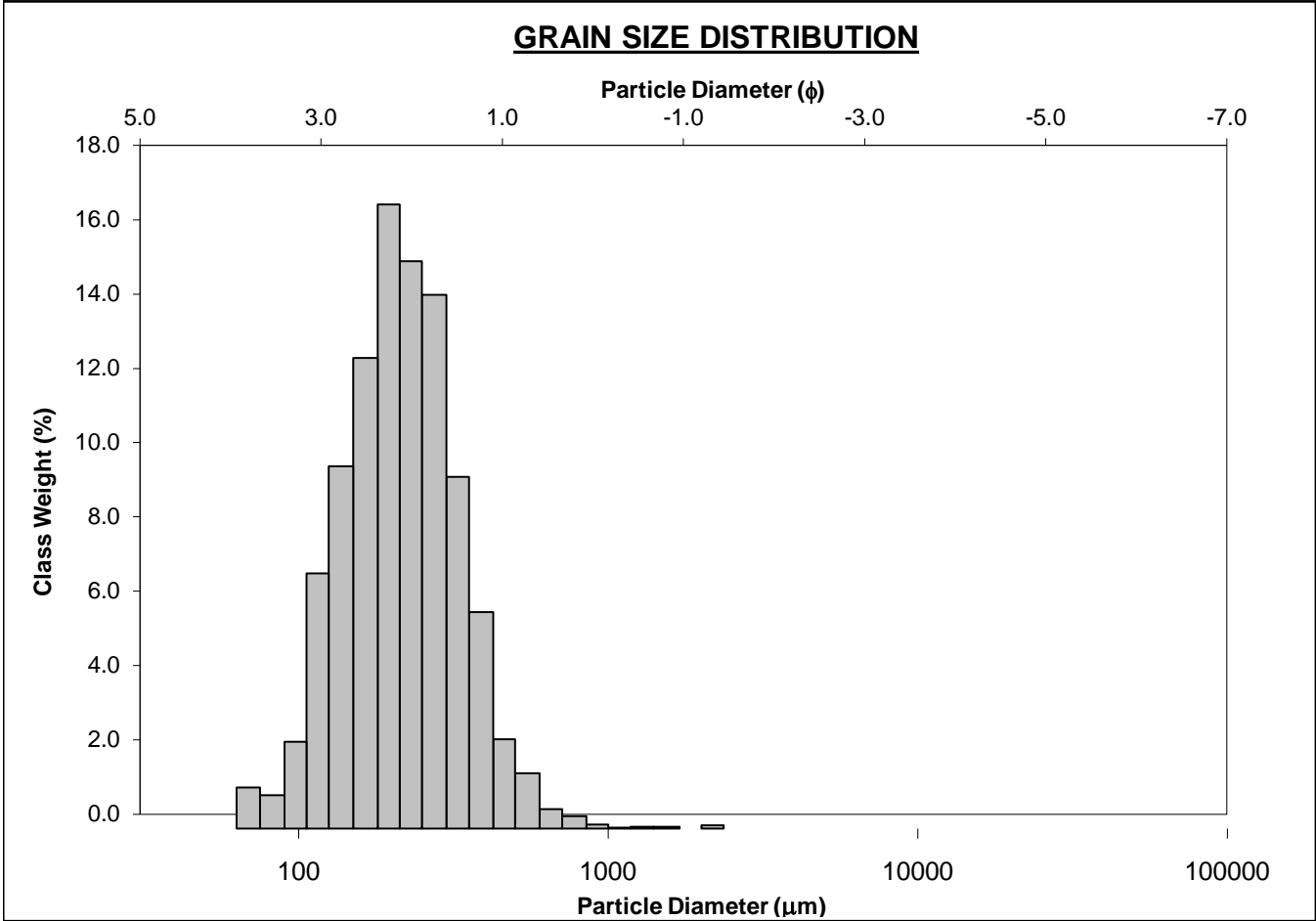
SIEVING ERROR: 1.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-20cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Very Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	115.5	3.119	GRAVEL: 0.0%		COARSE SAND: 0.3%	
MODE 2:	69.00	3.863	SAND: 94.2%		MEDIUM SAND: 5.4%	
MODE 3:			MUD: 5.8%		FINE SAND: 43.4%	
D ₁₀ :	70.70	2.157			V FINE SAND: 45.1%	
MEDIAN or D ₅₀ :	124.2	3.009	V COARSE GRAVEL: 0.0%		V COARSE SILT: 4.7%	
D ₉₀ :	224.2	3.822	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	3.171	1.772	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	153.5	1.665	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.699	1.298	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	69.64	0.764	V COARSE SAND: 0.0%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	140.5	124.3	3.008	127.5	2.971	Fine Sand
SORTING (σ):	71.20	1.700	0.765	1.548	0.630	Moderately Well Sorted
SKEWNESS (Sk):	3.652	-1.810	1.810	0.044	-0.044	Symmetrical
KURTOSIS (K):	41.00	12.94	12.94	1.144	1.144	Leptokurtic



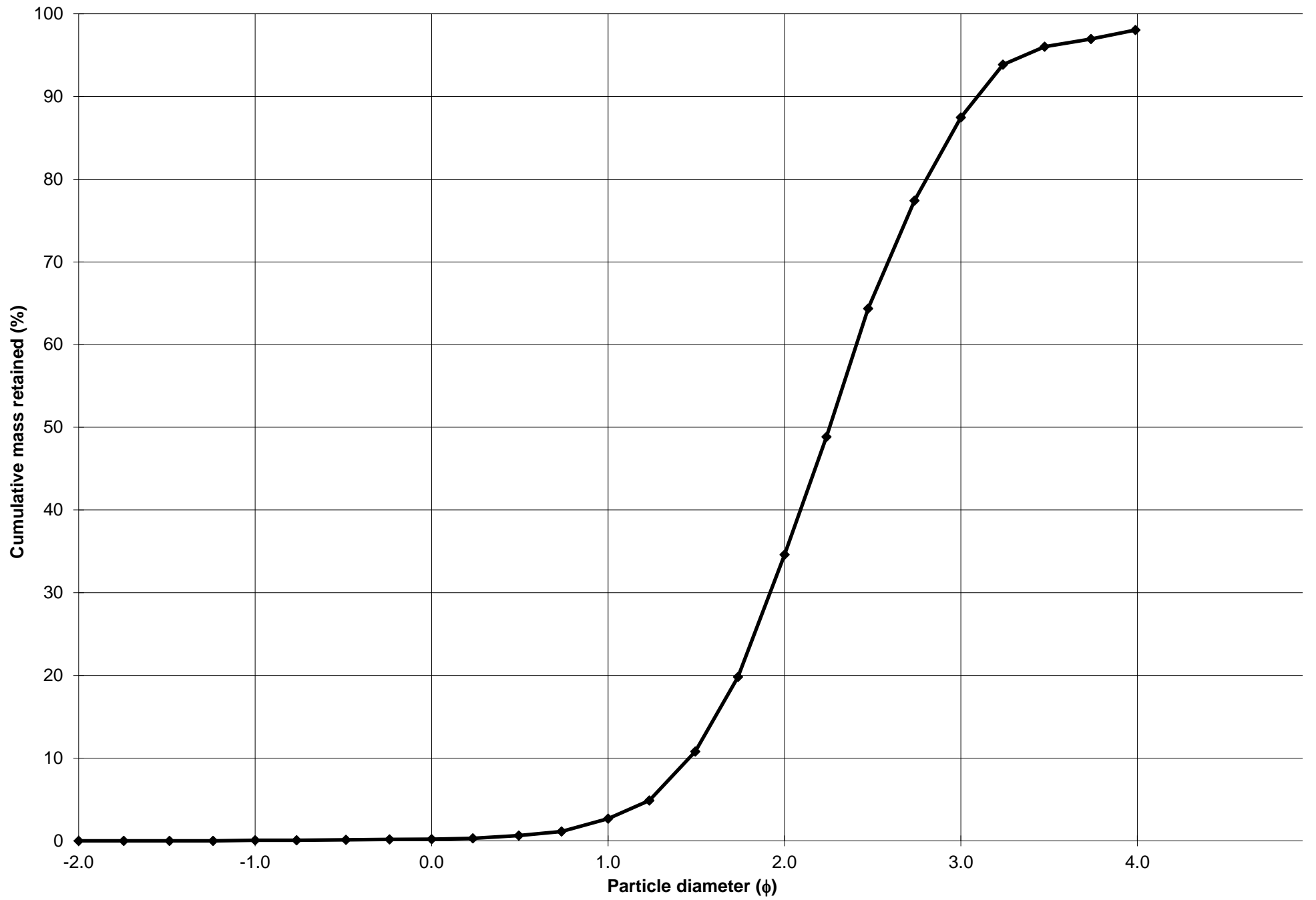
Cumulative Frequency Curve



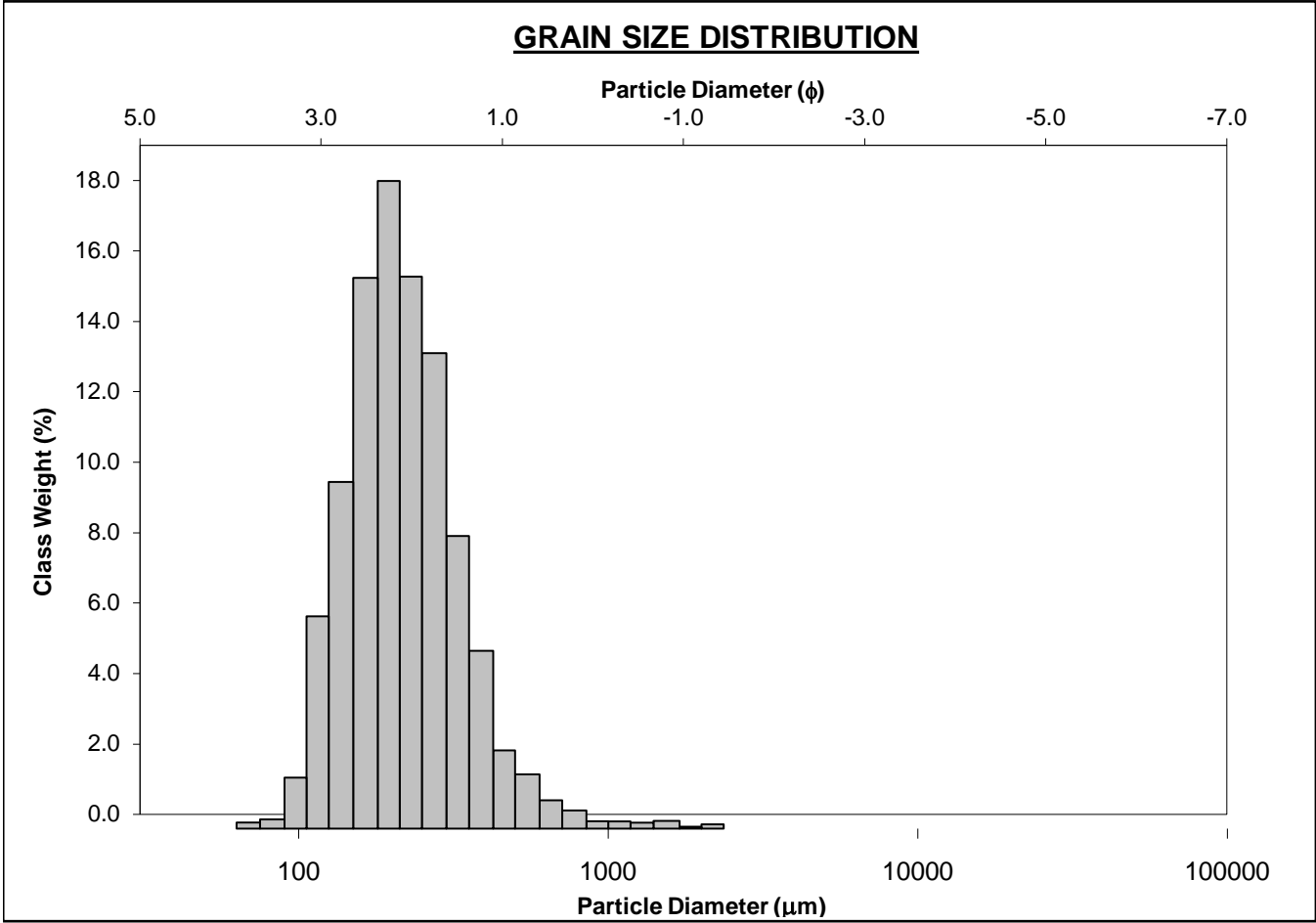
SIEVING ERROR: 1.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-30cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.1%		COARSE SAND: 2.5%	
MODE 2:			SAND: 98.0%		MEDIUM SAND: 31.9%	
MODE 3:			MUD: 2.0%		FINE SAND: 52.9%	
D ₁₀ :	117.1	1.459			V FINE SAND: 10.6%	
MEDIAN or D ₅₀ :	209.4	2.256	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.3%	
D ₉₀ :	363.8	3.094	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D ₉₀ / D ₁₀):	3.107	2.121	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
(D ₉₀ - D ₁₀):	246.7	1.636	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D ₇₅ / D ₂₅):	1.814	1.470	V FINE GRAVEL: 0.1%		V FINE SILT: 0.3%	
(D ₇₅ - D ₂₅):	126.3	0.859	V COARSE SAND: 0.1%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	232.5	199.7	2.324	207.9	2.266	Fine Sand
SORTING (σ):	129.0	1.878	0.909	1.559	0.640	Moderately Well Sorted
SKEWNESS (Sk):	4.558	-2.438	2.438	-0.034	0.034	Symmetrical
KURTOSIS (K):	54.66	14.65	14.65	1.013	1.013	Mesokurtic



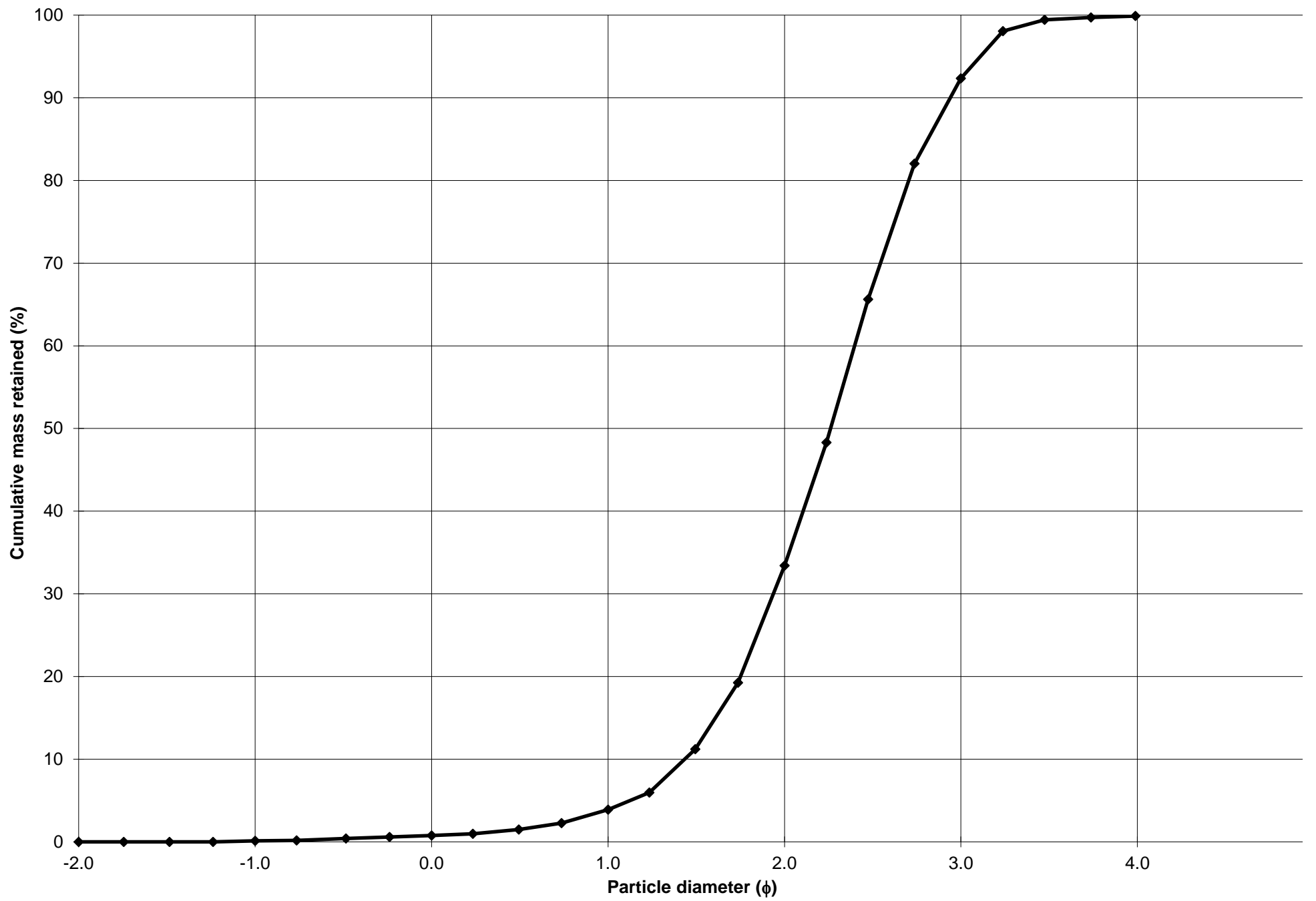
Cumulative Frequency Curve



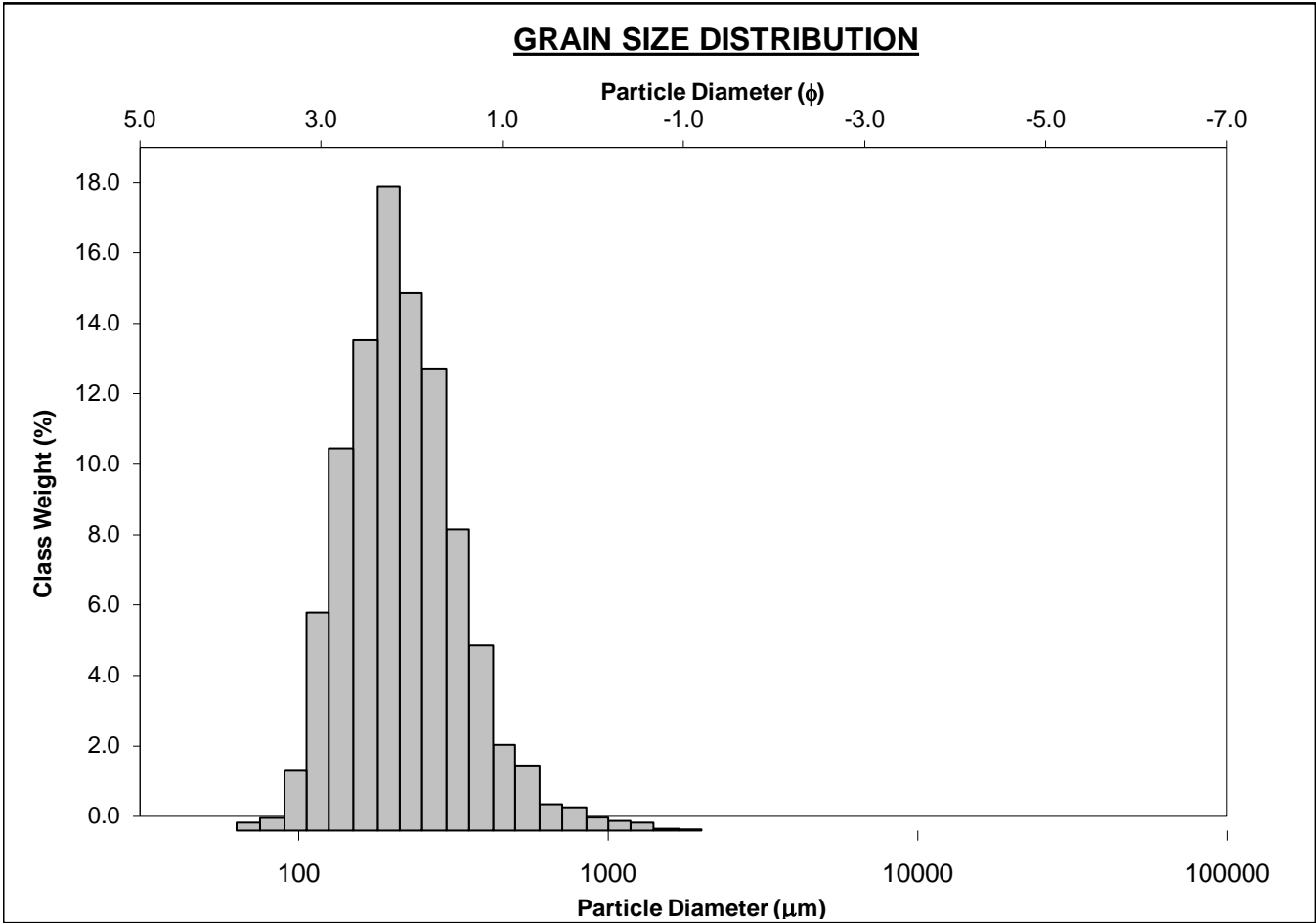
SIEVING ERROR: 4.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-40cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.1%		COARSE SAND: 3.1%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 29.5%	
MODE 3:			MUD: 0.1%		FINE SAND: 58.9%	
D_{10} :	130.3	1.434			V FINE SAND: 7.5%	
MEDIAN or D_{50} :	208.6	2.261	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	370.0	2.940	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.840	2.050	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	239.7	1.506	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.718	1.423	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	116.4	0.781	V COARSE SAND: 0.7%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	244.7	217.3	2.202	213.3	2.229	Fine Sand
SORTING (σ):	158.5	1.566	0.647	1.503	0.588	Moderately Well Sorted
SKEWNESS (Sk):	5.376	0.423	-0.423	0.114	-0.114	Coarse Skewed
KURTOSIS (K):	49.09	8.315	8.315	1.042	1.042	Mesokurtic



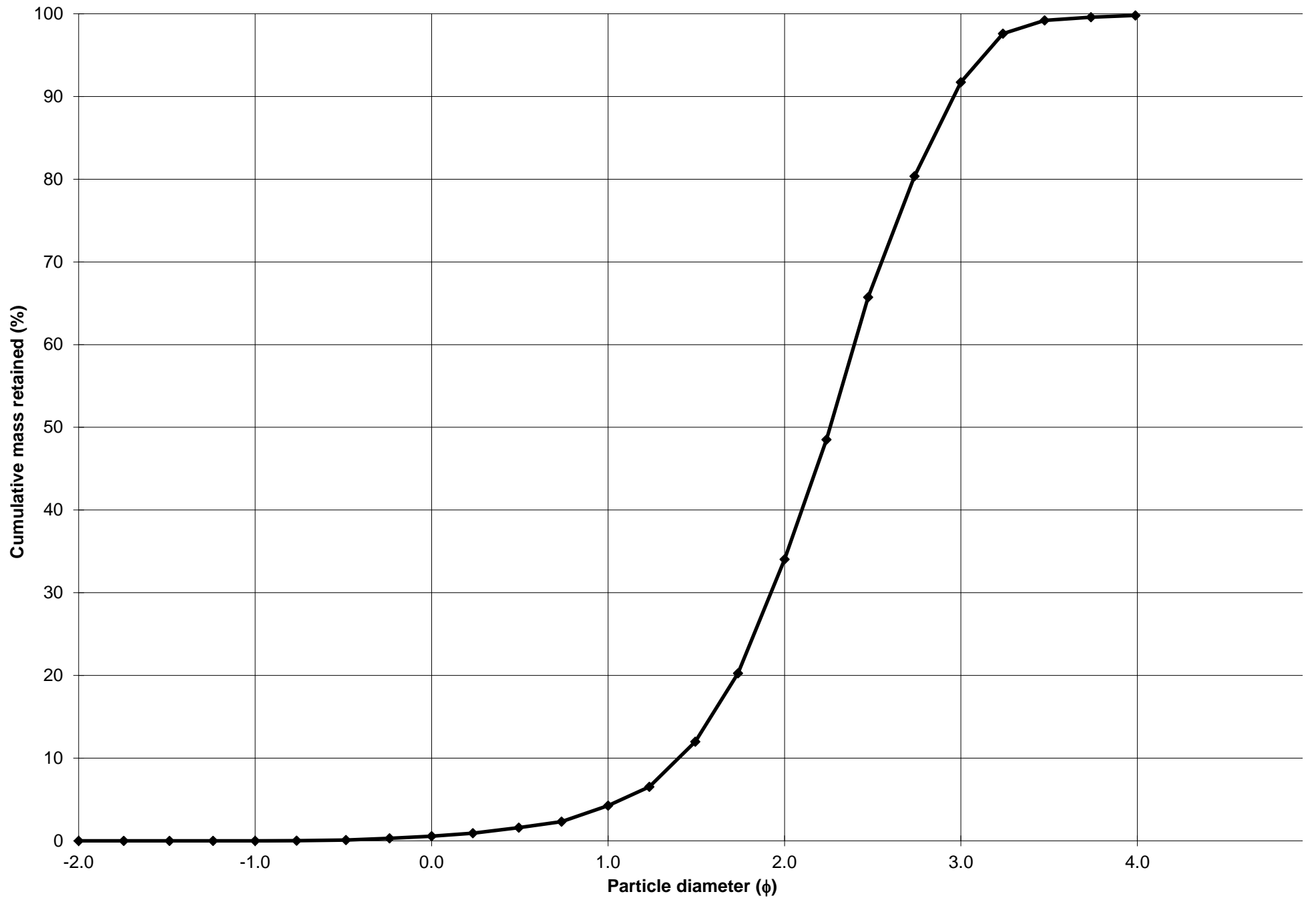
Cumulative Frequency Curve



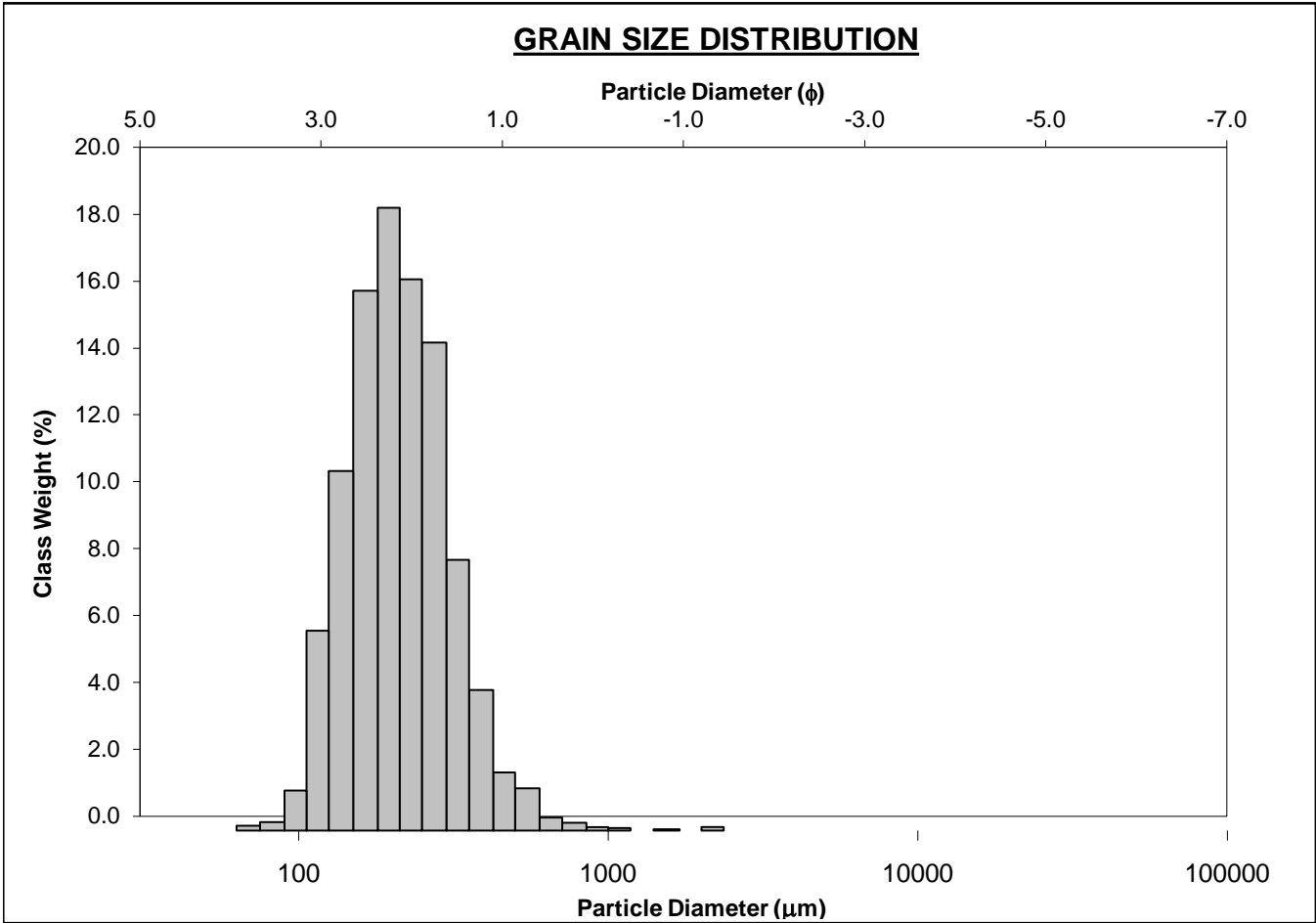
SIEVING ERROR: 3.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-50cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 3.7%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 29.8%	
MODE 3:			MUD: 0.2%		FINE SAND: 57.7%	
D_{10} :	128.5	1.400			V FINE SAND: 8.1%	
MEDIAN or D_{50} :	209.0	2.258	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	379.1	2.960	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.949	2.115	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	250.5	1.560	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.757	1.445	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	121.4	0.813	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	243.7	216.8	2.206	213.1	2.231	Fine Sand
SORTING (σ):	140.9	1.587	0.667	1.530	0.614	Moderately Well Sorted
SKEWNESS (Sk):	3.552	-0.069	0.069	0.109	-0.109	Coarse Skewed
KURTOSIS (K):	24.32	8.682	8.682	1.036	1.036	Mesokurtic



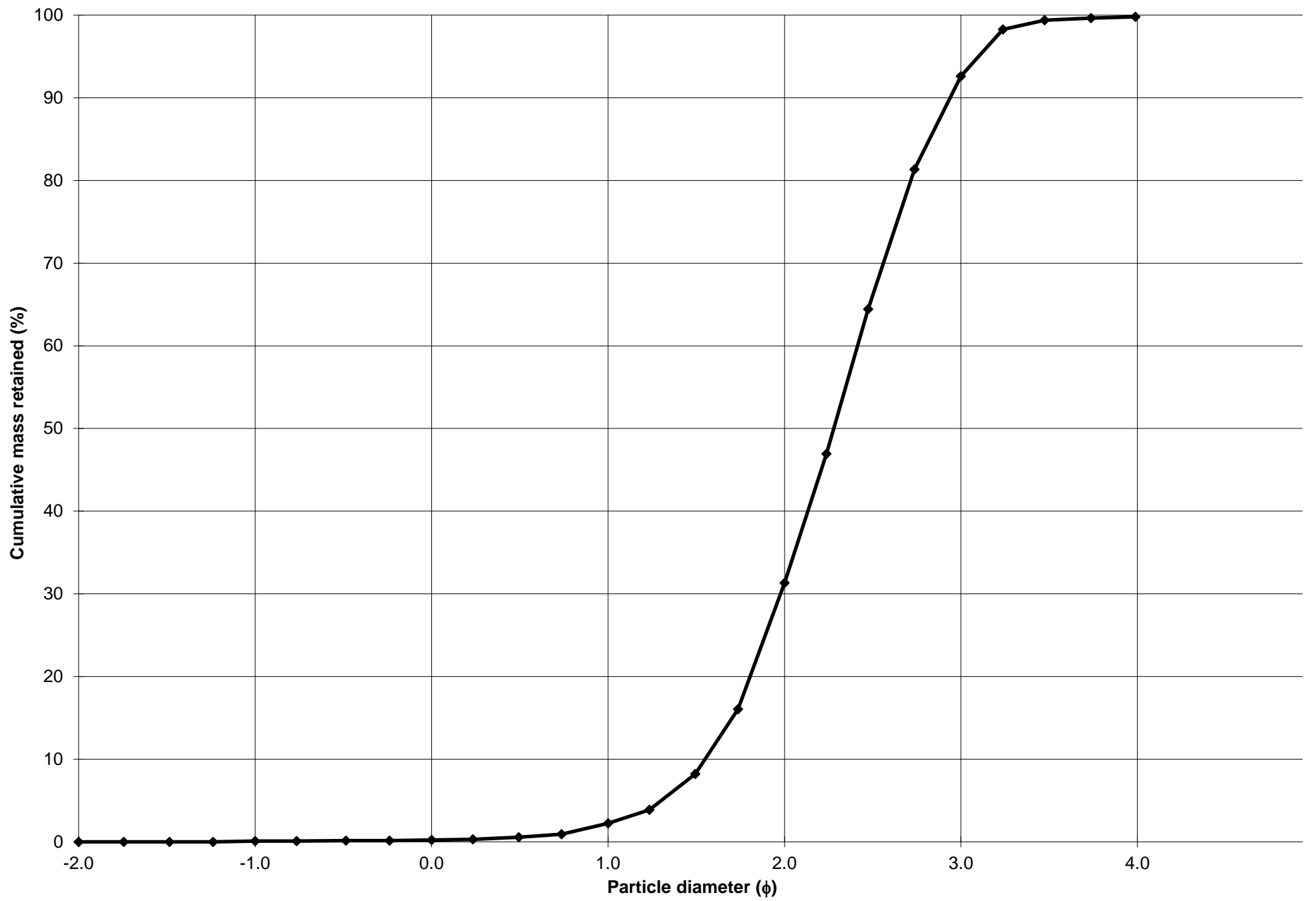
Cumulative Frequency Curve



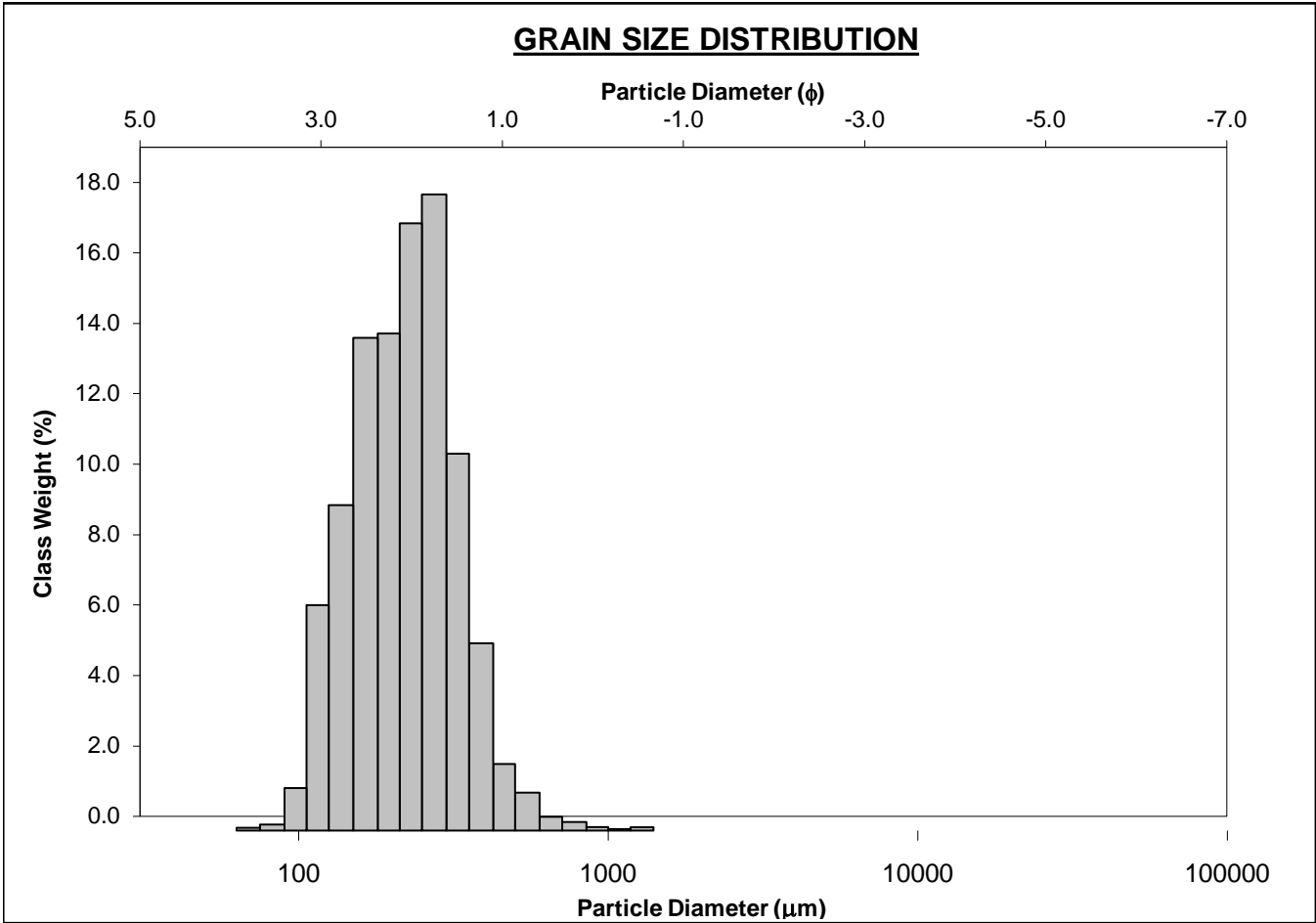
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-60cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.1%		COARSE SAND: 2.0%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 29.1%	
MODE 3:			MUD: 0.2%		FINE SAND: 61.3%	
D ₁₀ :	130.4	1.549			V FINE SAND: 7.2%	
MEDIAN or D ₅₀ :	206.0	2.279	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	341.7	2.939	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.621	1.897	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	211.3	1.390	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.679	1.395	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	109.0	0.747	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	230.0	209.8	2.253	207.1	2.271	Fine Sand
SORTING (σ):	120.1	1.513	0.598	1.452	0.539	Moderately Well Sorted
SKEWNESS (Sk):	6.129	-0.468	0.468	0.054	-0.054	Symmetrical
KURTOSIS (K):	82.73	11.89	11.89	0.987	0.987	Mesokurtic



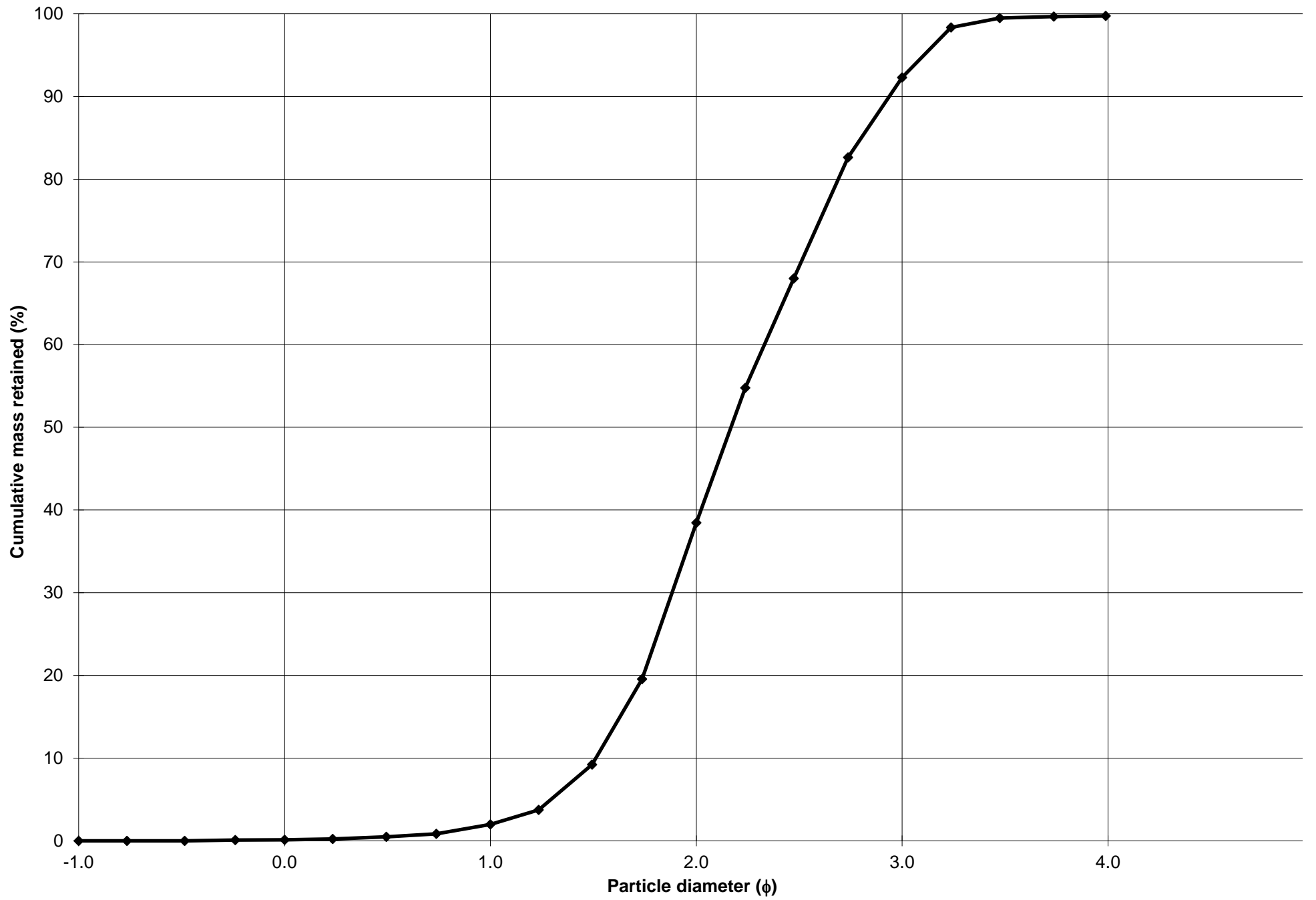
Cumulative Frequency Curve



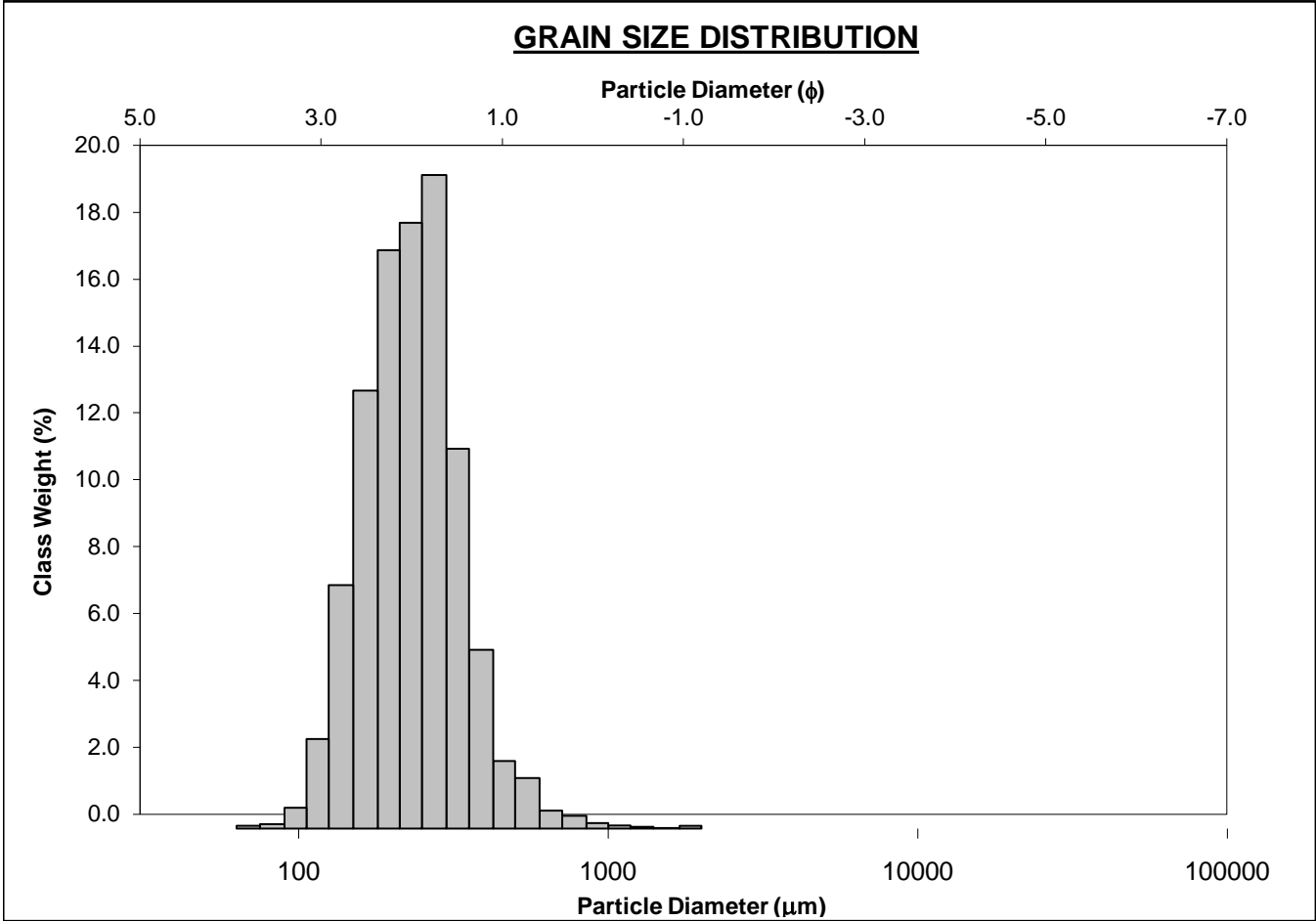
SIEVING ERROR: 1.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-70cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.8%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 36.5%	
MODE 3:			MUD: 0.3%		FINE SAND: 53.8%	
D ₁₀ :	130.5	1.512			V FINE SAND: 7.4%	
MEDIAN or D ₅₀ :	222.4	2.168	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	350.6	2.938	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.686	1.943	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	220.1	1.425	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.726	1.434	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	119.7	0.787	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	237.9	218.0	2.198	217.8	2.199	Fine Sand
SORTING (σ):	103.9	1.524	0.608	1.469	0.555	Moderately Well Sorted
SKEWNESS (Sk):	2.480	-1.061	1.061	-0.058	0.058	Symmetrical
KURTOSIS (K):	18.12	12.62	12.62	0.944	0.944	Mesokurtic



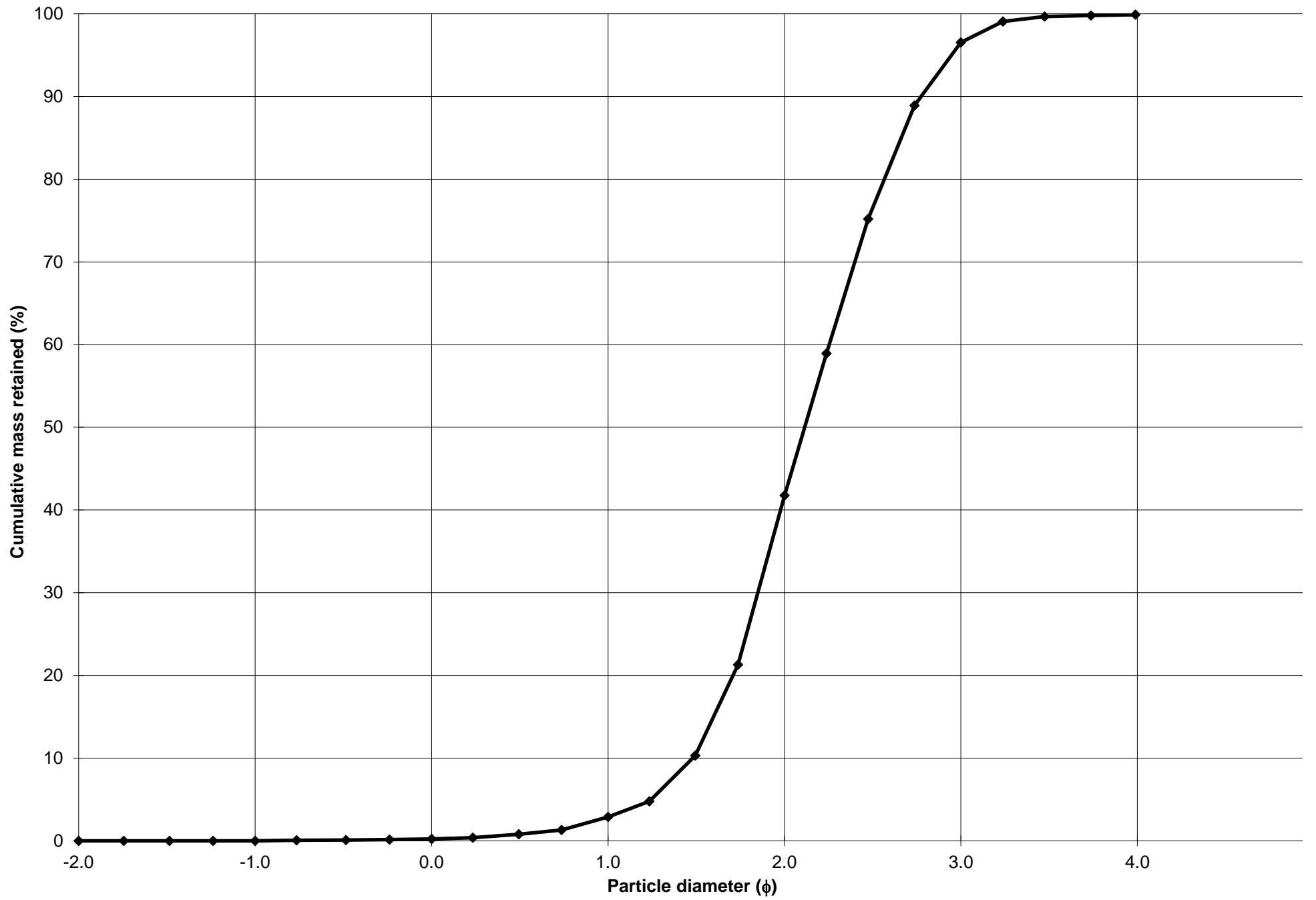
Cumulative Frequency Curve



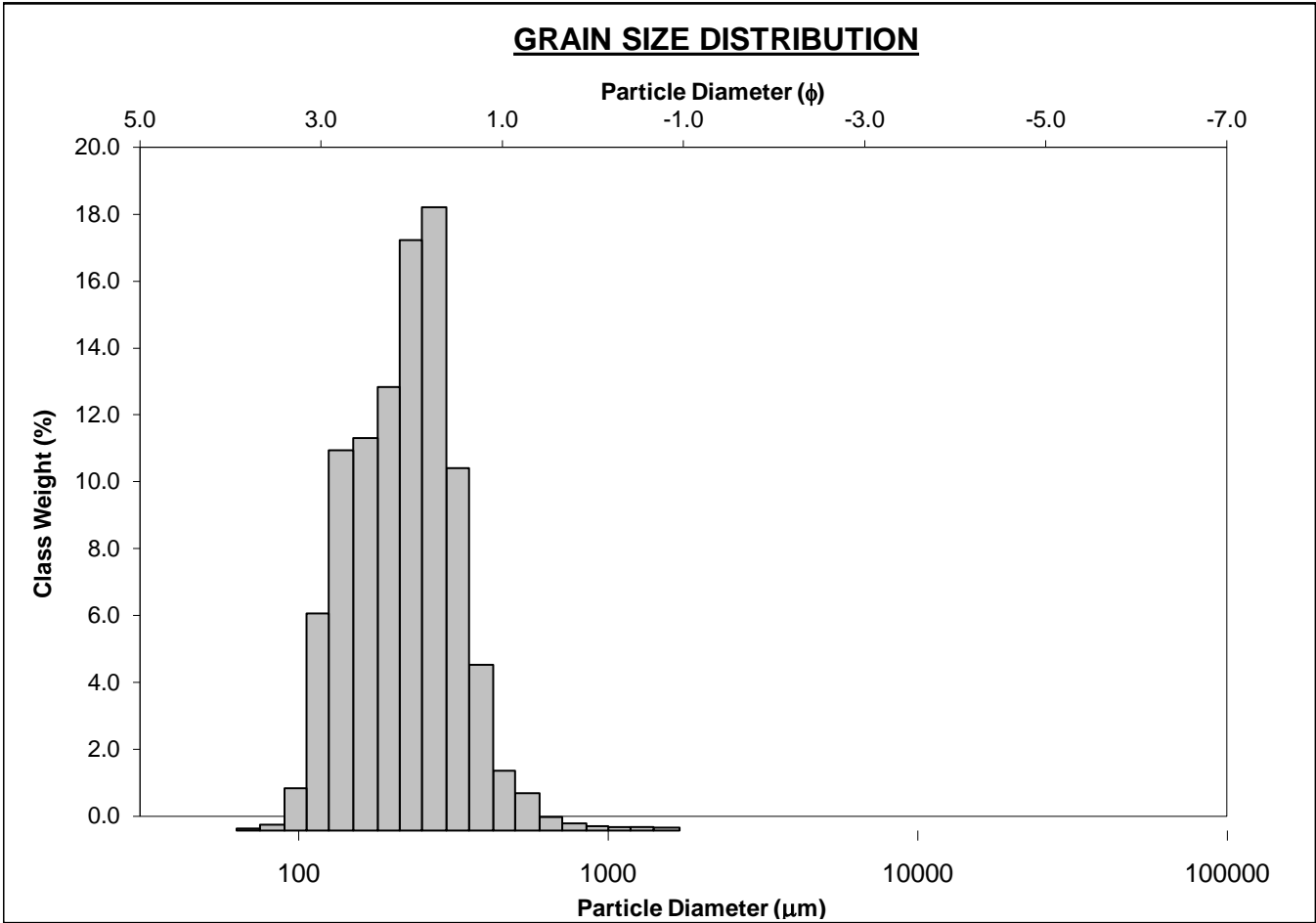
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-80cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 2.7%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 38.9%	
MODE 3:			MUD: 0.1%		FINE SAND: 54.8%	
D ₁₀ :	146.2	1.480			V FINE SAND: 3.3%	
MEDIAN or D ₅₀ :	231.0	2.114	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	358.5	2.774	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.453	1.875	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	212.3	1.294	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.609	1.385	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	109.9	0.687	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	250.9	231.3	2.112	229.1	2.126	Fine Sand
SORTING (σ):	116.0	1.474	0.560	1.428	0.514	Moderately Well Sorted
SKEWNESS (Sk):	4.162	-0.279	0.279	-0.006	0.006	Symmetrical
KURTOSIS (K):	41.74	10.34	10.34	1.016	1.016	Mesokurtic



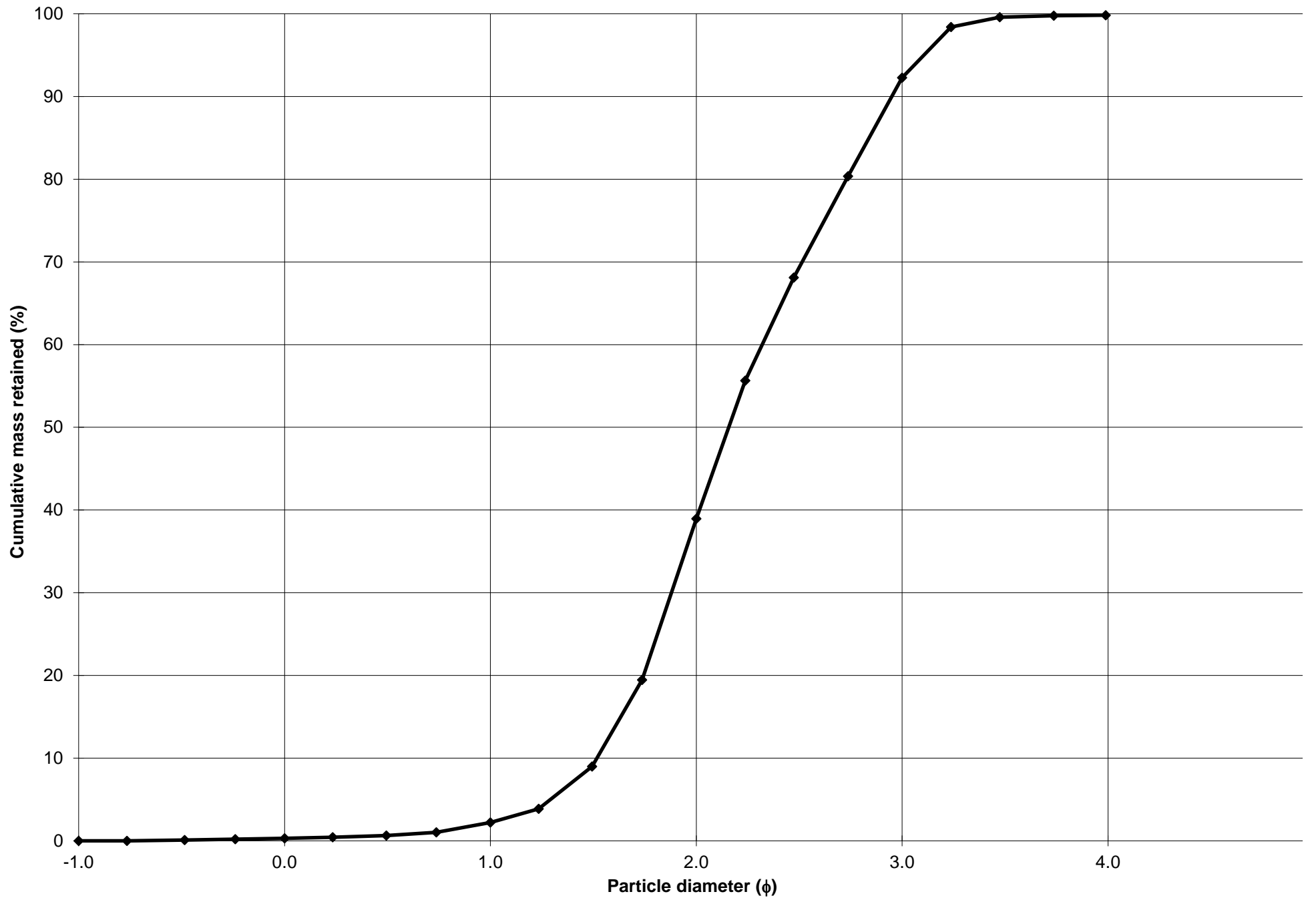
Cumulative Frequency Curve



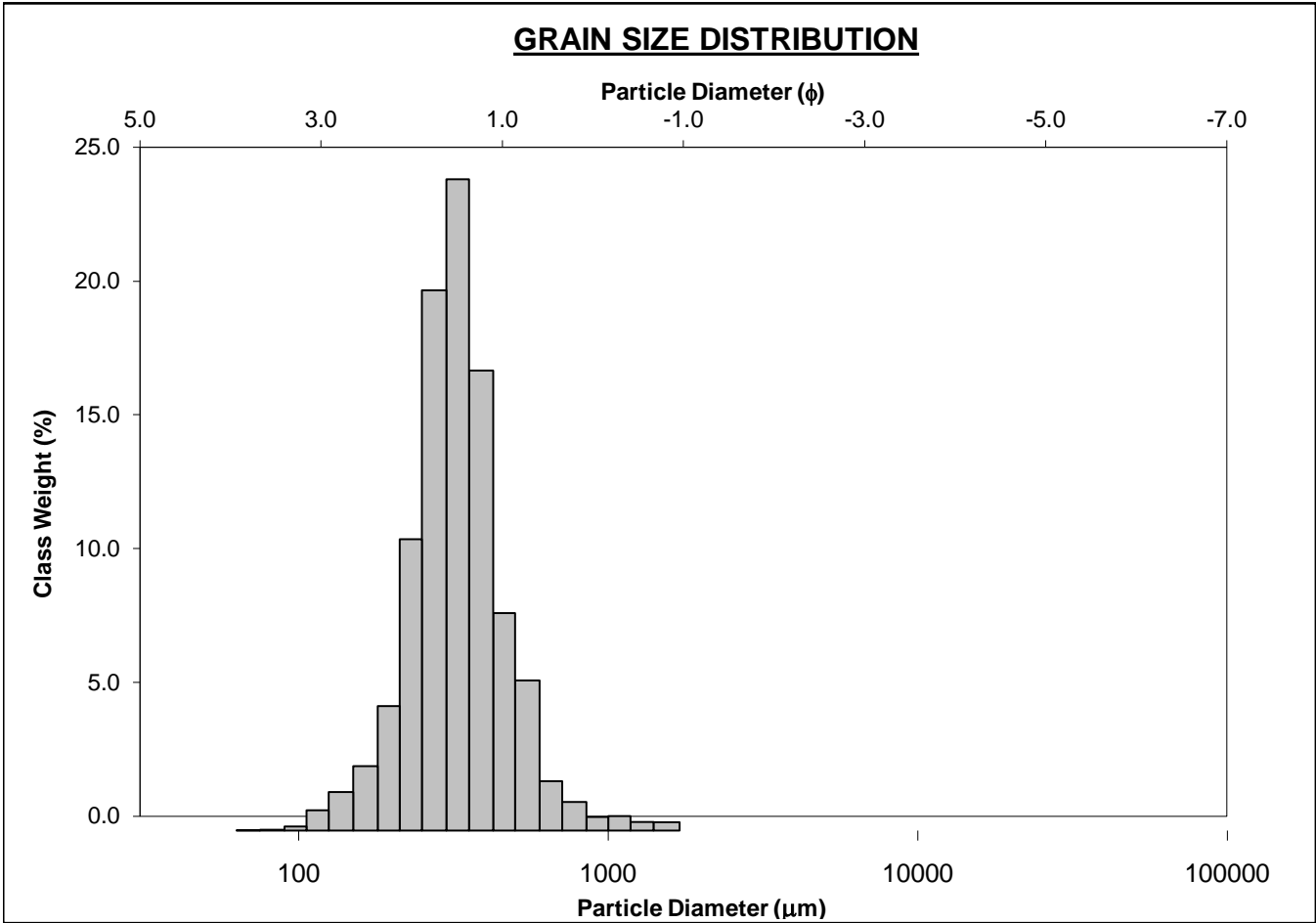
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-90cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.9%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 36.7%	
MODE 3:			MUD: 0.2%		FINE SAND: 53.3%	
D ₁₀ :	129.4	1.518			V FINE SAND: 7.6%	
MEDIAN or D ₅₀ :	224.2	2.157	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	349.3	2.950	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.699	1.944	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	219.9	1.432	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.753	1.447	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	122.4	0.810	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	239.4	218.5	2.194	216.1	2.211	Fine Sand
SORTING (σ):	114.5	1.520	0.604	1.479	0.565	Moderately Well Sorted
SKEWNESS (Sk):	3.657	-0.508	0.508	-0.091	0.091	Symmetrical
KURTOSIS (K):	31.99	9.828	9.828	0.918	0.918	Mesokurtic



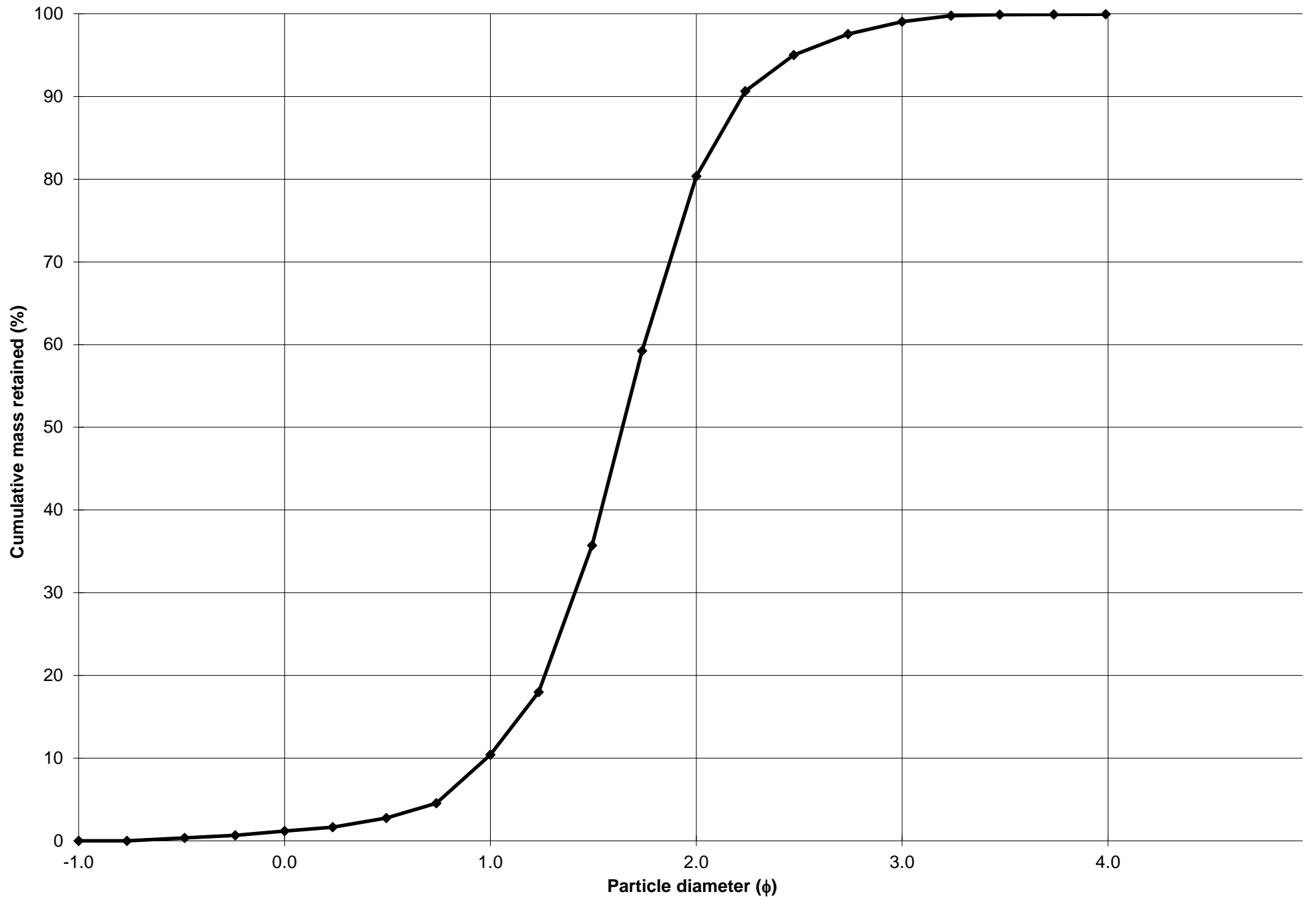
Cumulative Frequency Curve



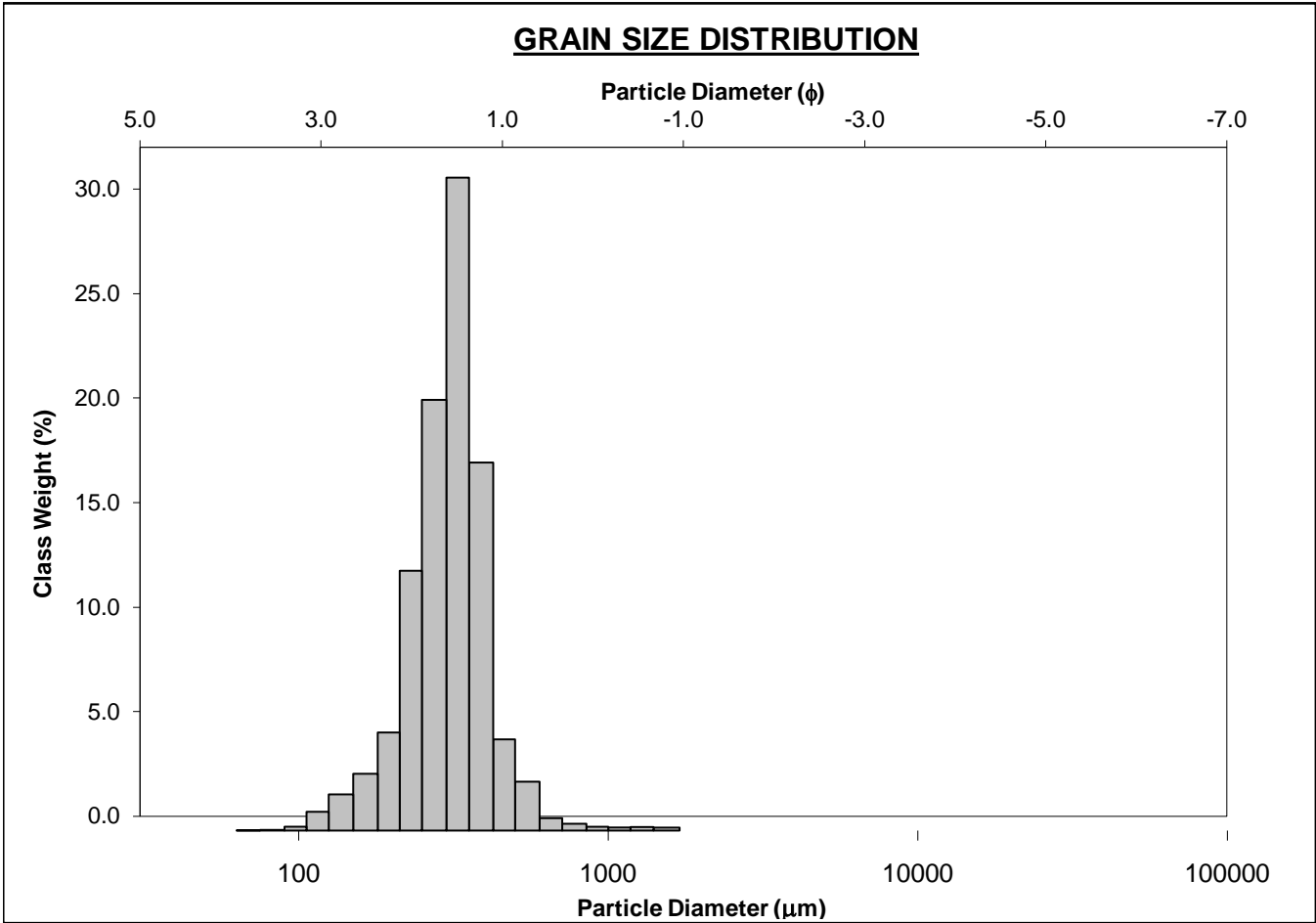
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-100cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 9.2%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 69.9%	
MODE 3:			MUD: 0.1%		FINE SAND: 18.7%	
D ₁₀ :	214.2	0.982			V FINE SAND: 0.9%	
MEDIAN or D ₅₀ :	320.5	1.642	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	506.3	2.223	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.363	2.264	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	292.1	1.241	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.512	1.446	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	134.0	0.596	V COARSE SAND: 1.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	350.9	323.9	1.626	322.4	1.633	Medium Sand
SORTING (σ):	159.2	1.465	0.551	1.402	0.488	Well Sorted
SKEWNESS (Sk):	3.126	-0.113	0.113	0.029	-0.029	Symmetrical
KURTOSIS (K):	19.36	9.524	9.524	1.179	1.179	Leptokurtic



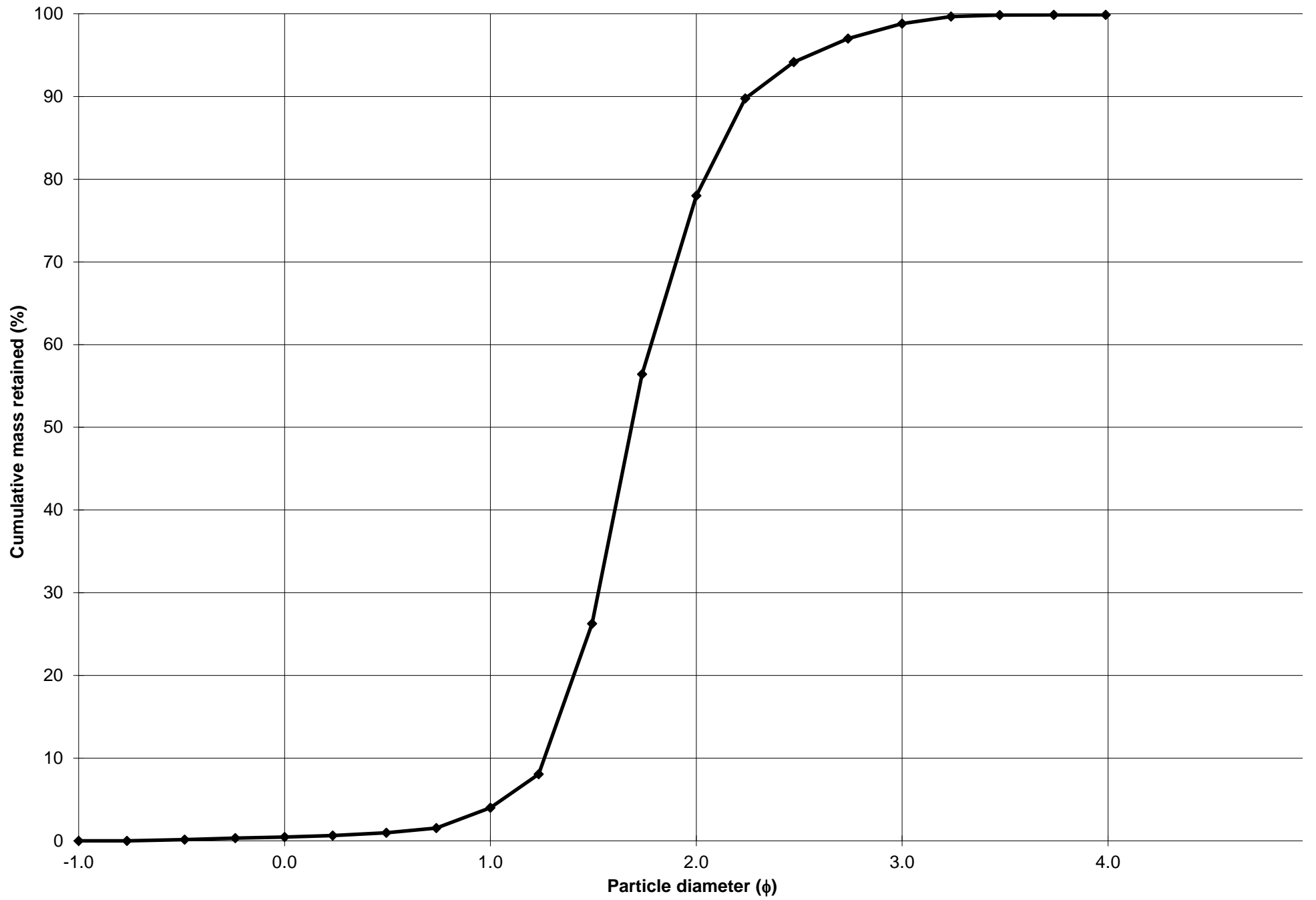
Cumulative Frequency Curve



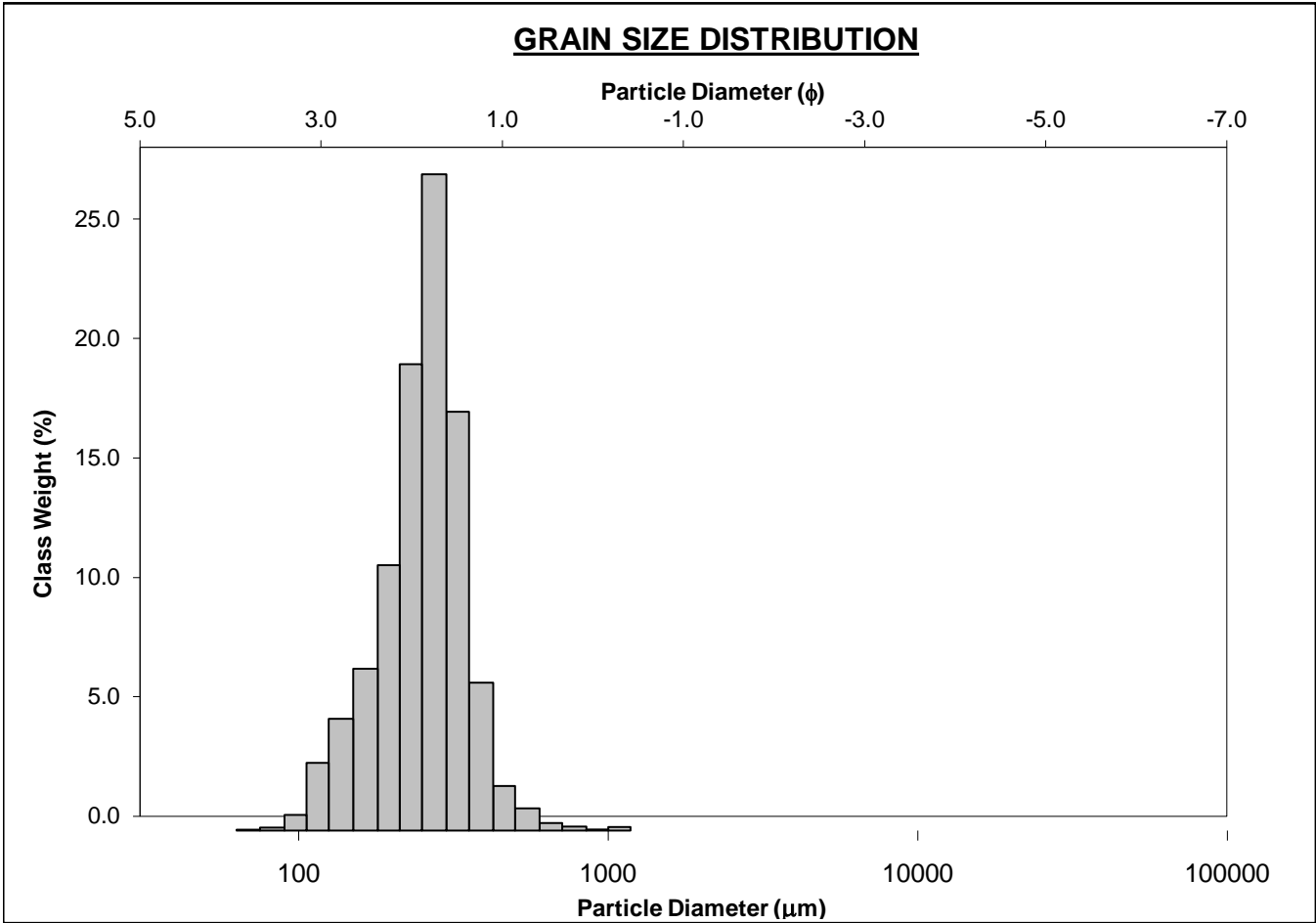
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-110cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0% COARSE SAND: 3.5%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 74.0%			
MODE 3:			MUD: 0.1% FINE SAND: 20.8%			
D ₁₀ :	210.1	1.262	V FINE SAND: 1.1%			
MEDIAN or D ₅₀ :	311.0	1.685	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	416.9	2.251	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.985	1.784	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	206.9	0.989	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.402	1.330	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	103.0	0.487	V COARSE SAND: 0.5% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	319.6	301.5	1.730	303.9	1.718	Medium Sand
SORTING (σ):	117.1	1.405	0.490	1.338	0.420	Well Sorted
SKEWNESS (Sk):	3.740	-1.421	1.421	-0.144	0.144	Fine Skewed
KURTOSIS (K):	33.20	20.21	20.21	1.256	1.256	Leptokurtic



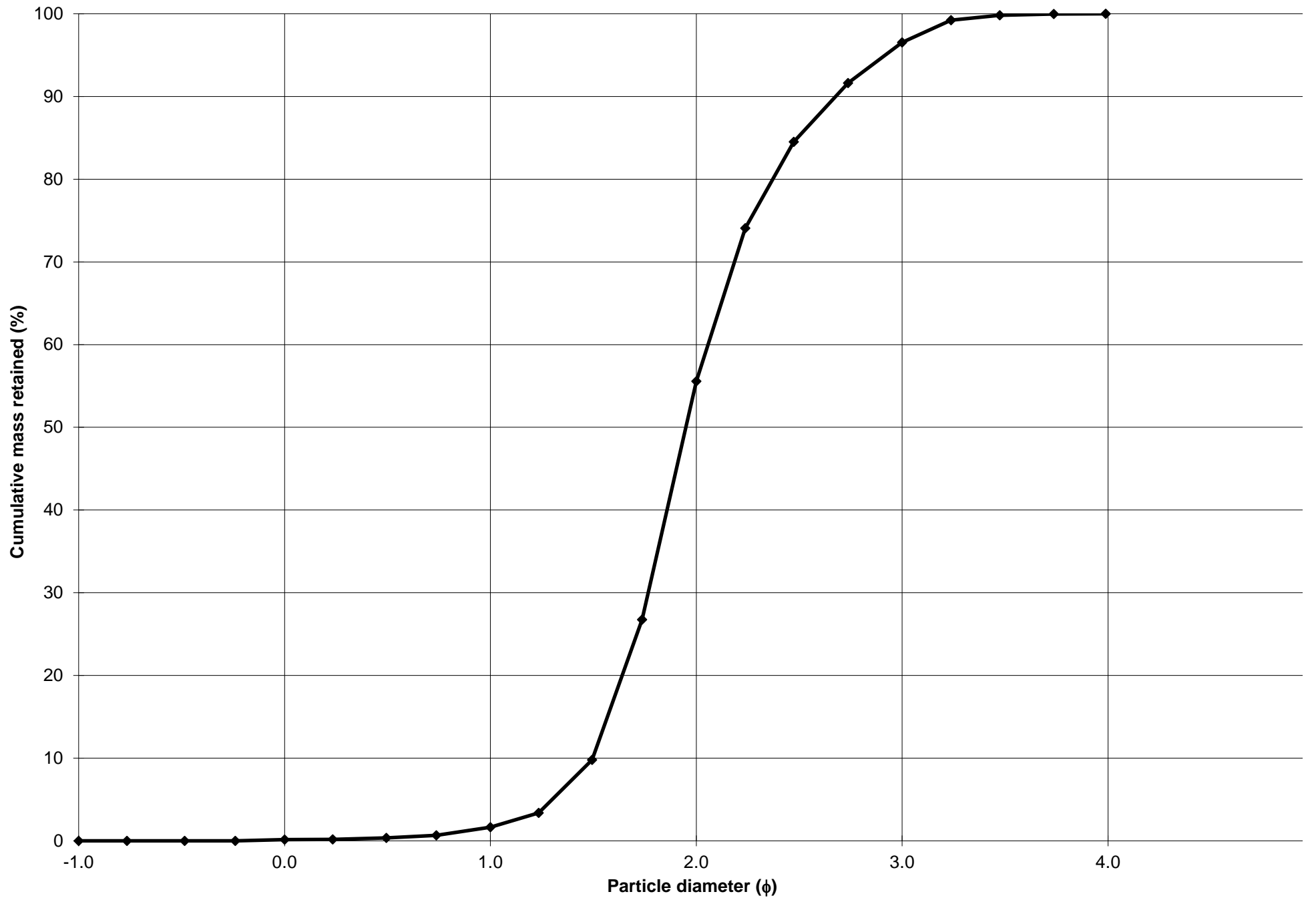
Cumulative Frequency Curve



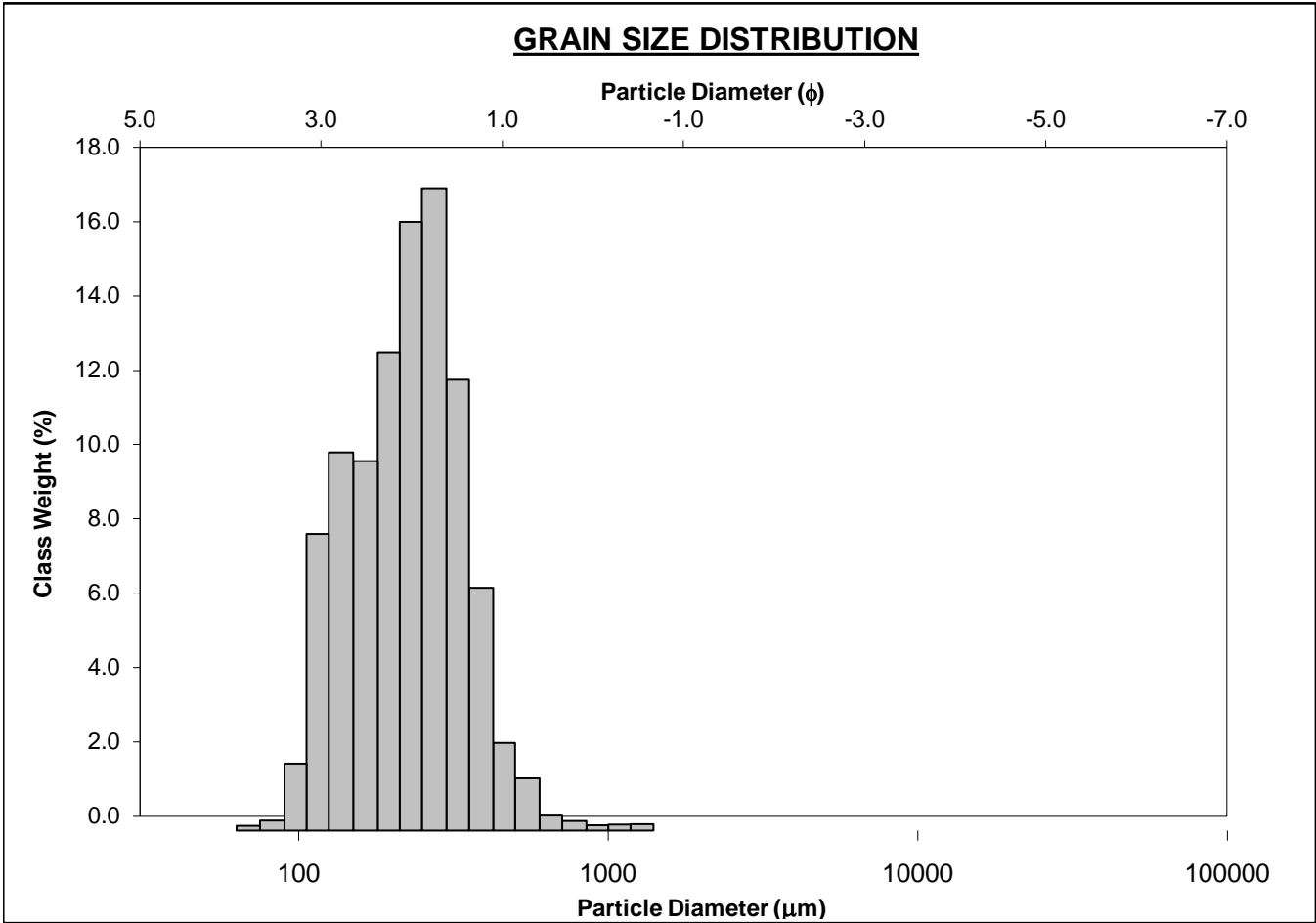
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-120cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 1.5%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 53.9%			
MODE 3:			MUD: 0.0% FINE SAND: 41.0%			
D ₁₀ :	156.4	1.497	V FINE SAND: 3.5%			
MEDIAN or D ₅₀ :	259.0	1.949	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	354.3	2.677	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.265	1.788	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	197.9	1.180	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.461	1.320	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	96.35	0.547	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	264.0	249.2	2.005	250.3	1.998	Medium Sand
SORTING (σ):	91.05	1.393	0.478	1.380	0.465	Well Sorted
SKEWNESS (Sk):	2.048	-0.232	0.232	-0.182	0.182	Fine Skewed
KURTOSIS (K):	15.85	4.069	4.069	1.212	1.212	Leptokurtic



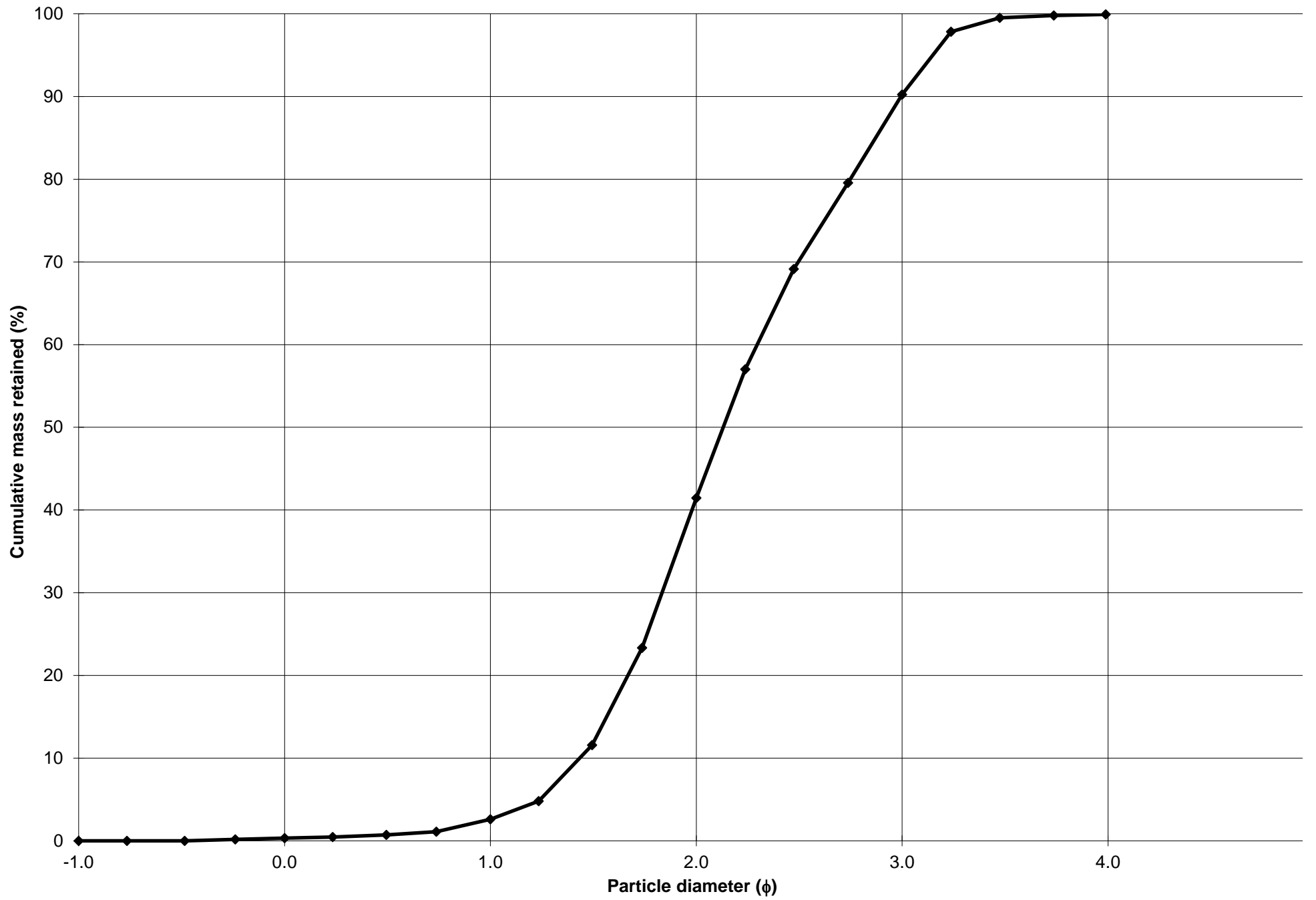
Cumulative Frequency Curve



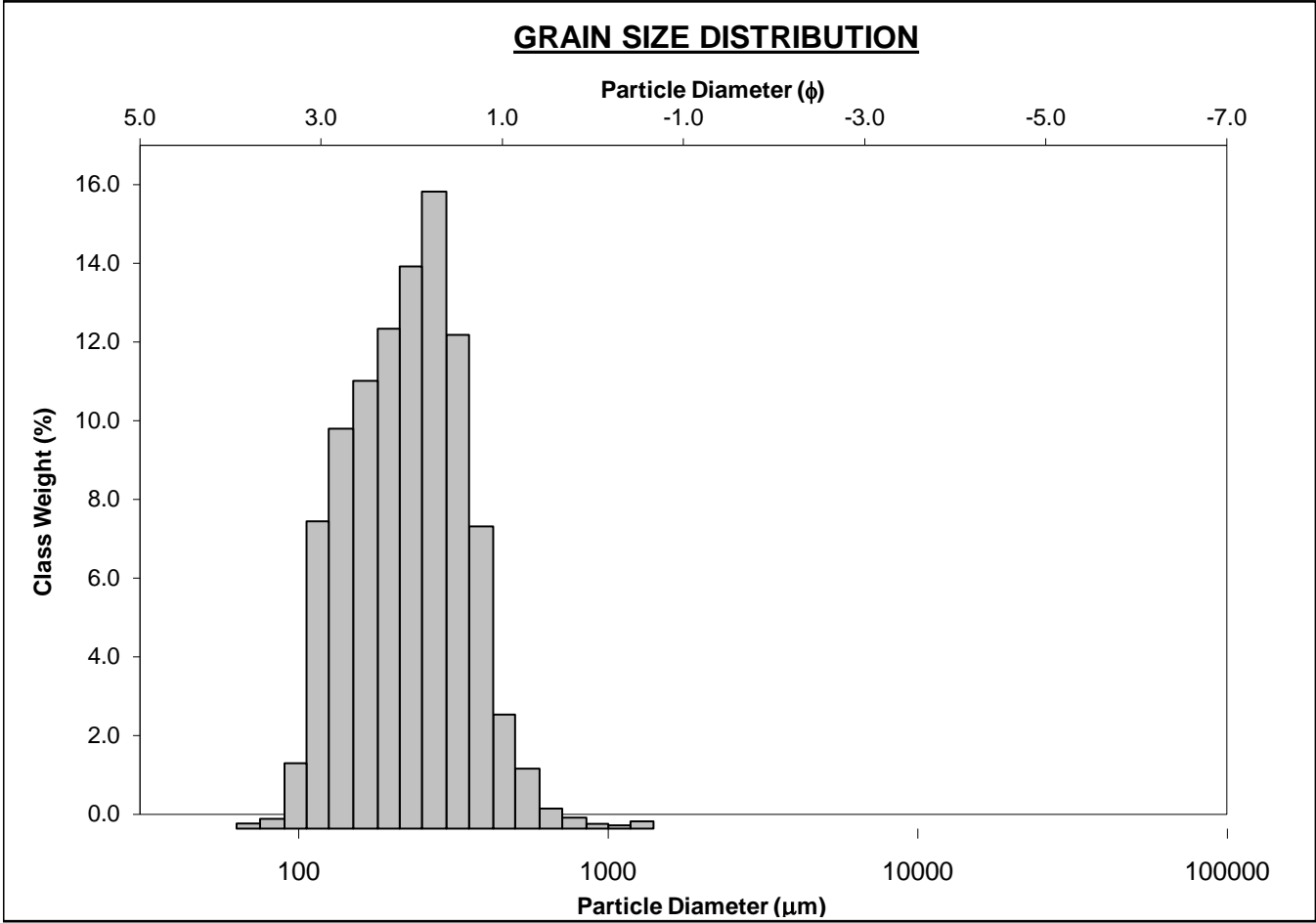
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-130cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 2.3%	
MODE 2:	137.5	2.868	SAND: 99.9%		MEDIUM SAND: 38.9%	
MODE 3:			MUD: 0.1%		FINE SAND: 48.8%	
D ₁₀ :	125.5	1.434			V FINE SAND: 9.7%	
MEDIAN or D ₅₀ :	228.4	2.131	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	370.1	2.994	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.949	2.088	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	244.6	1.560	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.816	1.489	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	132.6	0.861	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	245.2	222.5	2.168	219.5	2.187	Fine Sand
SORTING (σ):	117.5	1.536	0.619	1.520	0.604	Moderately Well Sorted
SKEWNESS (Sk):	2.735	-0.125	0.125	-0.102	0.102	Fine Skewed
KURTOSIS (K):	19.34	5.673	5.673	0.908	0.908	Mesokurtic



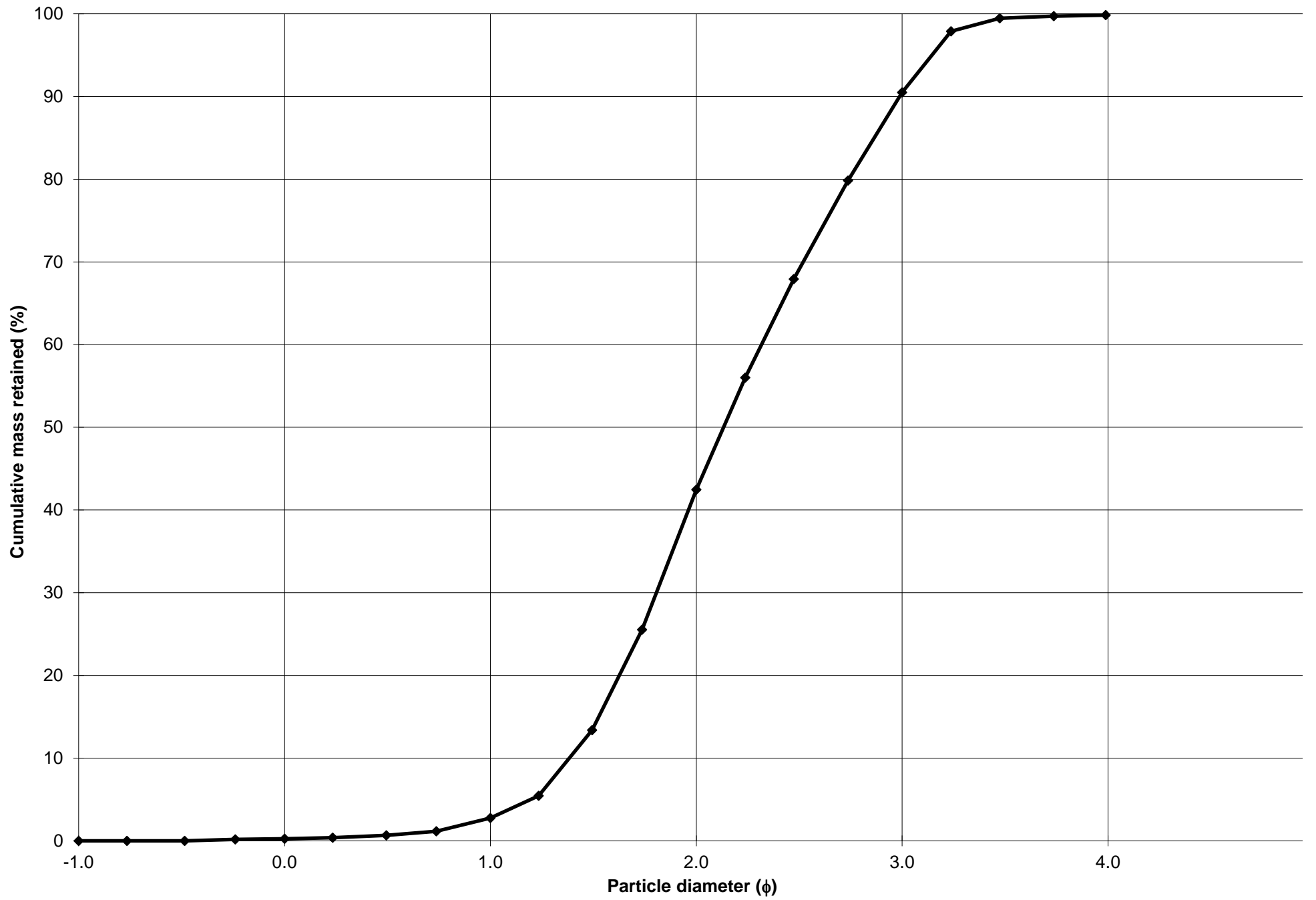
Cumulative Frequency Curve



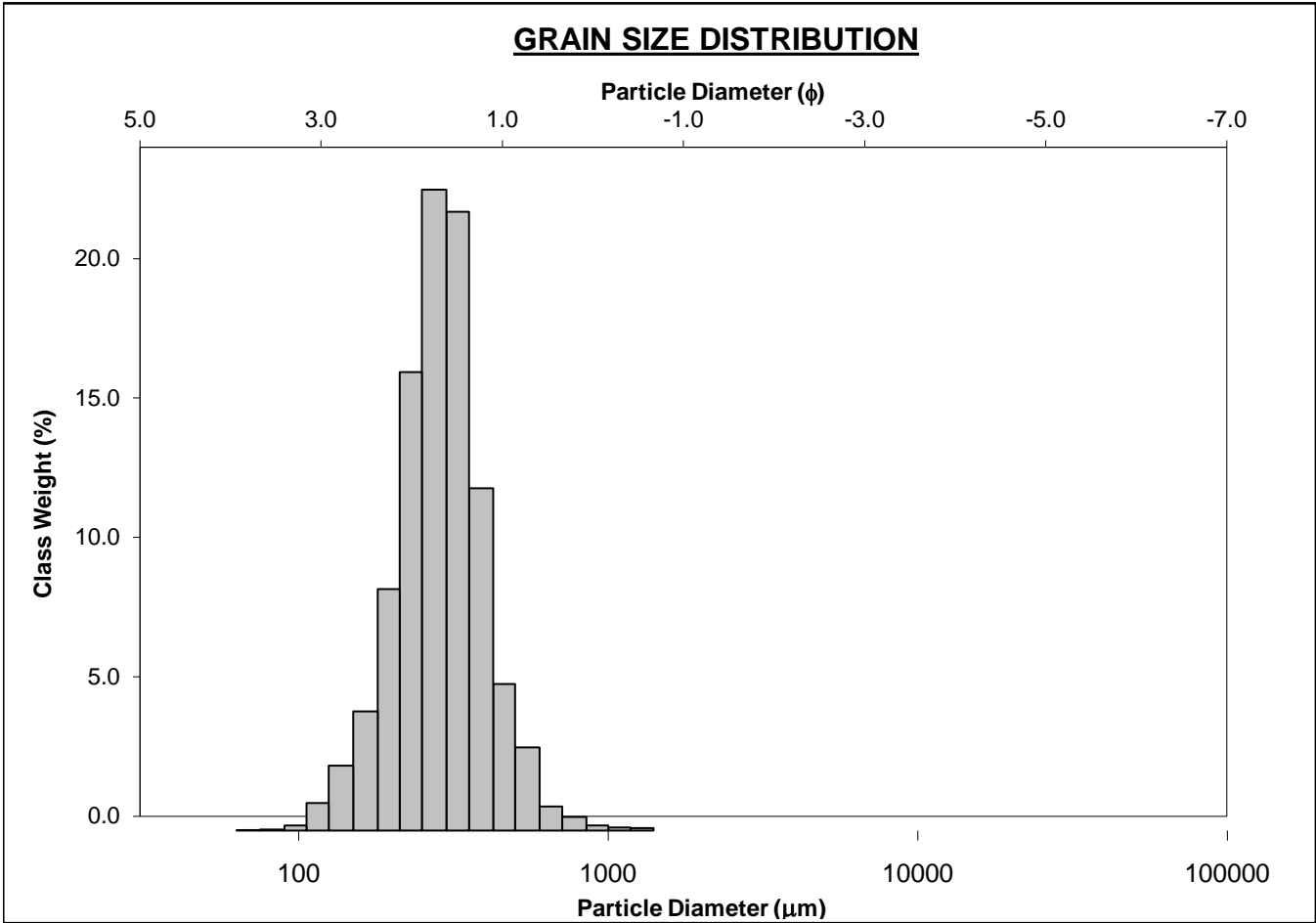
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-140cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 2.5%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 39.7%	
MODE 3:			MUD: 0.2%		FINE SAND: 48.0%	
D ₁₀ :	126.1	1.383			V FINE SAND: 9.3%	
MEDIAN or D ₅₀ :	228.1	2.132	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	383.4	2.988	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.041	2.160	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	257.3	1.605	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.870	1.523	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	140.6	0.903	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	247.7	223.6	2.161	221.8	2.173	Fine Sand
SORTING (σ):	119.1	1.565	0.646	1.536	0.619	Moderately Well Sorted
SKEWNESS (Sk):	2.462	-0.474	0.474	-0.066	0.066	Symmetrical
KURTOSIS (K):	17.03	7.657	7.657	0.885	0.885	Platykurtic



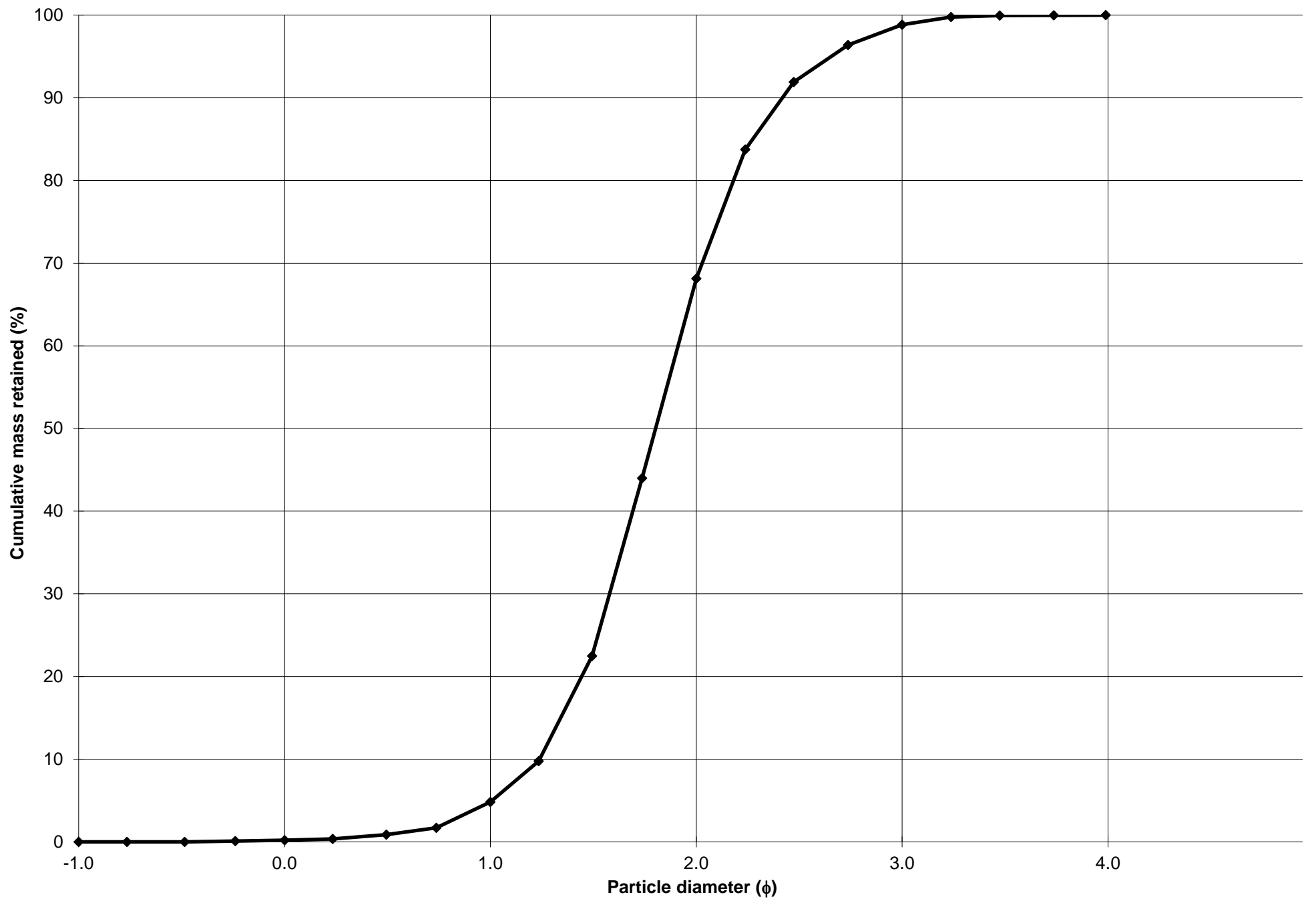
Cumulative Frequency Curve



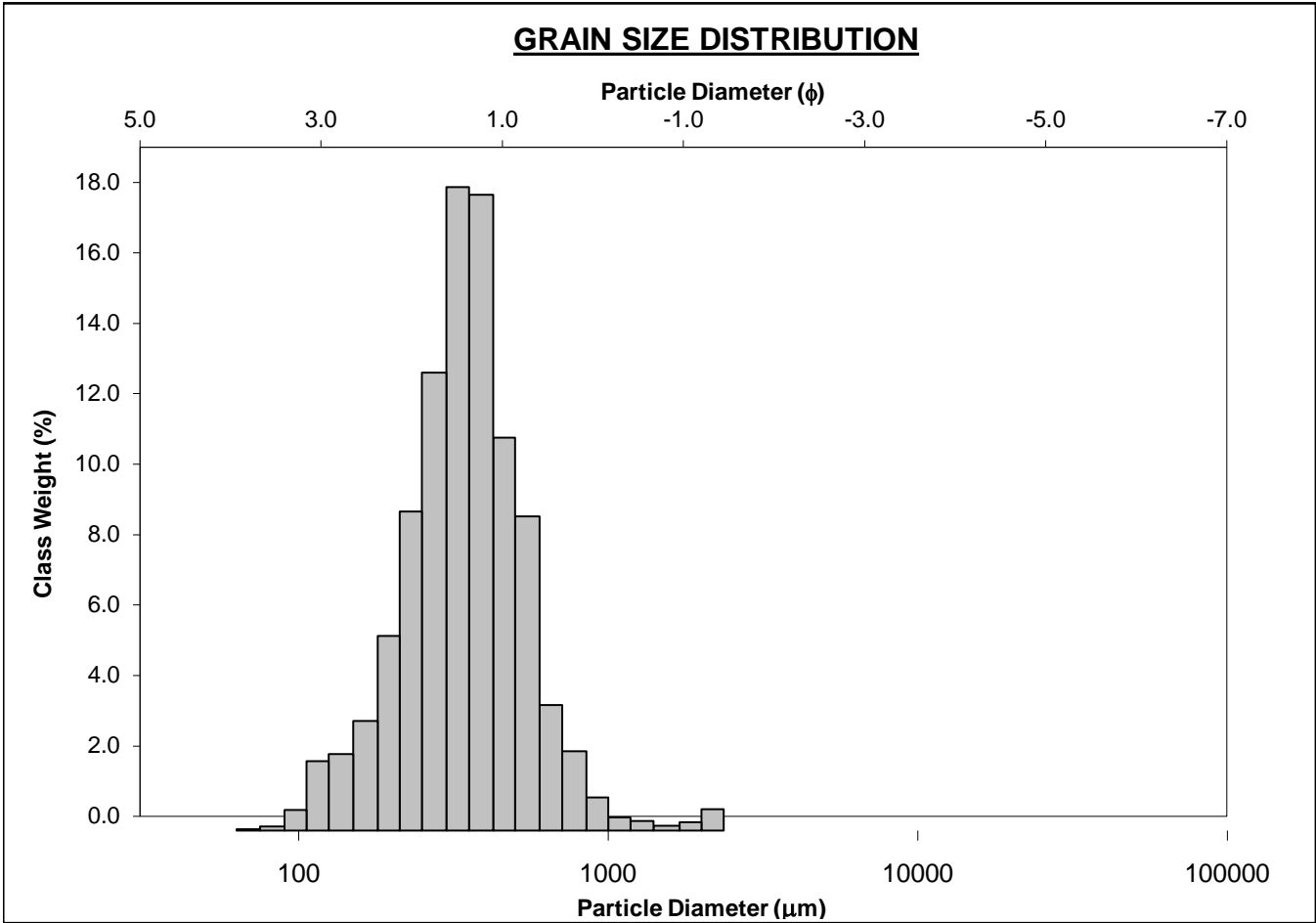
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-150cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 4.6%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 63.3%	
MODE 3:			MUD: 0.0%		FINE SAND: 30.7%	
D ₁₀ :	187.0	1.239			V FINE SAND: 1.2%	
MEDIAN or D ₅₀ :	286.7	1.802	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	423.6	2.419	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.265	1.952	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	236.6	1.180	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.497	1.382	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	115.6	0.582	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	303.8	285.5	1.808	286.5	1.803	Medium Sand
SORTING (σ):	111.8	1.403	0.488	1.386	0.471	Well Sorted
SKEWNESS (Sk):	2.103	0.068	-0.068	-0.019	0.019	Symmetrical
KURTOSIS (K):	13.43	4.060	4.060	1.160	1.160	Leptokurtic



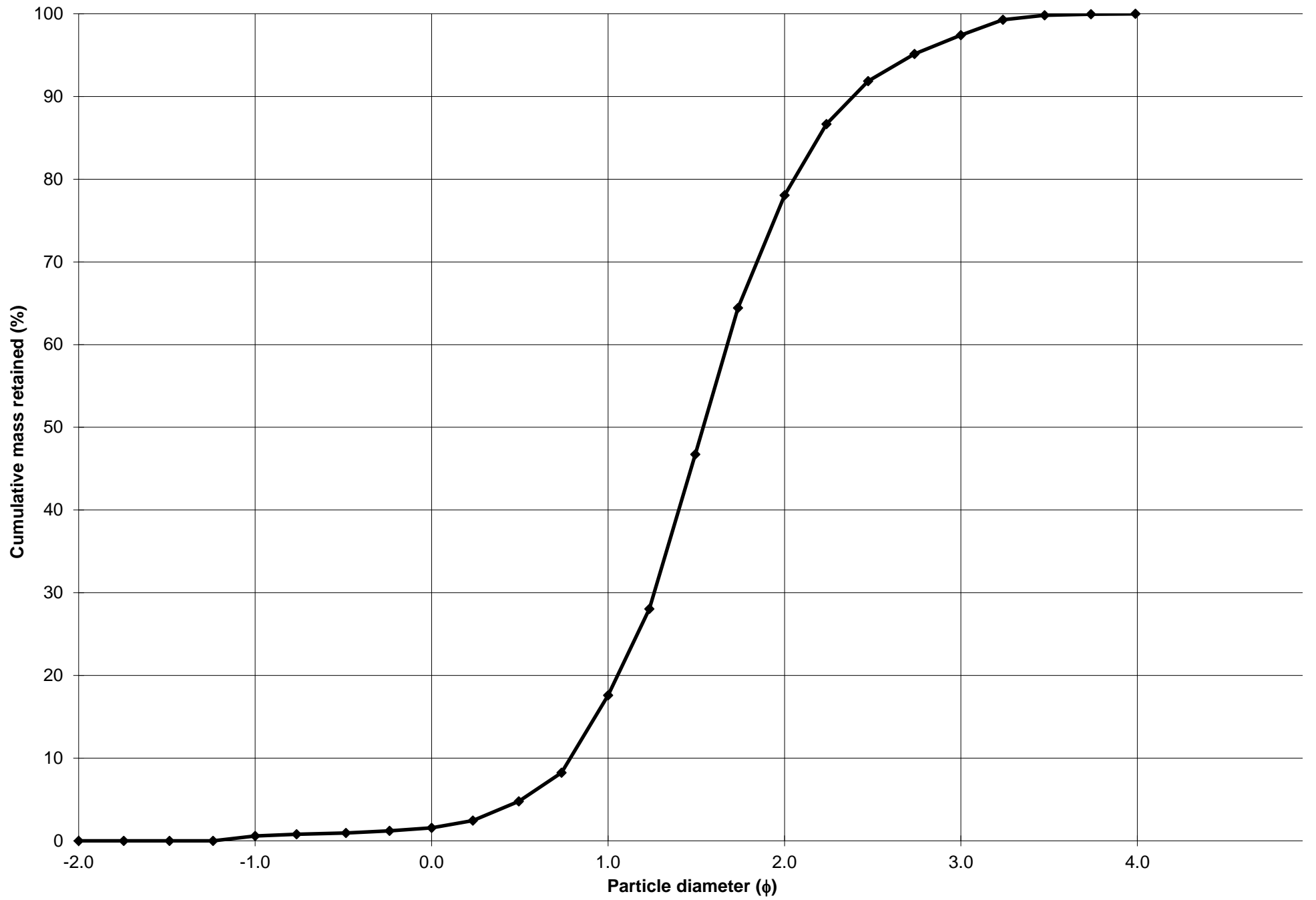
Cumulative Frequency Curve



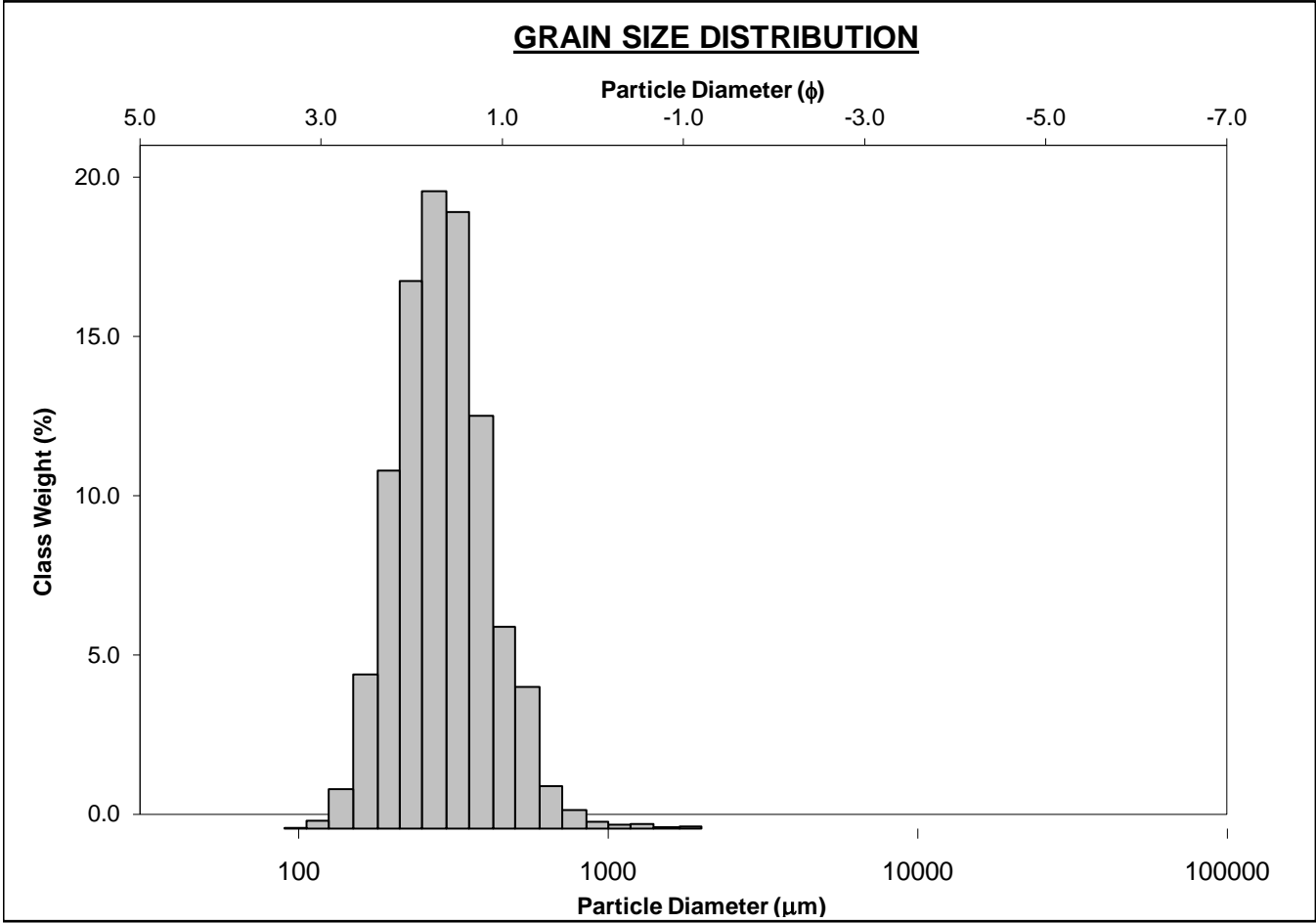
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-160cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.6%		COARSE SAND: 16.0%	
MODE 2:			SAND: 99.4%		MEDIUM SAND: 60.5%	
MODE 3:			MUD: 0.0%		FINE SAND: 19.3%	
D ₁₀ :	190.9	0.786			V FINE SAND: 2.6%	
MEDIAN or D ₅₀ :	344.1	1.539	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	579.8	2.389	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.038	3.038	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	388.9	1.603	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.711	1.664	V FINE GRAVEL: 0.6%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	185.1	0.775	V COARSE SAND: 1.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	384.8	341.0	1.552	340.9	1.553	Medium Sand
SORTING (σ):	228.9	1.599	0.677	1.556	0.638	Moderately Well Sorted
SKEWNESS (Sk):	3.994	0.166	-0.166	-0.053	0.053	Symmetrical
KURTOSIS (K):	28.32	4.995	4.995	1.173	1.173	Leptokurtic



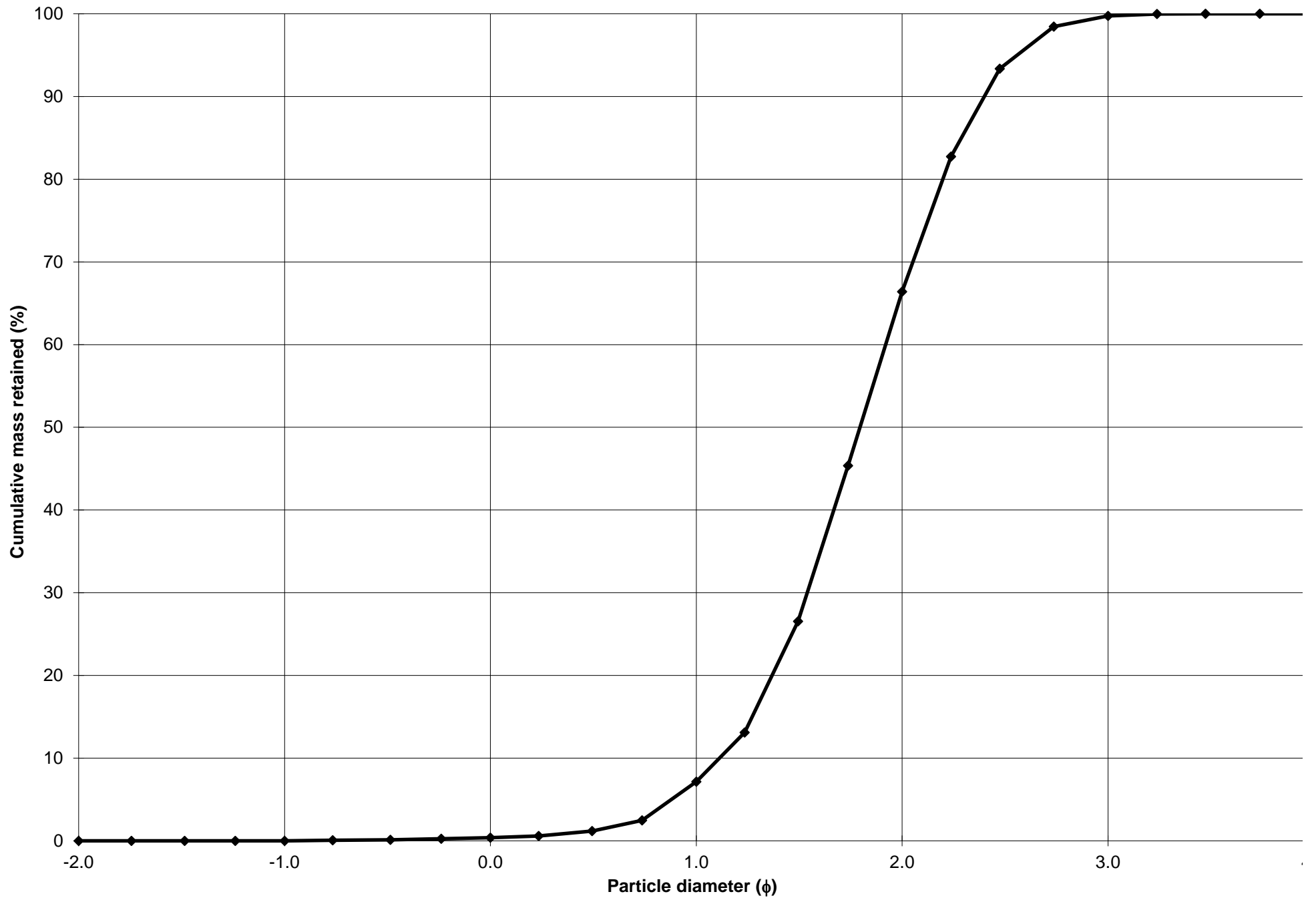
Cumulative Frequency Curve



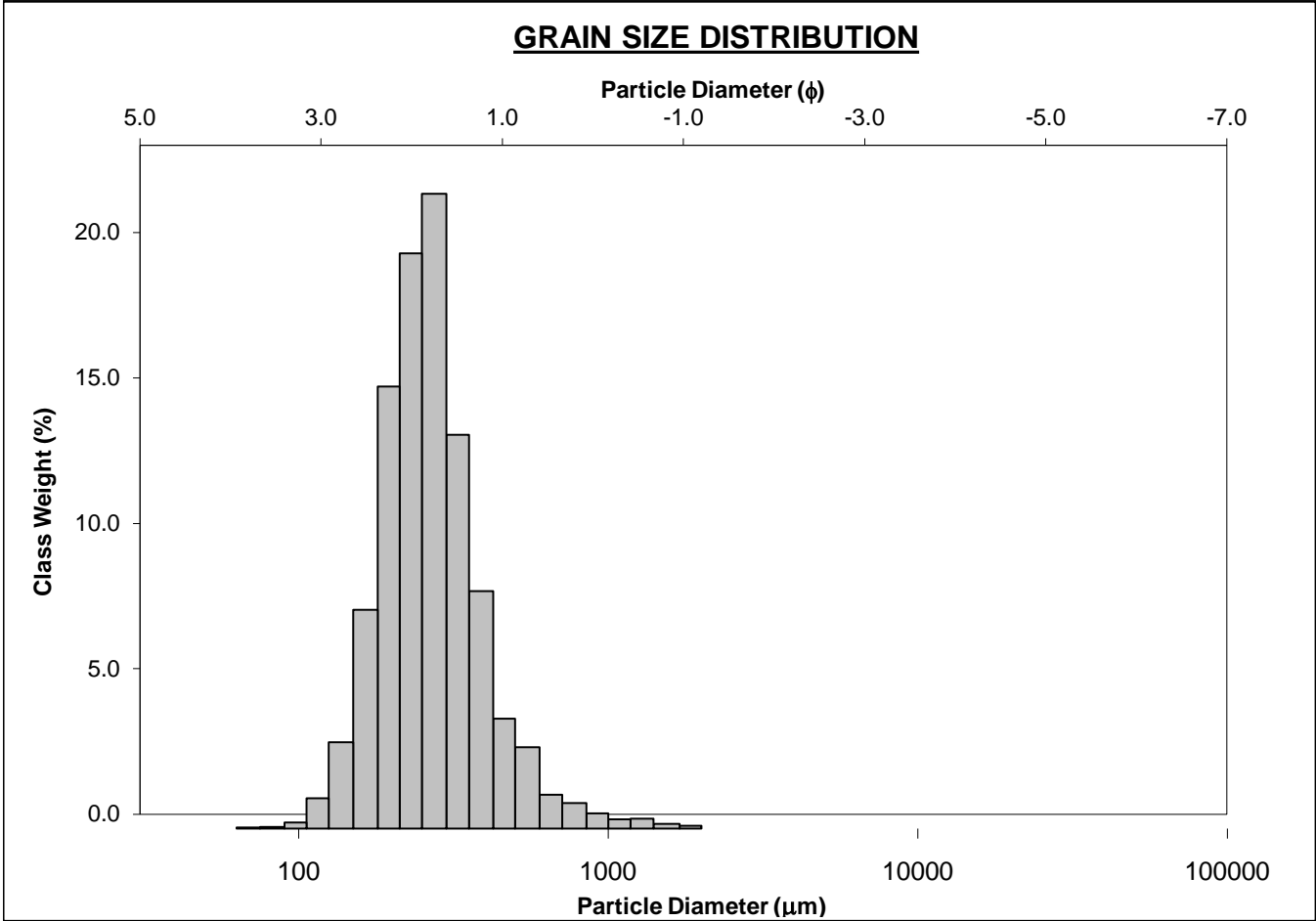
SIEVING ERROR: 1.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-170cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 6.8%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 59.2%			
MODE 3:			MUD: 0.0% FINE SAND: 33.4%			
D ₁₀ :	189.5	1.112	V FINE SAND: 0.3%			
MEDIAN or D ₅₀ :	288.1	1.795	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	462.5	2.399	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.440	2.157	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	273.0	1.287	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.581	1.451	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	133.2	0.661	V COARSE SAND: 0.4% CLAY: 0.0%			
			METHOD OF MOMENTS			
			FOLK & WARD METHOD			
			Arithmetic	Geometric	Logarithmic	Description
			μm	μm	ϕ	
MEAN (\bar{x}):	314.3	293.1	1.771	290.4	1.784	Medium Sand
SORTING (σ):	131.1	1.421	0.507	1.413	0.498	Well Sorted
SKEWNESS (Sk):	3.112	0.501	-0.501	0.063	-0.063	Symmetrical
KURTOSIS (K):	25.02	4.046	4.046	1.042	1.042	Mesokurtic



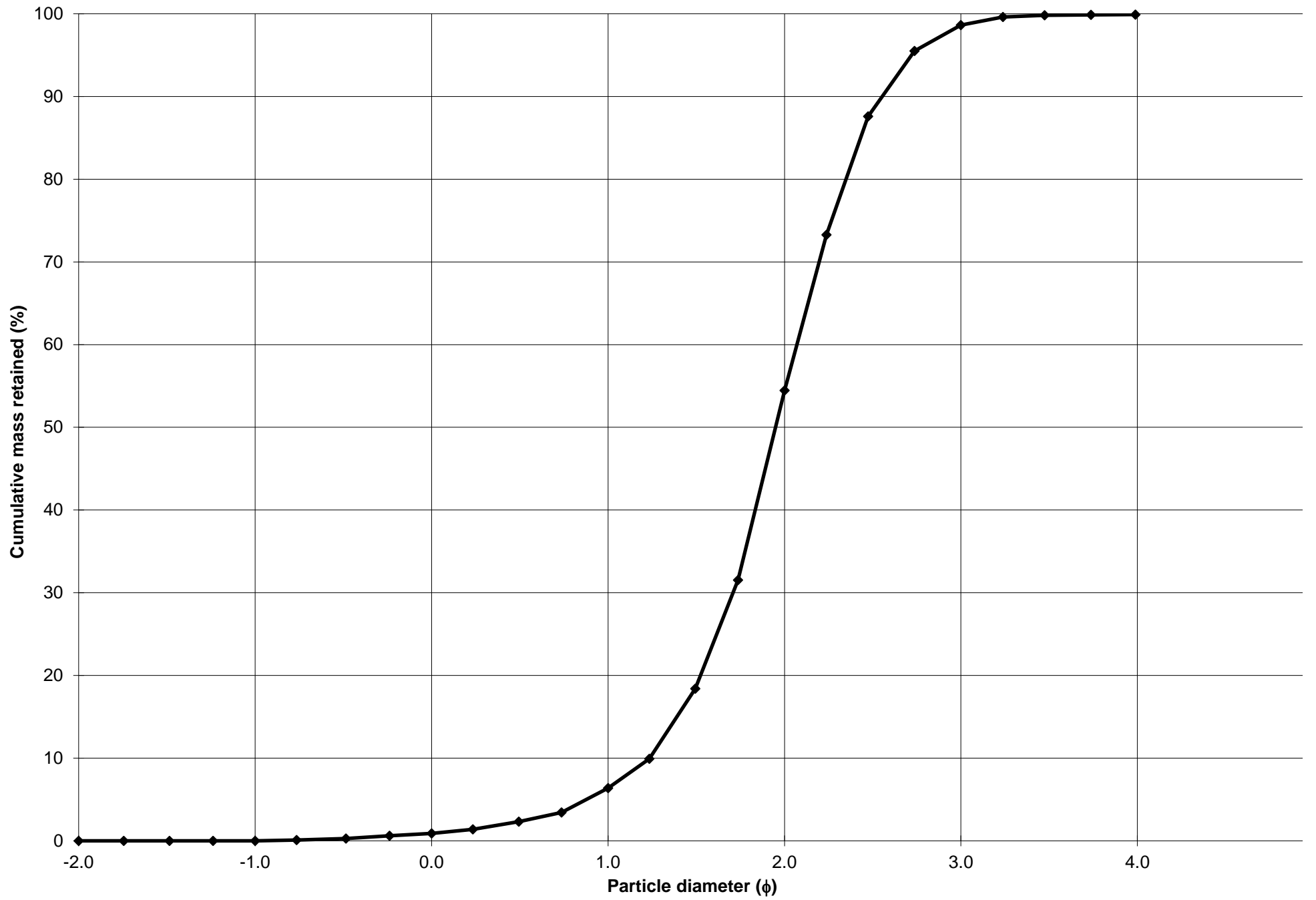
Cumulative Frequency Curve



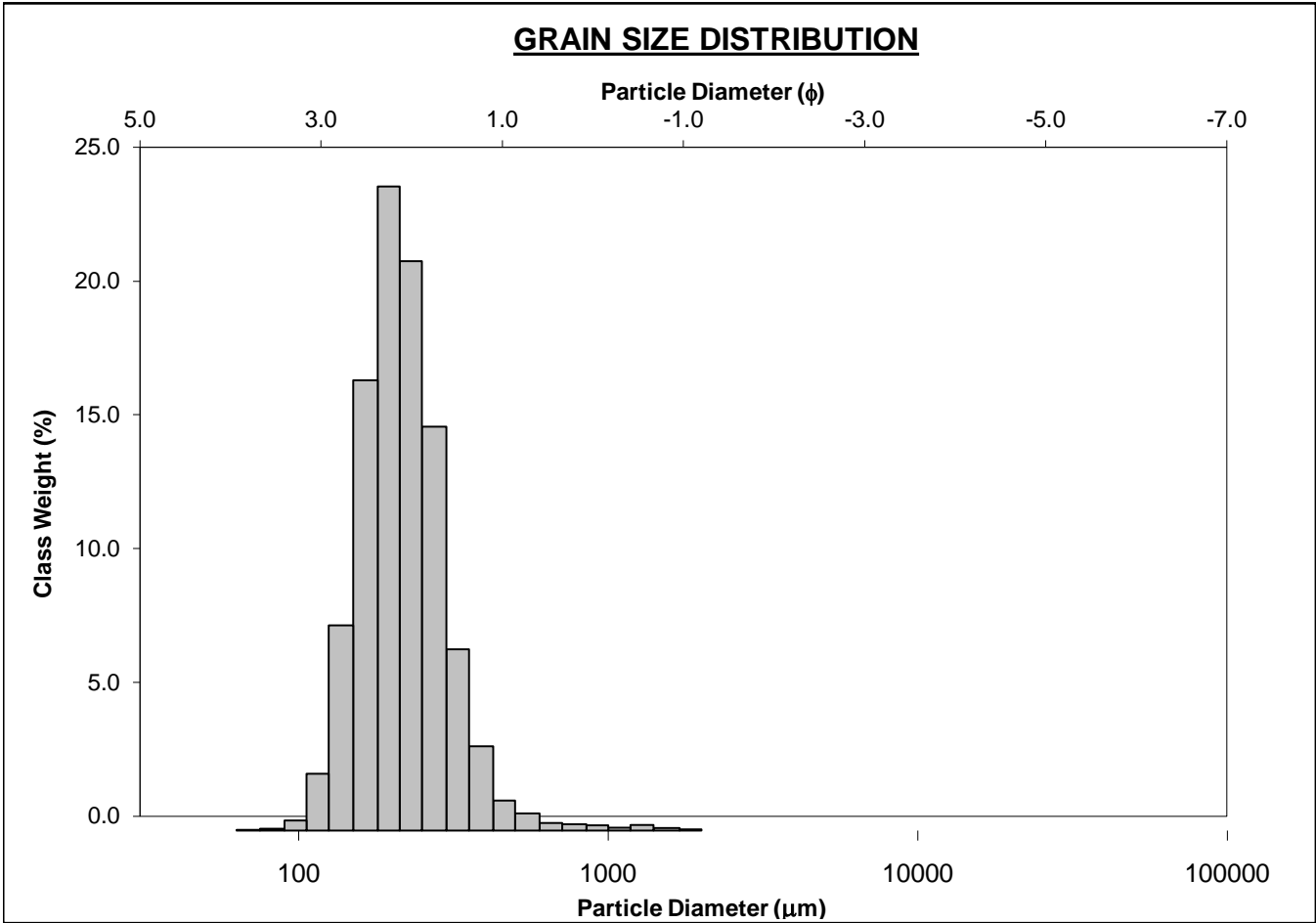
SIEVING ERROR: 1.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-180cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 5.5%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 48.1%	
MODE 3:			MUD: 0.1%		FINE SAND: 44.2%	
D ₁₀ :	170.3	1.237			V FINE SAND: 1.3%	
MEDIAN or D ₅₀ :	259.0	1.949	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	424.3	2.554	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.491	2.065	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	253.9	1.317	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.569	1.402	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	118.3	0.650	V COARSE SAND: 0.9%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	293.1	266.5	1.908	262.8	1.928	Medium Sand
SORTING (σ):	156.6	1.502	0.587	1.442	0.528	Moderately Well Sorted
SKEWNESS (Sk):	3.879	0.244	-0.244	0.113	-0.113	Coarse Skewed
KURTOSIS (K):	26.79	9.737	9.737	1.162	1.162	Leptokurtic



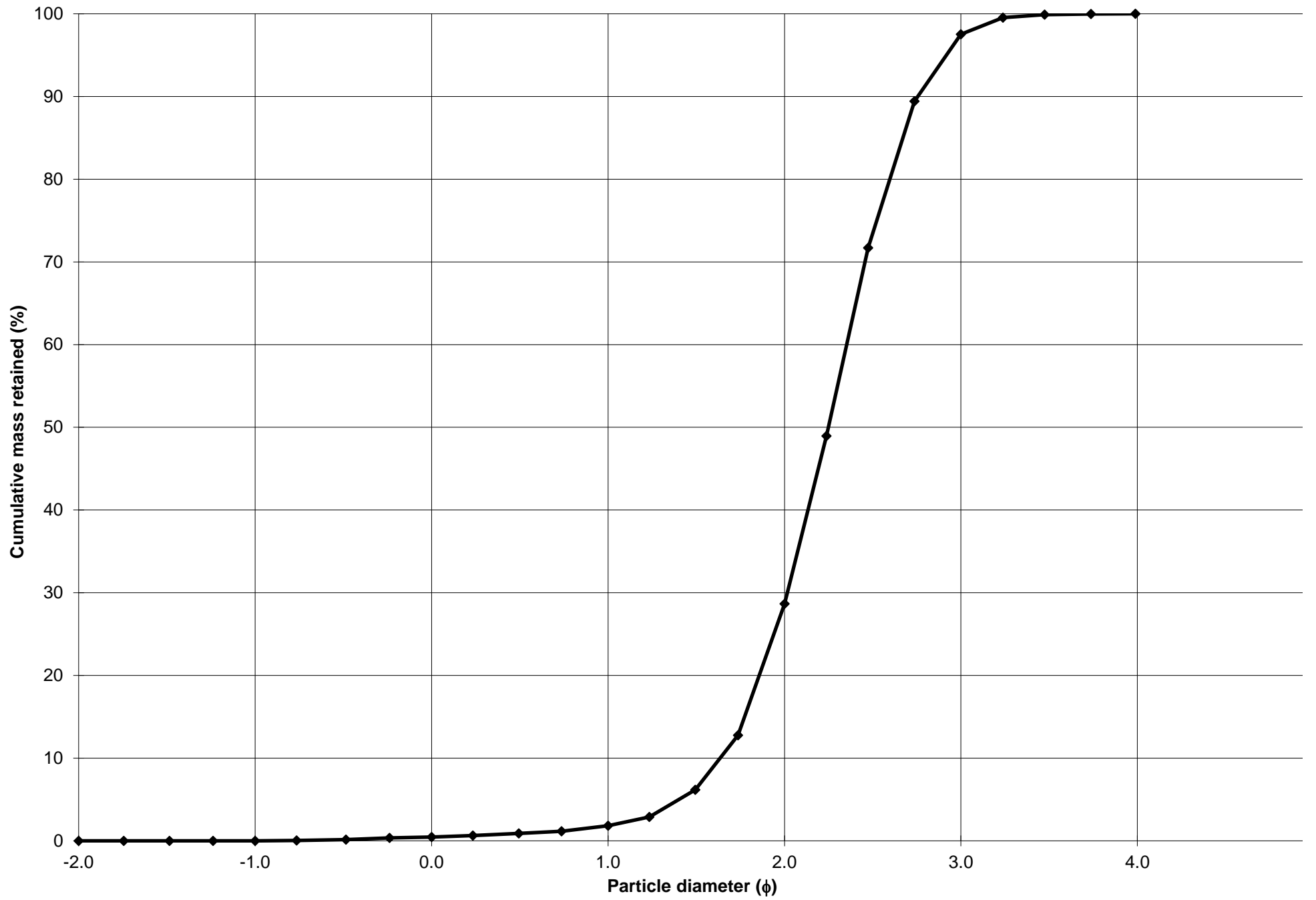
Cumulative Frequency Curve



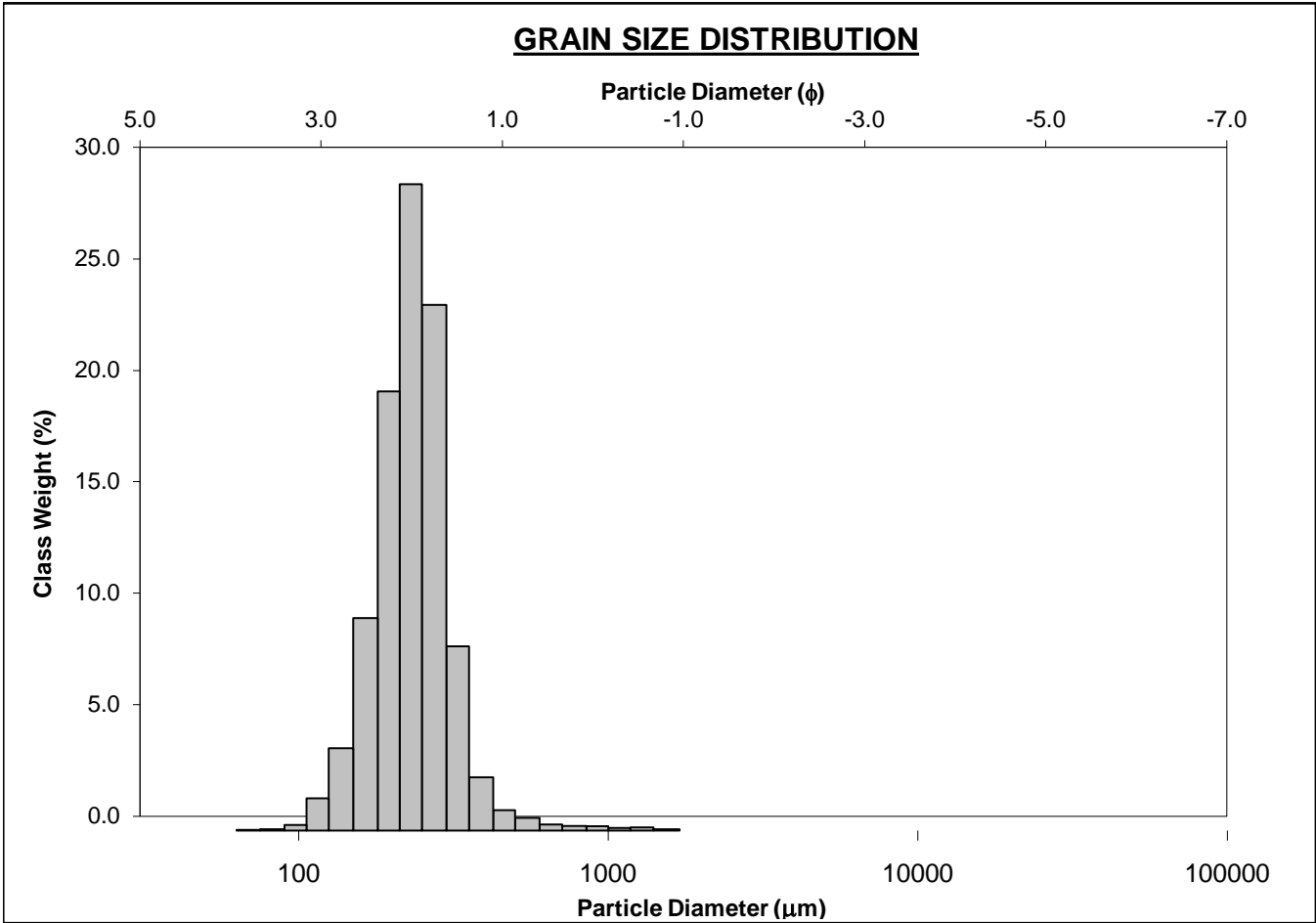
SIEVING ERROR: 0.7%		<u>SAMPLE STATISTICS</u>				
SAMPLE IDENTITY: GR-14-05-190cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 1.4%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 26.8%			
MODE 3:			MUD: 0.0% FINE SAND: 68.9%			
D ₁₀ :	148.1	1.635	V FINE SAND: 2.5%			
MEDIAN or D ₅₀ :	210.4	2.249	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	321.9	2.755	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.173	1.685	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	173.8	1.120	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.498	1.301	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	86.72	0.583	V COARSE SAND: 0.5% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	232.9	216.8	2.205	212.9	2.232	Fine Sand
SORTING (σ):	115.3	1.403	0.488	1.362	0.446	Well Sorted
SKEWNESS (Sk):	5.812	1.179	-1.179	0.088	-0.088	Symmetrical
KURTOSIS (K):	57.33	7.338	7.338	1.065	1.065	Mesokurtic



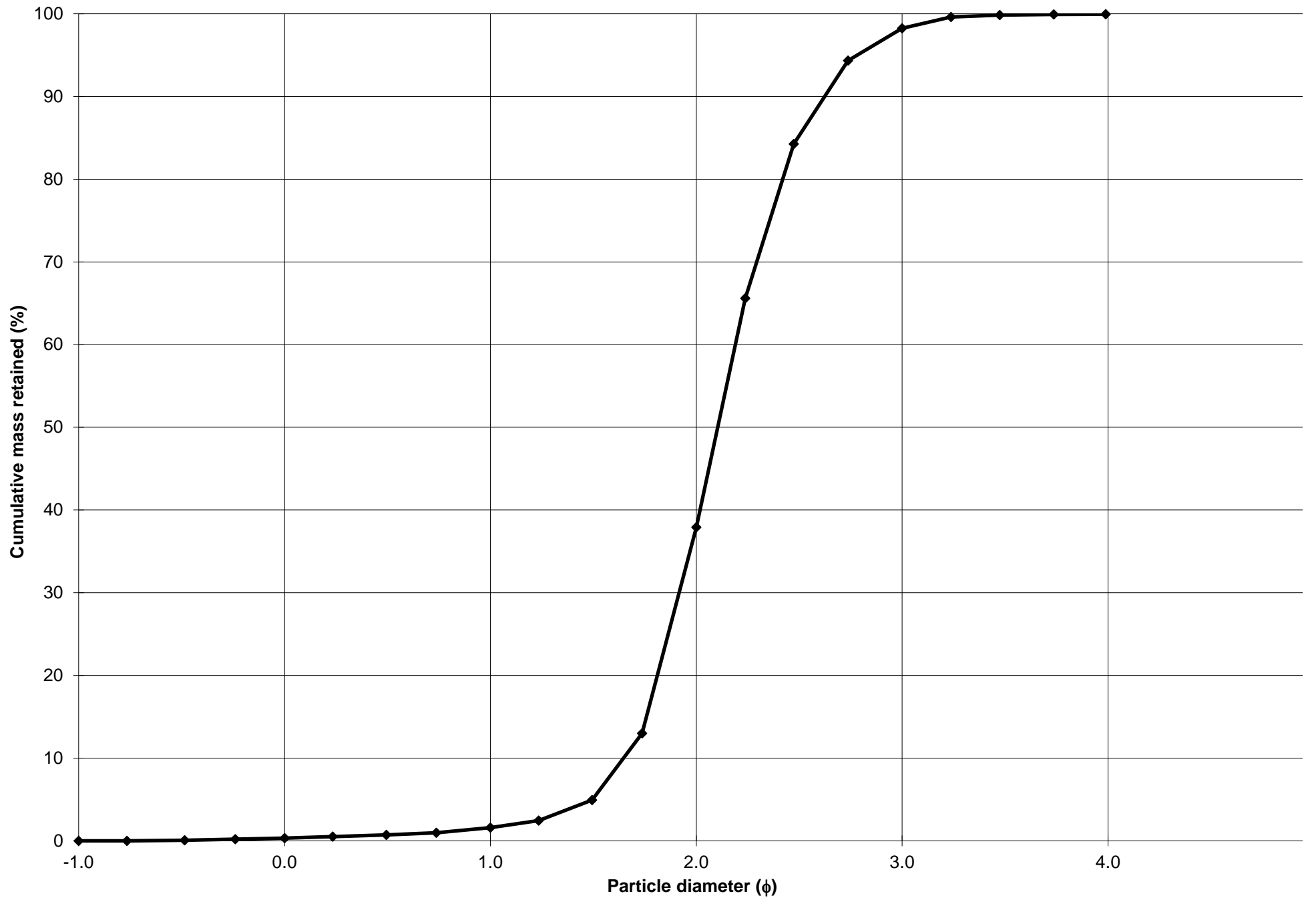
Cumulative Frequency Curve



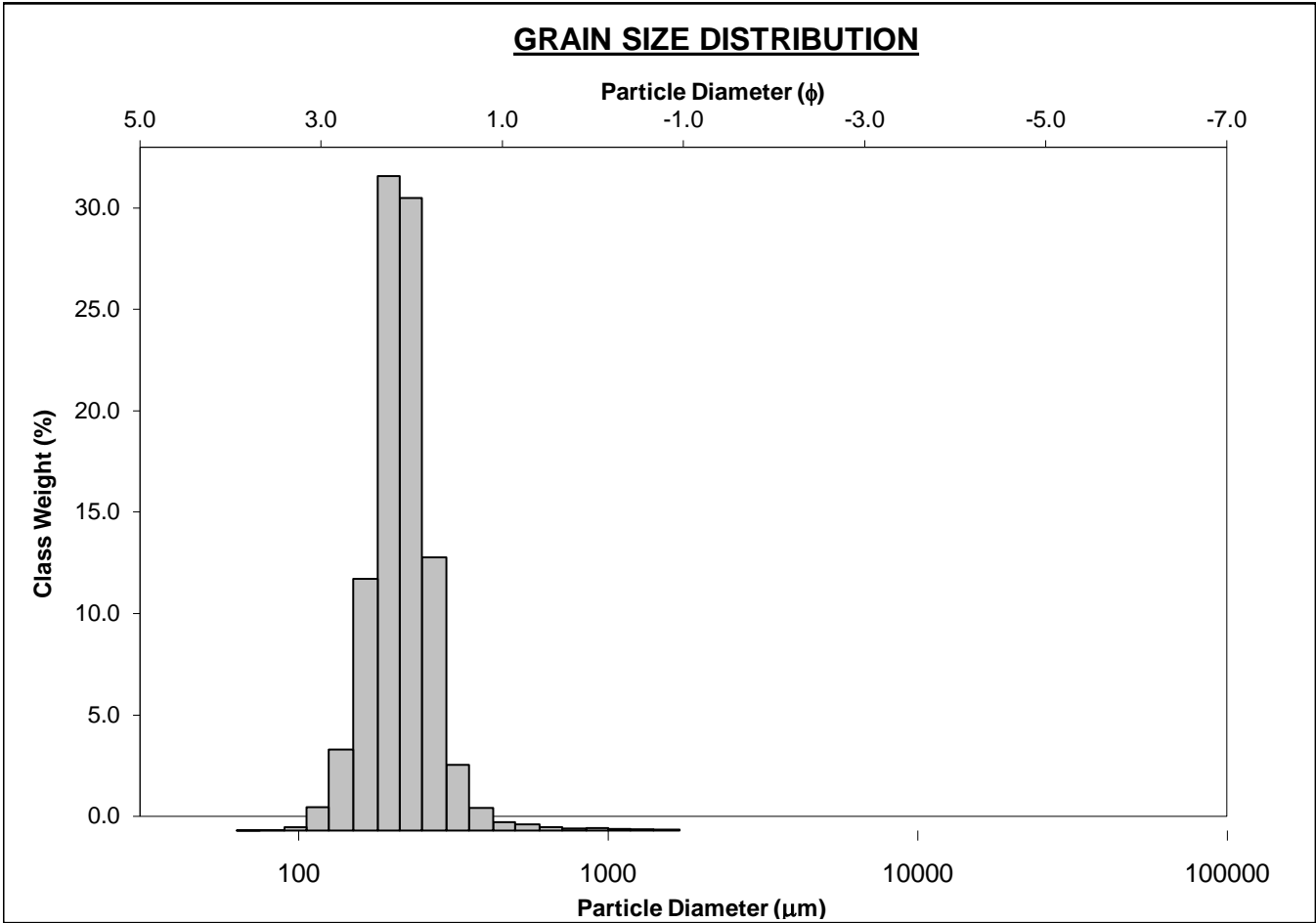
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-200cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 1.3%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 36.3%	
MODE 3:			MUD: 0.1%		FINE SAND: 60.3%	
D ₁₀ :	162.2	1.647			V FINE SAND: 1.7%	
MEDIAN or D ₅₀ :	232.6	2.104	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	319.4	2.624	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.969	1.593	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	157.2	0.977	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.407	1.265	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	79.54	0.493	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	245.5	232.4	2.105	230.9	2.114	Fine Sand
SORTING (σ):	97.93	1.360	0.443	1.293	0.370	Well Sorted
SKEWNESS (Sk):	5.391	0.052	-0.052	-0.050	0.050	Symmetrical
KURTOSIS (K):	53.54	14.85	14.85	1.069	1.069	Mesokurtic



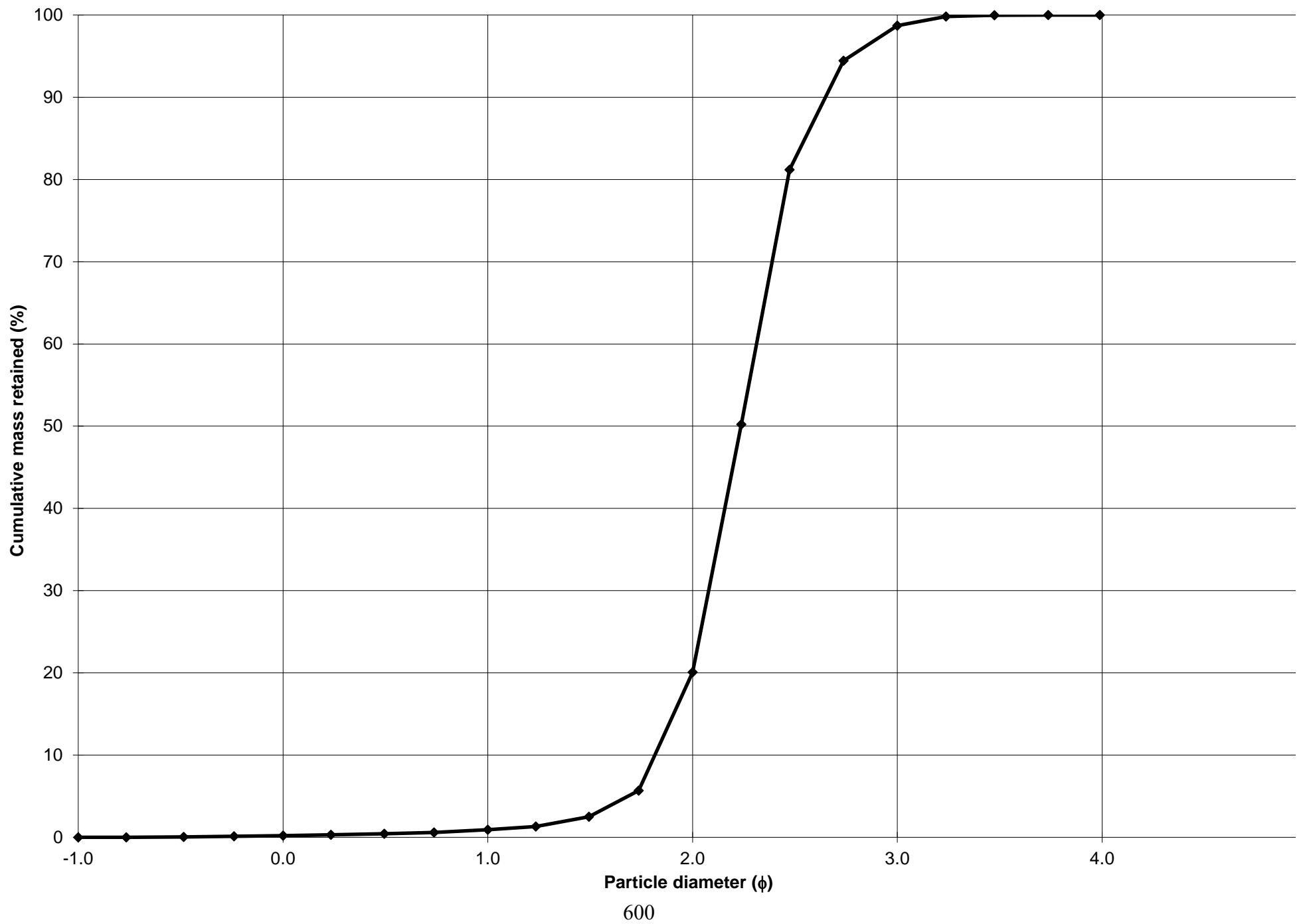
Cumulative Frequency Curve



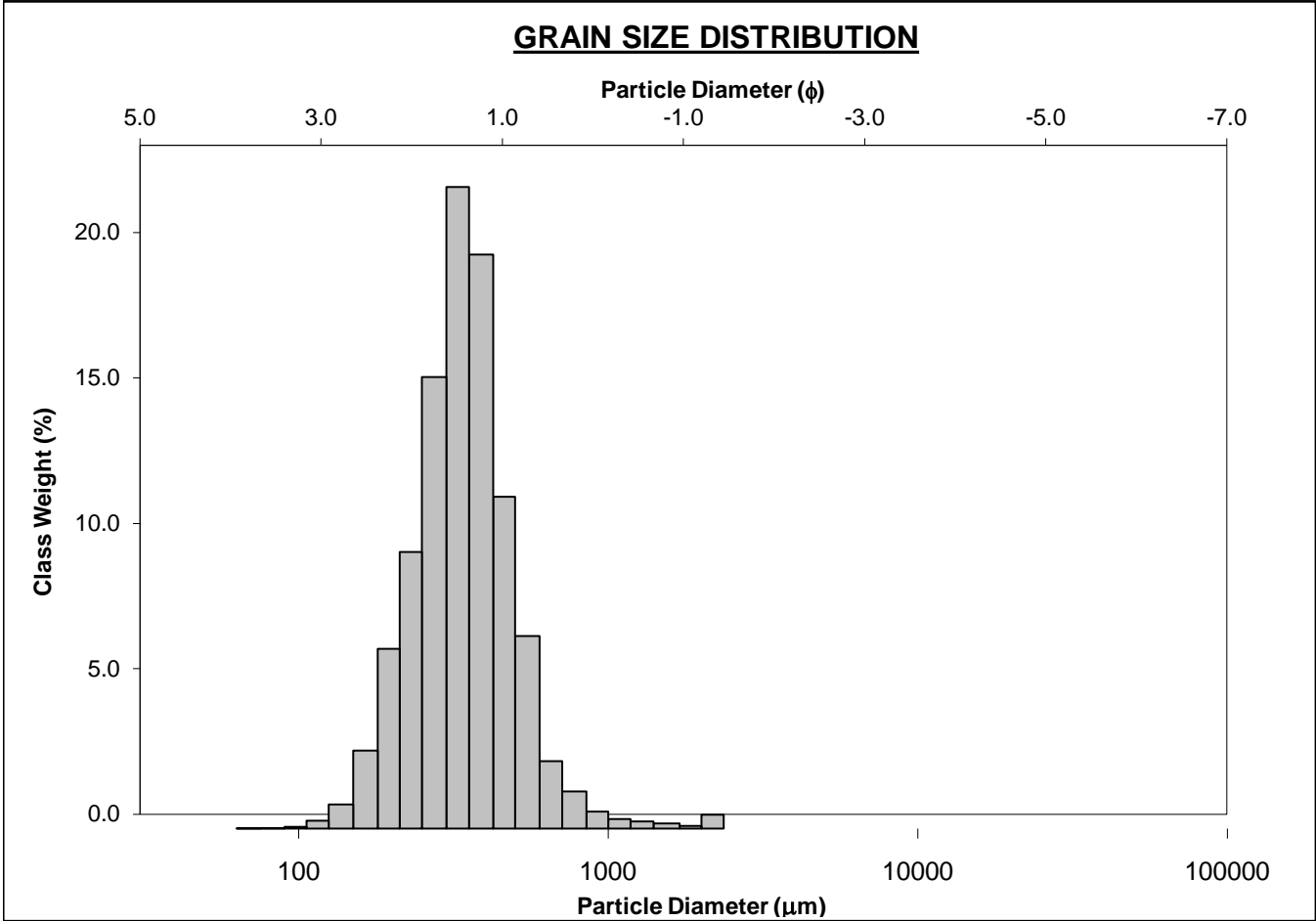
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-210cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 0.7%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 19.2%	
MODE 3:			MUD: 0.0%		FINE SAND: 78.6%	
D ₁₀ :	159.4	1.816			V FINE SAND: 1.3%	
MEDIAN or D ₅₀ :	212.3	2.236	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	284.1	2.649	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.782	1.459	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	124.6	0.833	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.309	1.190	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	57.39	0.388	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	223.3	214.4	2.222	213.1	2.231	Fine Sand
SORTING (σ):	79.41	1.288	0.365	1.245	0.316	Very Well Sorted
SKEWNESS (Sk):	6.955	1.282	-1.282	0.021	-0.021	Symmetrical
KURTOSIS (K):	87.25	10.50	10.50	1.148	1.148	Leptokurtic



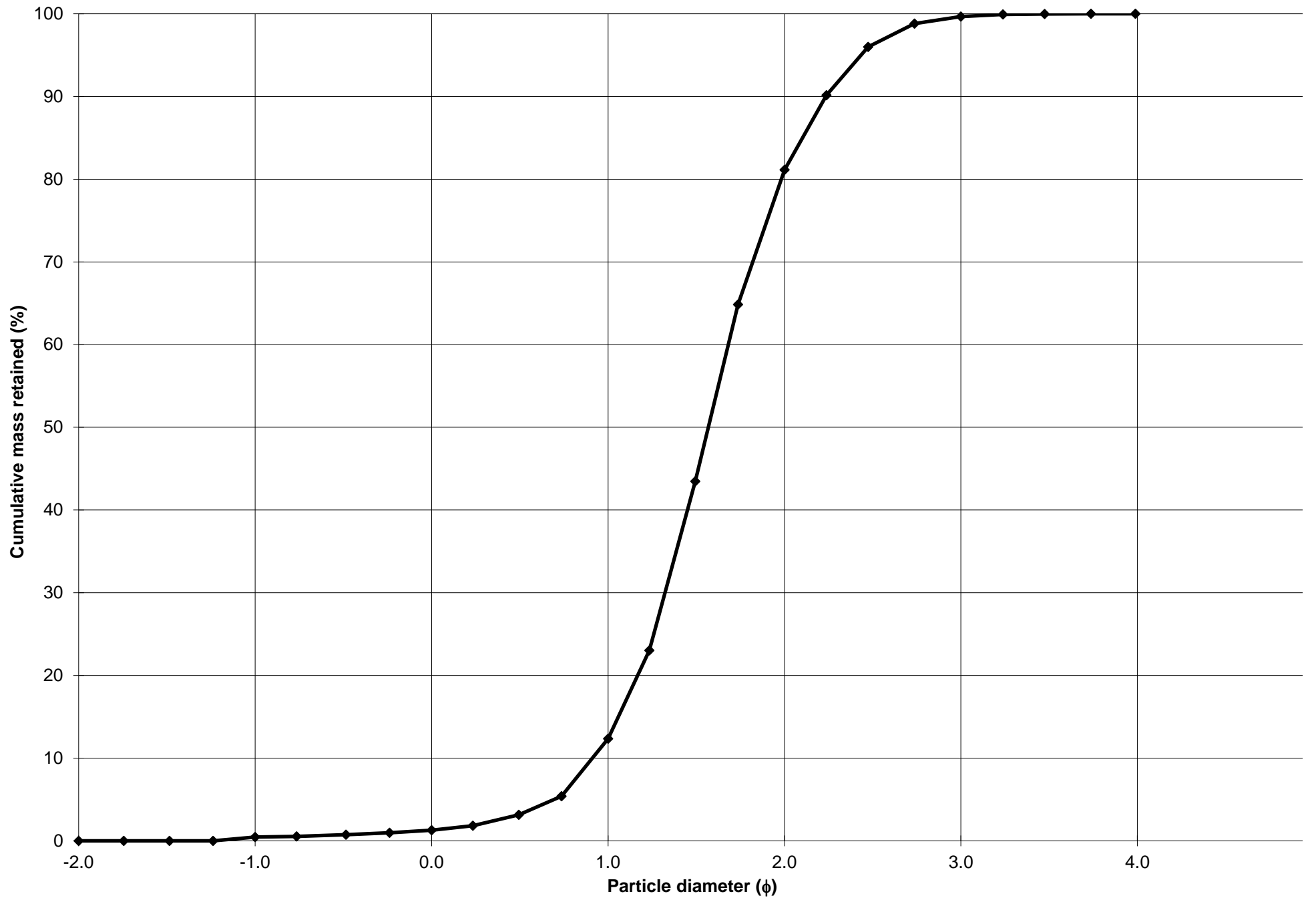
Cumulative Frequency Curve



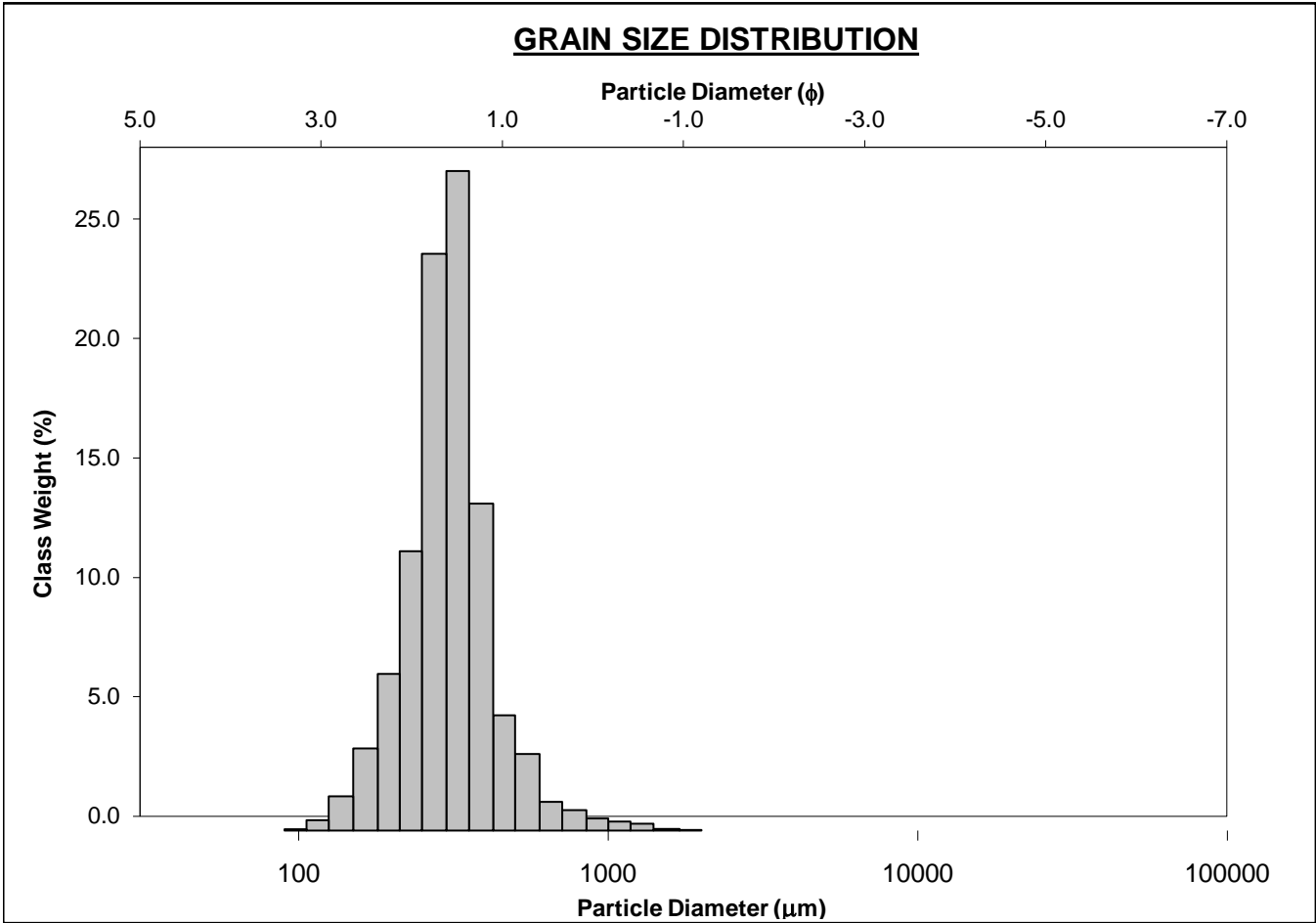
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-220cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.5%		COARSE SAND: 11.1%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 68.8%	
MODE 3:			MUD: 0.0%		FINE SAND: 18.5%	
D ₁₀ :	212.6	0.911			V FINE SAND: 0.3%	
MEDIAN or D ₅₀ :	337.2	1.568	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	531.8	2.234	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.501	2.452	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	319.2	1.323	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.560	1.509	V FINE GRAVEL: 0.5%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	149.9	0.641	V COARSE SAND: 0.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	371.7	340.0	1.556	335.7	1.575	Medium Sand
SORTING (σ):	198.4	1.474	0.559	1.427	0.513	Moderately Well Sorted
SKEWNESS (Sk):	4.802	0.710	-0.710	-0.007	0.007	Symmetrical
KURTOSIS (K):	38.89	5.841	5.841	1.112	1.112	Leptokurtic



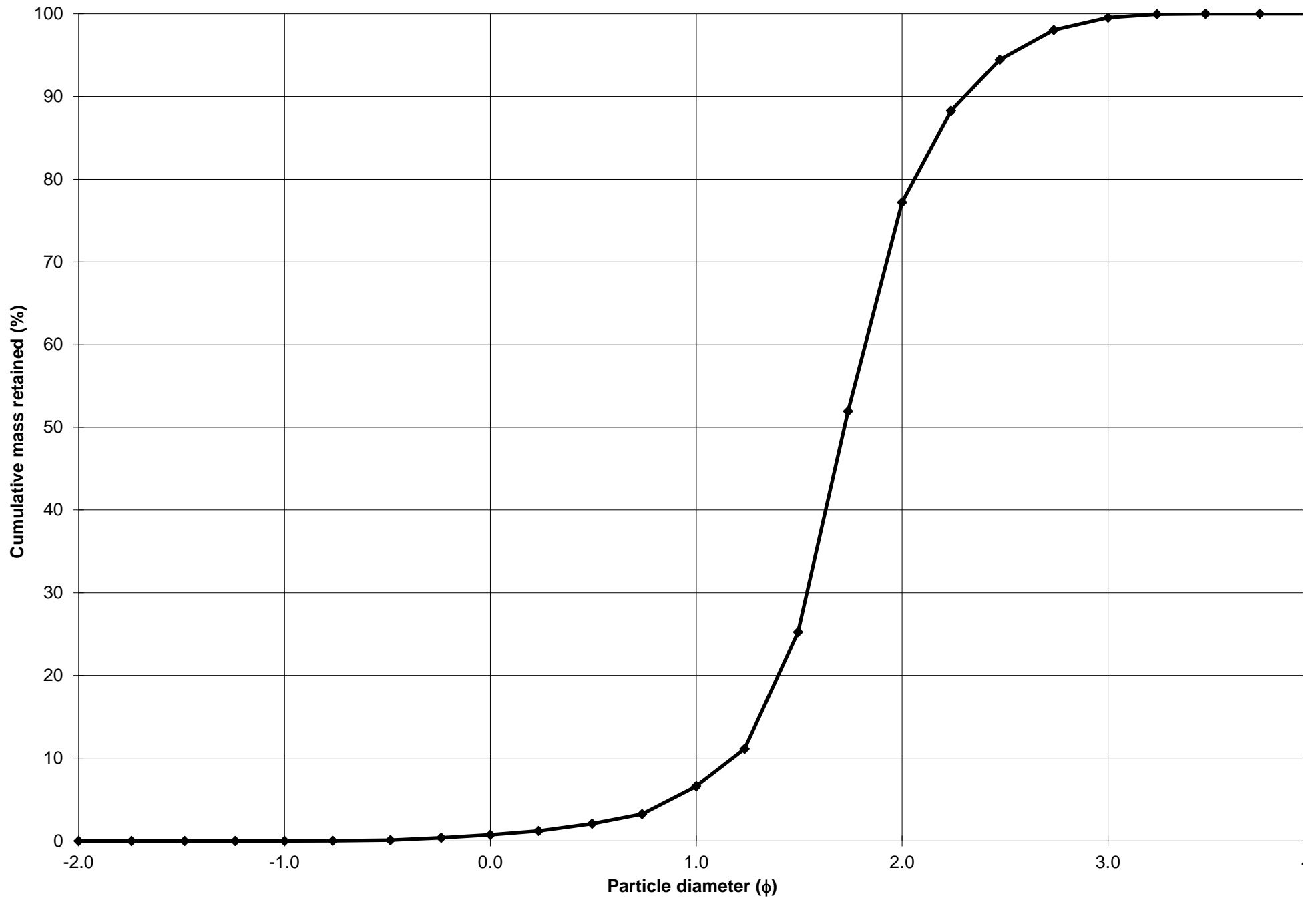
Cumulative Frequency Curve



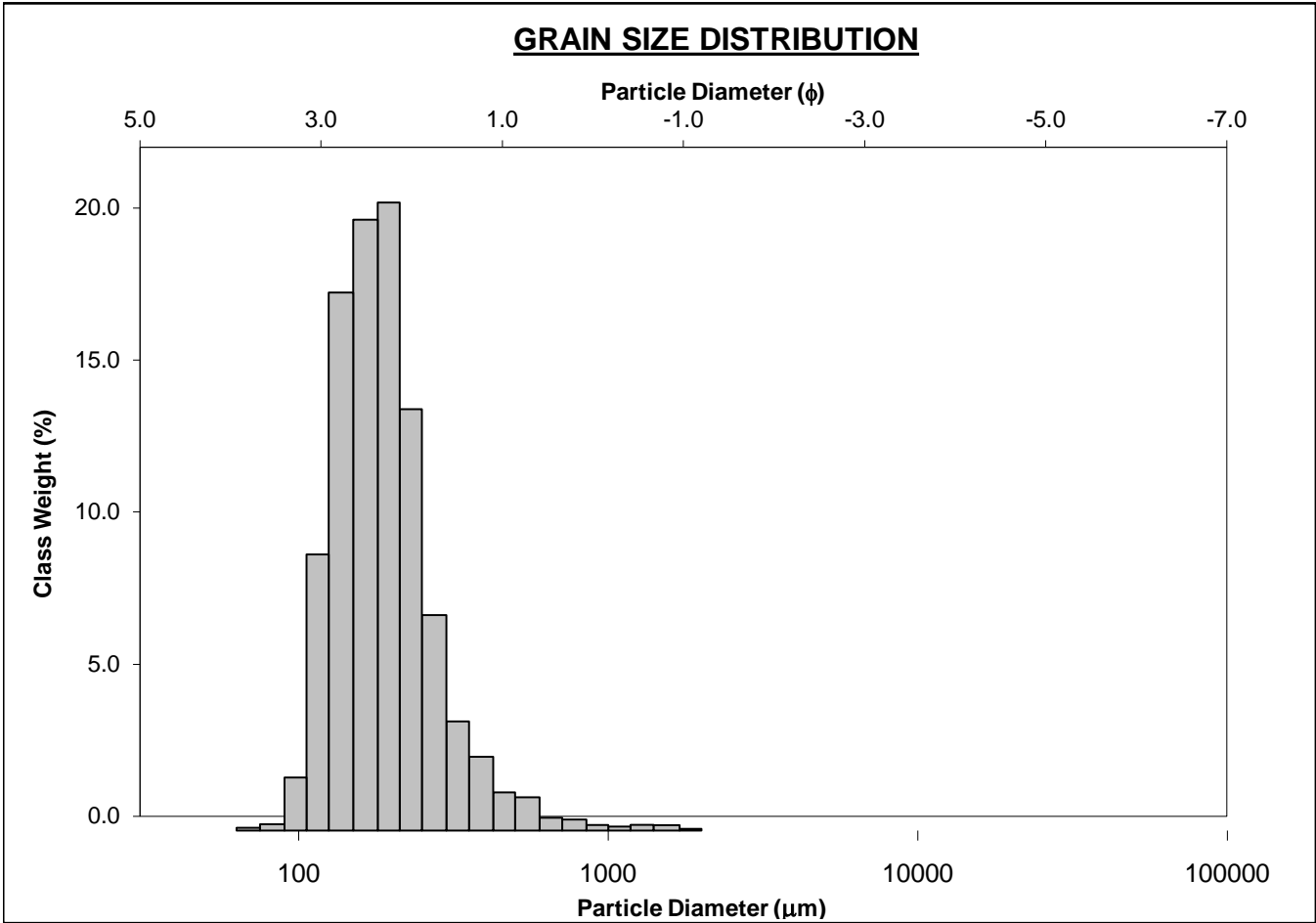
SIEVING ERROR: 1.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-230cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0% COARSE SAND: 5.9%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 70.6%			
MODE 3:			MUD: 0.0% FINE SAND: 22.3%			
D ₁₀ :	202.5	1.176	V FINE SAND: 0.5%			
MEDIAN or D ₅₀ :	303.7	1.719	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	442.5	2.304	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.185	1.959	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	240.0	1.128	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.402	1.327	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	102.1	0.488	V COARSE SAND: 0.7% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	325.5	304.5	1.715	301.5	1.730	Medium Sand
SORTING (σ):	136.6	1.404	0.490	1.370	0.454	Well Sorted
SKEWNESS (Sk):	3.383	0.579	-0.579	-0.004	0.004	Symmetrical
KURTOSIS (K):	22.91	5.424	5.424	1.380	1.380	Leptokurtic



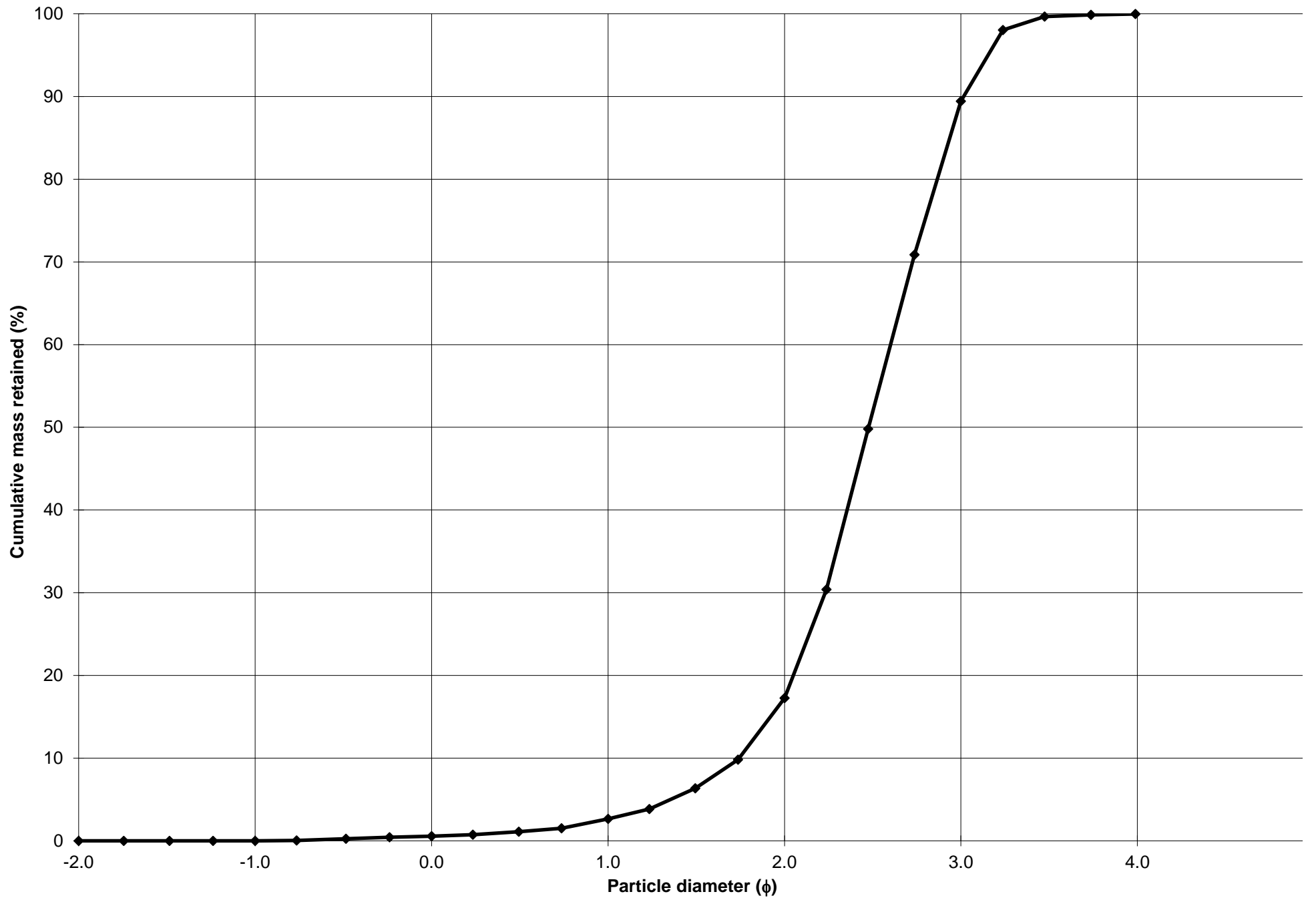
Cumulative Frequency Curve



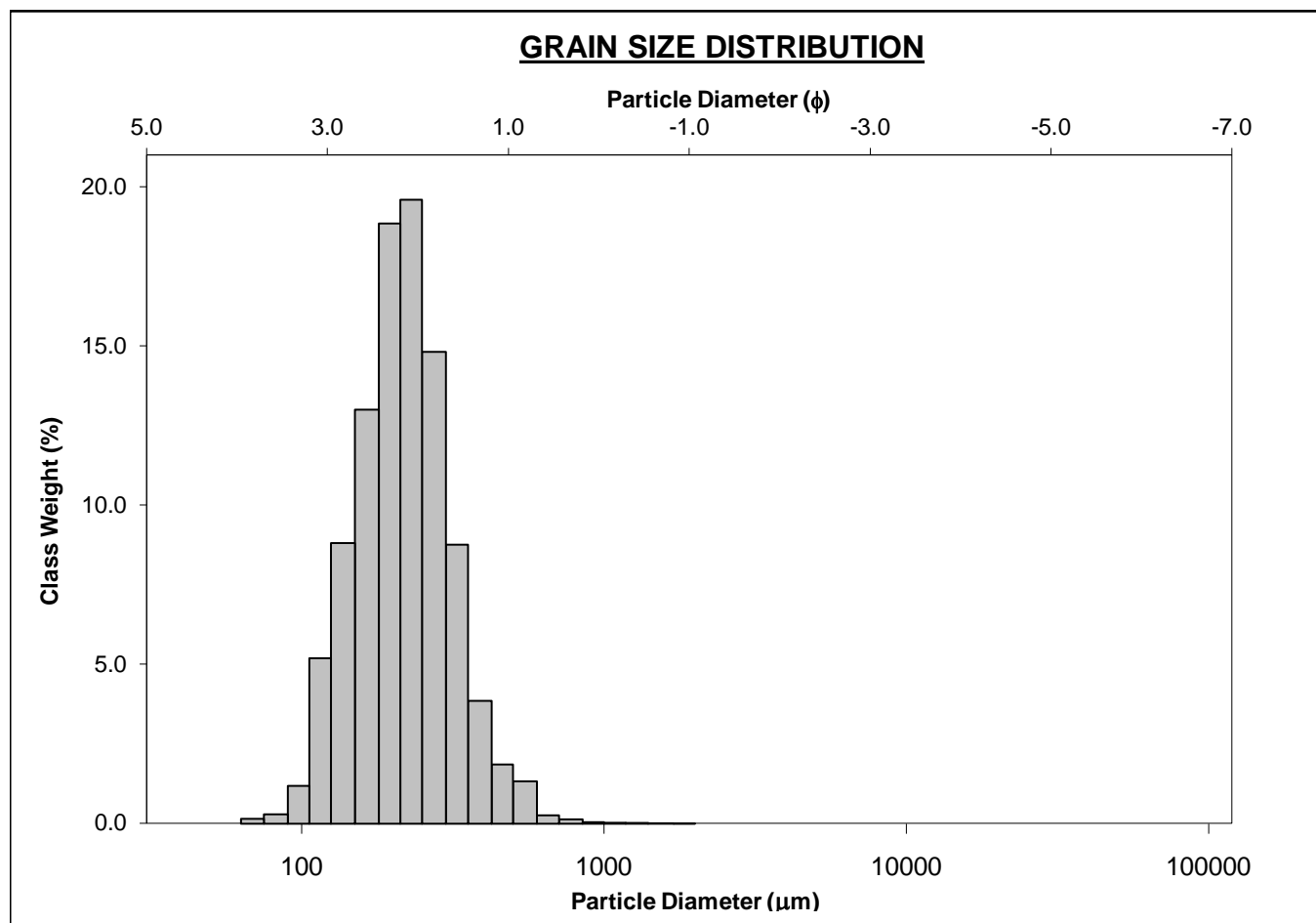
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-05-240cm			ANALYST & DATE: Chris, 2/26/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 2.1%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 14.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 72.2%	
D ₁₀ :	123.6	1.743			V FINE SAND: 10.6%	
MEDIAN or D ₅₀ :	179.7	2.476	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	298.7	3.016	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.416	1.730	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	175.1	1.273	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.575	1.306	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	82.79	0.655	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	208.8	188.5	2.407	182.8	2.452	Fine Sand
SORTING (σ):	131.2	1.488	0.574	1.428	0.514	Moderately Well Sorted
SKEWNESS (Sk):	5.615	1.270	-1.270	0.161	-0.161	Coarse Skewed
KURTOSIS (K):	49.87	7.931	7.931	1.126	1.126	Leptokurtic



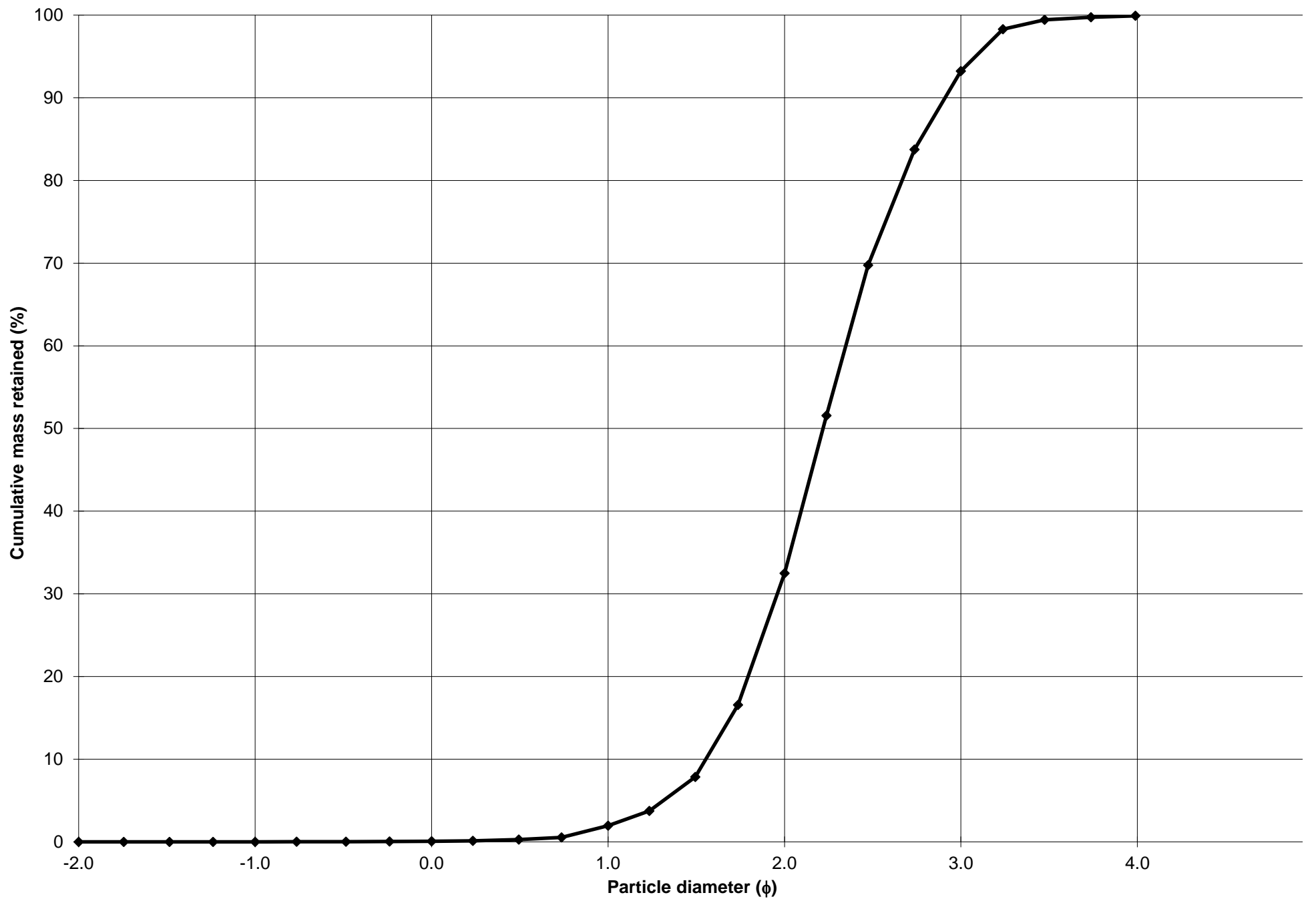
Cumulative Frequency Curve



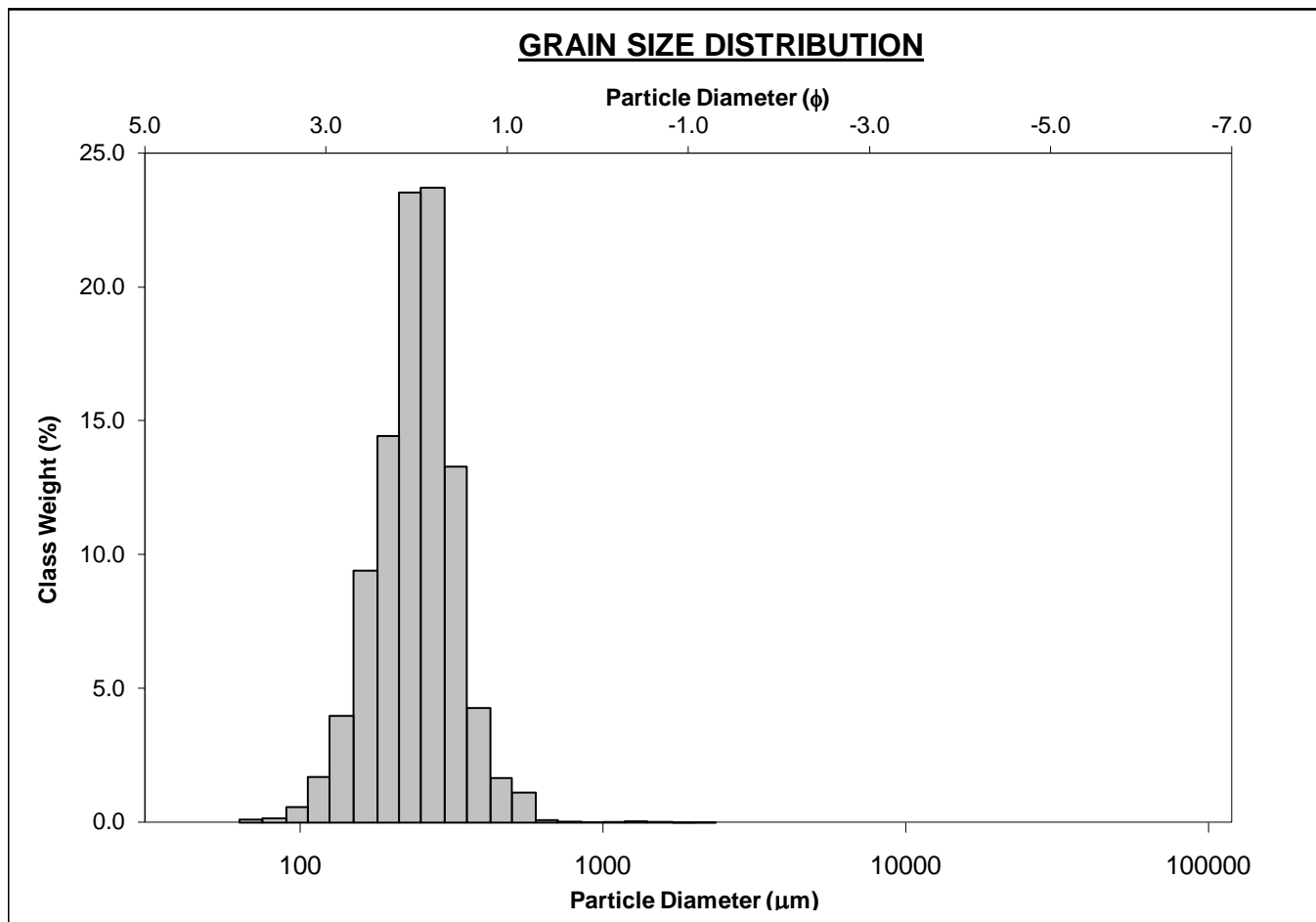
SIEVING ERROR: 0.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-30cm			ANALYST & DATE: Chris, 11/28/2014			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 1.9%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 30.5%	
MODE 3:			MUD: 0.1%		FINE SAND: 60.7%	
D ₁₀ :	133.0	1.554			V FINE SAND: 6.7%	
MEDIAN or D ₅₀ :	214.9	2.218	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	340.6	2.910	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.561	1.873	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	207.6	1.356	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.620	1.371	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	104.3	0.696	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	232.0	215.0	2.218	213.5	2.228	Fine Sand
SORTING (σ):	97.11	1.463	0.549	1.438	0.524	Moderately Well Sorted
SKEWNESS (Sk):	2.747	-0.319	0.319	-0.003	0.003	Symmetrical
KURTOSIS (K):	24.49	8.351	8.351	1.042	1.042	Mesokurtic



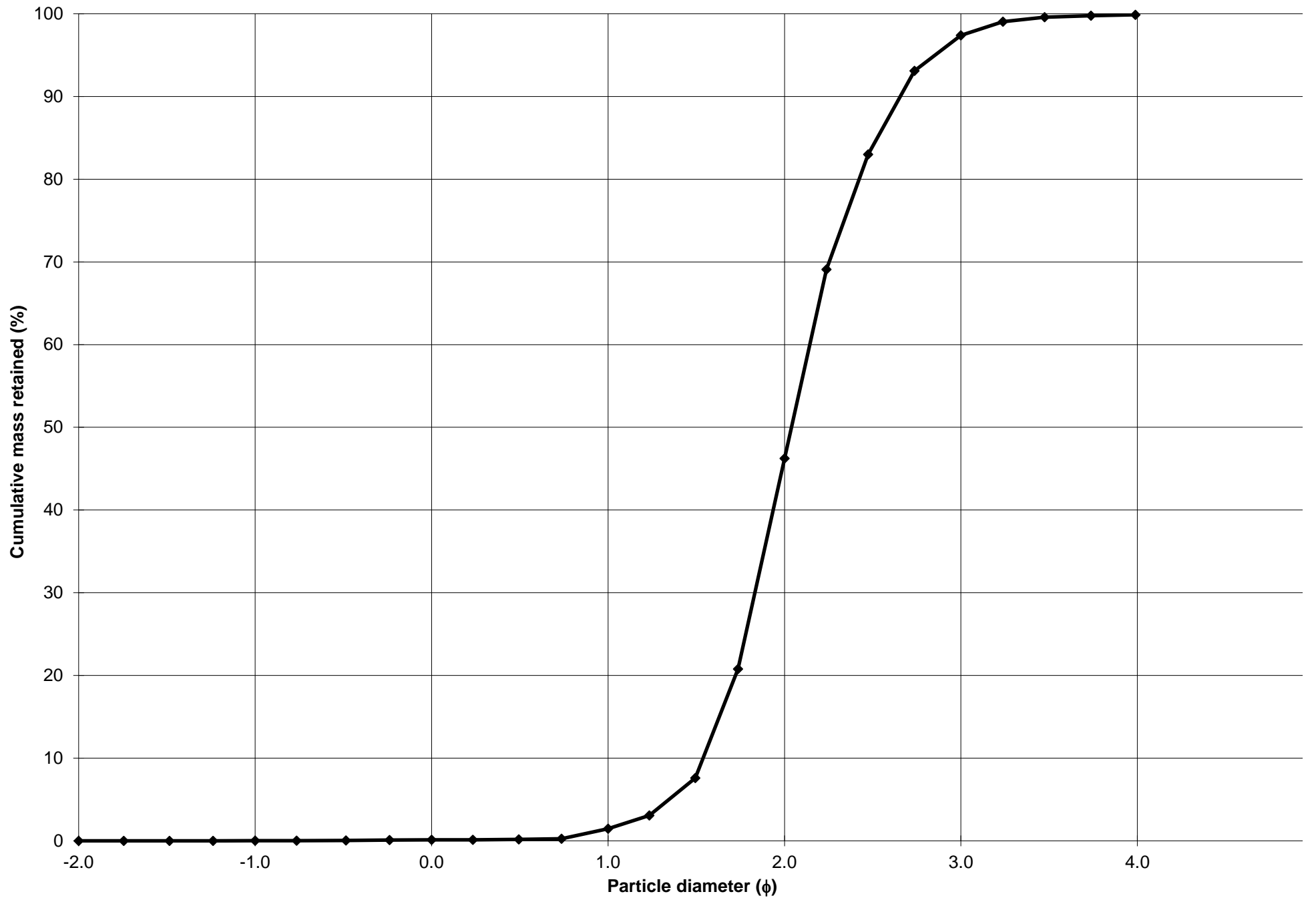
Cumulative Frequency Curve



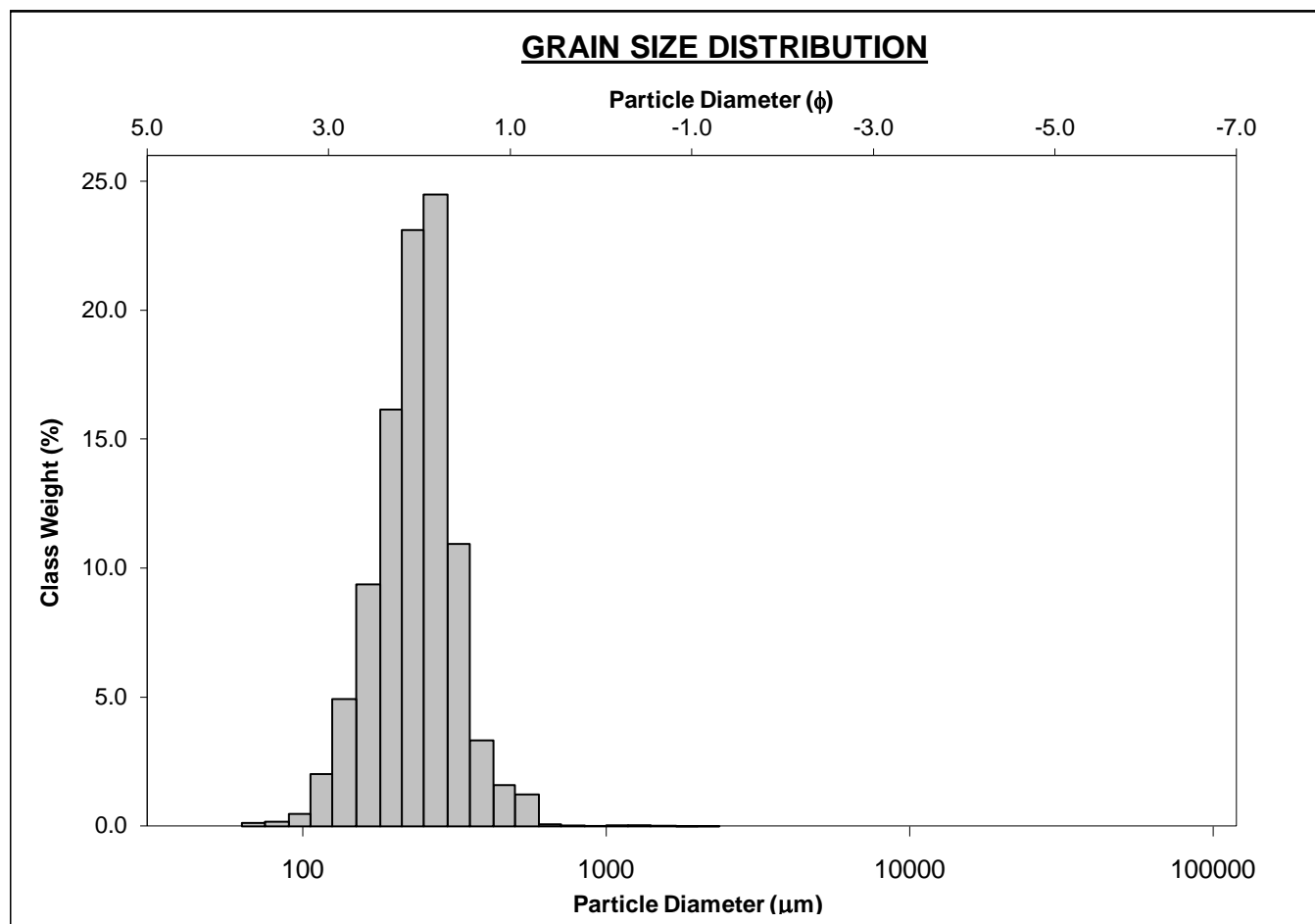
SIEVING ERROR: 0.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-40cm			ANALYST & DATE: Chris, 11/28/2014			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.4%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 44.8%	
MODE 3:			MUD: 0.1%		FINE SAND: 51.1%	
D ₁₀ :	158.6	1.538			V FINE SAND: 2.5%	
MEDIAN or D ₅₀ :	243.3	2.039	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	344.3	2.656	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.170	1.727	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	185.7	1.118	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.472	1.313	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	93.32	0.558	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	252.9	238.8	2.066	239.4	2.063	Fine Sand
SORTING (σ):	89.02	1.399	0.485	1.358	0.441	Well Sorted
SKEWNESS (Sk):	3.745	-1.196	1.196	-0.081	0.081	Symmetrical
KURTOSIS (K):	50.40	16.08	16.08	1.109	1.109	Mesokurtic



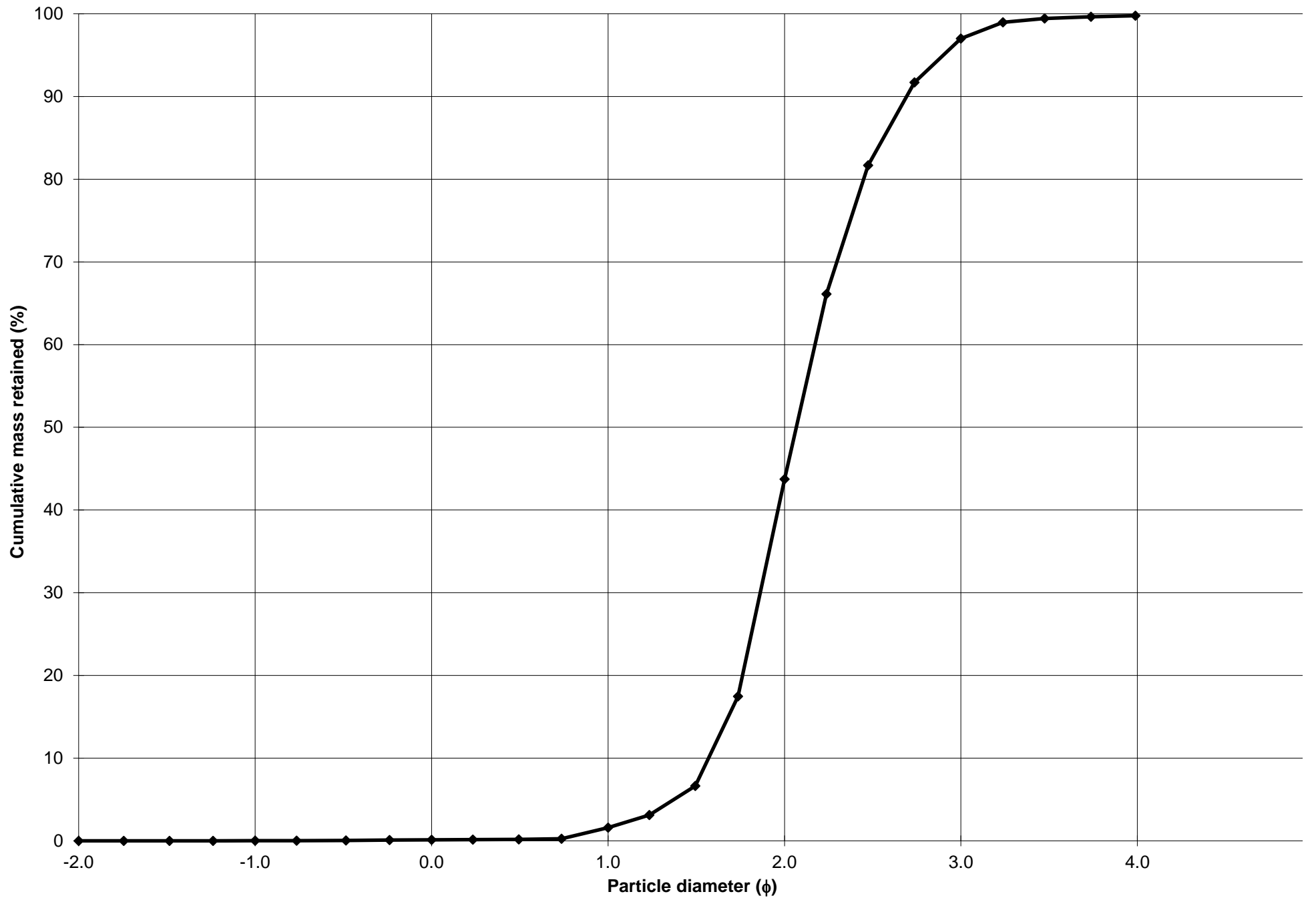
Cumulative Frequency Curve



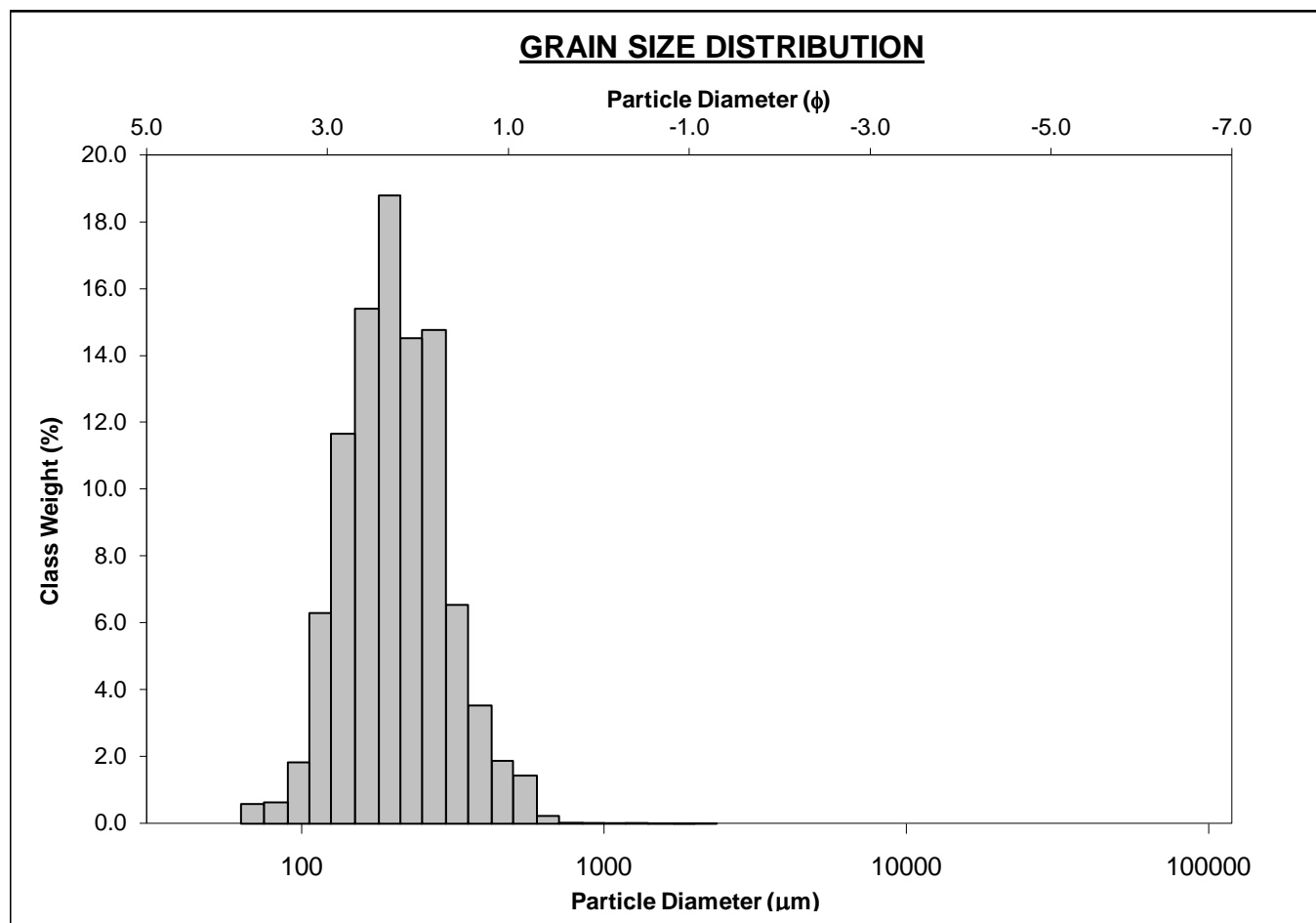
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-50cm			ANALYST & DATE: Chris, 11/28/2014			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.5%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 42.1%	
MODE 3:			MUD: 0.2%		FINE SAND: 53.3%	
D ₁₀ :	154.7	1.569			V FINE SAND: 2.8%	
MEDIAN or D ₅₀ :	238.7	2.067	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	336.9	2.692	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.177	1.715	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	182.2	1.123	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.475	1.309	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	91.64	0.560	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	247.6	232.9	2.102	232.9	2.102	Fine Sand
SORTING (σ):	89.14	1.429	0.515	1.356	0.439	Well Sorted
SKEWNESS (Sk):	3.829	-1.921	1.921	-0.110	0.110	Fine Skewed
KURTOSIS (K):	50.94	22.12	22.12	1.117	1.117	Leptokurtic



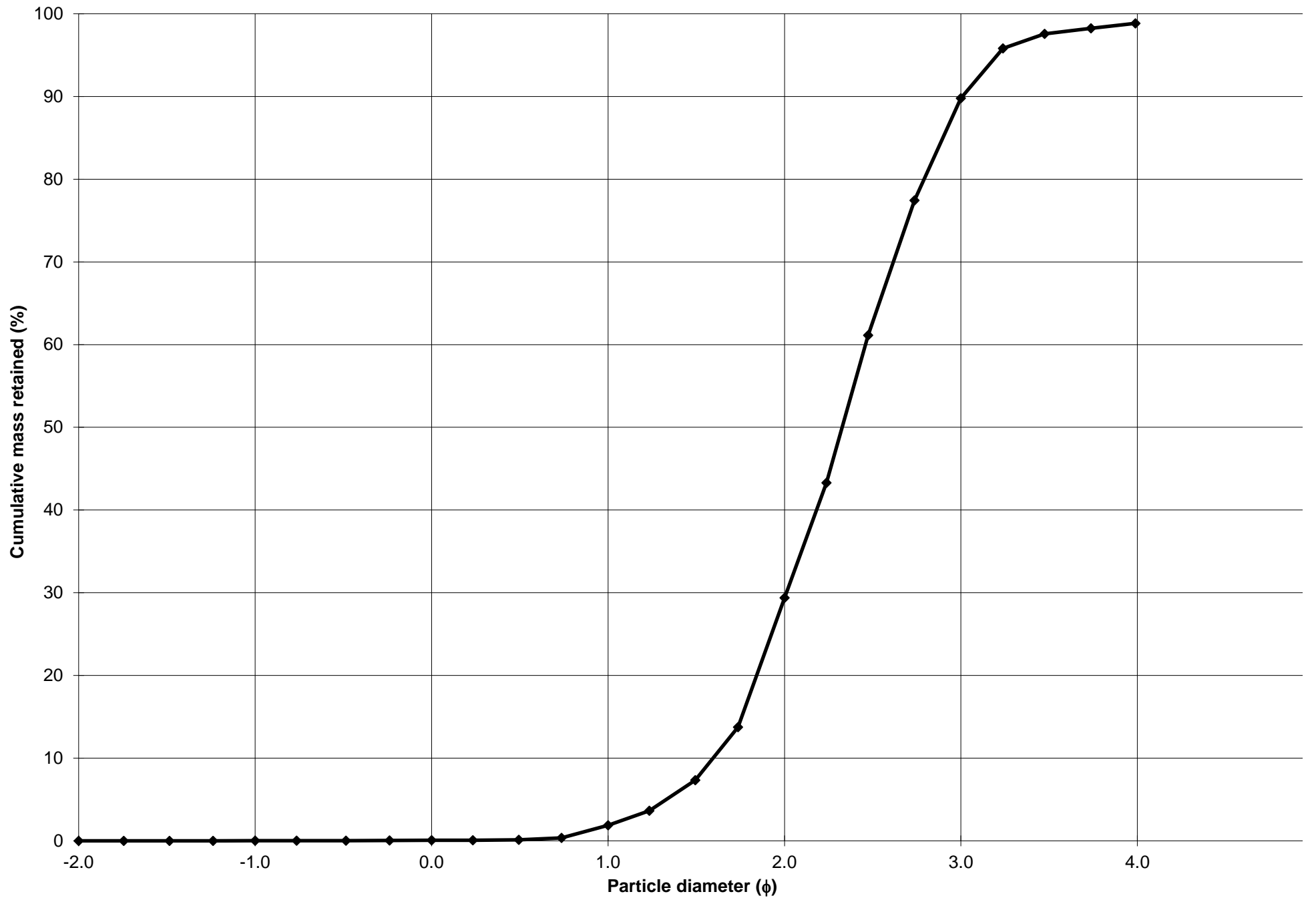
Cumulative Frequency Curve



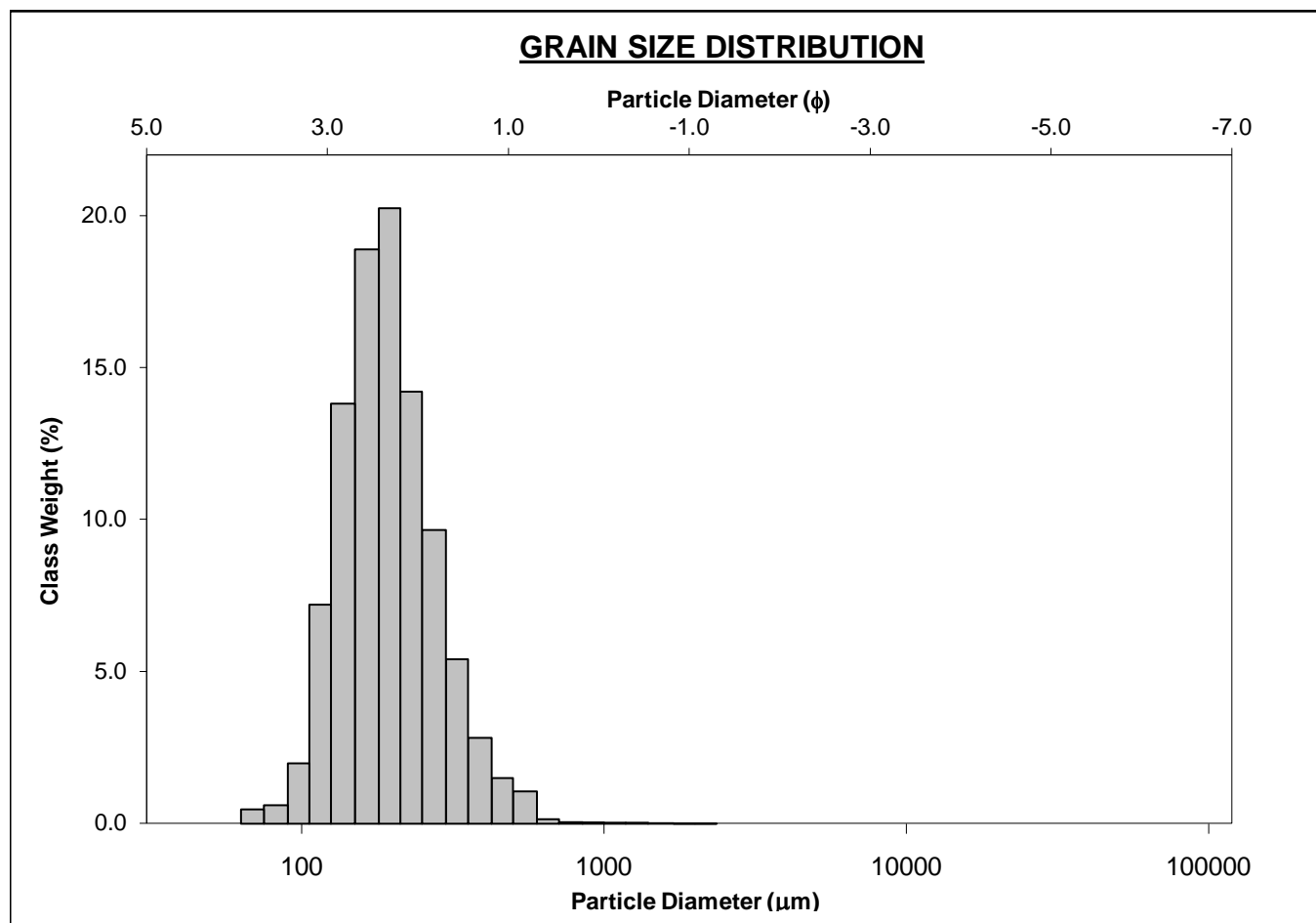
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-60cm			ANALYST & DATE: Chris, 11/28/2014			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 1.8%	
MODE 2:	275.0	1.868	SAND: 98.8%		MEDIUM SAND: 27.5%	
MODE 3:			MUD: 1.2%		FINE SAND: 60.4%	
D_{10} :	124.3	1.595			V FINE SAND: 9.1%	
MEDIAN or D_{50} :	199.3	2.327	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D_{90} :	331.0	3.008	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D_{90} / D_{10}) :	2.663	1.886	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
$(D_{90} - D_{10})$:	206.7	1.413	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D_{75} / D_{25}) :	1.707	1.400	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
$(D_{75} - D_{25})$:	108.9	0.771	V COARSE SAND: 0.1%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	218.8	196.2	2.350	199.4	2.326	Fine Sand
SORTING (σ):	98.29	1.679	0.748	1.474	0.560	Moderately Well Sorted
SKEWNESS (Sk):	2.708	-2.541	2.541	0.032	-0.032	Symmetrical
KURTOSIS (K):	29.69	18.29	18.29	0.997	0.997	Mesokurtic



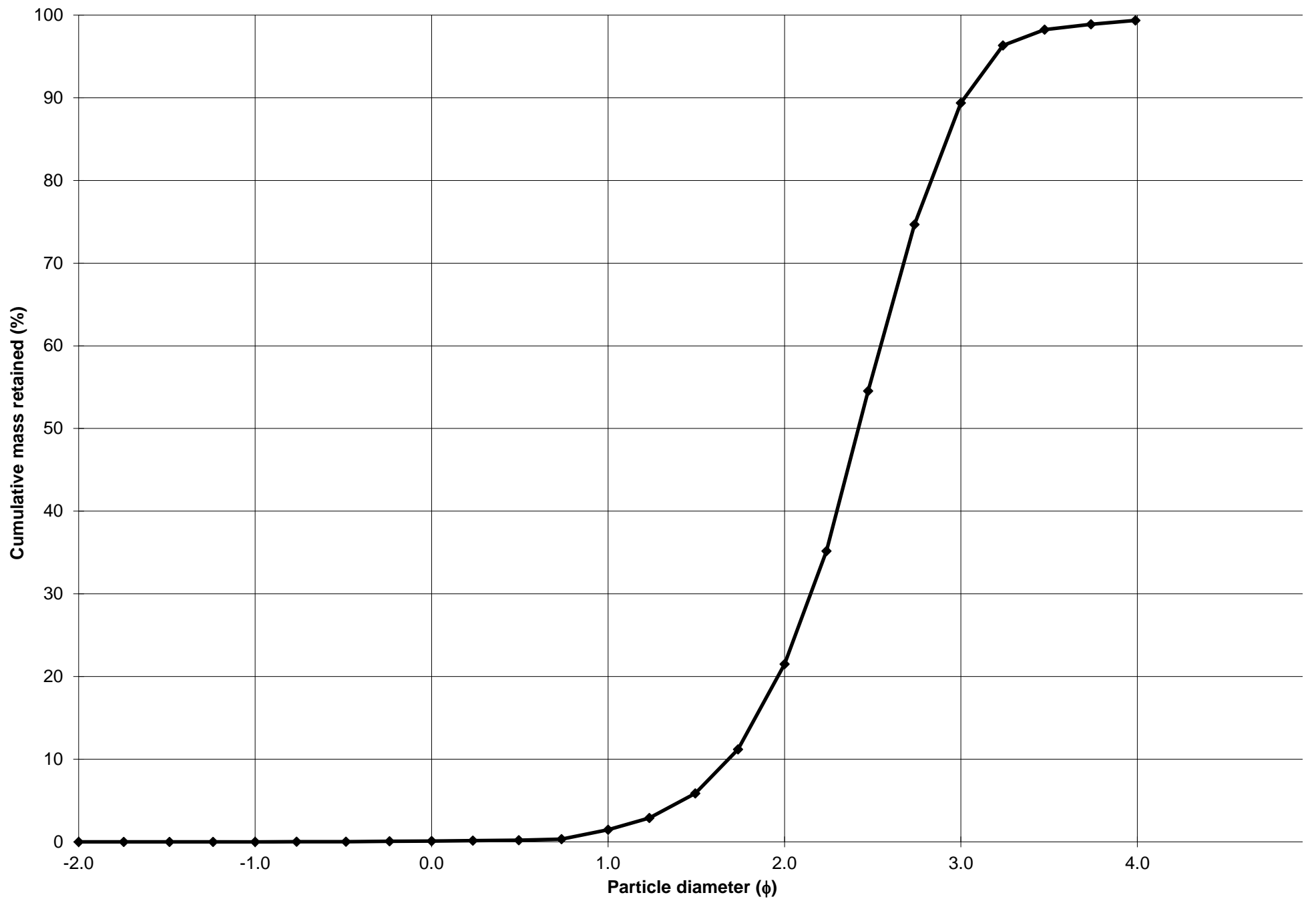
Cumulative Frequency Curve



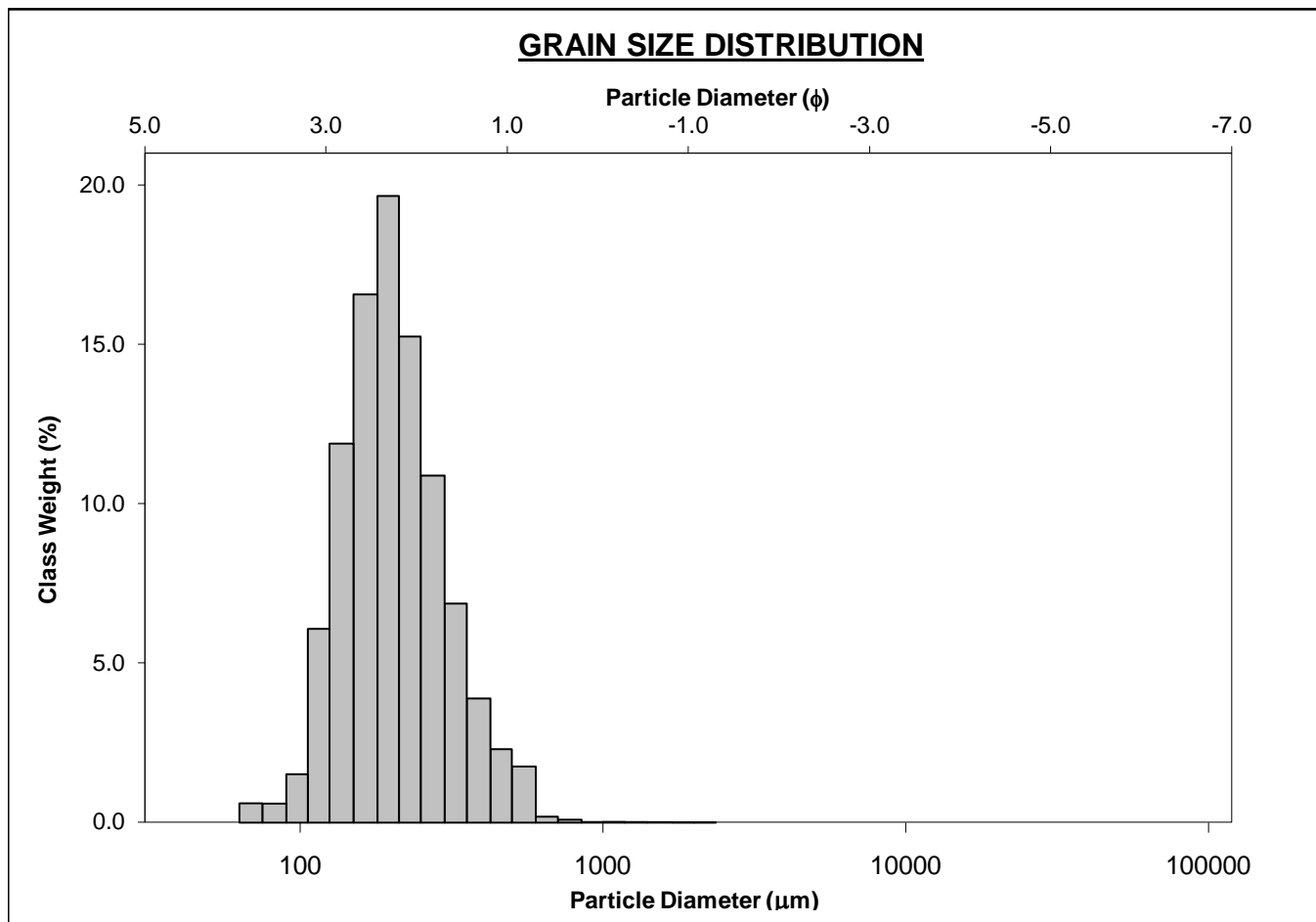
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-70cm			ANALYST & DATE: Chris, 11/28/2014			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 1.4%	
MODE 2:			SAND: 99.4%		MEDIUM SAND: 20.0%	
MODE 3:			MUD: 0.6%		FINE SAND: 67.9%	
D ₁₀ :	123.2	1.682			V FINE SAND: 10.0%	
MEDIAN or D ₅₀ :	187.0	2.419	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	311.5	3.021	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.529	1.796	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	188.3	1.338	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.604	1.331	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	90.27	0.682	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	207.2	188.8	2.405	190.3	2.394	Fine Sand
SORTING (σ):	94.17	1.568	0.648	1.444	0.530	Moderately Well Sorted
SKEWNESS (Sk):	3.420	-1.879	1.879	0.099	-0.099	Symmetrical
KURTOSIS (K):	35.55	17.99	17.99	1.066	1.066	Mesokurtic



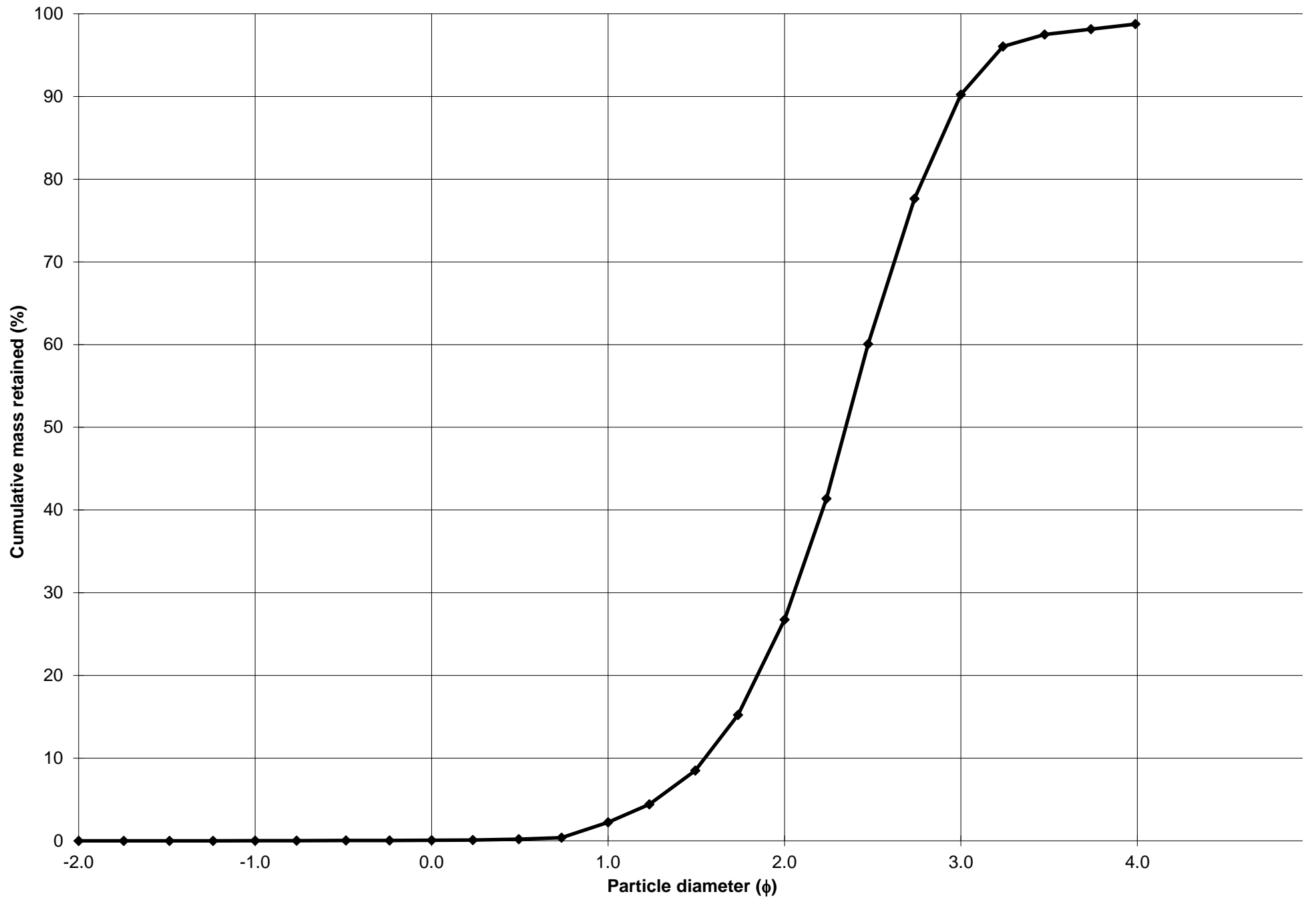
Cumulative Frequency Curve



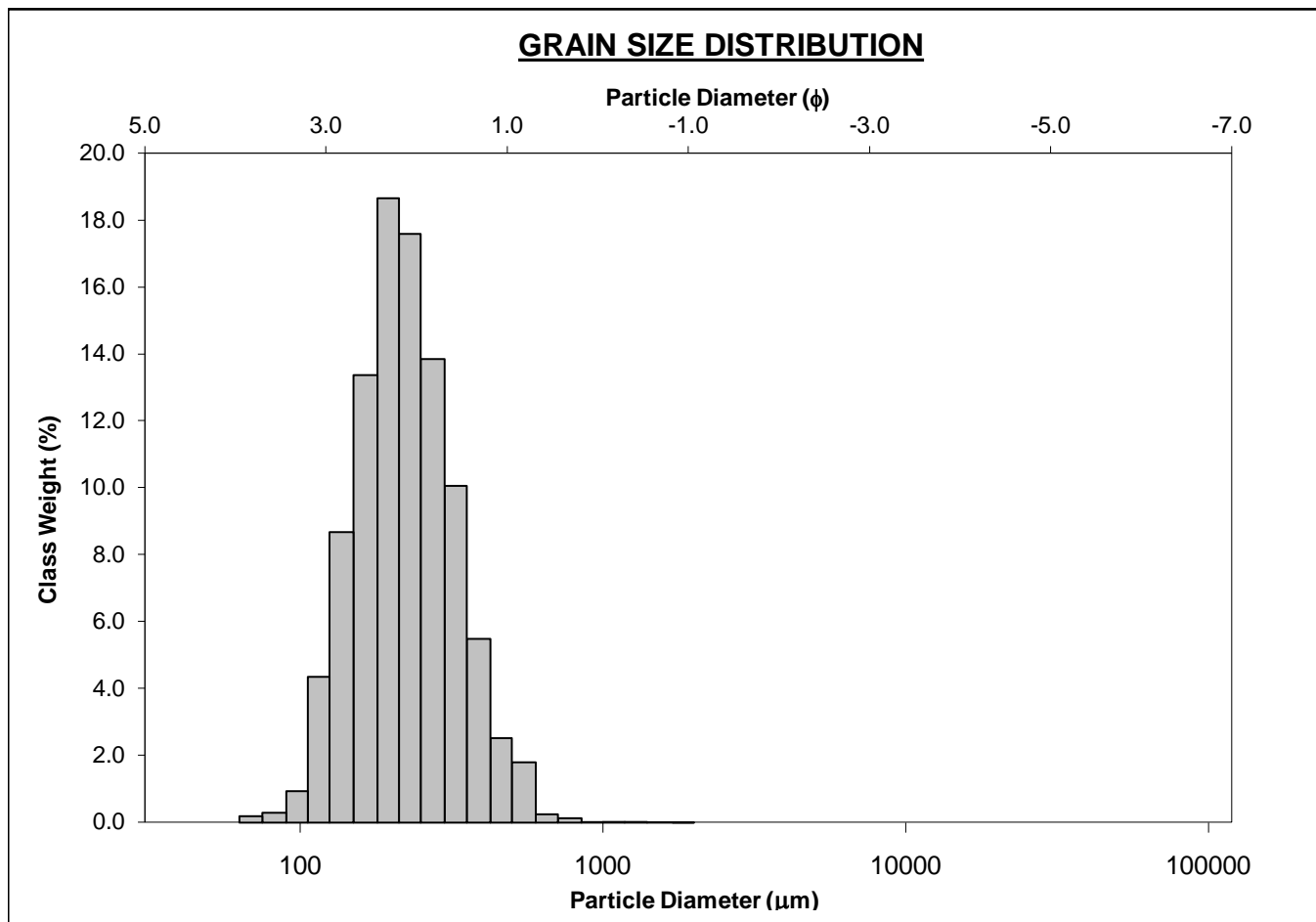
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-80cm			ANALYST & DATE: Chris, 11/28/2014			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 2.2%	
MODE 2:			SAND: 98.7%		MEDIUM SAND: 24.5%	
MODE 3:			MUD: 1.2%		FINE SAND: 63.5%	
D ₁₀ :	125.4	1.548			V FINE SAND: 8.5%	
MEDIAN or D ₅₀ :	196.6	2.347	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	341.9	2.995	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	2.726	1.934	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	216.4	1.447	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.667	1.376	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	102.9	0.738	V COARSE SAND: 0.1%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	219.4	195.5	2.355	199.7	2.324	Fine Sand
SORTING (σ):	103.6	1.703	0.768	1.485	0.570	Moderately Well Sorted
SKEWNESS (Sk):	2.939	-2.476	2.476	0.090	-0.090	Symmetrical
KURTOSIS (K):	30.75	17.82	17.82	1.069	1.069	Mesokurtic



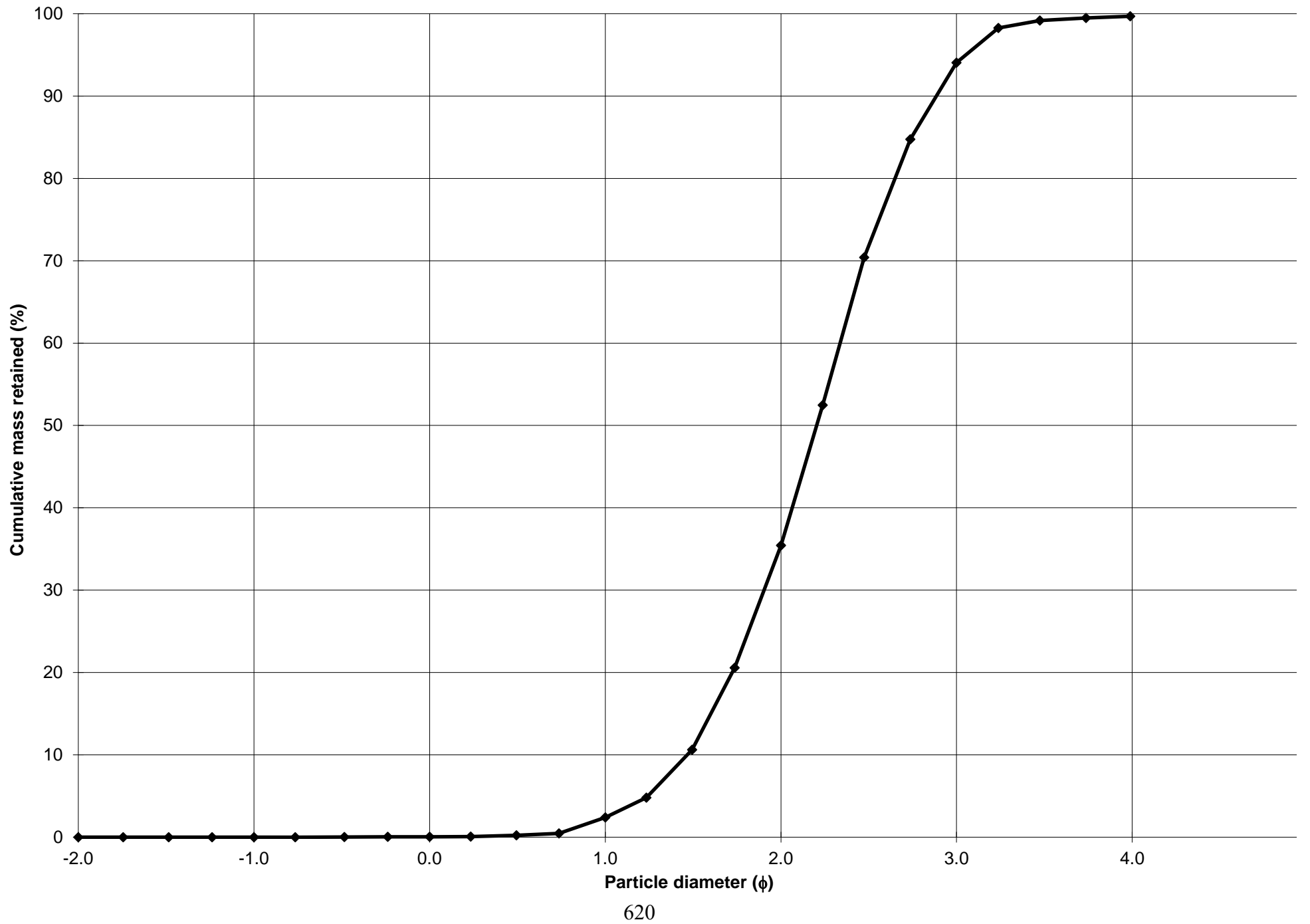
Cumulative Frequency Curve



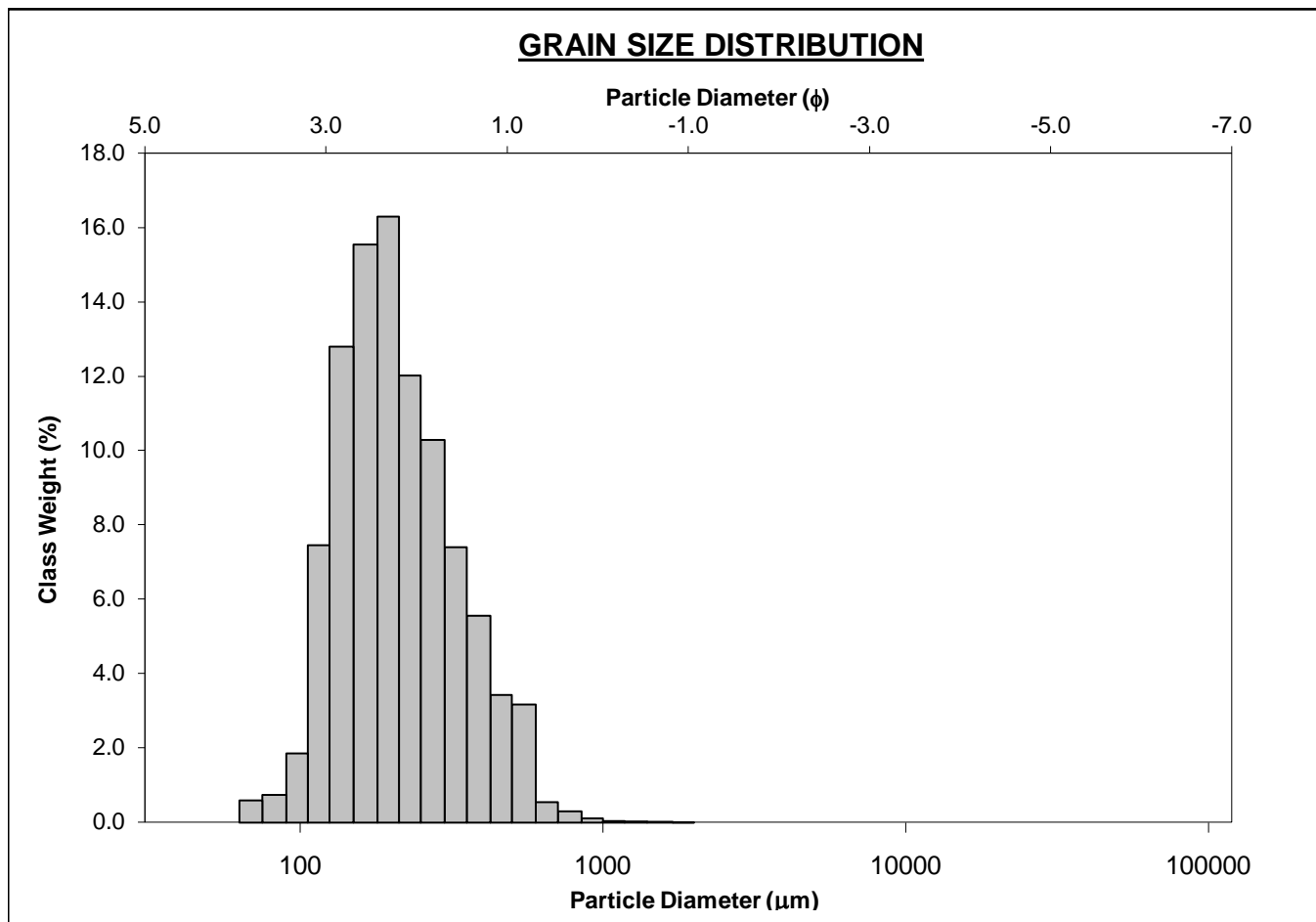
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-90cm			ANALYST & DATE: Chris, 11/28/2014			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 2.3%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 33.0%	
MODE 3:			MUD: 0.3%		FINE SAND: 58.6%	
D ₁₀ :	135.3	1.467			V FINE SAND: 5.6%	
MEDIAN or D ₅₀ :	217.1	2.203	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	361.8	2.885	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.674	1.967	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	226.5	1.419	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.673	1.409	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	114.3	0.743	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	238.8	219.1	2.190	220.1	2.184	Fine Sand
SORTING (σ):	100.8	1.524	0.608	1.463	0.549	Moderately Well Sorted
SKEWNESS (Sk):	2.030	-1.280	1.280	0.057	-0.057	Symmetrical
KURTOSIS (K):	15.00	14.14	14.14	0.999	0.999	Mesokurtic



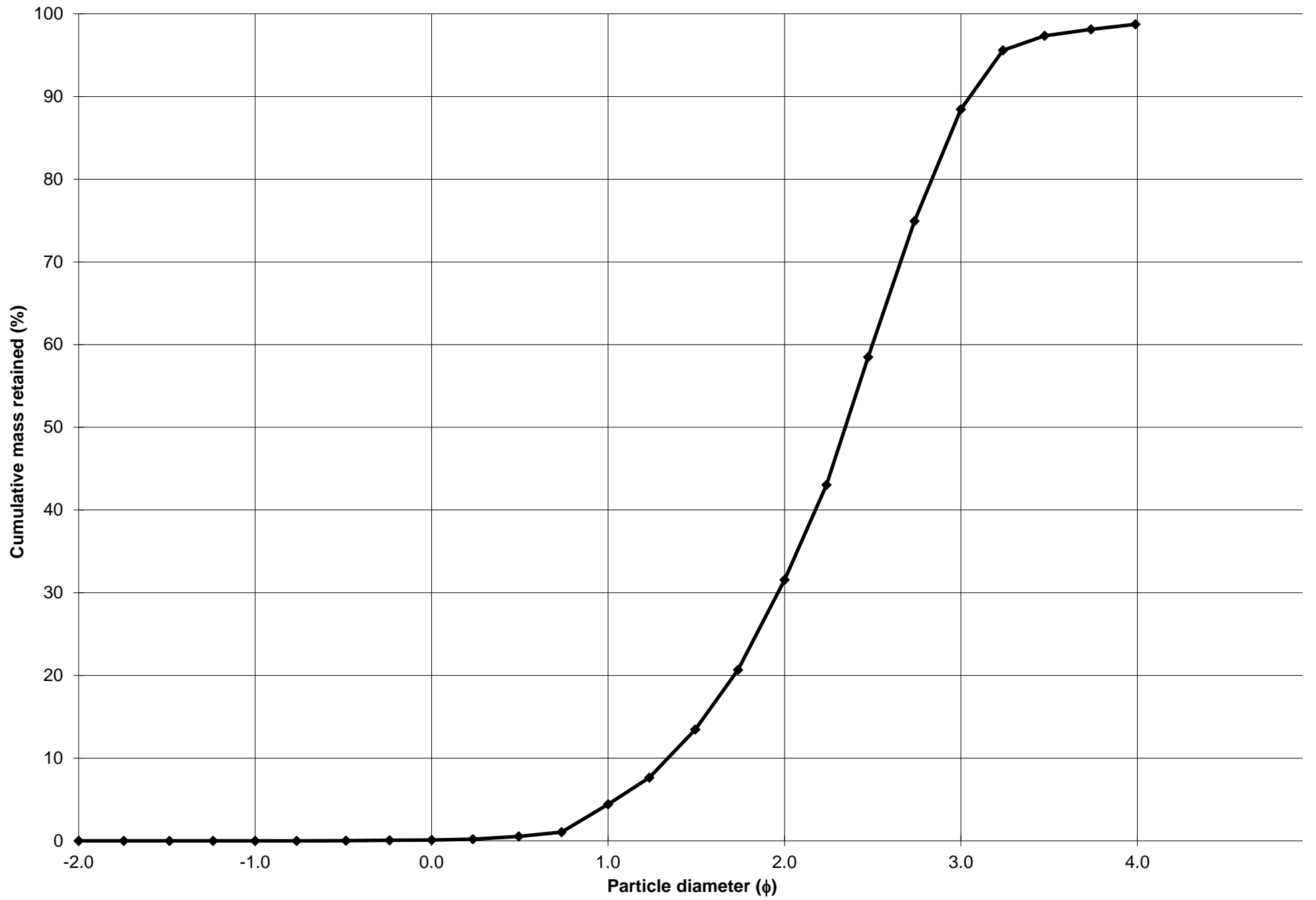
Cumulative Frequency Curve



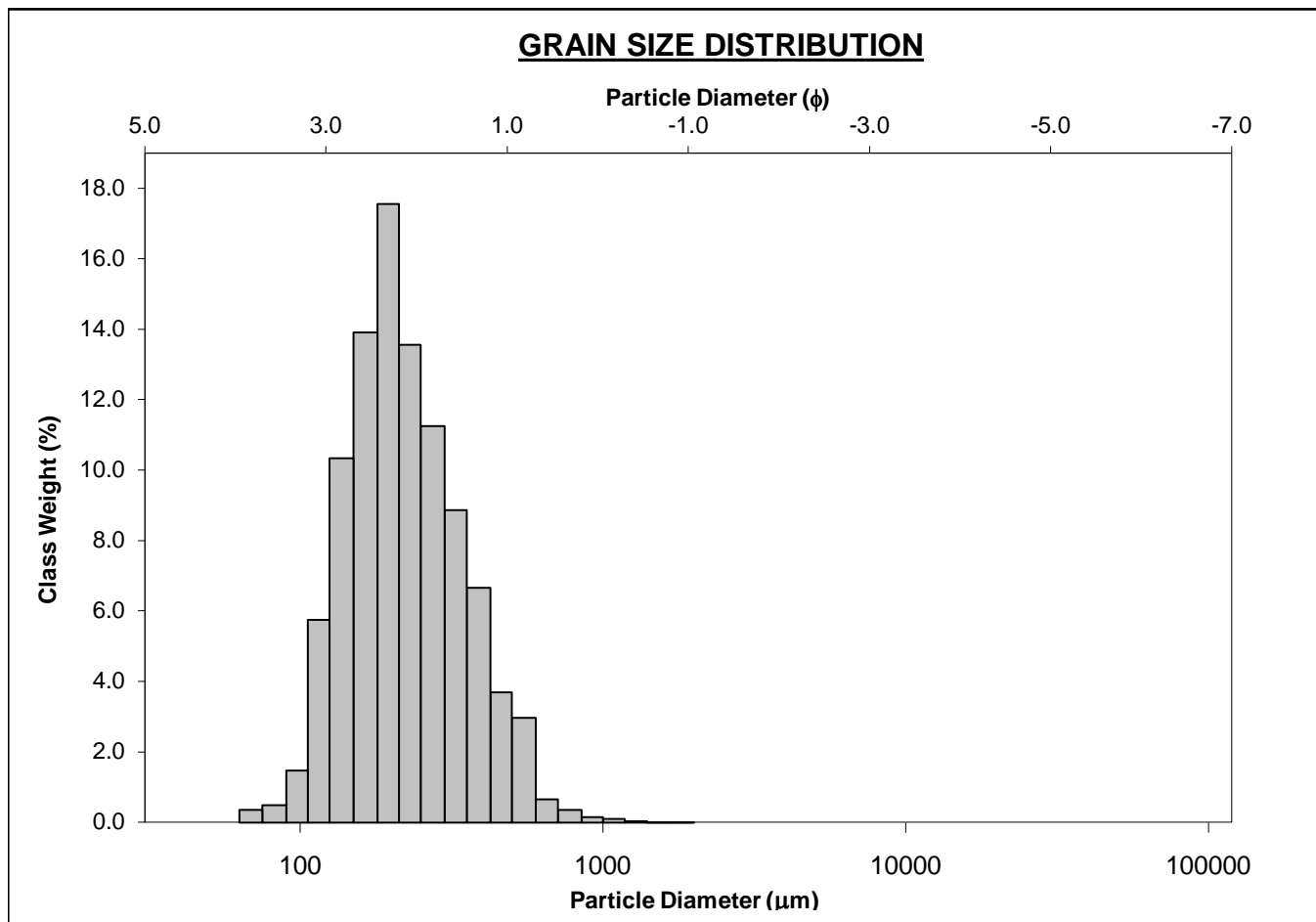
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-100cm			ANALYST & DATE: Chris, 11/28/2014			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 4.3%	
MODE 2:			SAND: 98.7%		MEDIUM SAND: 27.1%	
MODE 3:			MUD: 1.3%		FINE SAND: 56.9%	
D ₁₀ :	120.6	1.339			V FINE SAND: 10.3%	
MEDIAN or D ₅₀ :	196.9	2.344	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	395.2	3.052	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	3.277	2.279	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	274.6	1.713	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.862	1.487	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	129.2	0.897	V COARSE SAND: 0.1%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	231.9	201.1	2.314	206.0	2.279	Fine Sand
SORTING (σ):	123.9	1.784	0.835	1.584	0.663	Moderately Well Sorted
SKEWNESS (Sk):	2.110	-1.898	1.898	0.171	-0.171	Coarse Skewed
KURTOSIS (K):	12.63	13.72	13.72	0.994	0.994	Mesokurtic



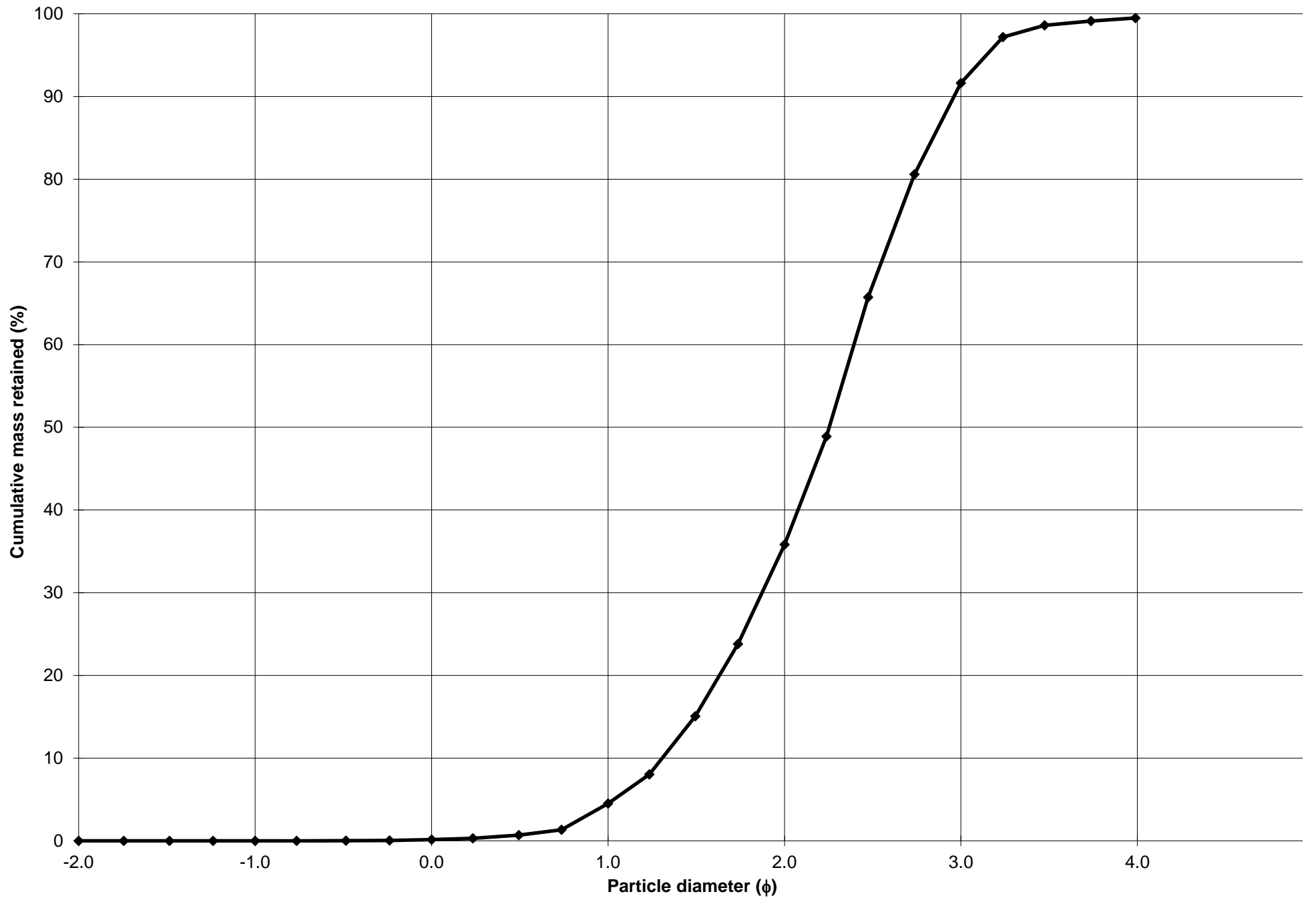
Cumulative Frequency Curve



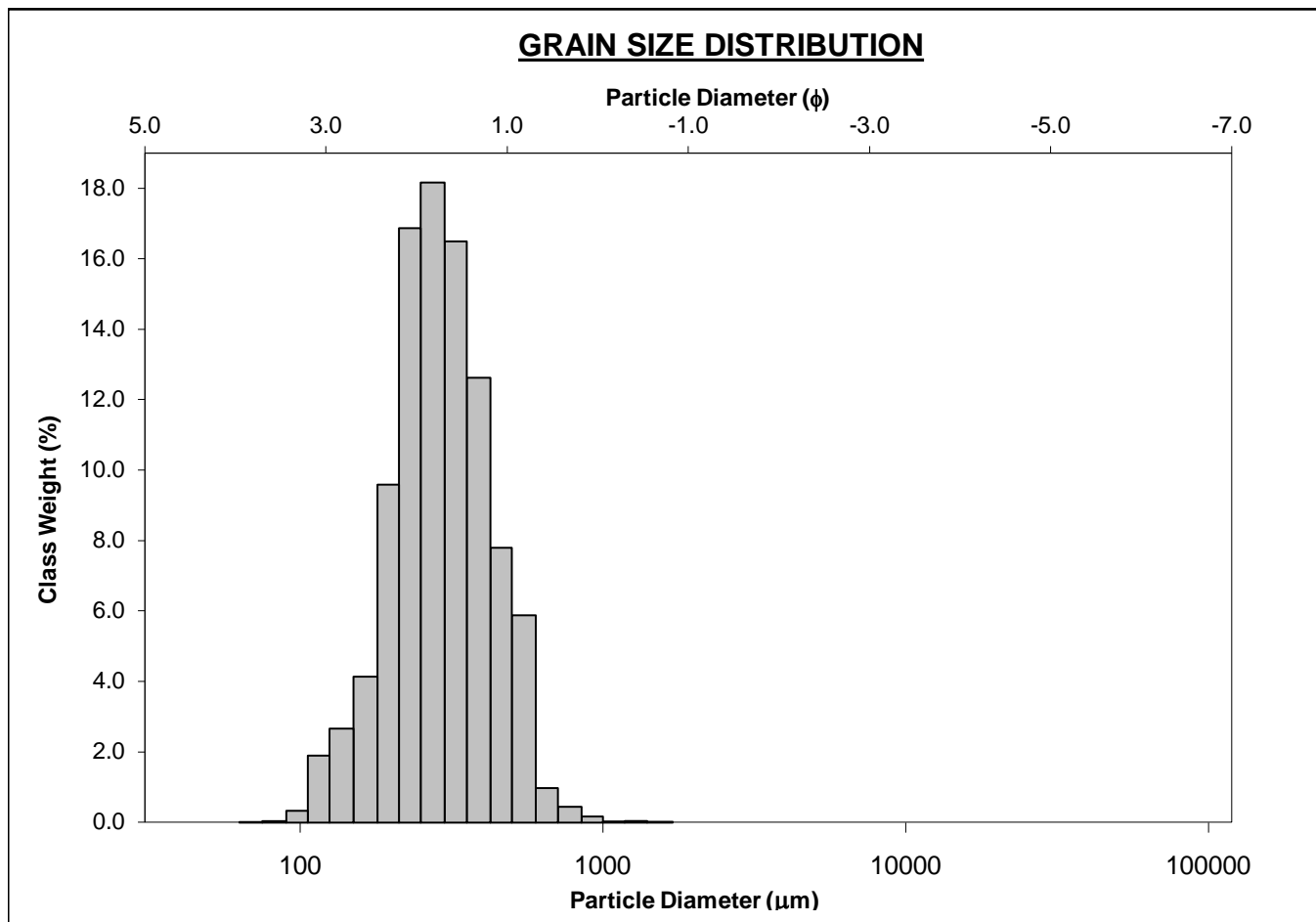
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-110cm			ANALYST & DATE: Chris, 11/28/2014			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 4.4%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 31.3%	
MODE 3:			MUD: 0.5%		FINE SAND: 55.8%	
D_{10} :	128.4	1.307			V FINE SAND: 7.9%	
MEDIAN or D_{50} :	209.8	2.253	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D_{90} :	404.1	2.961	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D_{90} / D_{10}) :	3.147	2.265	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
$(D_{90} - D_{10})$:	275.7	1.654	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D_{75} / D_{25}) :	1.834	1.496	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
$(D_{75} - D_{25})$:	133.9	0.875	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	244.8	217.5	2.201	218.0	2.197	Fine Sand
SORTING (σ):	124.3	1.646	0.719	1.563	0.644	Moderately Well Sorted
SKEWNESS (Sk):	2.062	-1.161	1.161	0.143	-0.143	Coarse Skewed
KURTOSIS (K):	11.60	11.94	11.94	0.989	0.989	Mesokurtic



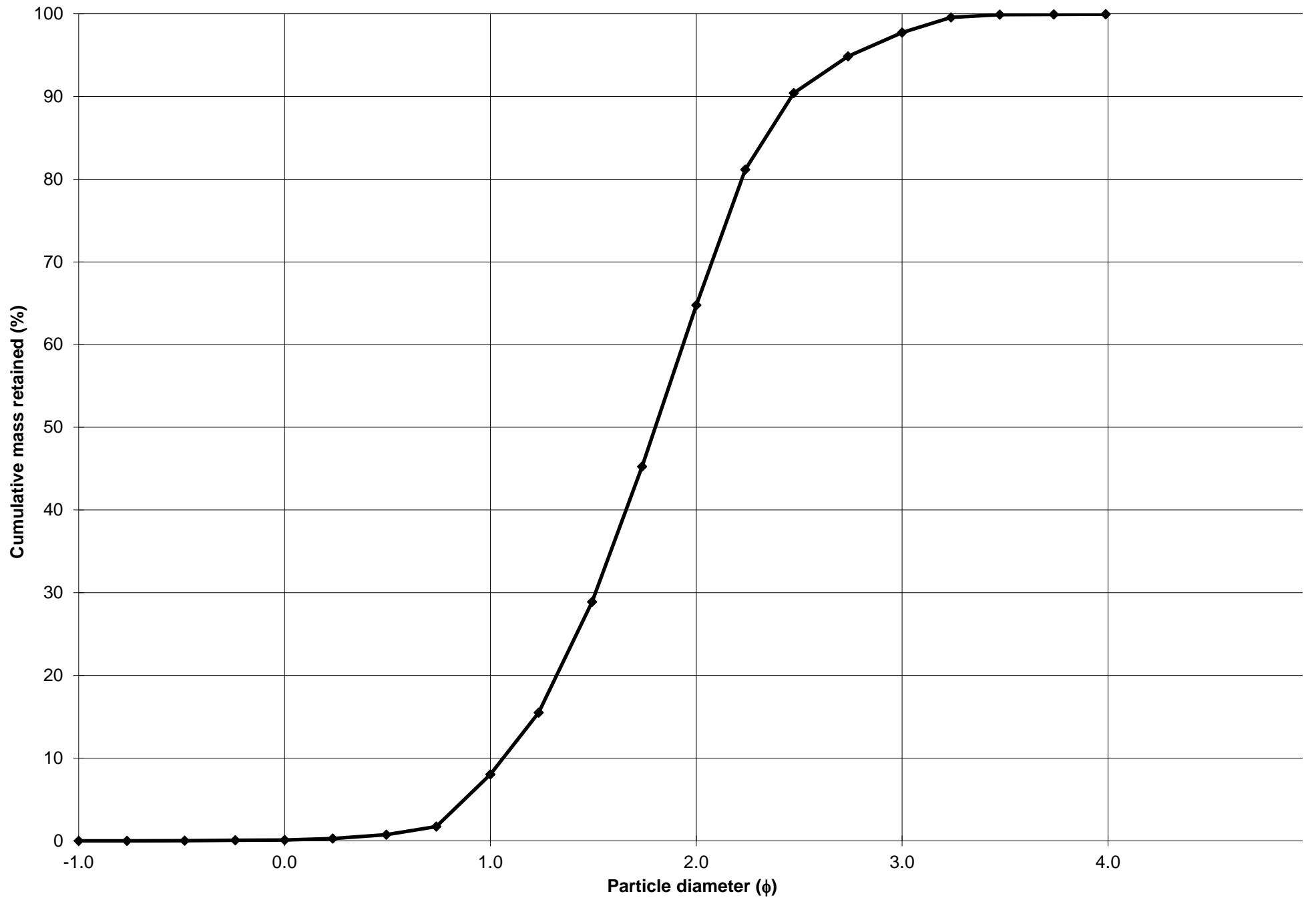
Cumulative Frequency Curve



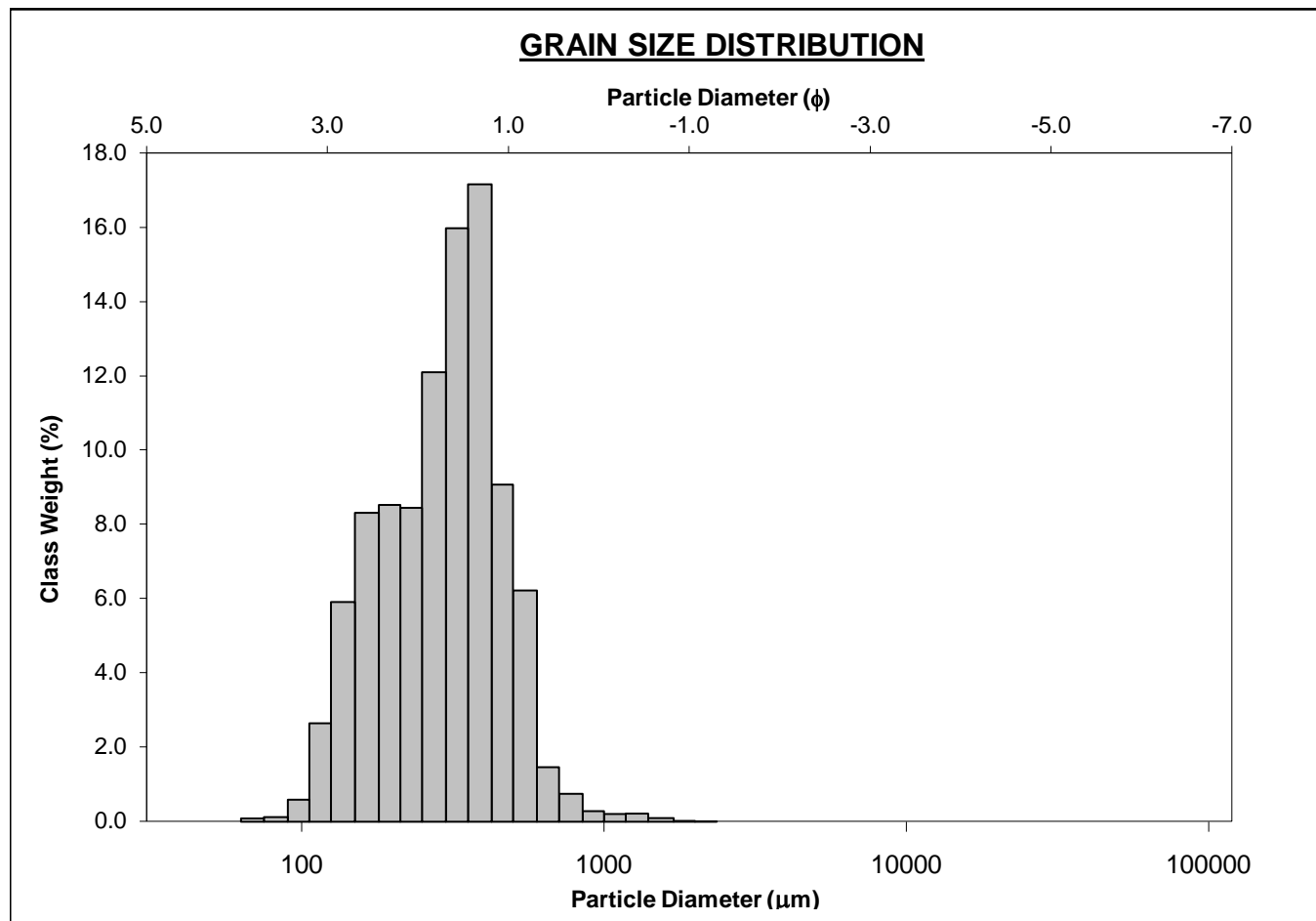
SIEVING ERROR: 0.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-120cm			ANALYST & DATE: Chris, 11/28/2014			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 7.9%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 56.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 32.9%	
D ₁₀ :	181.3	1.061			V FINE SAND: 2.2%	
MEDIAN or D ₅₀ :	287.0	1.801	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	479.2	2.464	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.643	2.321	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	297.9	1.402	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.659	1.515	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	148.6	0.730	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	311.5	288.2	1.795	290.2	1.785	Medium Sand
SORTING (σ):	123.9	1.477	0.562	1.465	0.551	Moderately Well Sorted
SKEWNESS (Sk):	1.495	-0.406	0.406	0.016	-0.016	Symmetrical
KURTOSIS (K):	9.138	6.337	6.337	1.054	1.054	Mesokurtic



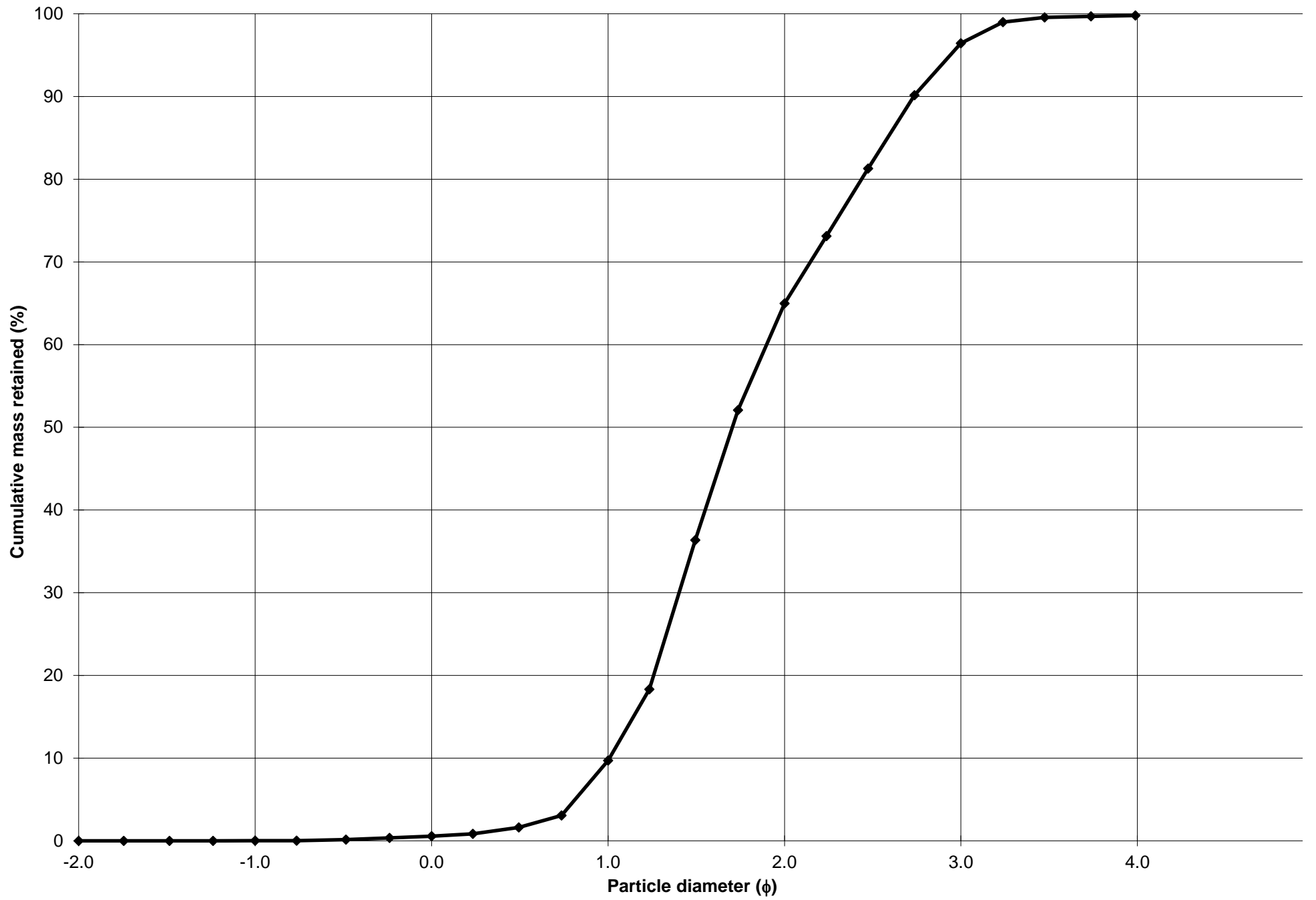
Cumulative Frequency Curve



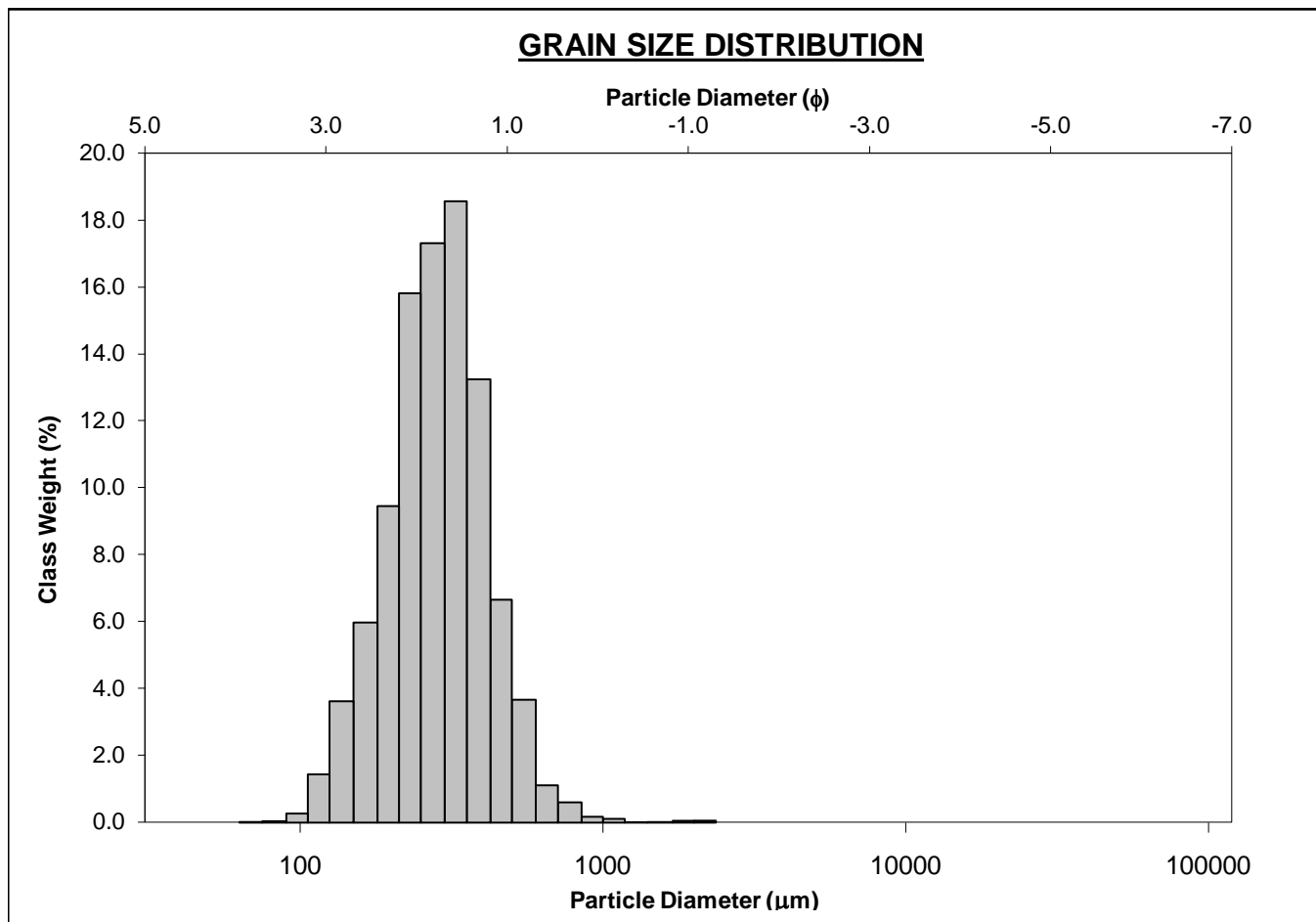
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-130cm			ANALYST & DATE: Chris, 11/28/2014			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.0%		COARSE SAND: 9.1%	
MODE 2:	196.0	2.356	SAND: 99.8%		MEDIUM SAND: 55.3%	
MODE 3:			MUD: 0.2%		FINE SAND: 31.5%	
D_{10} :	150.4	1.008			V FINE SAND: 3.3%	
MEDIAN or D_{50} :	306.8	1.705	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	497.2	2.733	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	3.305	2.711	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	346.8	1.725	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.947	1.723	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	193.5	0.962	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	321.0	286.6	1.803	285.2	1.810	Medium Sand
SORTING (σ):	155.7	1.628	0.703	1.589	0.668	Moderately Well Sorted
SKEWNESS (Sk):	2.117	-0.891	0.891	-0.195	0.195	Fine Skewed
KURTOSIS (K):	14.88	8.532	8.532	0.906	0.906	Mesokurtic



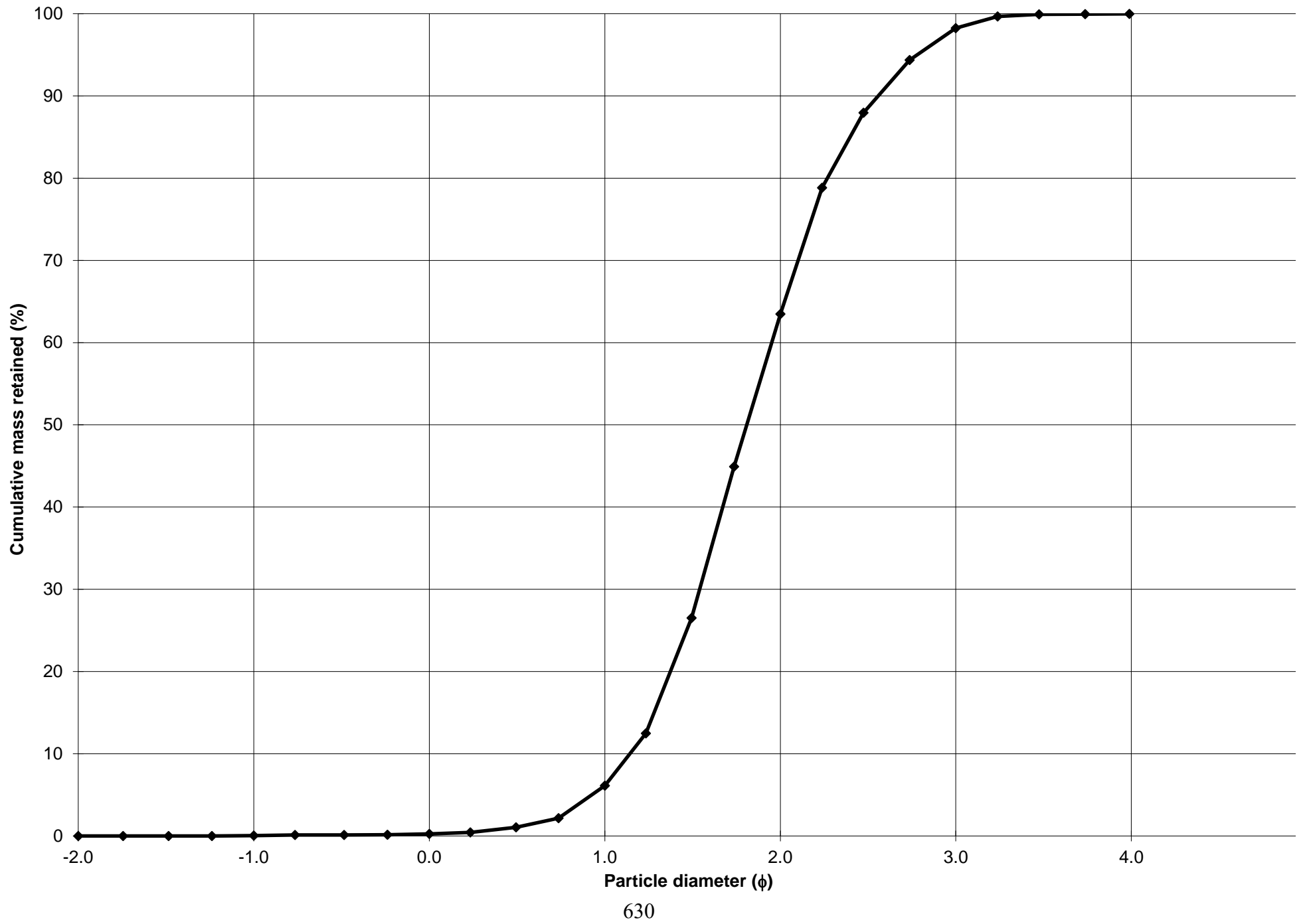
Cumulative Frequency Curve



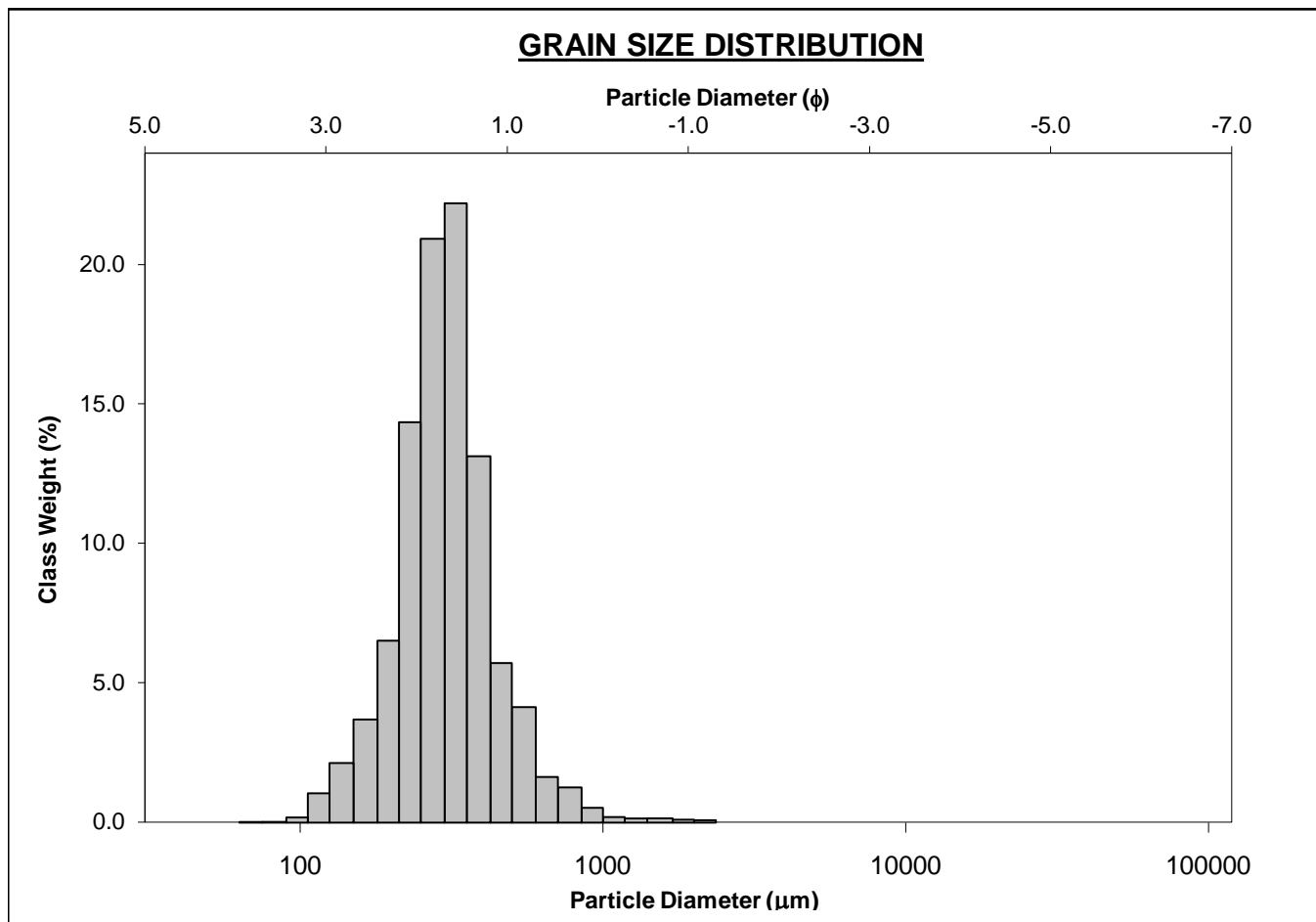
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-140cm			ANALYST & DATE: Chris, 11/28/2014			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.1%		COARSE SAND: 5.9%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 57.4%	
MODE 3:			MUD: 0.0%		FINE SAND: 34.8%	
D ₁₀ :	169.8	1.143			V FINE SAND: 1.7%	
MEDIAN or D ₅₀ :	285.4	1.809	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	452.8	2.558	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.667	2.238	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	283.0	1.415	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.638	1.486	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	141.0	0.712	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	306.1	282.4	1.824	281.9	1.827	Medium Sand
SORTING (σ):	134.2	1.474	0.560	1.463	0.549	Moderately Well Sorted
SKEWNESS (Sk):	3.531	-0.042	0.042	-0.049	0.049	Symmetrical
KURTOSIS (K):	37.42	5.154	5.154	1.067	1.067	Mesokurtic



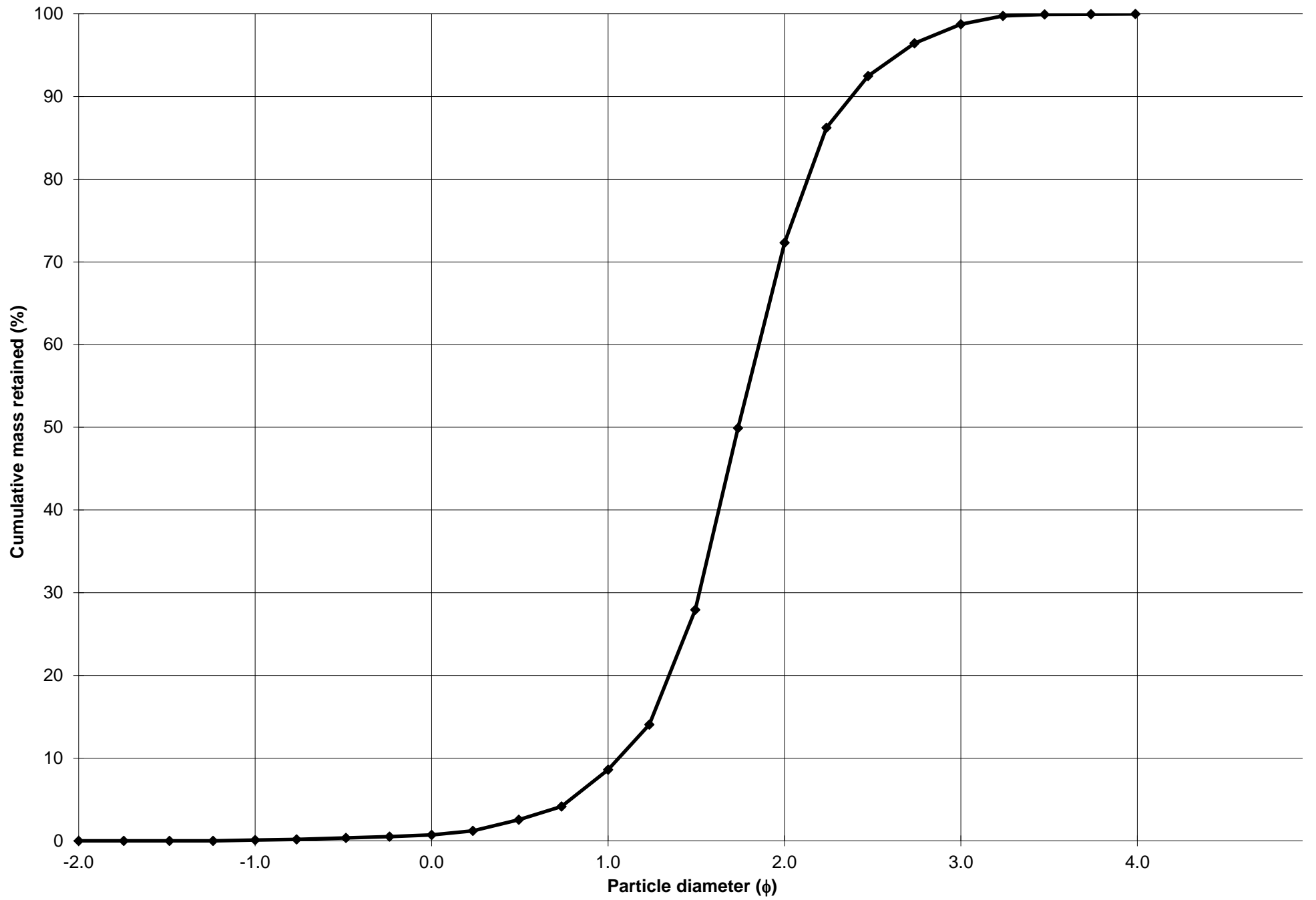
Cumulative Frequency Curve



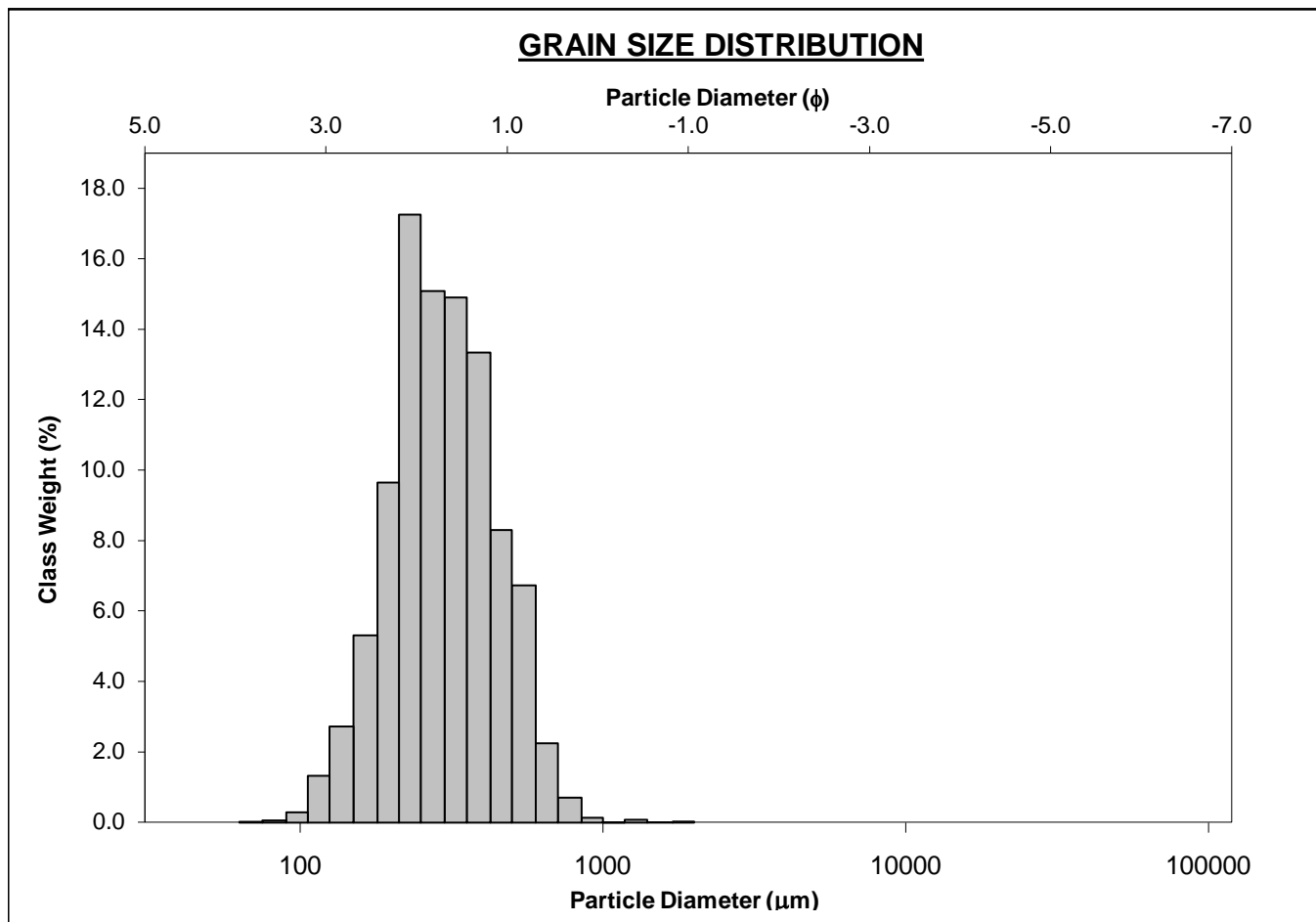
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-150cm			ANALYST & DATE: Chris, 11/28/2014			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.1%		COARSE SAND: 7.9%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 63.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 26.4%	
D ₁₀ :	192.0	1.060			V FINE SAND: 1.2%	
MEDIAN or D ₅₀ :	299.8	1.738	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	479.6	2.380	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.497	2.246	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	287.6	1.320	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.523	1.422	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	126.7	0.607	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	329.0	302.2	1.726	300.1	1.736	Medium Sand
SORTING (σ):	160.9	1.473	0.558	1.427	0.513	Moderately Well Sorted
SKEWNESS (Sk):	4.094	0.320	-0.320	0.016	-0.016	Symmetrical
KURTOSIS (K):	34.12	6.558	6.558	1.252	1.252	Leptokurtic



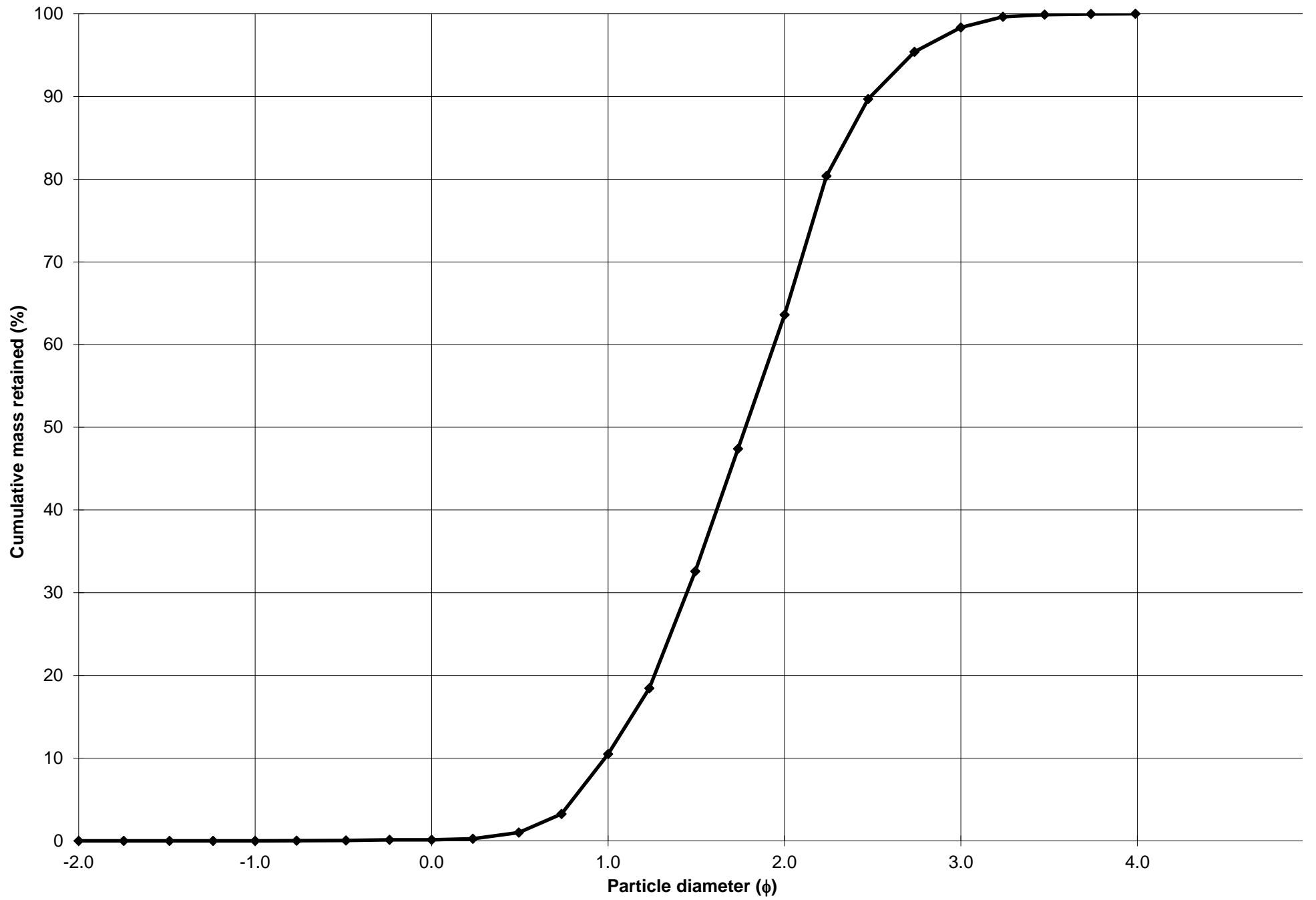
Cumulative Frequency Curve



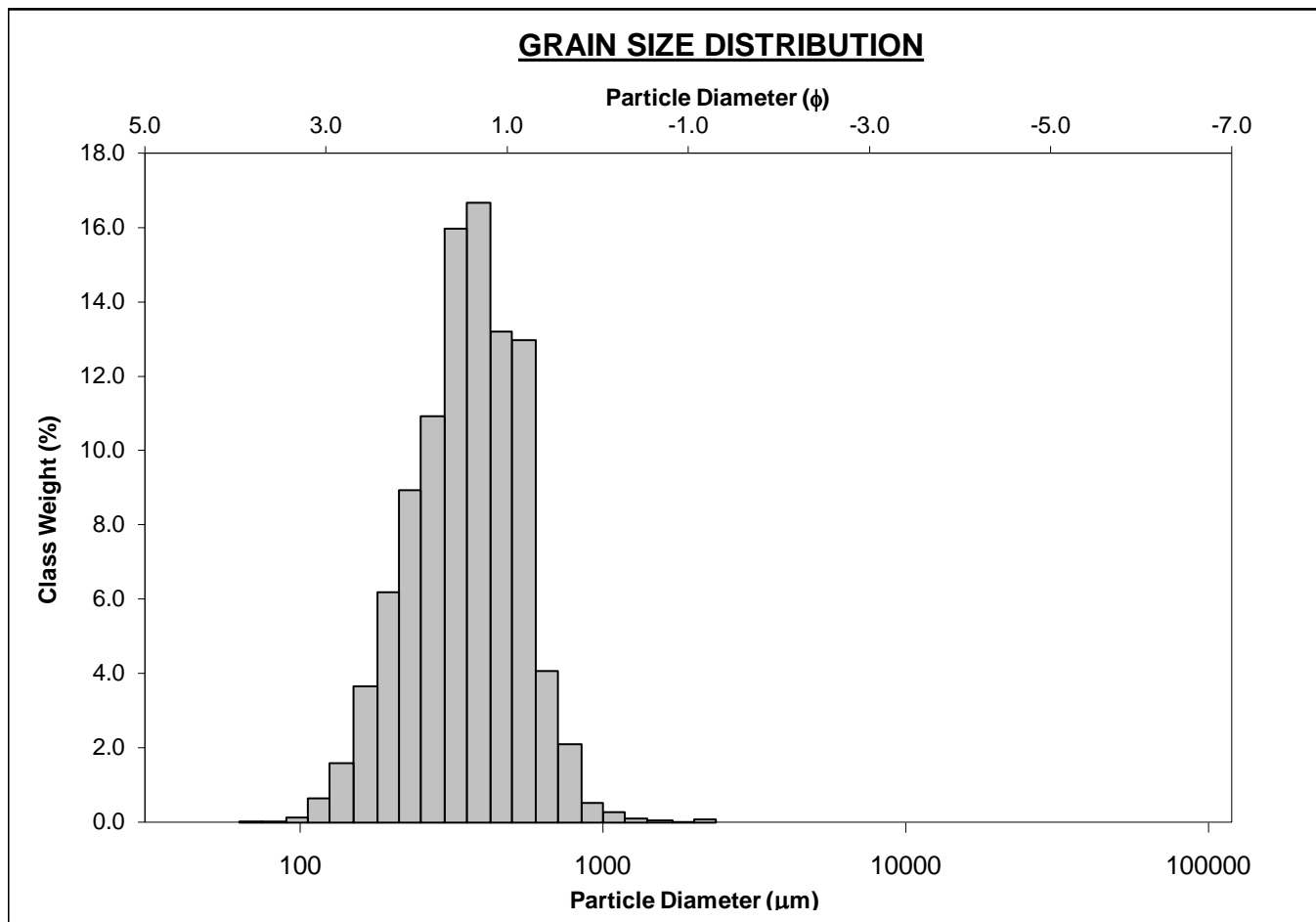
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-160cm			ANALYST & DATE: Chris, 11/28/2014			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 10.4%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 53.1%	
MODE 3:			MUD: 0.0%		FINE SAND: 34.7%	
D ₁₀ :	178.2	0.982			V FINE SAND: 1.7%	
MEDIAN or D ₅₀ :	291.3	1.779	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	506.2	2.488	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.840	2.533	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	327.9	1.506	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.749	1.596	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	167.5	0.807	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	320.7	294.5	1.764	295.8	1.757	Medium Sand
SORTING (σ):	136.3	1.496	0.581	1.497	0.582	Moderately Well Sorted
SKEWNESS (Sk):	1.651	0.041	-0.041	0.039	-0.039	Symmetrical
KURTOSIS (K):	10.96	2.965	2.965	0.974	0.974	Mesokurtic



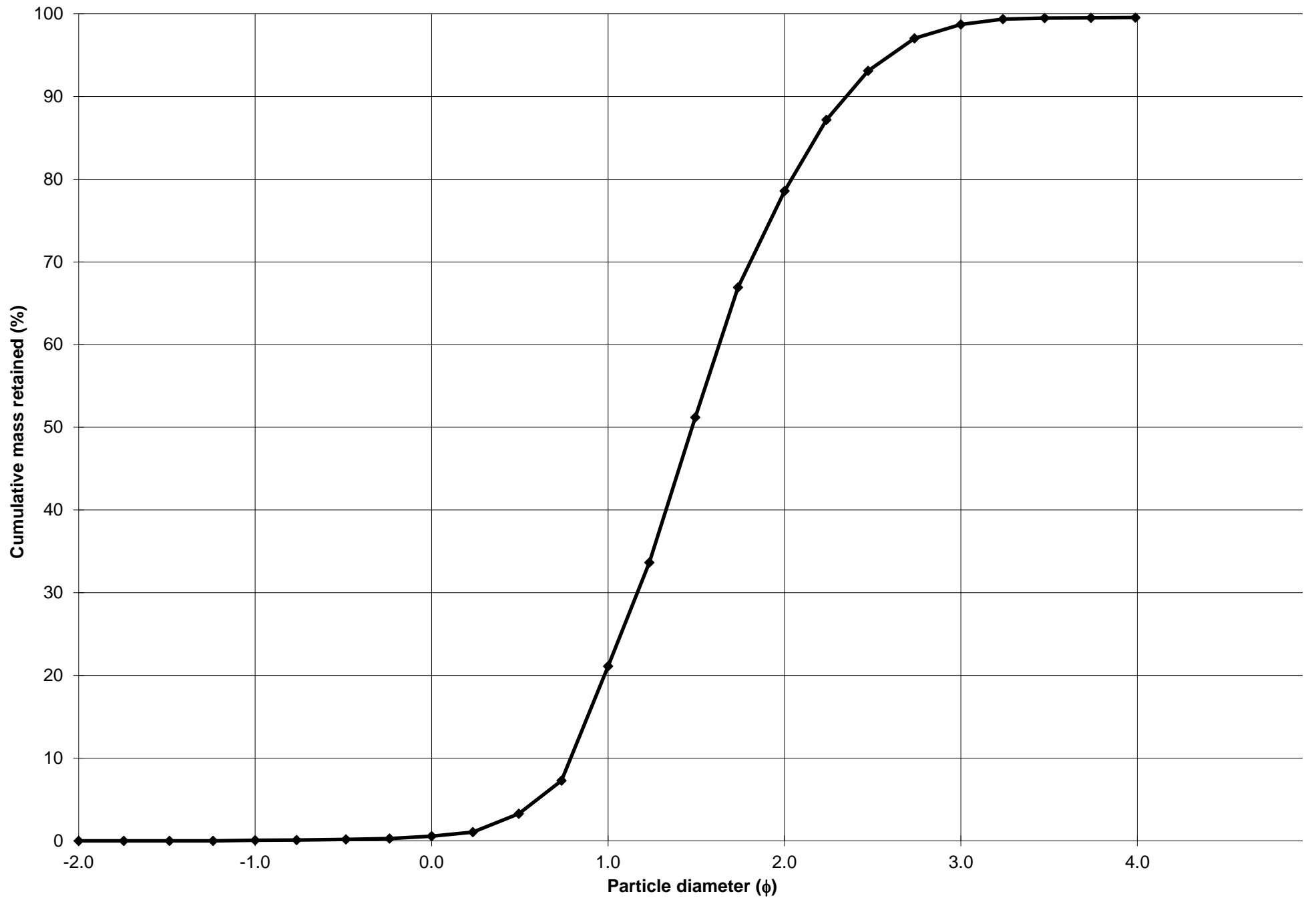
Cumulative Frequency Curve



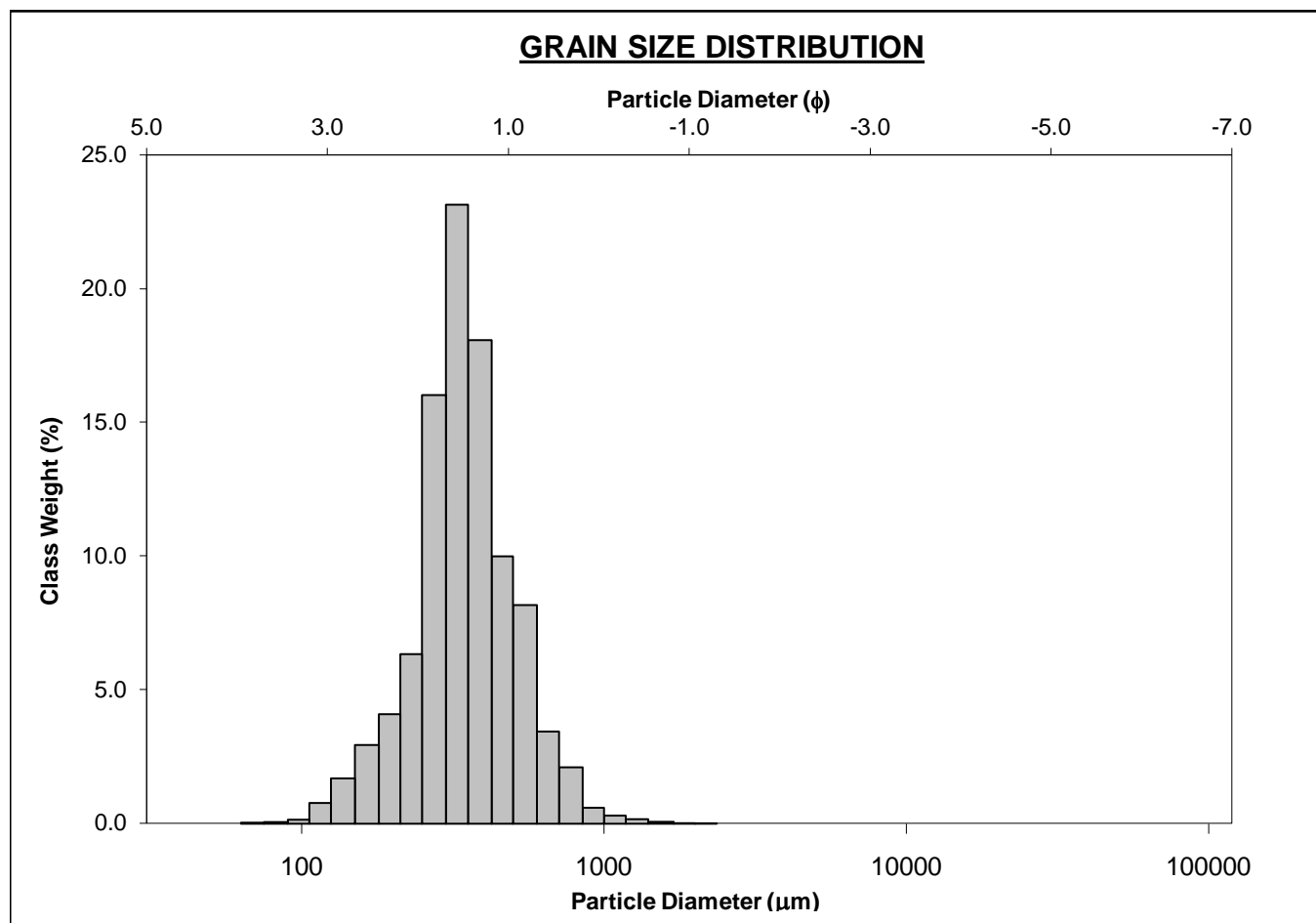
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-170cm			ANALYST & DATE: Chris, 11/28/2014			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.1%		COARSE SAND: 20.6%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 57.5%	
MODE 3:			MUD: 0.5%		FINE SAND: 20.2%	
D ₁₀ :	196.1	0.789			V FINE SAND: 0.8%	
MEDIAN or D ₅₀ :	359.4	1.476	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	578.9	2.350	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.952	2.980	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	382.8	1.562	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.799	1.790	V FINE GRAVEL: 0.1%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	211.1	0.847	V COARSE SAND: 0.5%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	383.2	345.4	1.533	351.2	1.510	Medium Sand
SORTING (σ):	169.8	1.634	0.708	1.532	0.615	Moderately Well Sorted
SKEWNESS (Sk):	2.052	-2.110	2.110	-0.102	0.102	Fine Skewed
KURTOSIS (K):	16.72	17.82	17.82	0.969	0.969	Mesokurtic



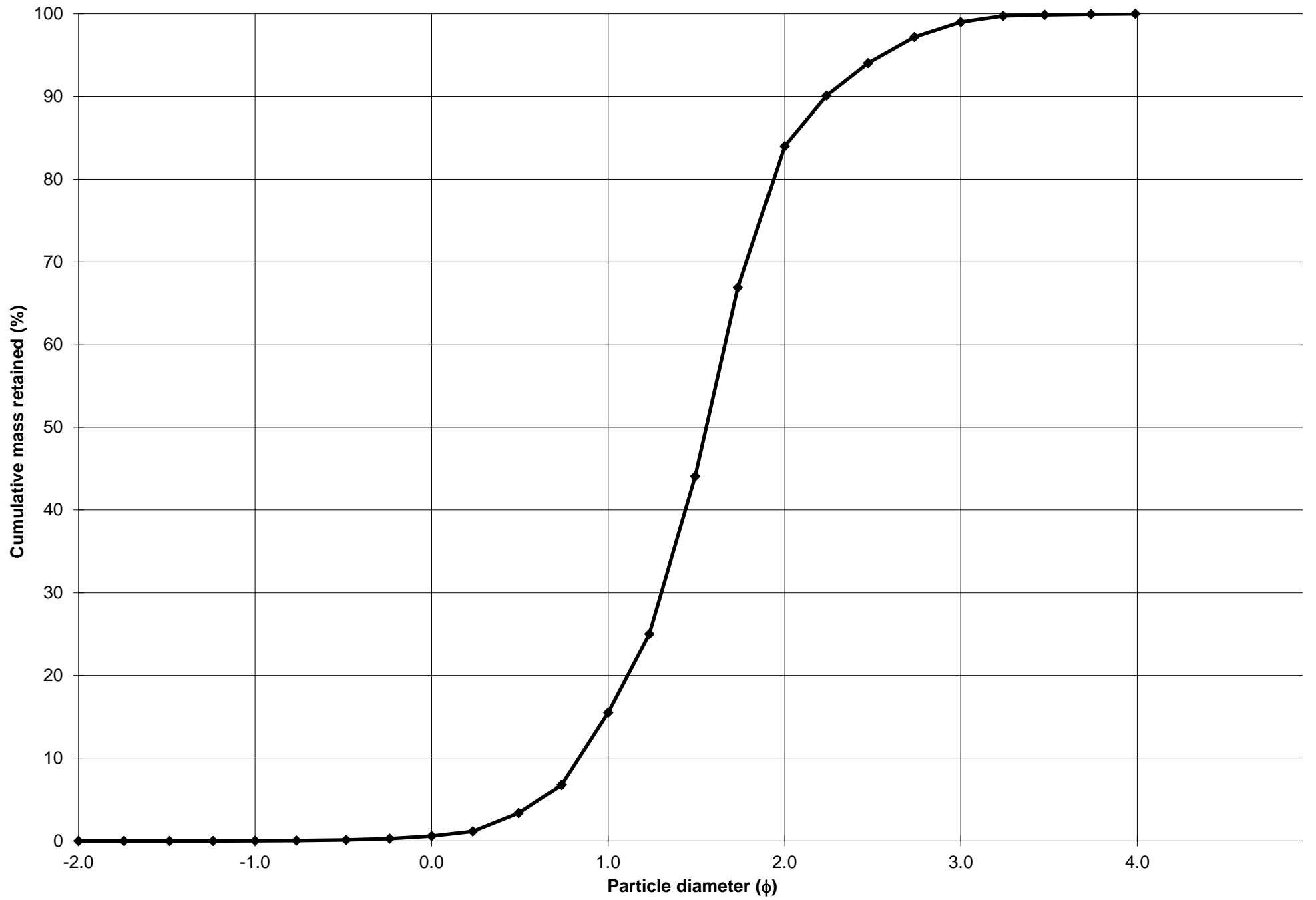
Cumulative Frequency Curve



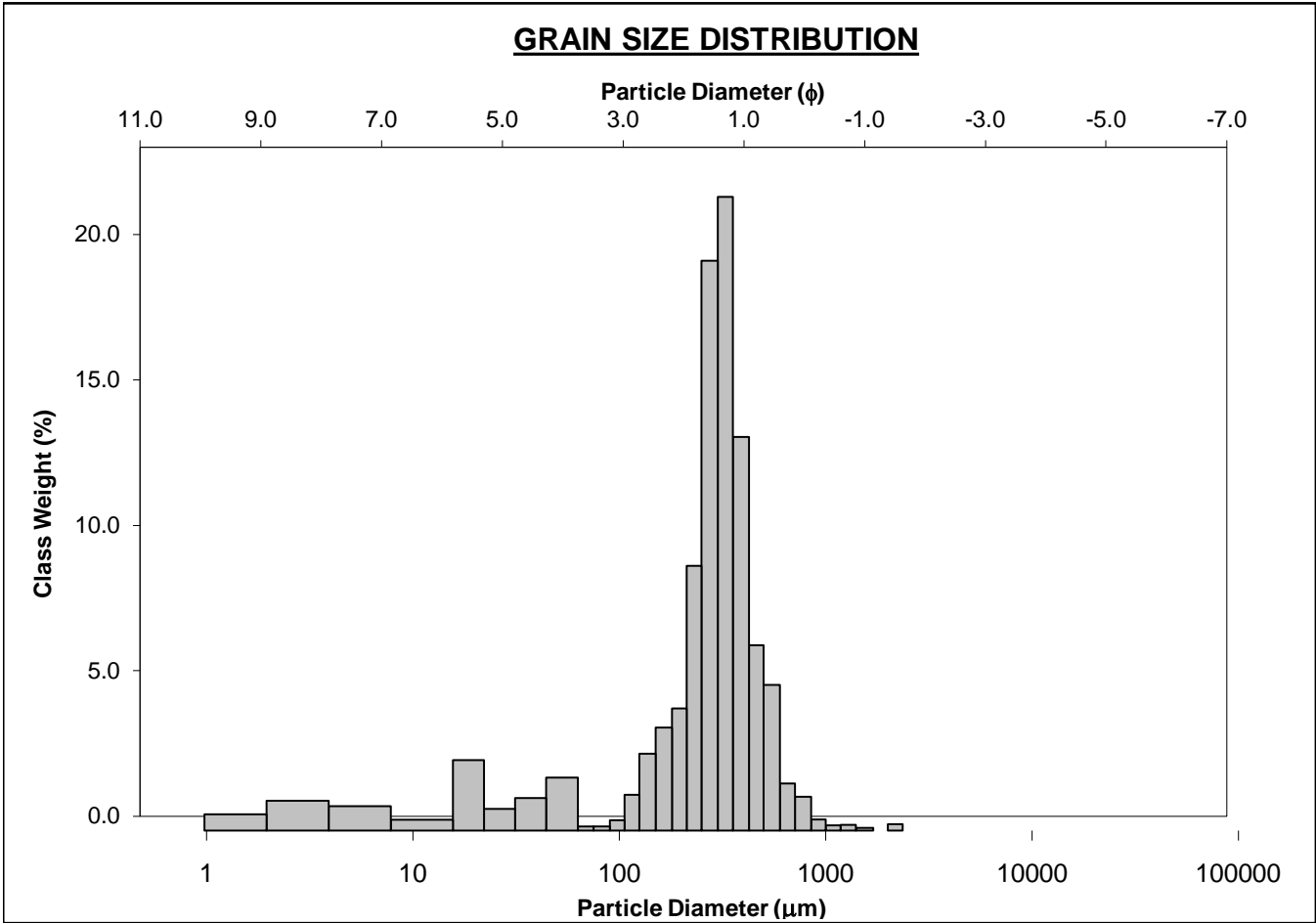
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-180cm			ANALYST & DATE: Chris, 11/28/2014			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 14.9%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 68.5%	
MODE 3:			MUD: 0.0%		FINE SAND: 15.0%	
D ₁₀ :	212.6	0.834			V FINE SAND: 1.0%	
MEDIAN or D ₅₀ :	339.8	1.557	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	560.9	2.234	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.638	2.678	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	348.3	1.399	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.545	1.509	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	150.0	0.628	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	370.9	342.2	1.547	347.9	1.523	Medium Sand
SORTING (σ):	156.1	1.480	0.565	1.456	0.542	Moderately Well Sorted
SKEWNESS (Sk):	2.094	-0.142	0.142	0.039	-0.039	Symmetrical
KURTOSIS (K):	13.41	4.795	4.795	1.270	1.270	Leptokurtic



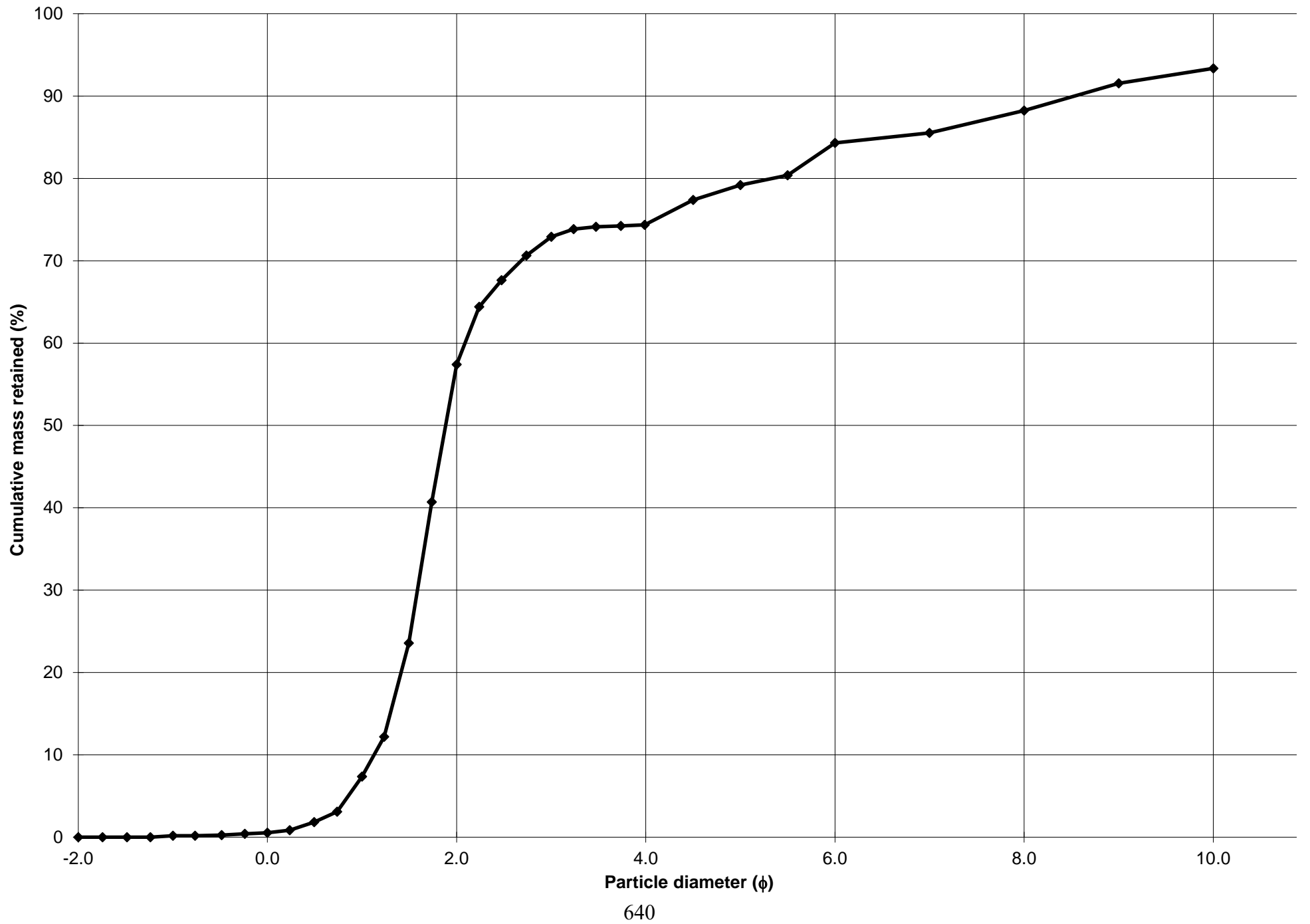
Cumulative Frequency Curve



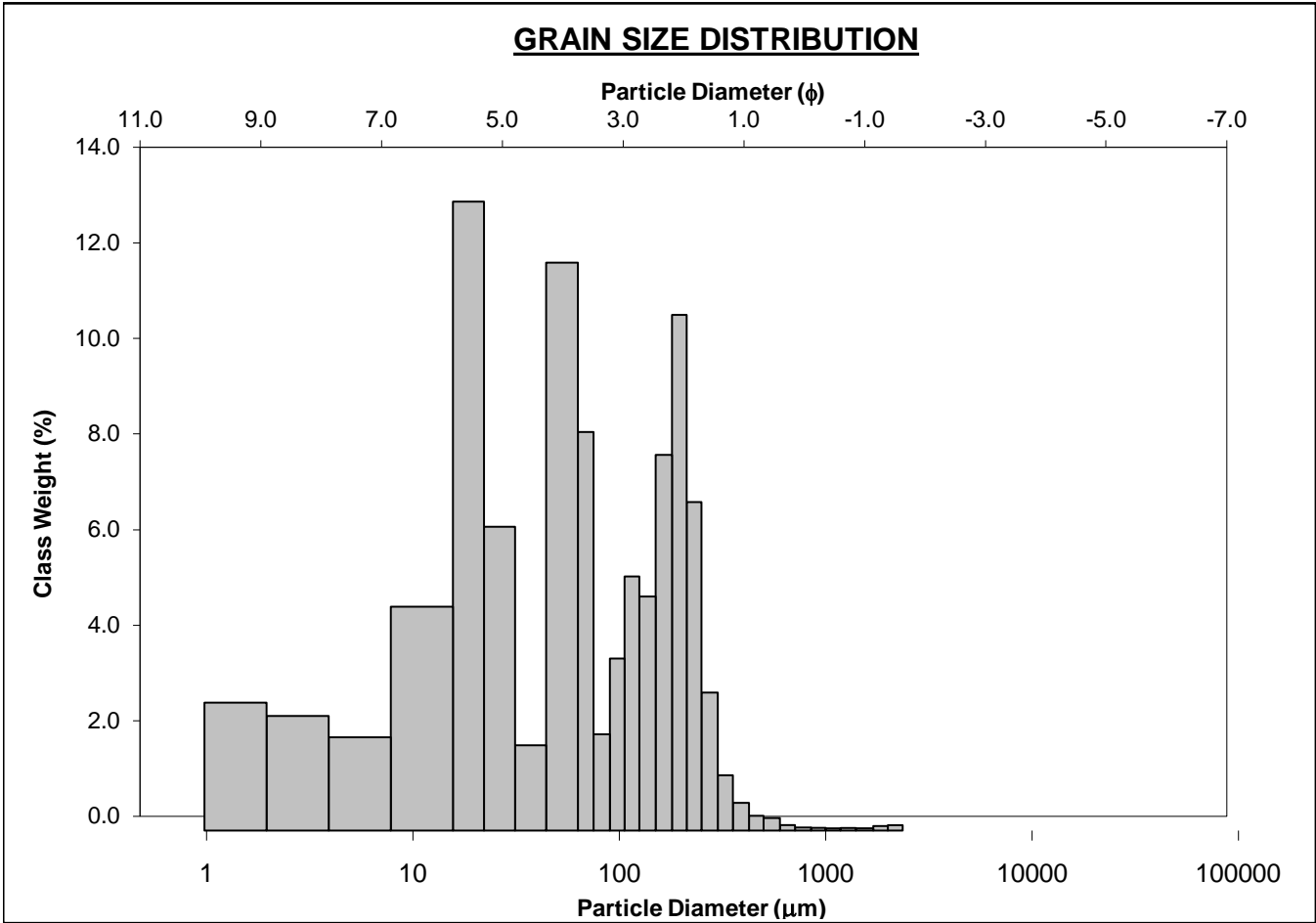
SIEVING ERROR: 1.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-190cm			ANALYST & DATE: Chris, 3/10/15			
SAMPLE TYPE: Unimodal, Very Poorly Sorted			TEXTURAL GROUP: Slightly Gravelly Muddy Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Coarse Silty Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.2%		COARSE SAND: 6.8%	
MODE 2:			SAND: 74.3%		MEDIUM SAND: 50.1%	
MODE 3:			MUD: 25.6%		FINE SAND: 15.5%	
D ₁₀ :	2.701	1.128			V FINE SAND: 1.5%	
MEDIAN or D ₅₀ :	271.1	1.883	V COARSE GRAVEL: 0.0%		V COARSE SILT: 4.8%	
D ₉₀ :	457.5	8.533	COARSE GRAVEL: 0.0%		COARSE SILT: 5.1%	
(D ₉₀ / D ₁₀):	169.4	7.564	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 1.2%	
(D ₉₀ - D ₁₀):	454.8	7.404	FINE GRAVEL: 0.0%		FINE SILT: 2.7%	
(D ₇₅ / D ₂₅):	5.996	2.706	V FINE GRAVEL: 0.2%		V FINE SILT: 3.3%	
(D ₇₅ - D ₂₅):	291.7	2.584	V COARSE SAND: 0.4%		CLAY: 8.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	255.4	111.9	2.498	120.3	3.055	Very Fine Sand
SORTING (σ):	202.7	4.400	2.093	5.543	2.471	Very Poorly Sorted
SKEWNESS (Sk):	2.119	-1.001	2.020	-0.760	0.760	Very Fine Skewed
KURTOSIS (K):	18.38	3.680	5.960	1.372	1.372	Leptokurtic



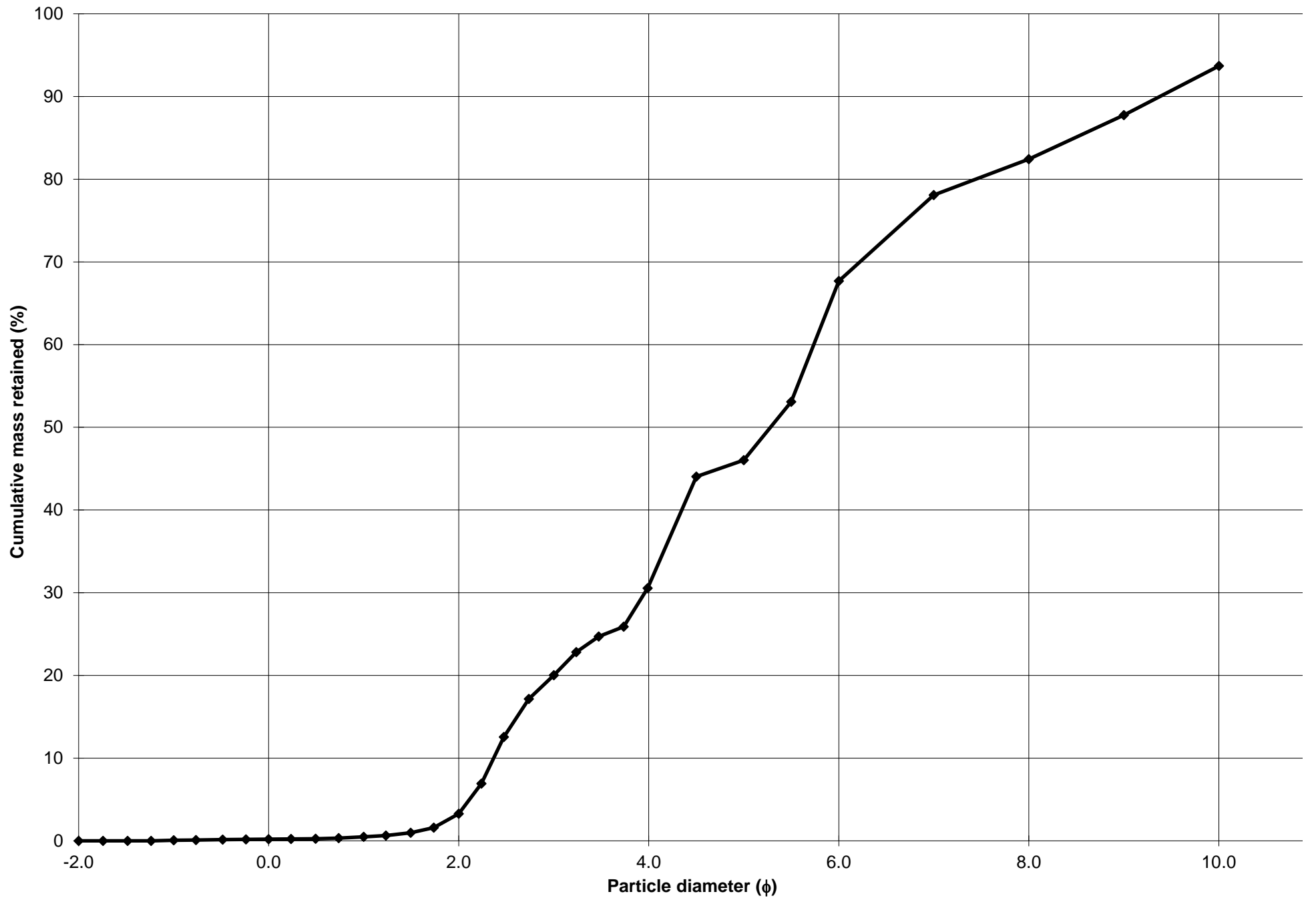
Cumulative Frequency Curve



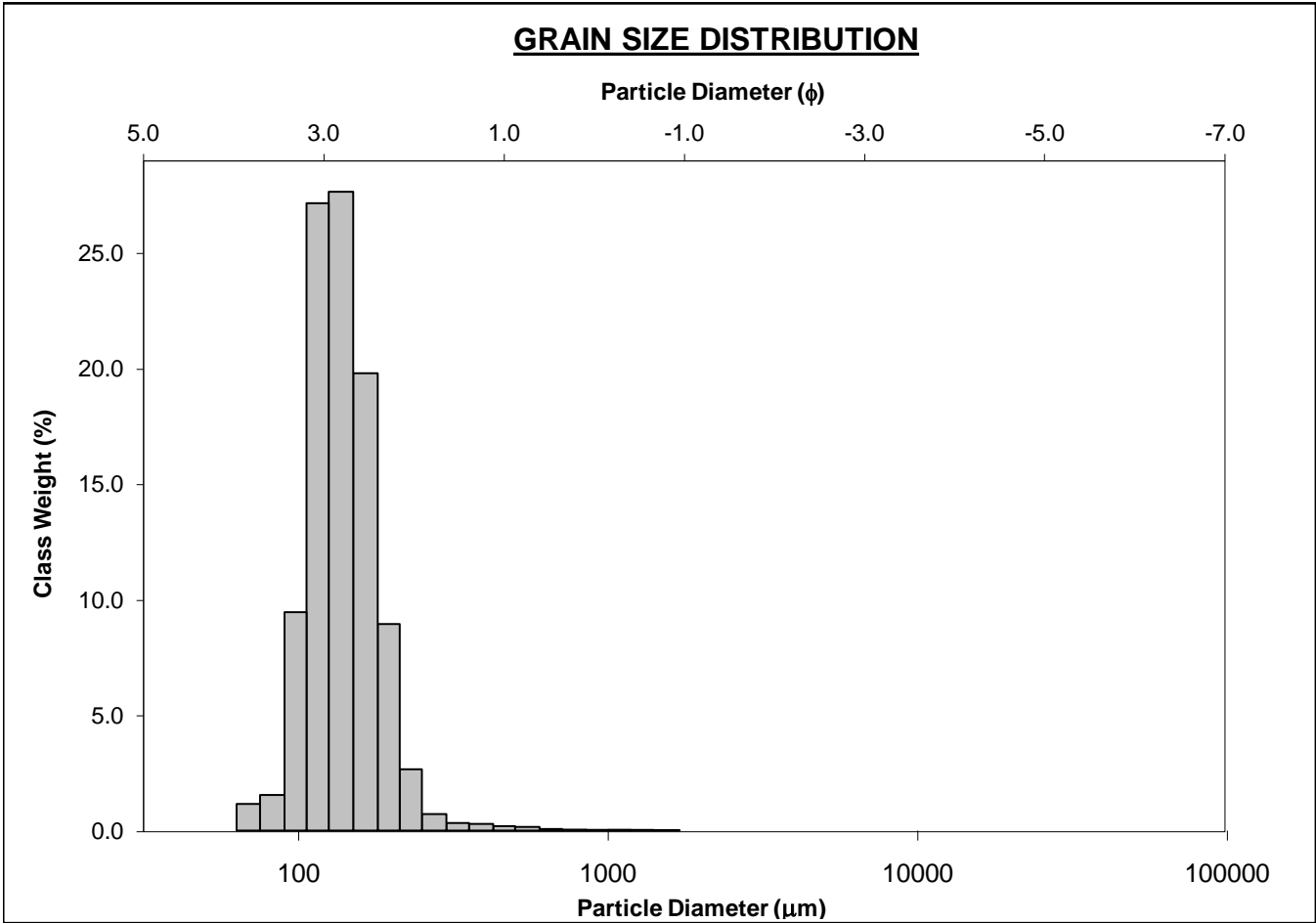
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-220cm			ANALYST & DATE: Chris, 3/10/15			
SAMPLE TYPE: Polymodal, Very Poorly Sorted			TEXTURAL GROUP: Slightly Gravelly Sandy Mud			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sandy Coarse Silt						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	18.86	5.750	GRAVEL: 0.1%		COARSE SAND: 0.3%	
MODE 2:	53.60	4.244	SAND: 30.8%		MEDIUM SAND: 2.8%	
MODE 3:	196.0	2.356	MUD: 69.2%		FINE SAND: 16.7%	
D ₁₀ :	1.501	2.367			V FINE SAND: 10.8%	
MEDIAN or D ₅₀ :	25.70	5.282	V COARSE GRAVEL: 0.0%		V COARSE SILT: 15.2%	
D ₉₀ :	193.9	9.380	COARSE GRAVEL: 0.0%		COARSE SILT: 21.7%	
(D ₉₀ / D ₁₀):	129.2	3.963	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 10.4%	
(D ₉₀ - D ₁₀):	192.4	7.013	FINE GRAVEL: 0.0%		FINE SILT: 4.3%	
(D ₇₅ / D ₂₅):	8.968	1.894	V FINE GRAVEL: 0.1%		V FINE SILT: 5.3%	
(D ₇₅ - D ₂₅):	76.47	3.165	V COARSE SAND: 0.1%		CLAY: 12.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	68.52	24.38	4.729	23.41	5.416	Coarse Silt
SORTING (σ):	112.4	4.251	2.089	5.810	2.539	Very Poorly Sorted
SKEWNESS (Sk):	8.084	0.076	0.815	-0.112	0.112	Fine Skewed
KURTOSIS (K):	123.9	2.466	2.906	0.968	0.968	Mesokurtic



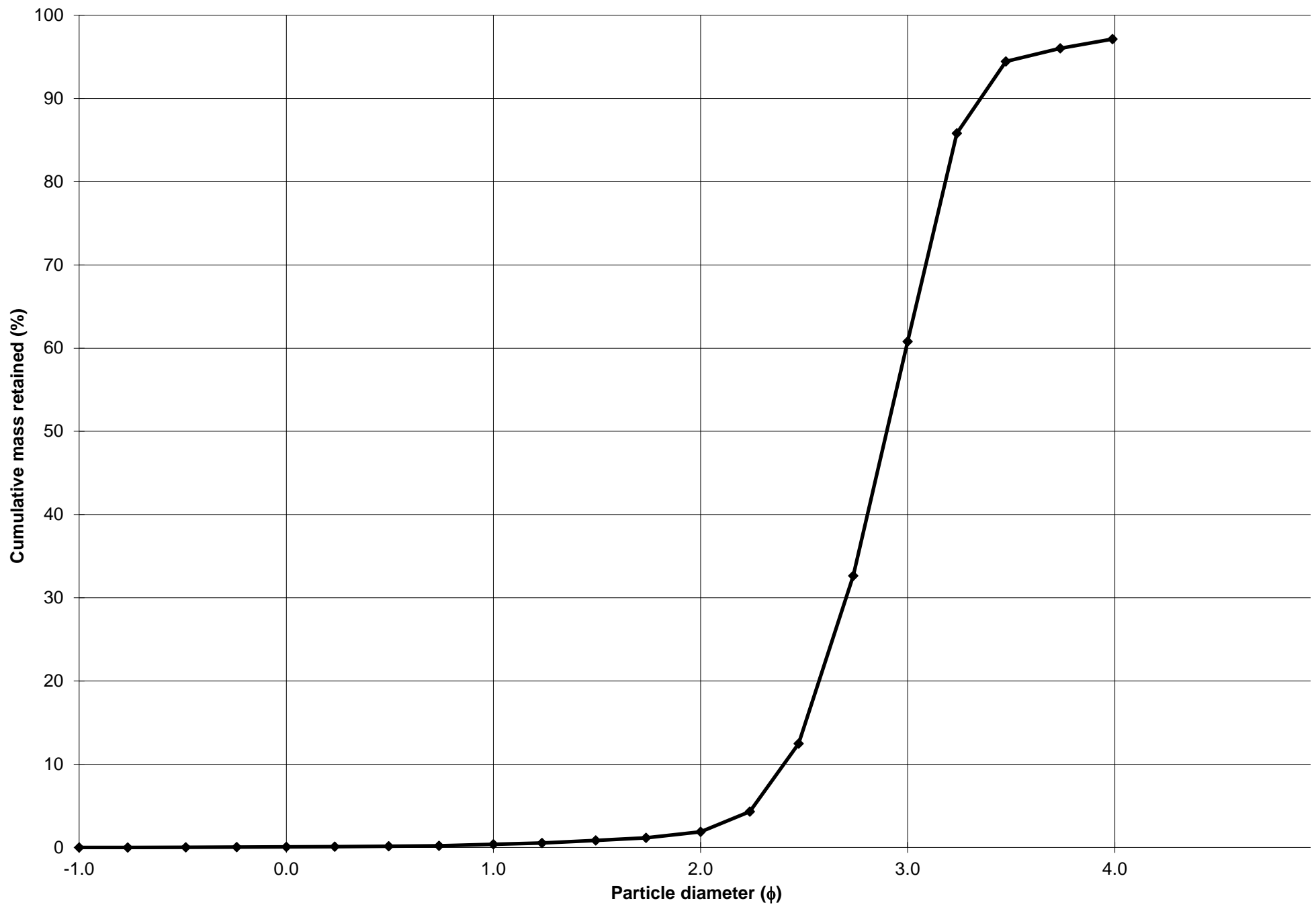
Cumulative Frequency Curve



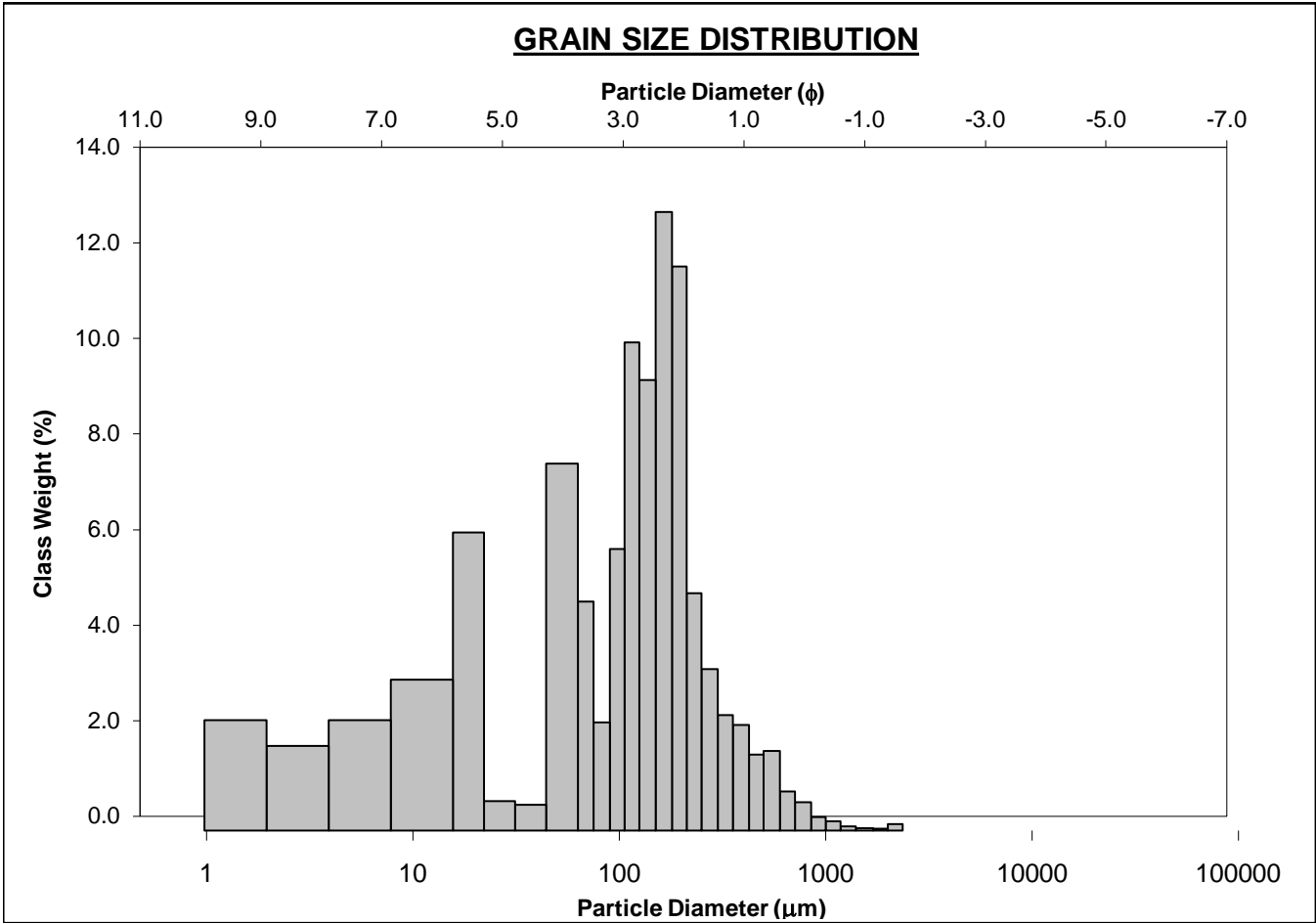
SIEVING ERROR: 2.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-360cm			ANALYST & DATE: Chris, 3/10/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.3%			
MODE 2:			SAND: 97.1% MEDIUM SAND: 1.5%			
MODE 3:			MUD: 2.9% FINE SAND: 58.9%			
D ₁₀ :	97.89	2.402	V FINE SAND: 36.3%			
MEDIAN or D ₅₀ :	134.1	2.899	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.5%			
D ₉₀ :	189.2	3.353	COARSE GRAVEL: 0.0% COARSE SILT: 0.5%			
(D ₉₀ / D ₁₀):	1.933	1.396	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.5%			
(D ₉₀ - D ₁₀):	91.29	0.950	FINE GRAVEL: 0.0% FINE SILT: 0.5%			
(D ₇₅ / D ₂₅):	1.412	1.189	V FINE GRAVEL: 0.0% V FINE SILT: 0.5%			
(D ₇₅ - D ₂₅):	46.91	0.498	V COARSE SAND: 0.1% CLAY: 0.5%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	141.8	127.3	2.974	135.9	2.880	Fine Sand
SORTING (σ):	61.11	1.733	0.793	1.296	0.374	Well Sorted
SKEWNESS (Sk):	7.699	-3.472	3.472	0.031	-0.031	Symmetrical
KURTOSIS (K):	126.8	19.69	19.69	1.079	1.079	Mesokurtic



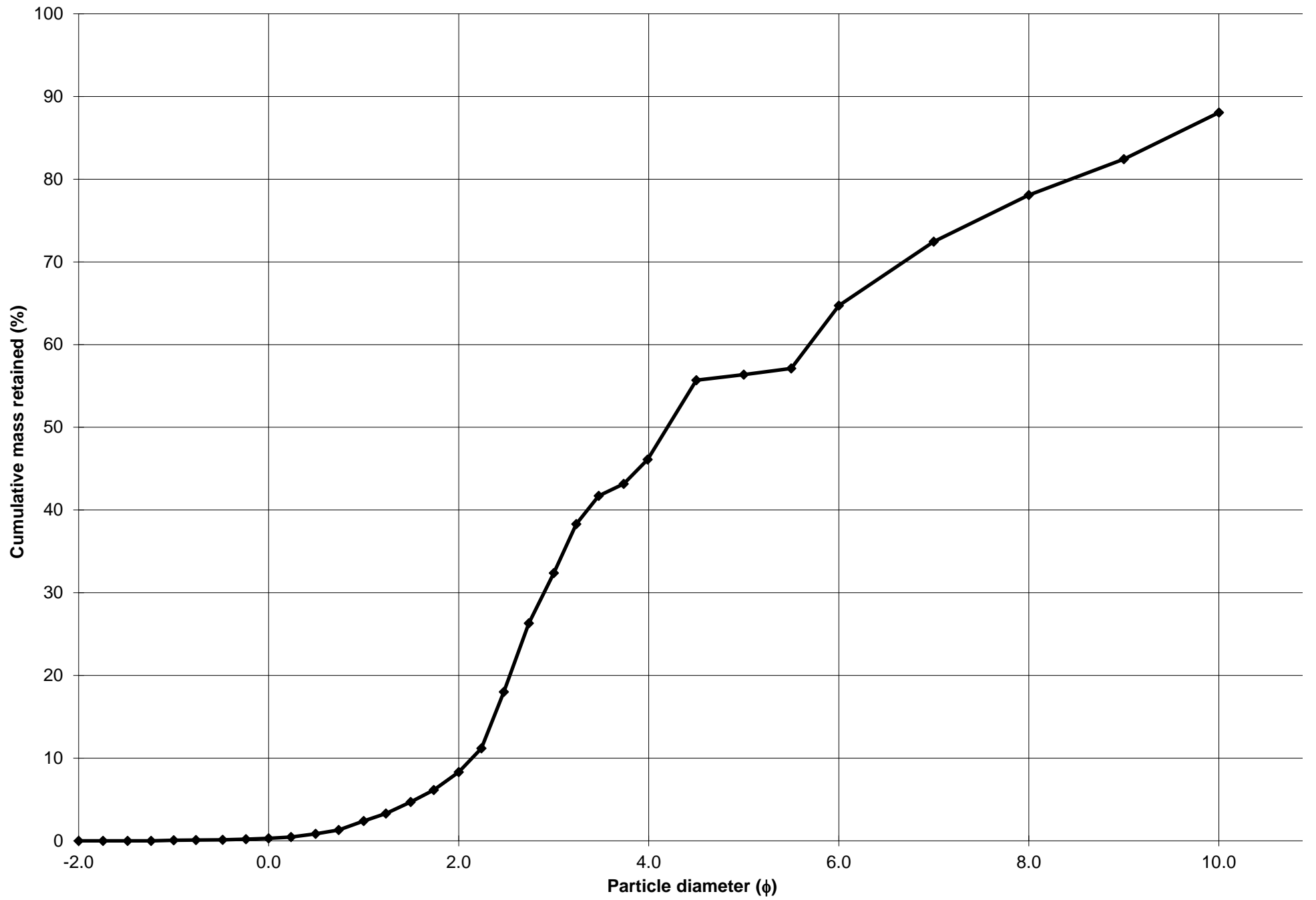
Cumulative Frequency Curve



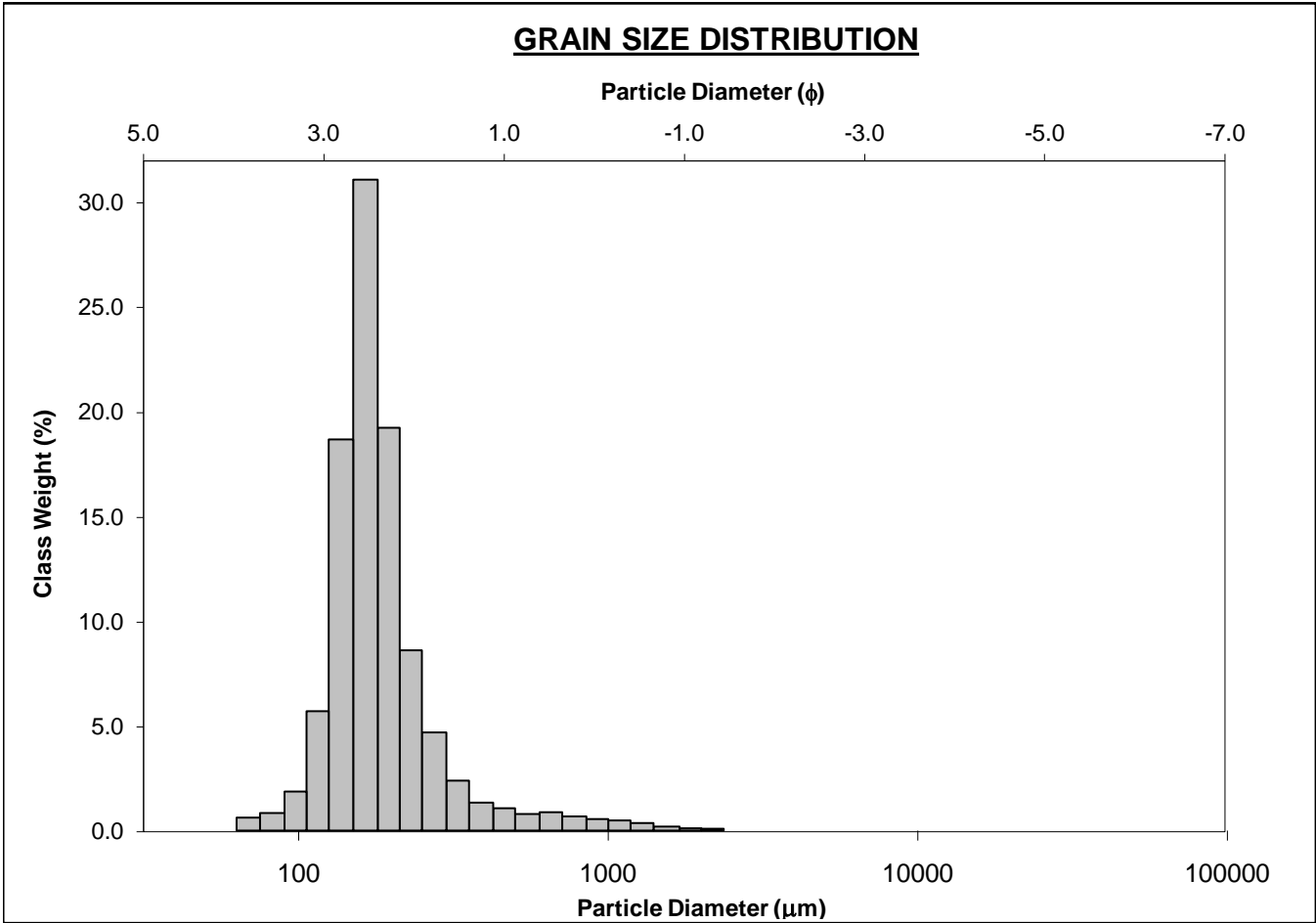
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-07-370cm			ANALYST & DATE: Chris, 3/10/15			
SAMPLE TYPE: Polymodal, Very Poorly Sorted			TEXTURAL GROUP: Slightly Gravelly Sandy Mud			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sandy Very Coarse Silt						
	μm	φ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.1%		COARSE SAND: 2.1%	
MODE 2:	115.5	3.119	SAND: 46.2%		MEDIUM SAND: 5.9%	
MODE 3:	53.60	4.244	MUD: 53.7%		FINE SAND: 24.1%	
D ₁₀ :	1.224	2.139			V FINE SAND: 13.9%	
MEDIAN or D ₅₀ :	54.56	4.196	V COARSE GRAVEL: 0.0%		V COARSE SILT: 10.0%	
D ₉₀ :	227.0	9.674	COARSE GRAVEL: 0.0%		COARSE SILT: 8.4%	
(D ₉₀ / D ₁₀):	185.5	4.522	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 7.7%	
(D ₉₀ - D ₁₀):	225.8	7.535	FINE GRAVEL: 0.0%		FINE SILT: 5.6%	
(D ₇₅ / D ₂₅):	27.06	2.765	V FINE GRAVEL: 0.1%		V FINE SILT: 4.3%	
(D ₇₅ - D ₂₅):	148.7	4.758	V COARSE SAND: 0.2%		CLAY: 17.6%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	φ	μm	φ	
MEAN (\bar{x}):	102.5	28.81	3.927	25.49	5.294	Coarse Silt
SORTING (σ):	150.2	5.040	2.305	7.083	2.824	Very Poorly Sorted
SKEWNESS (Sk):	4.695	0.216	1.284	-0.376	0.376	Very Fine Skewed
KURTOSIS (K):	45.59	2.108	3.315	0.628	0.628	Very Platykurtic



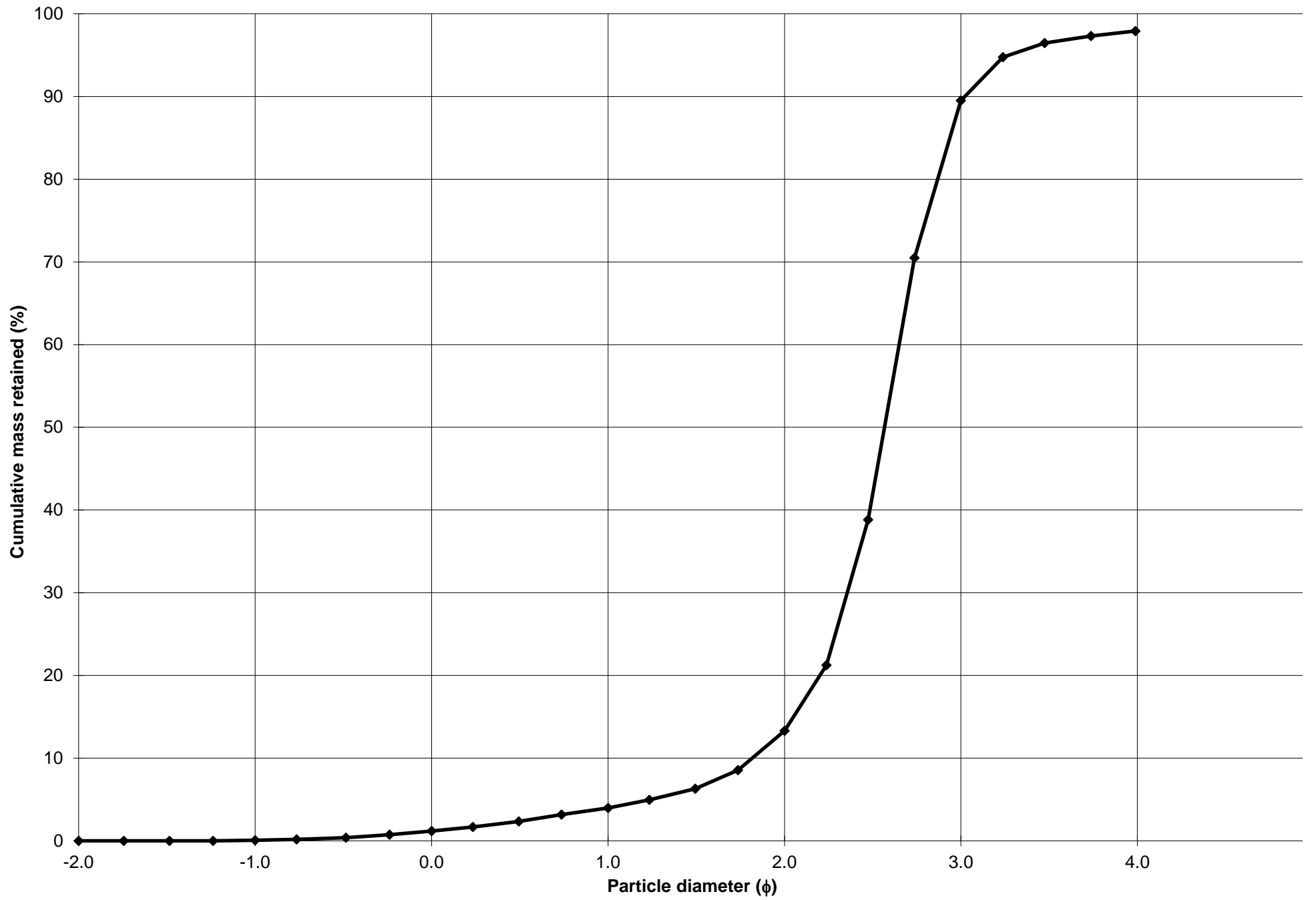
Cumulative Frequency Curve



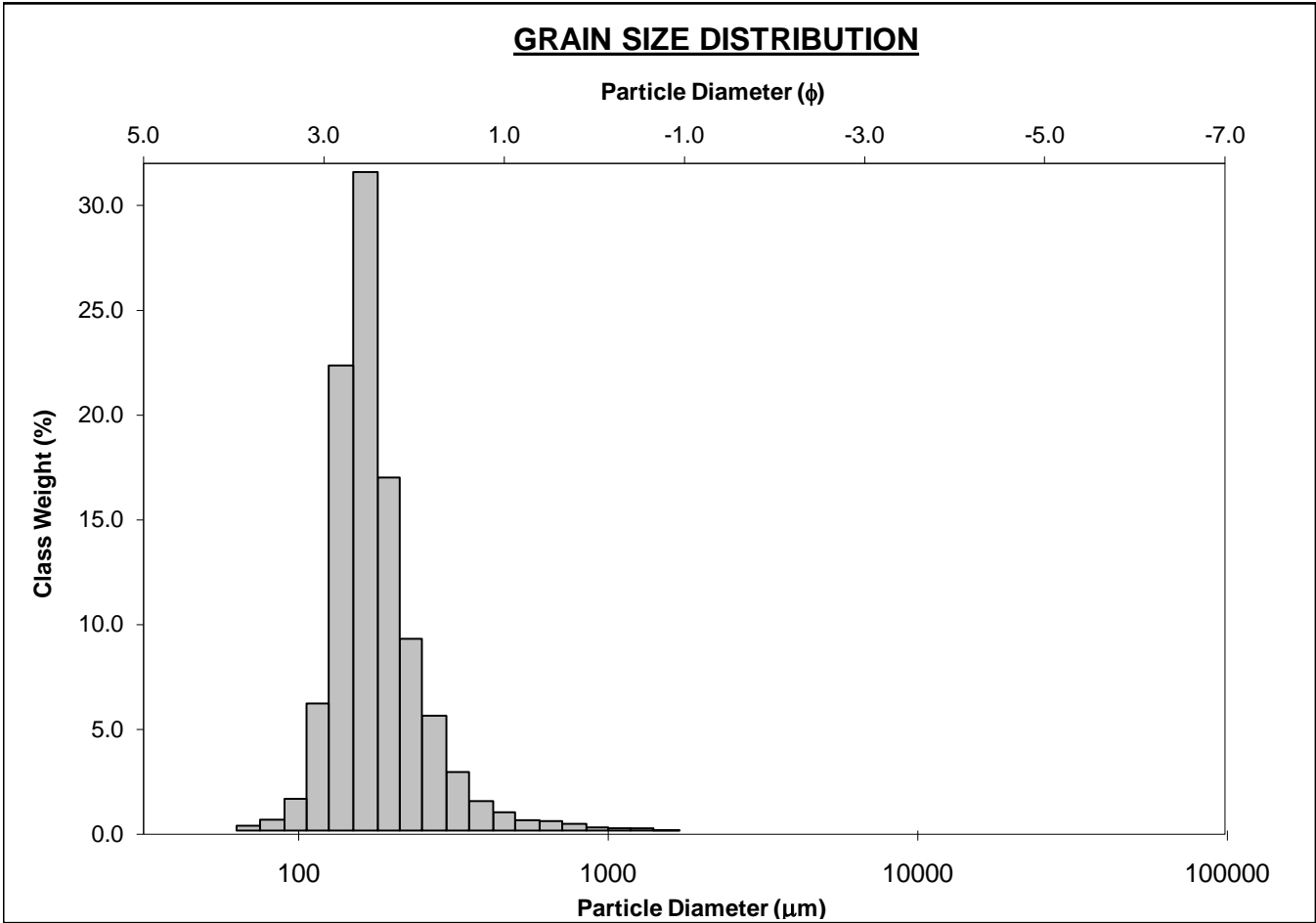
SIEVING ERROR: 1.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-100cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.1%		COARSE SAND: 2.8%	
MODE 2:			SAND: 97.8%		MEDIUM SAND: 9.3%	
MODE 3:			MUD: 2.1%		FINE SAND: 76.2%	
D ₁₀ :	123.1	1.818			V FINE SAND: 8.4%	
MEDIAN or D ₅₀ :	168.8	2.567	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.3%	
D ₉₀ :	283.7	3.022	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D ₉₀ / D ₁₀):	2.305	1.663	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
(D ₉₀ - D ₁₀):	160.6	1.205	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D ₇₅ / D ₂₅):	1.425	1.223	V FINE GRAVEL: 0.1%		V FINE SILT: 0.3%	
(D ₇₅ - D ₂₅):	61.07	0.511	V COARSE SAND: 1.1%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	206.7	172.1	2.538	173.9	2.524	Fine Sand
SORTING (σ):	170.9	1.860	0.895	1.432	0.518	Moderately Well Sorted
SKEWNESS (Sk):	5.477	-1.751	1.751	0.229	-0.229	Coarse Skewed
KURTOSIS (K):	42.65	15.26	15.26	1.626	1.626	Very Leptokurtic



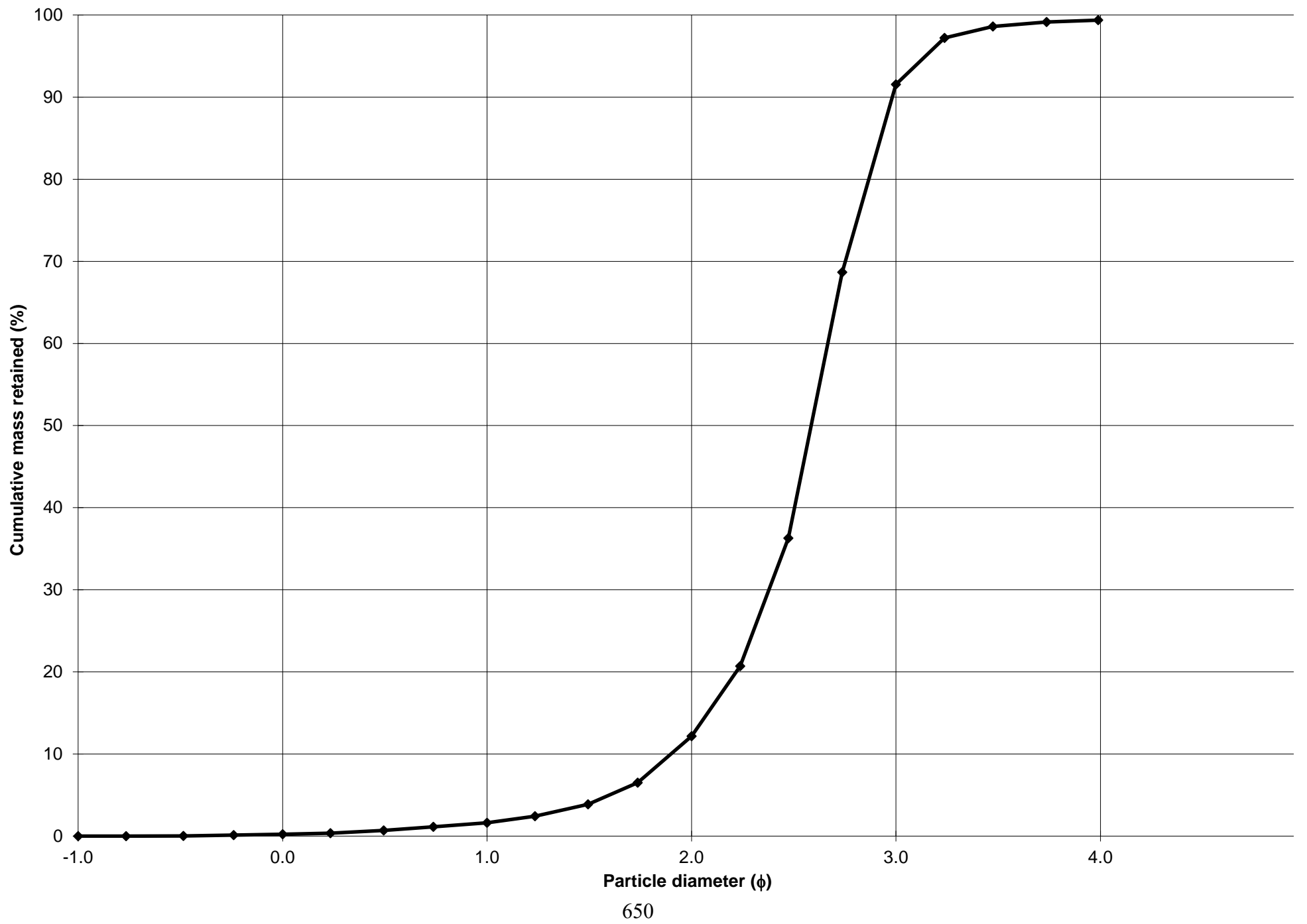
Cumulative Frequency Curve



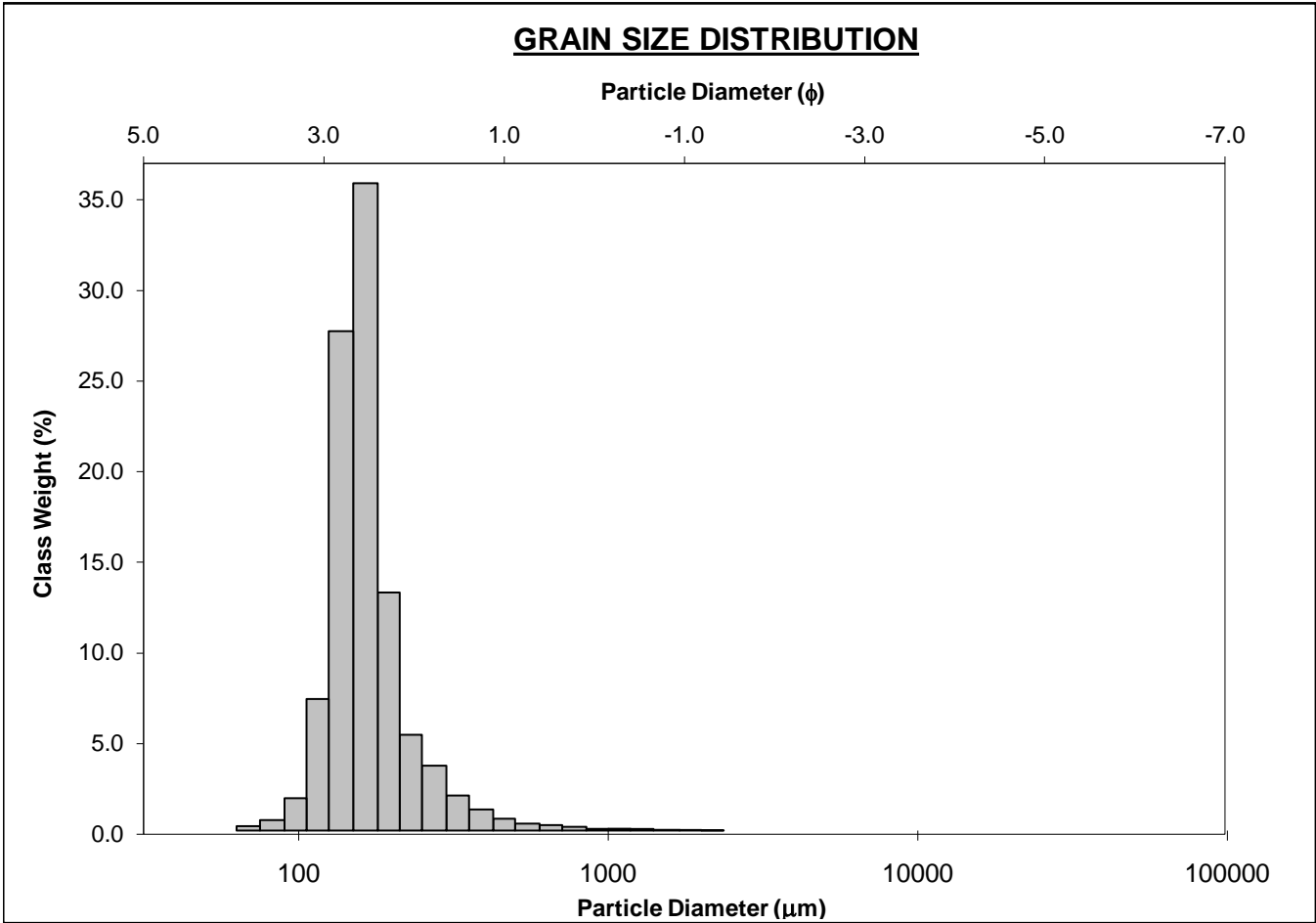
SIEVING ERROR: 1.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-110cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 1.4%			
MODE 2:			SAND: 99.4% MEDIUM SAND: 10.5%			
MODE 3:			MUD: 0.6% FINE SAND: 79.4%			
D ₁₀ :	126.6	1.899	V FINE SAND: 7.8%			
MEDIAN or D ₅₀ :	166.6	2.585	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%			
D ₉₀ :	268.1	2.982	COARSE GRAVEL: 0.0% COARSE SILT: 0.1%			
(D ₉₀ / D ₁₀):	2.119	1.570	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%			
(D ₉₀ - D ₁₀):	141.6	1.083	FINE GRAVEL: 0.0% FINE SILT: 0.1%			
(D ₇₅ / D ₂₅):	1.421	1.220	V FINE GRAVEL: 0.0% V FINE SILT: 0.1%			
(D ₇₅ - D ₂₅):	60.01	0.507	V COARSE SAND: 0.2% CLAY: 0.1%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	189.5	173.3	2.528	172.5	2.535	Fine Sand
SORTING (σ):	97.97	1.520	0.604	1.353	0.436	Well Sorted
SKEWNESS (Sk):	4.997	-1.621	1.621	0.232	-0.232	Coarse Skewed
KURTOSIS (K):	42.31	22.33	22.33	1.251	1.251	Leptokurtic



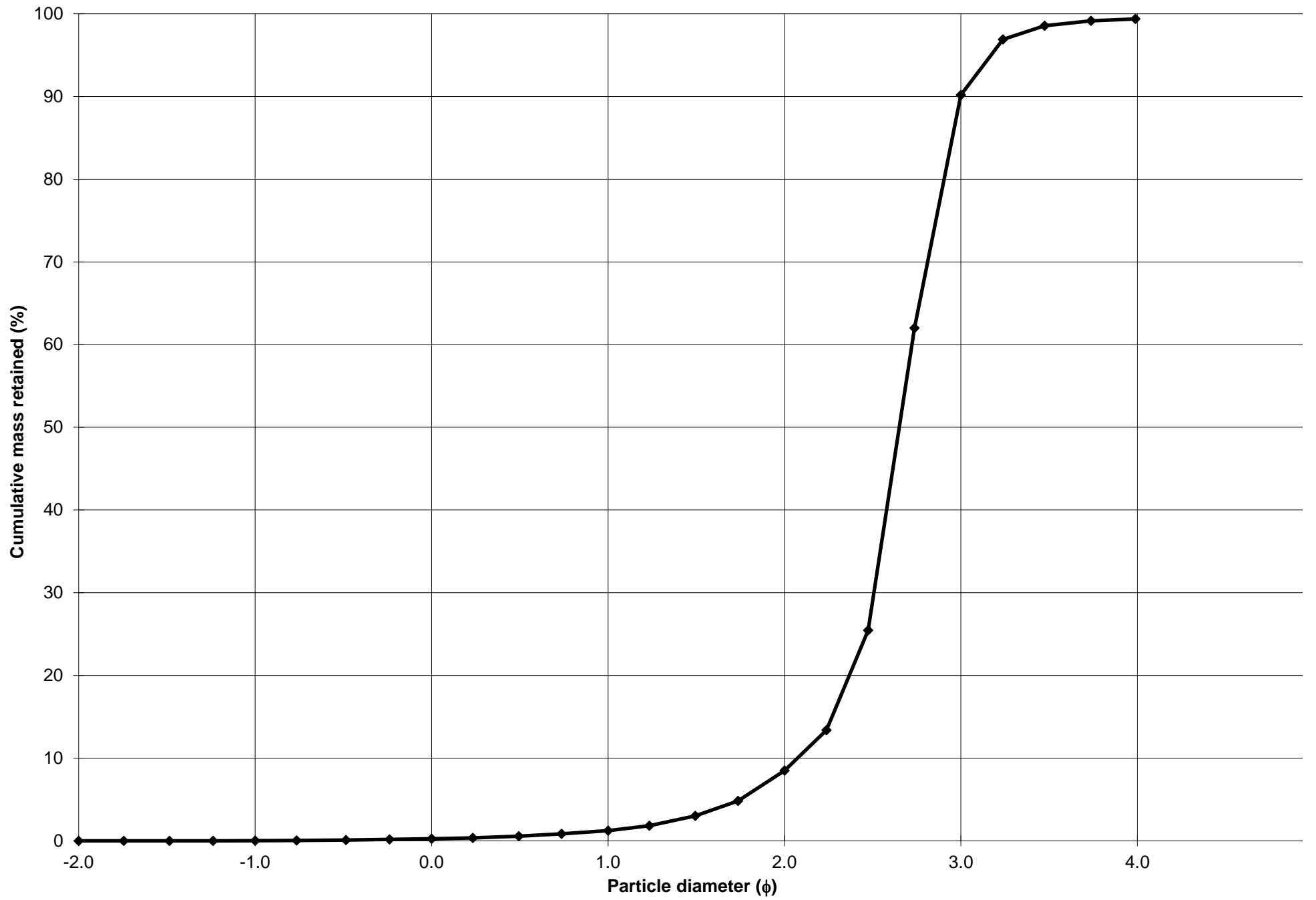
Cumulative Frequency Curve



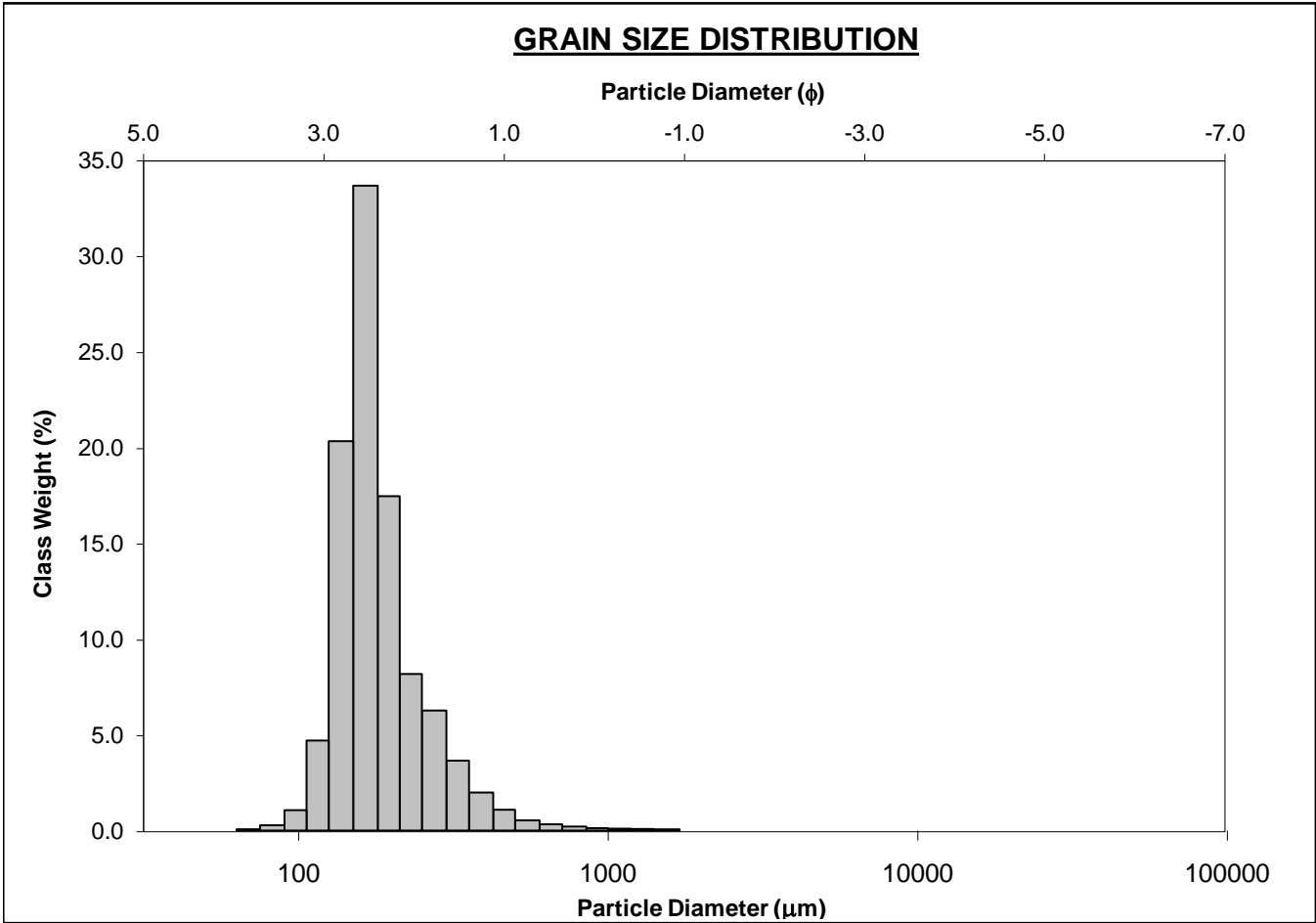
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-120cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 1.0%	
MODE 2:			SAND: 99.4%		MEDIUM SAND: 7.3%	
MODE 3:			MUD: 0.6%		FINE SAND: 81.7%	
D ₁₀ :	125.2	2.073			V FINE SAND: 9.2%	
MEDIAN or D ₅₀ :	159.2	2.651	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	237.6	2.998	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	1.899	1.446	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	112.5	0.925	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.313	1.159	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	43.20	0.393	V COARSE SAND: 0.3%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	177.7	163.4	2.613	161.8	2.627	Fine Sand
SORTING (σ):	97.22	1.487	0.573	1.300	0.379	Well Sorted
SKEWNESS (Sk):	7.632	-1.687	1.687	0.188	-0.188	Coarse Skewed
KURTOSIS (K):	97.35	26.23	26.23	1.482	1.482	Leptokurtic



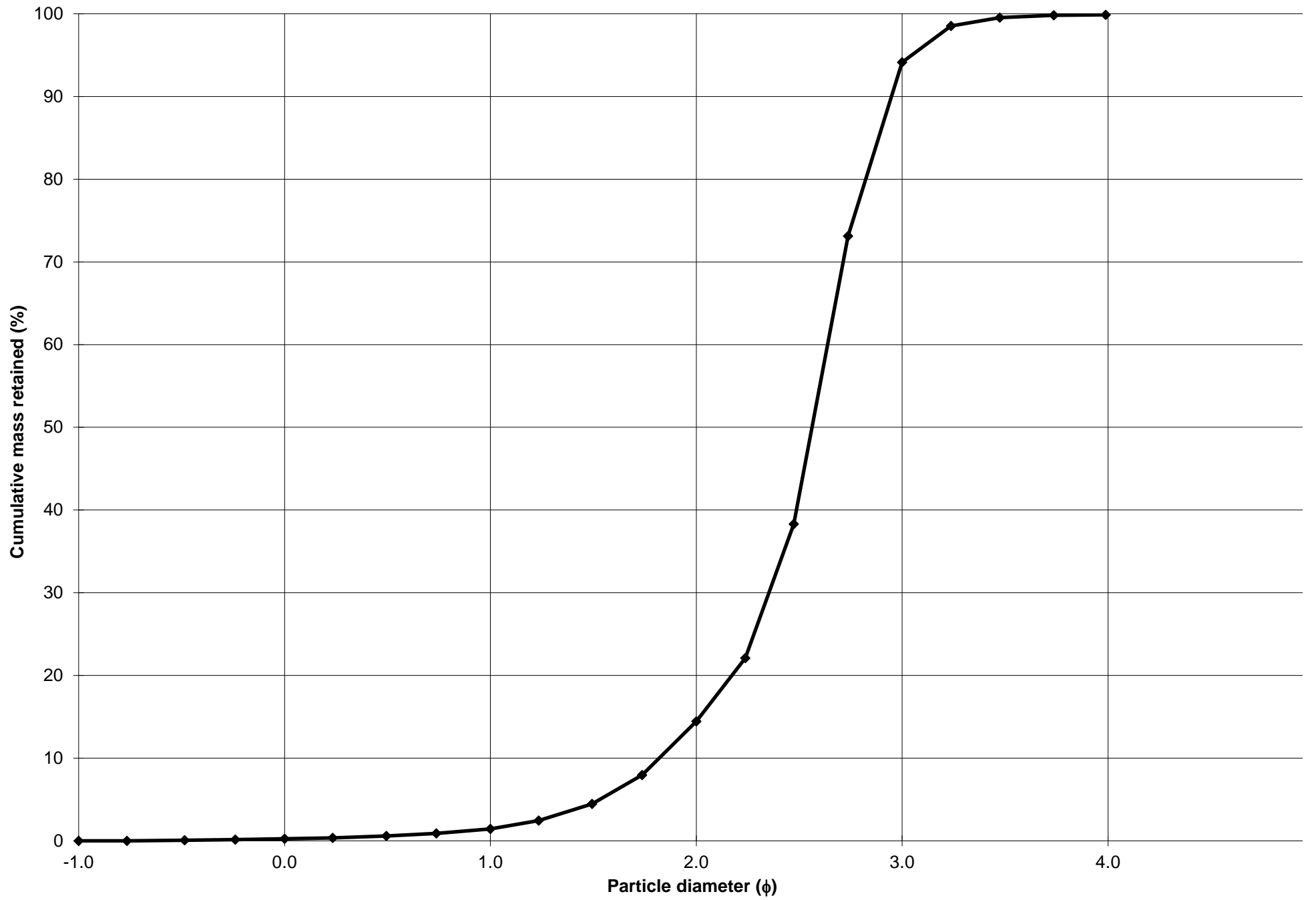
Cumulative Frequency Curve



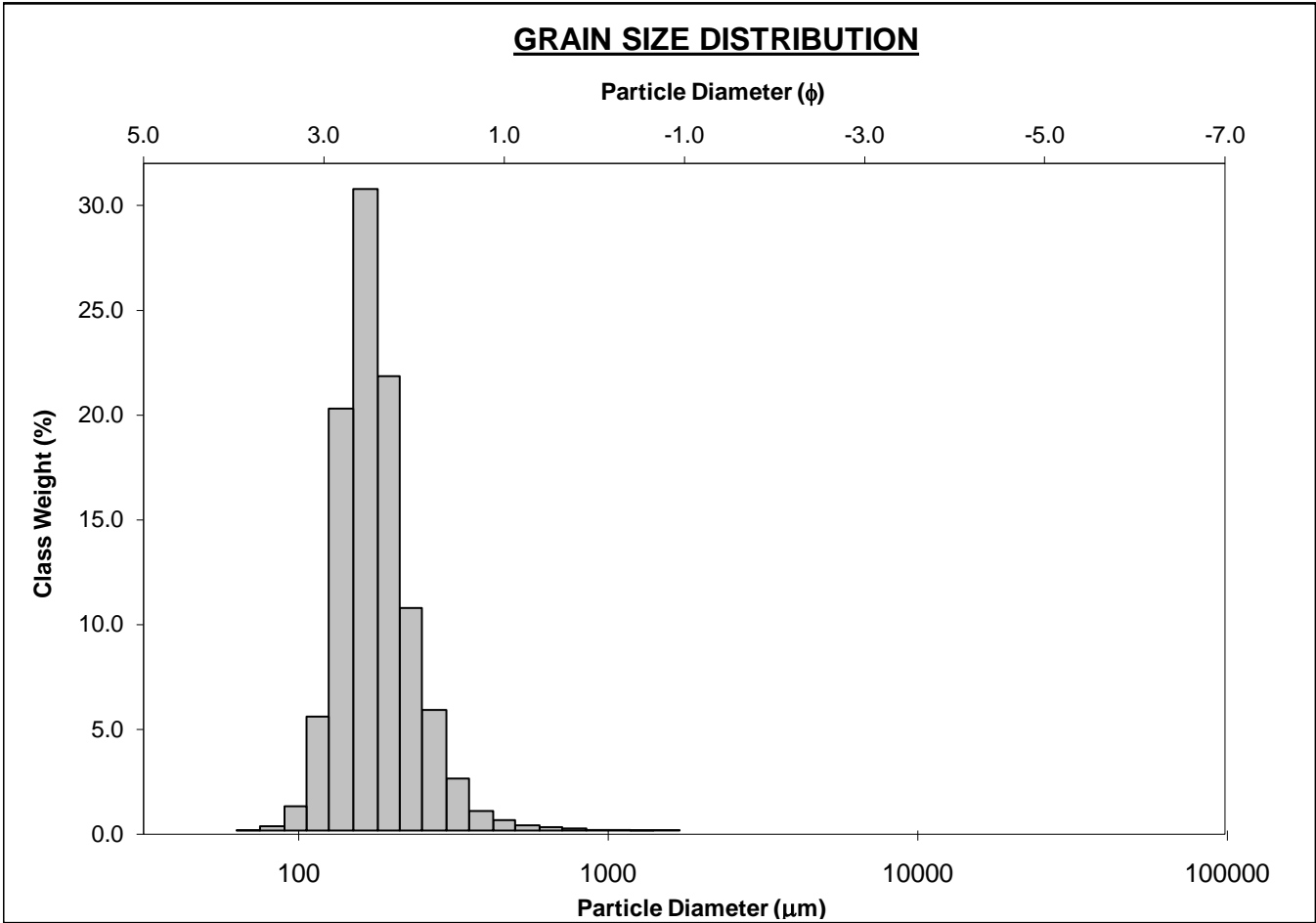
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-130cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 1.2%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 13.0%	
MODE 3:			MUD: 0.1%		FINE SAND: 79.7%	
D ₁₀ :	129.6	1.820			V FINE SAND: 5.7%	
MEDIAN or D ₅₀ :	169.3	2.562	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	283.3	2.948	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.186	1.620	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	153.7	1.128	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.395	1.211	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	58.29	0.480	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	195.0	180.6	2.469	177.4	2.495	Fine Sand
SORTING (σ):	99.10	1.424	0.510	1.353	0.436	Well Sorted
SKEWNESS (Sk):	5.465	0.555	-0.555	0.304	-0.304	Very Coarse Skewed
KURTOSIS (K):	52.76	13.86	13.86	1.293	1.293	Leptokurtic



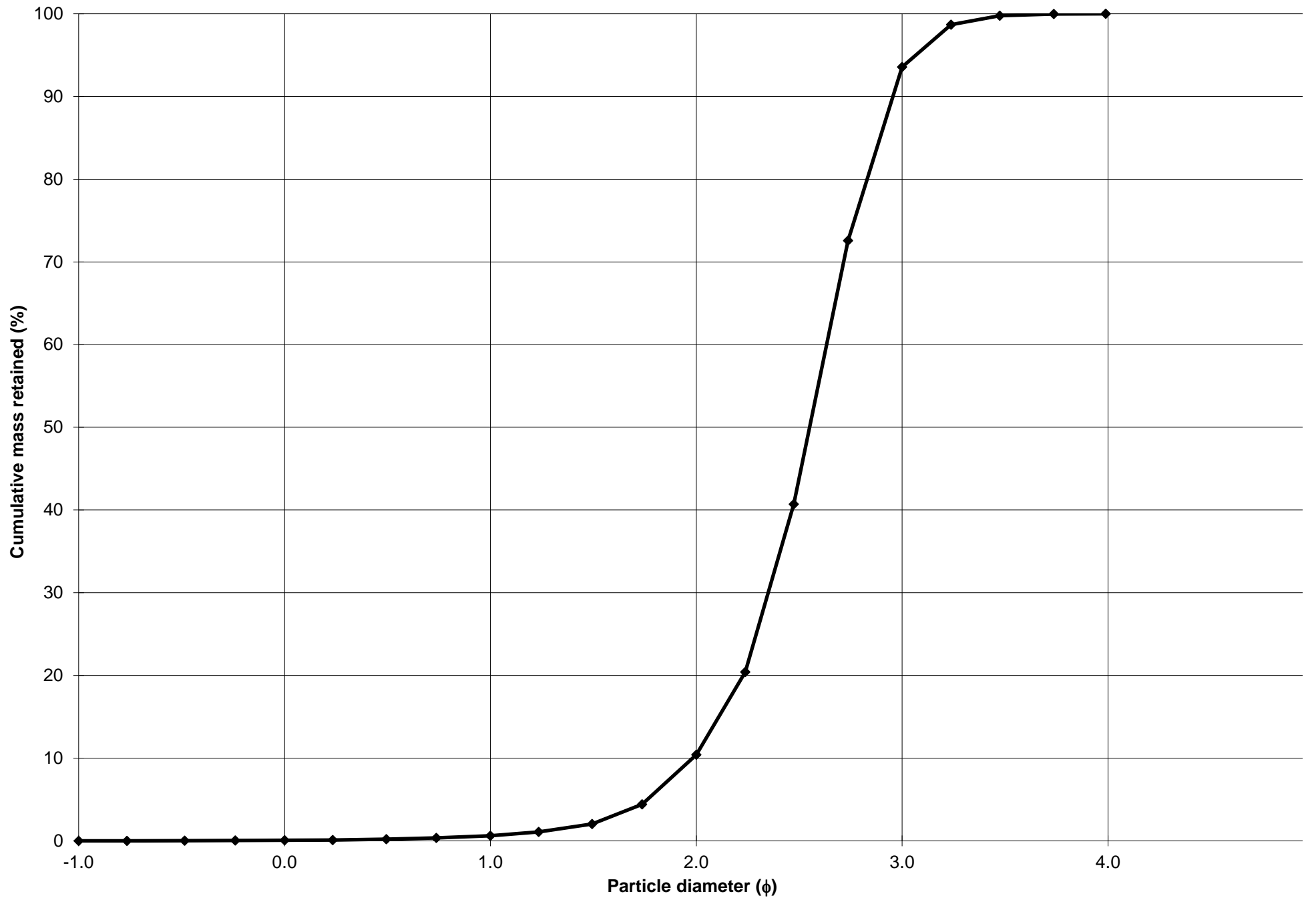
Cumulative Frequency Curve



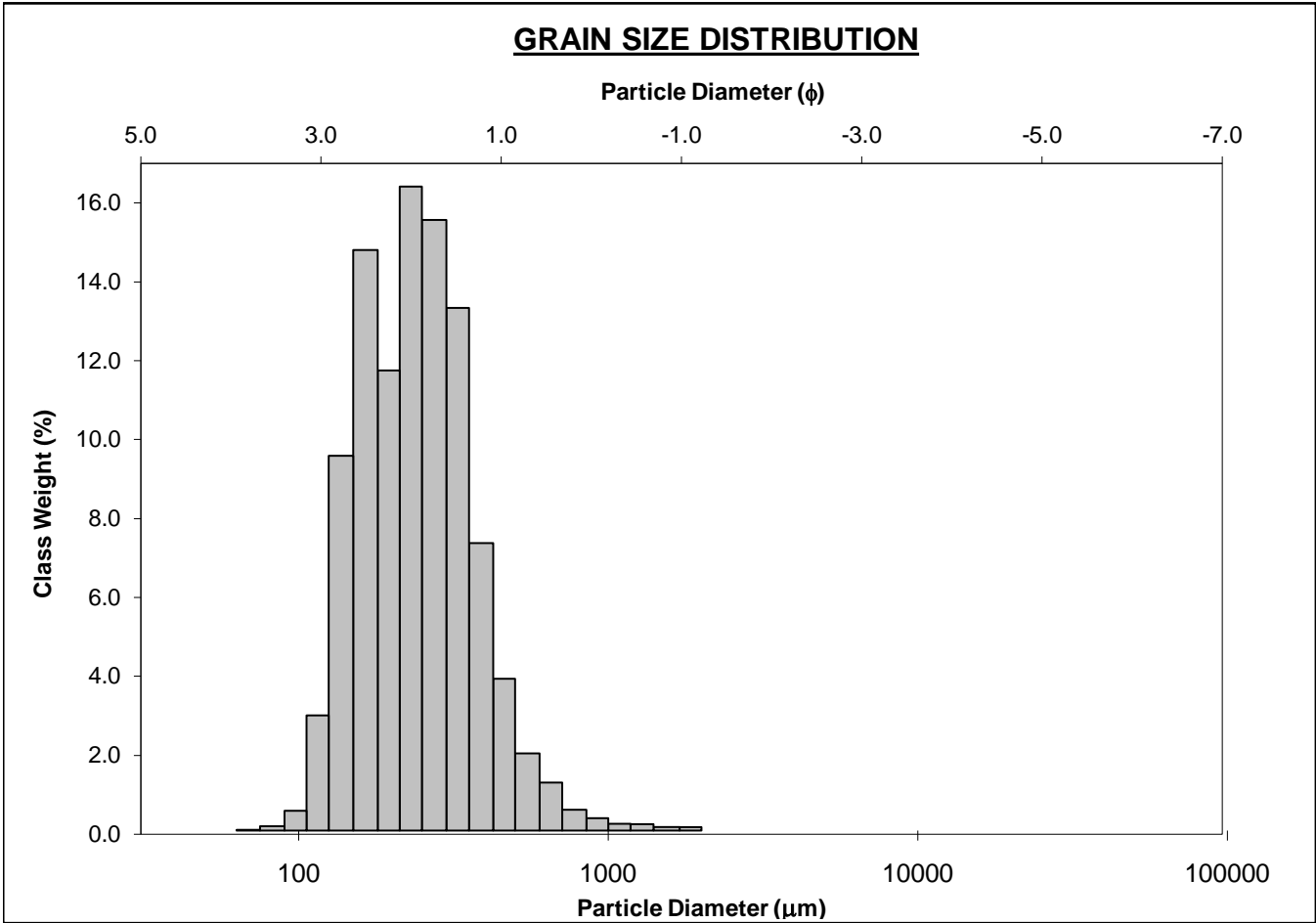
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-140cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.5%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 9.8%			
MODE 3:			MUD: 0.0% FINE SAND: 83.1%			
D ₁₀ :	128.9	1.982	V FINE SAND: 6.4%			
MEDIAN or D ₅₀ :	170.7	2.551	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	253.2	2.955	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.964	1.491	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	124.2	0.974	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.391	1.208	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	57.43	0.476	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	186.0	176.9	2.499	174.2	2.521	Fine Sand
SORTING (σ):	70.26	1.331	0.412	1.305	0.385	Well Sorted
SKEWNESS (Sk):	5.274	1.102	-1.102	0.163	-0.163	Coarse Skewed
KURTOSIS (K):	65.46	7.236	7.236	1.123	1.123	Leptokurtic



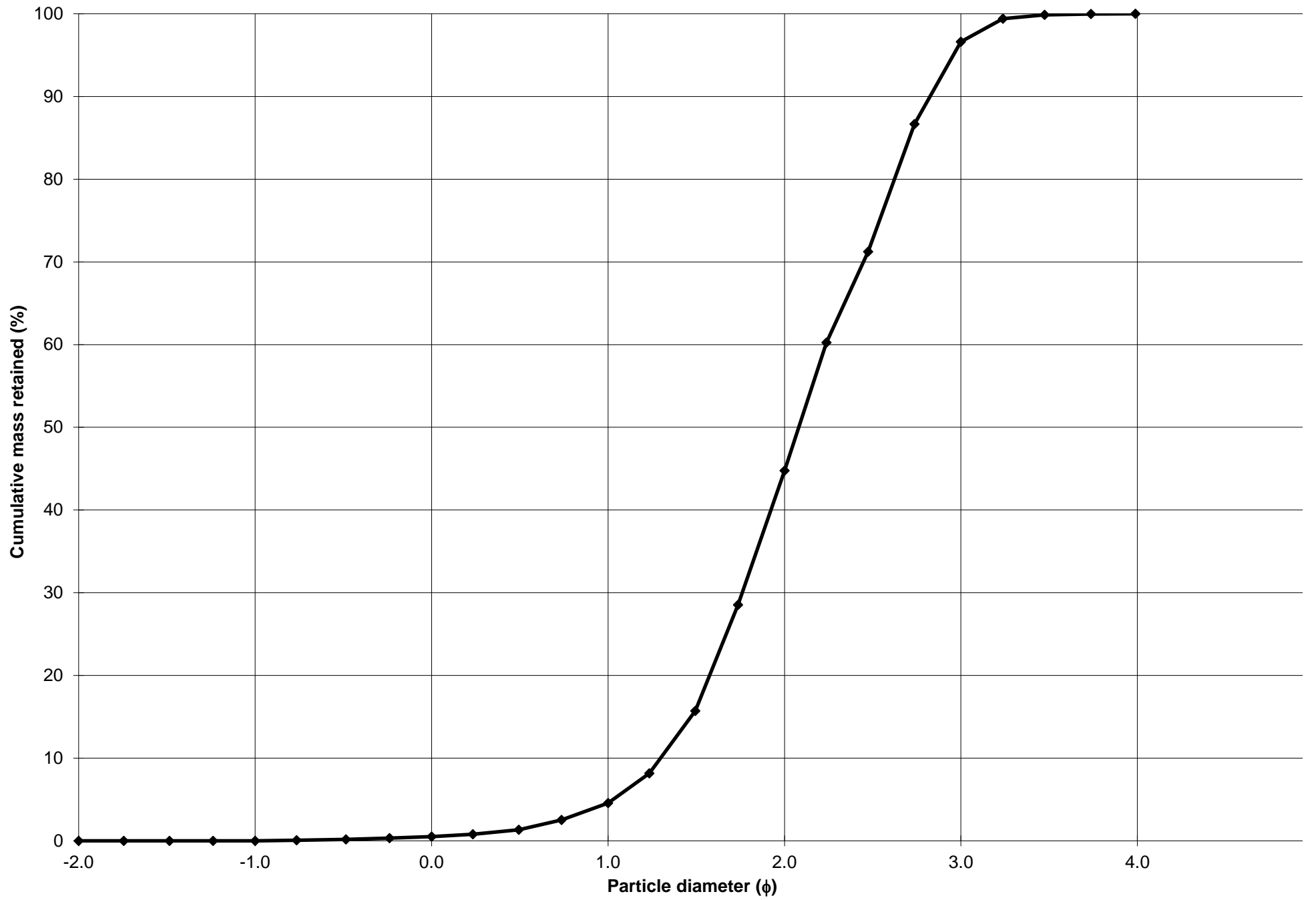
Cumulative Frequency Curve



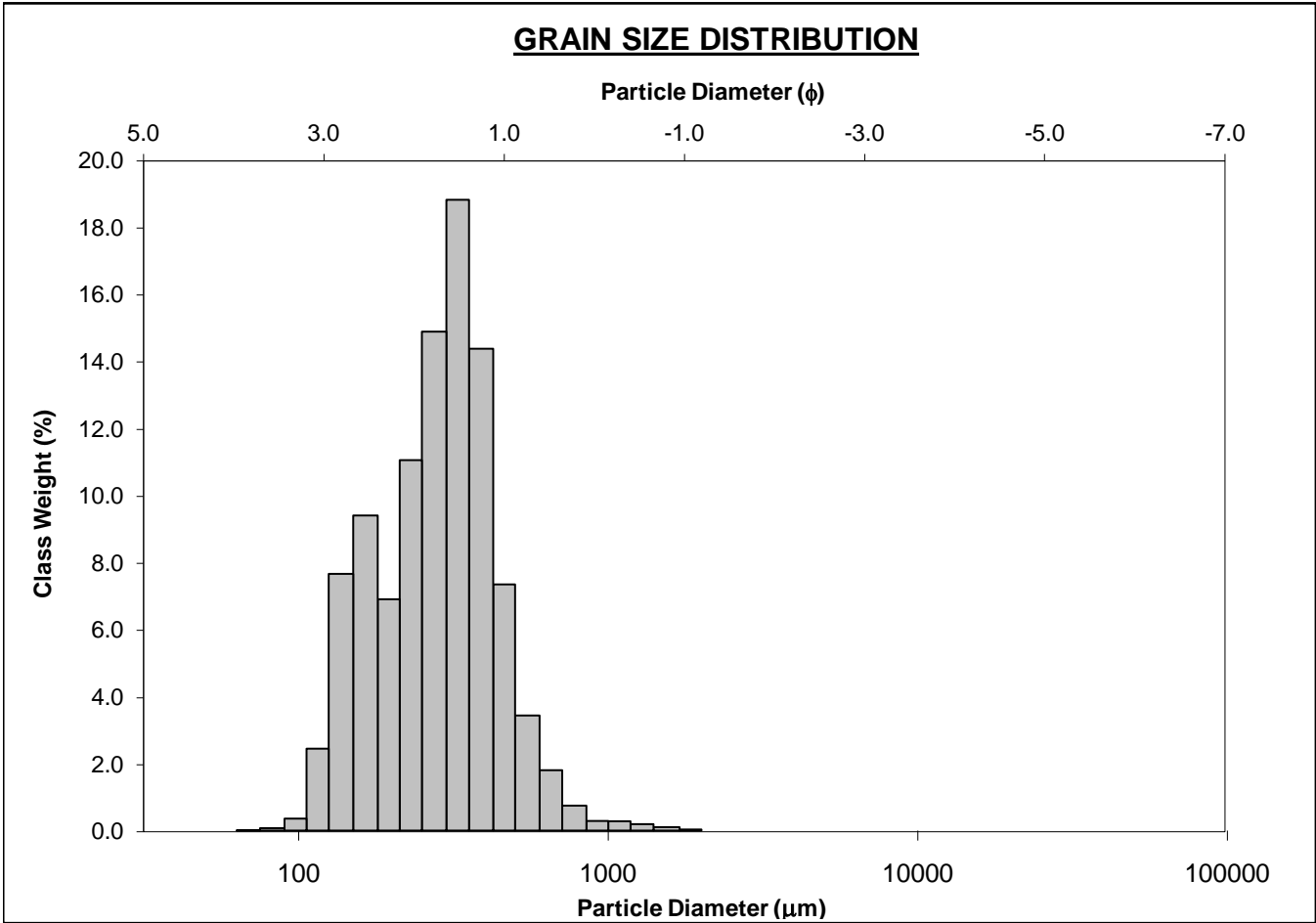
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-150cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 4.1%	
MODE 2:	165.0	2.605	SAND: 100.0%		MEDIUM SAND: 40.2%	
MODE 3:			MUD: 0.0%		FINE SAND: 51.9%	
D ₁₀ :	141.1	1.297			V FINE SAND: 3.4%	
MEDIAN or D ₅₀ :	236.5	2.080	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	406.9	2.825	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.883	2.177	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	265.7	1.528	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.825	1.520	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	142.1	0.868	V COARSE SAND: 0.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	265.8	239.7	2.060	234.8	2.090	Fine Sand
SORTING (σ):	143.0	1.529	0.613	1.506	0.590	Moderately Well Sorted
SKEWNESS (Sk):	3.649	0.599	-0.599	0.033	-0.033	Symmetrical
KURTOSIS (K):	28.40	3.908	3.908	0.911	0.911	Mesokurtic



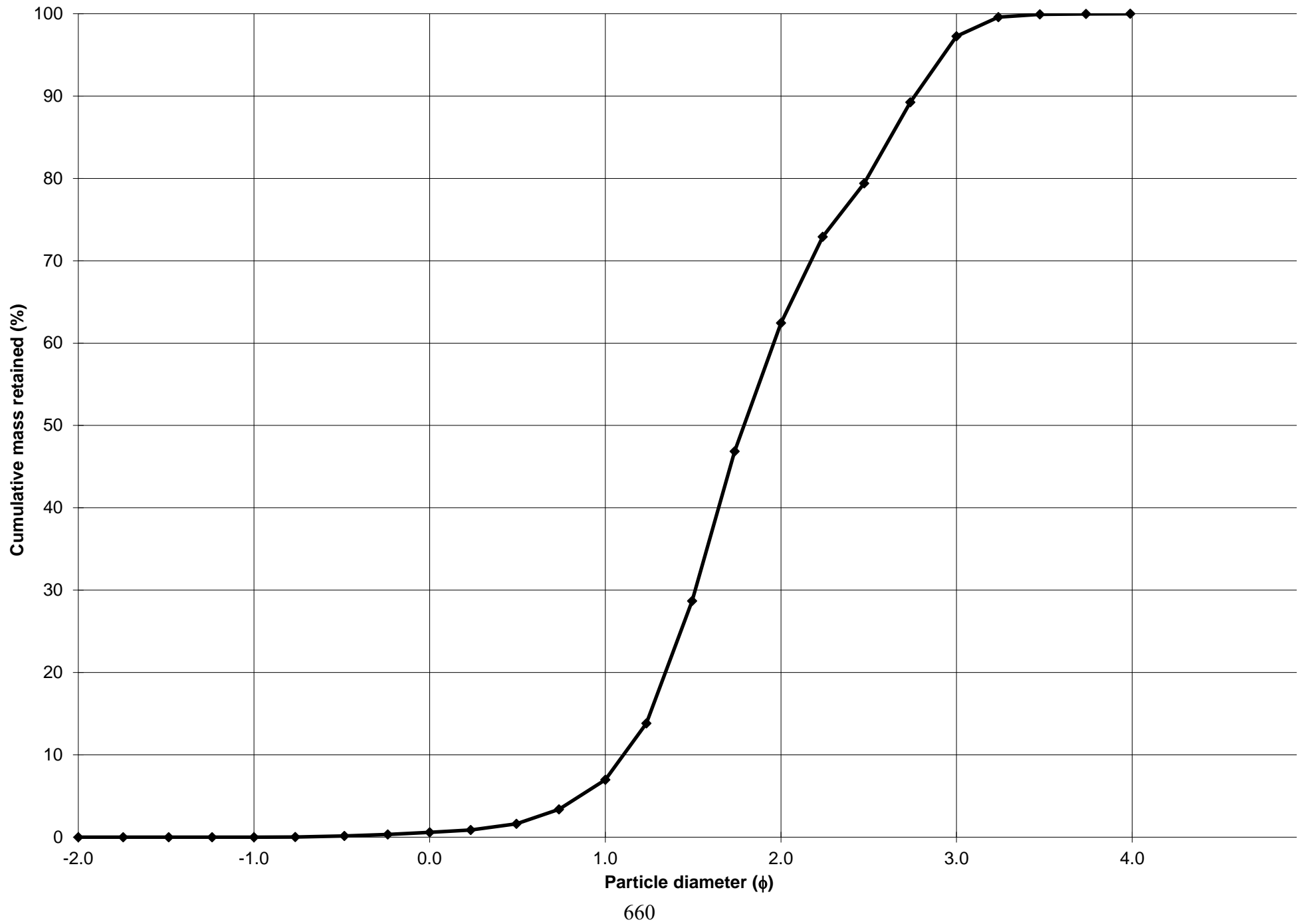
Cumulative Frequency Curve



SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-160cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 6.4%	
MODE 2:	165.0	2.605	SAND: 100.0%		MEDIUM SAND: 55.5%	
MODE 3:			MUD: 0.0%		FINE SAND: 34.8%	
D ₁₀ :	147.4	1.104			V FINE SAND: 2.7%	
MEDIAN or D ₅₀ :	289.2	1.790	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	465.3	2.762	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.156	2.502	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	317.9	1.658	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.845	1.618	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	170.0	0.884	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	306.5	276.4	1.855	270.5	1.886	Medium Sand
SORTING (σ):	150.1	1.558	0.640	1.563	0.645	Moderately Well Sorted
SKEWNESS (Sk):	2.481	0.043	-0.043	-0.158	0.158	Fine Skewed
KURTOSIS (K):	16.82	3.395	3.395	0.960	0.960	Mesokurtic



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-08-180cm**

ANALYST & DATE: Chris, 10/5/15

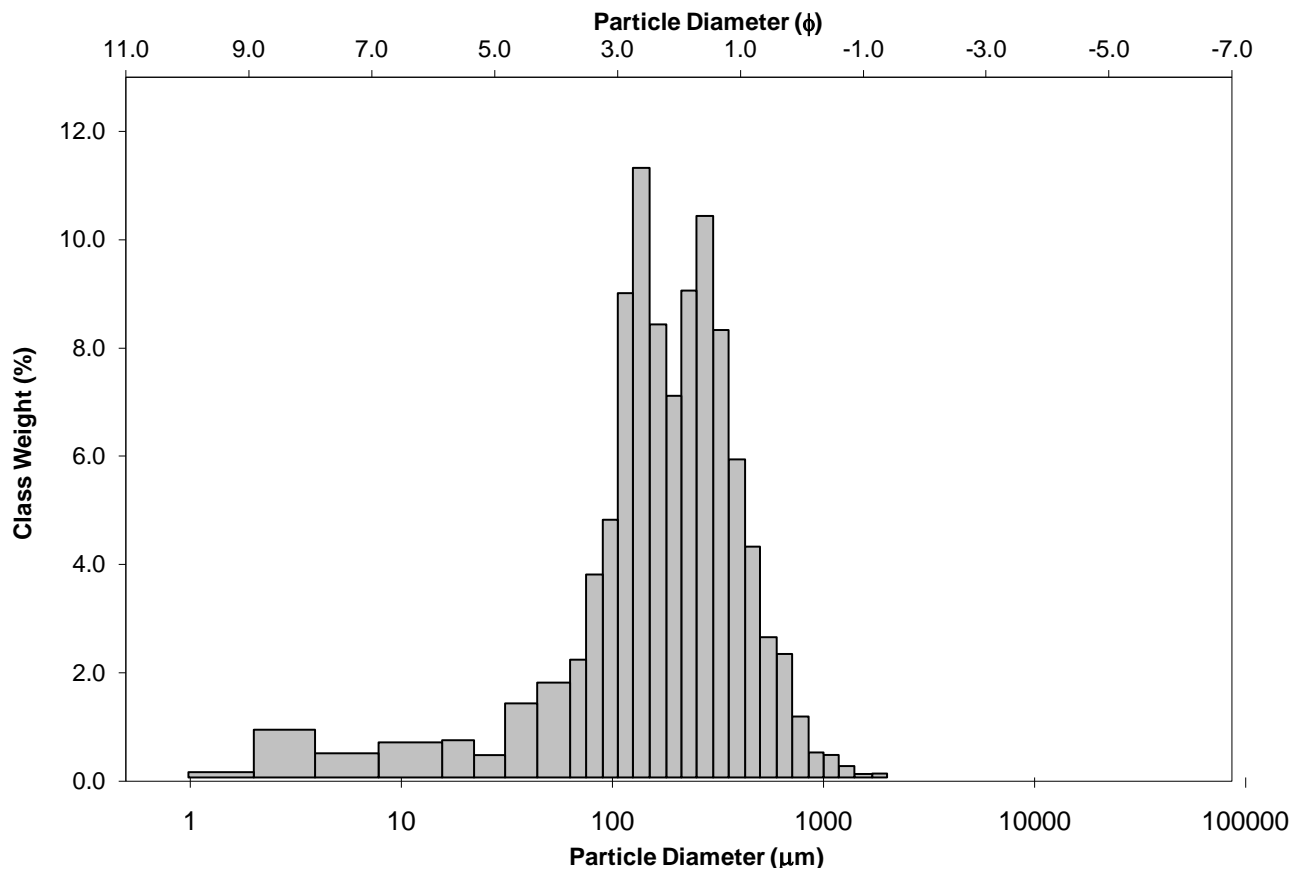
SAMPLE TYPE: Bimodal, Very Poorly Sorted

TEXTURAL GROUP: Muddy Sand

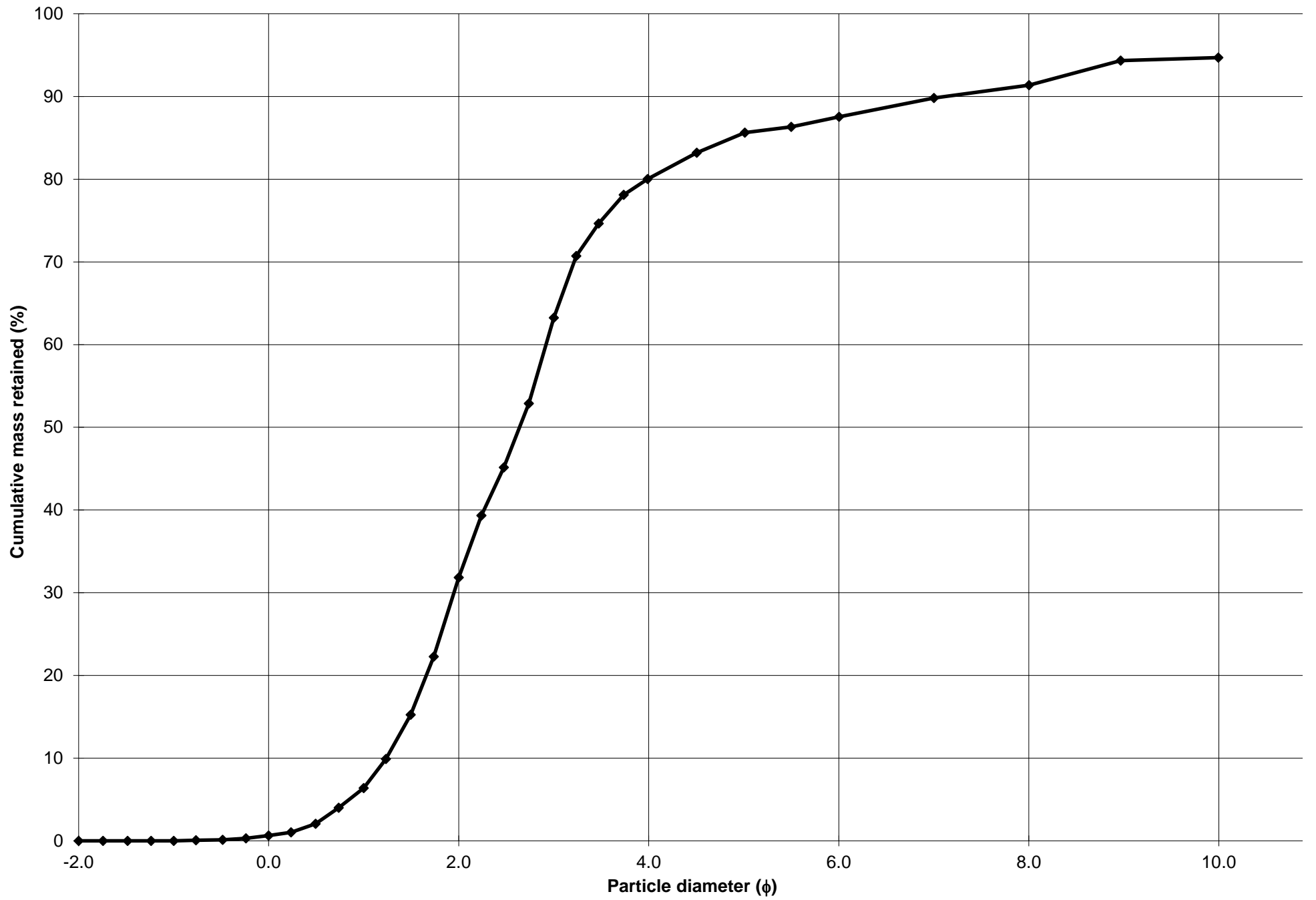
SEDIMENT NAME: Very Coarse Silty Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%	COARSE SAND: 5.7%		
MODE 2:	275.0	1.868	SAND: 80.1%	MEDIUM SAND: 25.4%		
MODE 3:			MUD: 19.9%	FINE SAND: 31.4%		
D_{10} :	7.155	1.240		V FINE SAND: 16.8%		
MEDIAN or D_{50} :	160.5	2.639	V COARSE GRAVEL: 0.0%	V COARSE SILT: 5.5%		
D_{90} :	423.4	7.127	COARSE GRAVEL: 0.0%	COARSE SILT: 2.0%		
(D_{90} / D_{10}) :	59.18	5.748	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 2.3%		
$(D_{90} - D_{10})$:	416.2	5.887	FINE GRAVEL: 0.0%	FINE SILT: 1.6%		
(D_{75} / D_{25}) :	3.225	1.932	V FINE GRAVEL: 0.0%	V FINE SILT: 3.0%		
$(D_{75} - D_{25})$:	196.5	1.689	V COARSE SAND: 0.7%	CLAY: 5.6%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	207.9	106.2	3.236	129.9	2.945	Fine Sand
SORTING (σ):	187.3	5.065	2.340	4.461	2.157	Very Poorly Sorted
SKEWNESS (Sk):	2.165	-1.655	1.655	-0.447	0.447	Very Fine Skewed
KURTOSIS (K):	11.95	5.113	5.113	2.192	2.192	Very Leptokurtic

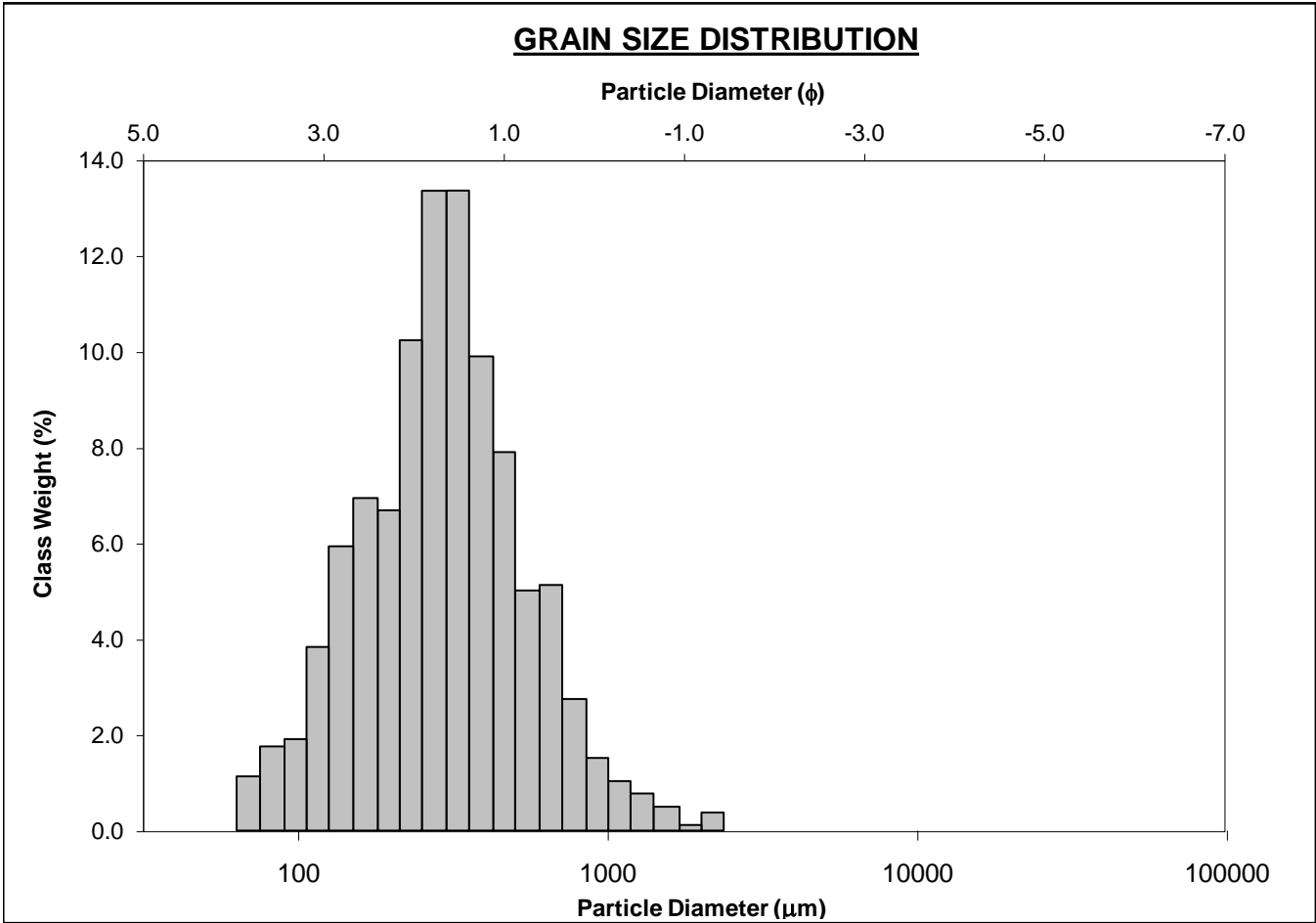
GRAIN SIZE DISTRIBUTION



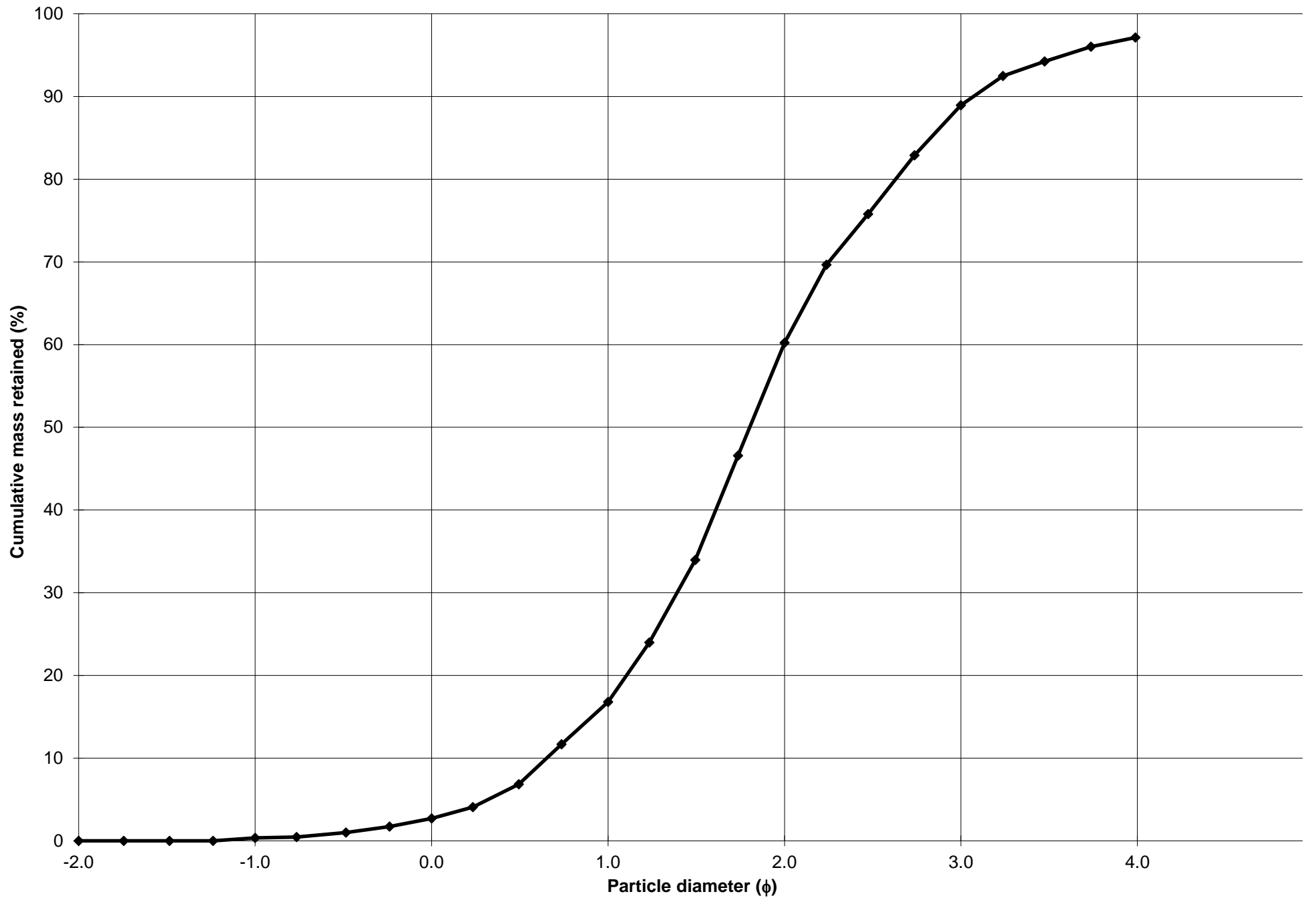
Cumulative Frequency Curve



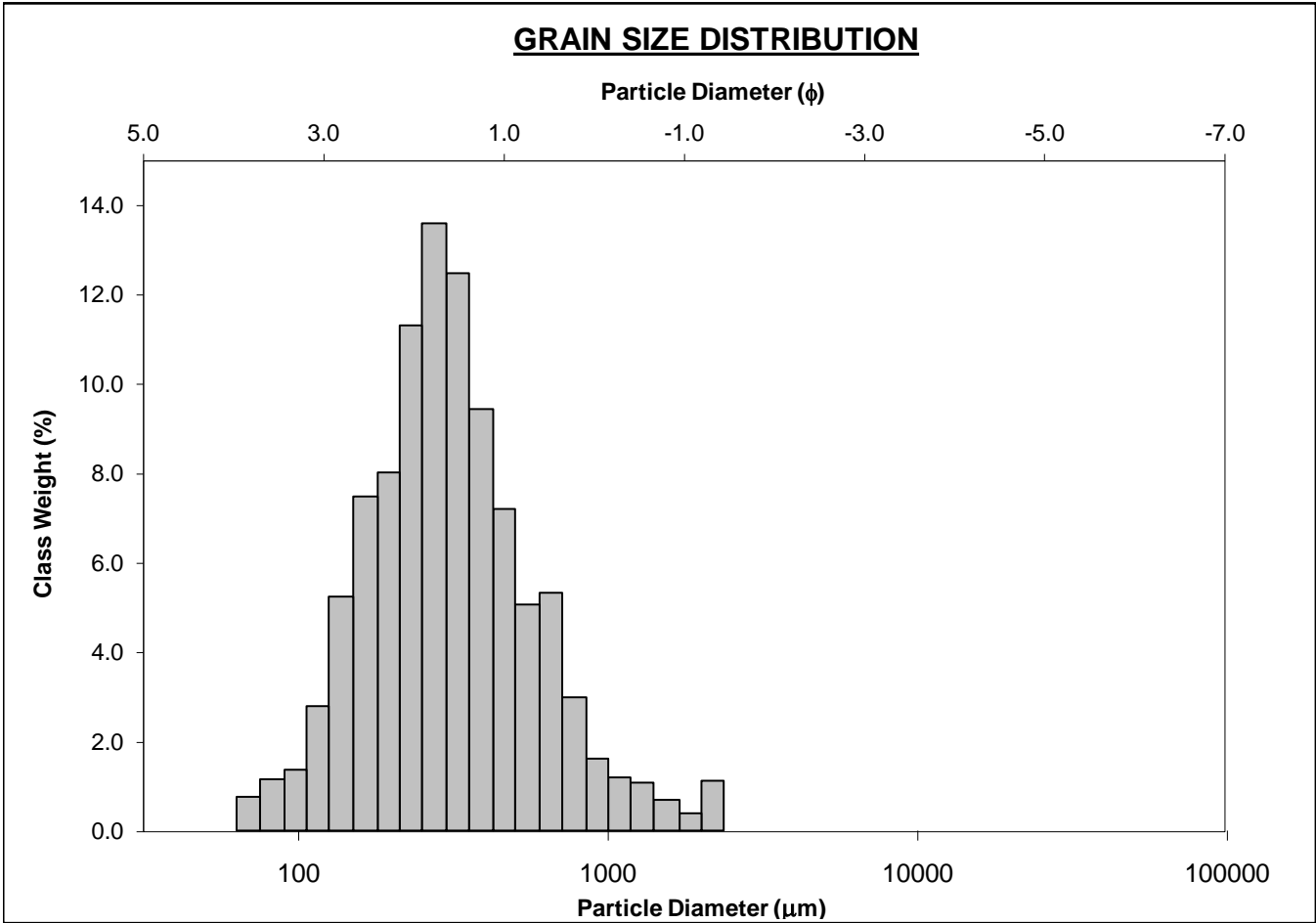
SIEVING ERROR: 1.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-200cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.3%	COARSE SAND: 14.1%		
MODE 2:	165.0	2.605	SAND: 96.8%	MEDIUM SAND: 43.4%		
MODE 3:	655.0	0.616	MUD: 2.9%	FINE SAND: 28.7%		
D ₁₀ :	119.0	0.653		V FINE SAND: 8.2%		
MEDIAN or D ₅₀ :	286.5	1.803	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.5%		
D ₉₀ :	636.1	3.071	COARSE GRAVEL: 0.0%	COARSE SILT: 0.5%		
(D ₉₀ / D ₁₀):	5.347	4.706	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.5%		
(D ₉₀ - D ₁₀):	517.1	2.419	FINE GRAVEL: 0.0%	FINE SILT: 0.5%		
(D ₇₅ / D ₂₅):	2.270	1.938	V FINE GRAVEL: 0.3%	V FINE SILT: 0.5%		
(D ₇₅ - D ₂₅):	233.5	1.183	V COARSE SAND: 2.3%	CLAY: 0.5%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	345.9	262.5	1.929	277.5	1.849	Medium Sand
SORTING (σ):	260.5	2.348	1.231	1.934	0.951	Moderately Sorted
SKEWNESS (Sk):	2.726	-1.757	1.757	-0.084	0.084	Symmetrical
KURTOSIS (K):	14.99	9.109	9.109	1.132	1.132	Leptokurtic



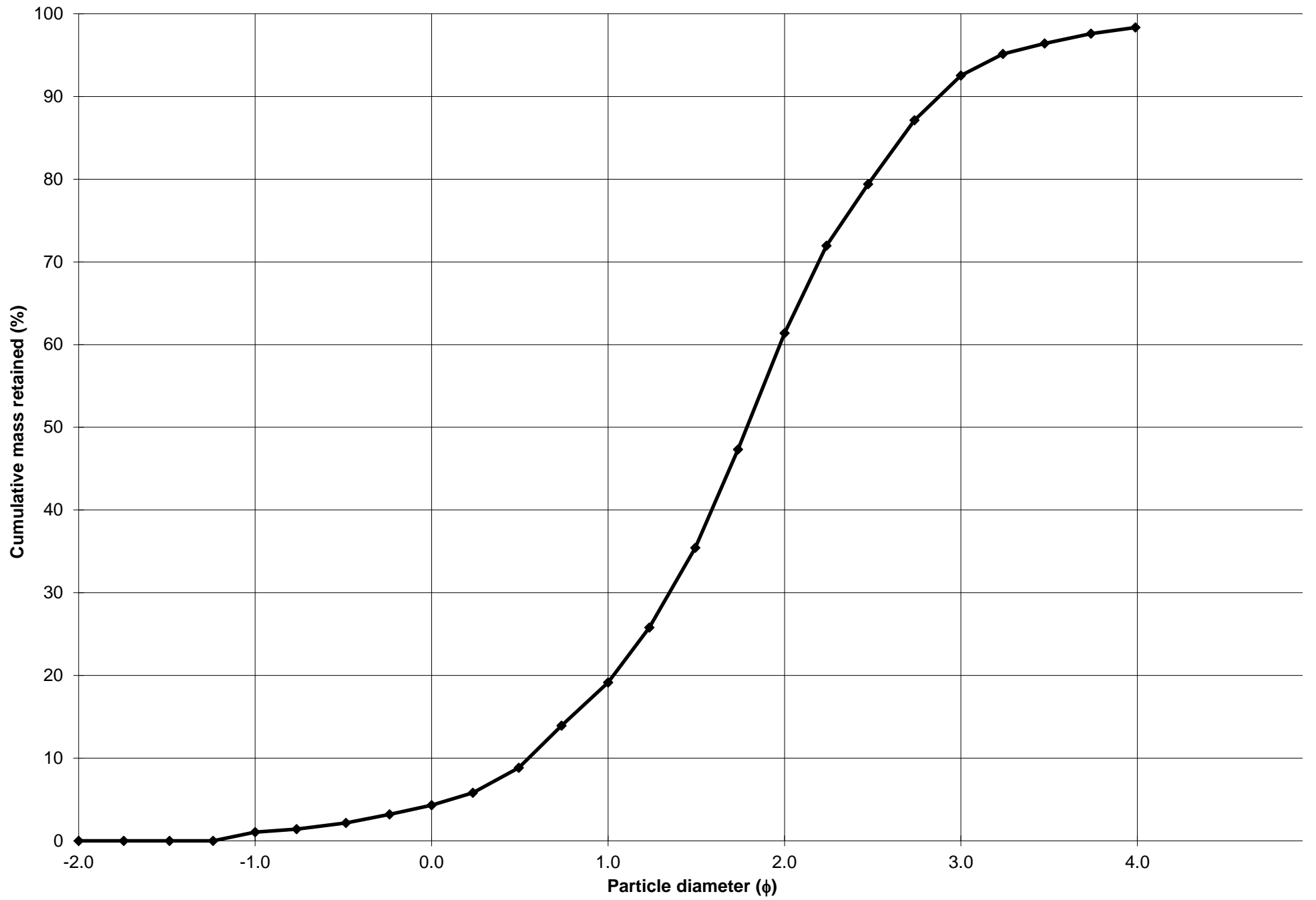
Cumulative Frequency Curve



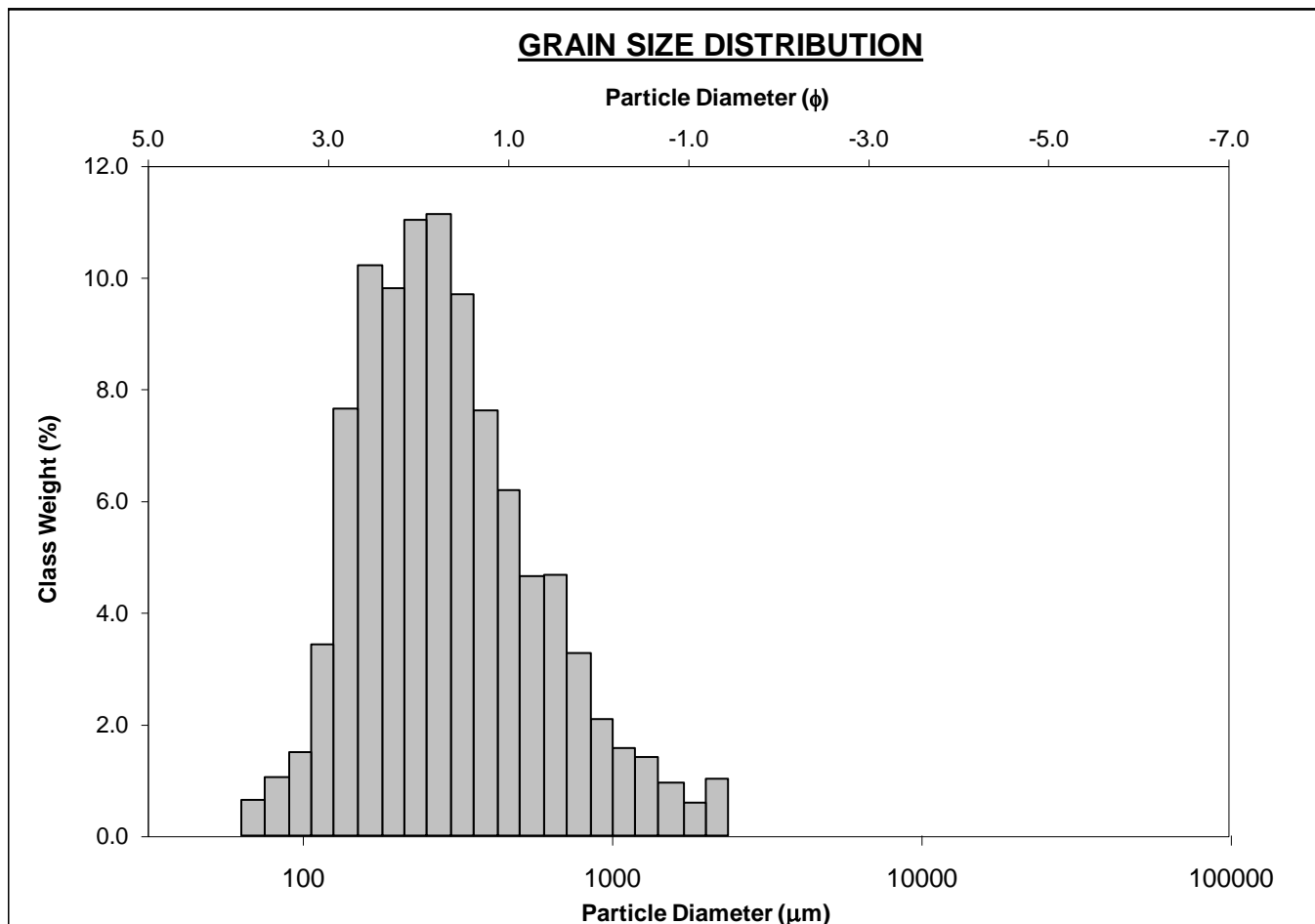
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-210cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 1.0%		COARSE SAND: 14.8%	
MODE 2:	655.0	0.616	SAND: 97.3%		MEDIUM SAND: 42.2%	
MODE 3:			MUD: 1.7%		FINE SAND: 31.2%	
D ₁₀ :	136.2	0.549			V FINE SAND: 5.8%	
MEDIAN or D ₅₀ :	289.8	1.787	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.3%	
D ₉₀ :	683.3	2.877	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D ₉₀ / D ₁₀):	5.019	5.237	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
(D ₉₀ - D ₁₀):	547.2	2.327	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D ₇₅ / D ₂₅):	2.186	1.935	V FINE GRAVEL: 1.0%		V FINE SILT: 0.3%	
(D ₇₅ - D ₂₅):	235.1	1.128	V COARSE SAND: 3.3%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	377.6	288.6	1.793	296.7	1.753	Medium Sand
SORTING (σ):	318.5	2.180	1.125	1.892	0.920	Moderately Sorted
SKEWNESS (Sk):	3.041	-1.253	1.253	0.067	-0.067	Symmetrical
KURTOSIS (K):	15.08	9.165	9.165	1.132	1.132	Leptokurtic



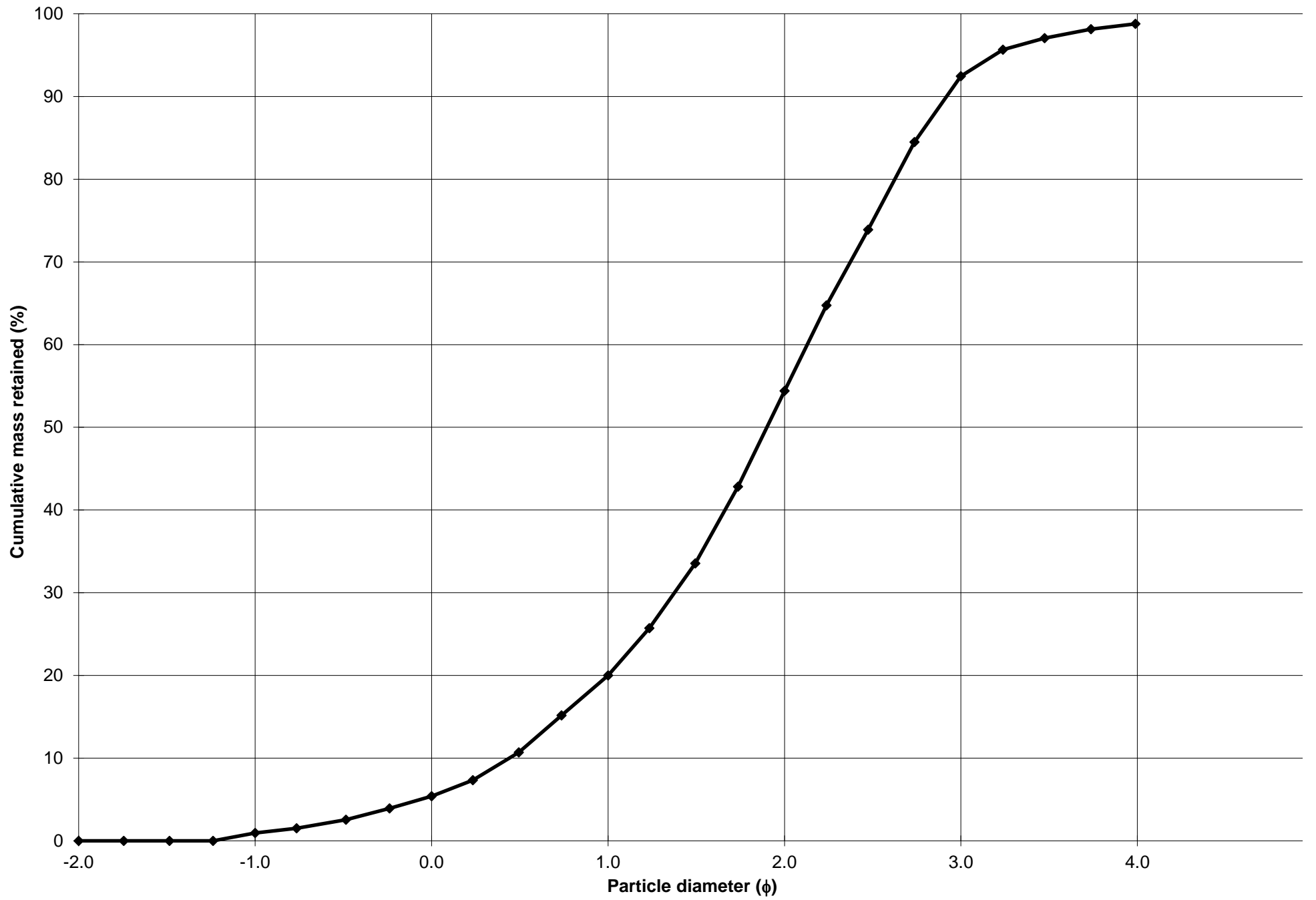
Cumulative Frequency Curve



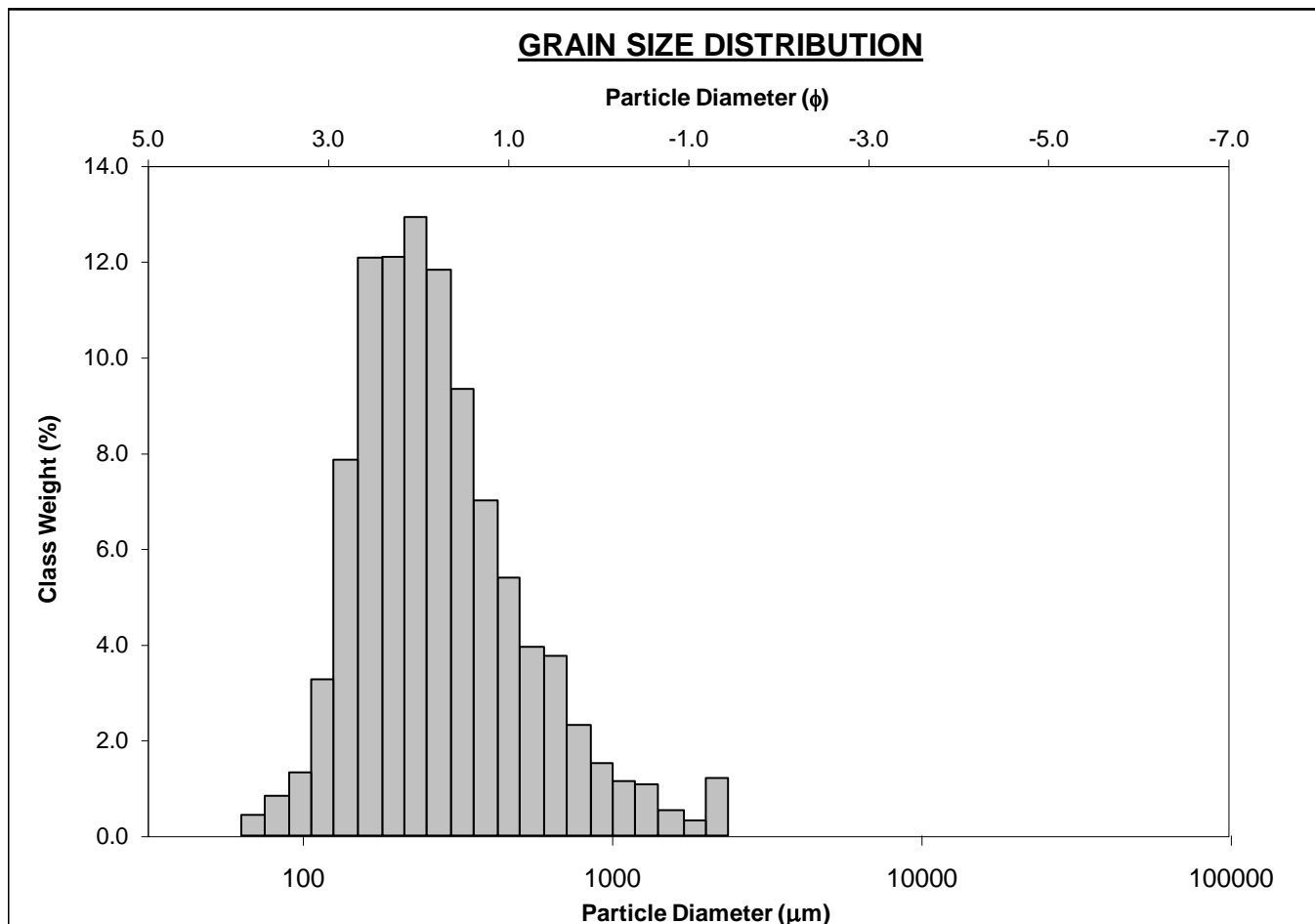
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-220cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 1.0%		COARSE SAND: 14.6%	
MODE 2:	165.0	2.605	SAND: 97.8%		MEDIUM SAND: 34.4%	
MODE 3:	655.0	0.616	MUD: 1.2%		FINE SAND: 38.1%	
D_{10} :	132.2	0.441			V FINE SAND: 6.3%	
MEDIAN or D_{50} :	267.9	1.900	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D_{90} :	736.7	2.919	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D_{90} / D_{10}) :	5.572	6.622	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
$(D_{90} - D_{10})$:	604.5	2.478	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D_{75} / D_{25}) :	2.456	2.076	V FINE GRAVEL: 1.0%		V FINE SILT: 0.2%	
$(D_{75} - D_{25})$:	257.2	1.297	V COARSE SAND: 4.4%		CLAY: 0.2%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	377.3	281.8	1.827	286.7	1.802	Medium Sand
SORTING (σ):	339.5	2.173	1.120	1.971	0.979	Moderately Sorted
SKEWNESS (Sk):	2.761	-0.682	0.682	0.179	-0.179	Coarse Skewed
KURTOSIS (K):	12.37	7.388	7.388	1.029	1.029	Mesokurtic



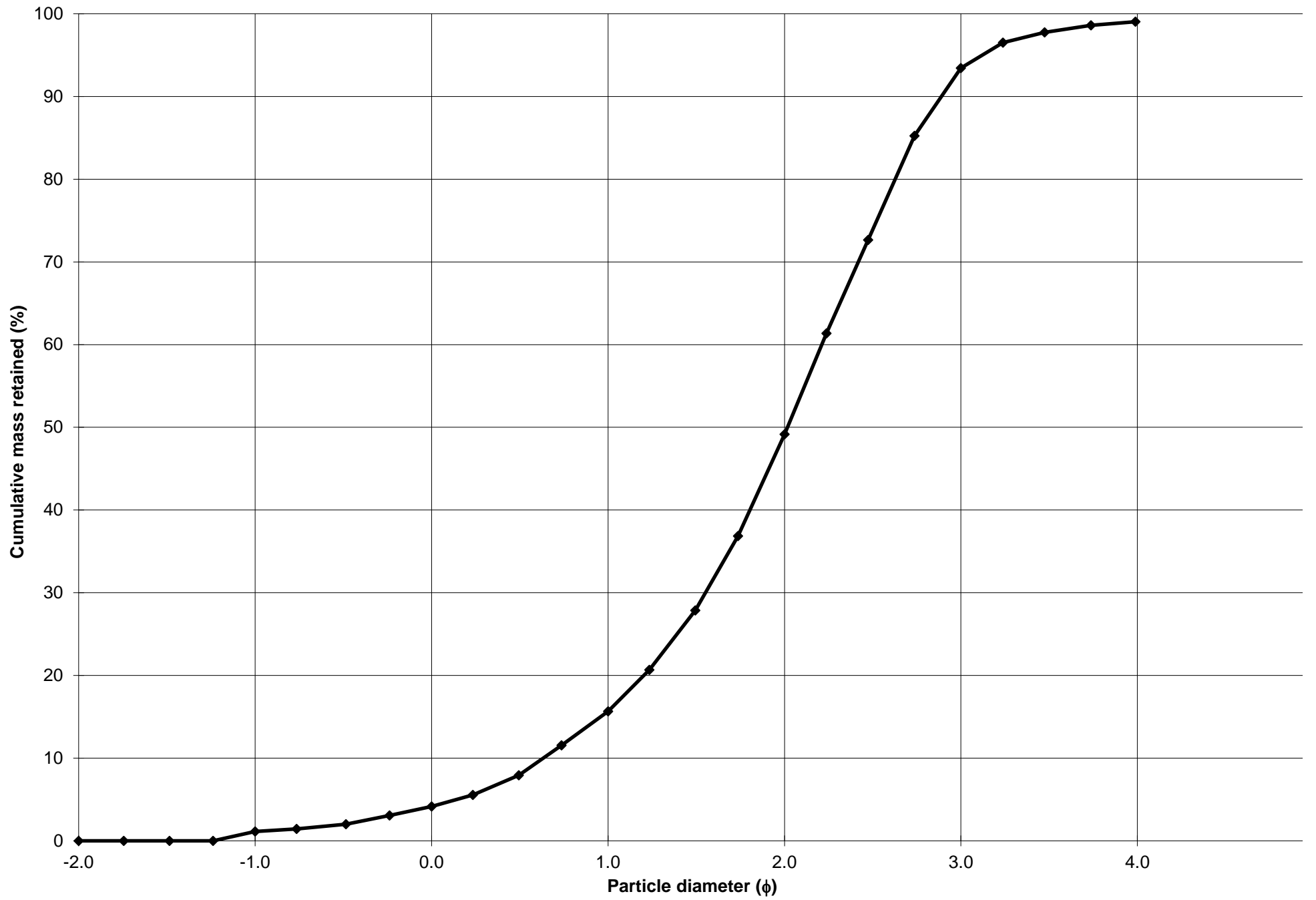
Cumulative Frequency Curve



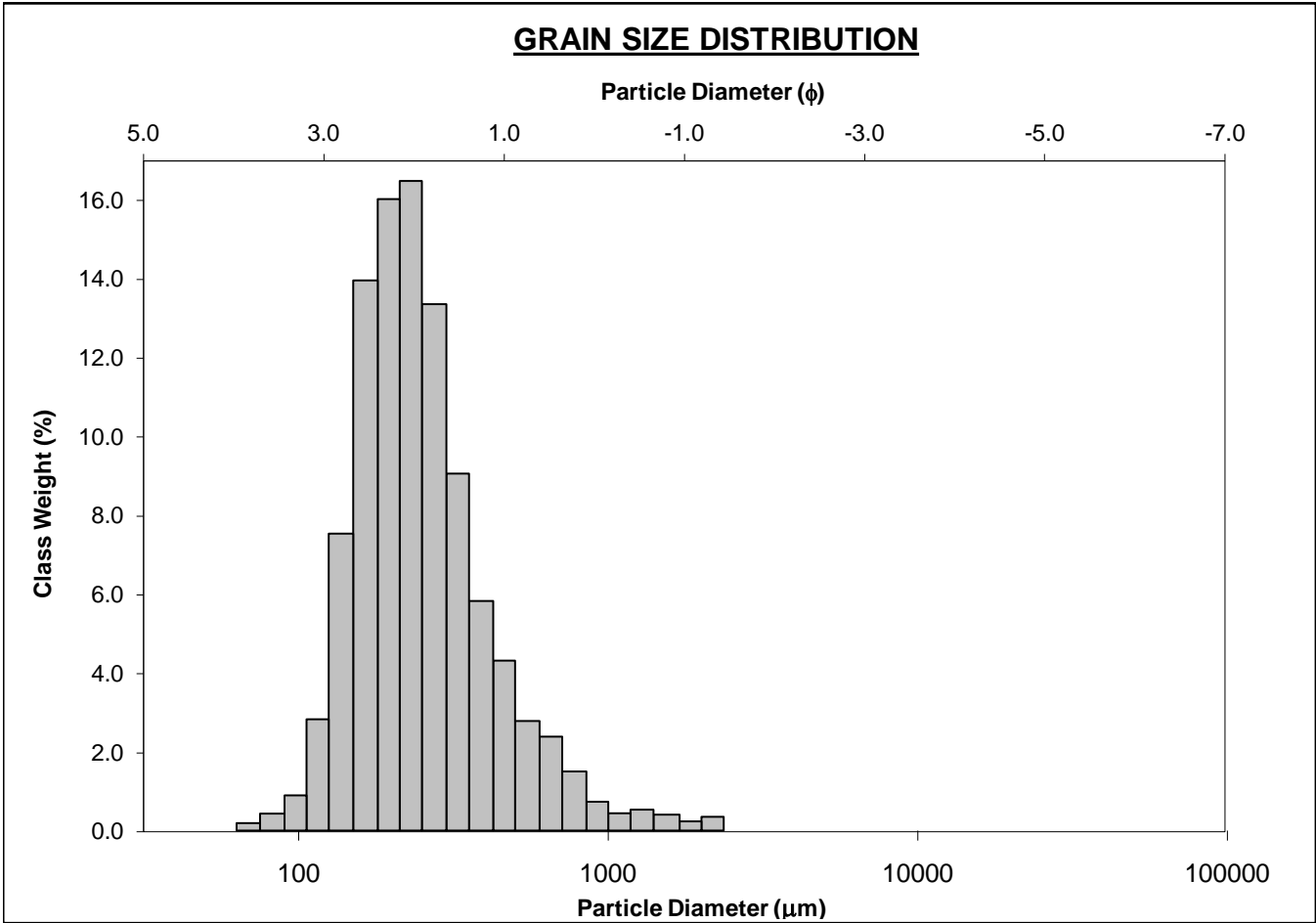
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-230cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 1.1%		COARSE SAND: 11.5%	
MODE 2:			SAND: 97.9%		MEDIUM SAND: 33.5%	
MODE 3:			MUD: 1.0%		FINE SAND: 44.3%	
D ₁₀ :	134.9	0.633			V FINE SAND: 5.6%	
MEDIAN or D ₅₀ :	247.2	2.016	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	644.7	2.890	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	4.779	4.564	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	509.8	2.257	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	2.192	1.814	V FINE GRAVEL: 1.1%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	207.3	1.132	V COARSE SAND: 3.0%		CLAY: 0.2%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	345.4	265.4	1.914	265.3	1.914	Medium Sand
SORTING (σ):	317.4	2.039	1.028	1.834	0.875	Moderately Sorted
SKEWNESS (Sk):	3.344	-0.482	0.482	0.219	-0.219	Coarse Skewed
KURTOSIS (K):	16.92	8.136	8.136	1.079	1.079	Mesokurtic



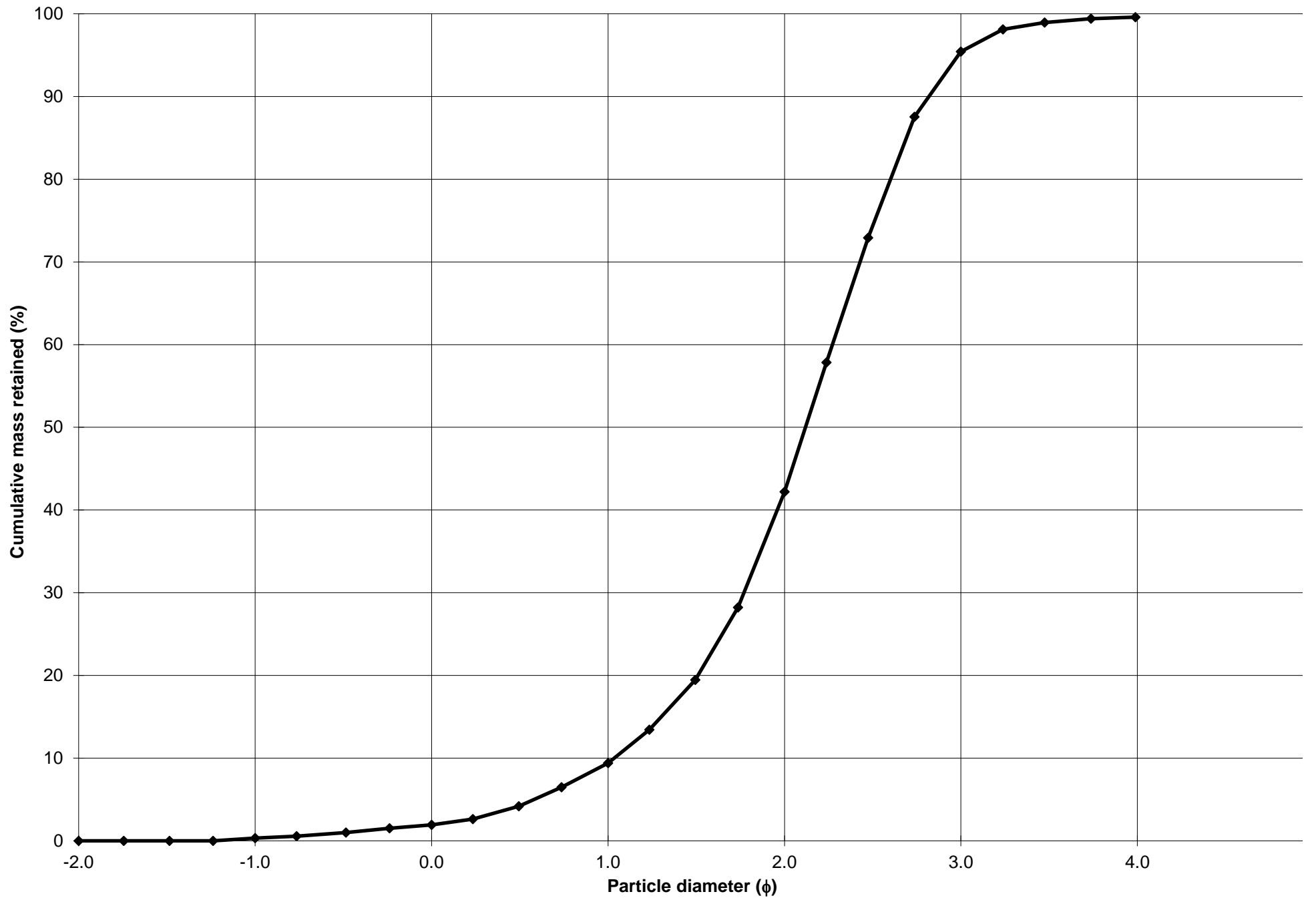
Cumulative Frequency Curve



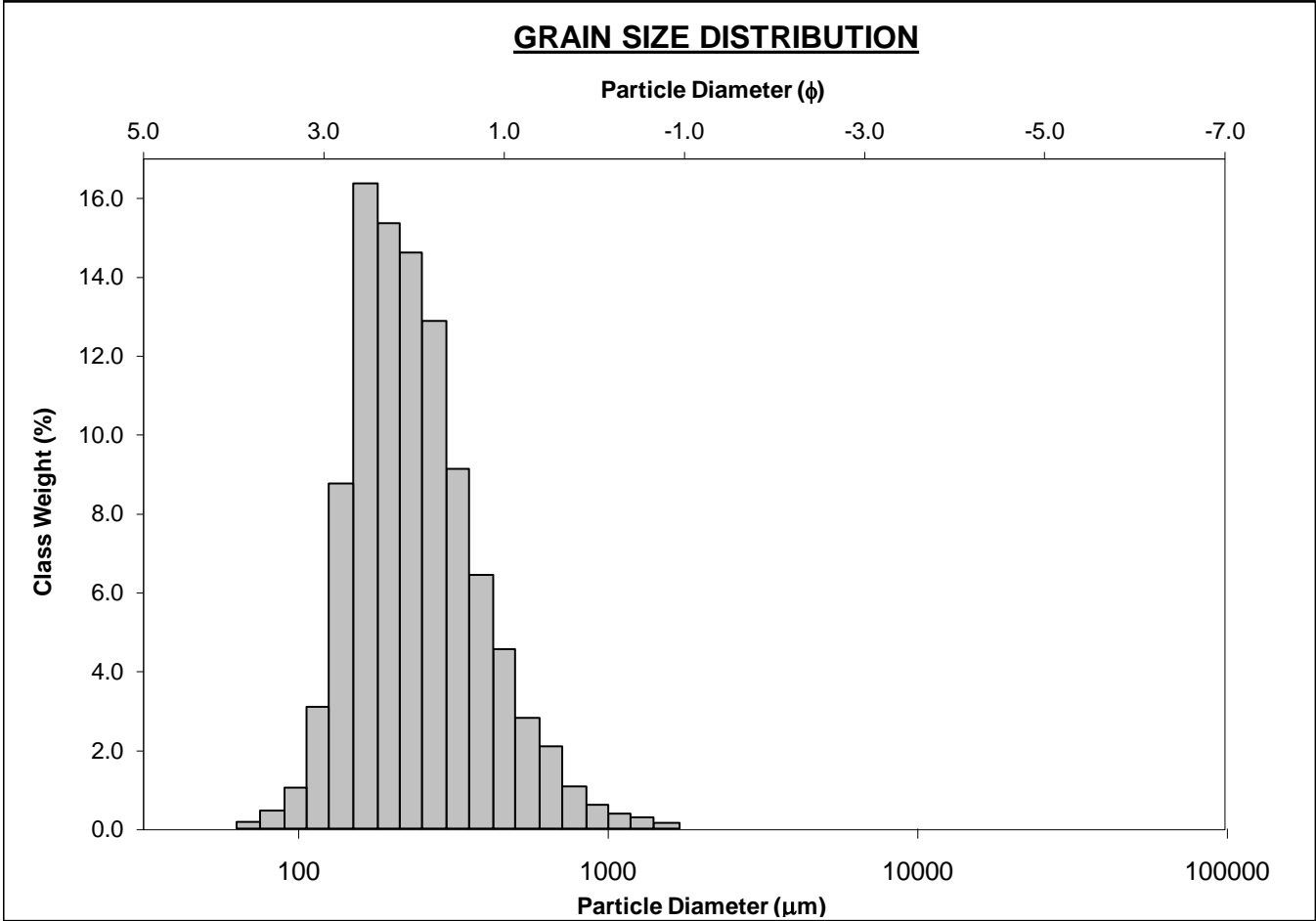
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-240cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.3%		COARSE SAND: 7.5%	
MODE 2:			SAND: 99.3%		MEDIUM SAND: 32.8%	
MODE 3:			MUD: 0.4%		FINE SAND: 53.2%	
D ₁₀ :	141.7	1.035			V FINE SAND: 4.2%	
MEDIAN or D ₅₀ :	230.3	2.119	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	488.0	2.819	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.443	2.723	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	346.3	1.784	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.820	1.524	V FINE GRAVEL: 0.3%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	143.7	0.864	V COARSE SAND: 1.6%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	293.6	246.0	2.023	242.2	2.046	Fine Sand
SORTING (σ):	231.0	1.749	0.807	1.620	0.696	Moderately Well Sorted
SKEWNESS (Sk):	4.130	-0.067	0.067	0.222	-0.222	Coarse Skewed
KURTOSIS (K):	26.54	9.484	9.484	1.141	1.141	Leptokurtic



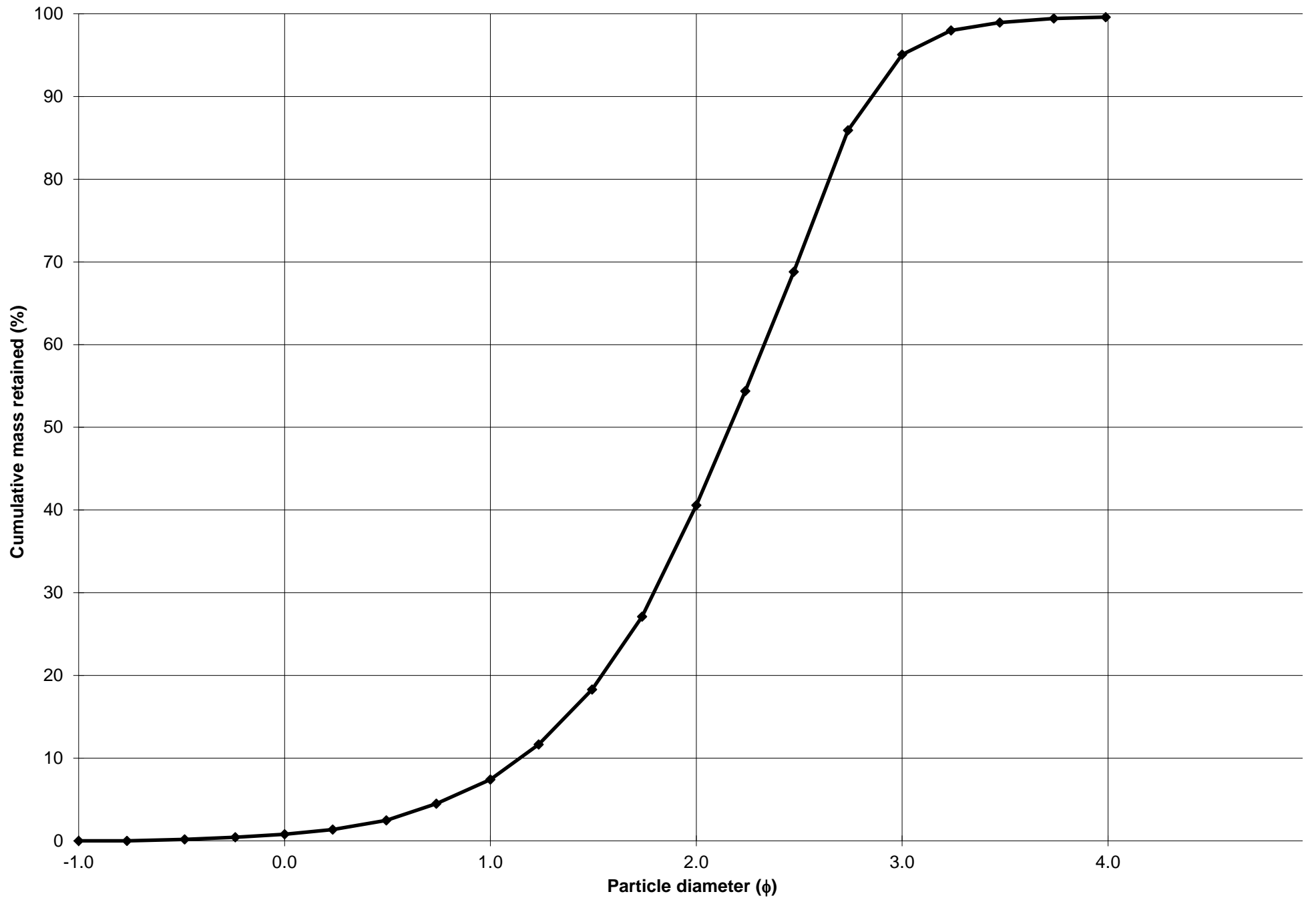
Cumulative Frequency Curve



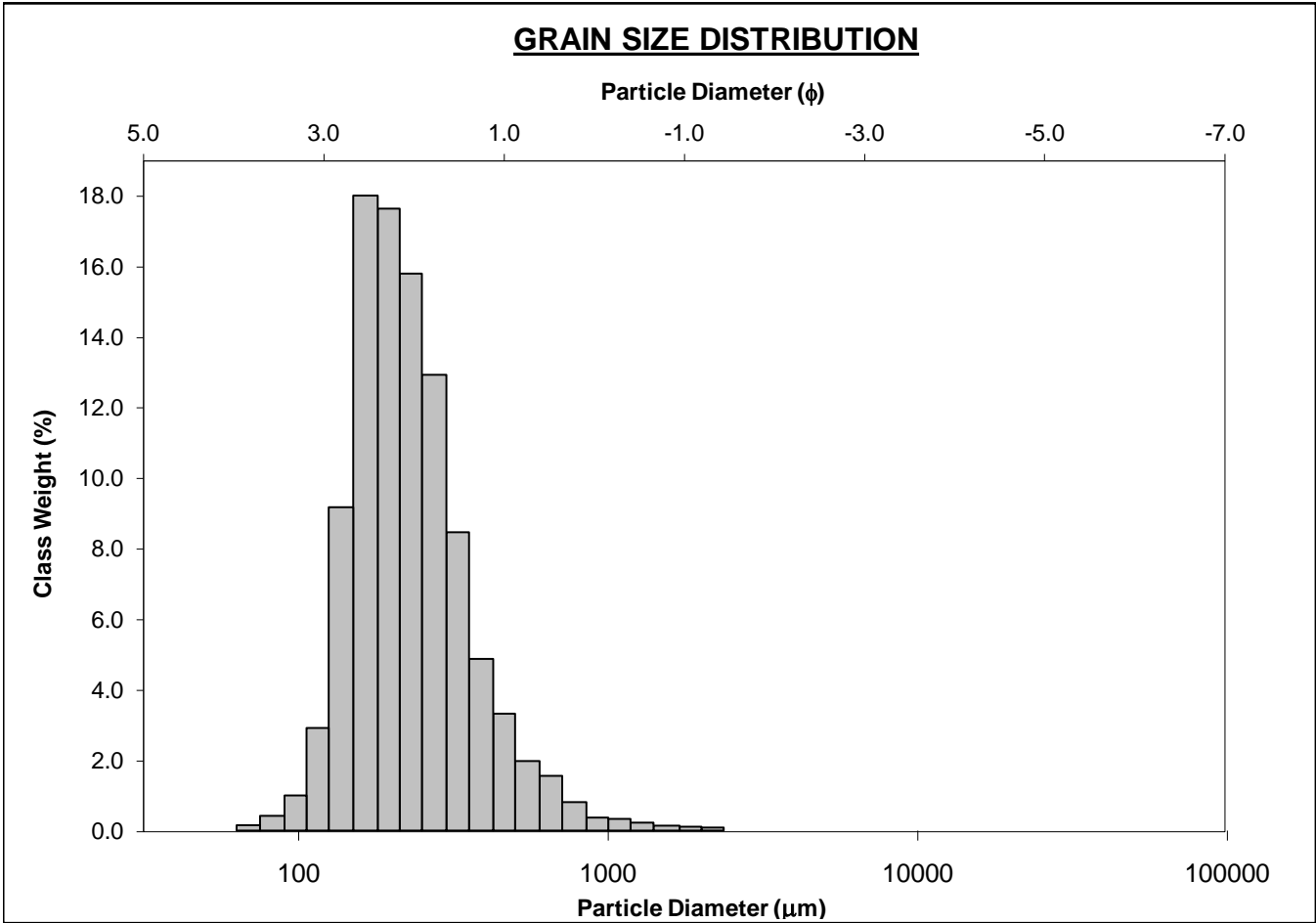
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-250cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 6.6%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 33.2%	
MODE 3:			MUD: 0.4%		FINE SAND: 54.5%	
D ₁₀ :	138.2	1.143			V FINE SAND: 4.5%	
MEDIAN or D ₅₀ :	223.4	2.162	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	452.9	2.855	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.276	2.498	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	314.6	1.712	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.854	1.530	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	143.8	0.890	V COARSE SAND: 0.8%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	270.5	235.2	2.088	234.6	2.091	Fine Sand
SORTING (σ):	165.3	1.681	0.749	1.582	0.661	Moderately Well Sorted
SKEWNESS (Sk):	2.844	-0.526	0.526	0.204	-0.204	Coarse Skewed
KURTOSIS (K):	15.48	10.04	10.04	1.019	1.019	Mesokurtic



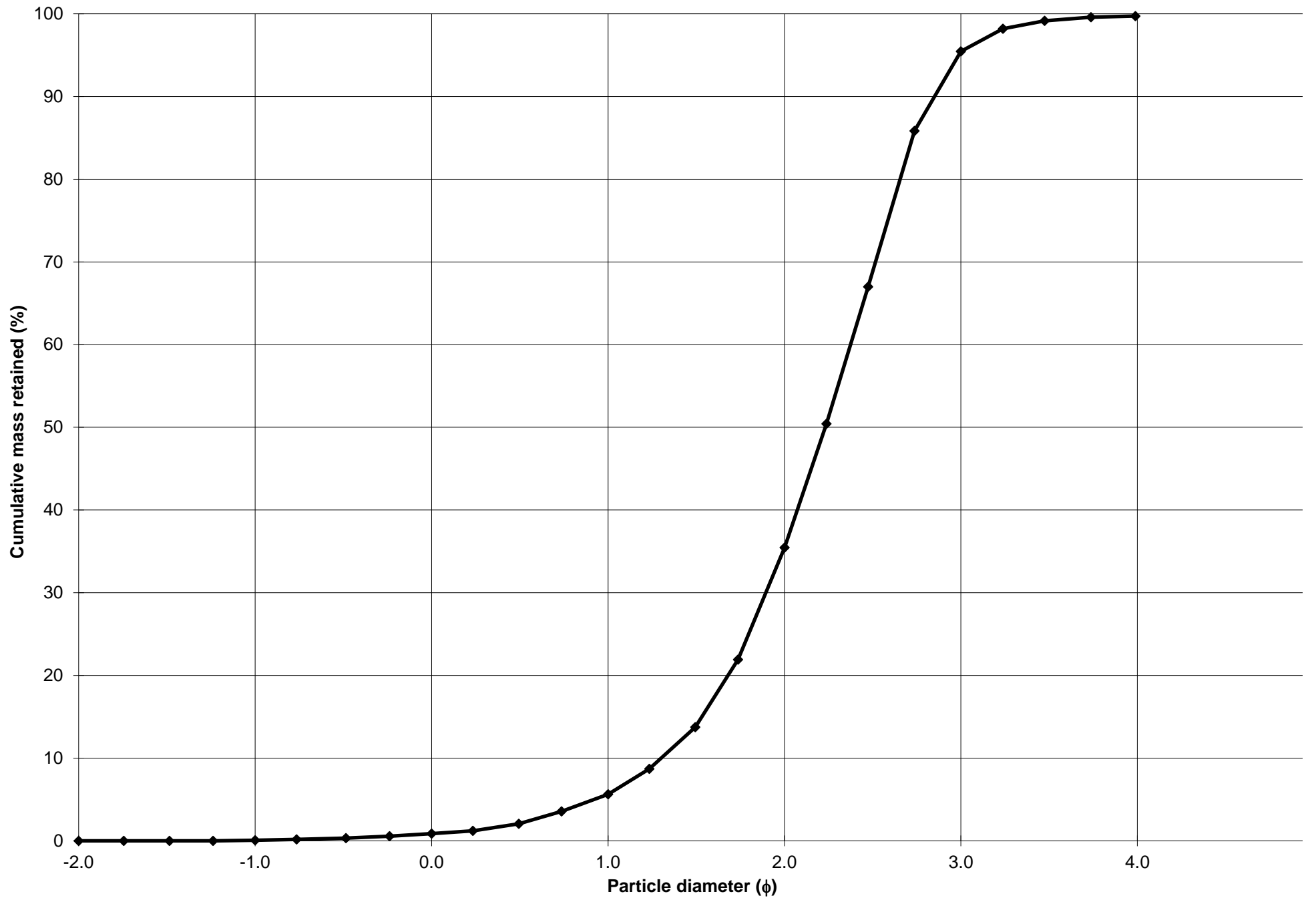
Cumulative Frequency Curve



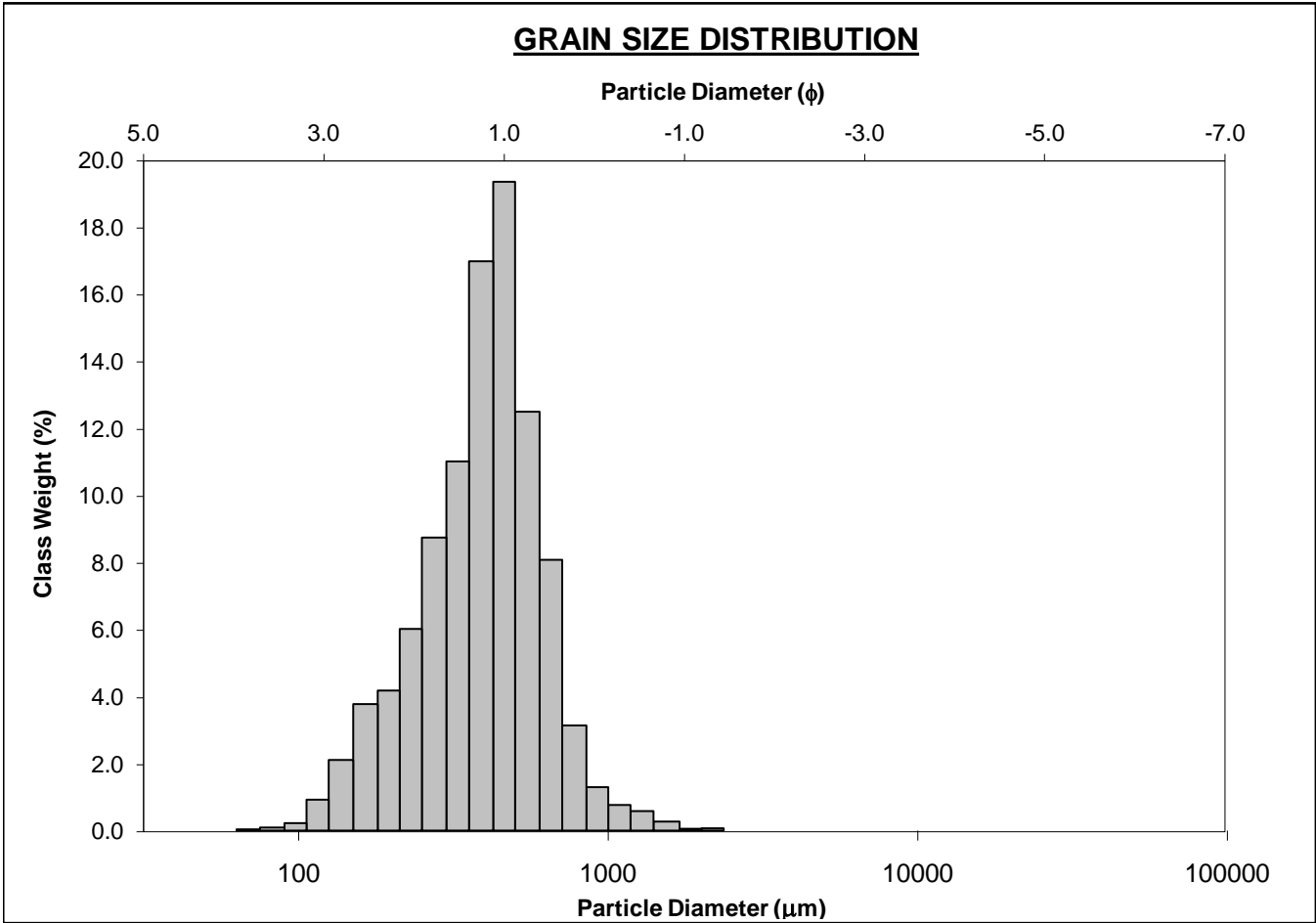
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-260cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.1%		COARSE SAND: 4.7%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 29.8%	
MODE 3:			MUD: 0.3%		FINE SAND: 60.0%	
D ₁₀ :	138.6	1.301			V FINE SAND: 4.3%	
MEDIAN or D ₅₀ :	213.0	2.231	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	405.8	2.851	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.928	2.191	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	267.2	1.550	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.728	1.439	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	121.2	0.789	V COARSE SAND: 0.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	257.2	225.8	2.147	222.5	2.168	Fine Sand
SORTING (σ):	167.8	1.618	0.694	1.516	0.601	Moderately Well Sorted
SKEWNESS (Sk):	4.467	-0.068	0.068	0.217	-0.217	Coarse Skewed
KURTOSIS (K):	35.42	10.37	10.37	1.073	1.073	Mesokurtic



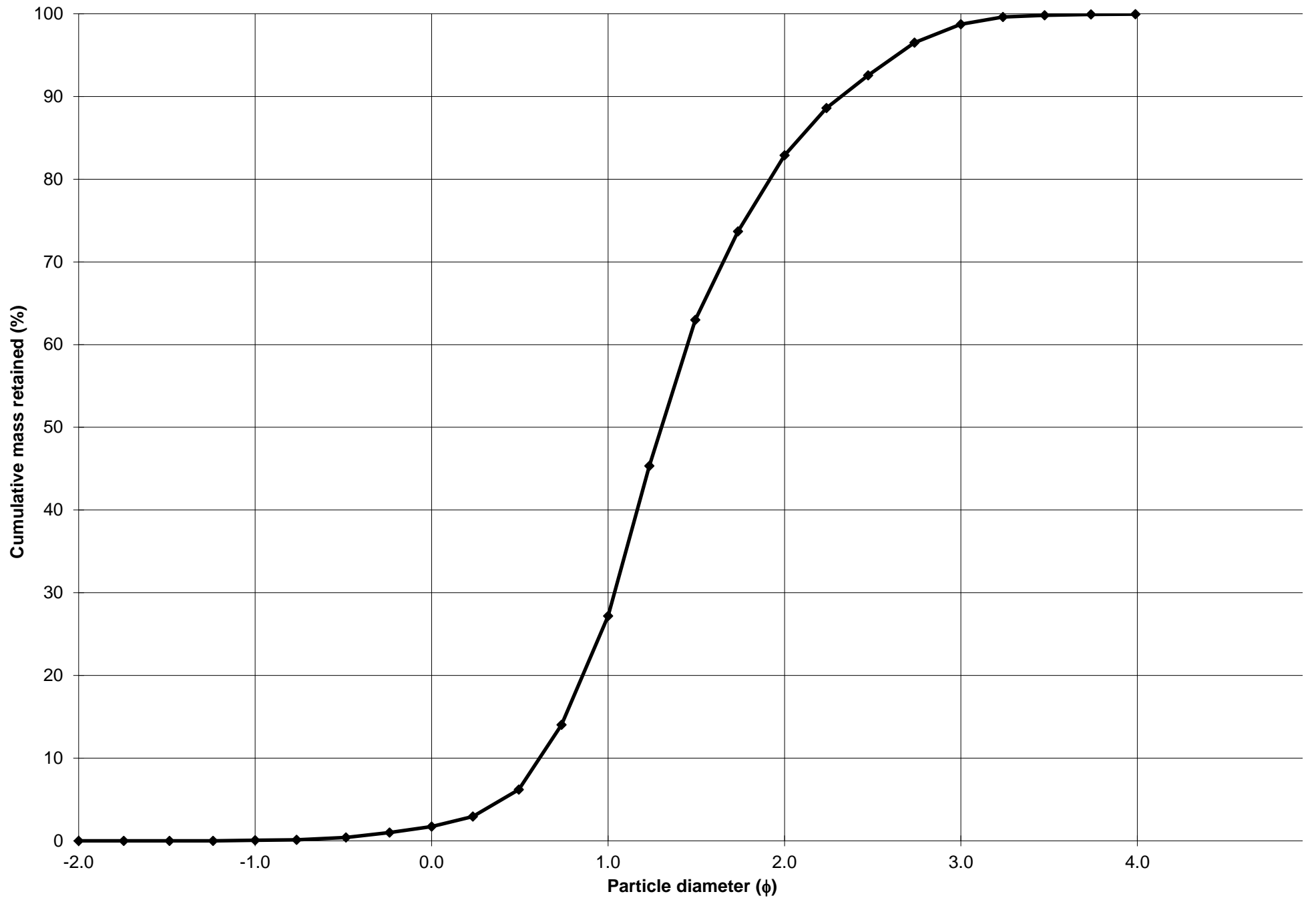
Cumulative Frequency Curve



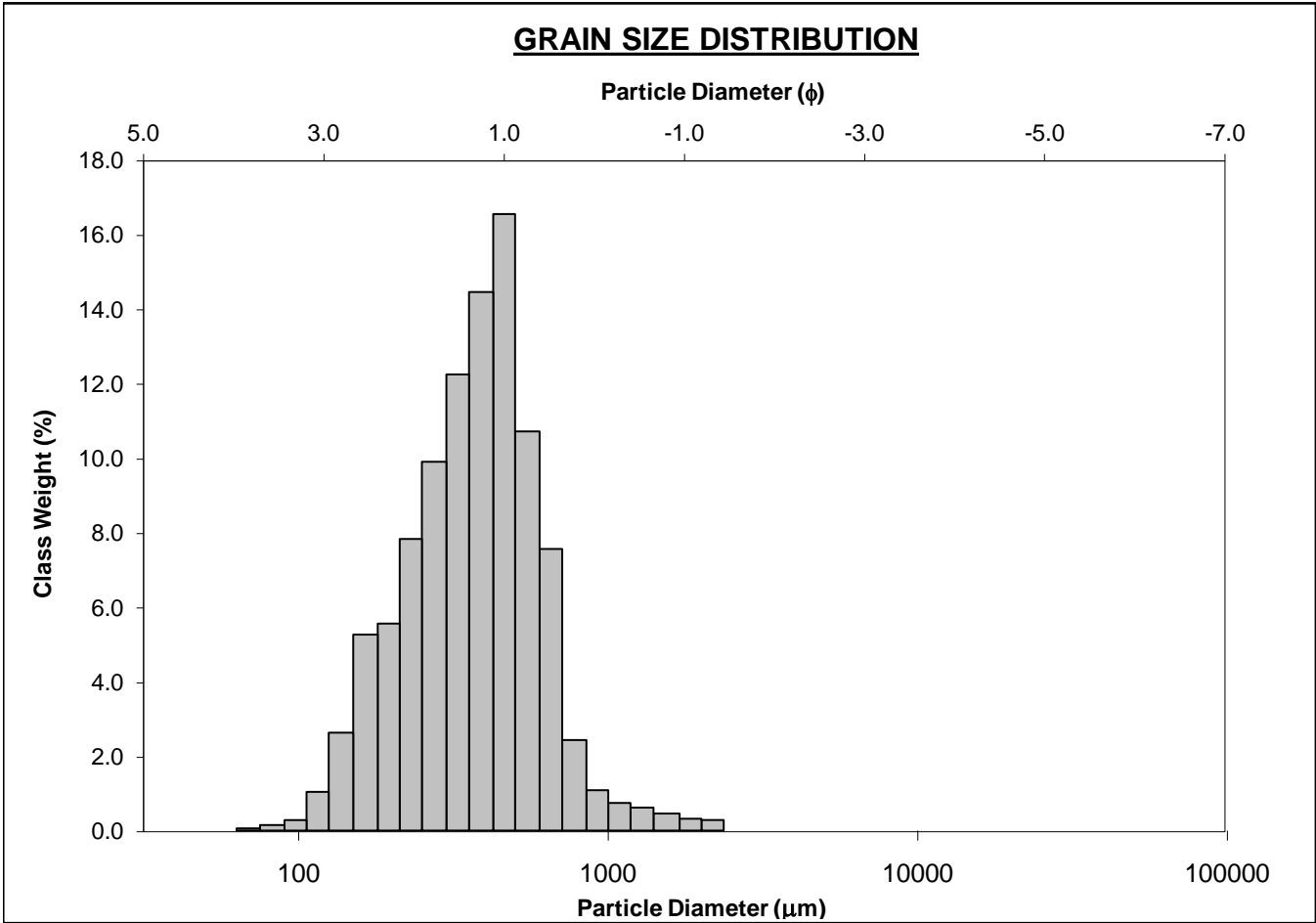
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-270cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	462.5	1.117	GRAVEL: 0.1%		COARSE SAND: 25.5%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 55.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 15.9%	
D ₁₀ :	200.1	0.612			V FINE SAND: 1.2%	
MEDIAN or D ₅₀ :	405.3	1.303	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	654.3	2.321	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.270	3.793	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	454.2	1.709	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.763	1.856	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	223.1	0.818	V COARSE SAND: 1.7%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	427.7	383.8	1.382	385.5	1.375	Medium Sand
SORTING (σ):	203.2	1.599	0.678	1.576	0.657	Moderately Well Sorted
SKEWNESS (Sk):	1.913	-0.515	0.515	-0.181	0.181	Fine Skewed
KURTOSIS (K):	11.62	5.258	5.258	1.120	1.120	Leptokurtic



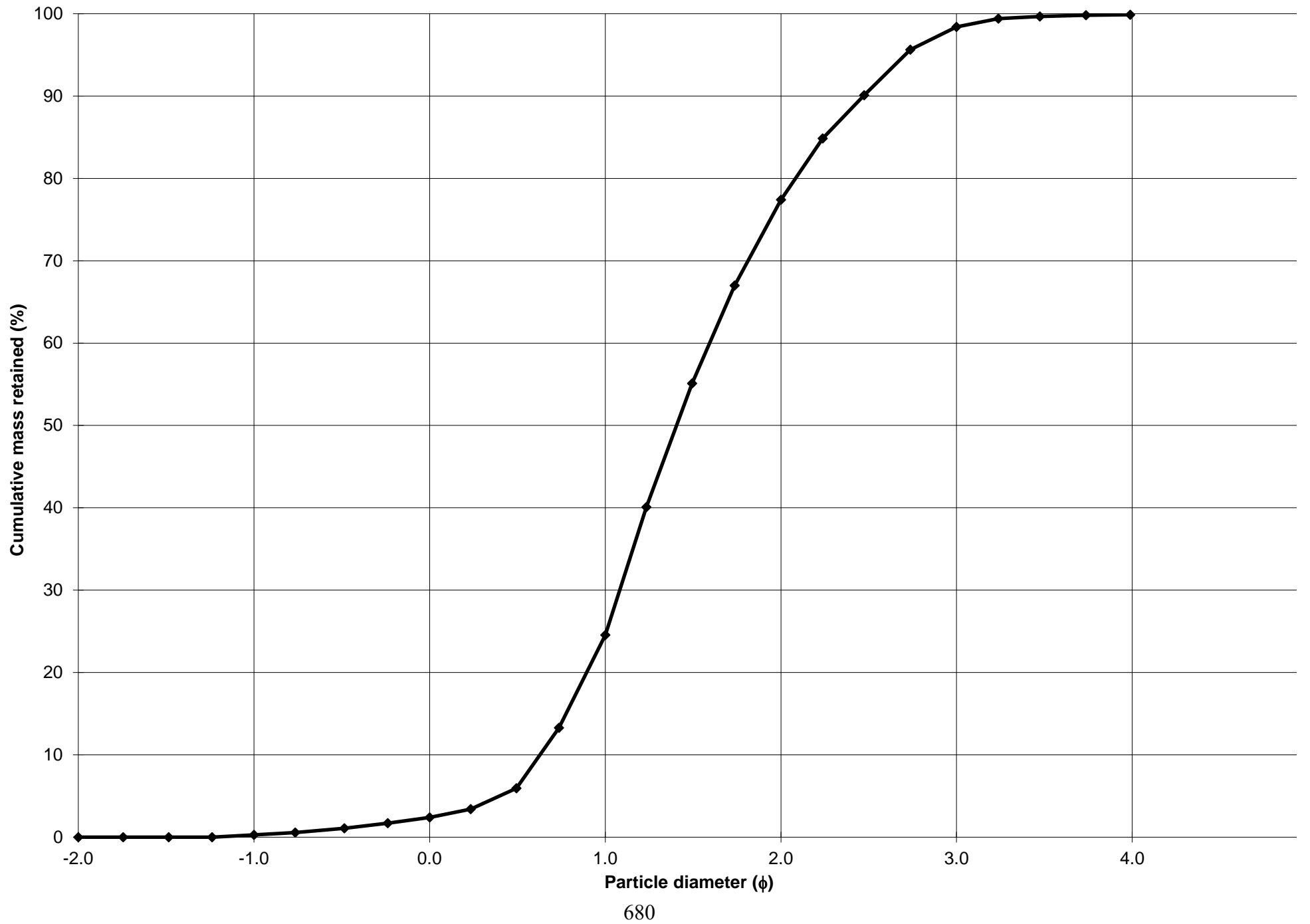
Cumulative Frequency Curve



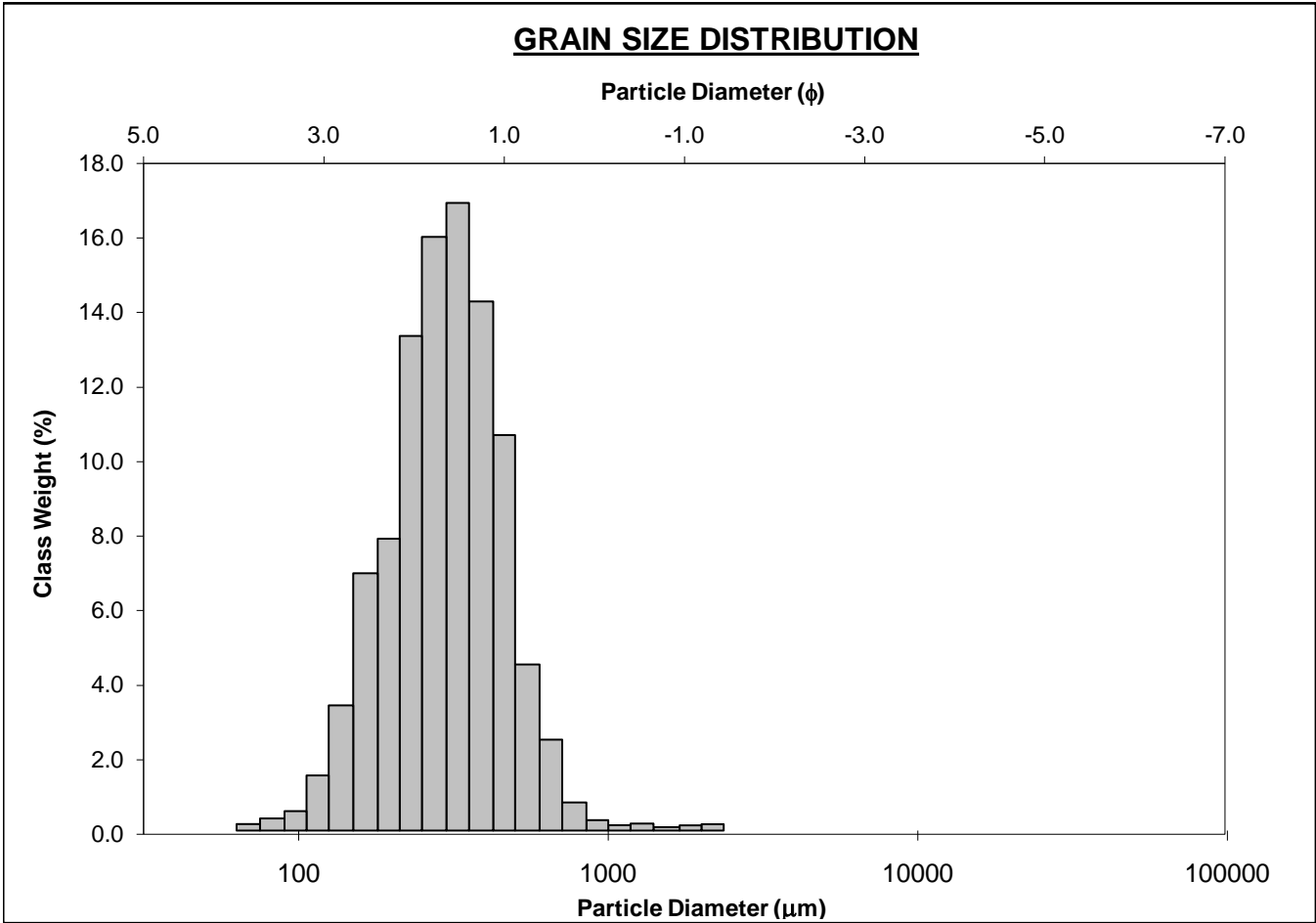
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-280cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	462.5	1.117	GRAVEL: 0.3%	COARSE SAND: 22.2%		
MODE 2:			SAND: 99.6%	MEDIUM SAND: 52.9%		
MODE 3:			MUD: 0.1%	FINE SAND: 21.0%		
D ₁₀ :	180.6	0.628		V FINE SAND: 1.5%		
MEDIAN or D ₅₀ :	377.4	1.406	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	646.9	2.469	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	3.582	3.929	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	466.3	1.841	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.908	1.926	V FINE GRAVEL: 0.3%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	236.9	0.932	V COARSE SAND: 2.1%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	414.1	361.5	1.468	360.4	1.472	Medium Sand
SORTING (σ):	238.6	1.680	0.749	1.627	0.702	Moderately Sorted
SKEWNESS (Sk):	2.806	-0.418	0.418	-0.134	0.134	Fine Skewed
KURTOSIS (K):	16.90	6.587	6.587	1.015	1.015	Mesokurtic



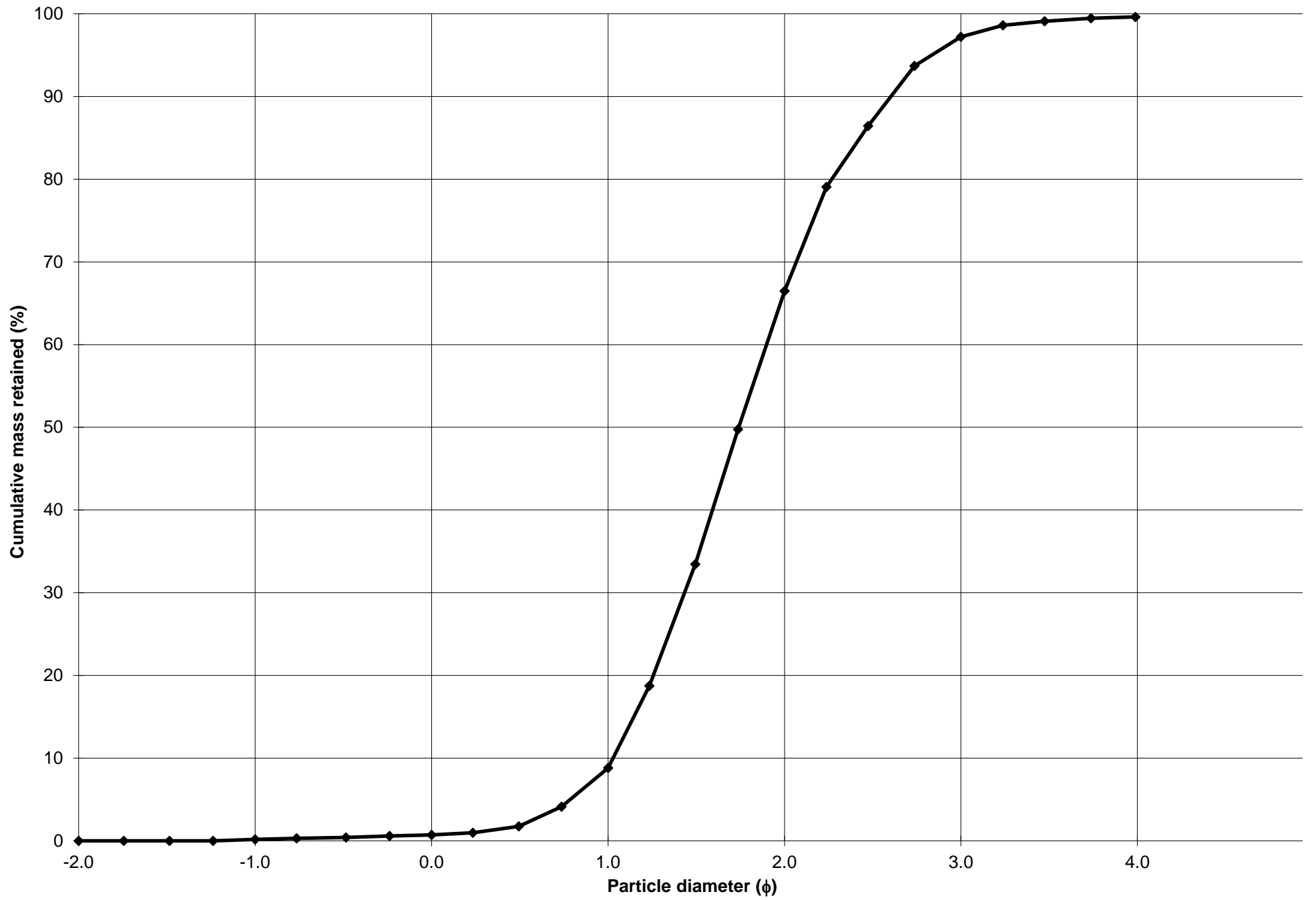
Cumulative Frequency Curve



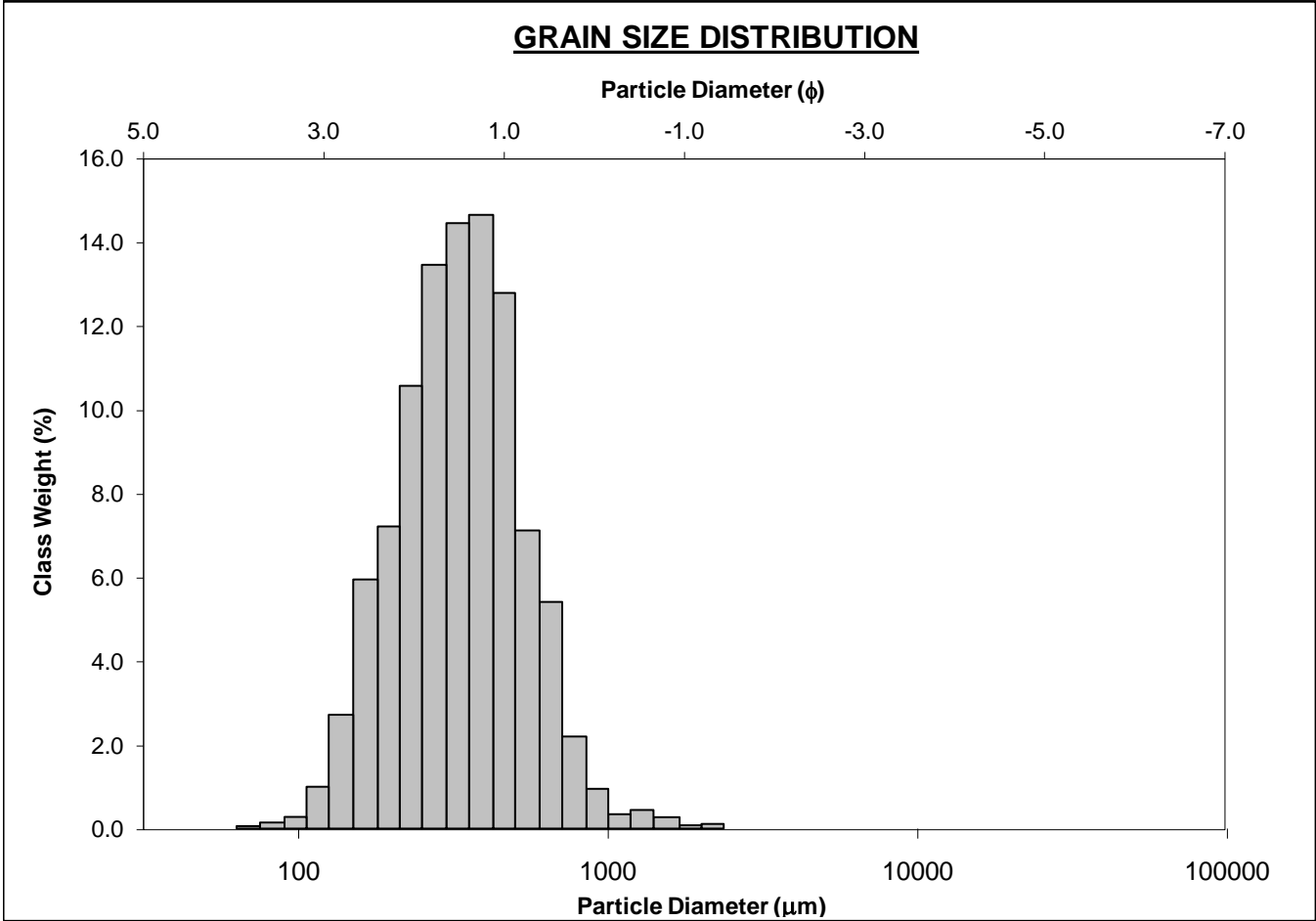
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-290cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.2%		COARSE SAND: 8.1%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 57.7%	
MODE 3:			MUD: 0.4%		FINE SAND: 30.7%	
D ₁₀ :	164.6	1.028			V FINE SAND: 2.4%	
MEDIAN or D ₅₀ :	299.2	1.741	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	490.3	2.603	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.979	2.532	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	325.7	1.575	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.760	1.607	V FINE GRAVEL: 0.2%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	170.0	0.816	V COARSE SAND: 0.6%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	326.8	291.6	1.778	293.4	1.769	Medium Sand
SORTING (σ):	173.4	1.633	0.707	1.534	0.617	Moderately Well Sorted
SKEWNESS (Sk):	3.996	-1.364	1.364	-0.068	0.068	Symmetrical
KURTOSIS (K):	35.29	13.86	13.86	1.029	1.029	Mesokurtic



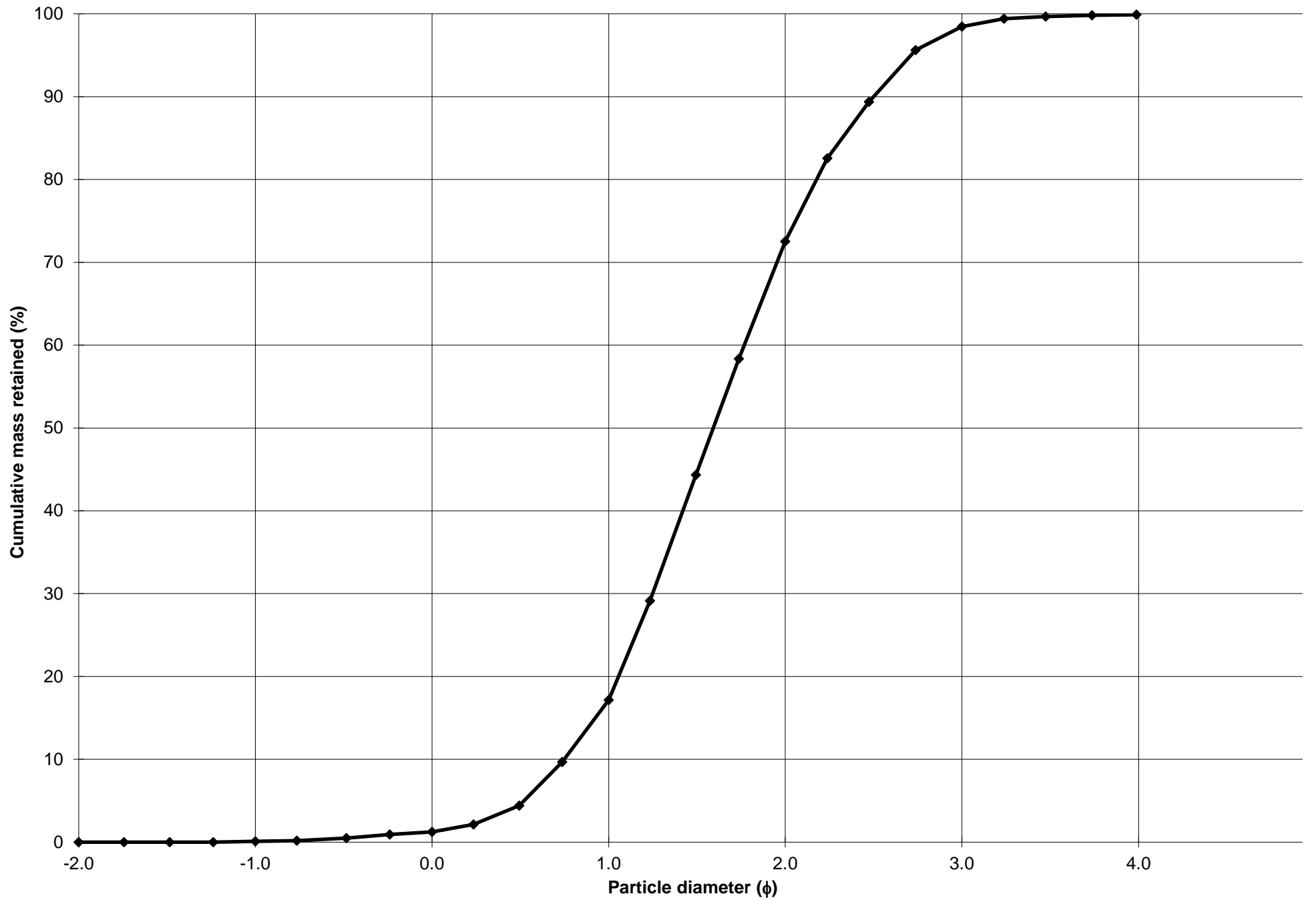
Cumulative Frequency Curve



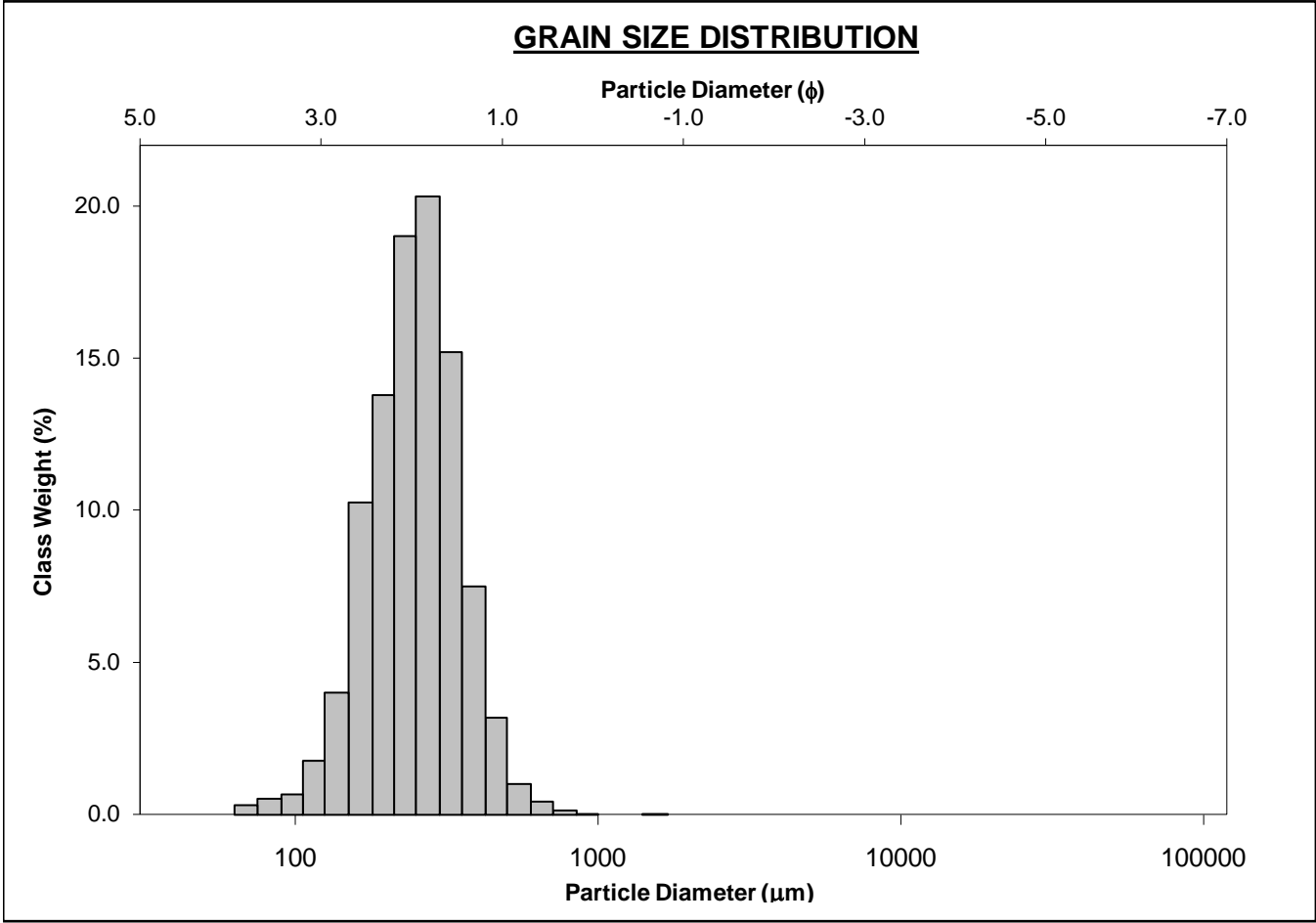
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-08-296cm			ANALYST & DATE: Chris, 6/25/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.1%		COARSE SAND: 15.9%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 55.4%	
MODE 3:			MUD: 0.1%		FINE SAND: 26.0%	
D ₁₀ :	176.7	0.749			V FINE SAND: 1.4%	
MEDIAN or D ₅₀ :	331.7	1.592	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	595.2	2.501	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.369	3.341	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	418.5	1.752	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.873	1.785	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	209.5	0.905	V COARSE SAND: 1.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	371.0	328.7	1.605	326.9	1.613	Medium Sand
SORTING (σ):	199.7	1.626	0.702	1.584	0.664	Moderately Well Sorted
SKEWNESS (Sk):	2.643	-0.342	0.342	-0.035	0.035	Symmetrical
KURTOSIS (K):	17.00	6.790	6.790	0.991	0.991	Mesokurtic



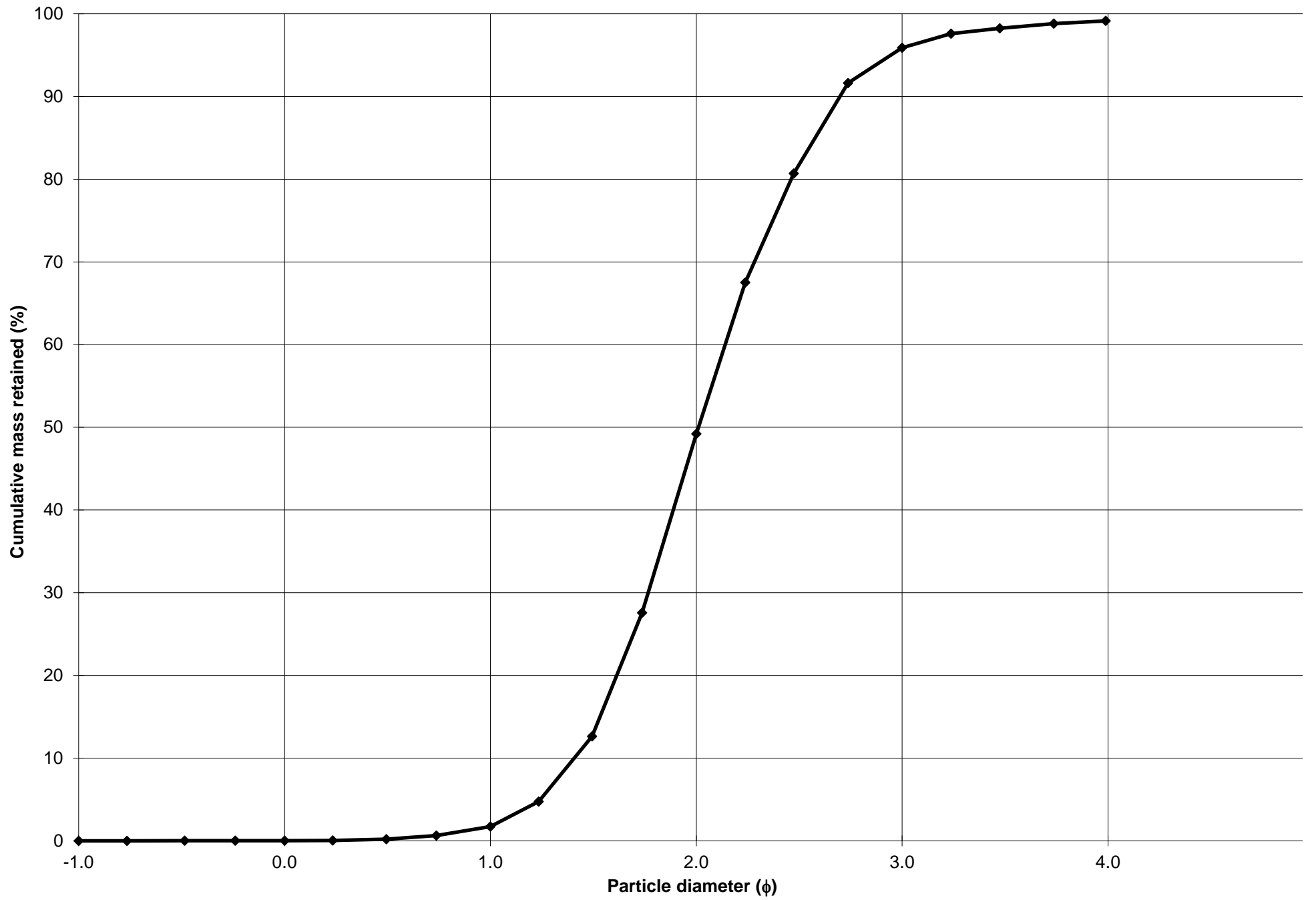
Cumulative Frequency Curve



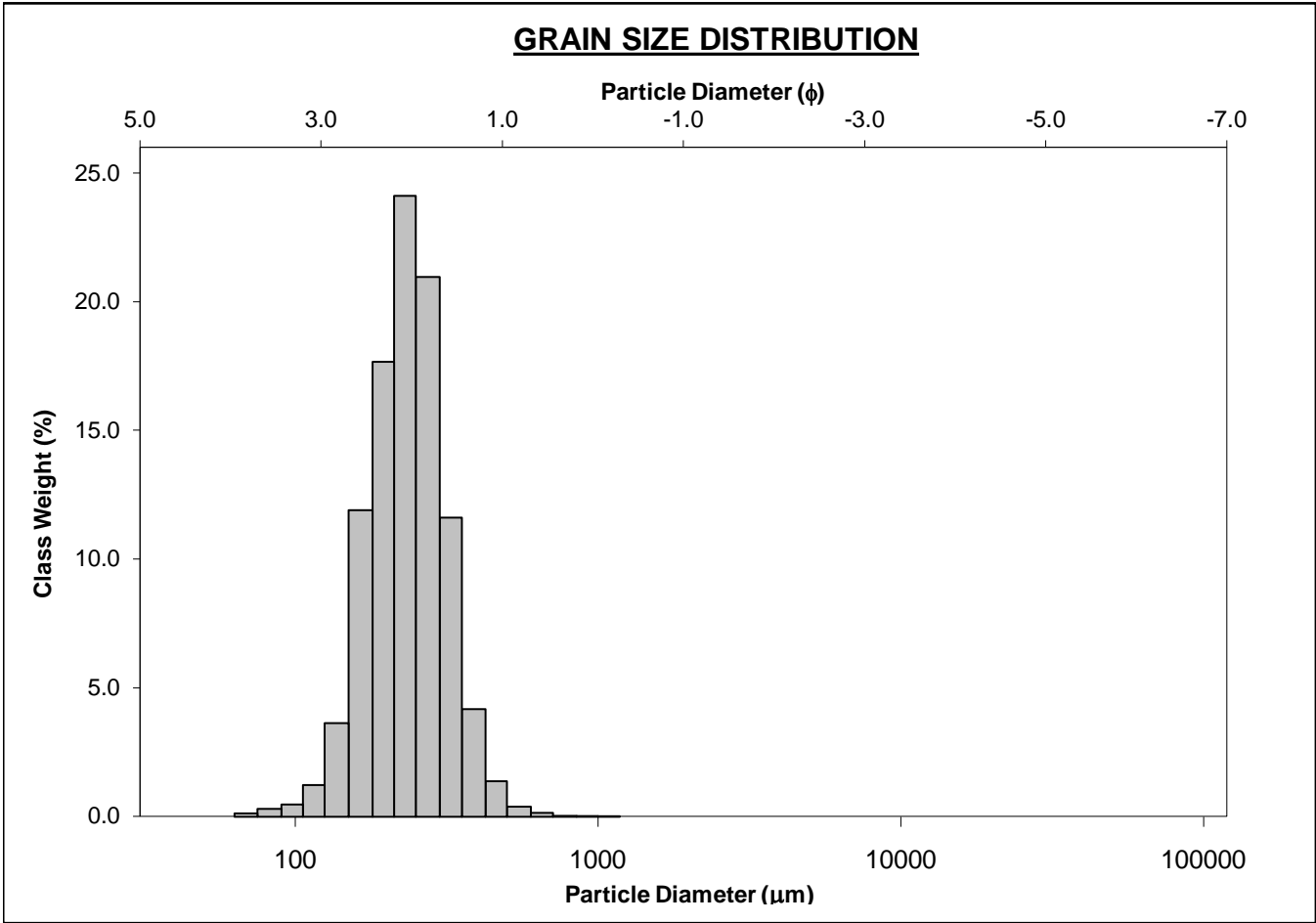
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-10cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.7%	
MODE 2:			SAND: 99.1%		MEDIUM SAND: 47.5%	
MODE 3:			MUD: 0.9%		FINE SAND: 46.7%	
D ₁₀ :	154.1	1.407			V FINE SAND: 3.2%	
MEDIAN or D ₅₀ :	248.2	2.010	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	377.0	2.698	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.446	1.917	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	222.8	1.290	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.599	1.399	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	115.6	0.677	V COARSE SAND: 0.0%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	259.4	237.6	2.073	243.6	2.038	Fine Sand
SORTING (σ):	97.54	1.609	0.687	1.423	0.509	Moderately Well Sorted
SKEWNESS (Sk):	1.646	-3.168	3.168	-0.090	0.090	Symmetrical
KURTOSIS (K):	14.96	23.99	23.99	1.031	1.031	Mesokurtic



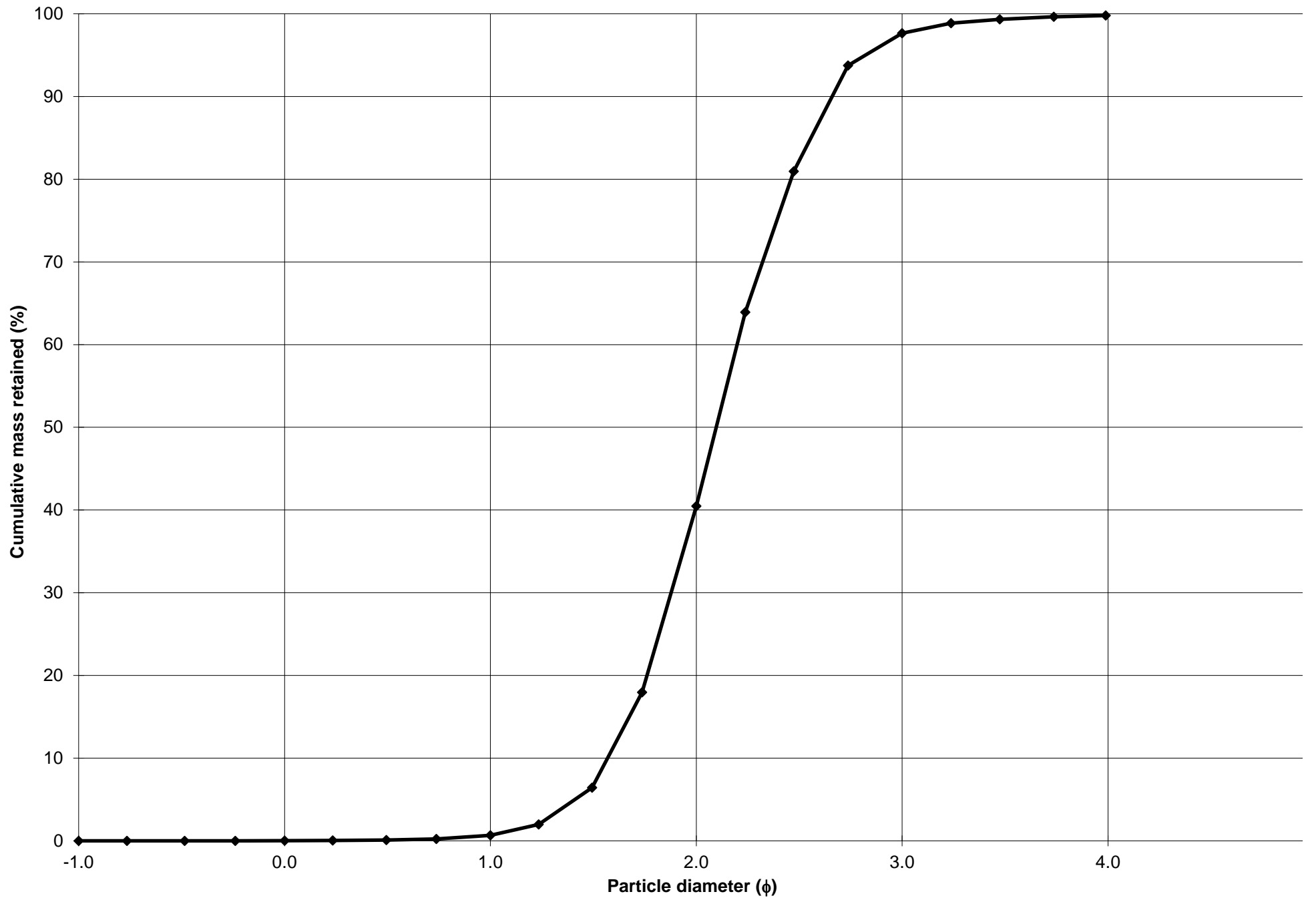
Cumulative Frequency Curve



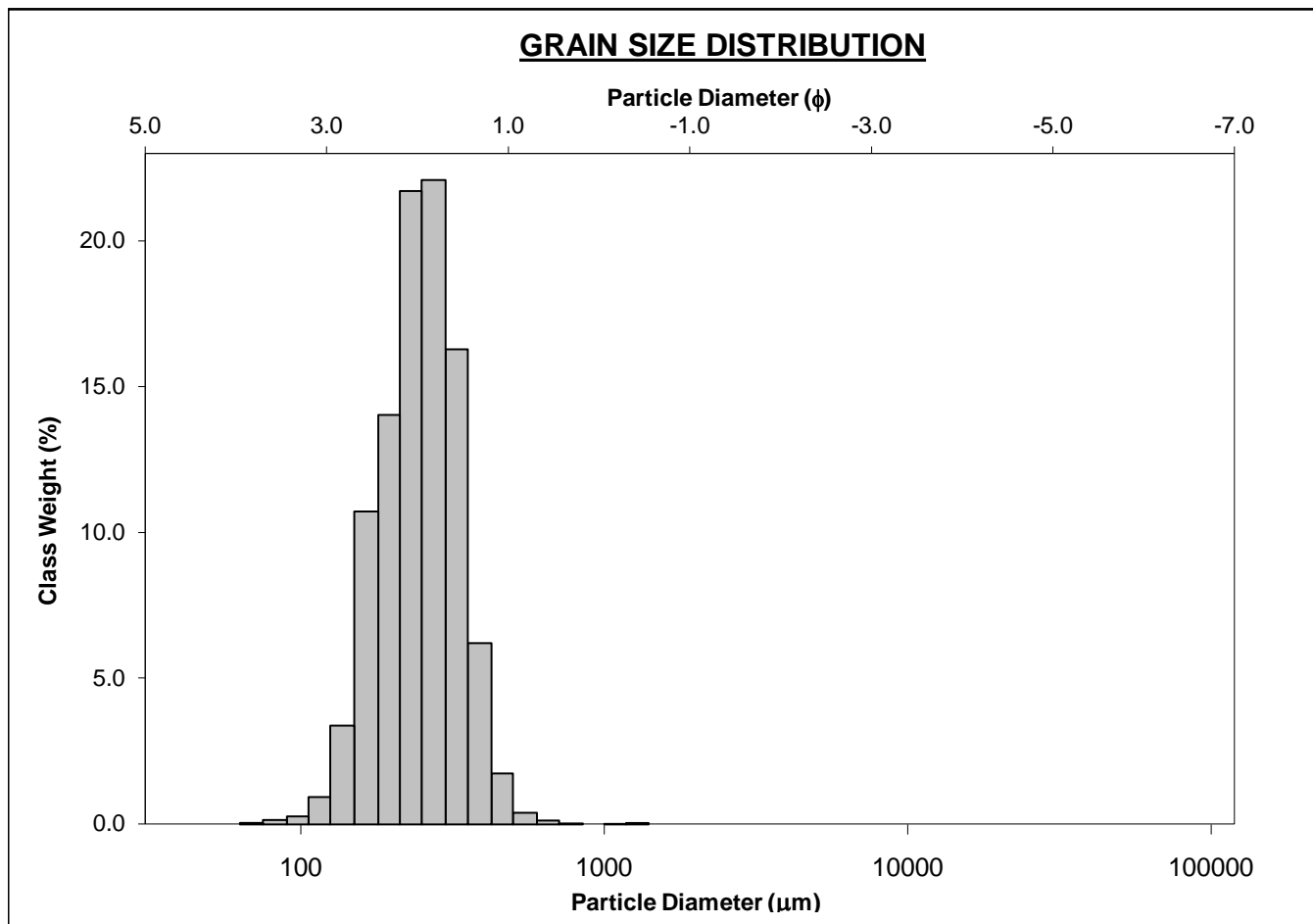
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-20cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0% COARSE SAND: 0.6%			
MODE 2:			SAND: 99.8% MEDIUM SAND: 39.8%			
MODE 3:			MUD: 0.2% FINE SAND: 57.2%			
D ₁₀ :	158.2	1.570	V FINE SAND: 2.1%			
MEDIAN or D ₅₀ :	233.8	2.097	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	336.9	2.660	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.129	1.695	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	178.7	1.090	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.487	1.314	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	92.77	0.572	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	243.5	230.7	2.116	231.7	2.110	Fine Sand
SORTING (σ):	76.39	1.403	0.489	1.341	0.424	Well Sorted
SKEWNESS (Sk):	1.456	-2.181	2.181	-0.037	0.037	Symmetrical
KURTOSIS (K):	10.65	23.92	23.92	1.010	1.010	Mesokurtic



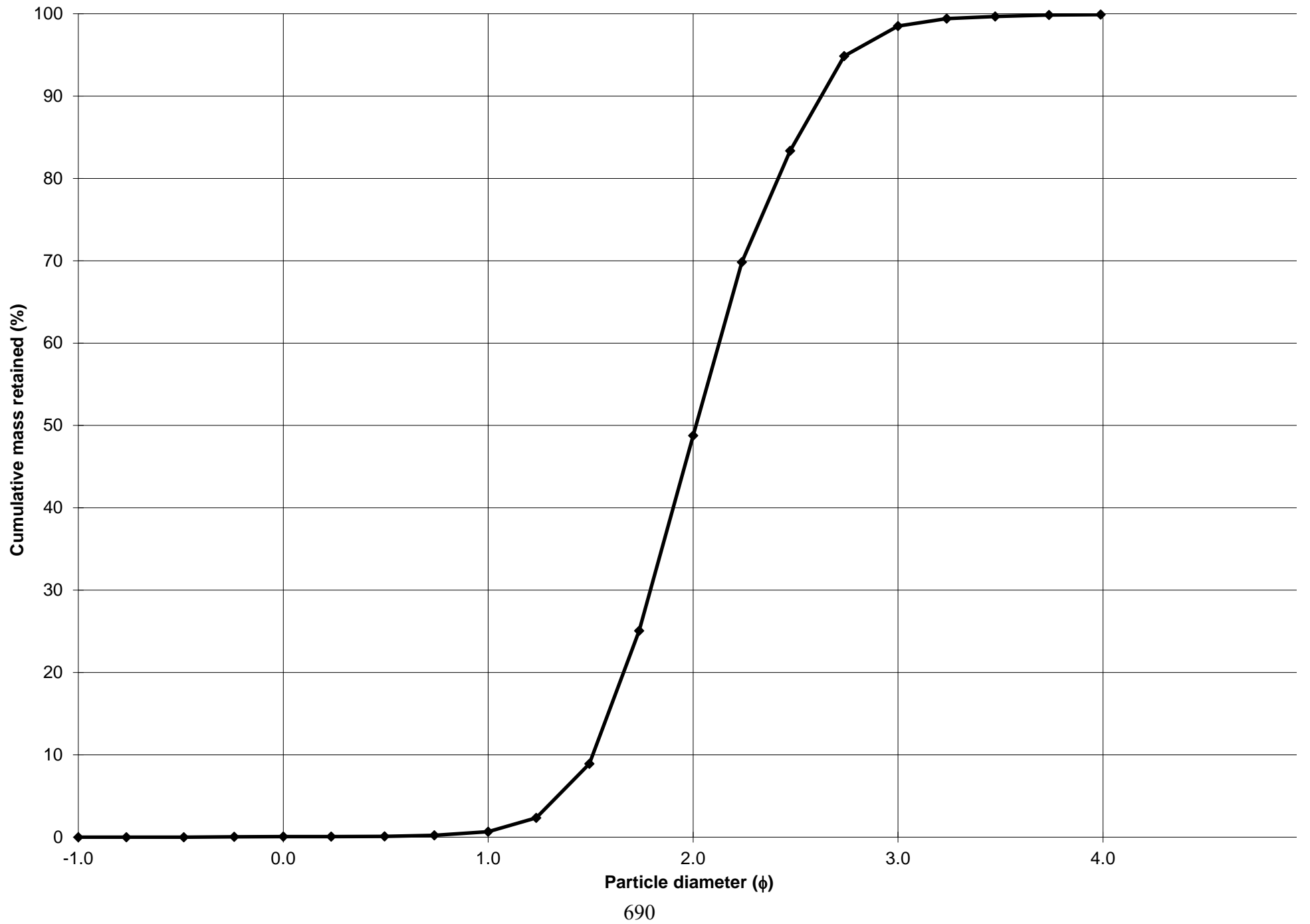
Cumulative Frequency Curve



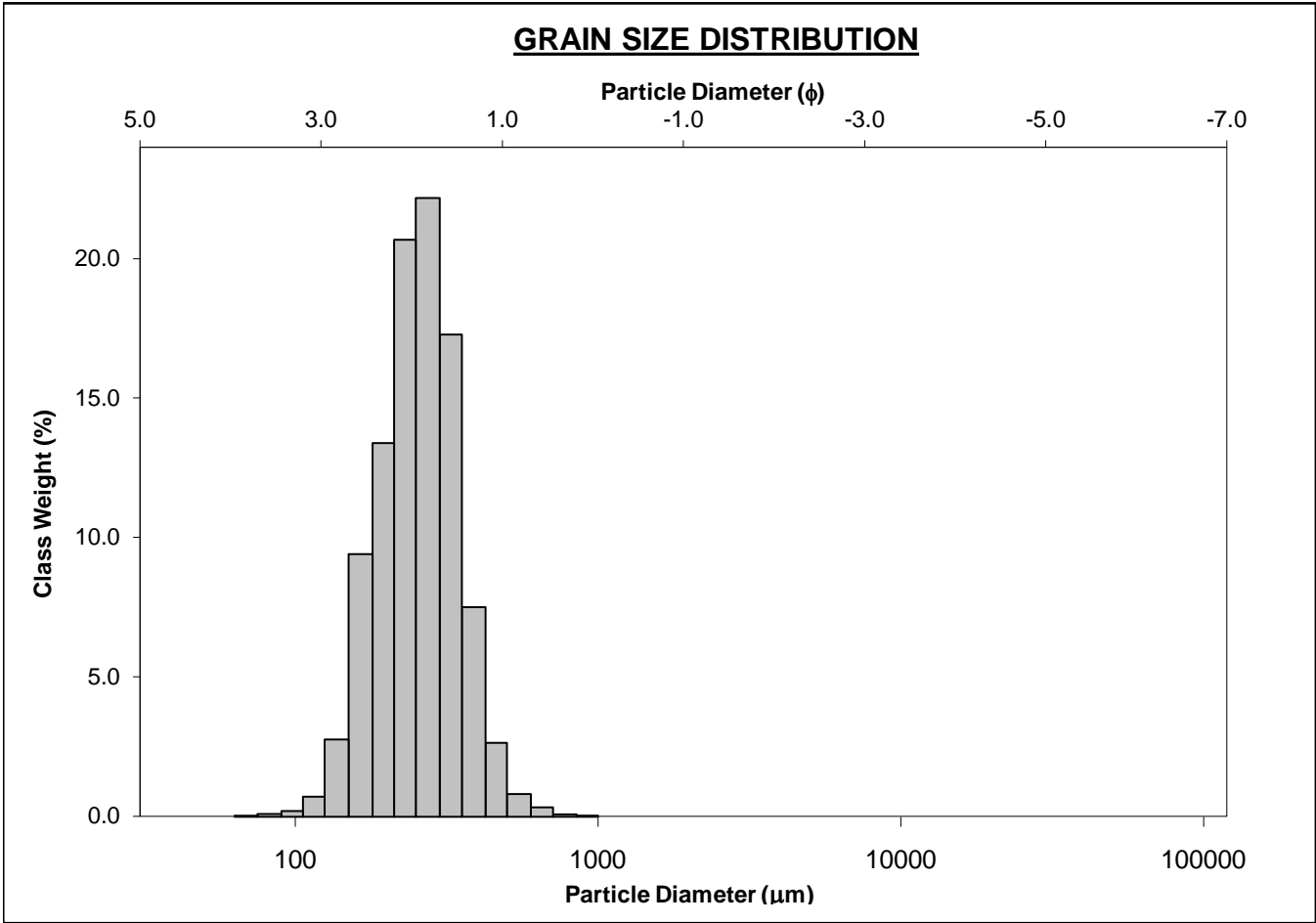
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-30cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 0.6%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 48.1%			
MODE 3:			MUD: 0.1% FINE SAND: 49.7%			
D ₁₀ :	162.0	1.510	V FINE SAND: 1.4%			
MEDIAN or D ₅₀ :	247.6	2.014	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	351.0	2.626	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.167	1.739	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	189.0	1.115	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.507	1.341	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	101.0	0.592	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	256.4	243.4	2.039	244.1	2.034	Fine Sand
SORTING (σ):	81.11	1.382	0.467	1.352	0.435	Well Sorted
SKEWNESS (Sk):	1.878	-1.375	1.375	-0.055	0.055	Symmetrical
KURTOSIS (K):	18.83	16.81	16.81	0.974	0.974	Mesokurtic



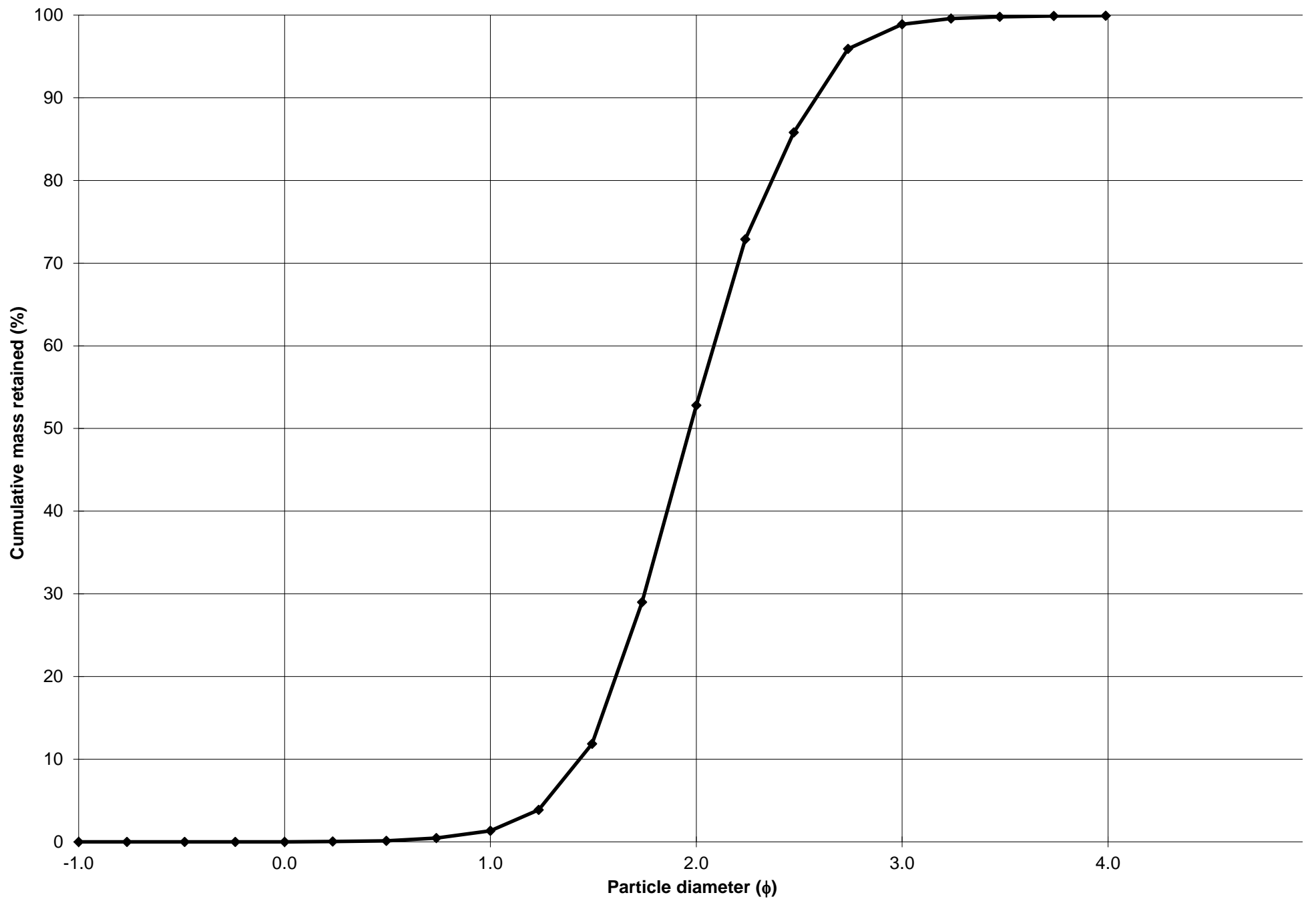
Cumulative Frequency Curve



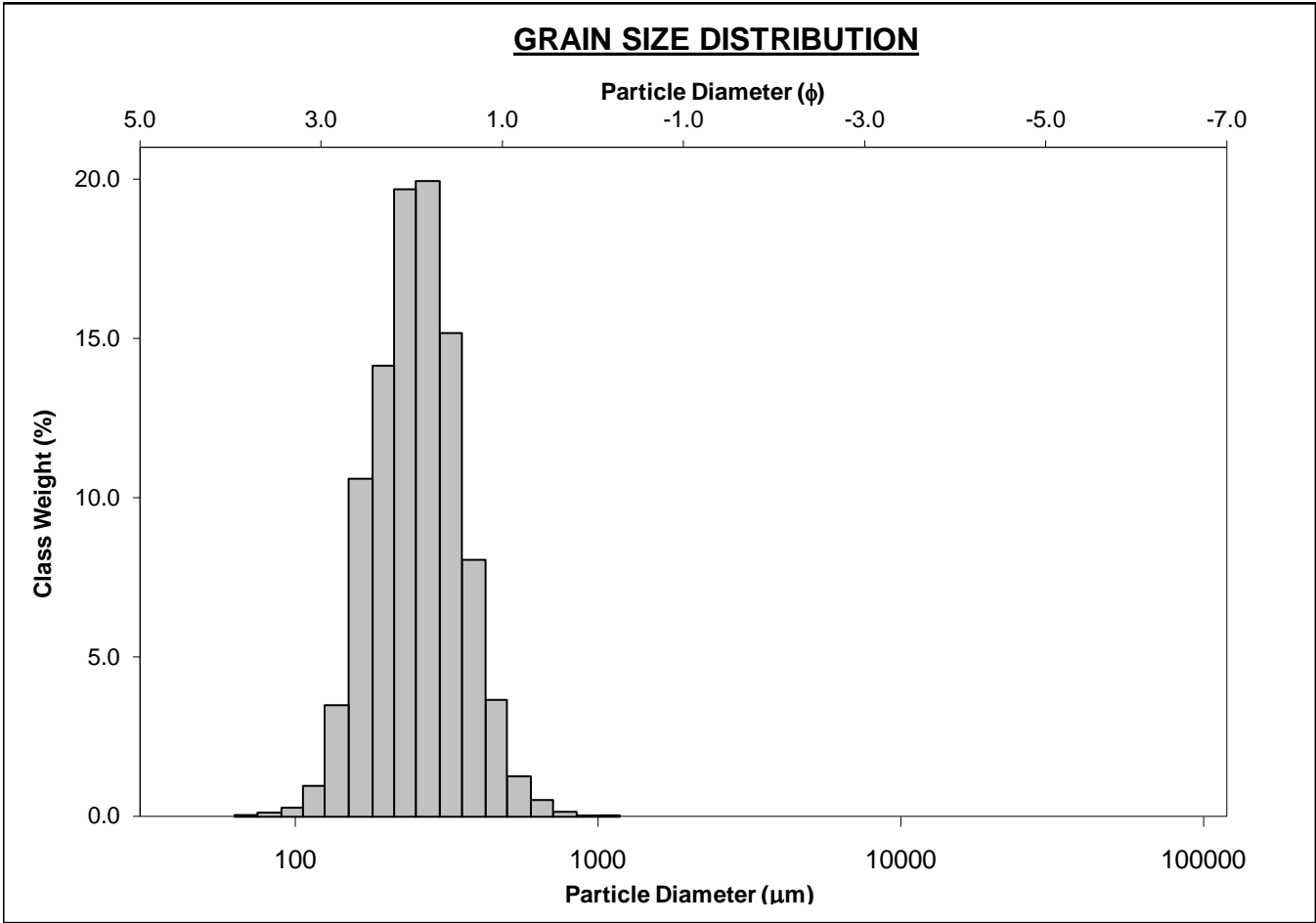
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-40cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.3%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 51.5%	
MODE 3:			MUD: 0.1%		FINE SAND: 46.1%	
D ₁₀ :	166.9	1.434			V FINE SAND: 1.0%	
MEDIAN or D ₅₀ :	255.4	1.969	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	370.1	2.583	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.218	1.802	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	203.3	1.149	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.512	1.355	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	105.6	0.596	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	266.1	252.4	1.986	252.1	1.988	Medium Sand
SORTING (σ):	84.89	1.379	0.464	1.357	0.441	Well Sorted
SKEWNESS (Sk):	1.218	-0.876	0.876	-0.047	0.047	Symmetrical
KURTOSIS (K):	6.978	12.15	12.15	0.992	0.992	Mesokurtic



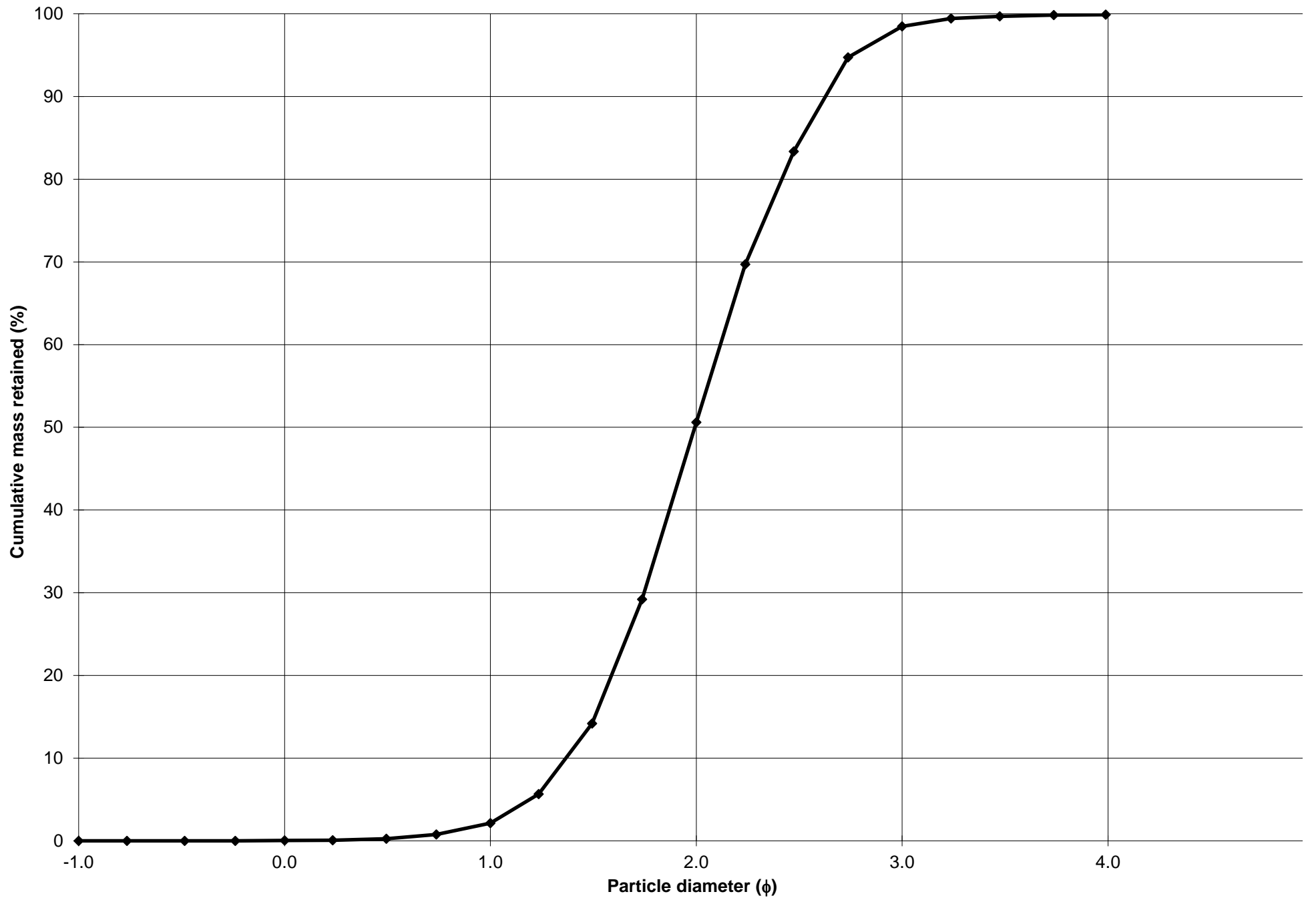
Cumulative Frequency Curve



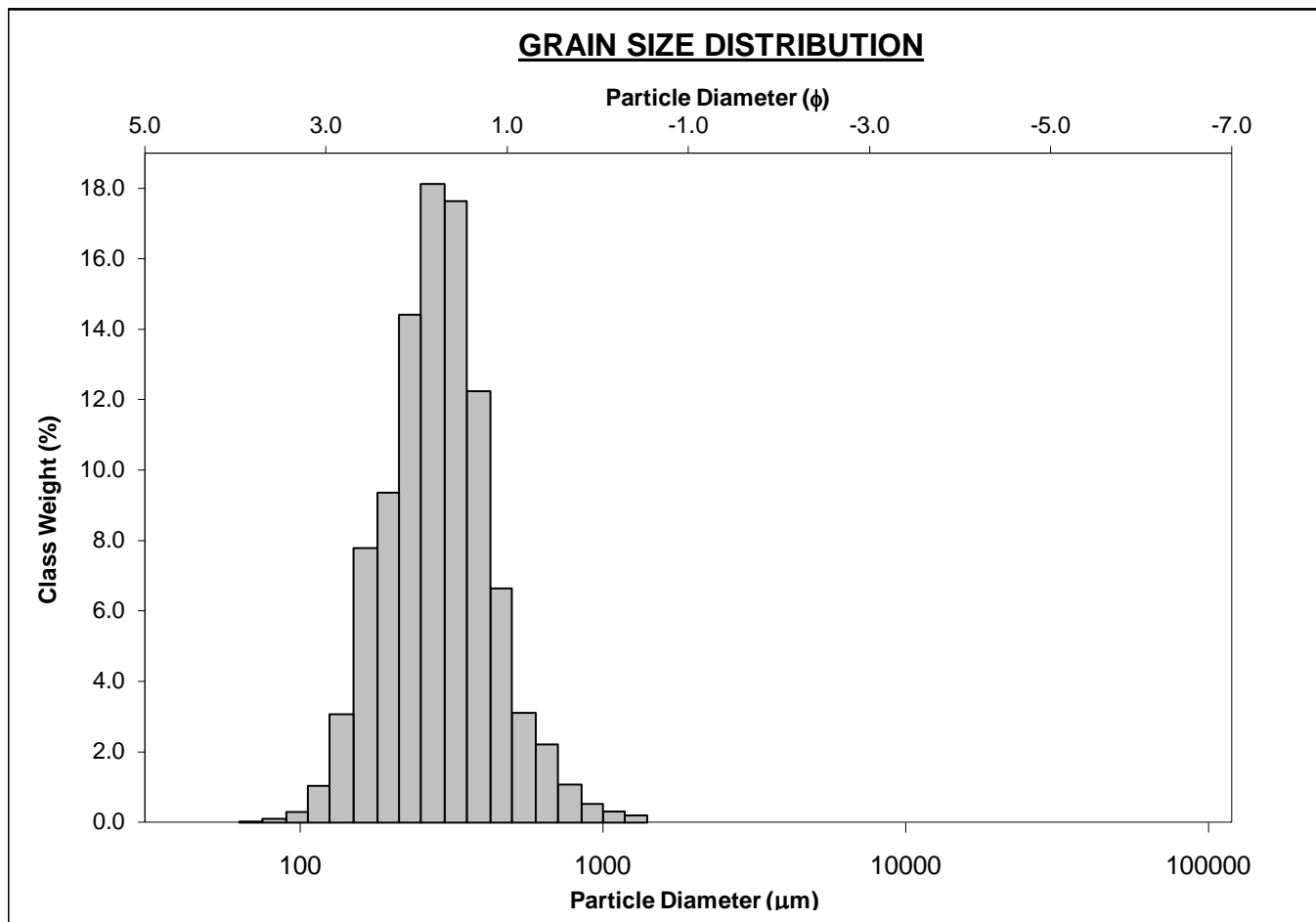
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-50cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 2.1%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 48.5%			
MODE 3:			MUD: 0.1% FINE SAND: 47.9%			
D ₁₀ :	161.8	1.367	V FINE SAND: 1.4%			
MEDIAN or D ₅₀ :	251.3	1.992	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	387.7	2.628	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.396	1.922	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	225.9	1.261	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.581	1.396	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	115.5	0.660	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	267.0	250.4	1.997	249.7	2.002	Fine Sand
SORTING (σ):	95.65	1.426	0.512	1.393	0.479	Well Sorted
SKEWNESS (Sk):	1.504	-0.892	0.892	-0.003	0.003	Symmetrical
KURTOSIS (K):	8.470	12.48	12.48	0.971	0.971	Mesokurtic



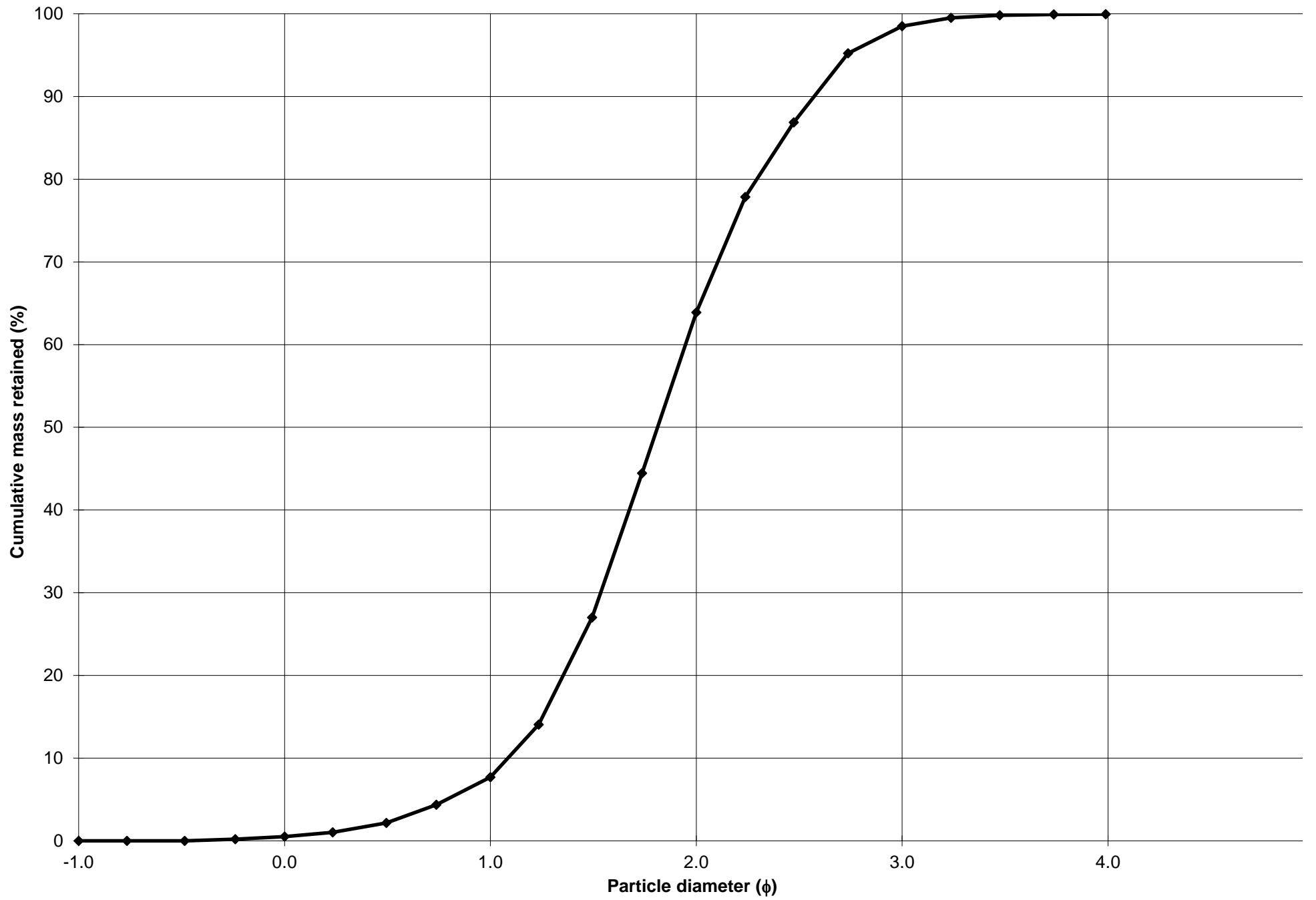
Cumulative Frequency Curve



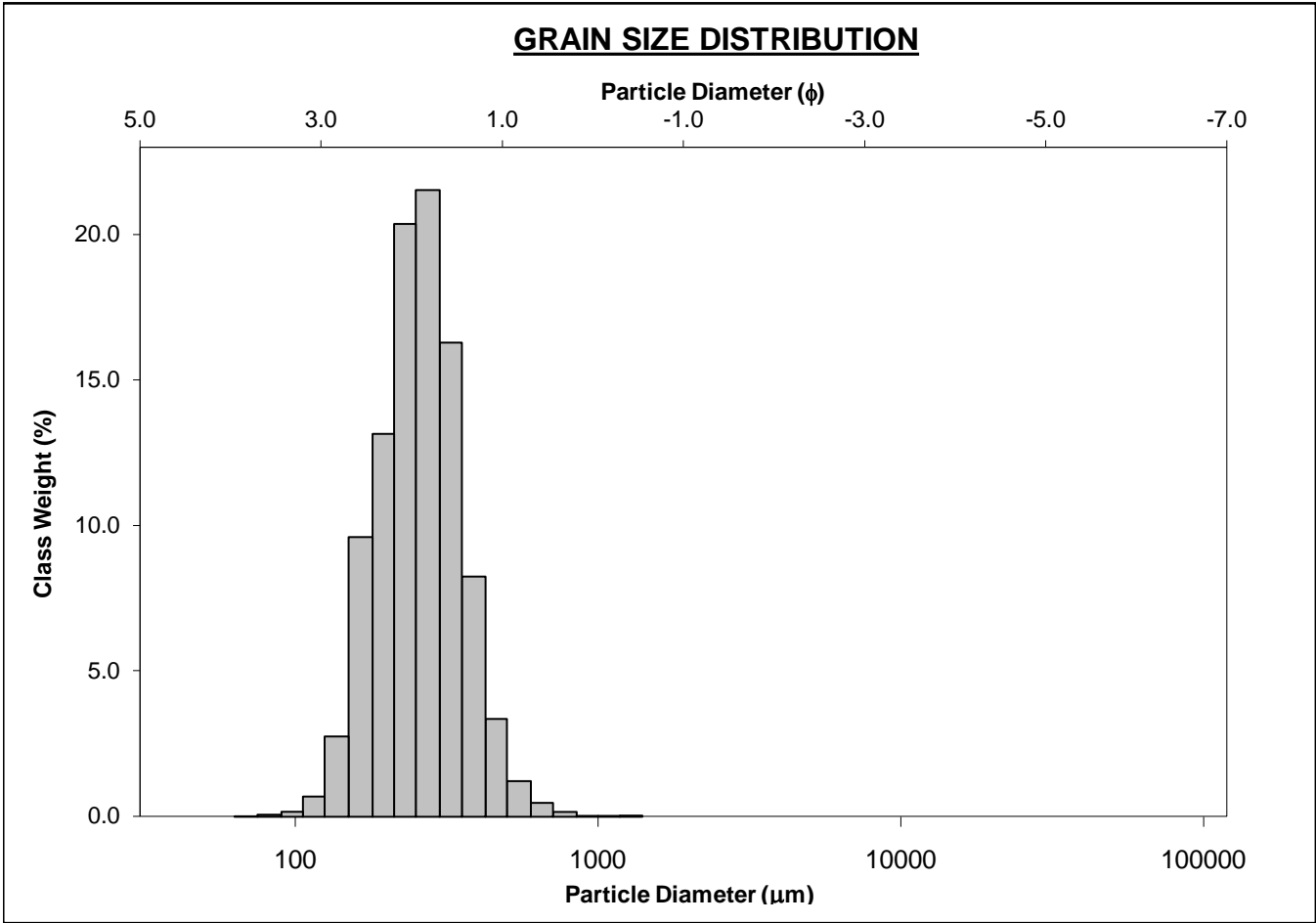
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-60cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 7.2%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 56.2%	
MODE 3:			MUD: 0.0%		FINE SAND: 34.6%	
D ₁₀ :	168.1	1.085			V FINE SAND: 1.5%	
MEDIAN or D ₅₀ :	284.8	1.812	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	471.4	2.573	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.805	2.371	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	303.3	1.488	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.665	1.506	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	145.8	0.735	V COARSE SAND: 0.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	312.7	285.4	1.809	281.6	1.828	Medium Sand
SORTING (σ):	144.3	1.511	0.596	1.490	0.576	Moderately Well Sorted
SKEWNESS (Sk):	2.160	-0.007	0.007	0.006	-0.006	Symmetrical
KURTOSIS (K):	11.13	5.762	5.762	1.083	1.083	Mesokurtic



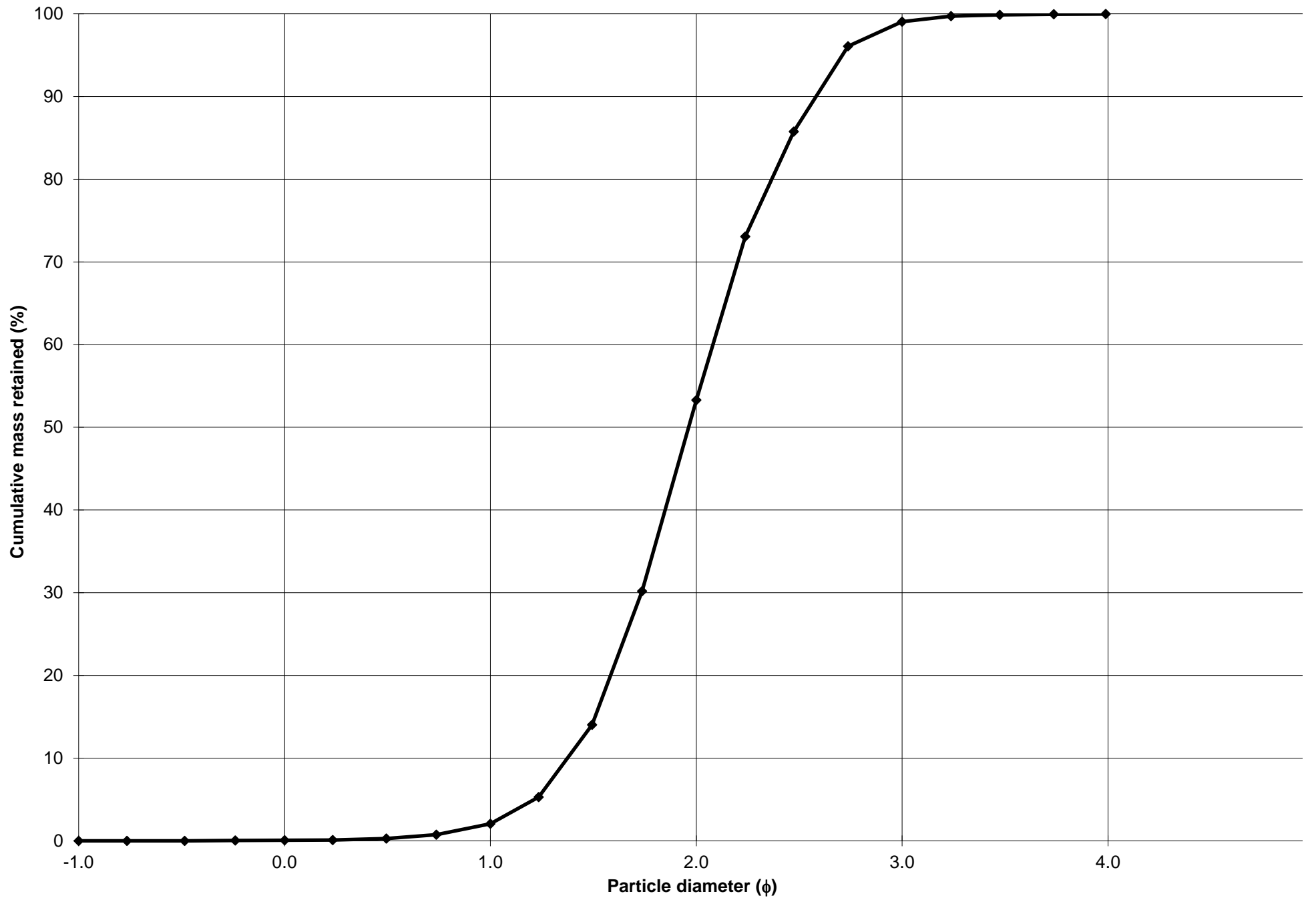
Cumulative Frequency Curve



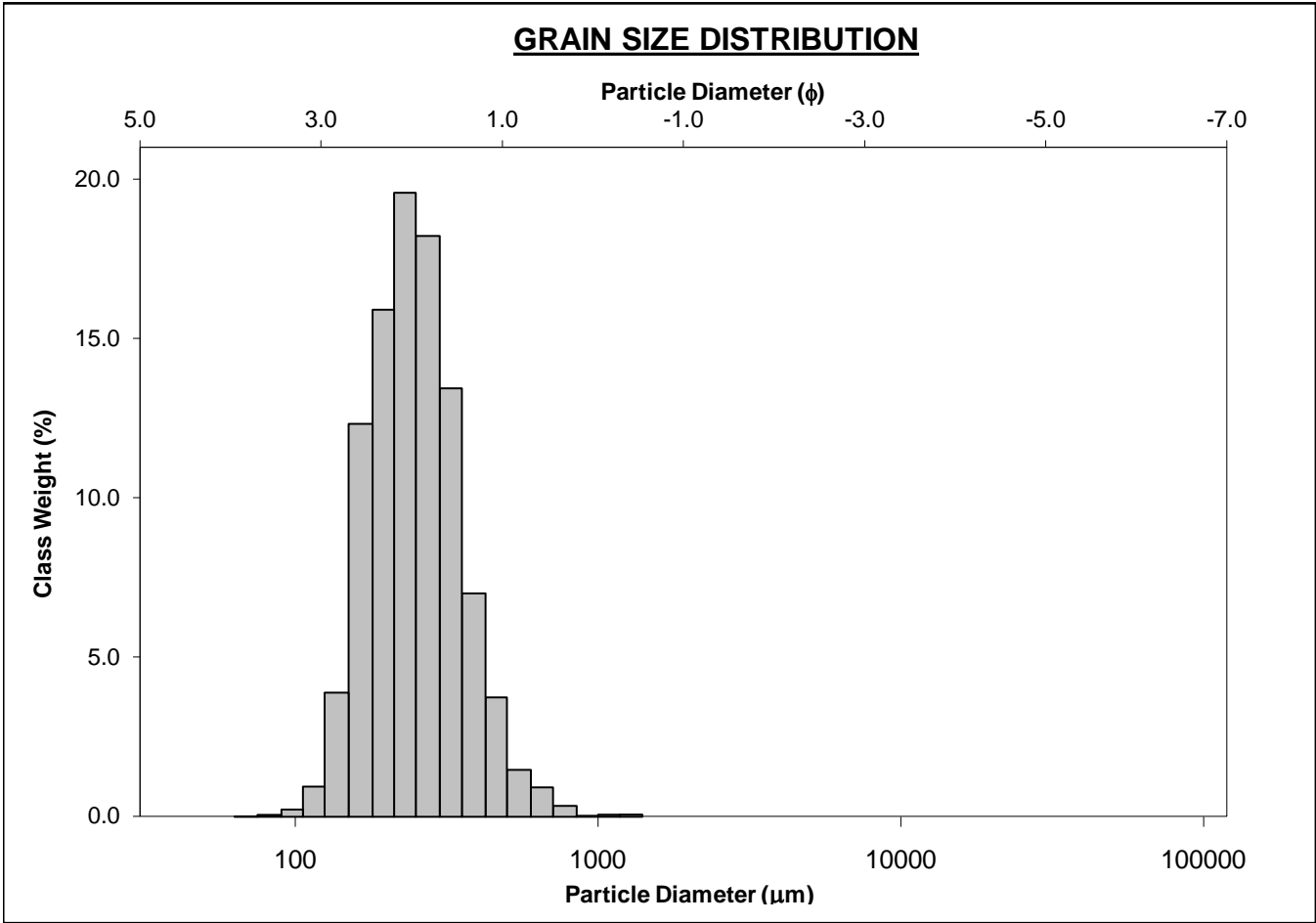
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-70cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 2.0%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 51.2%			
MODE 3:			MUD: 0.0% FINE SAND: 45.7%			
D ₁₀ :	167.0	1.374	V FINE SAND: 0.9%			
MEDIAN or D ₅₀ :	256.6	1.962	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	385.7	2.582	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.310	1.879	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	218.7	1.208	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.531	1.370	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	109.9	0.615	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	271.0	255.8	1.967	254.2	1.976	Medium Sand
SORTING (σ):	94.12	1.387	0.472	1.372	0.456	Well Sorted
SKEWNESS (Sk):	1.885	-0.205	0.205	-0.021	0.021	Symmetrical
KURTOSIS (K):	13.18	7.107	7.107	0.998	0.998	Mesokurtic



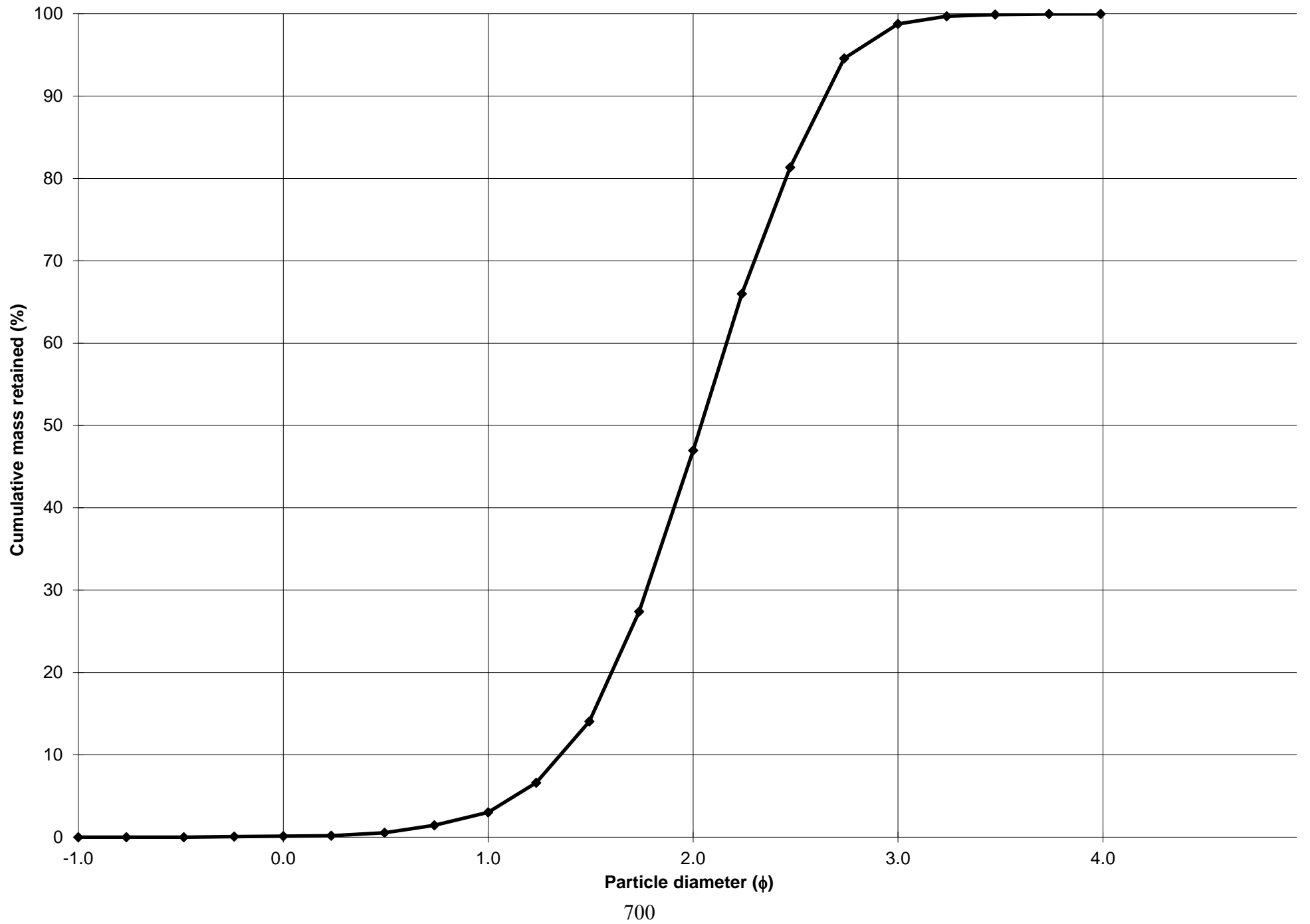
Cumulative Frequency Curve



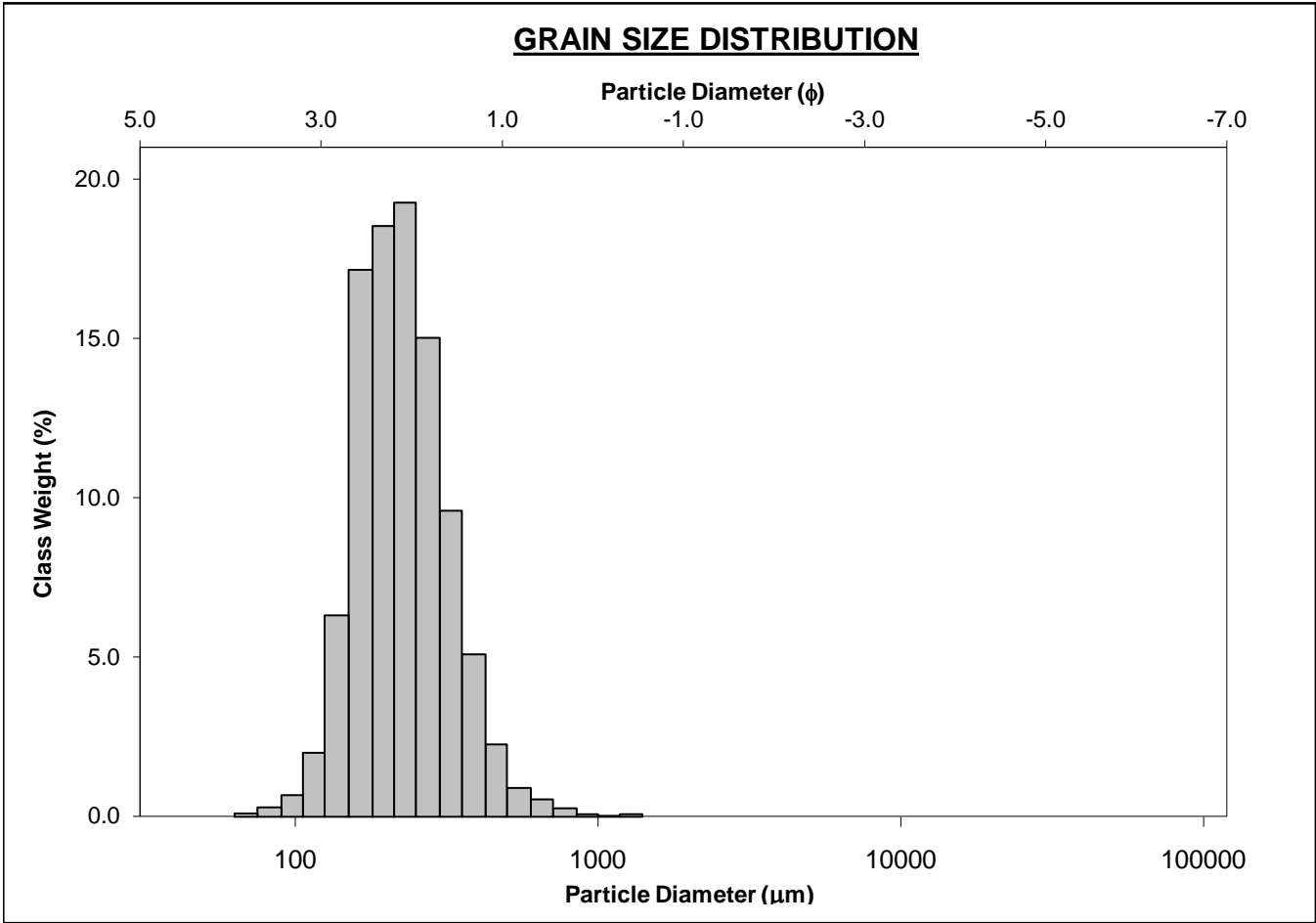
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-80cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 2.9%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 43.9%	
MODE 3:			MUD: 0.0%		FINE SAND: 51.8%	
D ₁₀ :	159.8	1.353			V FINE SAND: 1.2%	
MEDIAN or D ₅₀ :	243.5	2.038	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	391.6	2.646	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.451	1.956	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	231.8	1.293	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.605	1.403	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	116.6	0.683	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	265.5	247.7	2.013	244.6	2.031	Fine Sand
SORTING (σ):	106.3	1.425	0.511	1.411	0.497	Well Sorted
SKEWNESS (Sk):	2.261	0.240	-0.240	0.066	-0.066	Symmetrical
KURTOSIS (K):	14.10	5.247	5.247	0.981	0.981	Mesokurtic



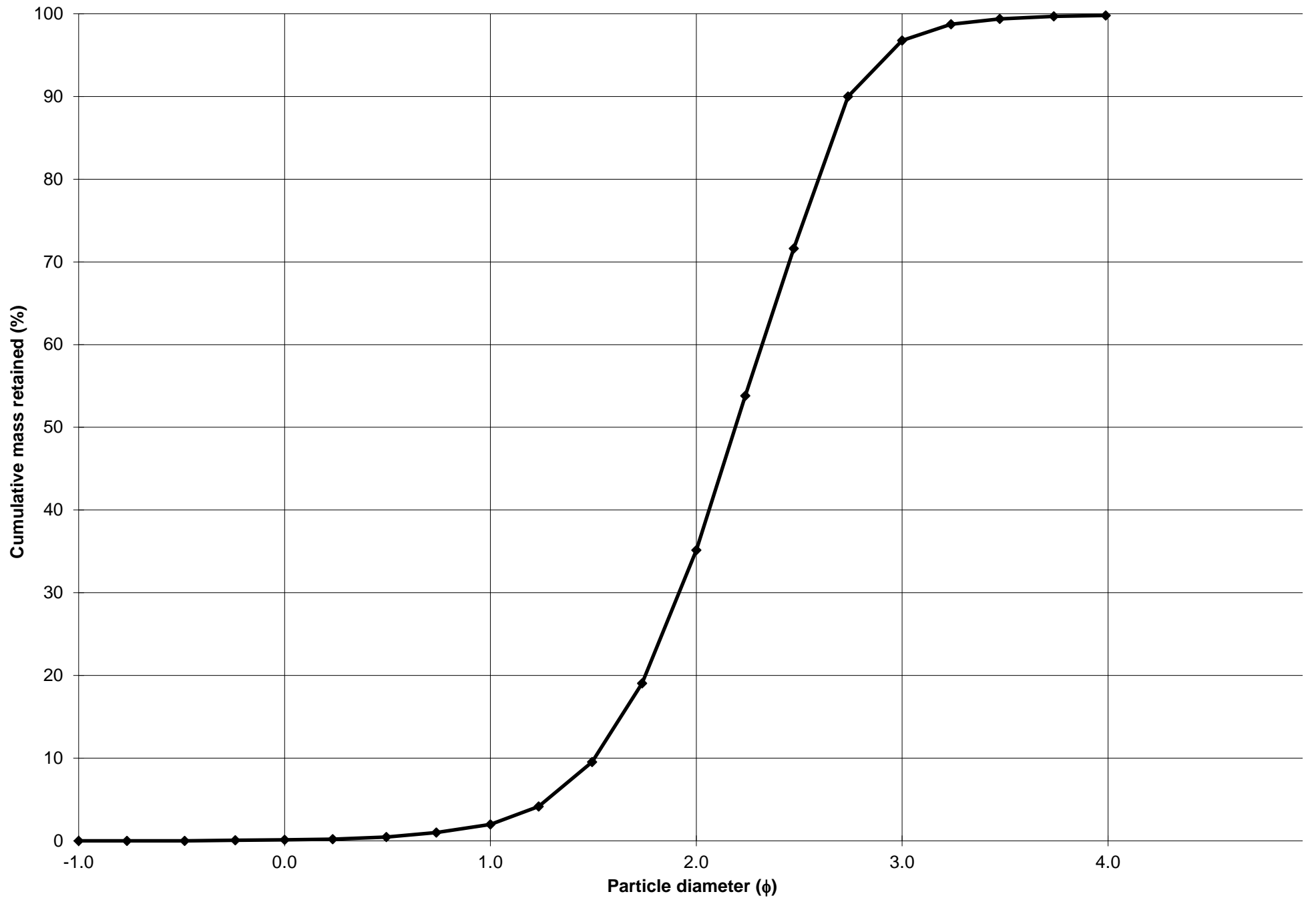
Cumulative Frequency Curve



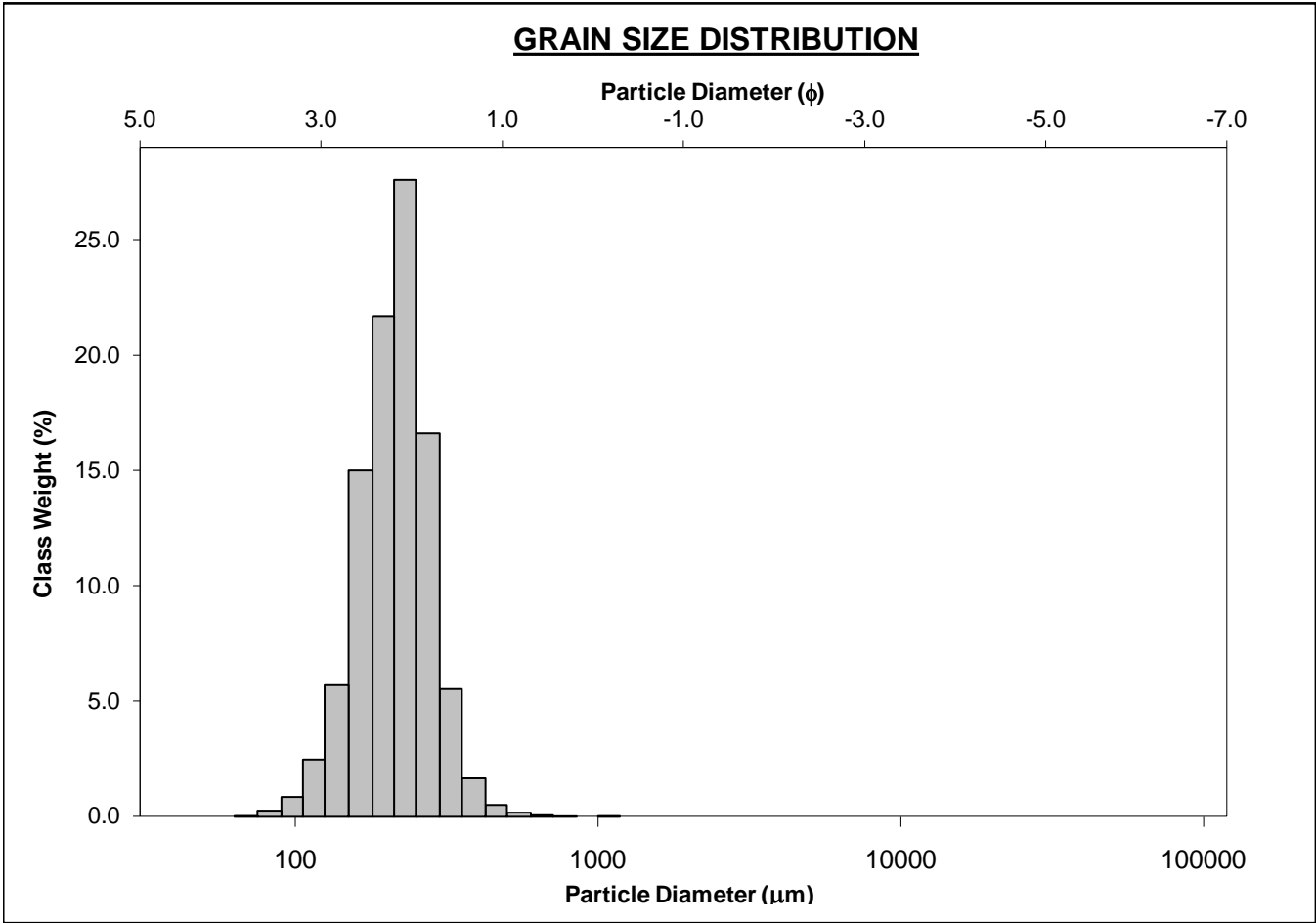
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-90cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 1.9%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 33.2%	
MODE 3:			MUD: 0.2%		FINE SAND: 61.6%	
D ₁₀ :	150.0	1.506			V FINE SAND: 3.0%	
MEDIAN or D ₅₀ :	219.2	2.189	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	352.1	2.737	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.347	1.817	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	202.1	1.231	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.611	1.375	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	106.3	0.688	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	240.6	222.9	2.165	222.7	2.167	Fine Sand
SORTING (σ):	100.5	1.470	0.556	1.413	0.499	Well Sorted
SKEWNESS (Sk):	2.671	-0.899	0.899	0.087	-0.087	Symmetrical
KURTOSIS (K):	18.78	14.29	14.29	0.986	0.986	Mesokurtic



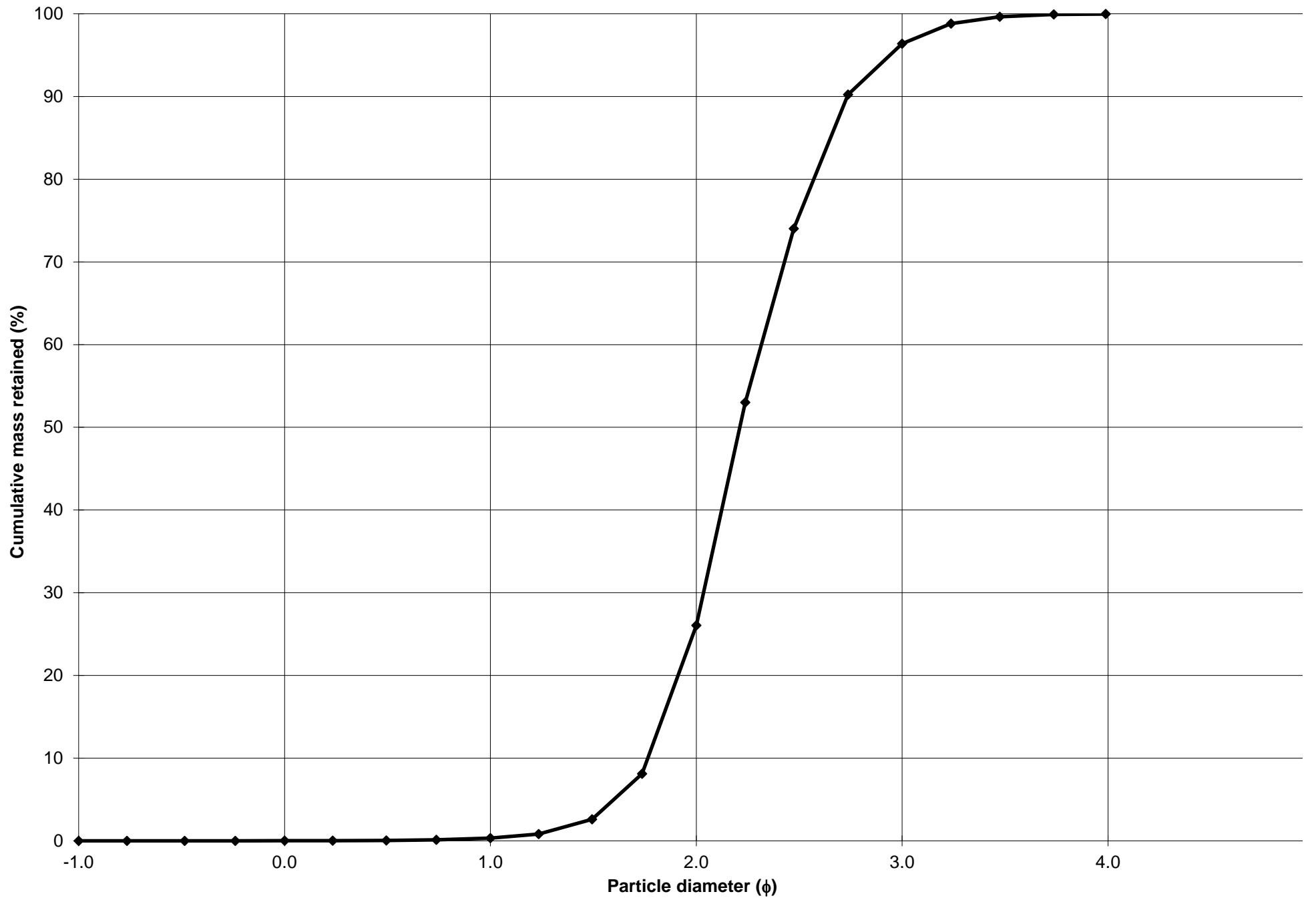
Cumulative Frequency Curve



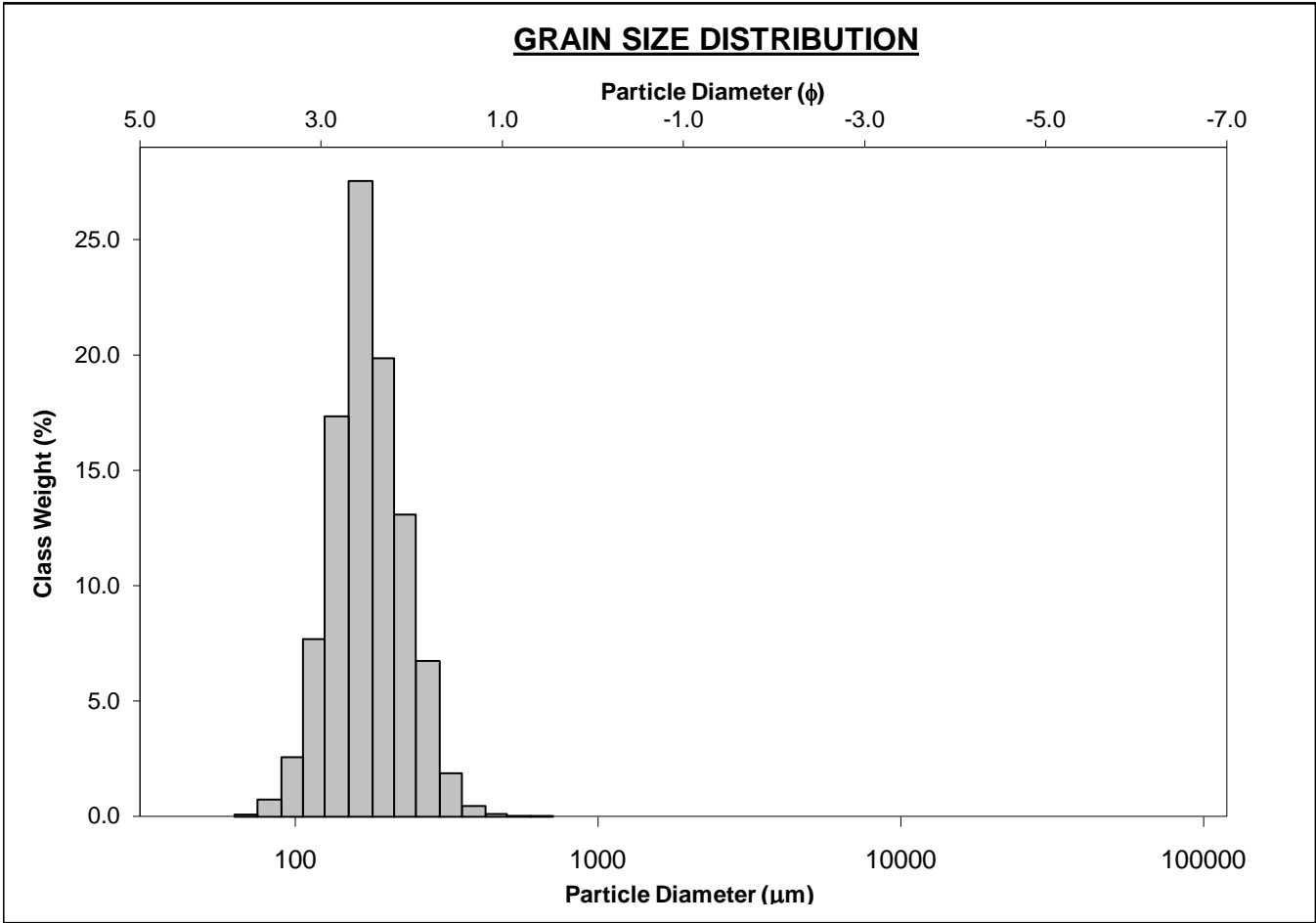
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-100cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0% COARSE SAND: 0.3%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 25.7%			
MODE 3:			MUD: 0.0% FINE SAND: 70.3%			
D ₁₀ :	150.4	1.765	V FINE SAND: 3.6%			
MEDIAN or D ₅₀ :	215.9	2.211	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	294.3	2.733	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.957	1.549	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	143.9	0.969	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.419	1.255	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	74.65	0.505	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	221.2	211.8	2.239	212.7	2.233	Fine Sand
SORTING (σ):	64.55	1.330	0.412	1.319	0.399	Well Sorted
SKEWNESS (Sk):	1.858	-0.556	0.556	-0.086	0.086	Symmetrical
KURTOSIS (K):	17.33	9.302	9.302	1.088	1.088	Mesokurtic



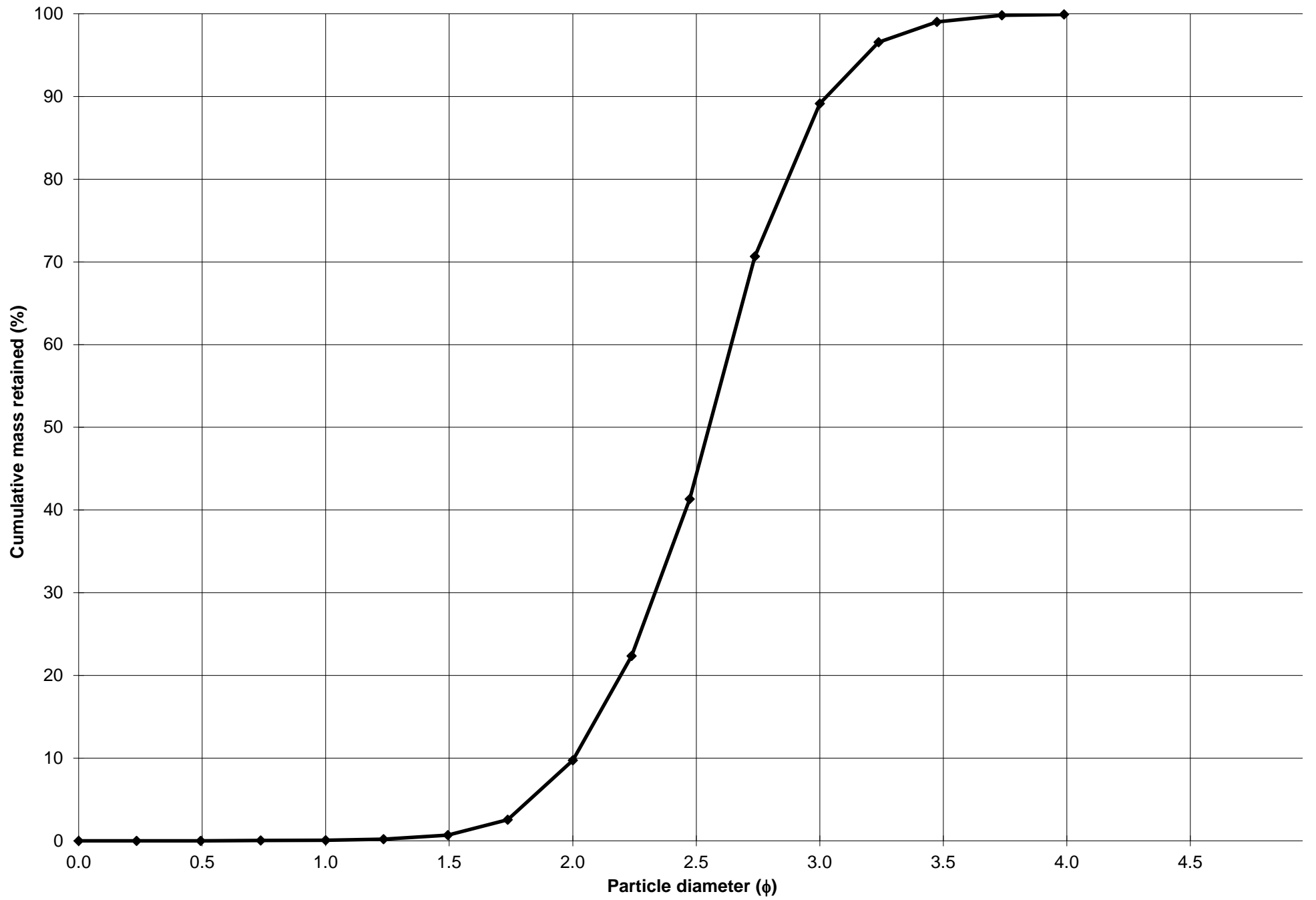
Cumulative Frequency Curve



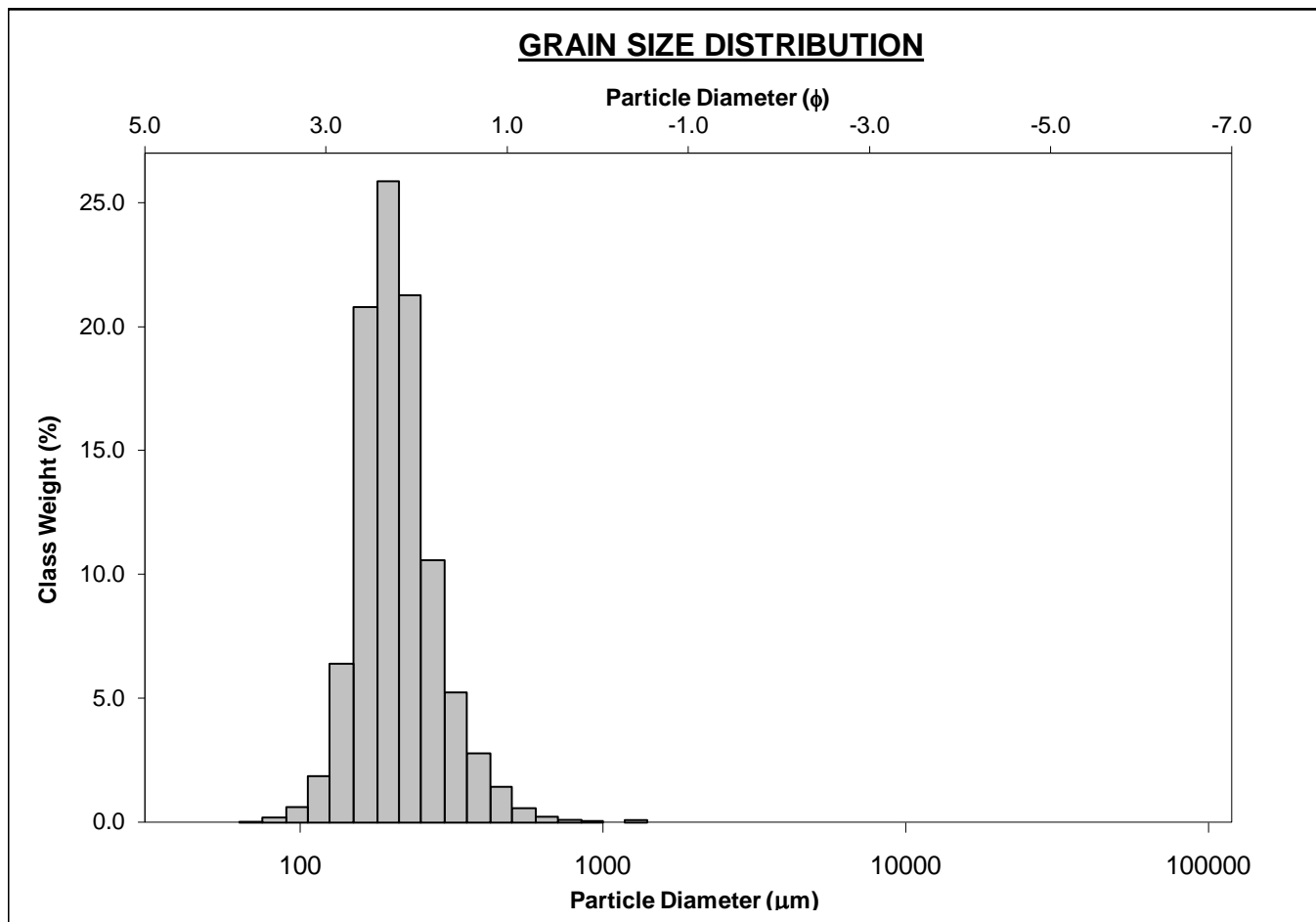
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-110cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.1%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 9.7%	
MODE 3:			MUD: 0.1%		FINE SAND: 79.4%	
D ₁₀ :	122.6	2.005			V FINE SAND: 10.8%	
MEDIAN or D ₅₀ :	170.6	2.552	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	249.1	3.028	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.031	1.510	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	126.5	1.022	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.442	1.232	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	63.48	0.528	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	180.7	172.6	2.534	172.9	2.532	Fine Sand
SORTING (σ):	53.46	1.340	0.423	1.327	0.408	Well Sorted
SKEWNESS (Sk):	1.341	-0.814	0.814	0.069	-0.069	Symmetrical
KURTOSIS (K):	7.667	13.30	13.30	1.057	1.057	Mesokurtic



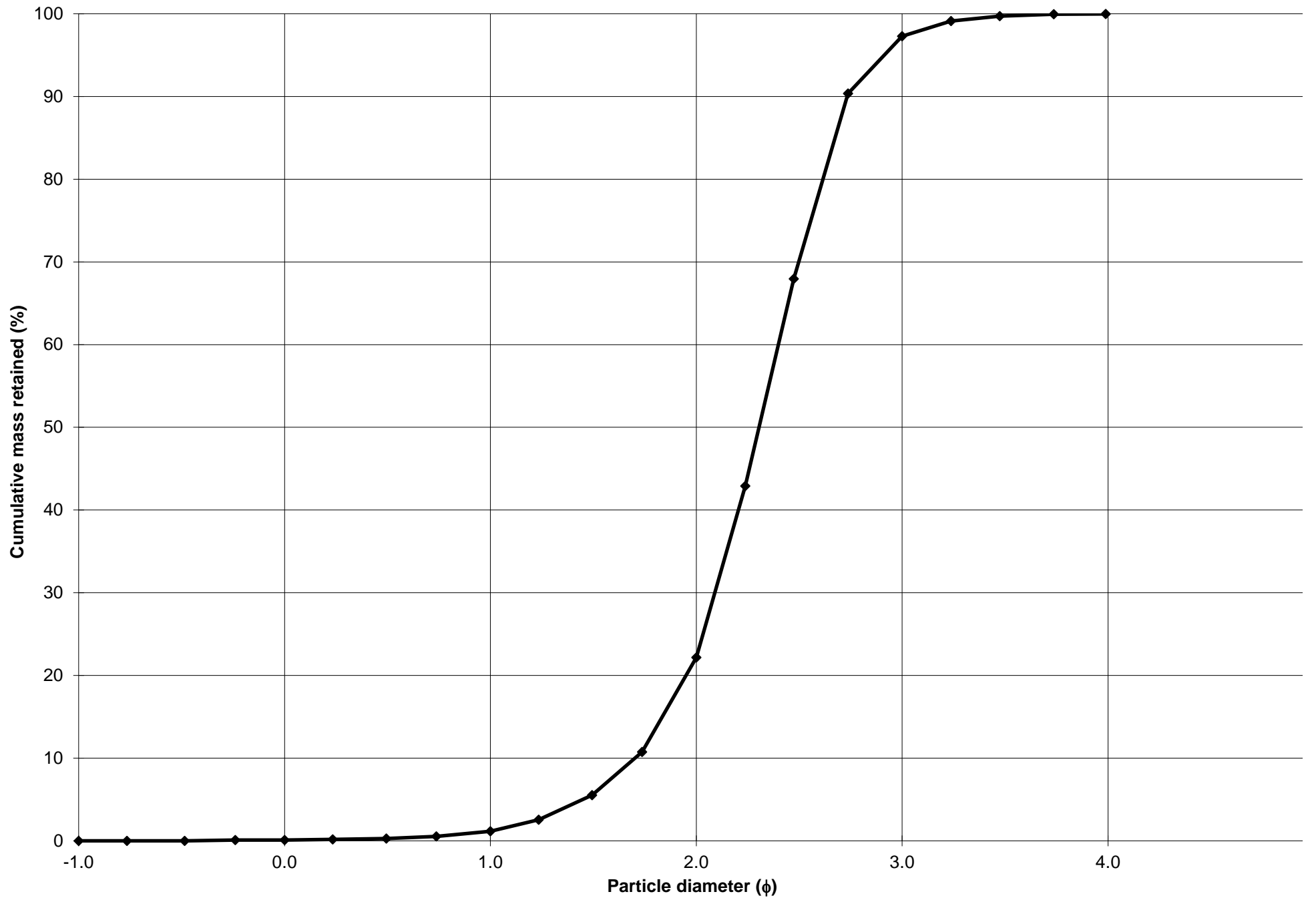
Cumulative Frequency Curve



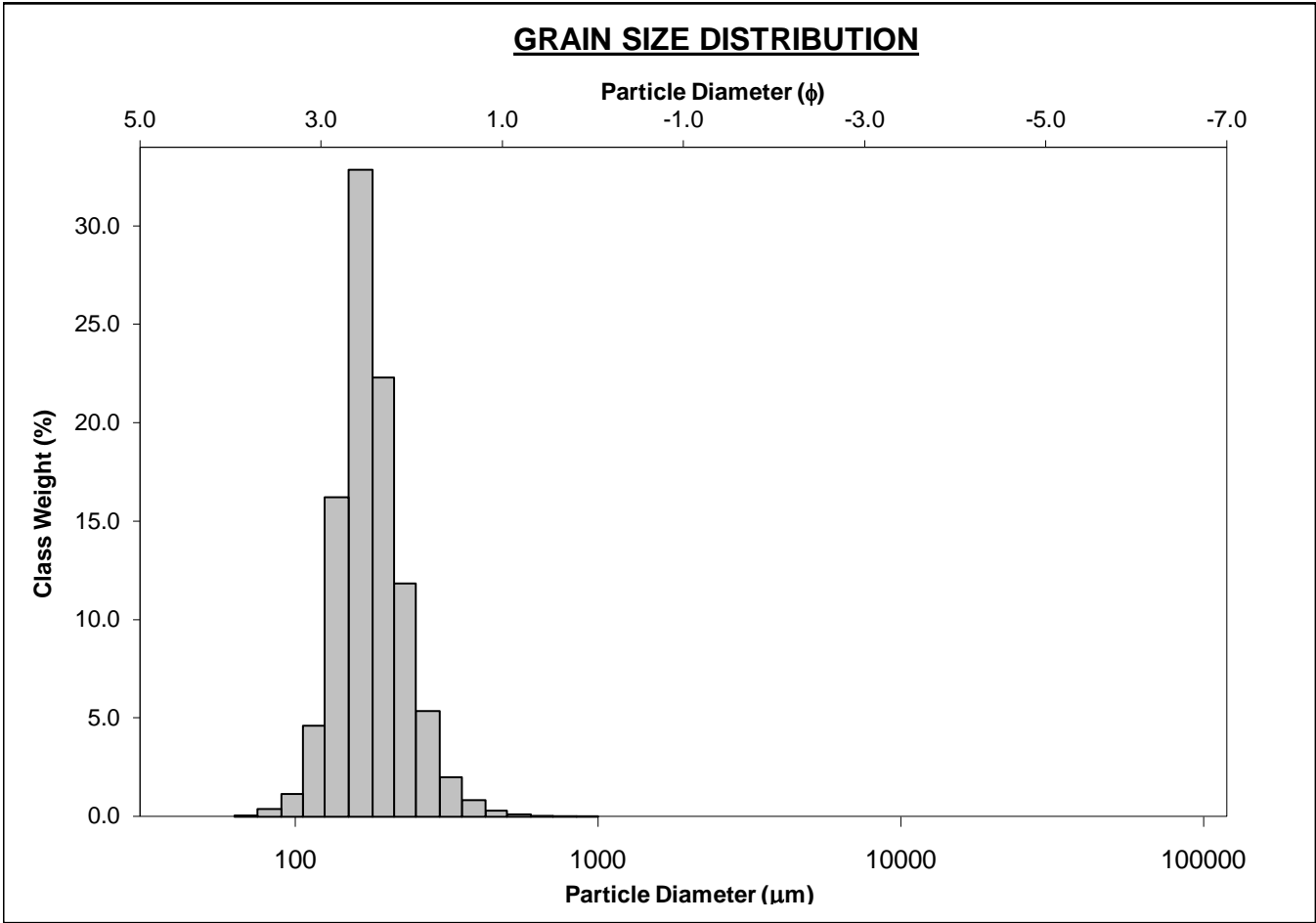
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-120cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 1.0%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 21.0%			
MODE 3:			MUD: 0.0% FINE SAND: 75.1%			
D ₁₀ :	150.5	1.702	V FINE SAND: 2.7%			
MEDIAN or D ₅₀ :	202.4	2.305	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	307.3	2.733	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.042	1.605	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	156.8	1.030	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.438	1.258	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	74.46	0.524	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	220.8	208.6	2.261	206.6	2.275	Fine Sand
SORTING (σ):	85.49	1.367	0.451	1.341	0.423	Well Sorted
SKEWNESS (Sk):	3.878	0.559	-0.559	0.140	-0.140	Coarse Skewed
KURTOSIS (K):	35.33	7.740	7.740	1.145	1.145	Leptokurtic



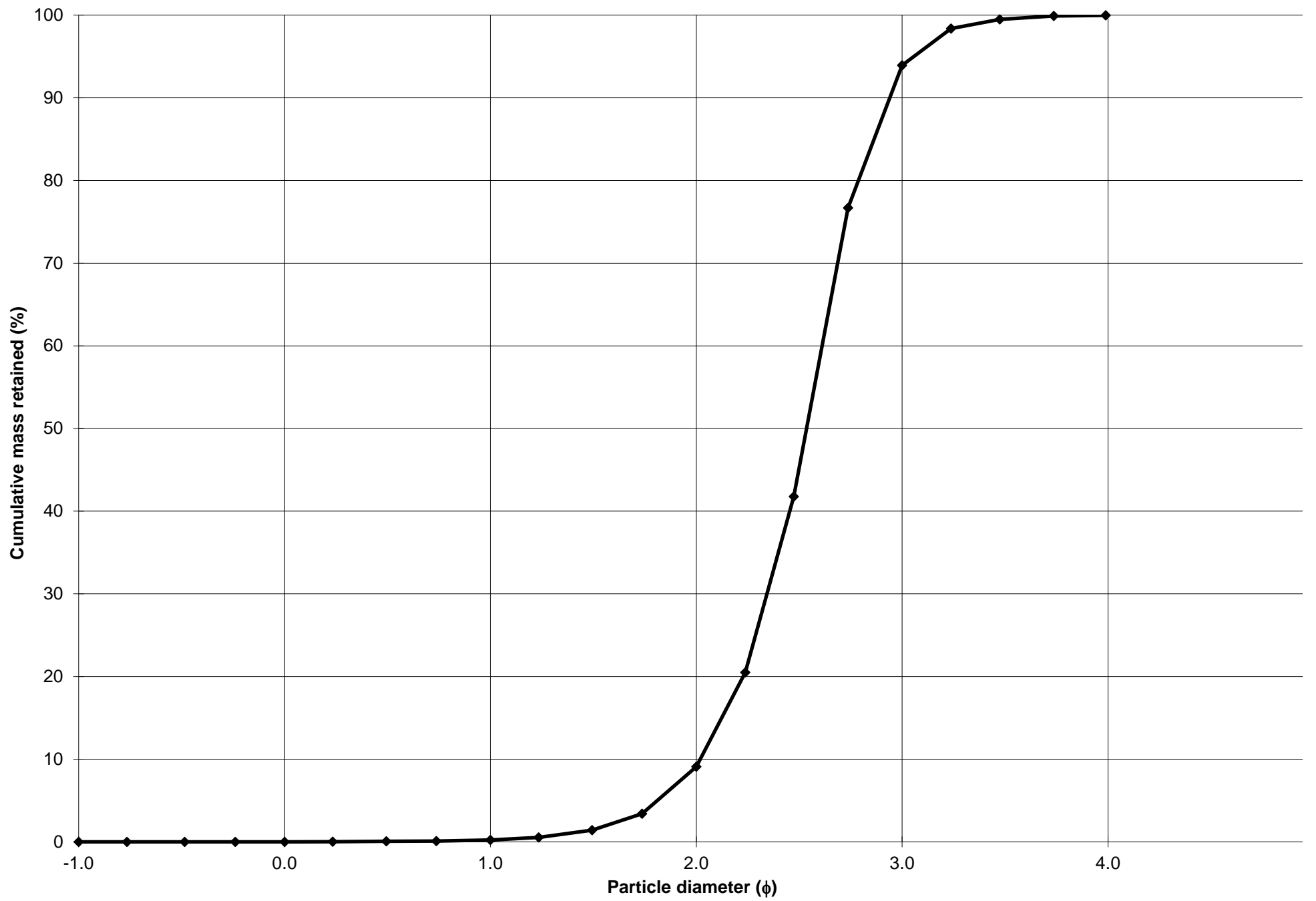
Cumulative Frequency Curve



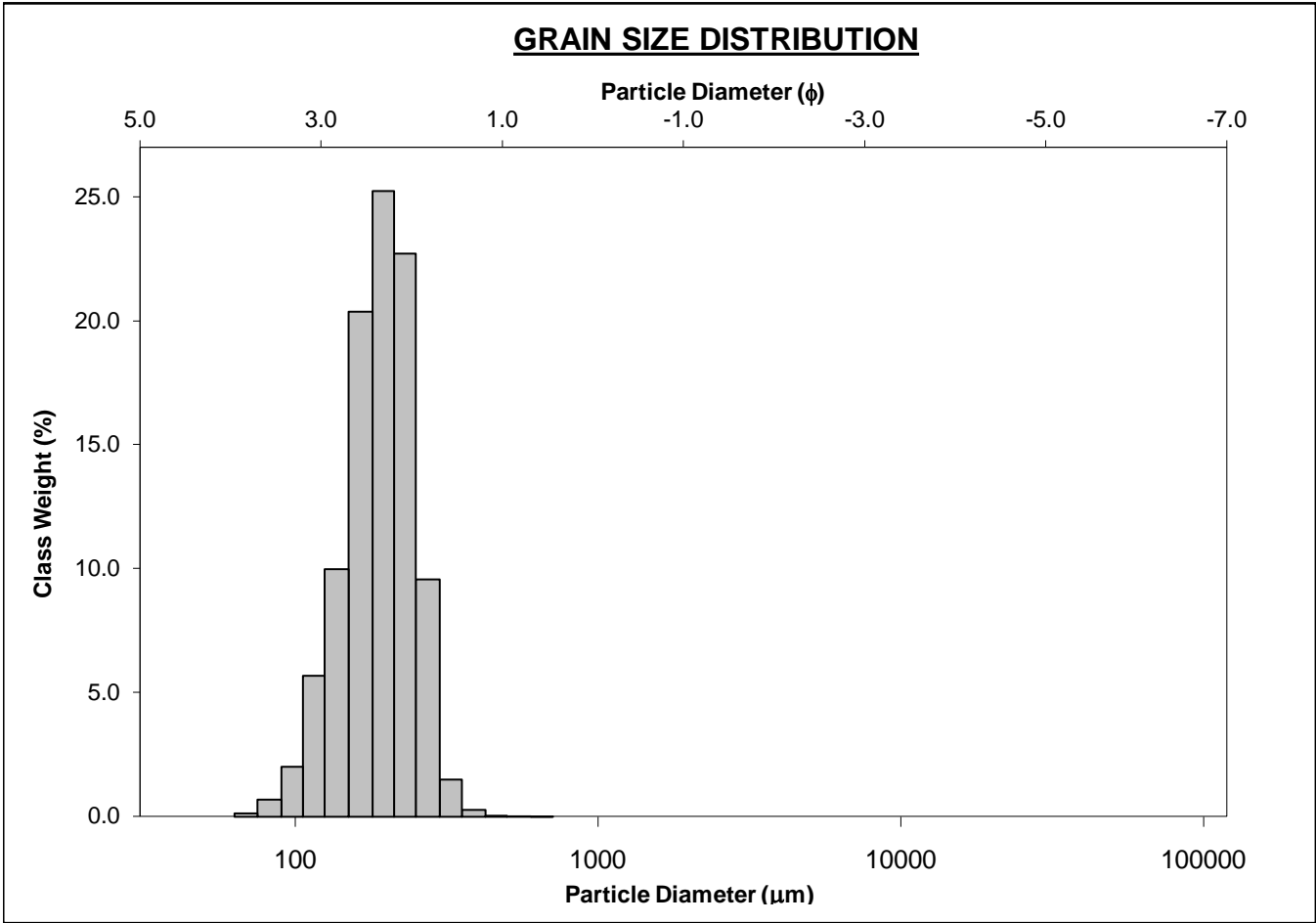
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-130cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.2%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 8.9%			
MODE 3:			MUD: 0.0% FINE SAND: 84.8%			
D ₁₀ :	130.3	2.019	V FINE SAND: 6.0%			
MEDIAN or D ₅₀ :	172.4	2.536	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	246.8	2.940	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.894	1.456	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	116.5	0.921	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.353	1.191	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	53.44	0.436	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	184.5	177.0	2.498	175.6	2.510	Fine Sand
SORTING (σ):	56.17	1.308	0.387	1.288	0.365	Well Sorted
SKEWNESS (Sk):	2.777	0.119	-0.119	0.138	-0.138	Coarse Skewed
KURTOSIS (K):	21.68	10.60	10.60	1.170	1.170	Leptokurtic



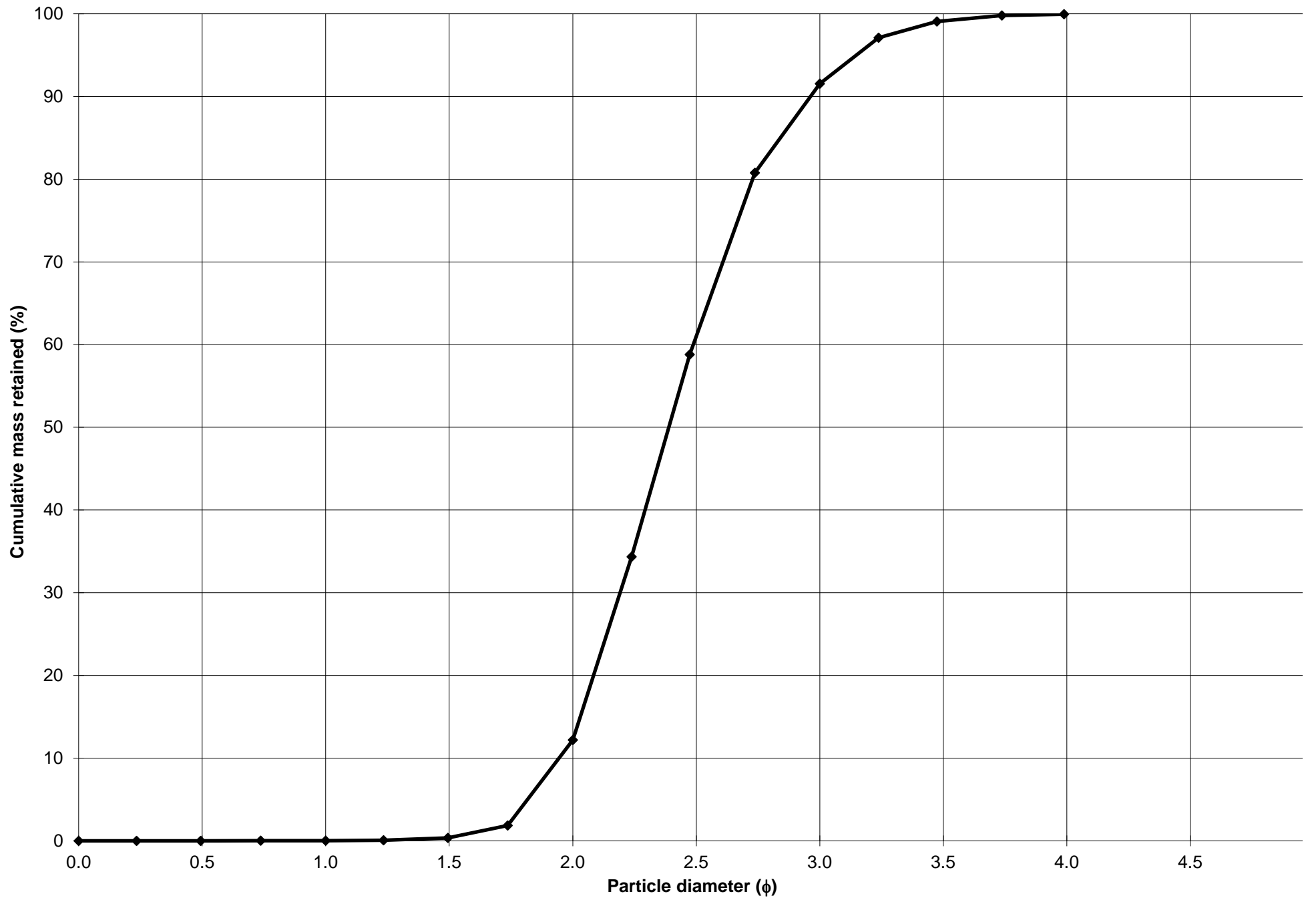
Cumulative Frequency Curve



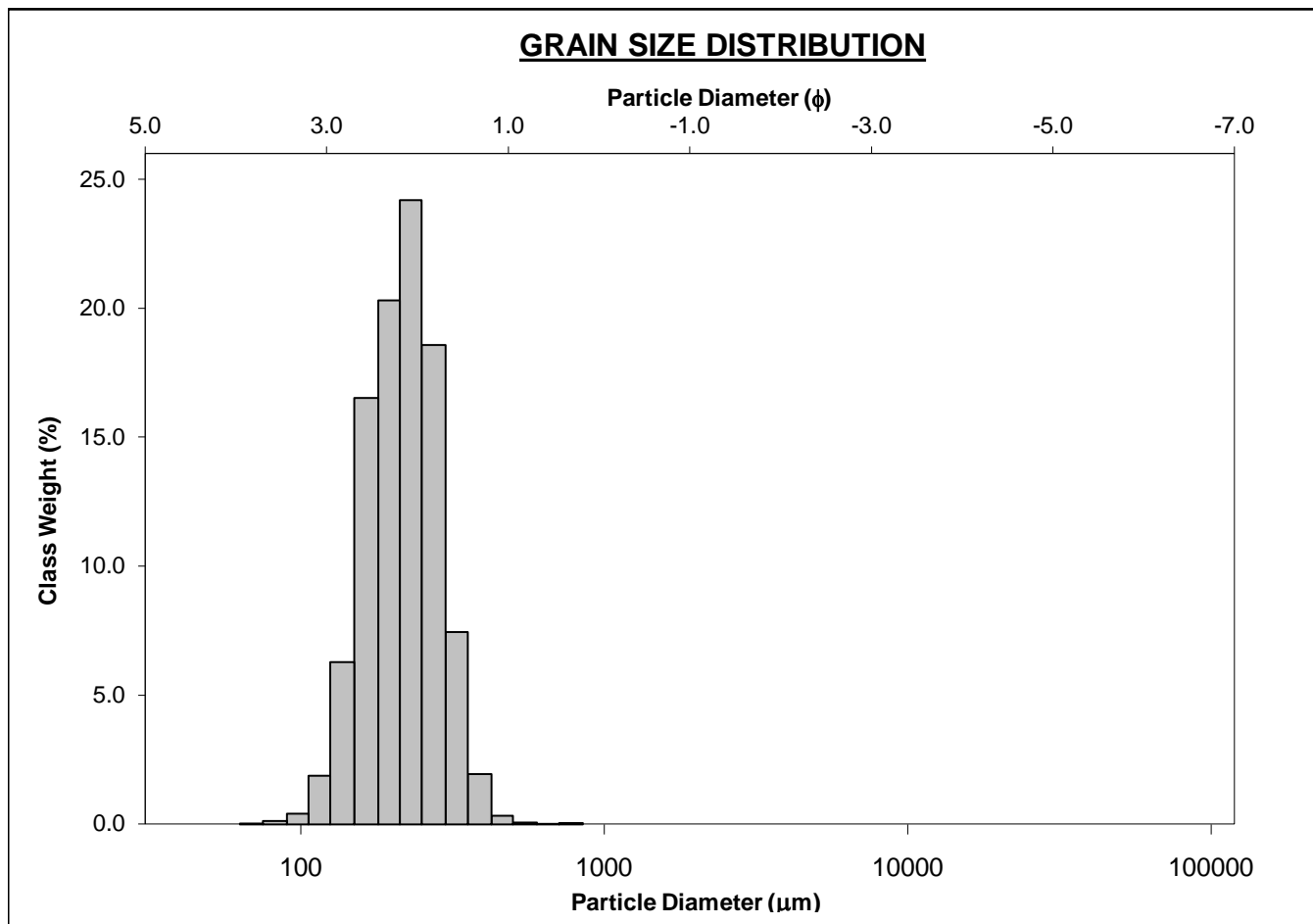
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-140cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 0.0%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 12.2%		
MODE 3:			MUD: 0.1%	FINE SAND: 79.4%		
D ₁₀ :	128.3	1.944		V FINE SAND: 8.4%		
MEDIAN or D ₅₀ :	190.9	2.389	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	259.9	2.962	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.025	1.524	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	131.5	1.018	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.444	1.248	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	69.91	0.530	V COARSE SAND: 0.0%	CLAY: 0.0%		
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	194.1	186.3	2.424	187.5	2.415	Fine Sand
SORTING (σ):	51.10	1.325	0.406	1.315	0.395	Well Sorted
SKEWNESS (Sk):	0.470	-1.127	1.127	-0.121	0.121	Fine Skewed
KURTOSIS (K):	4.289	11.48	11.48	1.028	1.028	Mesokurtic



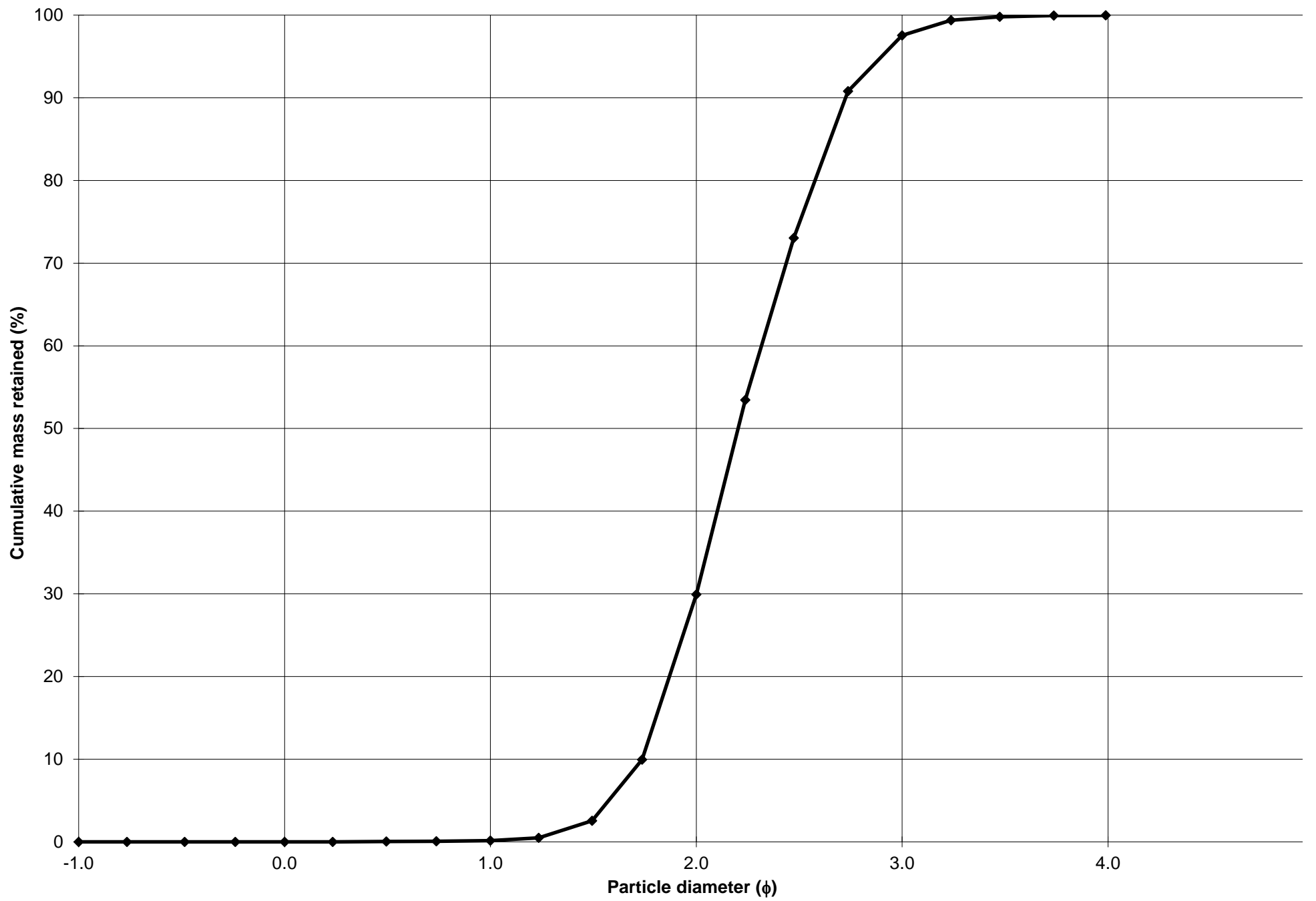
Cumulative Frequency Curve



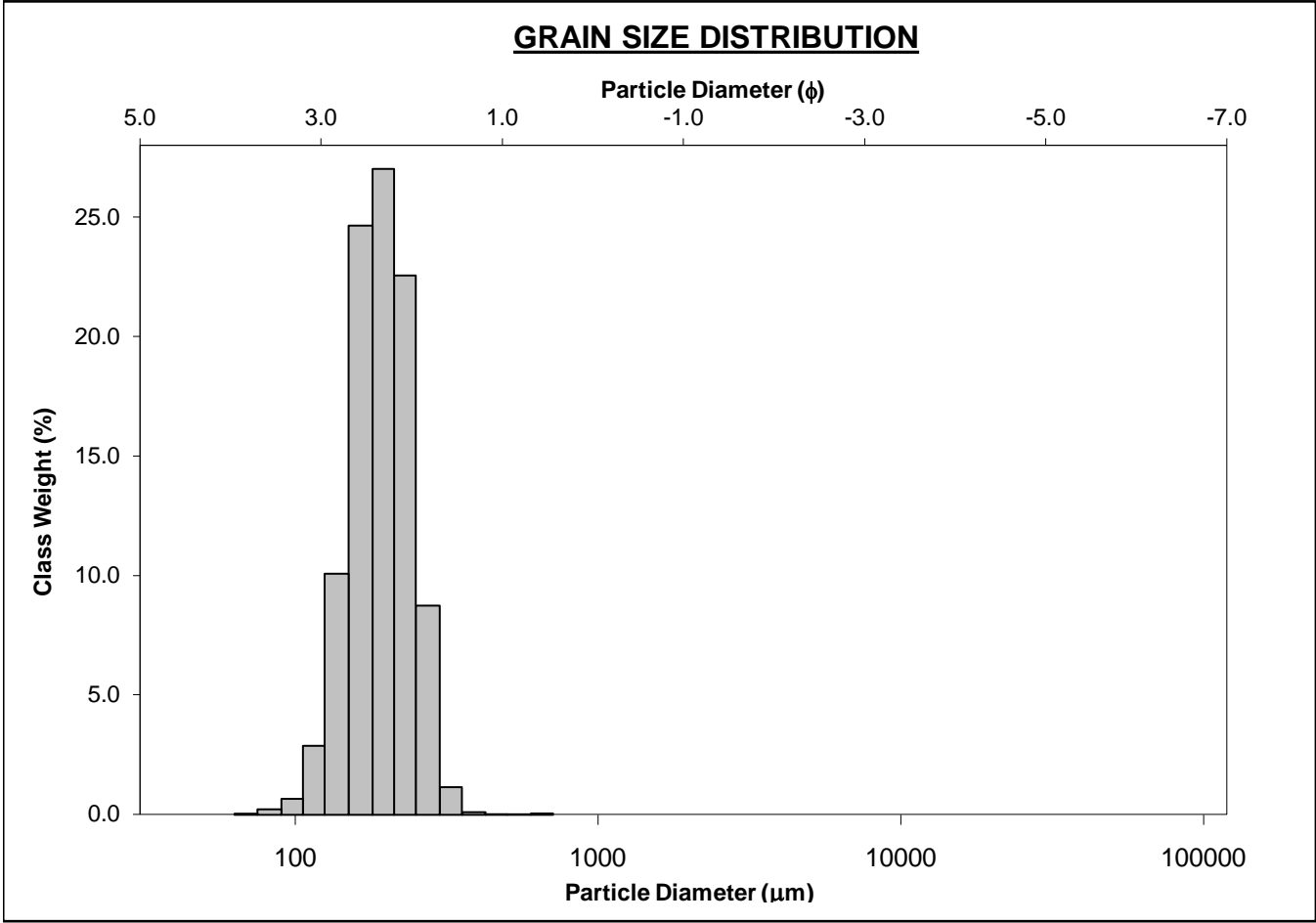
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-150cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0% COARSE SAND: 0.2%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 29.8%			
MODE 3:			MUD: 0.0% FINE SAND: 67.6%			
D ₁₀ :	151.2	1.738	V FINE SAND: 2.4%			
MEDIAN or D ₅₀ :	217.2	2.203	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	299.9	2.725	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.983	1.568	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	148.6	0.988	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.482	1.293	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	85.09	0.568	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	223.7	214.4	2.221	214.8	2.219	Fine Sand
SORTING (σ):	63.12	1.326	0.407	1.325	0.406	Well Sorted
SKEWNESS (Sk):	1.073	-0.520	0.520	-0.055	0.055	Symmetrical
KURTOSIS (K):	7.444	8.391	8.391	0.957	0.957	Mesokurtic



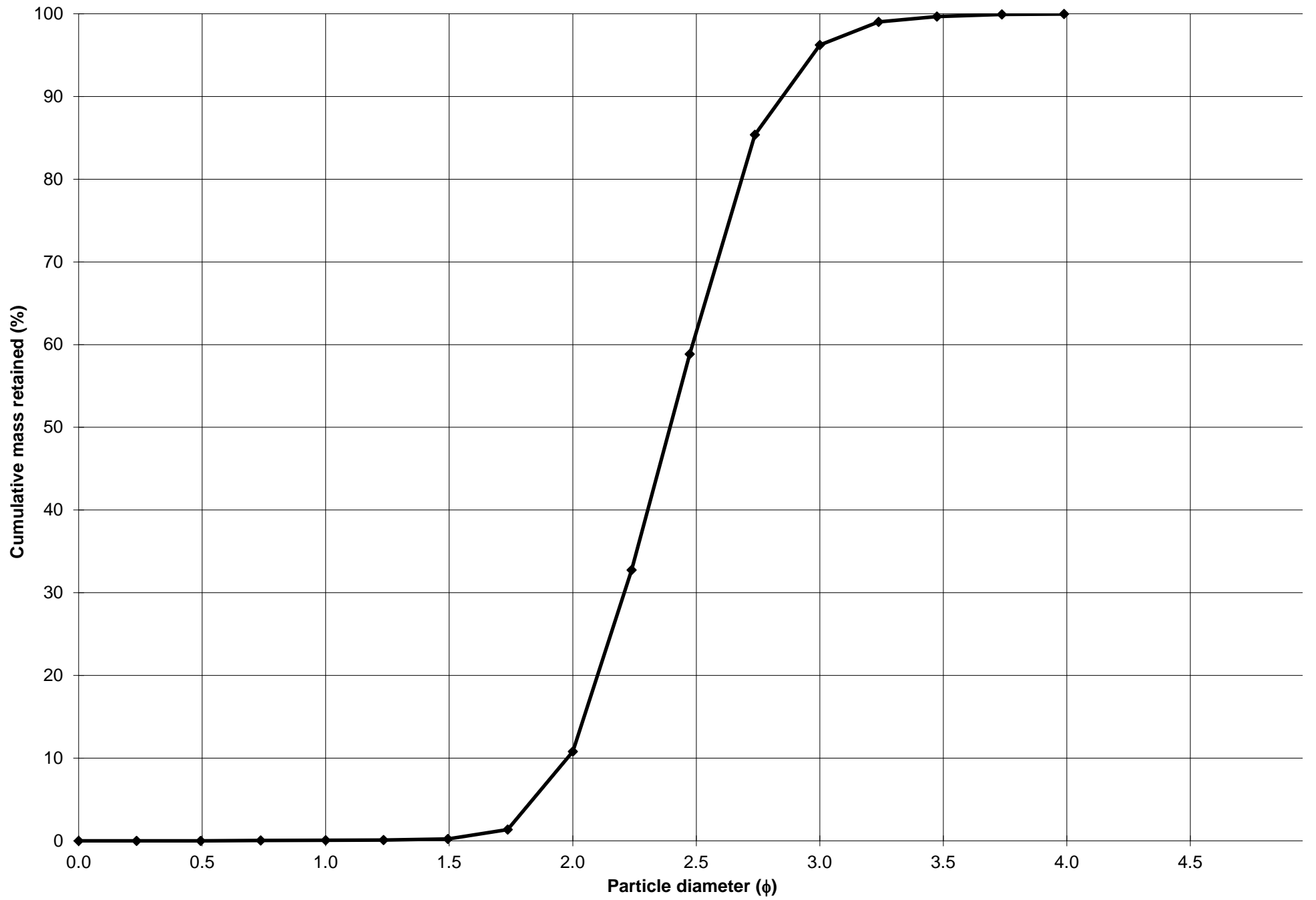
Cumulative Frequency Curve



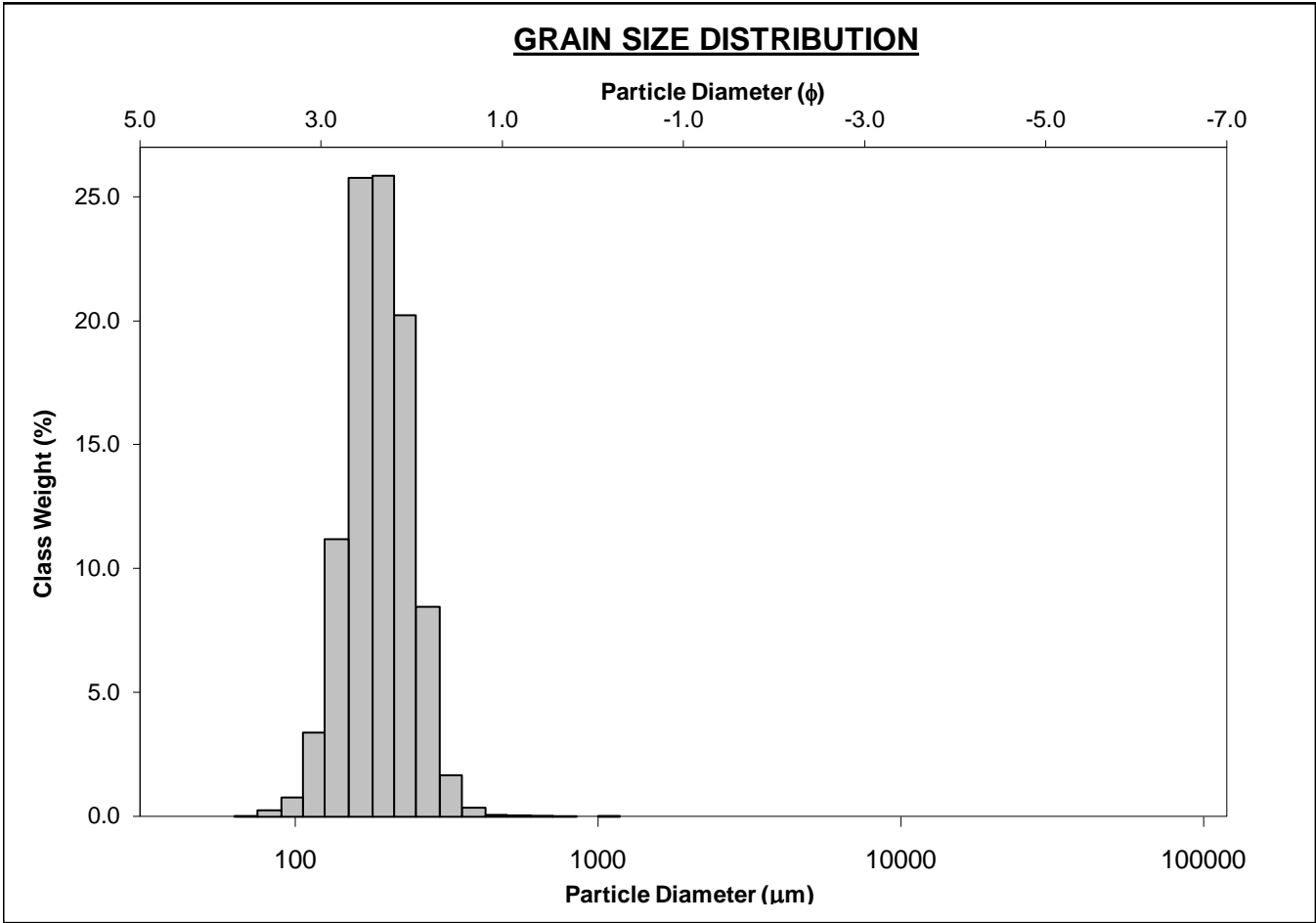
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-160cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 0.1%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 10.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 85.4%	
D ₁₀ :	138.8	1.978			V FINE SAND: 3.8%	
MEDIAN or D ₅₀ :	190.3	2.394	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	253.9	2.849	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.830	1.441	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	115.1	0.871	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.395	1.223	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	63.62	0.480	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	195.4	189.2	2.402	190.6	2.391	Fine Sand
SORTING (σ):	46.75	1.274	0.350	1.264	0.338	Very Well Sorted
SKEWNESS (Sk):	1.056	-0.807	0.807	-0.003	0.003	Symmetrical
KURTOSIS (K):	9.091	12.49	12.49	0.966	0.966	Mesokurtic



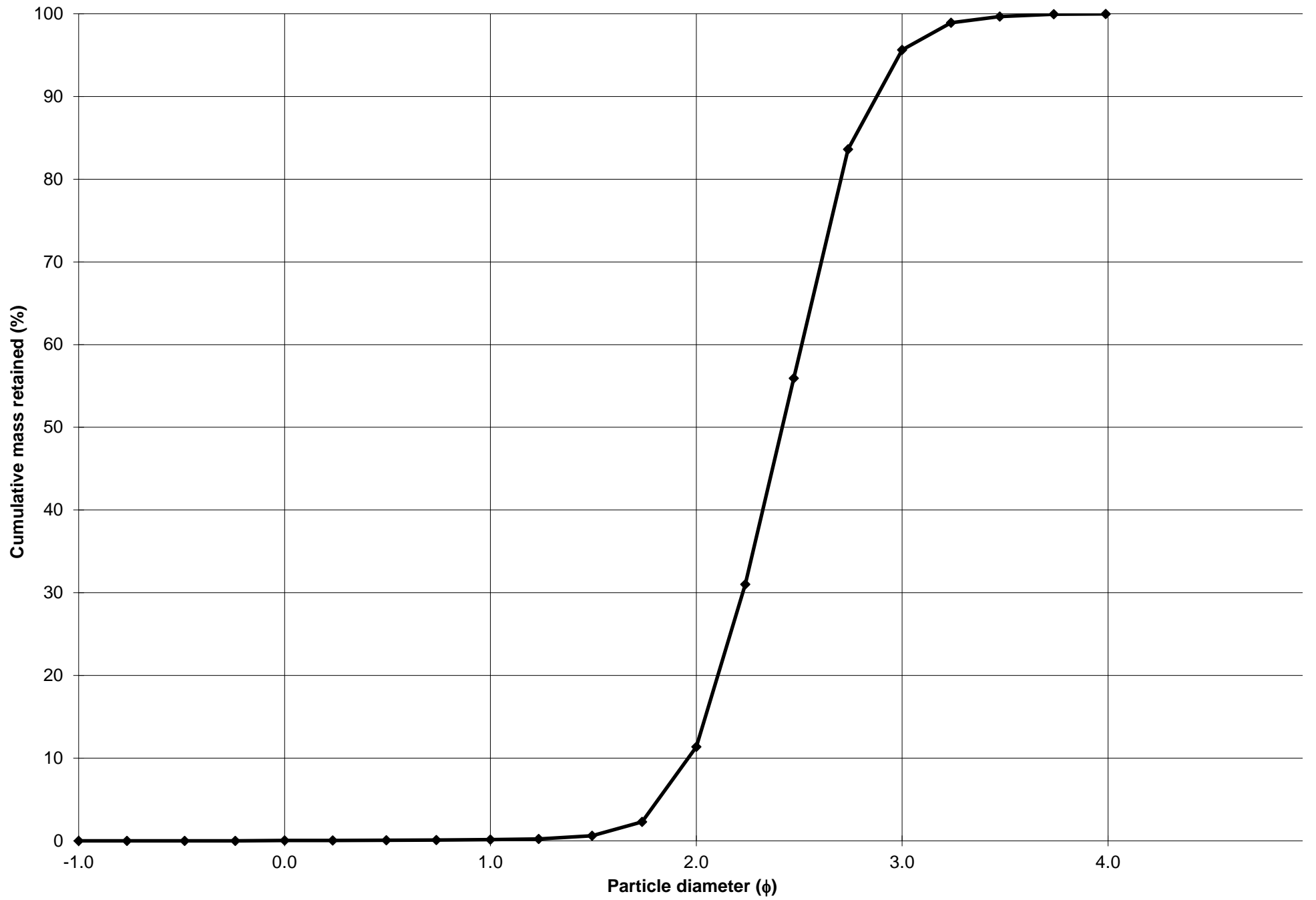
Cumulative Frequency Curve



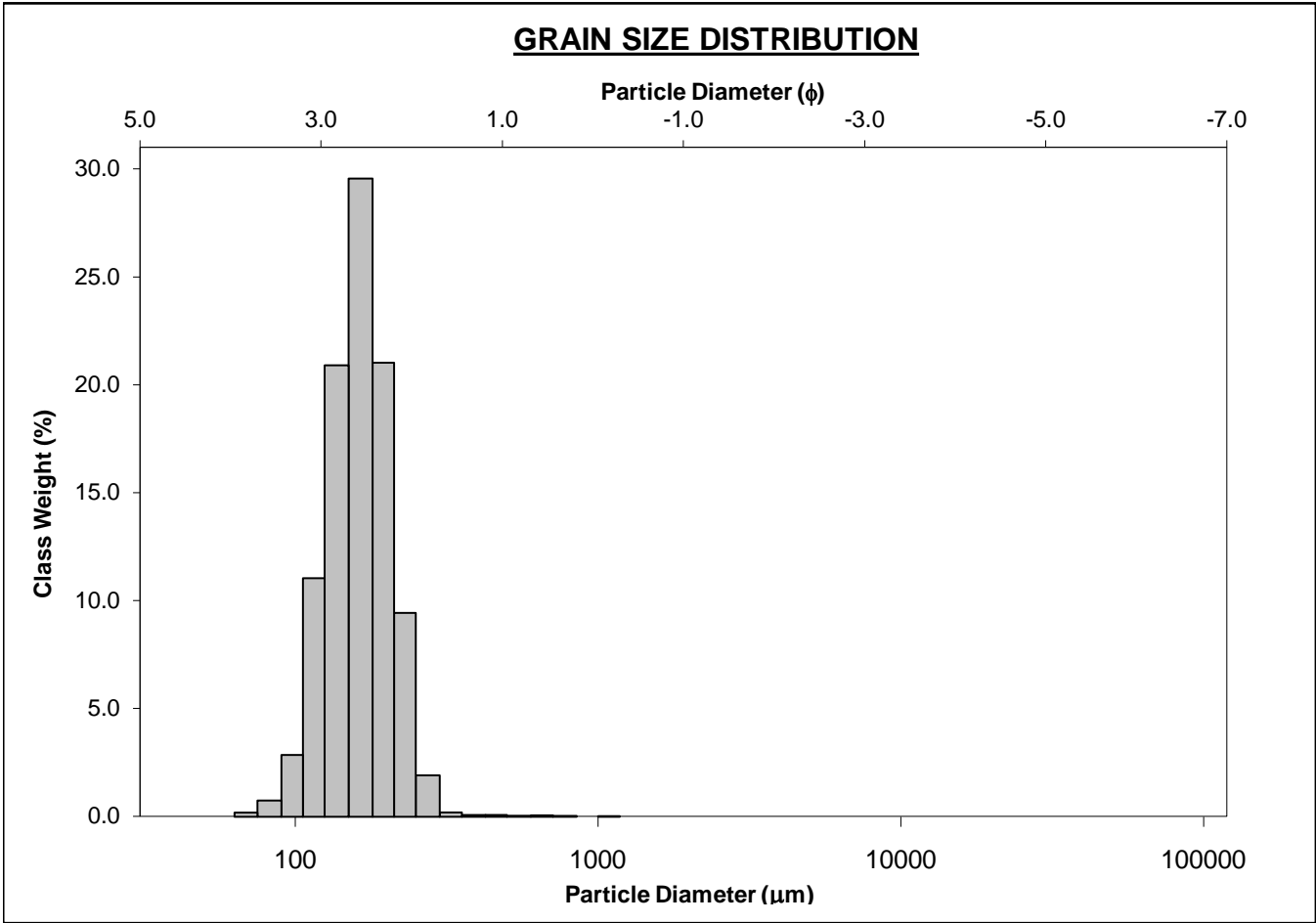
SIEVING ERROR: 0.9%		<u>SAMPLE STATISTICS</u>				
SAMPLE IDENTITY: GR-15-09-170cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 0.1%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 11.2%			
MODE 3:			MUD: 0.0% FINE SAND: 84.2%			
D ₁₀ :	136.1	1.960	V FINE SAND: 4.4%			
MEDIAN or D ₅₀ :	187.2	2.418	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	257.0	2.877	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.888	1.468	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	120.9	0.917	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.405	1.226	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	64.24	0.490	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	194.7	187.8	2.413	188.6	2.406	Fine Sand
SORTING (σ):	53.10	1.287	0.364	1.274	0.350	Very Well Sorted
SKEWNESS (Sk):	2.946	-0.070	0.070	0.039	-0.039	Symmetrical
KURTOSIS (K):	37.38	7.670	7.670	0.979	0.979	Mesokurtic



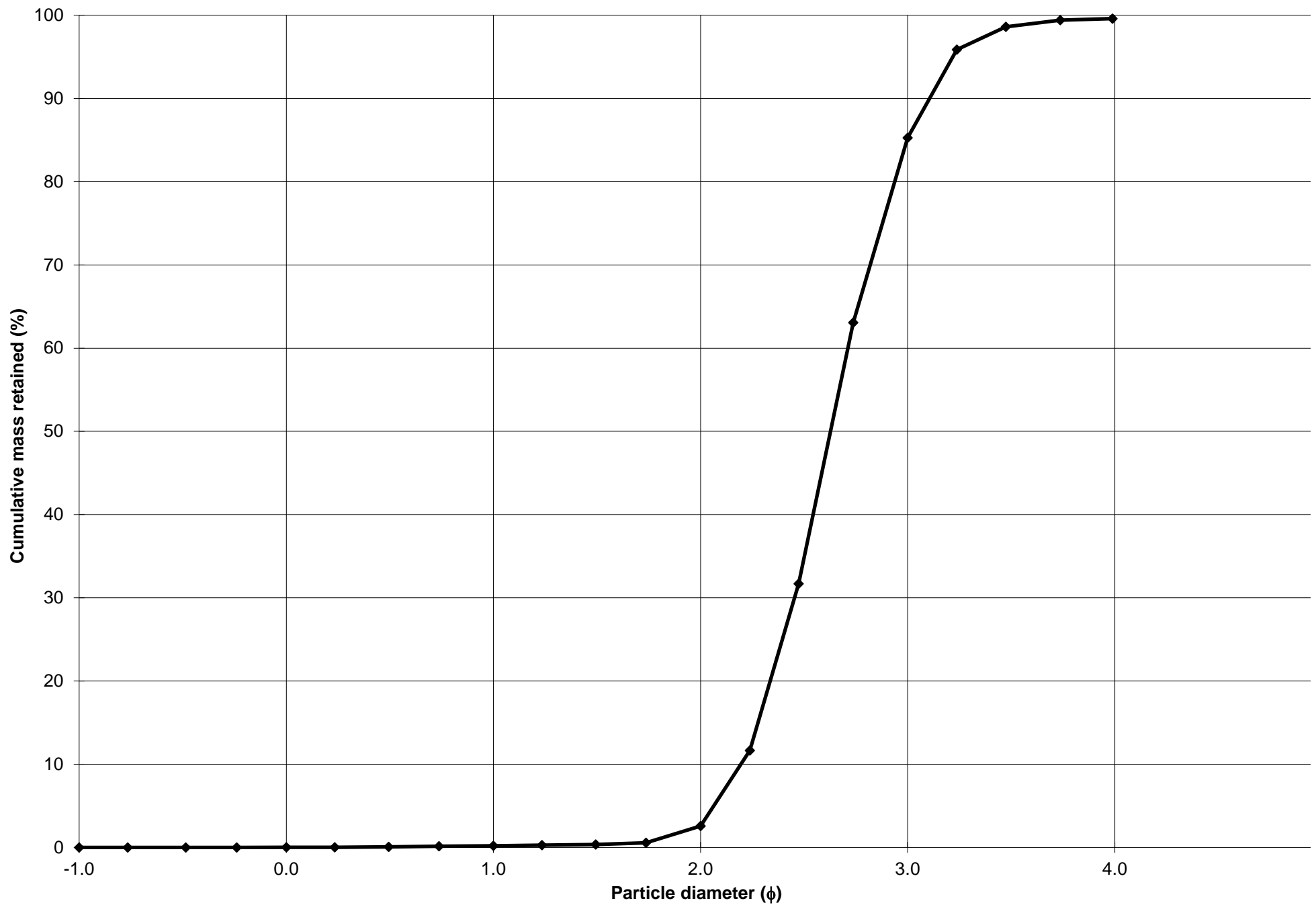
Cumulative Frequency Curve



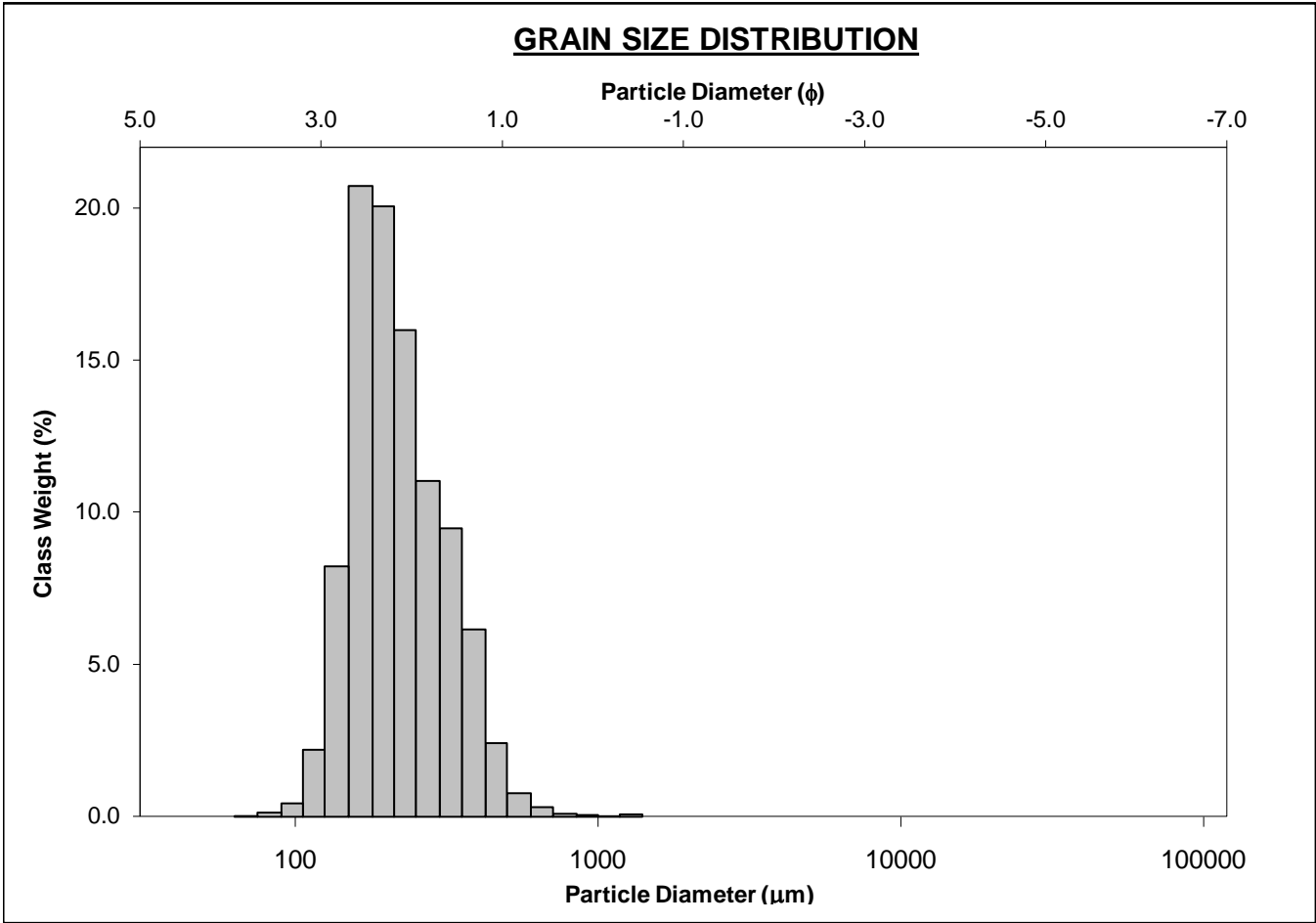
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-180cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.2%			
MODE 2:			SAND: 99.6% MEDIUM SAND: 2.4%			
MODE 3:			MUD: 0.4% FINE SAND: 82.7%			
D_{10} :	116.1	2.194	V FINE SAND: 14.3%			
MEDIAN or D_{50} :	161.8	2.627	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%			
D_{90} :	218.5	3.106	COARSE GRAVEL: 0.0% COARSE SILT: 0.1%			
(D_{90} / D_{10}) :	1.881	1.416	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%			
$(D_{90} - D_{10})$:	102.4	0.912	FINE GRAVEL: 0.0% FINE SILT: 0.1%			
(D_{75} / D_{25}) :	1.398	1.202	V FINE GRAVEL: 0.0% V FINE SILT: 0.1%			
$(D_{75} - D_{25})$:	54.11	0.483	V COARSE SAND: 0.0% CLAY: 0.1%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	166.7	159.3	2.650	161.1	2.634	Fine Sand
SORTING (σ):	48.37	1.368	0.453	1.274	0.349	Very Well Sorted
SKEWNESS (Sk):	4.271	-3.369	3.369	-0.025	0.025	Symmetrical
KURTOSIS (K):	61.94	36.84	36.84	0.980	0.980	Mesokurtic



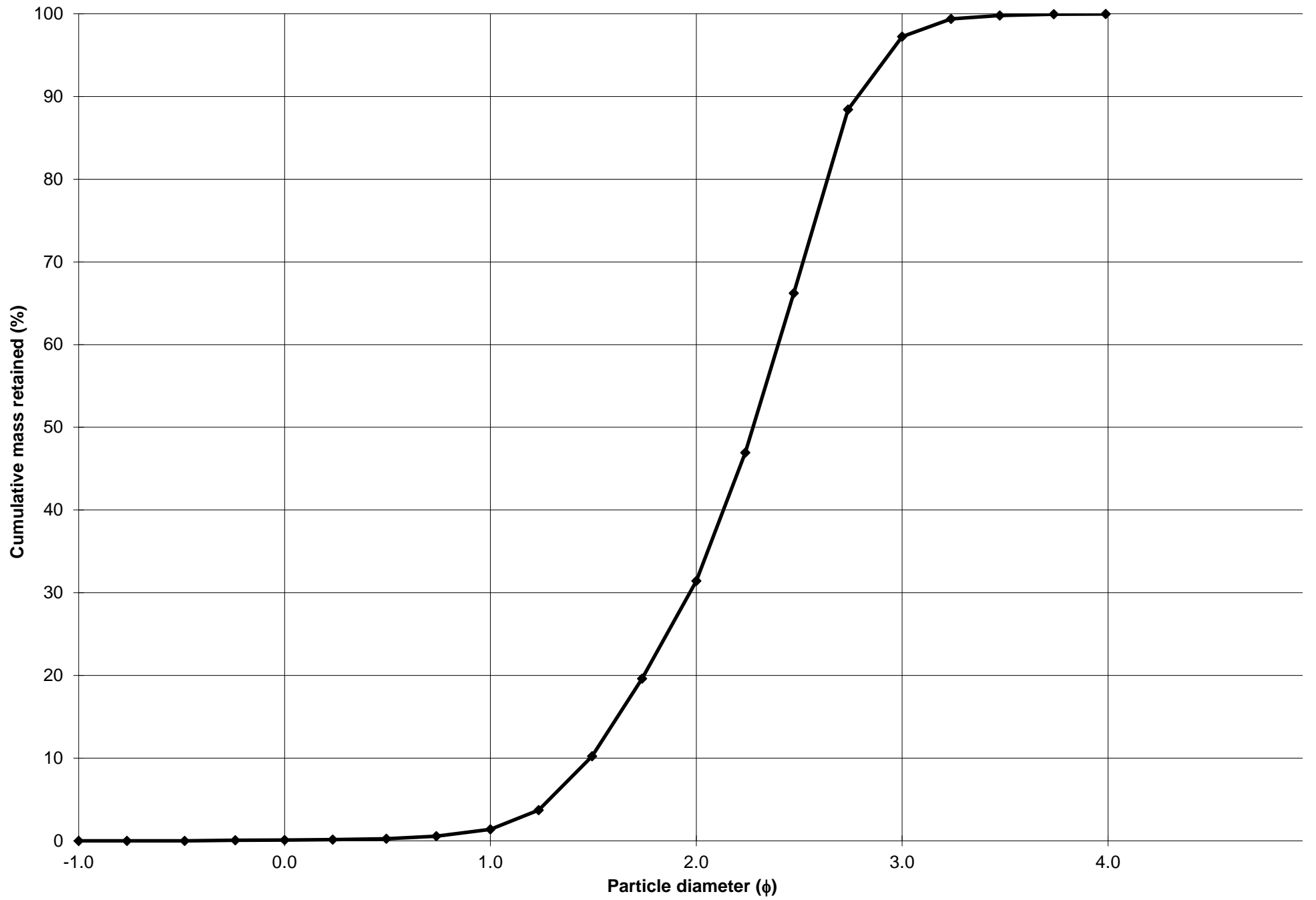
Cumulative Frequency Curve



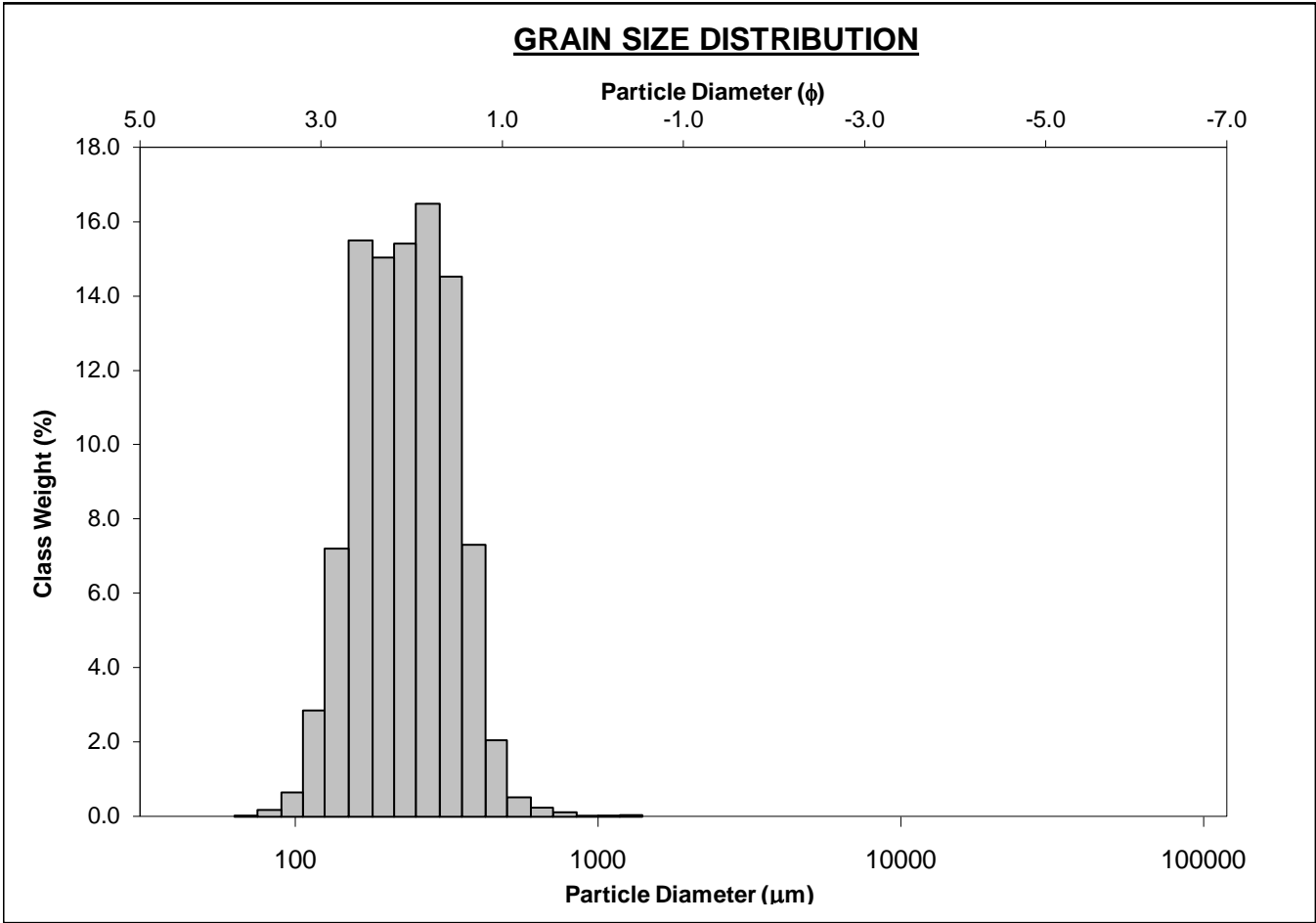
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-190cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 1.3%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 30.0%	
MODE 3:			MUD: 0.0%		FINE SAND: 65.8%	
D ₁₀ :	145.2	1.485			V FINE SAND: 2.7%	
MEDIAN or D ₅₀ :	206.5	2.275	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	357.2	2.784	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.460	1.875	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	212.0	1.299	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.648	1.388	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	108.6	0.721	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	233.9	217.7	2.200	217.5	2.201	Fine Sand
SORTING (σ):	96.88	1.431	0.517	1.424	0.510	Moderately Well Sorted
SKEWNESS (Sk):	2.529	0.378	-0.378	0.208	-0.208	Coarse Skewed
KURTOSIS (K):	18.43	5.163	5.163	0.936	0.936	Mesokurtic



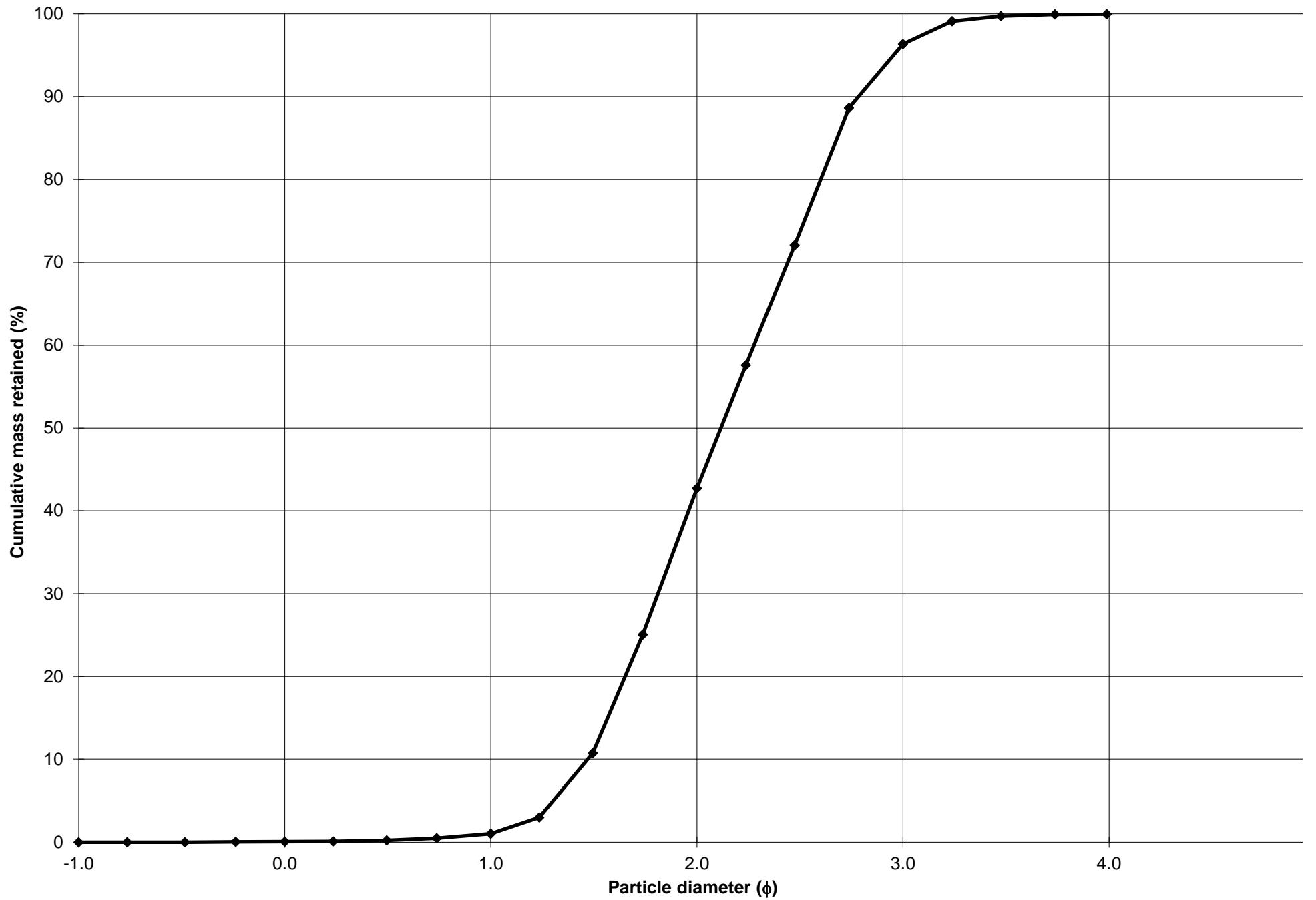
Cumulative Frequency Curve



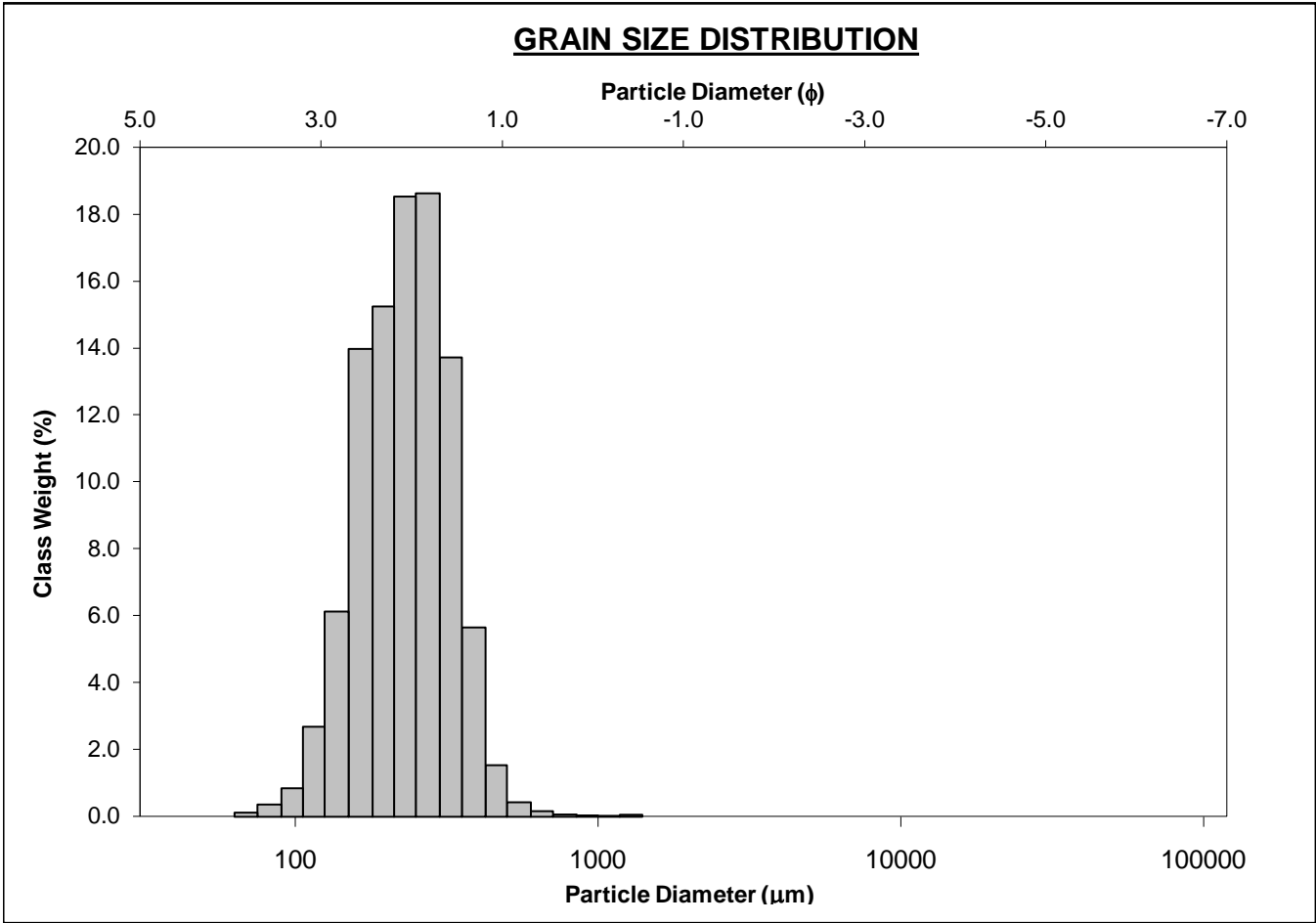
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-200cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 1.0%			
MODE 2:	165.0	2.605	SAND: 100.0% MEDIUM SAND: 41.7%			
MODE 3:			MUD: 0.0% FINE SAND: 53.6%			
D ₁₀ :	145.2	1.470	V FINE SAND: 3.6%			
MEDIAN or D ₅₀ :	230.6	2.116	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	361.0	2.784	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.486	1.894	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	215.8	1.314	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.723	1.452	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	126.0	0.785	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	246.2	229.6	2.123	229.9	2.121	Fine Sand
SORTING (σ):	94.06	1.441	0.527	1.434	0.520	Moderately Well Sorted
SKEWNESS (Sk):	1.831	-0.224	0.224	-0.014	0.014	Symmetrical
KURTOSIS (K):	14.05	5.756	5.756	0.863	0.863	Platykurtic



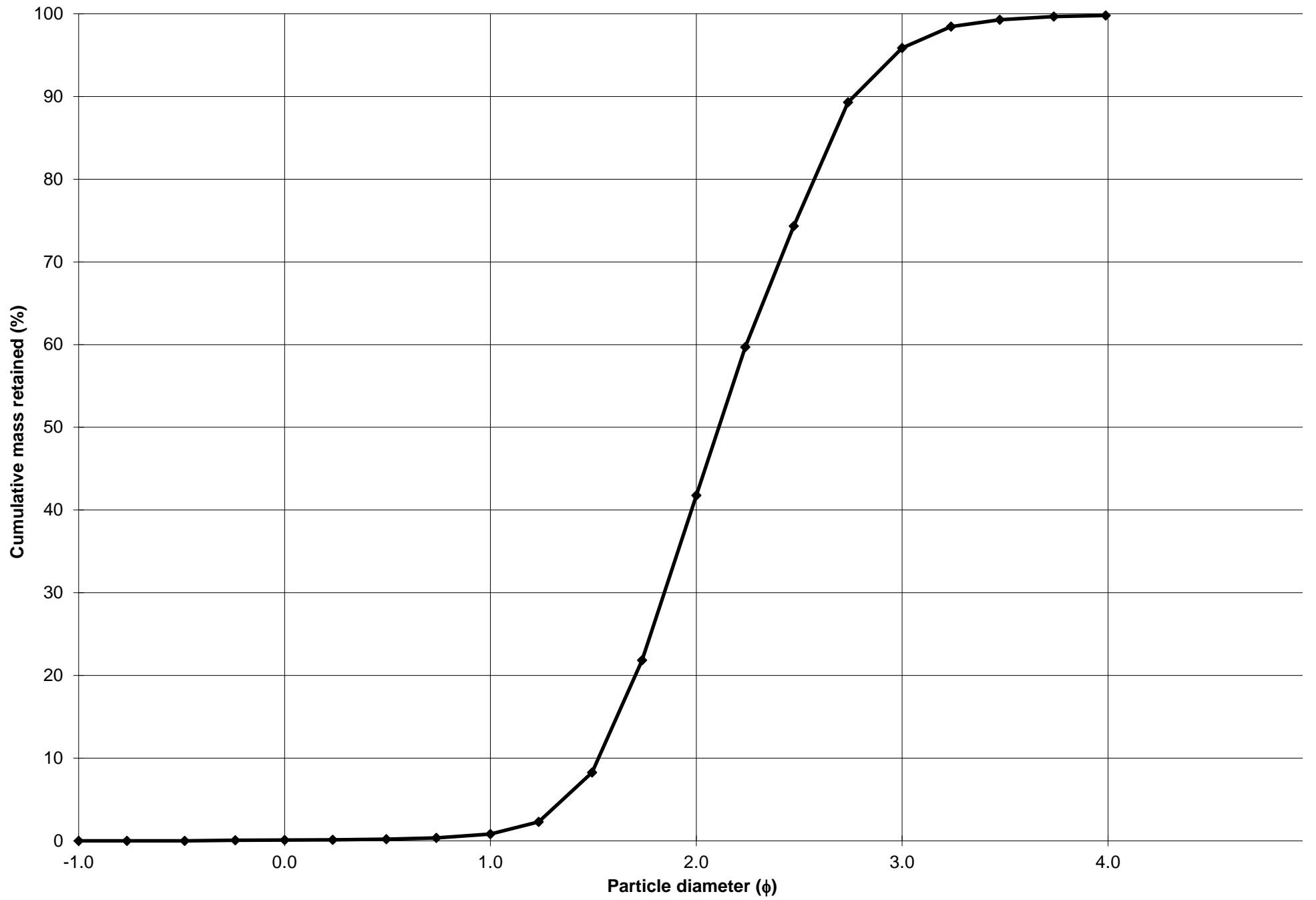
Cumulative Frequency Curve



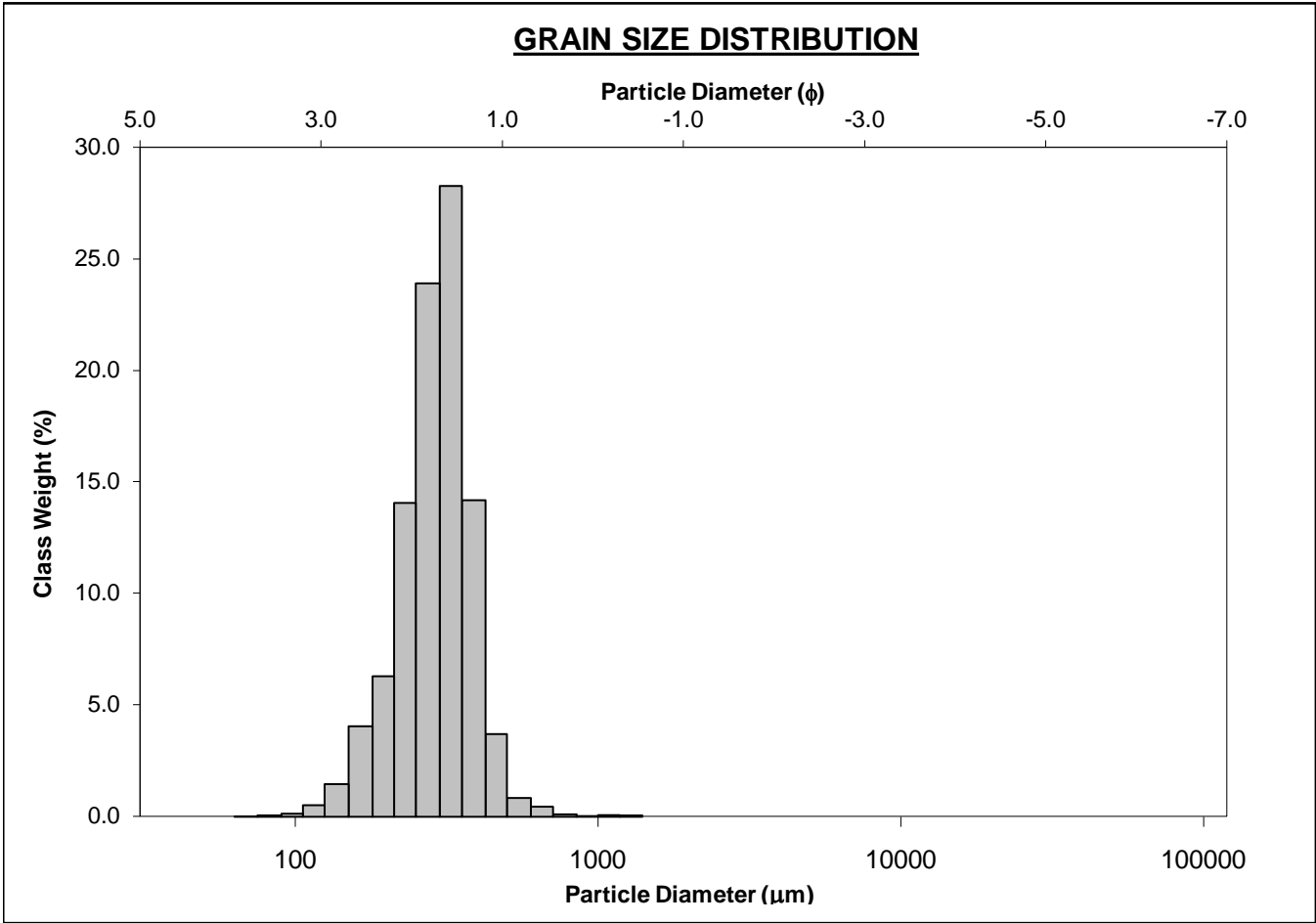
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-210cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%	COARSE SAND: 0.7%		
MODE 2:			SAND: 99.8%	MEDIUM SAND: 40.9%		
MODE 3:			MUD: 0.2%	FINE SAND: 54.1%		
D ₁₀ :	147.1	1.525		V FINE SAND: 3.9%		
MEDIAN or D ₅₀ :	231.8	2.109	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	347.5	2.765	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.362	1.813	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	200.4	1.240	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.632	1.397	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	112.9	0.707	V COARSE SAND: 0.1%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	243.1	227.0	2.139	228.7	2.129	Fine Sand
SORTING (σ):	89.21	1.457	0.543	1.412	0.497	Well Sorted
SKEWNESS (Sk):	2.109	-1.445	1.445	-0.059	0.059	Symmetrical
KURTOSIS (K):	19.06	15.46	15.46	0.936	0.936	Mesokurtic



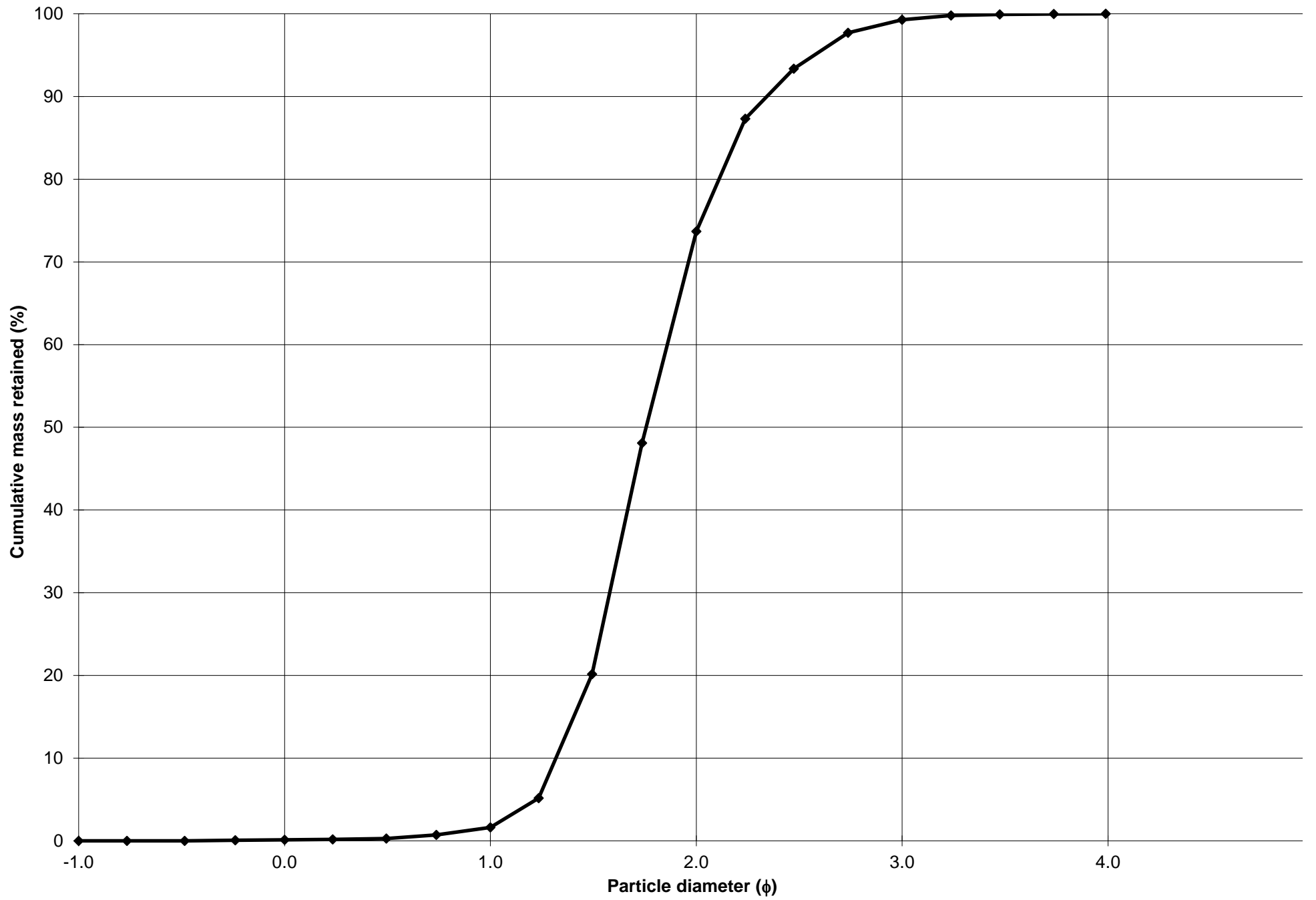
Cumulative Frequency Curve



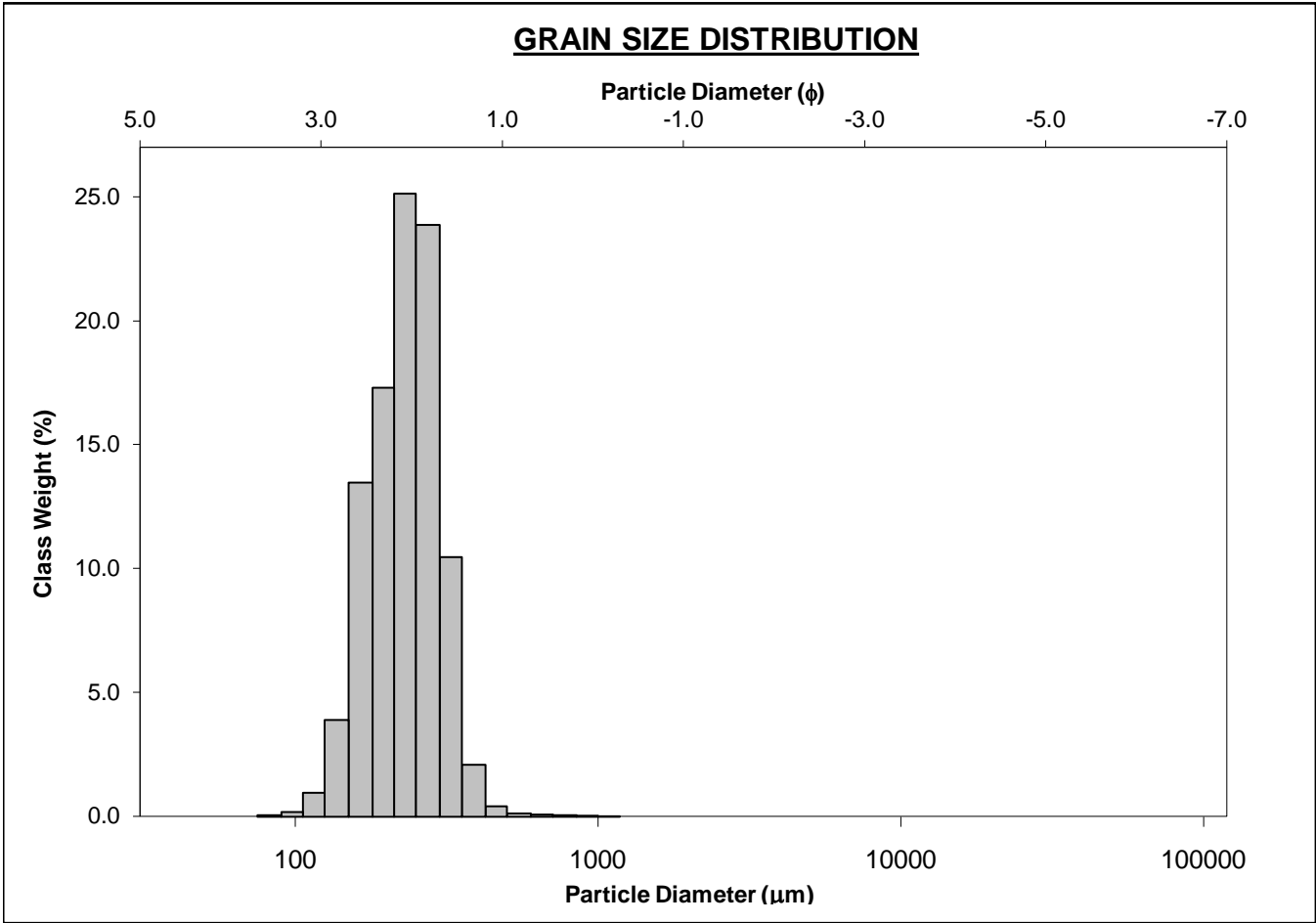
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-220cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0% COARSE SAND: 1.5%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 72.1%			
MODE 3:			MUD: 0.0% FINE SAND: 25.6%			
D ₁₀ :	197.2	1.318	V FINE SAND: 0.7%			
MEDIAN or D ₅₀ :	296.0	1.756	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	401.0	2.343	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.034	1.777	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	203.9	1.024	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.401	1.317	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	98.71	0.487	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	300.8	287.8	1.797	289.9	1.786	Medium Sand
SORTING (σ):	88.63	1.333	0.415	1.314	0.394	Well Sorted
SKEWNESS (Sk):	2.003	-0.337	0.337	-0.164	0.164	Fine Skewed
KURTOSIS (K):	18.71	4.696	4.696	1.137	1.137	Leptokurtic



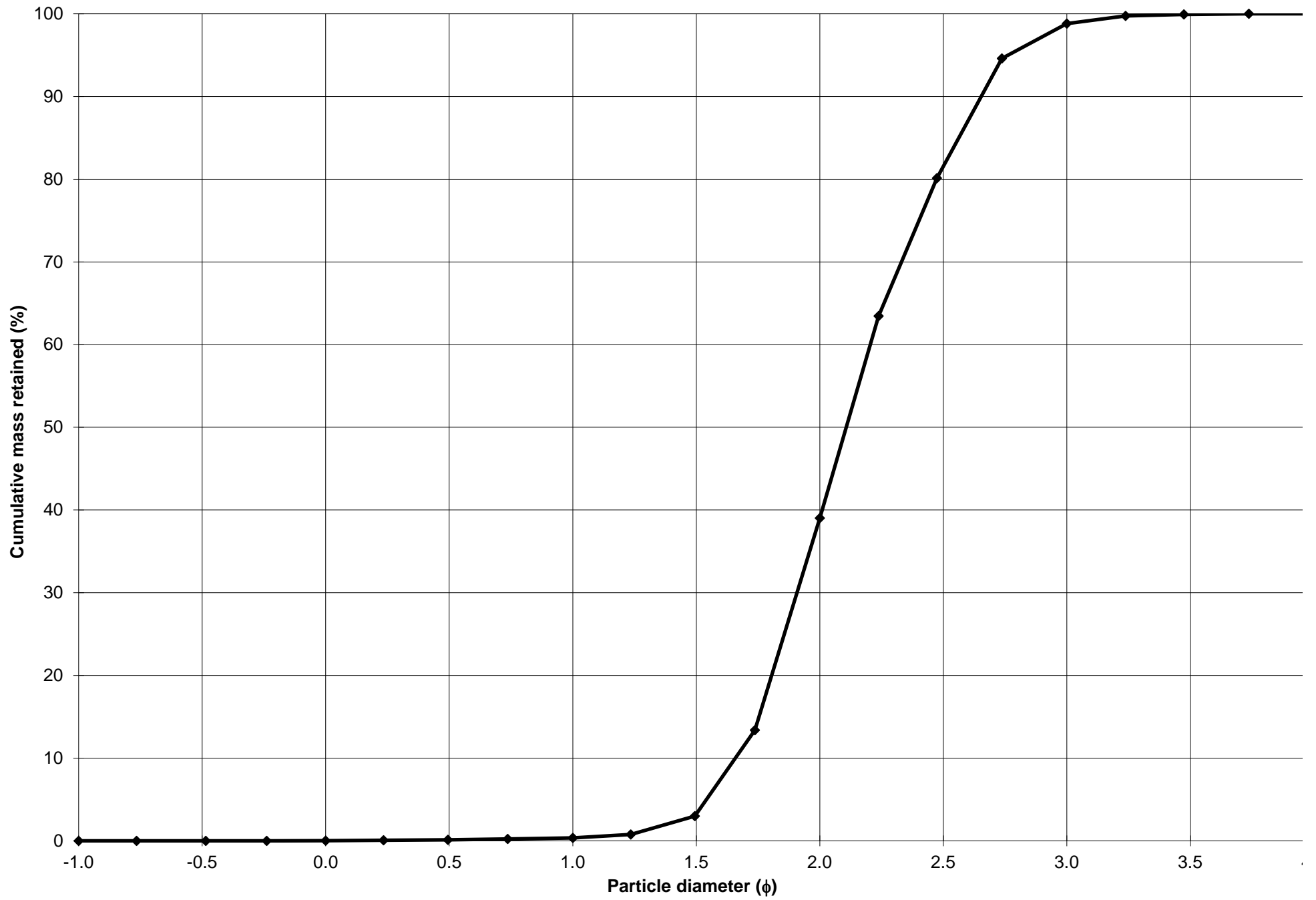
Cumulative Frequency Curve



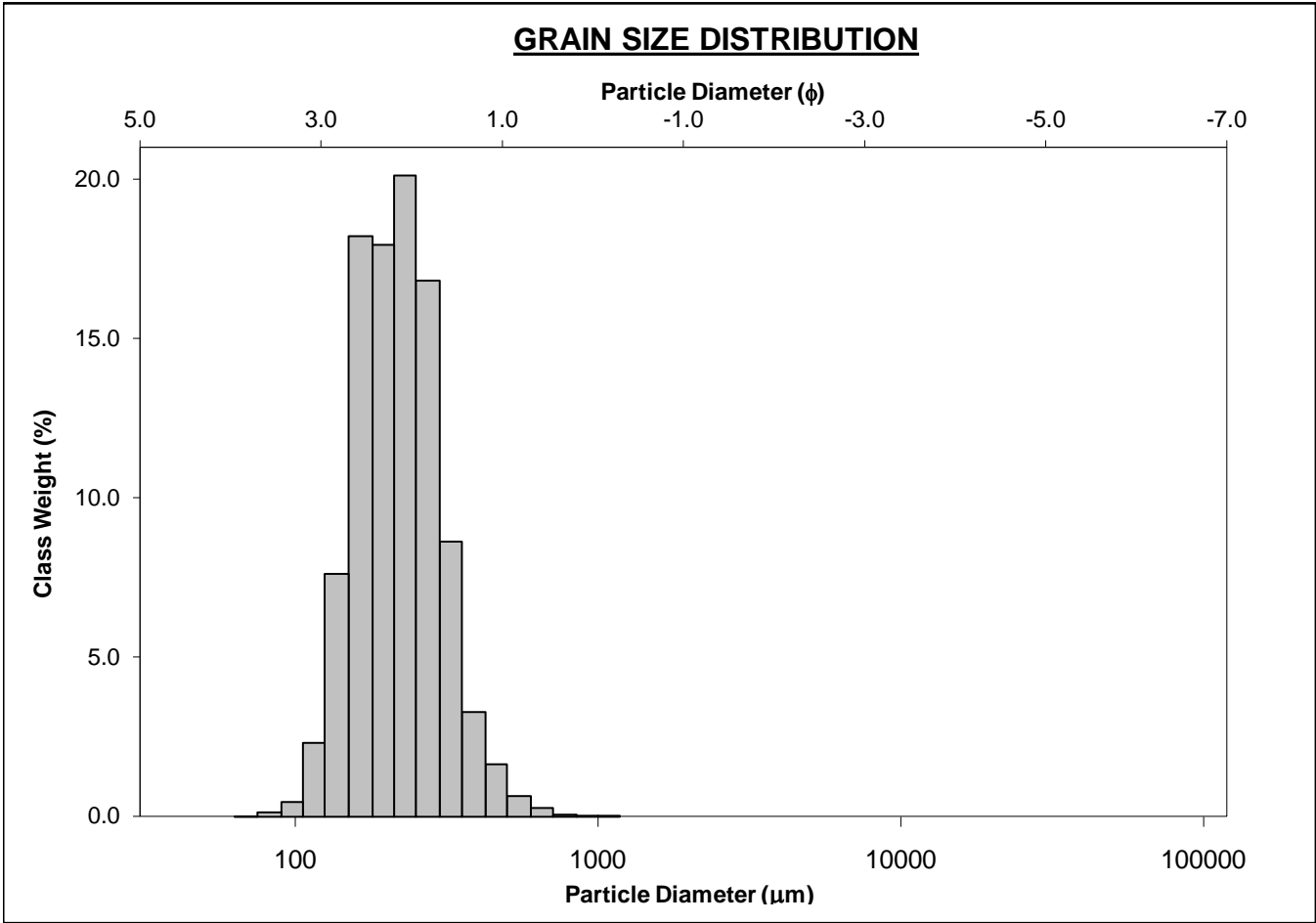
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-230cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.3%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 38.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 59.8%	
D ₁₀ :	159.0	1.658			V FINE SAND: 1.2%	
MEDIAN or D ₅₀ :	232.1	2.107	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	316.9	2.653	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.994	1.600	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	157.9	0.995	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.459	1.294	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	86.93	0.545	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	237.7	228.4	2.130	227.1	2.138	Fine Sand
SORTING (σ):	66.62	1.307	0.386	1.301	0.380	Well Sorted
SKEWNESS (Sk):	1.887	-0.011	0.011	-0.097	0.097	Symmetrical
KURTOSIS (K):	17.38	3.789	3.789	0.917	0.917	Mesokurtic



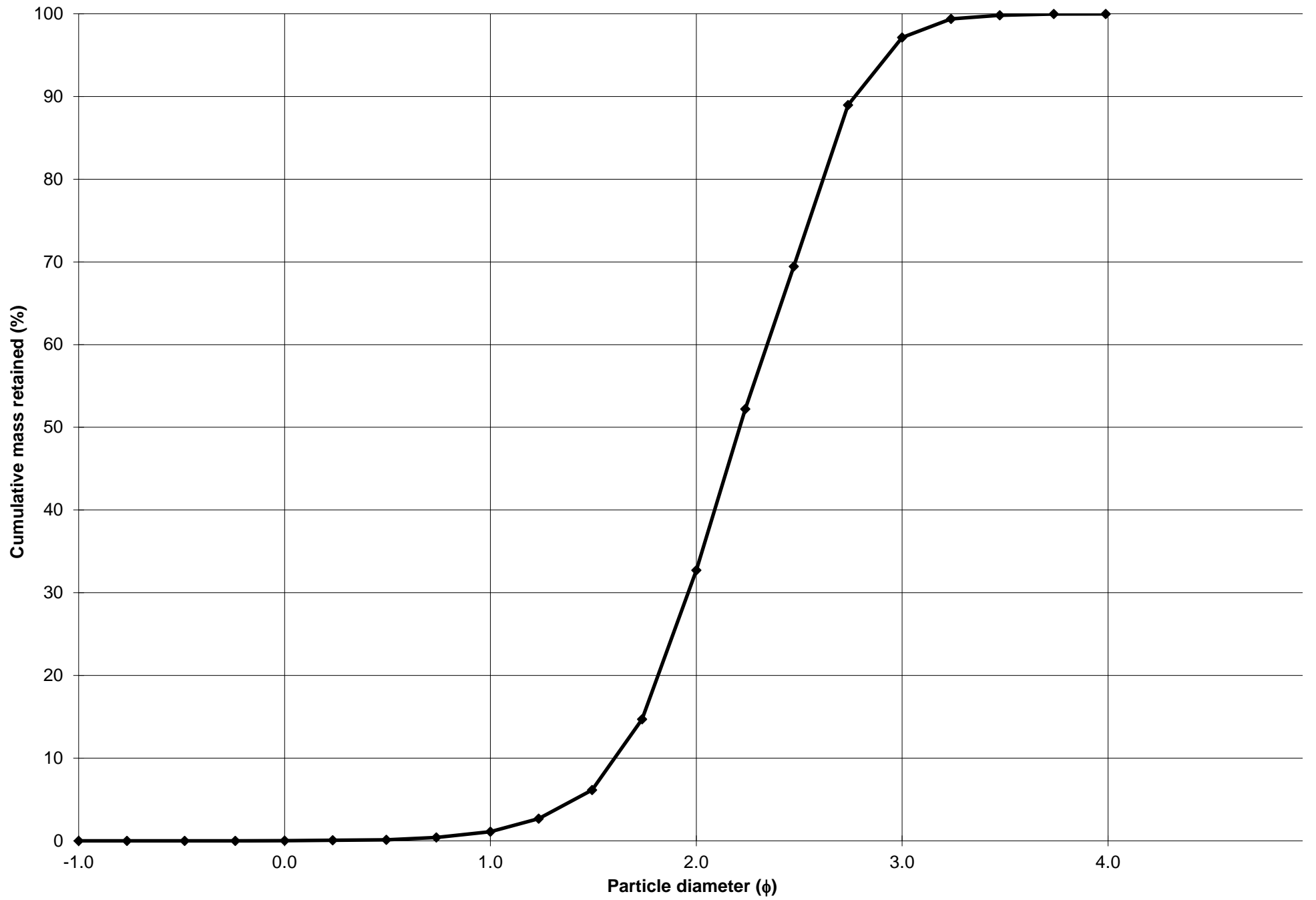
Cumulative Frequency Curve



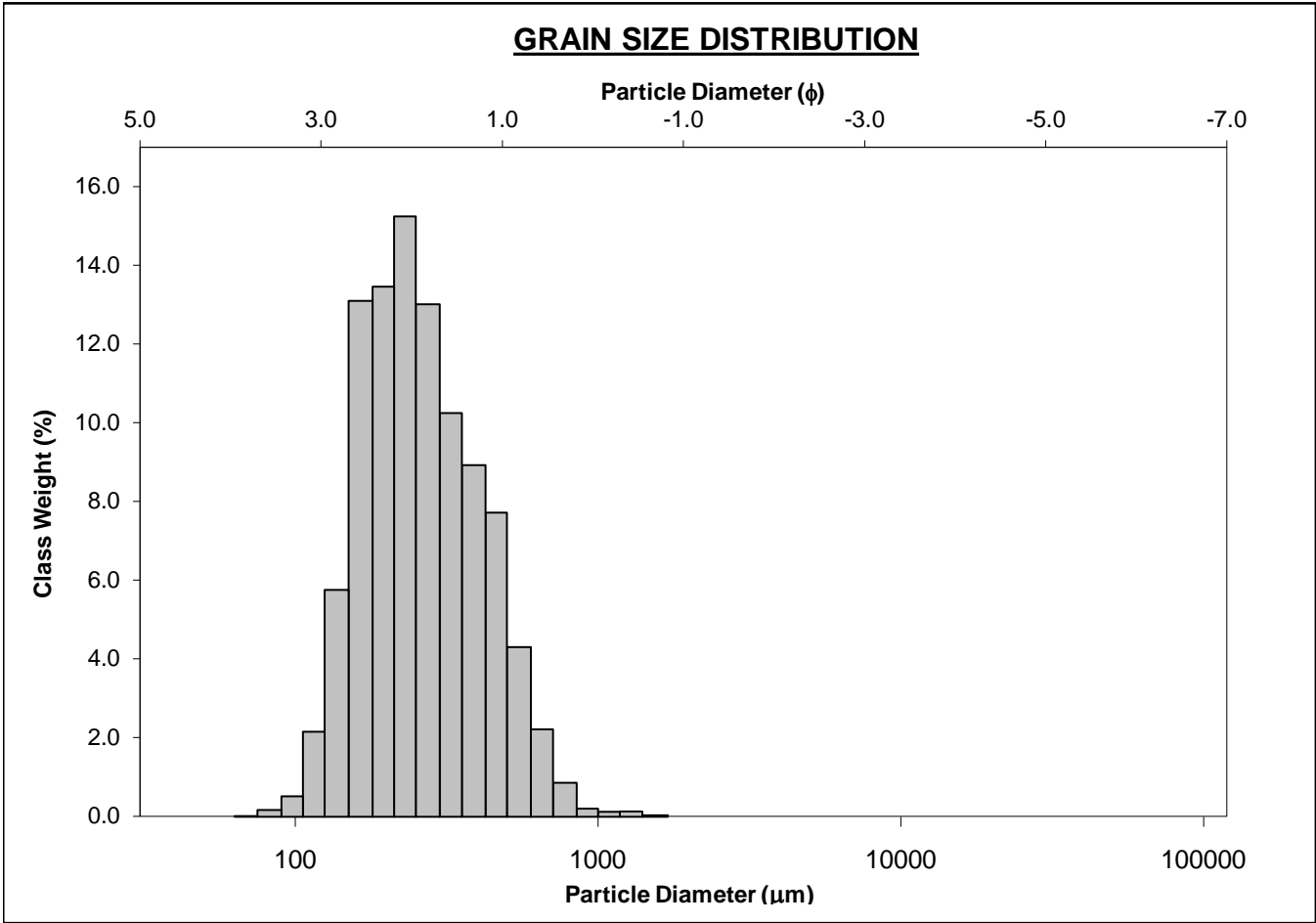
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-240cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Bimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 1.1%	
MODE 2:	165.0	2.605	SAND: 100.0%		MEDIUM SAND: 31.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 64.4%	
D ₁₀ :	146.6	1.604			V FINE SAND: 2.8%	
MEDIAN or D ₅₀ :	216.0	2.211	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	329.1	2.770	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.245	1.728	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	182.5	1.167	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.581	1.350	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	99.38	0.661	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	230.6	217.4	2.202	215.8	2.212	Fine Sand
SORTING (σ):	82.80	1.386	0.471	1.375	0.459	Well Sorted
SKEWNESS (Sk):	1.952	0.185	-0.185	0.025	-0.025	Symmetrical
KURTOSIS (K):	11.95	5.024	5.024	0.944	0.944	Mesokurtic



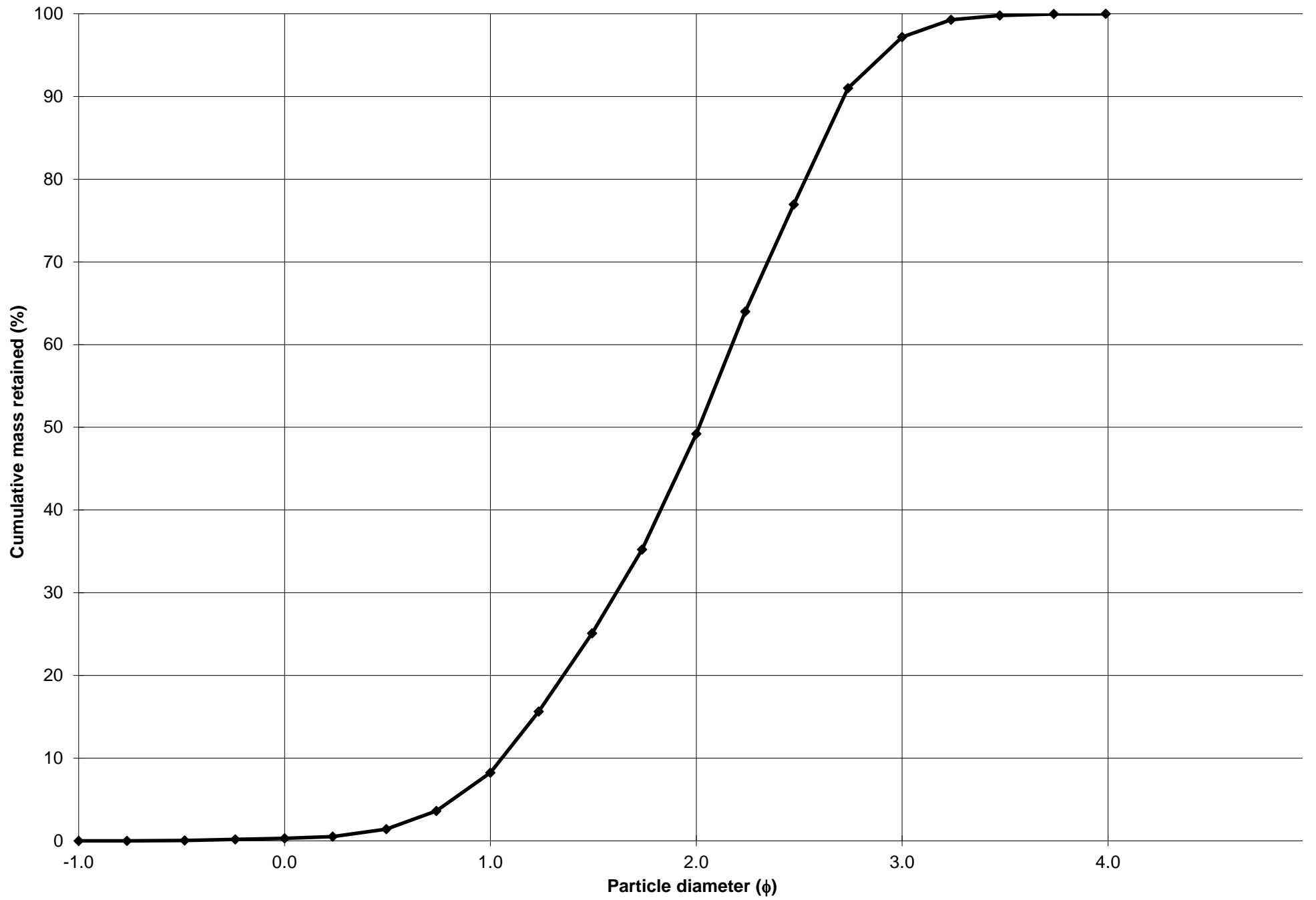
Cumulative Frequency Curve



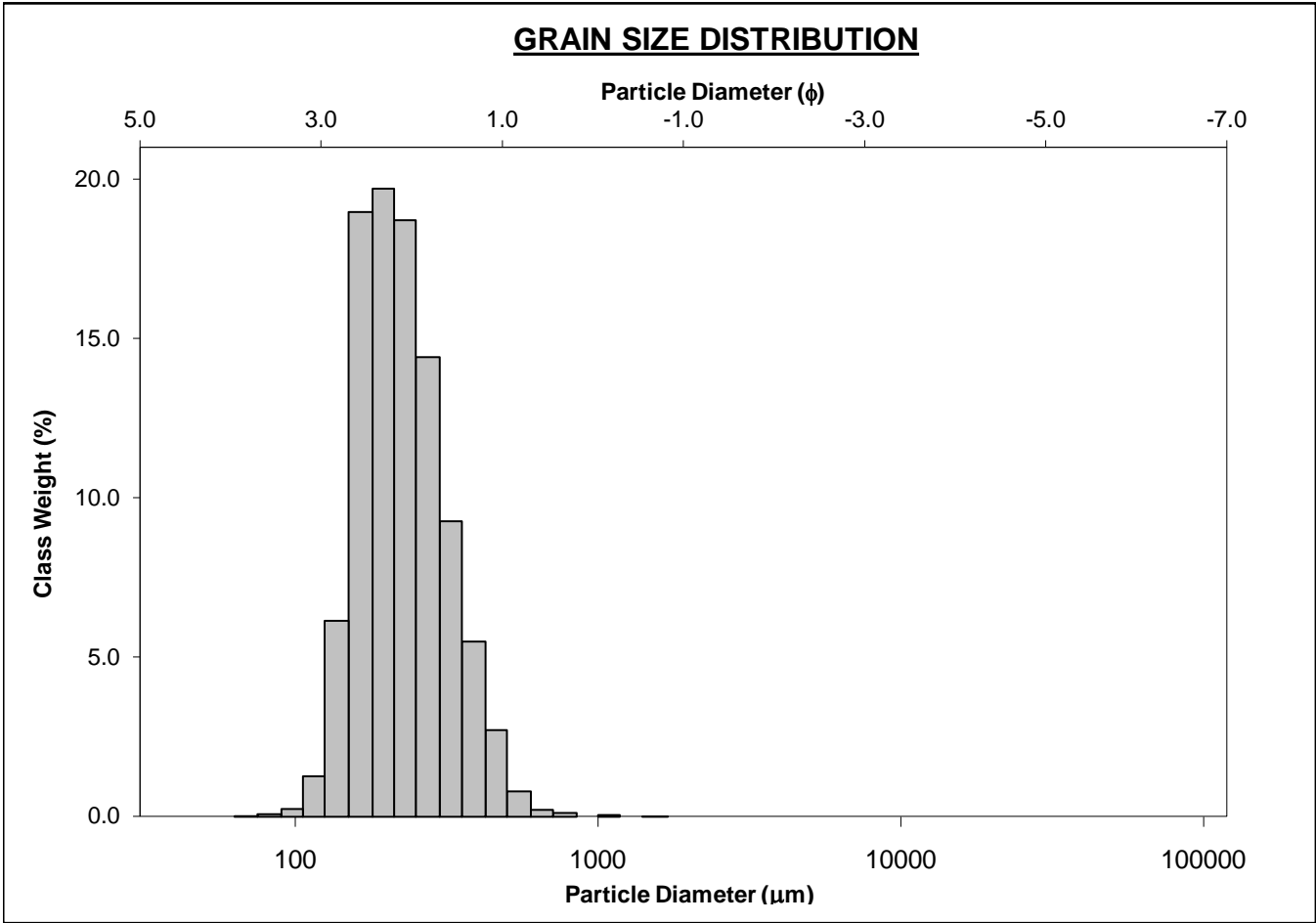
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-250cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 7.9%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 41.0%	
MODE 3:			MUD: 0.0%		FINE SAND: 48.0%	
D ₁₀ :	152.0	1.056			V FINE SAND: 2.8%	
MEDIAN or D ₅₀ :	247.8	2.013	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	481.0	2.718	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.165	2.574	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	329.0	1.662	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.927	1.634	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	171.1	0.947	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	289.6	259.6	1.946	258.0	1.954	Medium Sand
SORTING (σ):	146.4	1.567	0.648	1.577	0.657	Moderately Well Sorted
SKEWNESS (Sk):	1.923	0.311	-0.311	0.137	-0.137	Coarse Skewed
KURTOSIS (K):	10.03	3.227	3.227	0.905	0.905	Mesokurtic



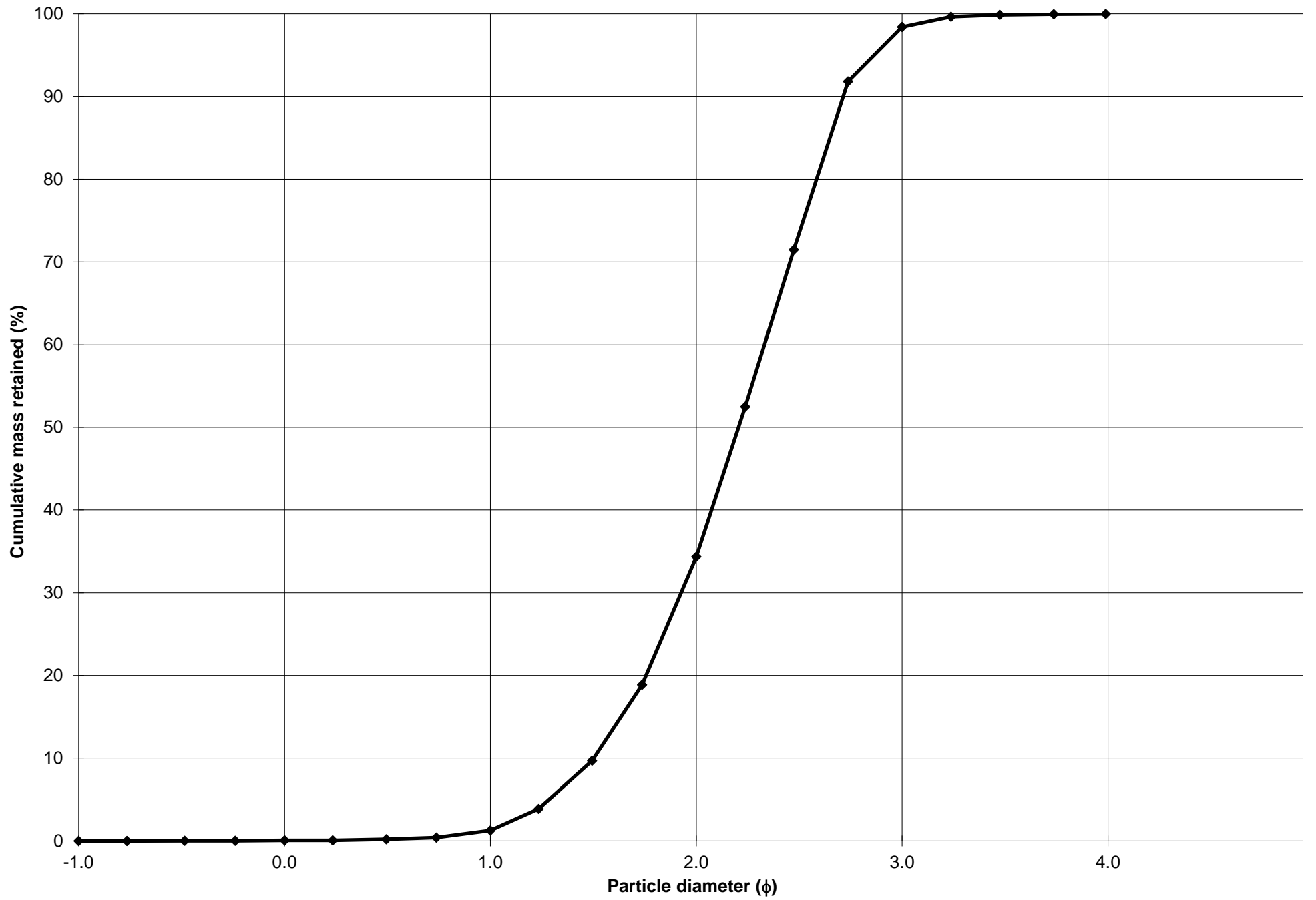
Cumulative Frequency Curve



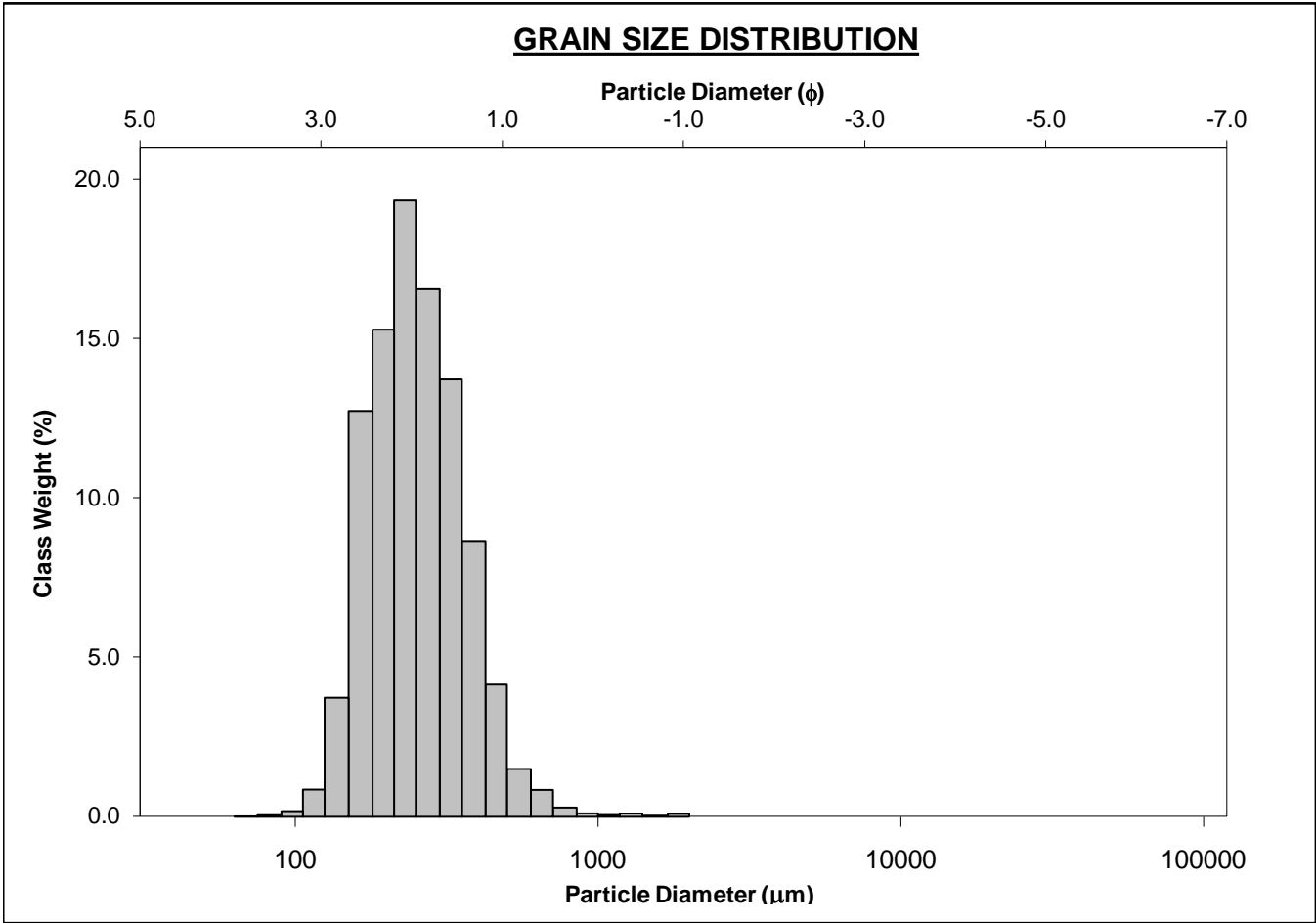
SIEVING ERROR: 0.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-260cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 1.2%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 33.1%			
MODE 3:			MUD: 0.0% FINE SAND: 64.1%			
D ₁₀ :	152.5	1.502	V FINE SAND: 1.6%			
MEDIAN or D ₅₀ :	216.8	2.205	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	353.0	2.714	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.315	1.806	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	200.5	1.211	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.600	1.368	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	104.7	0.678	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	238.7	224.1	2.158	222.6	2.167	Fine Sand
SORTING (σ):	90.38	1.400	0.486	1.398	0.483	Well Sorted
SKEWNESS (Sk):	2.189	0.302	-0.302	0.141	-0.141	Coarse Skewed
KURTOSIS (K):	15.82	5.234	5.234	0.954	0.954	Mesokurtic



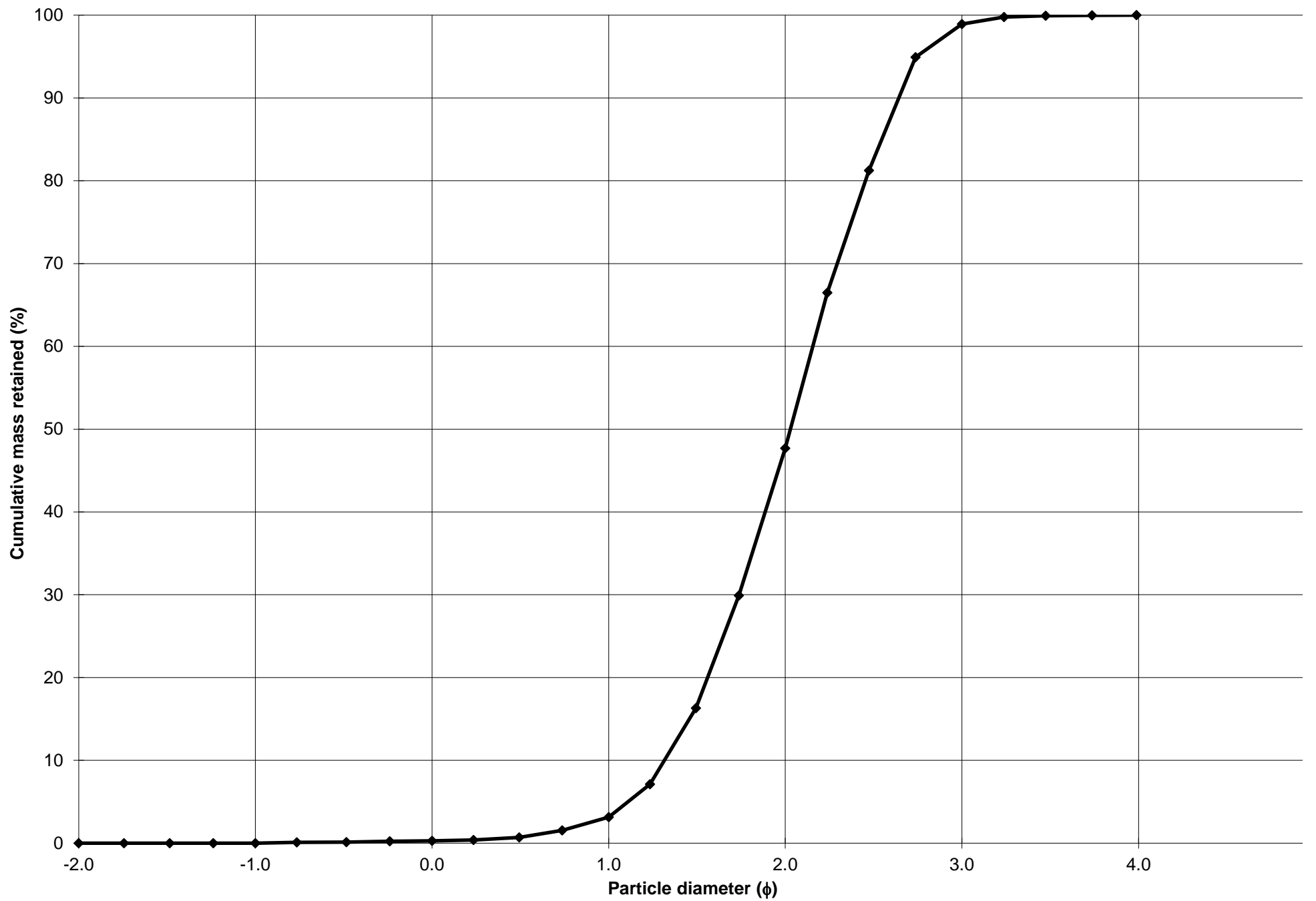
Cumulative Frequency Curve



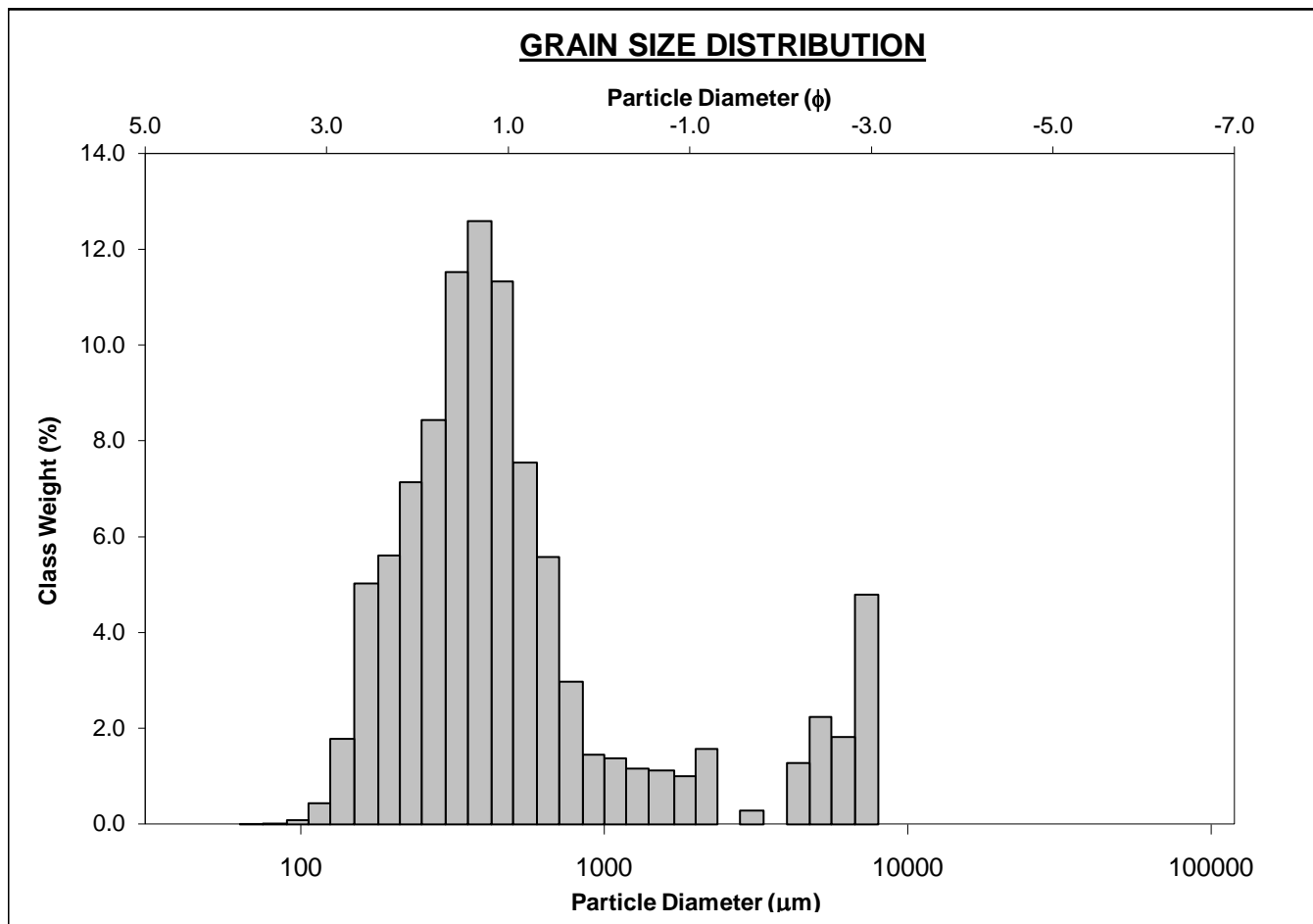
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-270cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 2.9%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 44.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 51.2%	
D ₁₀ :	160.2	1.316			V FINE SAND: 1.1%	
MEDIAN or D ₅₀ :	245.0	2.029	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	401.7	2.642	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.508	2.008	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	241.5	1.327	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.653	1.439	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	125.9	0.725	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	271.2	251.4	1.992	247.6	2.014	Fine Sand
SORTING (σ):	122.1	1.439	0.525	1.422	0.508	Moderately Well Sorted
SKEWNESS (Sk):	4.037	0.577	-0.577	0.085	-0.085	Symmetrical
KURTOSIS (K):	39.50	4.265	4.265	0.923	0.923	Mesokurtic



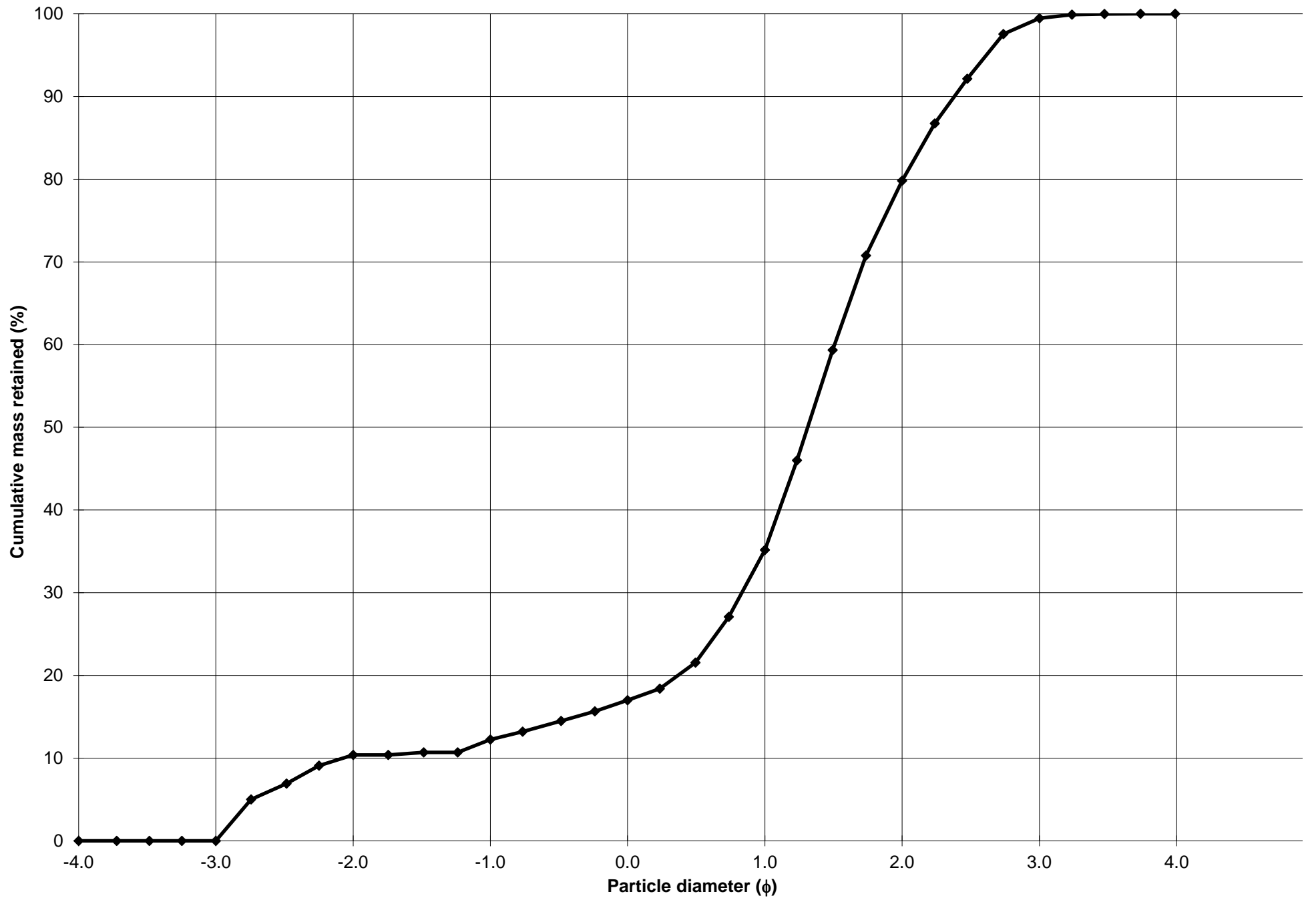
Cumulative Frequency Curve



SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-09-277cm			ANALYST & DATE: Chris, 7/17/15			
SAMPLE TYPE: Trimodal, Poorly Sorted			TEXTURAL GROUP: Gravelly Sand			
SEDIMENT NAME: Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 12.2%		COARSE SAND: 18.2%	
MODE 2:	7350.0	-2.872	SAND: 87.8%		MEDIUM SAND: 44.6%	
MODE 3:	5175.0	-2.367	MUD: 0.0%		FINE SAND: 19.6%	
D ₁₀ :	192.1	-2.076			V FINE SAND: 0.5%	
MEDIAN or D ₅₀ :	402.7	1.312	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	4216.4	2.380	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	21.95	-1.146	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	4024.3	4.456	FINE GRAVEL: 10.4%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.320	2.880	V FINE GRAVEL: 1.8%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	363.7	1.214	V COARSE SAND: 4.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	1087.0	520.0	0.943	468.9	1.093	Medium Sand
SORTING (σ):	1852.0	2.763	1.466	2.625	1.392	Poorly Sorted
SKEWNESS (Sk):	2.590	1.375	-1.375	0.399	-0.399	Very Coarse Skewed
KURTOSIS (K):	8.292	4.189	4.189	1.808	1.808	Very Leptokurtic



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-15-09-285cm**

ANALYST & DATE: Chris, 10/5/15

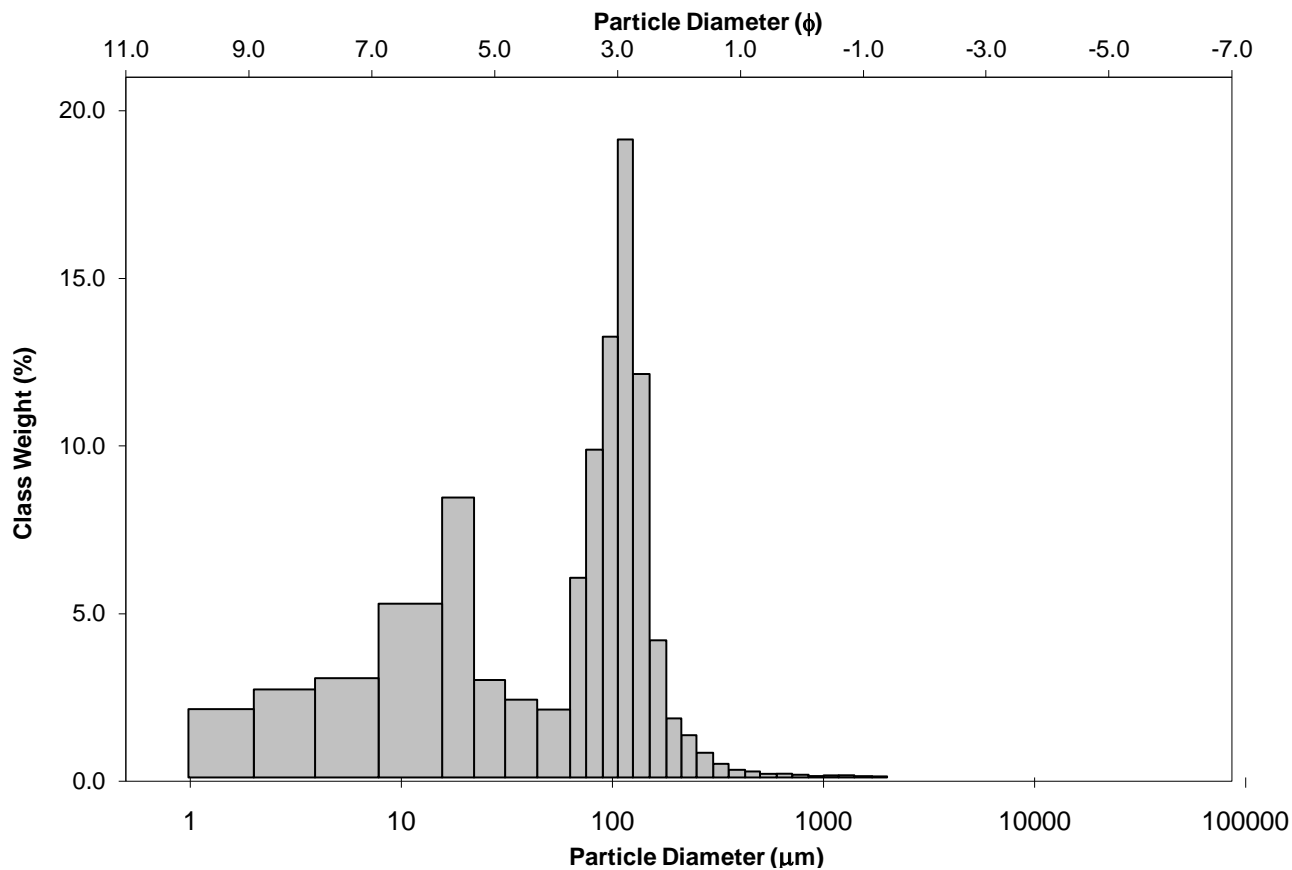
SAMPLE TYPE: Bimodal, Very Poorly Sorted

TEXTURAL GROUP: Sandy Mud

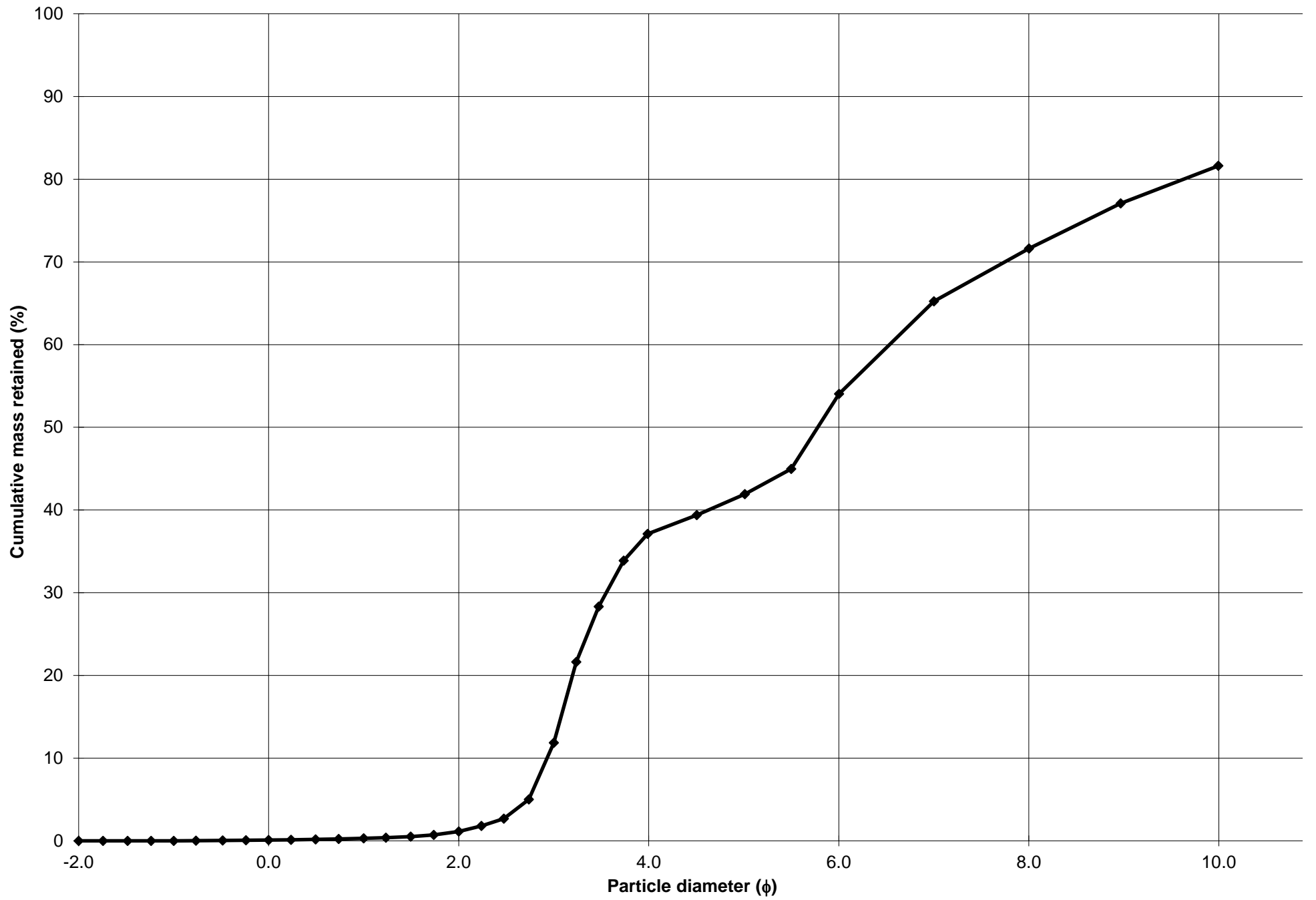
SEDIMENT NAME: Very Fine Sandy Mud

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	115.5	3.119	GRAVEL: 0.0%	COARSE SAND: 0.2%		
MODE 2:	18.85	5.751	SAND: 37.2%	MEDIUM SAND: 0.9%		
MODE 3:			MUD: 62.8%	FINE SAND: 10.7%		
D_{10} :	1.841	2.929		V FINE SAND: 25.3%		
MEDIAN or D_{50} :	18.22	5.779	V COARSE GRAVEL: 0.0%	V COARSE SILT: 4.7%		
D_{90} :	131.3	9.085	COARSE GRAVEL: 0.0%	COARSE SILT: 12.1%		
(D_{90} / D_{10}) :	71.31	3.102	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 11.2%		
$(D_{90} - D_{10})$:	129.5	6.156	FINE GRAVEL: 0.0%	FINE SILT: 6.4%		
(D_{75} / D_{25}) :	37.83	2.561	V FINE GRAVEL: 0.0%	V FINE SILT: 5.6%		
$(D_{75} - D_{25})$:	95.03	5.242	V COARSE SAND: 0.1%	CLAY: 22.8%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	53.43	15.64	5.999	13.55	6.205	Medium Silt
SORTING (σ):	79.50	6.497	2.700	5.810	2.539	Very Poorly Sorted
SKEWNESS (Sk):	7.098	-0.244	0.244	-0.072	0.072	Symmetrical
KURTOSIS (K):	112.6	1.659	1.659	0.454	0.454	Very Platykurtic

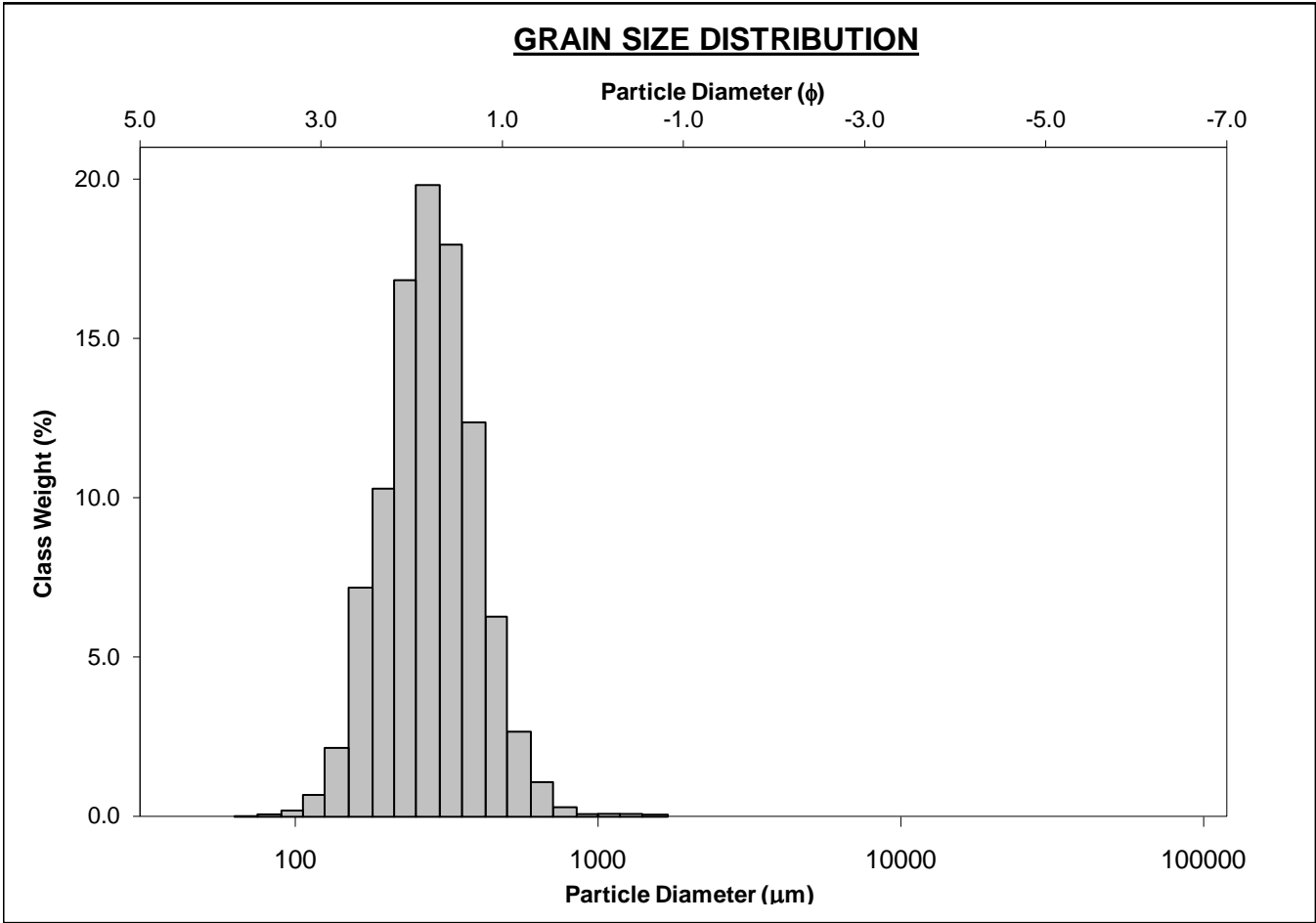
GRAIN SIZE DISTRIBUTION



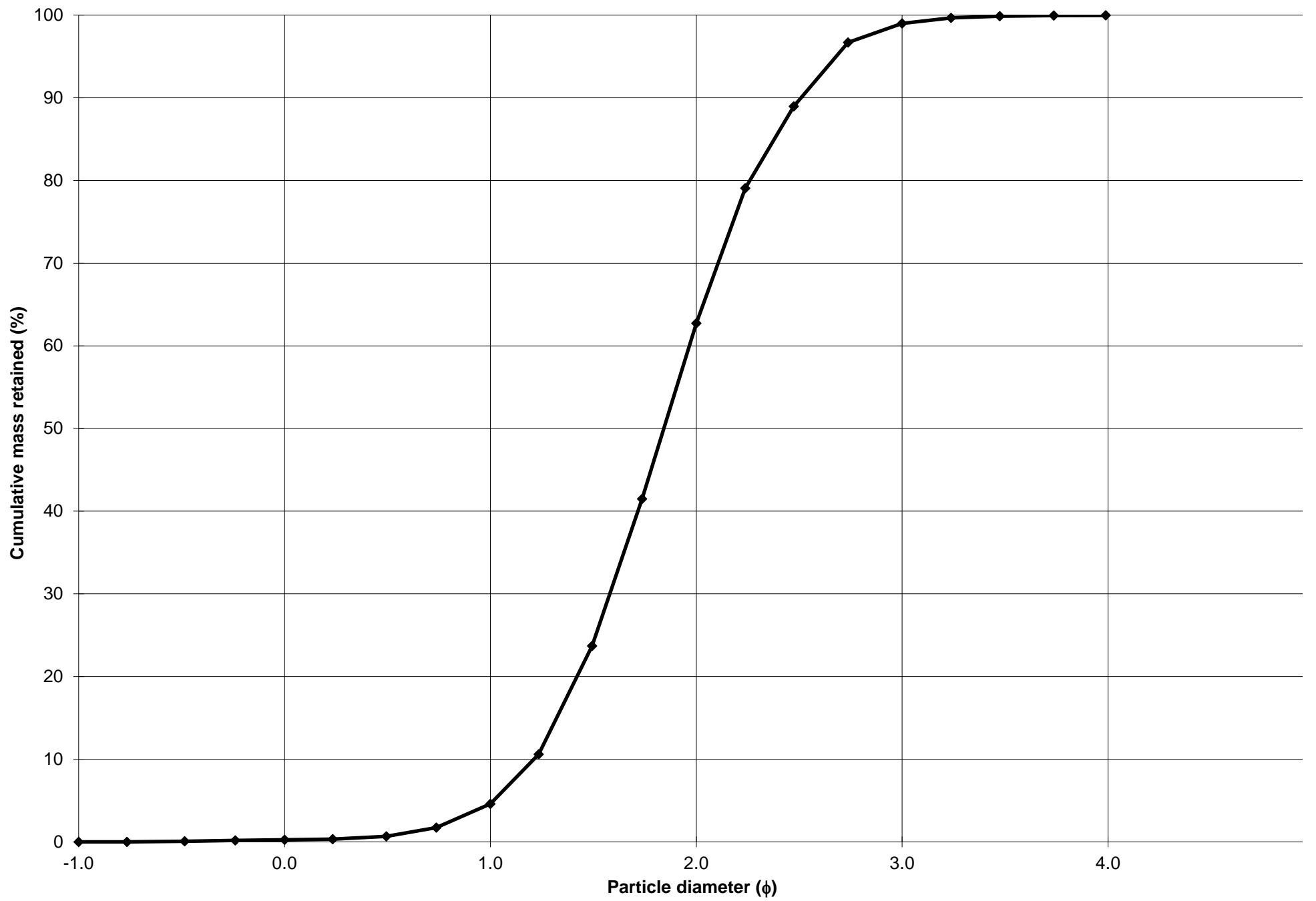
Cumulative Frequency Curve



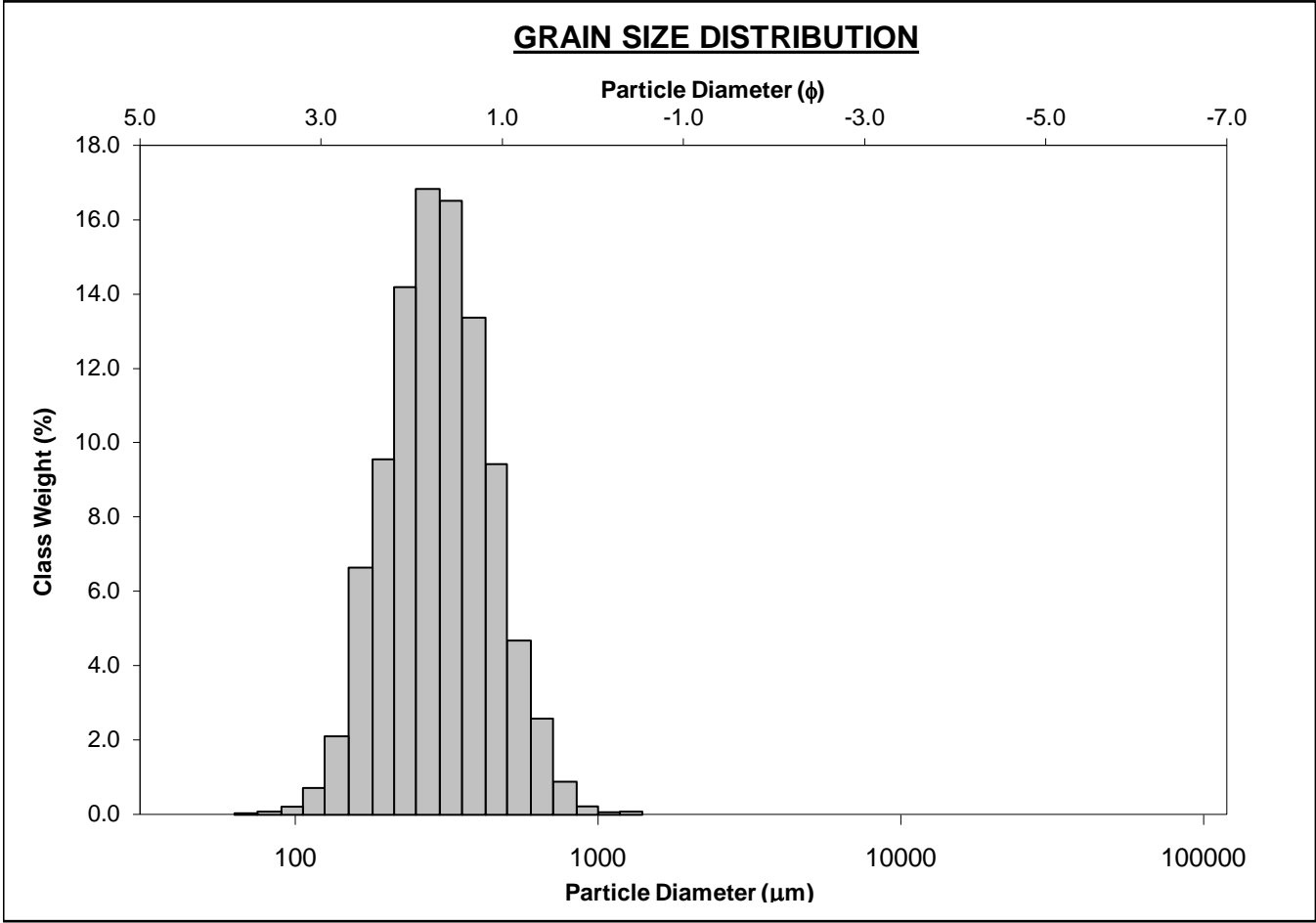
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-0cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 4.3%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 58.1%	
MODE 3:			MUD: 0.0%		FINE SAND: 36.3%	
D ₁₀ :	175.7	1.211			V FINE SAND: 1.0%	
MEDIAN or D ₅₀ :	278.9	1.842	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	432.0	2.509	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.459	2.072	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	256.3	1.298	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.588	1.441	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	129.8	0.667	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	299.0	278.8	1.842	278.1	1.846	Medium Sand
SORTING (σ):	118.4	1.436	0.522	1.420	0.506	Moderately Well Sorted
SKEWNESS (Sk):	2.516	-0.192	0.192	-0.009	0.009	Symmetrical
KURTOSIS (K):	19.45	7.127	7.127	1.023	1.023	Mesokurtic



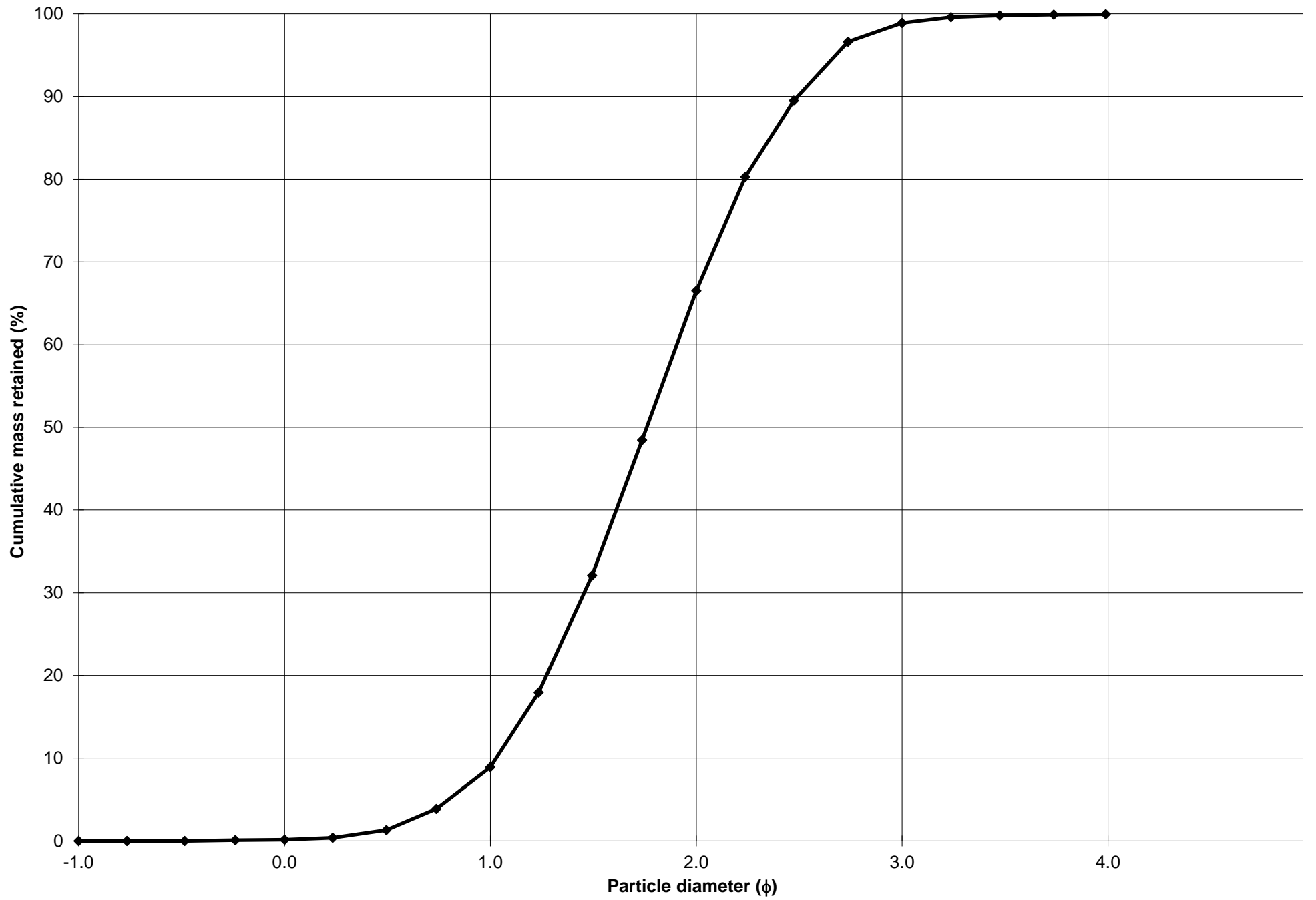
Cumulative Frequency Curve



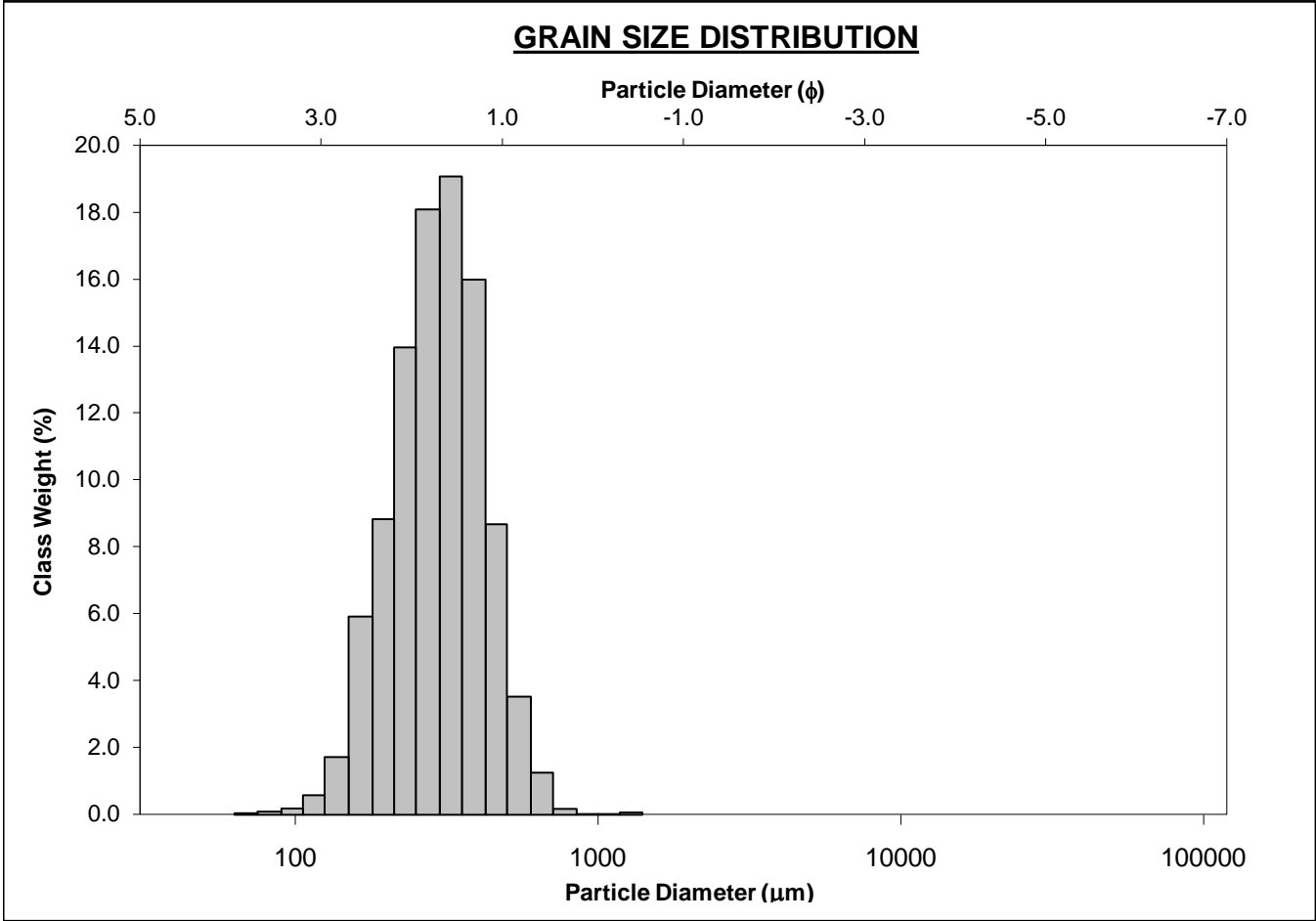
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-10cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 8.8%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 57.6%	
MODE 3:			MUD: 0.1%		FINE SAND: 32.4%	
D ₁₀ :	177.7	1.028			V FINE SAND: 1.0%	
MEDIAN or D ₅₀ :	295.3	1.760	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	490.3	2.493	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.760	2.424	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	312.6	1.464	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.720	1.574	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	162.6	0.783	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	321.8	296.0	1.756	295.5	1.759	Medium Sand
SORTING (σ):	134.0	1.497	0.582	1.487	0.572	Moderately Well Sorted
SKEWNESS (Sk):	1.449	-0.372	0.372	0.013	-0.013	Symmetrical
KURTOSIS (K):	7.217	6.804	6.804	0.985	0.985	Mesokurtic



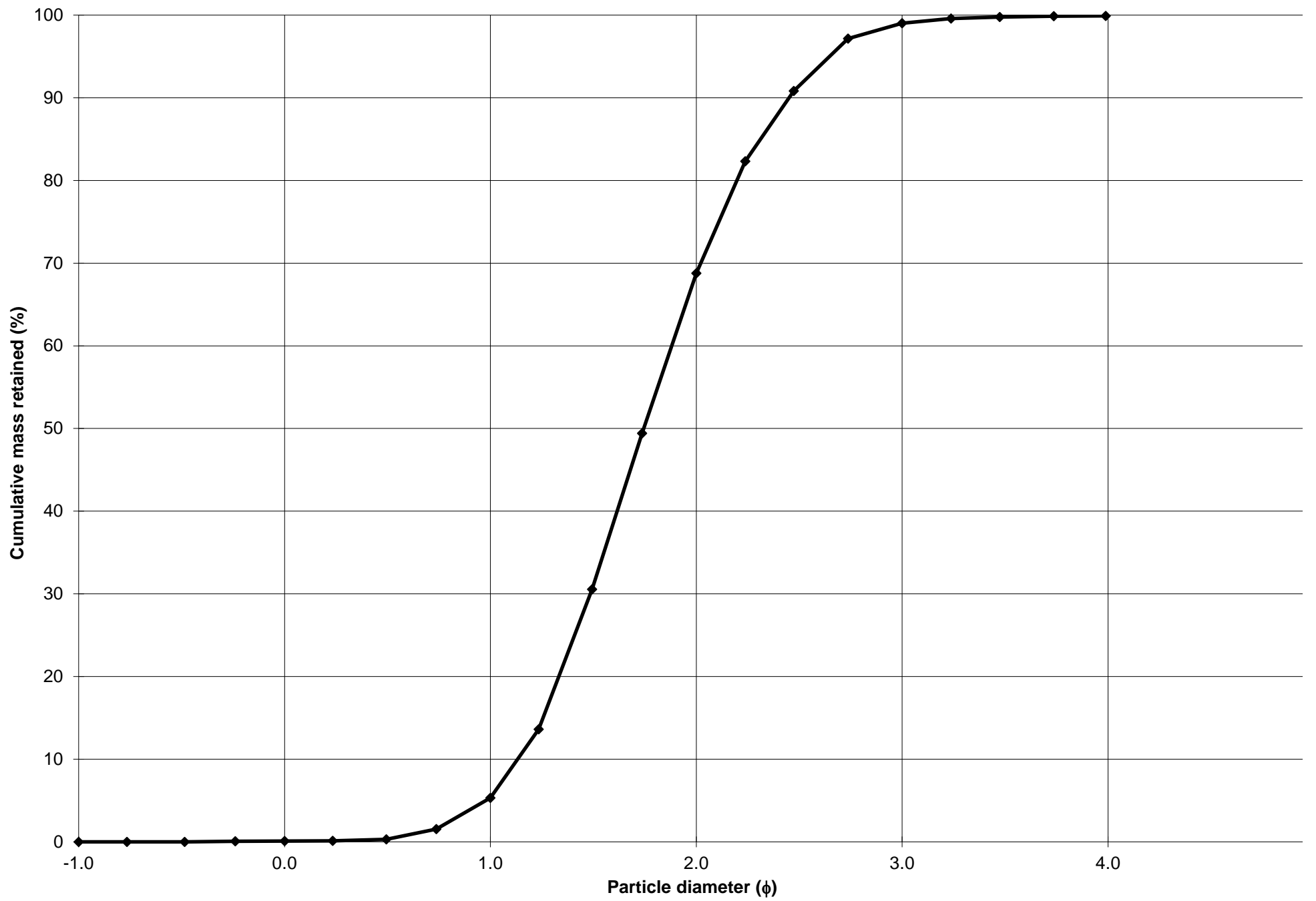
Cumulative Frequency Curve



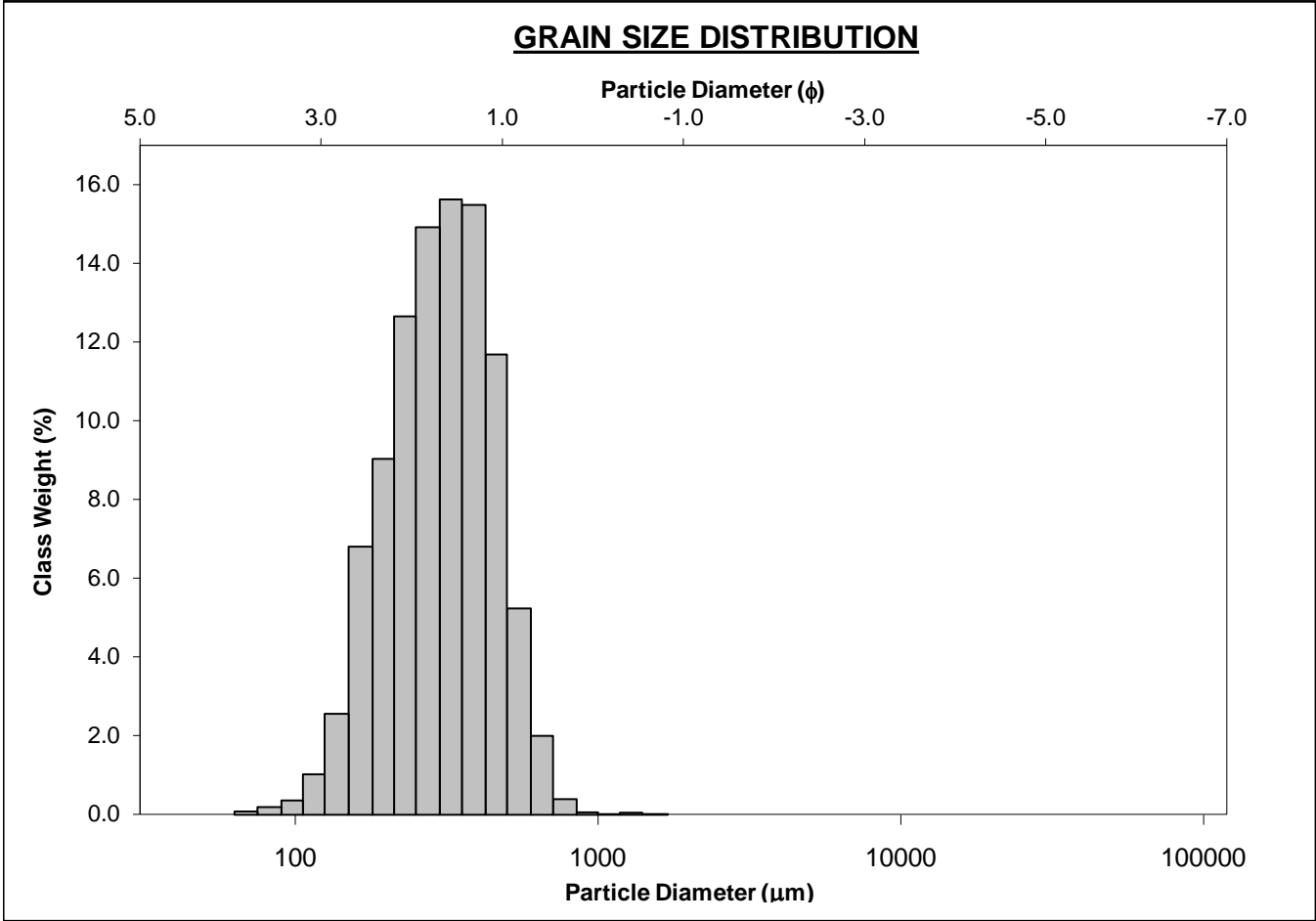
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-20cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 5.2%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 63.5%	
MODE 3:			MUD: 0.1%		FINE SAND: 30.2%	
D ₁₀ :	182.9	1.132			V FINE SAND: 0.9%	
MEDIAN or D ₅₀ :	298.3	1.745	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	456.2	2.451	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.495	2.165	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	273.4	1.319	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.625	1.497	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	144.8	0.700	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	313.1	292.7	1.772	293.8	1.767	Medium Sand
SORTING (σ):	111.9	1.445	0.532	1.421	0.506	Moderately Well Sorted
SKEWNESS (Sk):	1.221	-0.983	0.983	-0.073	0.073	Symmetrical
KURTOSIS (K):	8.024	11.14	11.14	0.978	0.978	Mesokurtic



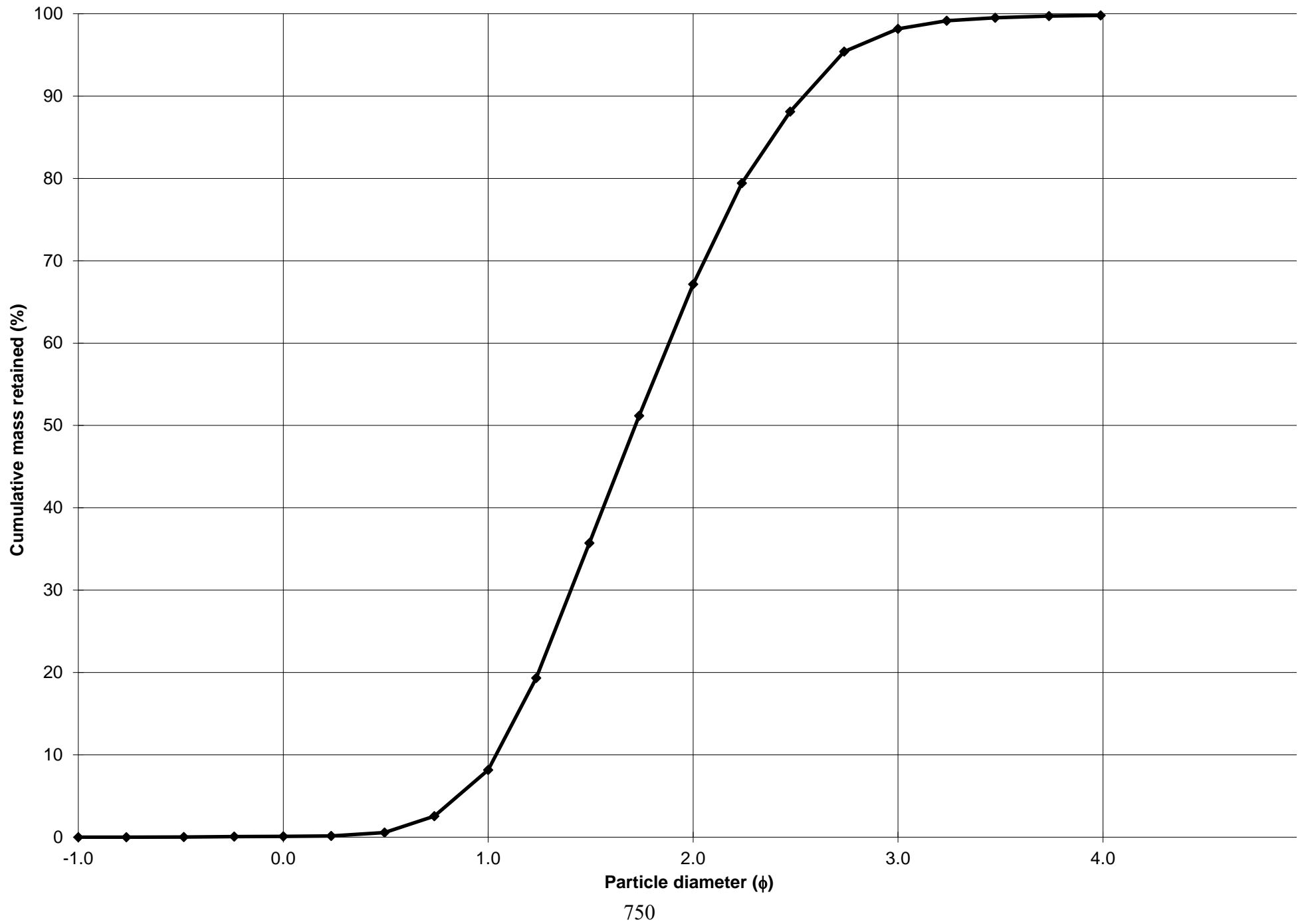
Cumulative Frequency Curve



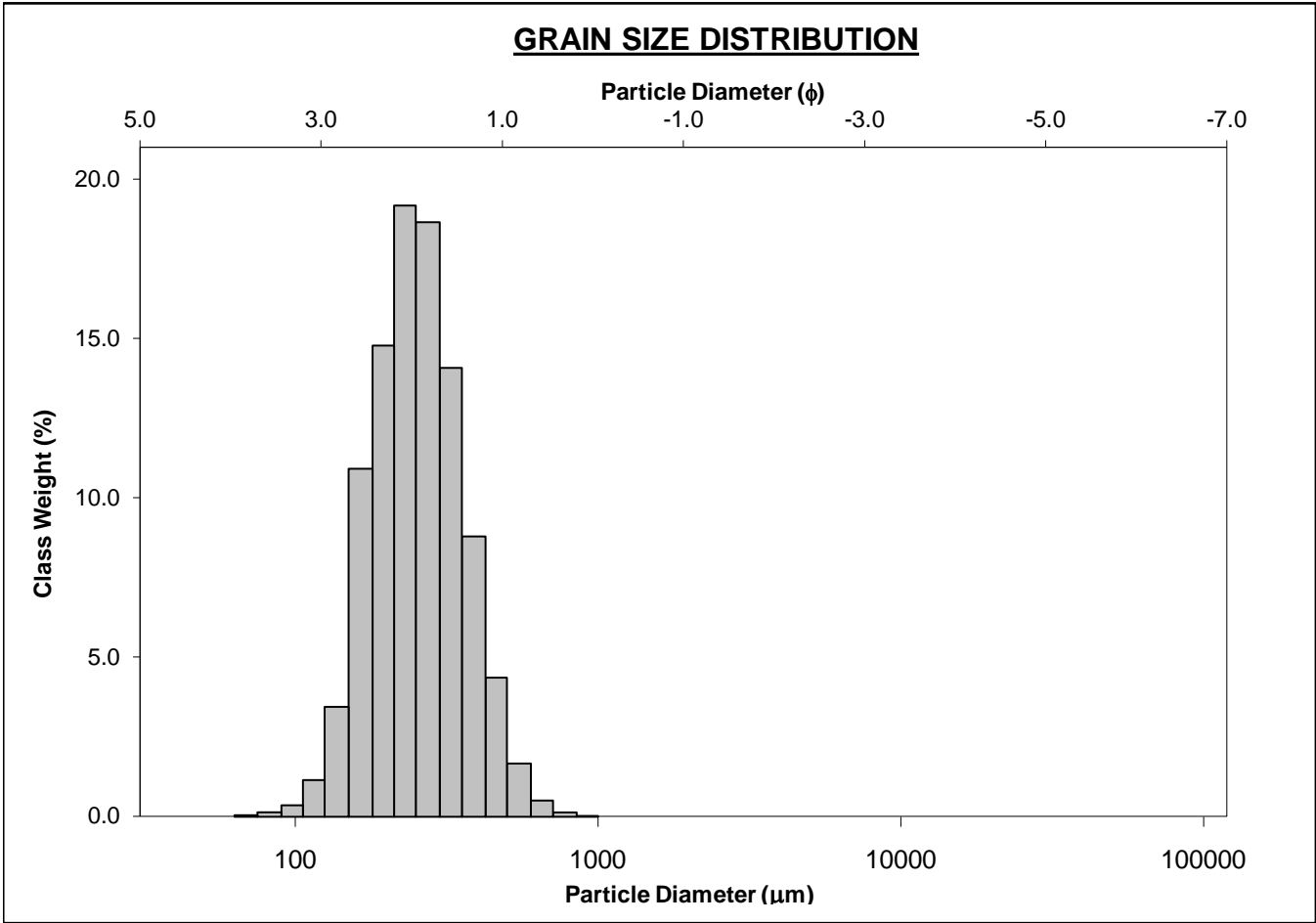
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-30cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 8.1%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 59.0%	
MODE 3:			MUD: 0.2%		FINE SAND: 31.0%	
D ₁₀ :	171.7	1.038			V FINE SAND: 1.6%	
MEDIAN or D ₅₀ :	303.8	1.719	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	486.8	2.542	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.836	2.448	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	315.2	1.504	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.775	1.625	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	174.4	0.828	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	322.0	295.2	1.760	297.6	1.748	Medium Sand
SORTING (σ):	128.6	1.540	0.623	1.498	0.583	Moderately Well Sorted
SKEWNESS (Sk):	1.081	-1.348	1.348	-0.074	0.074	Symmetrical
KURTOSIS (K):	6.893	12.32	12.32	0.926	0.926	Mesokurtic



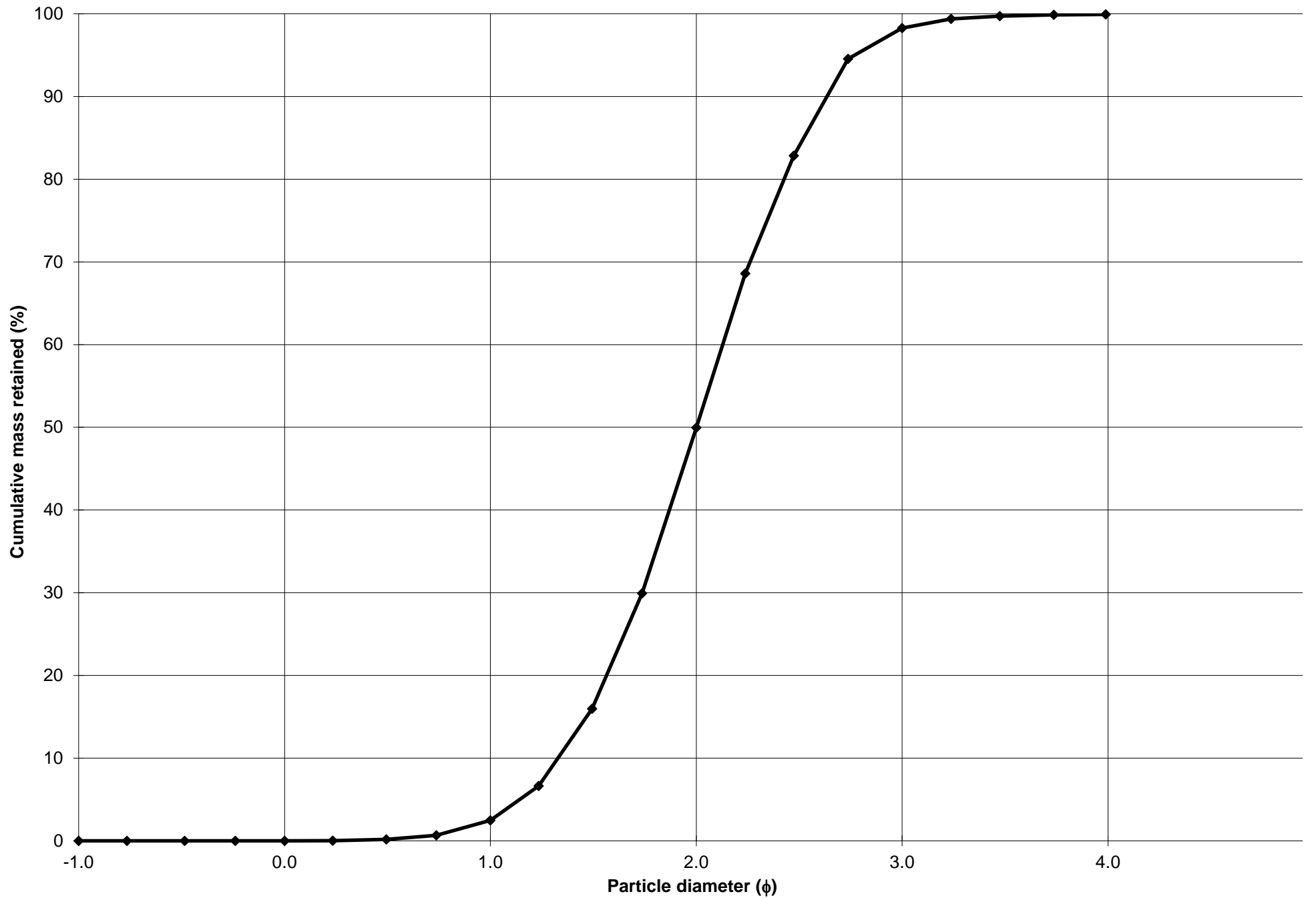
Cumulative Frequency Curve



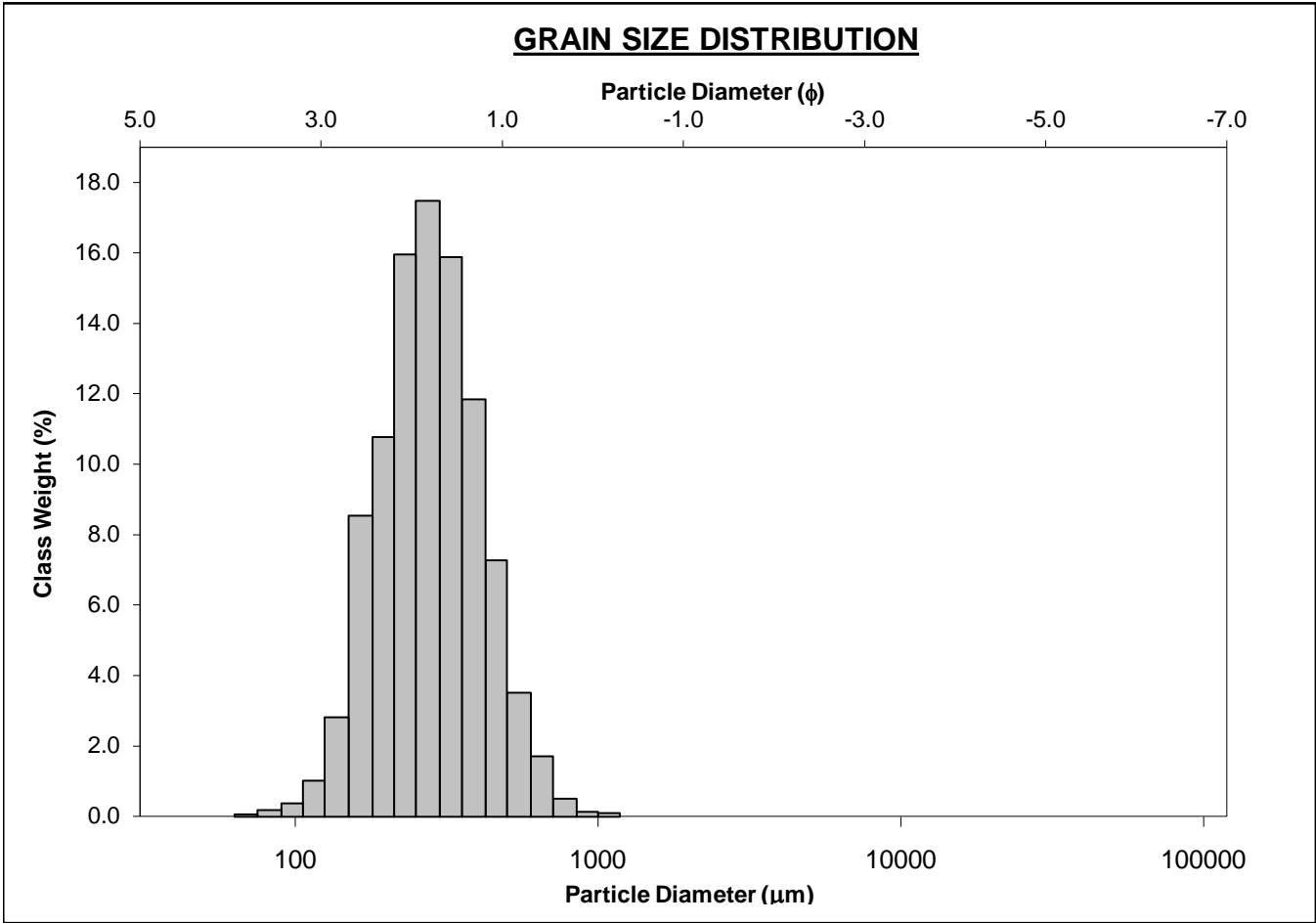
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-40cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%	COARSE SAND: 2.5%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 47.5%		
MODE 3:			MUD: 0.1%	FINE SAND: 48.3%		
D ₁₀ :	161.0	1.328		V FINE SAND: 1.7%		
MEDIAN or D ₅₀ :	249.9	2.000	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	398.4	2.635	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.474	1.984	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	237.4	1.307	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.617	1.420	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	121.5	0.693	V COARSE SAND: 0.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	268.2	251.0	1.994	250.3	1.998	Medium Sand
SORTING (σ):	97.42	1.432	0.518	1.412	0.498	Well Sorted
SKEWNESS (Sk):	1.199	-0.587	0.587	0.031	-0.031	Symmetrical
KURTOSIS (K):	5.520	9.217	9.217	0.962	0.962	Mesokurtic



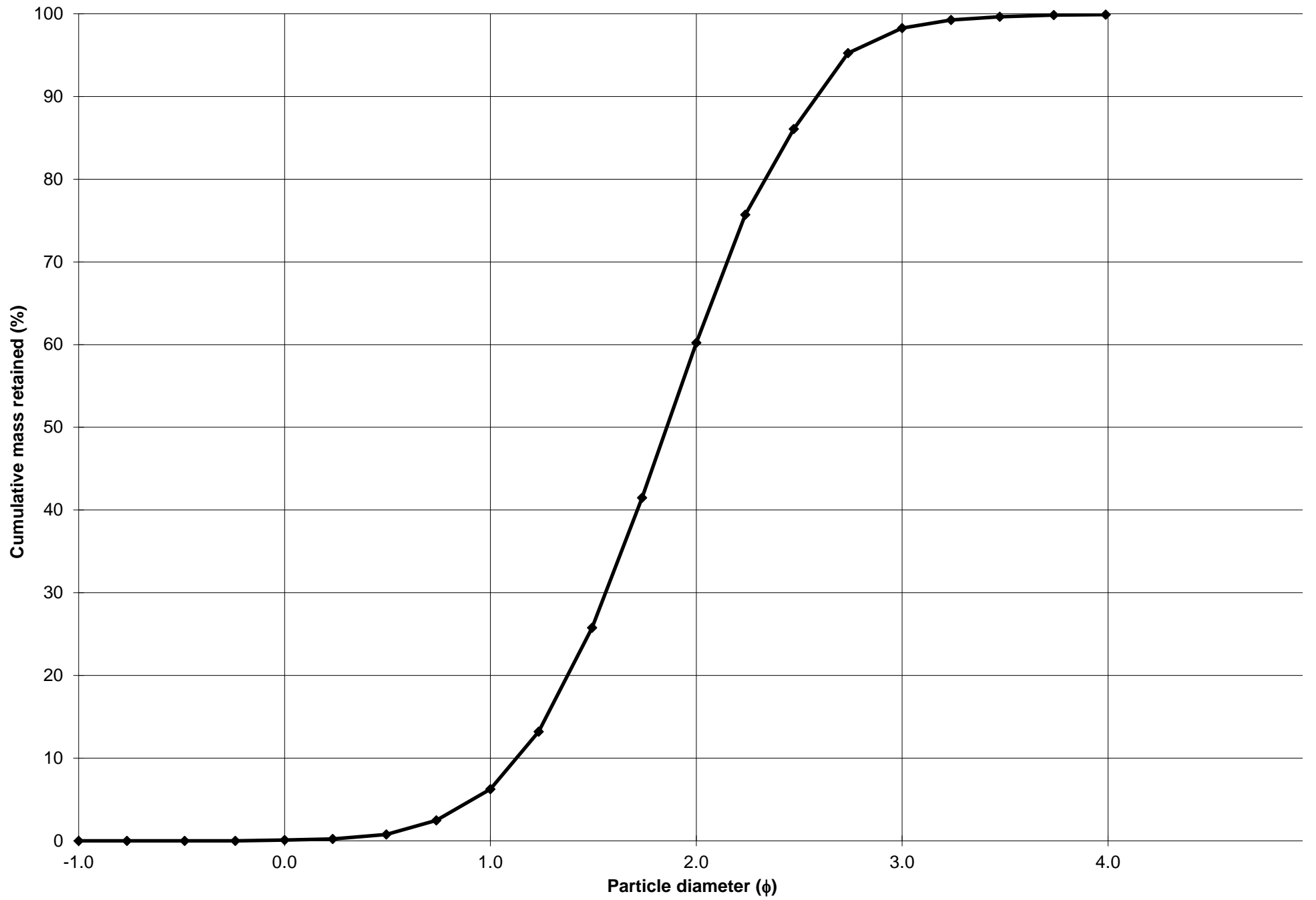
Cumulative Frequency Curve



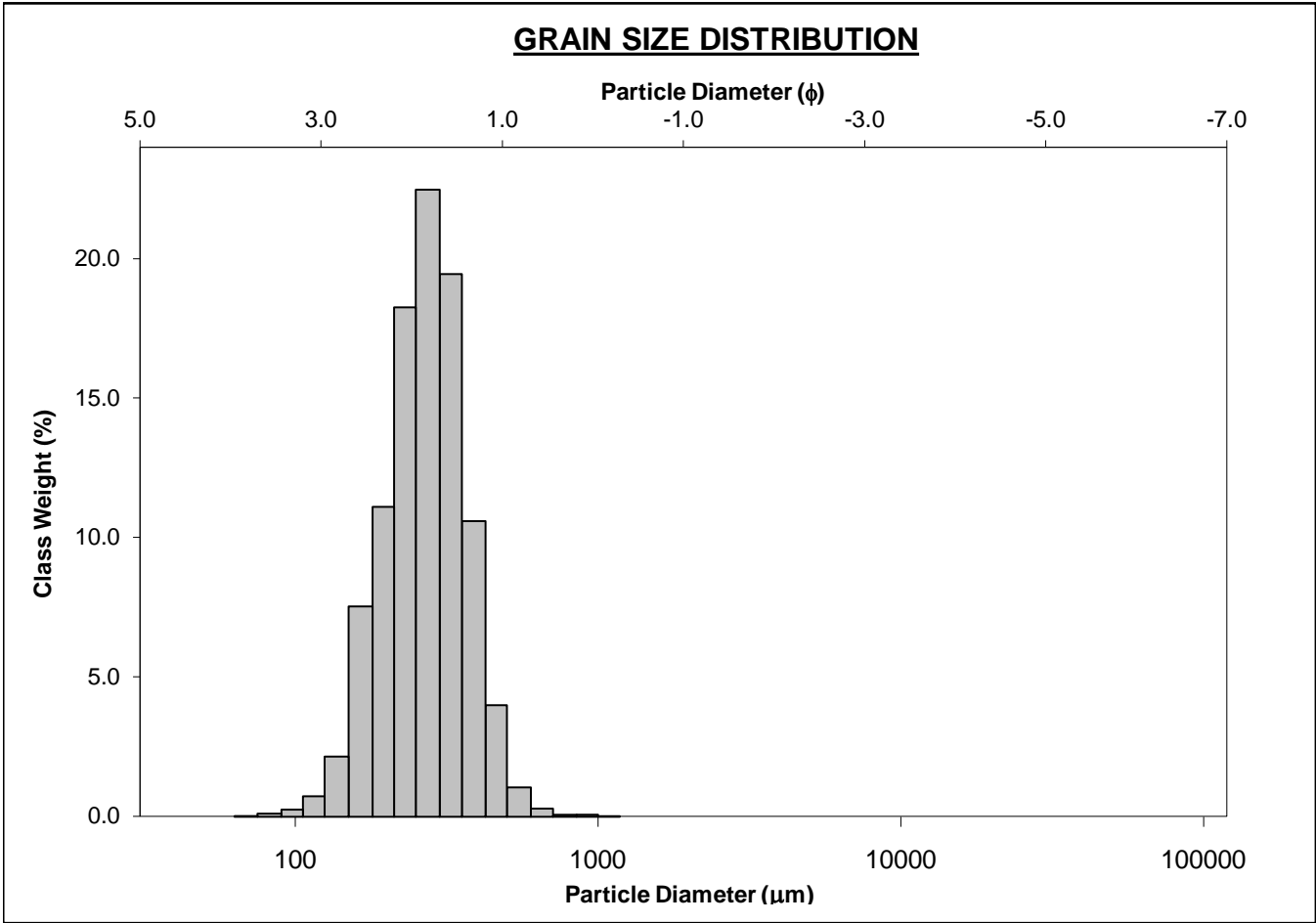
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-50cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 6.2%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 54.0%	
MODE 3:			MUD: 0.1%		FINE SAND: 38.0%	
D ₁₀ :	166.5	1.126			V FINE SAND: 1.6%	
MEDIAN or D ₅₀ :	276.1	1.856	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	458.1	2.587	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.752	2.297	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	291.7	1.460	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.680	1.506	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	145.3	0.749	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	299.8	276.1	1.857	275.8	1.858	Medium Sand
SORTING (σ):	122.6	1.497	0.582	1.473	0.559	Moderately Well Sorted
SKEWNESS (Sk):	1.369	-0.607	0.607	0.017	-0.017	Symmetrical
KURTOSIS (K):	6.488	8.560	8.560	0.995	0.995	Mesokurtic



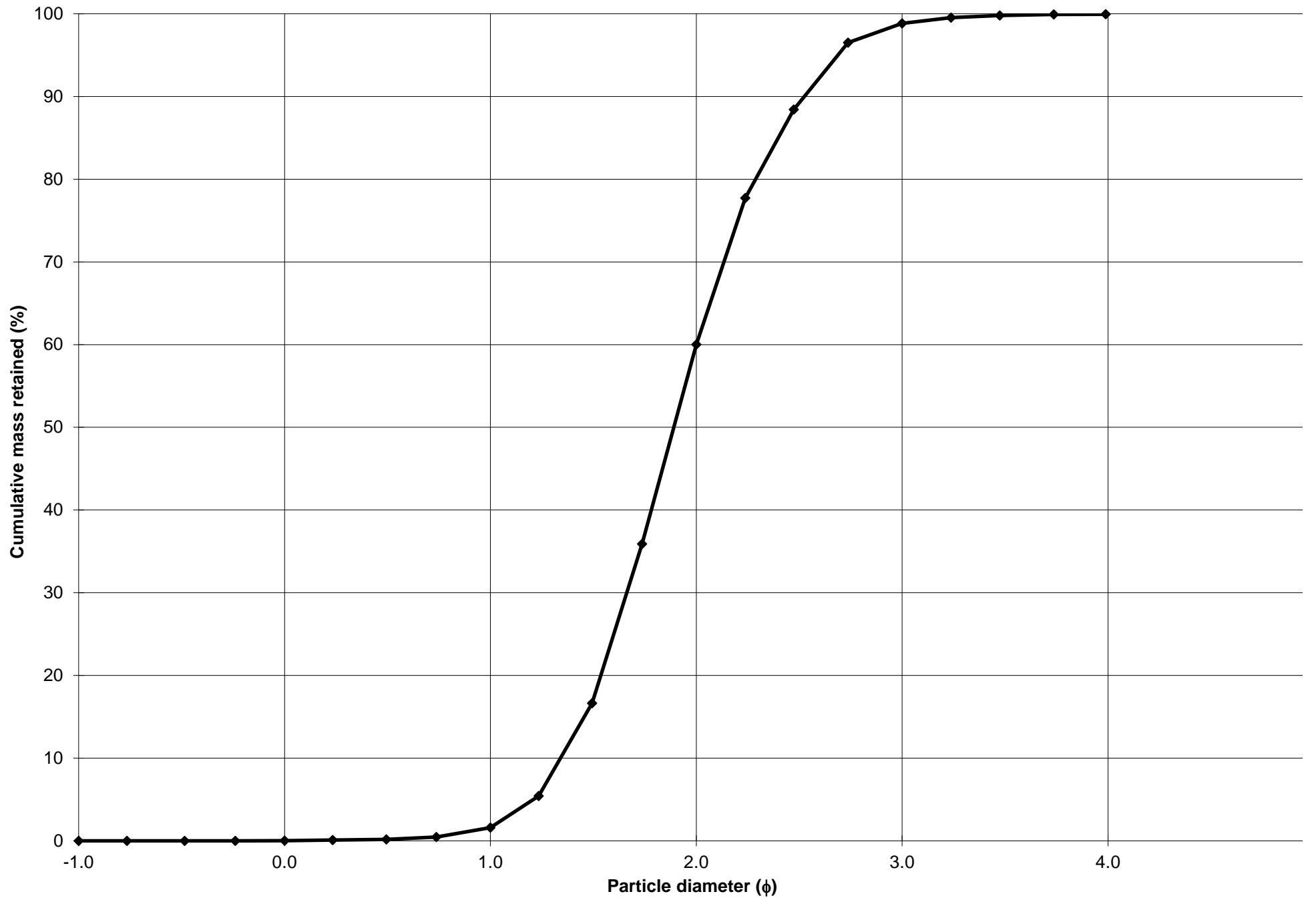
Cumulative Frequency Curve



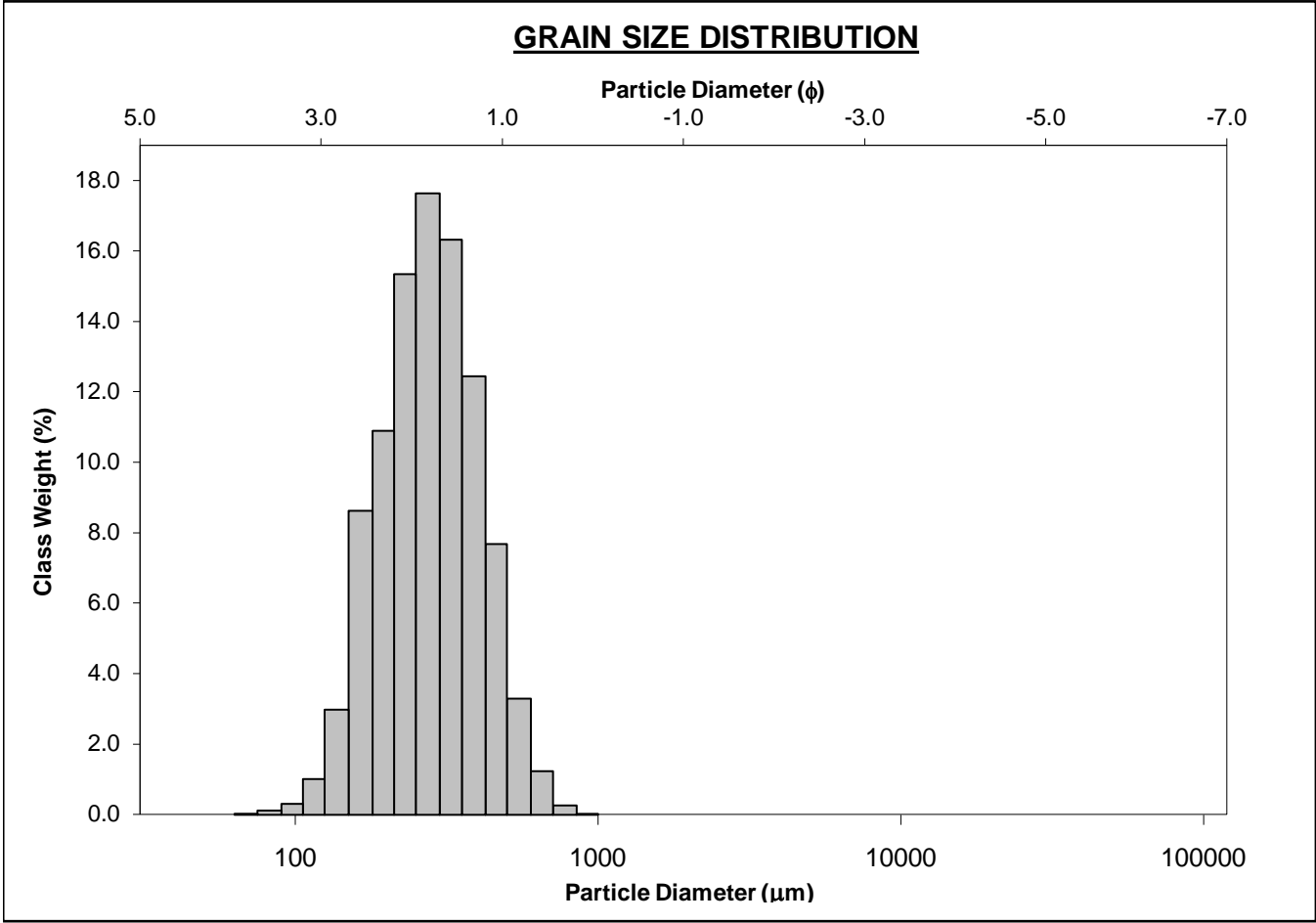
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-60cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 1.6%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 58.4%			
MODE 3:			MUD: 0.1% FINE SAND: 38.8%			
D ₁₀ :	173.7	1.341	V FINE SAND: 1.1%			
MEDIAN or D ₅₀ :	269.7	1.891	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	394.9	2.525	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.273	1.884	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	221.1	1.185	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.517	1.376	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	112.5	0.602	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	280.1	265.3	1.914	265.1	1.915	Medium Sand
SORTING (σ):	89.61	1.386	0.471	1.364	0.448	Well Sorted
SKEWNESS (Sk):	1.165	-0.891	0.891	-0.080	0.080	Symmetrical
KURTOSIS (K):	7.533	11.14	11.14	1.007	1.007	Mesokurtic



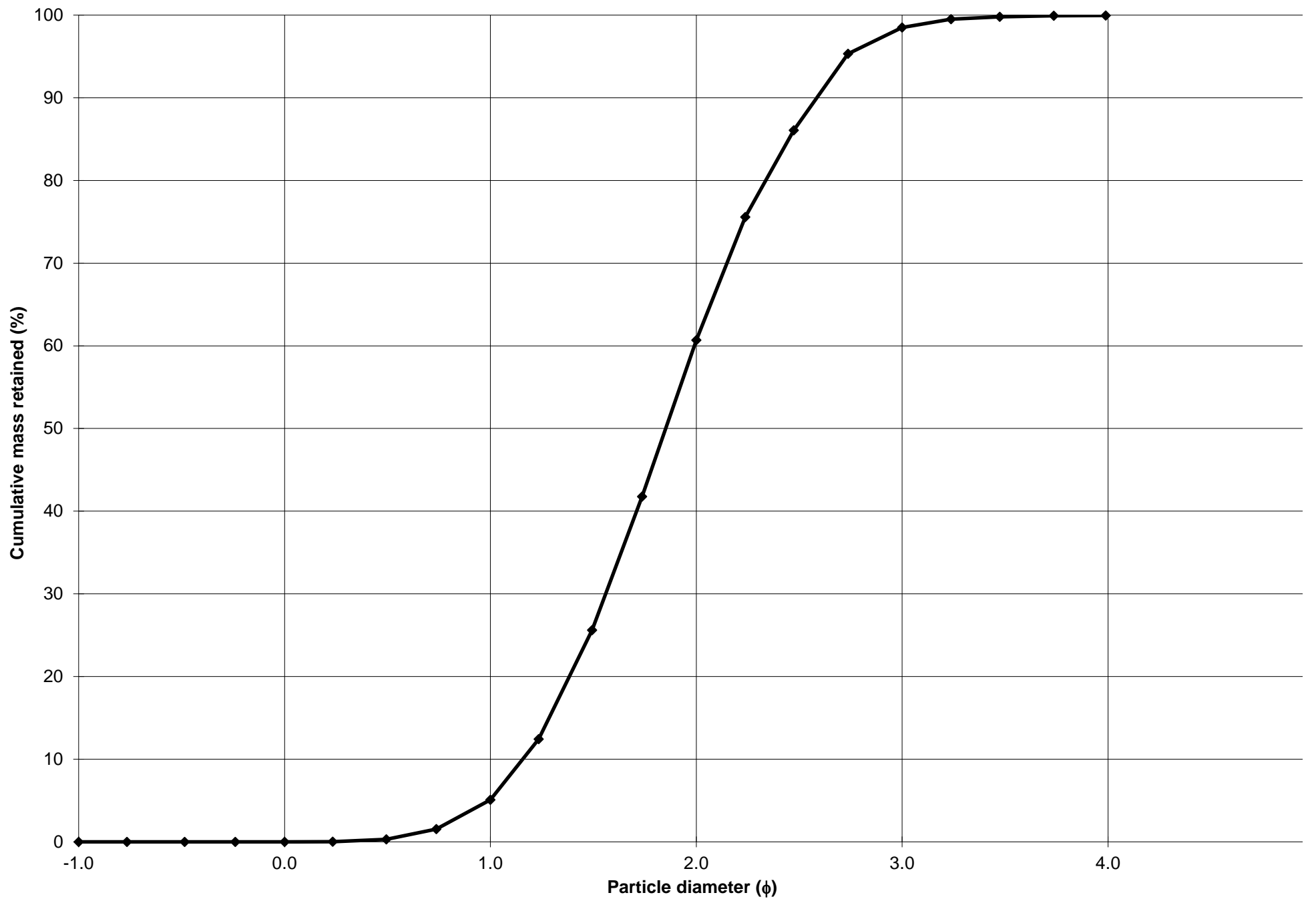
Cumulative Frequency Curve



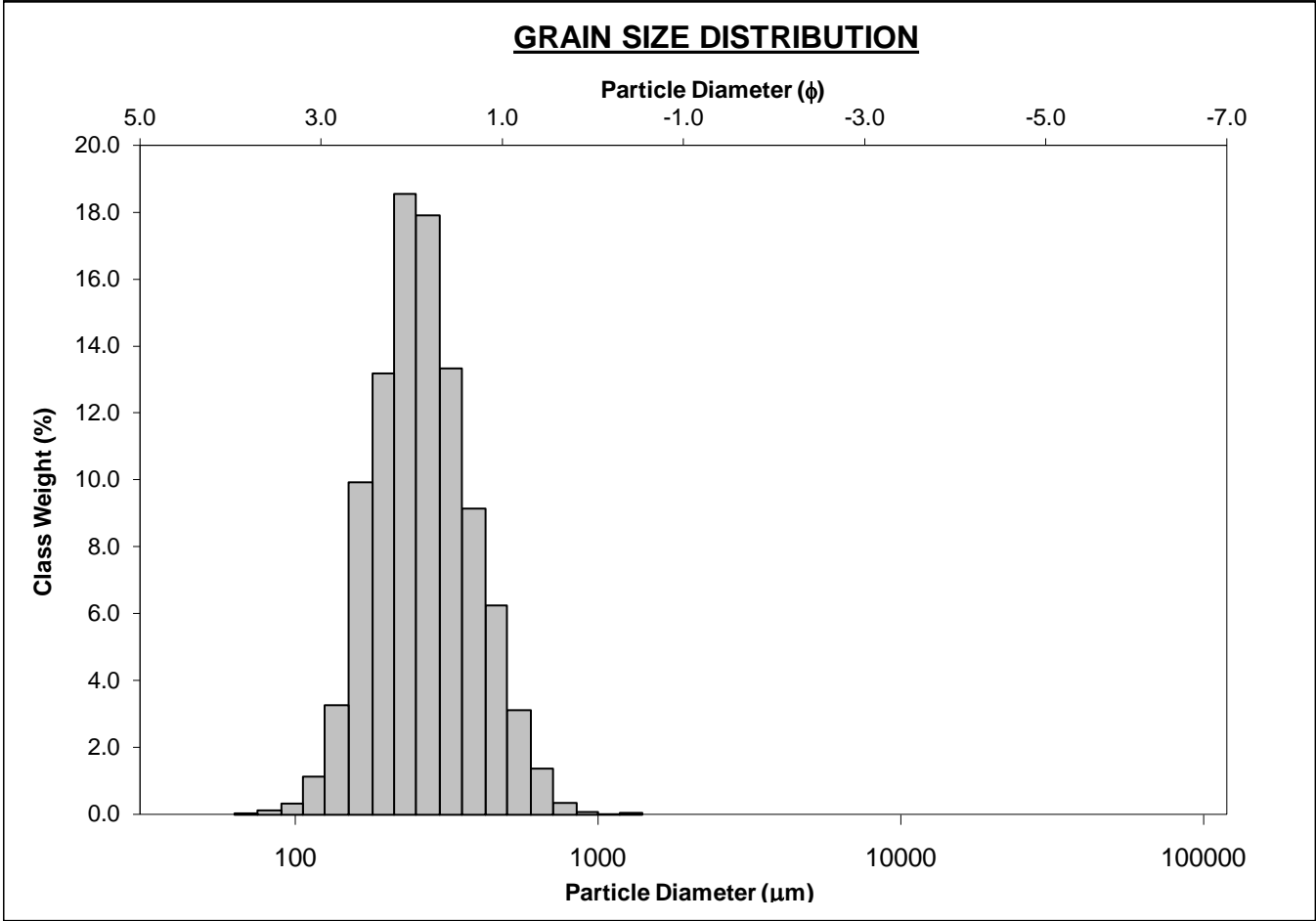
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-70cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 5.1%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 55.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 37.8%	
D ₁₀ :	166.5	1.157			V FINE SAND: 1.4%	
MEDIAN or D ₅₀ :	277.1	1.851	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	448.4	2.586	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.692	2.235	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	281.8	1.429	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.678	1.504	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	144.6	0.747	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	296.5	275.3	1.861	275.2	1.861	Medium Sand
SORTING (σ):	112.6	1.463	0.549	1.457	0.543	Moderately Well Sorted
SKEWNESS (Sk):	0.967	-0.374	0.374	-0.019	0.019	Symmetrical
KURTOSIS (K):	4.307	5.685	5.685	0.952	0.952	Mesokurtic



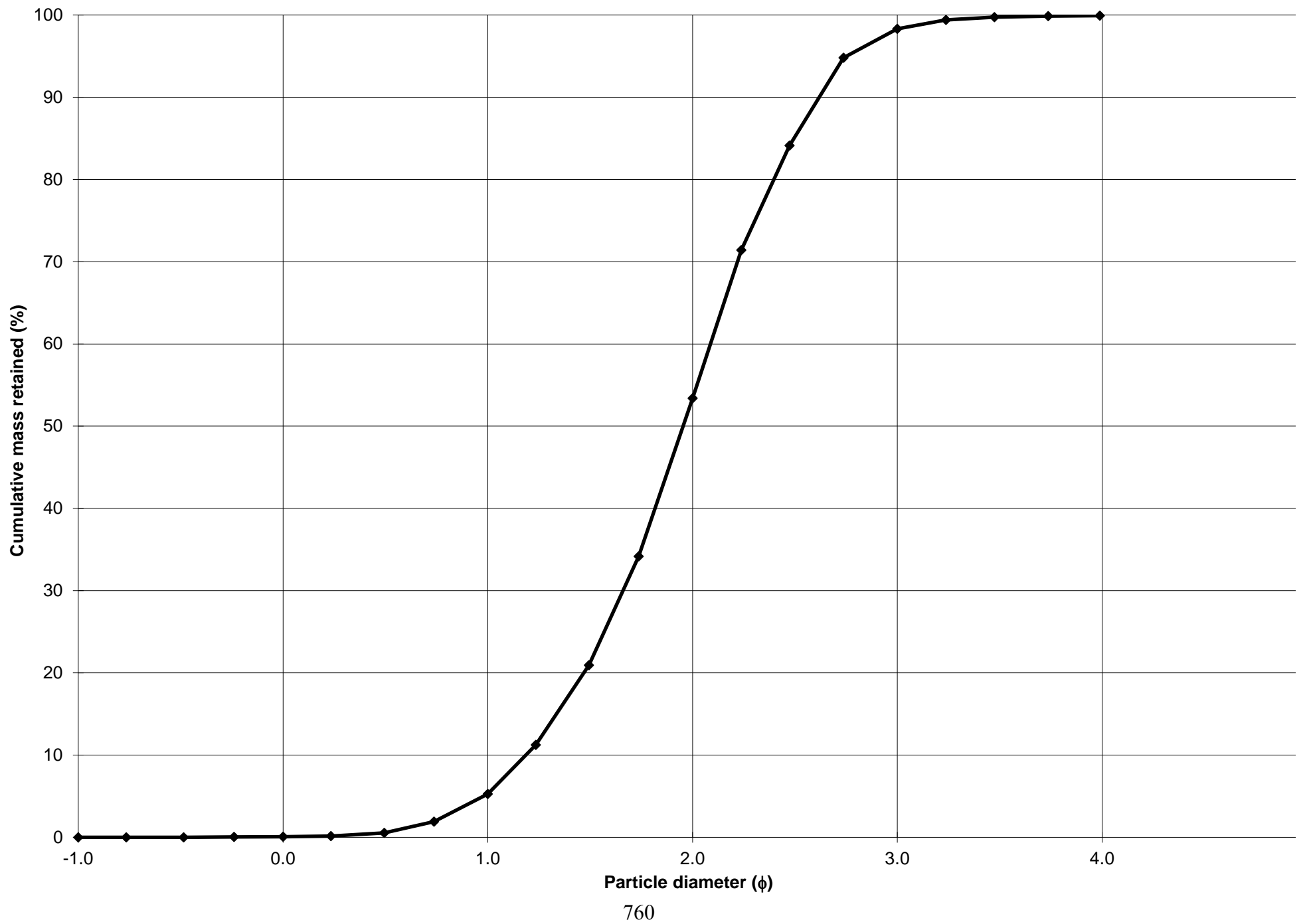
Cumulative Frequency Curve



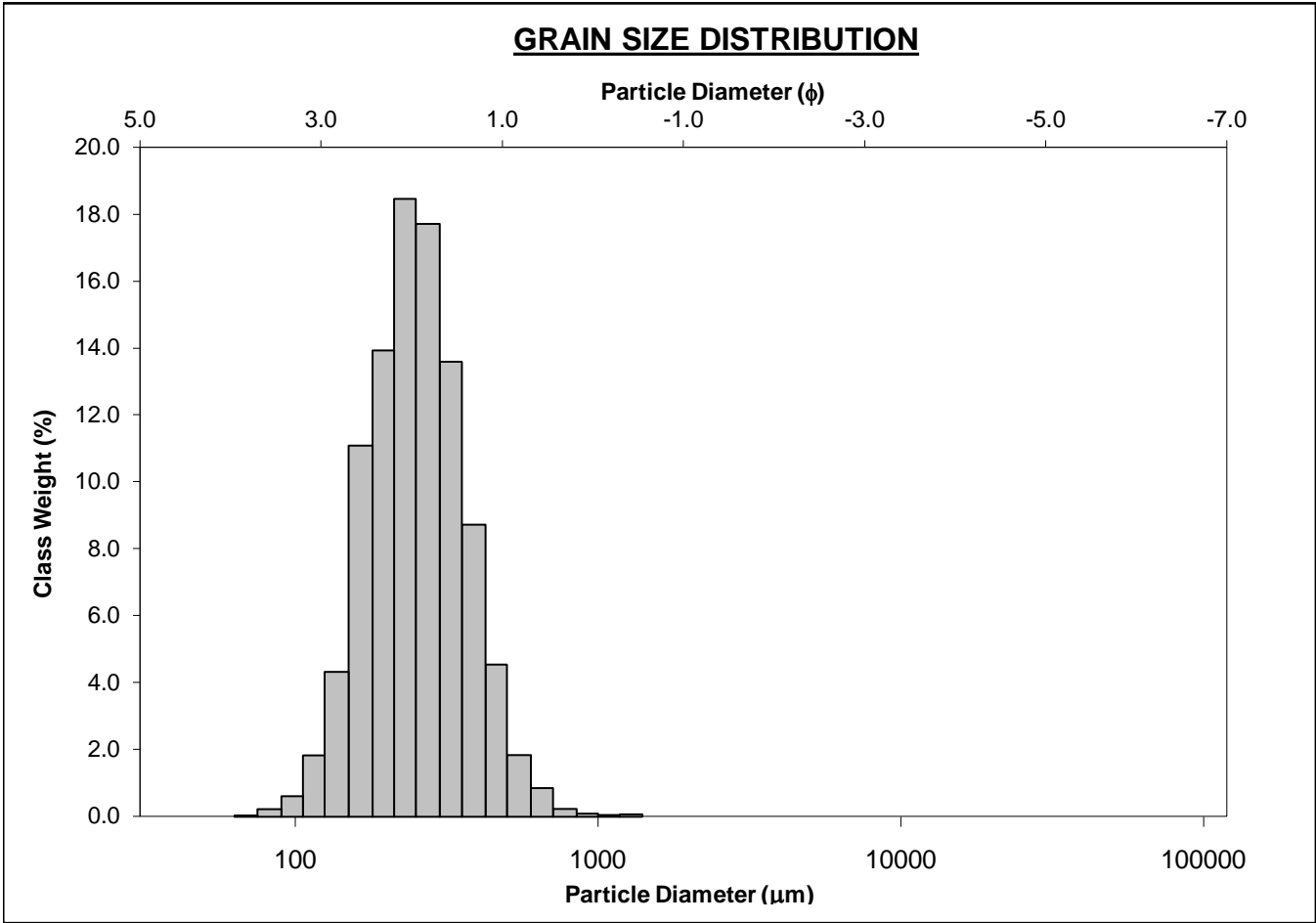
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-80cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 5.2%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 48.1%	
MODE 3:			MUD: 0.1%		FINE SAND: 44.9%	
D ₁₀ :	162.8	1.186			V FINE SAND: 1.6%	
MEDIAN or D ₅₀ :	258.2	1.954	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	439.6	2.619	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.700	2.209	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	276.8	1.433	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.665	1.469	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	134.7	0.736	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	284.5	262.7	1.928	262.6	1.929	Medium Sand
SORTING (σ):	117.4	1.478	0.564	1.460	0.546	Moderately Well Sorted
SKEWNESS (Sk):	1.620	-0.320	0.320	0.082	-0.082	Symmetrical
KURTOSIS (K):	8.364	7.659	7.659	0.987	0.987	Mesokurtic



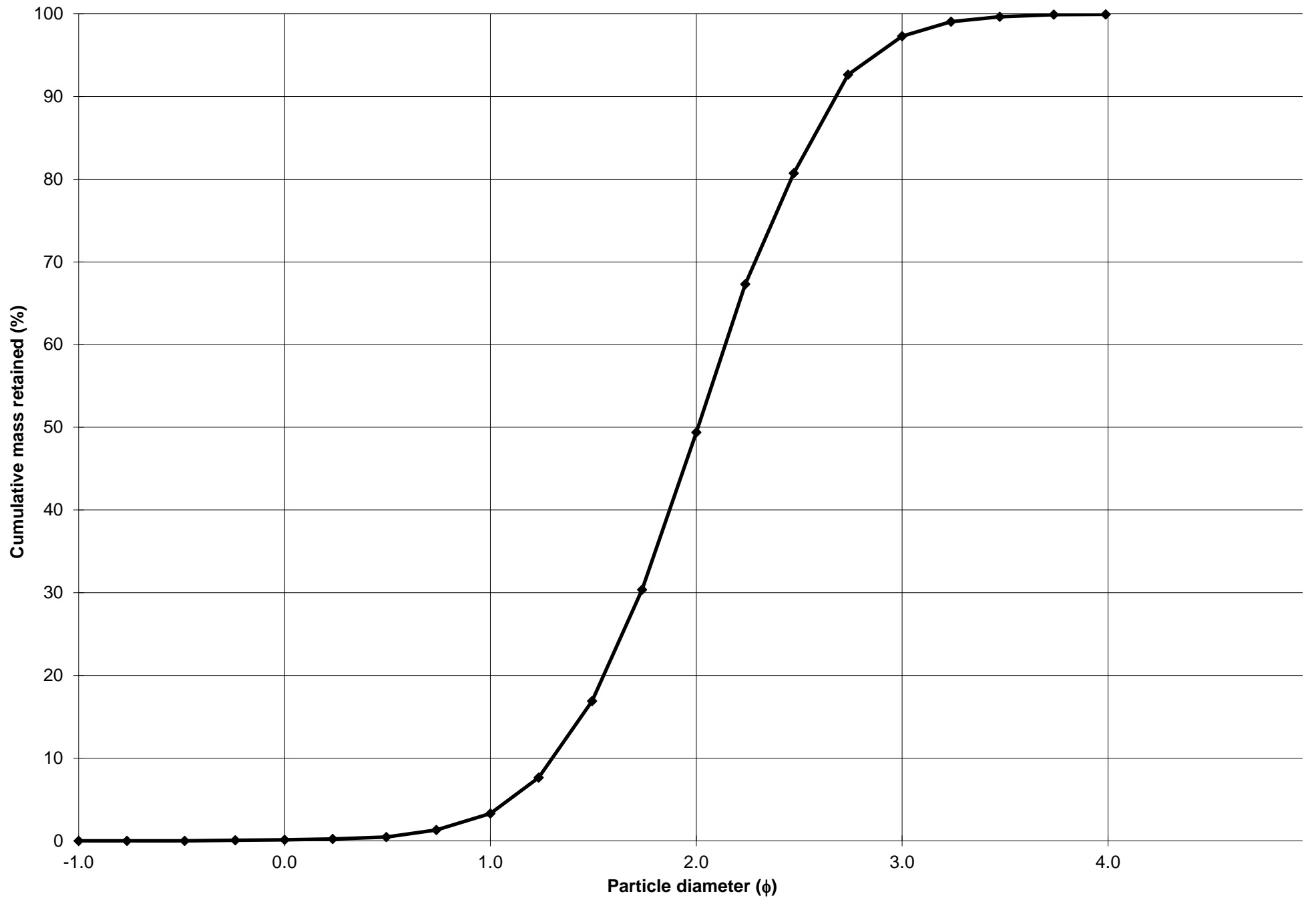
Cumulative Frequency Curve



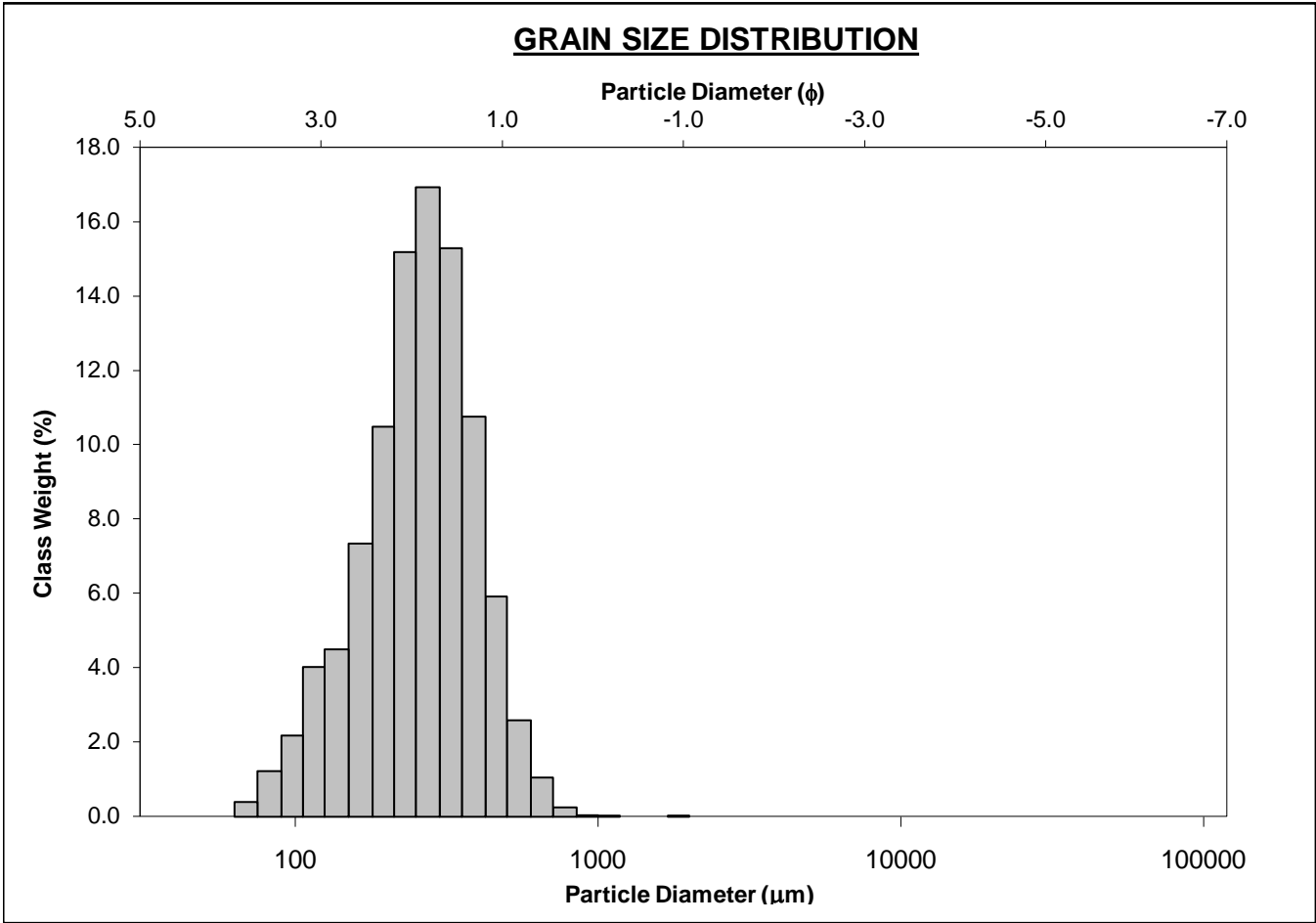
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-90cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 3.2%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 46.1%	
MODE 3:			MUD: 0.1%		FINE SAND: 47.9%	
D ₁₀ :	156.2	1.301			V FINE SAND: 2.7%	
MEDIAN or D ₅₀ :	248.6	2.008	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	405.9	2.679	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.600	2.060	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	249.8	1.378	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.662	1.447	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	127.8	0.733	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	270.0	249.9	2.001	248.6	2.008	Fine Sand
SORTING (σ):	110.5	1.470	0.555	1.453	0.539	Moderately Well Sorted
SKEWNESS (Sk):	1.941	-0.326	0.326	0.015	-0.015	Symmetrical
KURTOSIS (K):	12.05	7.468	7.468	0.995	0.995	Mesokurtic



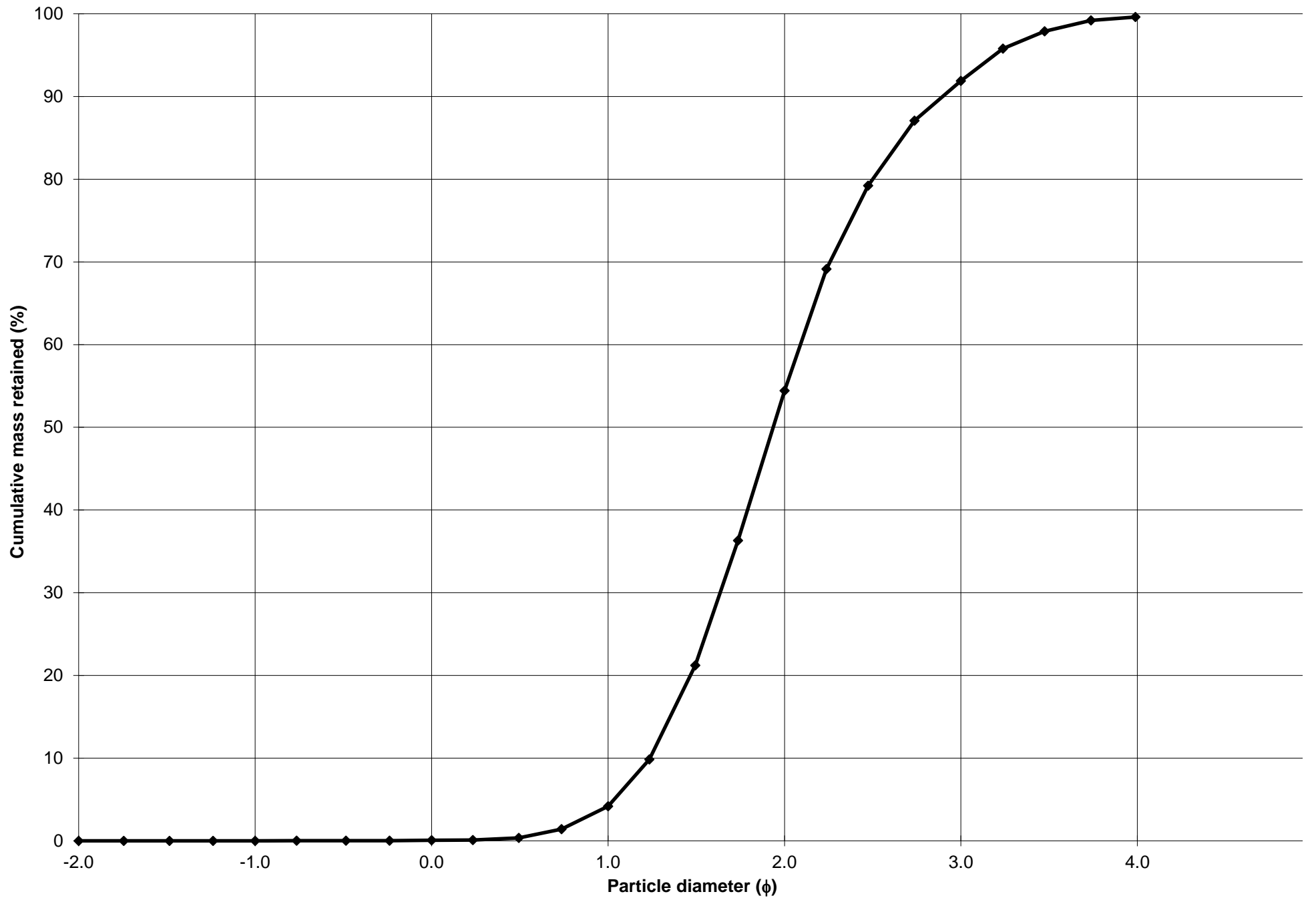
Cumulative Frequency Curve



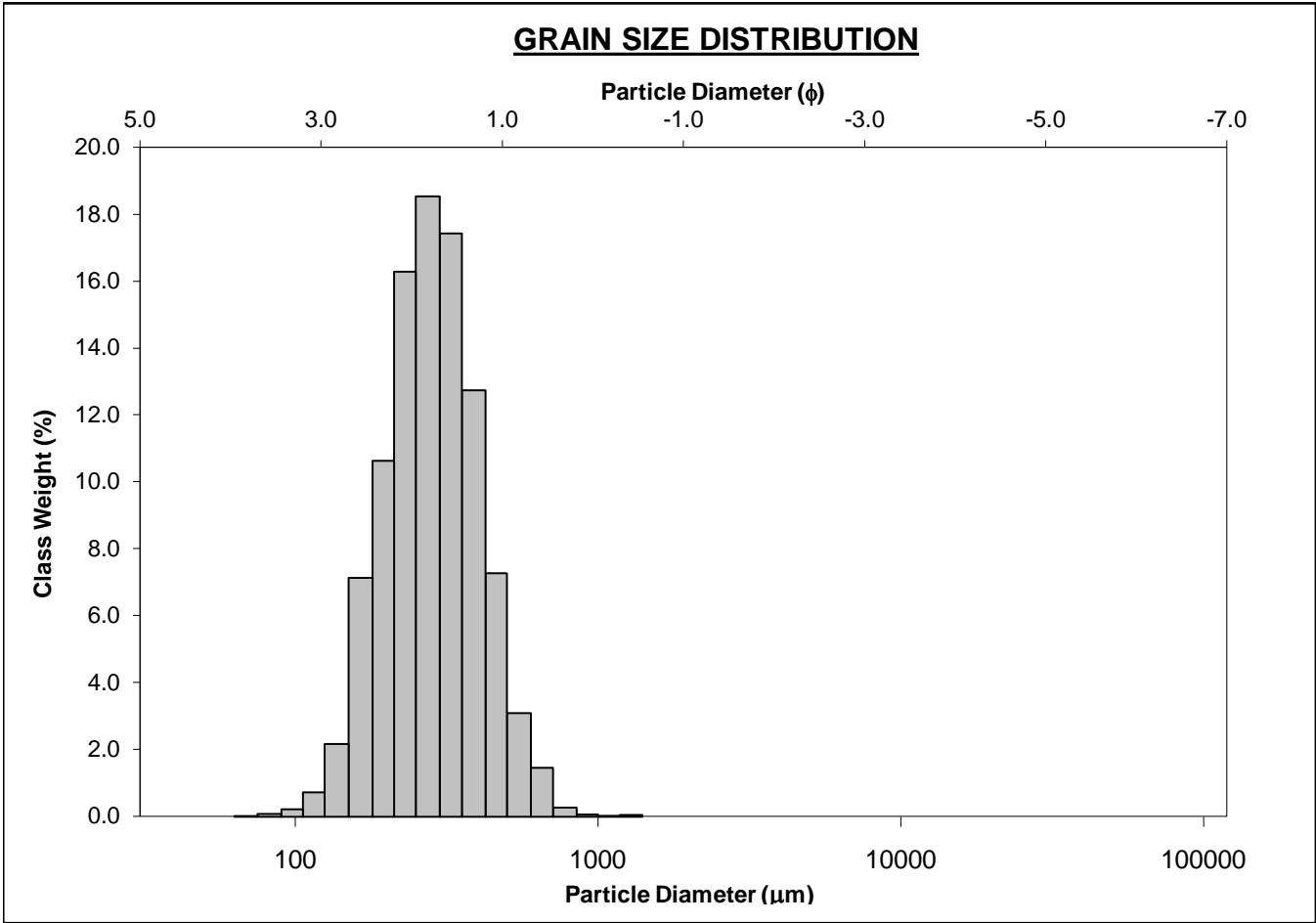
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-100cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 4.1%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 50.2%	
MODE 3:			MUD: 0.4%		FINE SAND: 37.5%	
D ₁₀ :	134.3	1.238			V FINE SAND: 7.7%	
MEDIAN or D ₅₀ :	261.4	1.936	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	423.9	2.897	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.158	2.340	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	289.7	1.659	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.766	1.528	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	147.6	0.820	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	276.6	248.8	2.007	253.2	1.982	Medium Sand
SORTING (σ):	121.0	1.630	0.705	1.560	0.641	Moderately Well Sorted
SKEWNESS (Sk):	1.531	-1.578	1.578	-0.137	0.137	Fine Skewed
KURTOSIS (K):	13.22	11.88	11.88	1.077	1.077	Mesokurtic



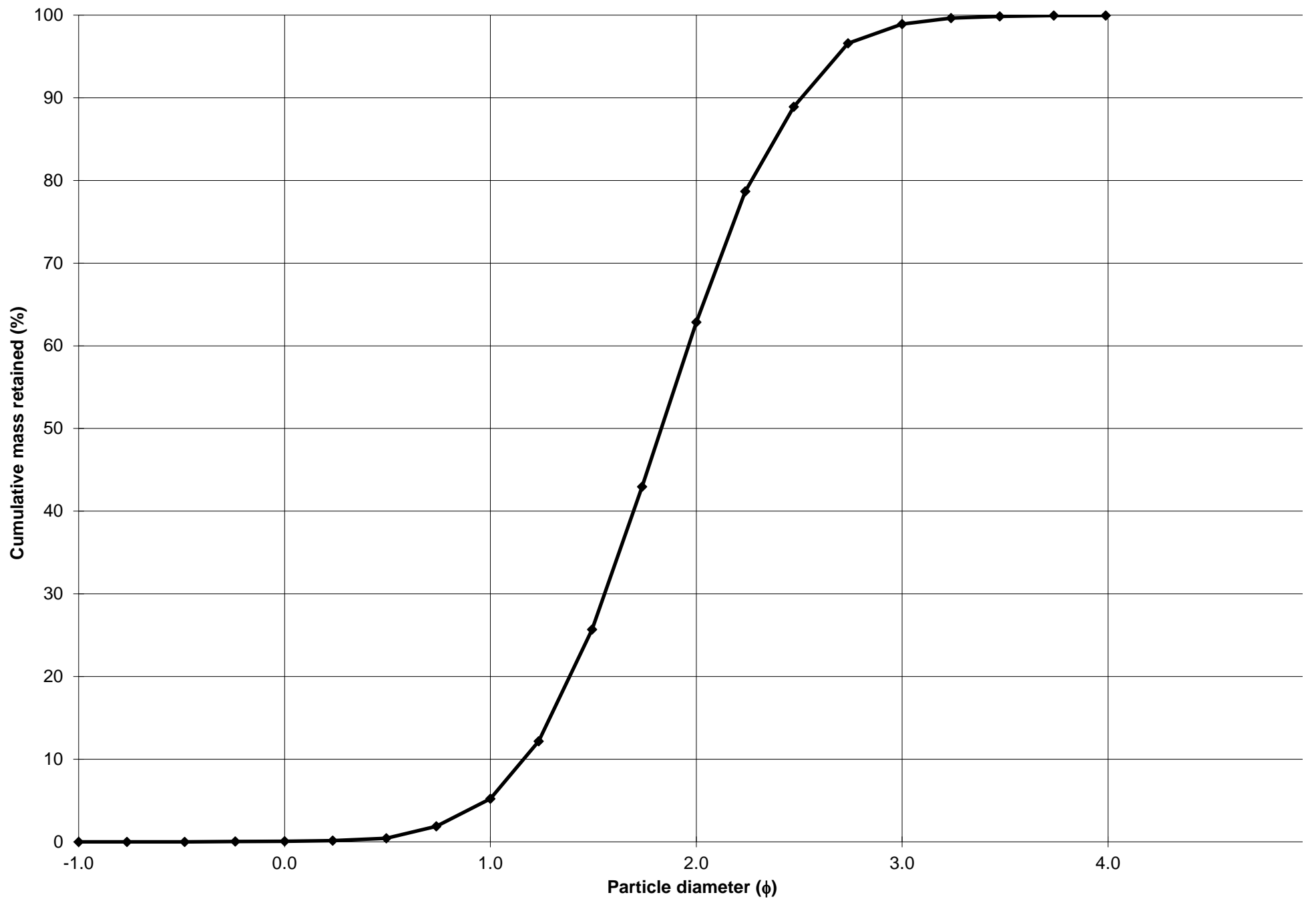
Cumulative Frequency Curve



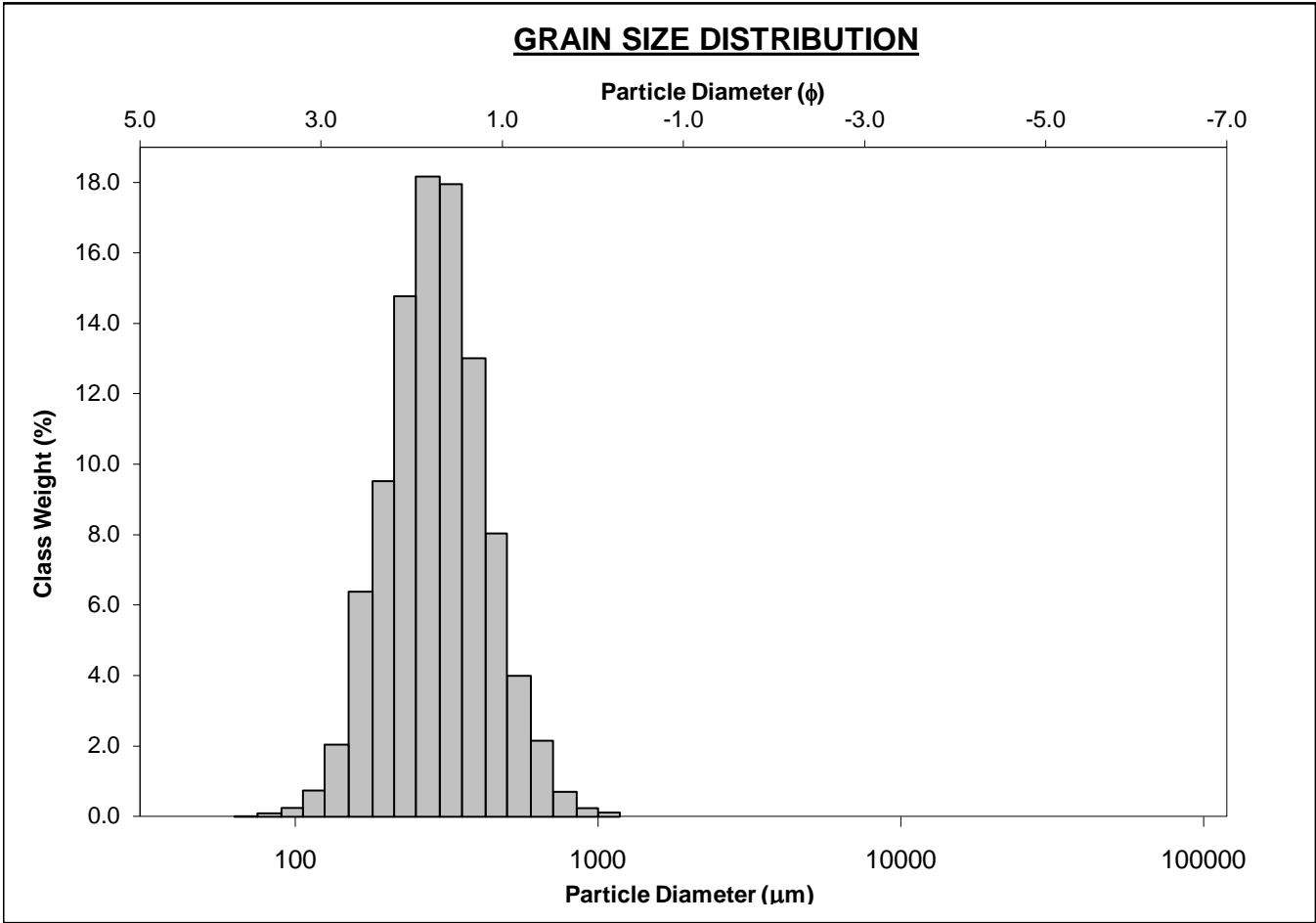
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-110cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 5.1%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 57.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 36.1%	
D ₁₀ :	175.4	1.161			V FINE SAND: 1.0%	
MEDIAN or D ₅₀ :	281.3	1.830	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	447.2	2.511	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.549	2.163	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	271.7	1.350	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.626	1.474	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	138.0	0.702	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	301.5	281.0	1.831	280.7	1.833	Medium Sand
SORTING (σ):	114.1	1.444	0.530	1.435	0.521	Moderately Well Sorted
SKEWNESS (Sk):	1.429	-0.336	0.336	-0.006	0.006	Symmetrical
KURTOSIS (K):	8.088	6.605	6.605	0.993	0.993	Mesokurtic



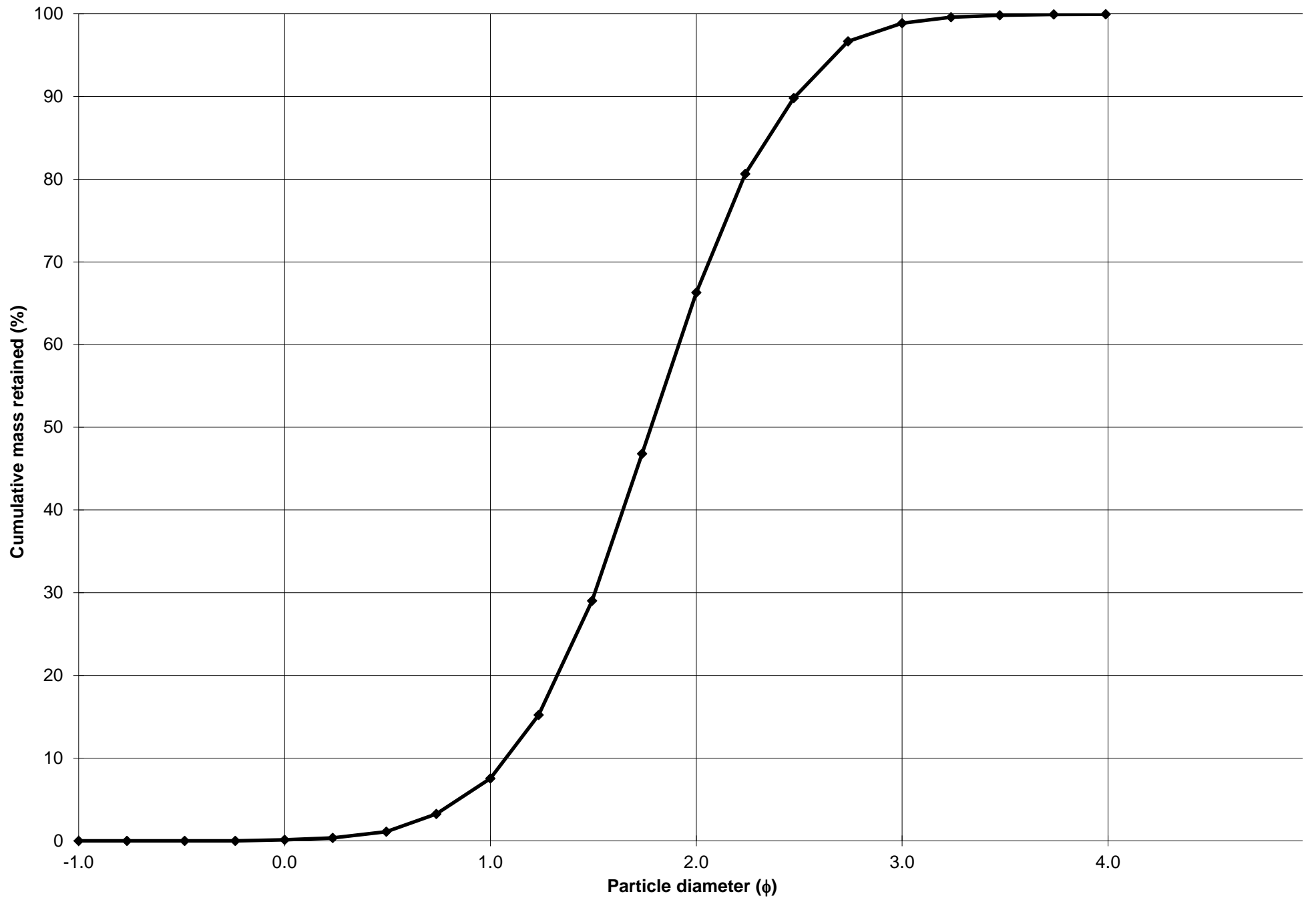
Cumulative Frequency Curve



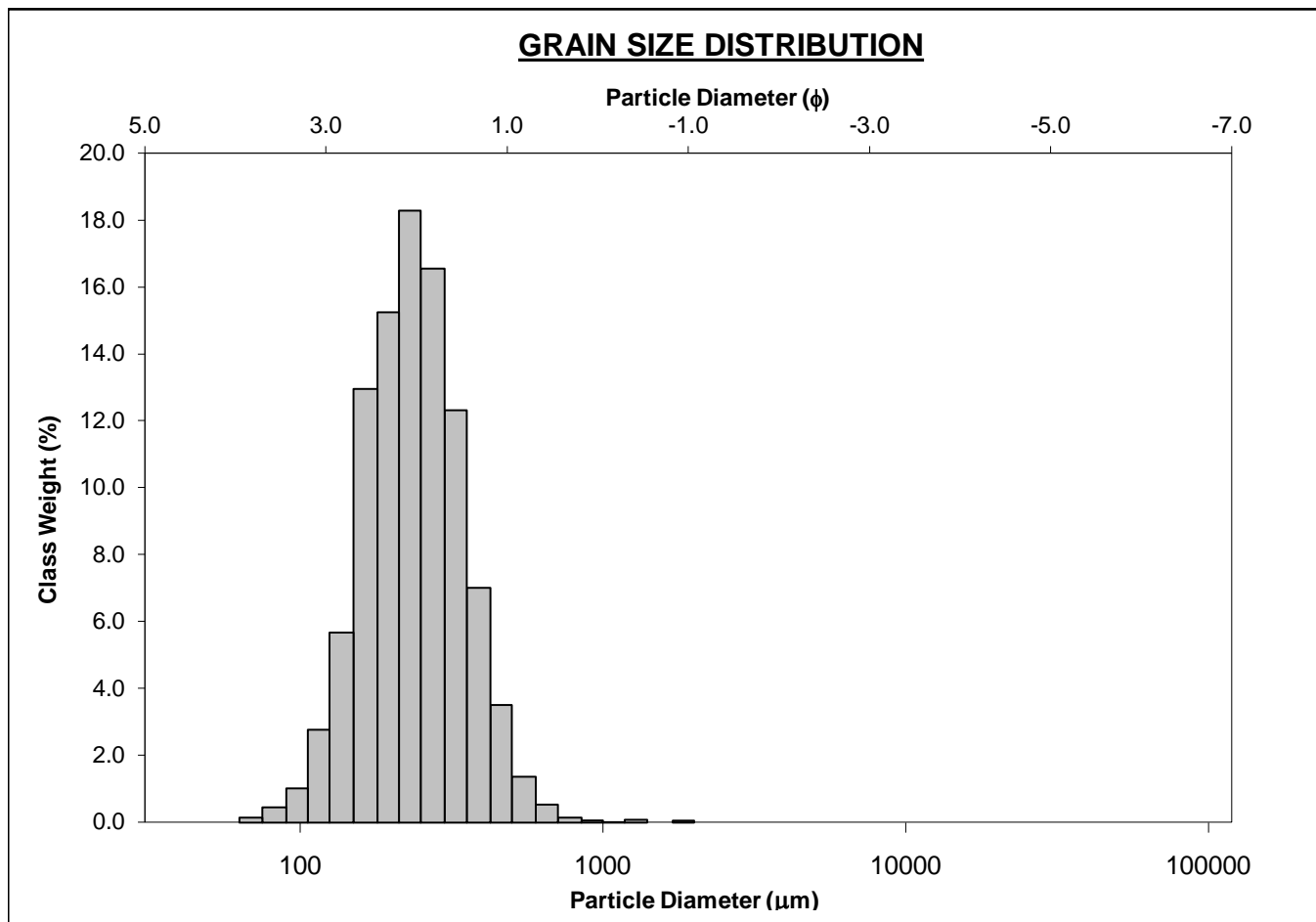
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-120cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 7.4%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 58.8%	
MODE 3:			MUD: 0.1%		FINE SAND: 32.6%	
D ₁₀ :	179.1	1.075			V FINE SAND: 1.1%	
MEDIAN or D ₅₀ :	291.2	1.780	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	474.6	2.481	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.650	2.308	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	295.6	1.406	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.654	1.512	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	147.9	0.726	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	314.8	291.3	1.779	290.3	1.785	Medium Sand
SORTING (σ):	126.1	1.473	0.559	1.460	0.546	Moderately Well Sorted
SKEWNESS (Sk):	1.414	-0.364	0.364	0.005	-0.005	Symmetrical
KURTOSIS (K):	6.597	7.020	7.020	1.032	1.032	Mesokurtic



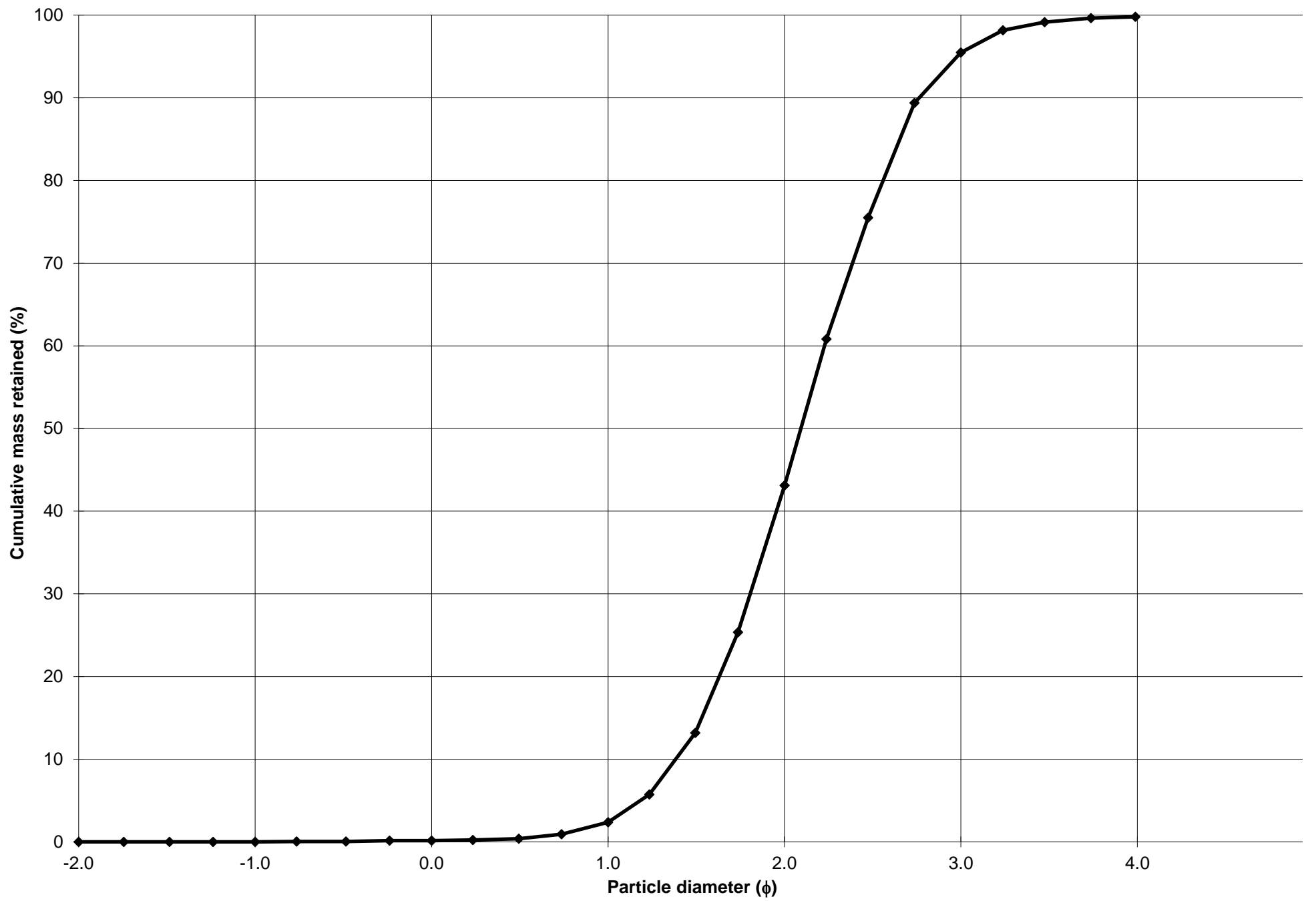
Cumulative Frequency Curve



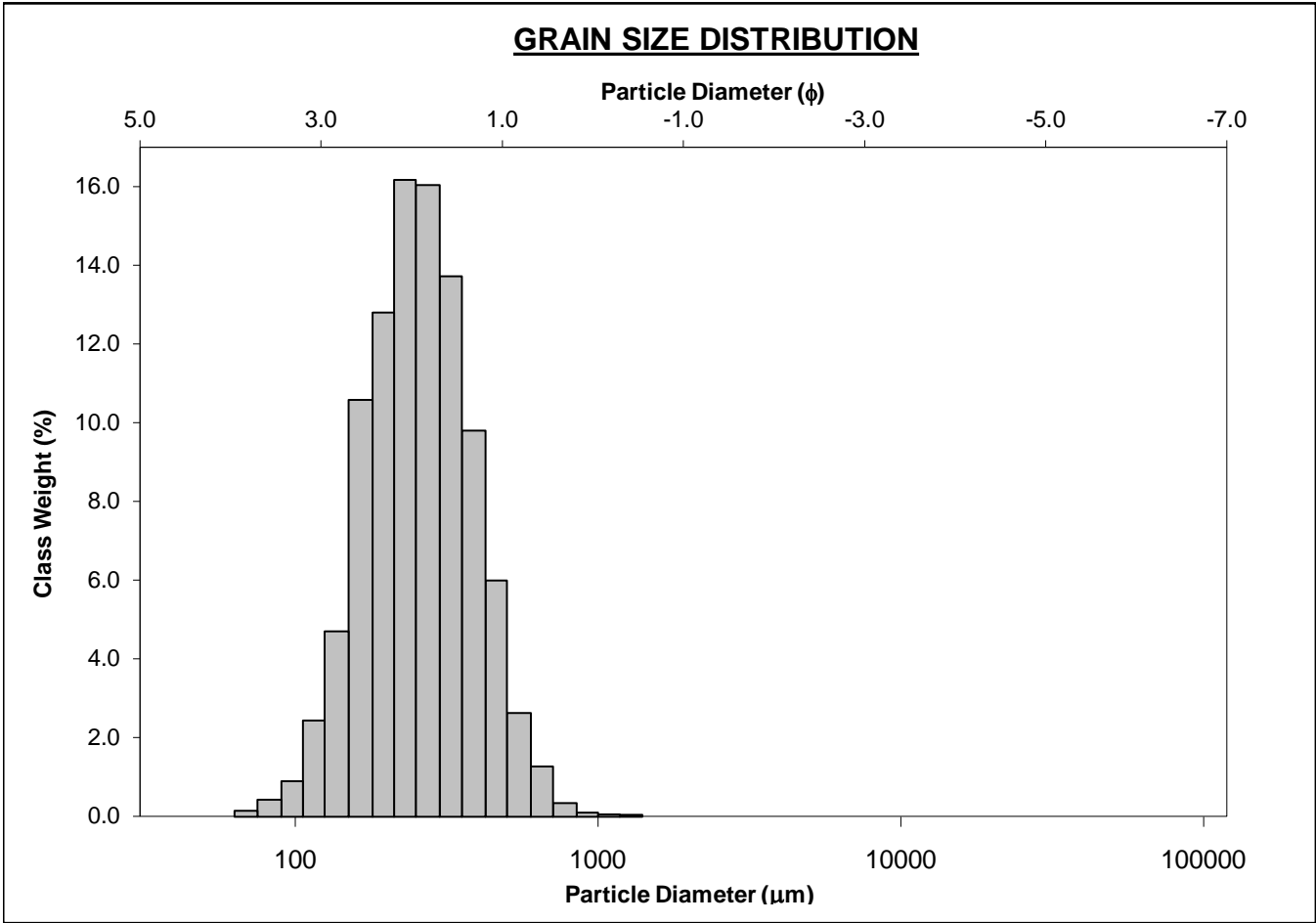
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-130cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 2.2%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 40.7%	
MODE 3:			MUD: 0.2%		FINE SAND: 52.4%	
D ₁₀ :	147.2	1.383			V FINE SAND: 4.3%	
MEDIAN or D ₅₀ :	234.5	2.093	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	383.3	2.764	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.603	1.998	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	236.1	1.380	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.666	1.426	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	120.5	0.736	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	254.6	233.9	2.096	234.4	2.093	Fine Sand
SORTING (σ):	111.8	1.511	0.595	1.457	0.543	Moderately Well Sorted
SKEWNESS (Sk):	3.335	-0.985	0.985	0.006	-0.006	Symmetrical
KURTOSIS (K):	34.78	12.48	12.48	1.000	1.000	Mesokurtic



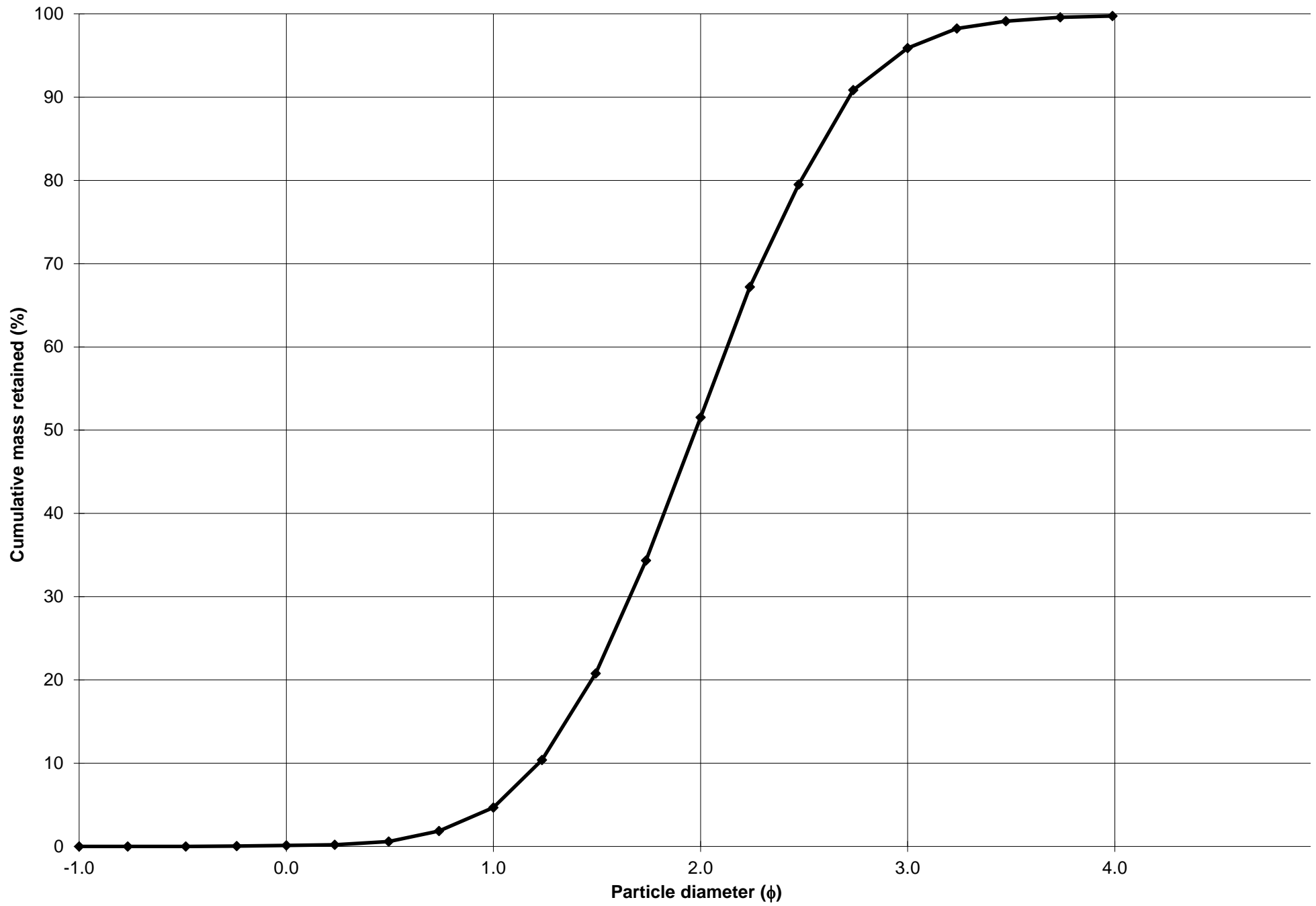
Cumulative Frequency Curve



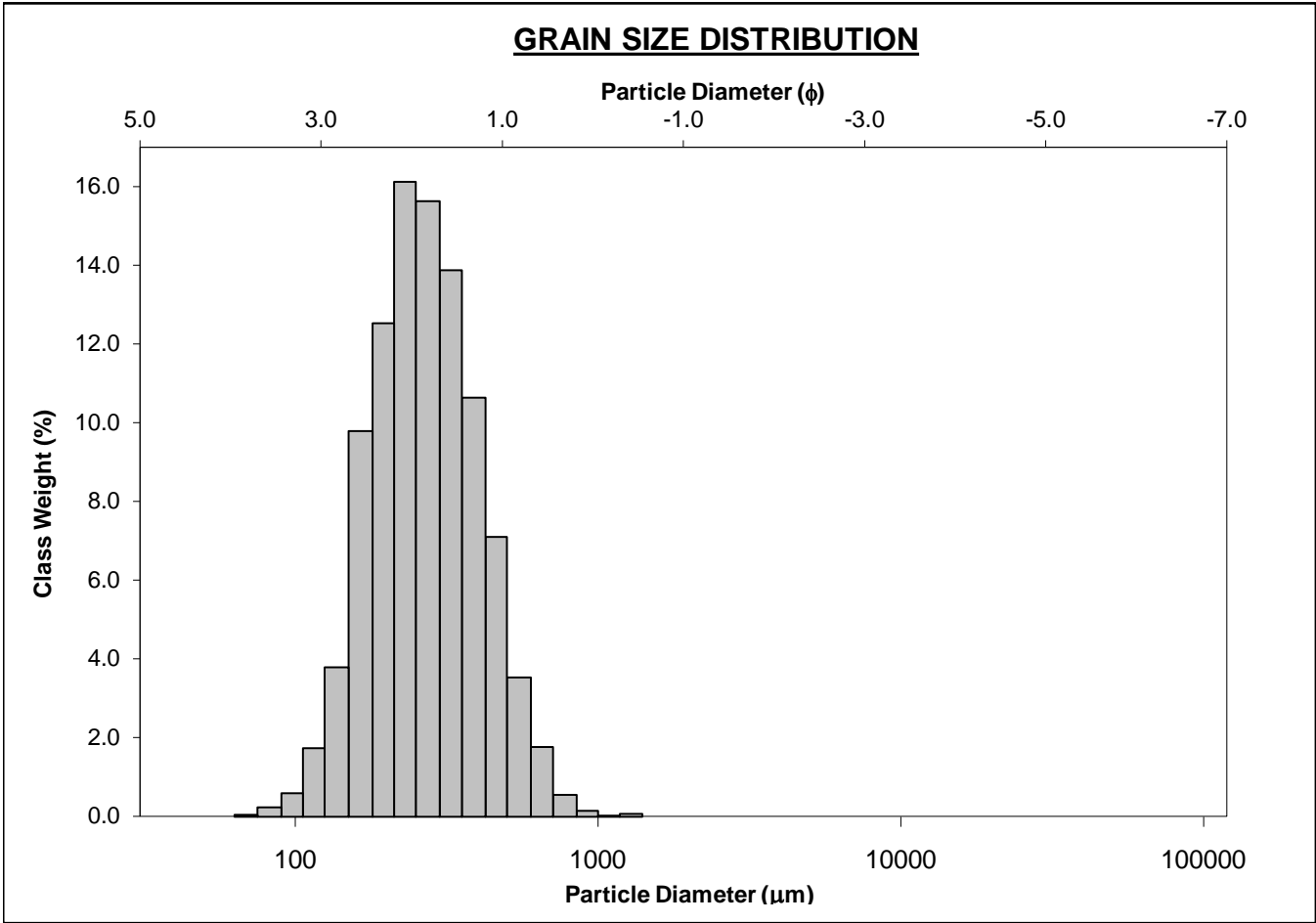
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-140cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 4.6%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 46.9%	
MODE 3:			MUD: 0.3%		FINE SAND: 44.4%	
D ₁₀ :	152.0	1.218			V FINE SAND: 3.9%	
MEDIAN or D ₅₀ :	254.1	1.977	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	429.8	2.717	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.827	2.231	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	277.8	1.499	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.763	1.521	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	145.7	0.818	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	277.7	252.6	1.985	254.1	1.977	Medium Sand
SORTING (σ):	121.1	1.562	0.643	1.510	0.595	Moderately Well Sorted
SKEWNESS (Sk):	1.542	-1.141	1.141	-0.004	0.004	Symmetrical
KURTOSIS (K):	8.317	11.68	11.68	0.972	0.972	Mesokurtic



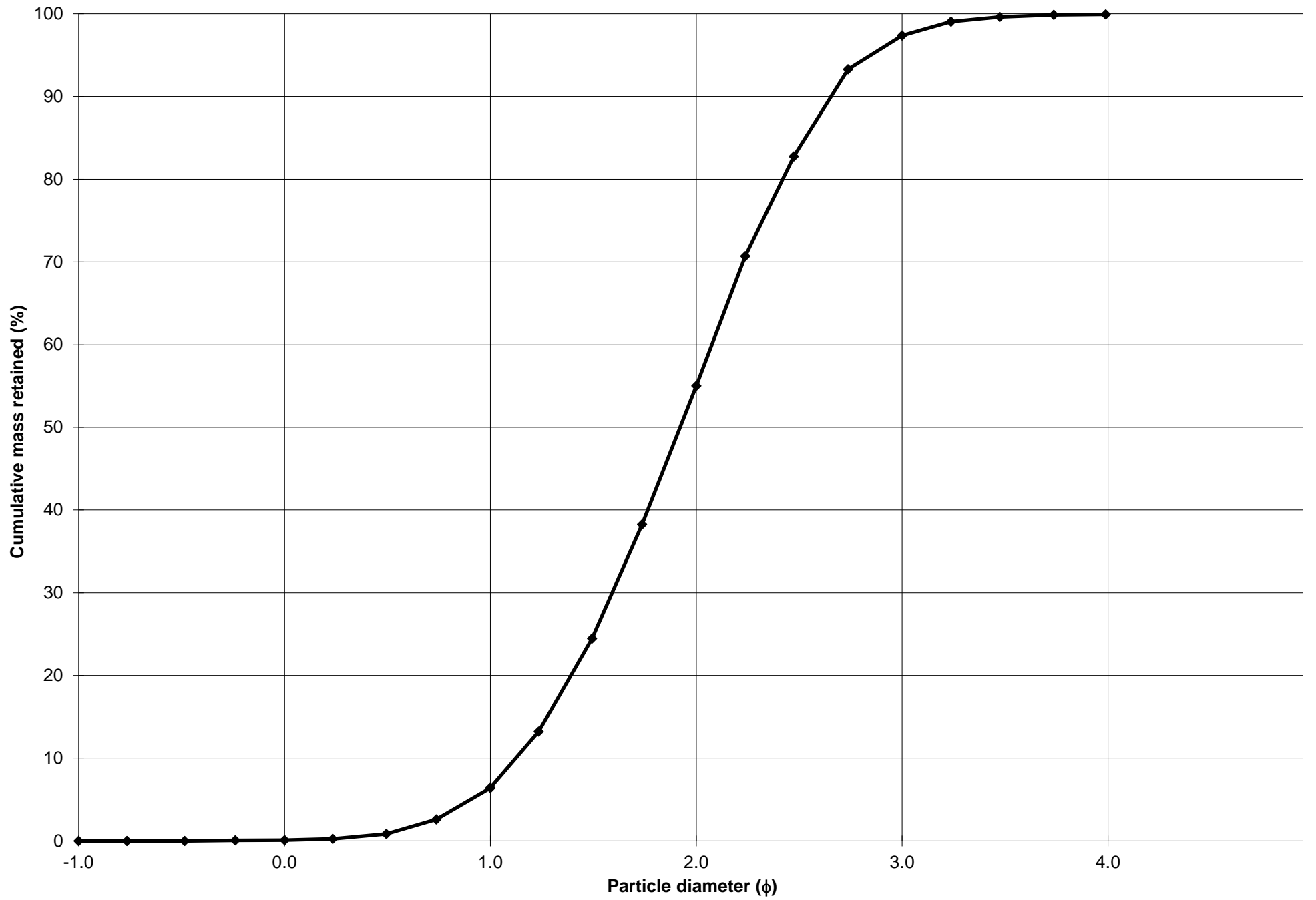
Cumulative Frequency Curve



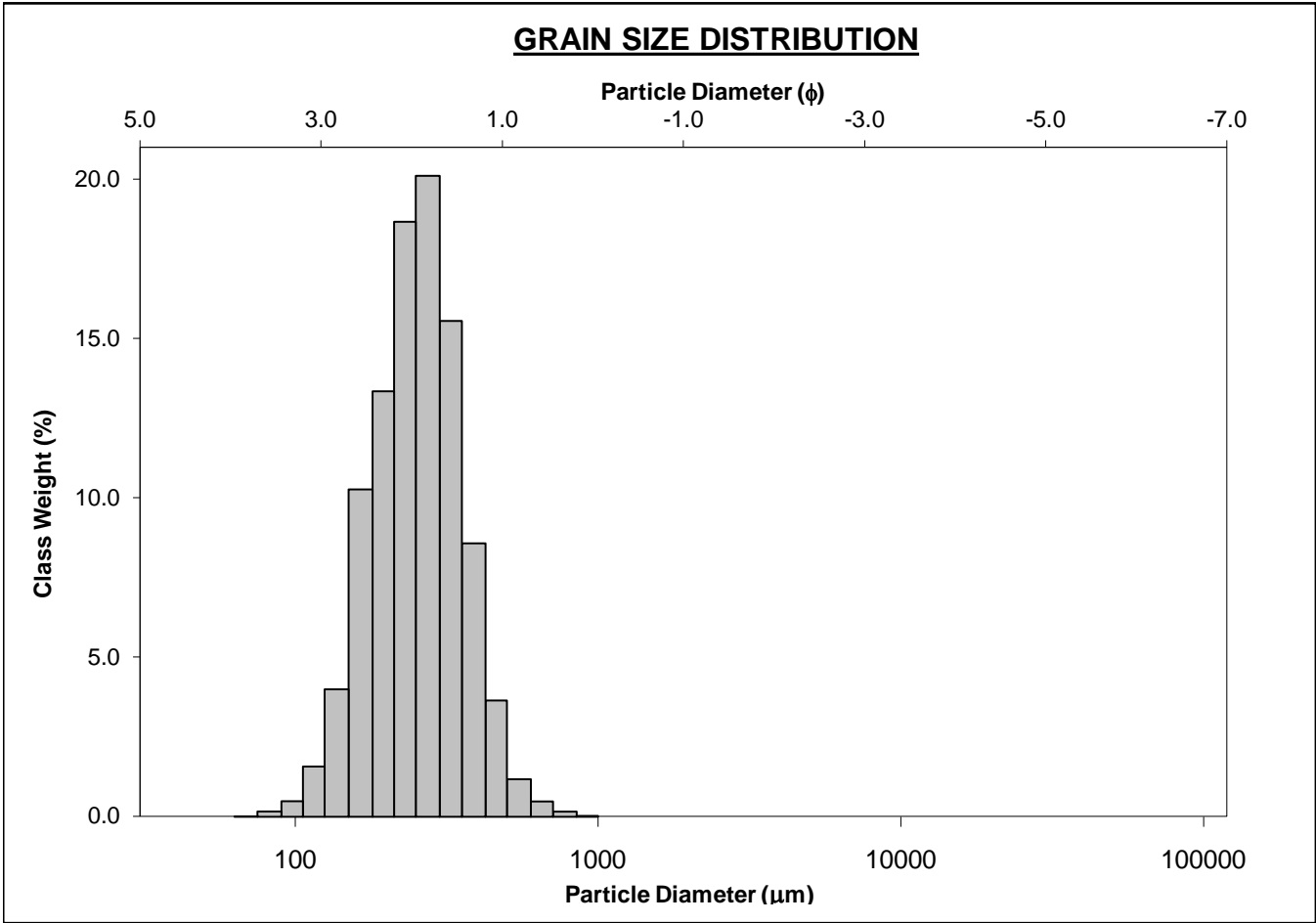
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-150cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 6.3%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 48.6%	
MODE 3:			MUD: 0.1%		FINE SAND: 42.3%	
D ₁₀ :	158.8	1.124			V FINE SAND: 2.6%	
MEDIAN or D ₅₀ :	264.0	1.921	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	458.7	2.655	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.889	2.362	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	300.0	1.531	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.764	1.545	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	152.8	0.819	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	291.9	266.6	1.907	266.4	1.908	Medium Sand
SORTING (σ):	127.8	1.521	0.605	1.512	0.596	Moderately Well Sorted
SKEWNESS (Sk):	1.535	-0.290	0.290	0.039	-0.039	Symmetrical
KURTOSIS (K):	7.740	6.179	6.179	0.973	0.973	Mesokurtic



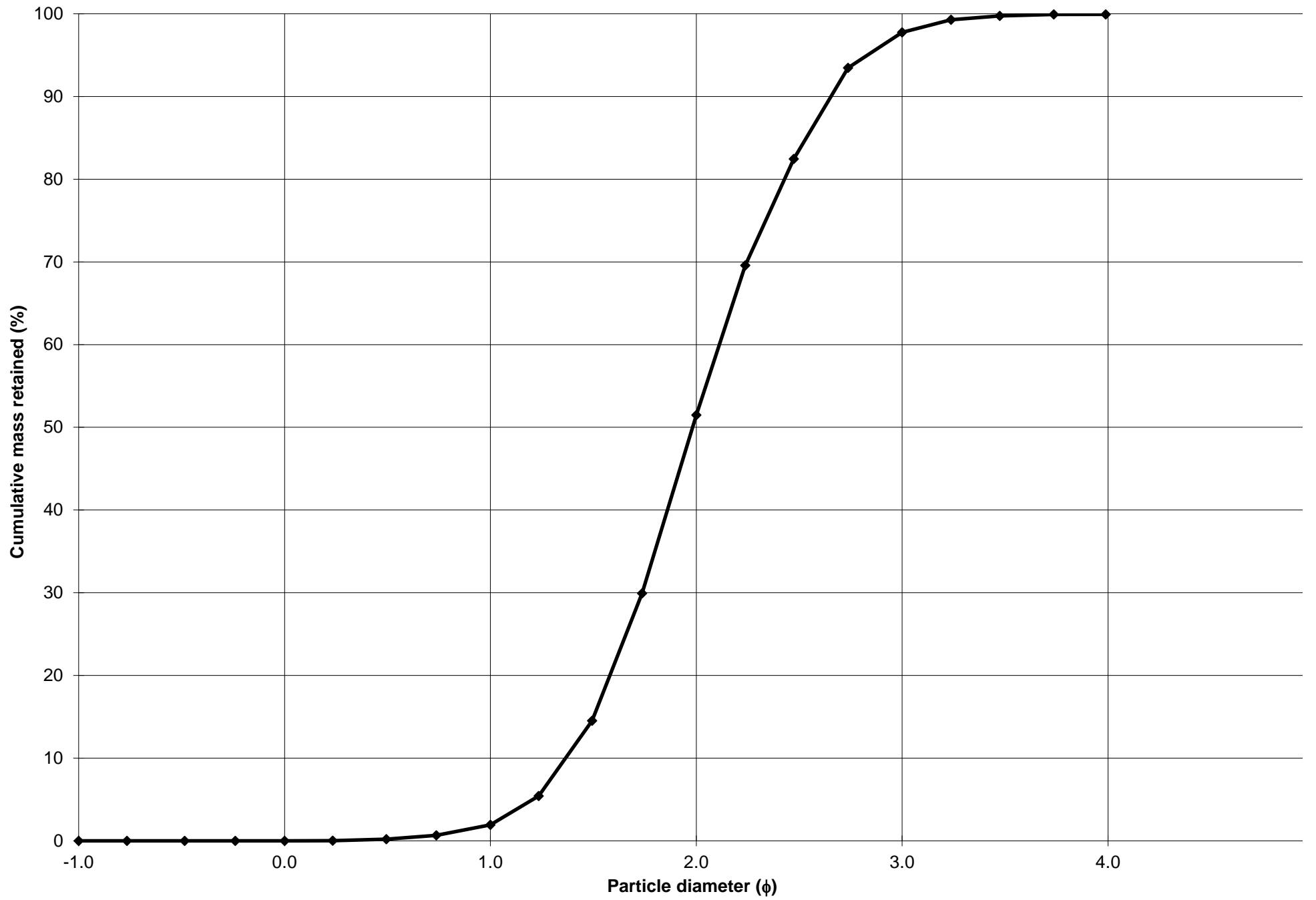
Cumulative Frequency Curve



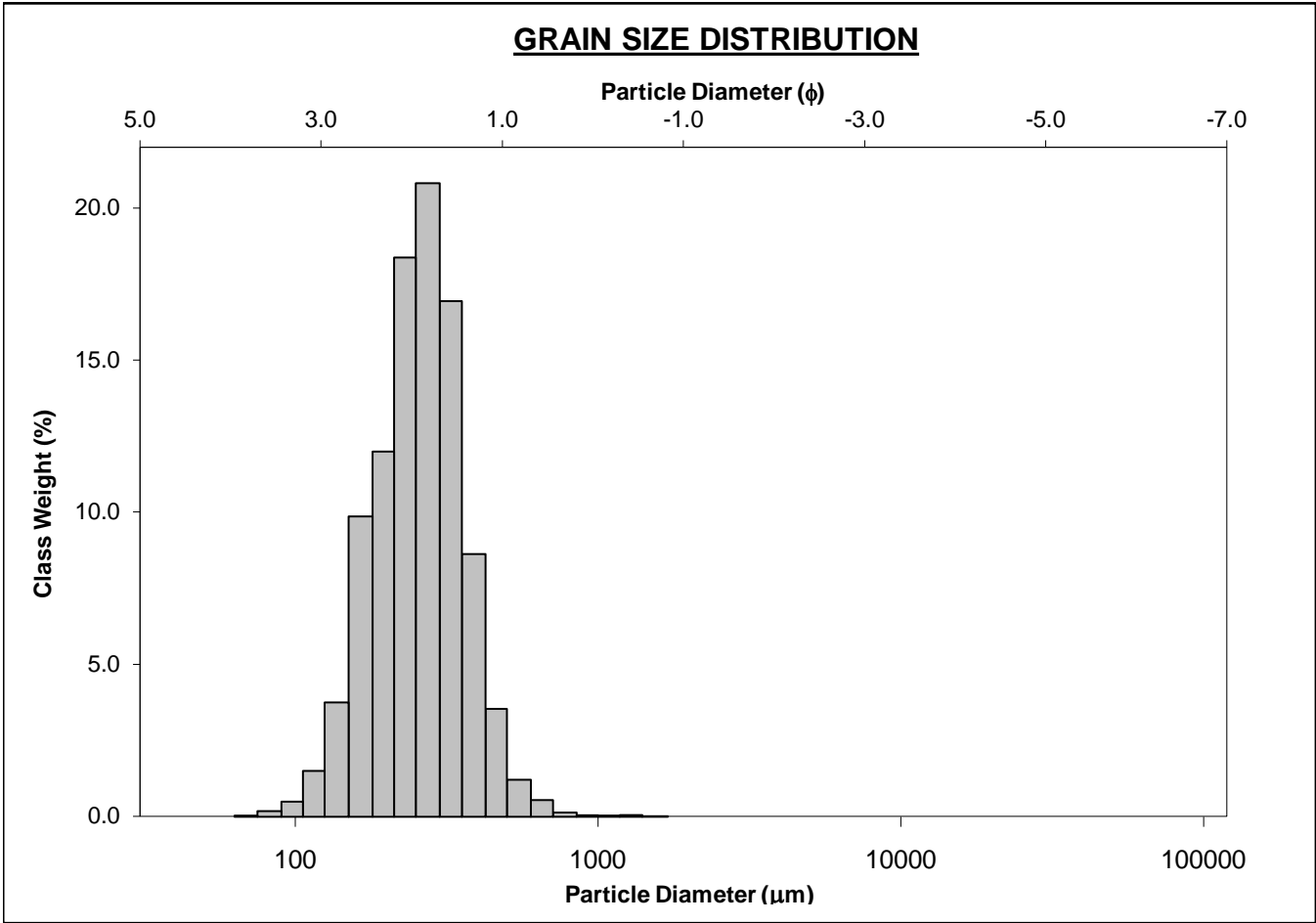
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-160cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.9%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 49.5%	
MODE 3:			MUD: 0.1%		FINE SAND: 46.3%	
D_{10} :	158.8	1.365			V FINE SAND: 2.2%	
MEDIAN or D_{50} :	253.2	1.982	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	388.2	2.655	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.444	1.944	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	229.4	1.289	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.600	1.408	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	118.7	0.678	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	266.5	249.9	2.001	249.4	2.004	Fine Sand
SORTING (σ):	94.44	1.426	0.512	1.409	0.495	Well Sorted
SKEWNESS (Sk):	1.175	-0.633	0.633	-0.055	0.055	Symmetrical
KURTOSIS (K):	6.005	8.721	8.721	0.983	0.983	Mesokurtic



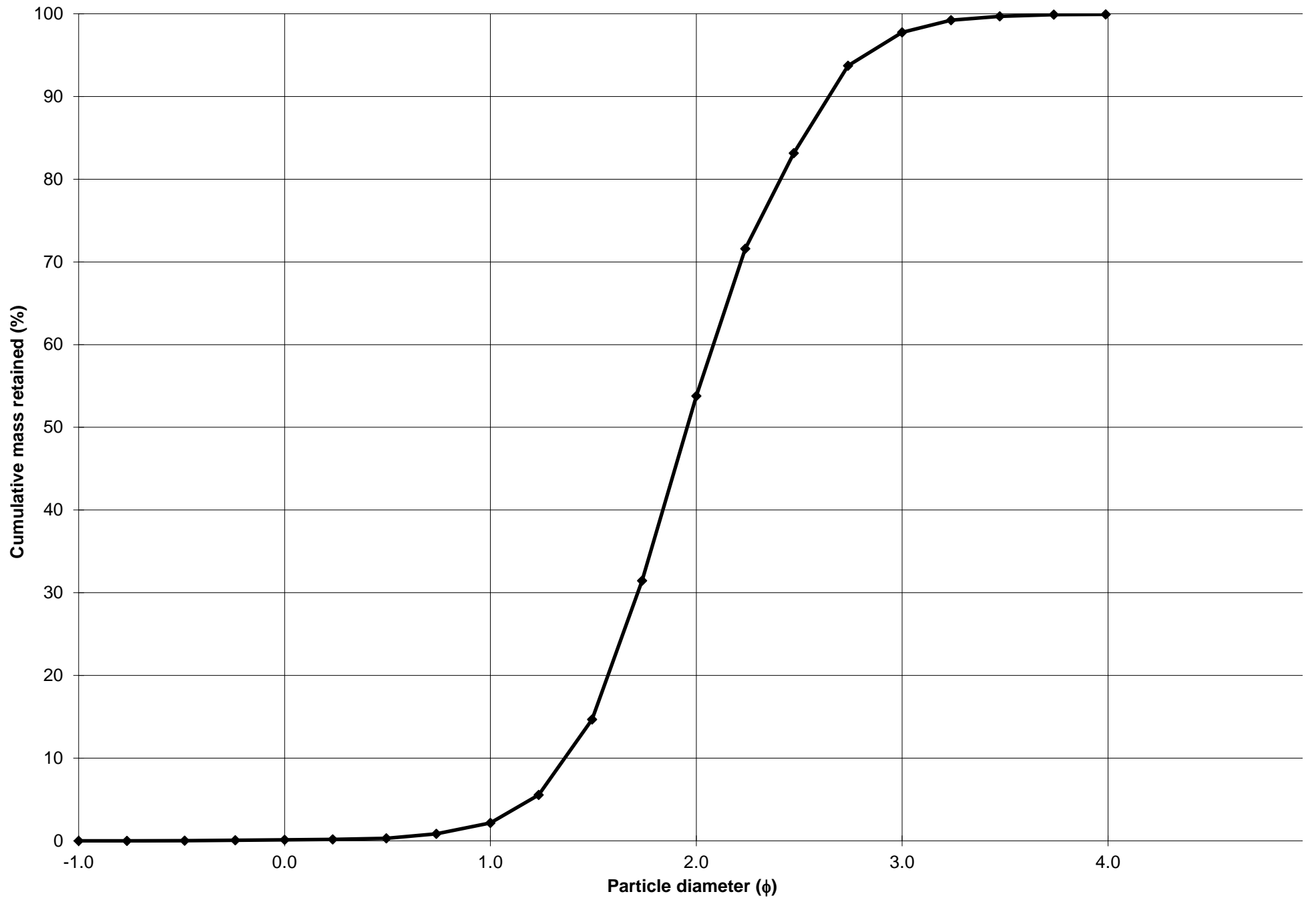
Cumulative Frequency Curve



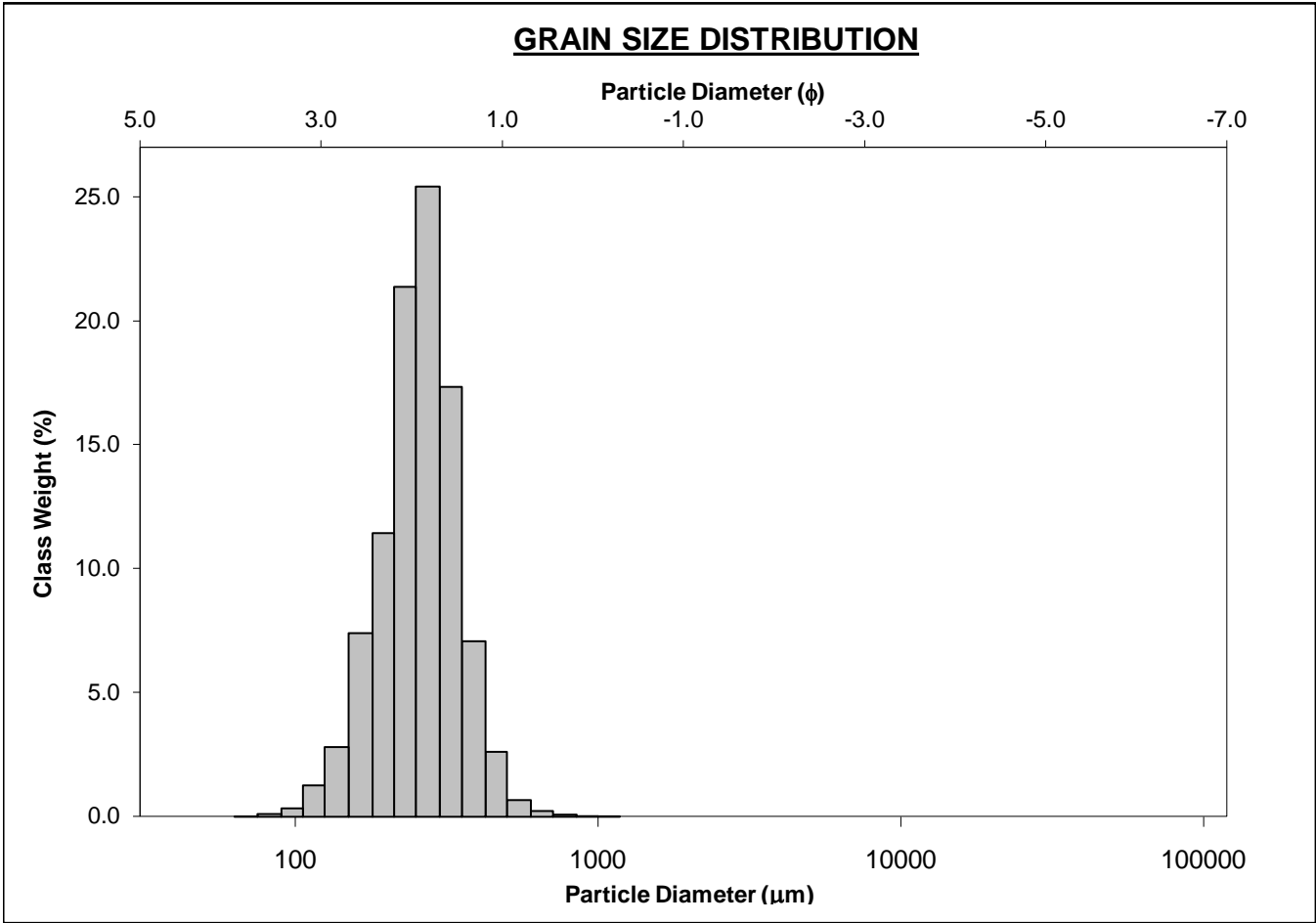
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-170cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%	COARSE SAND: 2.0%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 51.6%		
MODE 3:			MUD: 0.1%	FINE SAND: 44.0%		
D ₁₀ :	159.9	1.361		V FINE SAND: 2.2%		
MEDIAN or D ₅₀ :	257.8	1.955	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	389.3	2.644	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.434	1.943	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	229.4	1.284	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.585	1.404	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	118.1	0.664	V COARSE SAND: 0.1%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	270.6	253.2	1.981	252.1	1.988	Medium Sand
SORTING (σ):	100.8	1.432	0.518	1.406	0.492	Well Sorted
SKEWNESS (Sk):	2.186	-0.614	0.614	-0.082	0.082	Symmetrical
KURTOSIS (K):	18.14	9.291	9.291	1.002	1.002	Mesokurtic



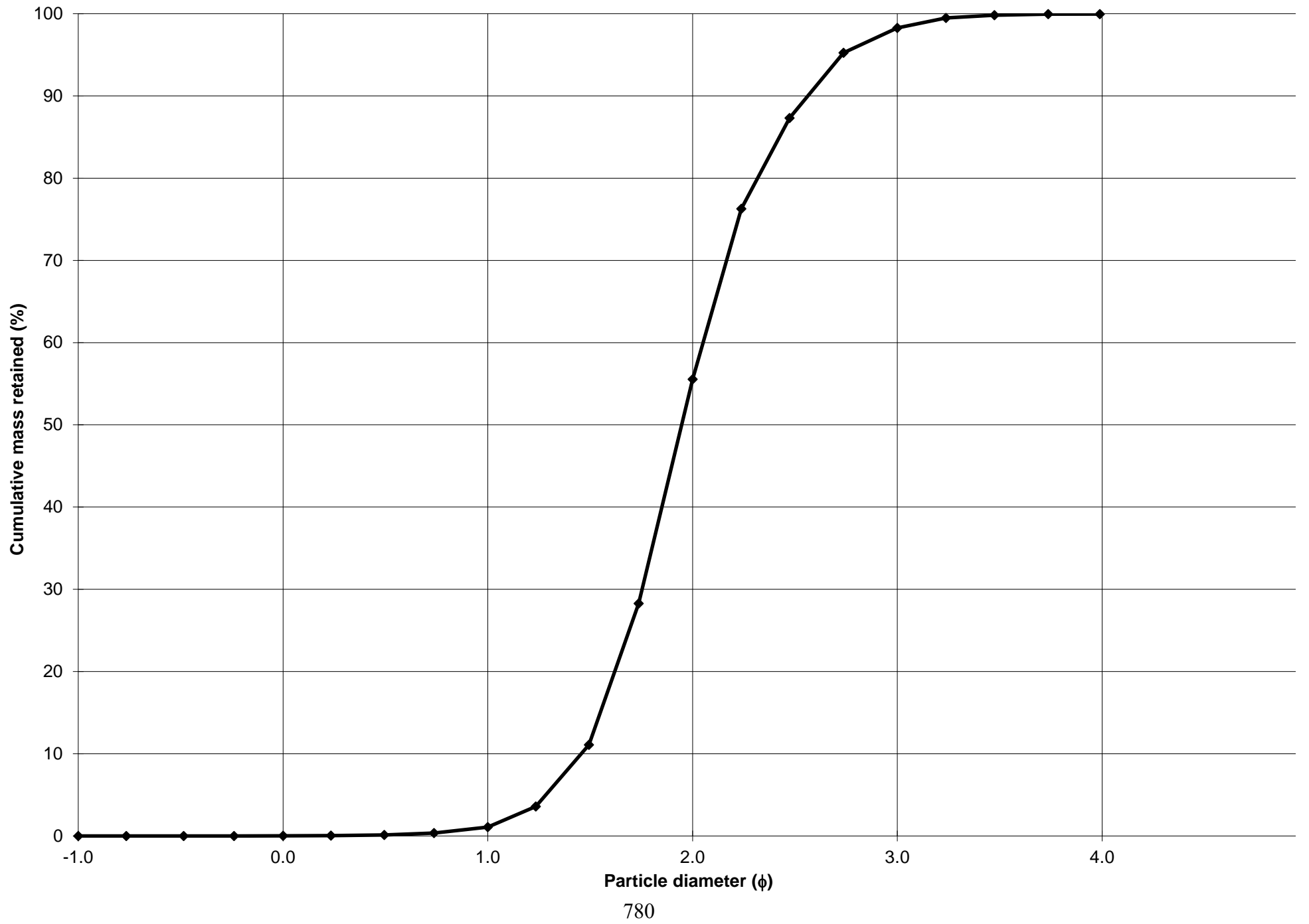
Cumulative Frequency Curve



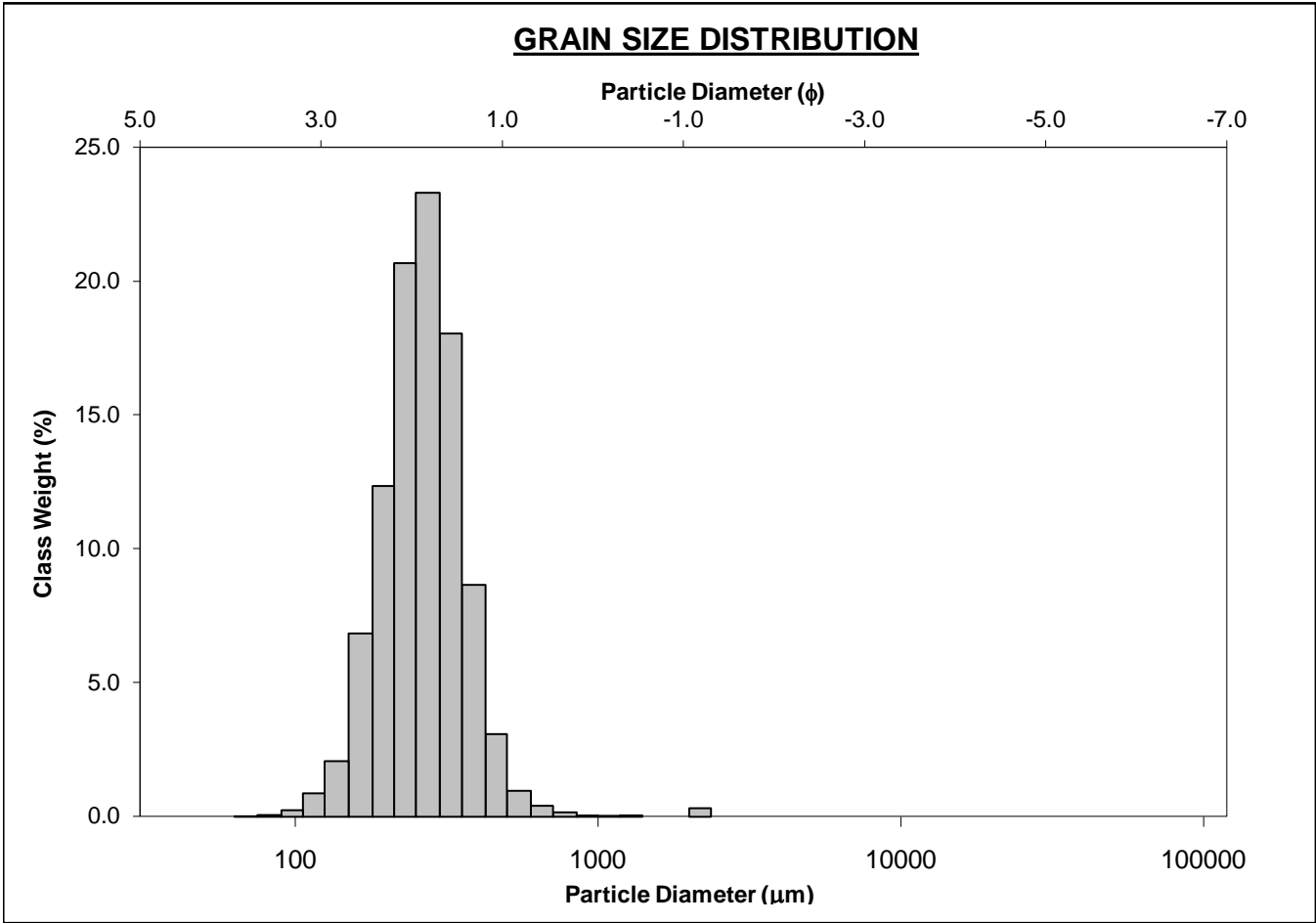
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-180cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.1%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 54.5%	
MODE 3:			MUD: 0.0%		FINE SAND: 42.7%	
D ₁₀ :	169.2	1.456			V FINE SAND: 1.7%	
MEDIAN or D ₅₀ :	259.4	1.947	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	364.4	2.563	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.154	1.760	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	195.3	1.107	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.446	1.315	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	95.60	0.532	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	267.4	254.3	1.975	255.1	1.971	Medium Sand
SORTING (σ):	82.13	1.365	0.449	1.346	0.429	Well Sorted
SKEWNESS (Sk):	1.236	-0.795	0.795	-0.085	0.085	Symmetrical
KURTOSIS (K):	8.424	10.09	10.09	1.113	1.113	Leptokurtic



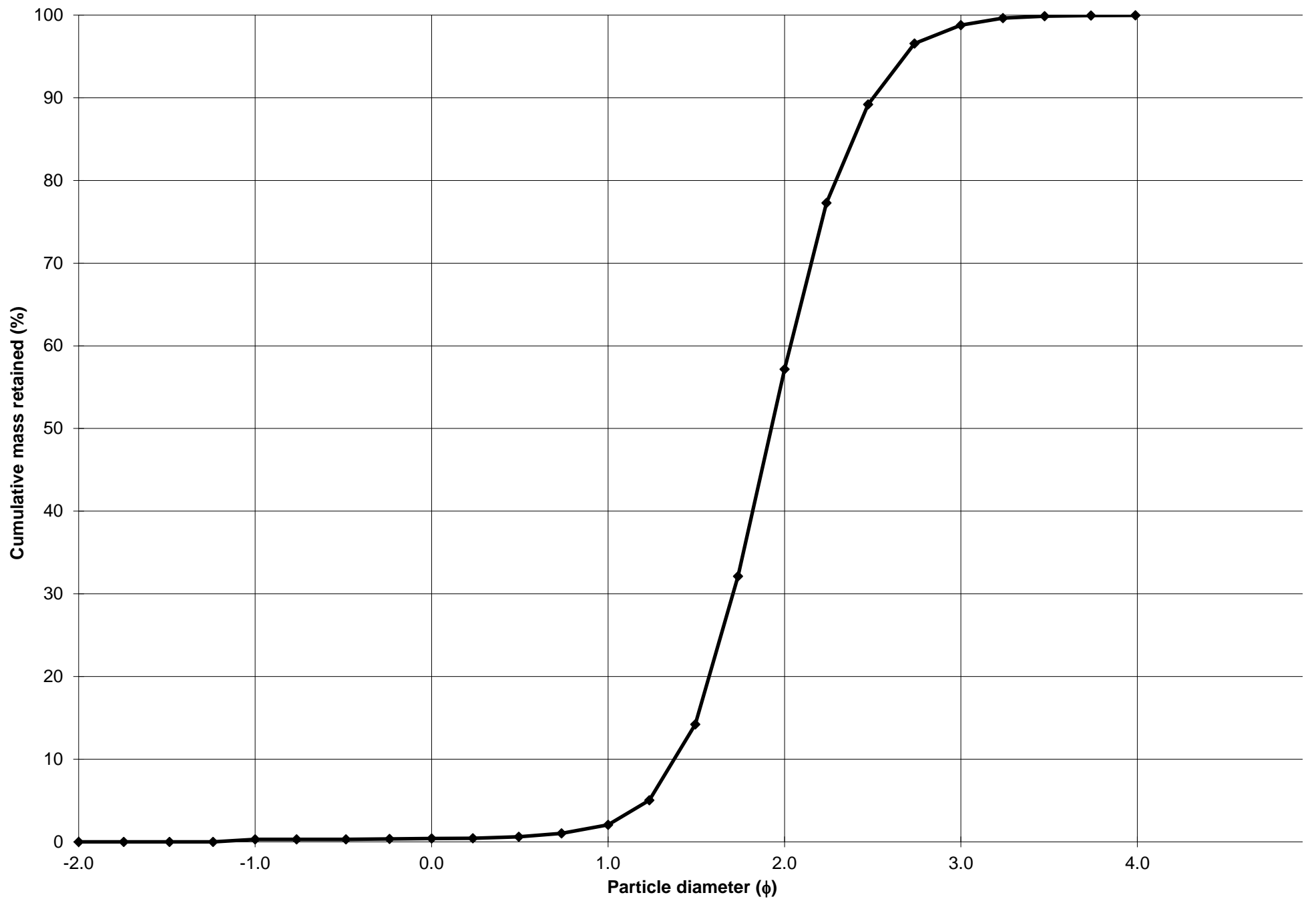
Cumulative Frequency Curve



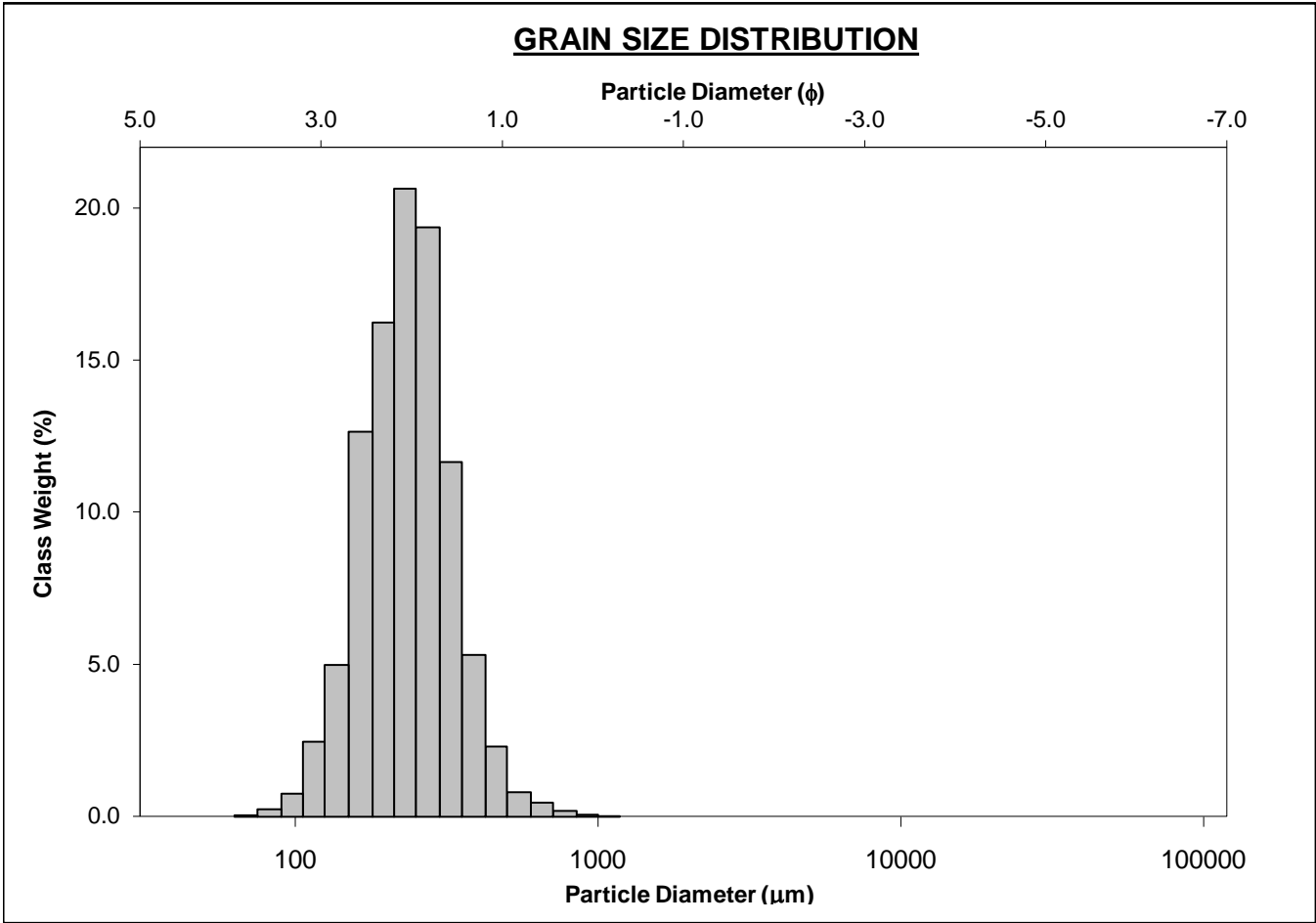
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-190cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.3%		COARSE SAND: 1.7%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 55.1%	
MODE 3:			MUD: 0.0%		FINE SAND: 41.6%	
D ₁₀ :	176.5	1.375			V FINE SAND: 1.2%	
MEDIAN or D ₅₀ :	263.4	1.925	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	385.6	2.503	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.185	1.820	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	209.1	1.128	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.485	1.348	V FINE GRAVEL: 0.3%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	104.8	0.571	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	281.4	263.0	1.927	261.0	1.938	Medium Sand
SORTING (σ):	140.0	1.399	0.485	1.350	0.433	Well Sorted
SKEWNESS (Sk):	8.304	0.421	-0.421	-0.046	0.046	Symmetrical
KURTOSIS (K):	108.4	11.35	11.35	1.041	1.041	Mesokurtic



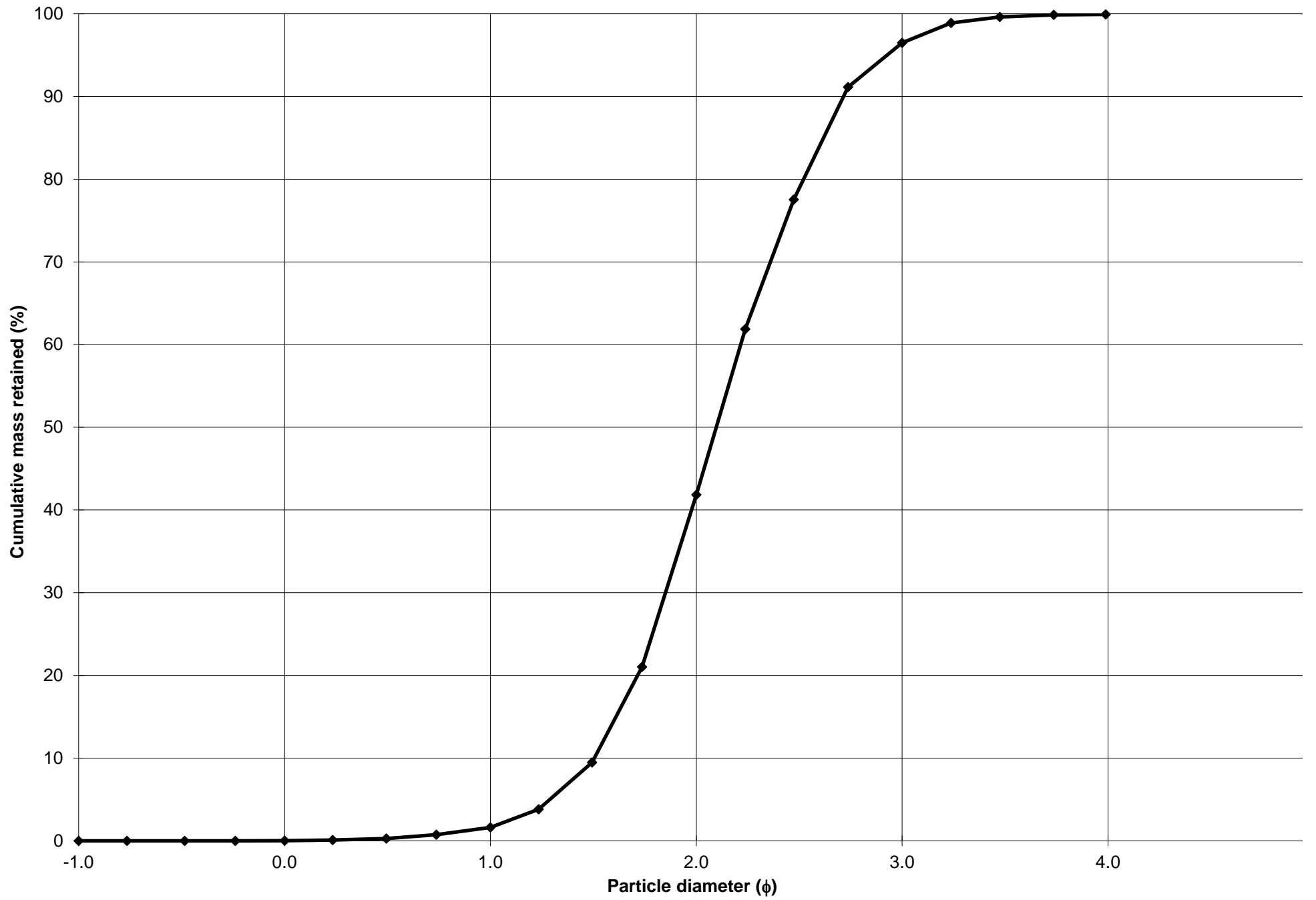
Cumulative Frequency Curve



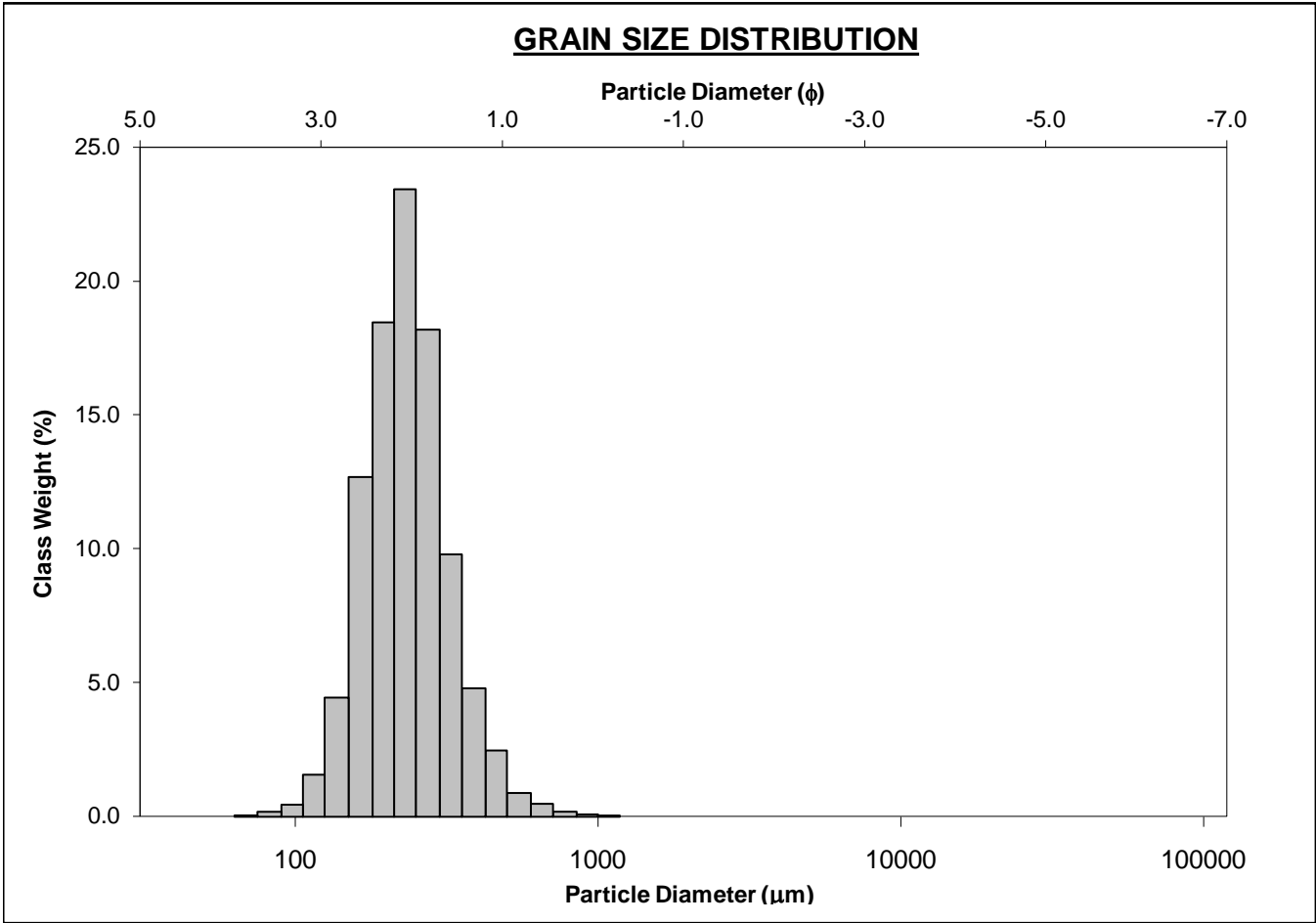
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-200cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0% COARSE SAND: 1.6%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 40.2%			
MODE 3:			MUD: 0.1% FINE SAND: 54.6%			
D ₁₀ :	152.3	1.505	V FINE SAND: 3.4%			
MEDIAN or D ₅₀ :	233.8	2.097	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	352.3	2.715	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.313	1.804	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	200.0	1.210	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.568	1.363	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	104.9	0.649	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	248.0	232.3	2.106	231.8	2.109	Fine Sand
SORTING (σ):	91.62	1.426	0.512	1.405	0.490	Well Sorted
SKEWNESS (Sk):	1.750	-0.533	0.533	-0.026	0.026	Symmetrical
KURTOSIS (K):	10.02	9.340	9.340	1.036	1.036	Mesokurtic



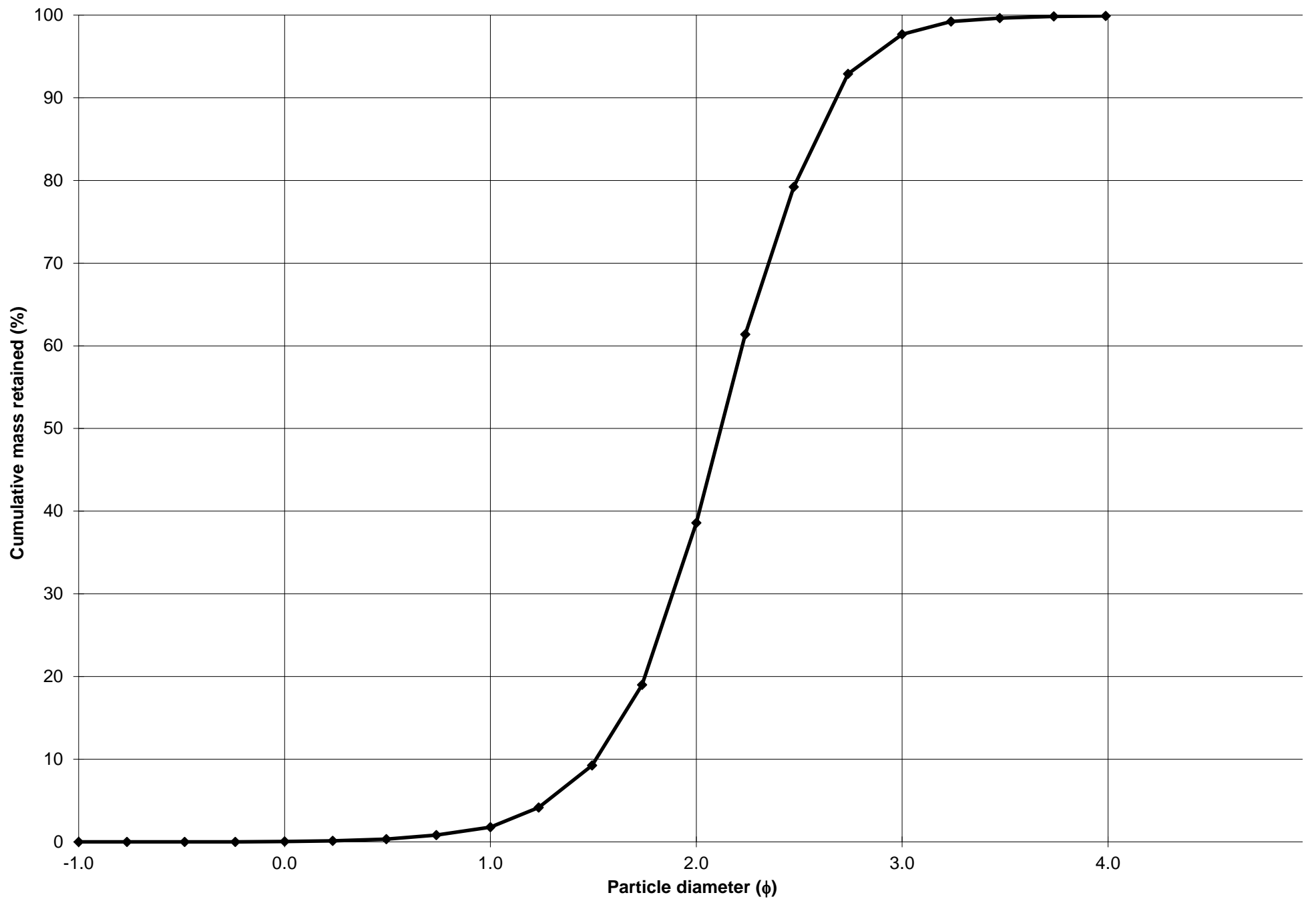
Cumulative Frequency Curve



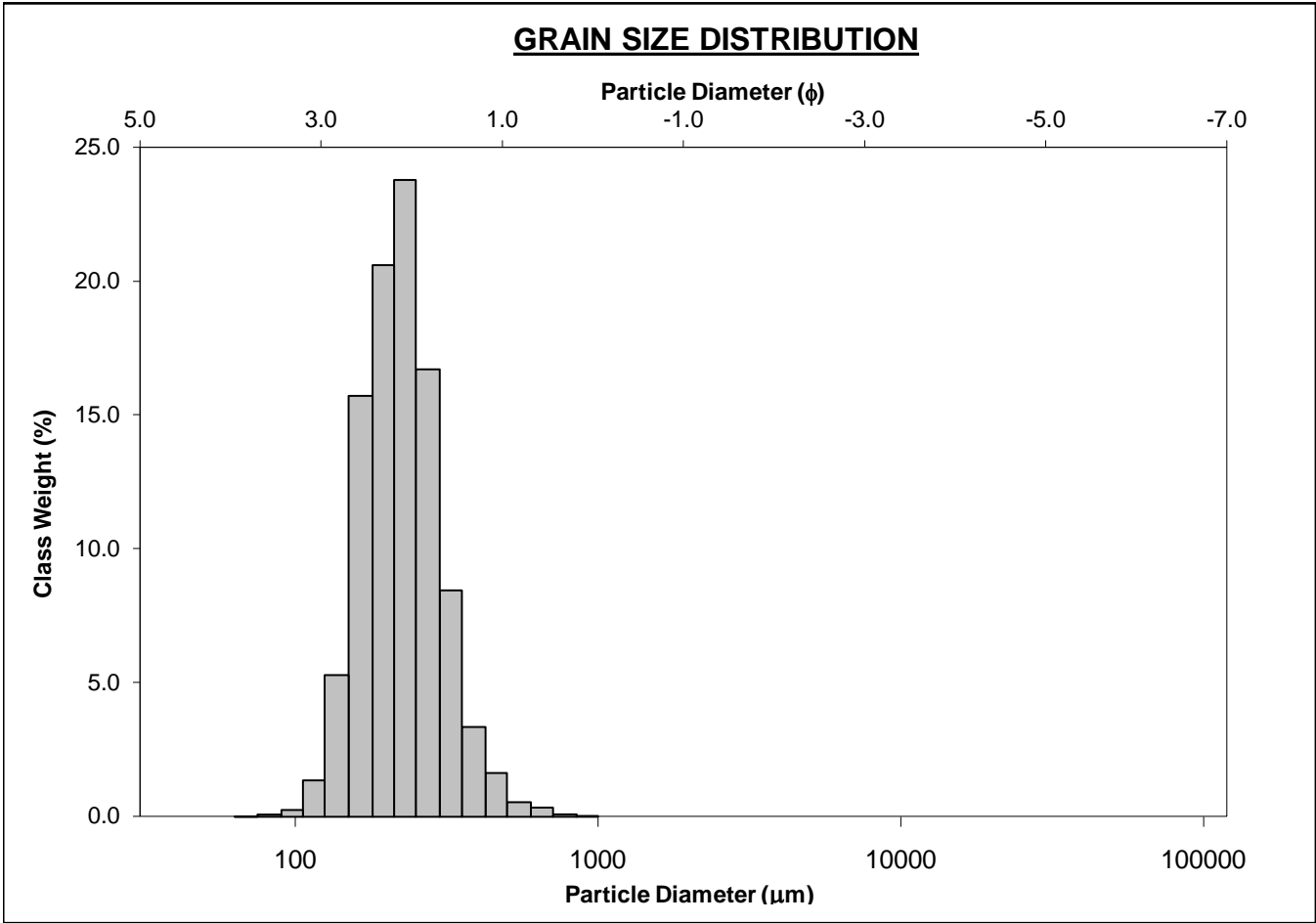
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-210cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%	COARSE SAND: 1.7%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 36.8%		
MODE 3:			MUD: 0.1%	FINE SAND: 59.1%		
D ₁₀ :	155.9	1.513		V FINE SAND: 2.2%		
MEDIAN or D ₅₀ :	230.2	2.119	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	350.4	2.681	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.248	1.772	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	194.5	1.168	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.516	1.330	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	96.55	0.600	V COARSE SAND: 0.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	247.1	232.1	2.107	230.7	2.116	Fine Sand
SORTING (σ):	91.61	1.412	0.498	1.380	0.464	Well Sorted
SKEWNESS (Sk):	2.134	-0.599	0.599	0.040	-0.040	Symmetrical
KURTOSIS (K):	12.60	12.33	12.33	1.075	1.075	Mesokurtic



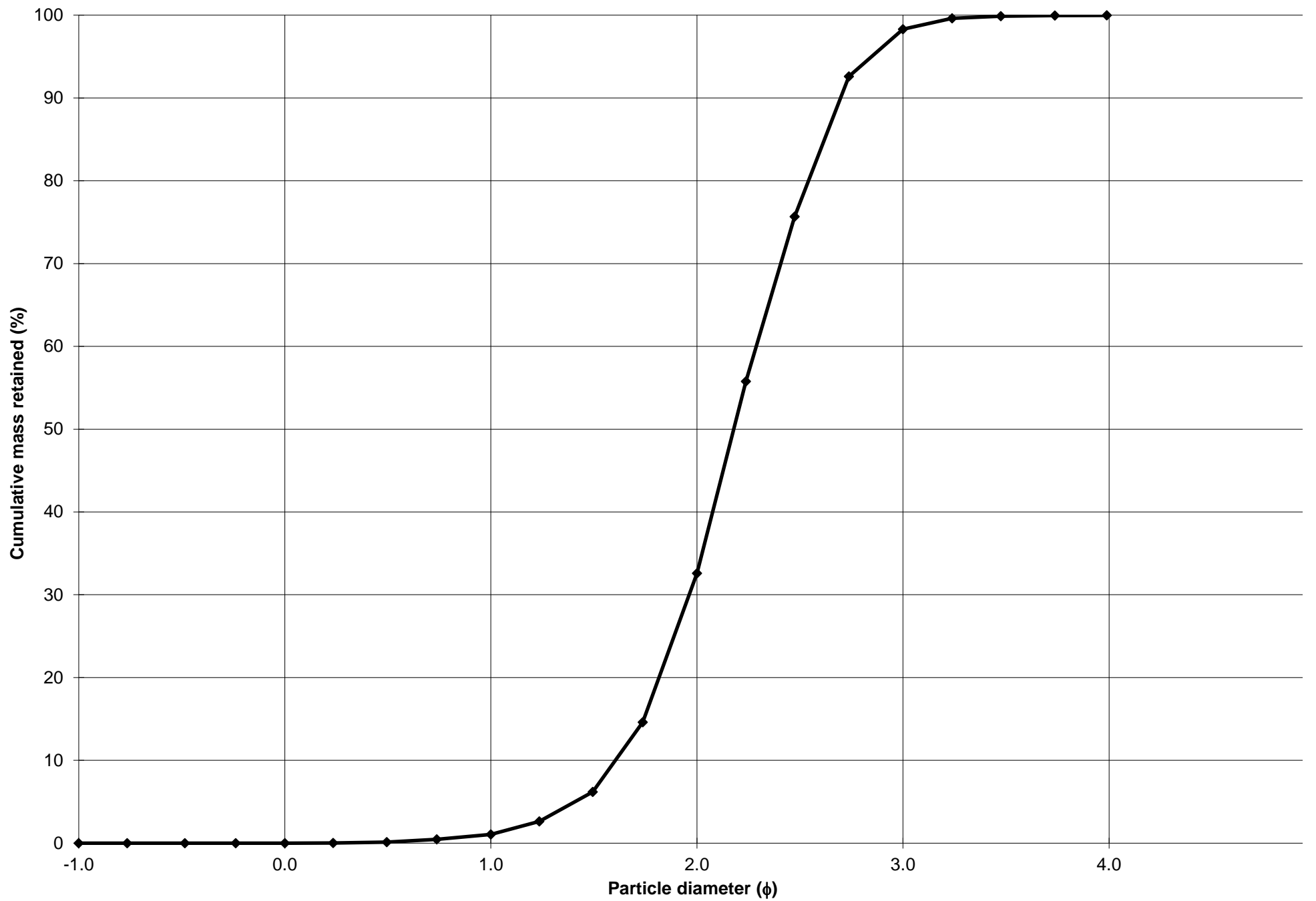
Cumulative Frequency Curve



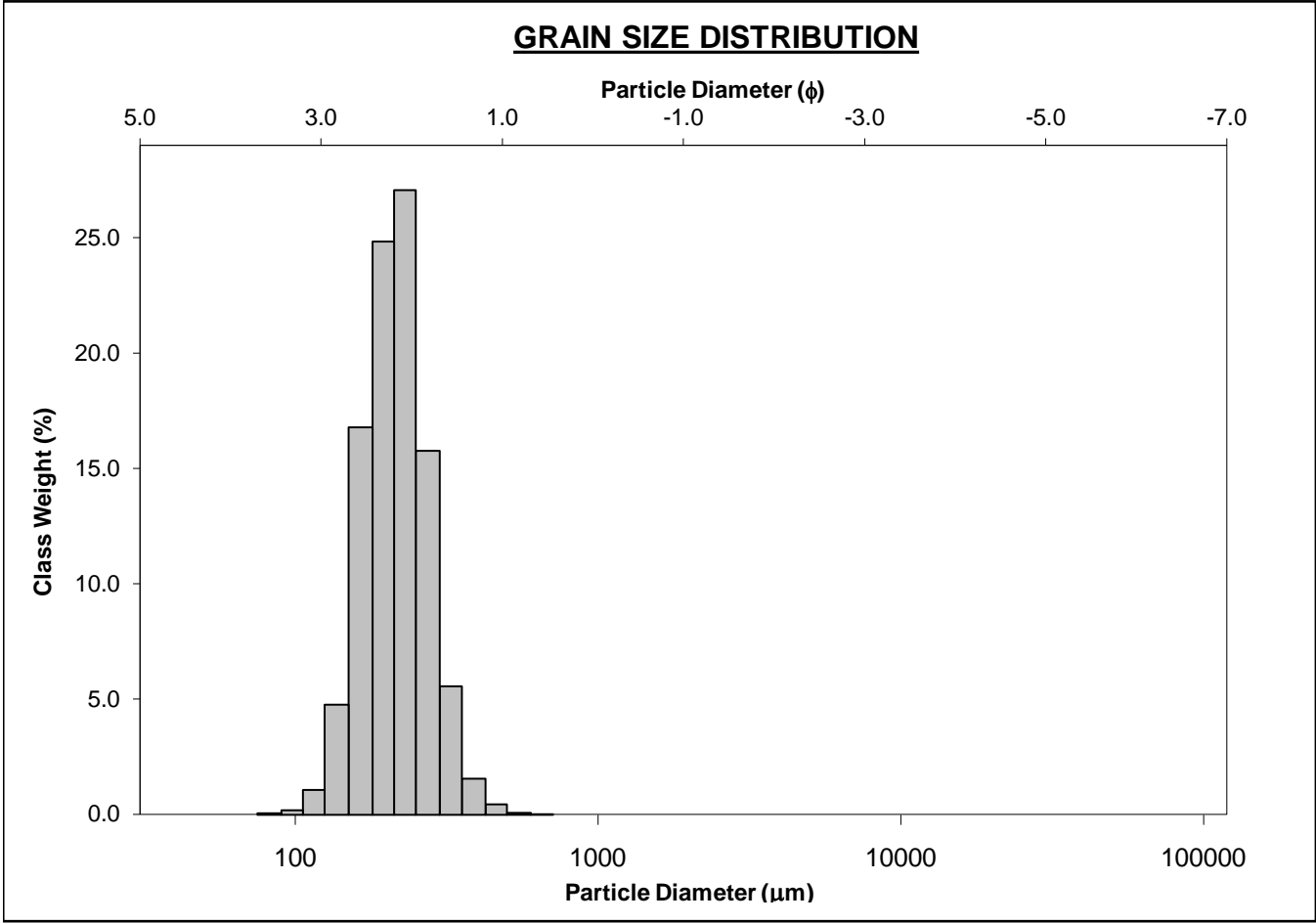
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-220cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0% COARSE SAND: 1.1%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 31.5%			
MODE 3:			MUD: 0.0% FINE SAND: 65.7%			
D ₁₀ :	154.3	1.604	V FINE SAND: 1.7%			
MEDIAN or D ₅₀ :	220.9	2.179	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	328.9	2.697	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.132	1.681	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	174.7	1.092	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.492	1.305	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	89.00	0.577	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	234.9	222.9	2.166	220.7	2.180	Fine Sand
SORTING (σ):	78.98	1.360	0.444	1.347	0.430	Well Sorted
SKEWNESS (Sk):	1.890	0.011	-0.011	0.034	-0.034	Symmetrical
KURTOSIS (K):	10.30	7.673	7.673	1.023	1.023	Mesokurtic



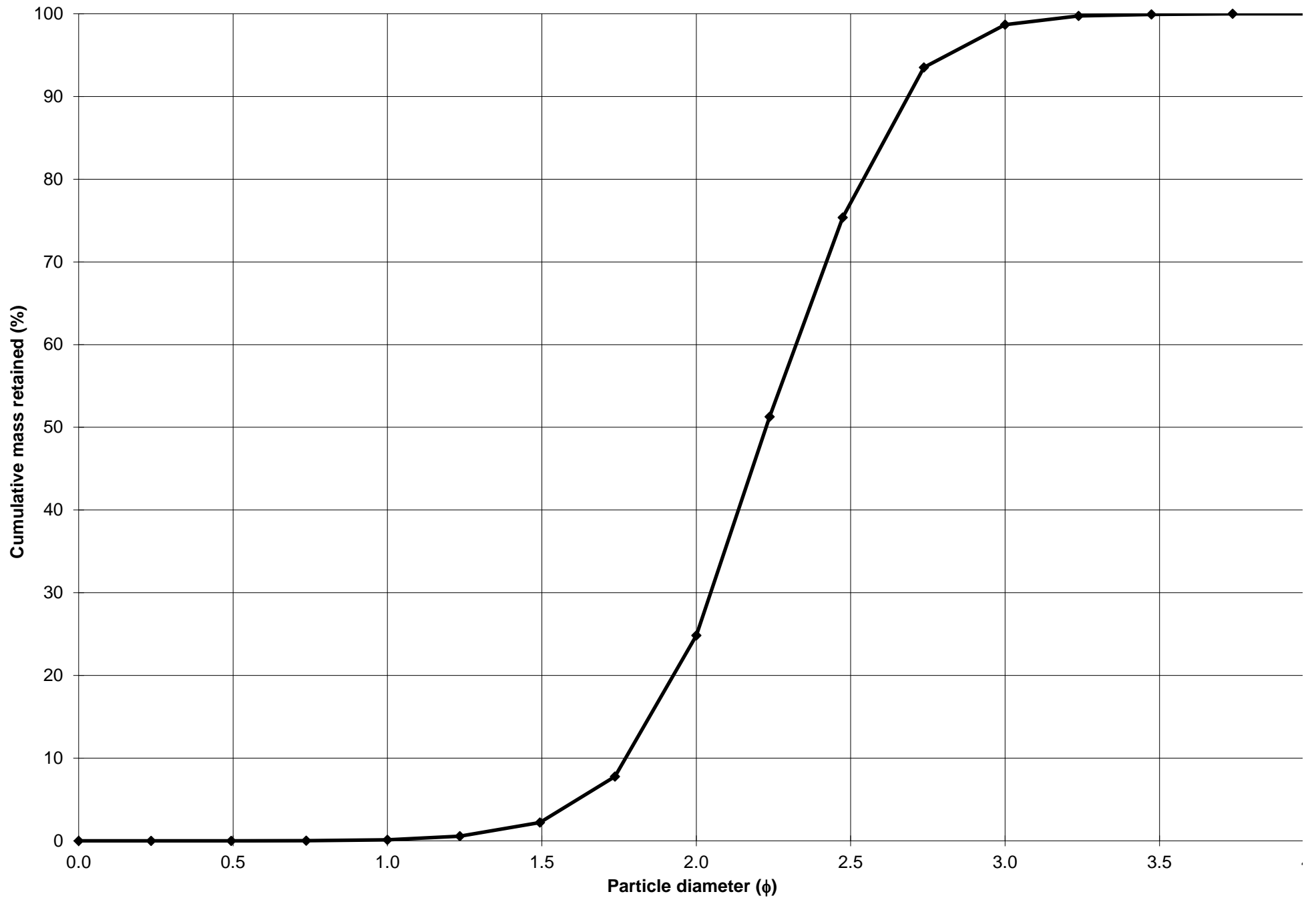
Cumulative Frequency Curve



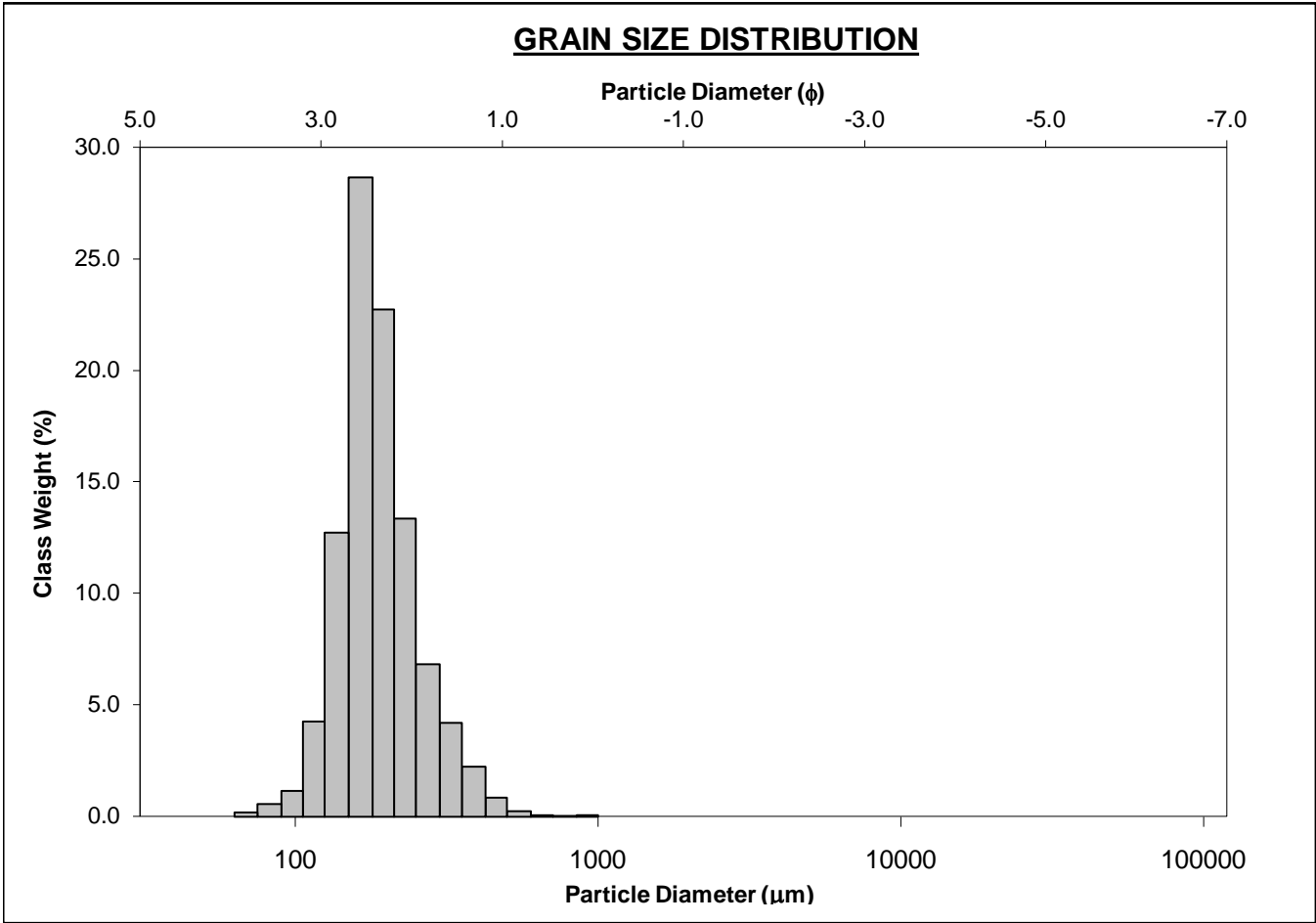
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-230cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0% COARSE SAND: 0.1%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 24.7%			
MODE 3:			MUD: 0.0% FINE SAND: 73.9%			
D ₁₀ :	155.4	1.771	V FINE SAND: 1.3%			
MEDIAN or D ₅₀ :	213.7	2.226	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	293.0	2.686	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.885	1.516	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	137.6	0.915	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.384	1.234	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	69.27	0.469	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	221.1	213.5	2.228	213.2	2.230	Fine Sand
SORTING (σ):	57.24	1.283	0.360	1.288	0.365	Well Sorted
SKEWNESS (Sk):	1.101	0.112	-0.112	0.004	-0.004	Symmetrical
KURTOSIS (K):	5.934	3.368	3.368	1.047	1.047	Mesokurtic



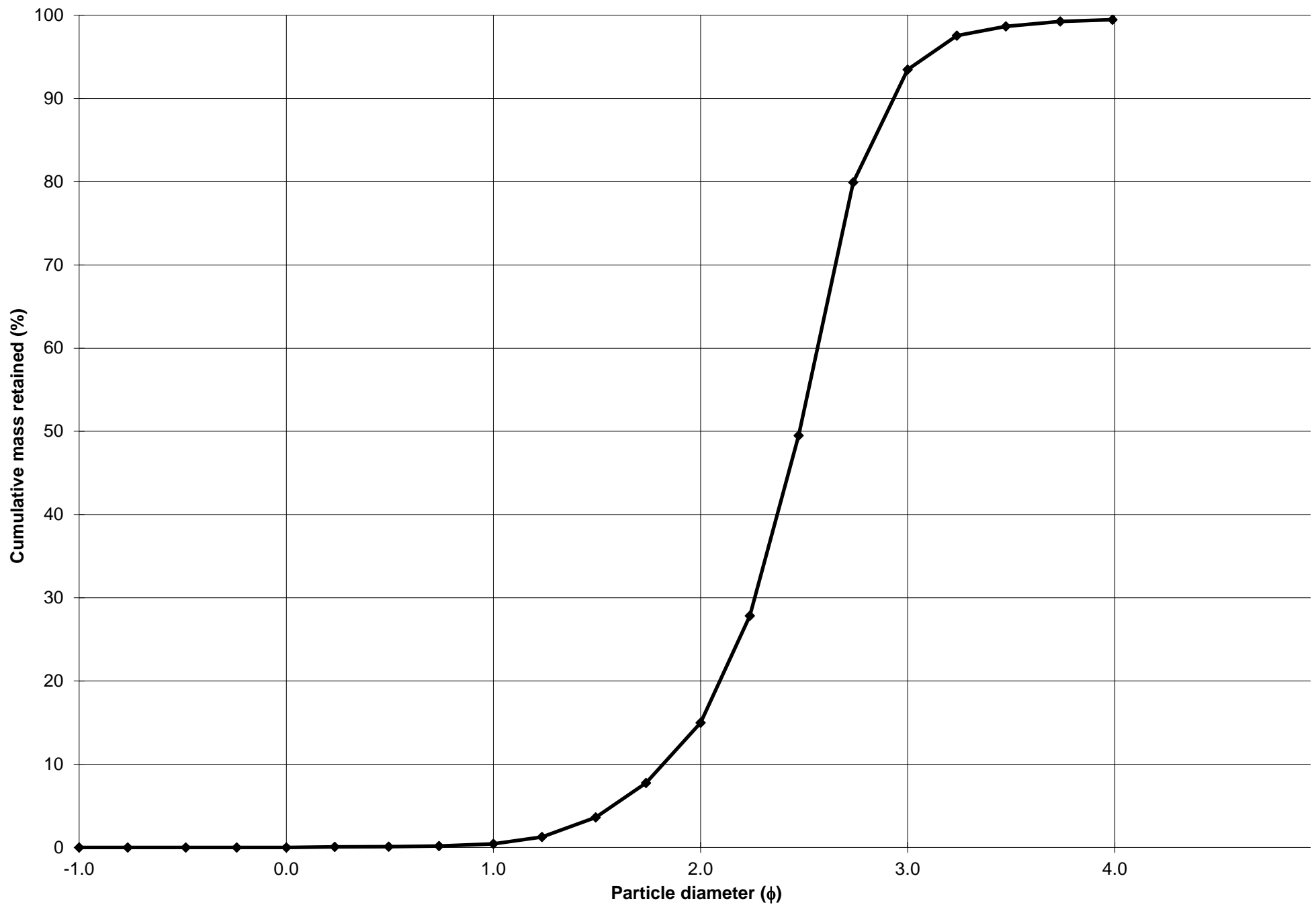
Cumulative Frequency Curve



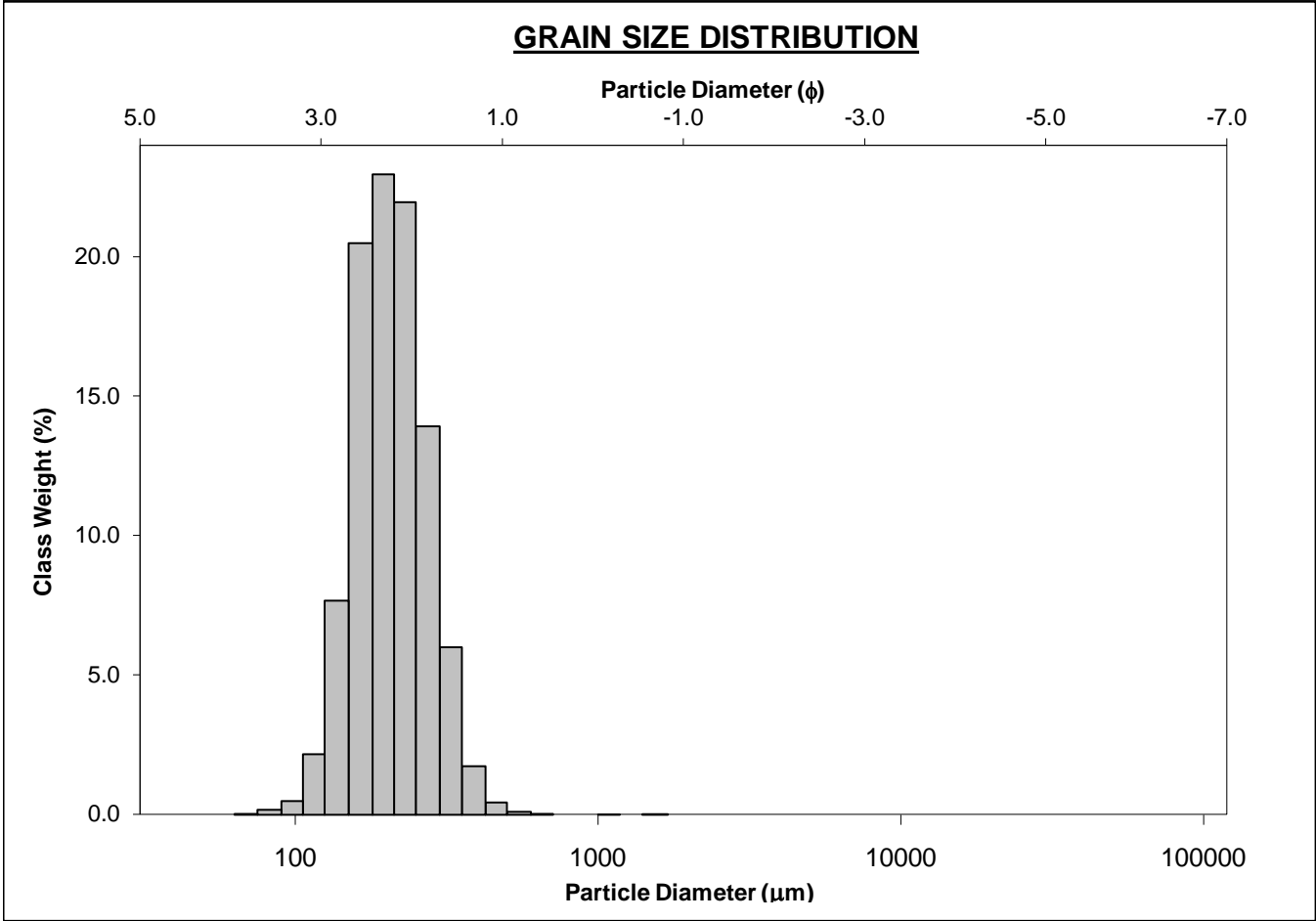
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-240cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.4%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 14.6%	
MODE 3:			MUD: 0.5%		FINE SAND: 78.5%	
D ₁₀ :	131.0	1.819			V FINE SAND: 6.0%	
MEDIAN or D ₅₀ :	179.5	2.478	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	283.4	2.933	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.164	1.612	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	152.5	1.114	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.423	1.233	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	65.35	0.509	V COARSE SAND: 0.0%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	196.8	184.1	2.442	184.6	2.438	Fine Sand
SORTING (σ):	71.75	1.469	0.555	1.346	0.429	Well Sorted
SKEWNESS (Sk):	2.364	-2.580	2.580	0.172	-0.172	Coarse Skewed
KURTOSIS (K):	15.44	26.33	26.33	1.219	1.219	Leptokurtic



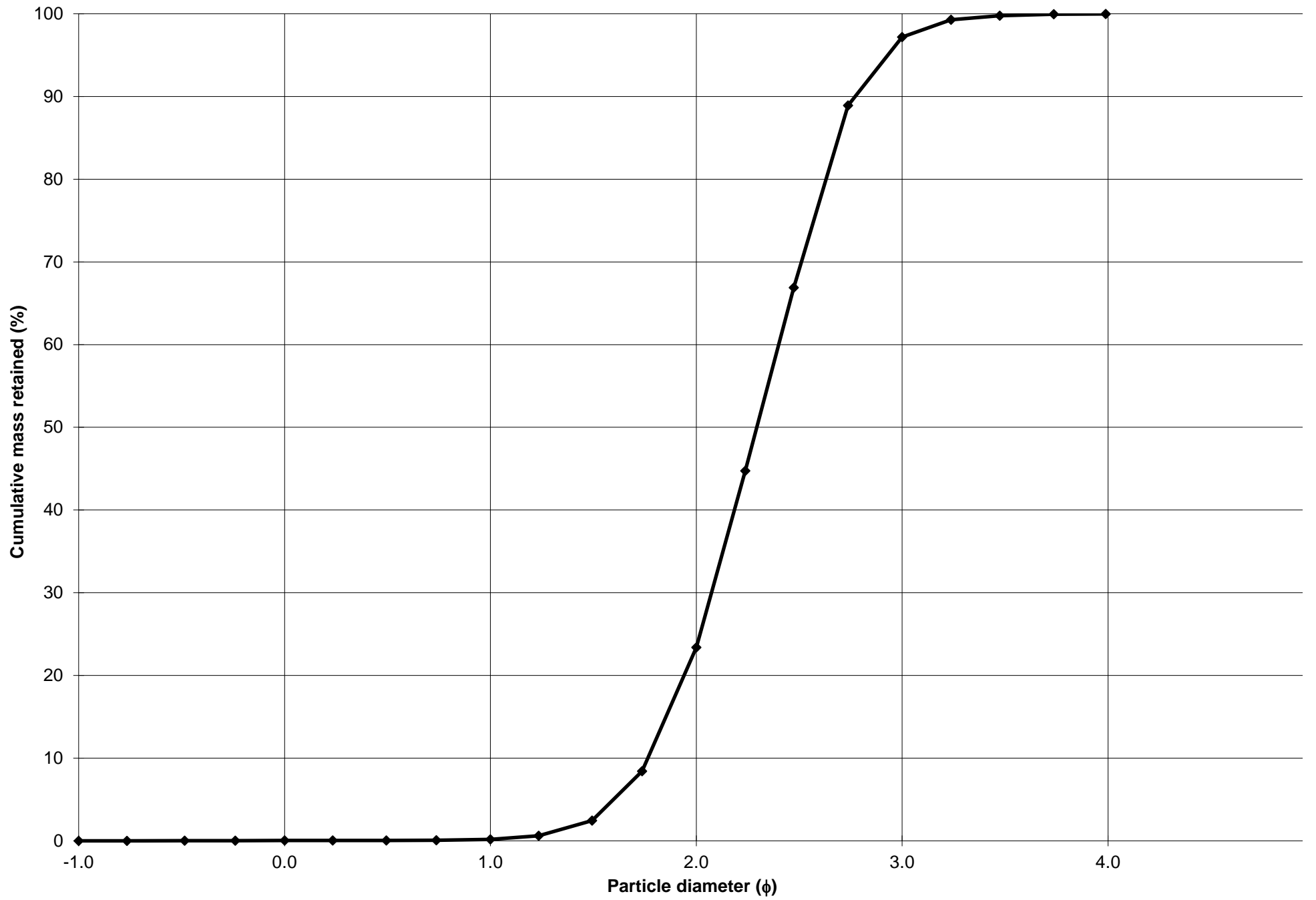
Cumulative Frequency Curve



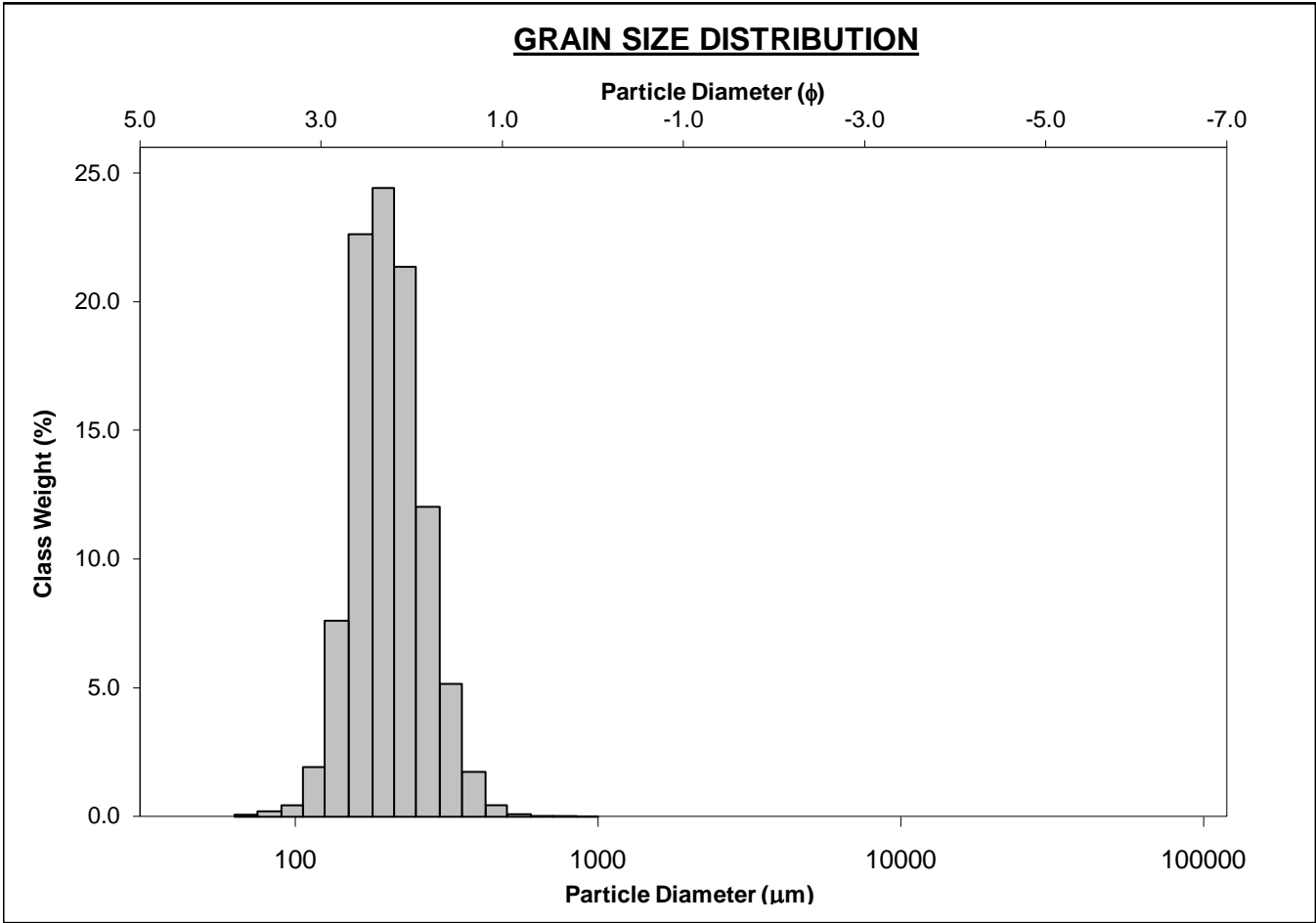
SIEVING ERROR: 0.9%		<u>SAMPLE STATISTICS</u>				
SAMPLE IDENTITY: GR-15-11-250cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 0.1%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 23.2%			
MODE 3:			MUD: 0.0% FINE SAND: 73.8%			
D ₁₀ :	146.5	1.765	V FINE SAND: 2.8%			
MEDIAN or D ₅₀ :	203.9	2.294	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	294.3	2.771	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.009	1.570	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	147.8	1.007	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.467	1.274	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	78.60	0.553	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	214.8	205.4	2.283	205.8	2.281	Fine Sand
SORTING (σ):	66.09	1.327	0.408	1.323	0.404	Well Sorted
SKEWNESS (Sk):	3.288	-0.070	0.070	0.047	-0.047	Symmetrical
KURTOSIS (K):	50.89	7.160	7.160	0.988	0.988	Mesokurtic



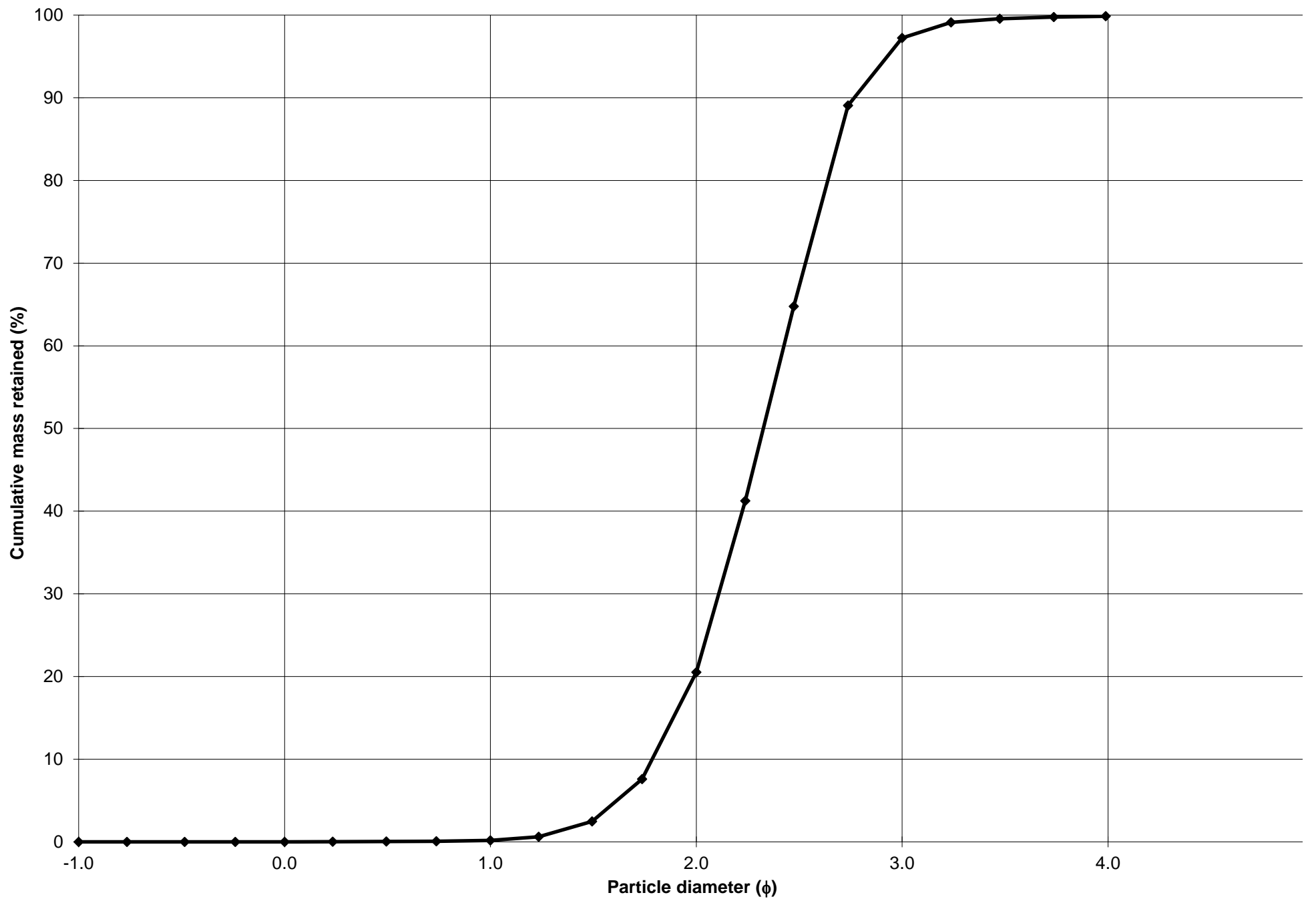
Cumulative Frequency Curve



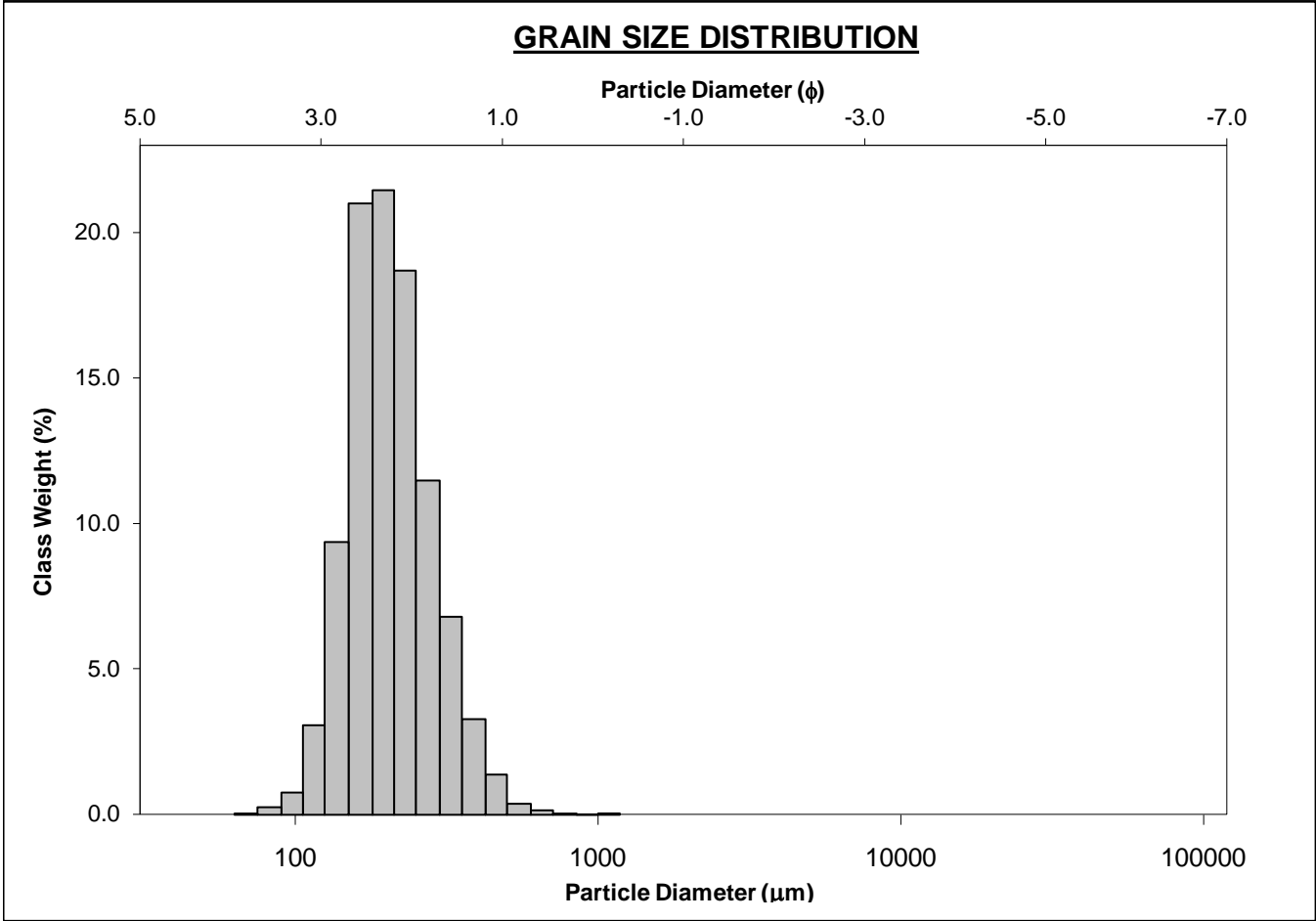
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-260cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 0.2%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 20.3%	
MODE 3:			MUD: 0.1%		FINE SAND: 76.7%	
D ₁₀ :	146.9	1.786			V FINE SAND: 2.6%	
MEDIAN or D ₅₀ :	199.5	2.326	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	289.9	2.767	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.973	1.549	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	143.0	0.981	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.447	1.260	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	74.52	0.533	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	210.9	201.5	2.311	202.3	2.305	Fine Sand
SORTING (σ):	62.12	1.348	0.431	1.313	0.392	Well Sorted
SKEWNESS (Sk):	1.551	-1.564	1.564	0.081	-0.081	Symmetrical
KURTOSIS (K):	9.992	22.05	22.05	1.010	1.010	Mesokurtic



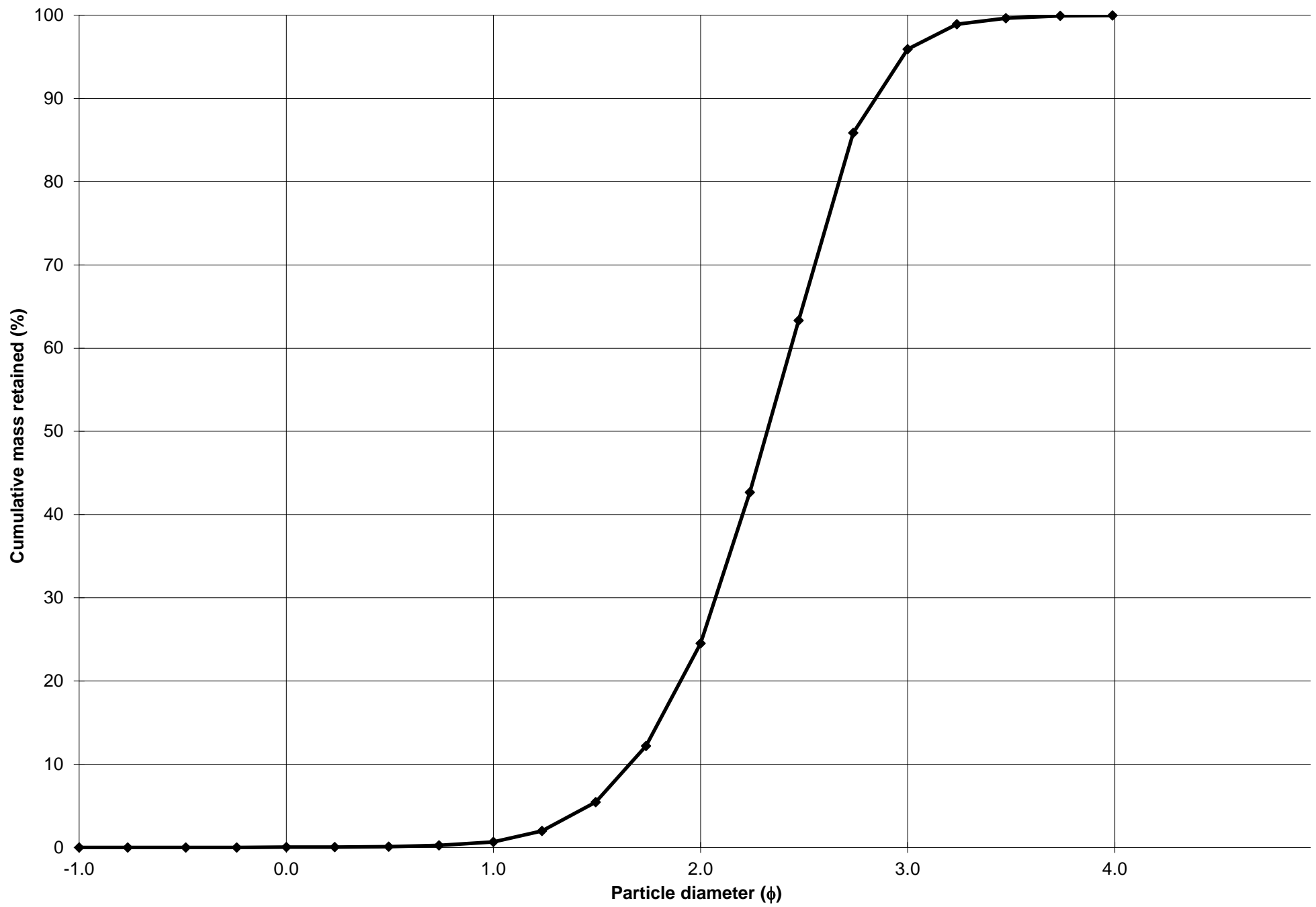
Cumulative Frequency Curve



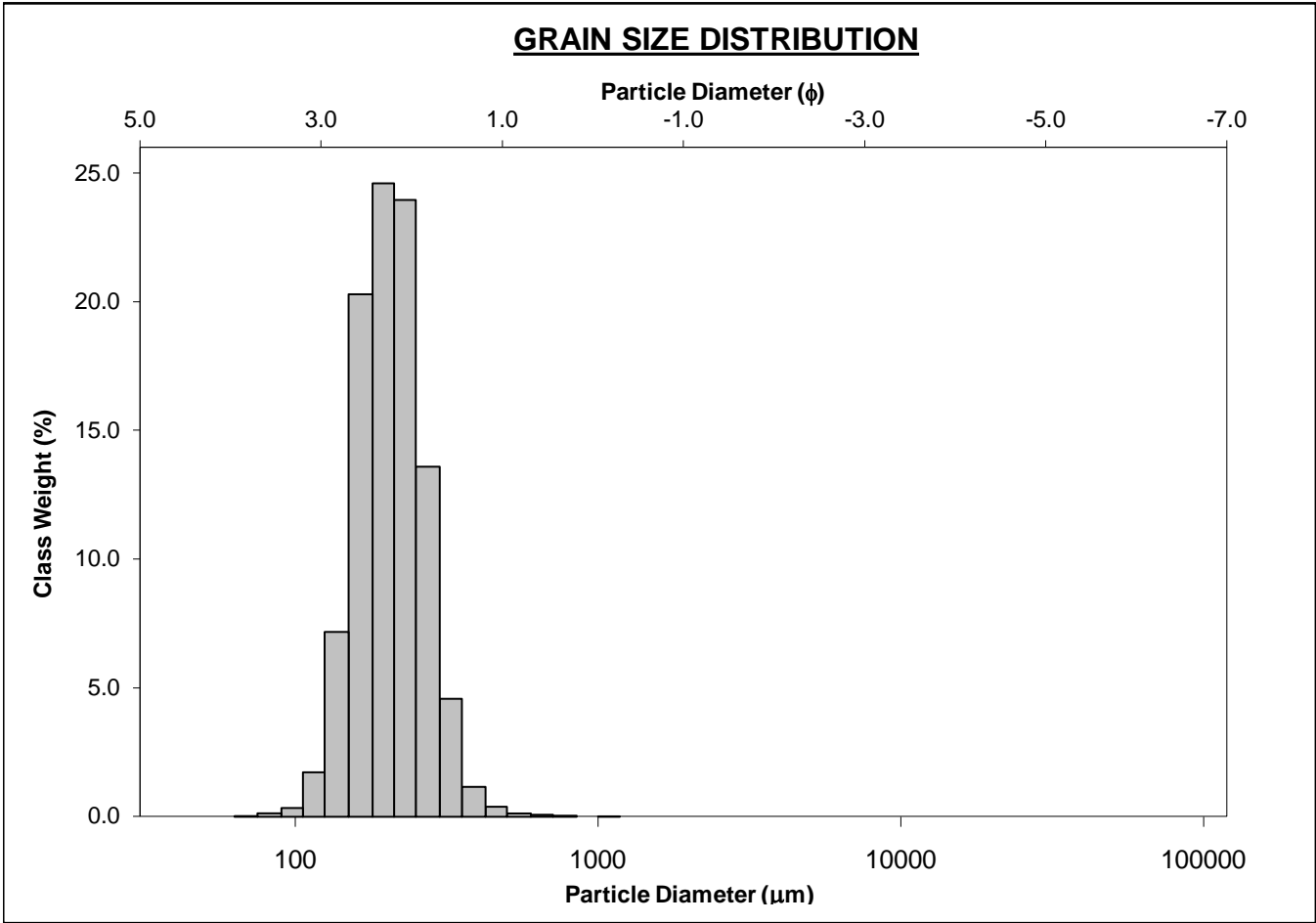
SIEVING ERROR: 0.8%		<u>SAMPLE STATISTICS</u>				
SAMPLE IDENTITY: GR-15-11-270cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 0.6%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 23.9%			
MODE 3:			MUD: 0.0% FINE SAND: 71.4%			
D ₁₀ :	139.2	1.658	V FINE SAND: 4.0%			
MEDIAN or D ₅₀ :	200.0	2.322	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	316.9	2.845	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.277	1.716	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	177.8	1.187	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.520	1.301	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	85.13	0.604	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	217.6	205.2	2.285	205.2	2.285	Fine Sand
SORTING (σ):	78.65	1.386	0.471	1.370	0.454	Well Sorted
SKEWNESS (Sk):	2.091	0.110	-0.110	0.130	-0.130	Coarse Skewed
KURTOSIS (K):	13.72	6.575	6.575	1.029	1.029	Mesokurtic



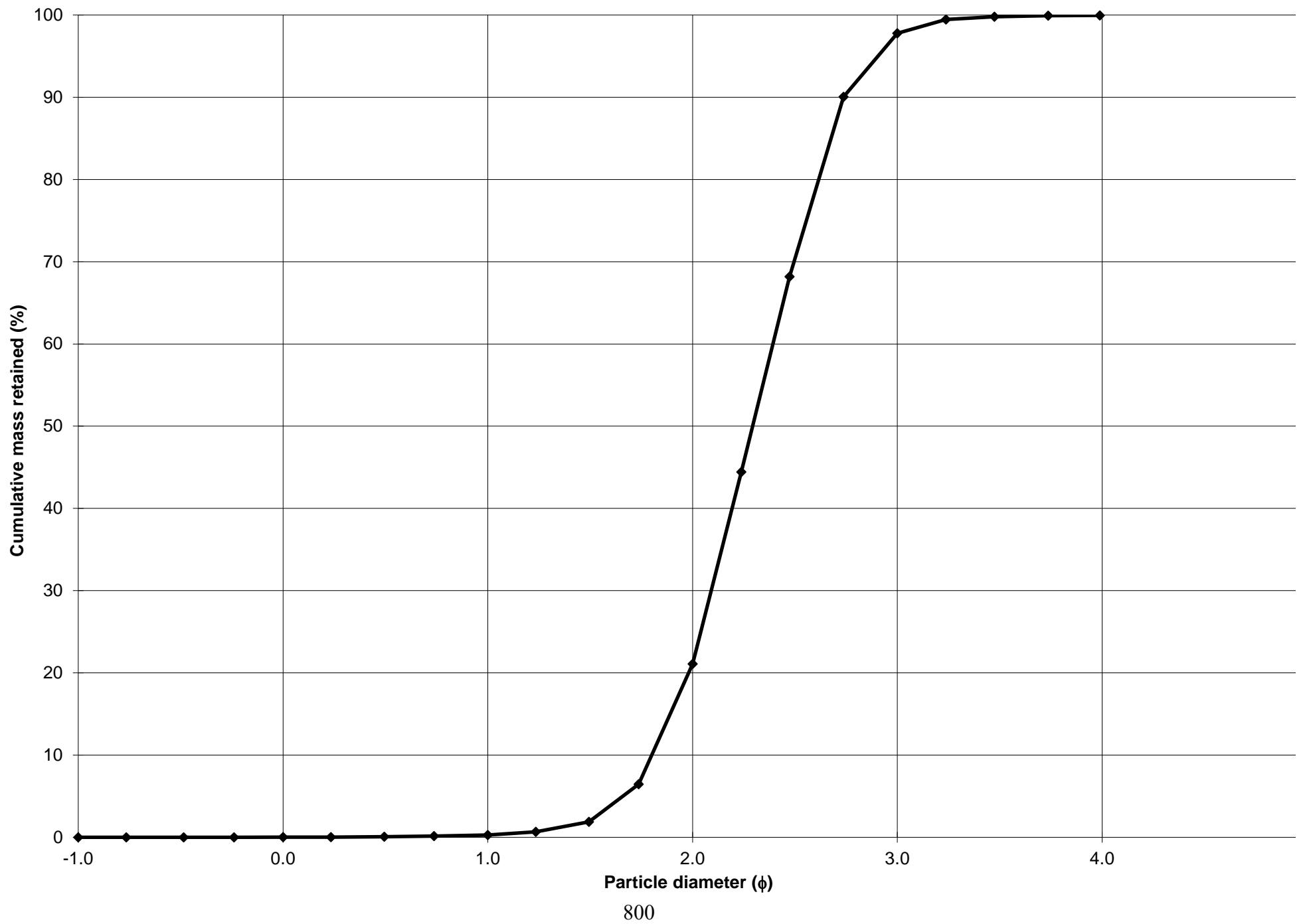
Cumulative Frequency Curve



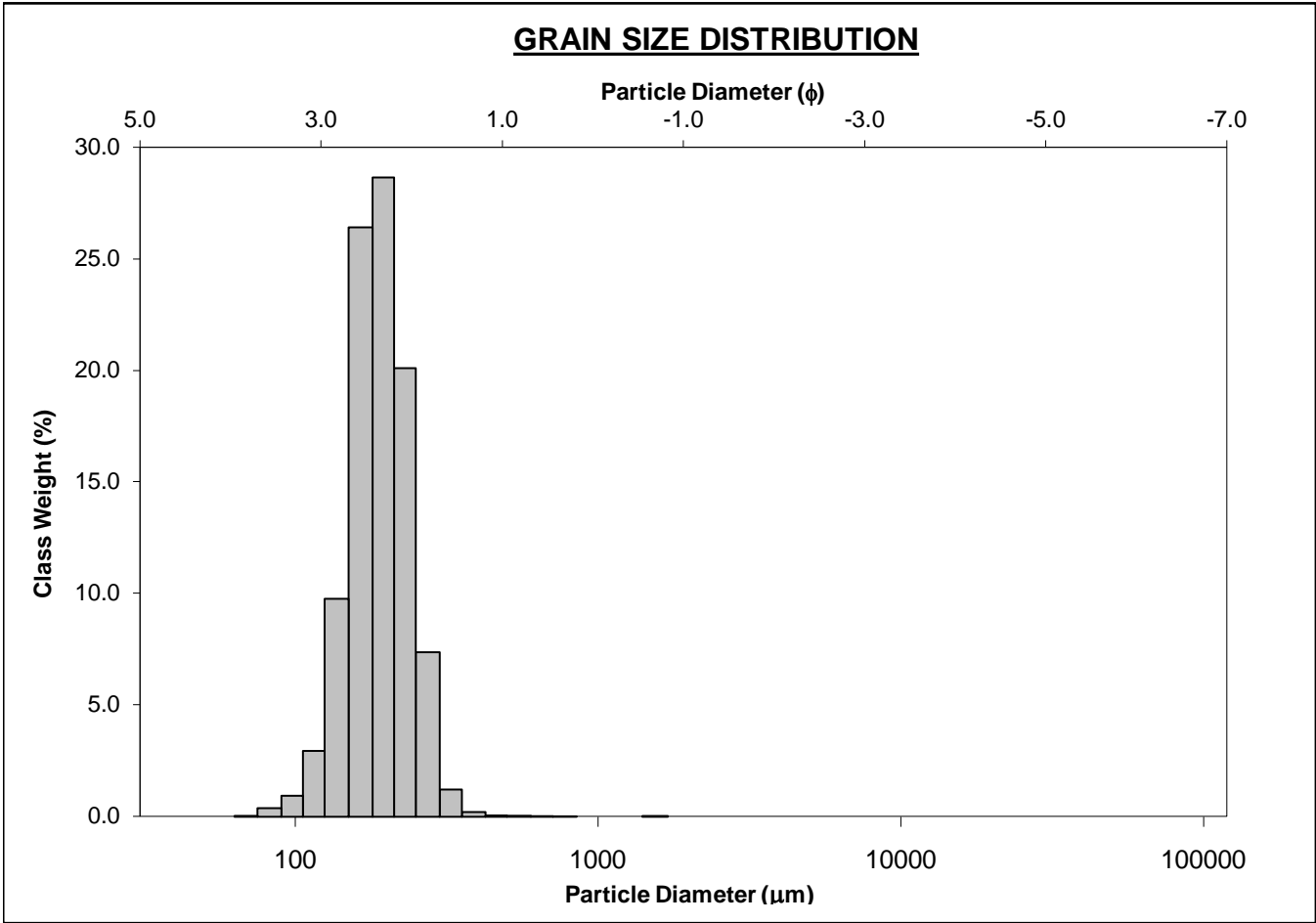
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-280cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 0.3%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 20.8%	
MODE 3:			MUD: 0.0%		FINE SAND: 76.7%	
D ₁₀ :	150.1	1.801			V FINE SAND: 2.2%	
MEDIAN or D ₅₀ :	204.0	2.293	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	287.0	2.736	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.913	1.520	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	137.0	0.936	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.430	1.253	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	73.12	0.516	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	213.1	204.7	2.288	204.7	2.289	Fine Sand
SORTING (σ):	60.83	1.311	0.391	1.299	0.378	Well Sorted
SKEWNESS (Sk):	2.043	-0.439	0.439	0.018	-0.018	Symmetrical
KURTOSIS (K):	17.27	11.78	11.78	0.989	0.989	Mesokurtic



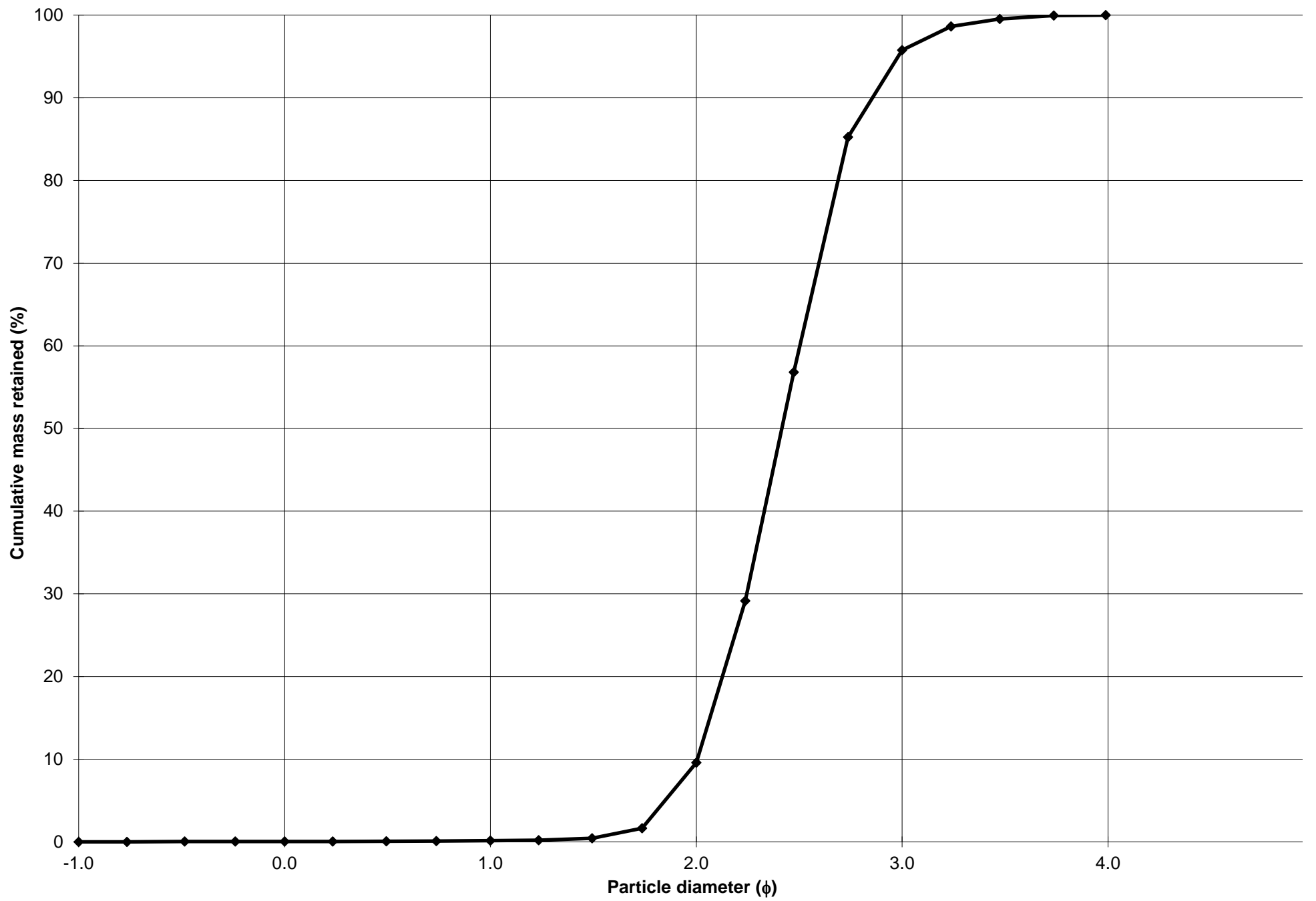
Cumulative Frequency Curve



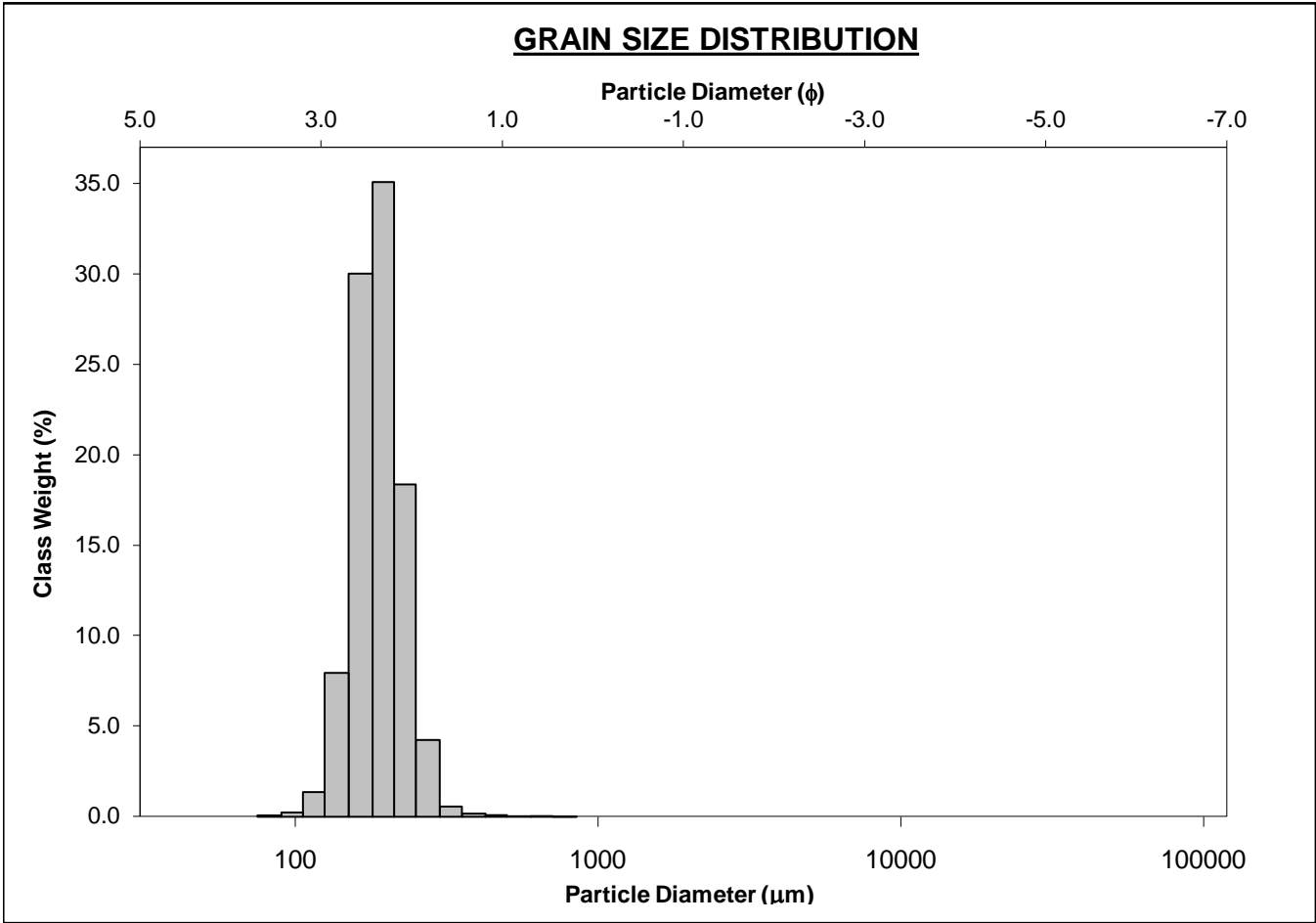
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-290cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 0.1%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 9.4%	
MODE 3:			MUD: 0.0%		FINE SAND: 86.2%	
D ₁₀ :	138.1	2.005			V FINE SAND: 4.2%	
MEDIAN or D ₅₀ :	187.4	2.416	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	249.1	2.856	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.804	1.424	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	111.0	0.851	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.370	1.208	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	59.34	0.455	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	193.6	187.2	2.418	188.6	2.406	Fine Sand
SORTING (σ):	54.79	1.273	0.348	1.260	0.333	Very Well Sorted
SKEWNESS (Sk):	7.337	0.206	-0.206	0.023	-0.023	Symmetrical
KURTOSIS (K):	166.2	6.355	6.355	1.021	1.021	Mesokurtic



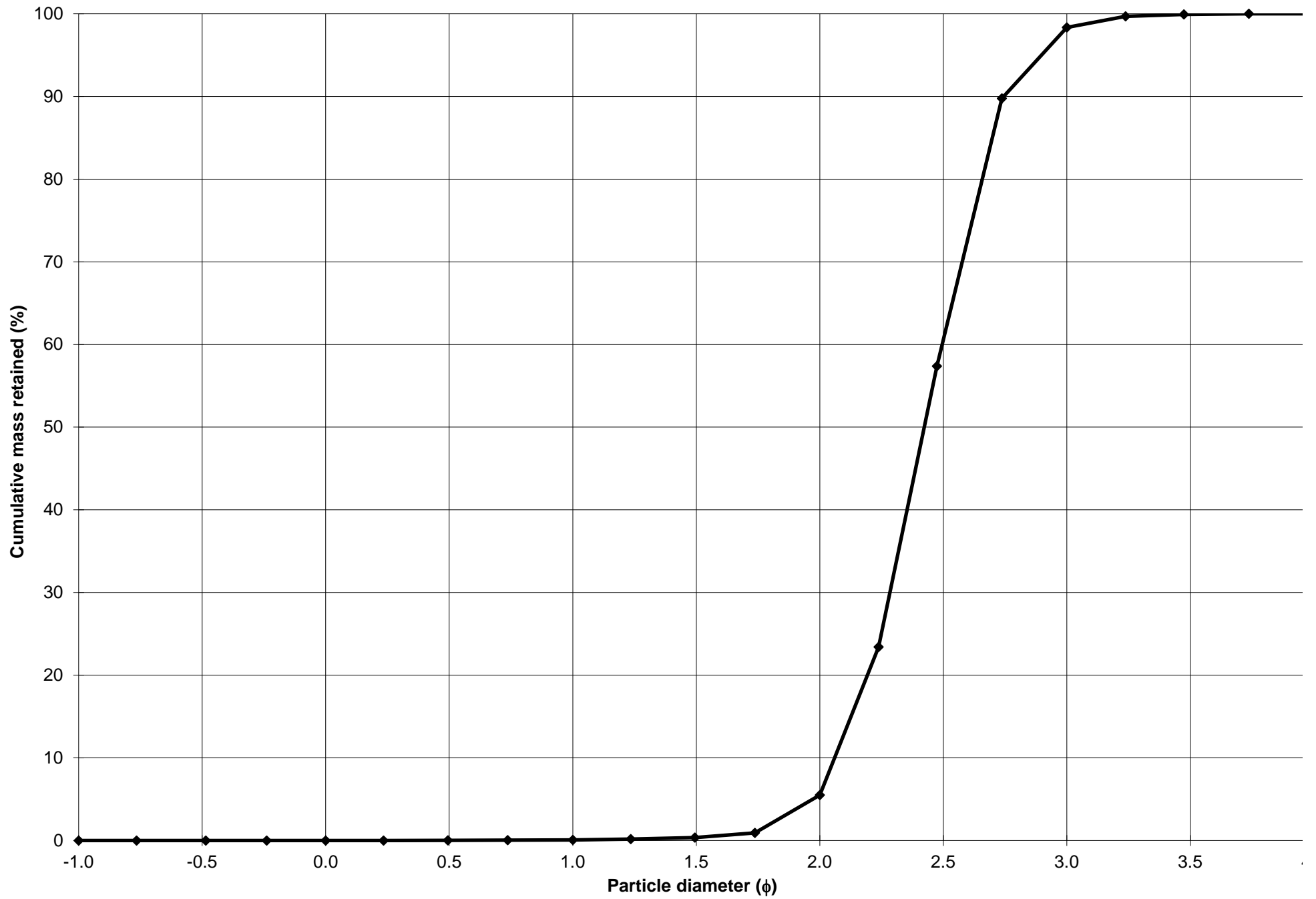
Cumulative Frequency Curve



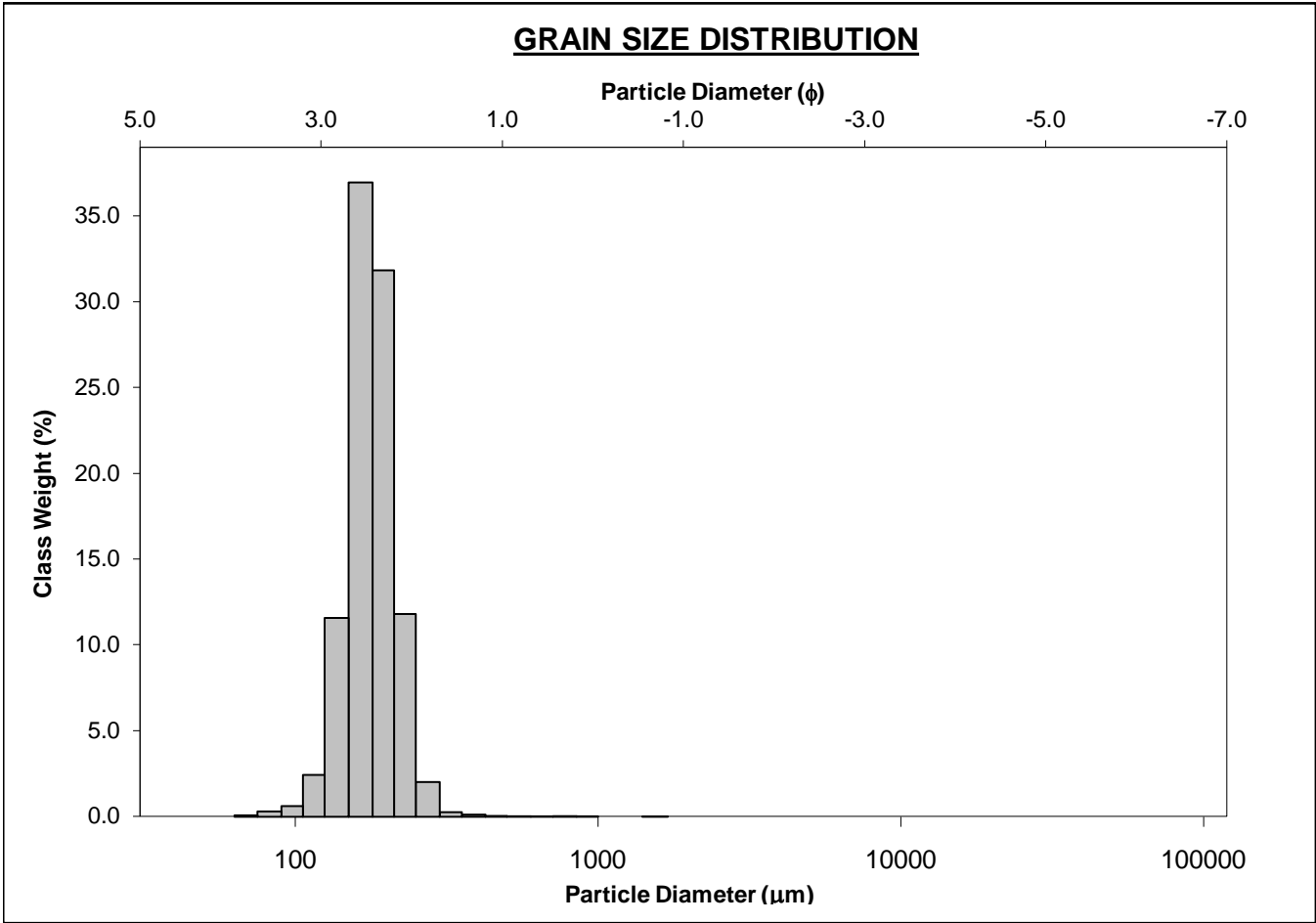
SIEVING ERROR: 0.6%		<u>SAMPLE STATISTICS</u>				
SAMPLE IDENTITY: GR-15-11-300cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 0.1%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 5.4%			
MODE 3:			MUD: 0.0% FINE SAND: 92.9%			
D ₁₀ :	149.3	2.060	V FINE SAND: 1.6%			
MEDIAN or D ₅₀ :	186.5	2.423	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	239.9	2.744	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.607	1.332	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	90.58	0.684	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.291	1.164	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	47.39	0.368	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	191.1	186.7	2.421	187.2	2.417	Fine Sand
SORTING (σ):	39.94	1.216	0.282	1.212	0.278	Very Well Sorted
SKEWNESS (Sk):	2.090	0.303	-0.303	0.002	-0.002	Symmetrical
KURTOSIS (K):	19.78	4.970	4.970	1.031	1.031	Mesokurtic



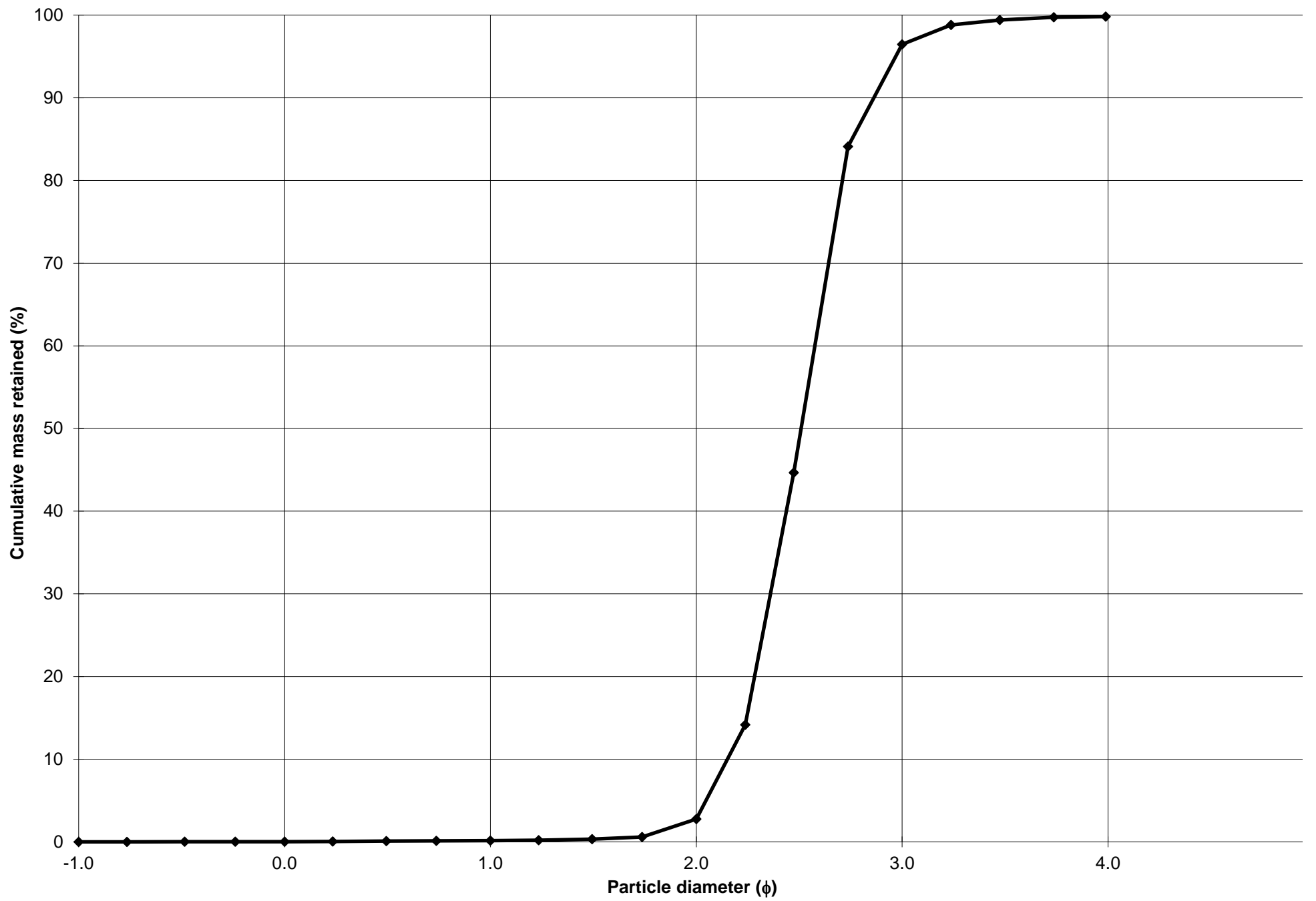
Cumulative Frequency Curve



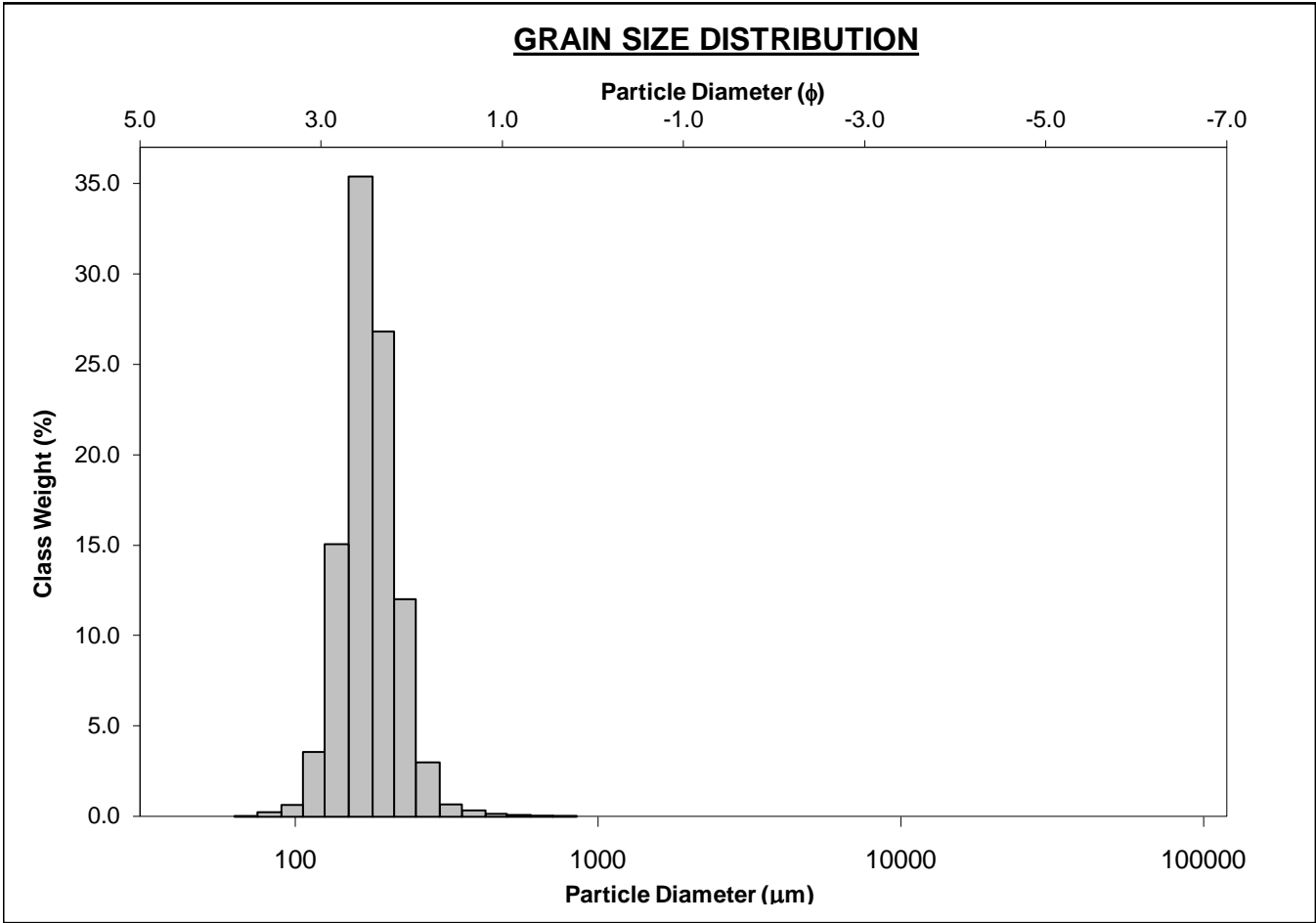
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-310cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.1%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 2.6%	
MODE 3:			MUD: 0.2%		FINE SAND: 93.7%	
D ₁₀ :	137.5	2.151			V FINE SAND: 3.4%	
MEDIAN or D ₅₀ :	175.6	2.510	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	225.1	2.863	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.638	1.331	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	87.66	0.712	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.279	1.153	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	43.58	0.355	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	180.7	175.5	2.511	176.9	2.499	Fine Sand
SORTING (σ):	46.33	1.270	0.345	1.198	0.261	Very Well Sorted
SKEWNESS (Sk):	9.596	-3.391	3.391	0.034	-0.034	Symmetrical
KURTOSIS (K):	238.0	54.77	54.77	1.066	1.066	Mesokurtic



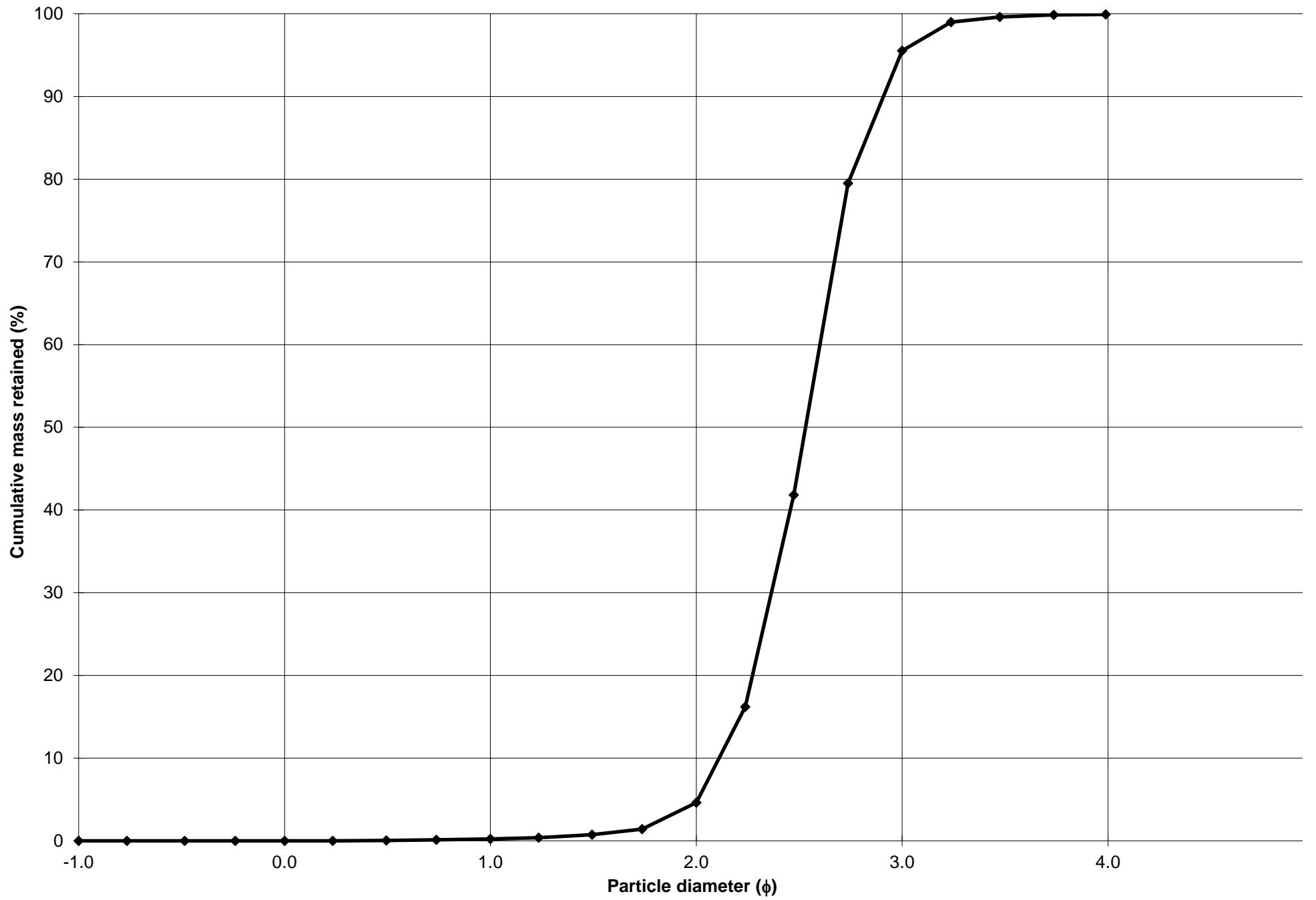
Cumulative Frequency Curve



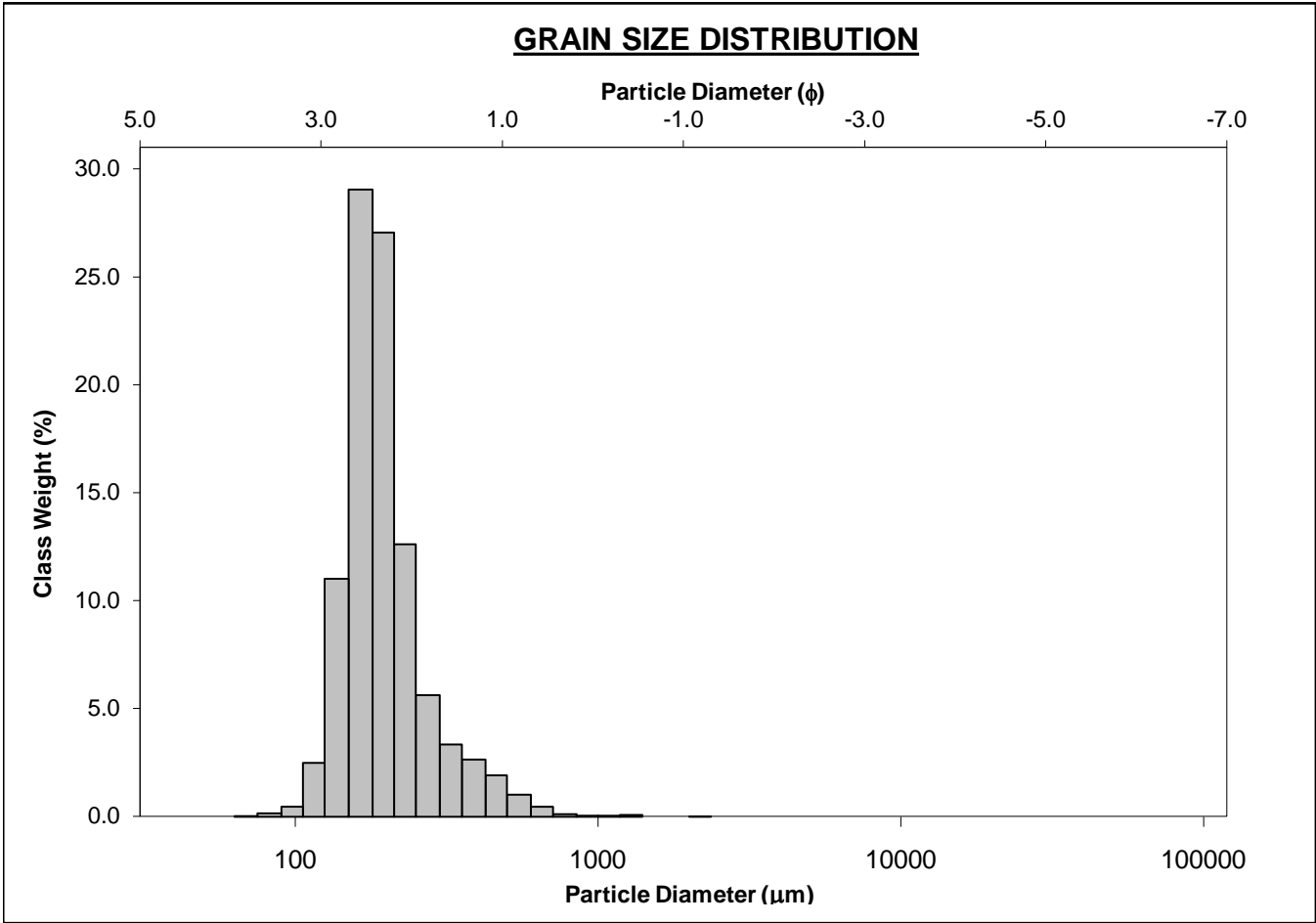
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-320cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.2%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 4.4%	
MODE 3:			MUD: 0.1%		FINE SAND: 90.9%	
D ₁₀ :	133.1	2.110			V FINE SAND: 4.4%	
MEDIAN or D ₅₀ :	173.0	2.531	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	231.6	2.909	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.740	1.379	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	98.47	0.799	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.307	1.167	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	47.12	0.387	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	180.6	175.0	2.515	173.7	2.525	Fine Sand
SORTING (σ):	46.69	1.270	0.345	1.225	0.293	Very Well Sorted
SKEWNESS (Sk):	3.308	-1.141	1.141	0.047	-0.047	Symmetrical
KURTOSIS (K):	30.90	26.93	26.93	1.043	1.043	Mesokurtic



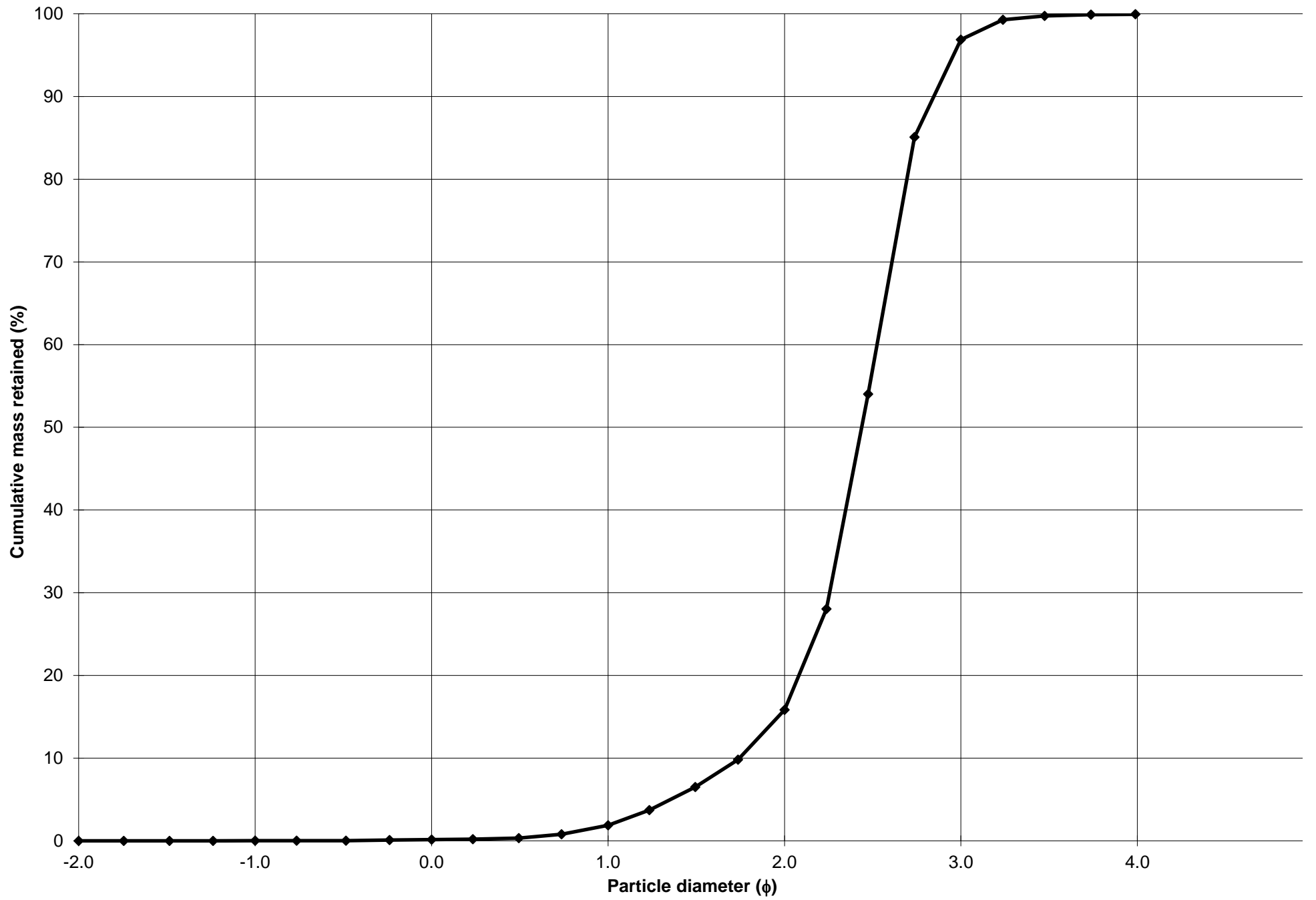
Cumulative Frequency Curve



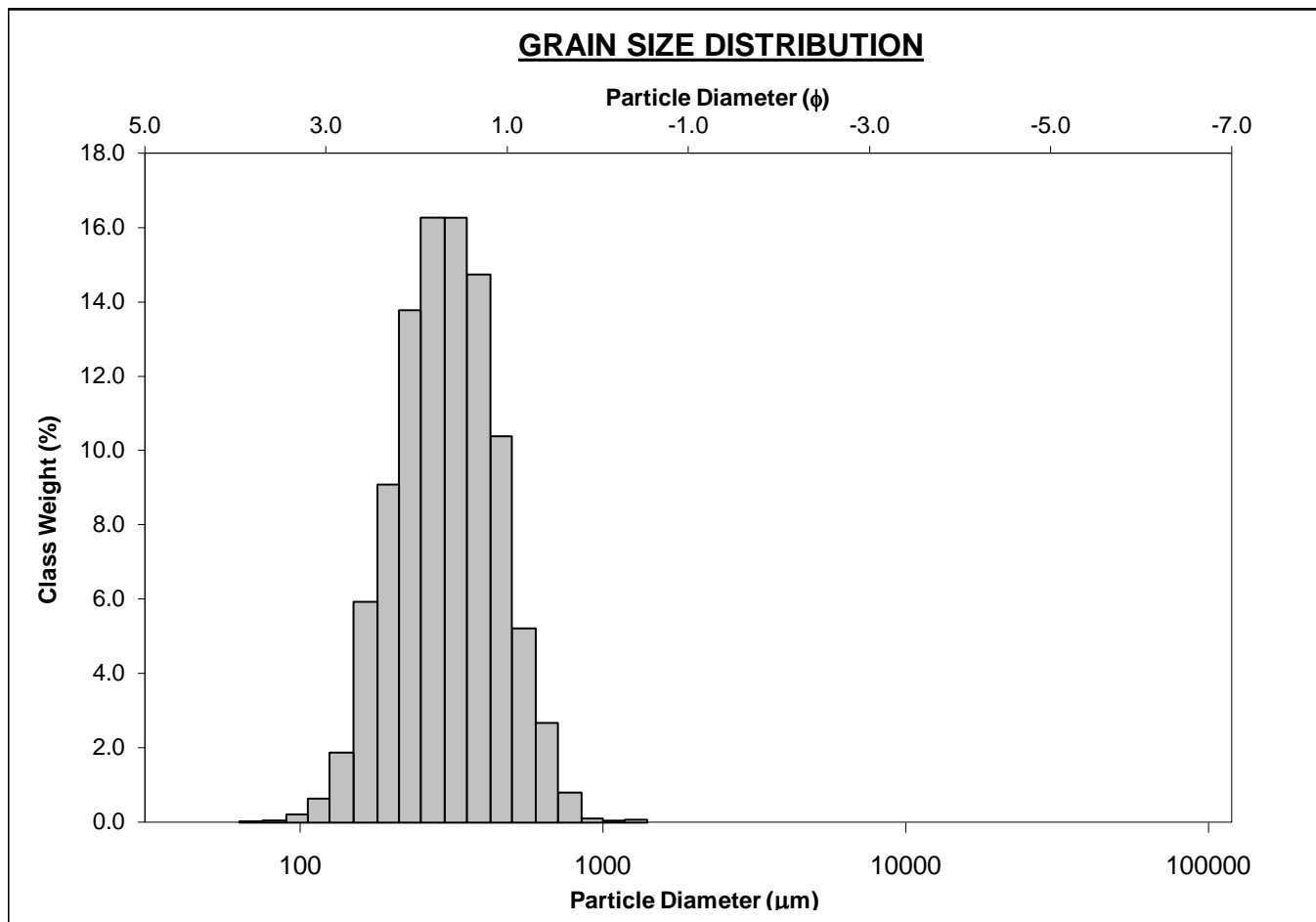
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-330cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 1.7%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 14.0%	
MODE 3:			MUD: 0.1%		FINE SAND: 81.0%	
D ₁₀ :	139.0	1.745			V FINE SAND: 3.1%	
MEDIAN or D ₅₀ :	184.6	2.437	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	298.3	2.847	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.146	1.631	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	159.3	1.102	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.388	1.217	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	61.77	0.473	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	209.2	195.2	2.357	190.9	2.389	Fine Sand
SORTING (σ):	96.40	1.402	0.488	1.342	0.424	Well Sorted
SKEWNESS (Sk):	4.822	0.756	-0.756	0.275	-0.275	Coarse Skewed
KURTOSIS (K):	53.09	11.05	11.05	1.390	1.390	Leptokurtic



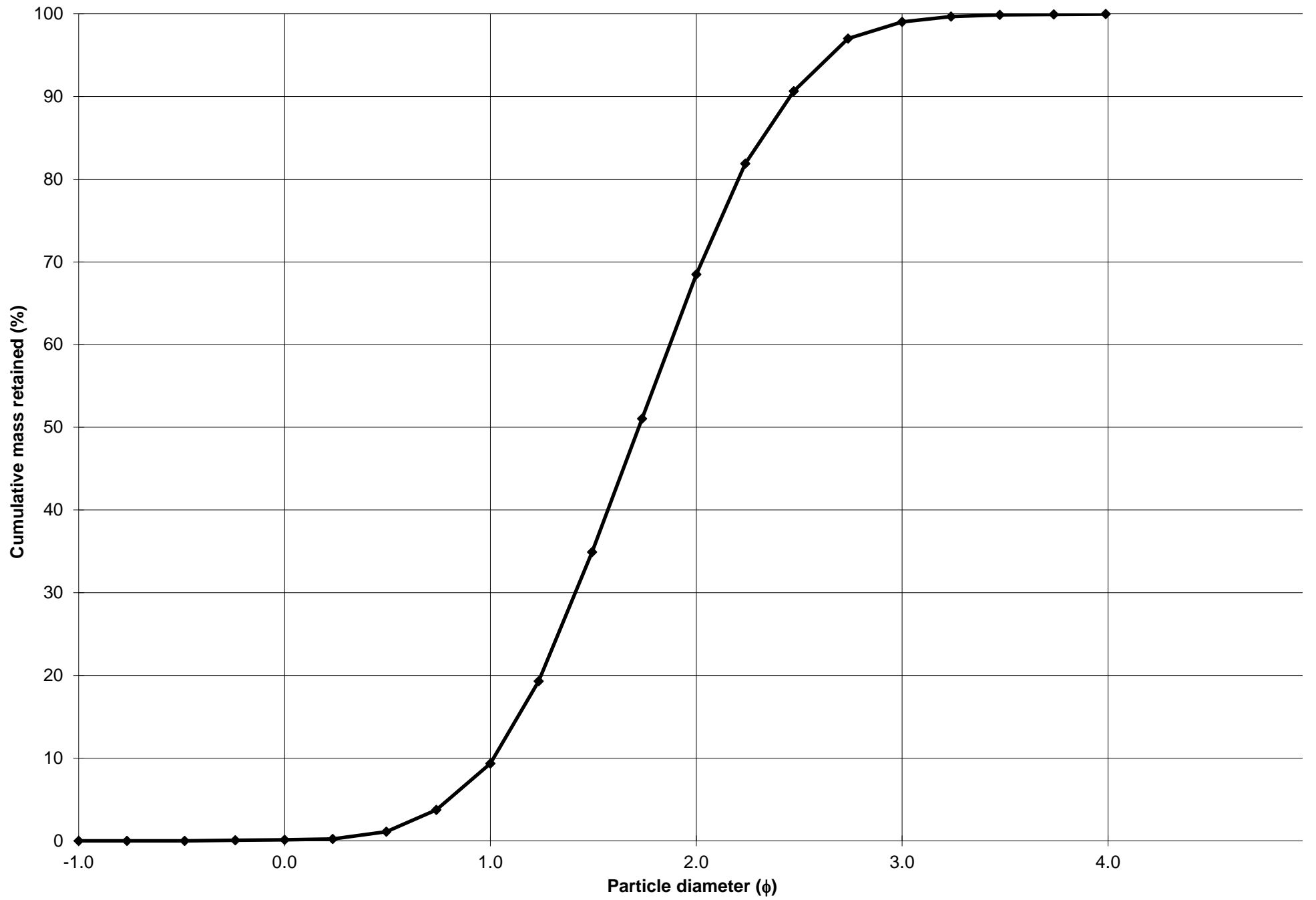
Cumulative Frequency Curve



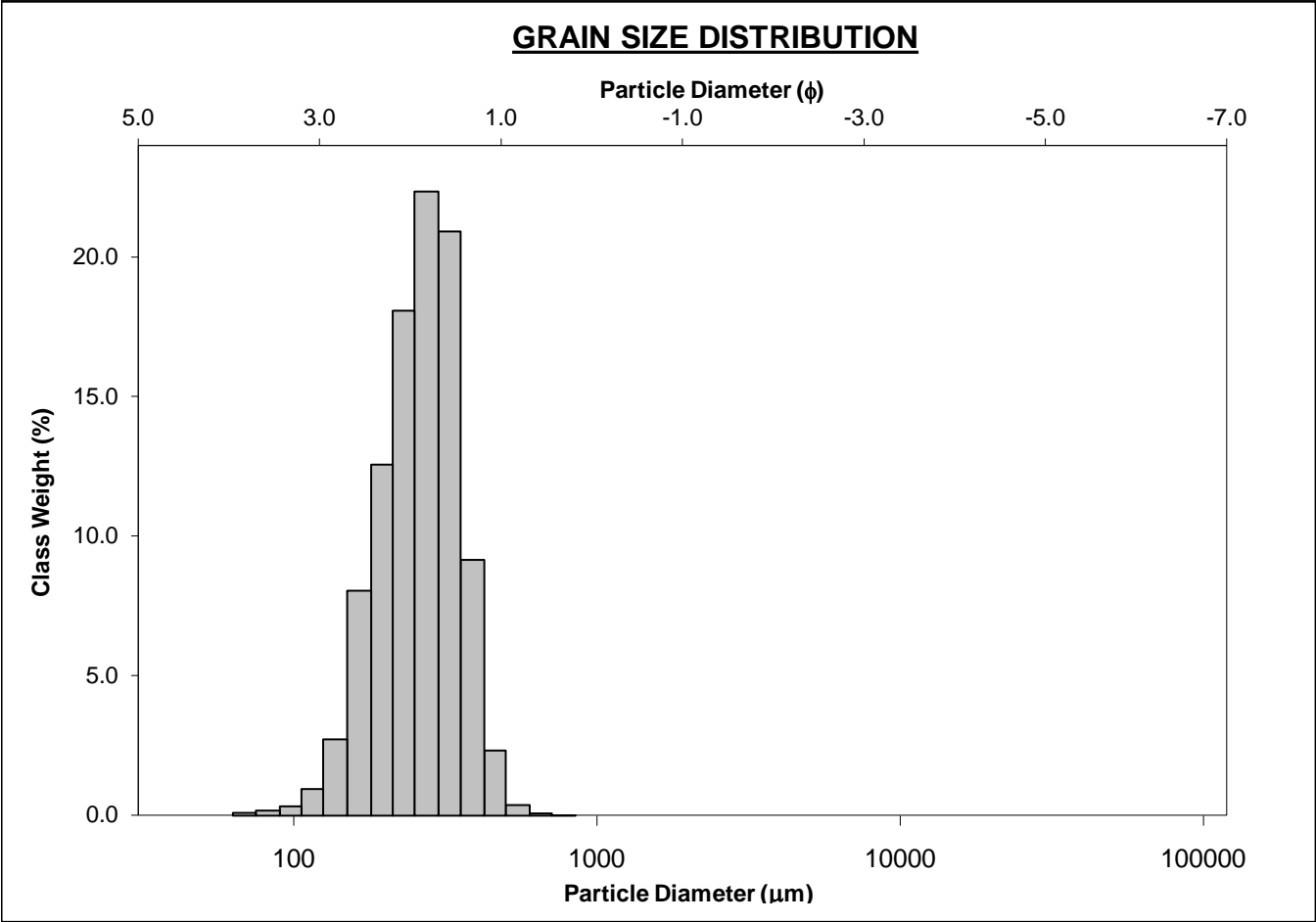
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-11-335cm			ANALYST & DATE: Chris, 7/27/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 9.2%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 59.1%	
MODE 3:			MUD: 0.0%		FINE SAND: 30.5%	
D ₁₀ :	182.1	1.015			V FINE SAND: 0.9%	
MEDIAN or D ₅₀ :	303.3	1.721	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	494.8	2.457	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.716	2.420	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	312.6	1.442	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.725	1.592	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	167.2	0.786	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	327.6	302.4	1.725	302.6	1.724	Medium Sand
SORTING (σ):	131.8	1.483	0.568	1.481	0.566	Moderately Well Sorted
SKEWNESS (Sk):	1.279	-0.281	0.281	-0.006	0.006	Symmetrical
KURTOSIS (K):	6.527	5.366	5.366	0.969	0.969	Mesokurtic



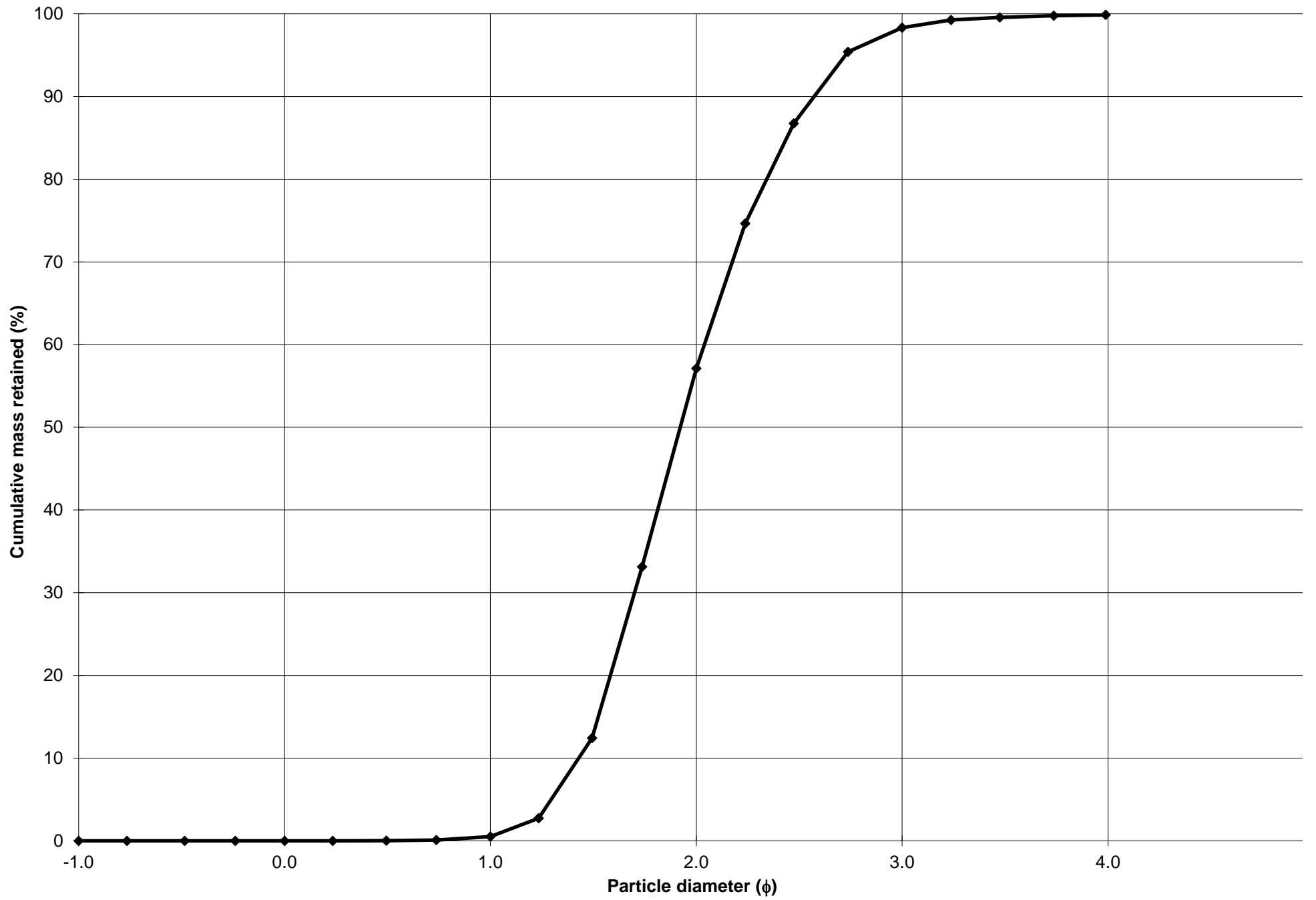
Cumulative Frequency Curve



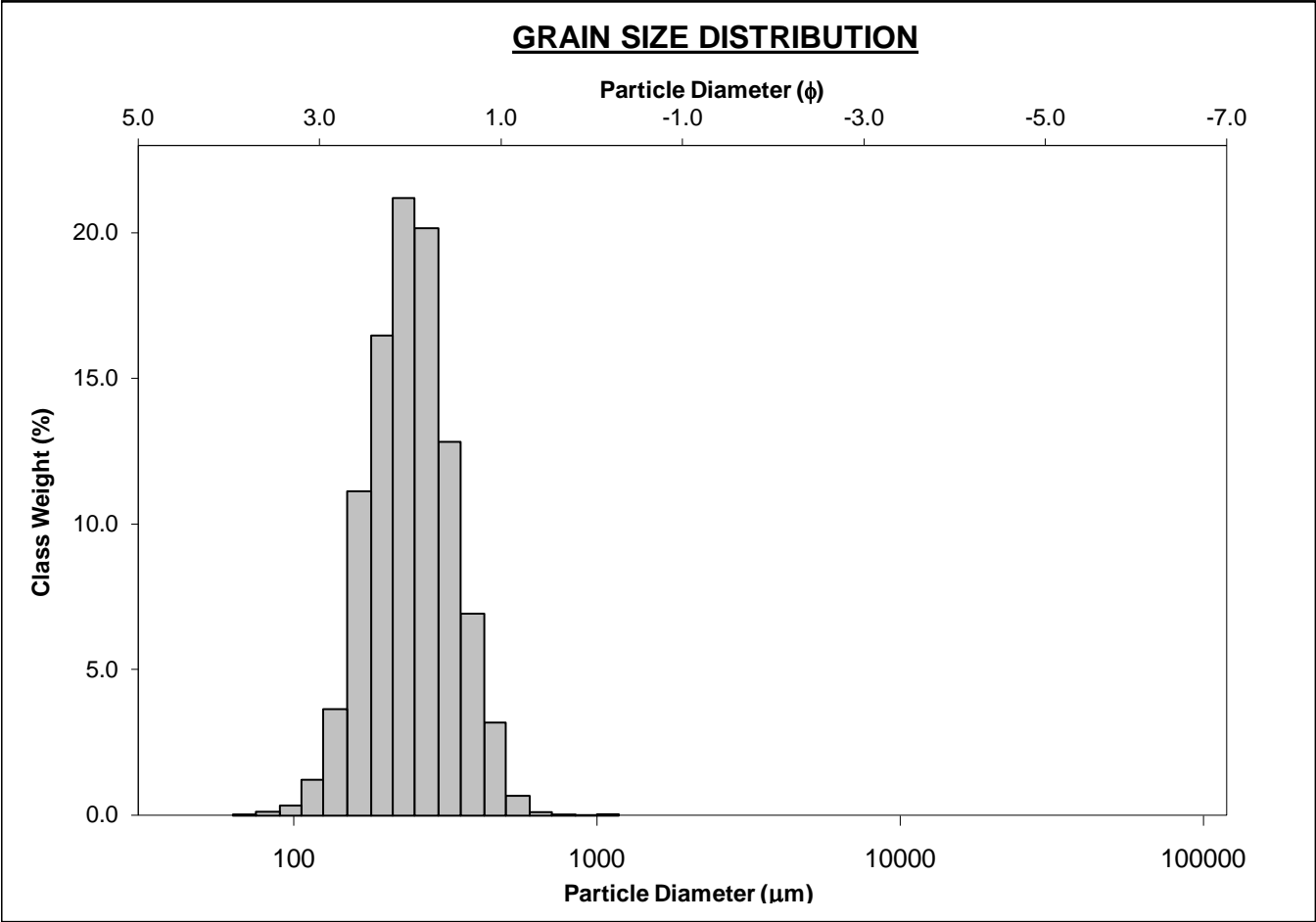
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-10cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 0.5%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 56.6%			
MODE 3:			MUD: 0.1% FINE SAND: 41.2%			
D ₁₀ :	168.1	1.429	V FINE SAND: 1.5%			
MEDIAN or D ₅₀ :	263.9	1.922	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	371.4	2.573	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.210	1.800	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	203.3	1.144	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.519	1.367	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	109.5	0.603	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	268.9	255.3	1.970	257.1	1.959	Medium Sand
SORTING (σ):	79.25	1.393	0.478	1.354	0.438	Well Sorted
SKEWNESS (Sk):	0.442	-1.874	1.874	-0.125	0.125	Fine Skewed
KURTOSIS (K):	3.663	18.66	18.66	0.972	0.972	Mesokurtic



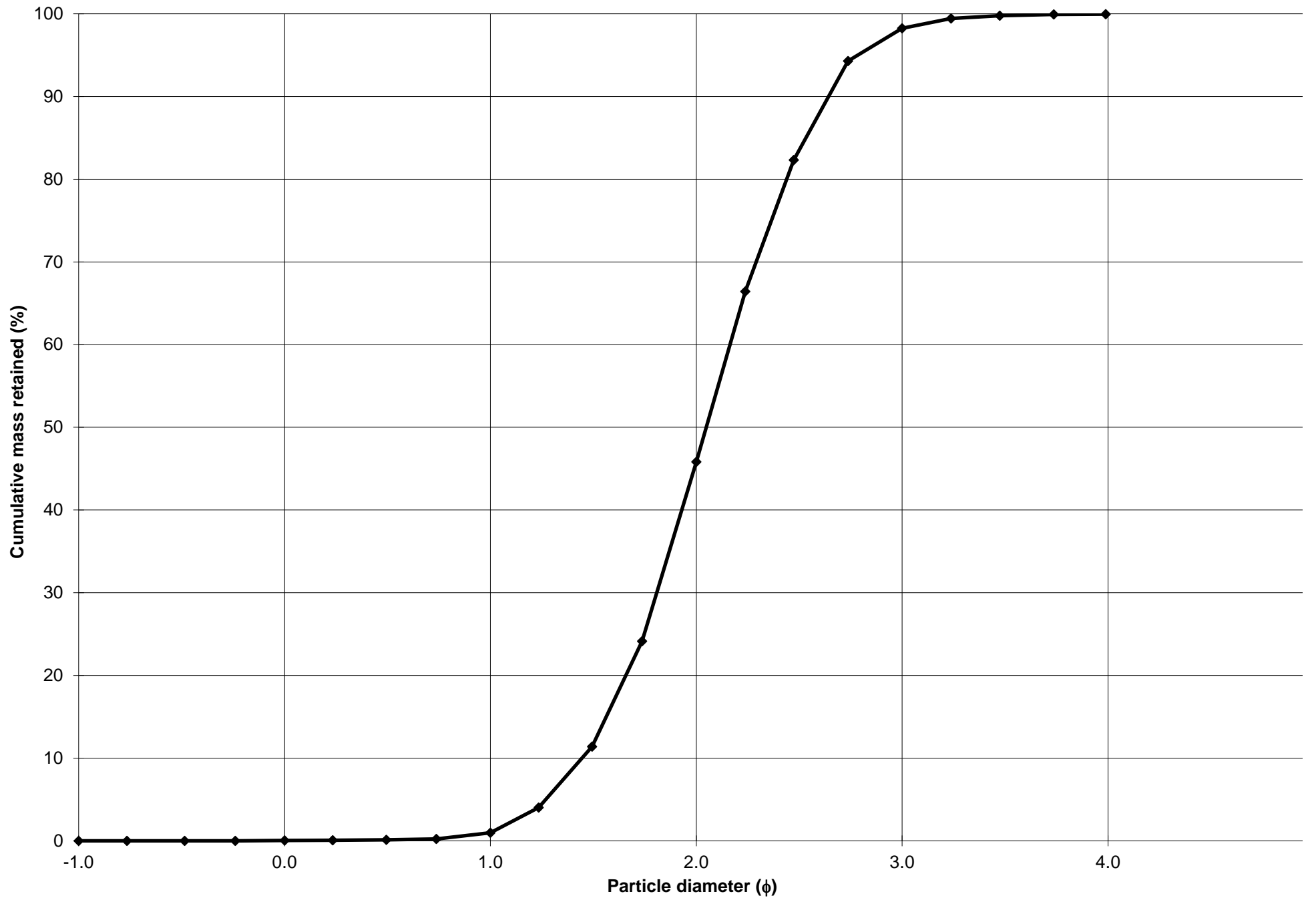
Cumulative Frequency Curve



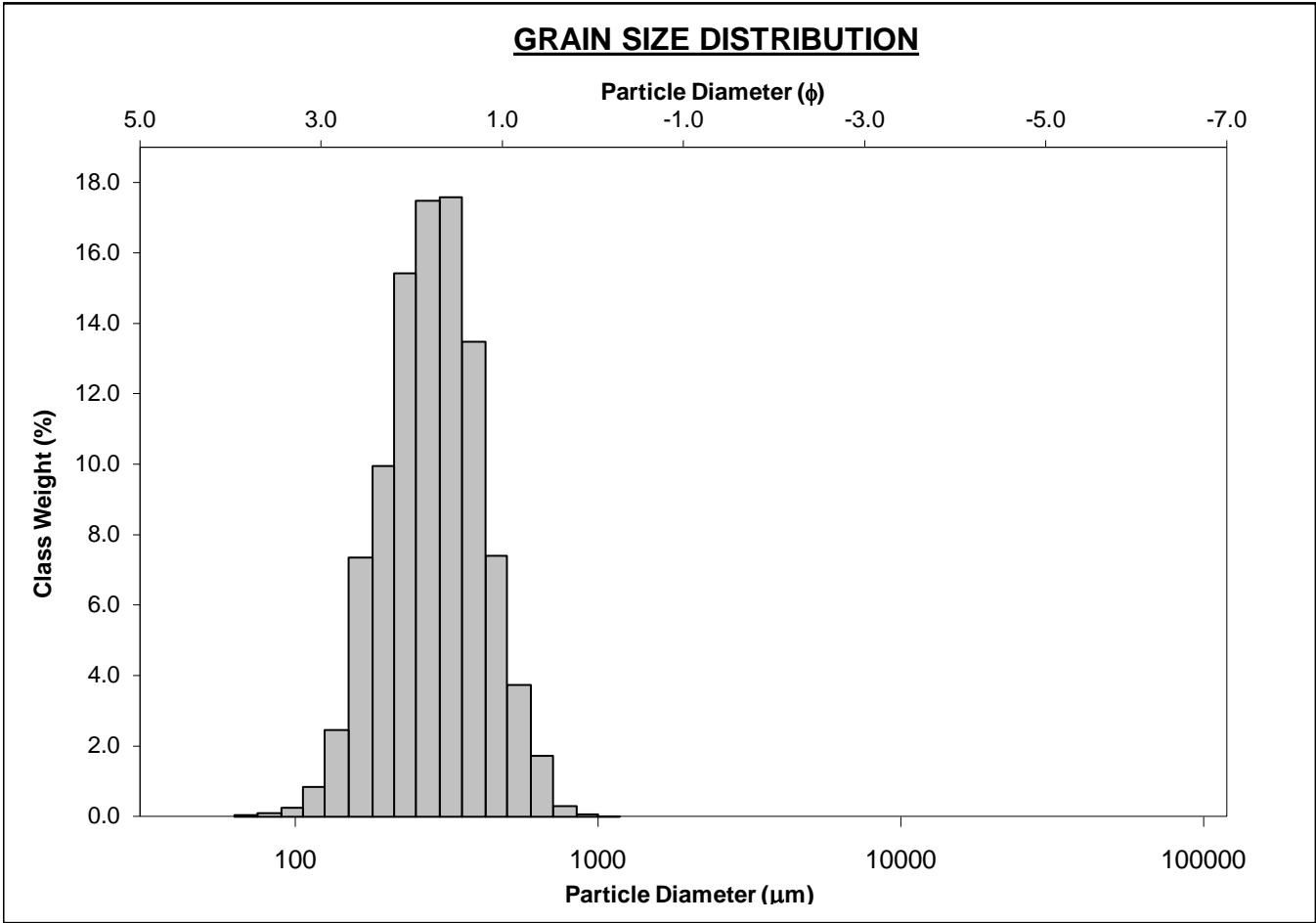
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-20cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%	COARSE SAND: 0.9%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 44.8%		
MODE 3:			MUD: 0.0%	FINE SAND: 52.4%		
D ₁₀ :	160.2	1.445		V FINE SAND: 1.7%		
MEDIAN or D ₅₀ :	241.8	2.048	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	367.3	2.642	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.293	1.829	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	207.1	1.197	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.534	1.353	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	103.7	0.618	V COARSE SAND: 0.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	255.9	241.9	2.048	242.0	2.047	Fine Sand
SORTING (σ):	85.88	1.388	0.473	1.377	0.462	Well Sorted
SKEWNESS (Sk):	1.433	-0.443	0.443	0.017	-0.017	Symmetrical
KURTOSIS (K):	9.250	8.224	8.224	1.005	1.005	Mesokurtic



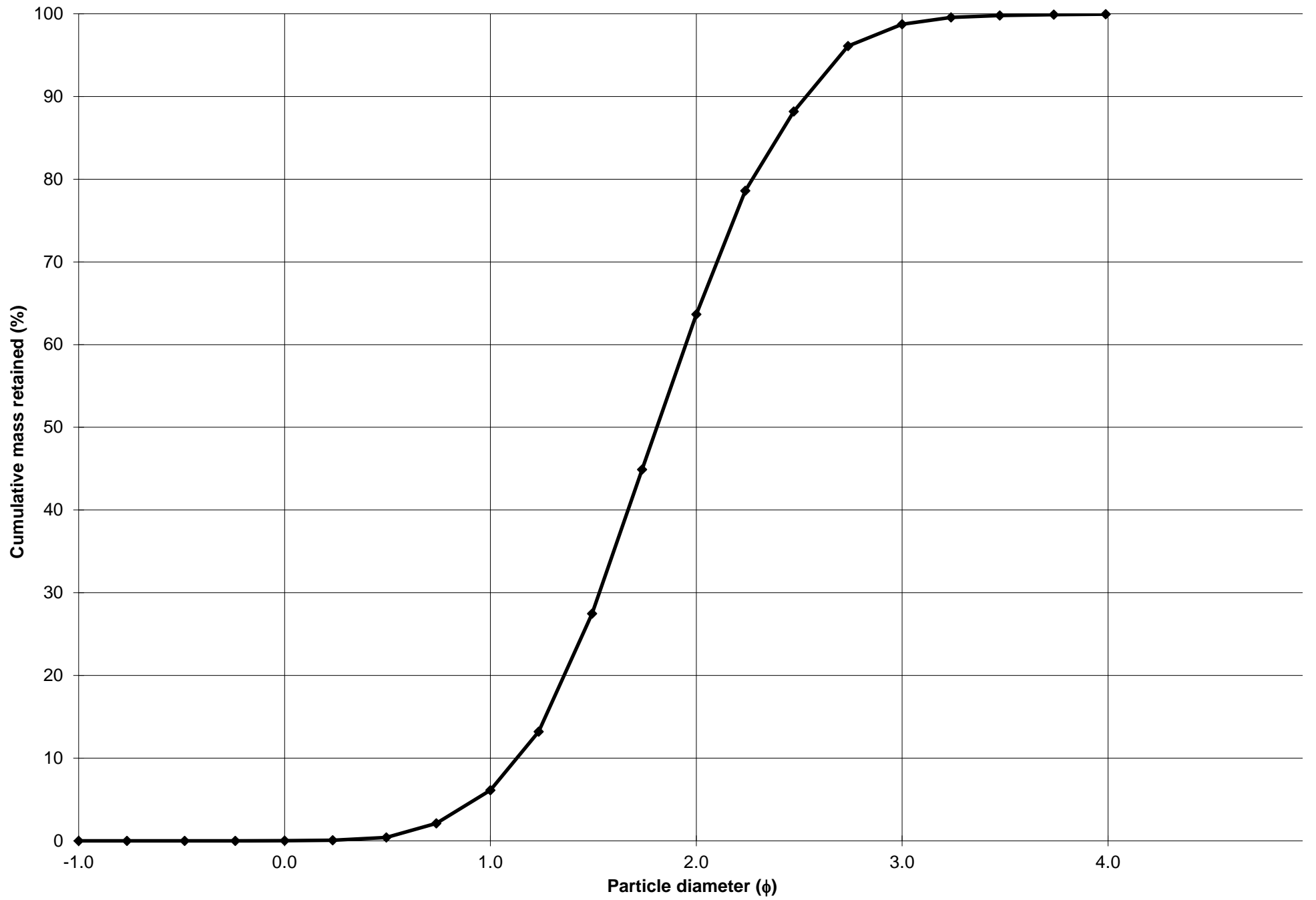
Cumulative Frequency Curve



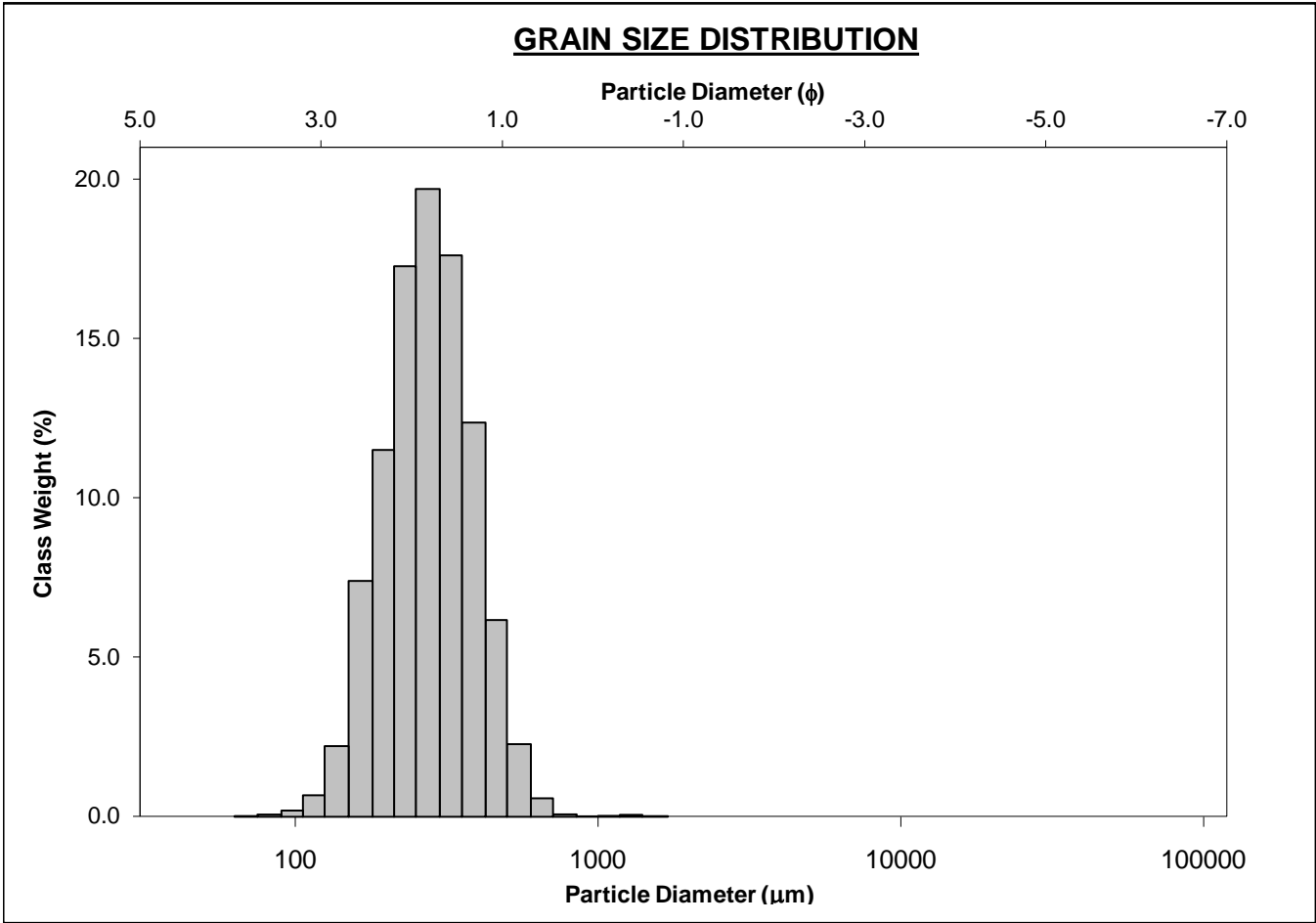
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-30cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 6.1%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 57.5%	
MODE 3:			MUD: 0.0%		FINE SAND: 35.1%	
D ₁₀ :	172.6	1.128			V FINE SAND: 1.2%	
MEDIAN or D ₅₀ :	285.5	1.809	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	457.4	2.534	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.650	2.246	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	284.8	1.406	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.660	1.505	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	145.7	0.731	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	304.9	283.3	1.819	282.9	1.822	Medium Sand
SORTING (σ):	115.5	1.460	0.546	1.454	0.540	Moderately Well Sorted
SKEWNESS (Sk):	1.038	-0.430	0.430	-0.021	0.021	Symmetrical
KURTOSIS (K):	4.698	6.349	6.349	0.994	0.994	Mesokurtic



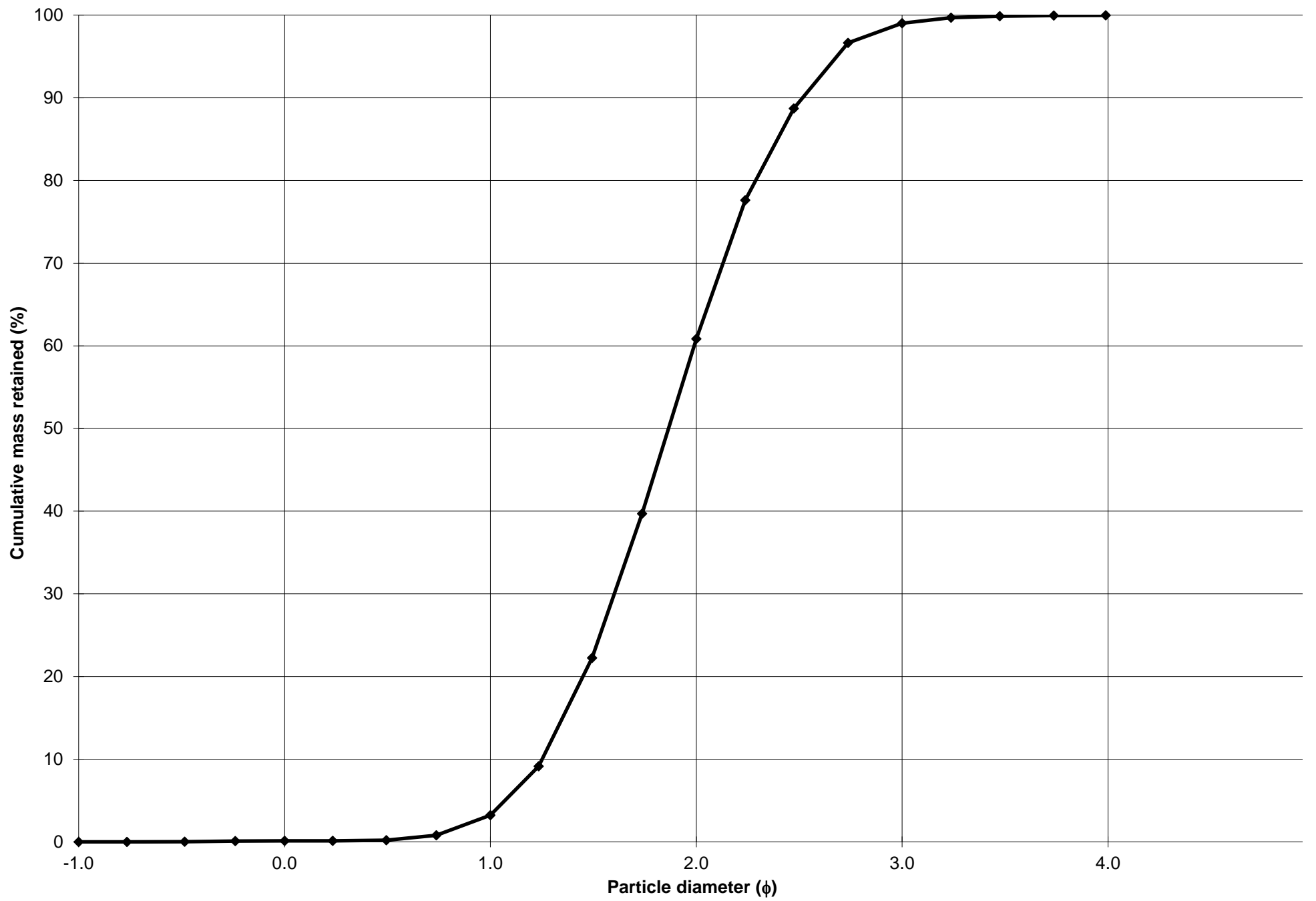
Cumulative Frequency Curve



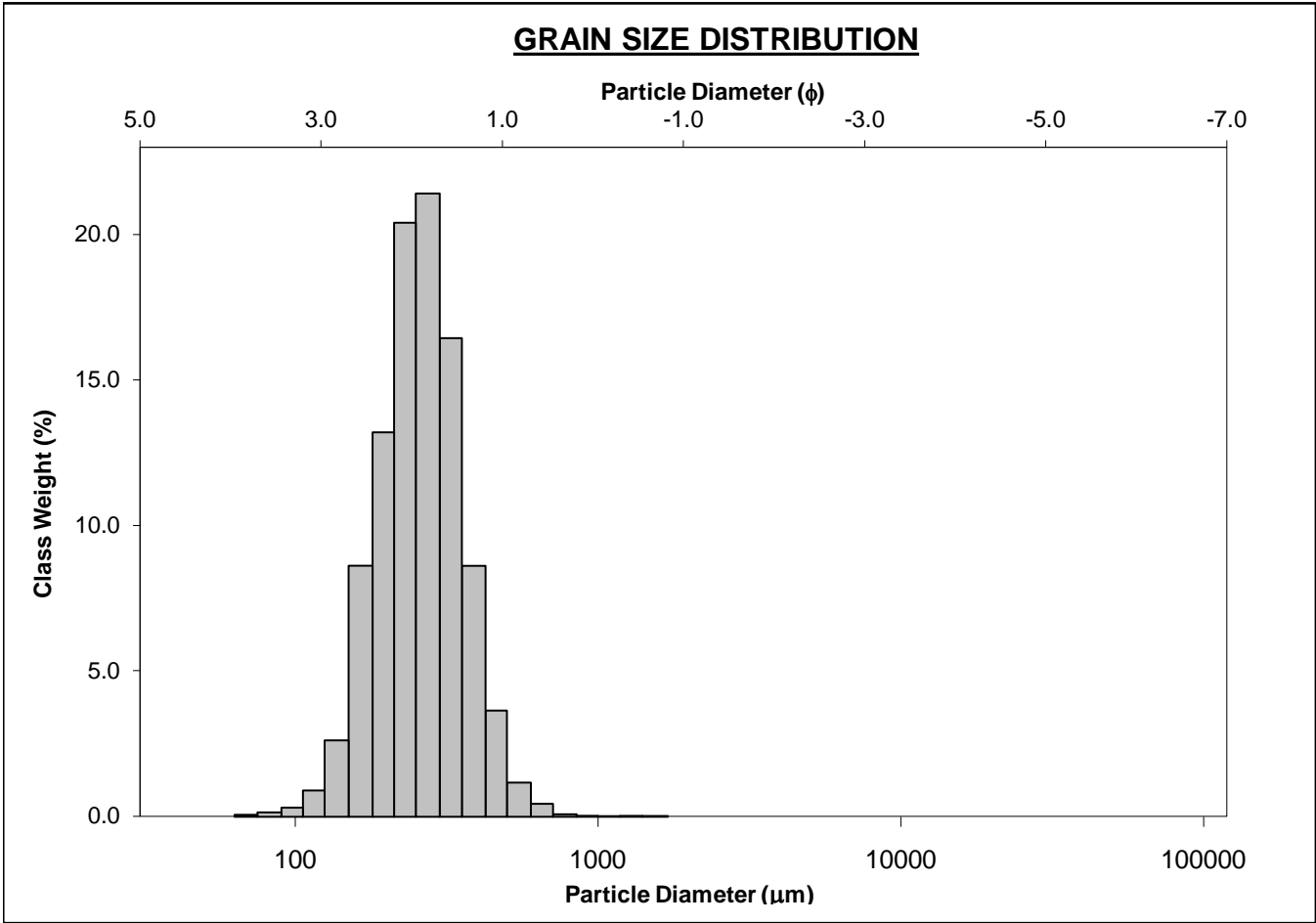
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-40cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 3.1%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 57.6%			
MODE 3:			MUD: 0.0% FINE SAND: 38.2%			
D ₁₀ :	174.7	1.252	V FINE SAND: 0.9%			
MEDIAN or D ₅₀ :	274.5	1.865	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	420.0	2.517	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.404	2.011	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	245.3	1.265	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.589	1.436	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	128.2	0.668	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	291.1	273.4	1.871	273.6	1.870	Medium Sand
SORTING (σ):	104.3	1.412	0.498	1.409	0.495	Well Sorted
SKEWNESS (Sk):	1.803	-0.288	0.288	-0.014	0.014	Symmetrical
KURTOSIS (K):	14.49	6.267	6.267	0.989	0.989	Mesokurtic



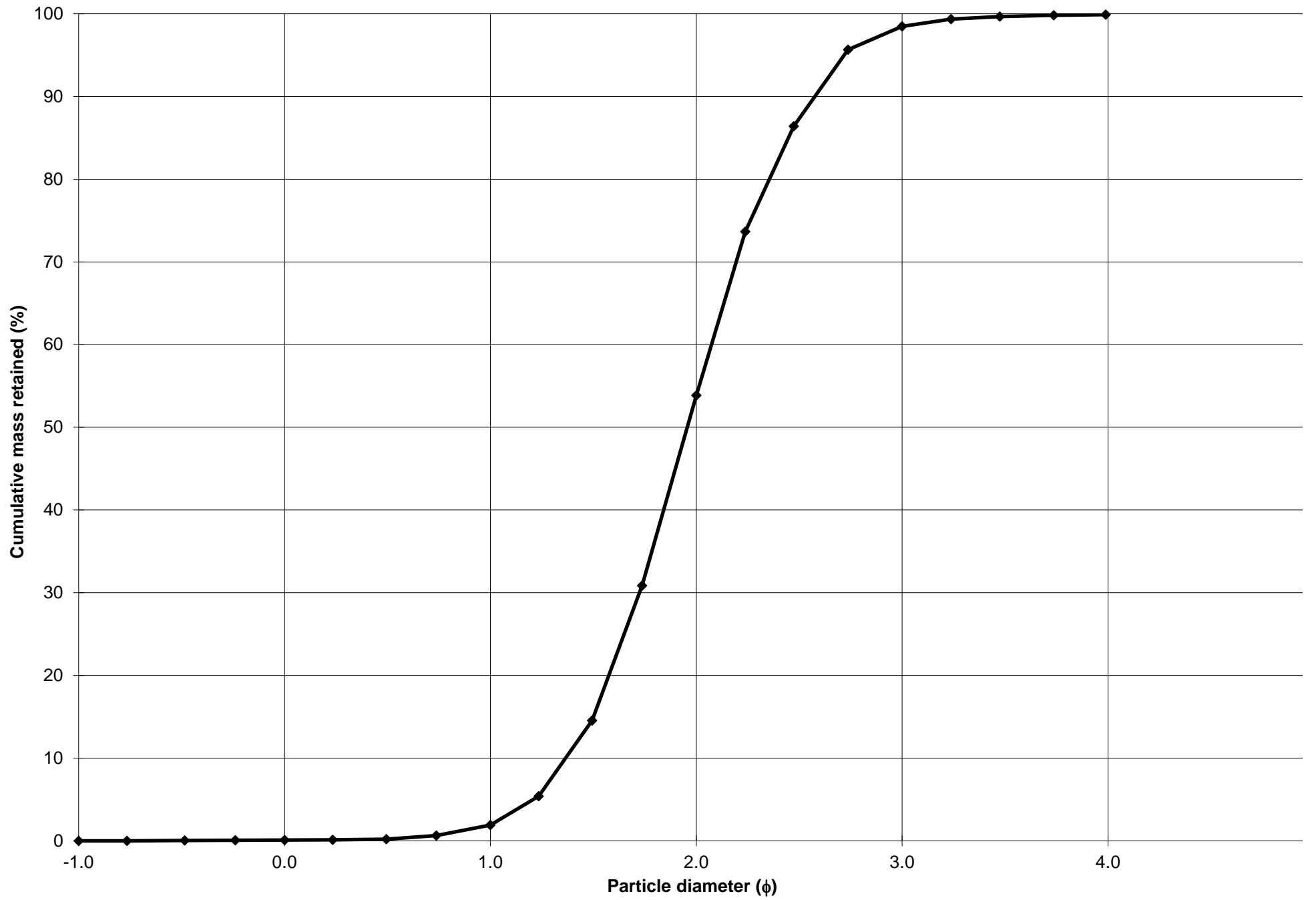
Cumulative Frequency Curve



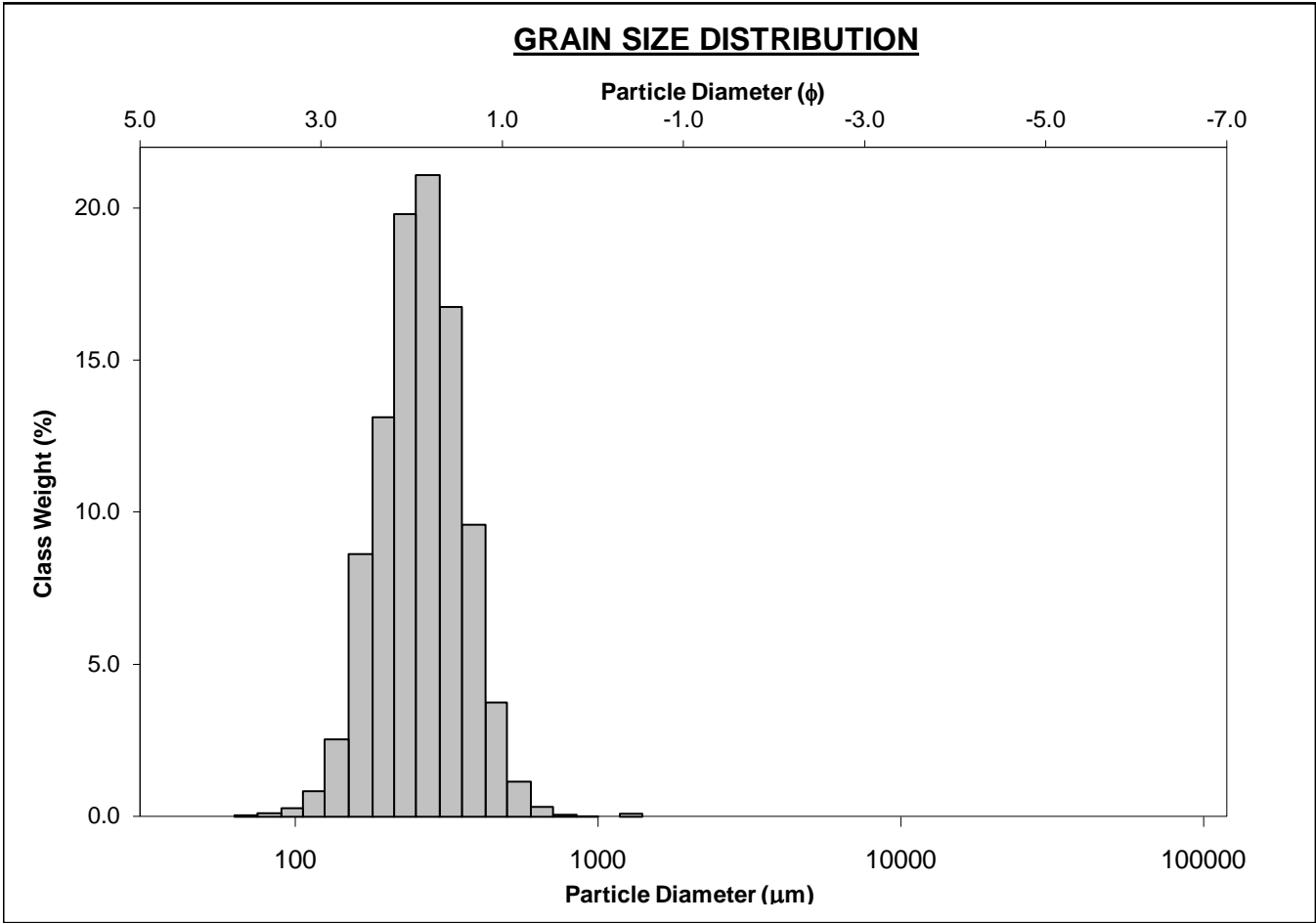
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-50cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.8%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 51.9%	
MODE 3:			MUD: 0.1%		FINE SAND: 44.6%	
D ₁₀ :	167.7	1.365			V FINE SAND: 1.4%	
MEDIAN or D ₅₀ :	257.7	1.956	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	388.3	2.576	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.315	1.887	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	220.6	1.211	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.529	1.371	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	110.3	0.613	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	271.9	256.0	1.966	255.8	1.967	Medium Sand
SORTING (σ):	95.62	1.411	0.497	1.373	0.457	Well Sorted
SKEWNESS (Sk):	2.236	-1.004	1.004	-0.023	0.023	Symmetrical
KURTOSIS (K):	20.39	13.80	13.80	1.011	1.011	Mesokurtic



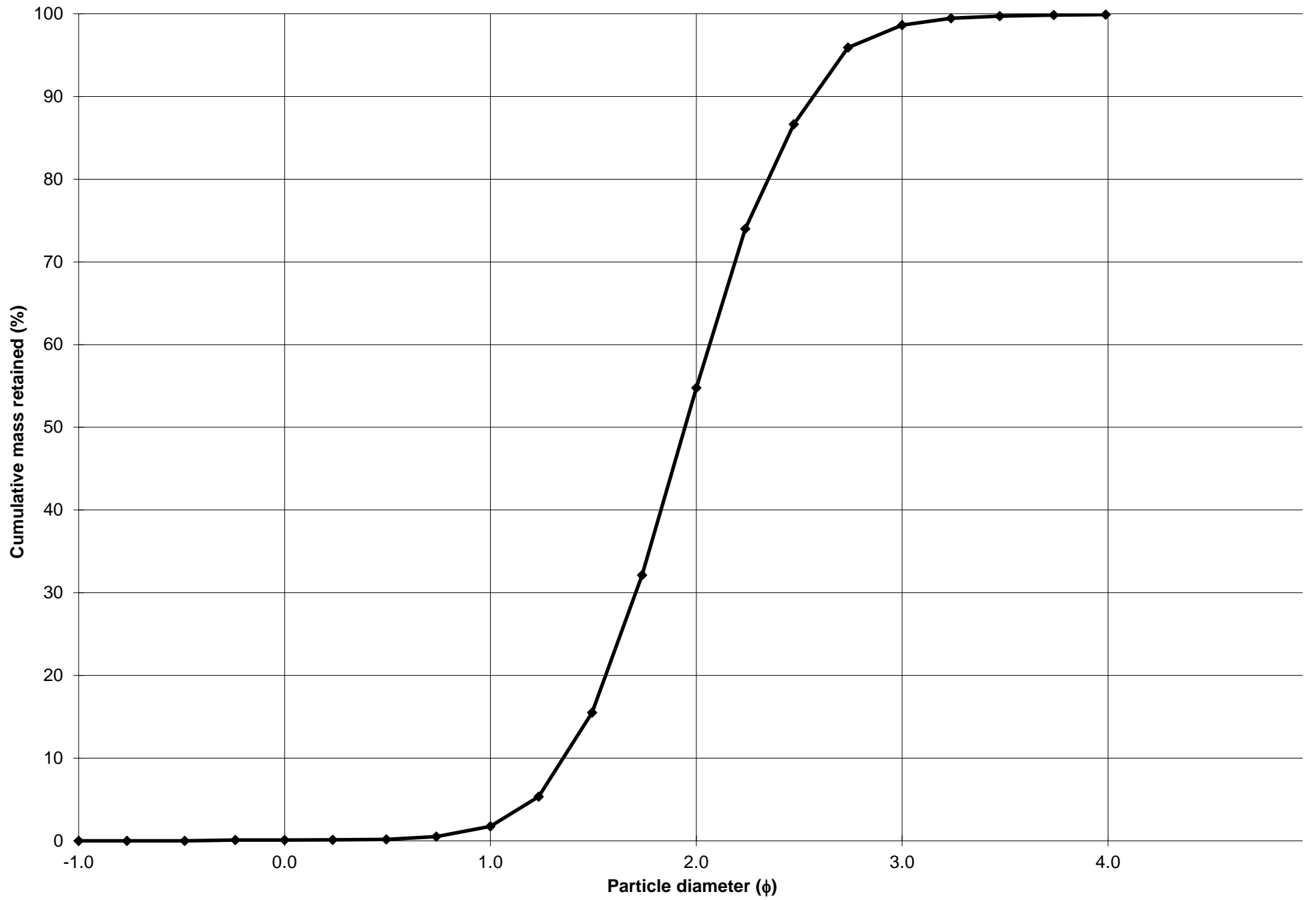
Cumulative Frequency Curve



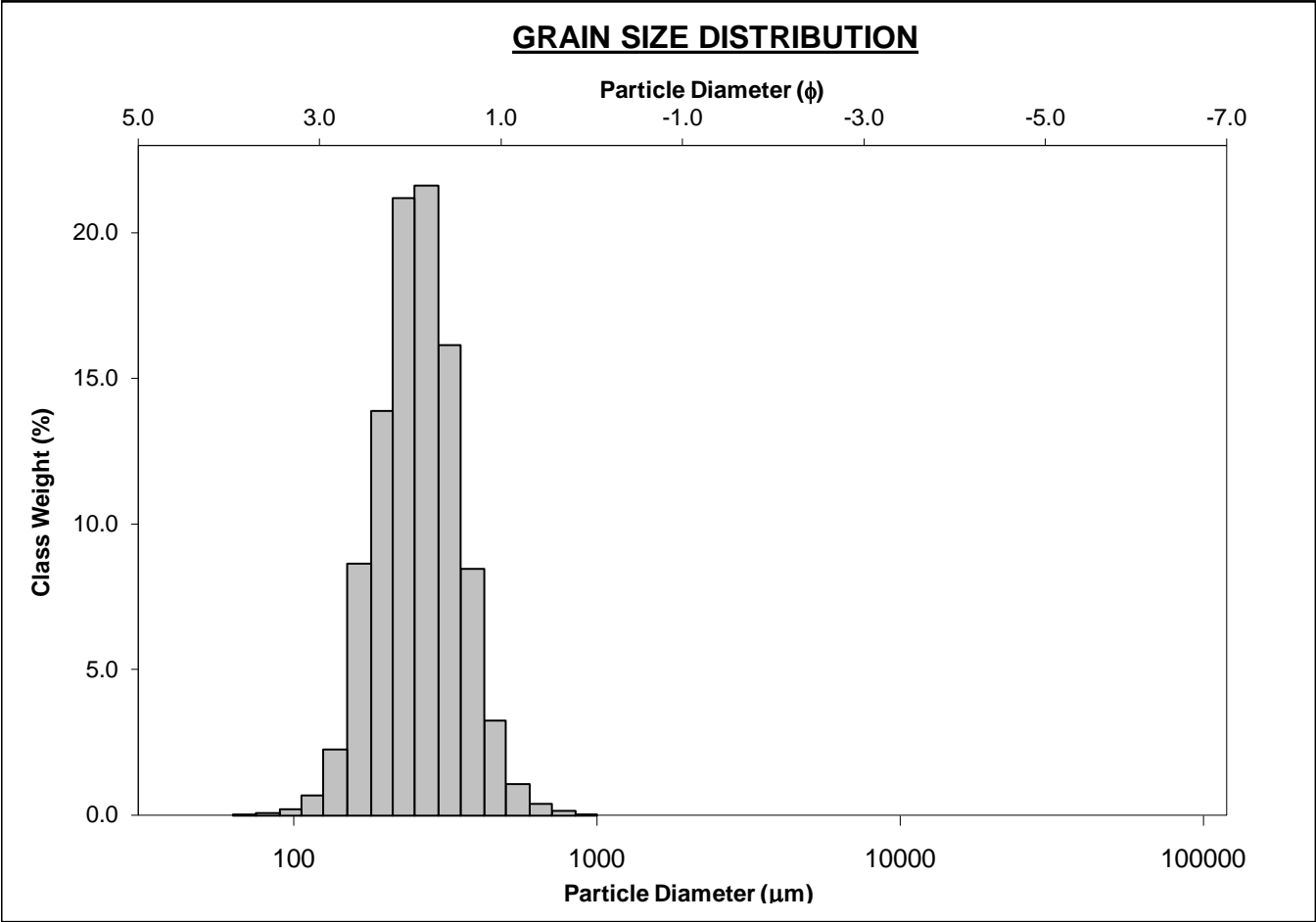
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-60cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.6%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 53.0%	
MODE 3:			MUD: 0.1%		FINE SAND: 43.9%	
D ₁₀ :	168.5	1.353			V FINE SAND: 1.3%	
MEDIAN or D ₅₀ :	259.8	1.945	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	391.4	2.569	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.323	1.898	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	222.9	1.216	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.541	1.382	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	113.2	0.624	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	273.5	257.7	1.956	257.6	1.957	Medium Sand
SORTING (σ):	94.69	1.407	0.493	1.374	0.458	Well Sorted
SKEWNESS (Sk):	2.036	-0.984	0.984	-0.031	0.031	Symmetrical
KURTOSIS (K):	17.38	13.41	13.41	0.985	0.985	Mesokurtic



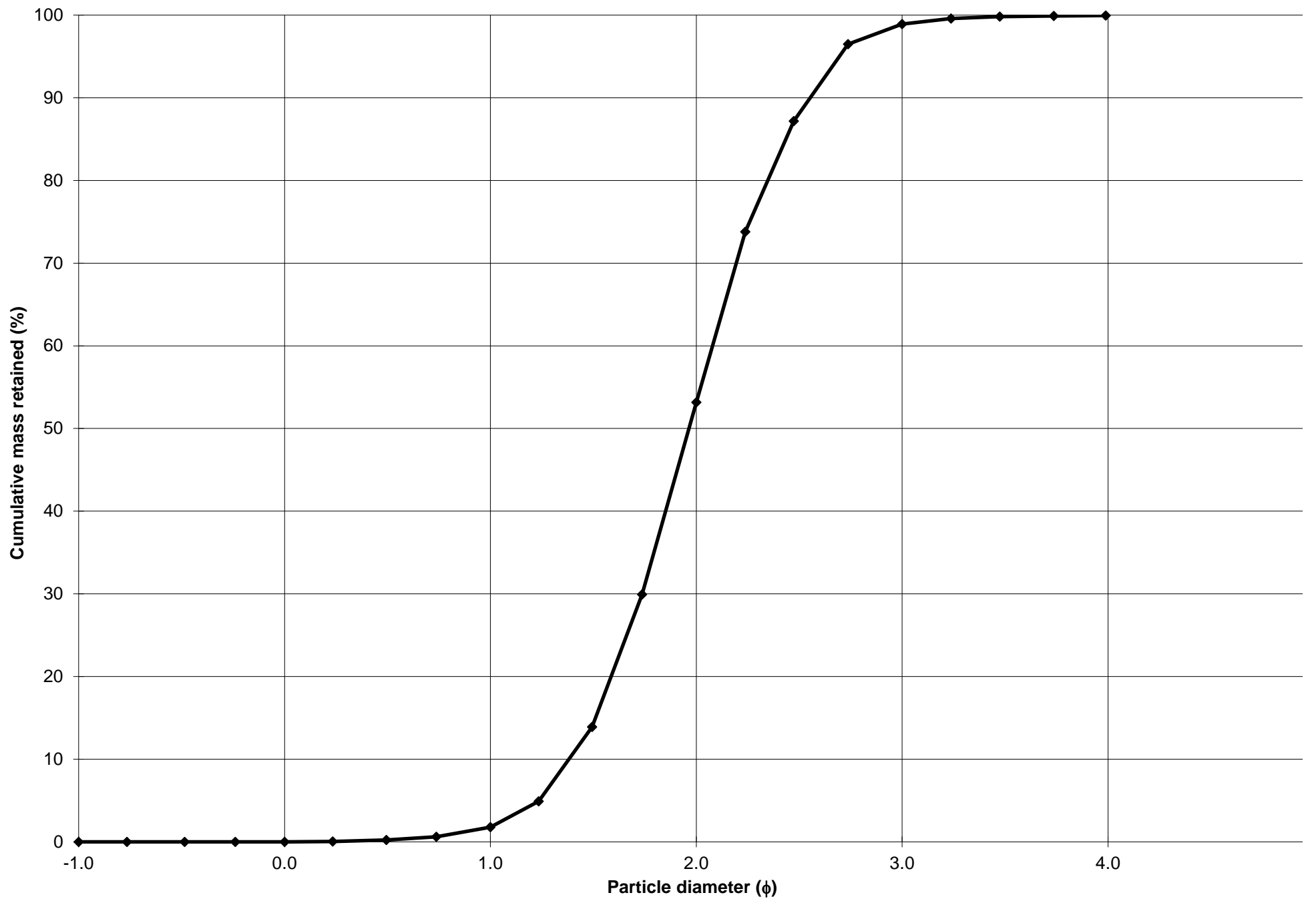
Cumulative Frequency Curve



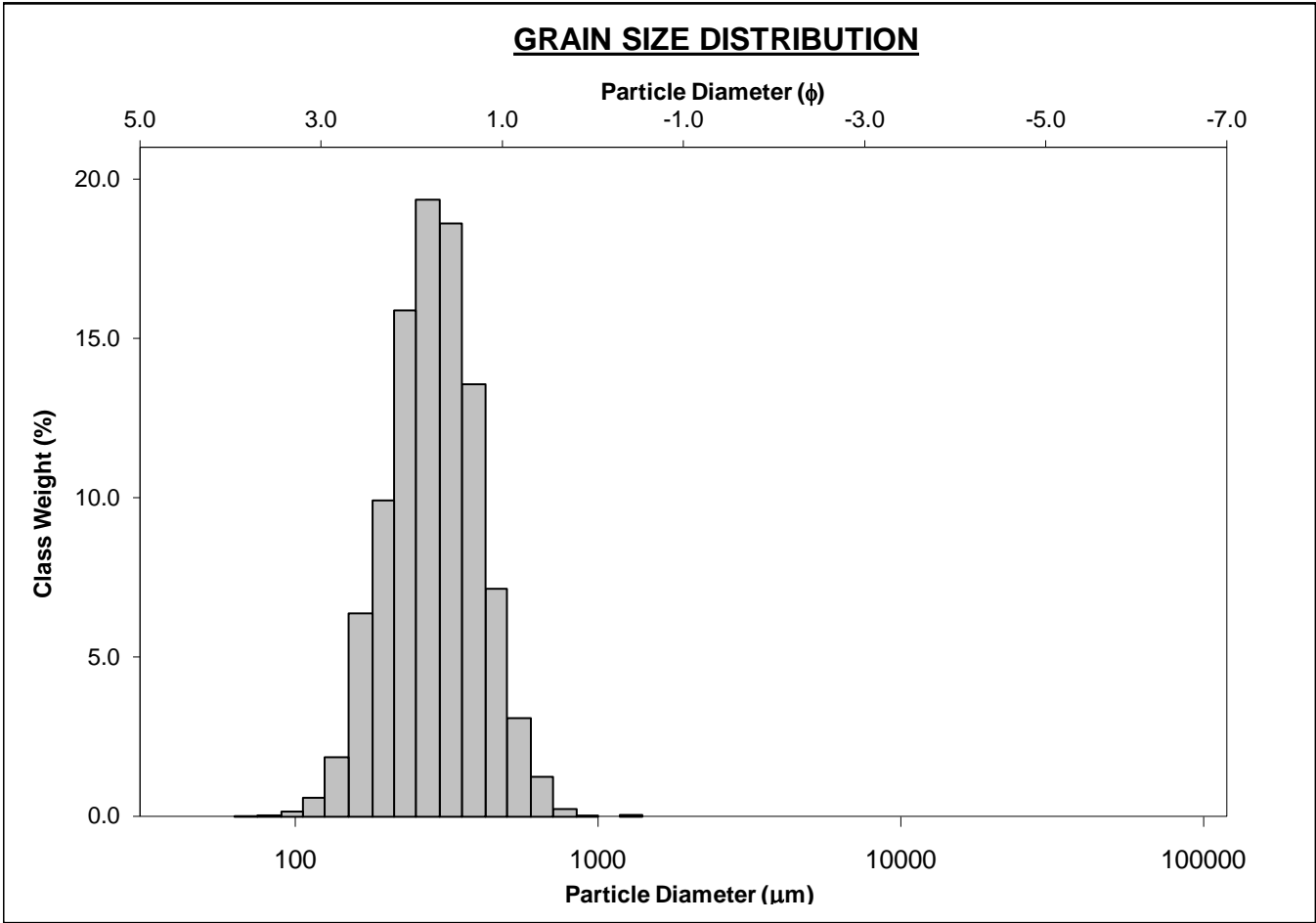
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-70cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 1.8%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 51.4%			
MODE 3:			MUD: 0.1% FINE SAND: 45.7%			
D ₁₀ :	170.3	1.381	V FINE SAND: 1.0%			
MEDIAN or D ₅₀ :	256.3	1.964	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	383.8	2.554	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.254	1.849	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	213.5	1.172	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.513	1.359	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	107.1	0.597	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	270.4	256.0	1.966	255.4	1.969	Medium Sand
SORTING (σ):	89.11	1.382	0.466	1.360	0.444	Well Sorted
SKEWNESS (Sk):	1.345	-0.572	0.572	-0.010	0.010	Symmetrical
KURTOSIS (K):	7.136	9.935	9.935	1.001	1.001	Mesokurtic



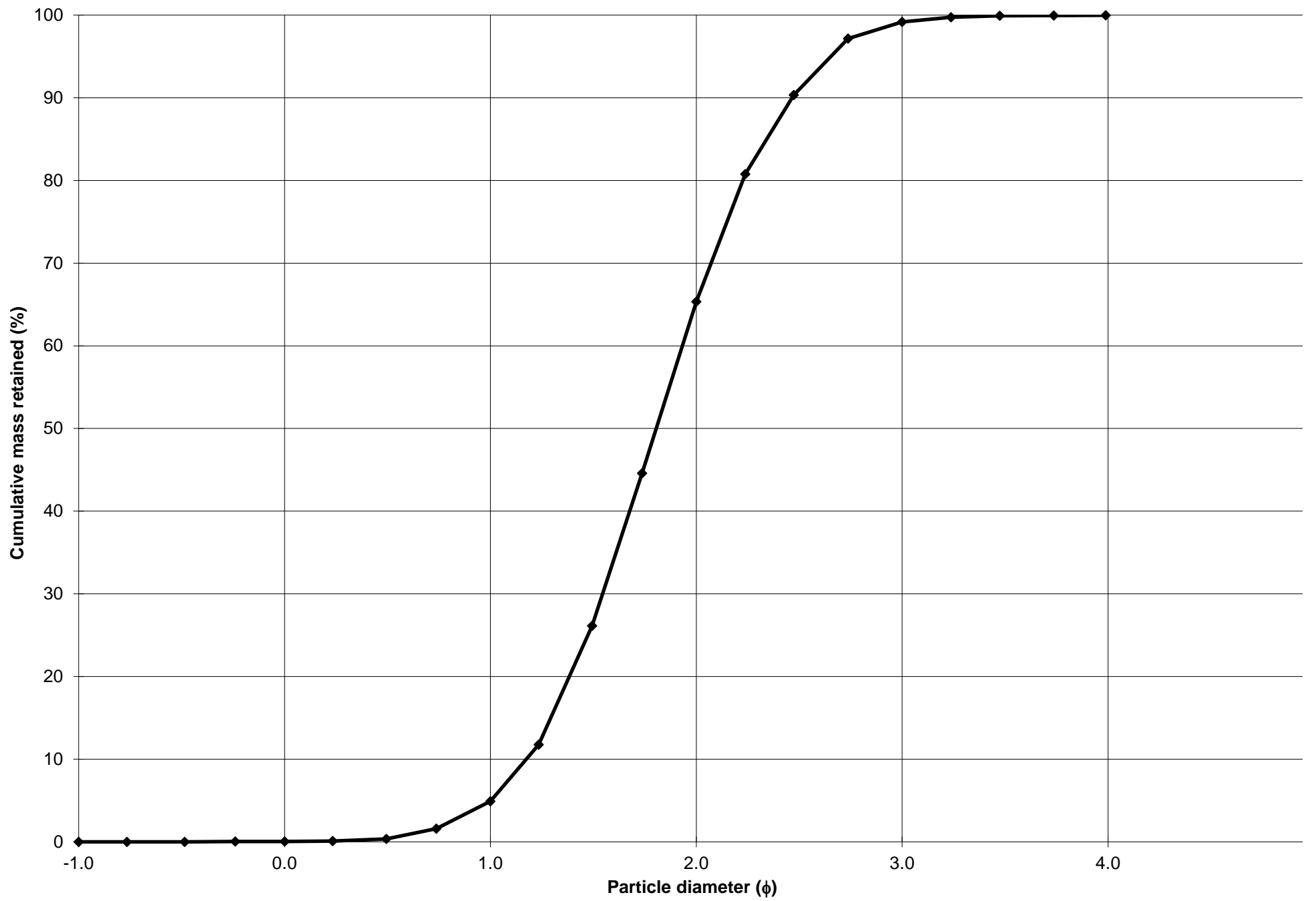
Cumulative Frequency Curve



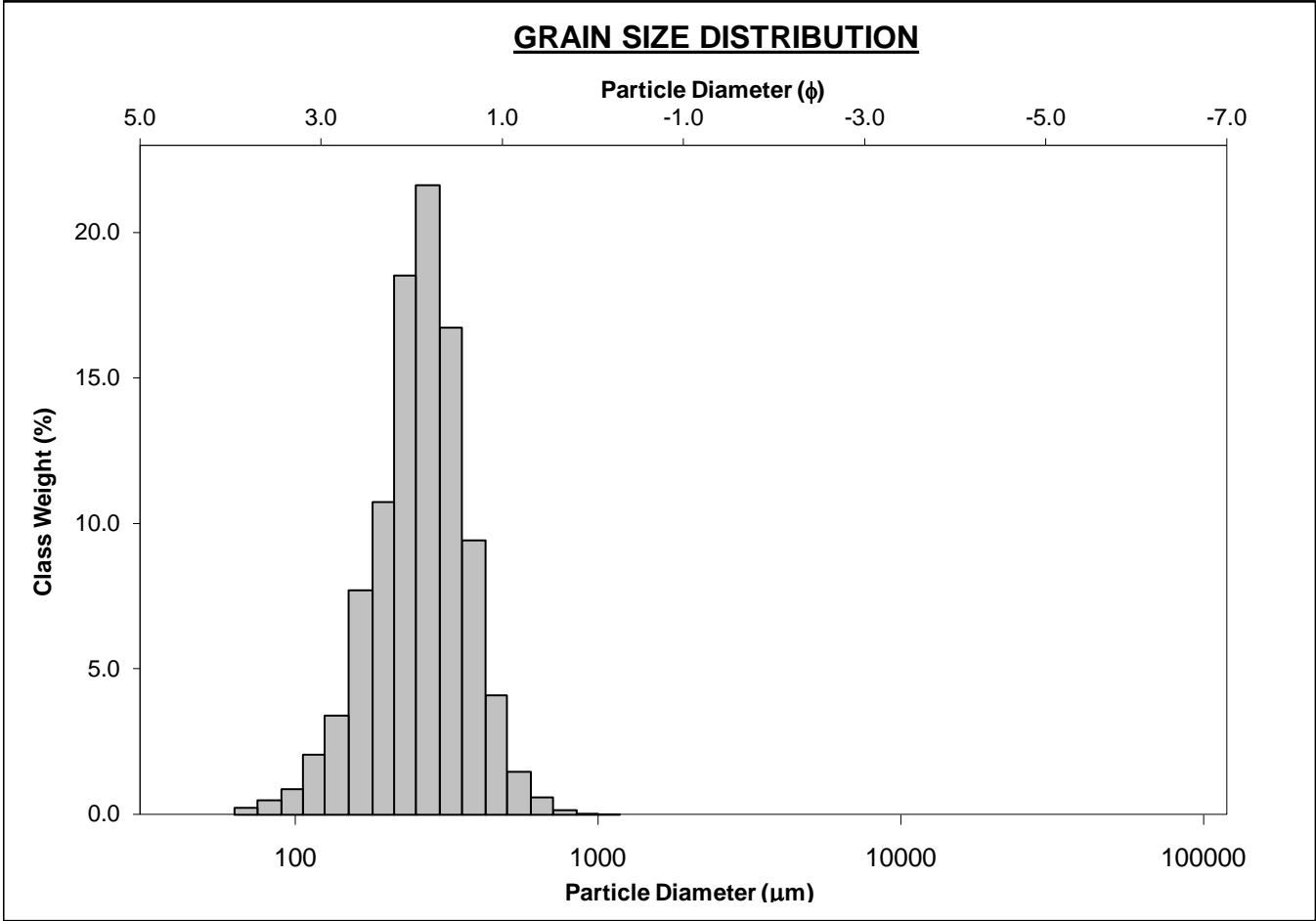
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-80cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 4.9%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 60.4%	
MODE 3:			MUD: 0.0%		FINE SAND: 33.8%	
D ₁₀ :	181.0	1.174			V FINE SAND: 0.8%	
MEDIAN or D ₅₀ :	286.0	1.806	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	443.1	2.466	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.448	2.100	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	262.1	1.292	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.597	1.458	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	134.6	0.675	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	304.0	285.0	1.811	284.9	1.812	Medium Sand
SORTING (σ):	109.7	1.420	0.506	1.416	0.502	Moderately Well Sorted
SKEWNESS (Sk):	1.359	-0.224	0.224	-0.022	0.022	Symmetrical
KURTOSIS (K):	8.070	5.324	5.324	1.002	1.002	Mesokurtic



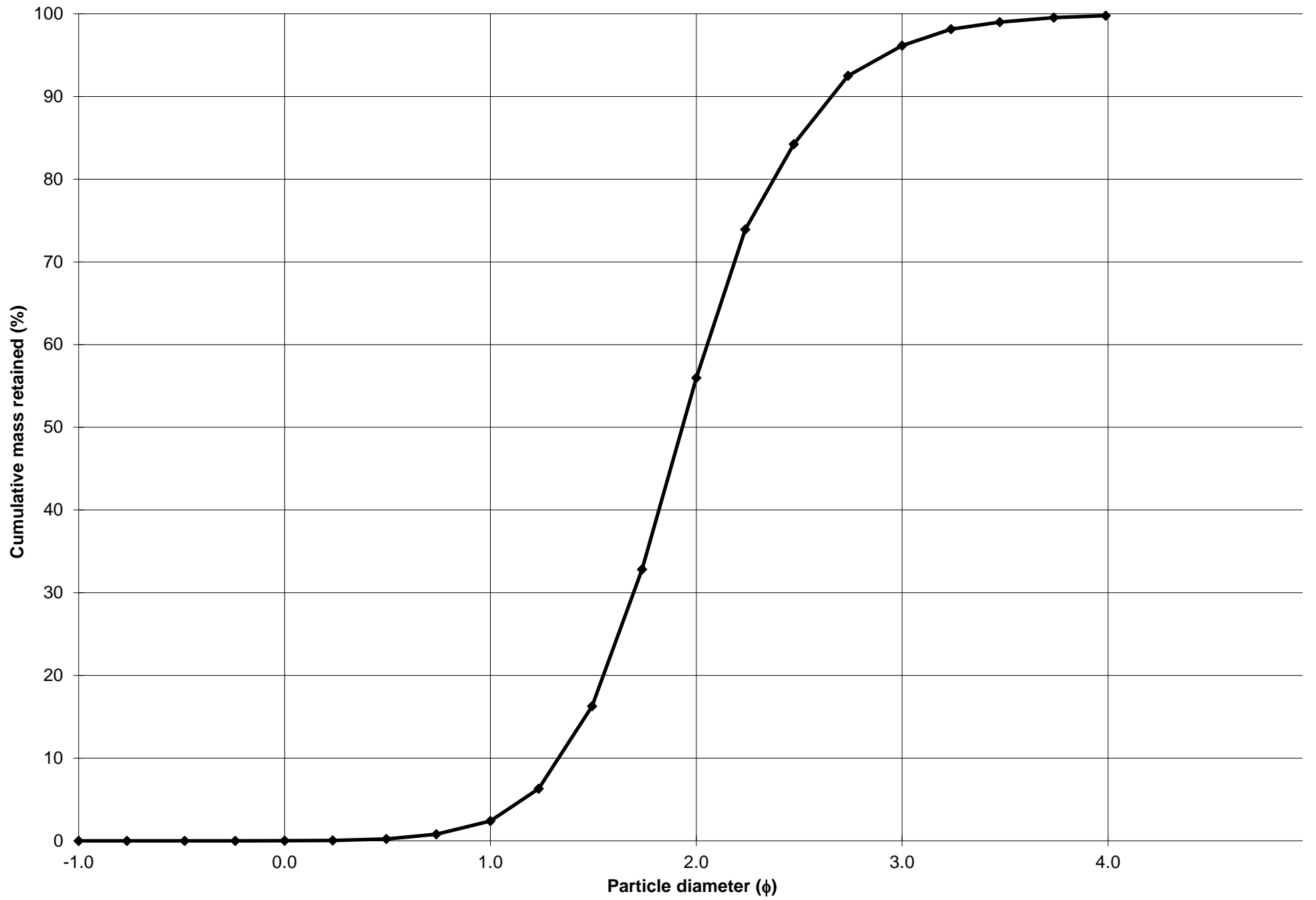
Cumulative Frequency Curve



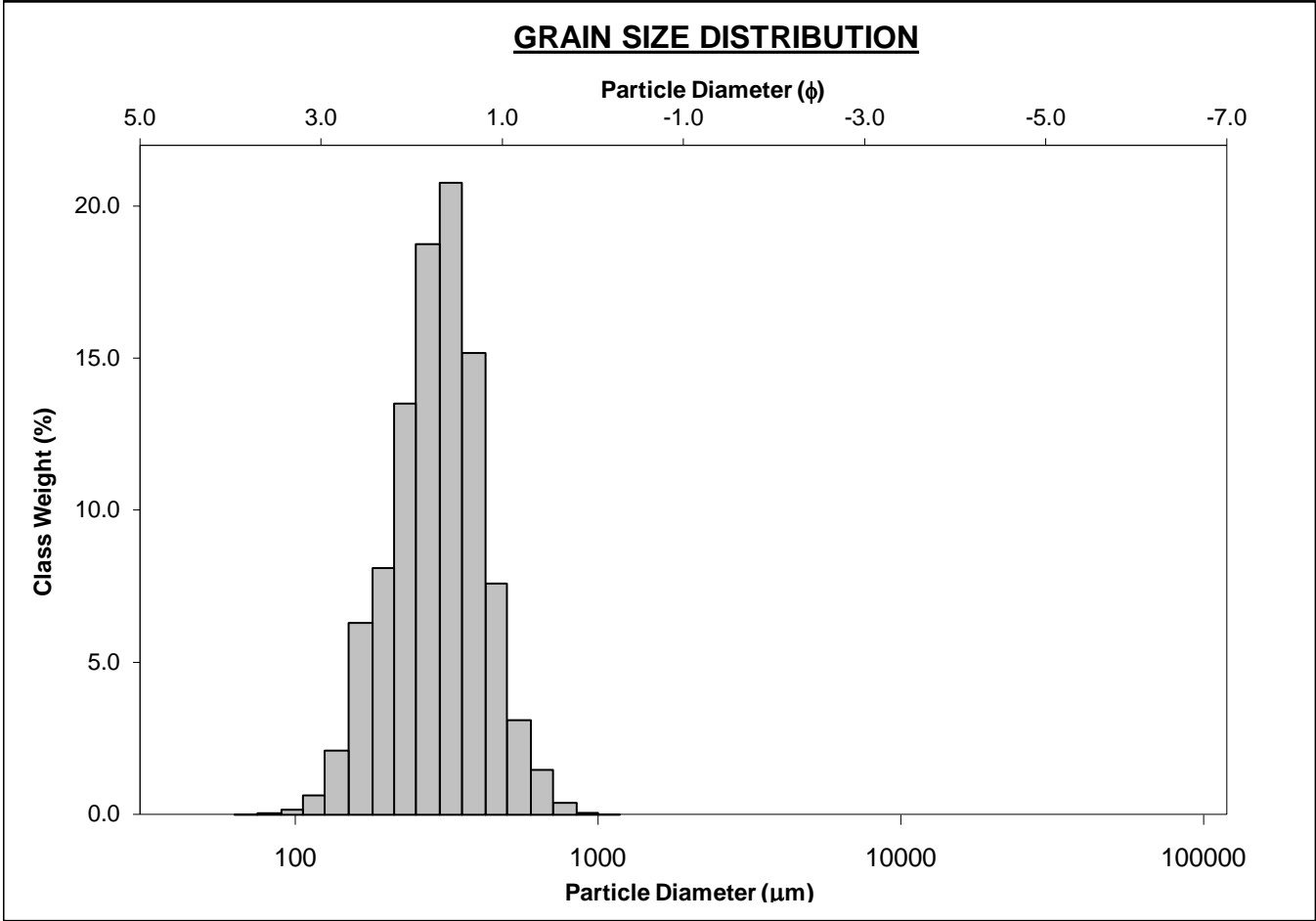
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-90cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 2.4%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 53.6%	
MODE 3:			MUD: 0.2%		FINE SAND: 40.2%	
D ₁₀ :	158.5	1.331			V FINE SAND: 3.6%	
MEDIAN or D ₅₀ :	262.0	1.932	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	397.6	2.657	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.508	1.997	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	239.1	1.327	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.559	1.395	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	116.4	0.640	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	273.3	254.1	1.976	256.6	1.963	Medium Sand
SORTING (σ):	98.78	1.490	0.575	1.426	0.512	Moderately Well Sorted
SKEWNESS (Sk):	1.070	-1.753	1.753	-0.106	0.106	Fine Skewed
KURTOSIS (K):	6.212	15.89	15.89	1.127	1.127	Leptokurtic



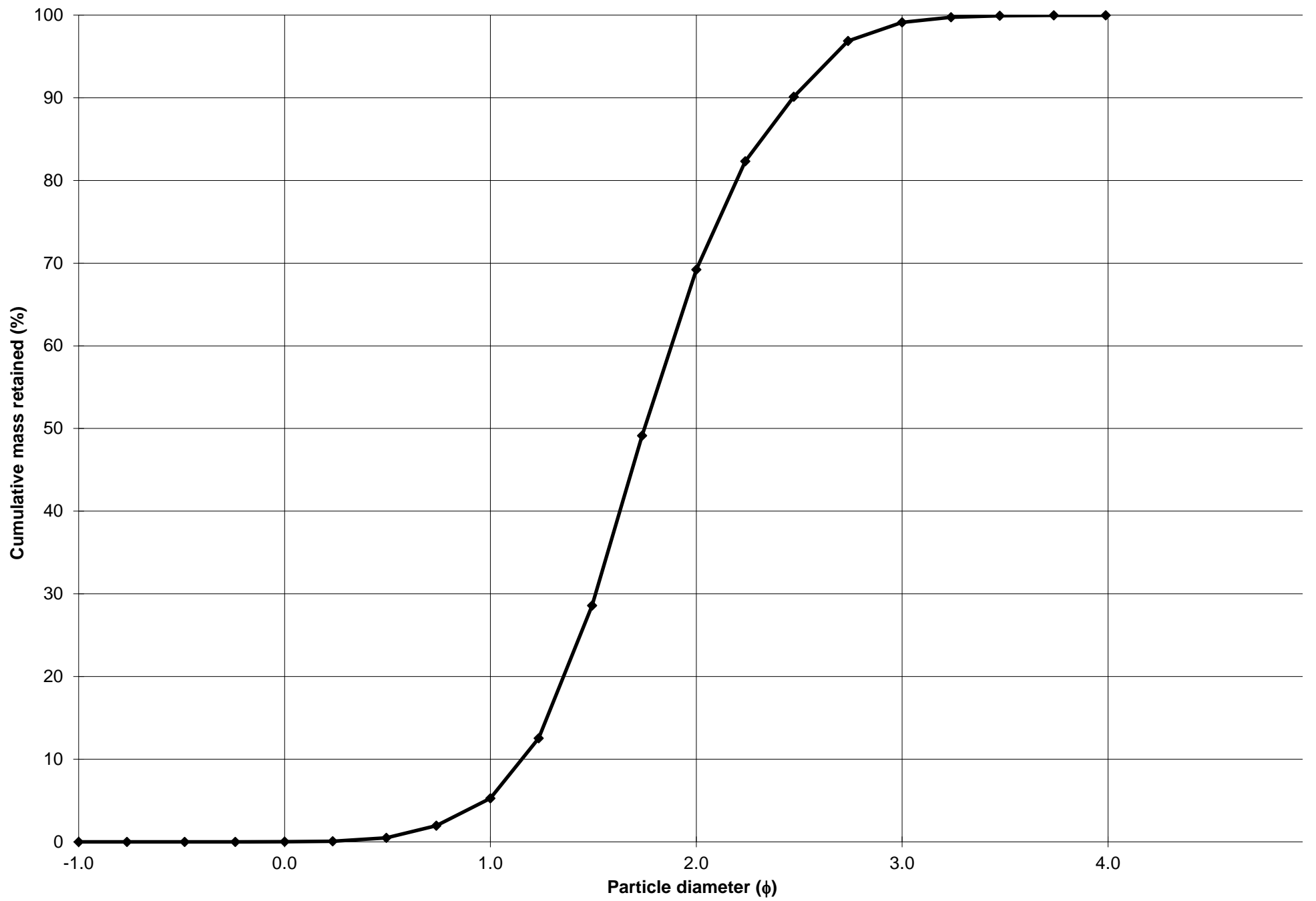
Cumulative Frequency Curve



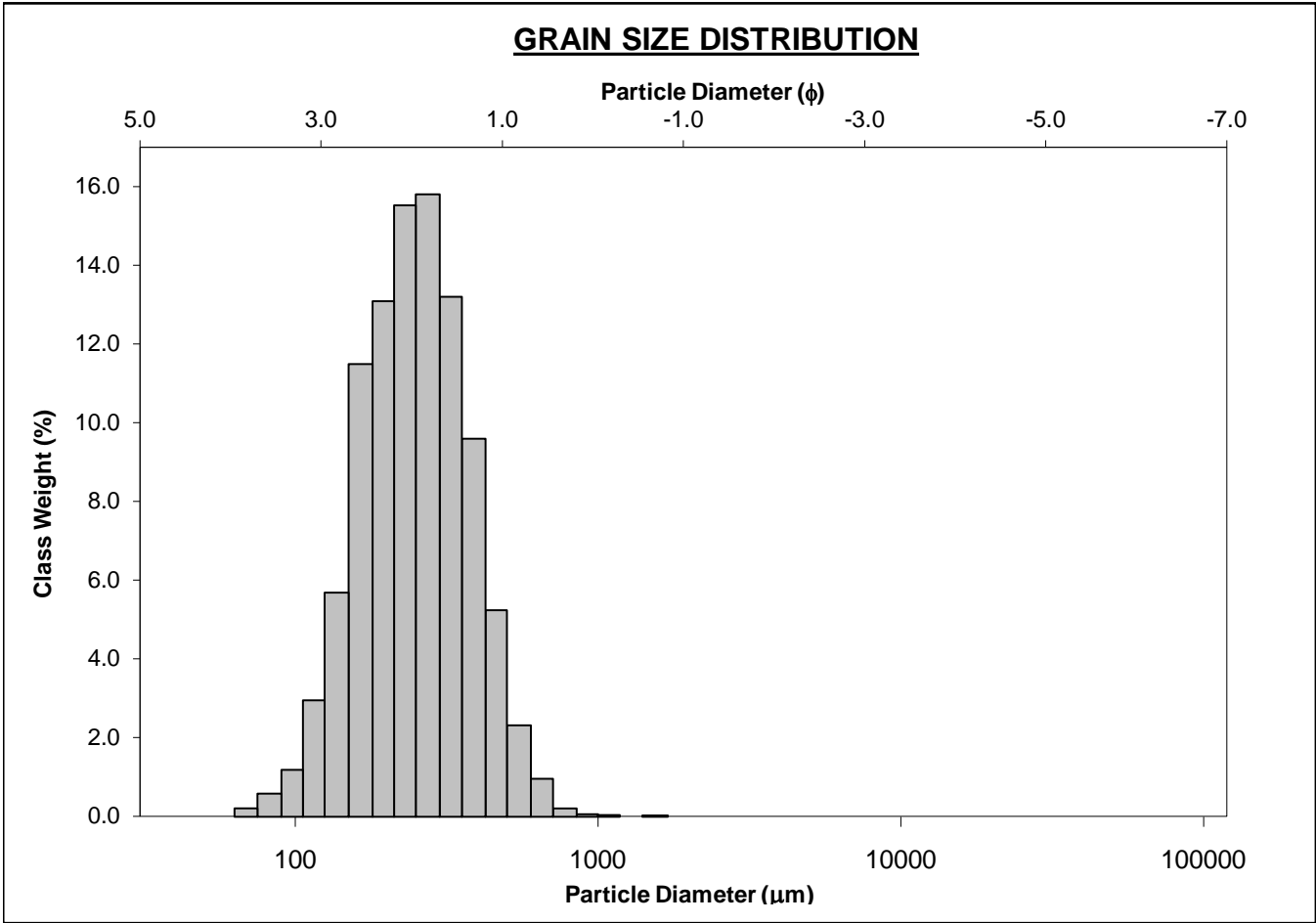
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-100cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 5.3%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 63.9%	
MODE 3:			MUD: 0.0%		FINE SAND: 29.9%	
D ₁₀ :	180.4	1.153			V FINE SAND: 0.8%	
MEDIAN or D ₅₀ :	297.6	1.748	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	449.8	2.470	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.493	2.143	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	269.4	1.318	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.590	1.466	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	137.1	0.669	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	311.2	291.7	1.778	292.0	1.776	Medium Sand
SORTING (σ):	110.3	1.426	0.512	1.419	0.505	Moderately Well Sorted
SKEWNESS (Sk):	1.039	-0.369	0.369	-0.085	0.085	Symmetrical
KURTOSIS (K):	5.195	5.389	5.389	1.033	1.033	Mesokurtic



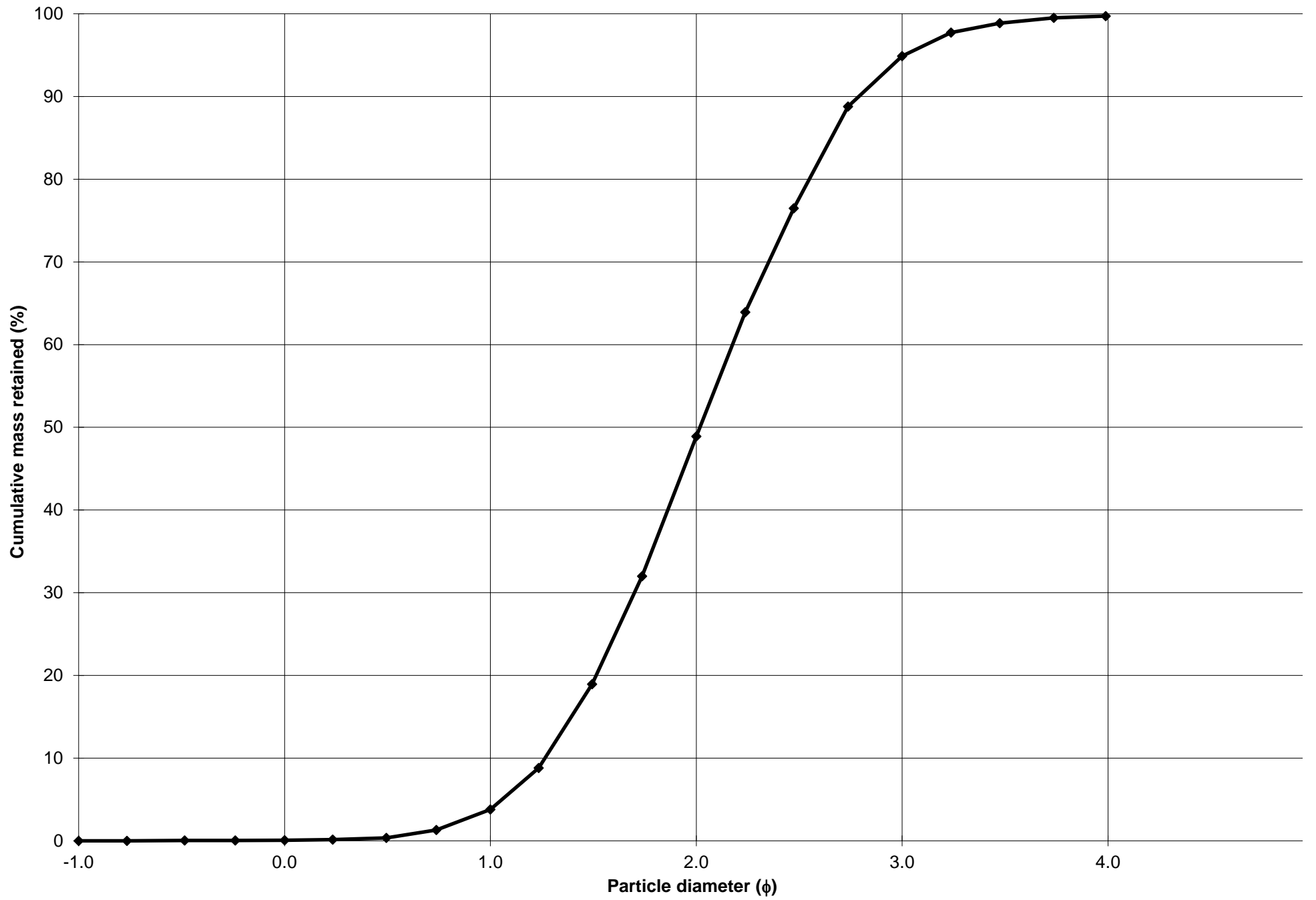
Cumulative Frequency Curve



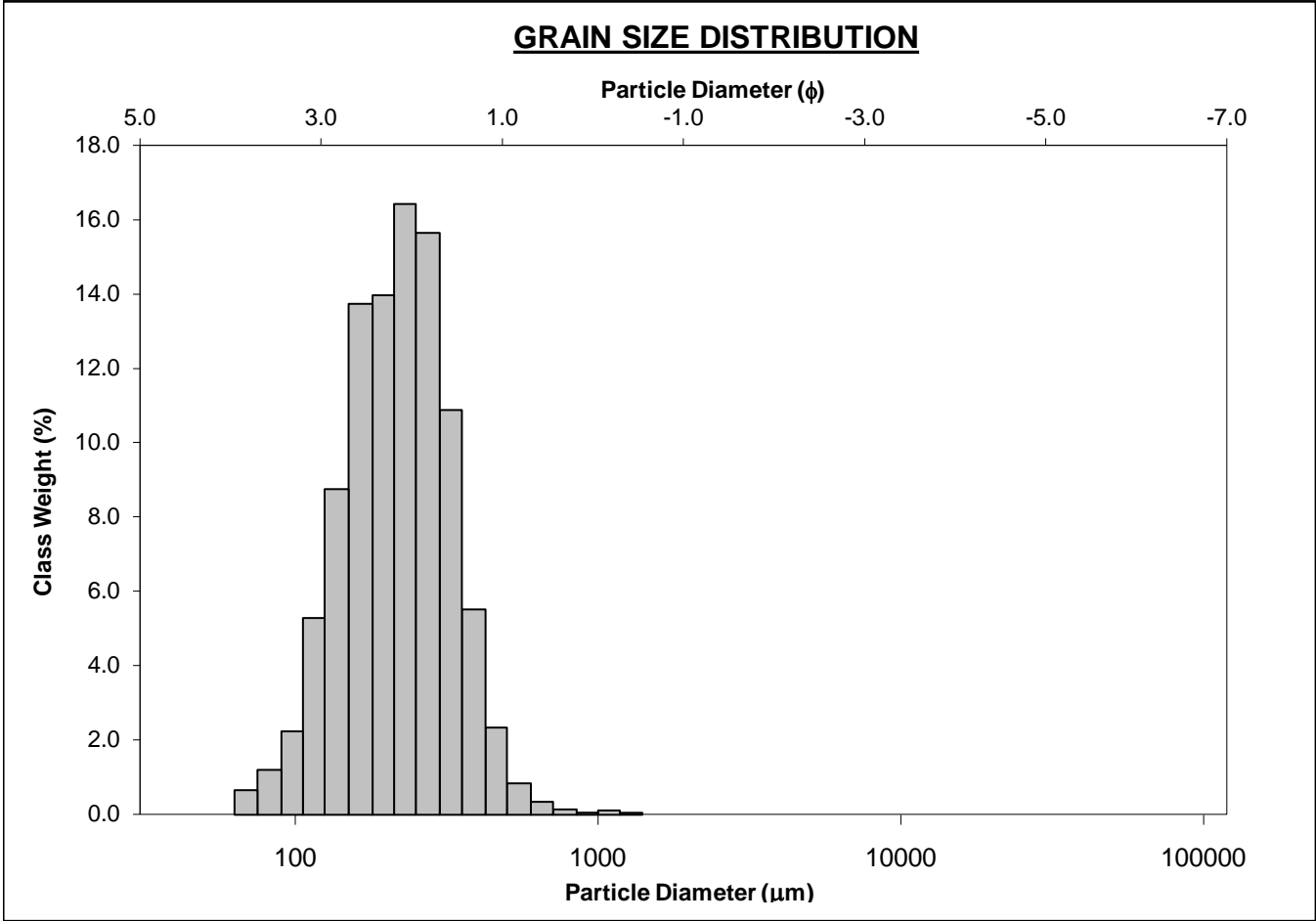
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-110cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 3.7%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 45.1%	
MODE 3:			MUD: 0.3%		FINE SAND: 46.0%	
D ₁₀ :	144.6	1.265			V FINE SAND: 4.9%	
MEDIAN or D ₅₀ :	247.0	2.018	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	416.1	2.790	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.877	2.205	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	271.5	1.525	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.789	1.522	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	144.8	0.839	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	268.3	243.8	2.036	245.9	2.024	Fine Sand
SORTING (σ):	117.0	1.569	0.650	1.516	0.600	Moderately Well Sorted
SKEWNESS (Sk):	1.633	-1.187	1.187	-0.016	0.016	Symmetrical
KURTOSIS (K):	10.86	11.50	11.50	0.955	0.955	Mesokurtic



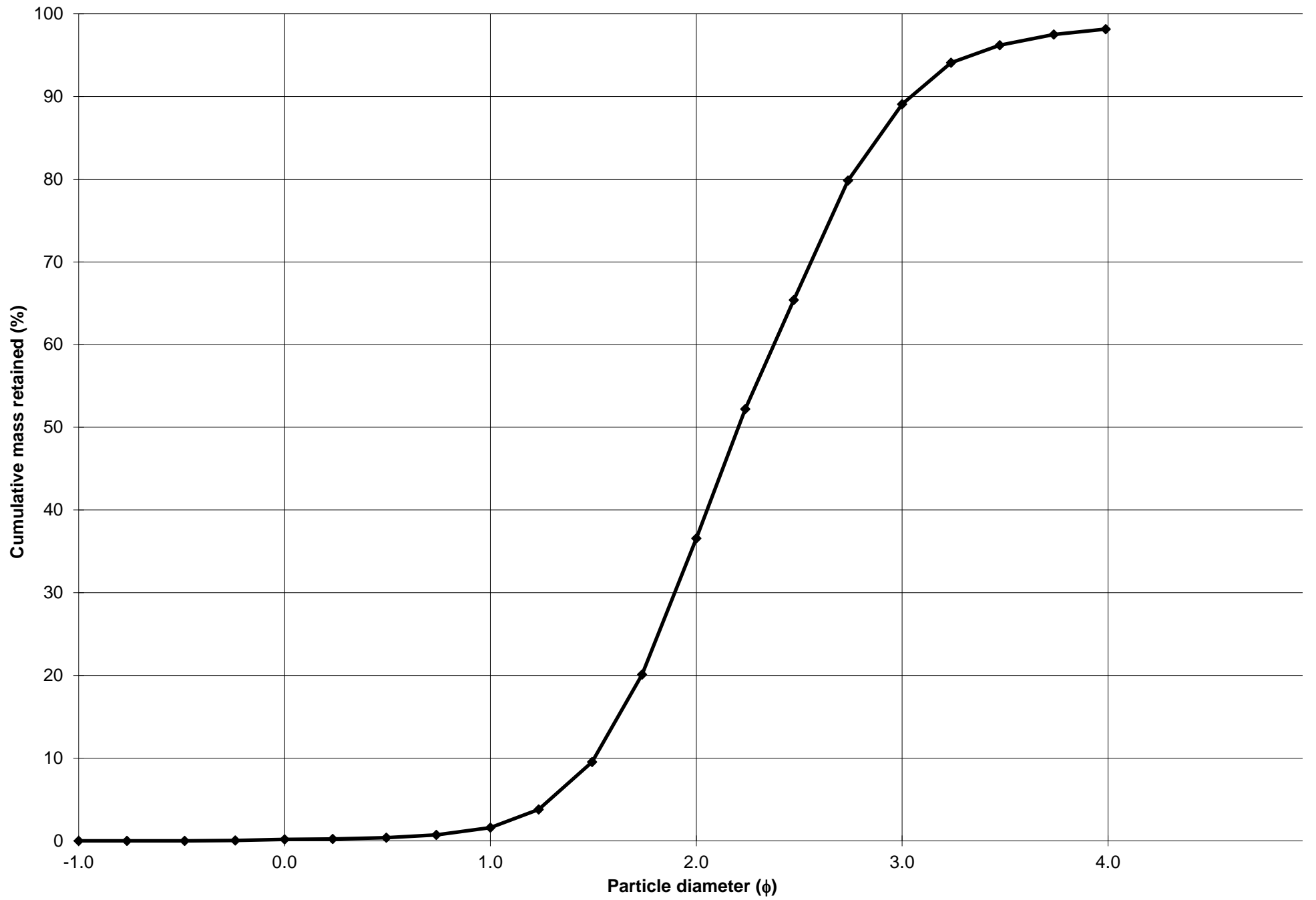
Cumulative Frequency Curve



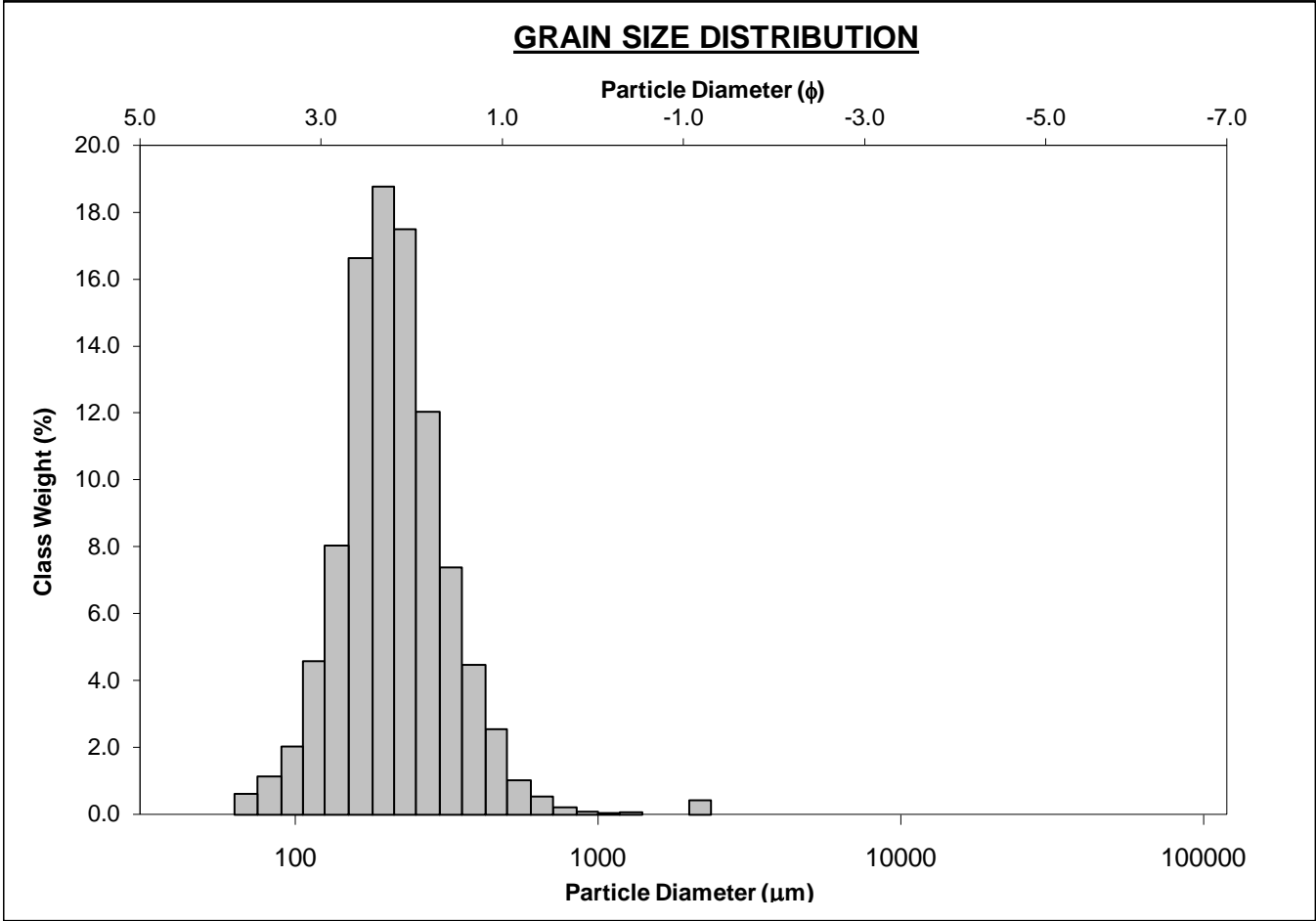
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-120cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 1.4%	
MODE 2:			SAND: 98.2%		MEDIUM SAND: 35.0%	
MODE 3:			MUD: 1.8%		FINE SAND: 52.5%	
D ₁₀ :	121.2	1.505			V FINE SAND: 9.1%	
MEDIAN or D ₅₀ :	217.0	2.204	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.3%	
D ₉₀ :	352.4	3.045	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D ₉₀ / D ₁₀):	2.907	2.023	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
(D ₉₀ - D ₁₀):	231.2	1.540	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D ₇₅ / D ₂₅):	1.782	1.459	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
(D ₇₅ - D ₂₅):	124.7	0.834	V COARSE SAND: 0.2%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	231.6	202.6	2.303	212.5	2.234	Fine Sand
SORTING (σ):	106.9	1.830	0.872	1.530	0.614	Moderately Well Sorted
SKEWNESS (Sk):	2.008	-2.747	2.747	-0.090	0.090	Symmetrical
KURTOSIS (K):	14.71	16.25	16.25	1.008	1.008	Mesokurtic



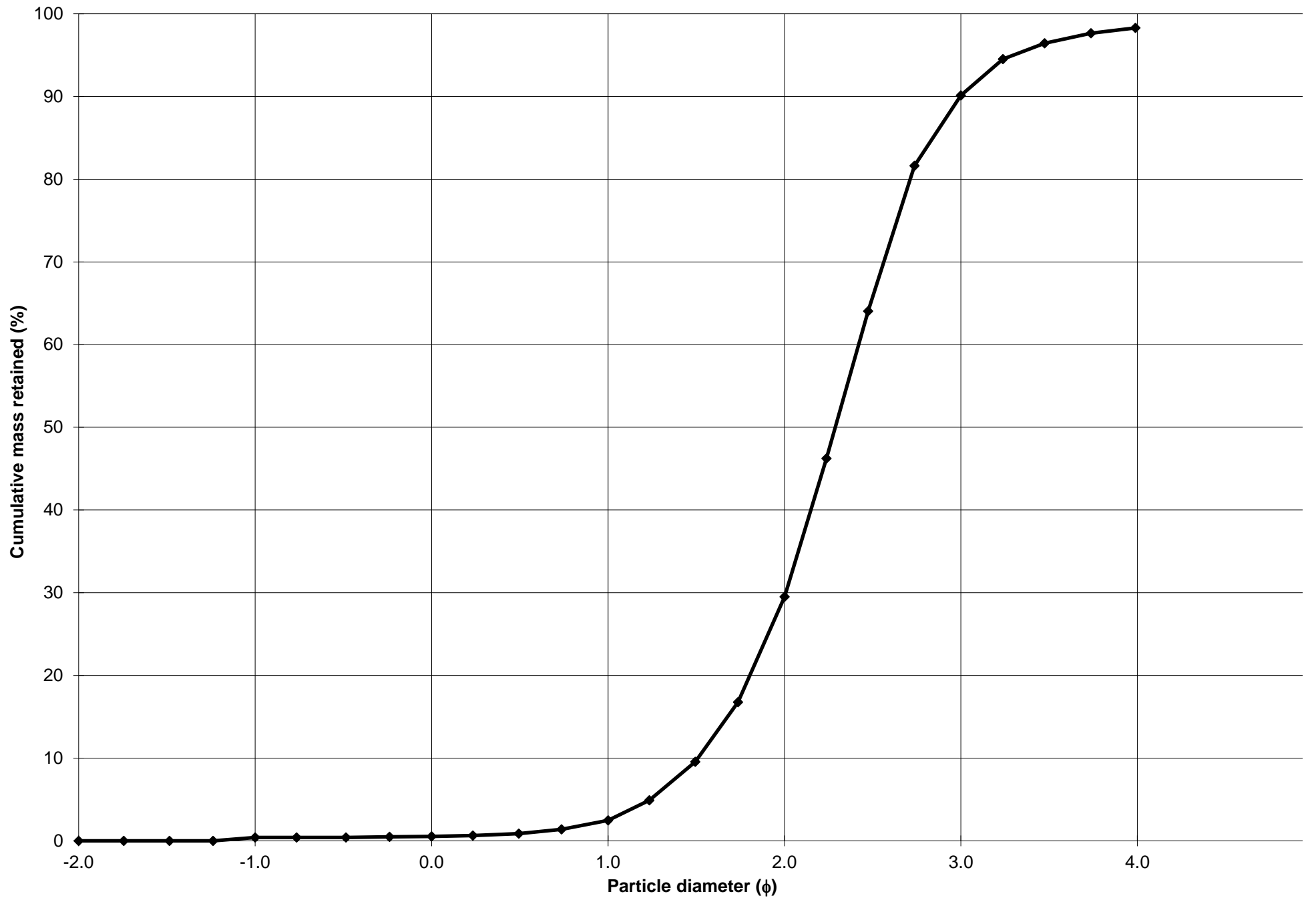
Cumulative Frequency Curve



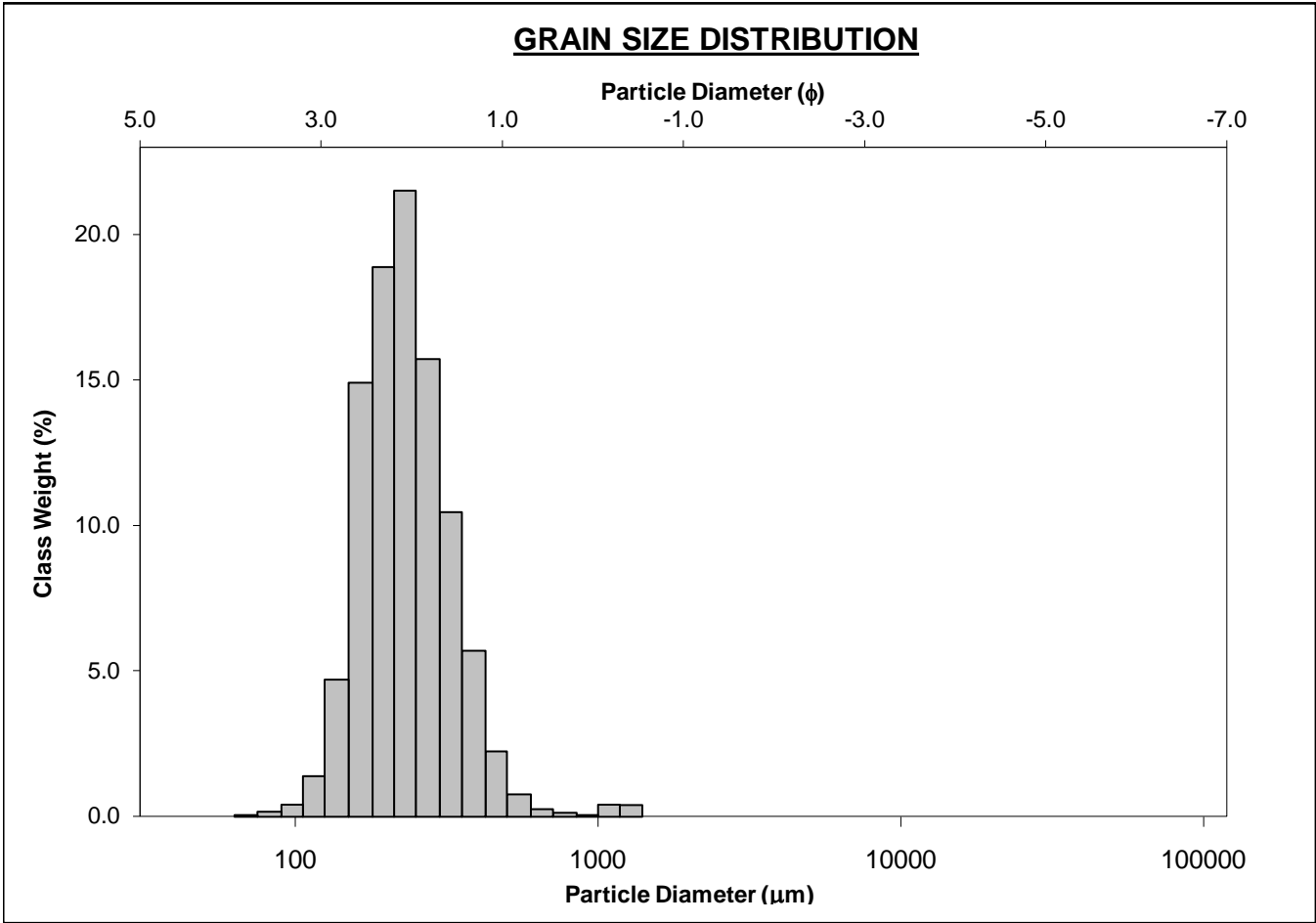
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-130cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.4%		COARSE SAND: 1.9%	
MODE 2:			SAND: 97.9%		MEDIUM SAND: 27.0%	
MODE 3:			MUD: 1.7%		FINE SAND: 60.6%	
D ₁₀ :	125.3	1.509			V FINE SAND: 8.2%	
MEDIAN or D ₅₀ :	204.8	2.288	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.3%	
D ₉₀ :	351.4	2.996	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D ₉₀ / D ₁₀):	2.804	1.986	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
(D ₉₀ - D ₁₀):	226.1	1.488	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D ₇₅ / D ₂₅):	1.660	1.383	V FINE GRAVEL: 0.4%		V FINE SILT: 0.3%	
(D ₇₅ - D ₂₅):	106.0	0.731	V COARSE SAND: 0.1%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	233.9	200.4	2.319	207.4	2.270	Fine Sand
SORTING (σ):	165.4	1.825	0.868	1.502	0.587	Moderately Well Sorted
SKEWNESS (Sk):	7.368	-2.237	2.237	0.034	-0.034	Symmetrical
KURTOSIS (K):	82.50	16.21	16.21	1.153	1.153	Leptokurtic



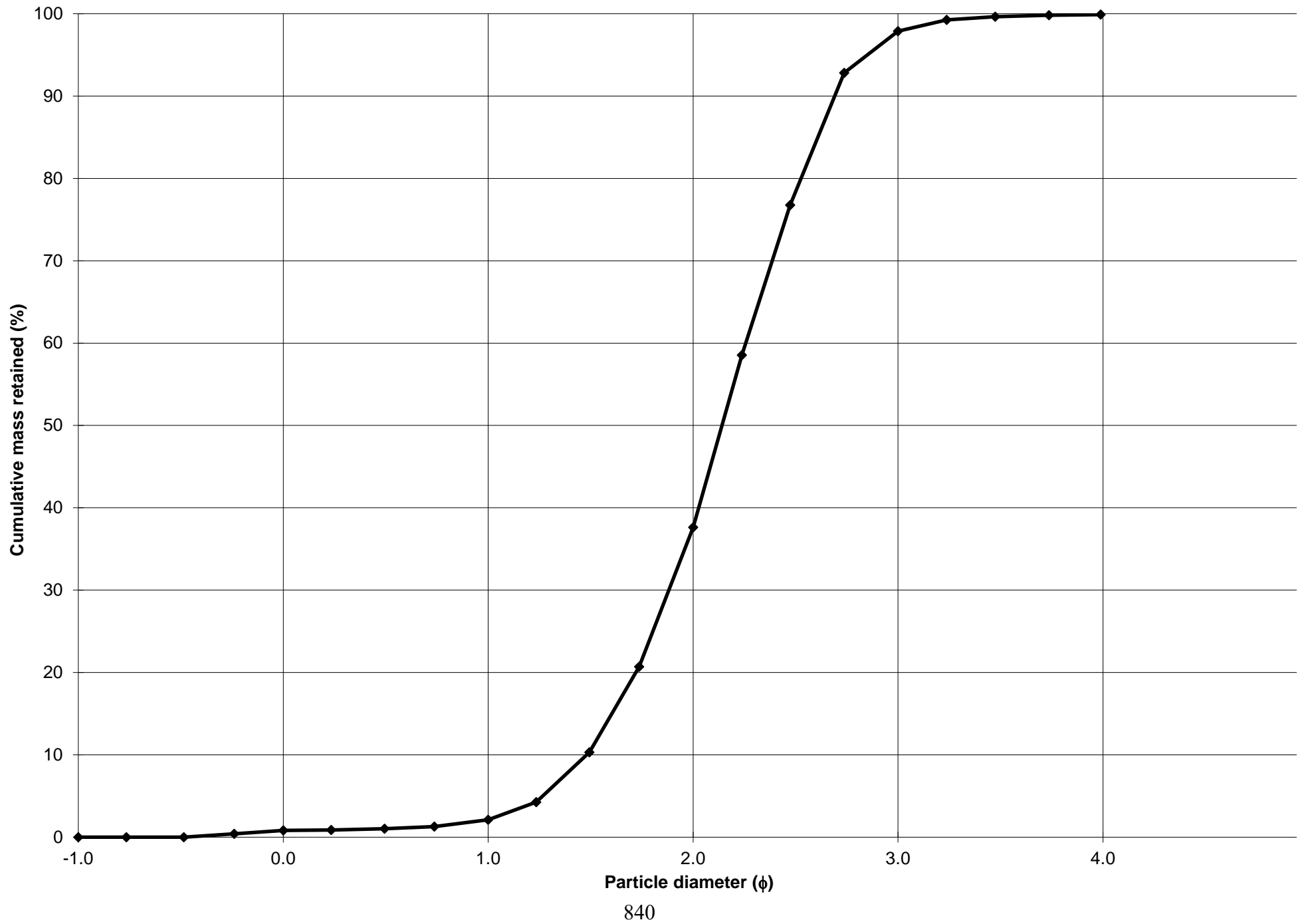
Cumulative Frequency Curve



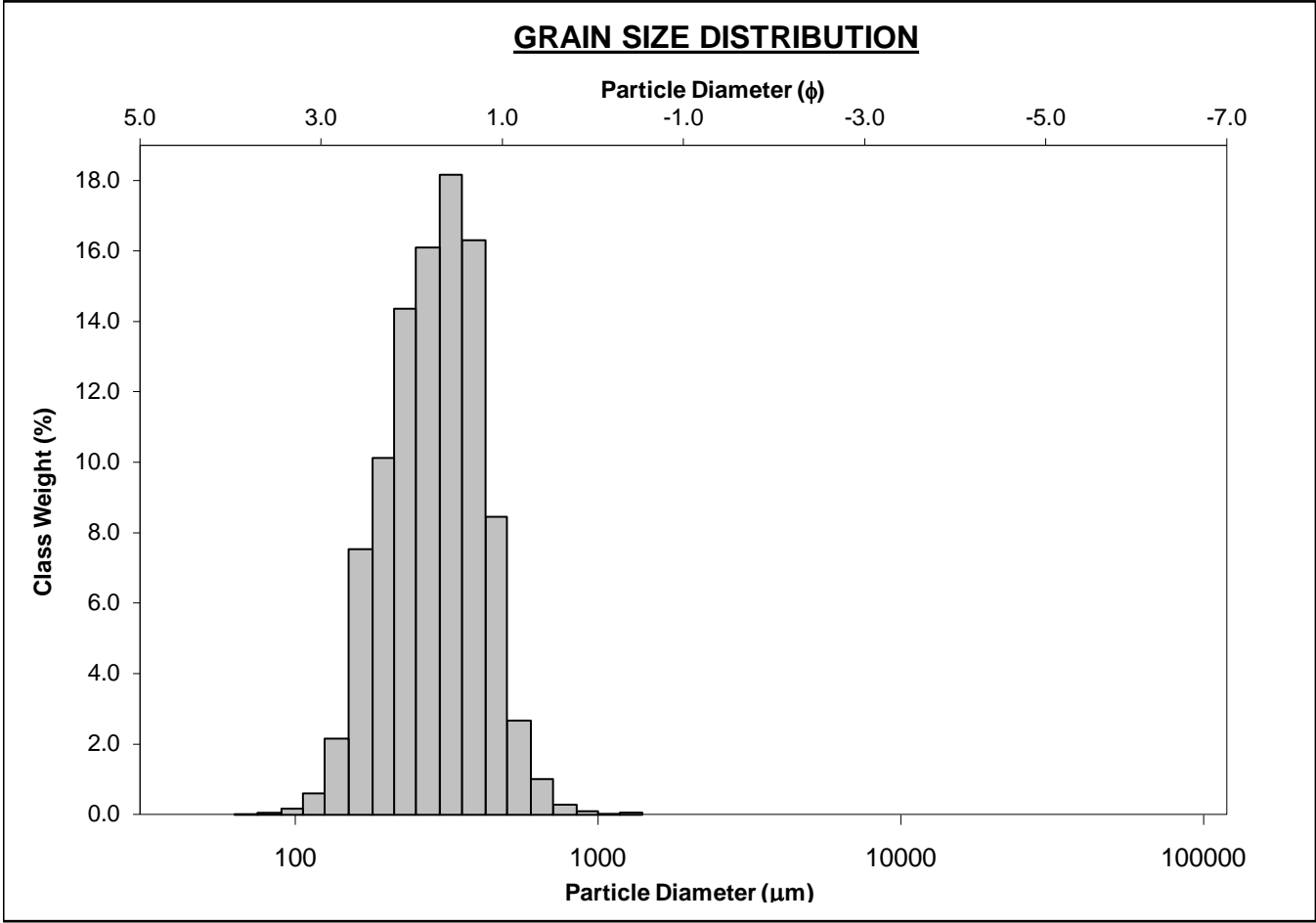
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-140cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 1.3%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 35.5%	
MODE 3:			MUD: 0.1%		FINE SAND: 60.3%	
D ₁₀ :	154.9	1.481			V FINE SAND: 2.0%	
MEDIAN or D ₅₀ :	226.8	2.141	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	358.4	2.691	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.314	1.817	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	203.5	1.210	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.566	1.359	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	103.6	0.647	V COARSE SAND: 0.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	251.4	232.2	2.107	230.0	2.120	Fine Sand
SORTING (σ):	121.9	1.455	0.541	1.396	0.481	Well Sorted
SKEWNESS (Sk):	4.336	-0.012	0.012	0.084	-0.084	Symmetrical
KURTOSIS (K):	32.60	12.22	12.22	1.003	1.003	Mesokurtic



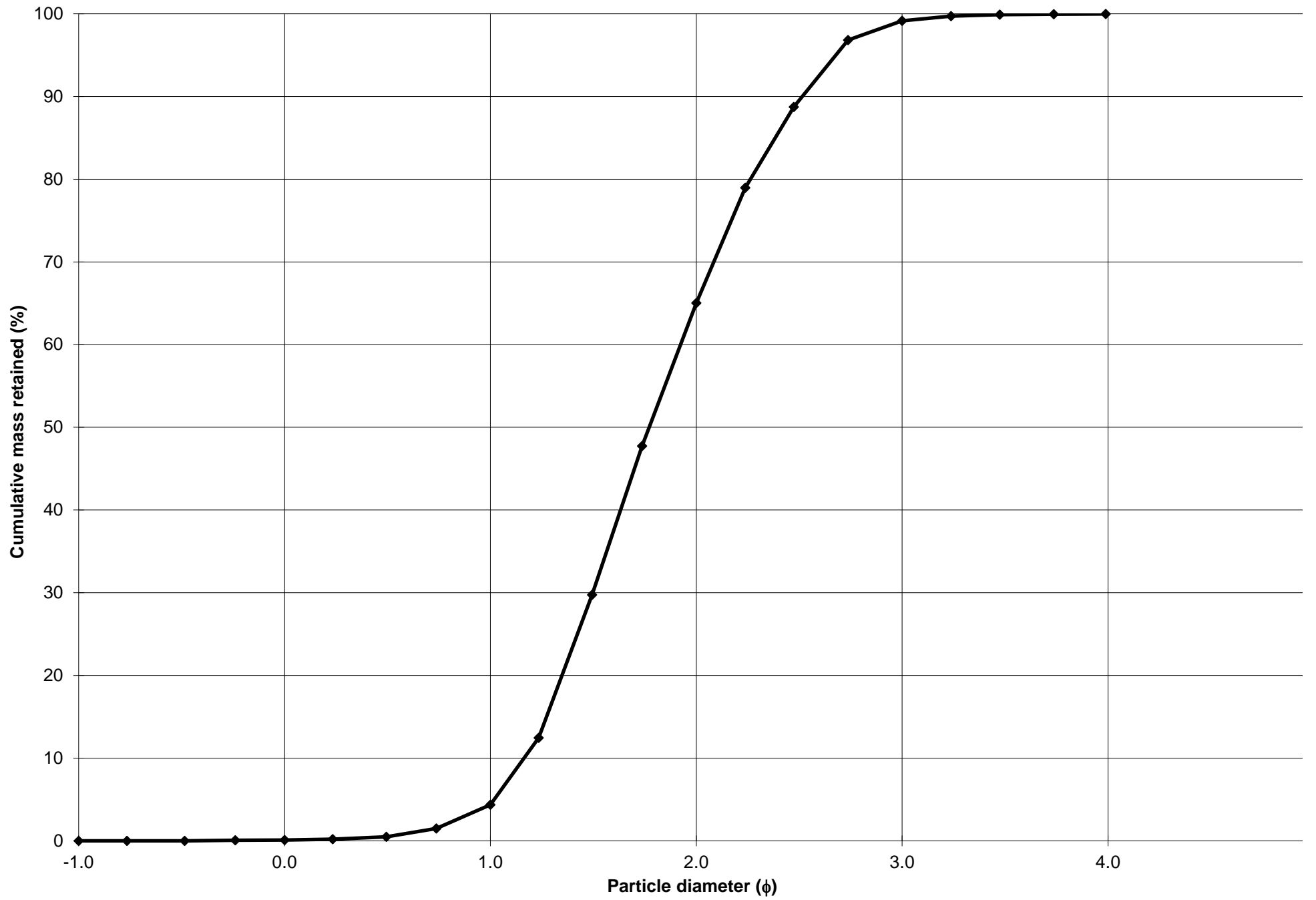
Cumulative Frequency Curve



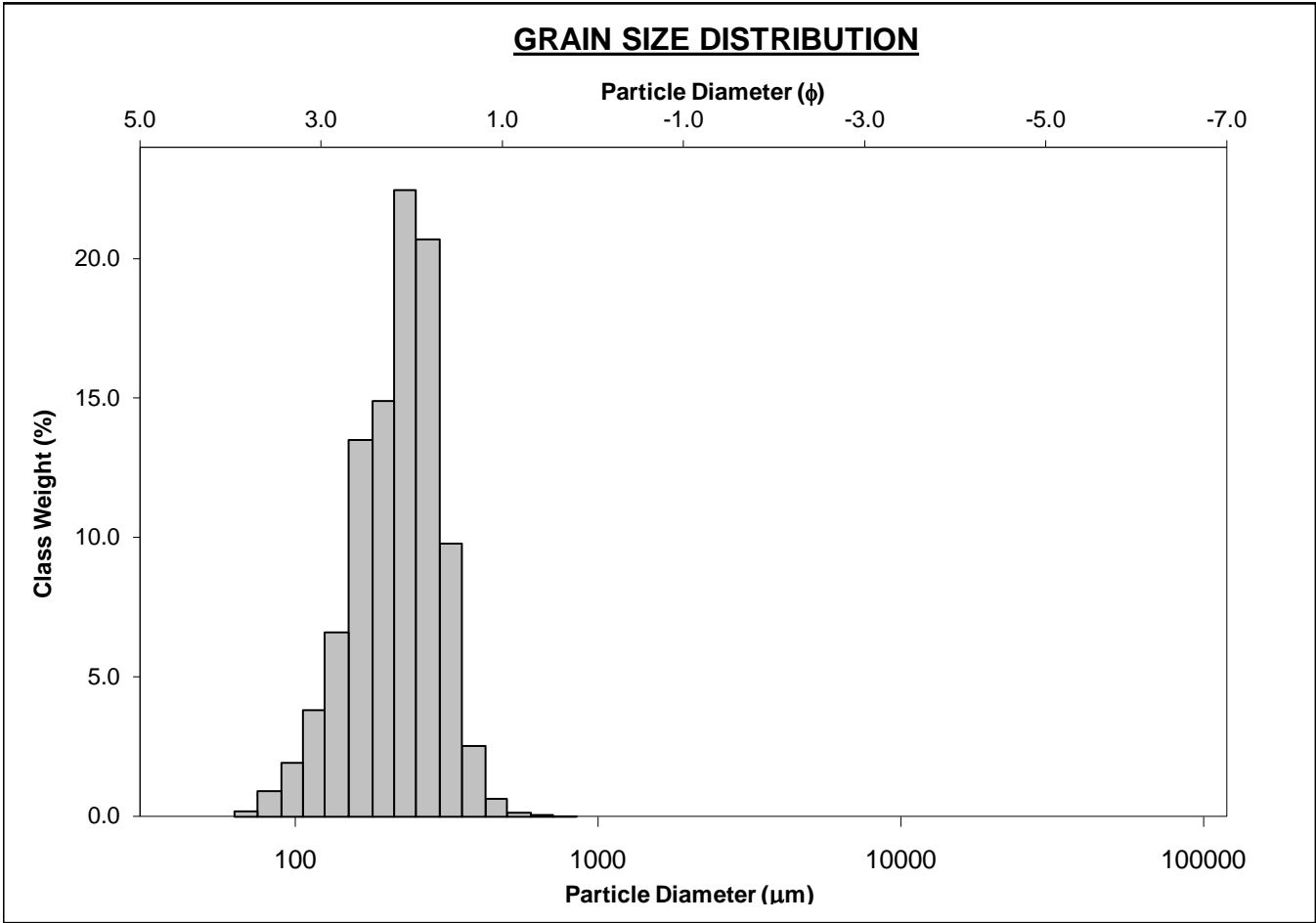
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-150cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 4.3%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 60.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 34.1%	
D ₁₀ :	174.9	1.163			V FINE SAND: 0.8%	
MEDIAN or D ₅₀ :	292.9	1.771	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	446.5	2.516	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.553	2.163	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	271.7	1.352	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.679	1.525	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	150.8	0.747	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	306.9	286.5	1.803	285.9	1.806	Medium Sand
SORTING (σ):	113.1	1.440	0.526	1.433	0.519	Moderately Well Sorted
SKEWNESS (Sk):	1.319	-0.305	0.305	-0.095	0.095	Symmetrical
KURTOSIS (K):	8.388	5.067	5.067	0.910	0.910	Mesokurtic



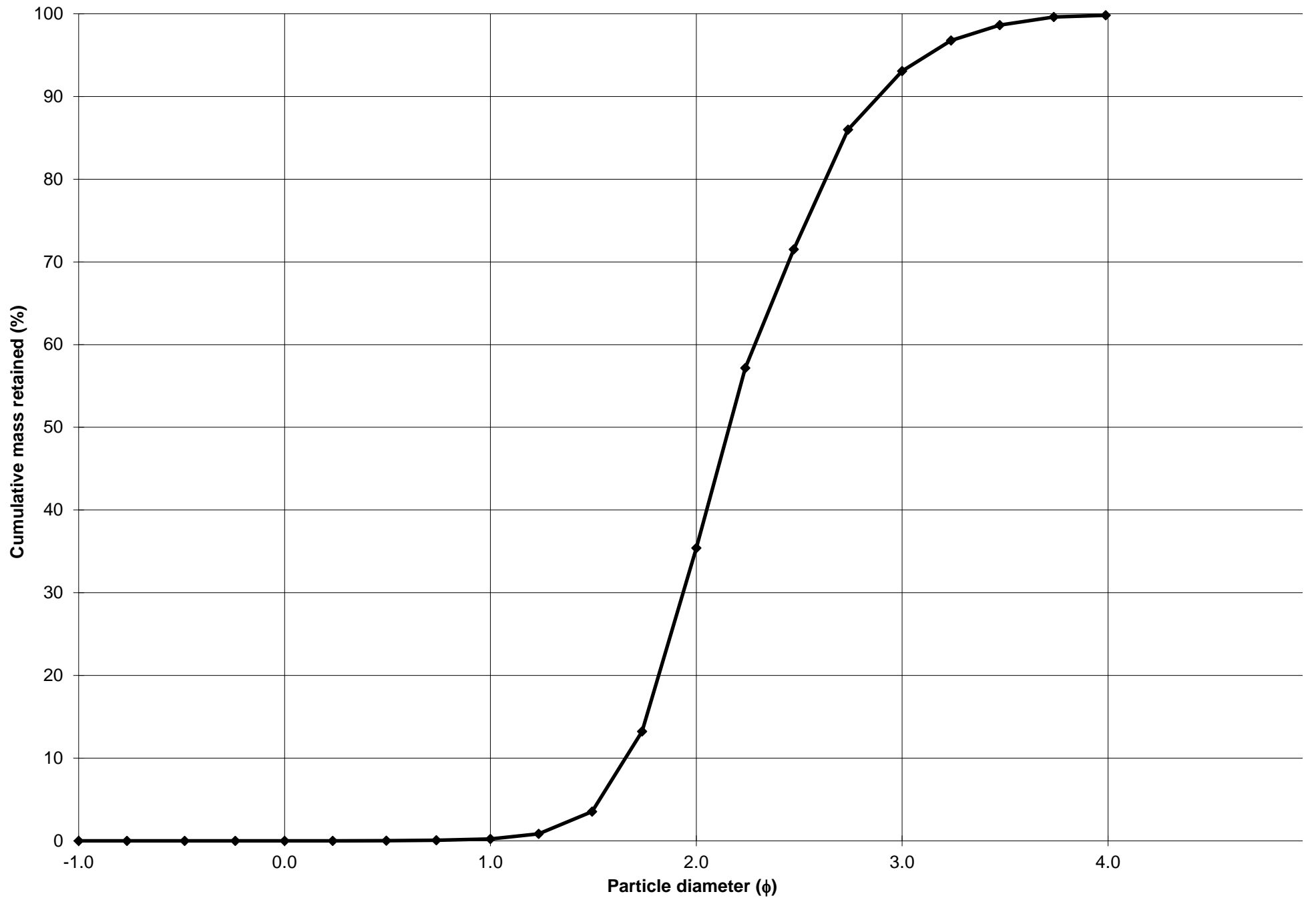
Cumulative Frequency Curve



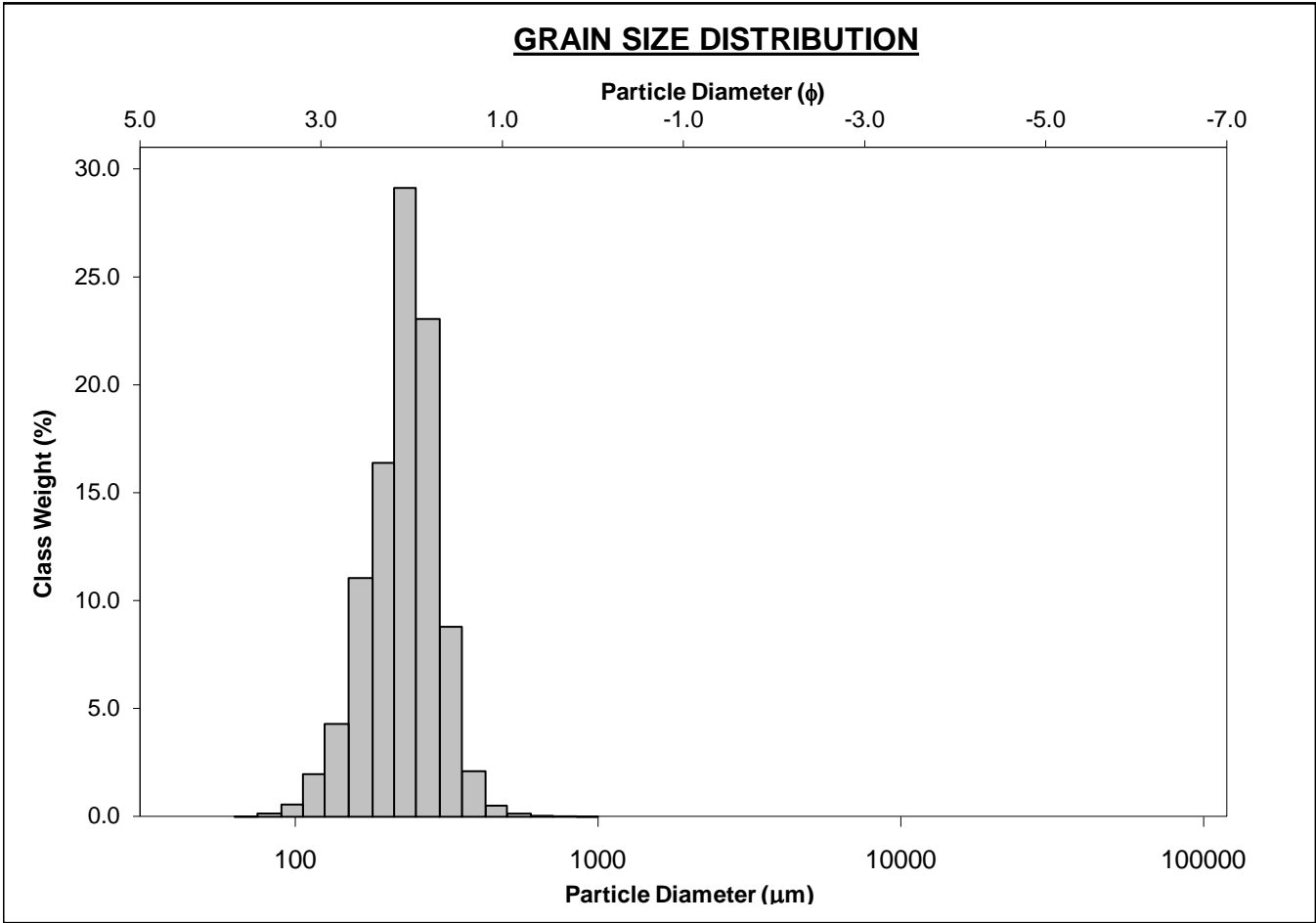
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-160cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.2%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 35.2%	
MODE 3:			MUD: 0.2%		FINE SAND: 57.7%	
D_{10} :	135.3	1.656			V FINE SAND: 6.7%	
MEDIAN or D_{50} :	223.8	2.159	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	317.3	2.886	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.346	1.743	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	182.0	1.230	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.581	1.352	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	100.1	0.661	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	226.6	213.2	2.230	216.1	2.210	Fine Sand
SORTING (σ):	72.34	1.435	0.521	1.389	0.474	Well Sorted
SKEWNESS (Sk):	0.591	-1.738	1.738	-0.187	0.187	Fine Skewed
KURTOSIS (K):	4.693	15.20	15.20	0.988	0.988	Mesokurtic



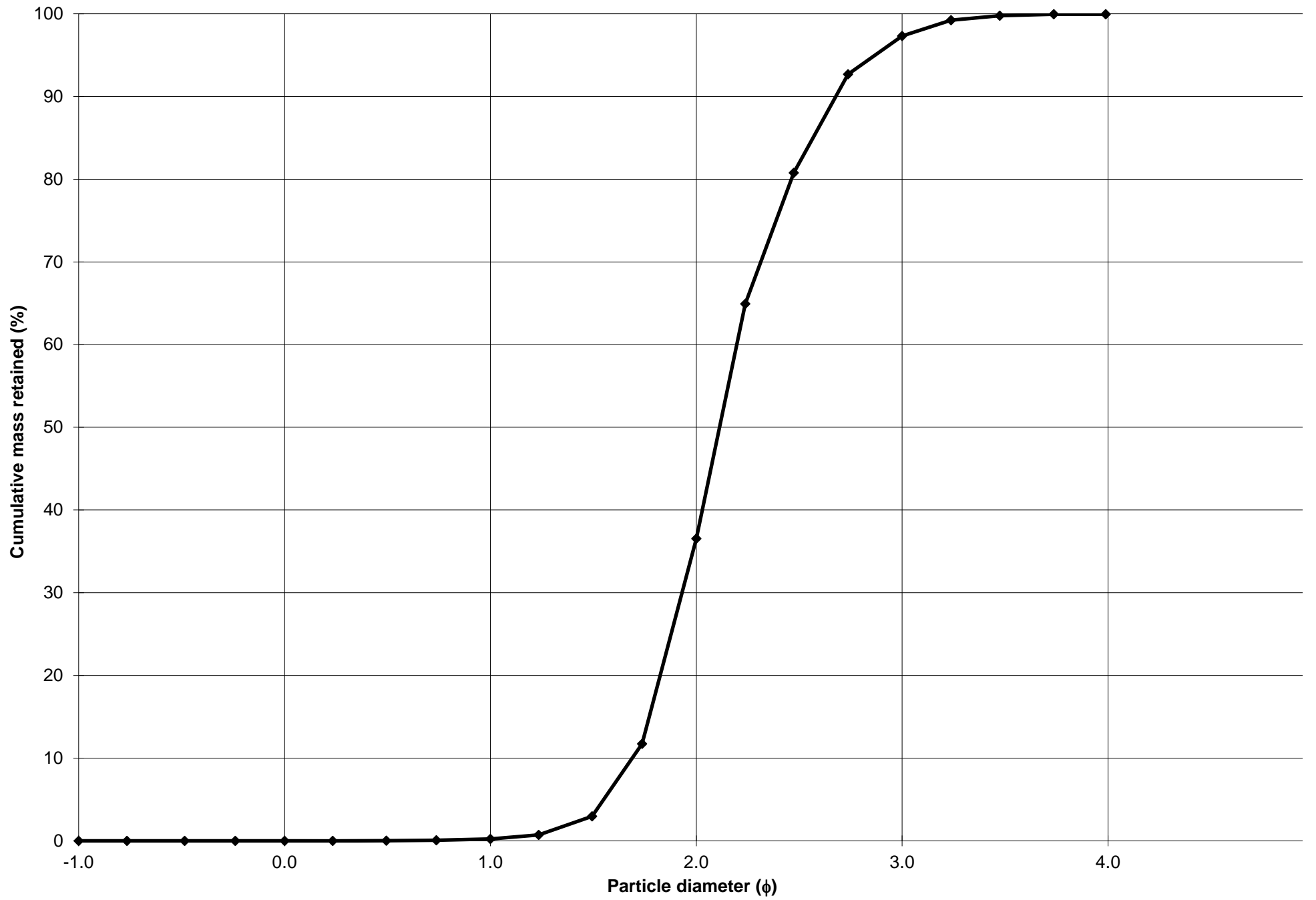
Cumulative Frequency Curve



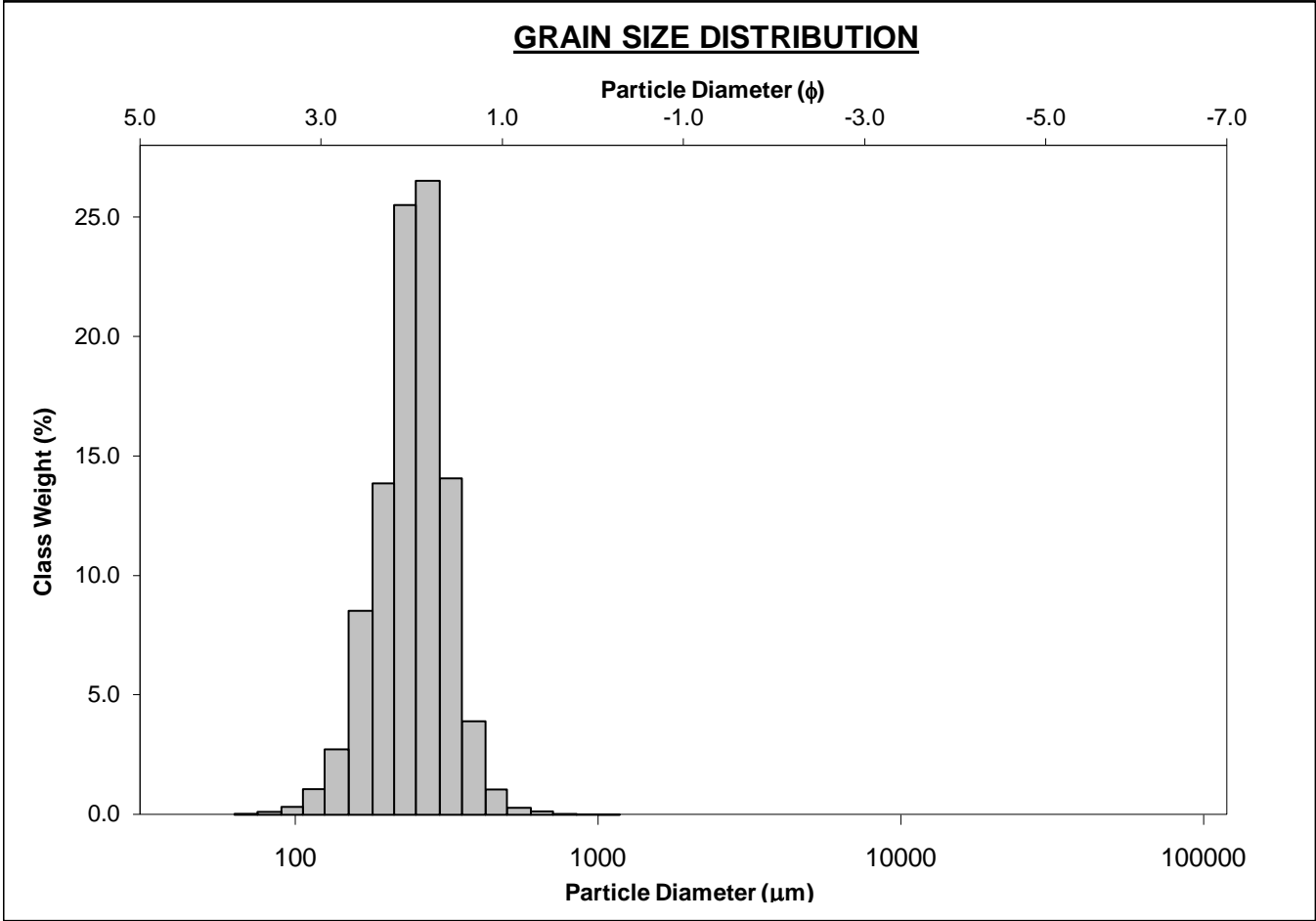
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-170cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.2%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 36.3%	
MODE 3:			MUD: 0.0%		FINE SAND: 60.8%	
D ₁₀ :	156.3	1.689			V FINE SAND: 2.6%	
MEDIAN or D ₅₀ :	231.2	2.113	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	310.1	2.678	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.984	1.585	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	153.8	0.989	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.424	1.272	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	81.09	0.510	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	234.9	225.5	2.149	225.8	2.147	Fine Sand
SORTING (σ):	63.10	1.326	0.407	1.311	0.391	Well Sorted
SKEWNESS (Sk):	0.861	-1.148	1.148	-0.140	0.140	Fine Skewed
KURTOSIS (K):	6.991	13.16	13.16	1.059	1.059	Mesokurtic



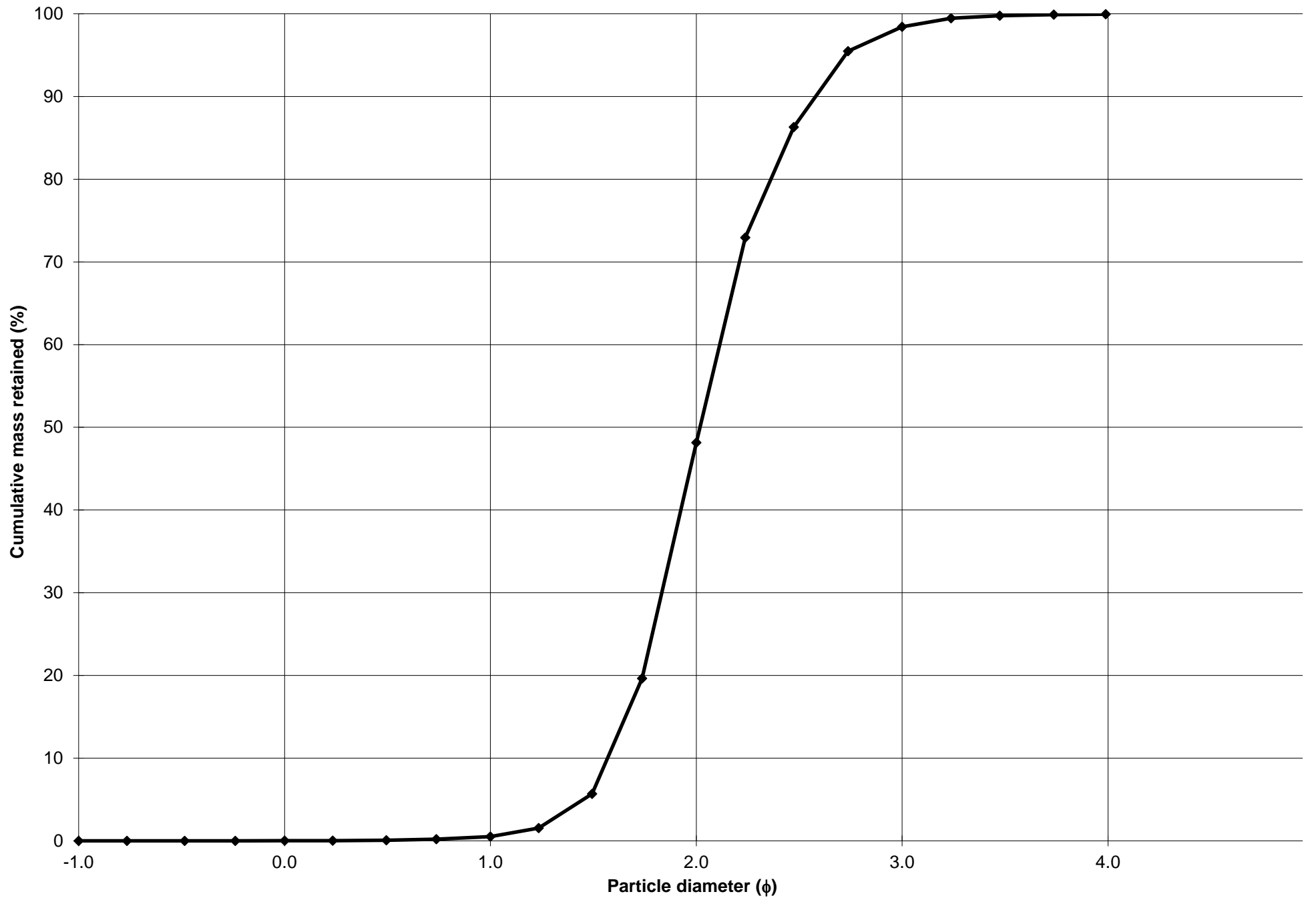
Cumulative Frequency Curve



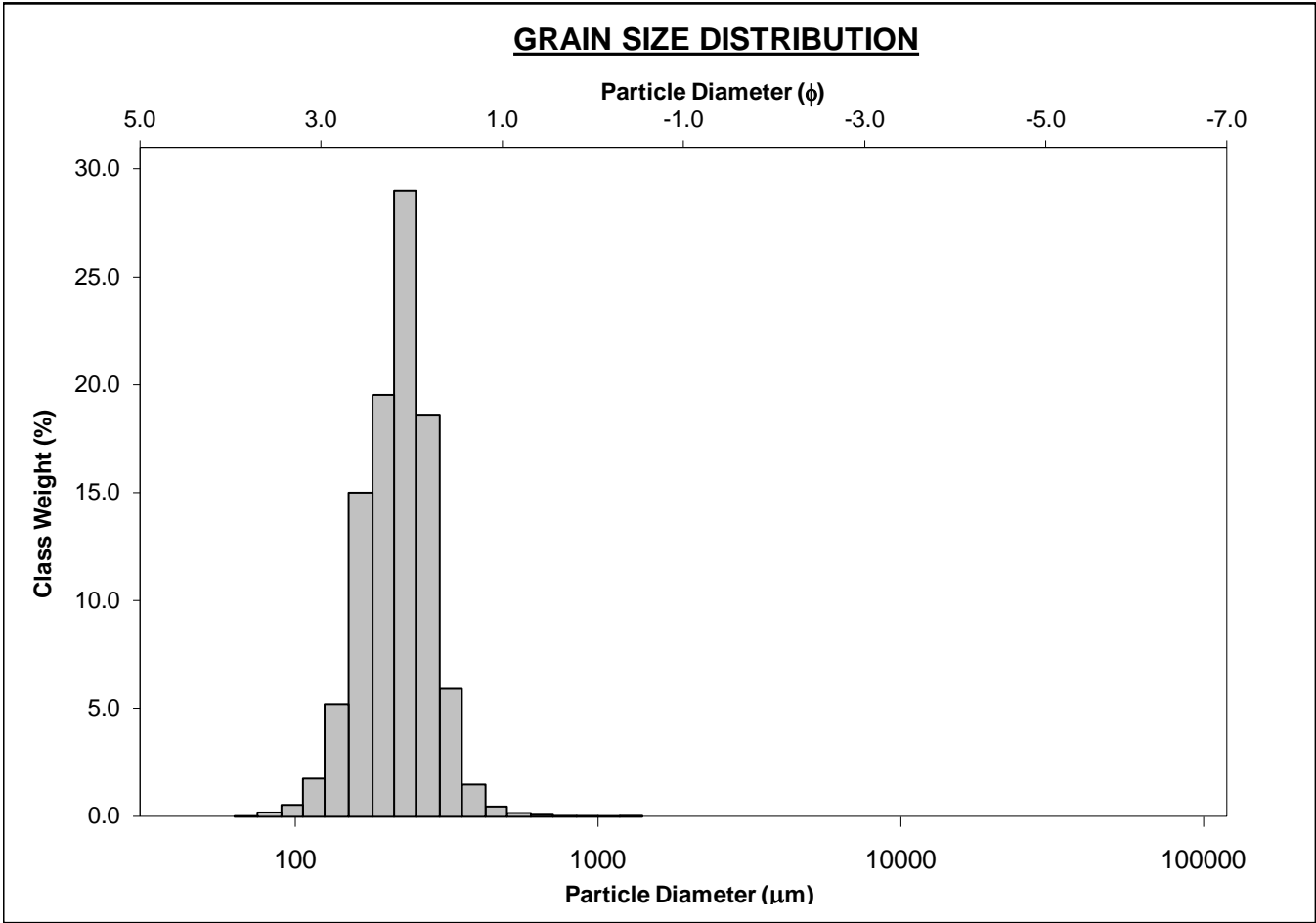
SIEVING ERROR: 0.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-180cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 0.5%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 47.6%			
MODE 3:			MUD: 0.1% FINE SAND: 50.3%			
D ₁₀ :	167.2	1.569	V FINE SAND: 1.5%			
MEDIAN or D ₅₀ :	246.9	2.018	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	337.0	2.580	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.015	1.644	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	169.8	1.011	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.403	1.273	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	83.20	0.488	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	252.5	242.1	2.047	242.9	2.042	Fine Sand
SORTING (σ):	69.90	1.330	0.412	1.304	0.383	Well Sorted
SKEWNESS (Sk):	1.191	-1.136	1.136	-0.102	0.102	Fine Skewed
KURTOSIS (K):	9.436	14.23	14.23	1.068	1.068	Mesokurtic



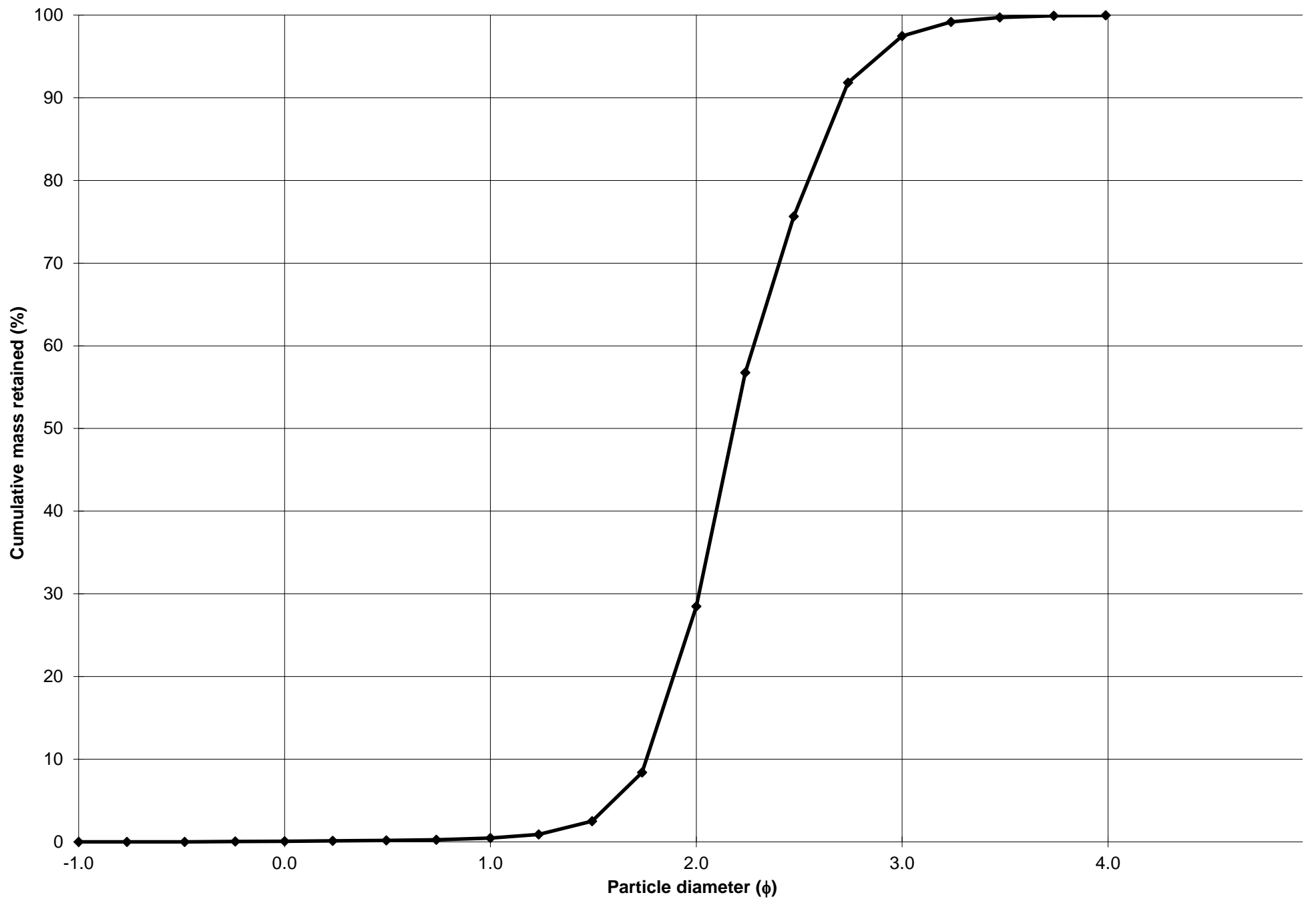
Cumulative Frequency Curve



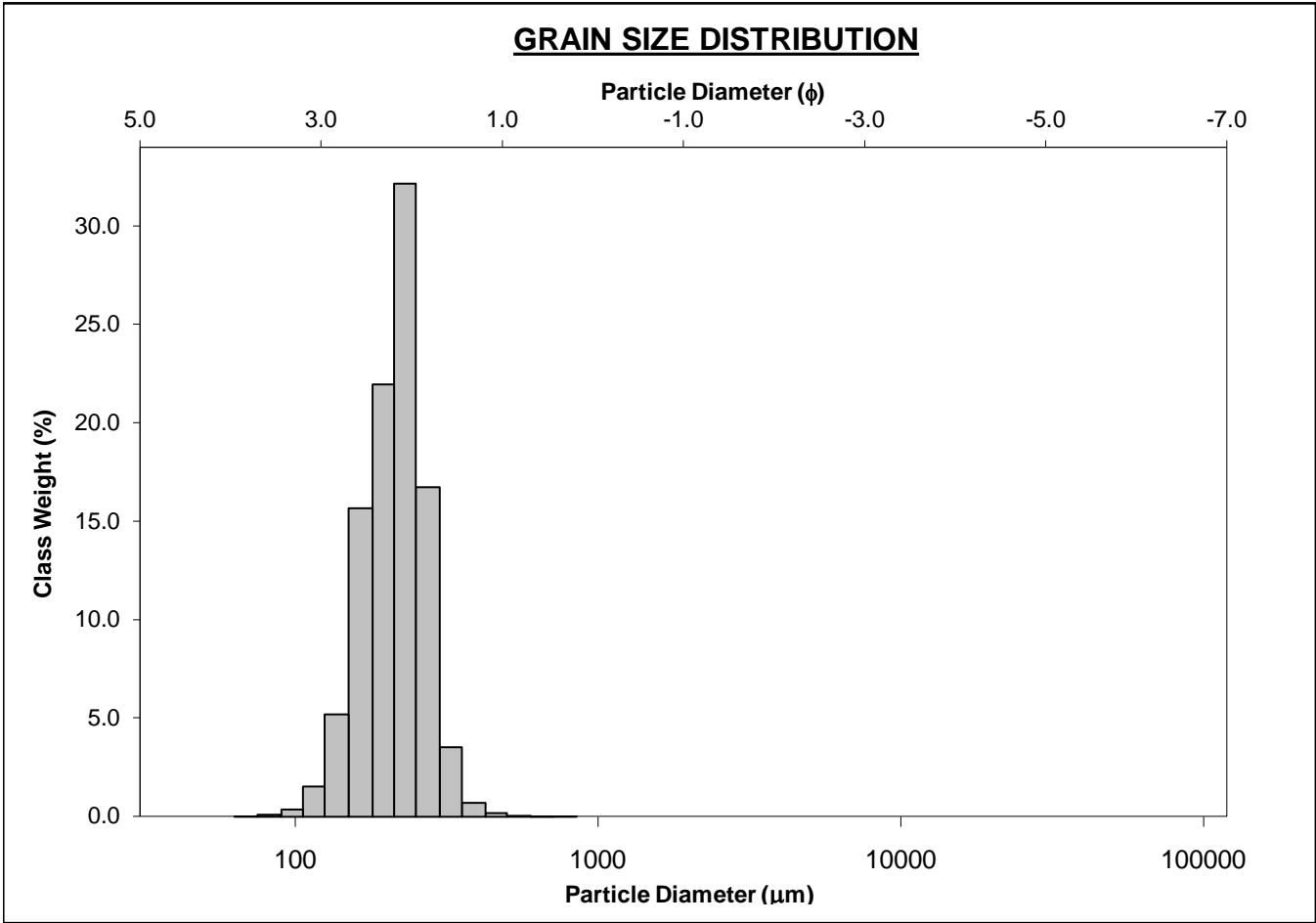
SIEVING ERROR: 0.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-190cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0% COARSE SAND: 0.4%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 28.0%			
MODE 3:			MUD: 0.0% FINE SAND: 69.0%			
D ₁₀ :	153.1	1.758	V FINE SAND: 2.5%			
MEDIAN or D ₅₀ :	220.5	2.181	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	295.7	2.707	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.931	1.540	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	142.5	0.949	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.425	1.262	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	76.99	0.511	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	225.8	216.1	2.210	216.3	2.209	Fine Sand
SORTING (σ):	69.77	1.326	0.407	1.309	0.388	Well Sorted
SKEWNESS (Sk):	3.672	-0.447	0.447	-0.101	0.101	Fine Skewed
KURTOSIS (K):	43.96	11.40	11.40	1.032	1.032	Mesokurtic



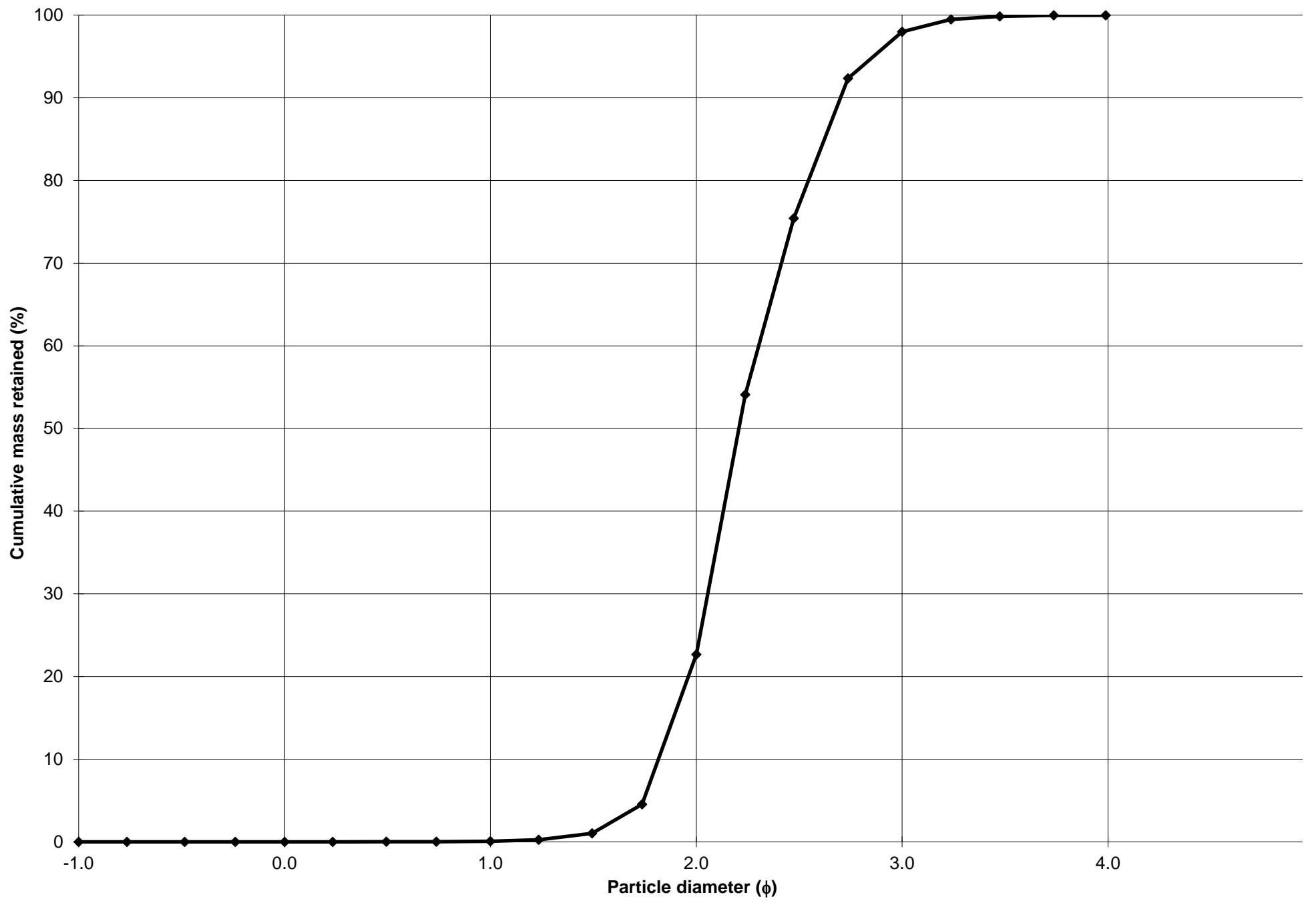
Cumulative Frequency Curve



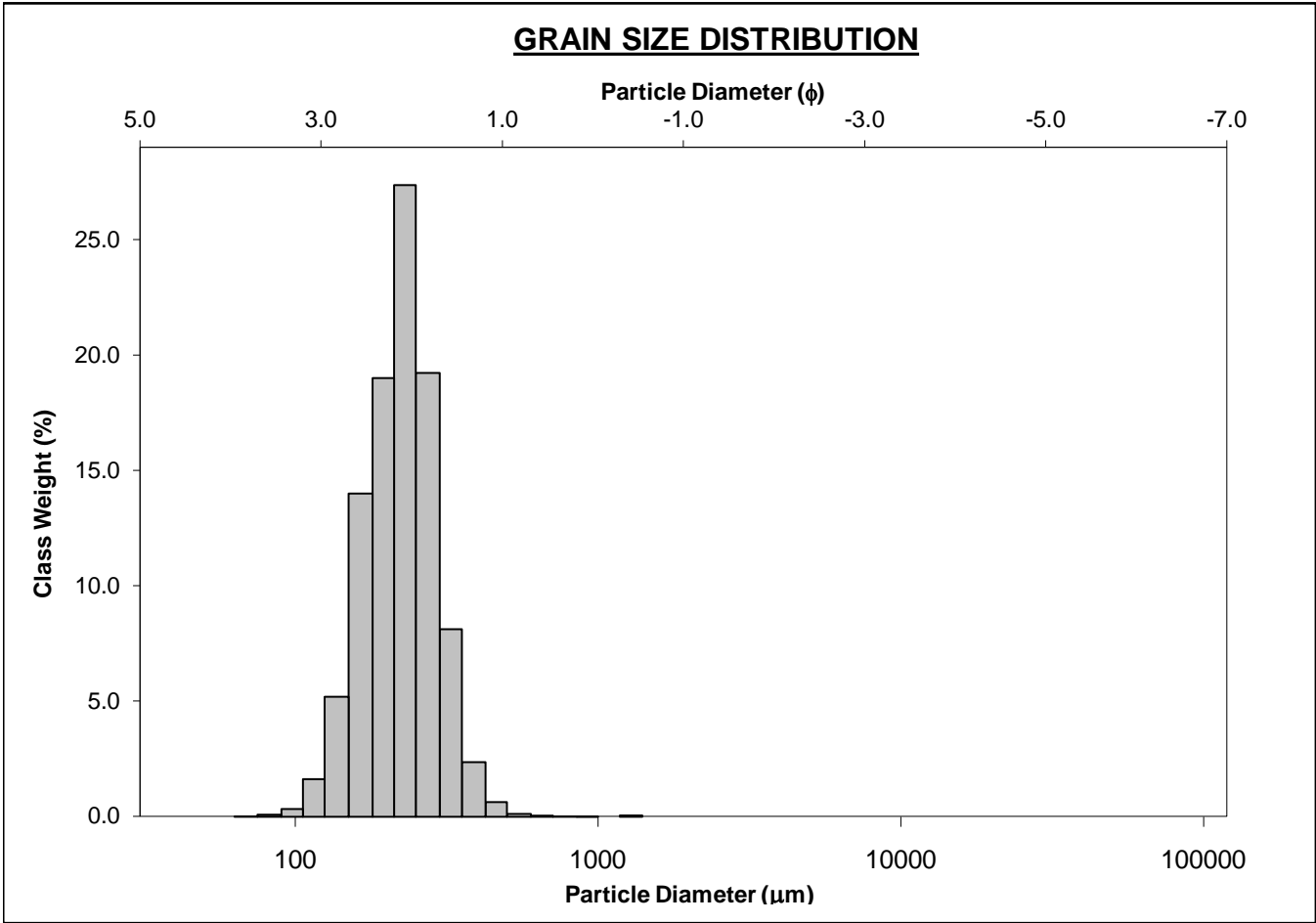
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-200cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.1%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 22.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 75.3%	
D_{10} :	153.9	1.816			V FINE SAND: 2.0%	
MEDIAN or D_{50} :	216.6	2.207	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	284.0	2.700	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	1.846	1.487	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	130.1	0.884	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.368	1.224	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	66.37	0.452	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	218.0	211.0	2.245	211.8	2.239	Fine Sand
SORTING (σ):	52.16	1.277	0.352	1.270	0.345	Very Well Sorted
SKEWNESS (Sk):	0.876	-0.706	0.706	-0.154	0.154	Fine Skewed
KURTOSIS (K):	7.614	9.666	9.666	1.014	1.014	Mesokurtic



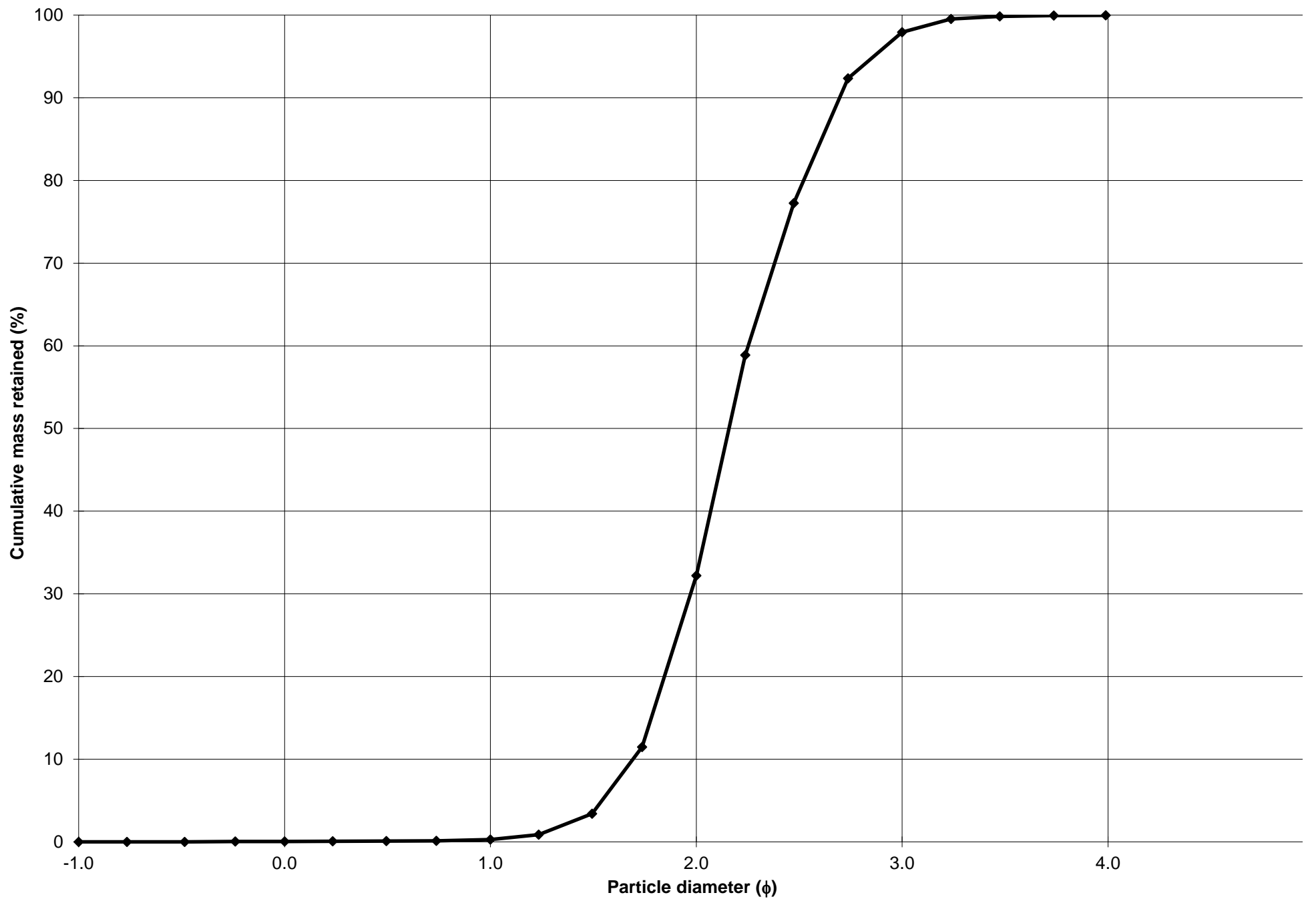
Cumulative Frequency Curve



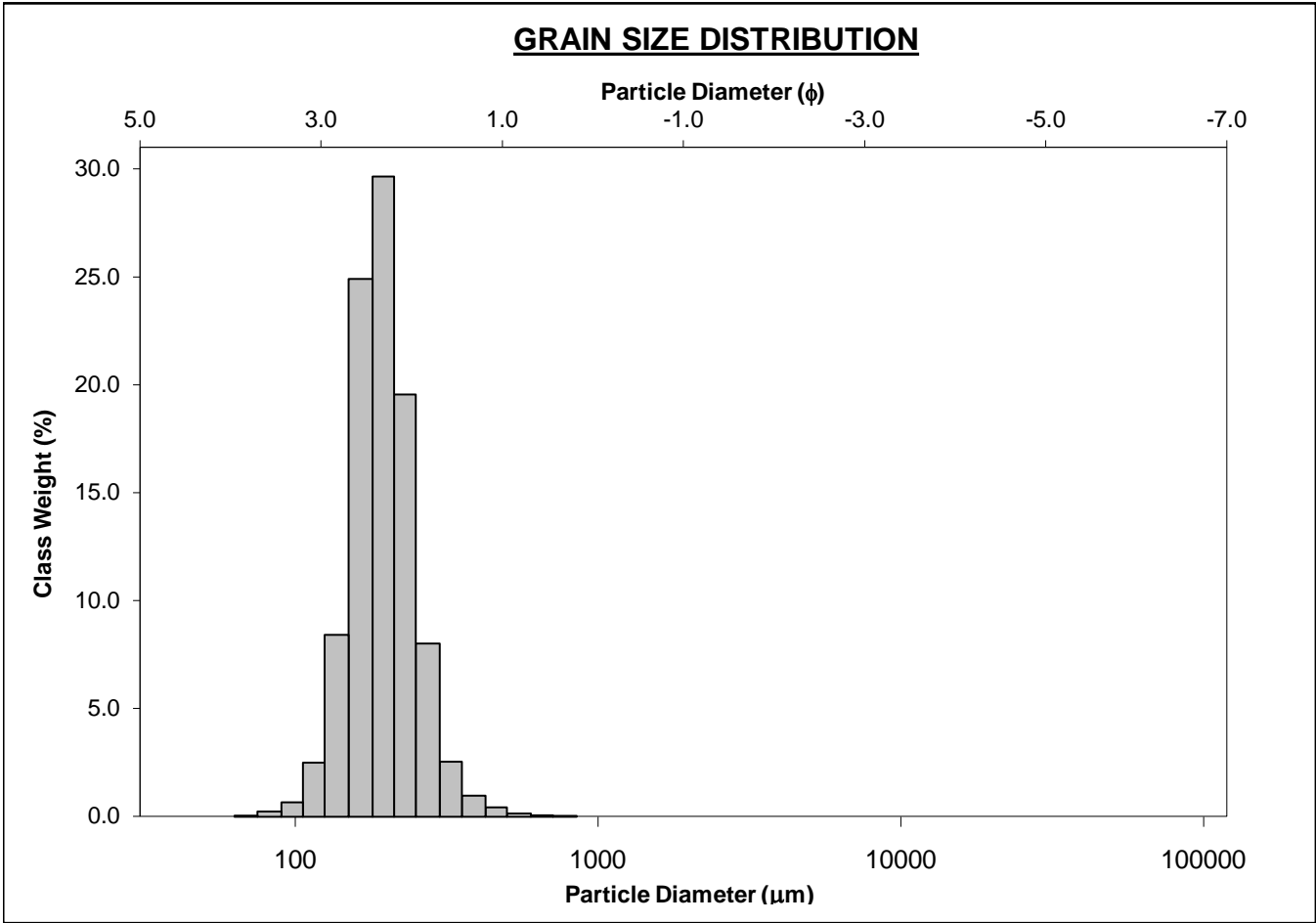
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-210cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.2%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 31.9%	
MODE 3:			MUD: 0.0%		FINE SAND: 65.7%	
D ₁₀ :	154.3	1.692			V FINE SAND: 2.0%	
MEDIAN or D ₅₀ :	223.9	2.159	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	309.4	2.696	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.005	1.593	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	155.1	1.004	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.450	1.281	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	82.72	0.536	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	230.6	220.9	2.179	220.4	2.182	Fine Sand
SORTING (σ):	69.06	1.326	0.407	1.319	0.399	Well Sorted
SKEWNESS (Sk):	2.936	-0.377	0.377	-0.076	0.076	Symmetrical
KURTOSIS (K):	37.45	9.109	9.109	1.008	1.008	Mesokurtic



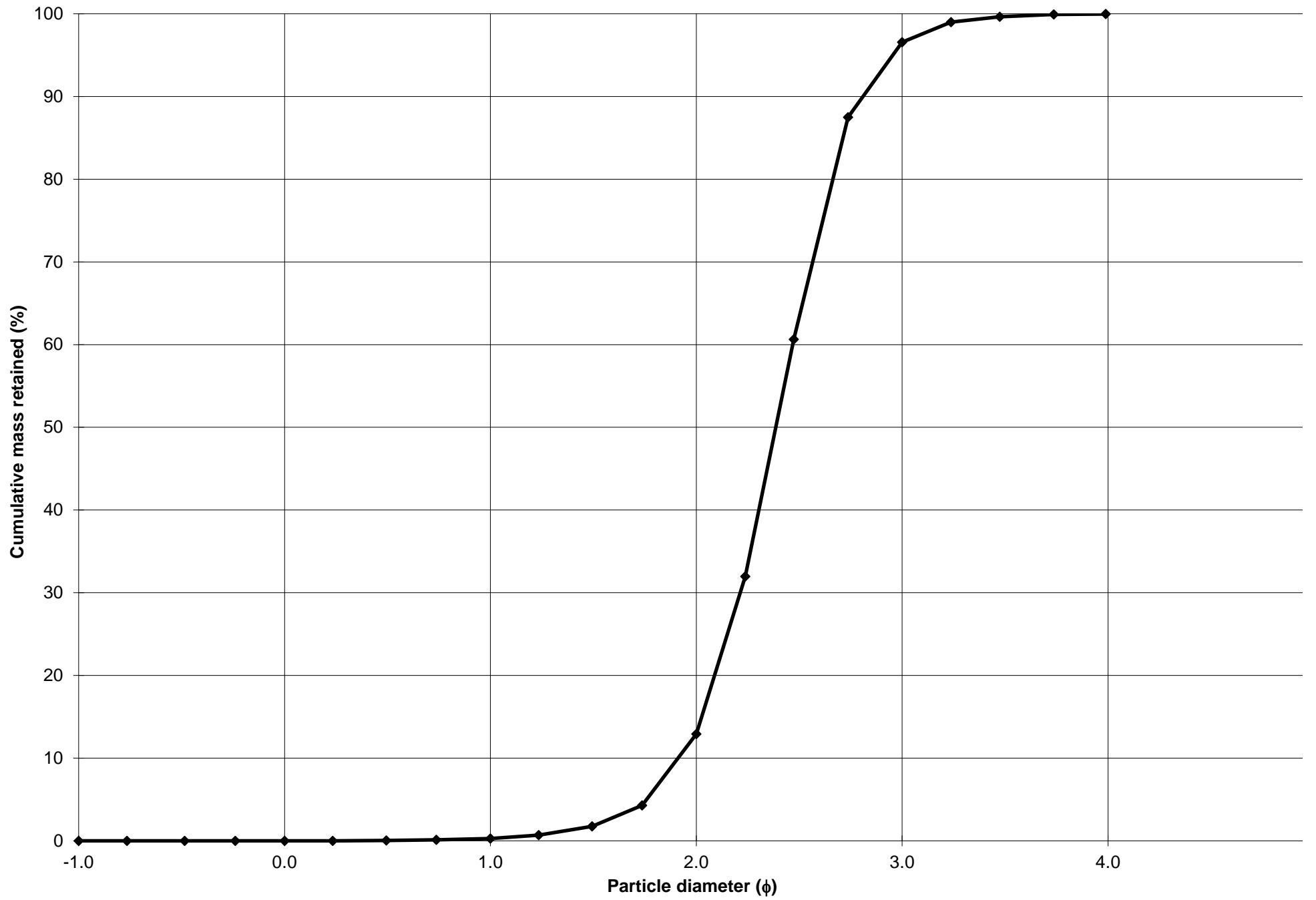
Cumulative Frequency Curve



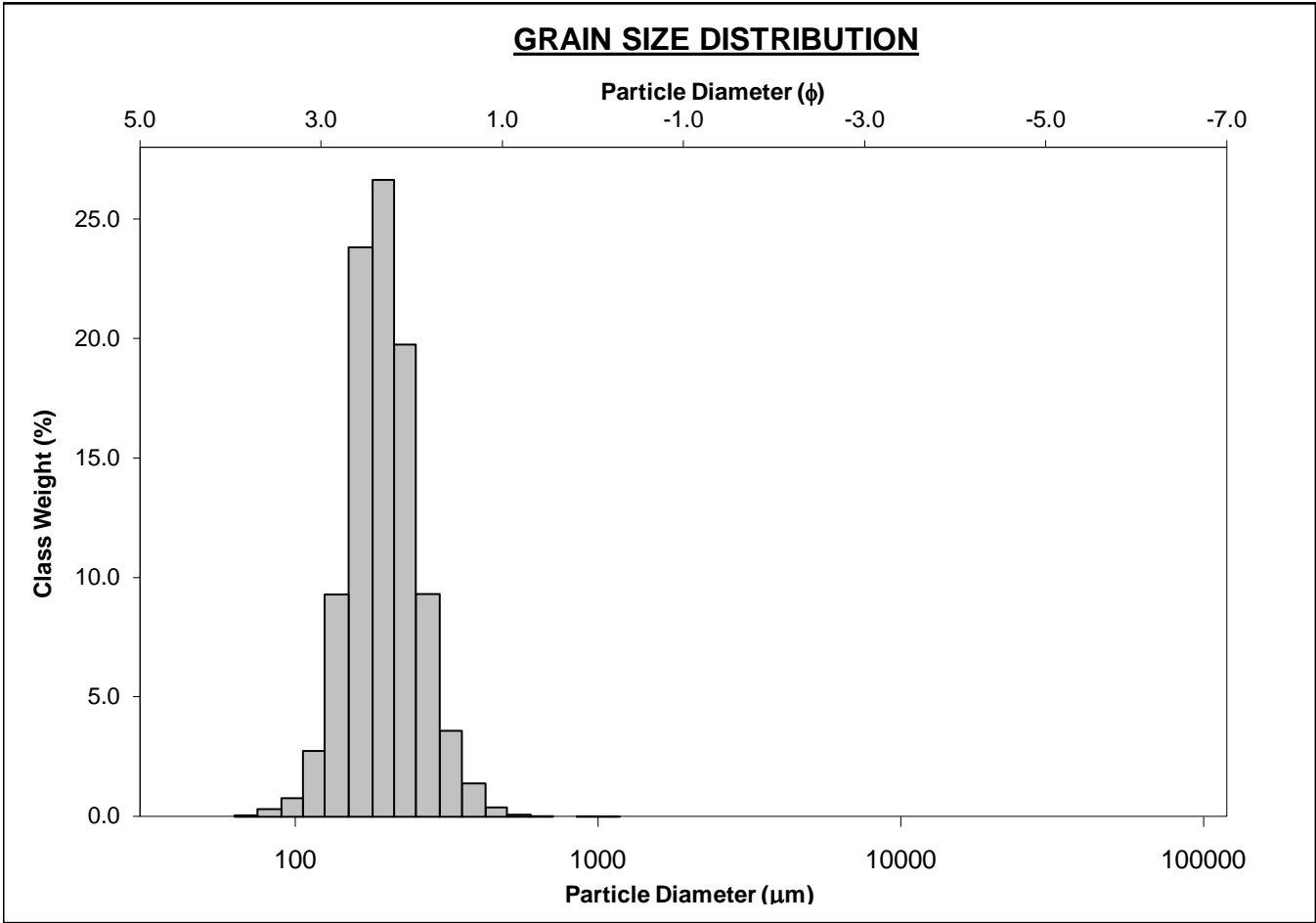
SIEVING ERROR: 0.4%		<u>SAMPLE STATISTICS</u>				
SAMPLE IDENTITY: GR-15-10-220cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 0.3%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 12.6%			
MODE 3:			MUD: 0.0% FINE SAND: 83.6%			
D ₁₀ :	142.6	1.911	V FINE SAND: 3.4%			
MEDIAN or D ₅₀ :	191.3	2.386	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	265.9	2.810	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.865	1.470	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	123.3	0.899	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.379	1.216	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	61.91	0.464	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	200.5	192.9	2.374	192.7	2.376	Fine Sand
SORTING (σ):	56.81	1.299	0.378	1.272	0.347	Very Well Sorted
SKEWNESS (Sk):	2.176	-0.210	0.210	0.048	-0.048	Symmetrical
KURTOSIS (K):	14.65	11.45	11.45	1.057	1.057	Mesokurtic



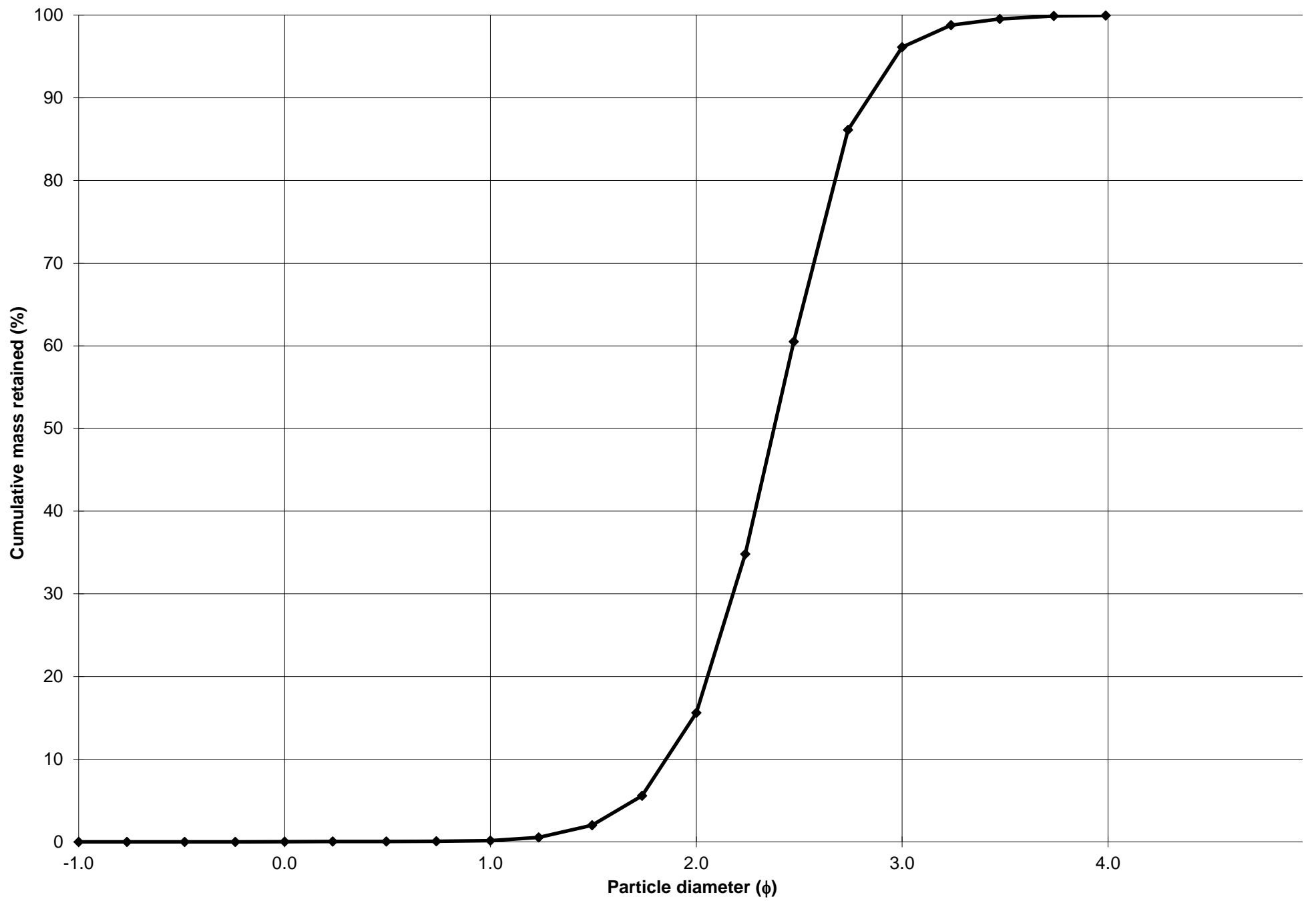
Cumulative Frequency Curve



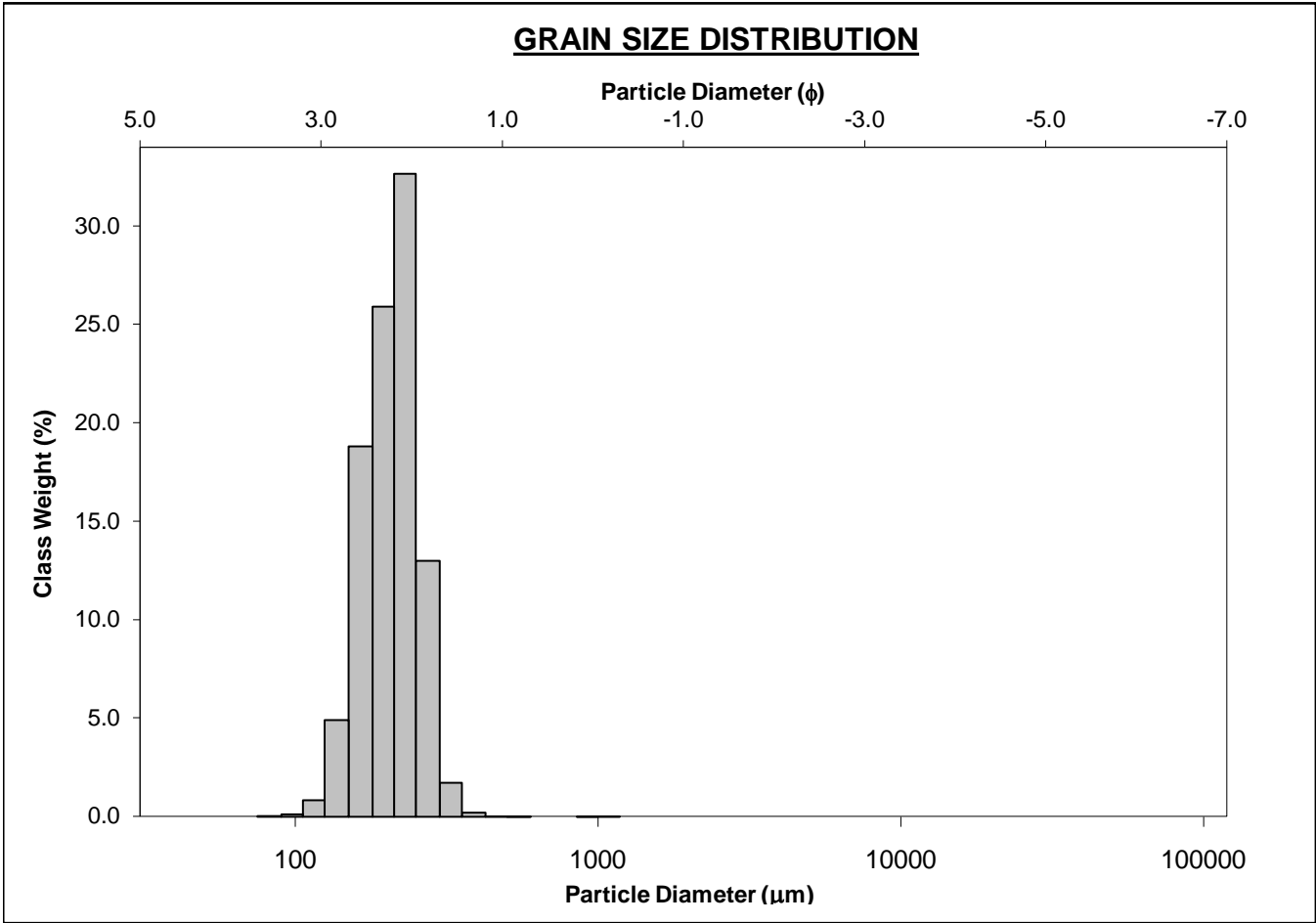
SIEVING ERROR: 0.6%		<u>SAMPLE STATISTICS</u>				
SAMPLE IDENTITY: GR-15-10-230cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 0.1%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 15.4%			
MODE 3:			MUD: 0.1% FINE SAND: 80.5%			
D ₁₀ :	139.7	1.853	V FINE SAND: 3.8%			
MEDIAN or D ₅₀ :	192.4	2.377	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	276.8	2.839	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.981	1.532	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	137.1	0.986	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.420	1.239	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	68.26	0.506	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	202.7	194.3	2.364	194.0	2.366	Fine Sand
SORTING (σ):	59.61	1.323	0.404	1.293	0.370	Well Sorted
SKEWNESS (Sk):	2.064	-0.560	0.560	0.058	-0.058	Symmetrical
KURTOSIS (K):	17.64	12.96	12.96	1.031	1.031	Mesokurtic



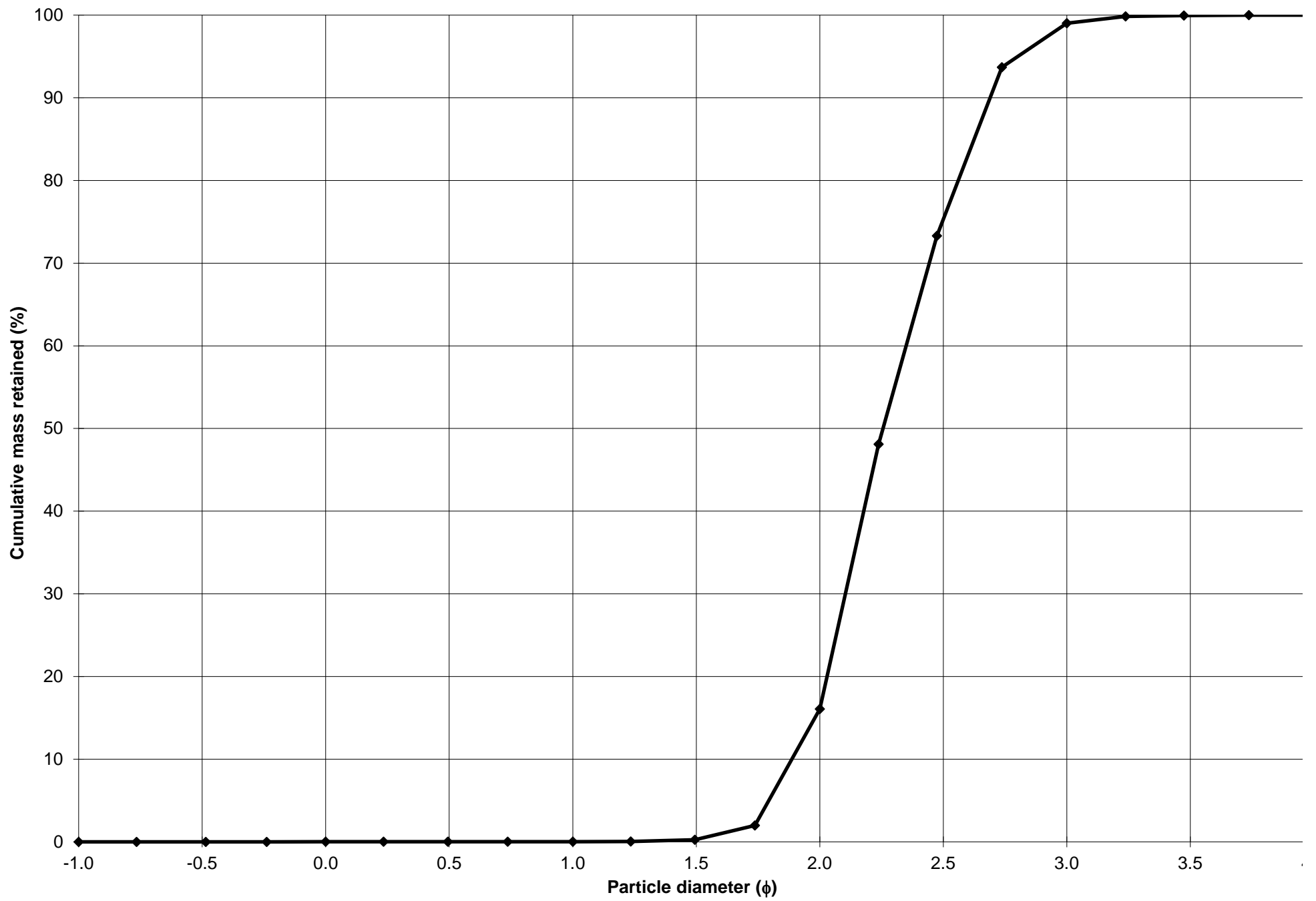
Cumulative Frequency Curve



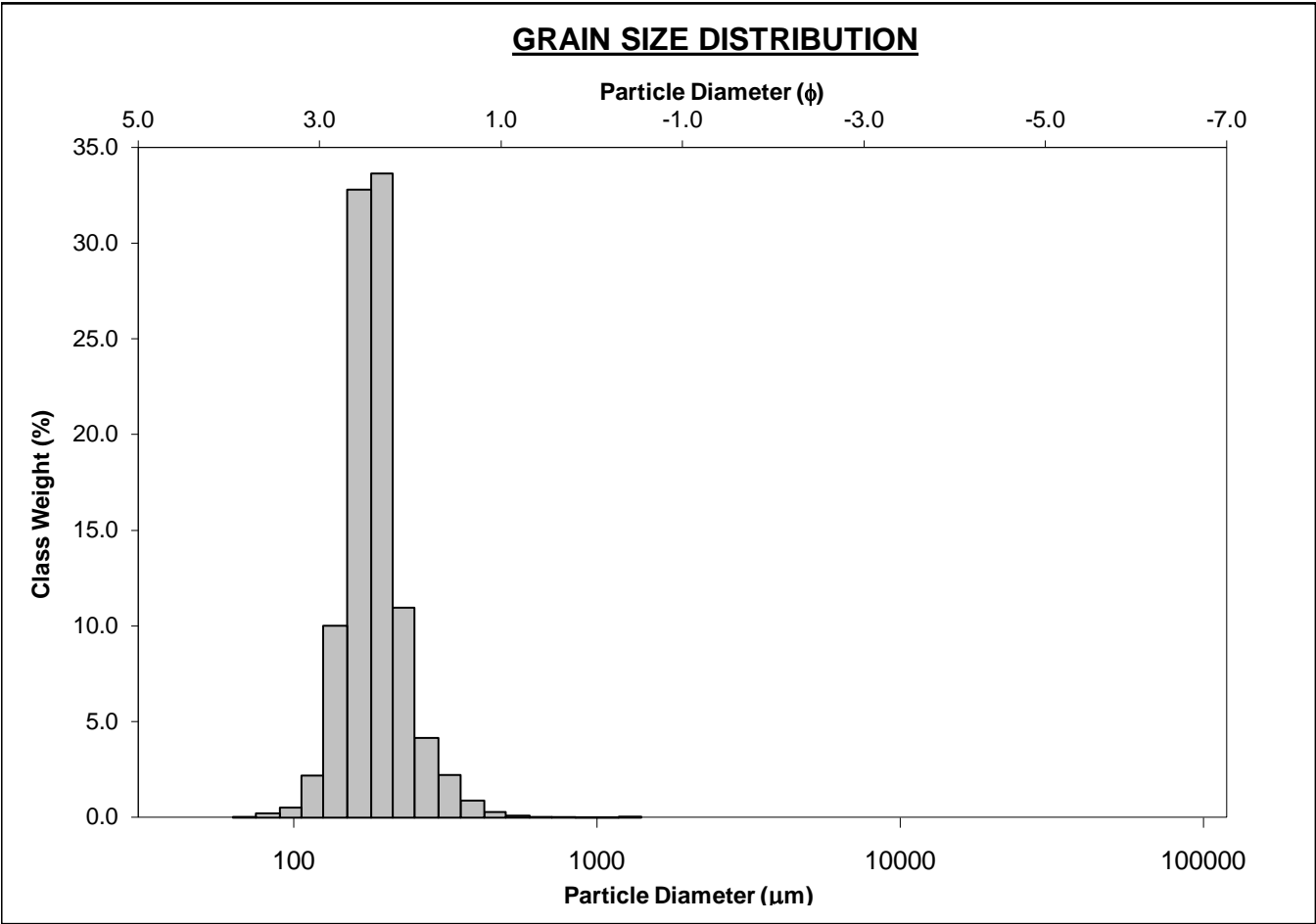
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-240cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.0%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 16.1%	
MODE 3:			MUD: 0.0%		FINE SAND: 82.9%	
D ₁₀ :	155.0	1.887			V FINE SAND: 1.0%	
MEDIAN or D ₅₀ :	209.4	2.256	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	270.5	2.689	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.745	1.426	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	115.4	0.803	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.347	1.208	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	61.49	0.430	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	211.0	205.6	2.282	204.7	2.289	Fine Sand
SORTING (σ):	45.00	1.234	0.304	1.236	0.306	Very Well Sorted
SKEWNESS (Sk):	1.532	-0.149	0.149	-0.122	0.122	Fine Skewed
KURTOSIS (K):	25.45	3.596	3.596	0.962	0.962	Mesokurtic



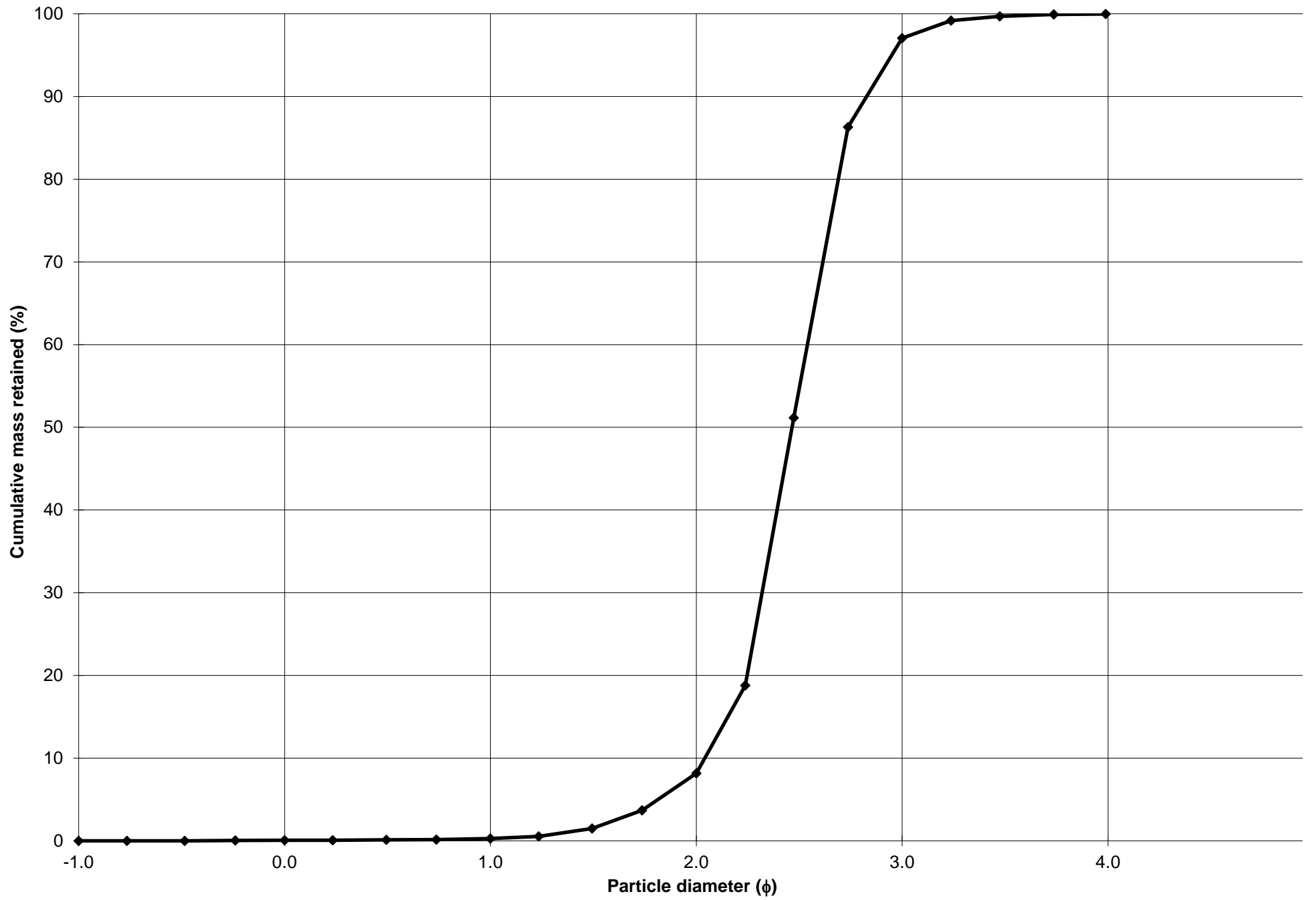
Cumulative Frequency Curve



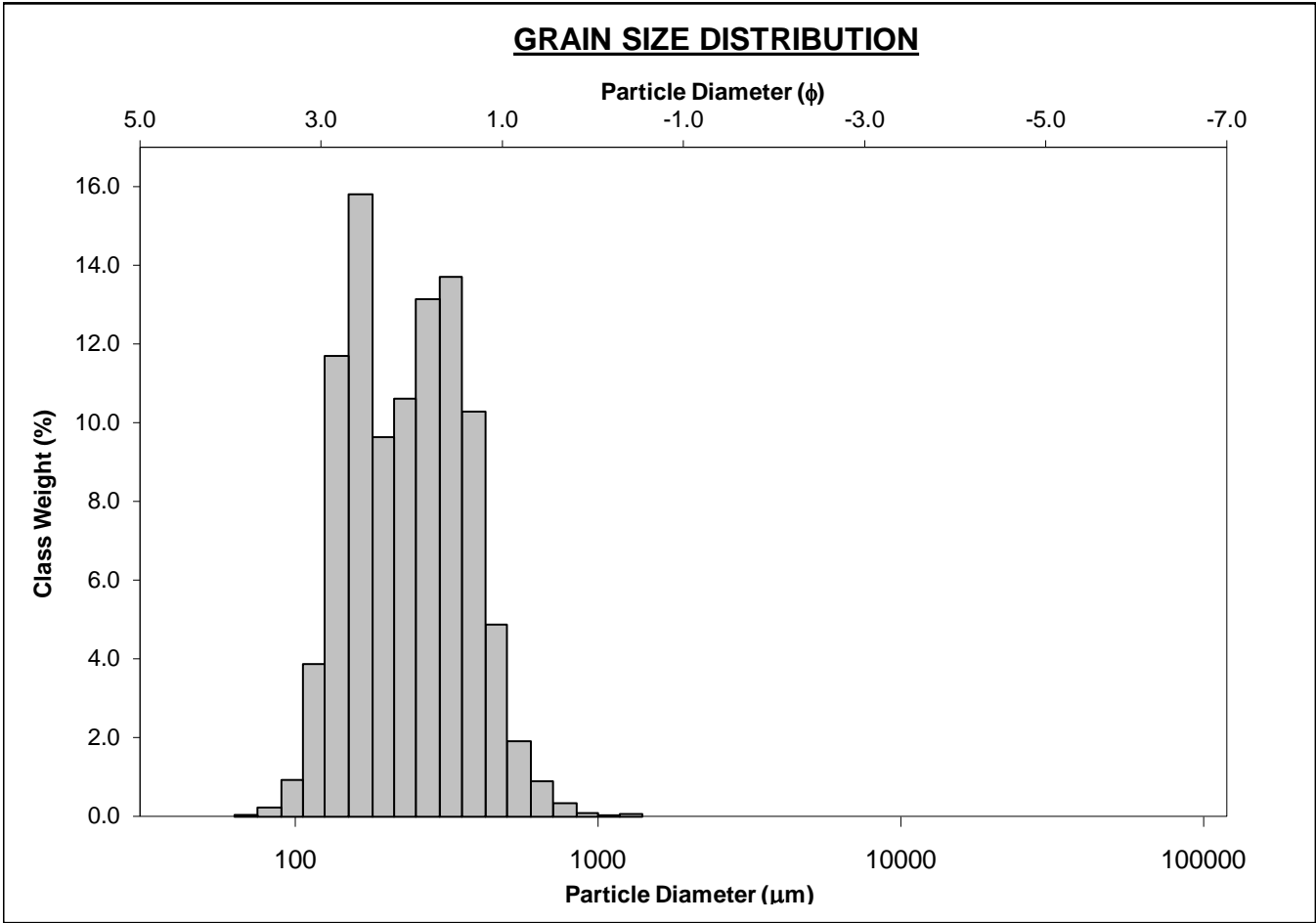
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-250cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 0.2%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 7.9%			
MODE 3:			MUD: 0.0% FINE SAND: 88.9%			
D ₁₀ :	140.9	2.041	V FINE SAND: 2.9%			
MEDIAN or D ₅₀ :	181.1	2.465	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	243.0	2.827	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.725	1.385	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	102.1	0.786	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.292	1.162	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	46.39	0.369	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	190.6	183.8	2.444	182.6	2.453	Fine Sand
SORTING (σ):	58.46	1.275	0.350	1.238	0.308	Very Well Sorted
SKEWNESS (Sk):	6.078	0.465	-0.465	0.107	-0.107	Coarse Skewed
KURTOSIS (K):	89.24	14.92	14.92	1.261	1.261	Leptokurtic



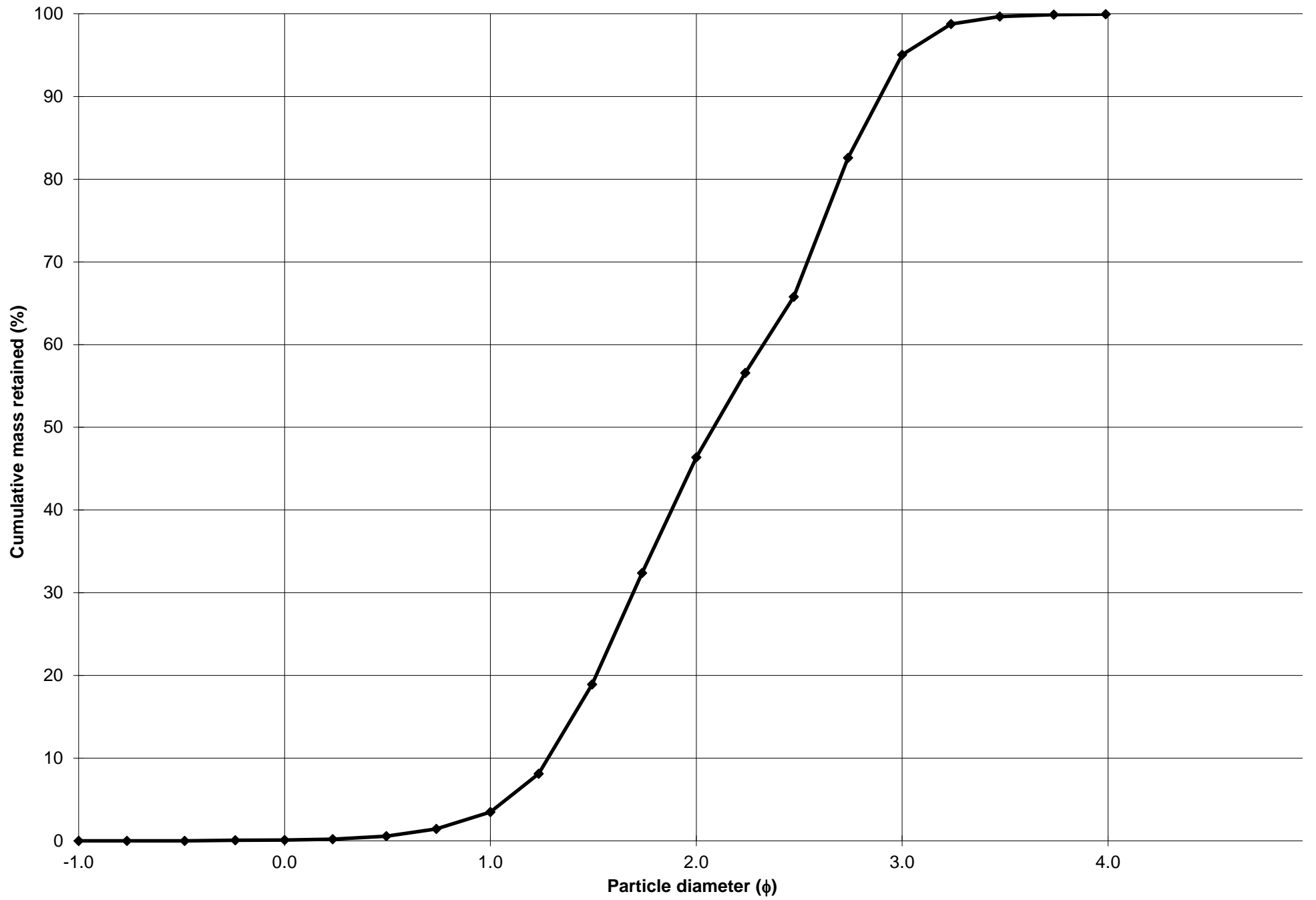
Cumulative Frequency Curve



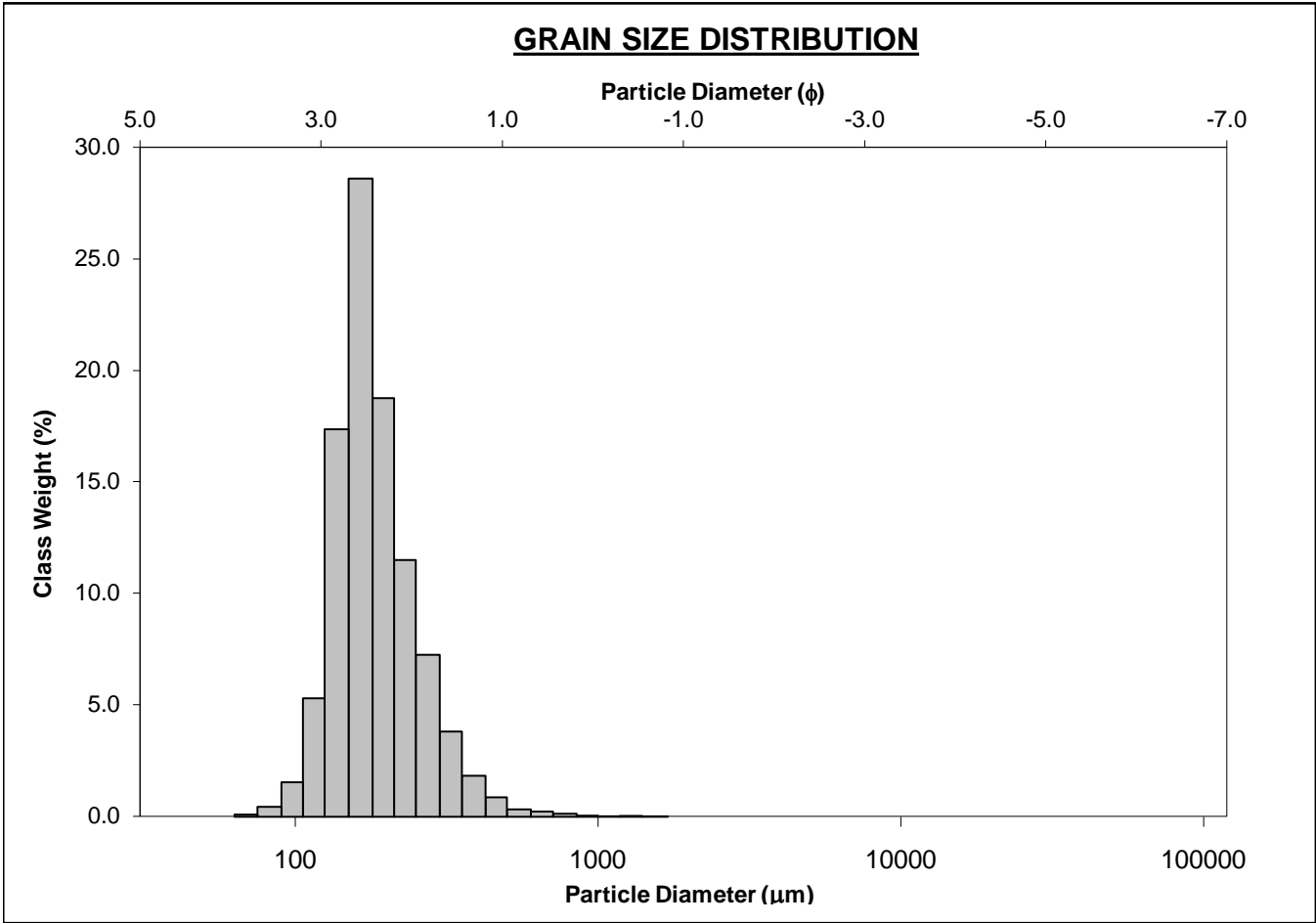
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-260cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 3.4%	
MODE 2:	327.5	1.616	SAND: 100.0%		MEDIUM SAND: 42.9%	
MODE 3:			MUD: 0.0%		FINE SAND: 48.7%	
D_{10} :	134.6	1.280			V FINE SAND: 4.9%	
MEDIAN or D_{50} :	235.7	2.085	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	411.9	2.894	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	3.061	2.261	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	277.3	1.614	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	2.020	1.633	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	166.1	1.014	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	260.0	234.8	2.091	234.6	2.092	Fine Sand
SORTING (σ):	121.8	1.556	0.638	1.544	0.627	Moderately Well Sorted
SKEWNESS (Sk):	1.604	-0.001	0.001	0.016	-0.016	Symmetrical
KURTOSIS (K):	8.900	3.912	3.912	0.777	0.777	Platykurtic



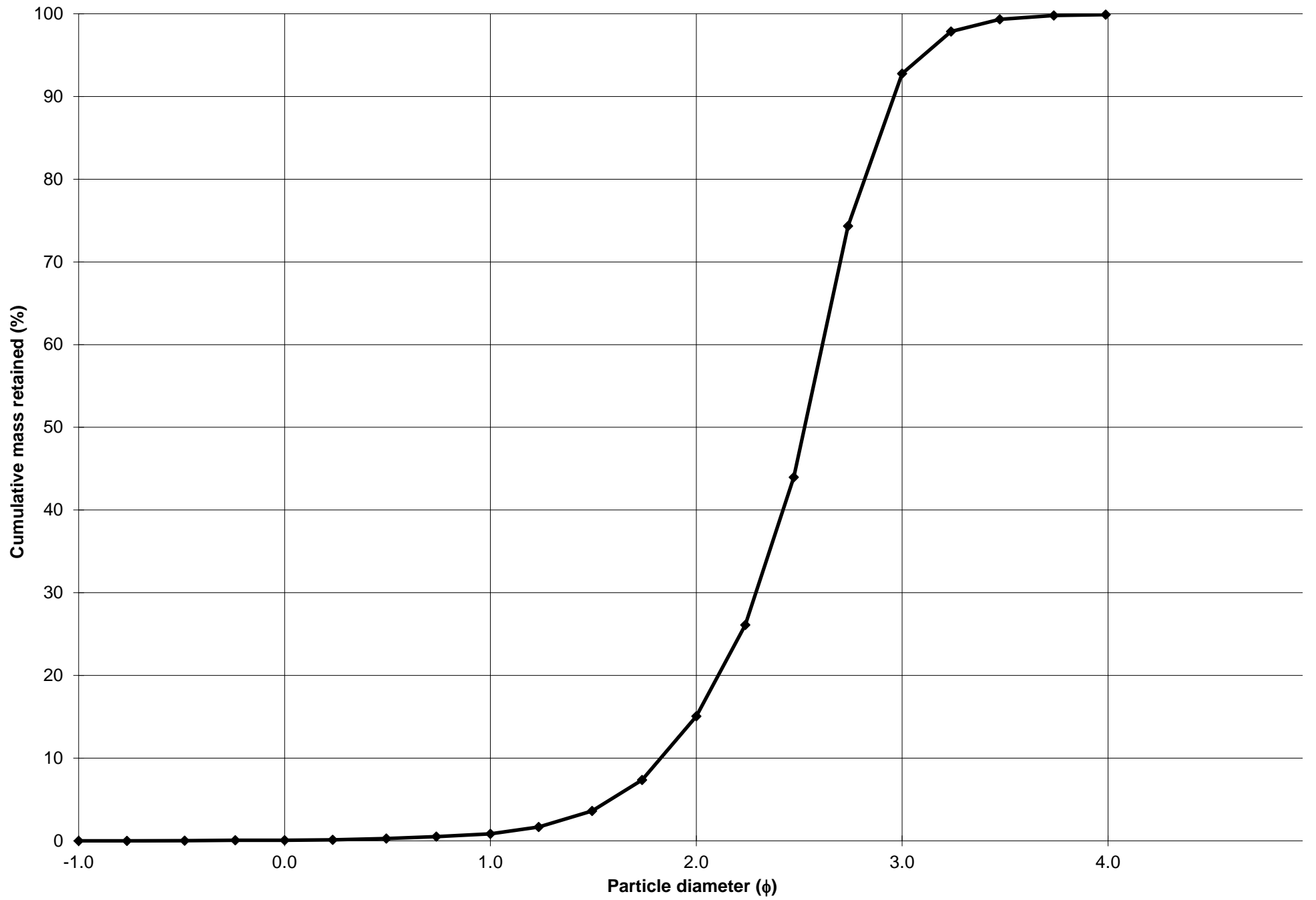
Cumulative Frequency Curve



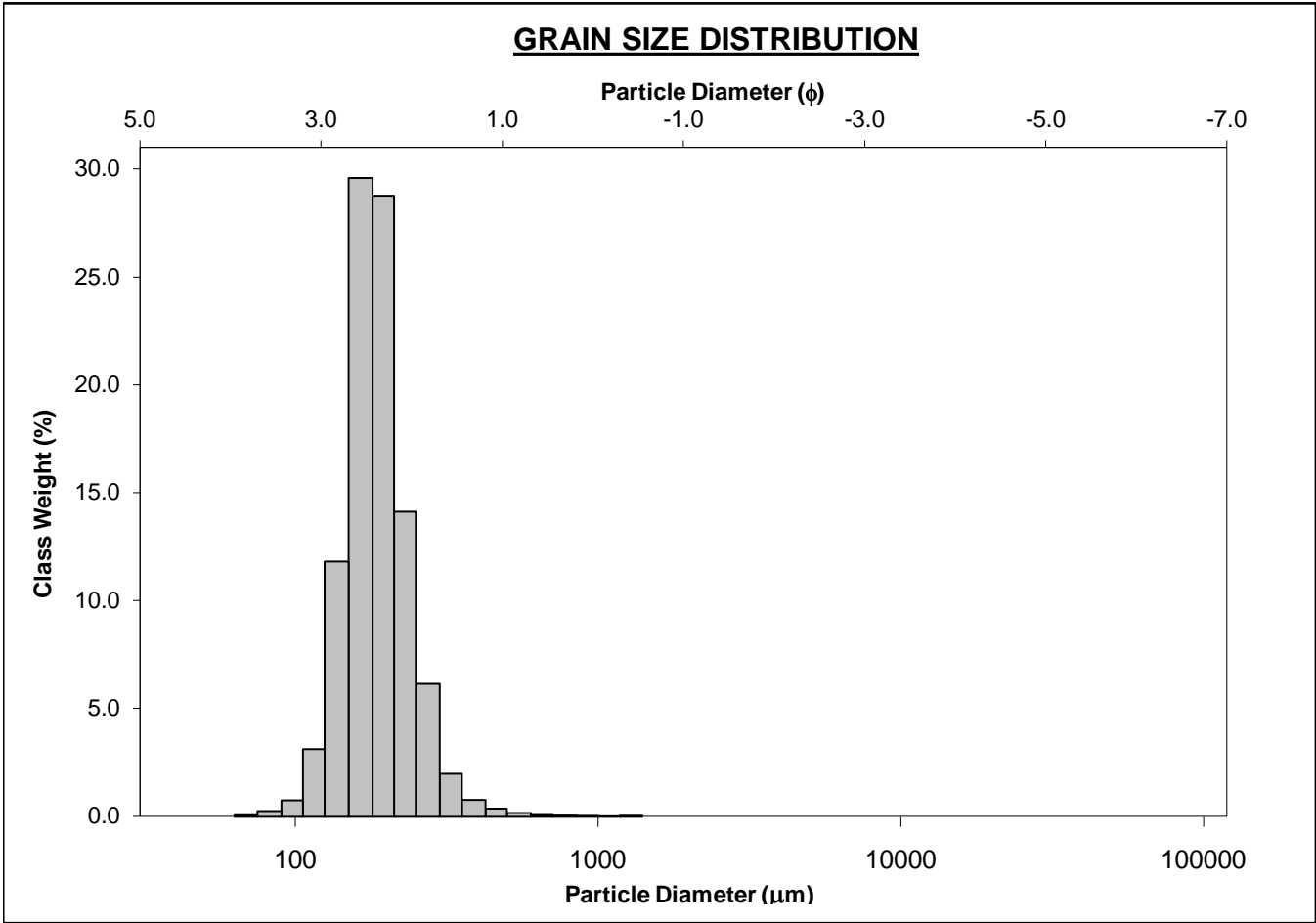
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-270cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.8%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 14.2%			
MODE 3:			MUD: 0.1% FINE SAND: 77.7%			
D ₁₀ :	128.4	1.827	V FINE SAND: 7.1%			
MEDIAN or D ₅₀ :	173.6	2.526	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	281.8	2.961	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.194	1.620	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	153.3	1.133	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.446	1.240	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	66.51	0.532	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	194.6	182.3	2.456	180.0	2.474	Fine Sand
SORTING (σ):	82.36	1.404	0.489	1.360	0.444	Well Sorted
SKEWNESS (Sk):	4.313	0.055	-0.055	0.211	-0.211	Coarse Skewed
KURTOSIS (K):	43.32	12.33	12.33	1.170	1.170	Leptokurtic



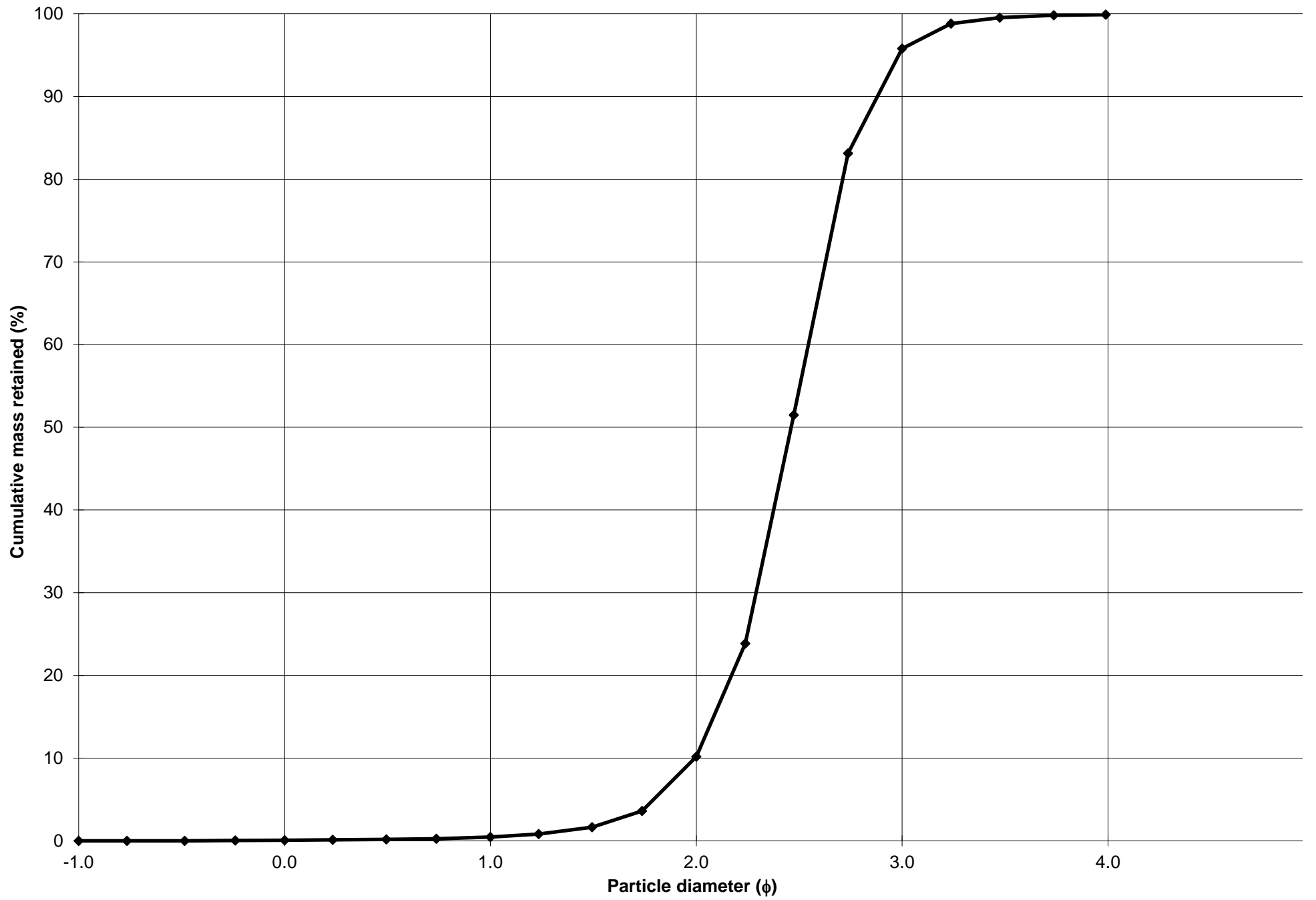
Cumulative Frequency Curve



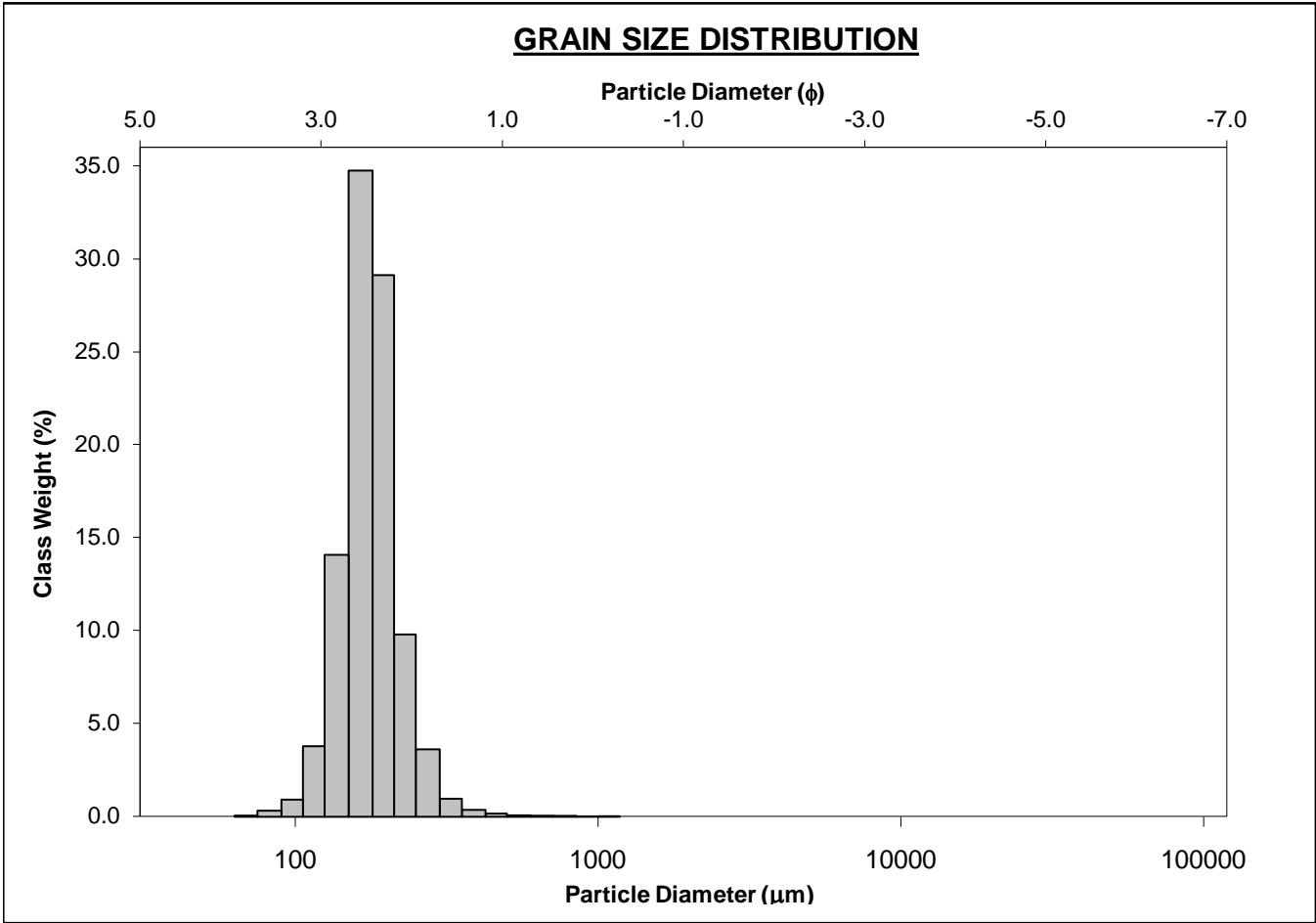
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-280cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.4%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 9.7%			
MODE 3:			MUD: 0.1% FINE SAND: 85.6%			
D ₁₀ :	135.9	1.992	V FINE SAND: 4.1%			
MEDIAN or D ₅₀ :	181.6	2.461	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	251.3	2.880	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.850	1.445	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	115.5	0.887	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.340	1.188	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	53.38	0.422	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	192.7	184.4	2.439	184.4	2.439	Fine Sand
SORTING (σ):	64.99	1.323	0.404	1.269	0.344	Very Well Sorted
SKEWNESS (Sk):	5.450	-0.659	0.659	0.112	-0.112	Coarse Skewed
KURTOSIS (K):	68.69	22.00	22.00	1.158	1.158	Leptokurtic



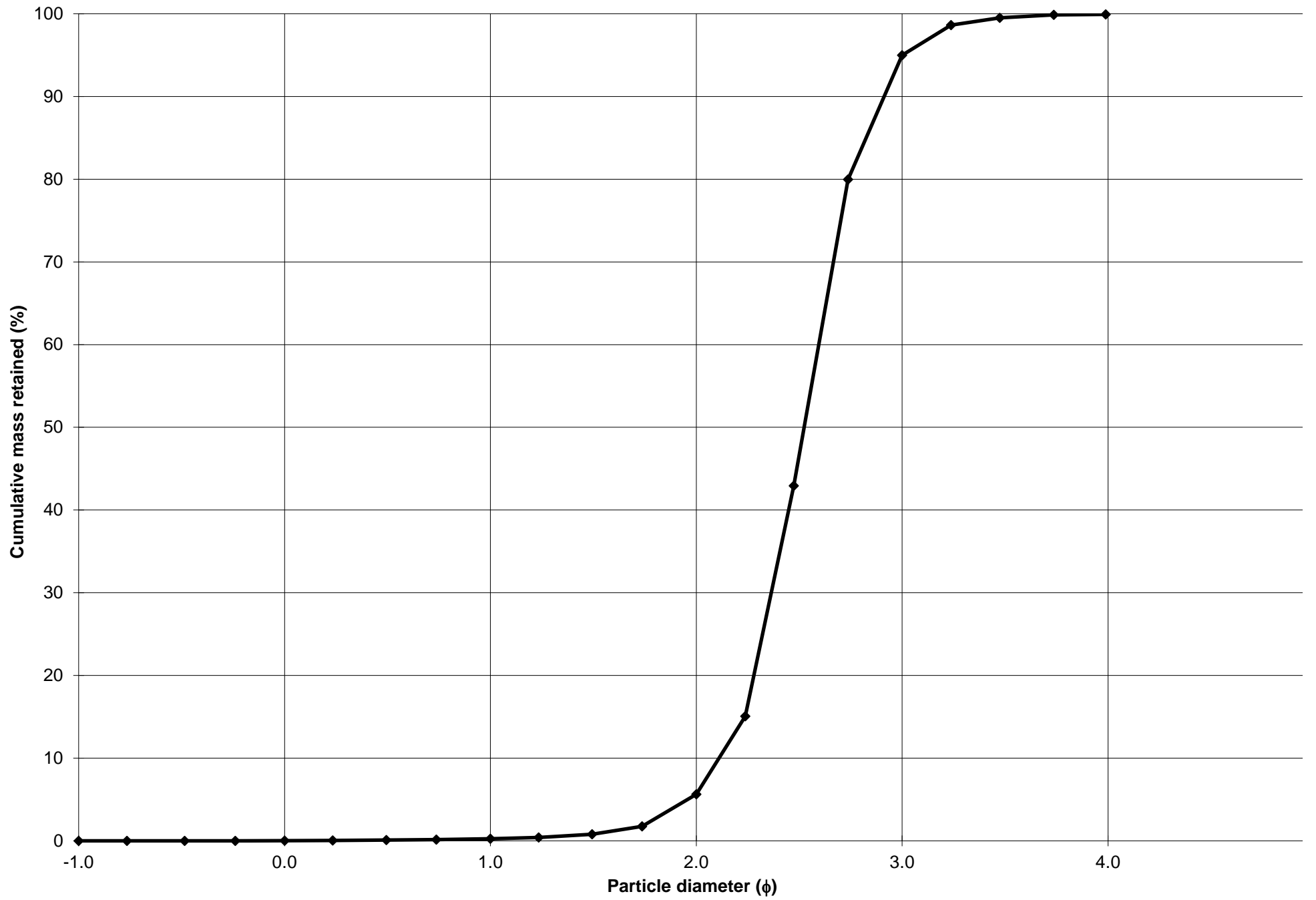
Cumulative Frequency Curve



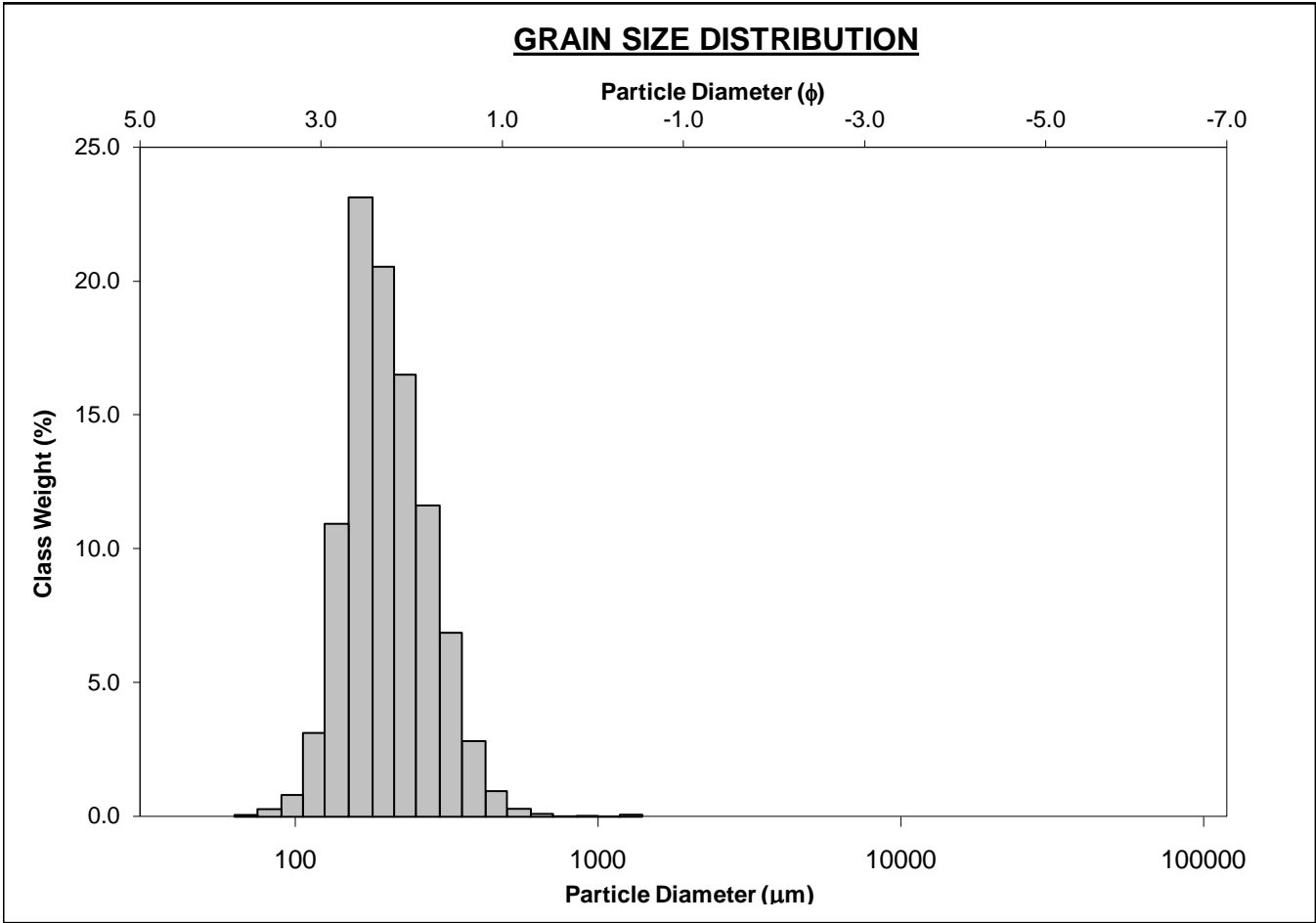
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-290cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.2%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 5.4%	
MODE 3:			MUD: 0.1%		FINE SAND: 89.4%	
D ₁₀ :	132.8	2.110			V FINE SAND: 5.0%	
MEDIAN or D ₅₀ :	173.8	2.524	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	231.6	2.913	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.744	1.380	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	98.82	0.803	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.301	1.164	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	46.28	0.380	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	181.4	175.3	2.512	173.6	2.526	Fine Sand
SORTING (σ):	50.90	1.278	0.354	1.230	0.299	Very Well Sorted
SKEWNESS (Sk):	4.794	-0.822	0.822	0.038	-0.038	Symmetrical
KURTOSIS (K):	60.50	24.49	24.49	1.127	1.127	Leptokurtic



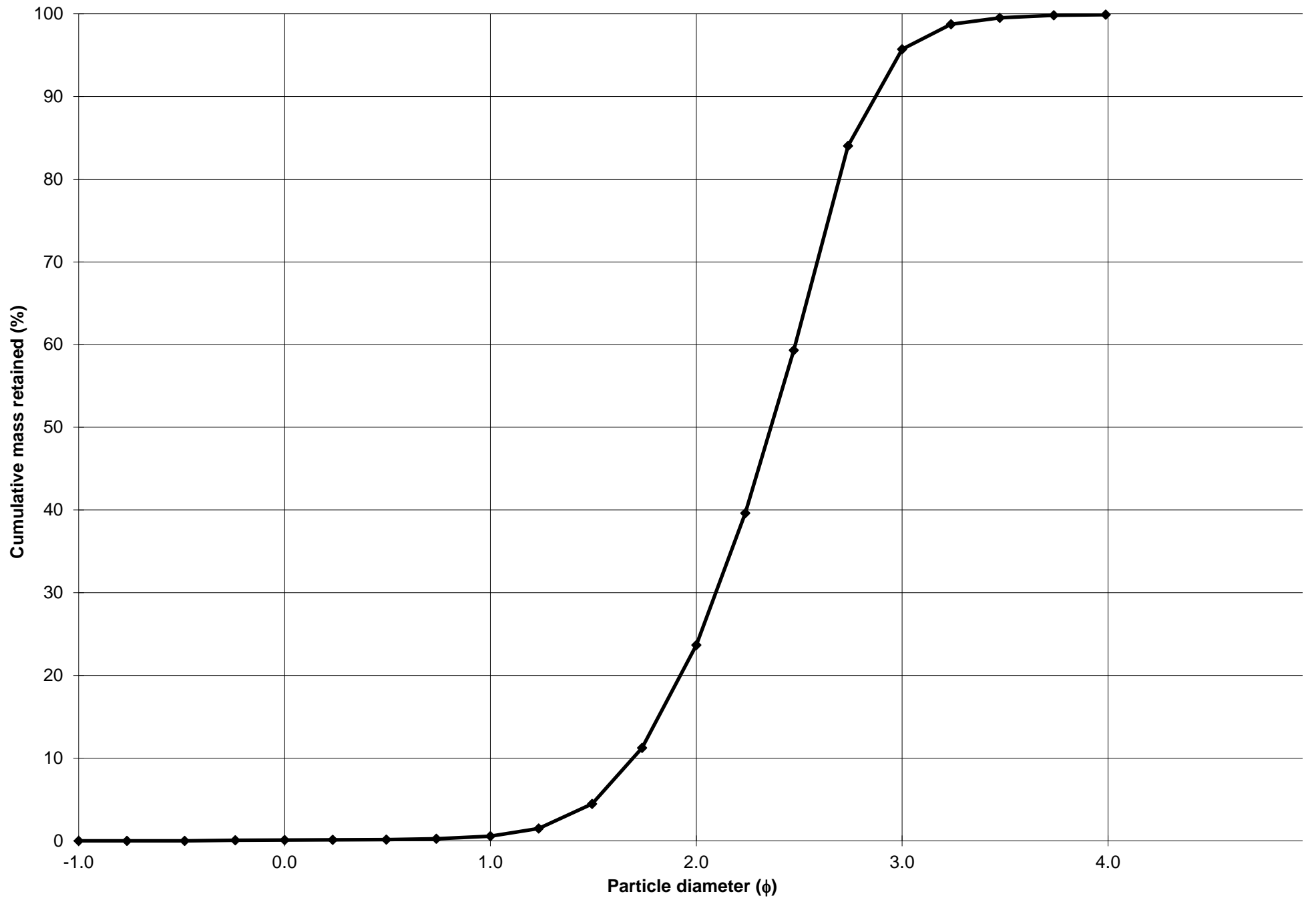
Cumulative Frequency Curve



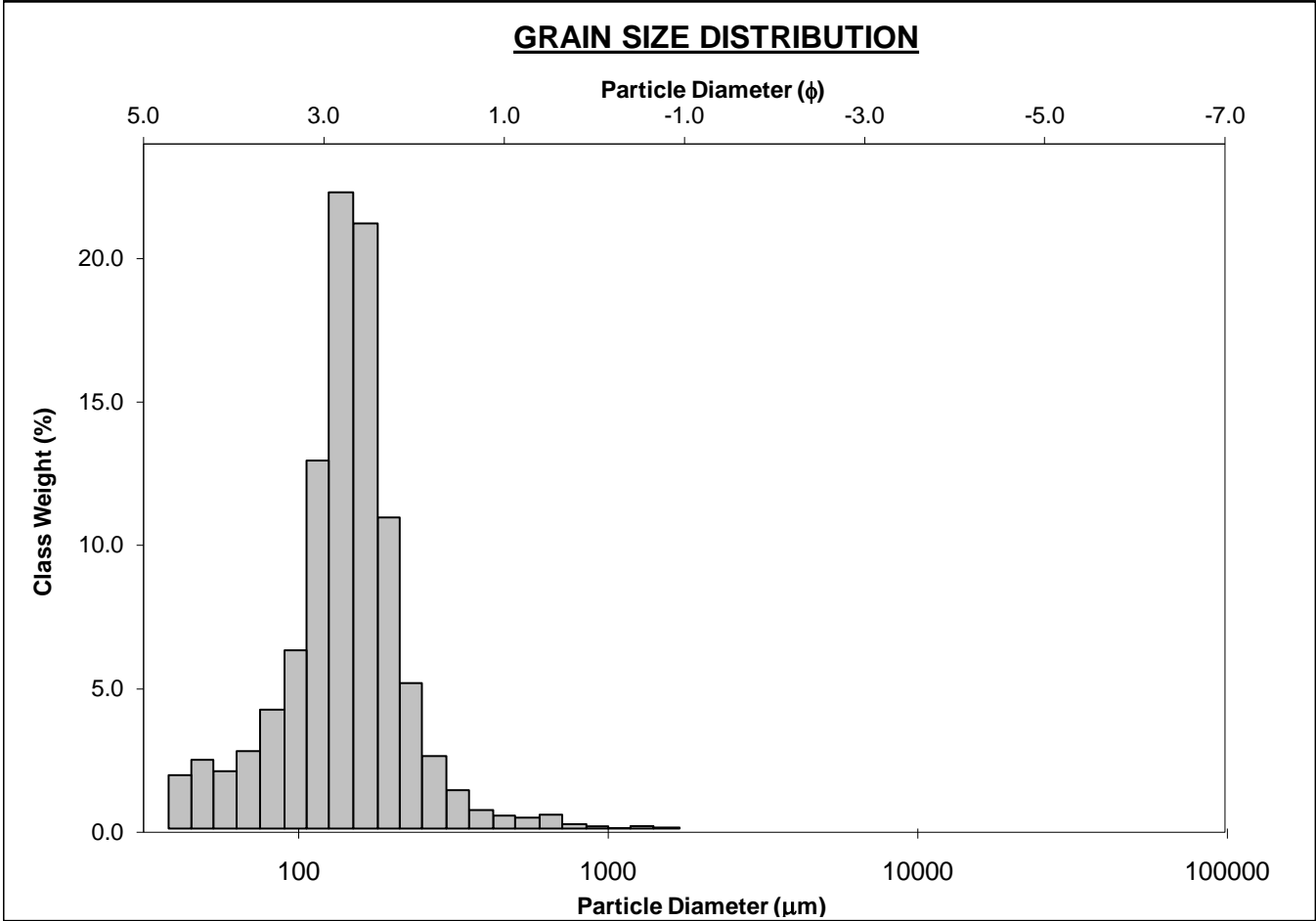
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-10-300cm			ANALYST & DATE: Chris, 7/7/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.5%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 23.1%			
MODE 3:			MUD: 0.1% FINE SAND: 72.0%			
D ₁₀ :	136.6	1.692	V FINE SAND: 4.2%			
MEDIAN or D ₅₀ :	194.5	2.362	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	309.4	2.872	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.264	1.697	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	172.8	1.179	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.538	1.307	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	86.25	0.621	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	213.2	200.4	2.319	201.3	2.312	Fine Sand
SORTING (σ):	80.74	1.403	0.489	1.364	0.448	Well Sorted
SKEWNESS (Sk):	3.304	-0.494	0.494	0.161	-0.161	Coarse Skewed
KURTOSIS (K):	33.11	12.70	12.70	0.971	0.971	Mesokurtic



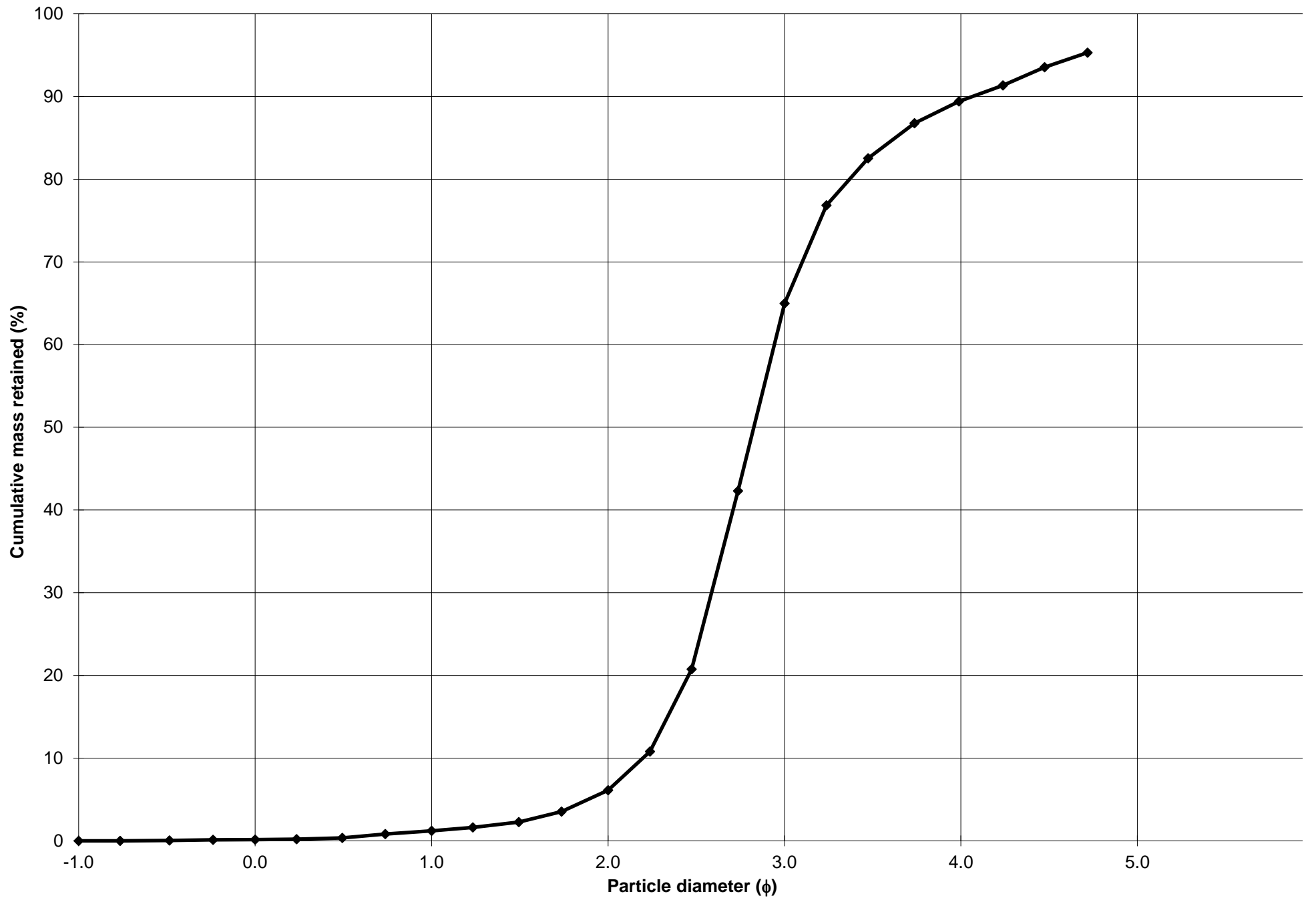
Cumulative Frequency Curve



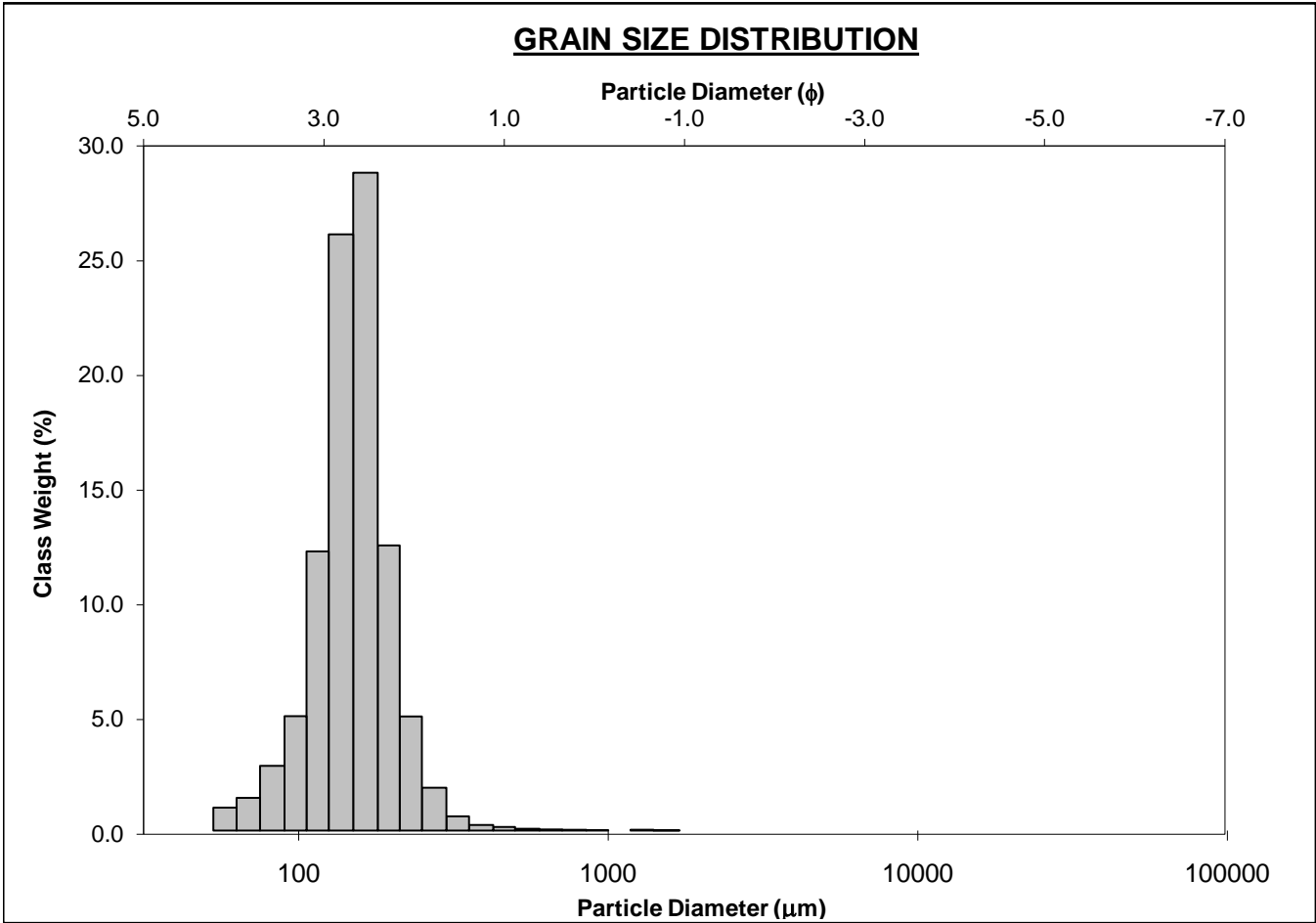
SIEVING ERROR: 1.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-12-70cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Muddy Sand			
SEDIMENT NAME: Very Coarse Silty Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 1.1%	
MODE 2:			SAND: 89.5%		MEDIUM SAND: 4.9%	
MODE 3:			MUD: 10.5%		FINE SAND: 58.9%	
D ₁₀ :	59.76	2.197			V FINE SAND: 24.5%	
MEDIAN or D ₅₀ :	141.0	2.826	V COARSE GRAVEL: 0.0%		V COARSE SILT: 6.1%	
D ₉₀ :	218.1	4.065	COARSE GRAVEL: 0.0%		COARSE SILT: 0.9%	
(D ₉₀ / D ₁₀):	3.650	1.850	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.9%	
(D ₉₀ - D ₁₀):	158.4	1.868	FINE GRAVEL: 0.0%		FINE SILT: 0.9%	
(D ₇₅ / D ₂₅):	1.597	1.267	V FINE GRAVEL: 0.0%		V FINE SILT: 0.9%	
(D ₇₅ - D ₂₅):	64.92	0.675	V COARSE SAND: 0.1%		CLAY: 0.9%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	150.1	120.6	3.051	132.4	2.917	Fine Sand
SORTING (σ):	95.26	2.220	1.150	1.651	0.724	Moderately Sorted
SKEWNESS (Sk):	4.829	-2.275	2.275	-0.277	0.277	Fine Skewed
KURTOSIS (K):	49.11	9.836	9.836	1.693	1.693	Very Leptokurtic



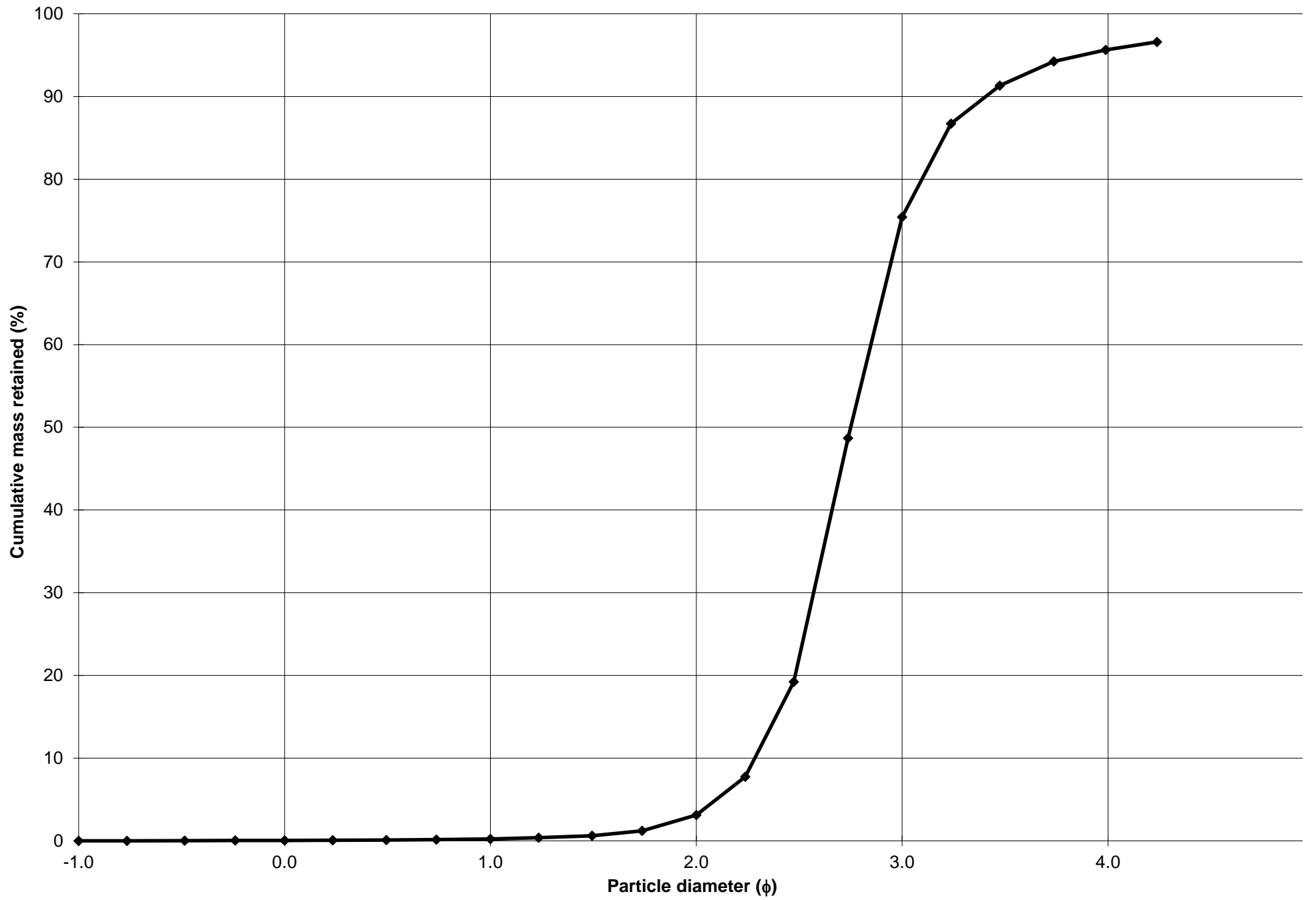
Cumulative Frequency Curve



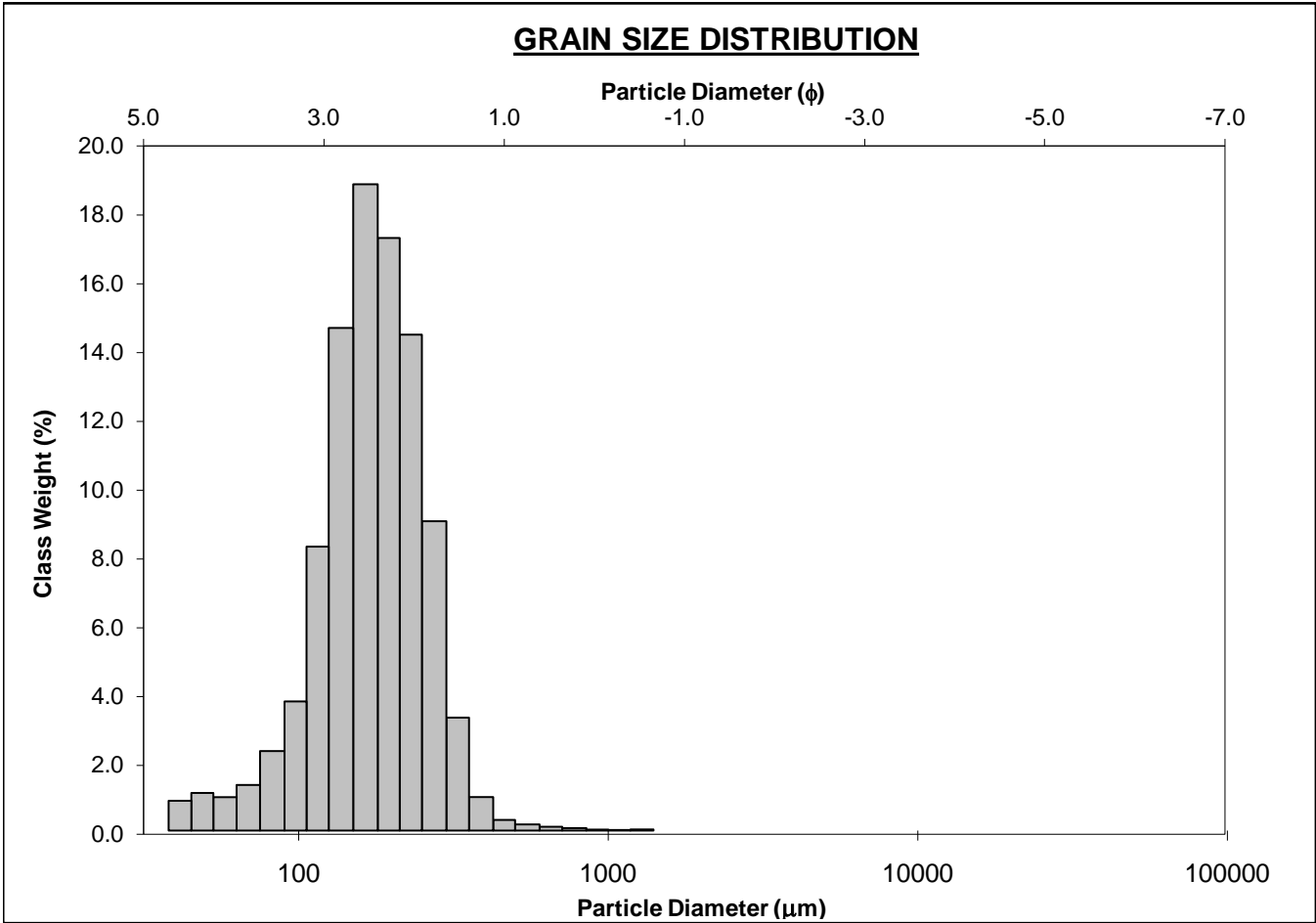
SIEVING ERROR: 1.2%		<u>SAMPLE STATISTICS</u>				
SAMPLE IDENTITY: GR-15-12-80cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.2%			
MODE 2:			SAND: 95.7% MEDIUM SAND: 2.9%			
MODE 3:			MUD: 4.3% FINE SAND: 72.3%			
D ₁₀ :	94.34	2.284	V FINE SAND: 20.3%			
MEDIAN or D ₅₀ :	148.7	2.750	V COARSE GRAVEL: 0.0% V COARSE SILT: 1.4%			
D ₉₀ :	205.3	3.406	COARSE GRAVEL: 0.0% COARSE SILT: 0.6%			
(D ₉₀ / D ₁₀):	2.176	1.491	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.6%			
(D ₉₀ - D ₁₀):	111.0	1.122	FINE GRAVEL: 0.0% FINE SILT: 0.6%			
(D ₇₅ / D ₂₅):	1.386	1.186	V FINE GRAVEL: 0.0% V FINE SILT: 0.6%			
(D ₇₅ - D ₂₅):	48.32	0.470	V COARSE SAND: 0.0% CLAY: 0.6%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	151.6	133.8	2.902	145.7	2.779	Fine Sand
SORTING (σ):	60.53	1.863	0.897	1.378	0.463	Well Sorted
SKEWNESS (Sk):	5.302	-3.402	3.402	-0.190	0.190	Fine Skewed
KURTOSIS (K):	91.79	16.97	16.97	1.551	1.551	Very Leptokurtic



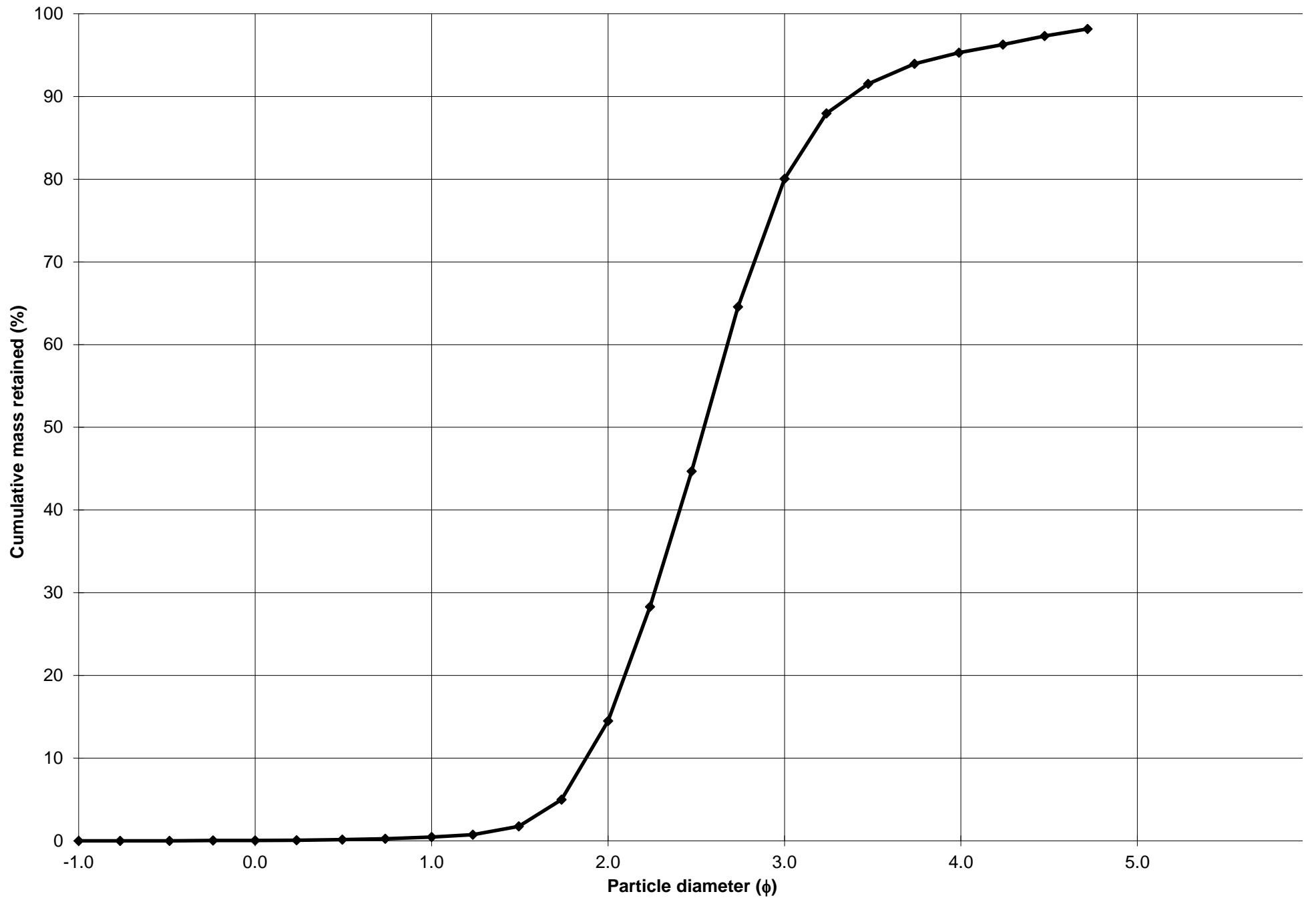
Cumulative Frequency Curve



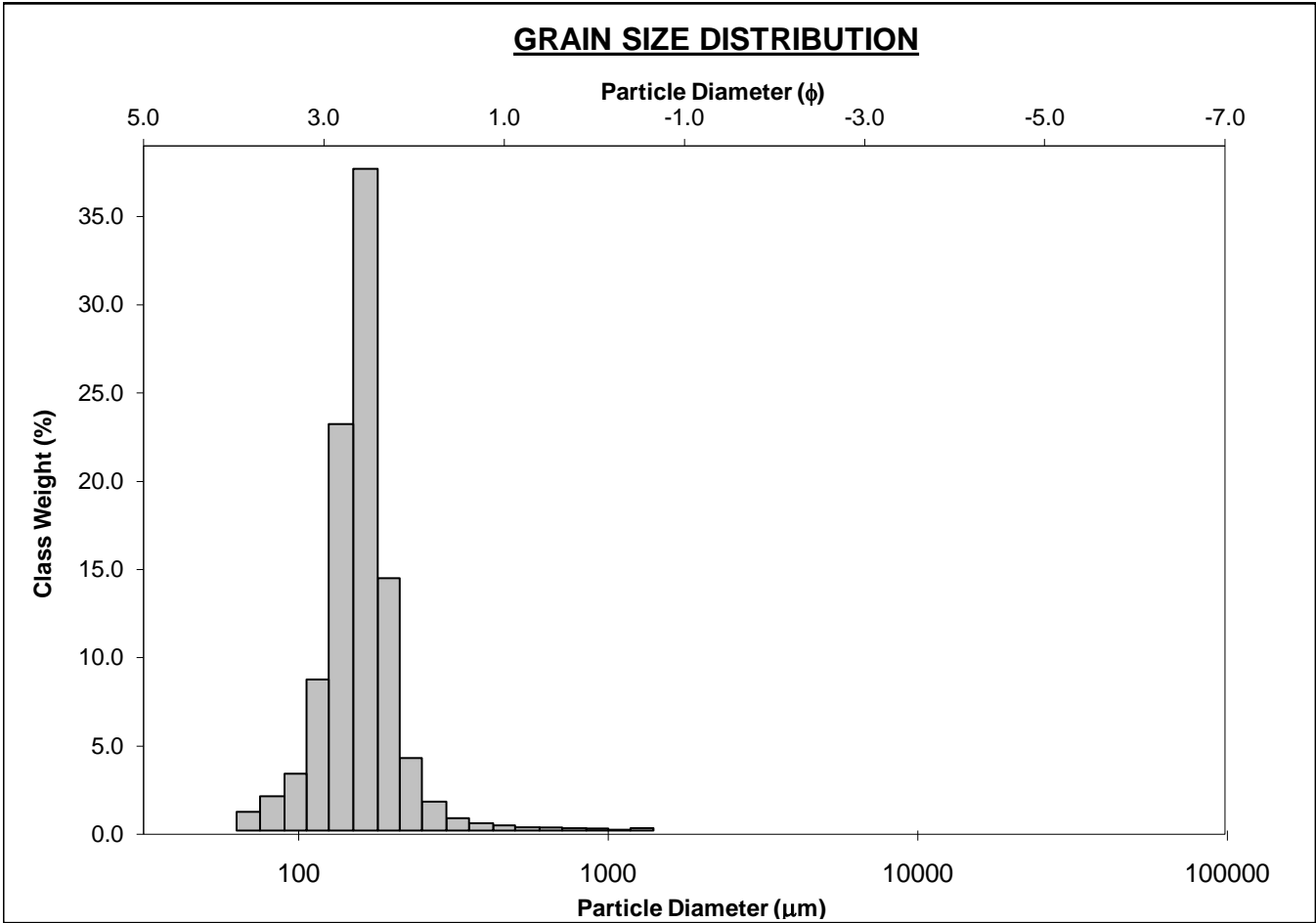
SIEVING ERROR: 1.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-12-90cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.4%	
MODE 2:			SAND: 95.4%		MEDIUM SAND: 14.0%	
MODE 3:			MUD: 4.6%		FINE SAND: 65.5%	
D ₁₀ :	96.48	1.876			V FINE SAND: 15.3%	
MEDIAN or D ₅₀ :	171.4	2.544	V COARSE GRAVEL: 0.0%		V COARSE SILT: 2.9%	
D ₉₀ :	272.5	3.374	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D ₉₀ / D ₁₀):	2.824	1.798	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
(D ₉₀ - D ₁₀):	176.0	1.498	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D ₇₅ / D ₂₅):	1.662	1.336	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
(D ₇₅ - D ₂₅):	87.87	0.733	V COARSE SAND: 0.0%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	180.7	158.7	2.655	169.2	2.563	Fine Sand
SORTING (σ):	79.70	1.833	0.874	1.522	0.606	Moderately Well Sorted
SKEWNESS (Sk):	2.315	-2.887	2.887	-0.158	0.158	Fine Skewed
KURTOSIS (K):	23.90	16.30	16.30	1.226	1.226	Leptokurtic



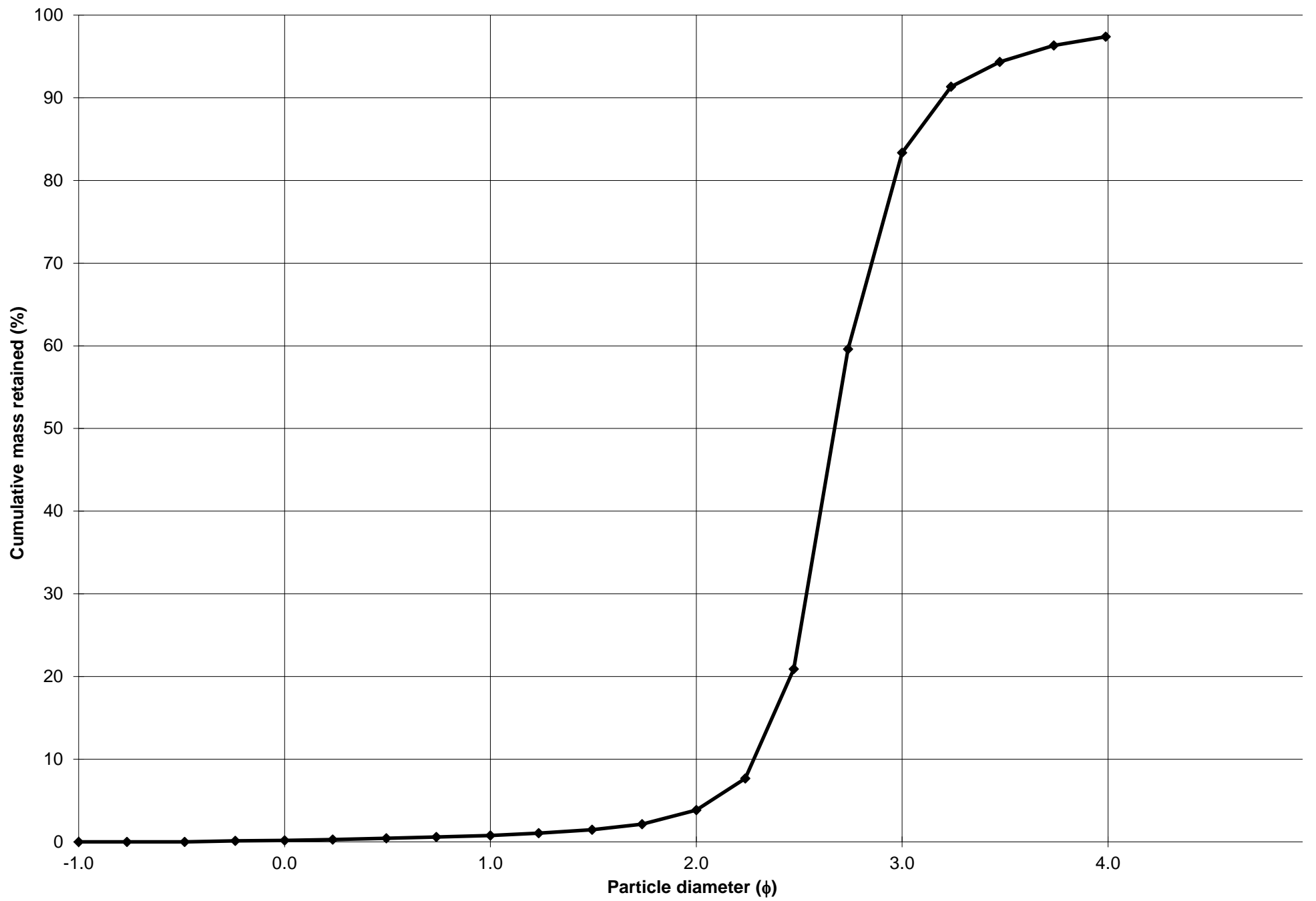
Cumulative Frequency Curve



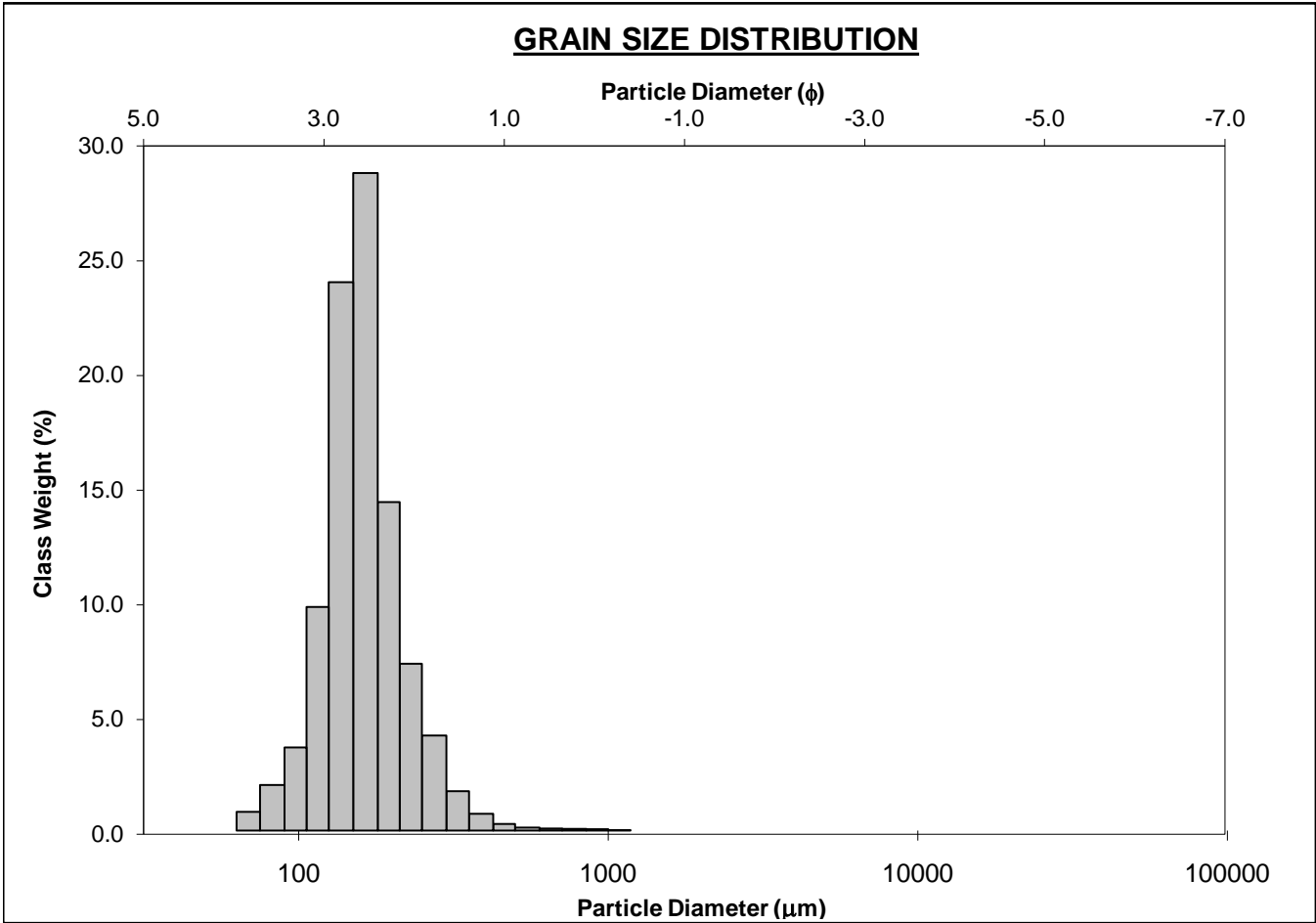
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-12-100cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.6%			
MODE 2:			SAND: 97.4% MEDIUM SAND: 3.1%			
MODE 3:			MUD: 2.6% FINE SAND: 79.5%			
D ₁₀ :	109.0	2.279	V FINE SAND: 14.0%			
MEDIAN or D ₅₀ :	156.9	2.672	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.4%			
D ₉₀ :	206.0	3.198	COARSE GRAVEL: 0.0% COARSE SILT: 0.4%			
(D ₉₀ / D ₁₀):	1.890	1.403	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.4%			
(D ₉₀ - D ₁₀):	96.99	0.918	FINE GRAVEL: 0.0% FINE SILT: 0.4%			
(D ₇₅ / D ₂₅):	1.325	1.162	V FINE GRAVEL: 0.0% V FINE SILT: 0.4%			
(D ₇₅ - D ₂₅):	43.28	0.406	V COARSE SAND: 0.2% CLAY: 0.4%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	162.8	145.4	2.782	154.7	2.692	Fine Sand
SORTING (σ):	78.85	1.749	0.807	1.305	0.384	Well Sorted
SKEWNESS (Sk):	7.058	-3.423	3.423	-0.147	0.147	Fine Skewed
KURTOSIS (K):	83.45	20.48	20.48	1.505	1.505	Very Leptokurtic



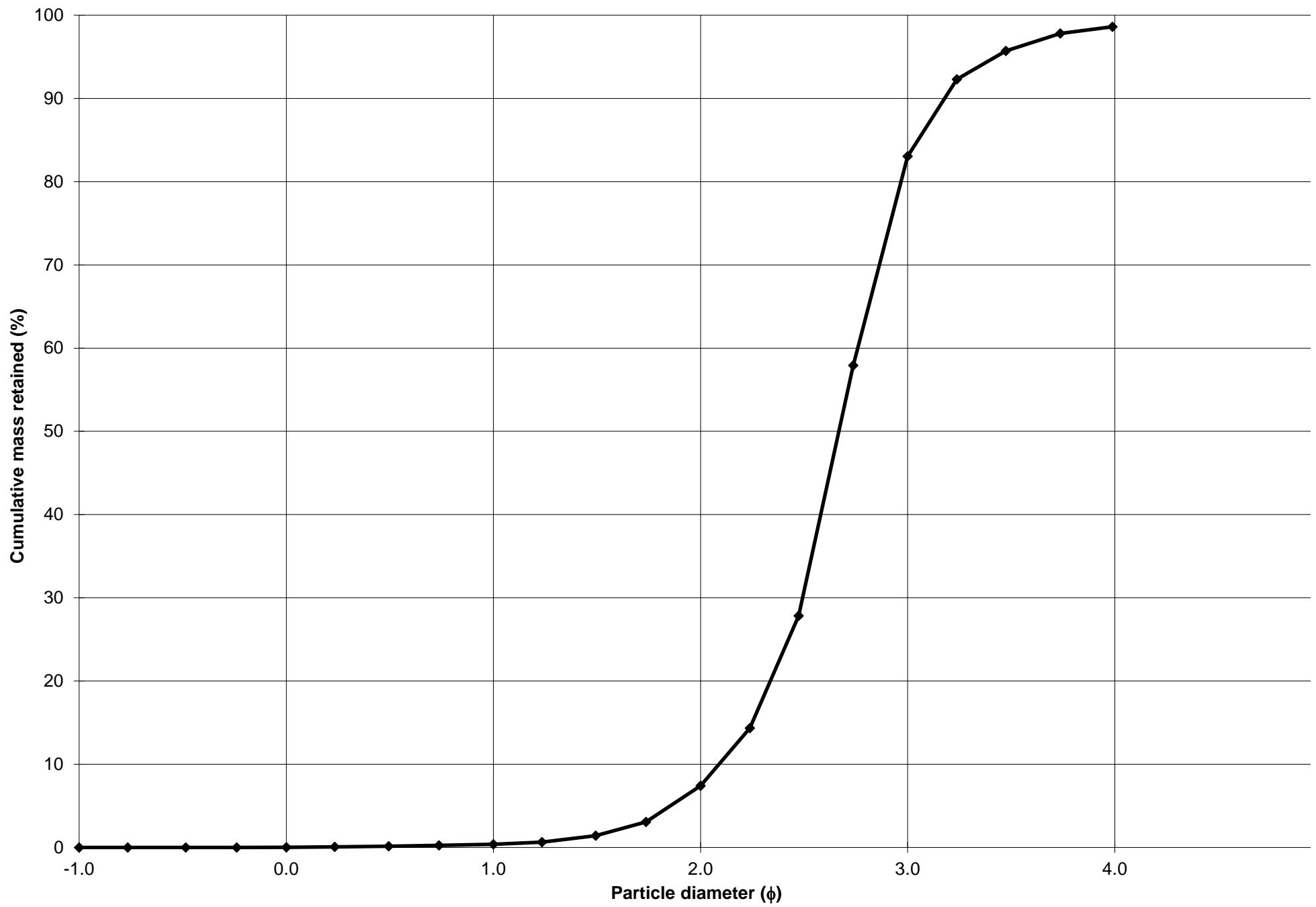
Cumulative Frequency Curve



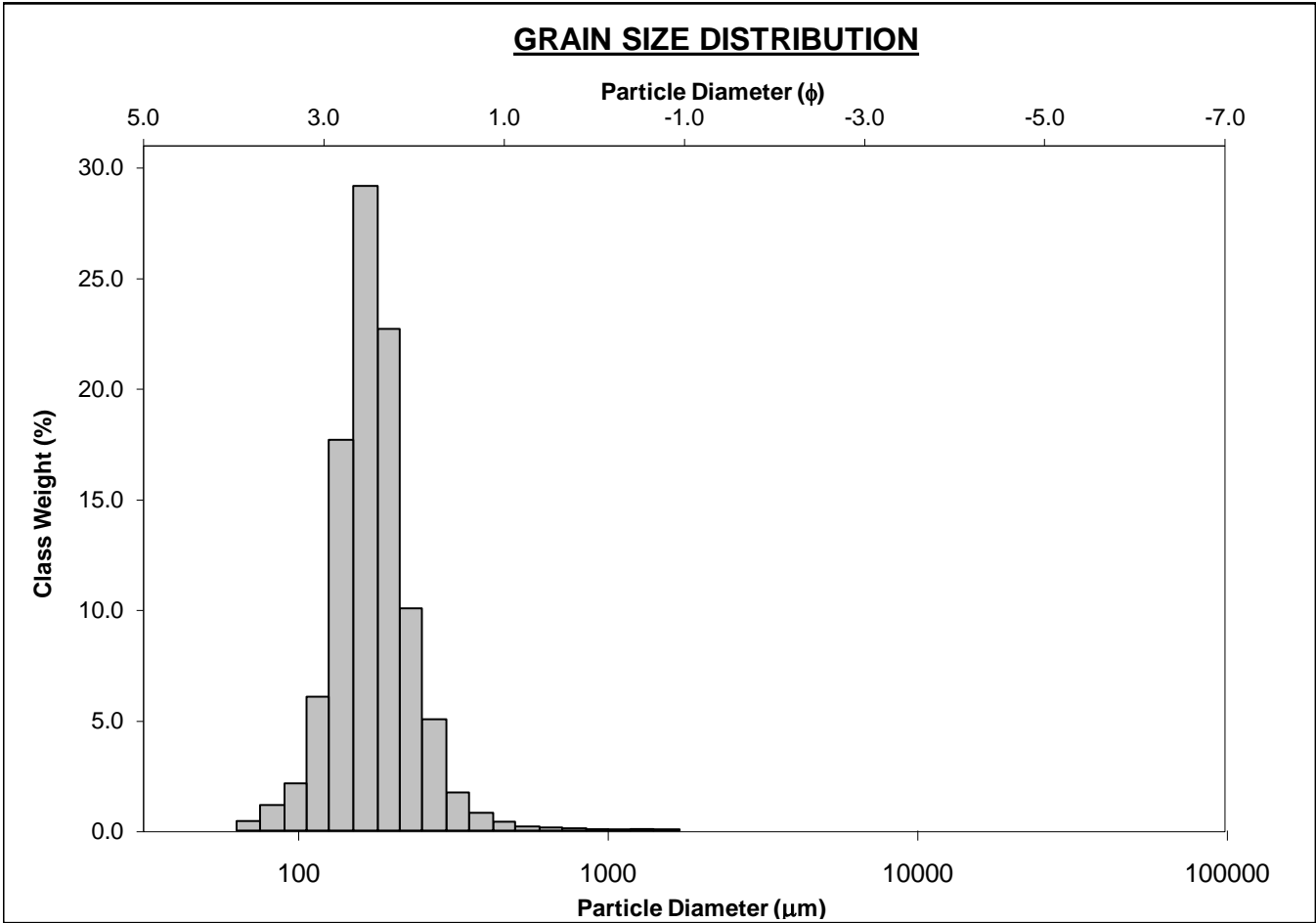
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-12-110cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.4%			
MODE 2:			SAND: 98.6% MEDIUM SAND: 7.0%			
MODE 3:			MUD: 1.4% FINE SAND: 75.6%			
D ₁₀ :	110.4	2.089	V FINE SAND: 15.6%			
MEDIAN or D ₅₀ :	157.4	2.668	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.2%			
D ₉₀ :	235.1	3.179	COARSE GRAVEL: 0.0% COARSE SILT: 0.2%			
(D ₉₀ / D ₁₀):	2.129	1.522	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.2%			
(D ₉₀ - D ₁₀):	124.7	1.090	FINE GRAVEL: 0.0% FINE SILT: 0.2%			
(D ₇₅ / D ₂₅):	1.406	1.203	V FINE GRAVEL: 0.0% V FINE SILT: 0.2%			
(D ₇₅ - D ₂₅):	53.76	0.491	V COARSE SAND: 0.0% CLAY: 0.2%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	167.6	153.9	2.700	159.0	2.653	Fine Sand
SORTING (σ):	65.14	1.594	0.673	1.345	0.428	Well Sorted
SKEWNESS (Sk):	3.485	-3.327	3.327	0.047	-0.047	Symmetrical
KURTOSIS (K):	32.33	24.20	24.20	1.311	1.311	Leptokurtic



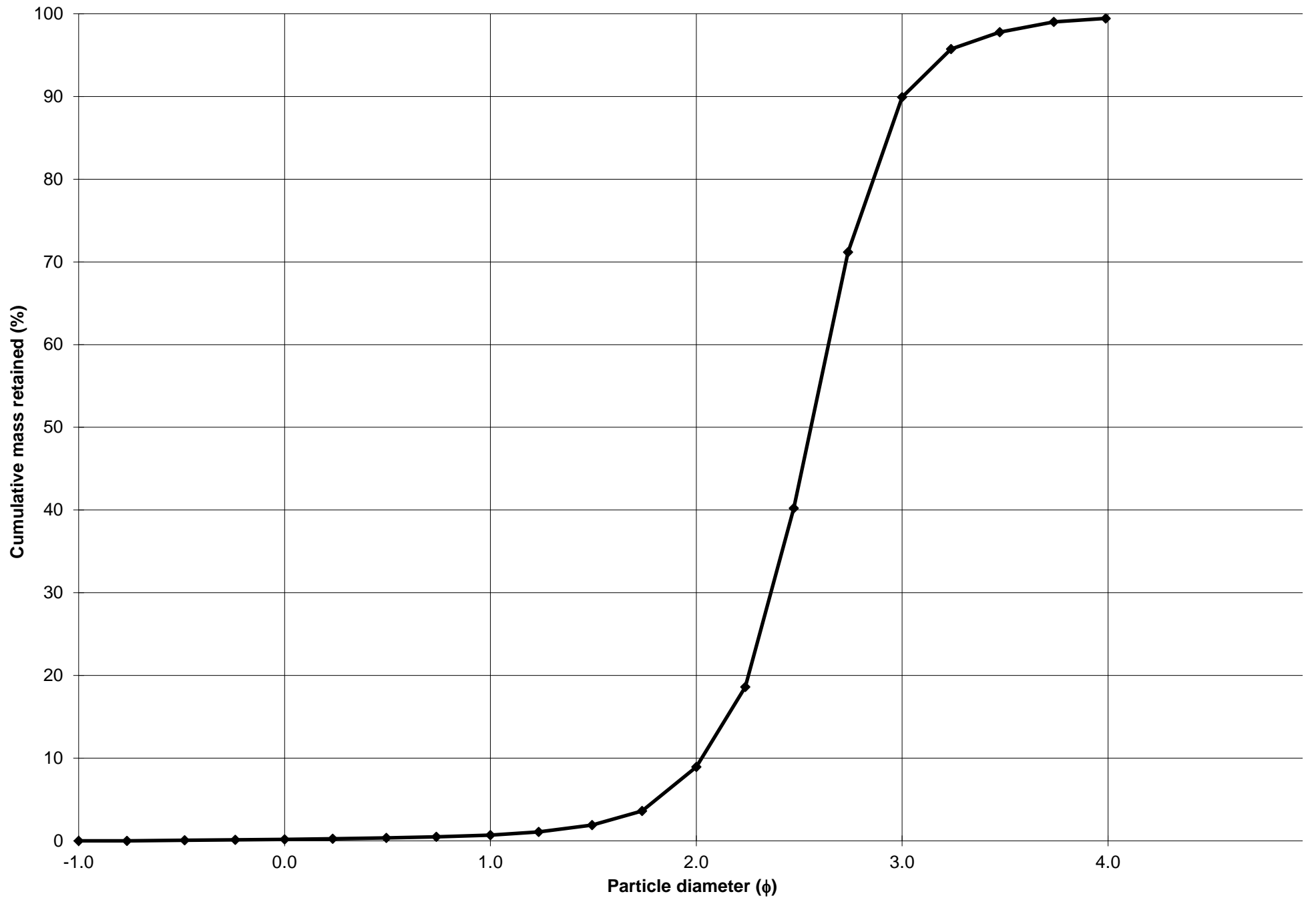
Cumulative Frequency Curve



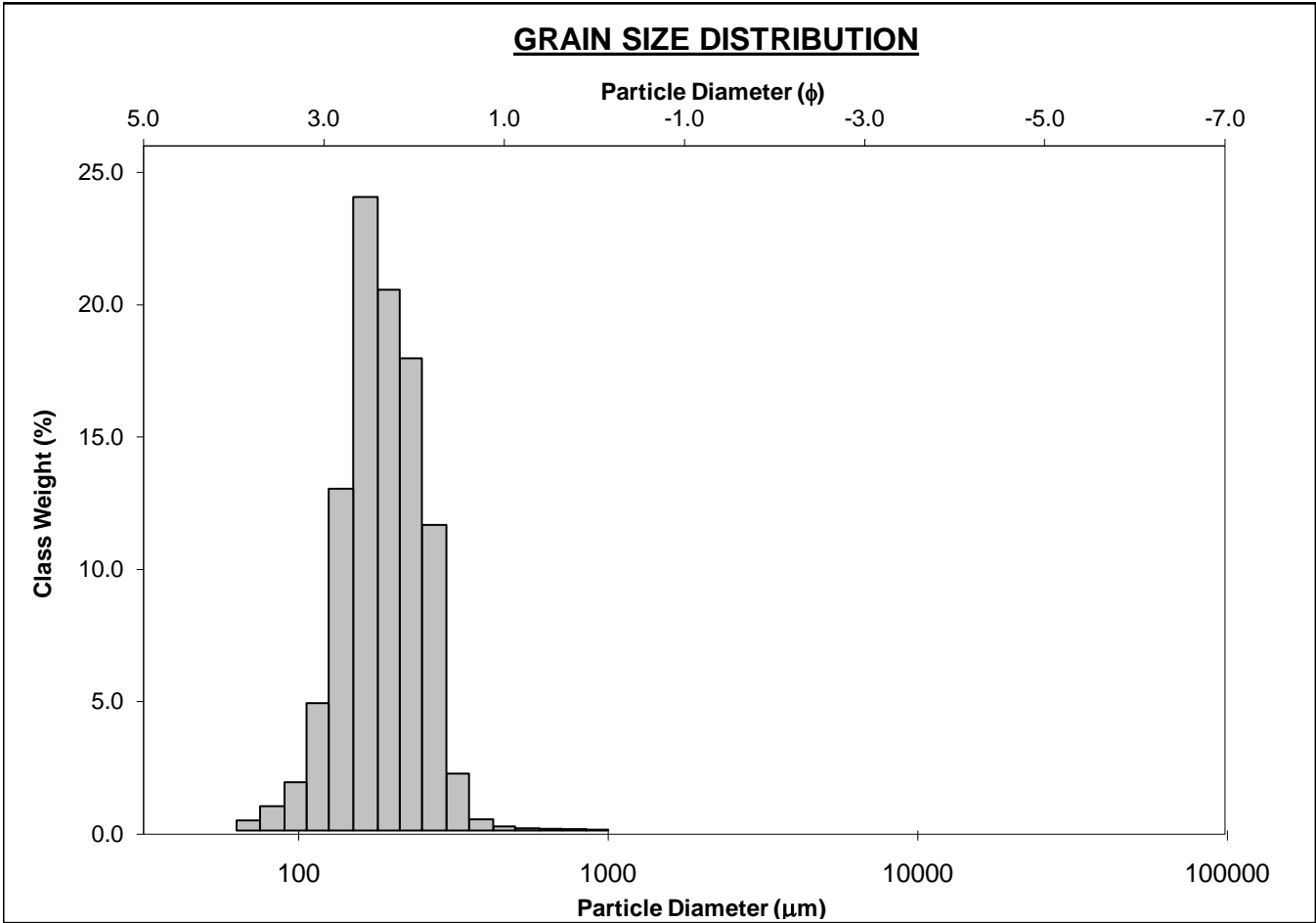
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-12-120cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%	COARSE SAND: 0.5%		
MODE 2:			SAND: 99.4%	MEDIUM SAND: 8.3%		
MODE 3:			MUD: 0.6%	FINE SAND: 81.0%		
D ₁₀ :	124.8	2.026		V FINE SAND: 9.5%		
MEDIAN or D ₅₀ :	169.9	2.557	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.1%		
D ₉₀ :	245.5	3.003	COARSE GRAVEL: 0.0%	COARSE SILT: 0.1%		
(D ₉₀ / D ₁₀):	1.968	1.482	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.1%		
(D ₉₀ - D ₁₀):	120.8	0.977	FINE GRAVEL: 0.0%	FINE SILT: 0.1%		
(D ₇₅ / D ₂₅):	1.398	1.209	V FINE GRAVEL: 0.0%	V FINE SILT: 0.1%		
(D ₇₅ - D ₂₅):	57.45	0.483	V COARSE SAND: 0.2%	CLAY: 0.1%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	182.9	170.4	2.553	170.8	2.549	Fine Sand
SORTING (σ):	81.86	1.465	0.551	1.318	0.398	Well Sorted
SKEWNESS (Sk):	7.048	-2.297	2.297	0.052	-0.052	Symmetrical
KURTOSIS (K):	91.74	26.99	26.99	1.190	1.190	Leptokurtic



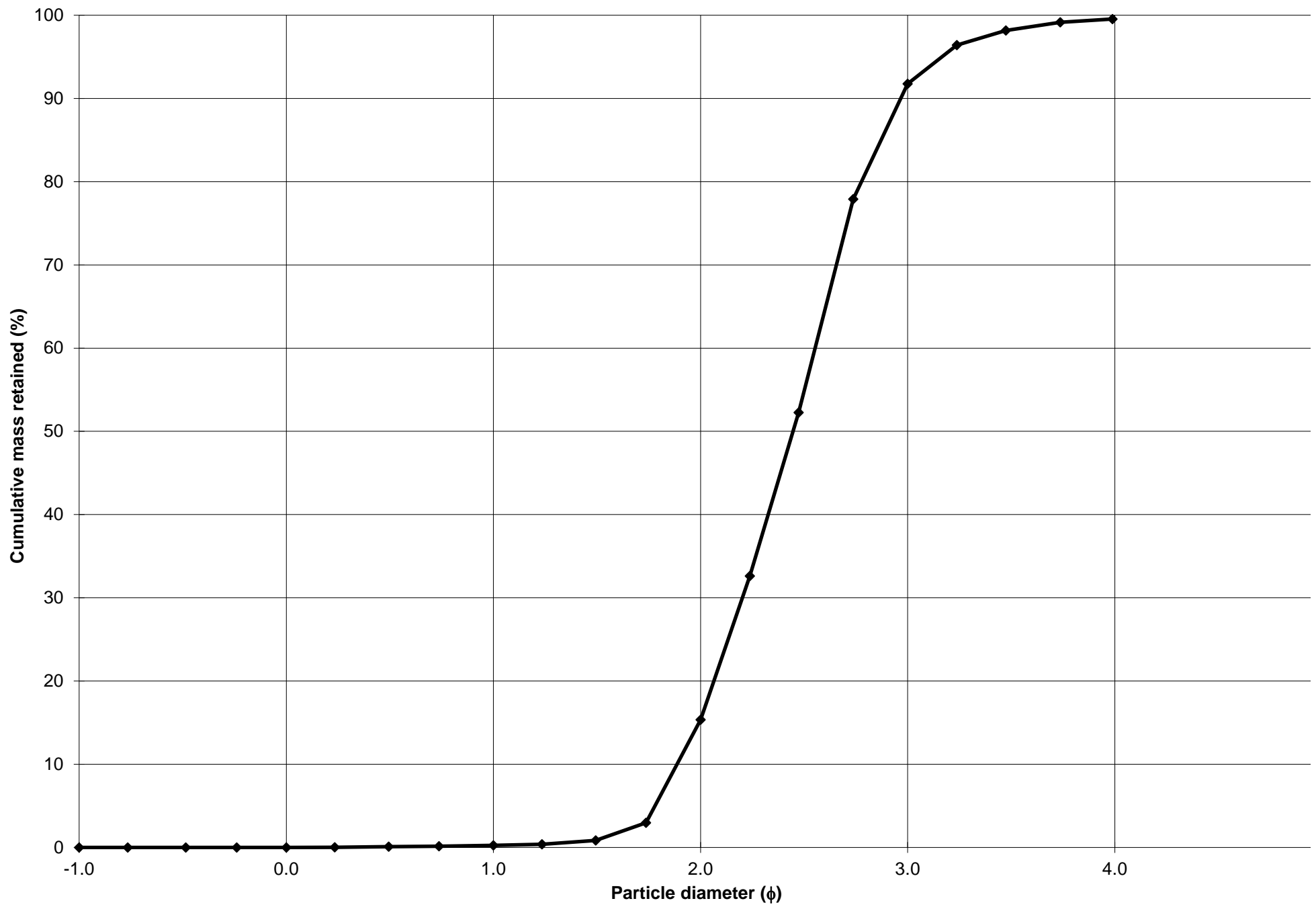
Cumulative Frequency Curve



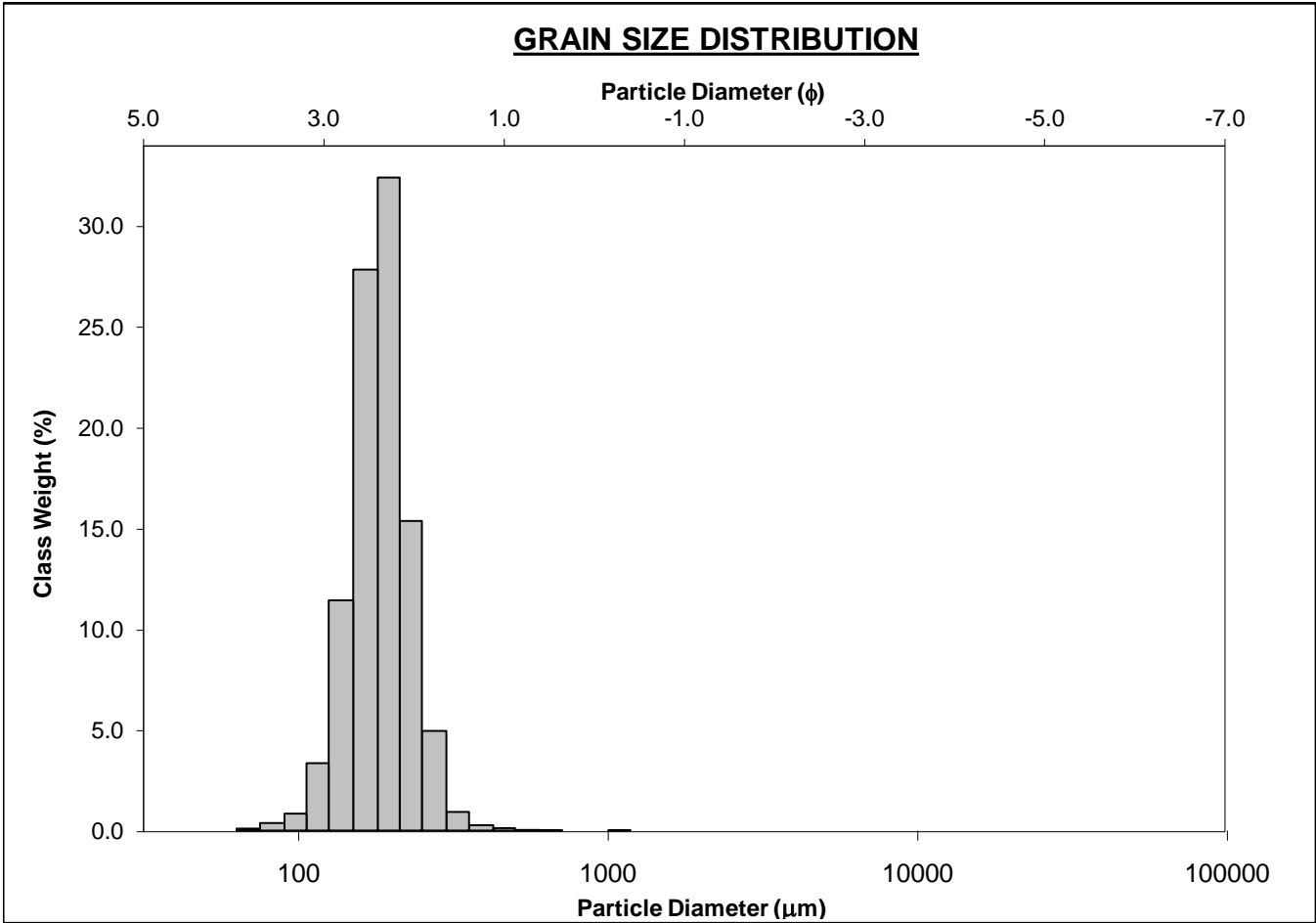
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-12-130cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.2%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 15.1%	
MODE 3:			MUD: 0.5%		FINE SAND: 76.4%	
D ₁₀ :	127.9	1.886			V FINE SAND: 7.8%	
MEDIAN or D ₅₀ :	183.4	2.447	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	270.5	2.967	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.115	1.573	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	142.6	1.080	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.489	1.269	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	74.86	0.574	V COARSE SAND: 0.0%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	193.2	182.3	2.456	184.8	2.436	Fine Sand
SORTING (σ):	61.17	1.439	0.525	1.339	0.421	Well Sorted
SKEWNESS (Sk):	1.894	-2.909	2.909	0.000	0.000	Symmetrical
KURTOSIS (K):	17.34	27.36	27.36	0.989	0.989	Mesokurtic



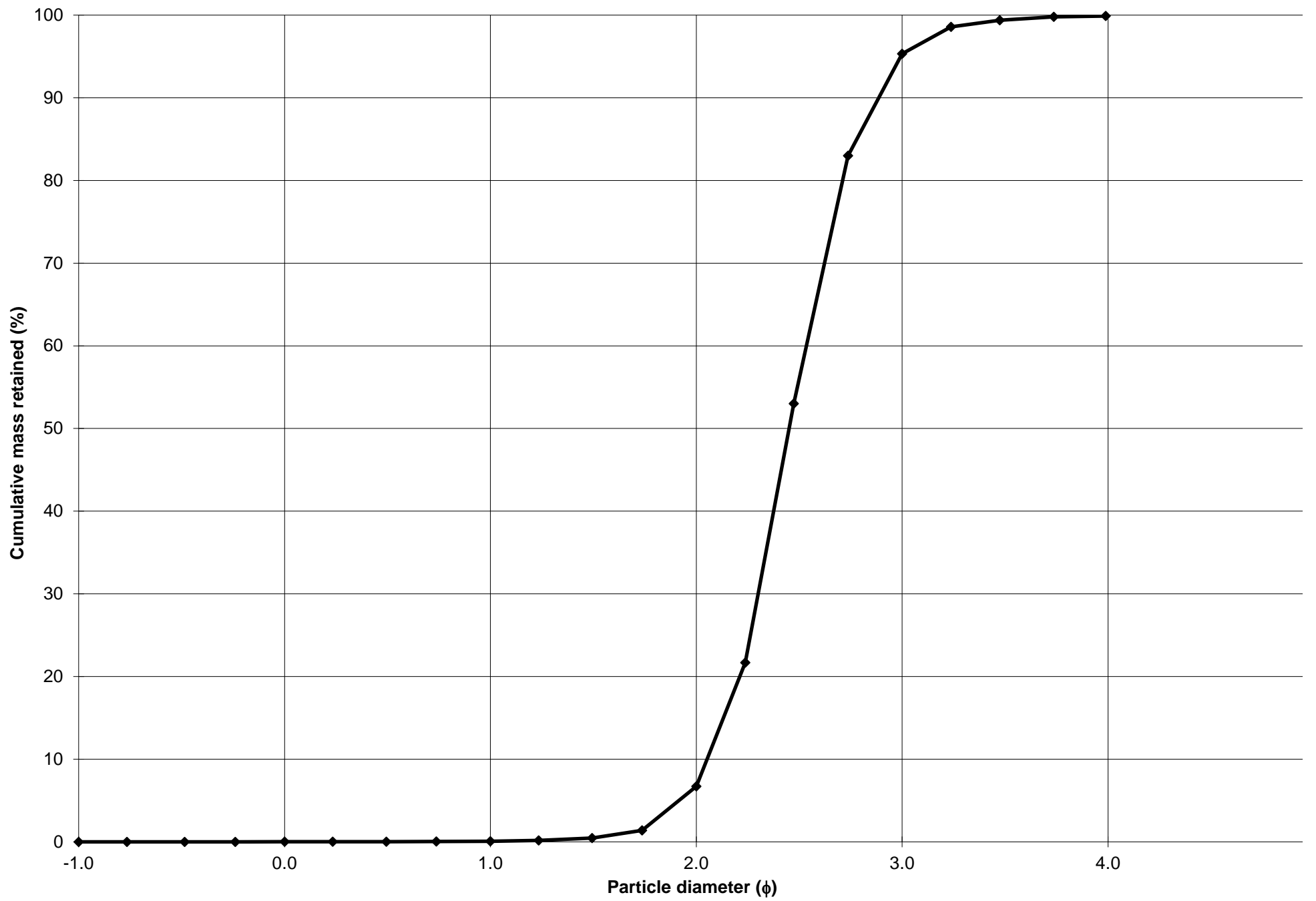
Cumulative Frequency Curve



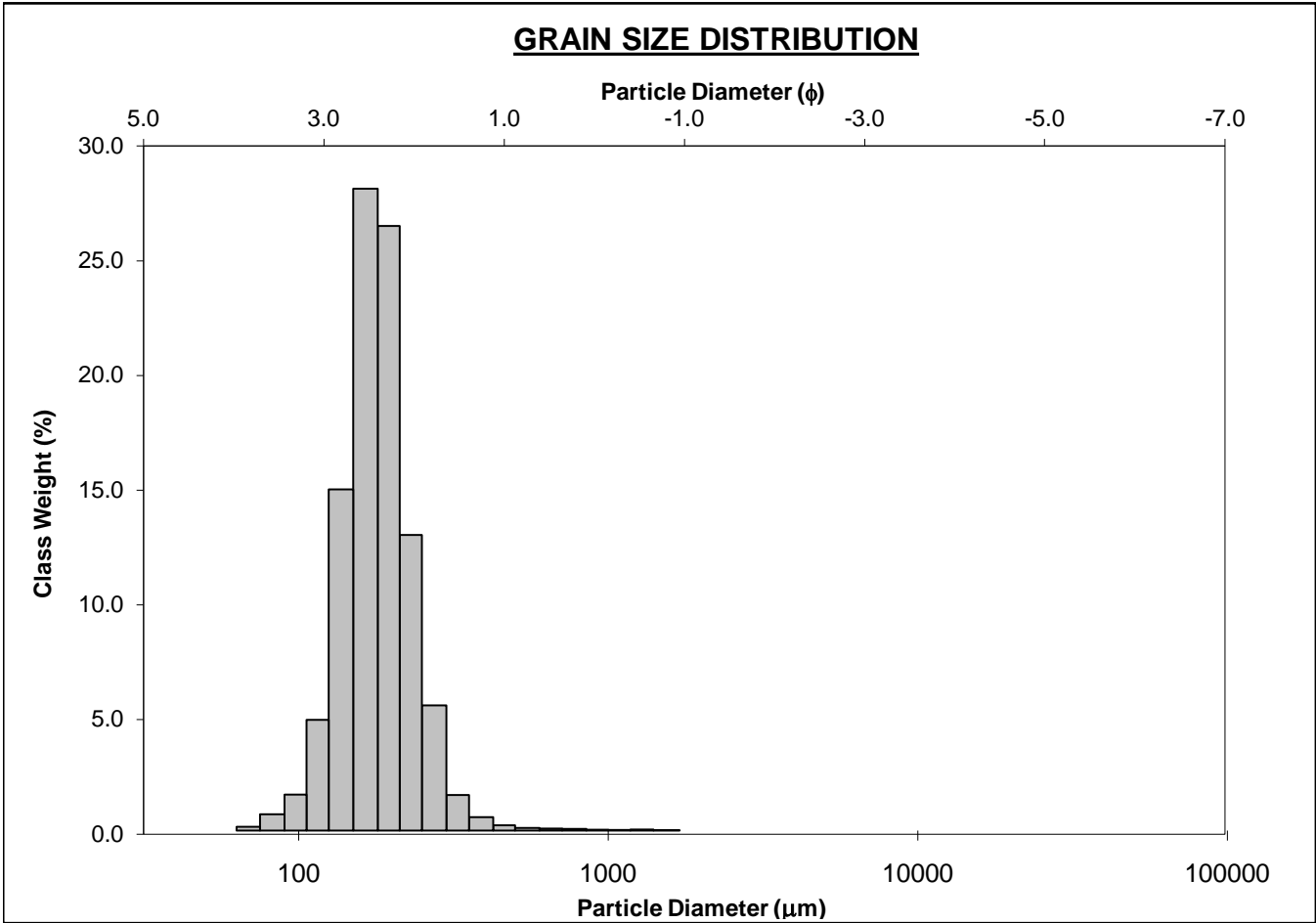
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-12-140cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 0.1%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 6.7%			
MODE 3:			MUD: 0.1% FINE SAND: 88.6%			
D ₁₀ :	135.2	2.052	V FINE SAND: 4.6%			
MEDIAN or D ₅₀ :	182.9	2.451	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	241.1	2.886	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.783	1.407	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	105.9	0.834	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.323	1.179	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	50.88	0.404	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	187.2	181.1	2.465	182.7	2.452	Fine Sand
SORTING (σ):	45.80	1.286	0.363	1.245	0.316	Very Well Sorted
SKEWNESS (Sk):	2.427	-2.111	2.111	-0.006	0.006	Symmetrical
KURTOSIS (K):	33.65	30.47	30.47	1.094	1.094	Mesokurtic



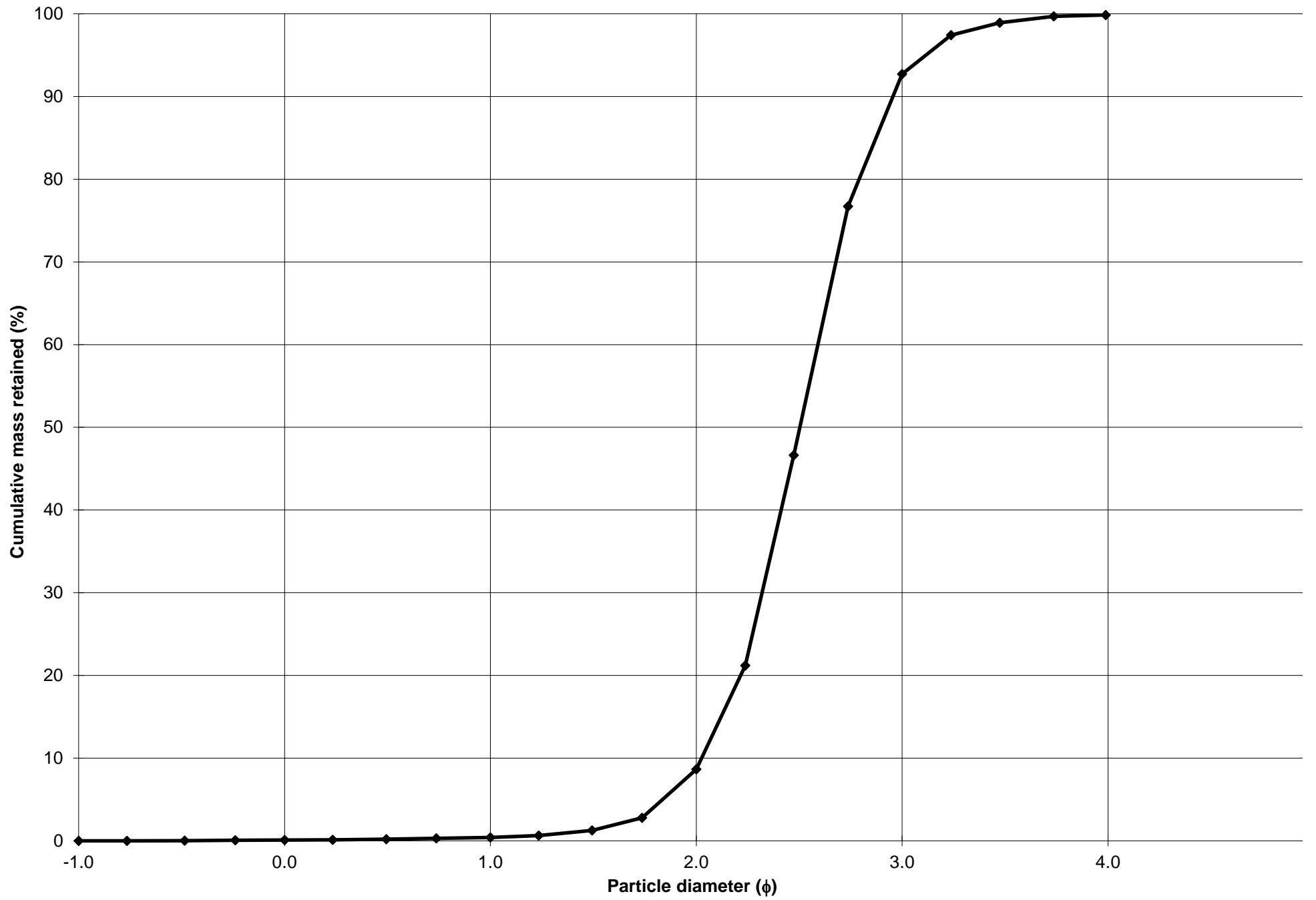
Cumulative Frequency Curve



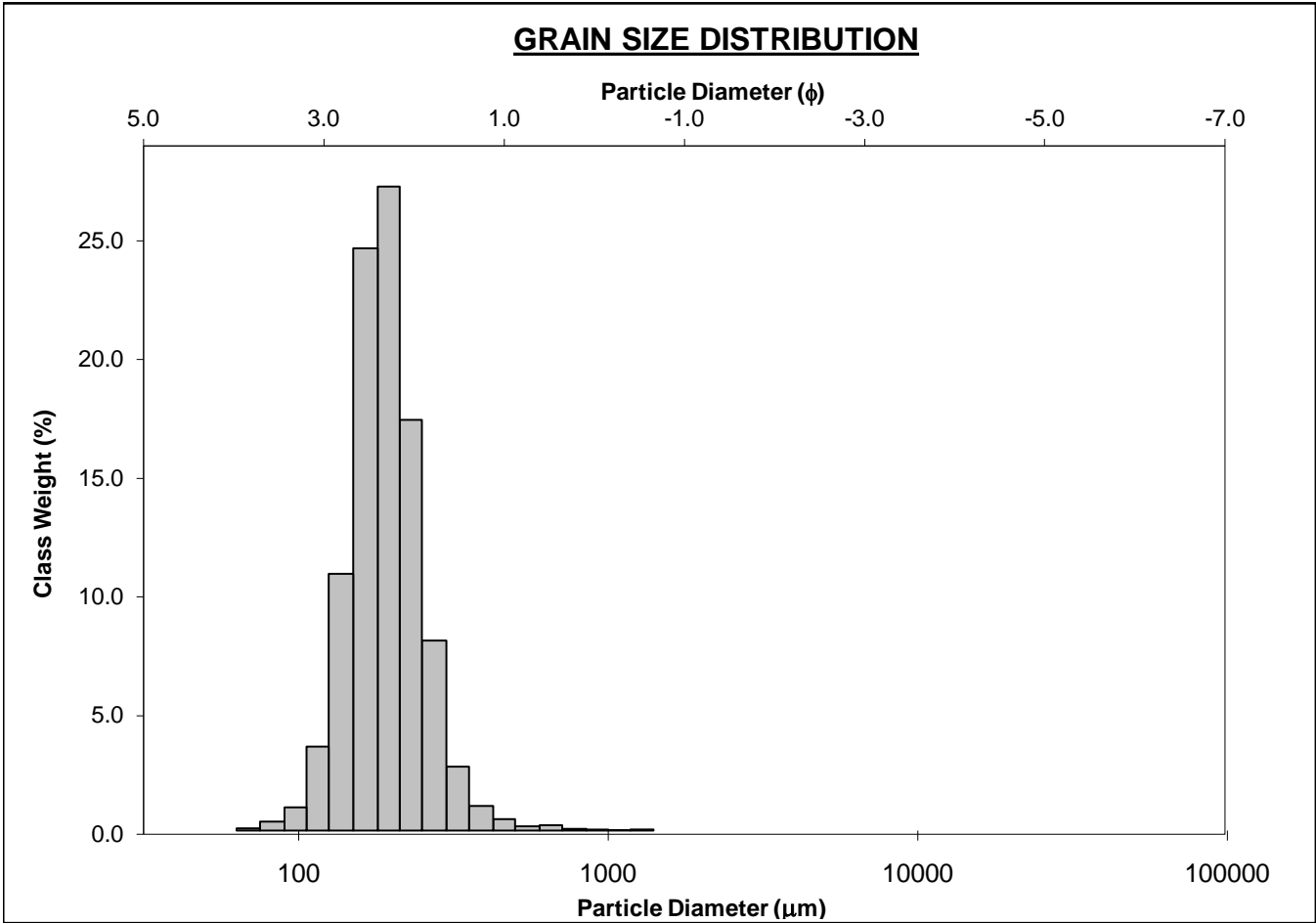
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-12-150cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.3%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 8.2%			
MODE 3:			MUD: 0.1% FINE SAND: 84.1%			
D ₁₀ :	128.9	2.025	V FINE SAND: 7.1%			
MEDIAN or D ₅₀ :	176.4	2.503	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	245.6	2.955	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.905	1.459	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	116.7	0.930	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.365	1.197	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	55.30	0.449	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	186.1	177.3	2.496	176.8	2.500	Fine Sand
SORTING (σ):	66.74	1.349	0.432	1.295	0.373	Well Sorted
SKEWNESS (Sk):	6.448	-1.032	1.032	0.029	-0.029	Symmetrical
KURTOSIS (K):	94.36	22.27	22.27	1.169	1.169	Leptokurtic



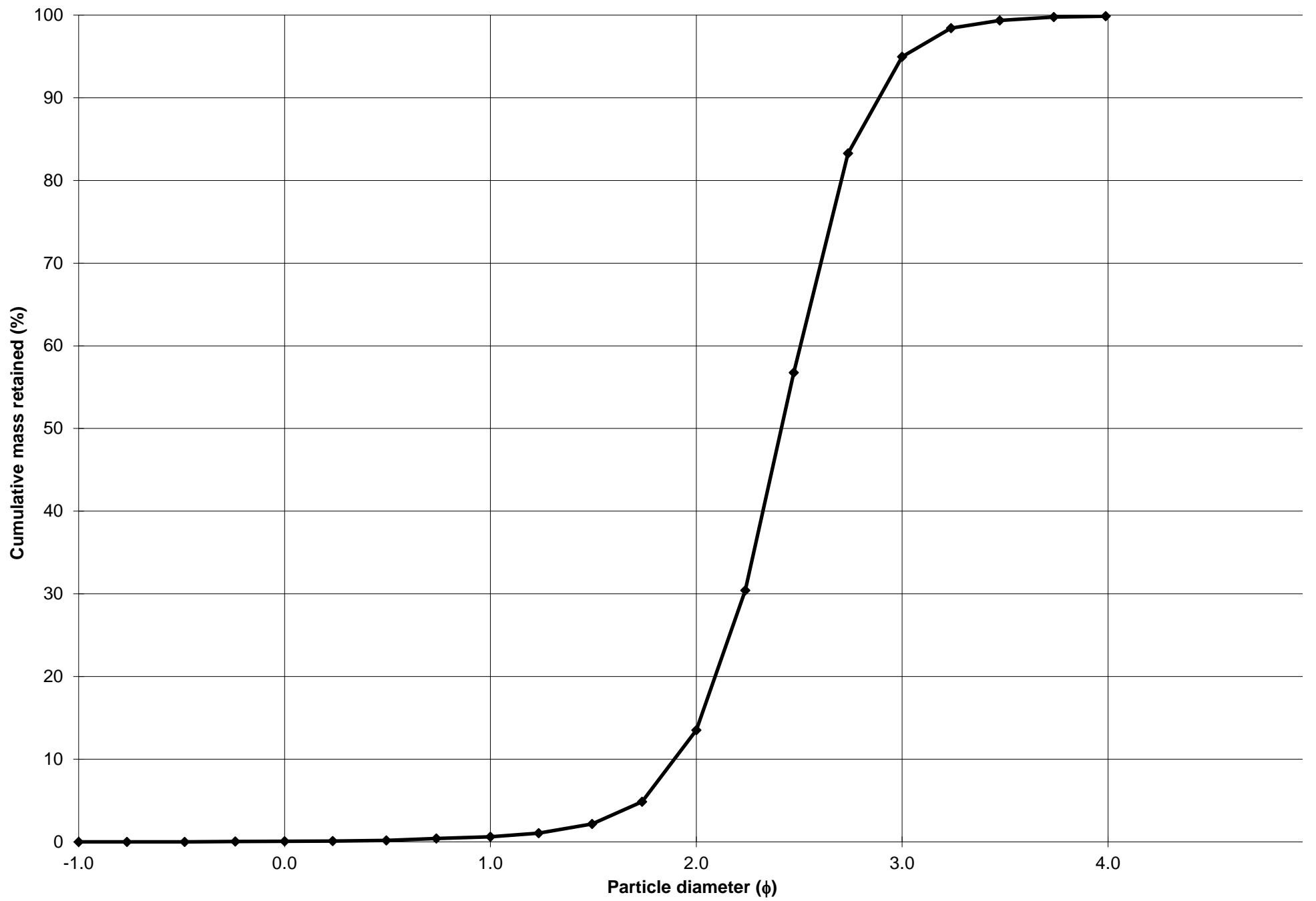
Cumulative Frequency Curve



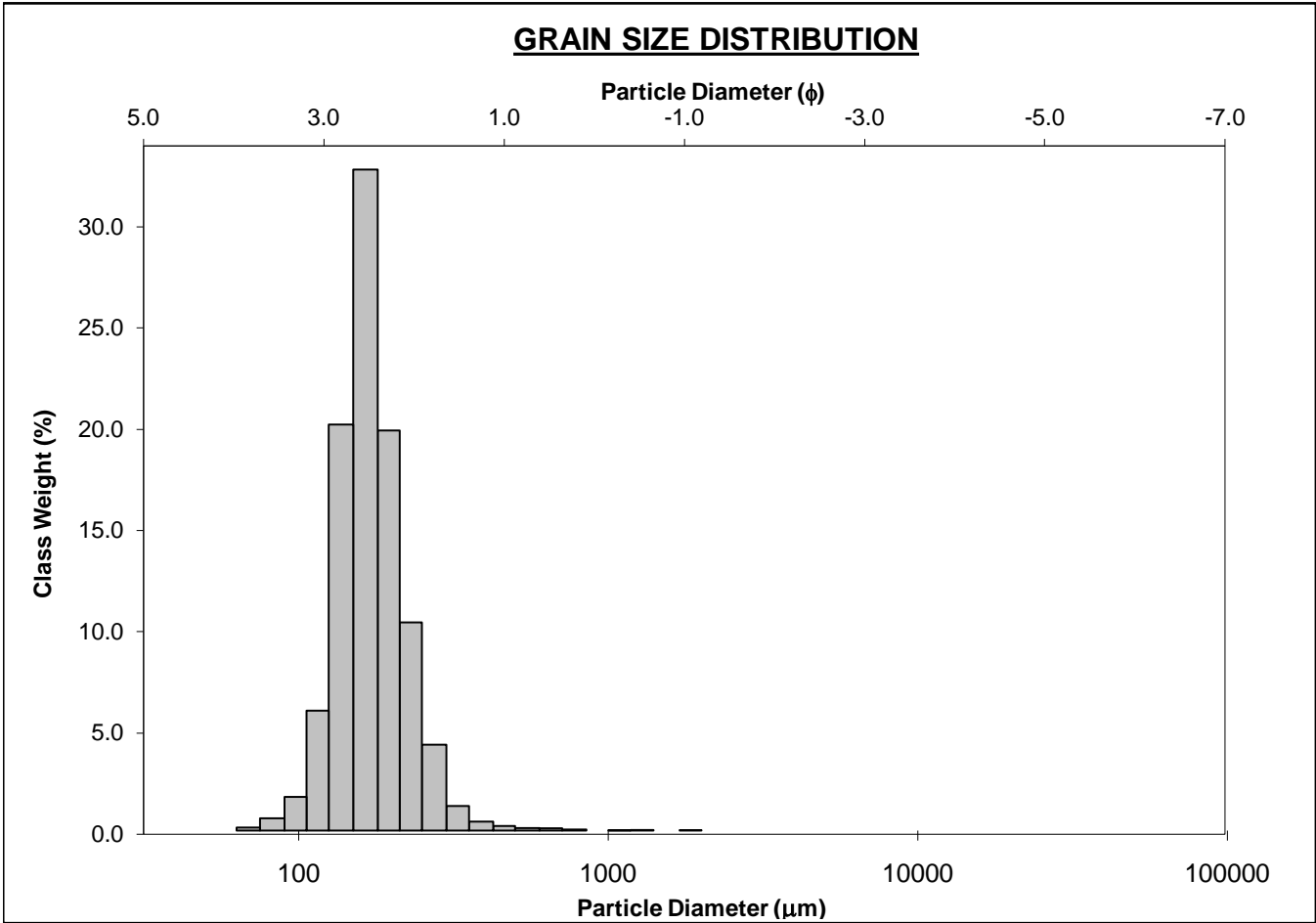
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-12-160cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 0.5%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 12.9%			
MODE 3:			MUD: 0.1% FINE SAND: 81.4%			
D ₁₀ :	135.0	1.893	V FINE SAND: 4.9%			
MEDIAN or D ₅₀ :	187.7	2.413	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	269.2	2.888	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.993	1.526	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	134.2	0.995	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.408	1.228	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	64.75	0.493	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	199.2	189.4	2.401	189.4	2.401	Fine Sand
SORTING (σ):	70.19	1.359	0.442	1.293	0.371	Well Sorted
SKEWNESS (Sk):	4.394	-0.902	0.902	0.059	-0.059	Symmetrical
KURTOSIS (K):	47.72	19.95	19.95	1.048	1.048	Mesokurtic



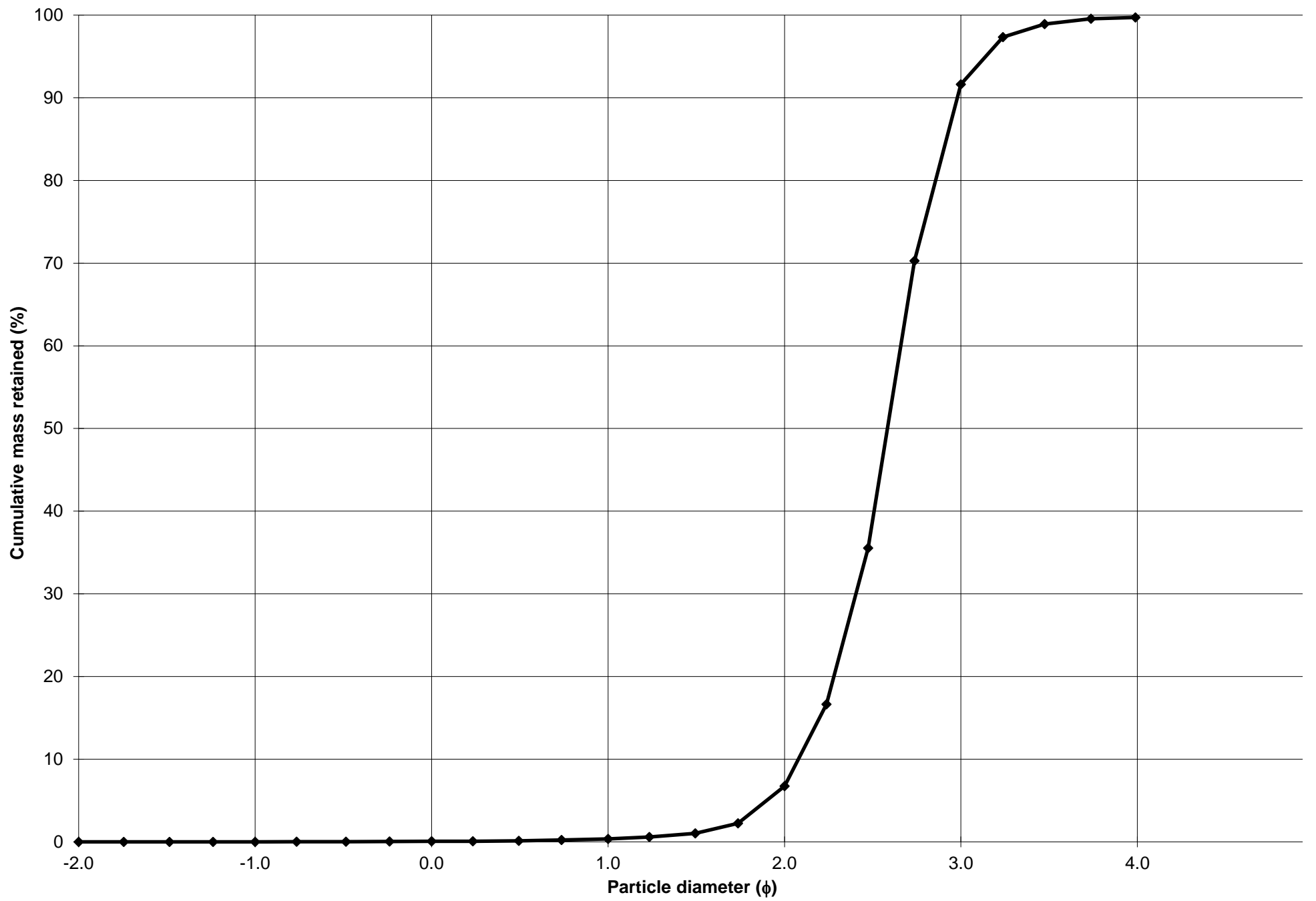
Cumulative Frequency Curve



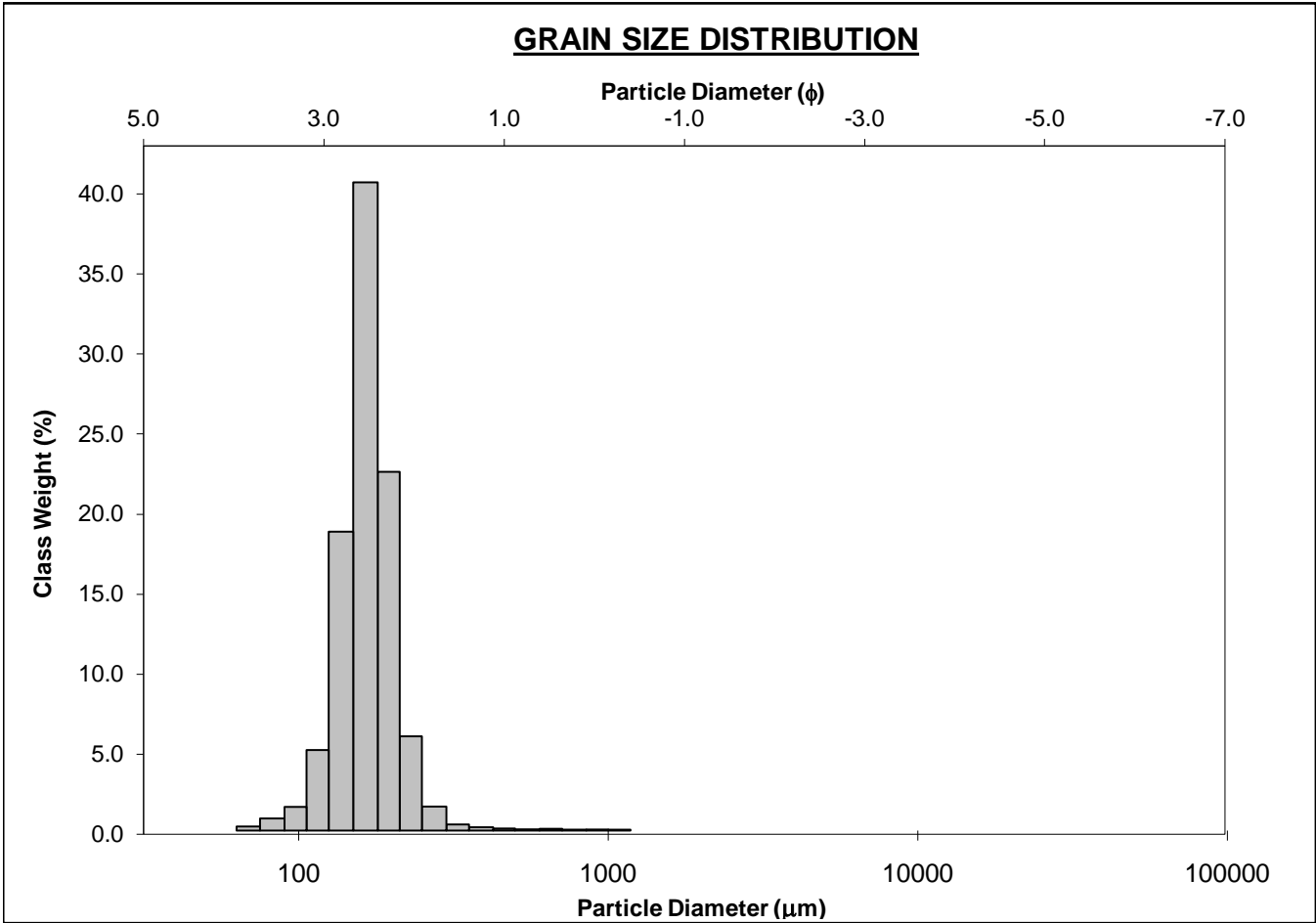
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-12-170cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.3%			
MODE 2:			SAND: 99.7% MEDIUM SAND: 6.4%			
MODE 3:			MUD: 0.3% FINE SAND: 84.9%			
D ₁₀ :	126.8	2.078	V FINE SAND: 8.1%			
MEDIAN or D ₅₀ :	166.8	2.583	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	236.8	2.980	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.868	1.434	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	110.1	0.902	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.369	1.193	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	53.12	0.453	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	177.3	168.8	2.567	168.3	2.571	Fine Sand
SORTING (σ):	62.93	1.365	0.449	1.283	0.359	Well Sorted
SKEWNESS (Sk):	7.679	-2.113	2.113	0.080	-0.080	Symmetrical
KURTOSIS (K):	149.6	31.05	31.05	1.125	1.125	Leptokurtic



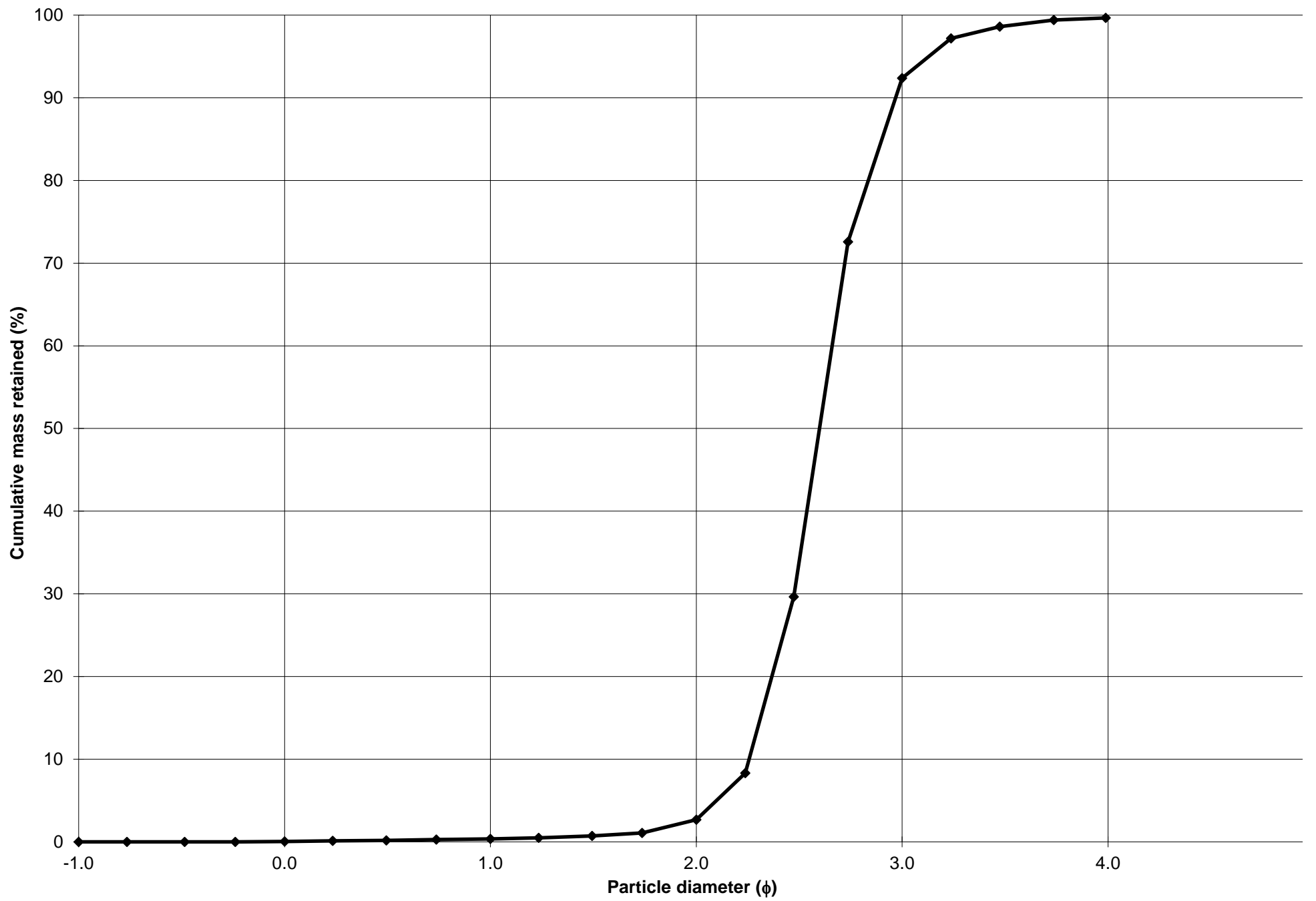
Cumulative Frequency Curve



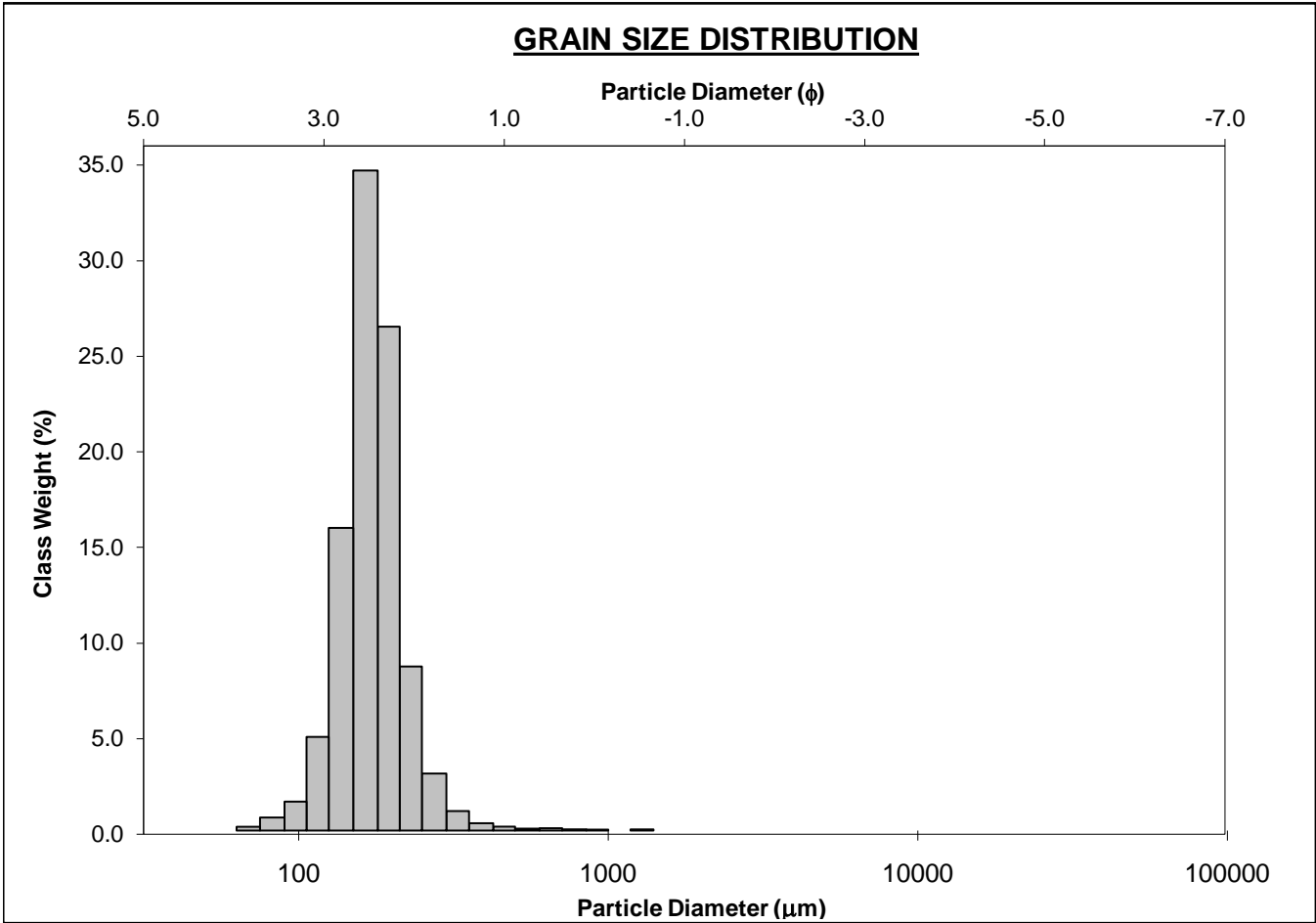
SIEVING ERROR: 0.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-12-180cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.3%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 2.3%	
MODE 3:			MUD: 0.3%		FINE SAND: 89.7%	
D ₁₀ :	127.8	2.257			V FINE SAND: 7.3%	
MEDIAN or D ₅₀ :	165.1	2.599	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	209.3	2.968	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	1.638	1.316	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	81.52	0.712	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.272	1.143	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	39.84	0.347	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	170.6	163.7	2.610	164.5	2.603	Fine Sand
SORTING (σ):	53.19	1.336	0.418	1.229	0.298	Very Well Sorted
SKEWNESS (Sk):	7.011	-3.370	3.370	-0.027	0.027	Symmetrical
KURTOSIS (K):	96.11	45.83	45.83	1.220	1.220	Leptokurtic



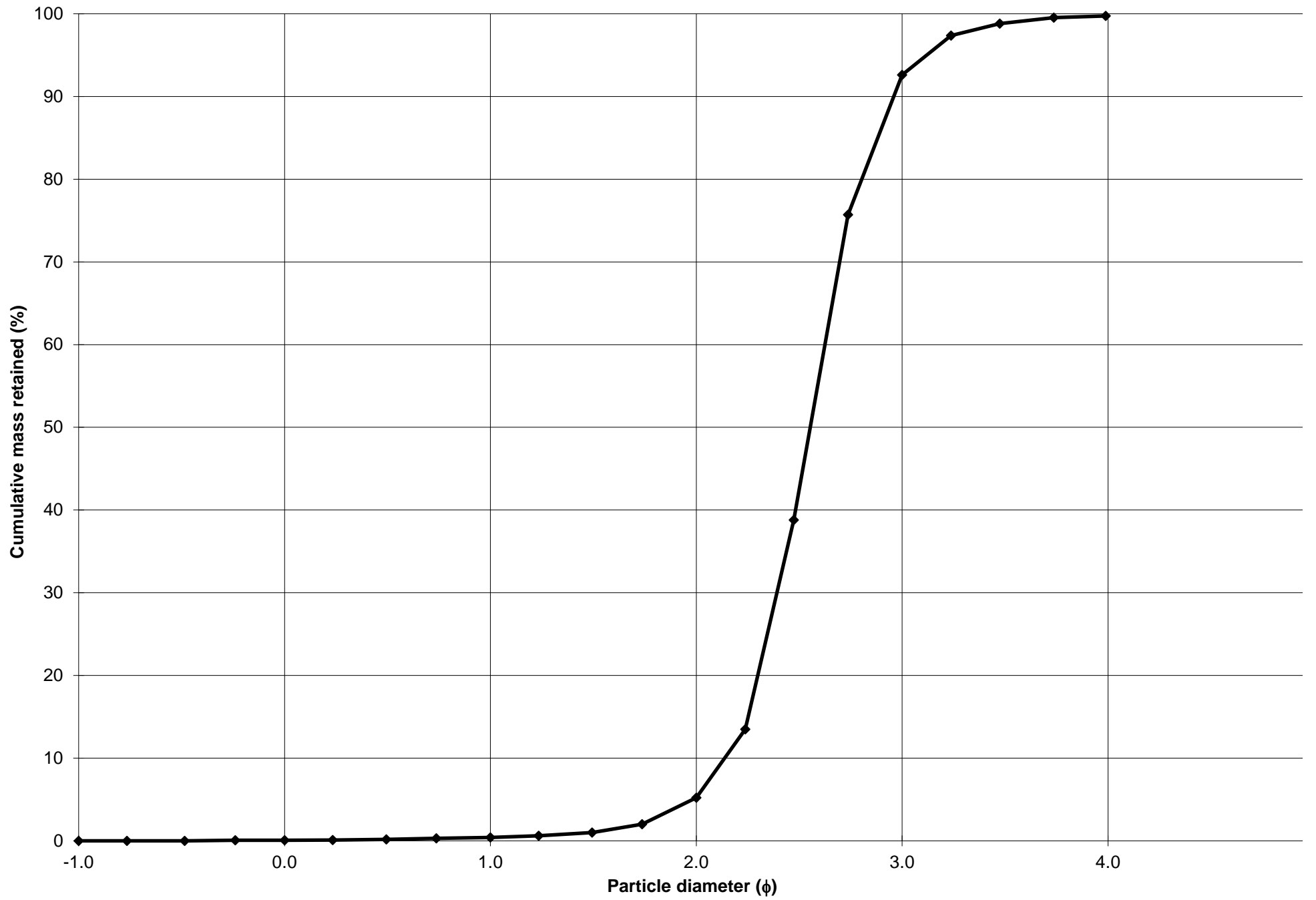
Cumulative Frequency Curve



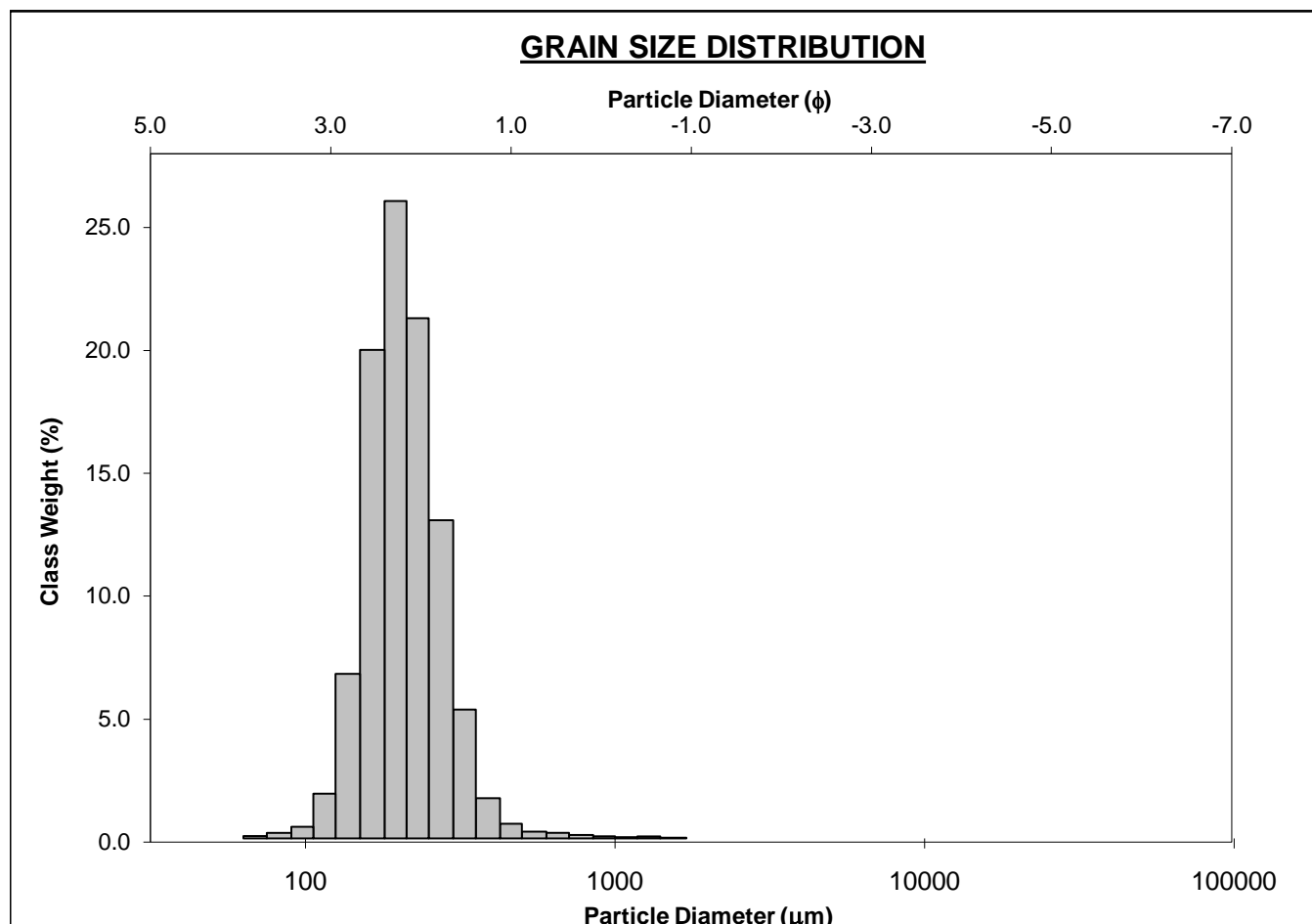
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-12-190cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.3%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 4.8%	
MODE 3:			MUD: 0.3%		FINE SAND: 87.4%	
D ₁₀ :	128.6	2.138			V FINE SAND: 7.1%	
MEDIAN or D ₅₀ :	170.3	2.554	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	227.3	2.959	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.768	1.384	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	98.69	0.822	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.307	1.165	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	46.28	0.387	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	178.3	170.4	2.553	169.5	2.560	Fine Sand
SORTING (σ):	60.27	1.346	0.429	1.251	0.323	Very Well Sorted
SKEWNESS (Sk):	6.747	-2.317	2.317	-0.014	0.014	Symmetrical
KURTOSIS (K):	97.09	35.21	35.21	1.204	1.204	Leptokurtic



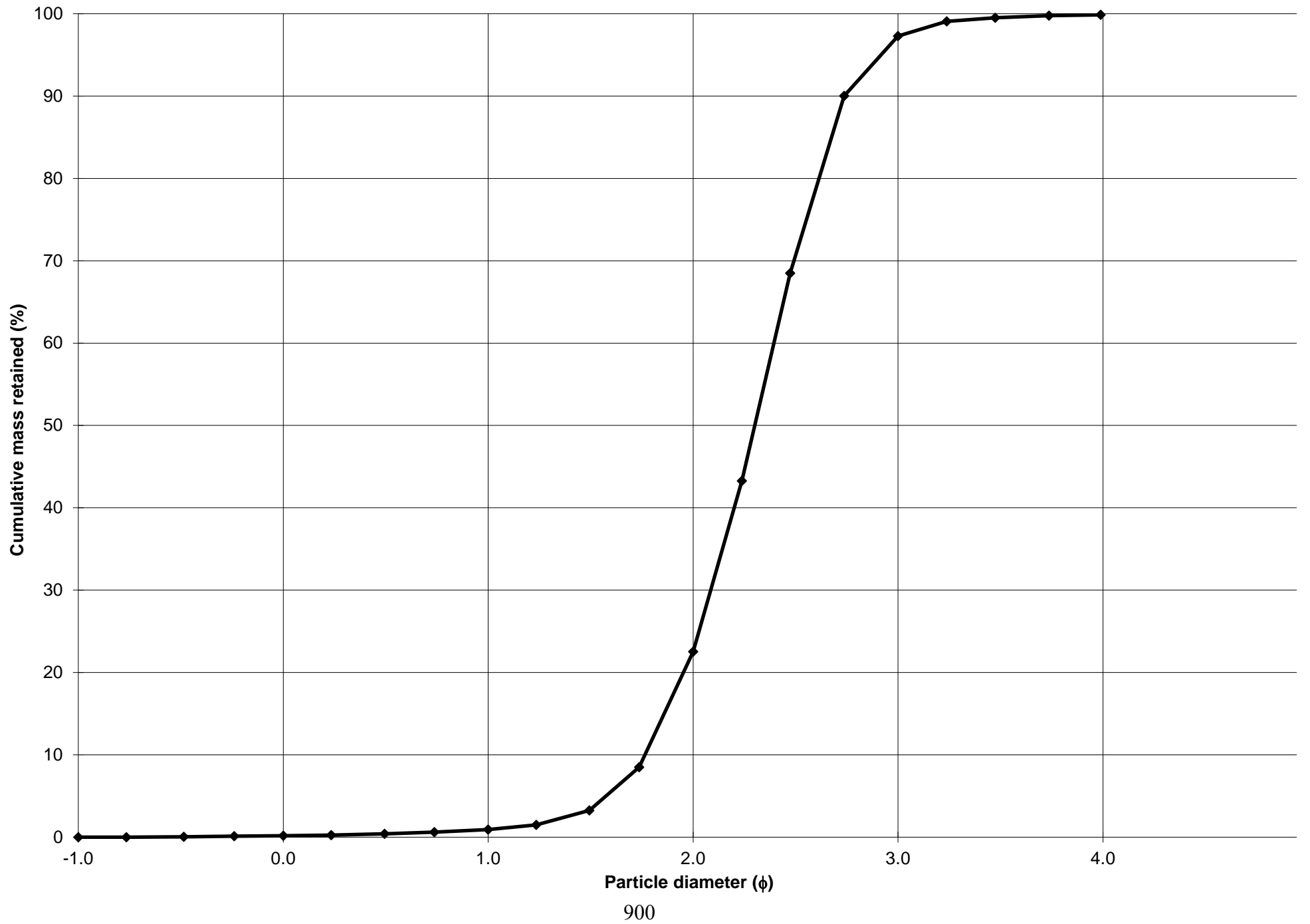
Cumulative Frequency Curve



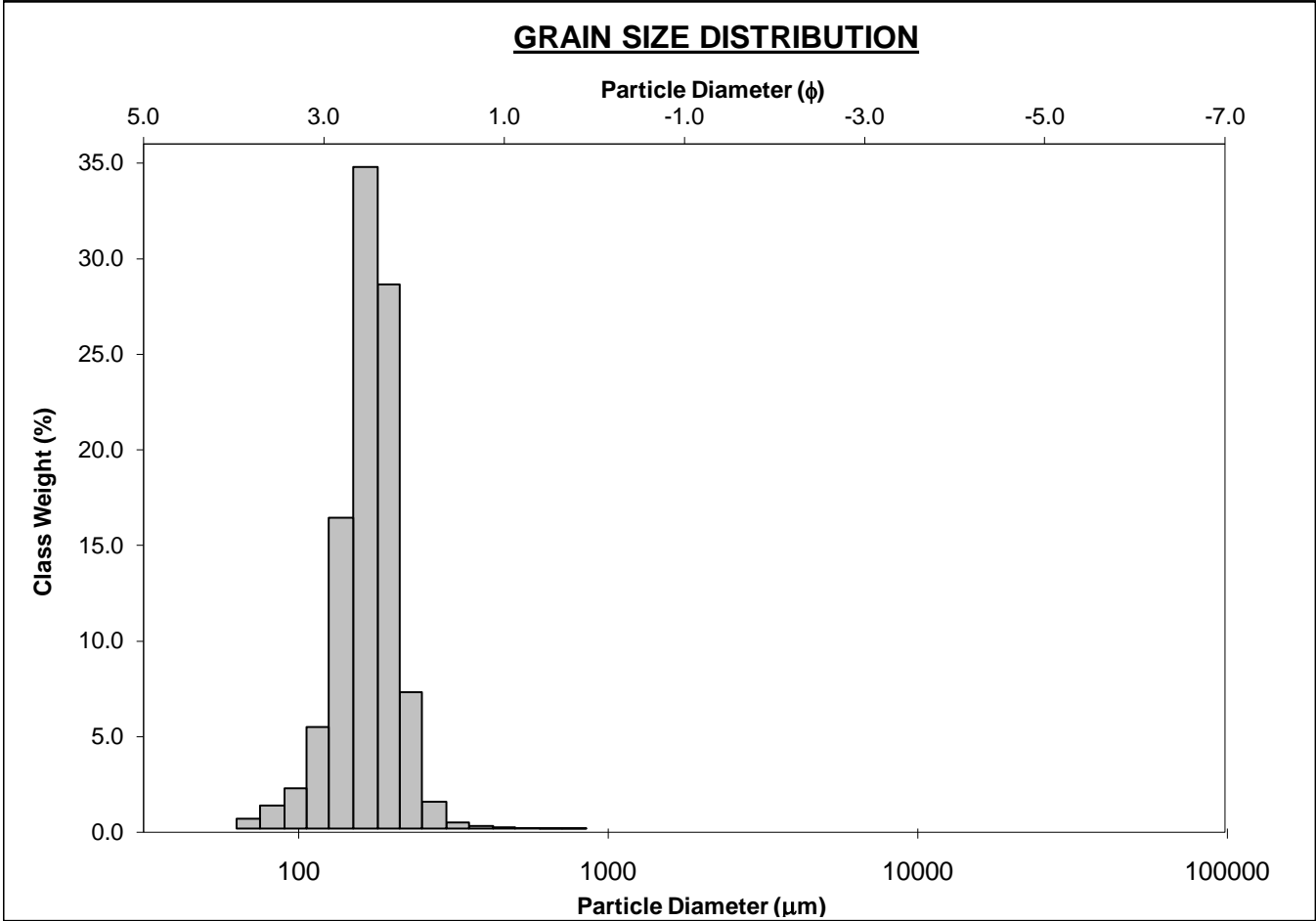
SIEVING ERROR: 0.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-12-200cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 0.8%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 21.6%	
MODE 3:			MUD: 0.1%		FINE SAND: 74.8%	
D ₁₀ :	150.0	1.765			V FINE SAND: 2.6%	
MEDIAN or D ₅₀ :	202.9	2.301	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	294.2	2.737	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.961	1.550	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	144.2	0.972	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.439	1.259	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	74.79	0.525	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	218.1	206.3	2.277	205.8	2.281	Fine Sand
SORTING (σ):	84.39	1.377	0.461	1.319	0.400	Well Sorted
SKEWNESS (Sk):	5.234	-0.798	0.798	0.079	-0.079	Symmetrical
KURTOSIS (K):	58.40	20.12	20.12	1.048	1.048	Mesokurtic



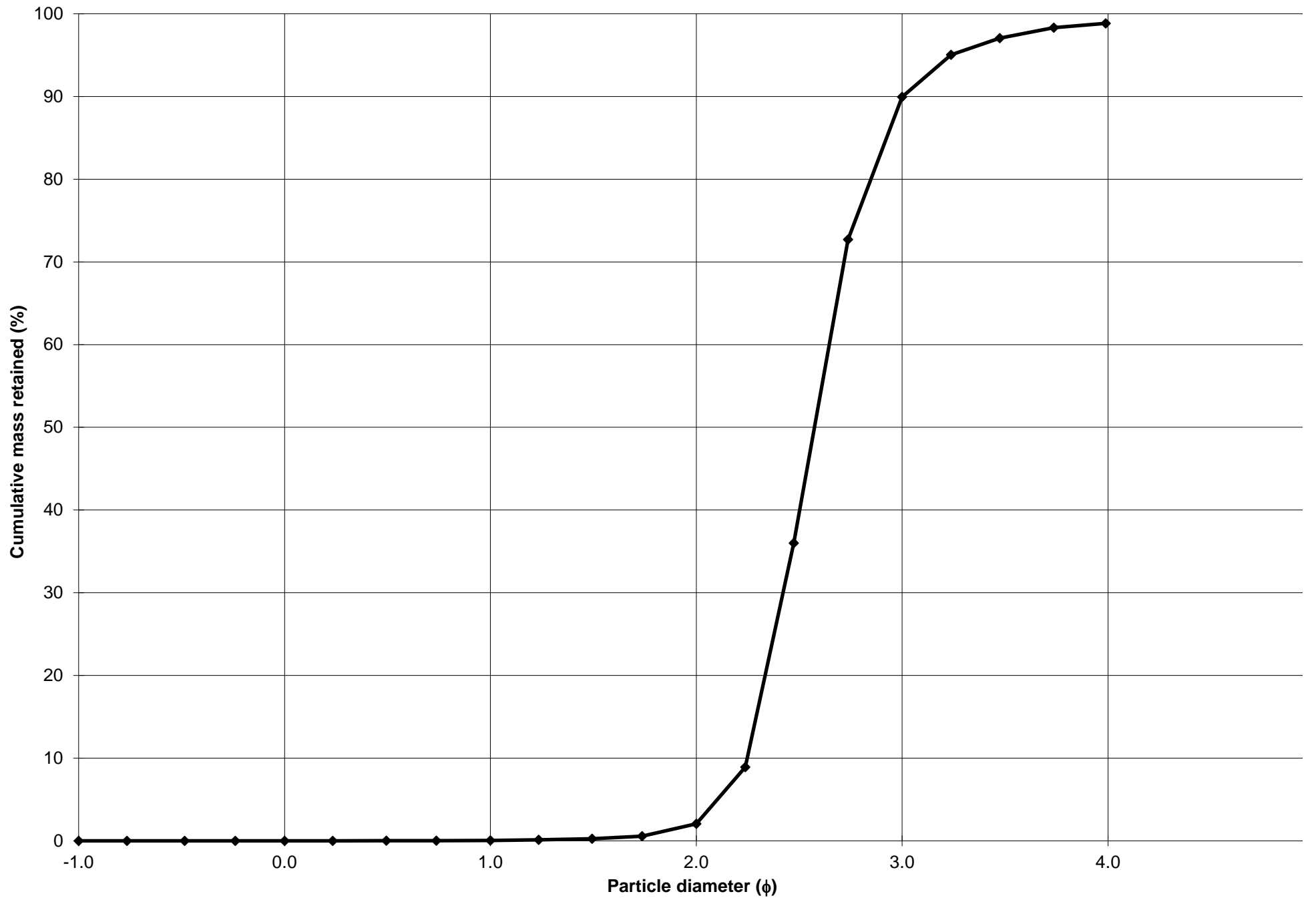
Cumulative Frequency Curve



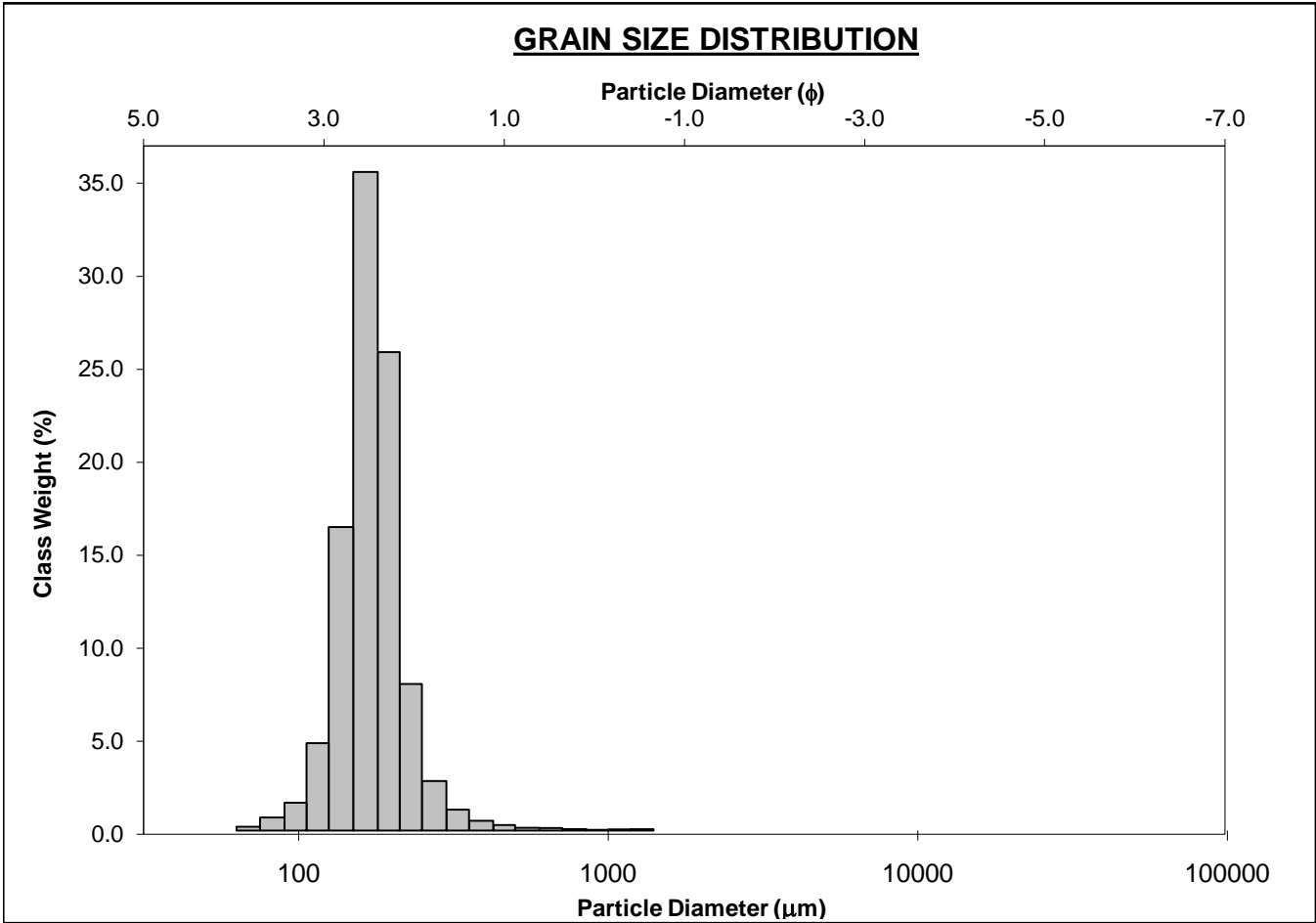
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-12-210cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.1%	
MODE 2:			SAND: 98.8%		MEDIUM SAND: 2.0%	
MODE 3:			MUD: 1.2%		FINE SAND: 87.9%	
D ₁₀ :	124.8	2.247			V FINE SAND: 8.9%	
MEDIAN or D ₅₀ :	167.9	2.574	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	210.6	3.003	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	1.688	1.336	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	85.84	0.755	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.314	1.166	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	45.97	0.394	V COARSE SAND: 0.0%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	169.1	160.0	2.644	165.6	2.594	Fine Sand
SORTING (σ):	41.58	1.488	0.574	1.252	0.324	Very Well Sorted
SKEWNESS (Sk):	1.021	-5.053	5.053	-0.133	0.133	Fine Skewed
KURTOSIS (K):	15.91	38.90	38.90	1.180	1.180	Leptokurtic



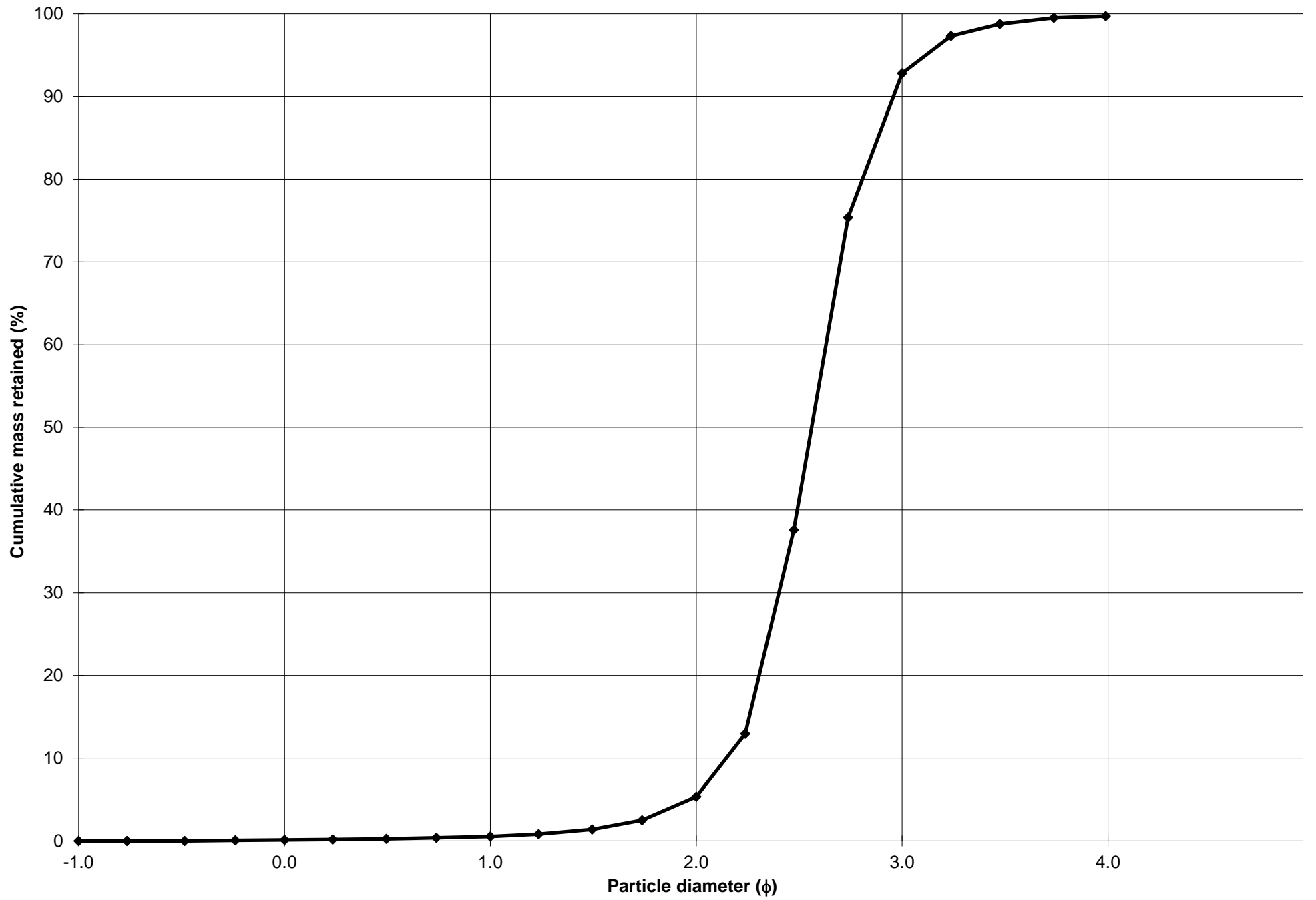
Cumulative Frequency Curve



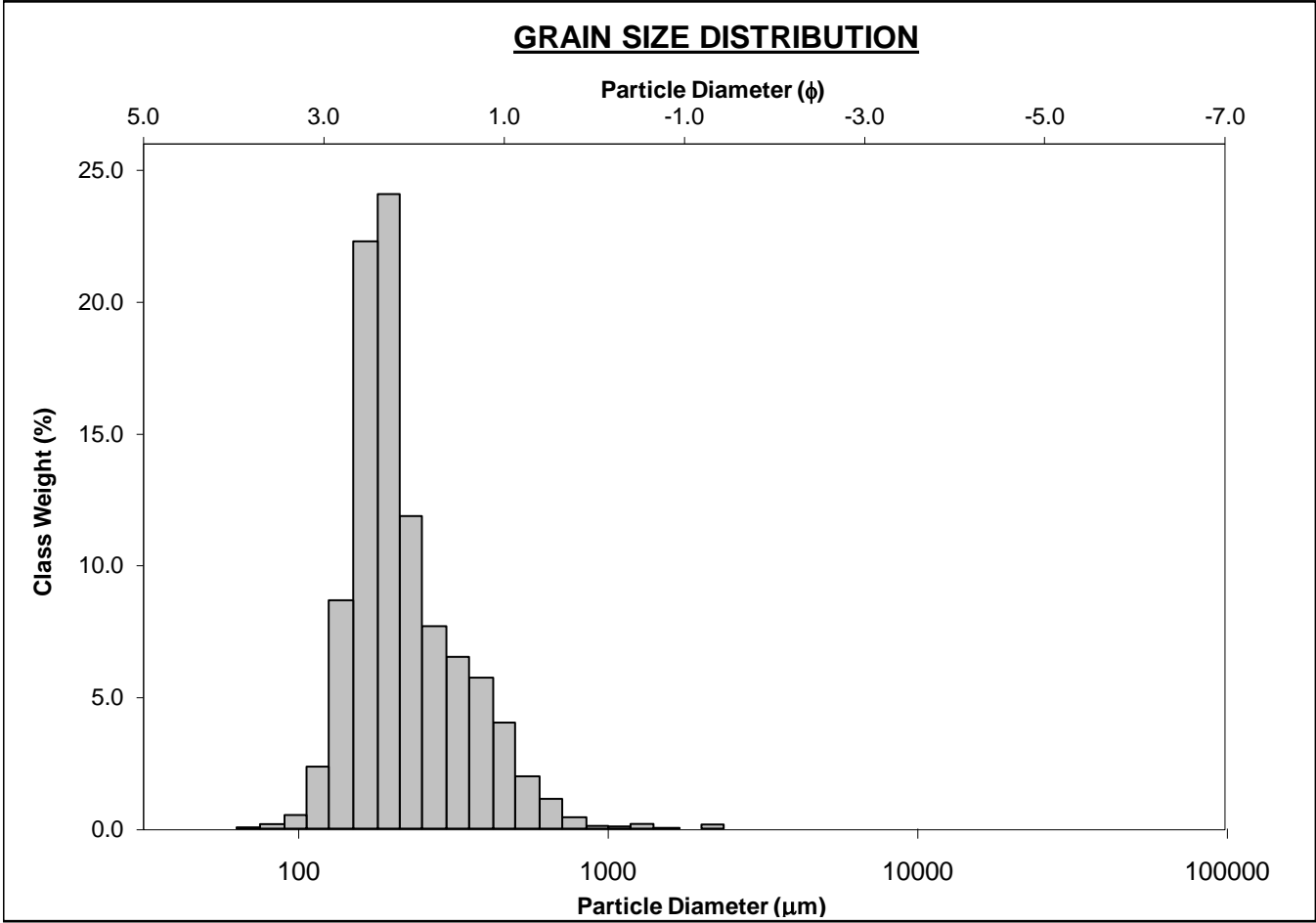
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-12-220cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.4%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 4.8%	
MODE 3:			MUD: 0.3%		FINE SAND: 87.5%	
D ₁₀ :	128.7	2.146			V FINE SAND: 6.9%	
MEDIAN or D ₅₀ :	169.5	2.560	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	226.0	2.958	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.756	1.378	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	97.26	0.812	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.302	1.162	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	45.42	0.381	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	178.9	170.2	2.554	169.0	2.565	Fine Sand
SORTING (σ):	67.14	1.360	0.444	1.252	0.324	Very Well Sorted
SKEWNESS (Sk):	7.176	-2.022	2.022	0.004	-0.004	Symmetrical
KURTOSIS (K):	93.97	34.00	34.00	1.234	1.234	Leptokurtic



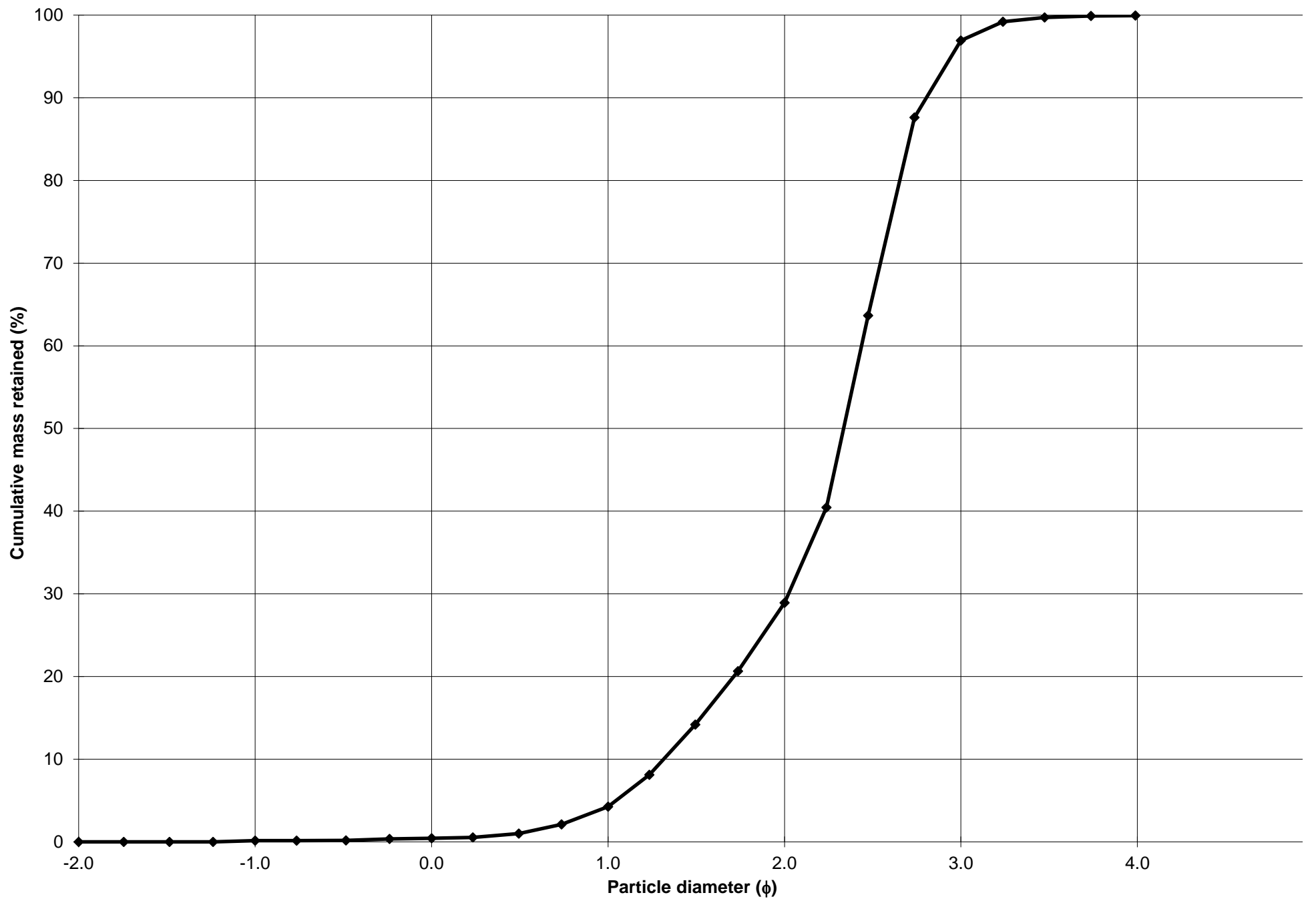
Cumulative Frequency Curve



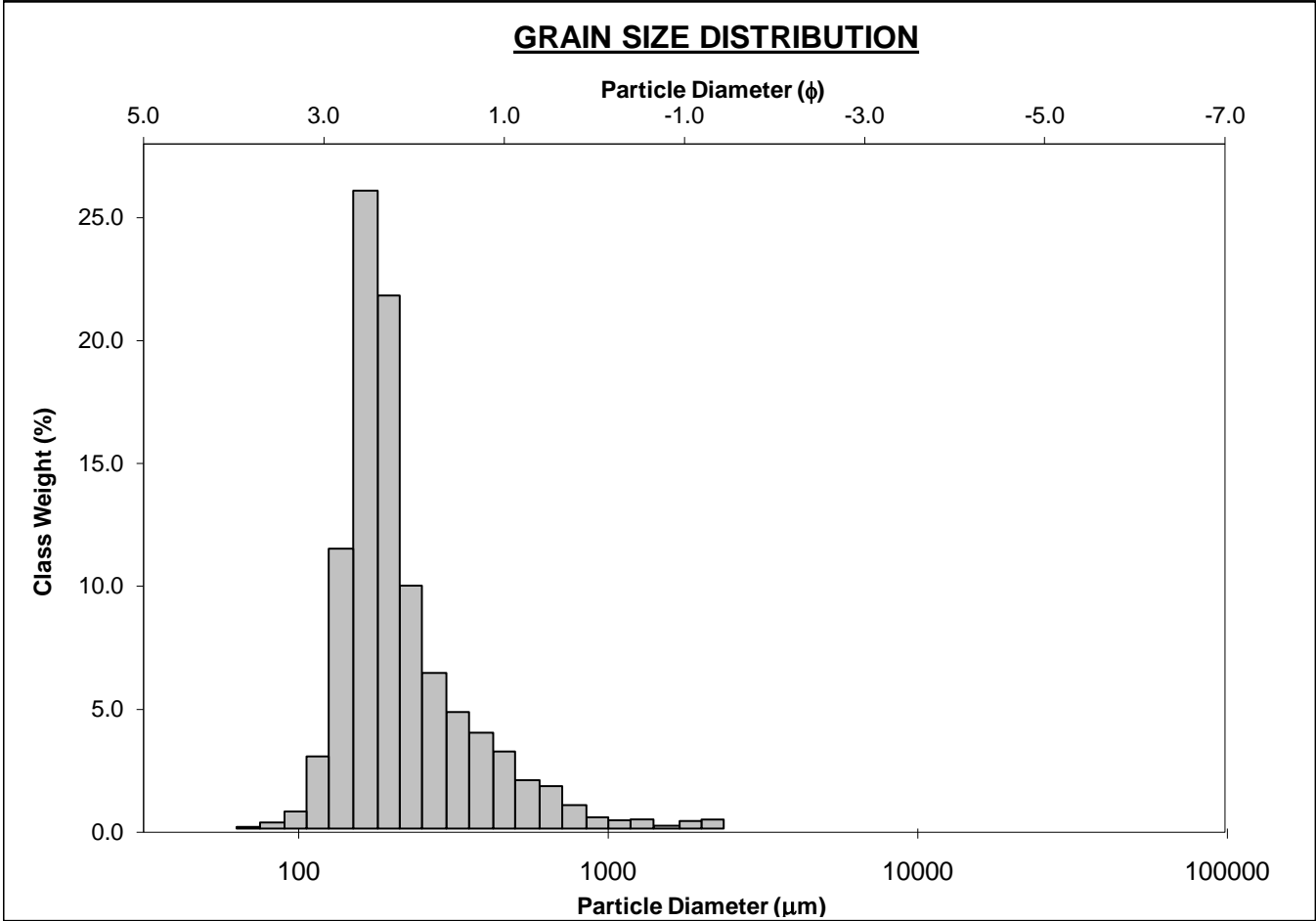
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-12-230cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.2%		COARSE SAND: 3.8%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 24.7%	
MODE 3:			MUD: 0.1%		FINE SAND: 68.0%	
D ₁₀ :	143.1	1.315			V FINE SAND: 3.0%	
MEDIAN or D ₅₀ :	198.2	2.335	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	401.8	2.805	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.807	2.132	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	258.7	1.489	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.651	1.385	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	107.4	0.723	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	243.8	218.7	2.193	217.9	2.198	Fine Sand
SORTING (σ):	147.6	1.527	0.610	1.486	0.572	Moderately Well Sorted
SKEWNESS (Sk):	5.288	0.795	-0.795	0.360	-0.360	Very Coarse Skewed
KURTOSIS (K):	55.05	7.150	7.150	1.077	1.077	Mesokurtic



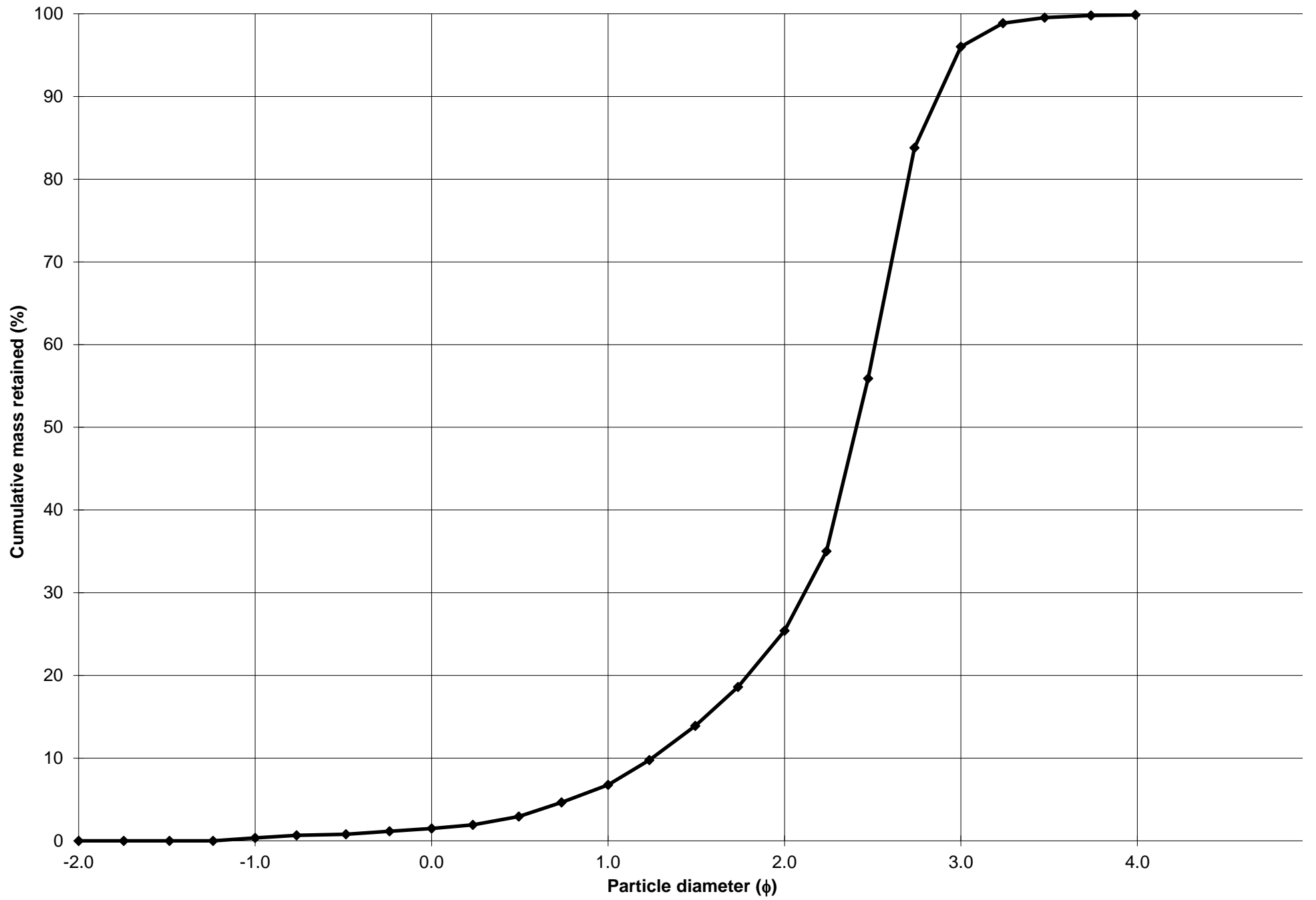
Cumulative Frequency Curve



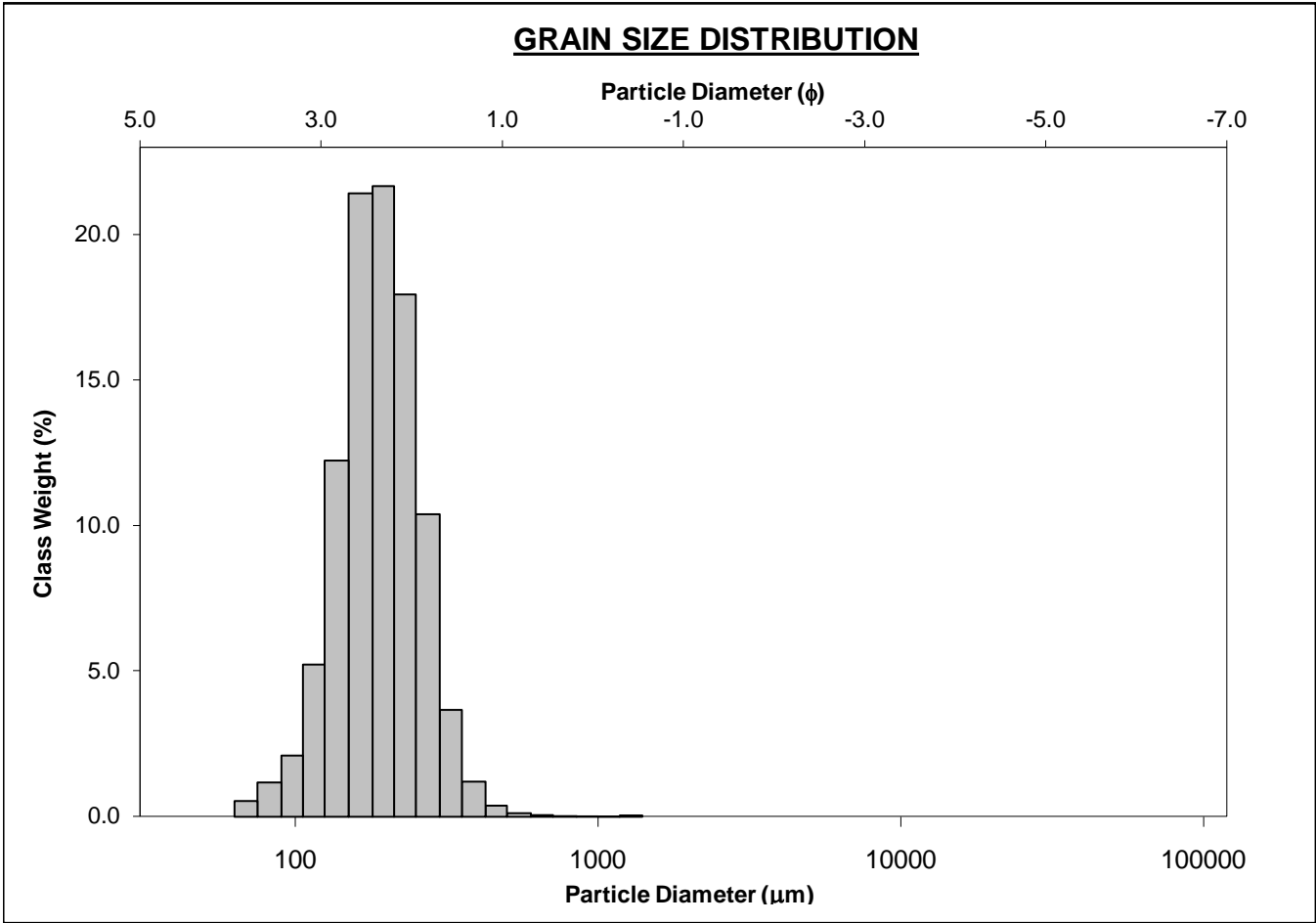
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-12-235cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.4%		COARSE SAND: 5.3%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 18.6%	
MODE 3:			MUD: 0.1%		FINE SAND: 70.6%	
D ₁₀ :	136.7	1.249			V FINE SAND: 3.9%	
MEDIAN or D ₅₀ :	188.5	2.407	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	420.8	2.871	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.078	2.299	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	284.1	1.622	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.591	1.338	V FINE GRAVEL: 0.4%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	93.88	0.670	V COARSE SAND: 1.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	252.9	214.2	2.223	210.2	2.250	Fine Sand
SORTING (σ):	215.9	1.647	0.720	1.535	0.618	Moderately Well Sorted
SKEWNESS (Sk):	5.071	1.169	-1.169	0.447	-0.447	Very Coarse Skewed
KURTOSIS (K):	37.18	8.579	8.579	1.345	1.345	Leptokurtic



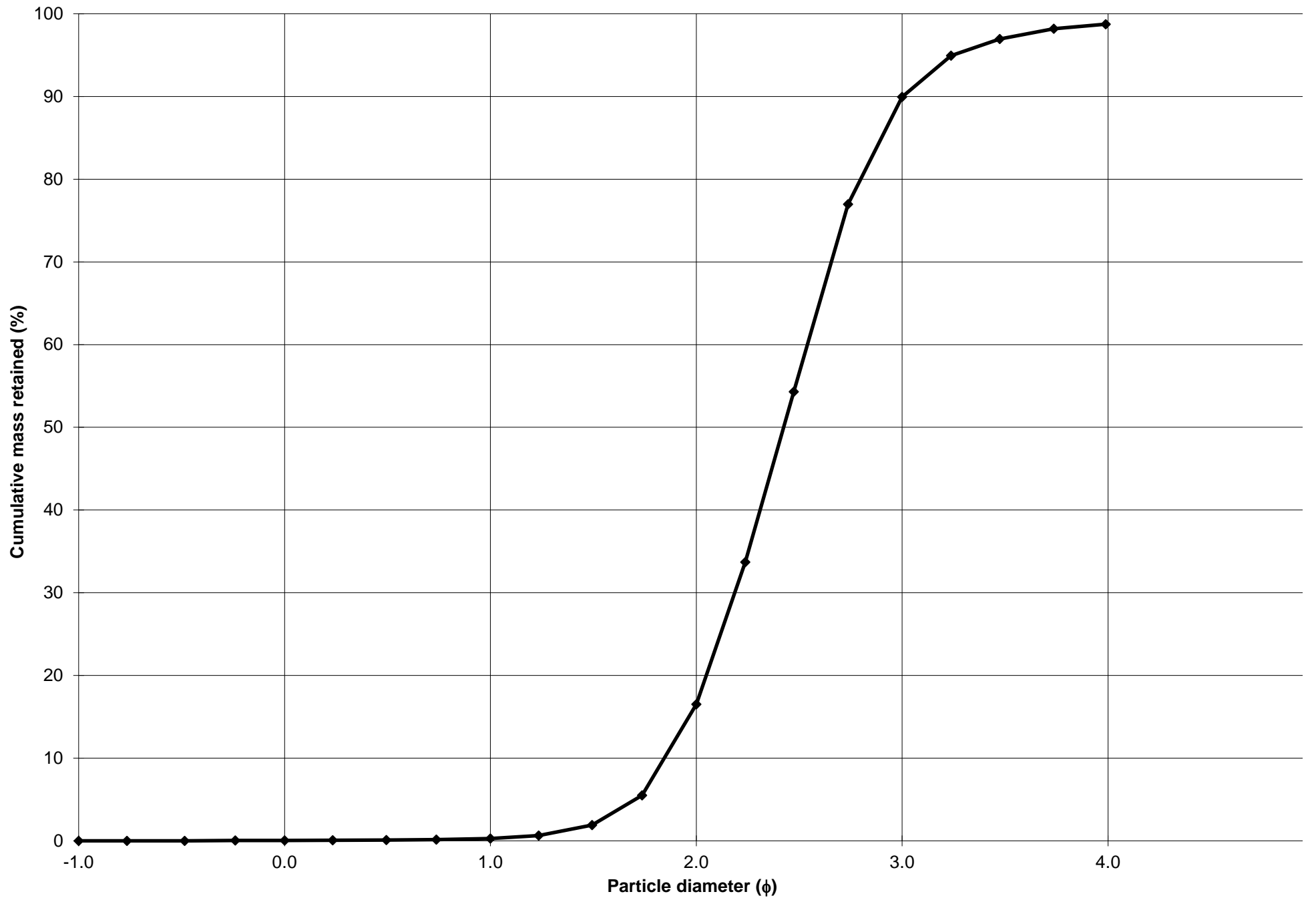
Cumulative Frequency Curve



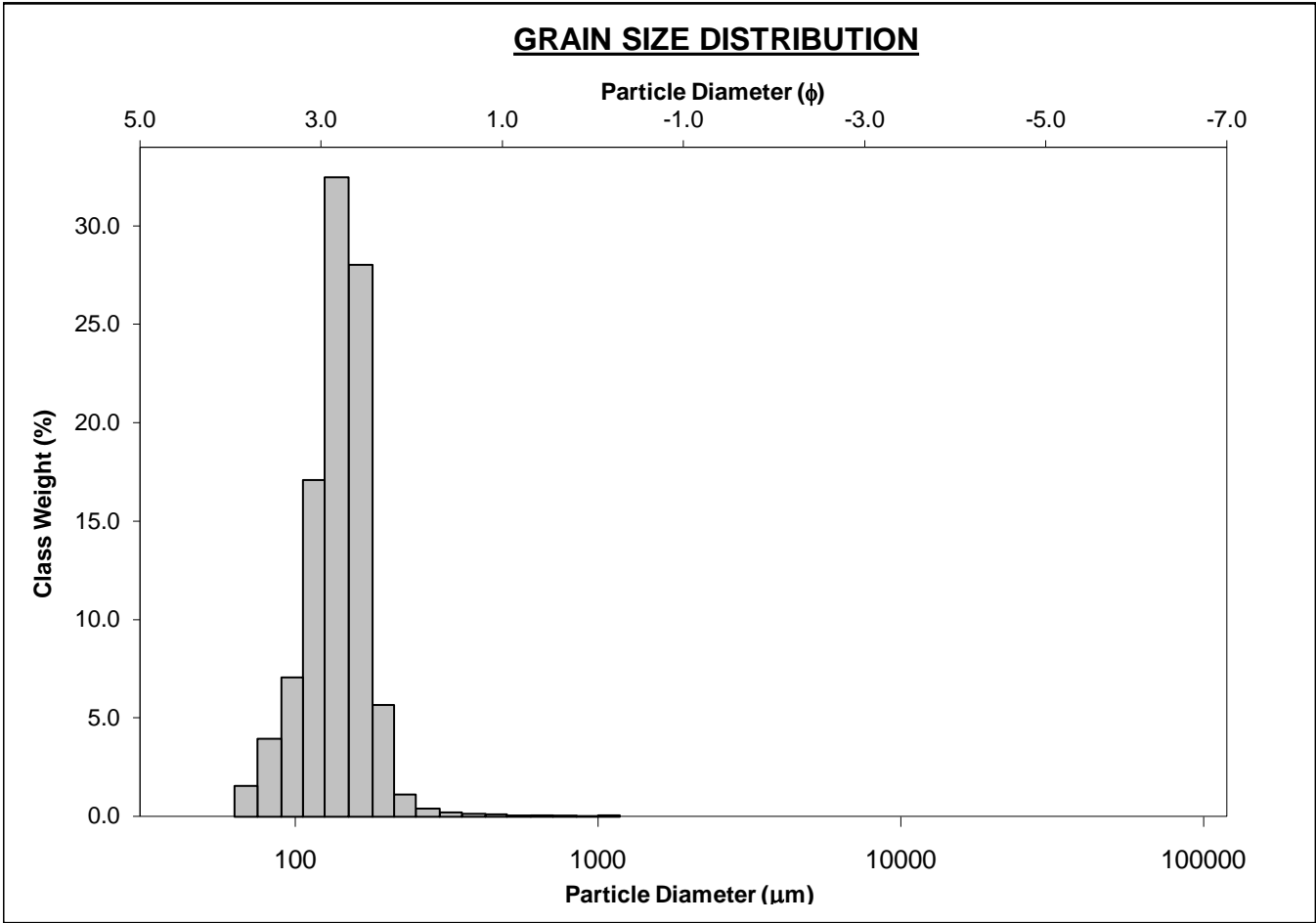
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-30cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 0.2%	
MODE 2:			SAND: 98.7%		MEDIUM SAND: 16.2%	
MODE 3:			MUD: 1.3%		FINE SAND: 73.4%	
D_{10} :	124.7	1.845			V FINE SAND: 8.8%	
MEDIAN or D_{50} :	186.2	2.425	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D_{90} :	278.4	3.003	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D_{90} / D_{10}) :	2.232	1.628	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
$(D_{90} - D_{10})$:	153.7	1.159	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D_{75} / D_{25}) :	1.512	1.282	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
$(D_{75} - D_{25})$:	78.04	0.597	V COARSE SAND: 0.1%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	195.6	179.7	2.476	185.5	2.431	Fine Sand
SORTING (σ):	71.36	1.608	0.685	1.372	0.456	Well Sorted
SKEWNESS (Sk):	2.870	-3.485	3.485	-0.042	0.042	Symmetrical
KURTOSIS (K):	35.35	24.68	24.68	1.059	1.059	Mesokurtic



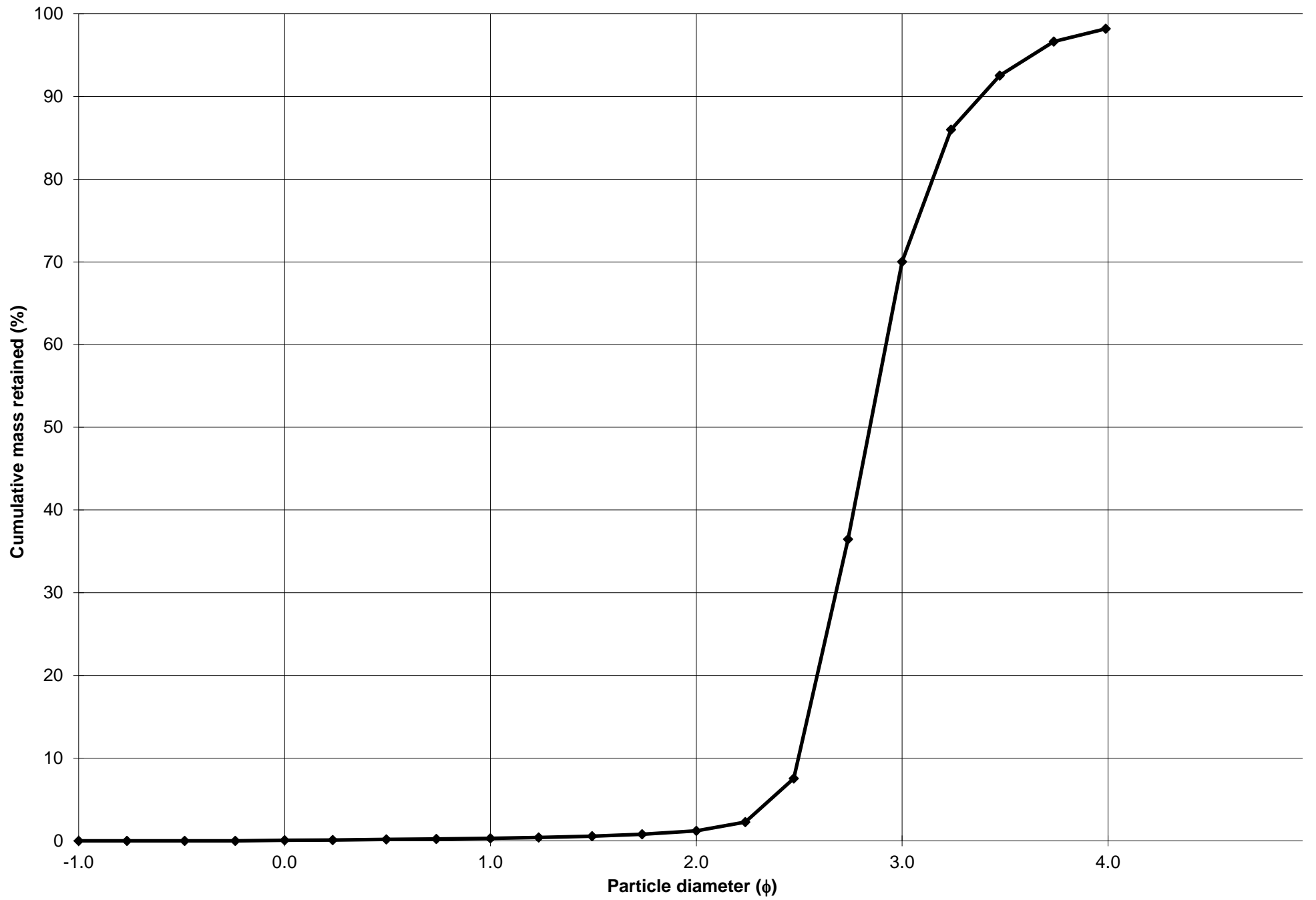
Cumulative Frequency Curve



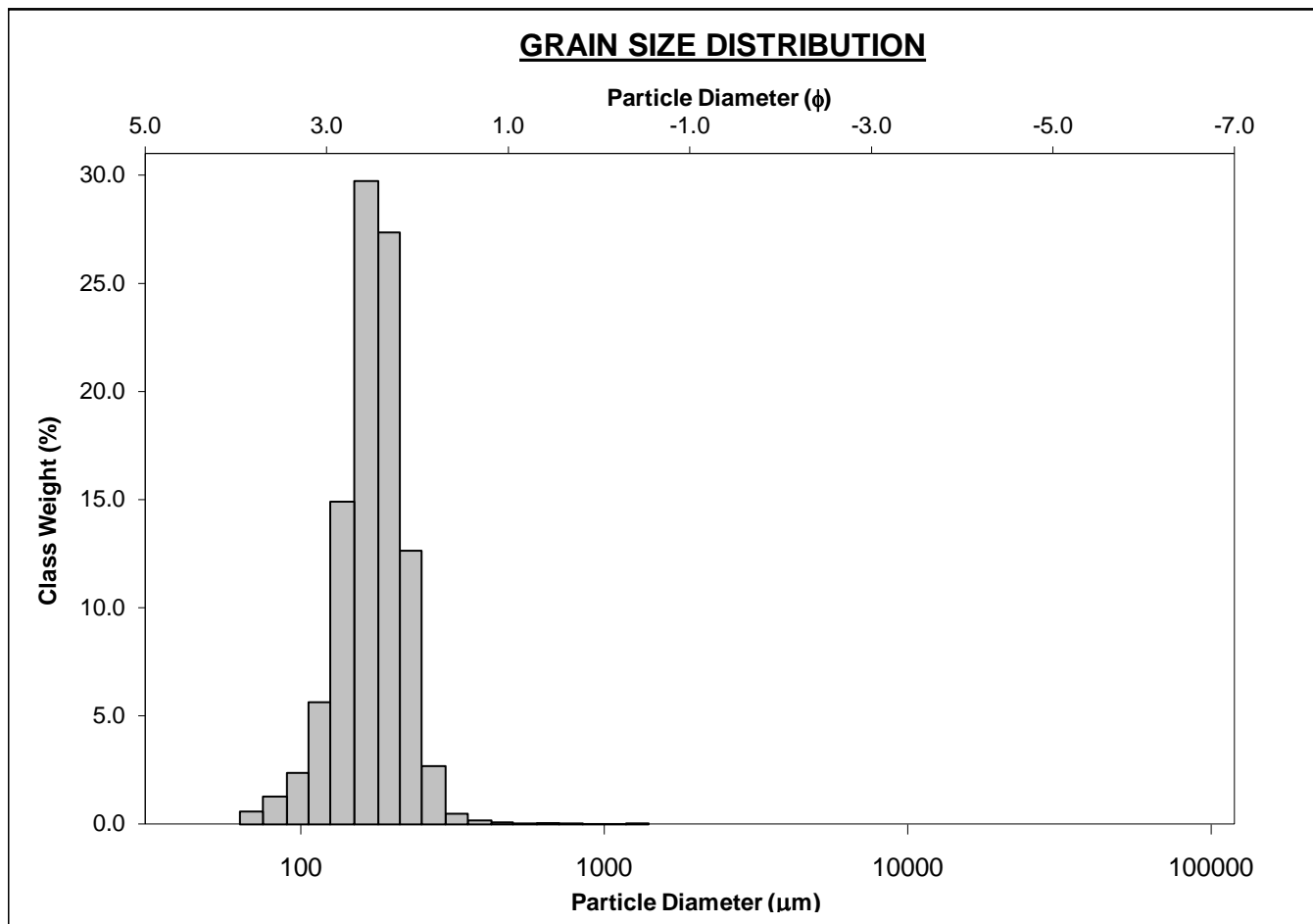
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-40cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.2%			
MODE 2:			SAND: 98.2% MEDIUM SAND: 0.9%			
MODE 3:			MUD: 1.8% FINE SAND: 68.8%			
D ₁₀ :	95.89	2.496	V FINE SAND: 28.2%			
MEDIAN or D ₅₀ :	139.4	2.843	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.3%			
D ₉₀ :	177.2	3.382	COARSE GRAVEL: 0.0% COARSE SILT: 0.3%			
(D ₉₀ / D ₁₀):	1.848	1.355	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.3%			
(D ₉₀ - D ₁₀):	81.34	0.886	FINE GRAVEL: 0.0% FINE SILT: 0.3%			
(D ₇₅ / D ₂₅):	1.358	1.168	V FINE GRAVEL: 0.0% V FINE SILT: 0.3%			
(D ₇₅ - D ₂₅):	42.52	0.442	V COARSE SAND: 0.1% CLAY: 0.3%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	141.9	131.1	2.931	137.0	2.867	Fine Sand
SORTING (σ):	53.19	1.586	0.665	1.281	0.357	Well Sorted
SKEWNESS (Sk):	7.399	-3.911	3.911	-0.176	0.176	Fine Skewed
KURTOSIS (K):	110.5	26.42	26.42	1.180	1.180	Leptokurtic



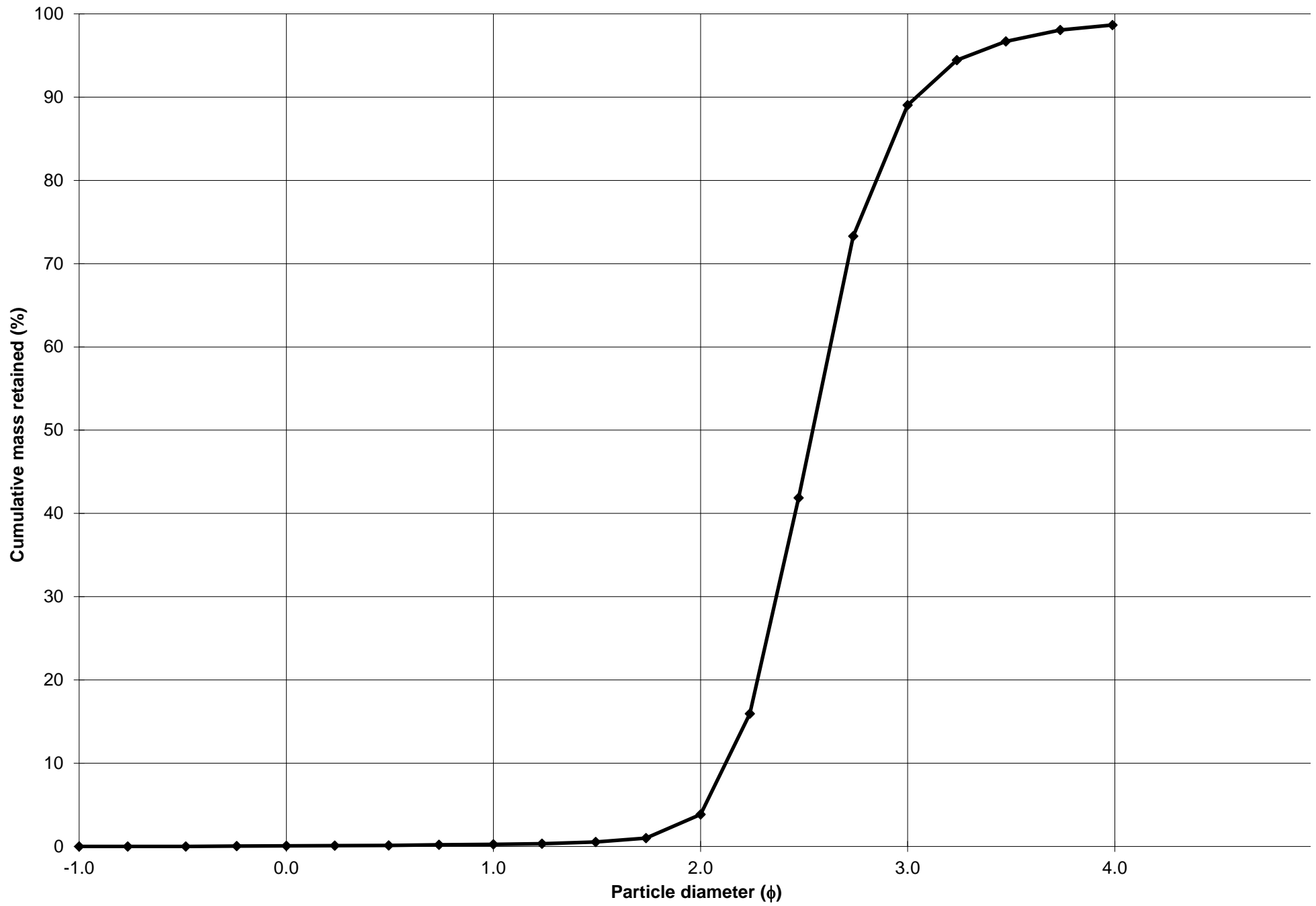
Cumulative Frequency Curve



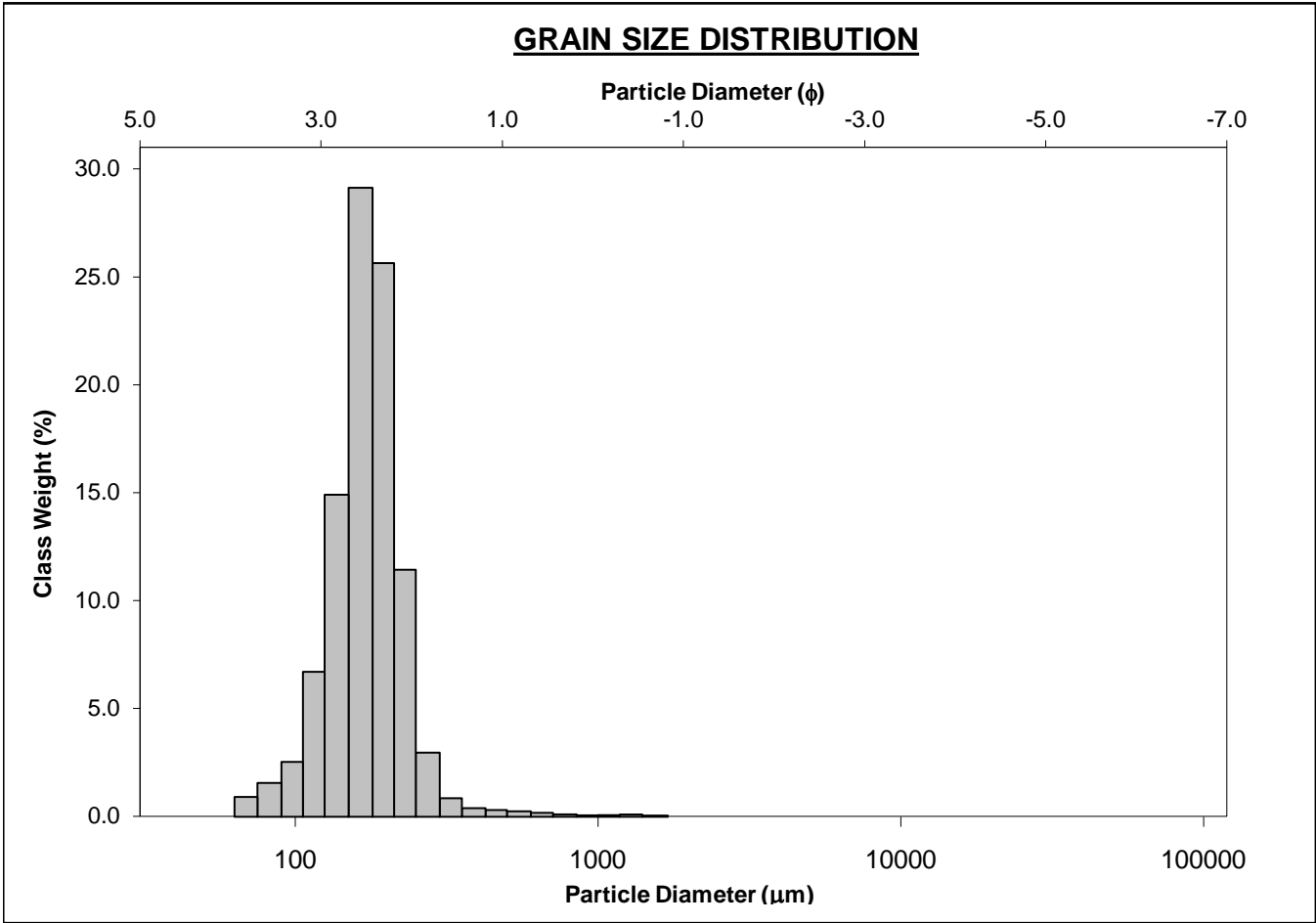
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-73cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.2%			
MODE 2:			SAND: 98.7% MEDIUM SAND: 3.6%			
MODE 3:			MUD: 1.3% FINE SAND: 85.2%			
D ₁₀ :	121.4	2.121	V FINE SAND: 9.6%			
MEDIAN or D ₅₀ :	171.7	2.542	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.2%			
D ₉₀ :	229.9	3.042	COARSE GRAVEL: 0.0% COARSE SILT: 0.2%			
(D ₉₀ / D ₁₀):	1.893	1.434	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.2%			
(D ₉₀ - D ₁₀):	108.5	0.921	FINE GRAVEL: 0.0% FINE SILT: 0.2%			
(D ₇₅ / D ₂₅):	1.361	1.192	V FINE GRAVEL: 0.0% V FINE SILT: 0.2%			
(D ₇₅ - D ₂₅):	53.16	0.445	V COARSE SAND: 0.1% CLAY: 0.2%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	175.3	163.5	2.613	168.9	2.565	Fine Sand
SORTING (σ):	57.65	1.551	0.633	1.285	0.362	Well Sorted
SKEWNESS (Sk):	5.745	-4.304	4.304	-0.144	0.144	Fine Skewed
KURTOSIS (K):	95.89	31.53	31.53	1.172	1.172	Leptokurtic



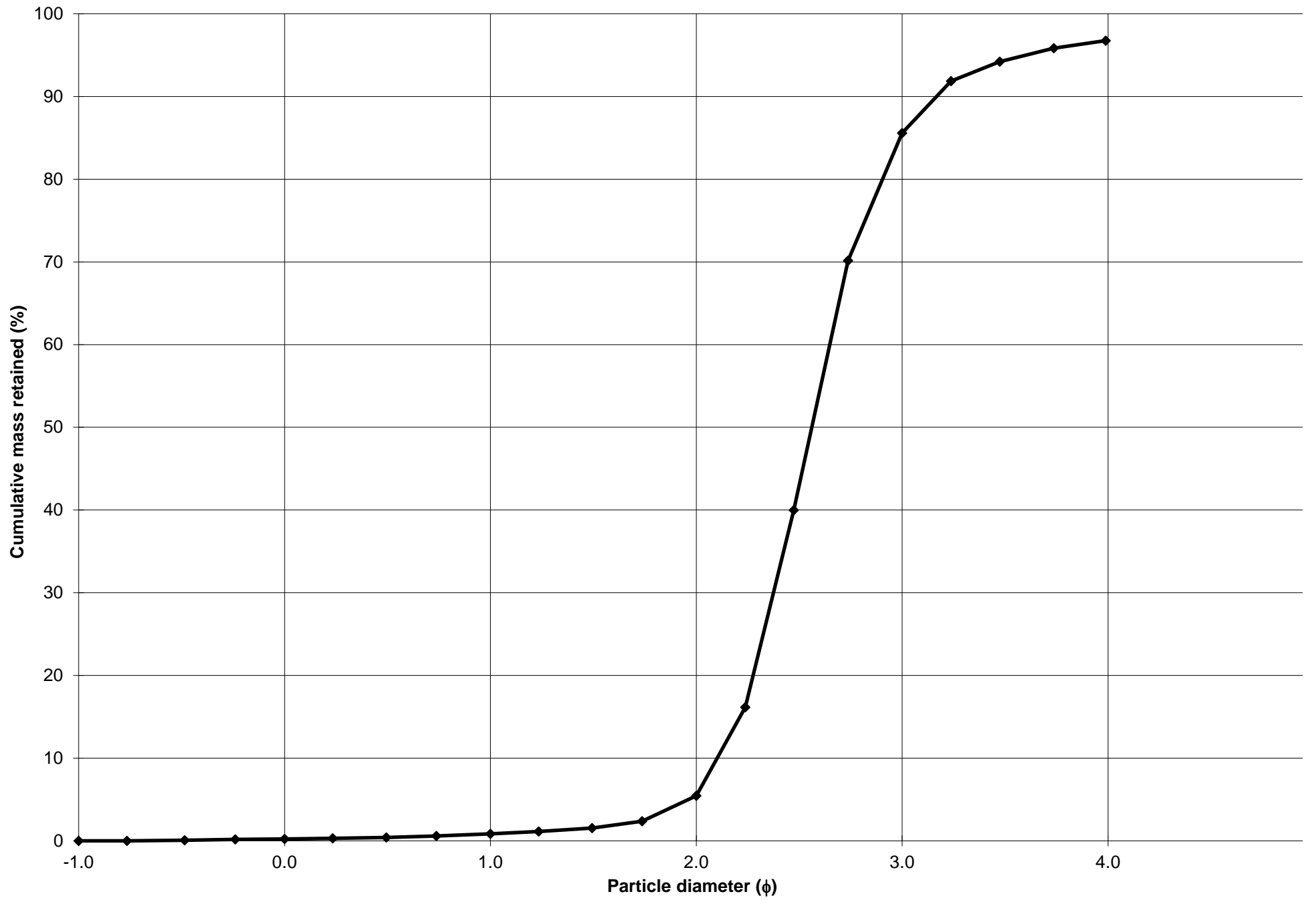
Cumulative Frequency Curve



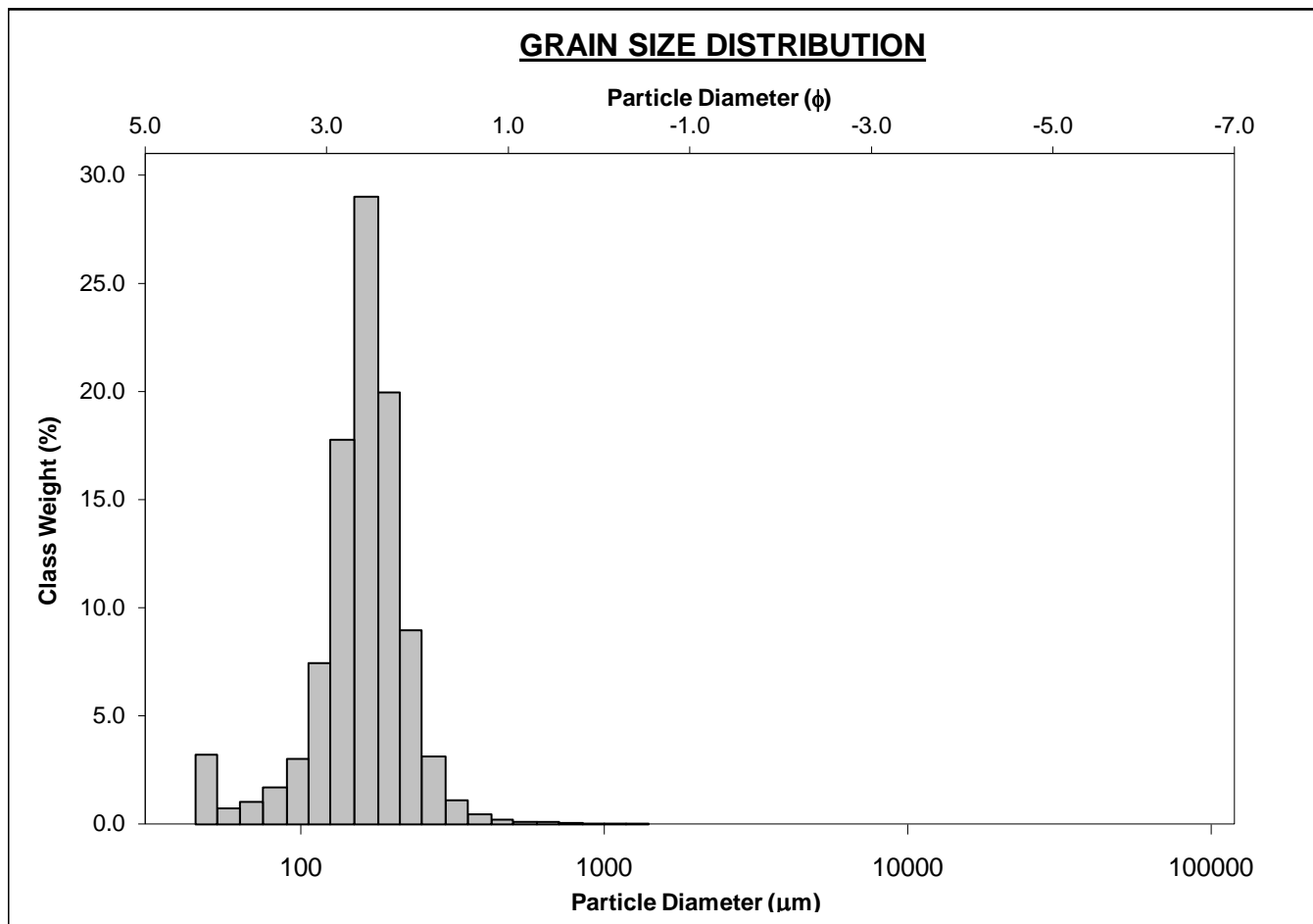
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-80cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.6%			
MODE 2:			SAND: 96.8% MEDIUM SAND: 4.6%			
MODE 3:			MUD: 3.2% FINE SAND: 80.1%			
D ₁₀ :	111.3	2.101	V FINE SAND: 11.2%			
MEDIAN or D ₅₀ :	169.4	2.561	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.5%			
D ₉₀ :	233.1	3.168	COARSE GRAVEL: 0.0% COARSE SILT: 0.5%			
(D ₉₀ / D ₁₀):	2.094	1.508	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.5%			
(D ₉₀ - D ₁₀):	121.8	1.066	FINE GRAVEL: 0.0% FINE SILT: 0.5%			
(D ₇₅ / D ₂₅):	1.409	1.213	V FINE GRAVEL: 0.0% V FINE SILT: 0.5%			
(D ₇₅ - D ₂₅):	57.88	0.494	V COARSE SAND: 0.2% CLAY: 0.5%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	176.2	154.4	2.695	166.1	2.590	Fine Sand
SORTING (σ):	86.52	1.867	0.901	1.350	0.433	Well Sorted
SKEWNESS (Sk):	6.884	-3.303	3.303	-0.191	0.191	Fine Skewed
KURTOSIS (K):	86.55	17.51	17.51	1.358	1.358	Leptokurtic



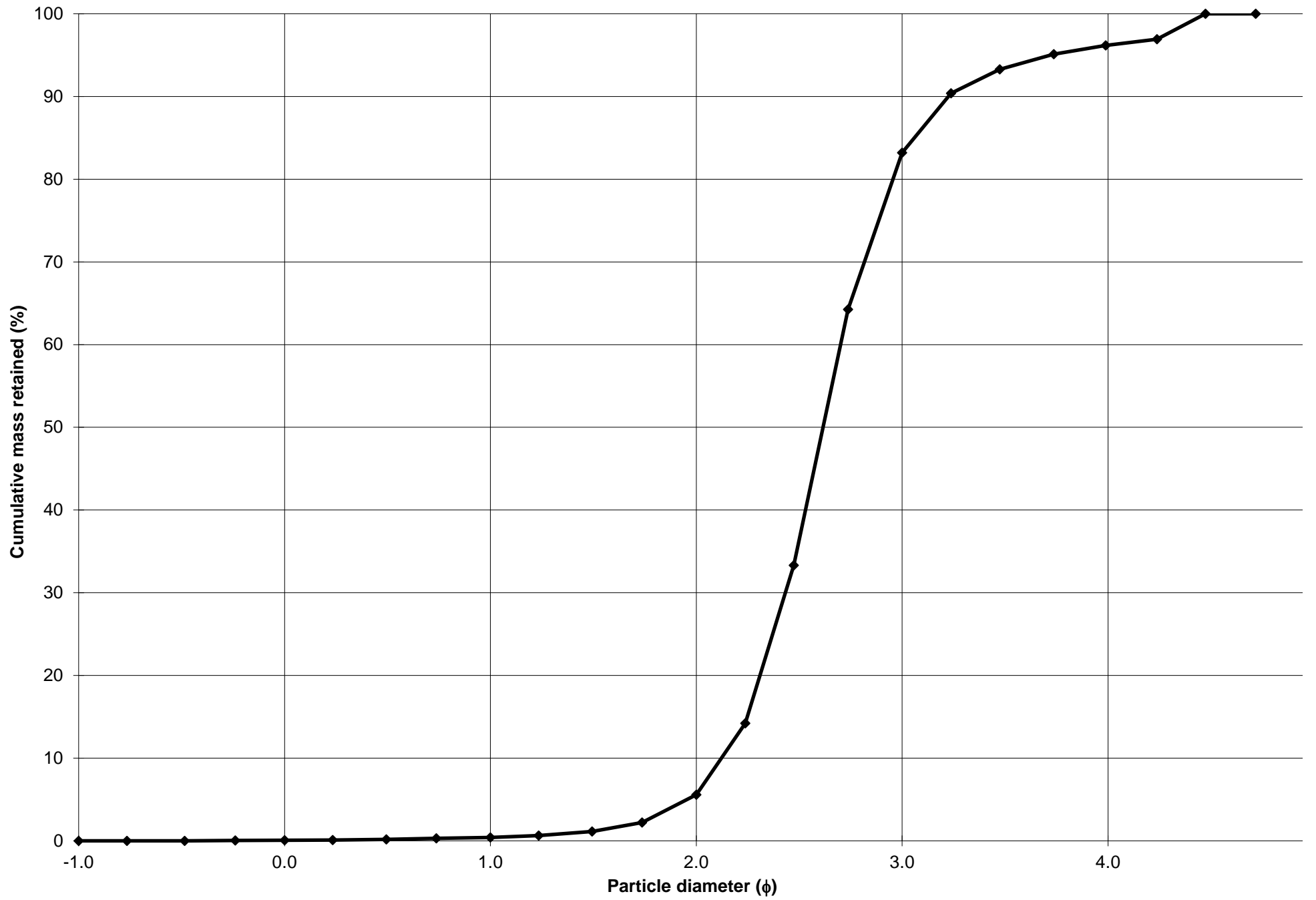
Cumulative Frequency Curve



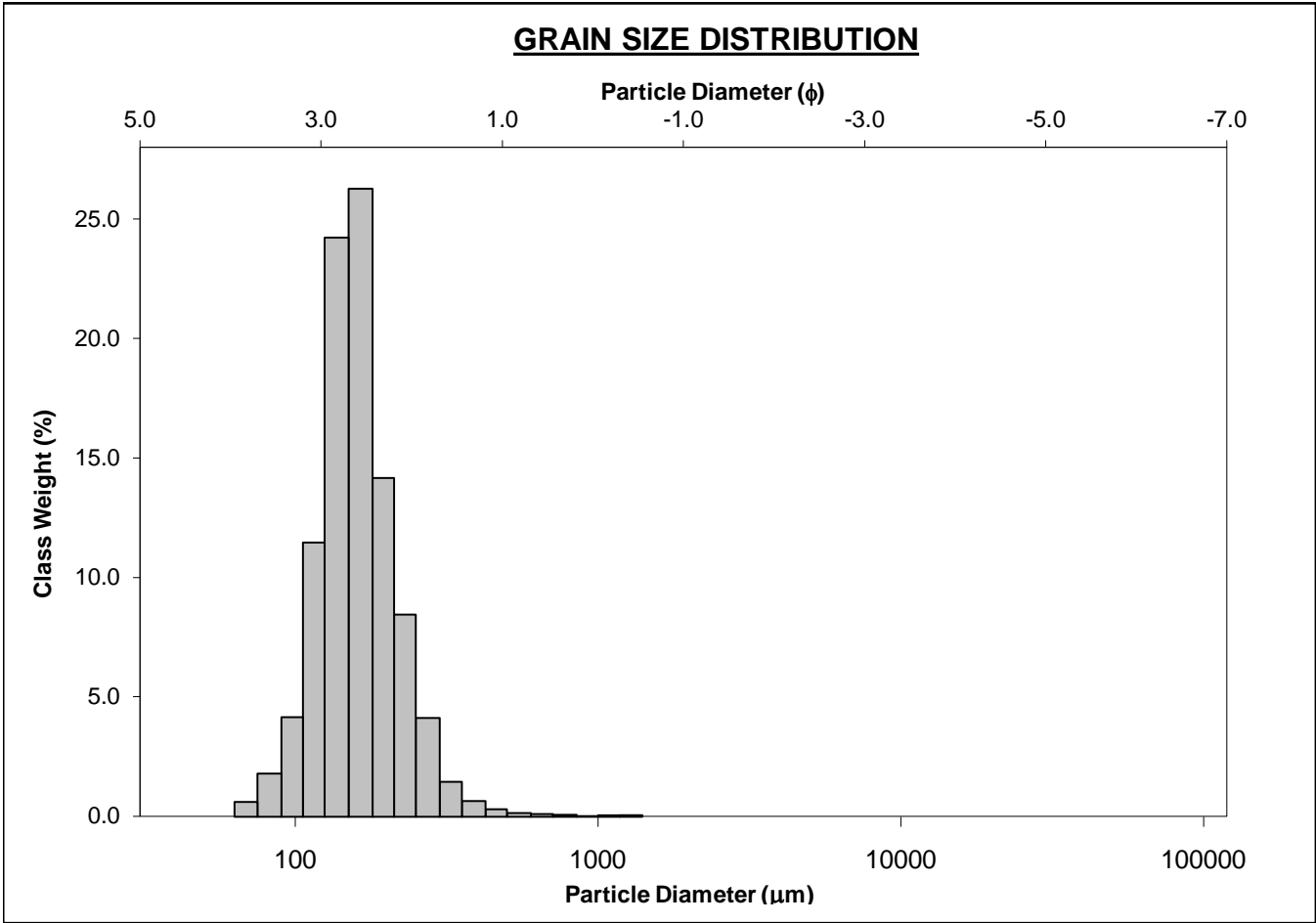
SIEVING ERROR: 1.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-130cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.3%			
MODE 2:			SAND: 96.2% MEDIUM SAND: 5.1%			
MODE 3:			MUD: 3.8% FINE SAND: 77.6%			
D ₁₀ :	106.9	2.122	V FINE SAND: 13.0%			
MEDIAN or D ₅₀ :	163.1	2.616	V COARSE GRAVEL: 0.0% V COARSE SILT: 3.8%			
D ₉₀ :	229.7	3.225	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.148	1.520	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	122.8	1.103	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.429	1.217	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	58.04	0.515	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	168.7	157.4	2.667	161.1	2.634	Fine Sand
SORTING (σ):	67.47	1.447	0.534	1.375	0.459	Well Sorted
SKEWNESS (Sk):	4.601	-0.682	0.682	-0.162	0.162	Fine Skewed
KURTOSIS (K):	57.31	6.331	6.331	1.405	1.405	Leptokurtic



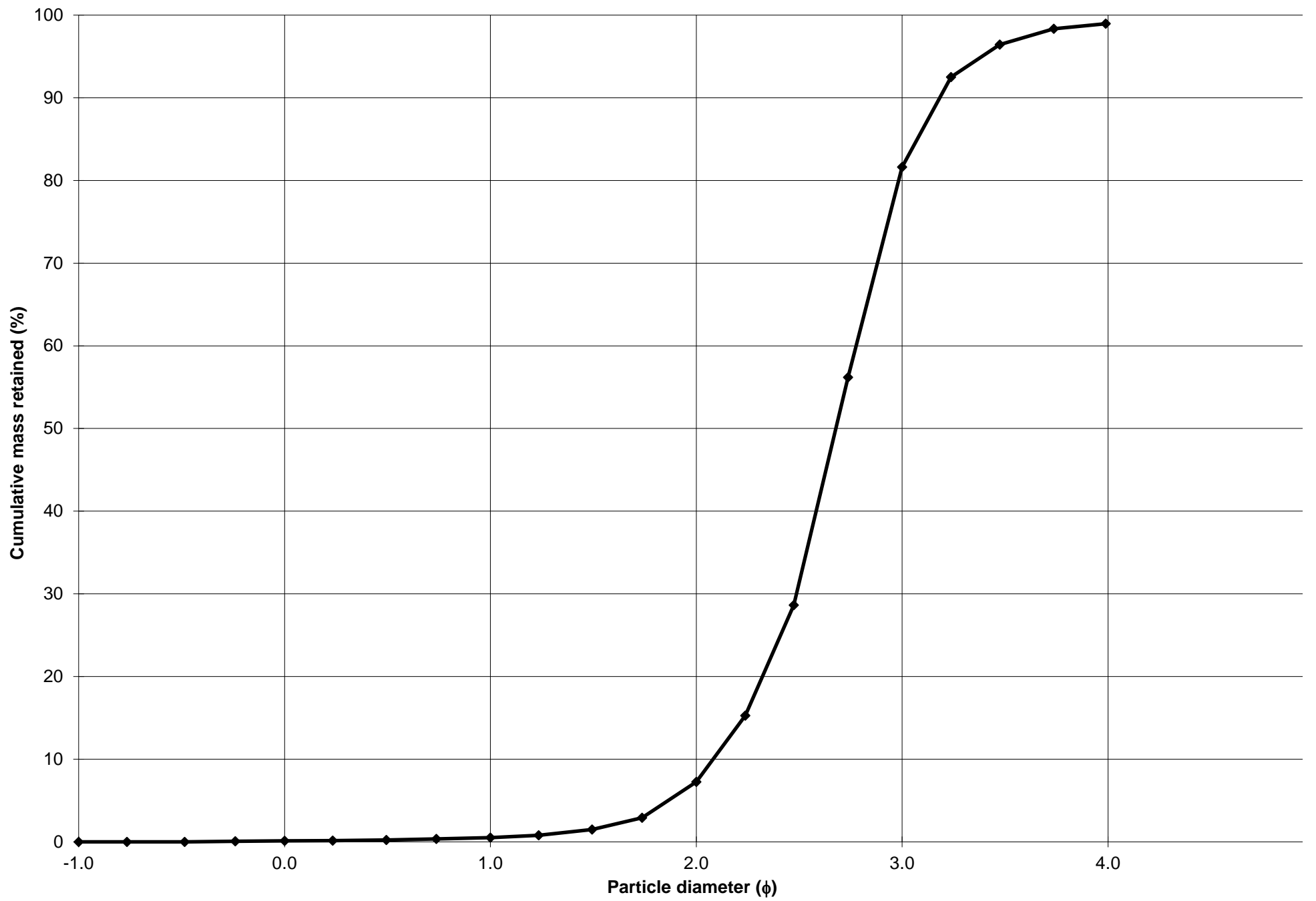
Cumulative Frequency Curve



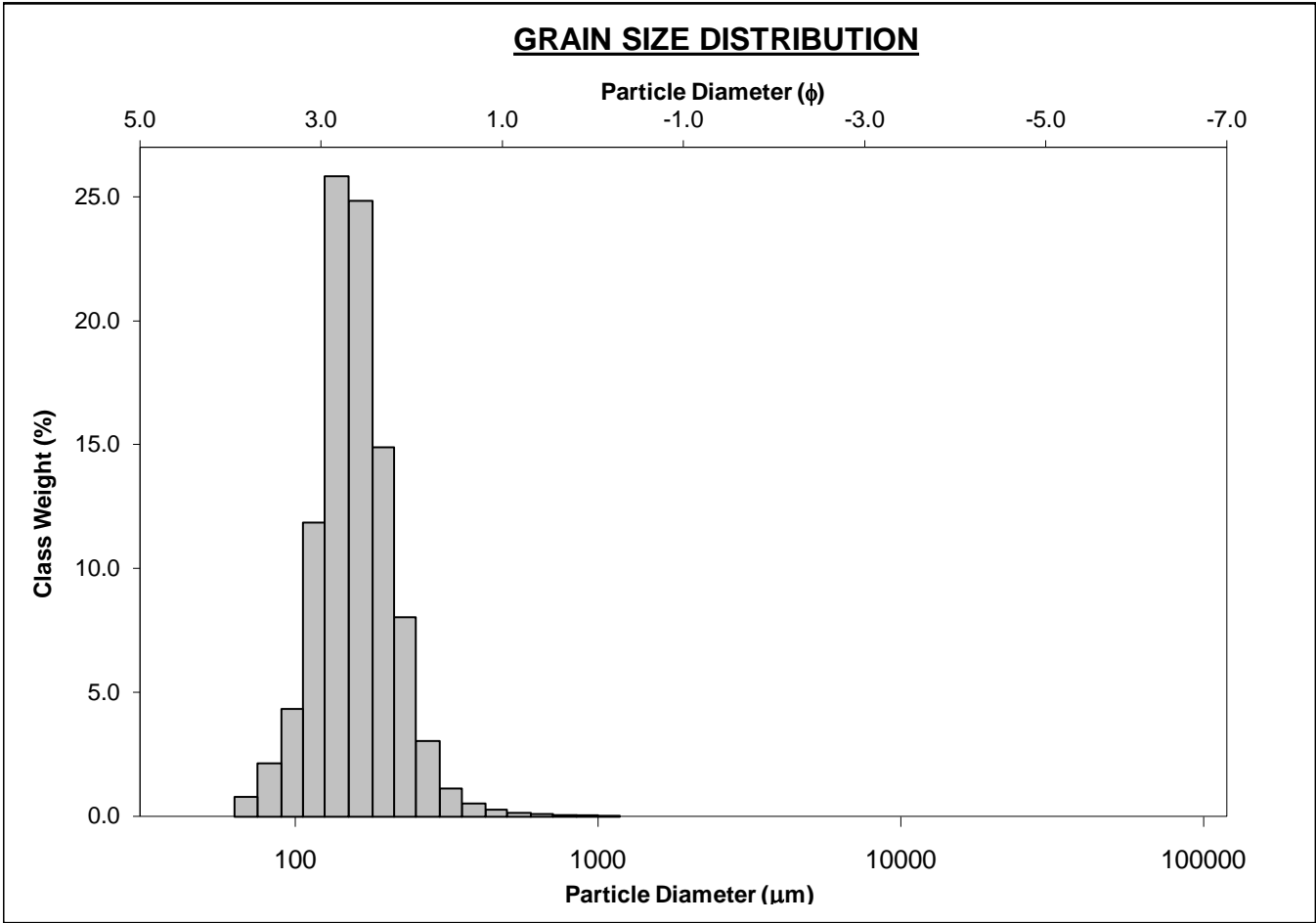
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-140cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.4%	
MODE 2:			SAND: 99.0%		MEDIUM SAND: 6.7%	
MODE 3:			MUD: 1.0%		FINE SAND: 74.4%	
D_{10} :	110.1	2.082			V FINE SAND: 17.3%	
MEDIAN or D_{50} :	156.3	2.678	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D_{90} :	236.3	3.183	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D_{90} / D_{10}) :	2.146	1.529	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
$(D_{90} - D_{10})$:	126.1	1.101	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D_{75} / D_{25}) :	1.436	1.216	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
$(D_{75} - D_{25})$:	57.09	0.522	V COARSE SAND: 0.1%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	168.6	155.2	2.688	158.2	2.660	Fine Sand
SORTING (σ):	72.80	1.549	0.631	1.348	0.431	Well Sorted
SKEWNESS (Sk):	5.480	-2.880	2.880	0.067	-0.067	Symmetrical
KURTOSIS (K):	65.09	24.42	24.42	1.197	1.197	Leptokurtic



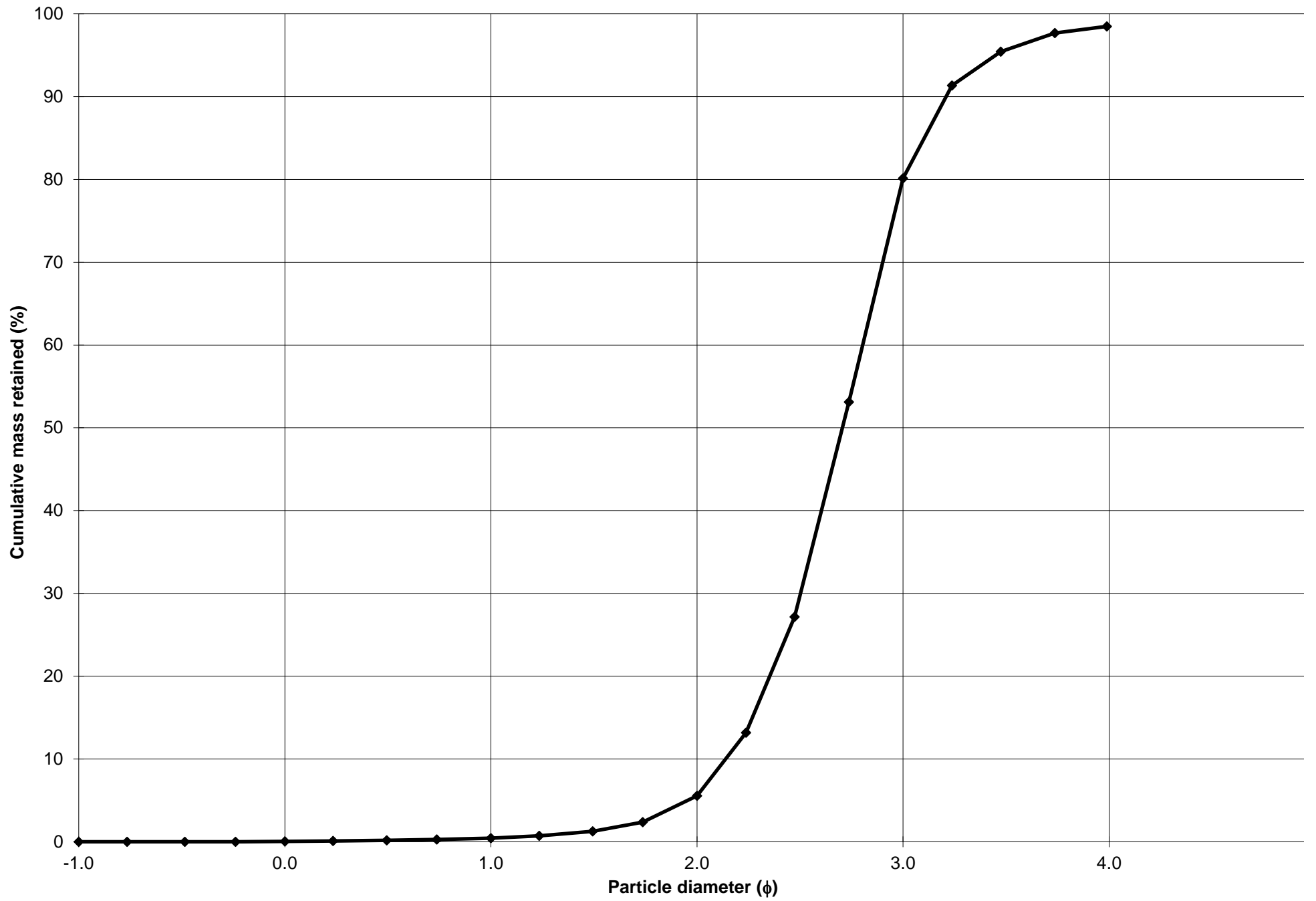
Cumulative Frequency Curve



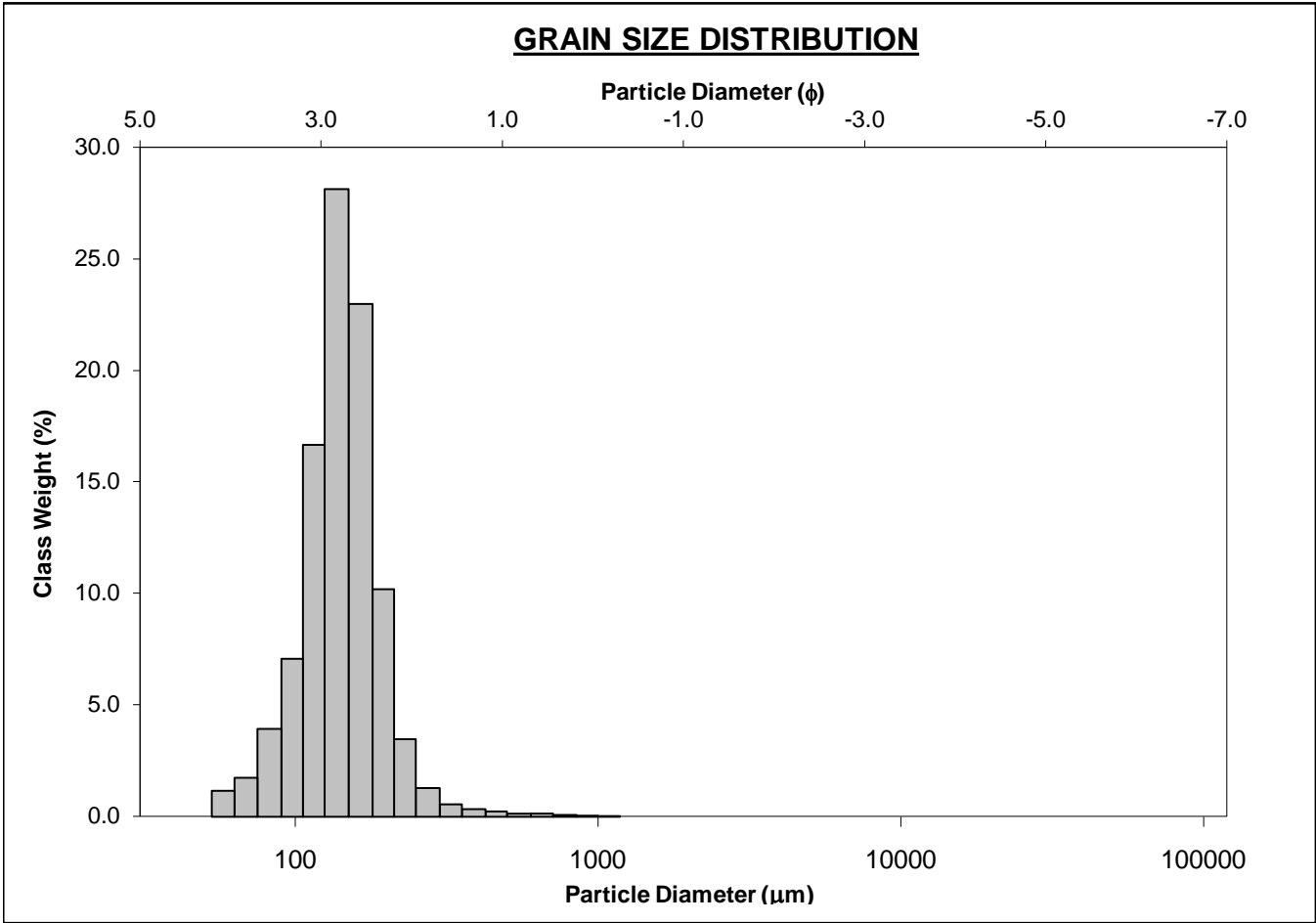
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-150cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%	COARSE SAND: 0.4%		
MODE 2:			SAND: 98.5%	MEDIUM SAND: 5.1%		
MODE 3:			MUD: 1.5%	FINE SAND: 74.6%		
D_{10} :	108.1	2.139		V FINE SAND: 18.4%		
MEDIAN or D_{50} :	153.3	2.705	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.3%		
D_{90} :	227.1	3.209	COARSE GRAVEL: 0.0%	COARSE SILT: 0.3%		
(D_{90} / D_{10}) :	2.100	1.501	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.3%		
$(D_{90} - D_{10})$:	118.9	1.071	FINE GRAVEL: 0.0%	FINE SILT: 0.3%		
(D_{75} / D_{25}) :	1.426	1.210	V FINE GRAVEL: 0.0%	V FINE SILT: 0.3%		
$(D_{75} - D_{25})$:	55.18	0.512	V COARSE SAND: 0.0%	CLAY: 0.3%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	163.7	149.9	2.738	154.8	2.691	Fine Sand
SORTING (σ):	65.16	1.609	0.686	1.343	0.426	Well Sorted
SKEWNESS (Sk):	4.038	-3.338	3.338	0.029	-0.029	Symmetrical
KURTOSIS (K):	40.65	23.64	23.64	1.196	1.196	Leptokurtic



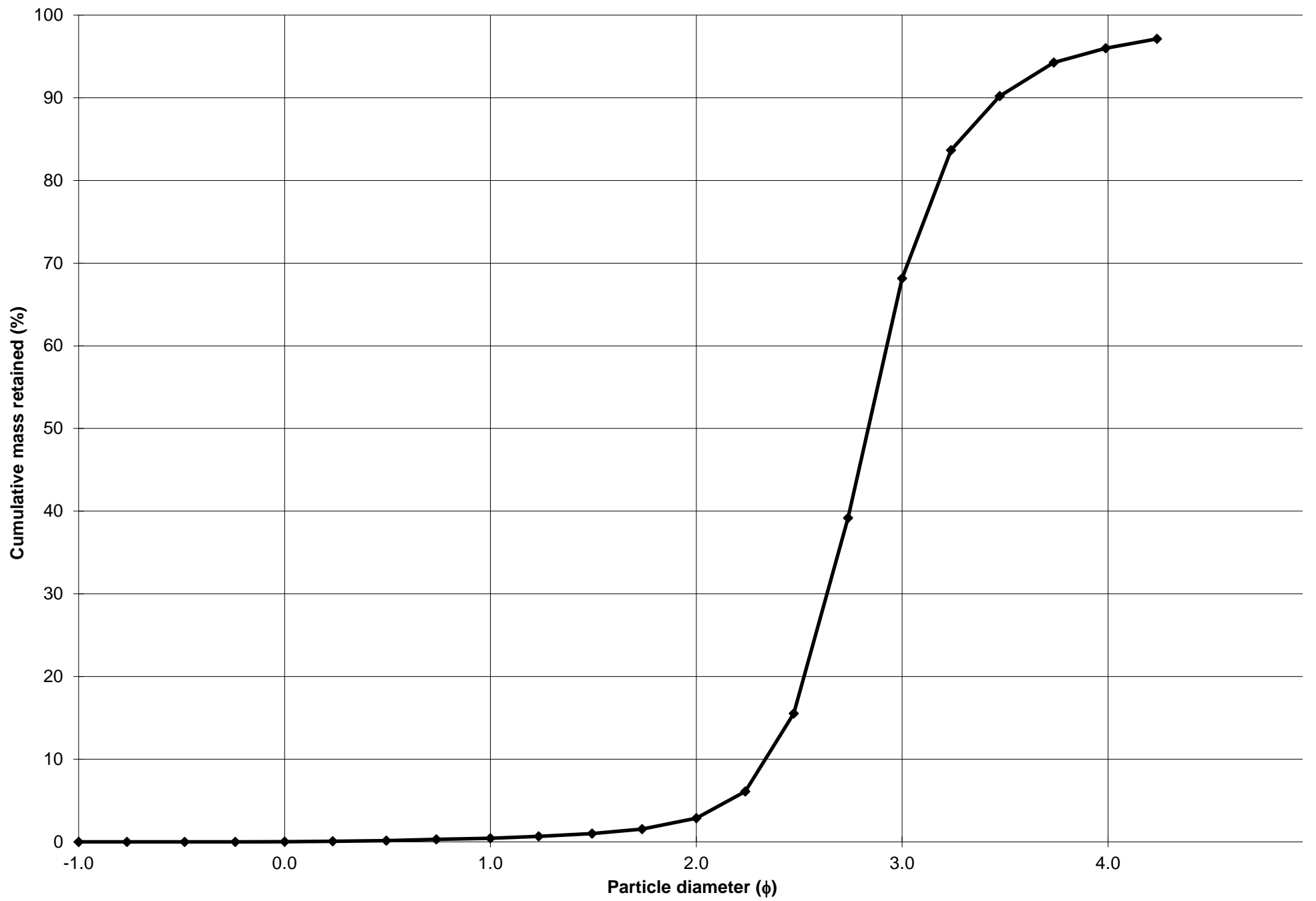
Cumulative Frequency Curve



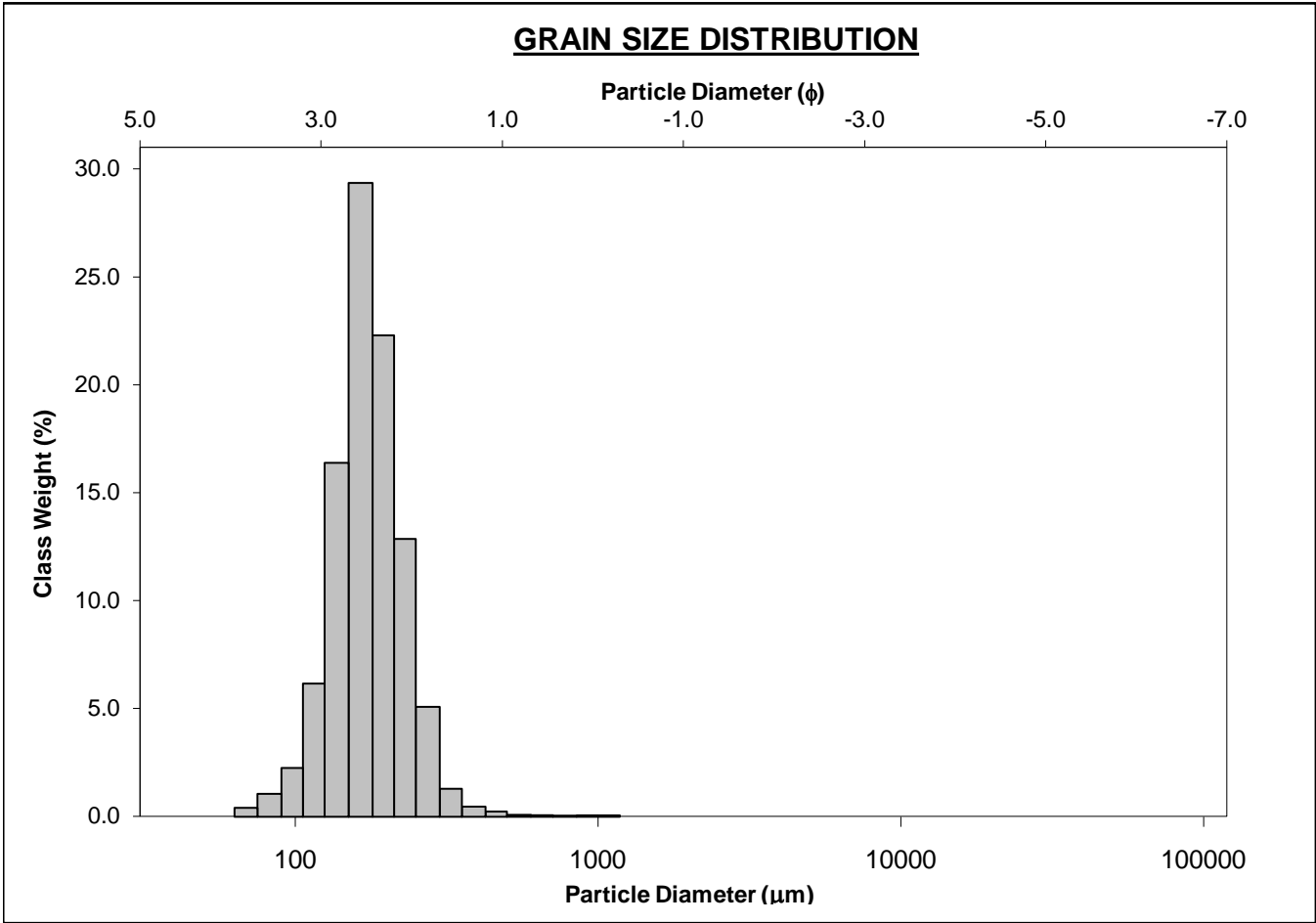
SIEVING ERROR: 1.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-160cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.4%			
MODE 2:			SAND: 96.0% MEDIUM SAND: 2.4%			
MODE 3:			MUD: 4.0% FINE SAND: 65.3%			
D ₁₀ :	90.48	2.335	V FINE SAND: 27.9%			
MEDIAN or D ₅₀ :	140.1	2.835	V COARSE GRAVEL: 0.0% V COARSE SILT: 1.5%			
D ₉₀ :	198.1	3.466	COARSE GRAVEL: 0.0% COARSE SILT: 0.5%			
(D ₉₀ / D ₁₀):	2.190	1.484	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.5%			
(D ₉₀ - D ₁₀):	107.7	1.131	FINE GRAVEL: 0.0% FINE SILT: 0.5%			
(D ₇₅ / D ₂₅):	1.440	1.204	V FINE GRAVEL: 0.0% V FINE SILT: 0.5%			
(D ₇₅ - D ₂₅):	51.10	0.526	V COARSE SAND: 0.0% CLAY: 0.5%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	146.0	129.5	2.949	138.2	2.855	Fine Sand
SORTING (σ):	62.65	1.796	0.845	1.364	0.448	Well Sorted
SKEWNESS (Sk):	4.414	-3.253	3.253	-0.136	0.136	Fine Skewed
KURTOSIS (K):	47.22	17.65	17.65	1.315	1.315	Leptokurtic



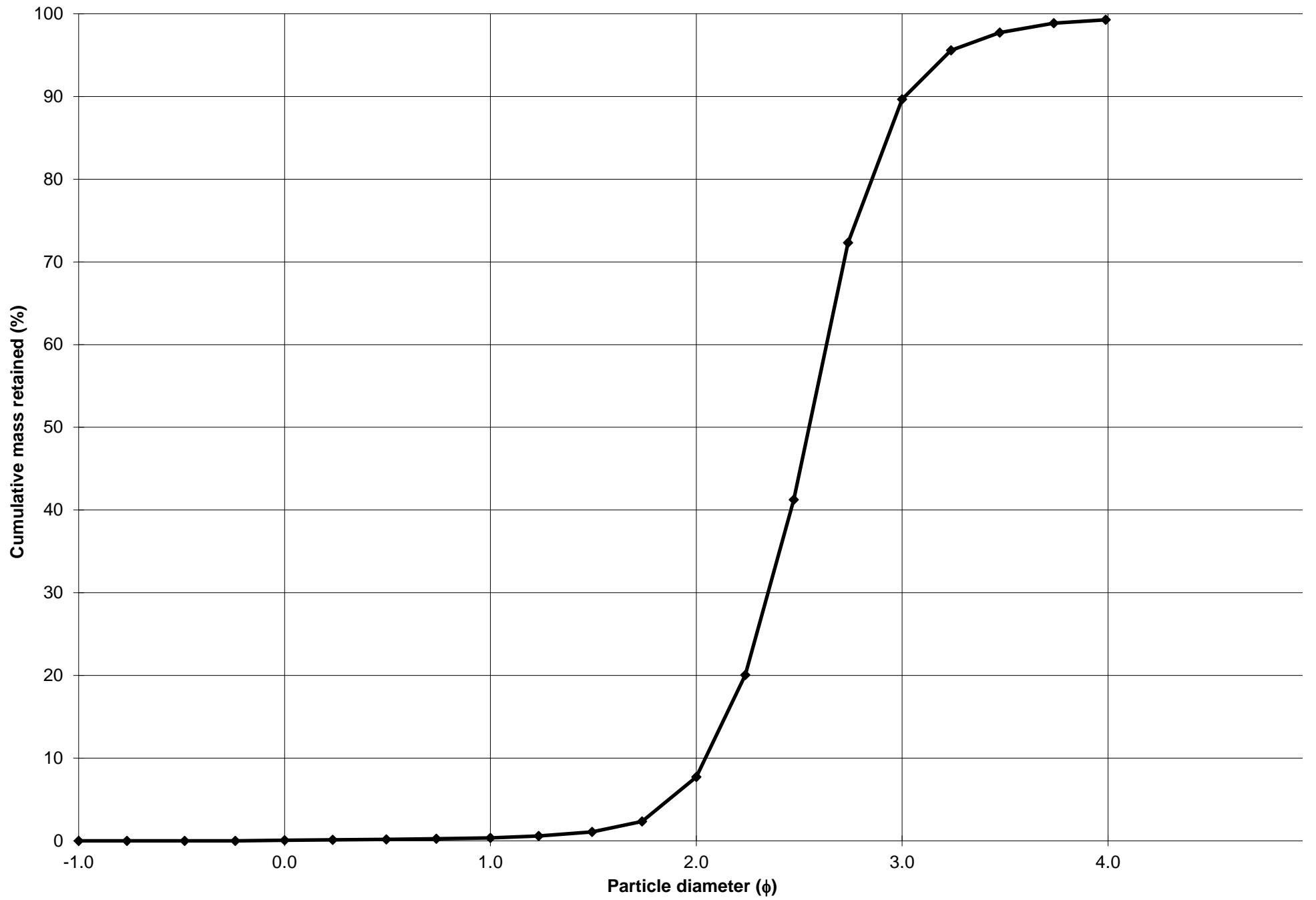
Cumulative Frequency Curve



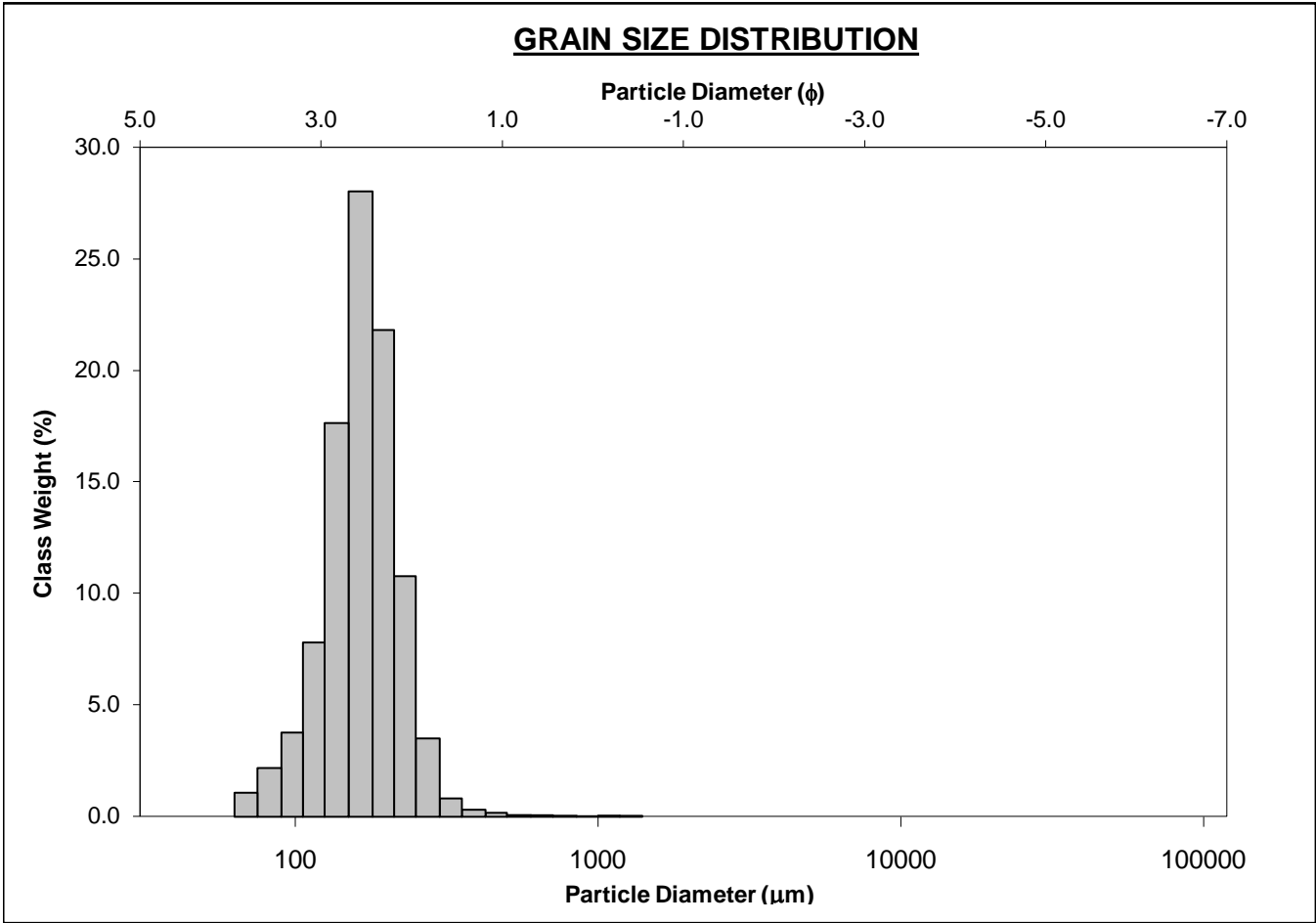
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-170cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%	COARSE SAND: 0.3%		
MODE 2:			SAND: 99.3%	MEDIUM SAND: 7.4%		
MODE 3:			MUD: 0.7%	FINE SAND: 81.9%		
D ₁₀ :	123.9	2.044		V FINE SAND: 9.6%		
MEDIAN or D ₅₀ :	171.0	2.548	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.1%		
D ₉₀ :	242.5	3.013	COARSE GRAVEL: 0.0%	COARSE SILT: 0.1%		
(D ₉₀ / D ₁₀):	1.958	1.474	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.1%		
(D ₉₀ - D ₁₀):	118.7	0.969	FINE GRAVEL: 0.0%	FINE SILT: 0.1%		
(D ₇₅ / D ₂₅):	1.399	1.211	V FINE GRAVEL: 0.0%	V FINE SILT: 0.1%		
(D ₇₅ - D ₂₅):	58.22	0.485	V COARSE SAND: 0.1%	CLAY: 0.1%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	180.2	169.1	2.564	171.9	2.541	Fine Sand
SORTING (σ):	63.23	1.471	0.557	1.313	0.393	Well Sorted
SKEWNESS (Sk):	4.361	-3.400	3.400	0.020	-0.020	Symmetrical
KURTOSIS (K):	49.98	31.03	31.03	1.140	1.140	Leptokurtic



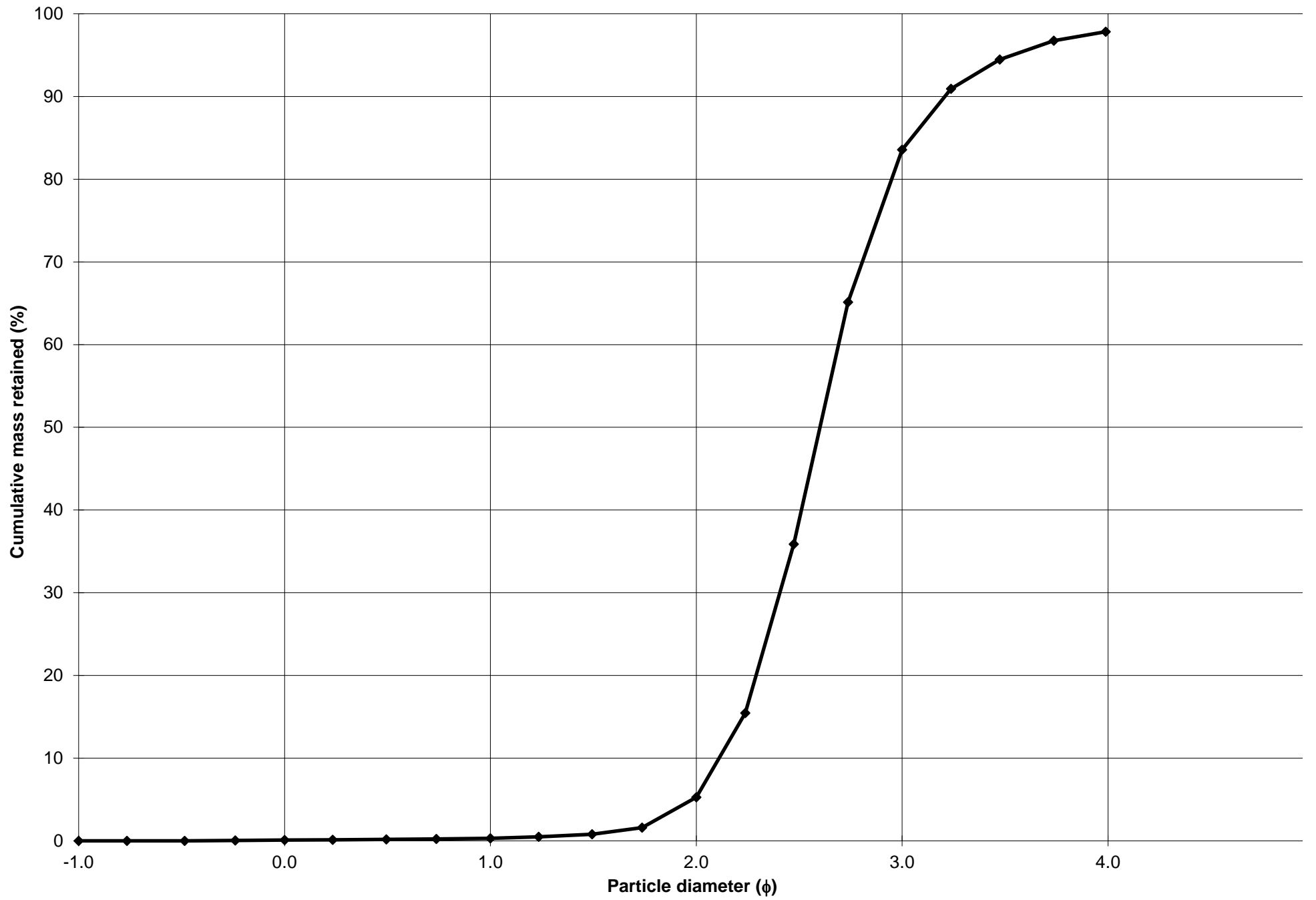
Cumulative Frequency Curve



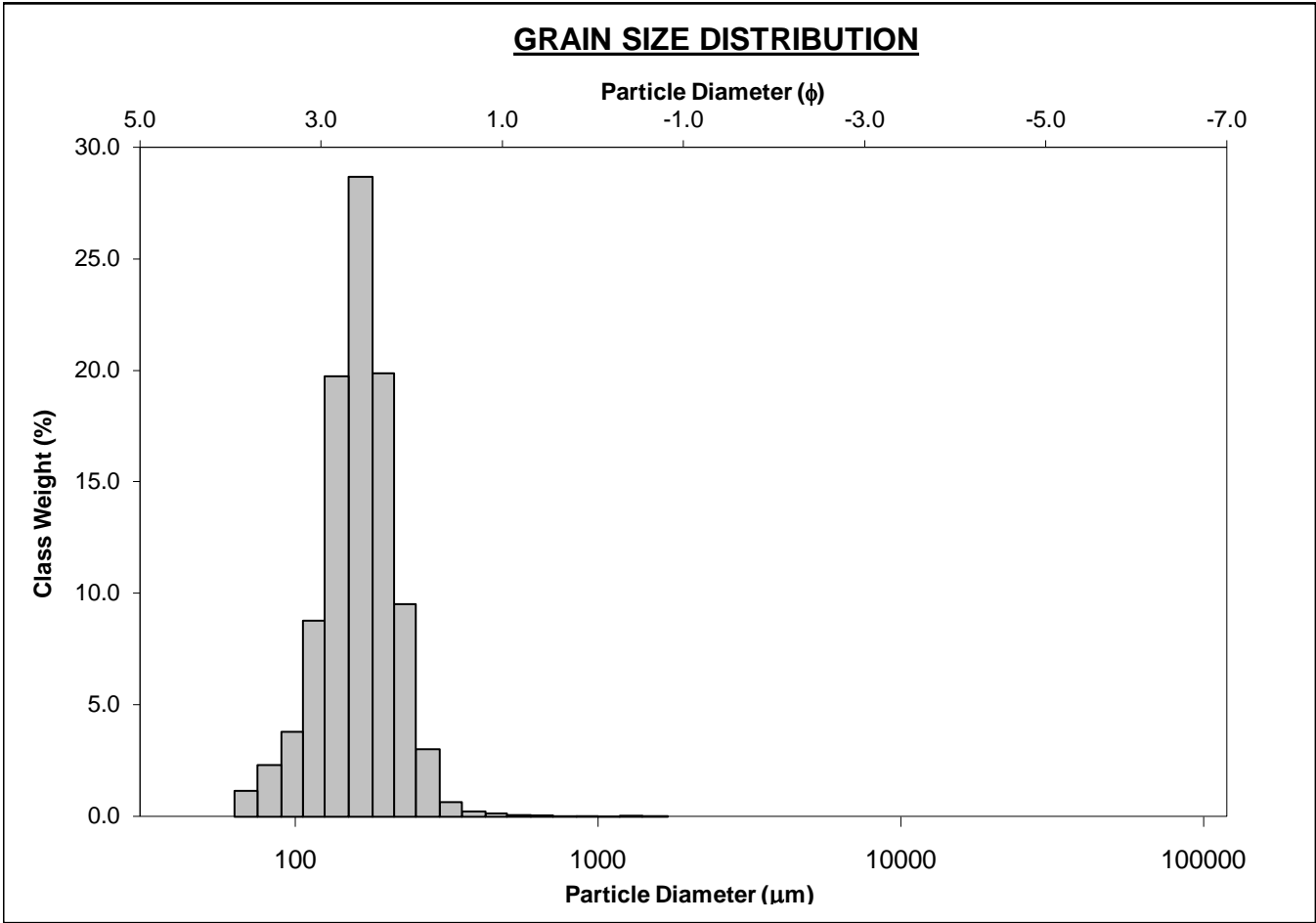
SIEVING ERROR: 0.0%		<u>SAMPLE STATISTICS</u>				
SAMPLE IDENTITY: GR-15-13-180cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.2%			
MODE 2:			SAND: 97.8% MEDIUM SAND: 5.0%			
MODE 3:			MUD: 2.2% FINE SAND: 78.3%			
D ₁₀ :	108.2	2.111	V FINE SAND: 14.3%			
MEDIAN or D ₅₀ :	164.8	2.601	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.4%			
D ₉₀ :	231.5	3.208	COARSE GRAVEL: 0.0% COARSE SILT: 0.4%			
(D ₉₀ / D ₁₀):	2.139	1.520	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.4%			
(D ₉₀ - D ₁₀):	123.3	1.097	FINE GRAVEL: 0.0% FINE SILT: 0.4%			
(D ₇₅ / D ₂₅):	1.443	1.225	V FINE GRAVEL: 0.0% V FINE SILT: 0.4%			
(D ₇₅ - D ₂₅):	60.33	0.530	V COARSE SAND: 0.1% CLAY: 0.4%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	169.8	153.8	2.701	162.7	2.620	Fine Sand
SORTING (σ):	65.38	1.704	0.769	1.345	0.428	Well Sorted
SKEWNESS (Sk):	4.977	-3.631	3.631	-0.138	0.138	Fine Skewed
KURTOSIS (K):	69.84	21.78	21.78	1.203	1.203	Leptokurtic



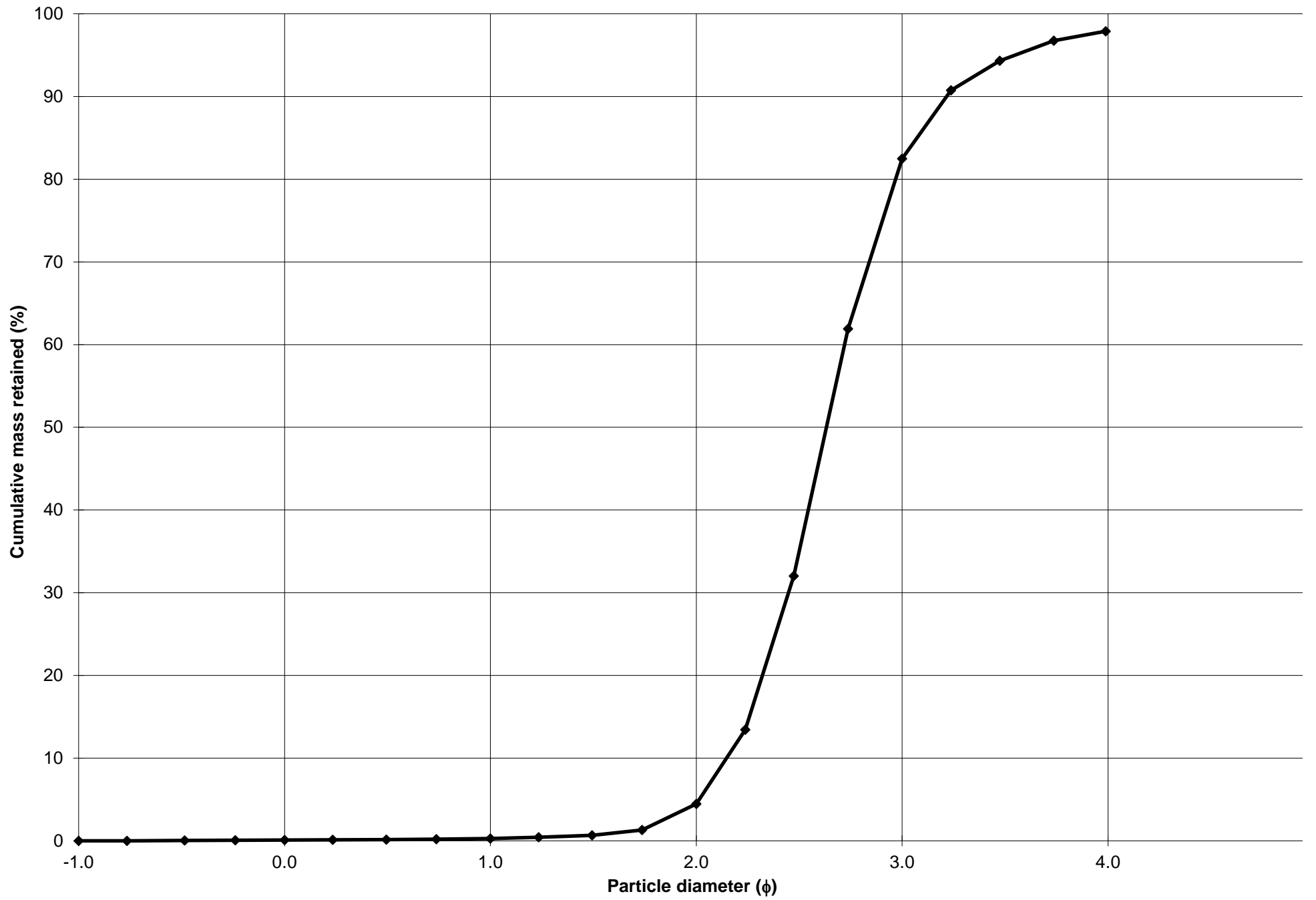
Cumulative Frequency Curve



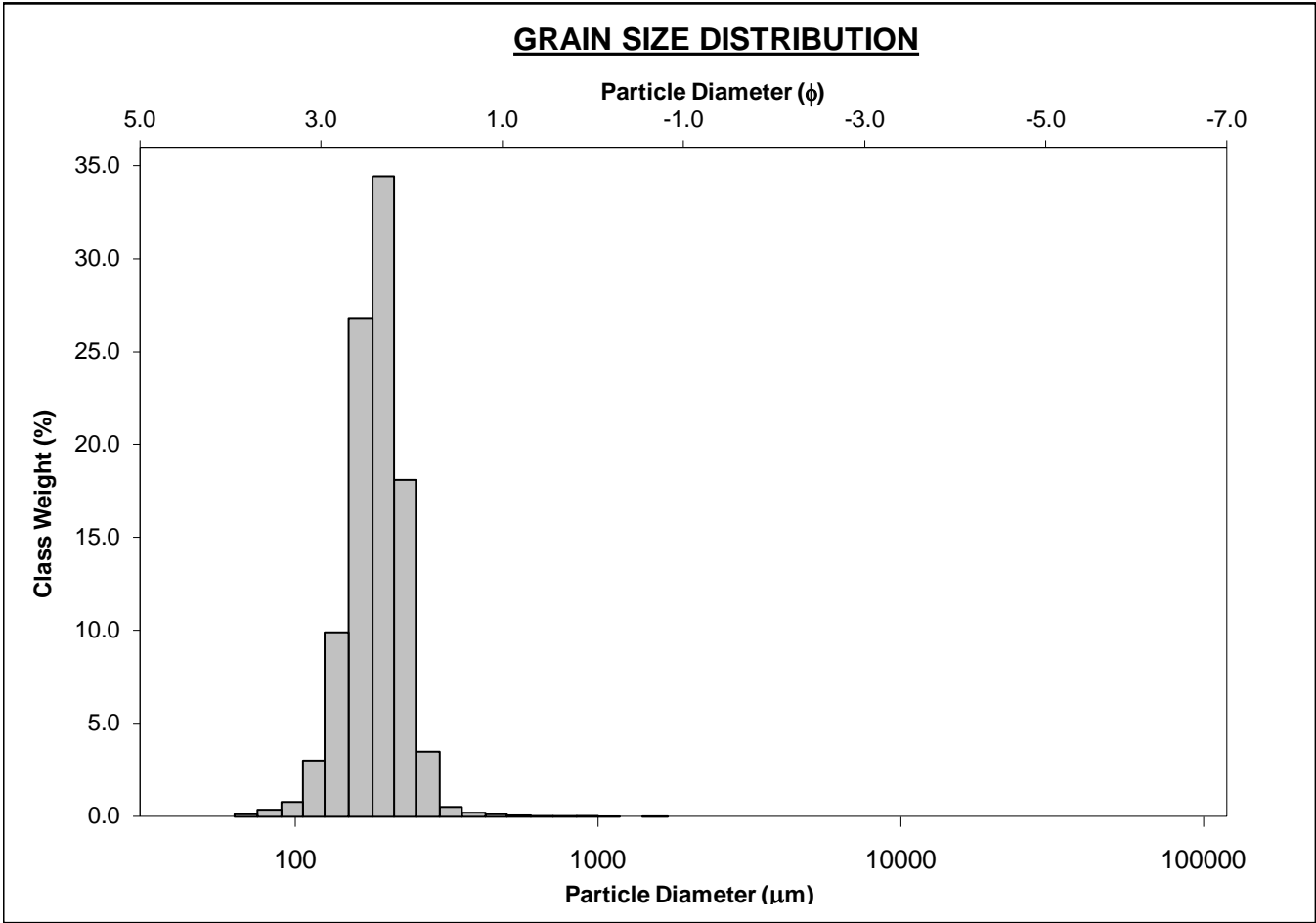
SIEVING ERROR: 1.1%		<u>SAMPLE STATISTICS</u>				
SAMPLE IDENTITY: GR-15-13-190cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.2%			
MODE 2:			SAND: 97.9% MEDIUM SAND: 4.2%			
MODE 3:			MUD: 2.1% FINE SAND: 78.0%			
D ₁₀ :	107.6	2.147	V FINE SAND: 15.4%			
MEDIAN or D ₅₀ :	161.3	2.632	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.4%			
D ₉₀ :	225.8	3.216	COARSE GRAVEL: 0.0% COARSE SILT: 0.4%			
(D ₉₀ / D ₁₀):	2.099	1.498	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.4%			
(D ₉₀ - D ₁₀):	118.2	1.069	FINE GRAVEL: 0.0% FINE SILT: 0.4%			
(D ₇₅ / D ₂₅):	1.434	1.218	V FINE GRAVEL: 0.0% V FINE SILT: 0.4%			
(D ₇₅ - D ₂₅):	57.92	0.520	V COARSE SAND: 0.1% CLAY: 0.4%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	166.2	150.9	2.729	159.5	2.649	Fine Sand
SORTING (σ):	66.24	1.687	0.754	1.343	0.426	Well Sorted
SKEWNESS (Sk):	6.880	-3.645	3.645	-0.130	0.130	Fine Skewed
KURTOSIS (K):	118.3	22.29	22.29	1.210	1.210	Leptokurtic



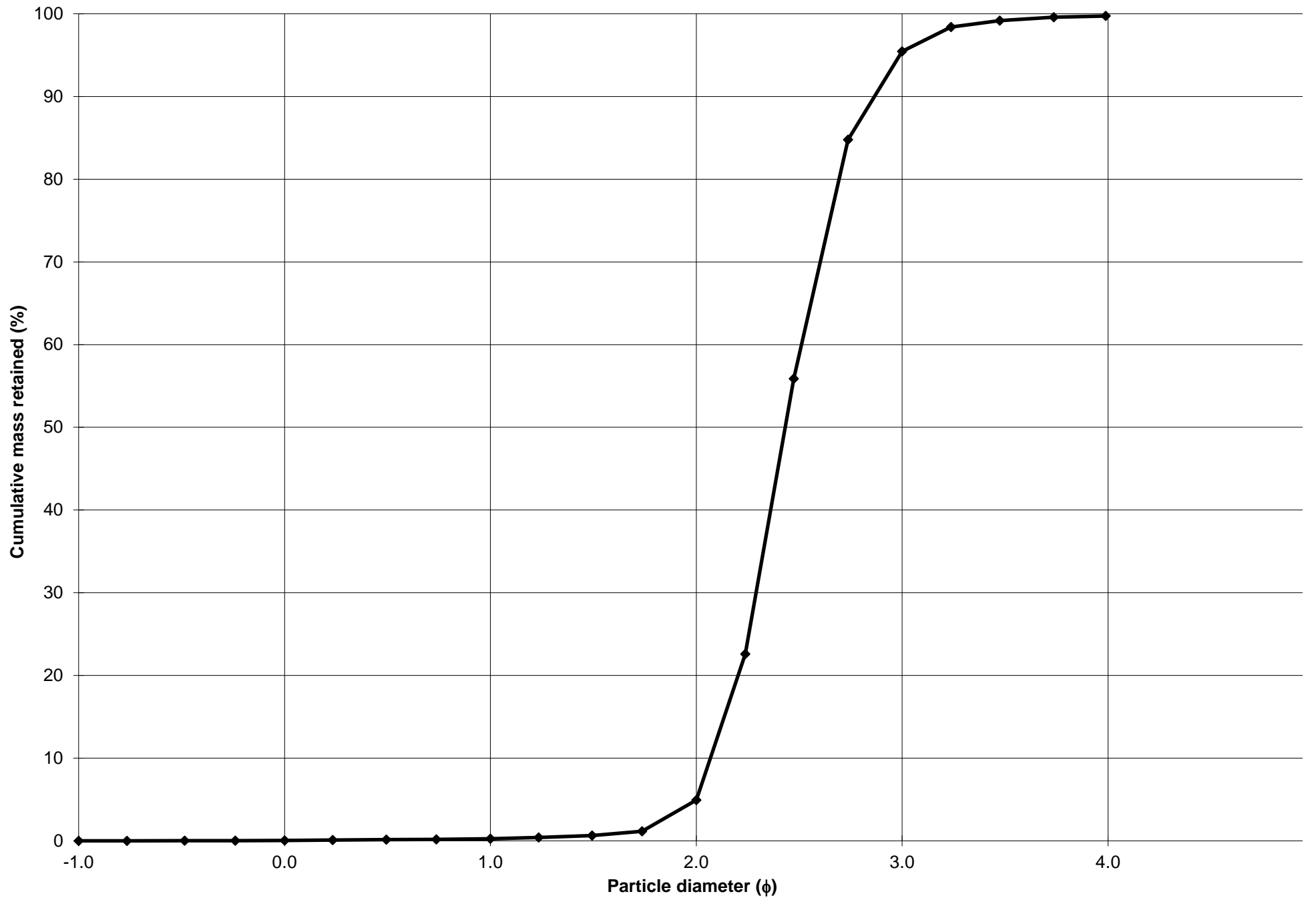
Cumulative Frequency Curve



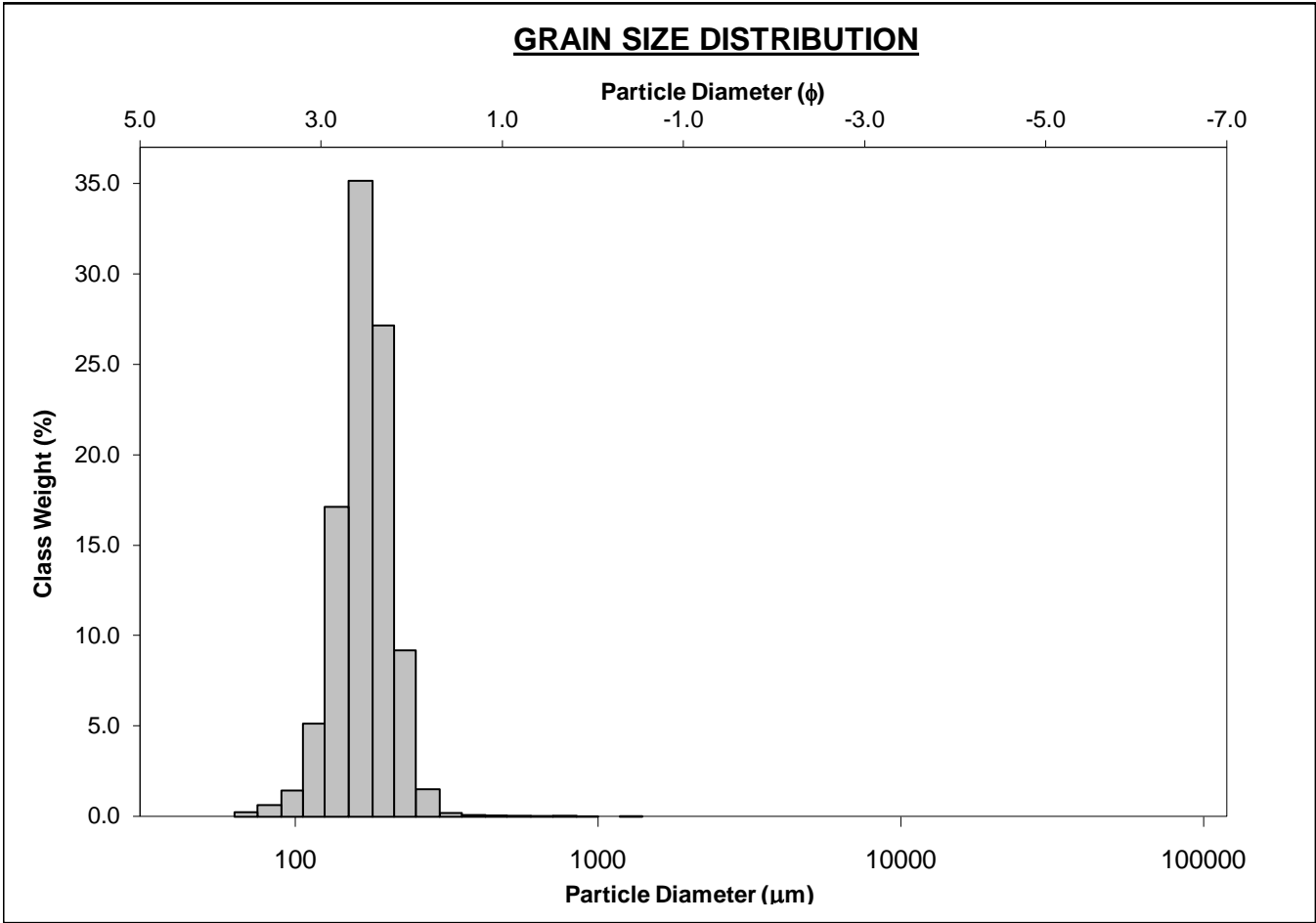
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-200cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 0.2%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 4.7%	
MODE 3:			MUD: 0.3%		FINE SAND: 90.5%	
D ₁₀ :	137.2	2.068			V FINE SAND: 4.3%	
MEDIAN or D ₅₀ :	185.3	2.432	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	238.4	2.866	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.738	1.385	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	101.2	0.797	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.313	1.174	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	49.95	0.393	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	188.9	181.8	2.459	184.7	2.437	Fine Sand
SORTING (σ):	54.97	1.325	0.407	1.227	0.295	Very Well Sorted
SKEWNESS (Sk):	7.783	-3.461	3.461	-0.076	0.076	Symmetrical
KURTOSIS (K):	152.1	46.10	46.10	1.030	1.030	Mesokurtic



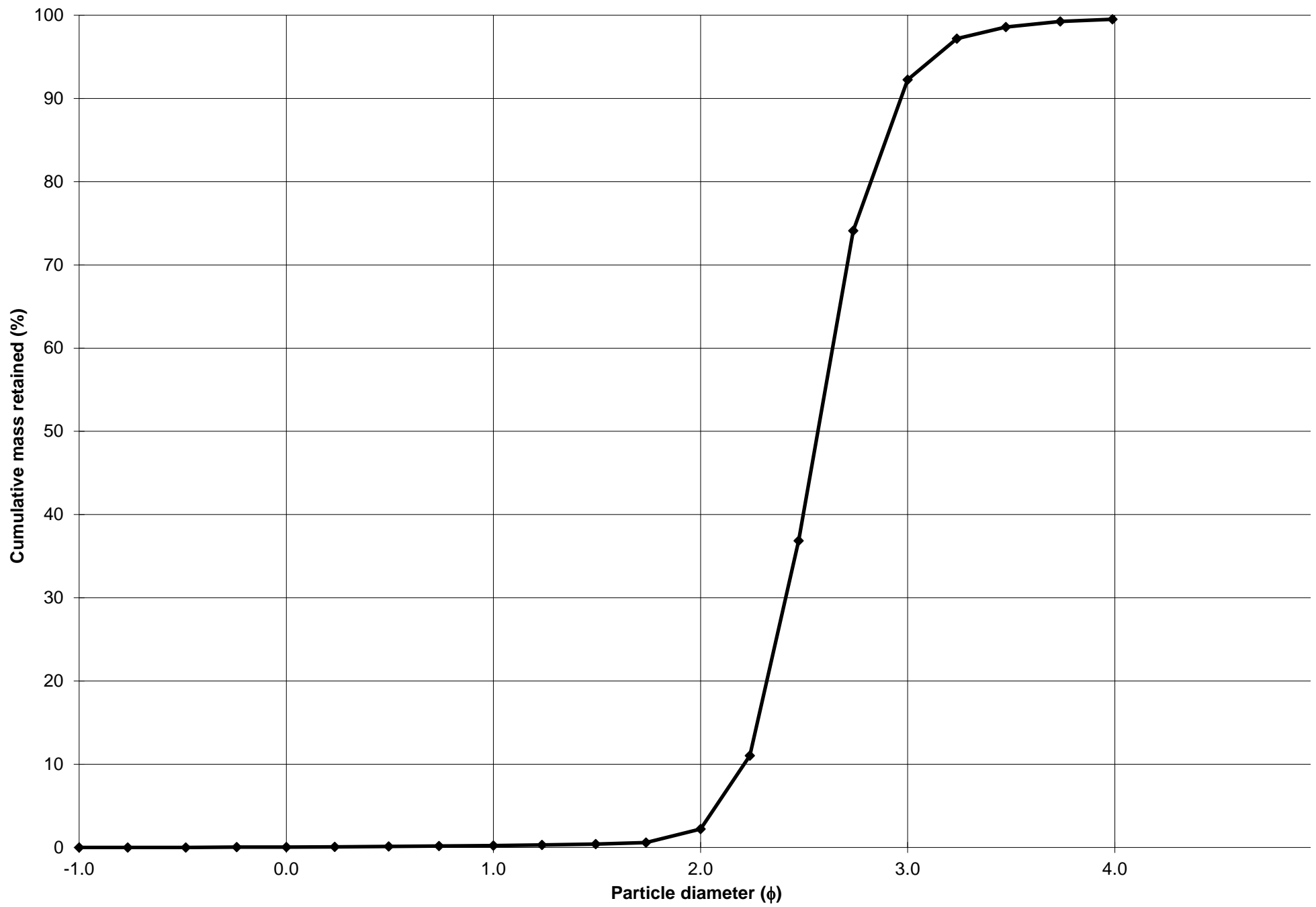
Cumulative Frequency Curve



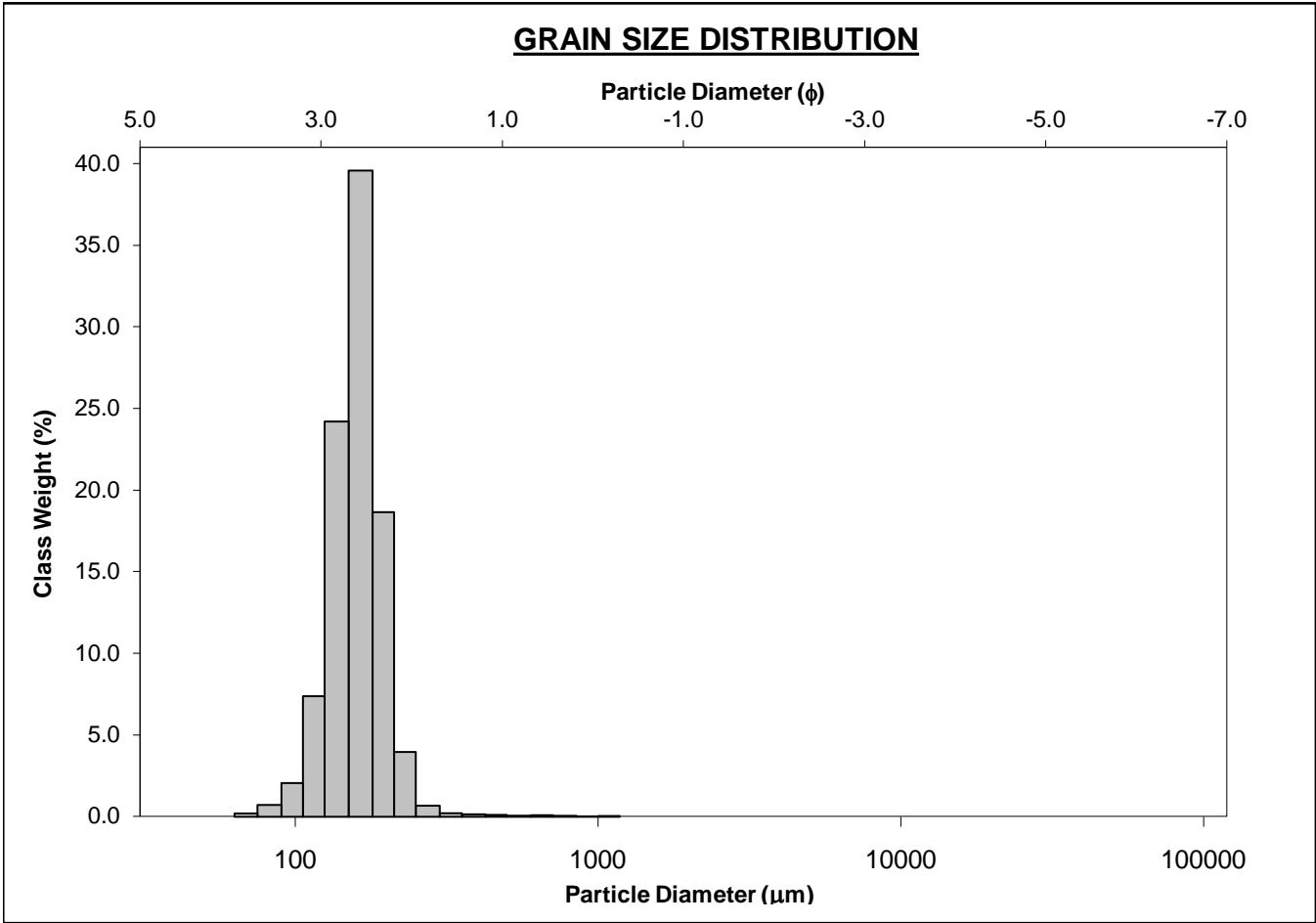
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-210cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.2%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 2.0%	
MODE 3:			MUD: 0.5%		FINE SAND: 90.0%	
D_{10} :	127.9	2.210			V FINE SAND: 7.3%	
MEDIAN or D_{50} :	168.8	2.567	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D_{90} :	216.1	2.967	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D_{90} / D_{10}) :	1.690	1.343	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
$(D_{90} - D_{10})$:	88.26	0.757	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D_{75} / D_{25}) :	1.305	1.163	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
$(D_{75} - D_{25})$:	45.39	0.384	V COARSE SAND: 0.0%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	172.9	165.9	2.592	167.6	2.577	Fine Sand
SORTING (σ):	49.11	1.364	0.448	1.239	0.309	Very Well Sorted
SKEWNESS (Sk):	7.010	-4.421	4.421	-0.060	0.060	Symmetrical
KURTOSIS (K):	128.8	48.36	48.36	1.127	1.127	Leptokurtic



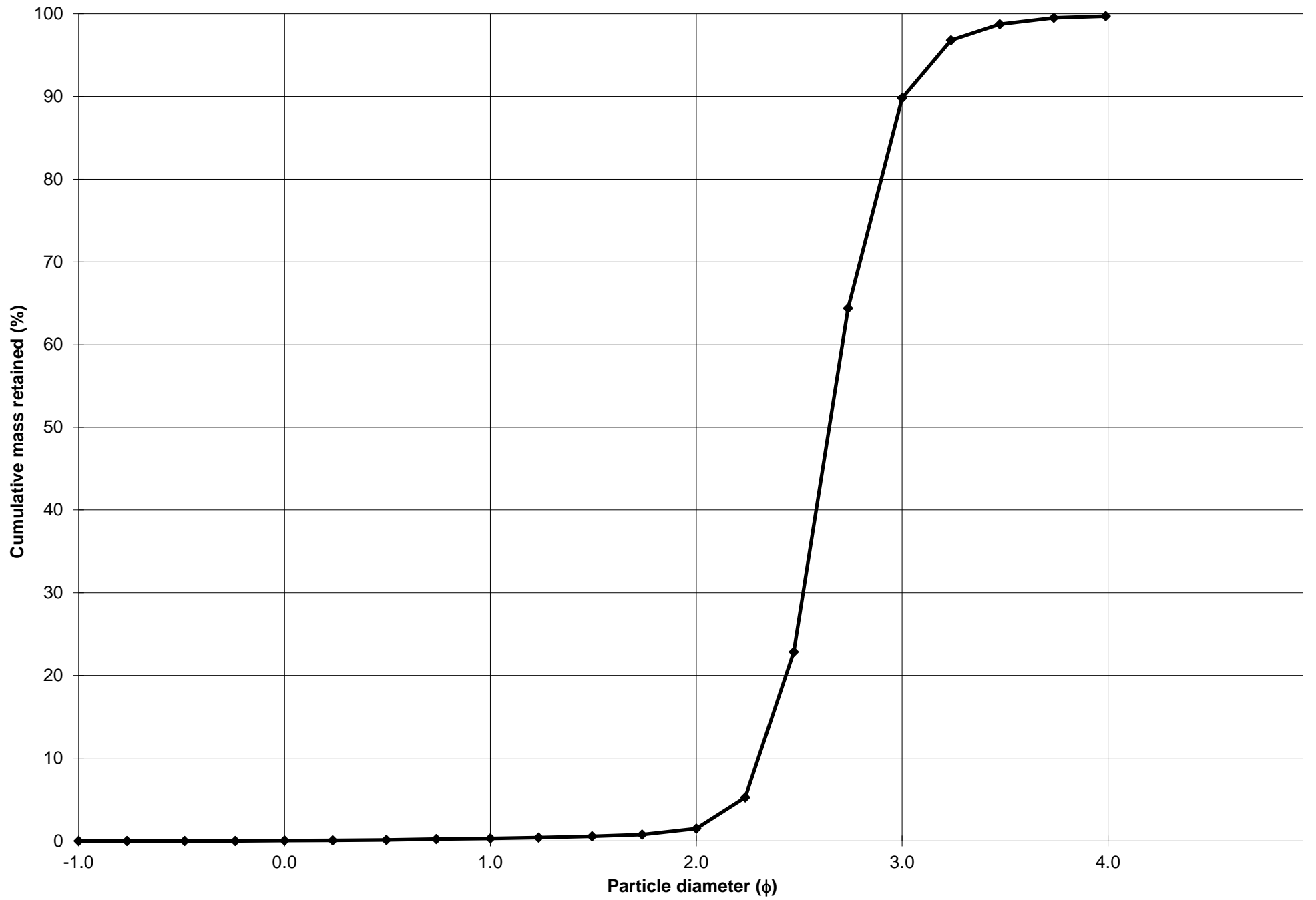
Cumulative Frequency Curve



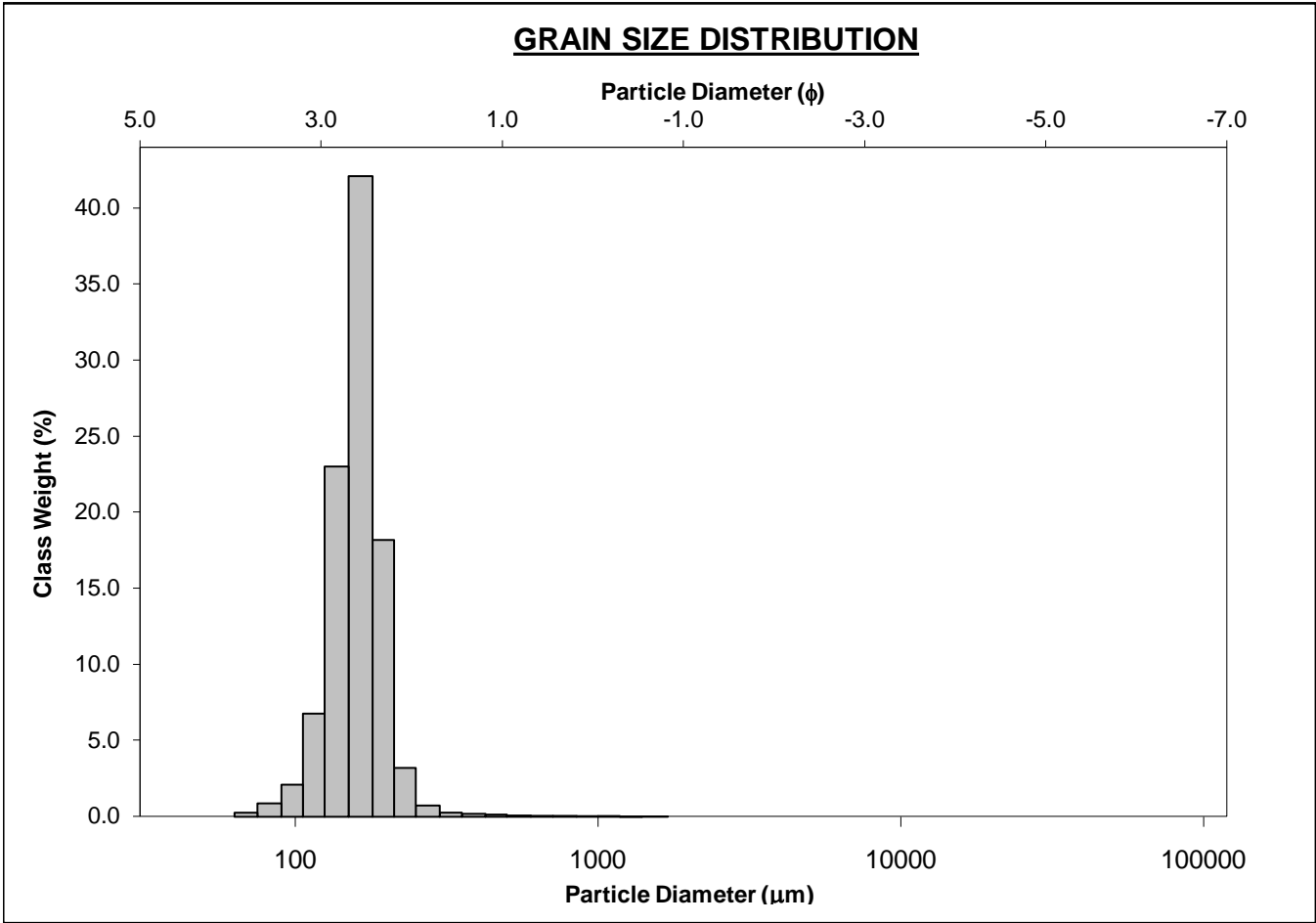
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-220cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.3%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 1.2%	
MODE 3:			MUD: 0.3%		FINE SAND: 88.3%	
D_{10} :	124.4	2.302			V FINE SAND: 9.9%	
MEDIAN or D_{50} :	159.8	2.646	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	202.8	3.007	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	1.631	1.307	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	78.47	0.706	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.283	1.144	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	39.31	0.359	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	163.5	157.5	2.666	158.7	2.656	Fine Sand
SORTING (σ):	48.28	1.313	0.393	1.218	0.284	Very Well Sorted
SKEWNESS (Sk):	7.401	-3.303	3.303	-0.083	0.083	Symmetrical
KURTOSIS (K):	111.6	47.53	47.53	1.090	1.090	Mesokurtic



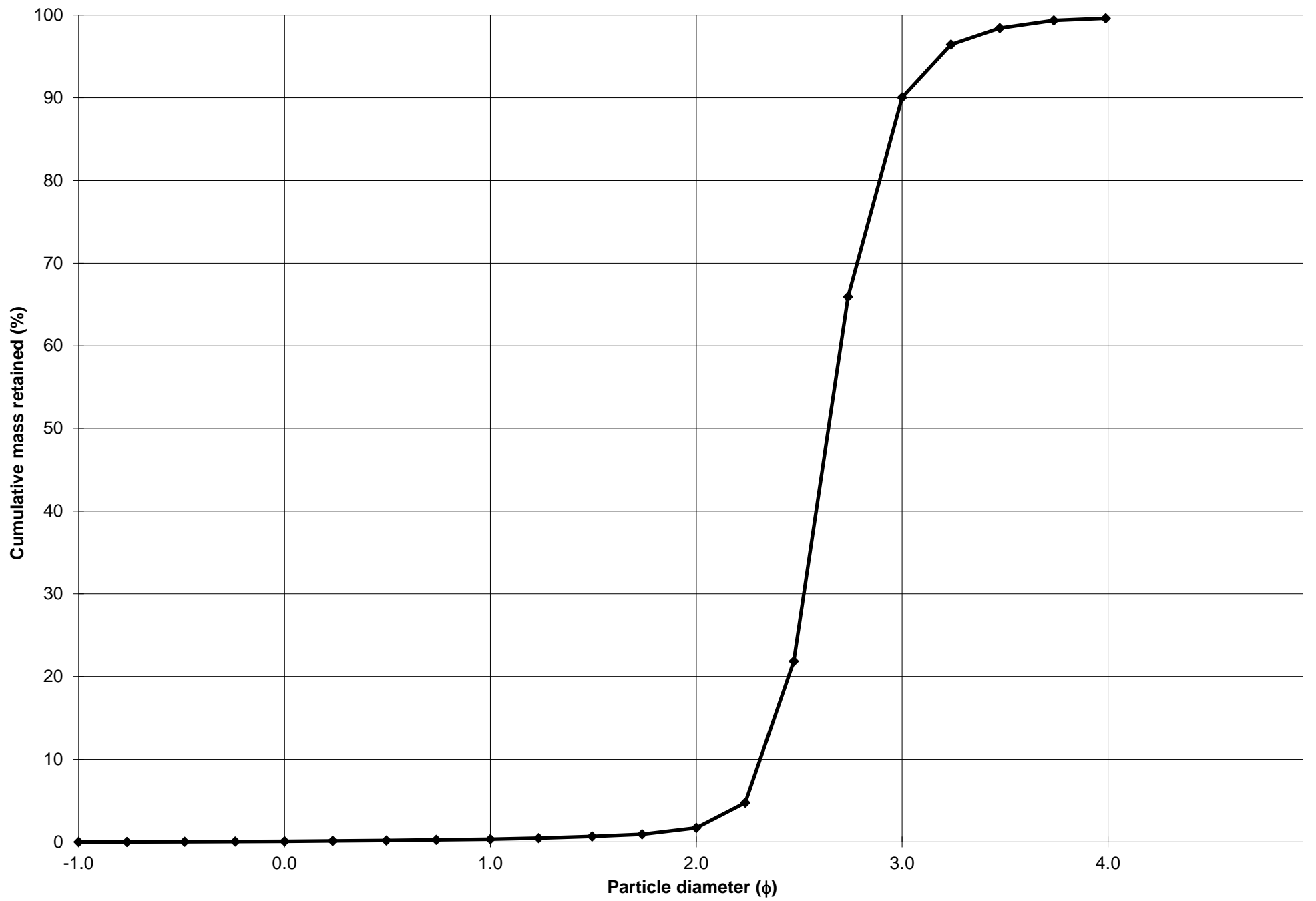
Cumulative Frequency Curve



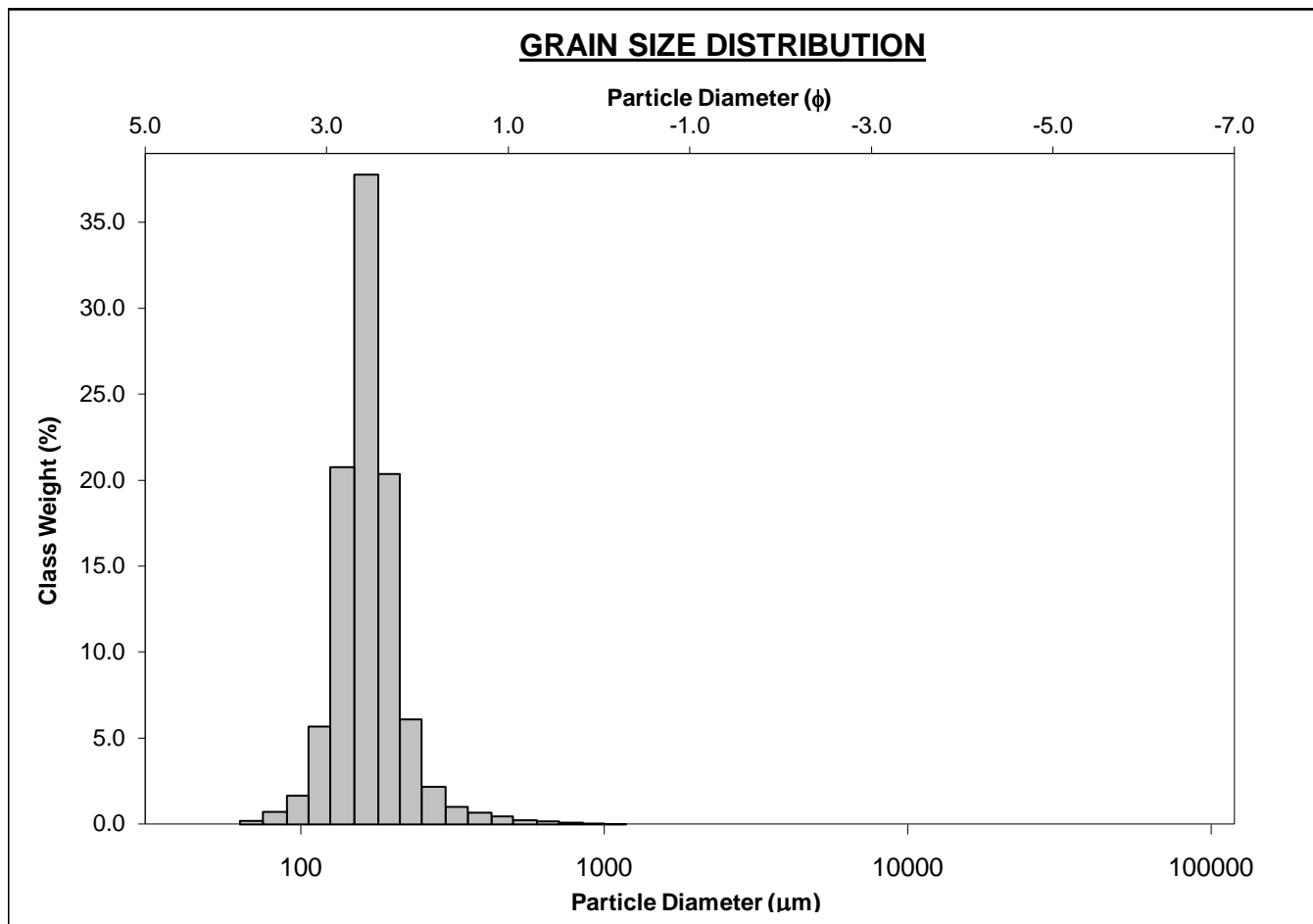
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-230cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.2%			
MODE 2:			SAND: 99.6% MEDIUM SAND: 1.4%			
MODE 3:			MUD: 0.4% FINE SAND: 88.3%			
D ₁₀ :	125.0	2.310	V FINE SAND: 9.6%			
MEDIAN or D ₅₀ :	160.2	2.642	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%			
D ₉₀ :	201.6	3.000	COARSE GRAVEL: 0.0% COARSE SILT: 0.1%			
(D ₉₀ / D ₁₀):	1.613	1.298	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%			
(D ₉₀ - D ₁₀):	76.58	0.689	FINE GRAVEL: 0.0% FINE SILT: 0.1%			
(D ₇₅ / D ₂₅):	1.269	1.138	V FINE GRAVEL: 0.0% V FINE SILT: 0.1%			
(D ₇₅ - D ₂₅):	37.62	0.343	V COARSE SAND: 0.1% CLAY: 0.1%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	164.0	157.3	2.668	158.6	2.657	Fine Sand
SORTING (σ):	54.87	1.338	0.420	1.213	0.278	Very Well Sorted
SKEWNESS (Sk):	10.26	-3.563	3.563	-0.116	0.116	Fine Skewed
KURTOSIS (K):	193.2	48.45	48.45	1.126	1.126	Leptokurtic



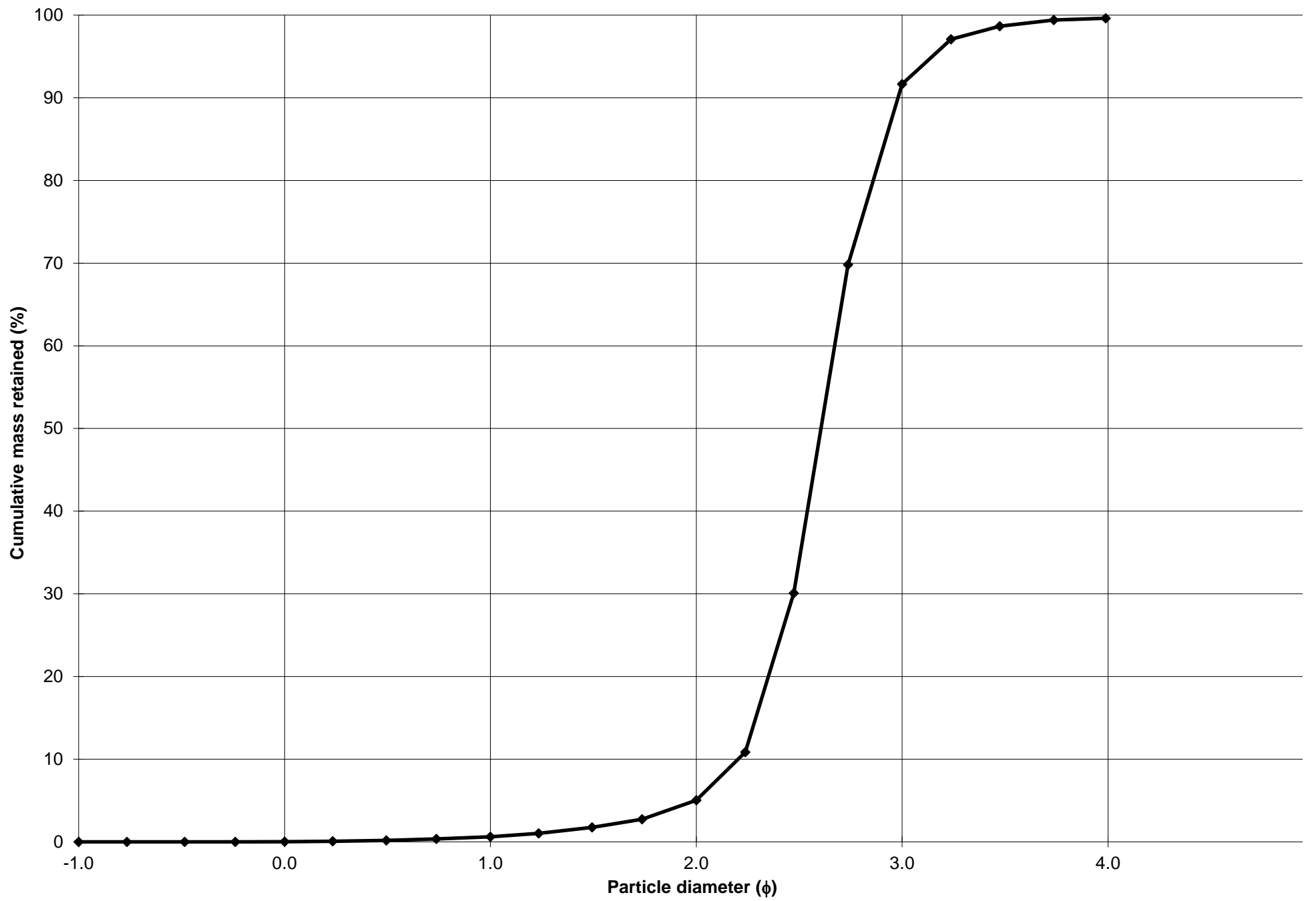
Cumulative Frequency Curve



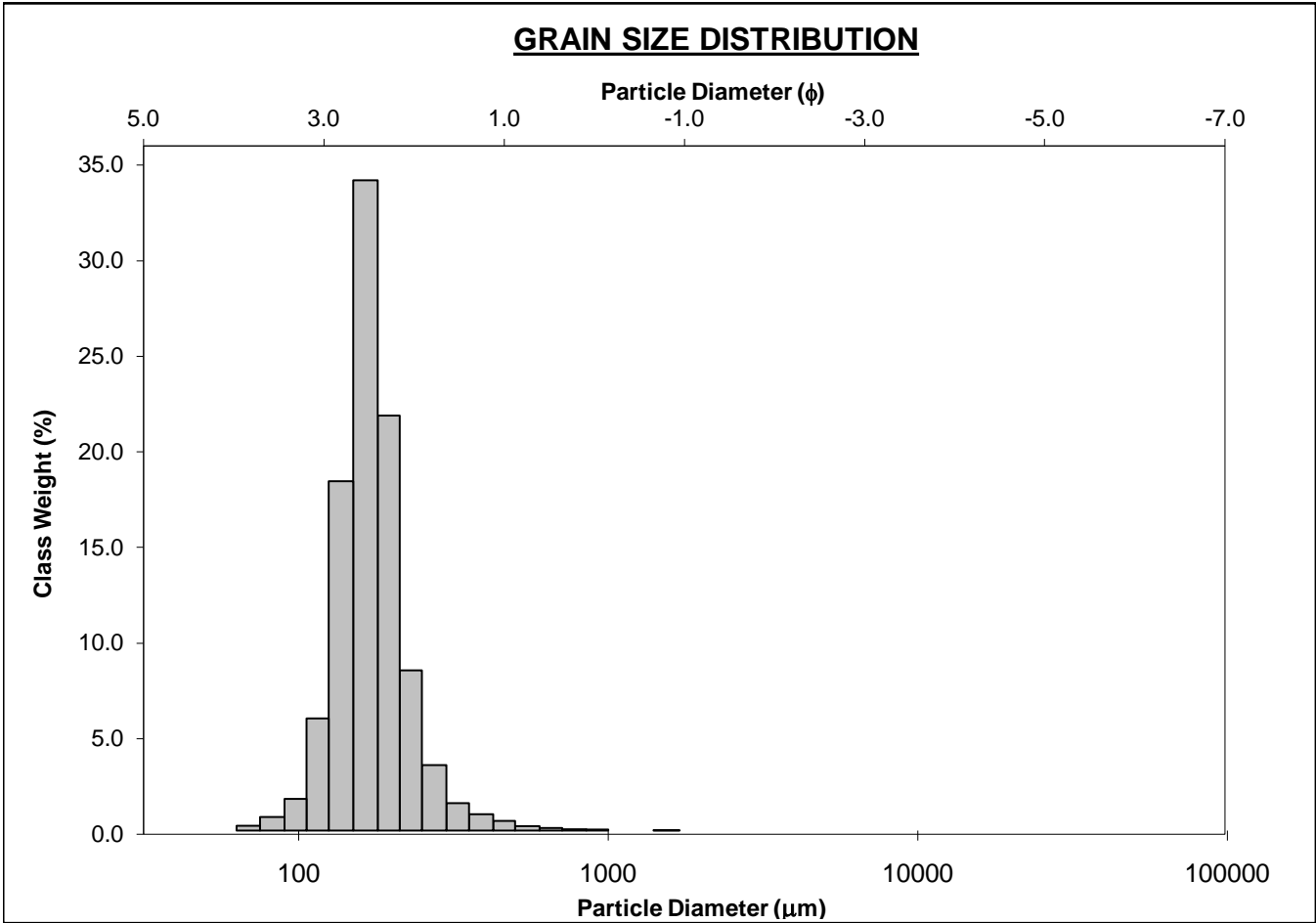
SIEVING ERROR: 0.4%		<u>SAMPLE STATISTICS</u>				
SAMPLE IDENTITY: GR-15-13-240cm			ANALYST & DATE: Chris, 8/23/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.6%			
MODE 2:			SAND: 99.6% MEDIUM SAND: 4.4%			
MODE 3:			MUD: 0.4% FINE SAND: 86.6%			
D_{10} :	126.7	2.203	V FINE SAND: 8.0%			
MEDIAN or D_{50} :	164.3	2.606	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%			
D_{90} :	217.2	2.980	COARSE GRAVEL: 0.0% COARSE SILT: 0.1%			
(D_{90} / D_{10}) :	1.713	1.353	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%			
$(D_{90} - D_{10})$:	90.43	0.777	FINE GRAVEL: 0.0% FINE SILT: 0.1%			
(D_{75} / D_{25}) :	1.308	1.161	V FINE GRAVEL: 0.0% V FINE SILT: 0.1%			
$(D_{75} - D_{25})$:	44.31	0.388	V COARSE SAND: 0.0% CLAY: 0.1%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	173.8	165.0	2.599	164.4	2.605	Fine Sand
SORTING (σ):	61.50	1.379	0.464	1.254	0.326	Very Well Sorted
SKEWNESS (Sk):	4.762	-2.487	2.487	0.032	-0.032	Symmetrical
KURTOSIS (K):	43.44	34.62	34.62	1.217	1.217	Leptokurtic



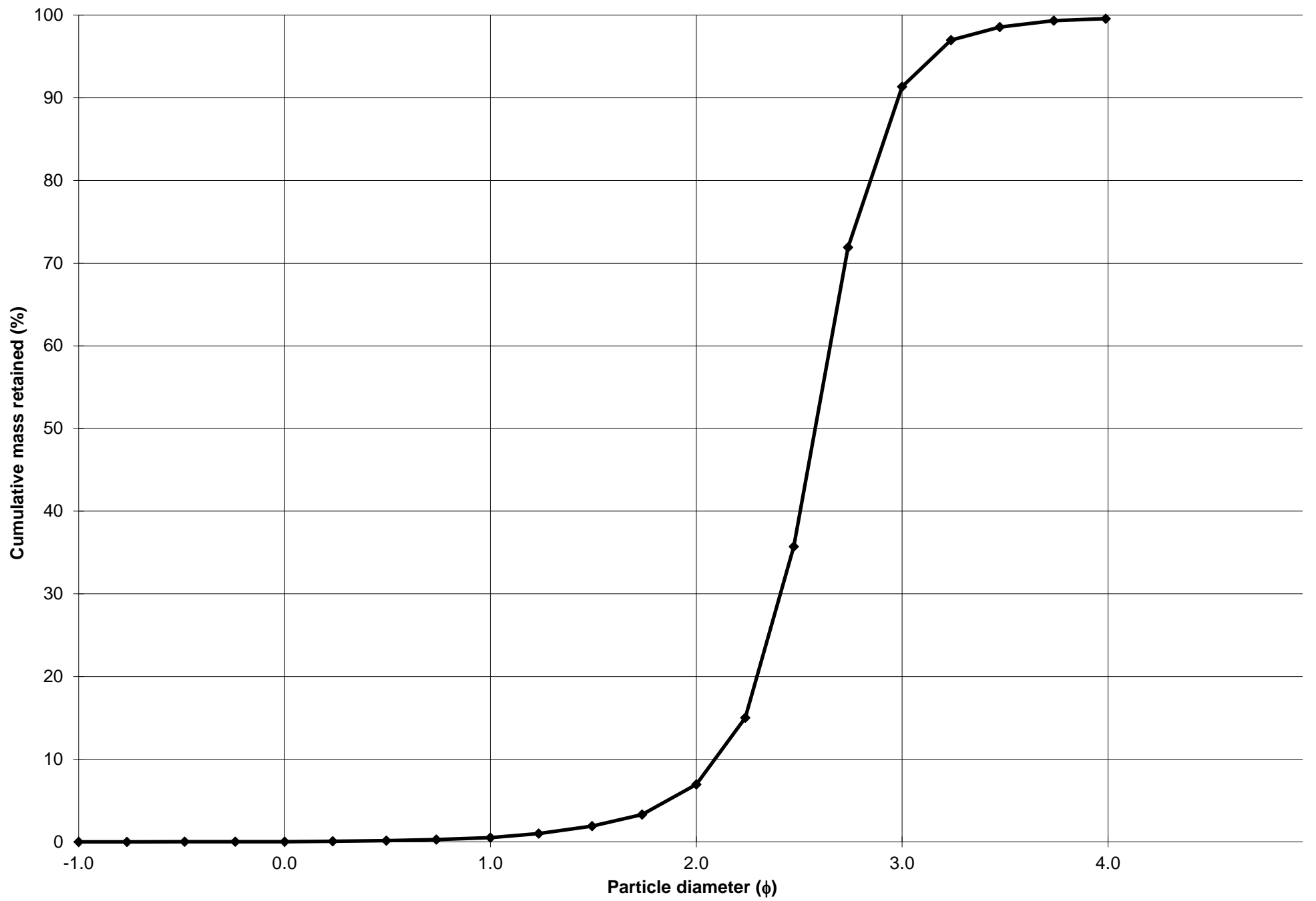
Cumulative Frequency Curve



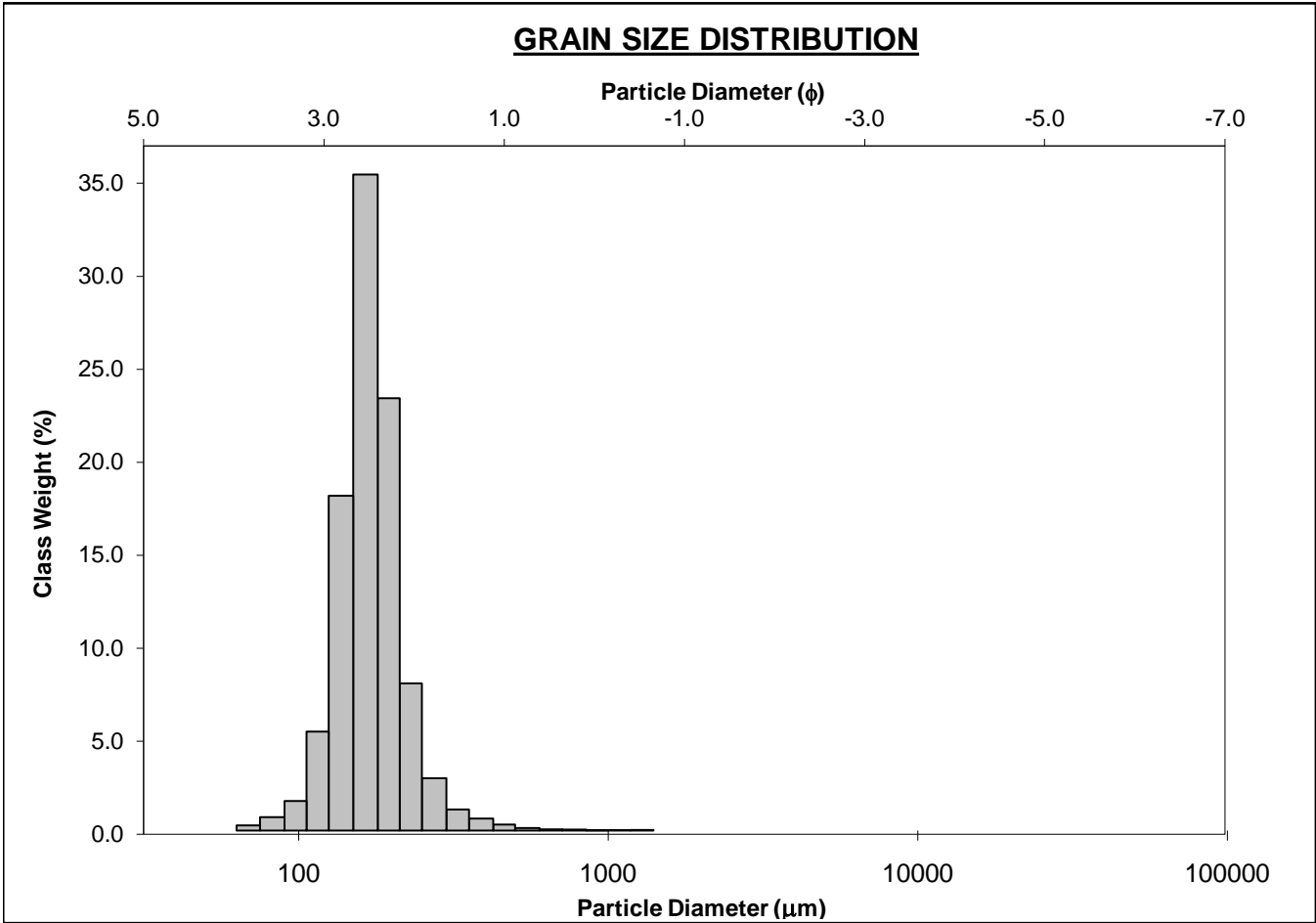
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-250cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%	COARSE SAND: 0.5%		
MODE 2:			SAND: 99.6%	MEDIUM SAND: 6.4%		
MODE 3:			MUD: 0.4%	FINE SAND: 84.4%		
D ₁₀ :	126.6	2.090		V FINE SAND: 8.2%		
MEDIAN or D ₅₀ :	167.5	2.578	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.1%		
D ₉₀ :	234.9	2.982	COARSE GRAVEL: 0.0%	COARSE SILT: 0.1%		
(D ₉₀ / D ₁₀):	1.855	1.427	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.1%		
(D ₉₀ - D ₁₀):	108.3	0.892	FINE GRAVEL: 0.0%	FINE SILT: 0.1%		
(D ₇₅ / D ₂₅):	1.345	1.182	V FINE GRAVEL: 0.0%	V FINE SILT: 0.1%		
(D ₇₅ - D ₂₅):	50.21	0.427	V COARSE SAND: 0.0%	CLAY: 0.1%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	178.6	168.8	2.567	167.7	2.576	Fine Sand
SORTING (σ):	64.83	1.406	0.491	1.283	0.359	Well Sorted
SKEWNESS (Sk):	5.099	-2.540	2.540	0.059	-0.059	Symmetrical
KURTOSIS (K):	65.32	31.51	31.51	1.243	1.243	Leptokurtic



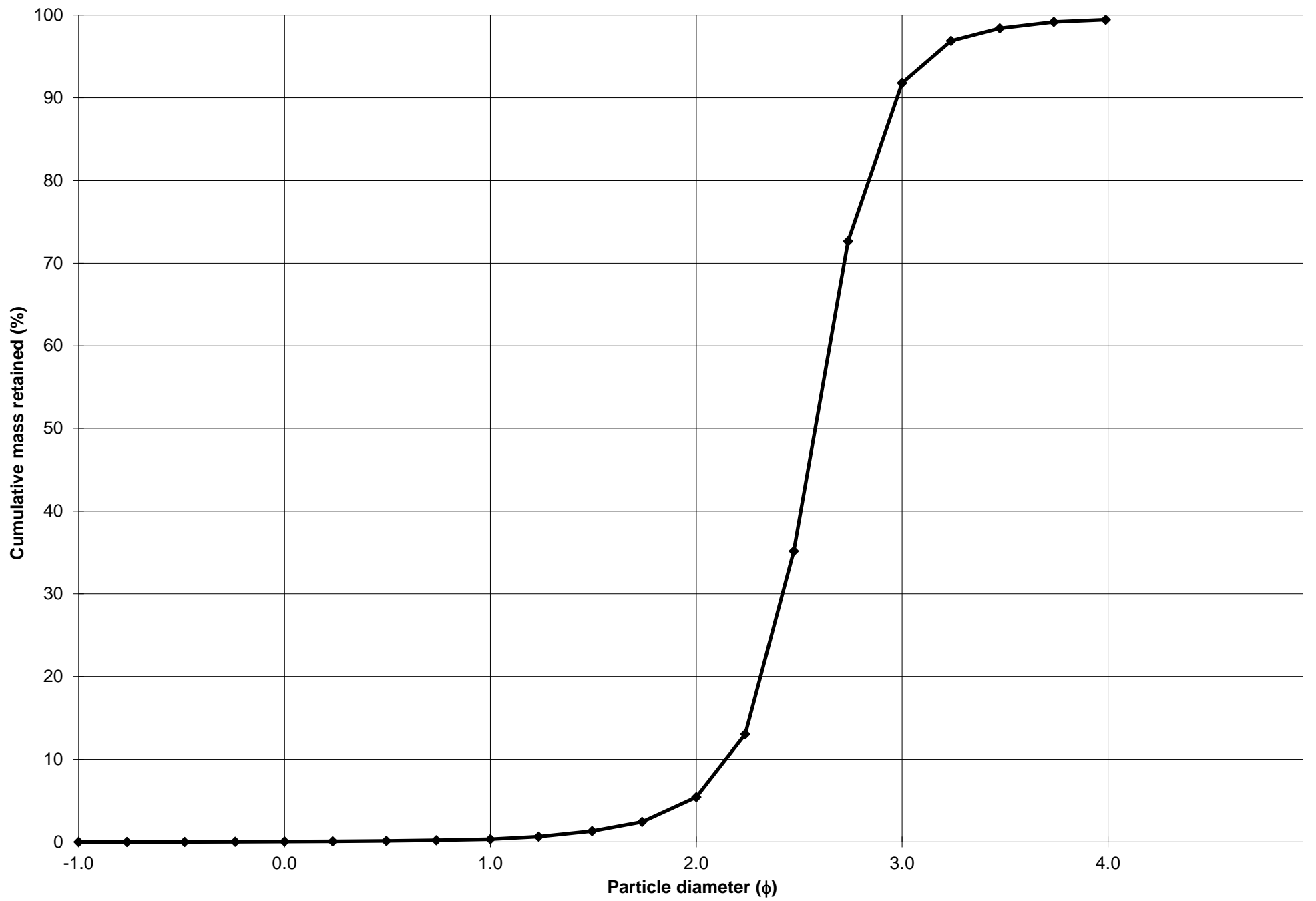
Cumulative Frequency Curve



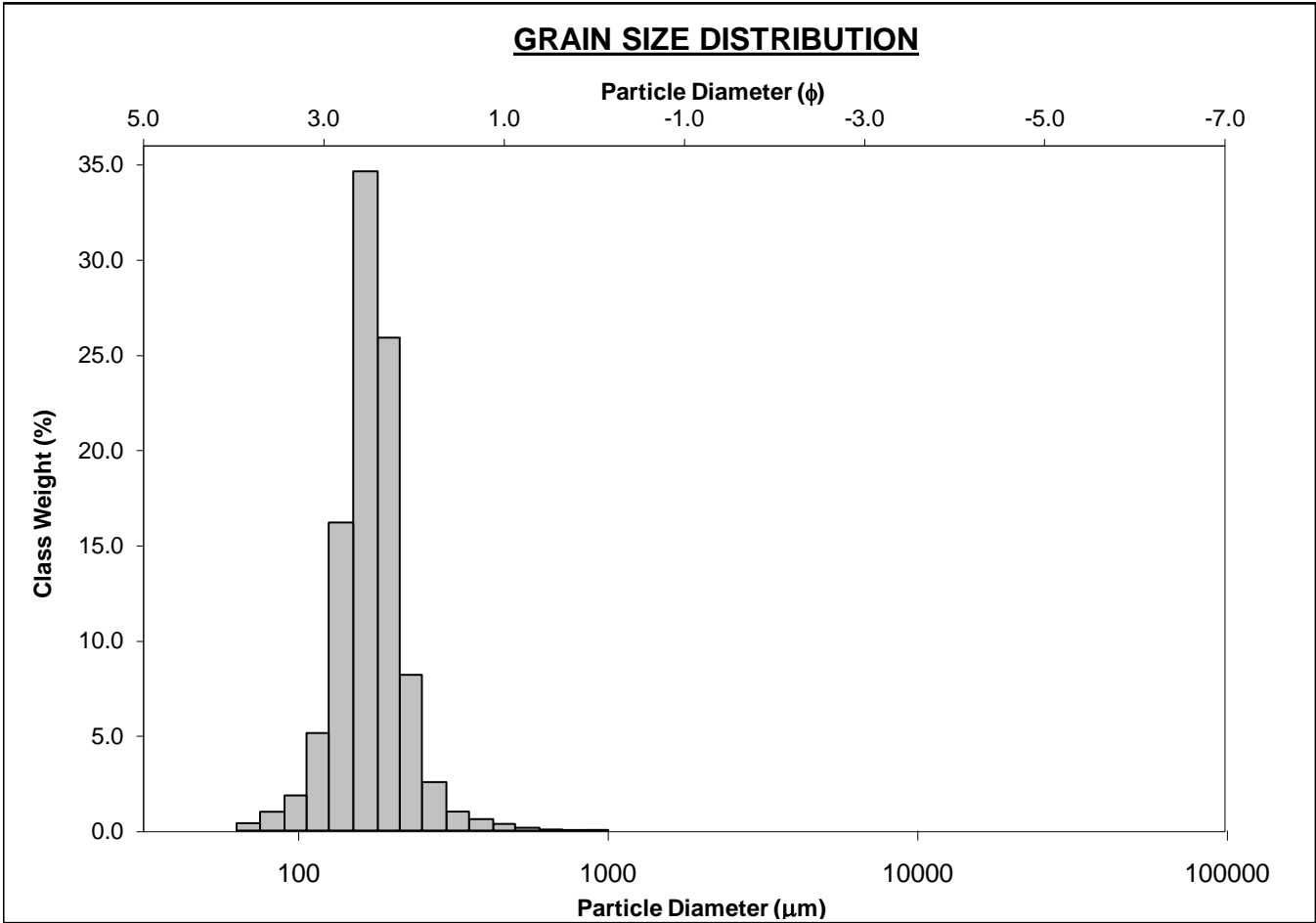
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-260cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.3%	
MODE 2:			SAND: 99.4%		MEDIUM SAND: 5.1%	
MODE 3:			MUD: 0.6%		FINE SAND: 86.3%	
D_{10} :	127.1	2.143			V FINE SAND: 7.7%	
MEDIAN or D_{50} :	167.5	2.578	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D_{90} :	226.4	2.976	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D_{90} / D_{10}) :	1.781	1.388	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
$(D_{90} - D_{10})$:	99.25	0.832	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D_{75} / D_{25}) :	1.323	1.171	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
$(D_{75} - D_{25})$:	47.38	0.404	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	175.9	166.8	2.584	167.2	2.580	Fine Sand
SORTING (σ):	59.16	1.410	0.496	1.262	0.336	Very Well Sorted
SKEWNESS (Sk):	5.478	-3.481	3.481	0.013	-0.013	Symmetrical
KURTOSIS (K):	73.72	37.51	37.51	1.205	1.205	Leptokurtic



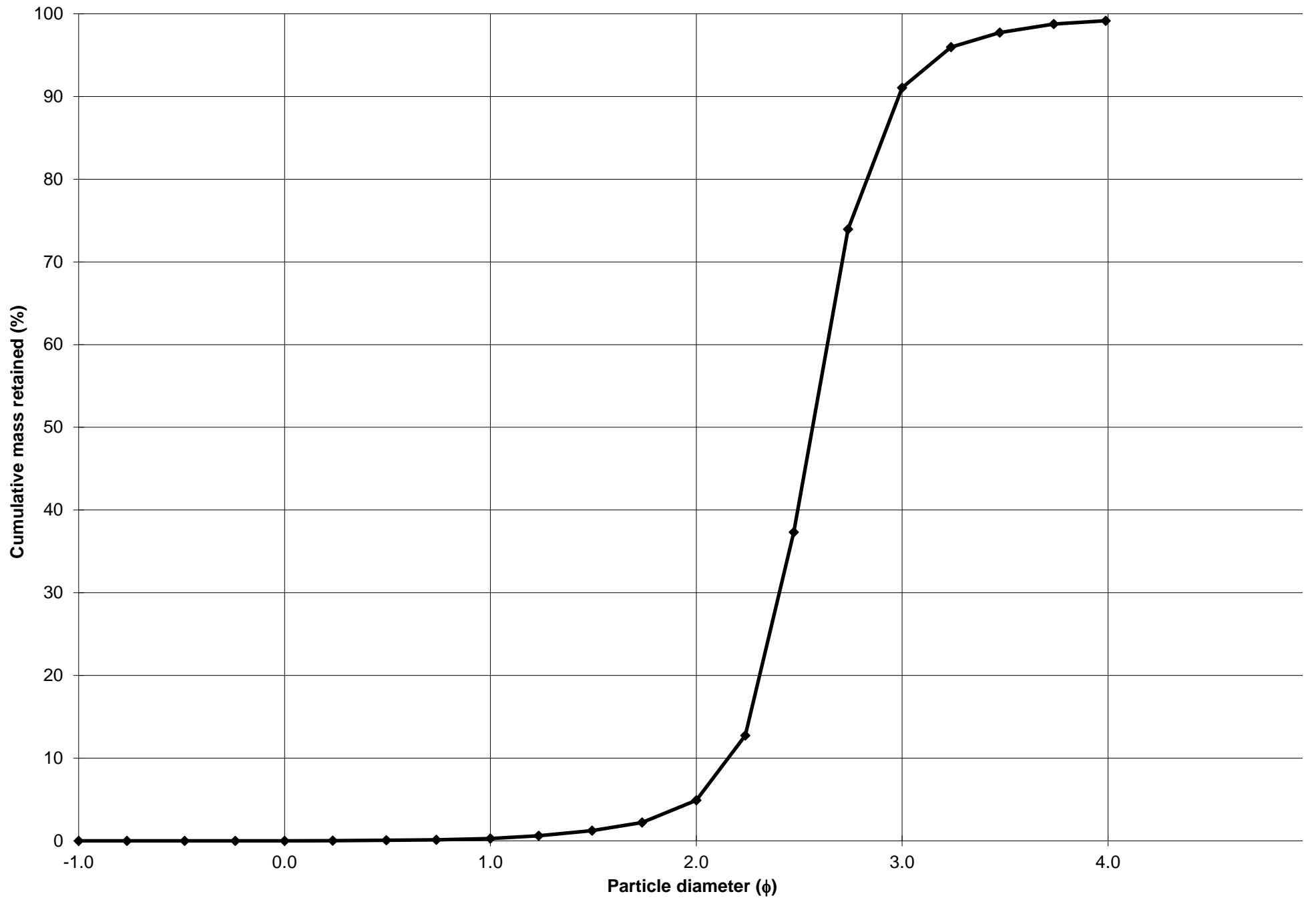
Cumulative Frequency Curve



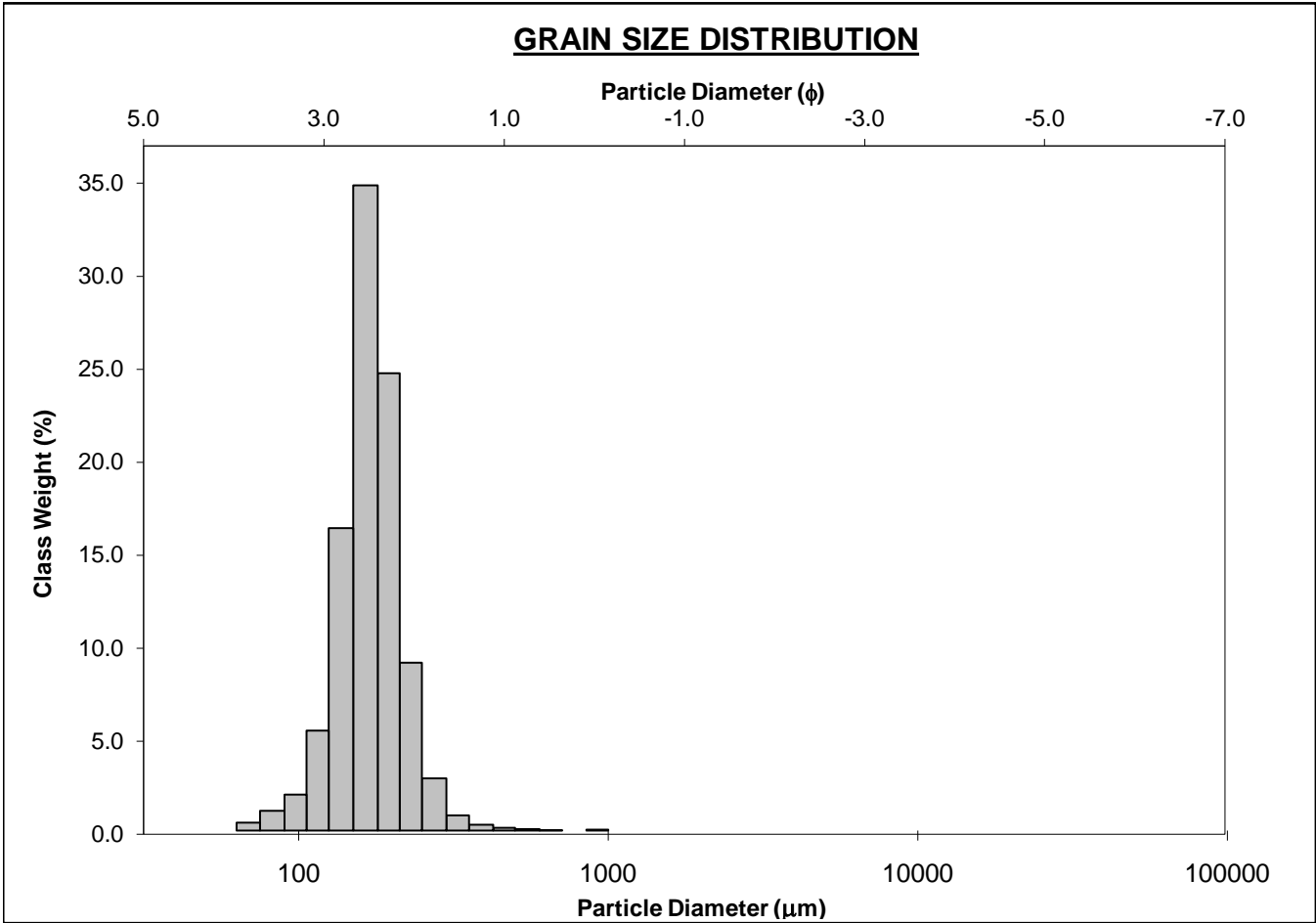
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-270cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.3%	
MODE 2:			SAND: 99.2%		MEDIUM SAND: 4.6%	
MODE 3:			MUD: 0.8%		FINE SAND: 86.2%	
D ₁₀ :	126.4	2.155			V FINE SAND: 8.1%	
MEDIAN or D ₅₀ :	169.0	2.565	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	224.5	2.984	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	1.776	1.385	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	98.11	0.829	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.317	1.169	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	47.04	0.397	V COARSE SAND: 0.0%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	175.4	165.6	2.594	167.8	2.575	Fine Sand
SORTING (σ):	53.97	1.460	0.546	1.262	0.336	Very Well Sorted
SKEWNESS (Sk):	3.154	-4.164	4.164	-0.051	0.051	Symmetrical
KURTOSIS (K):	29.72	36.76	36.76	1.225	1.225	Leptokurtic



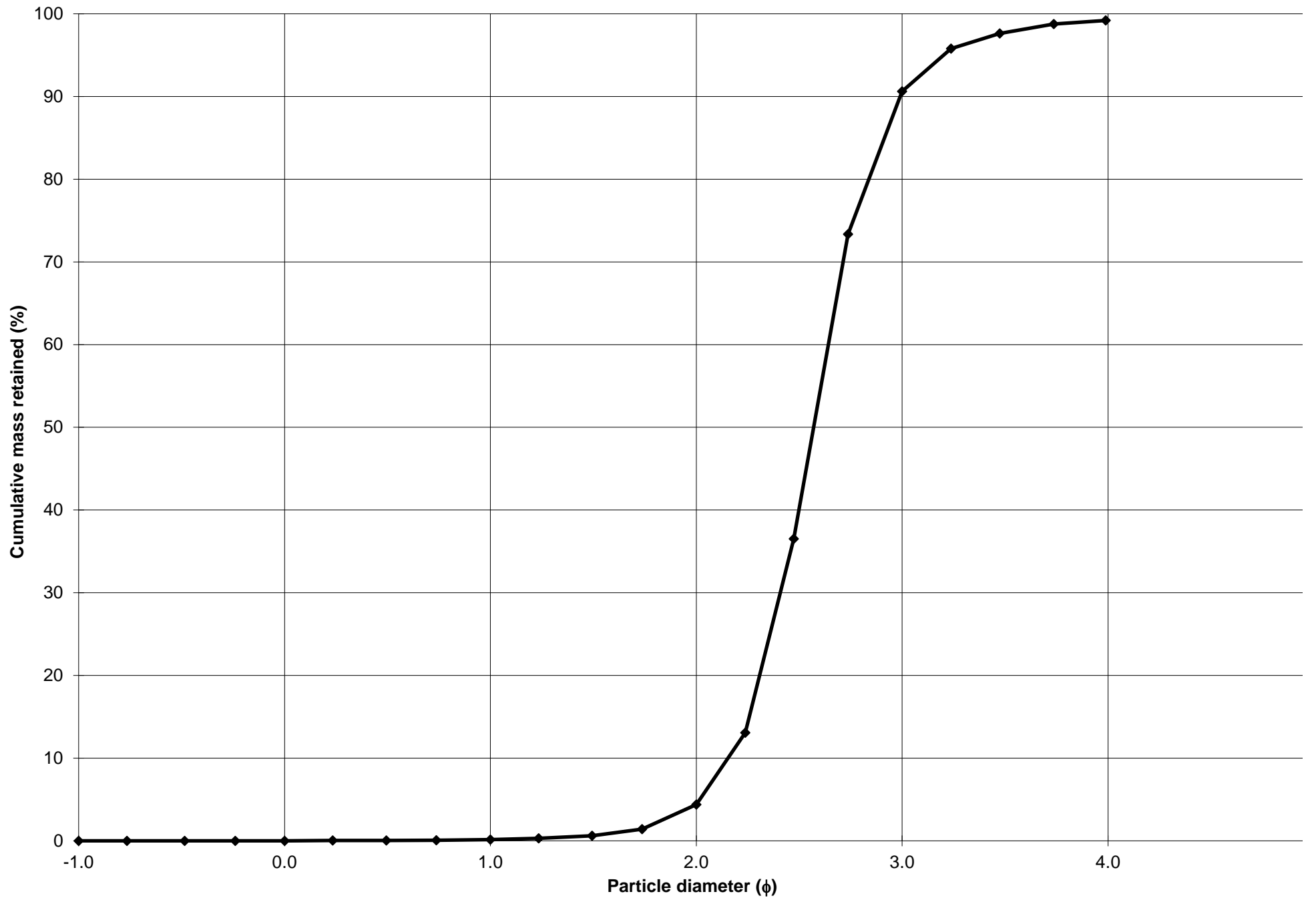
Cumulative Frequency Curve



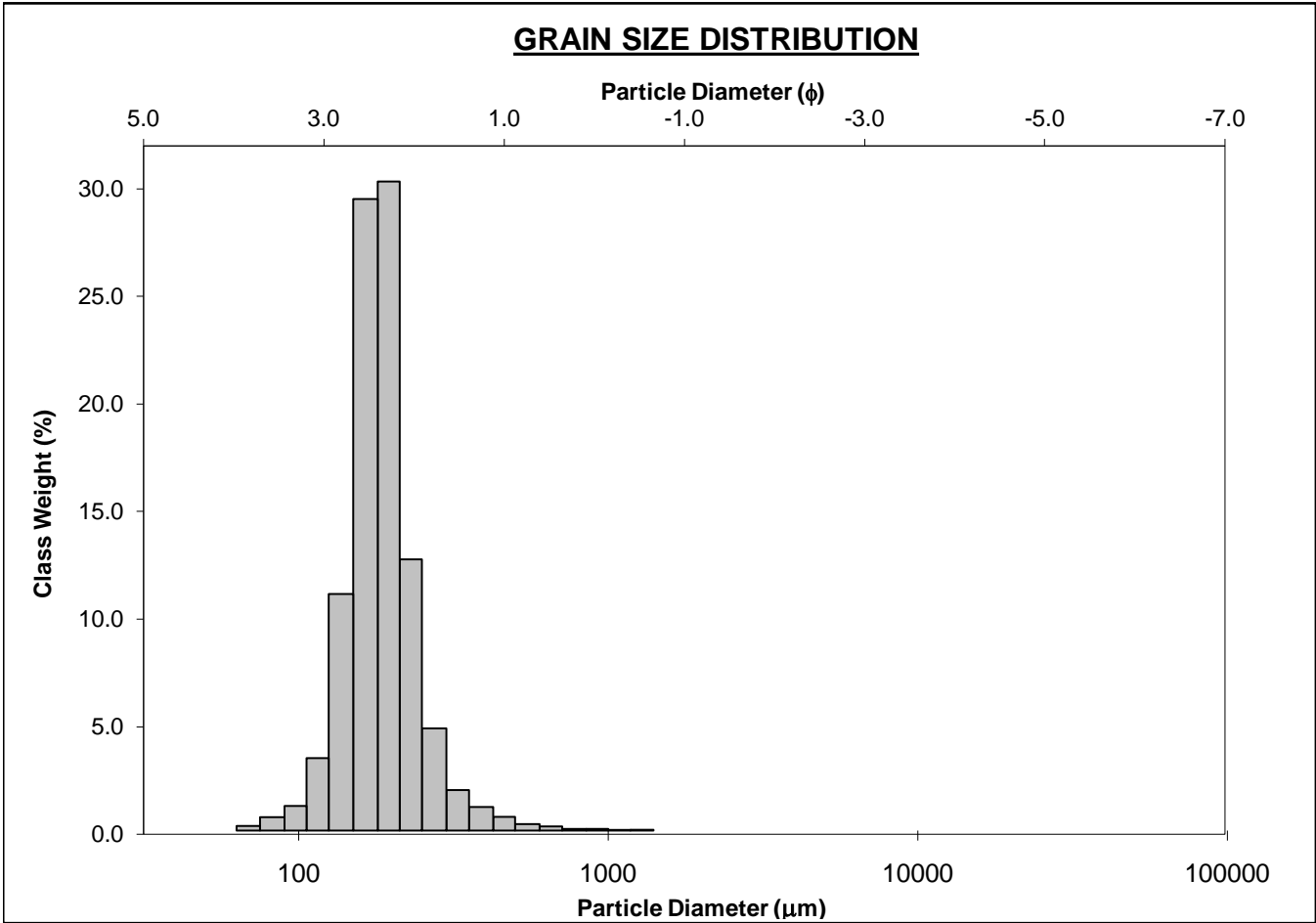
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-280cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.2%	
MODE 2:			SAND: 99.2%		MEDIUM SAND: 4.2%	
MODE 3:			MUD: 0.8%		FINE SAND: 86.2%	
D ₁₀ :	125.8	2.154			V FINE SAND: 8.6%	
MEDIAN or D ₅₀ :	168.4	2.570	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	224.7	2.990	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	1.786	1.389	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	98.91	0.837	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.323	1.171	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	47.64	0.404	V COARSE SAND: 0.0%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	173.5	164.5	2.604	167.4	2.579	Fine Sand
SORTING (σ):	49.34	1.446	0.532	1.264	0.337	Very Well Sorted
SKEWNESS (Sk):	2.911	-4.412	4.412	-0.053	0.053	Symmetrical
KURTOSIS (K):	35.21	38.65	38.65	1.202	1.202	Leptokurtic



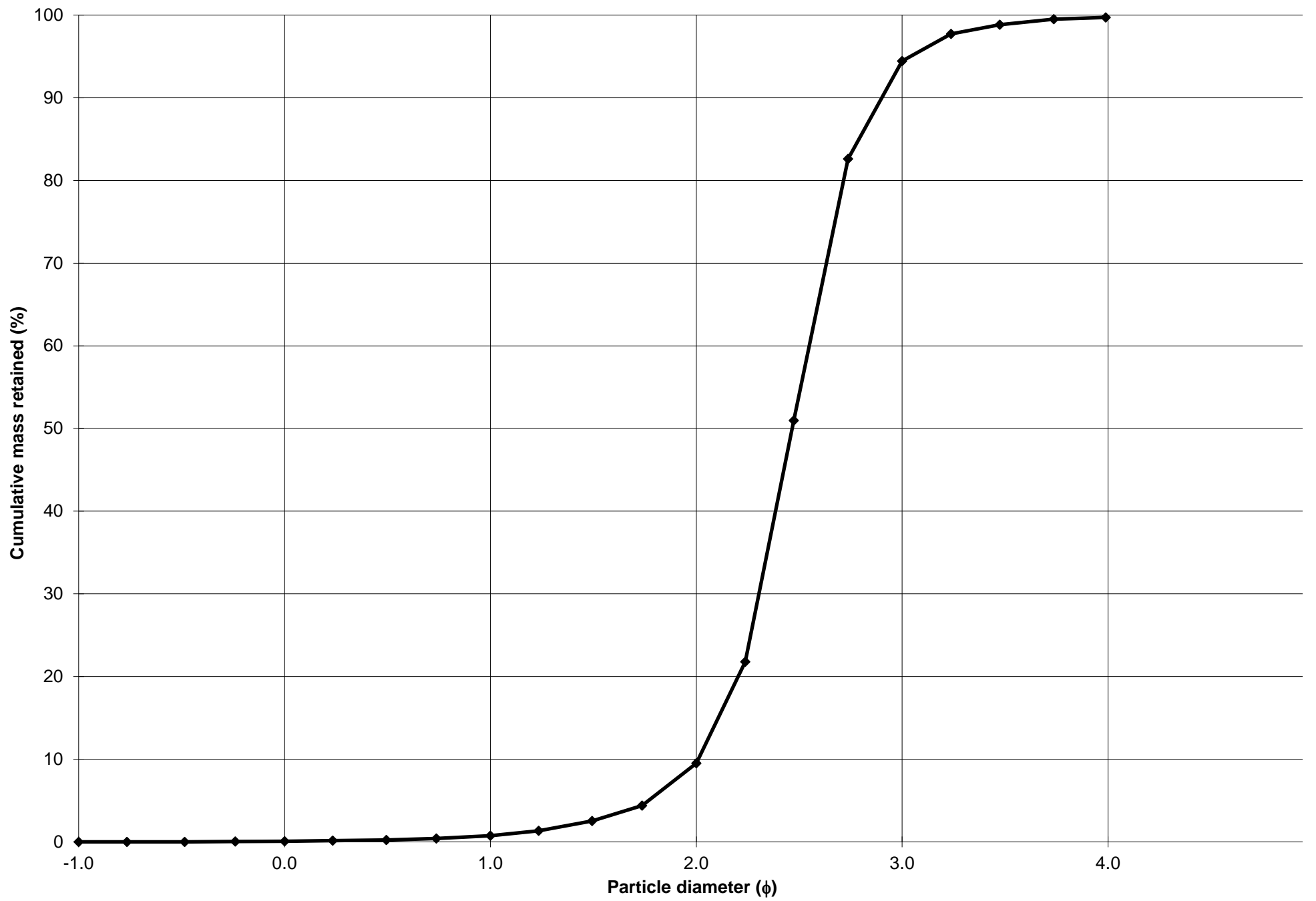
Cumulative Frequency Curve



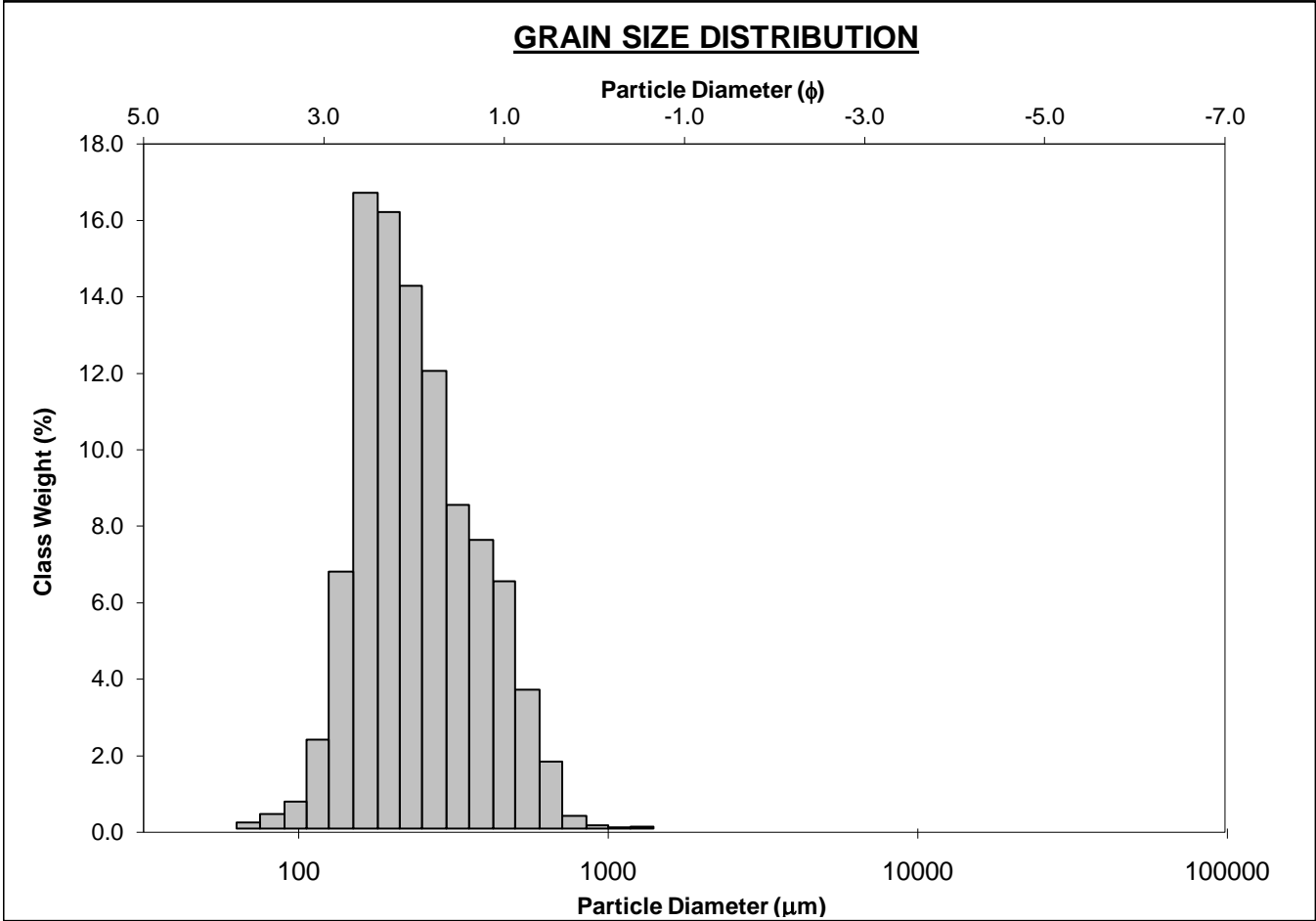
SIEVING ERROR: 0.3%		<u>SAMPLE STATISTICS</u>				
SAMPLE IDENTITY: GR-15-13-290cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 0.7%			
MODE 2:			SAND: 99.7% MEDIUM SAND: 8.8%			
MODE 3:			MUD: 0.3% FINE SAND: 84.9%			
D ₁₀ :	133.8	2.010	V FINE SAND: 5.3%			
MEDIAN or D ₅₀ :	181.0	2.466	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	248.3	2.901	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.855	1.444	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	114.5	0.892	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.329	1.181	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	51.50	0.410	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	192.4	182.2	2.456	182.6	2.453	Fine Sand
SORTING (σ):	70.96	1.386	0.470	1.278	0.353	Well Sorted
SKEWNESS (Sk):	4.786	-1.861	1.861	0.078	-0.078	Symmetrical
KURTOSIS (K):	48.98	28.50	28.50	1.272	1.272	Leptokurtic



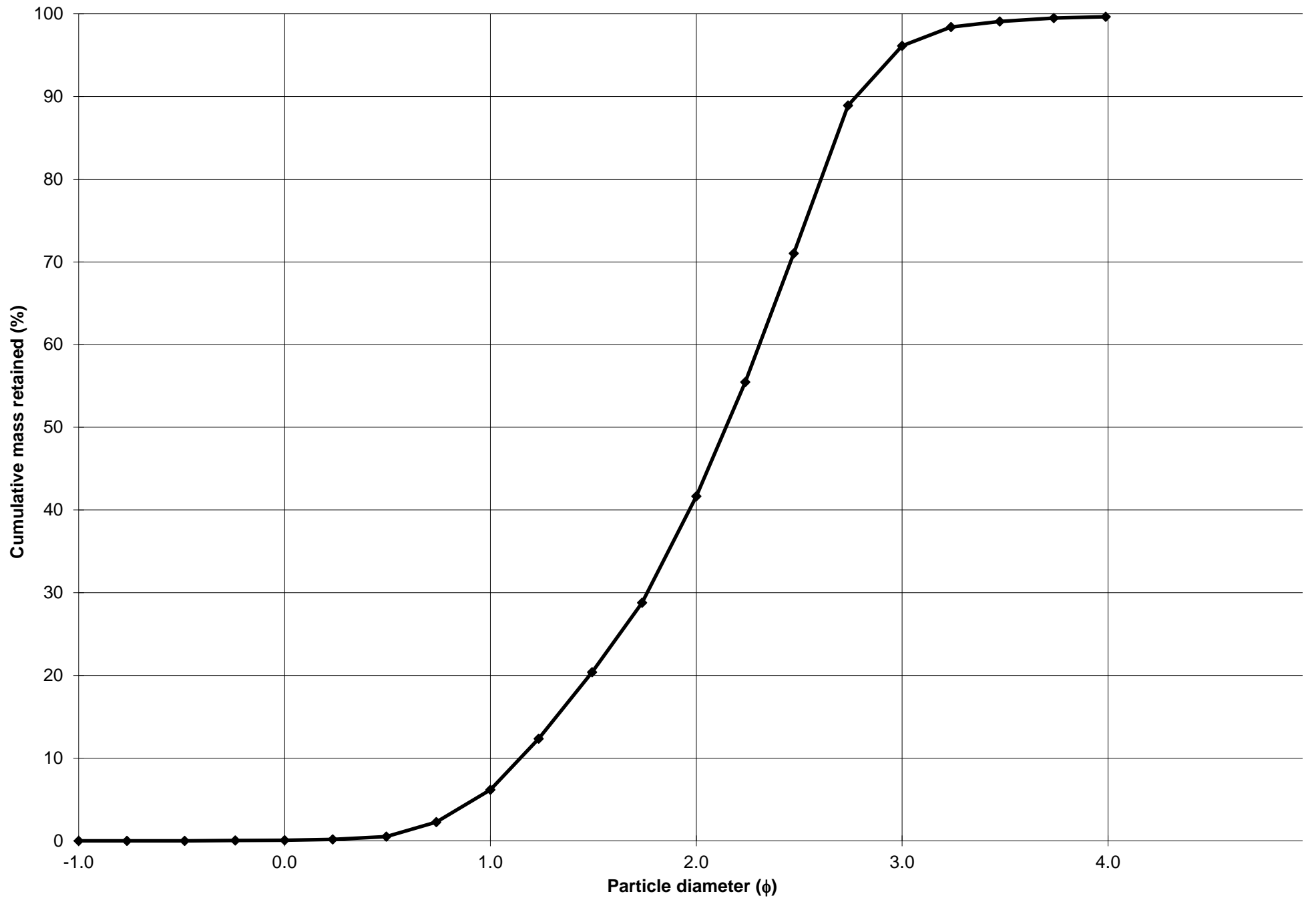
Cumulative Frequency Curve



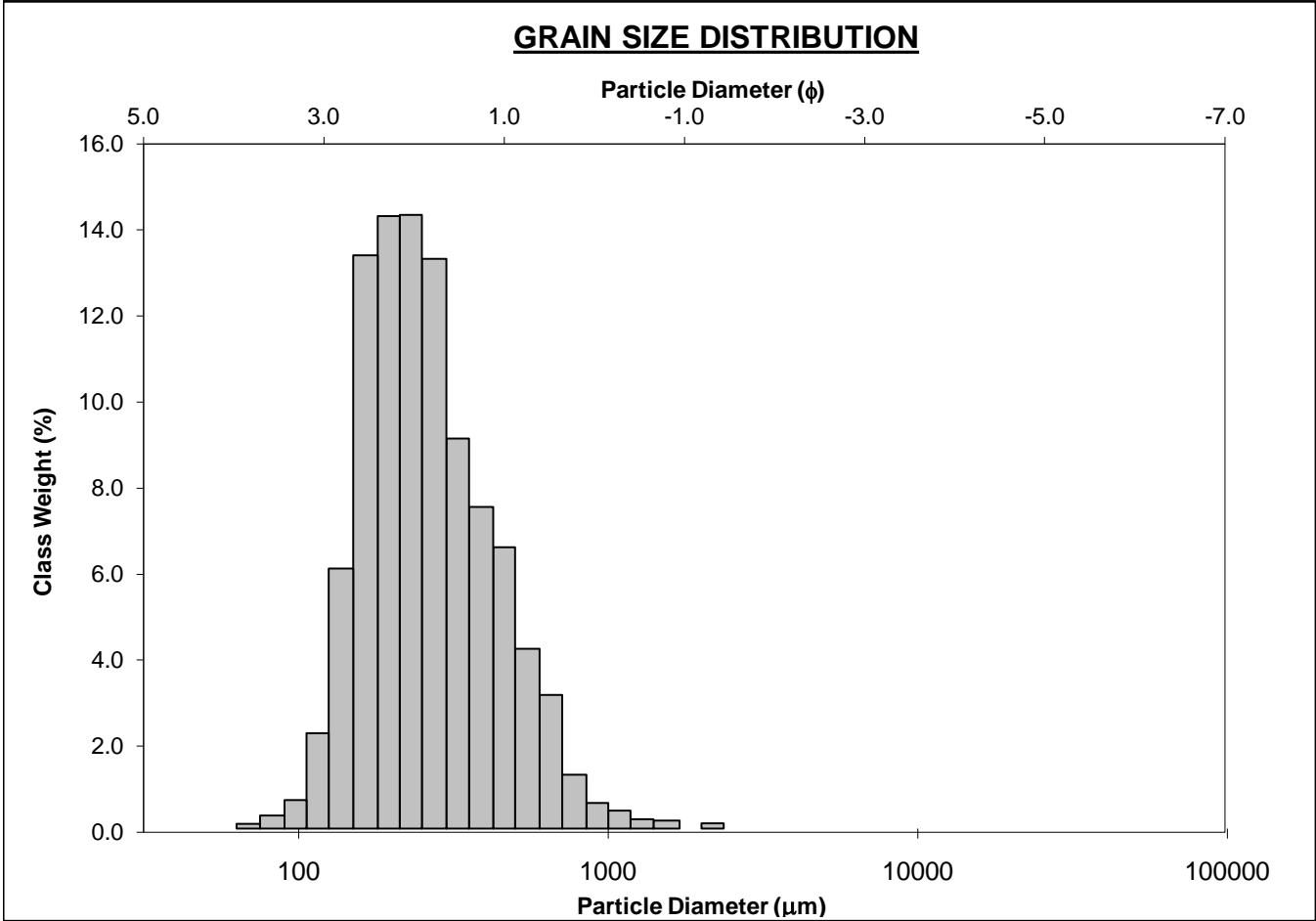
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-300cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 6.1%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 35.5%	
MODE 3:			MUD: 0.4%		FINE SAND: 54.5%	
D ₁₀ :	145.9	1.145			V FINE SAND: 3.5%	
MEDIAN or D ₅₀ :	226.3	2.144	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	452.1	2.777	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.099	2.425	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	306.3	1.632	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.872	1.556	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	150.8	0.905	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	265.9	237.7	2.073	240.9	2.054	Fine Sand
SORTING (σ):	129.7	1.615	0.692	1.555	0.637	Moderately Well Sorted
SKEWNESS (Sk):	1.562	-0.942	0.942	0.203	-0.203	Coarse Skewed
KURTOSIS (K):	6.871	11.10	11.10	0.923	0.923	Mesokurtic



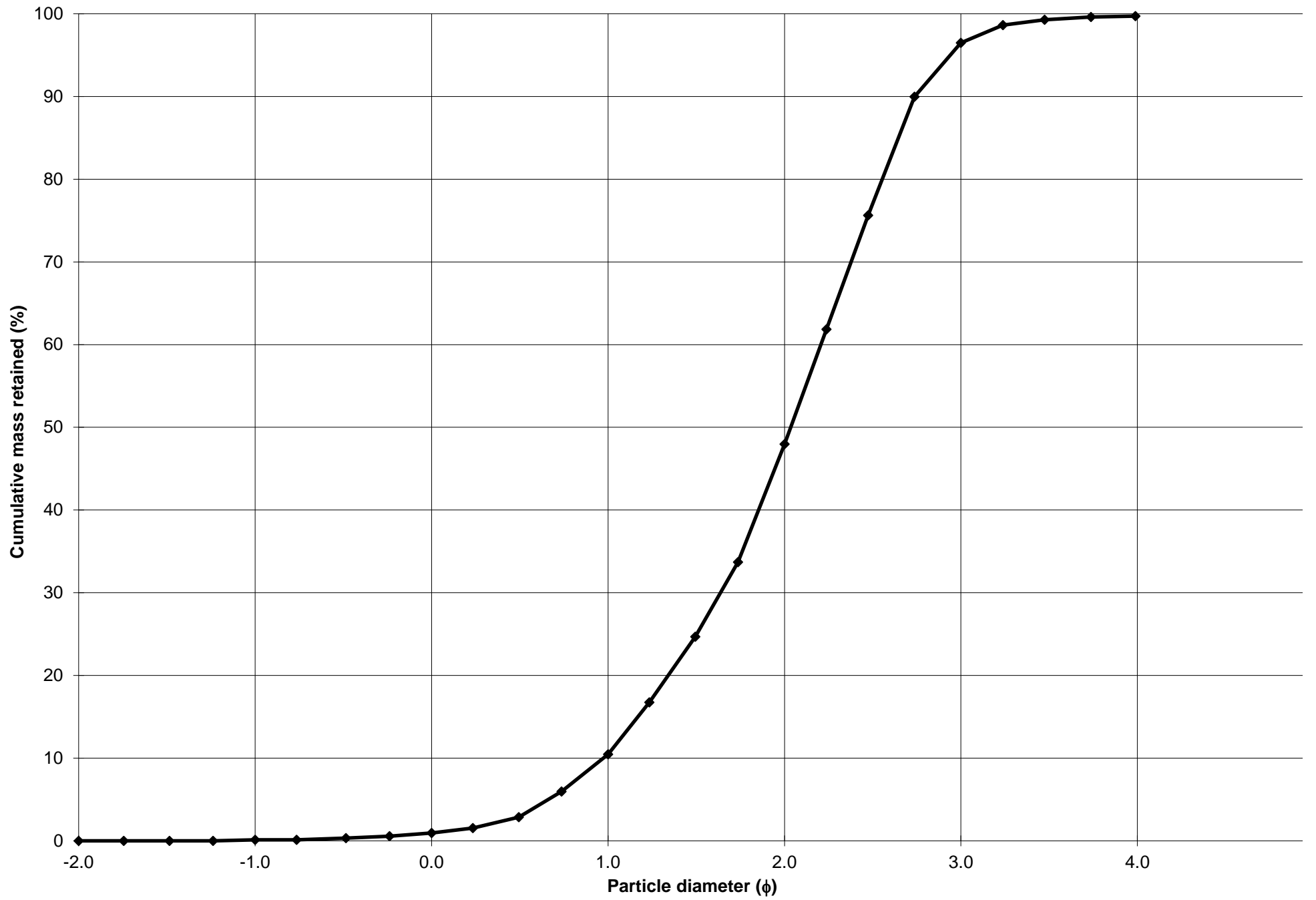
Cumulative Frequency Curve



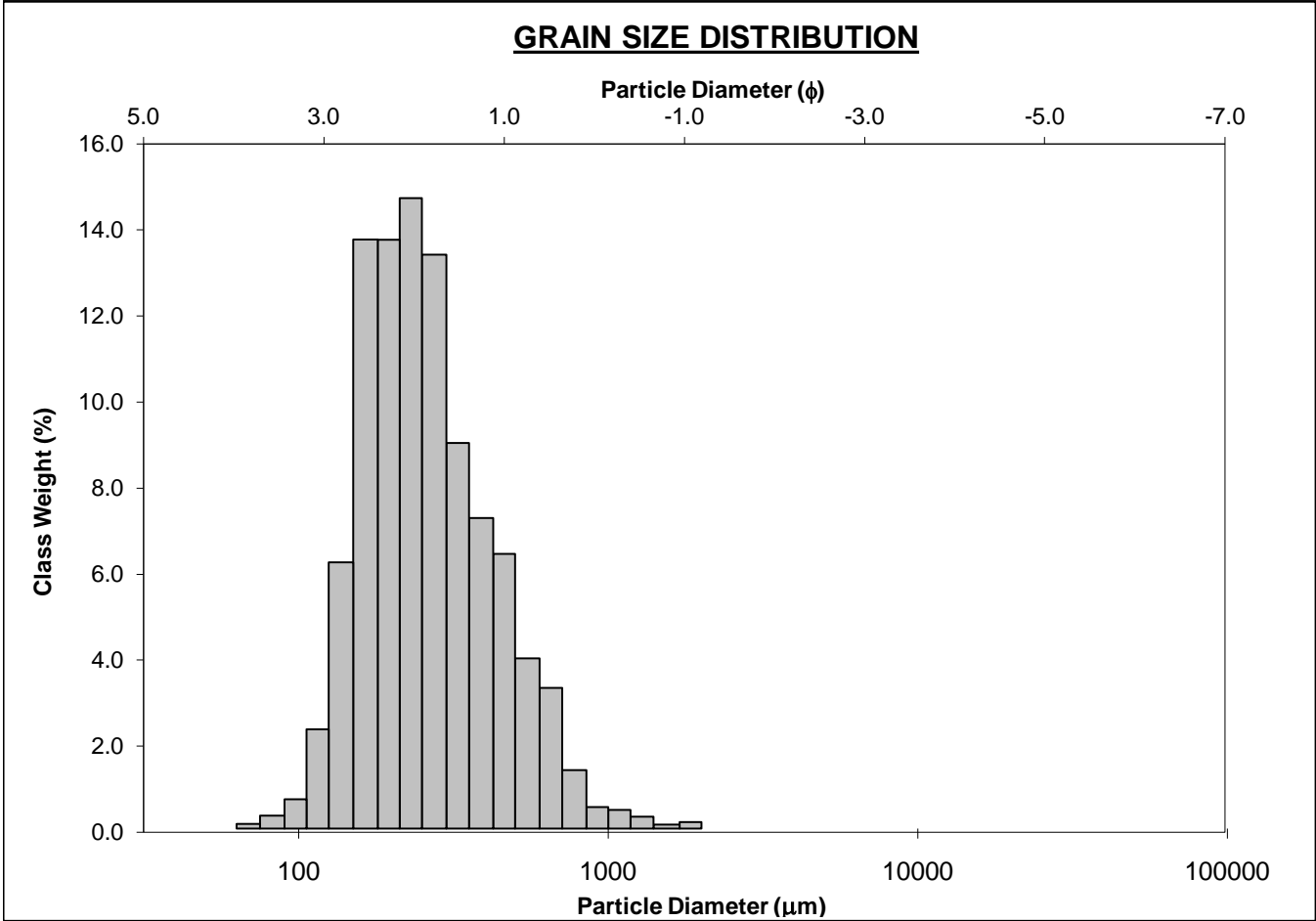
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-310cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.1%		COARSE SAND: 9.5%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 37.5%	
MODE 3:			MUD: 0.3%		FINE SAND: 48.5%	
D ₁₀ :	149.9	0.974			V FINE SAND: 3.2%	
MEDIAN or D ₅₀ :	244.0	2.035	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	509.3	2.738	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.398	2.813	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	359.4	1.765	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.946	1.639	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	171.6	0.961	V COARSE SAND: 0.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	297.9	258.0	1.954	257.6	1.957	Medium Sand
SORTING (σ):	186.0	1.685	0.753	1.625	0.700	Moderately Sorted
SKEWNESS (Sk):	3.201	-0.286	0.286	0.185	-0.185	Coarse Skewed
KURTOSIS (K):	22.08	8.379	8.379	0.972	0.972	Mesokurtic



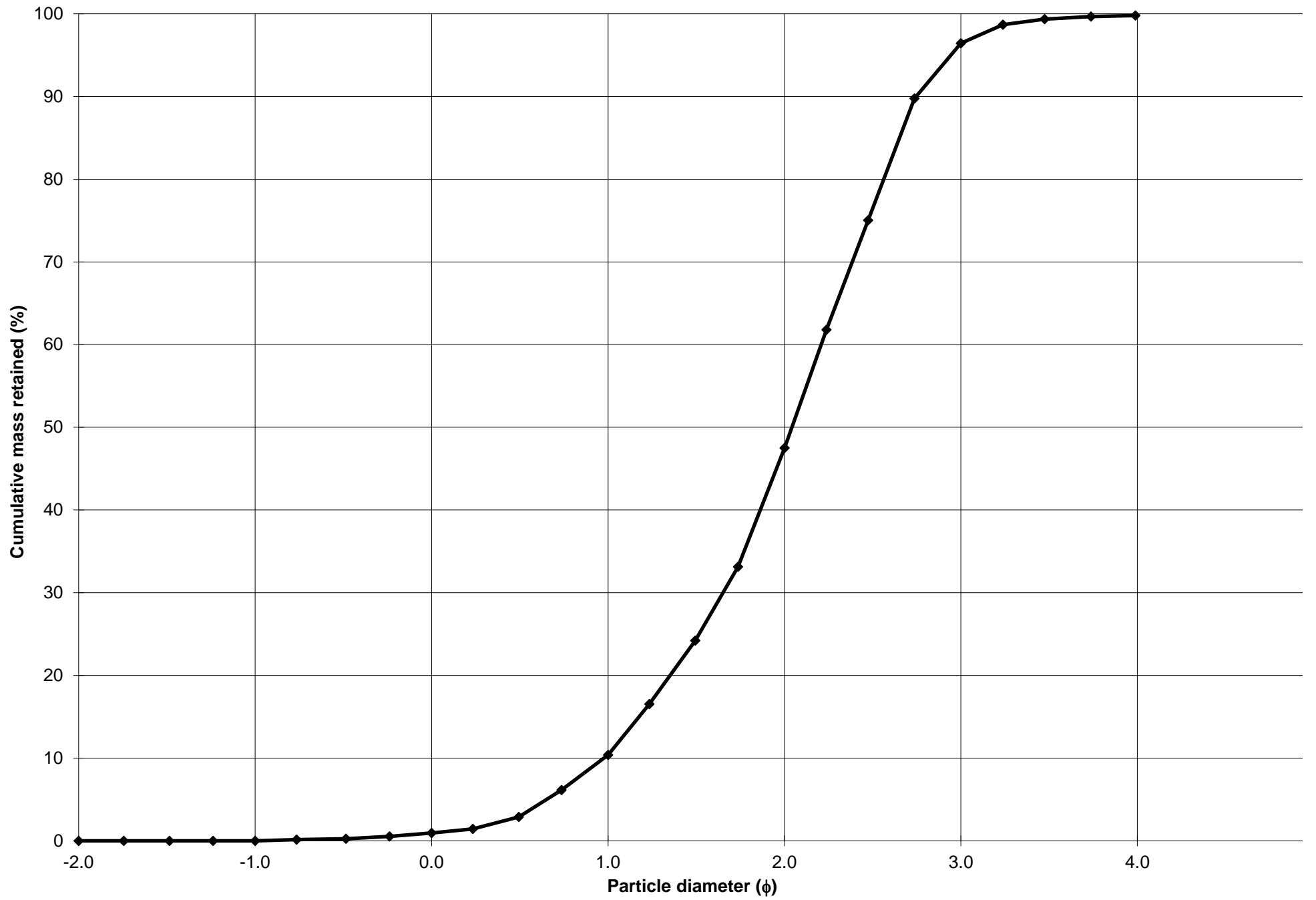
Cumulative Frequency Curve



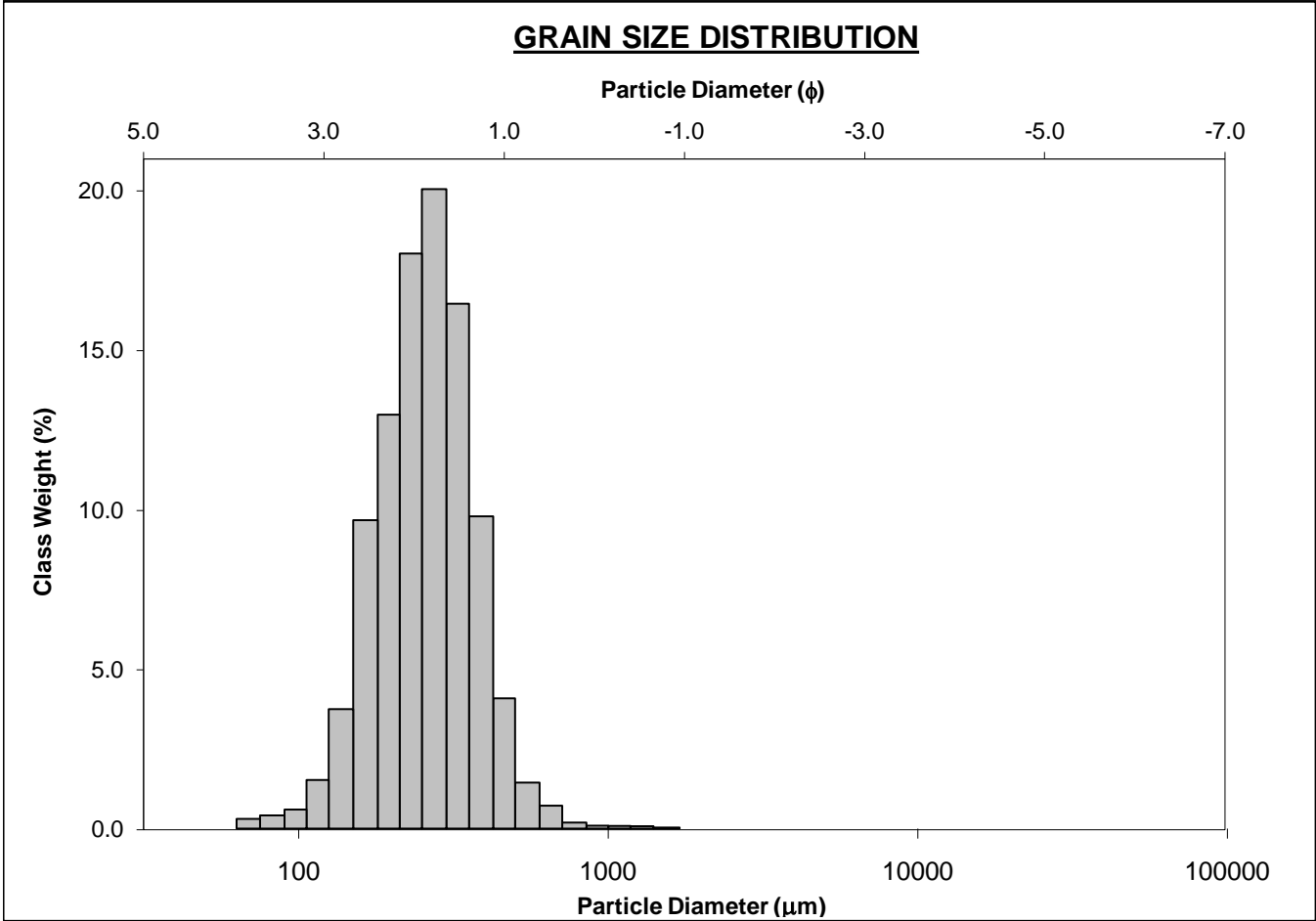
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-15-13-320cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 9.4%	
MODE 2:	165.0	2.605	SAND: 99.8%		MEDIUM SAND: 37.1%	
MODE 3:			MUD: 0.2%		FINE SAND: 48.9%	
D_{10} :	149.1	0.976			V FINE SAND: 3.3%	
MEDIAN or D_{50} :	242.9	2.042	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	508.6	2.746	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	3.411	2.815	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	359.5	1.770	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.942	1.632	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	169.7	0.958	V COARSE SAND: 1.0%		CLAY: 0.0%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	296.2	257.3	1.959	256.4	1.963	Medium Sand
SORTING (σ):	181.2	1.670	0.740	1.627	0.702	Moderately Sorted
SKEWNESS (Sk):	2.811	-0.103	0.103	0.189	-0.189	Coarse Skewed
KURTOSIS (K):	16.65	7.330	7.330	0.980	0.980	Mesokurtic



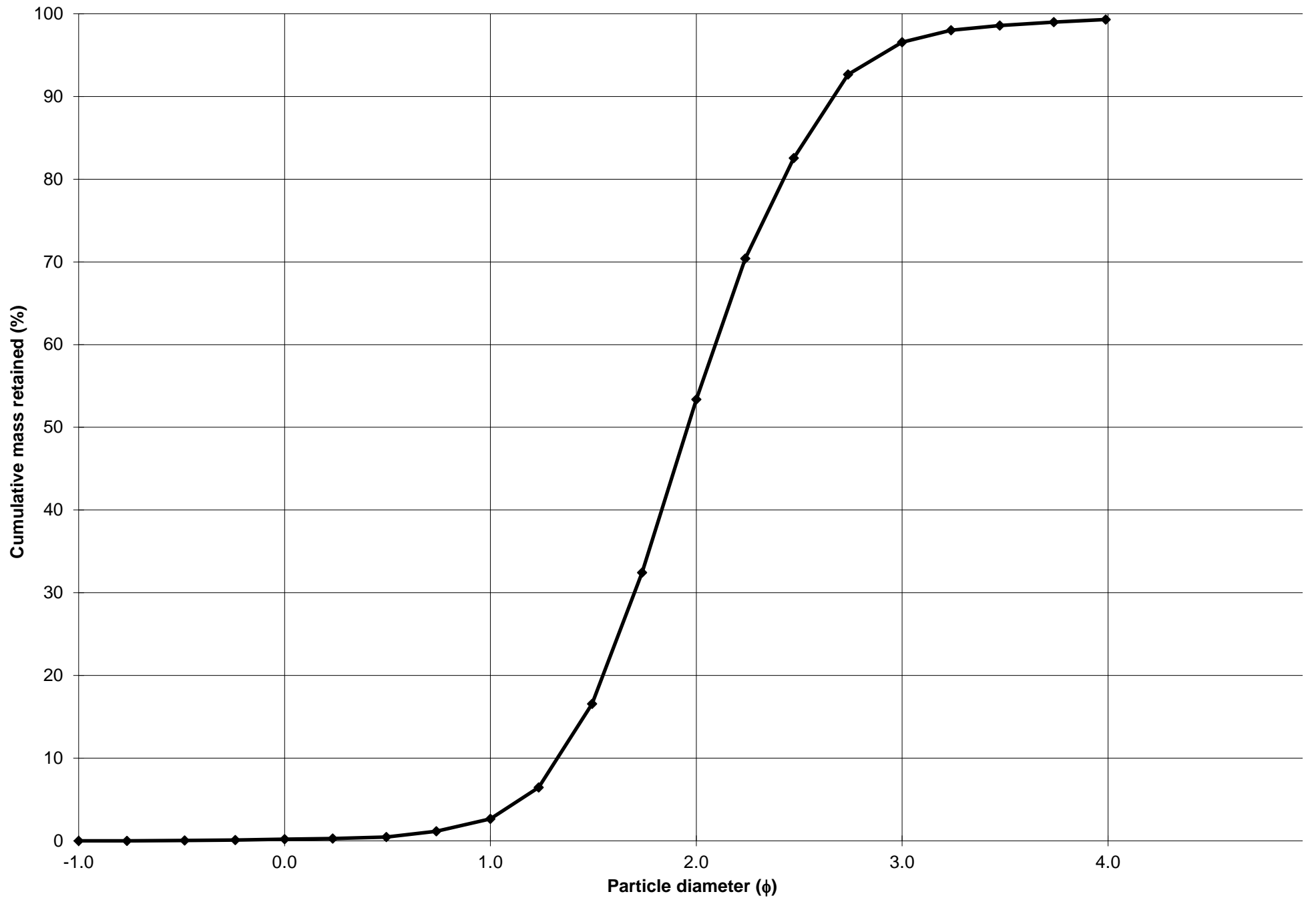
Cumulative Frequency Curve



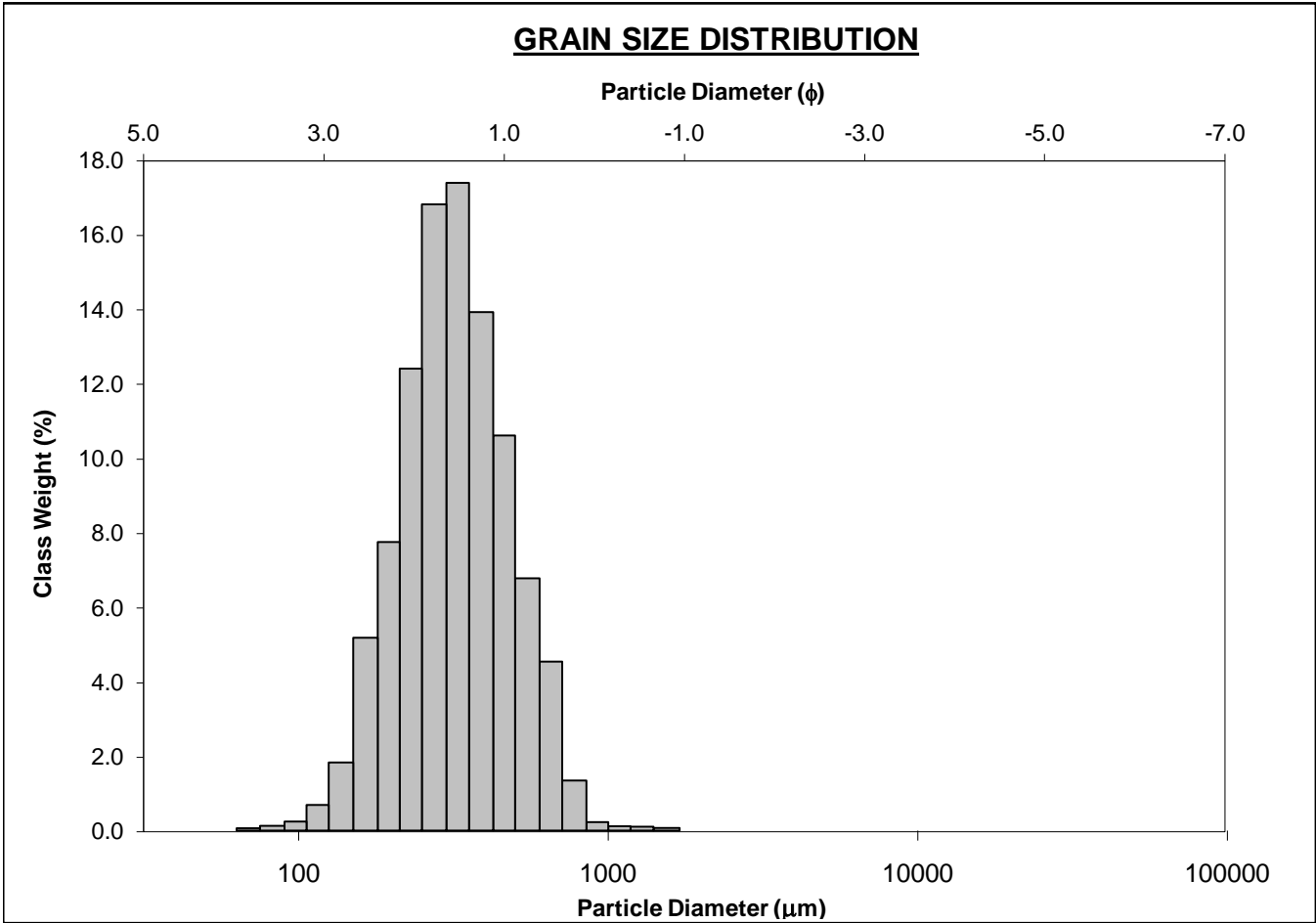
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-0cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 2.5%	
MODE 2:			SAND: 99.3%		MEDIUM SAND: 50.7%	
MODE 3:			MUD: 0.7%		FINE SAND: 43.2%	
D ₁₀ :	157.4	1.325			V FINE SAND: 2.7%	
MEDIAN or D ₅₀ :	257.4	1.958	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	399.1	2.668	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.535	2.013	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	241.7	1.342	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.629	1.434	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	125.3	0.704	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	272.2	248.7	2.007	253.0	1.983	Medium Sand
SORTING (σ):	110.7	1.596	0.675	1.437	0.523	Moderately Well Sorted
SKEWNESS (Sk):	2.282	-2.728	2.728	-0.072	0.072	Symmetrical
KURTOSIS (K):	18.51	22.19	22.19	1.019	1.019	Mesokurtic



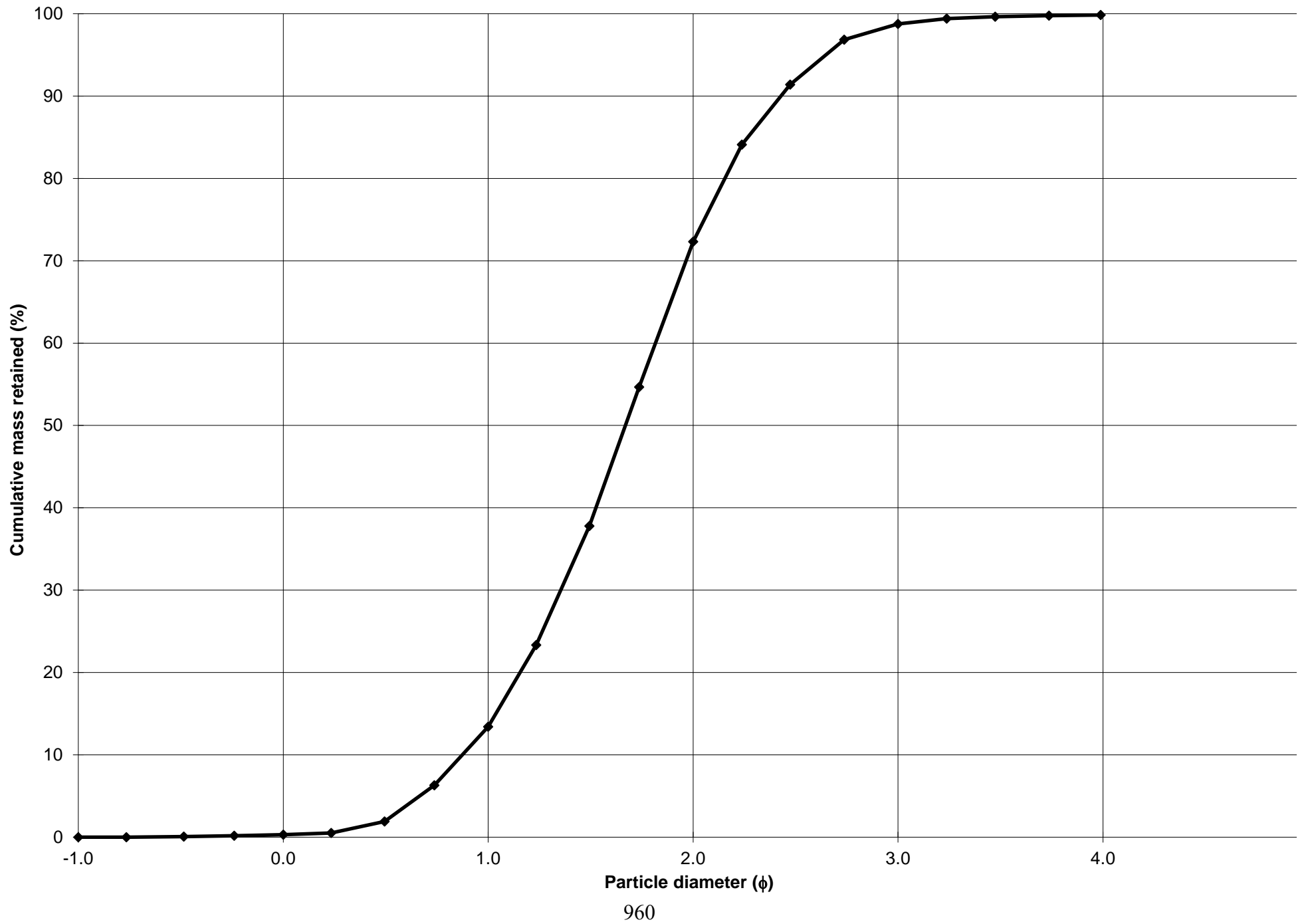
Cumulative Frequency Curve



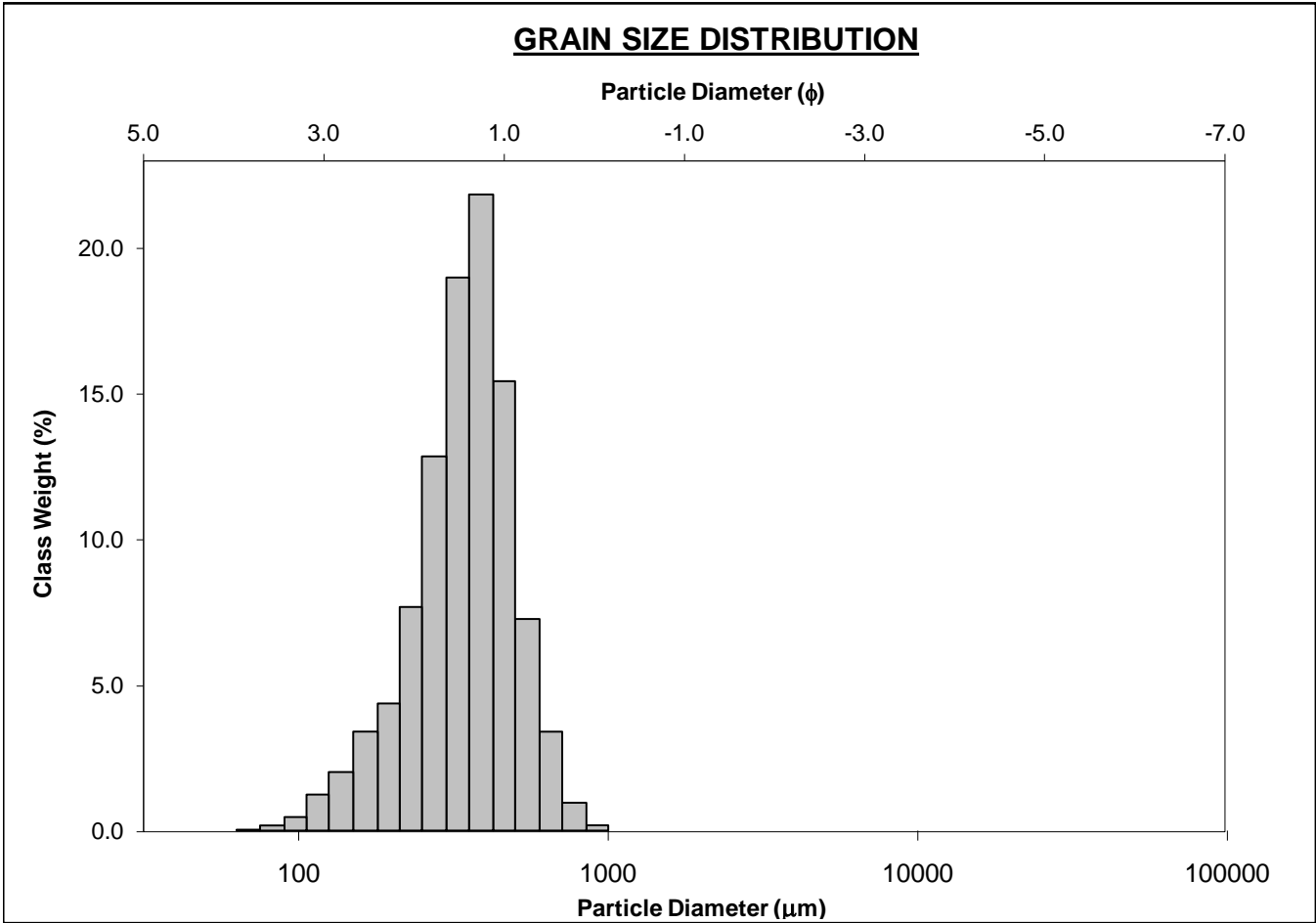
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-10cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 13.1%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 58.9%	
MODE 3:			MUD: 0.2%		FINE SAND: 26.4%	
D ₁₀ :	185.8	0.874			V FINE SAND: 1.1%	
MEDIAN or D ₅₀ :	314.3	1.670	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	545.7	2.429	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.938	2.779	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	359.9	1.555	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.729	1.625	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	175.5	0.790	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	344.9	314.6	1.669	317.4	1.656	Medium Sand
SORTING (σ):	149.5	1.544	0.627	1.509	0.594	Moderately Well Sorted
SKEWNESS (Sk):	1.556	-0.922	0.922	0.025	-0.025	Symmetrical
KURTOSIS (K):	8.640	10.67	10.67	1.028	1.028	Mesokurtic



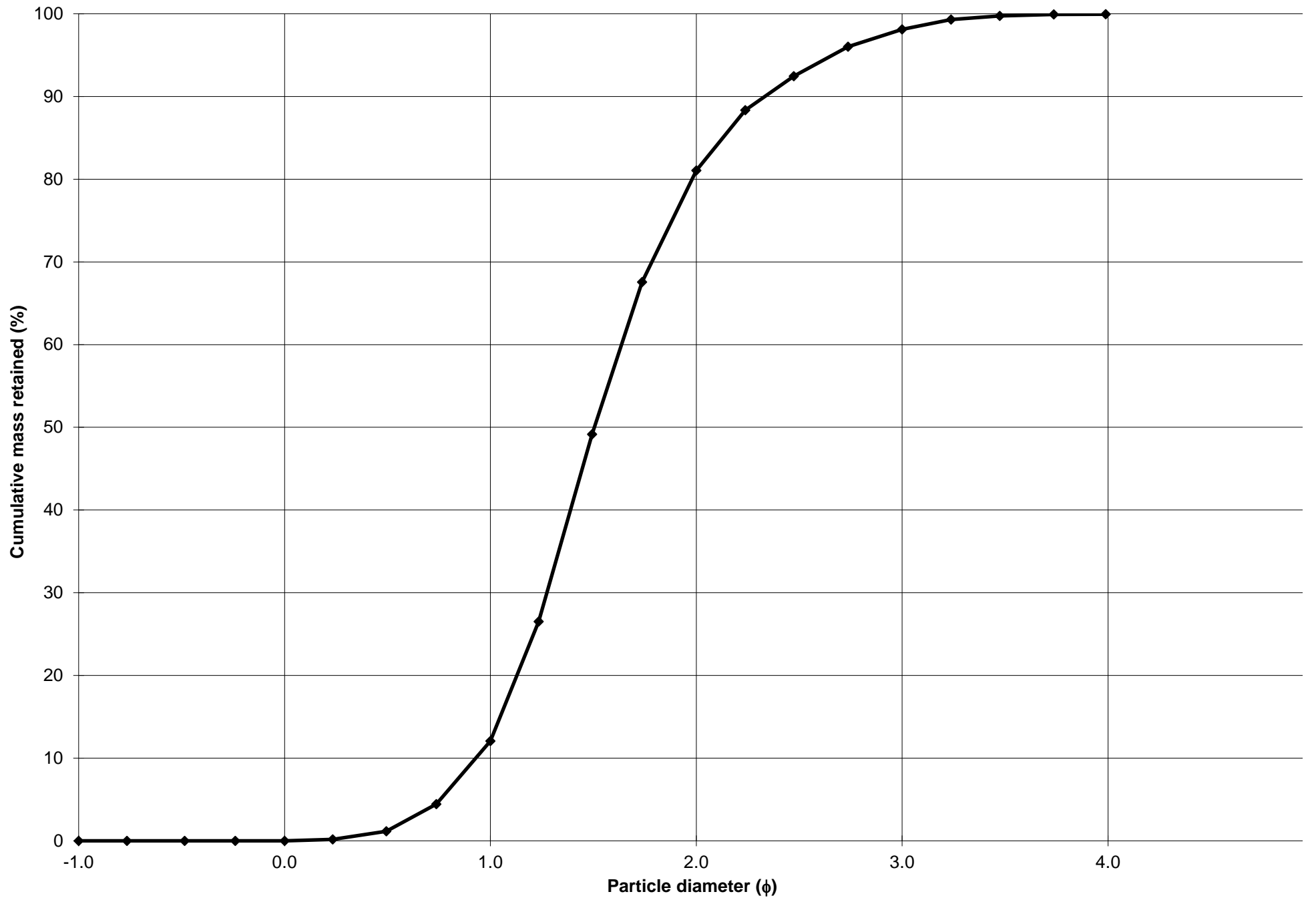
Cumulative Frequency Curve



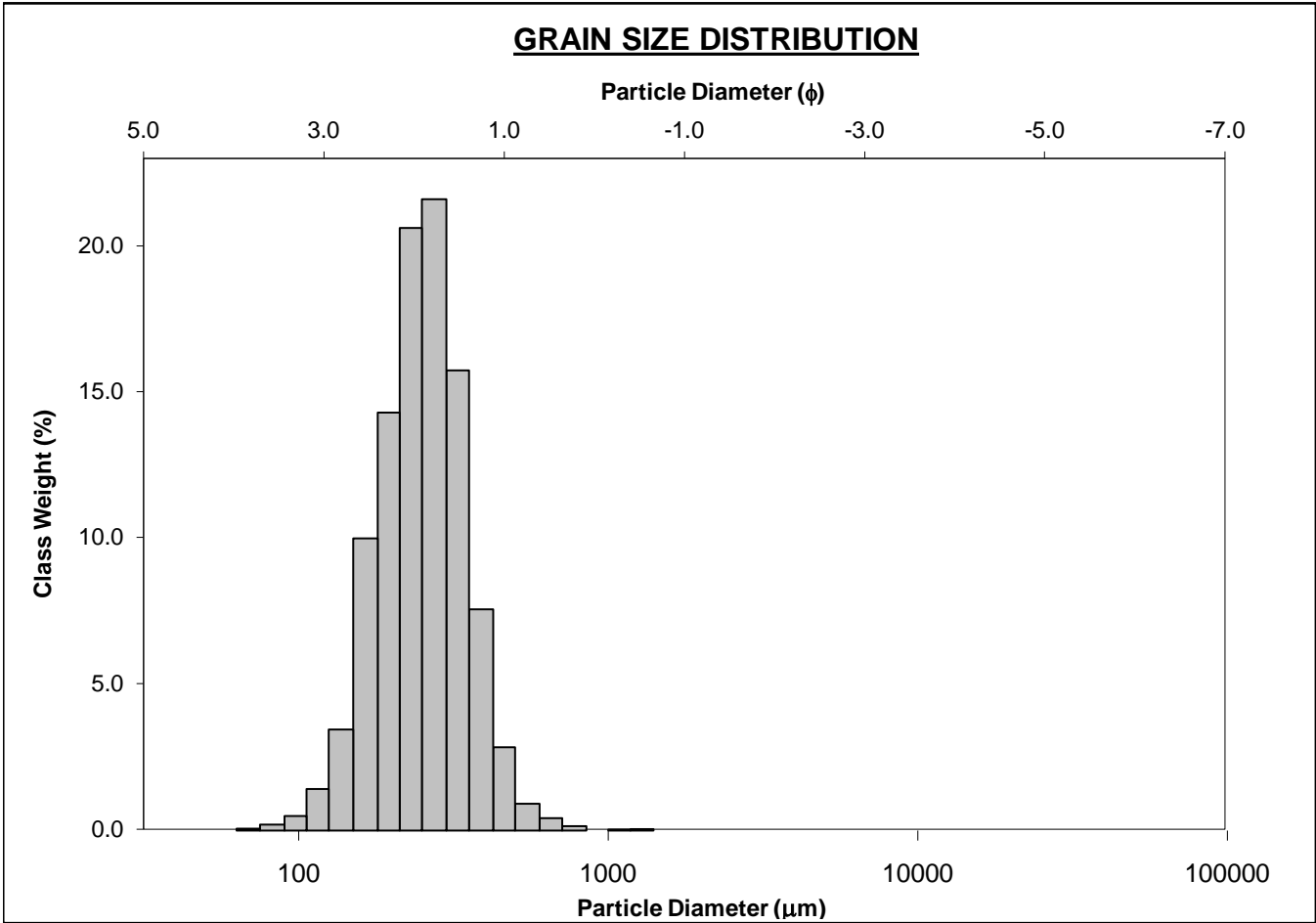
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-20cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.0%		COARSE SAND: 12.1%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 69.0%	
MODE 3:			MUD: 0.1%		FINE SAND: 17.1%	
D ₁₀ :	198.4	0.928			V FINE SAND: 1.8%	
MEDIAN or D ₅₀ :	352.2	1.505	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	525.4	2.334	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.649	2.514	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	327.1	1.405	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.594	1.556	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	161.0	0.672	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	360.9	335.1	1.577	340.3	1.555	Medium Sand
SORTING (σ):	129.4	1.485	0.570	1.461	0.547	Moderately Well Sorted
SKEWNESS (Sk):	0.593	-1.050	1.050	-0.179	0.179	Fine Skewed
KURTOSIS (K):	3.864	7.712	7.712	1.162	1.162	Leptokurtic



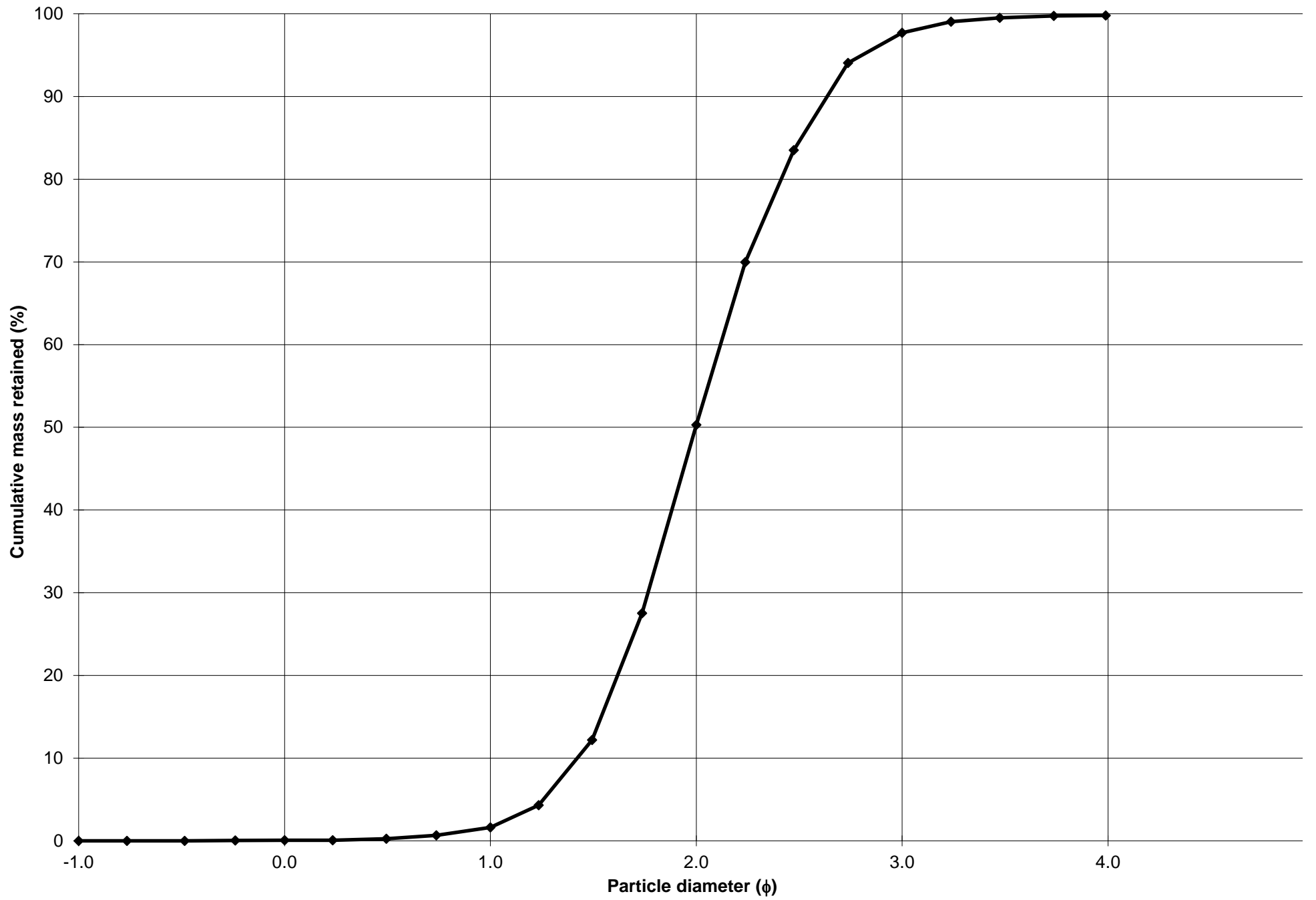
Cumulative Frequency Curve



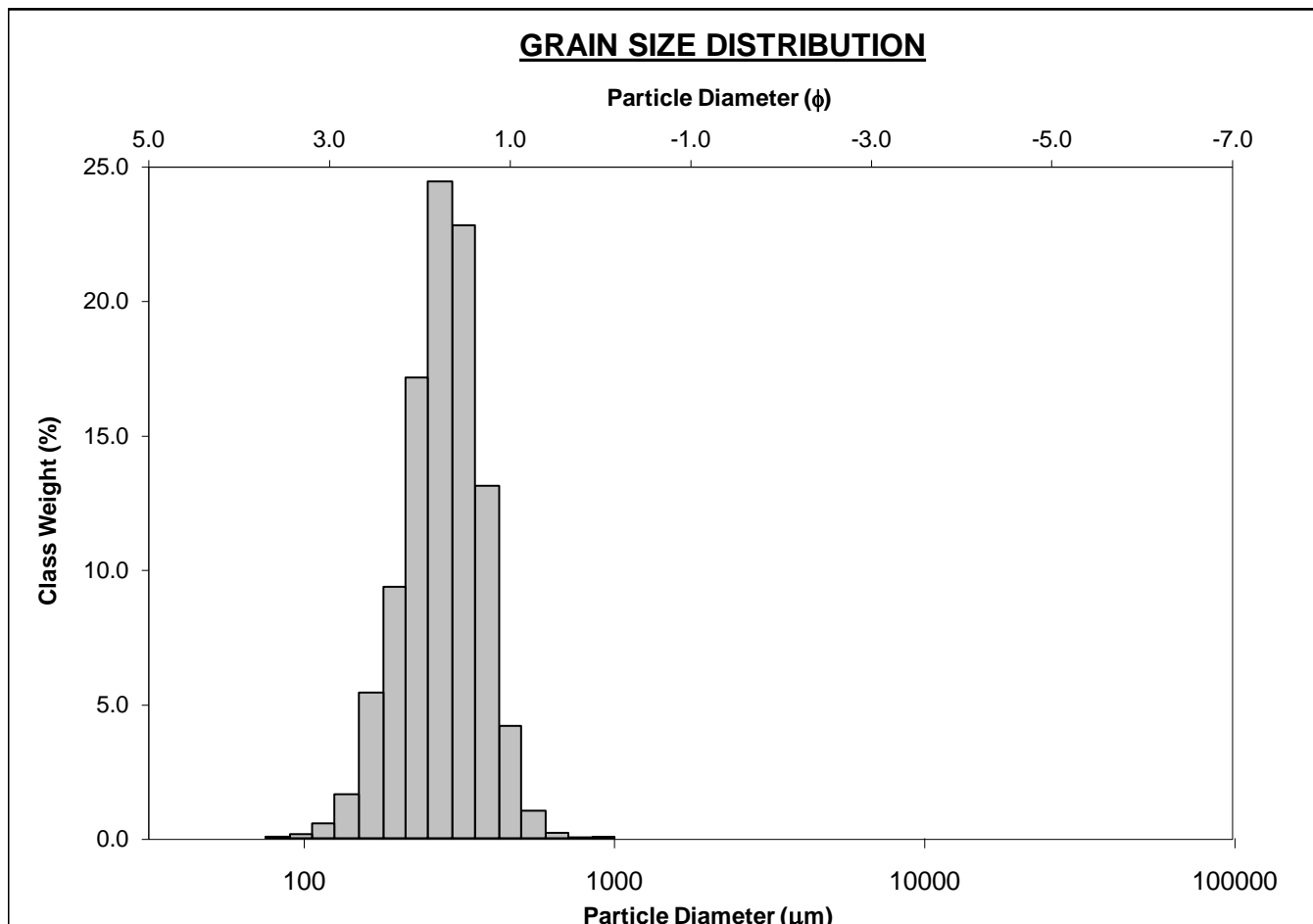
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-30cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%	COARSE SAND: 1.5%		
MODE 2:			SAND: 99.8%	MEDIUM SAND: 48.7%		
MODE 3:			MUD: 0.2%	FINE SAND: 47.4%		
D ₁₀ :	160.9	1.422		V FINE SAND: 2.1%		
MEDIAN or D ₅₀ :	250.6	1.997	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	373.1	2.636	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.319	1.853	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	212.3	1.214	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.546	1.370	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	108.9	0.629	V COARSE SAND: 0.1%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	262.9	246.6	2.019	247.8	2.013	Fine Sand
SORTING (σ):	92.90	1.440	0.526	1.383	0.468	Well Sorted
SKEWNESS (Sk):	1.885	-1.643	1.643	-0.048	0.048	Symmetrical
KURTOSIS (K):	14.62	18.39	18.39	1.010	1.010	Mesokurtic



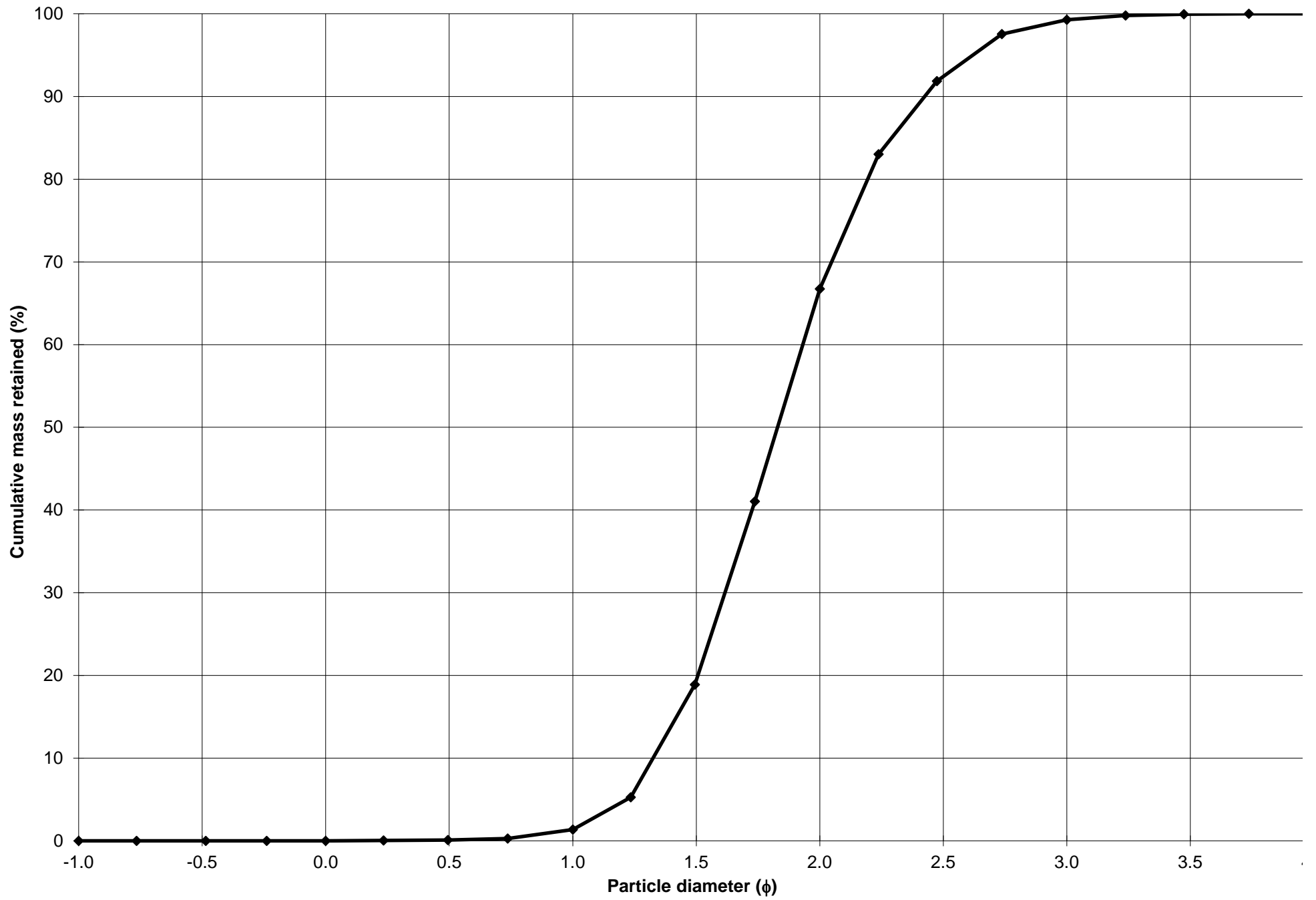
Cumulative Frequency Curve



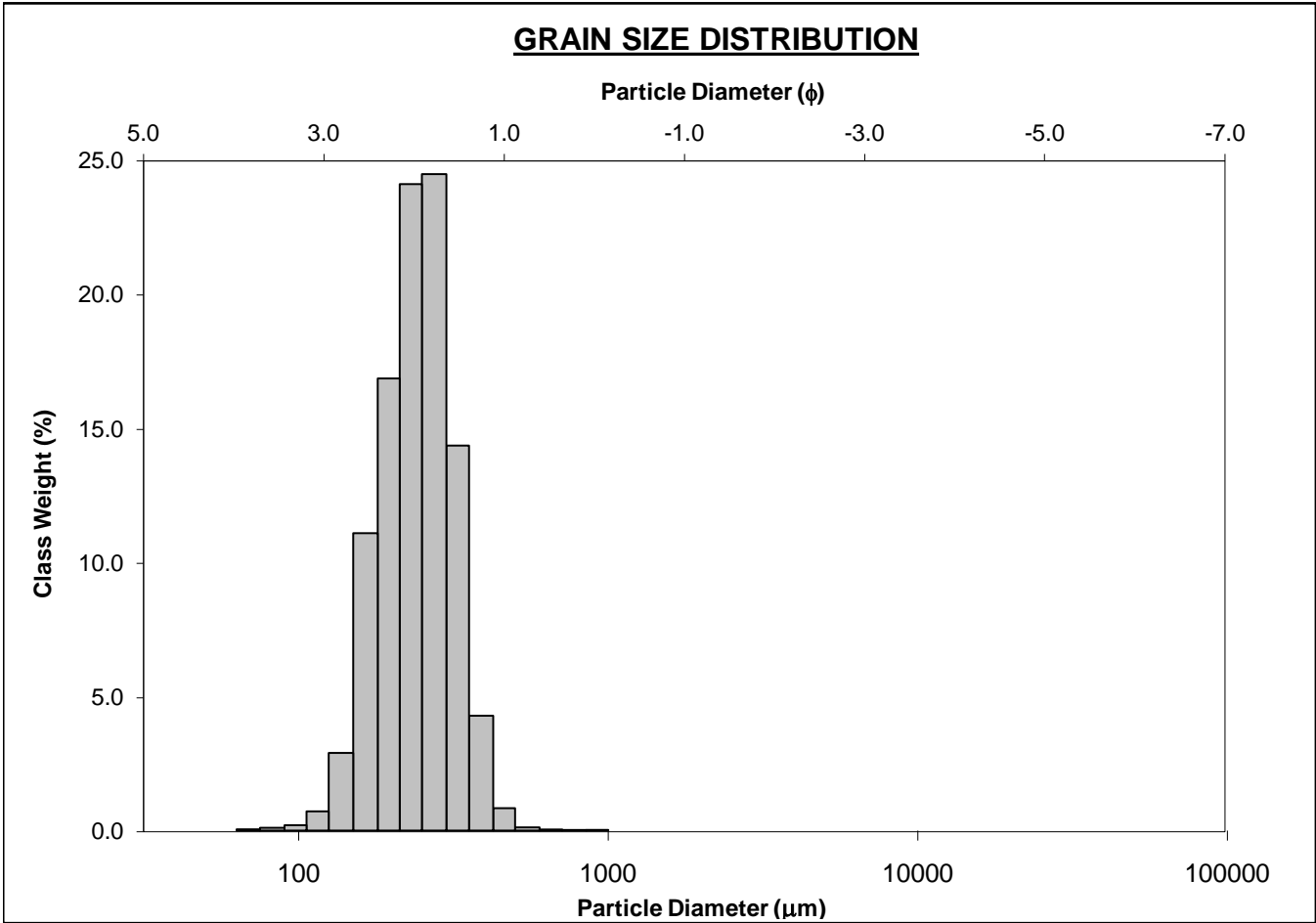
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-40cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.4%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 65.4%	
MODE 3:			MUD: 0.0%		FINE SAND: 32.5%	
D ₁₀ :	186.3	1.325			V FINE SAND: 0.7%	
MEDIAN or D ₅₀ :	281.5	1.829	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	399.3	2.424	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.143	1.830	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	213.0	1.100	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.474	1.358	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	109.0	0.560	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	289.8	276.9	1.853	278.6	1.844	Medium Sand
SORTING (σ):	83.95	1.341	0.423	1.337	0.419	Well Sorted
SKEWNESS (Sk):	0.817	-0.307	0.307	-0.092	0.092	Symmetrical
KURTOSIS (K):	5.541	3.434	3.434	1.026	1.026	Mesokurtic



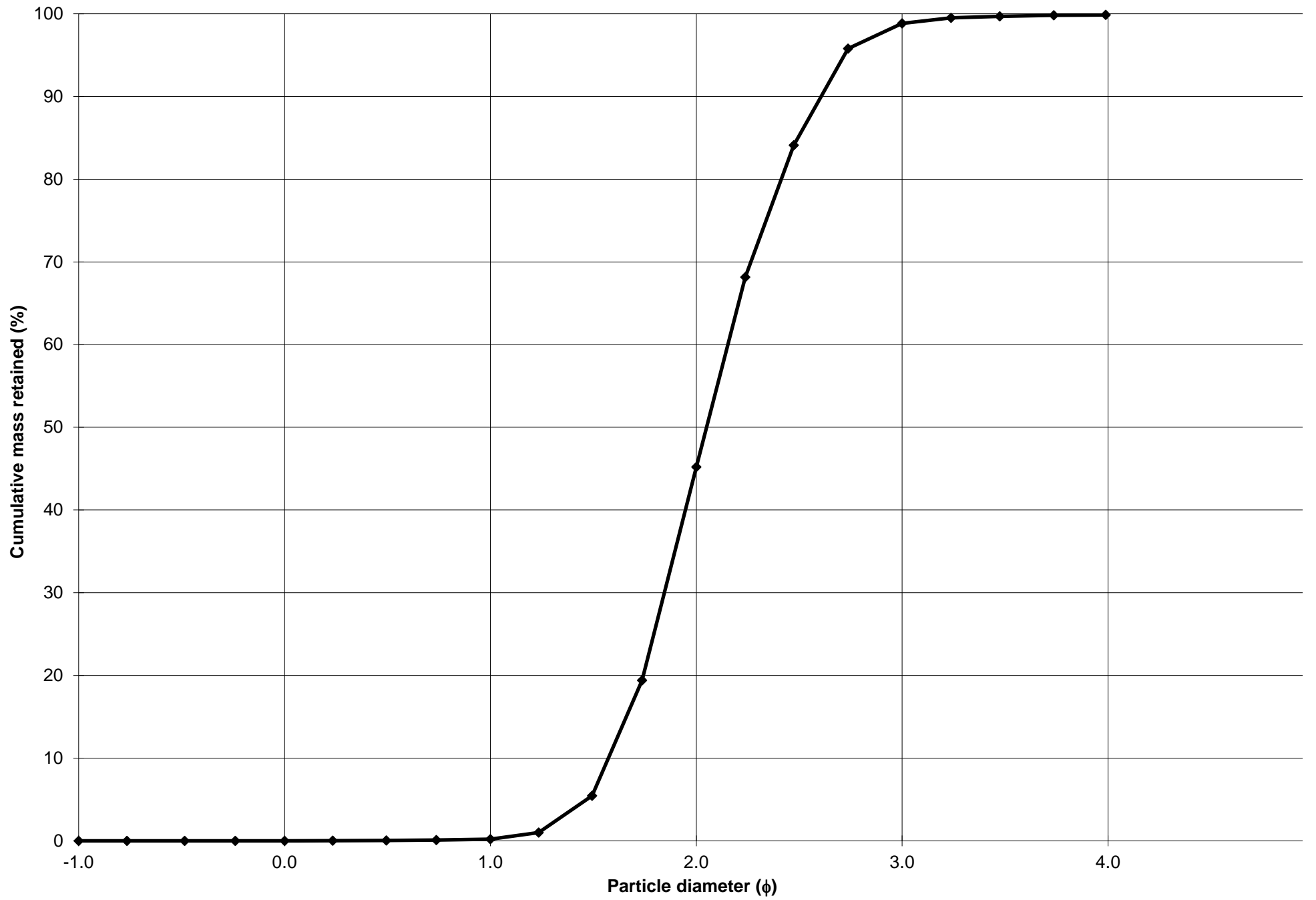
Cumulative Frequency Curve



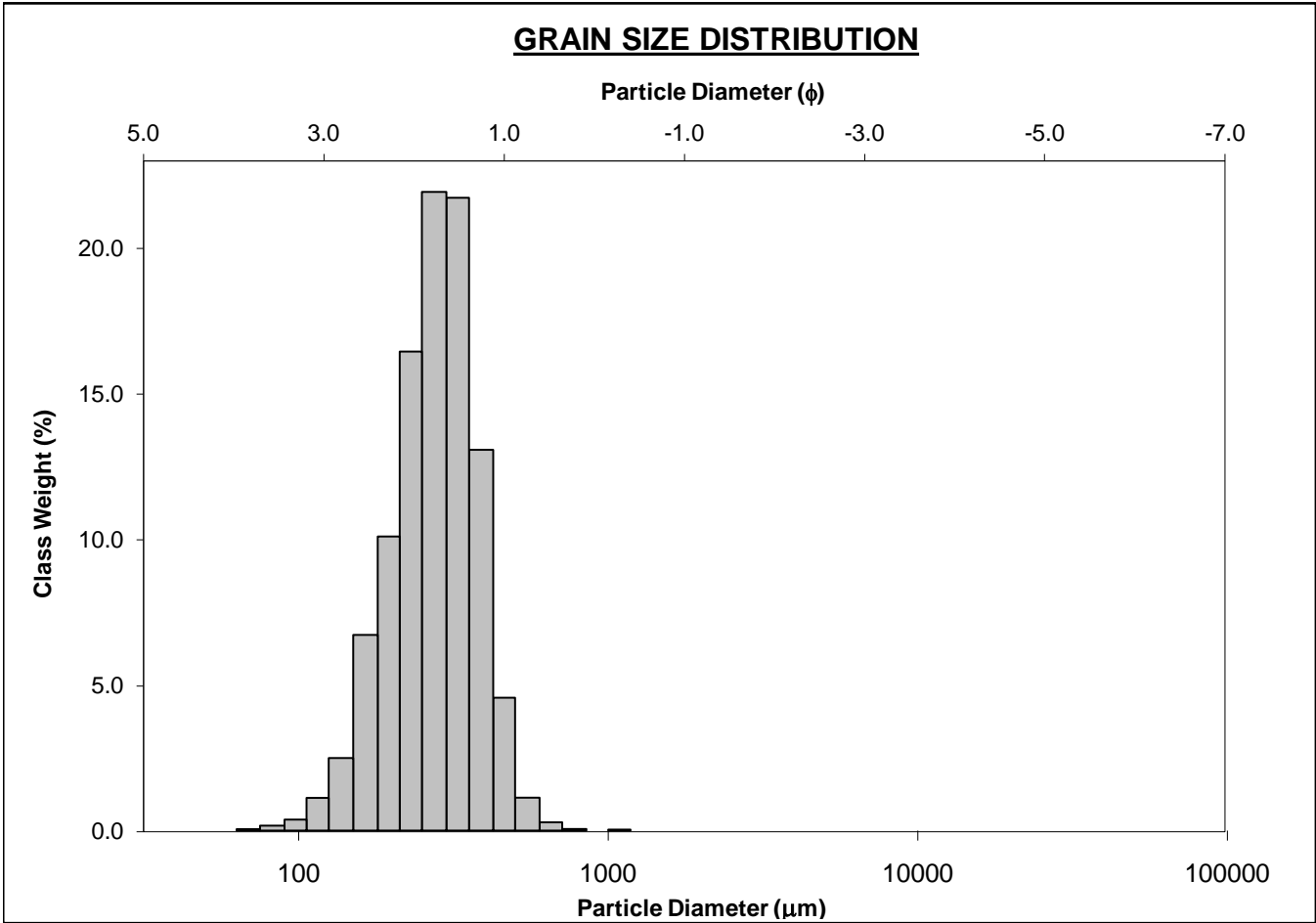
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-50cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 0.2%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 45.0%			
MODE 3:			MUD: 0.1% FINE SAND: 53.6%			
D ₁₀ :	164.2	1.573	V FINE SAND: 1.0%			
MEDIAN or D ₅₀ :	241.5	2.050	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	336.0	2.607	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.047	1.657	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	171.9	1.034	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.459	1.304	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	90.75	0.545	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	247.9	237.3	2.076	238.7	2.067	Fine Sand
SORTING (σ):	68.05	1.351	0.434	1.309	0.388	Well Sorted
SKEWNESS (Sk):	0.875	-2.170	2.170	-0.067	0.067	Symmetrical
KURTOSIS (K):	6.936	25.59	25.59	0.941	0.941	Mesokurtic



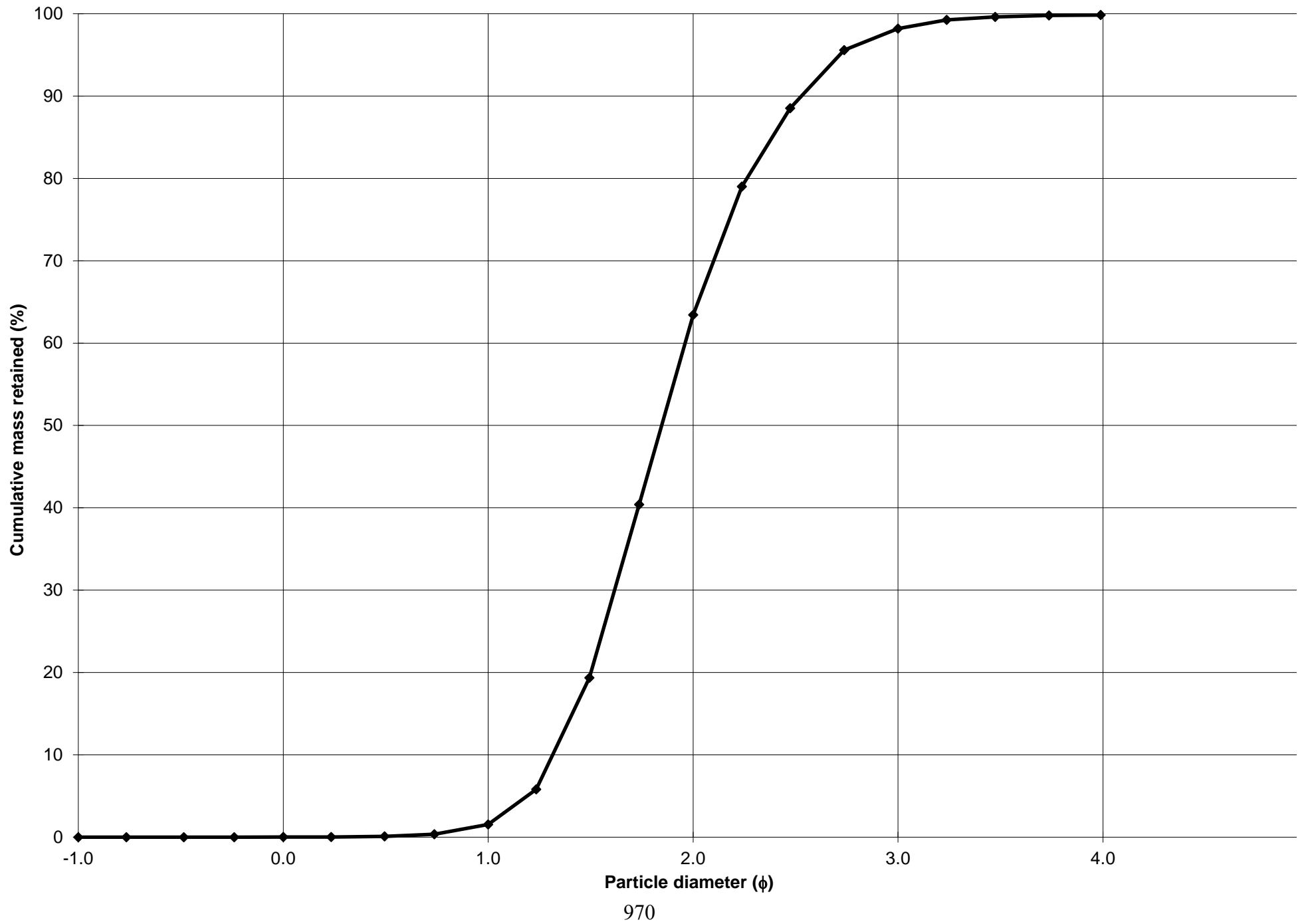
Cumulative Frequency Curve



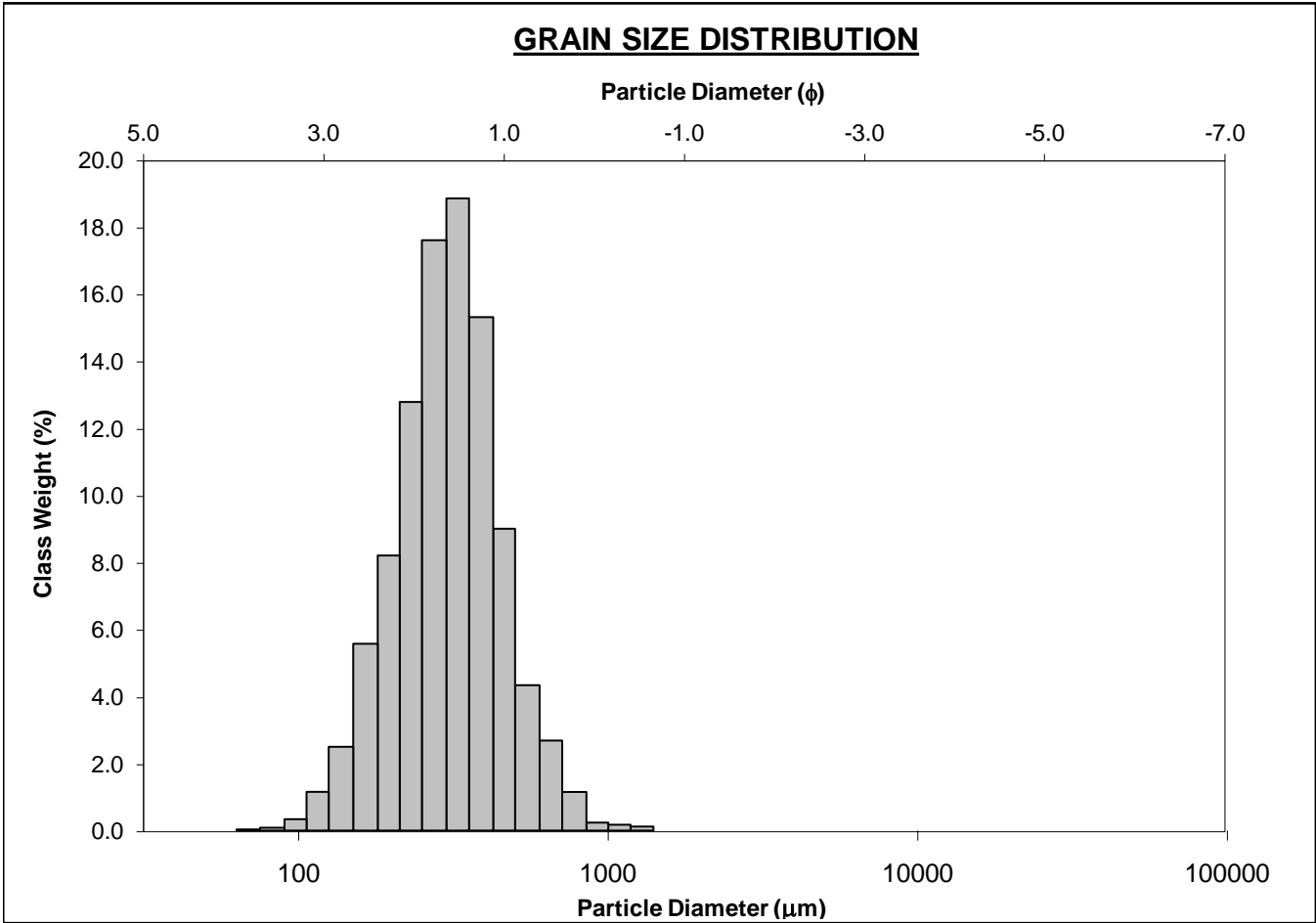
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-60cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.5%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 61.9%	
MODE 3:			MUD: 0.2%		FINE SAND: 34.8%	
D ₁₀ :	173.3	1.315			V FINE SAND: 1.6%	
MEDIAN or D ₅₀ :	278.0	1.847	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	402.0	2.529	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.320	1.923	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	228.7	1.214	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.534	1.396	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	118.1	0.617	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	285.6	269.3	1.893	271.8	1.879	Medium Sand
SORTING (σ):	90.64	1.425	0.511	1.379	0.464	Well Sorted
SKEWNESS (Sk):	0.772	-1.884	1.884	-0.122	0.122	Fine Skewed
KURTOSIS (K):	5.858	18.46	18.46	1.013	1.013	Mesokurtic



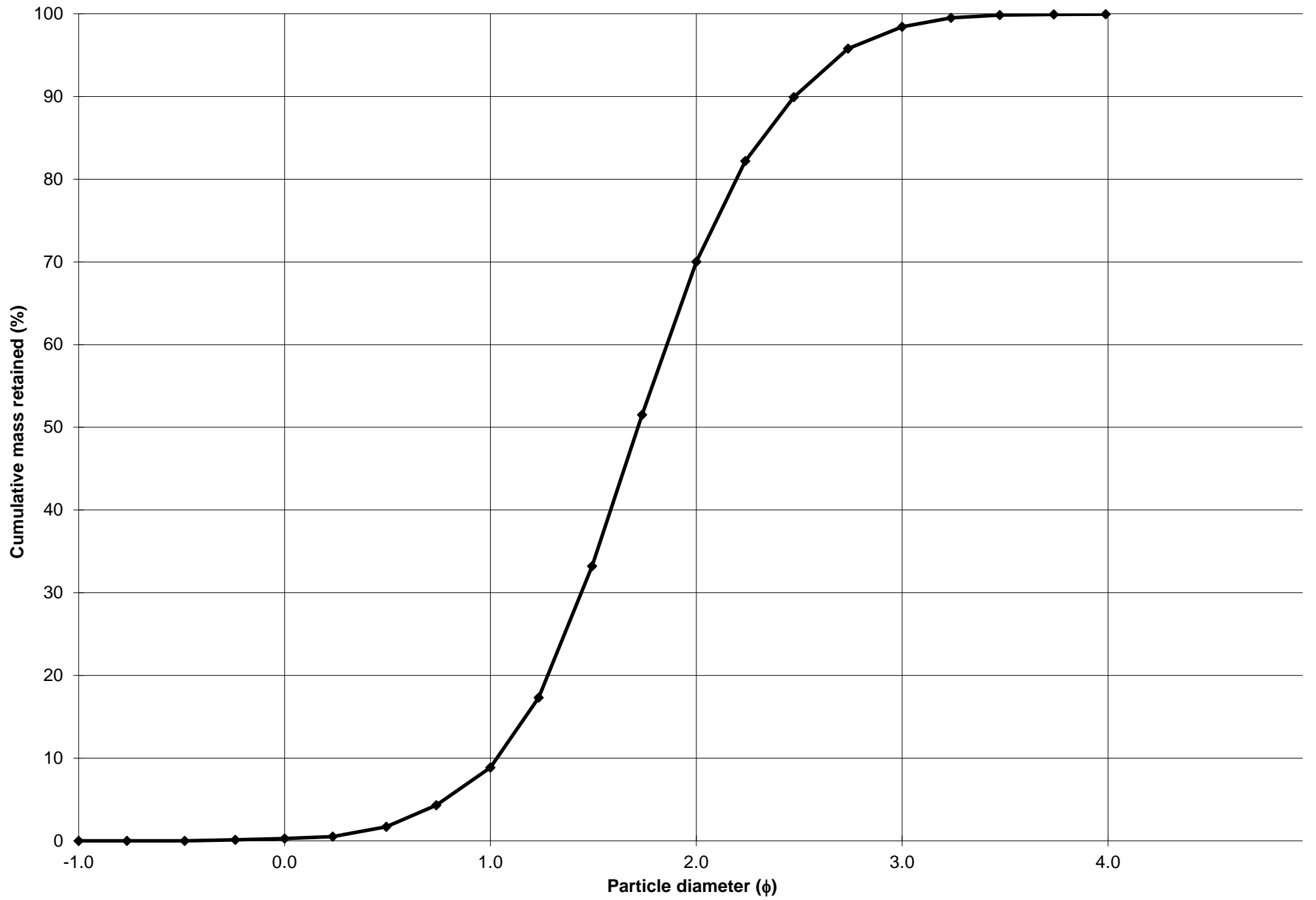
Cumulative Frequency Curve



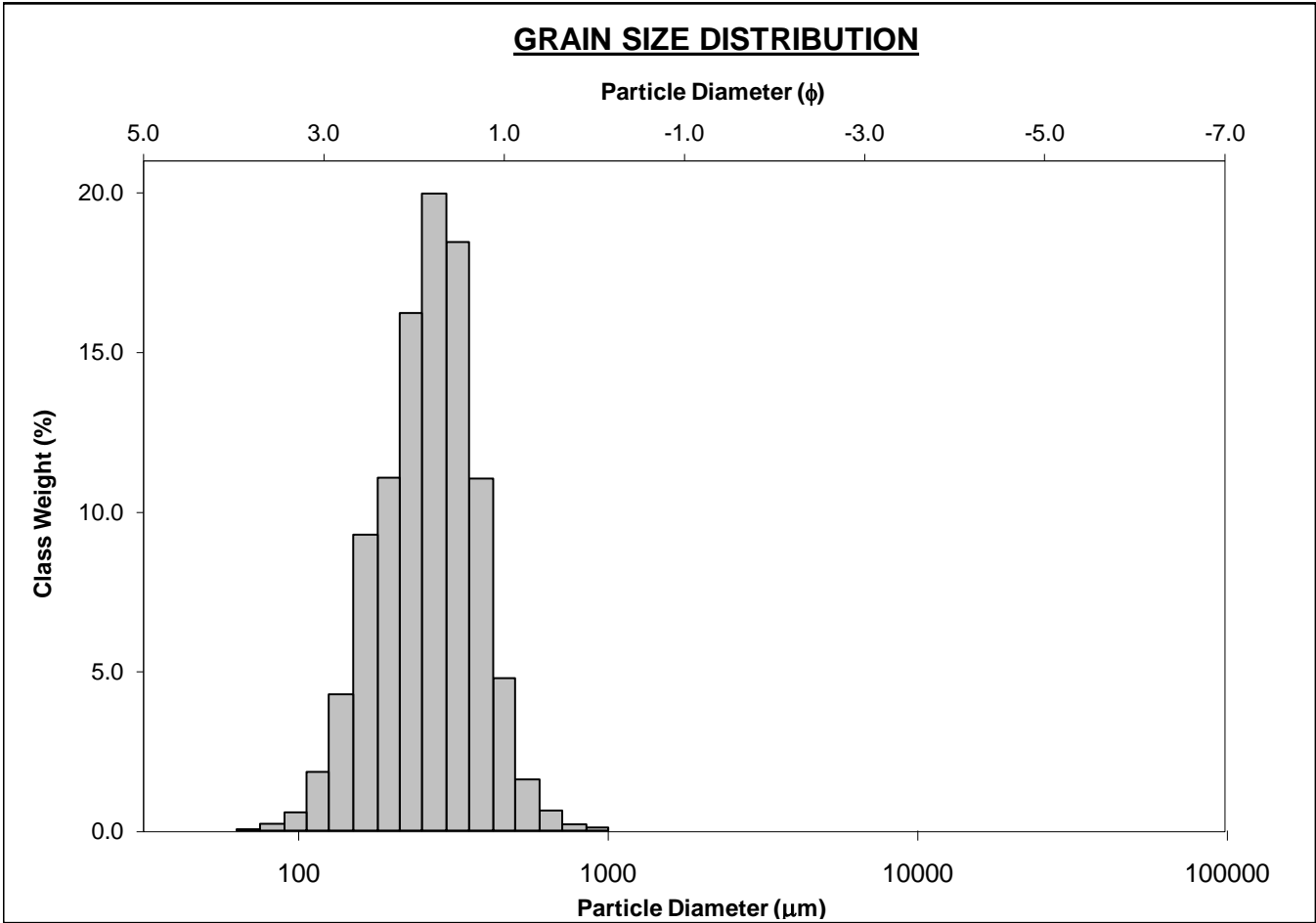
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-70cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 8.6%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 61.2%	
MODE 3:			MUD: 0.0%		FINE SAND: 28.4%	
D ₁₀ :	179.6	1.031			V FINE SAND: 1.5%	
MEDIAN or D ₅₀ :	304.2	1.717	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	489.2	2.477	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.724	2.402	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	309.6	1.446	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.667	1.542	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	155.9	0.737	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	327.0	300.8	1.733	300.2	1.736	Medium Sand
SORTING (σ):	137.0	1.496	0.581	1.480	0.565	Moderately Well Sorted
SKEWNESS (Sk):	1.614	-0.311	0.311	-0.038	0.038	Symmetrical
KURTOSIS (K):	8.407	5.904	5.904	1.070	1.070	Mesokurtic



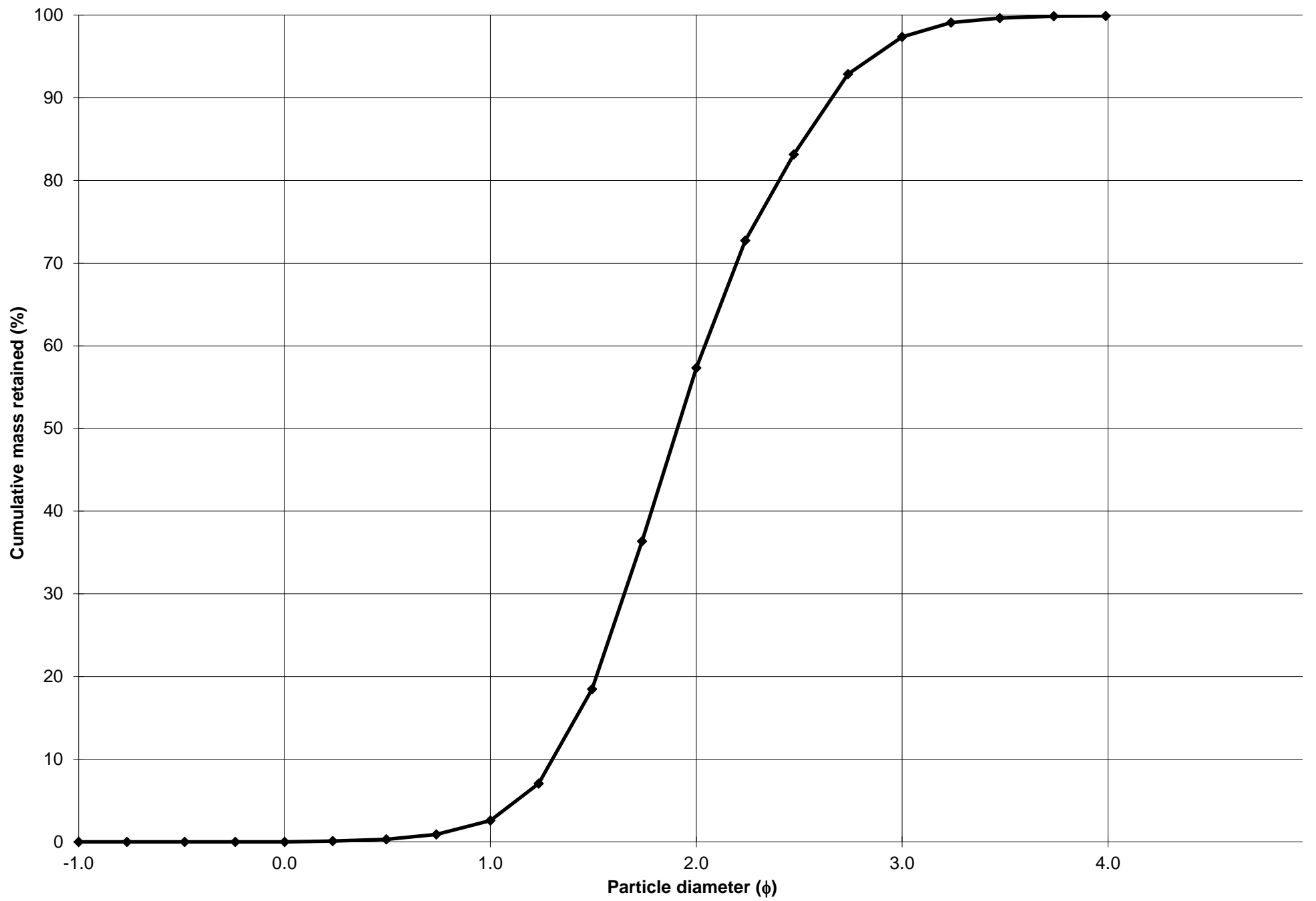
Cumulative Frequency Curve



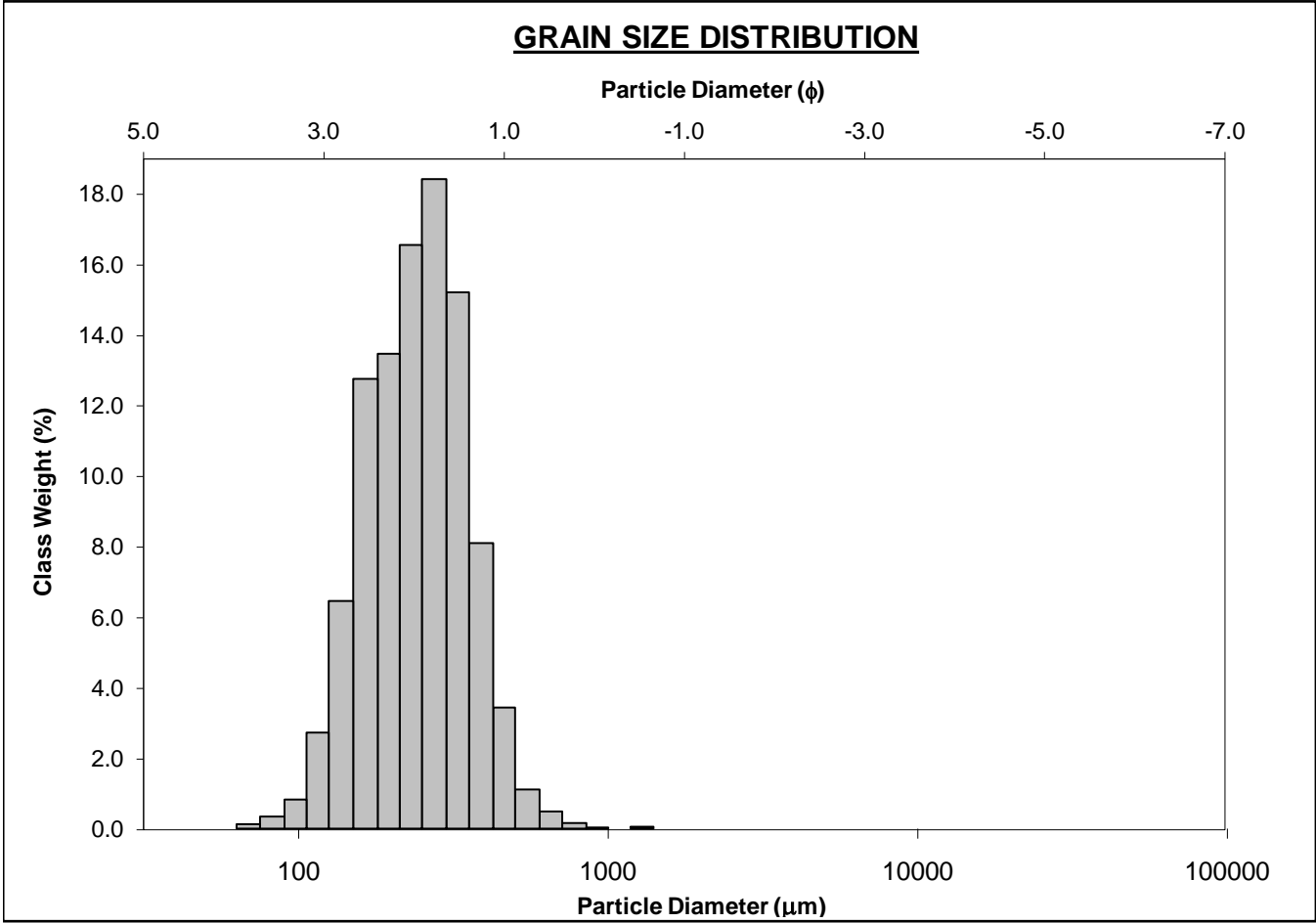
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-80cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 2.6%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 54.7%	
MODE 3:			MUD: 0.1%		FINE SAND: 40.0%	
D ₁₀ :	158.3	1.301			V FINE SAND: 2.5%	
MEDIAN or D ₅₀ :	266.4	1.908	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	405.7	2.659	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.563	2.043	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	247.4	1.358	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.632	1.447	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	129.3	0.707	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	278.1	259.2	1.948	259.2	1.948	Medium Sand
SORTING (σ):	101.8	1.459	0.545	1.442	0.528	Moderately Well Sorted
SKEWNESS (Sk):	1.088	-0.860	0.860	-0.106	0.106	Fine Skewed
KURTOSIS (K):	5.937	9.317	9.317	1.006	1.006	Mesokurtic



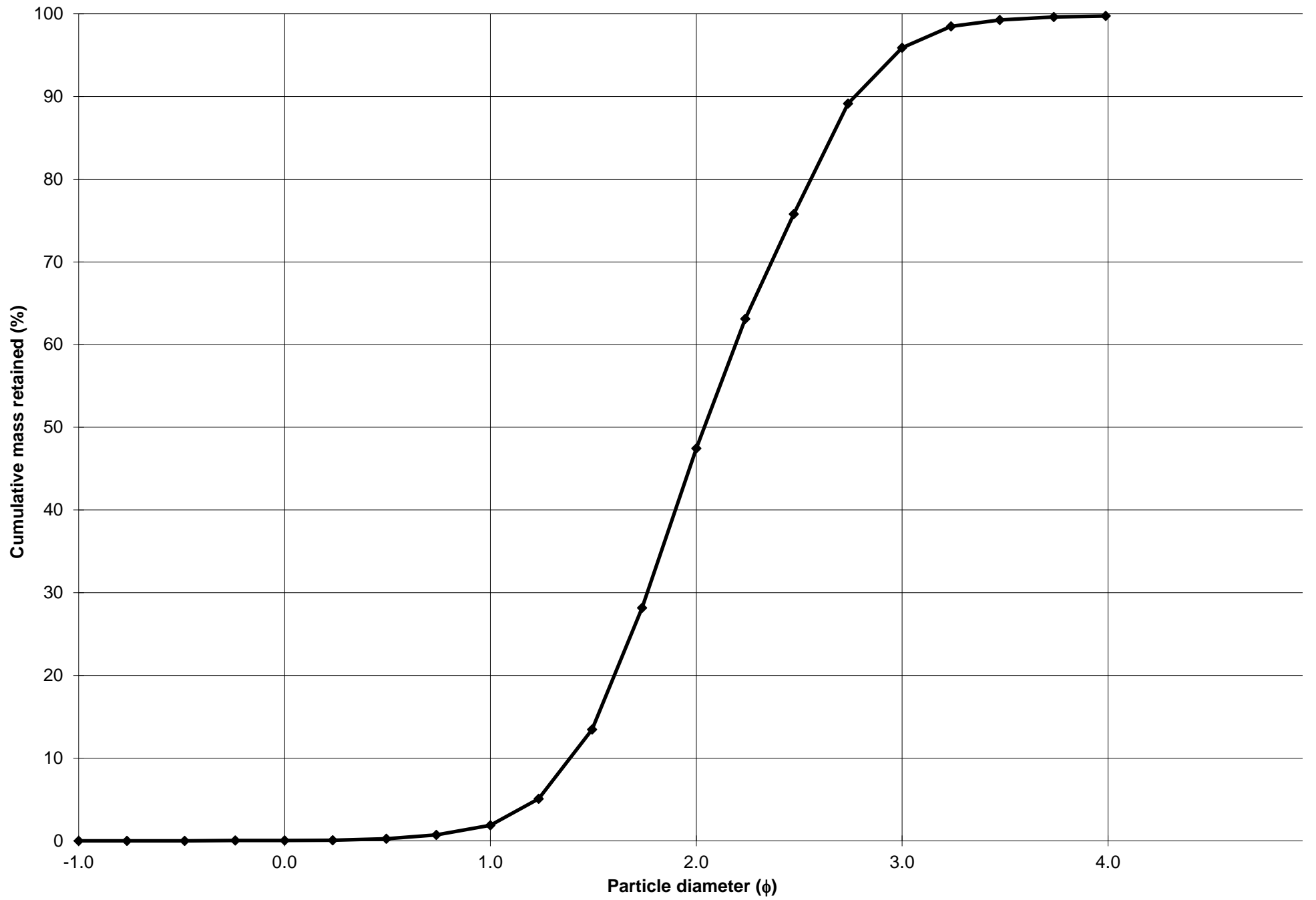
Cumulative Frequency Curve



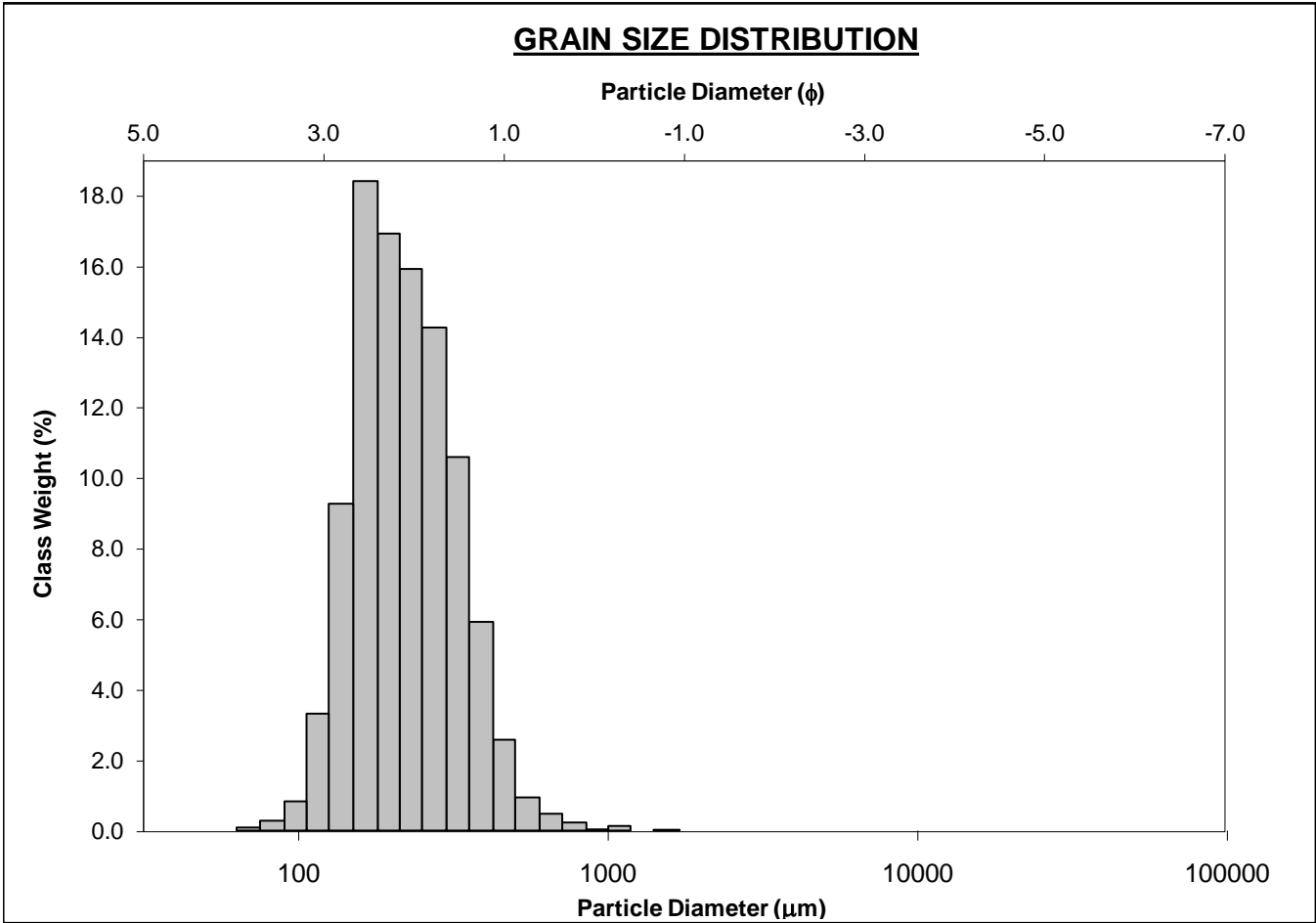
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-90cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.8%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 45.6%	
MODE 3:			MUD: 0.3%		FINE SAND: 48.4%	
D ₁₀ :	146.5	1.387			V FINE SAND: 3.8%	
MEDIAN or D ₅₀ :	243.4	2.039	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	382.4	2.771	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.609	1.998	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	235.8	1.384	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.711	1.460	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	129.2	0.775	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	256.9	237.1	2.077	238.1	2.070	Fine Sand
SORTING (σ):	100.9	1.512	0.596	1.452	0.538	Moderately Well Sorted
SKEWNESS (Sk):	1.561	-1.475	1.475	-0.076	0.076	Symmetrical
KURTOSIS (K):	10.80	14.47	14.47	0.919	0.919	Mesokurtic



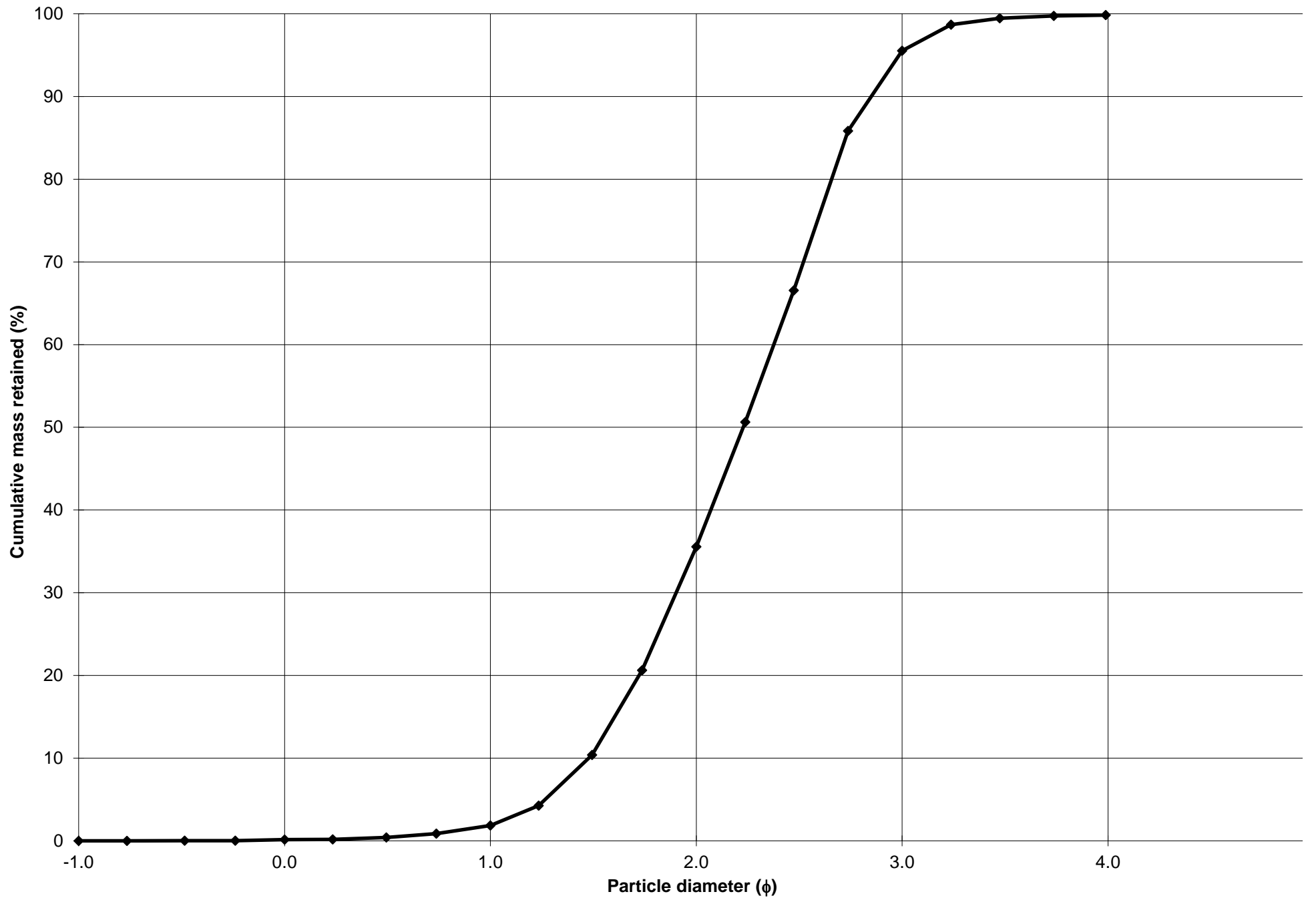
Cumulative Frequency Curve



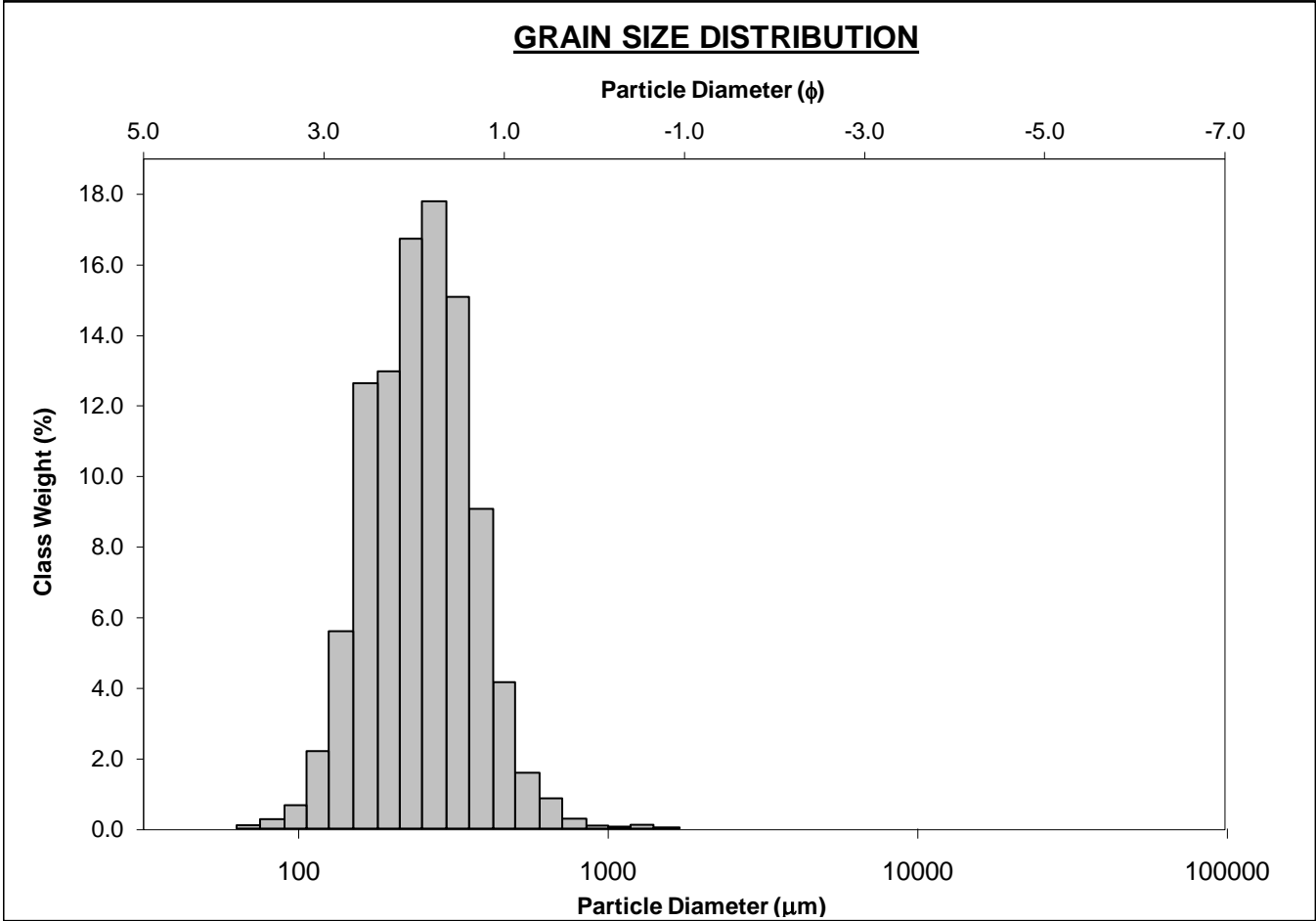
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-100cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 1.7%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 33.7%	
MODE 3:			MUD: 0.2%		FINE SAND: 60.0%	
D ₁₀ :	138.7	1.478			V FINE SAND: 4.3%	
MEDIAN or D ₅₀ :	213.5	2.228	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	359.0	2.850	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.588	1.928	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	220.3	1.372	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.711	1.427	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	118.2	0.775	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	237.8	219.0	2.191	219.3	2.189	Fine Sand
SORTING (σ):	103.3	1.490	0.576	1.446	0.532	Moderately Well Sorted
SKEWNESS (Sk):	2.472	-0.554	0.554	0.113	-0.113	Coarse Skewed
KURTOSIS (K):	17.88	10.55	10.55	0.909	0.909	Mesokurtic



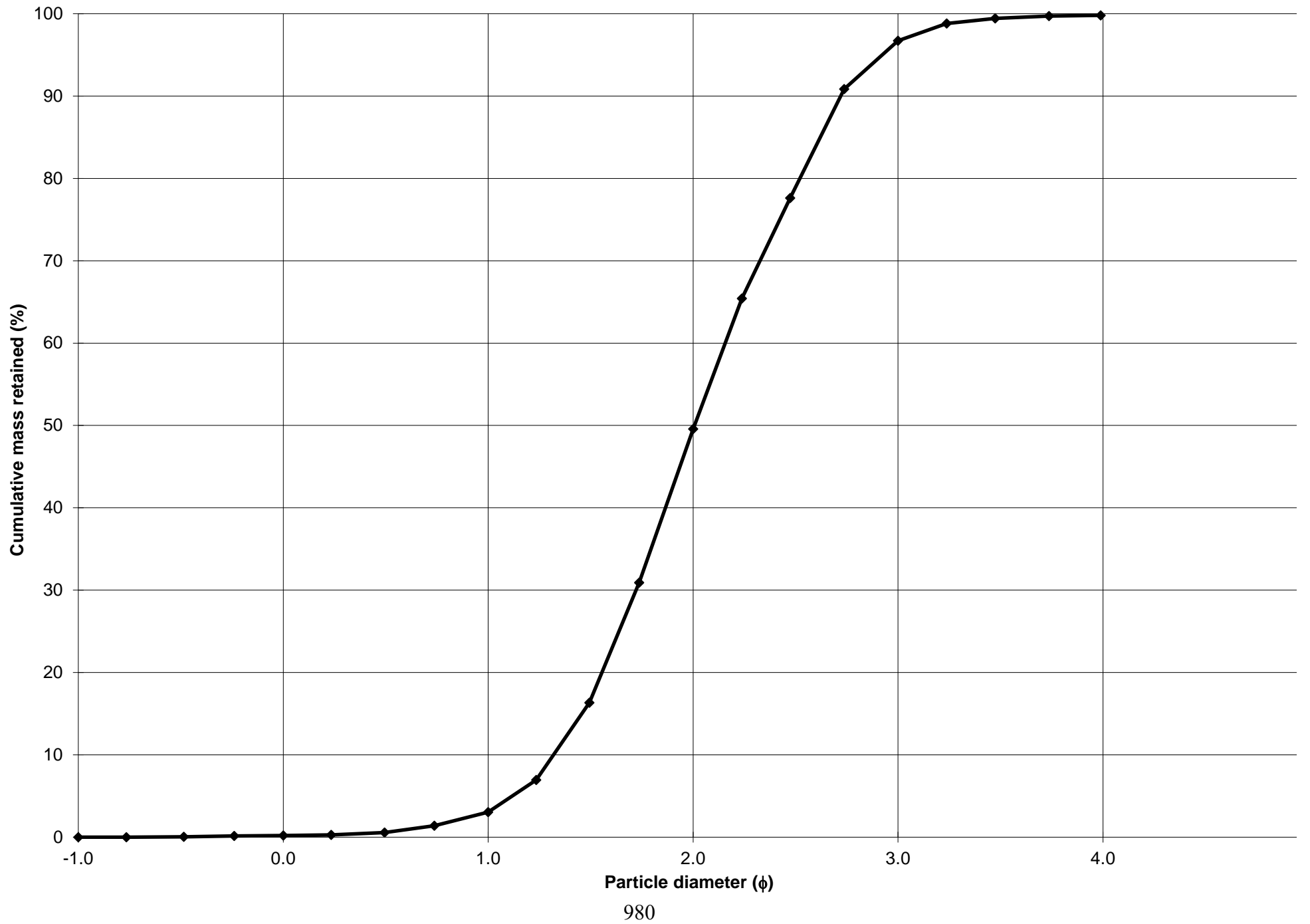
Cumulative Frequency Curve



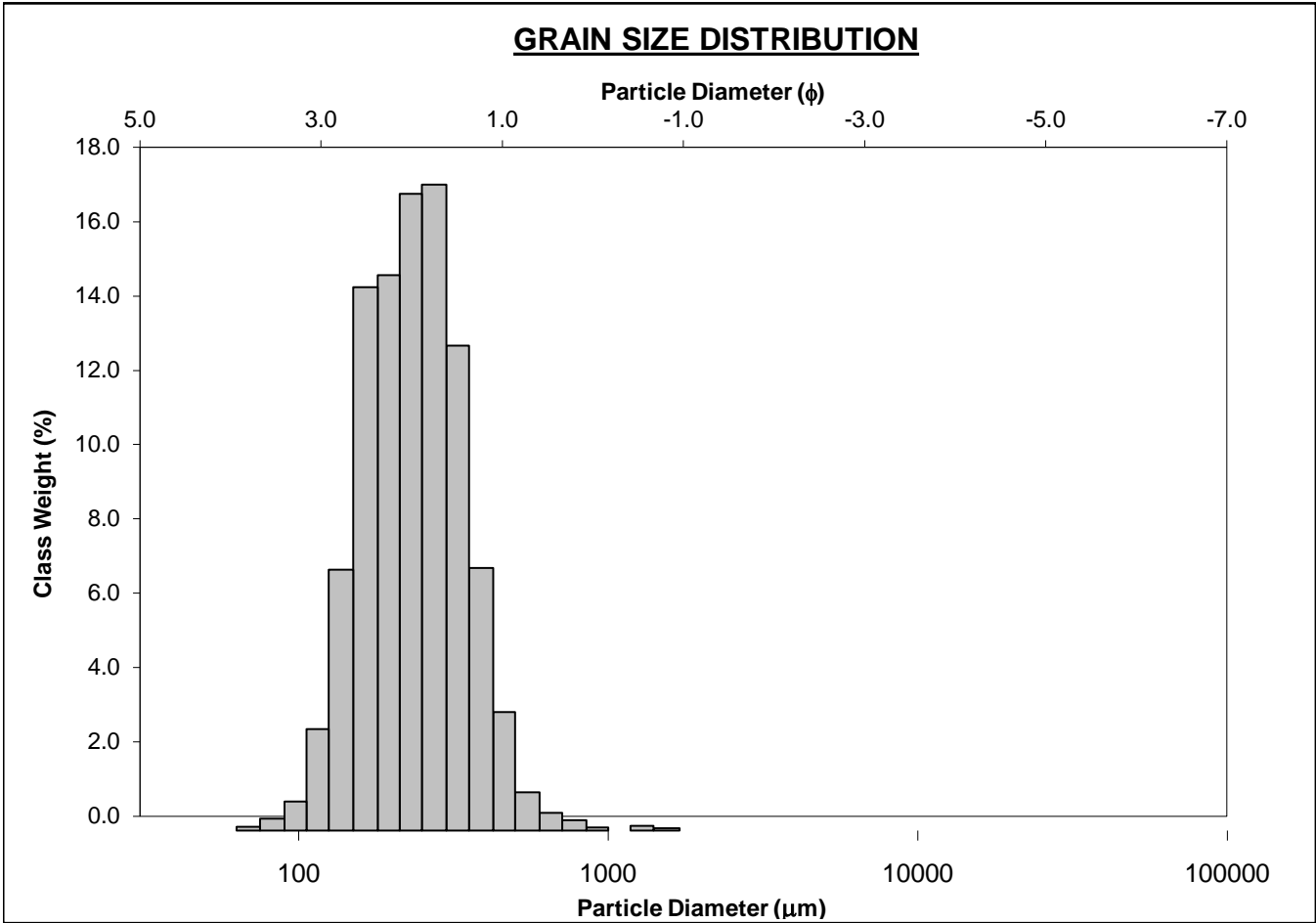
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-110cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 2.9%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 46.5%	
MODE 3:			MUD: 0.2%		FINE SAND: 47.2%	
D ₁₀ :	151.8	1.319			V FINE SAND: 3.1%	
MEDIAN or D ₅₀ :	248.9	2.007	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	400.7	2.720	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.640	2.062	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	249.0	1.401	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.723	1.479	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	134.7	0.785	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	267.5	245.6	2.026	244.7	2.031	Fine Sand
SORTING (σ):	115.3	1.514	0.598	1.467	0.552	Moderately Well Sorted
SKEWNESS (Sk):	2.410	-0.947	0.947	-0.040	0.040	Symmetrical
KURTOSIS (K):	18.02	11.87	11.87	0.943	0.943	Mesokurtic



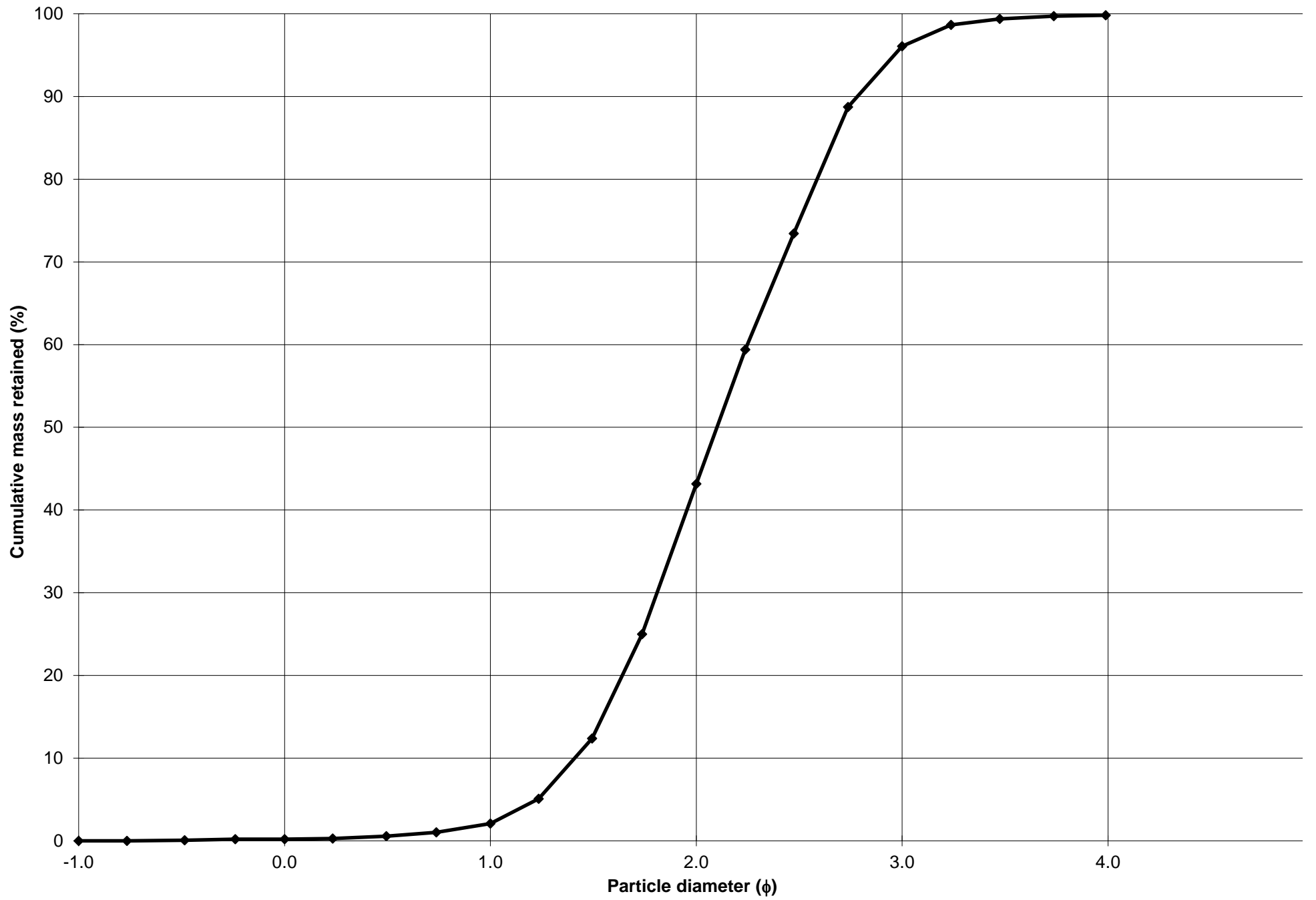
Cumulative Frequency Curve



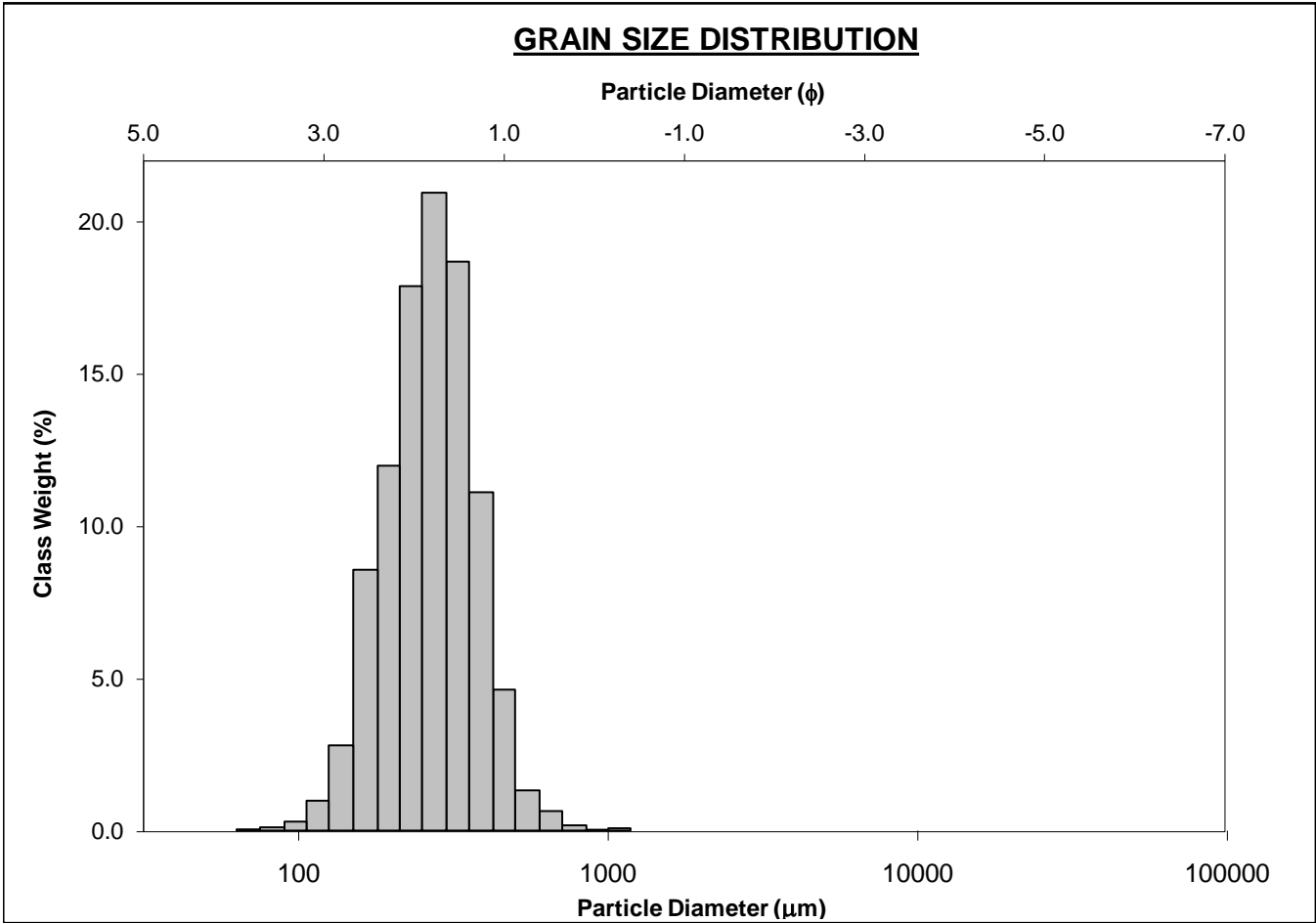
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-120cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.9%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 41.1%	
MODE 3:			MUD: 0.2%		FINE SAND: 52.9%	
D ₁₀ :	145.3	1.410			V FINE SAND: 3.8%	
MEDIAN or D ₅₀ :	233.2	2.100	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	376.4	2.783	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.590	1.974	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	231.1	1.373	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.698	1.440	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	123.3	0.764	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	252.6	232.3	2.106	232.2	2.107	Fine Sand
SORTING (σ):	111.4	1.500	0.585	1.450	0.536	Moderately Well Sorted
SKEWNESS (Sk):	3.118	-0.775	0.775	-0.006	0.006	Symmetrical
KURTOSIS (K):	26.95	11.62	11.62	0.930	0.930	Mesokurtic



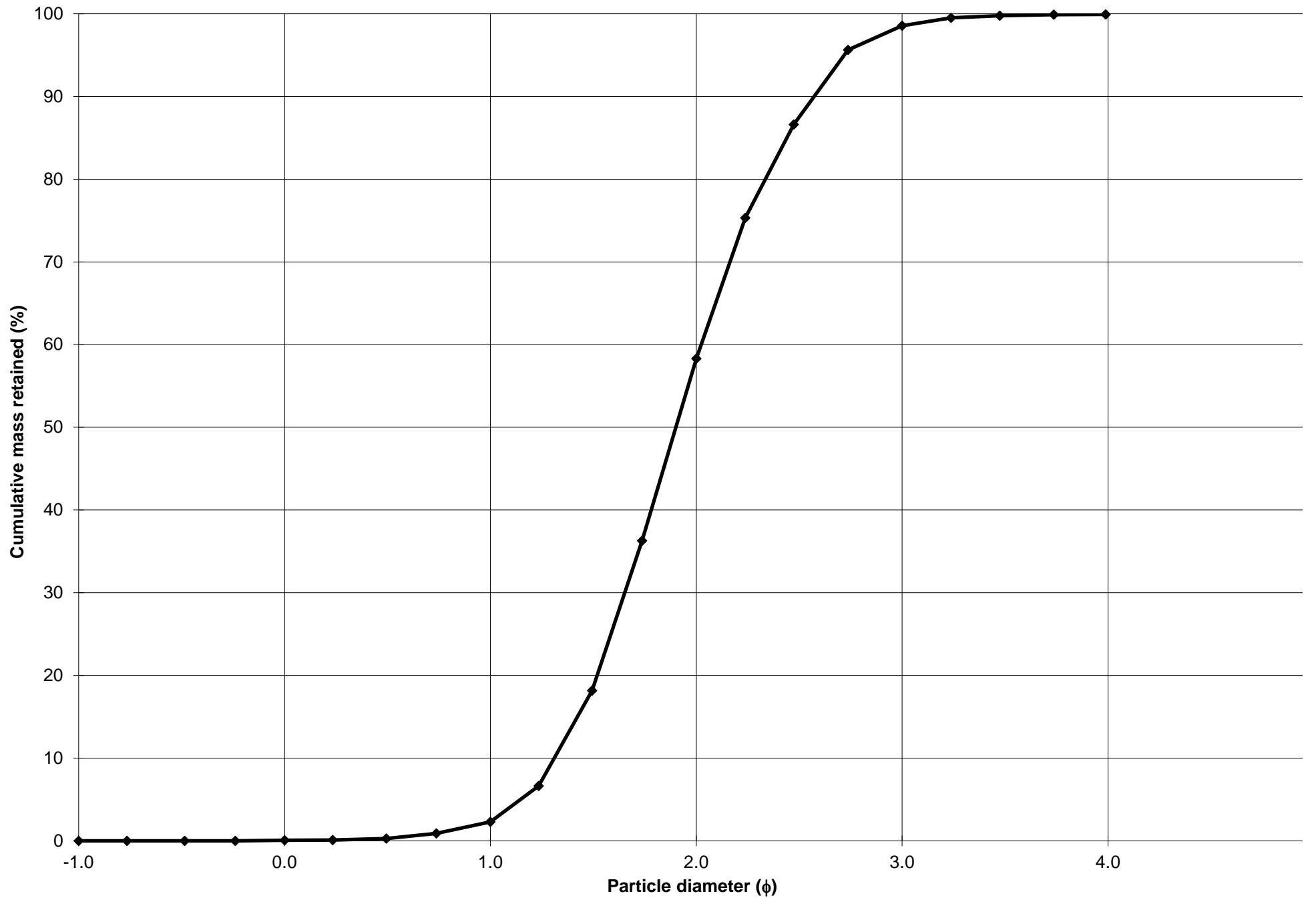
Cumulative Frequency Curve



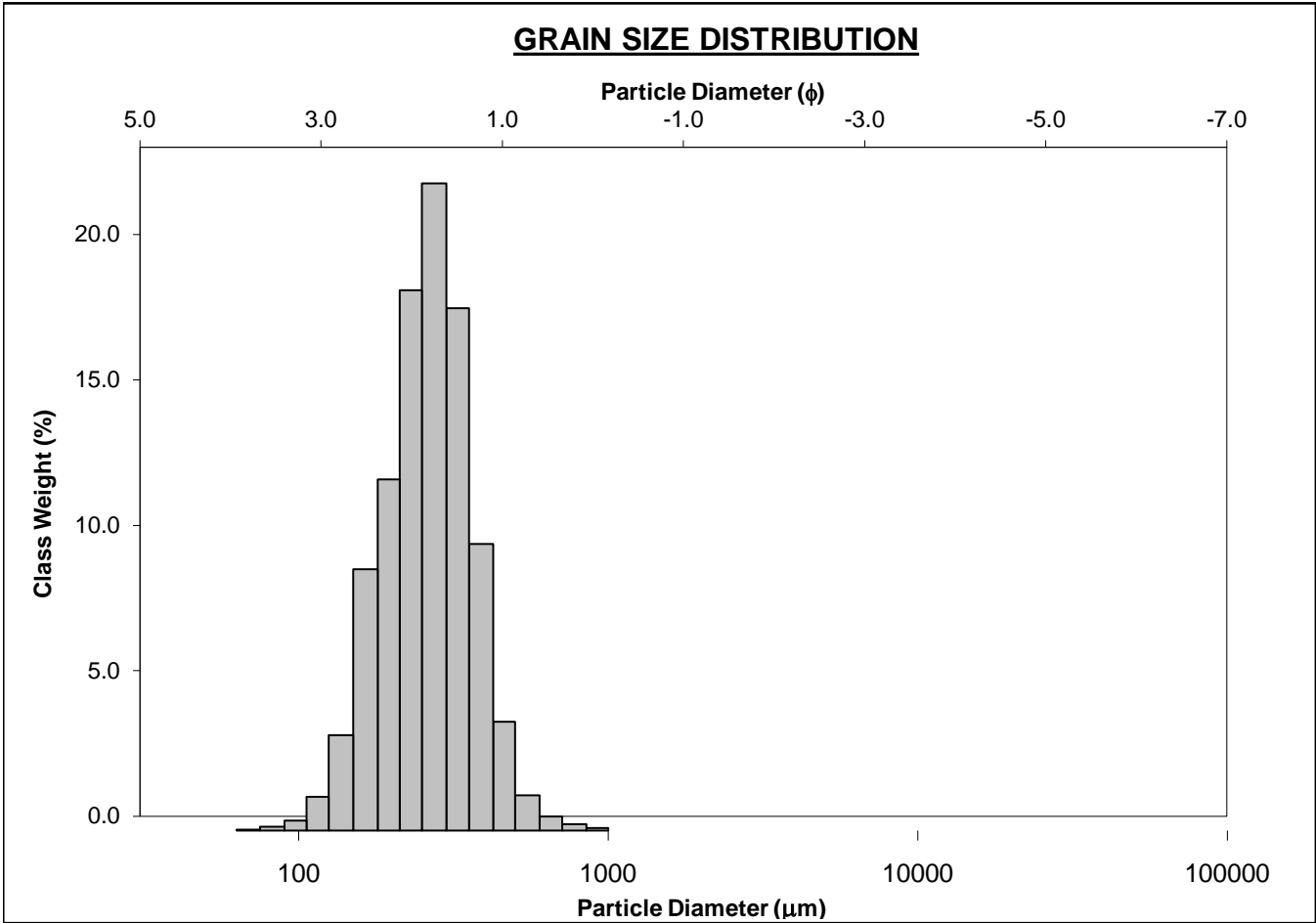
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-130cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 2.2%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 56.0%	
MODE 3:			MUD: 0.1%		FINE SAND: 40.3%	
D ₁₀ :	168.1	1.310			V FINE SAND: 1.4%	
MEDIAN or D ₅₀ :	267.8	1.901	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	403.2	2.573	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.399	1.963	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	235.1	1.262	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.567	1.408	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	120.5	0.648	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	280.9	264.0	1.921	263.9	1.922	Medium Sand
SORTING (σ):	98.07	1.419	0.505	1.396	0.482	Well Sorted
SKEWNESS (Sk):	1.378	-0.775	0.775	-0.053	0.053	Symmetrical
KURTOSIS (K):	8.407	10.29	10.29	0.995	0.995	Mesokurtic



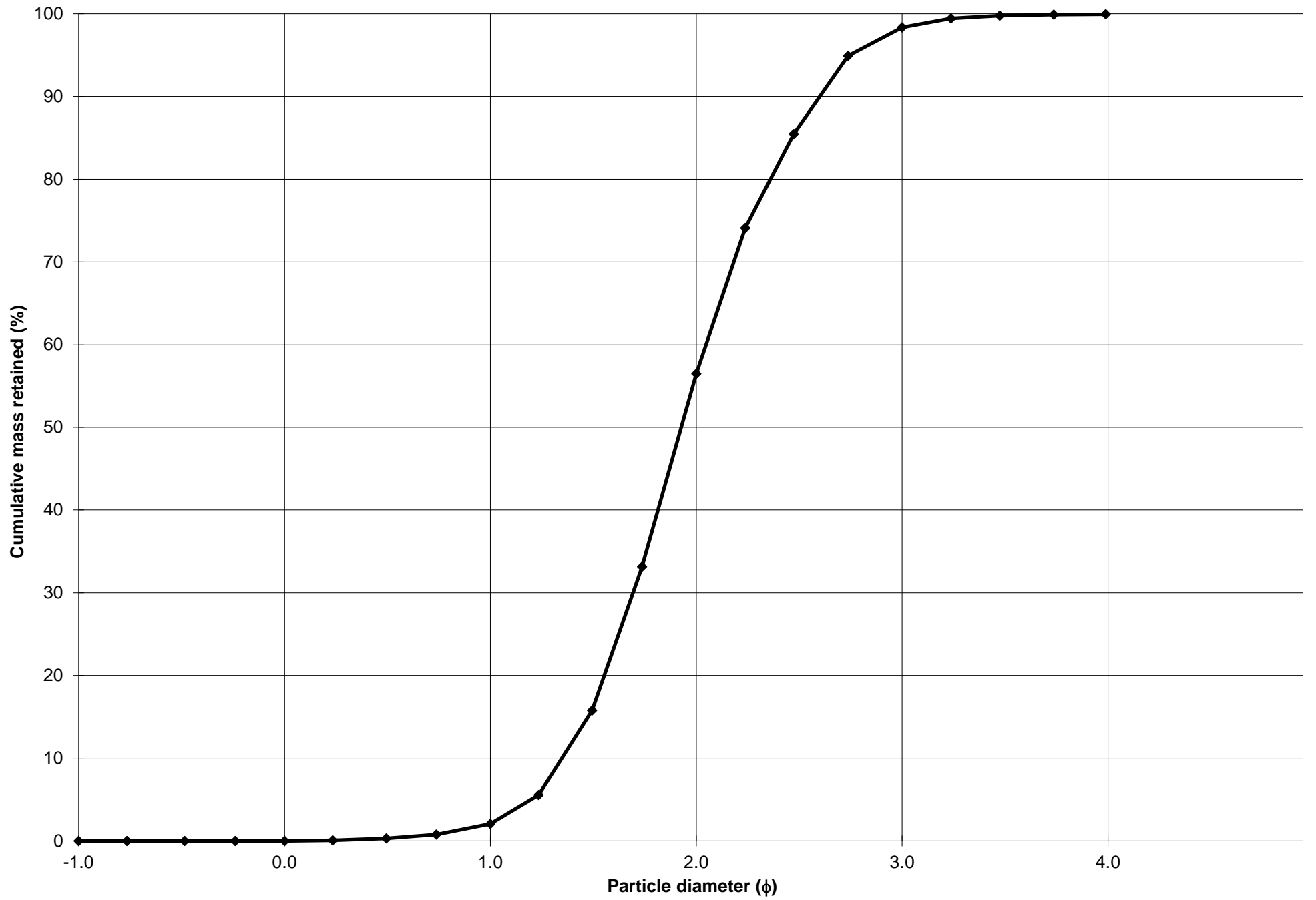
Cumulative Frequency Curve



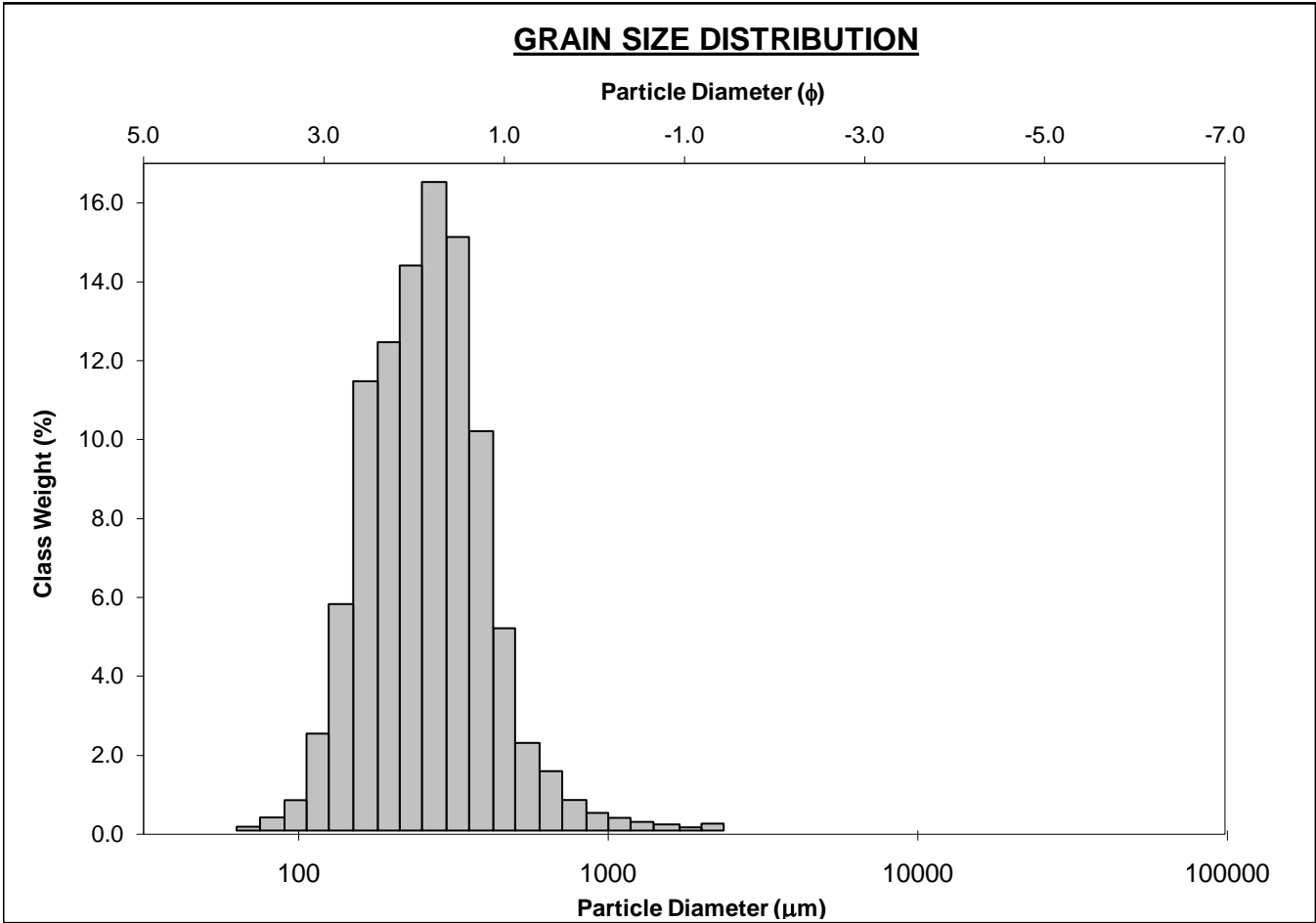
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-140cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%	COARSE SAND: 2.0%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 54.4%		
MODE 3:			MUD: 0.1%	FINE SAND: 41.9%		
D ₁₀ :	164.9	1.348		V FINE SAND: 1.6%		
MEDIAN or D ₅₀ :	263.0	1.927	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	392.9	2.600	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.382	1.929	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	228.0	1.252	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.551	1.390	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	115.3	0.633	V COARSE SAND: 0.0%	CLAY: 0.0%		
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	274.7	258.5	1.952	257.8	1.956	Medium Sand
SORTING (σ):	94.60	1.412	0.498	1.386	0.471	Well Sorted
SKEWNESS (Sk):	1.285	-0.714	0.714	-0.075	0.075	Symmetrical
KURTOSIS (K):	7.179	9.596	9.596	1.001	1.001	Mesokurtic



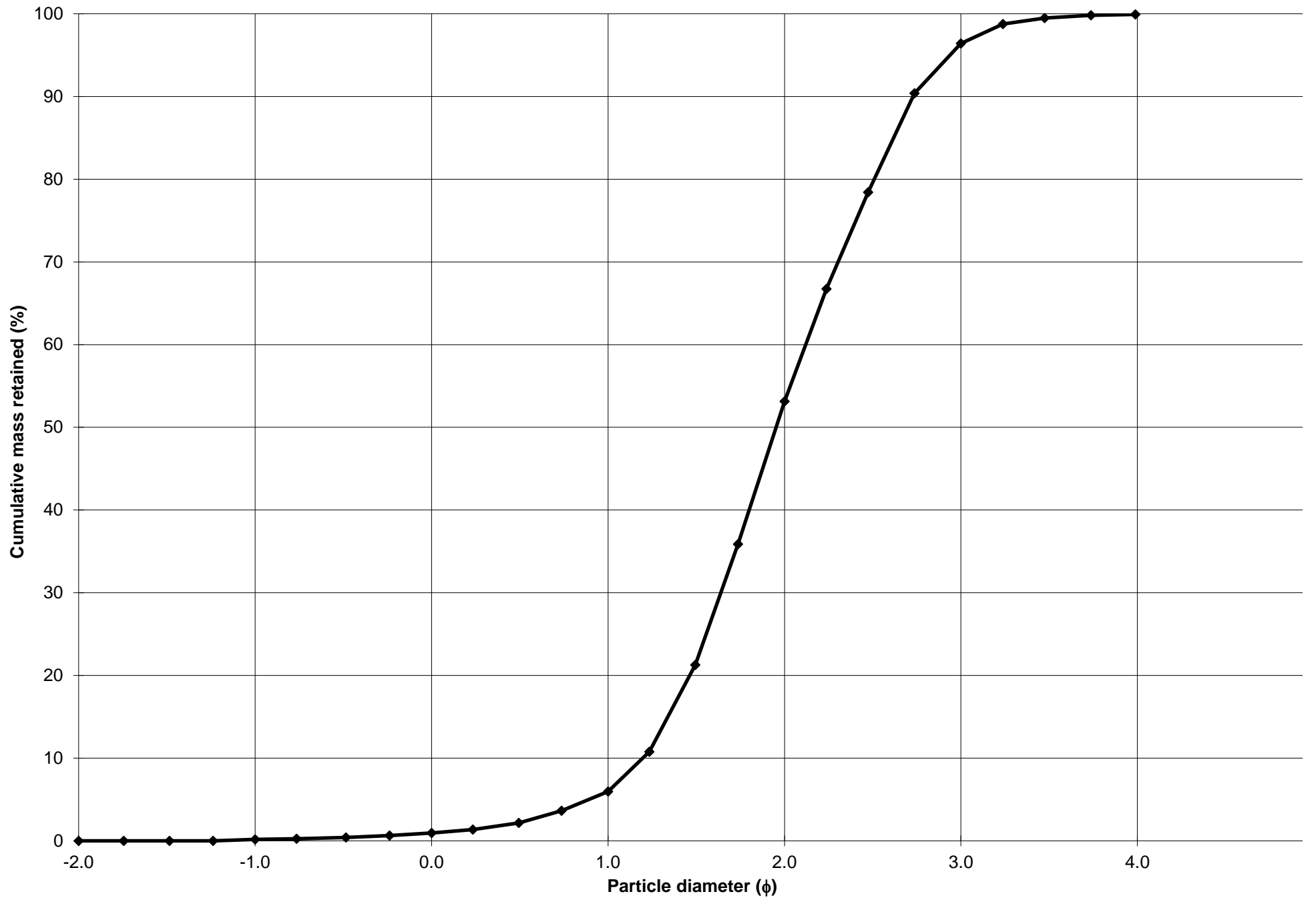
Cumulative Frequency Curve



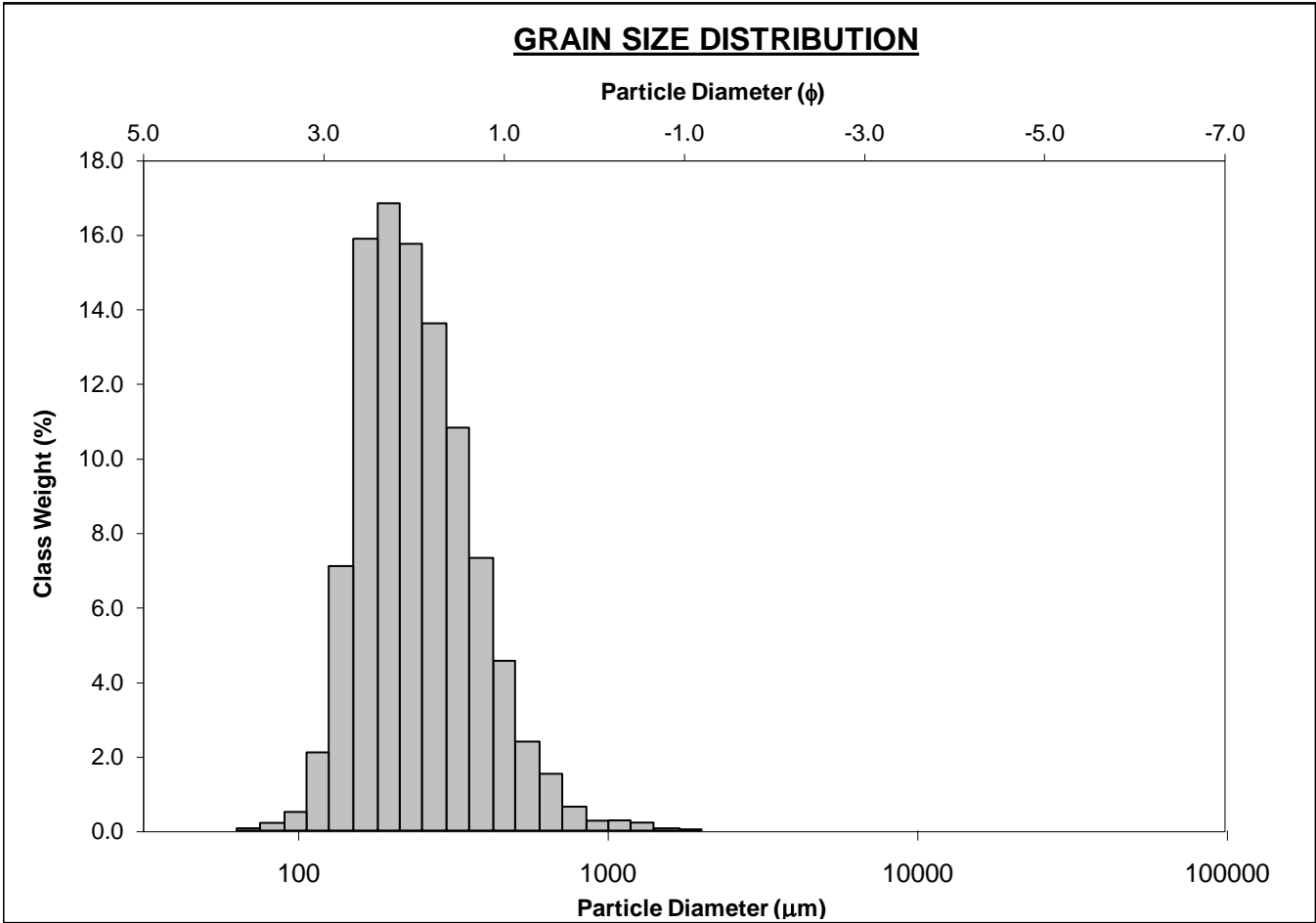
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-150cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.2%		COARSE SAND: 5.0%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 47.2%	
MODE 3:			MUD: 0.1%		FINE SAND: 43.3%	
D ₁₀ :	150.9	1.197			V FINE SAND: 3.5%	
MEDIAN or D ₅₀ :	258.4	1.952	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	436.1	2.729	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.891	2.279	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	285.3	1.531	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.801	1.545	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	151.2	0.849	V COARSE SAND: 0.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	291.1	258.7	1.951	255.1	1.971	Medium Sand
SORTING (σ):	175.1	1.581	0.661	1.535	0.618	Moderately Well Sorted
SKEWNESS (Sk):	4.488	0.205	-0.205	-0.004	0.004	Symmetrical
KURTOSIS (K):	37.65	6.724	6.724	0.989	0.989	Mesokurtic



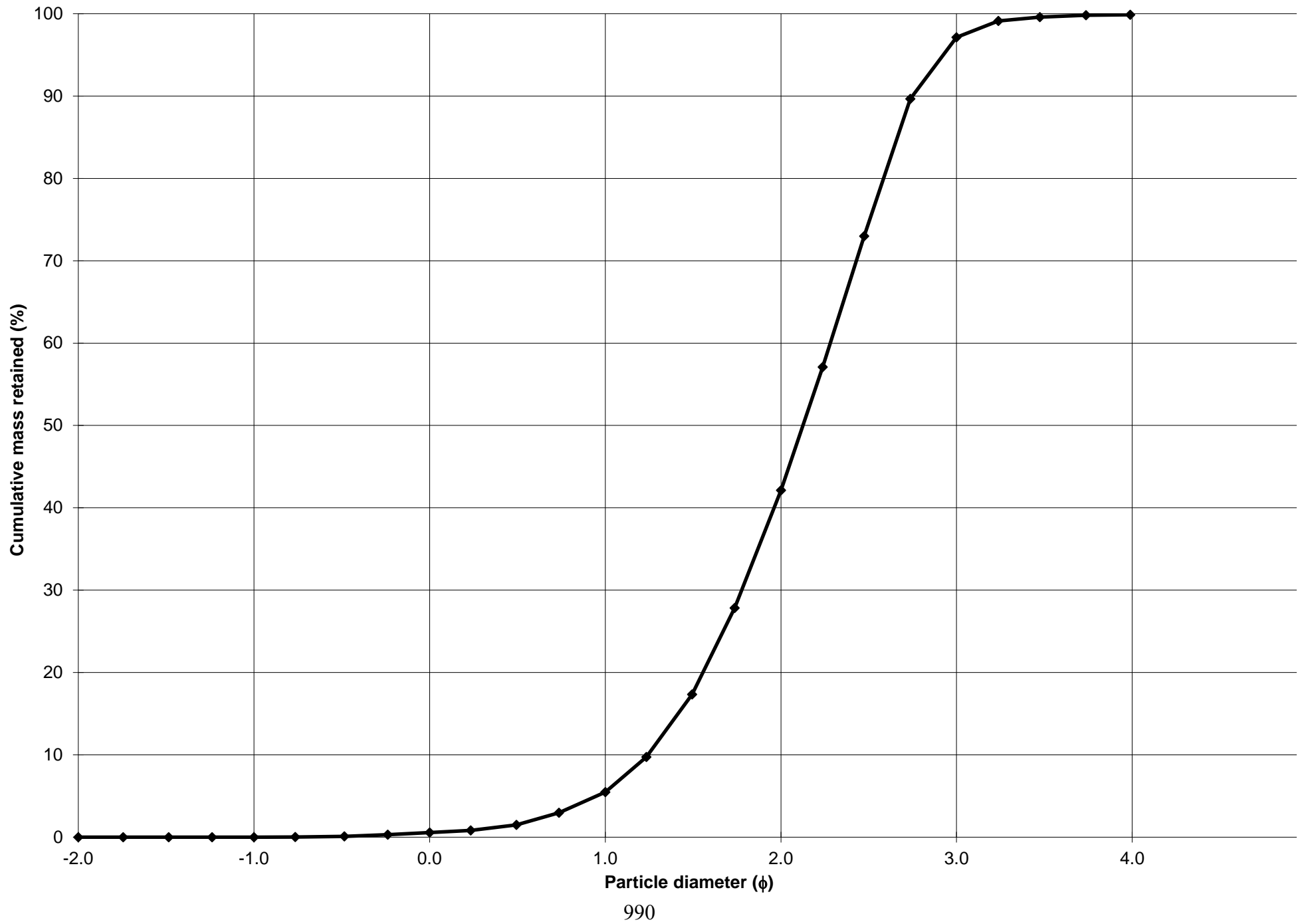
Cumulative Frequency Curve



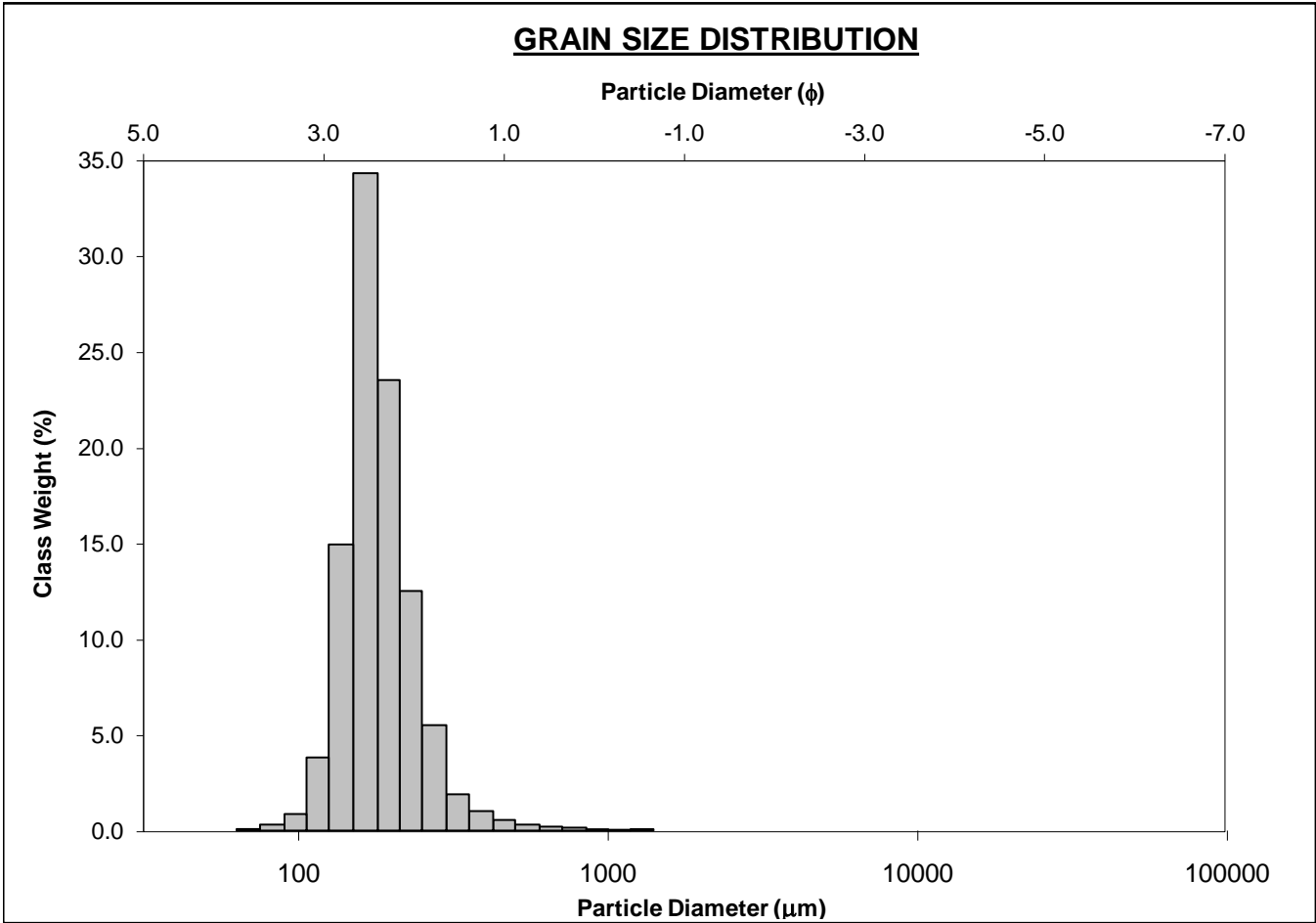
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-160cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 4.9%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 36.7%	
MODE 3:			MUD: 0.1%		FINE SAND: 55.0%	
D ₁₀ :	148.8	1.243			V FINE SAND: 2.7%	
MEDIAN or D ₅₀ :	229.2	2.125	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	422.4	2.749	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.839	2.211	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	273.6	1.505	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.783	1.499	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	137.8	0.834	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	267.7	240.3	2.057	237.5	2.074	Fine Sand
SORTING (σ):	144.4	1.558	0.639	1.515	0.599	Moderately Well Sorted
SKEWNESS (Sk):	3.100	0.070	-0.070	0.159	-0.159	Coarse Skewed
KURTOSIS (K):	20.35	7.744	7.744	0.970	0.970	Mesokurtic



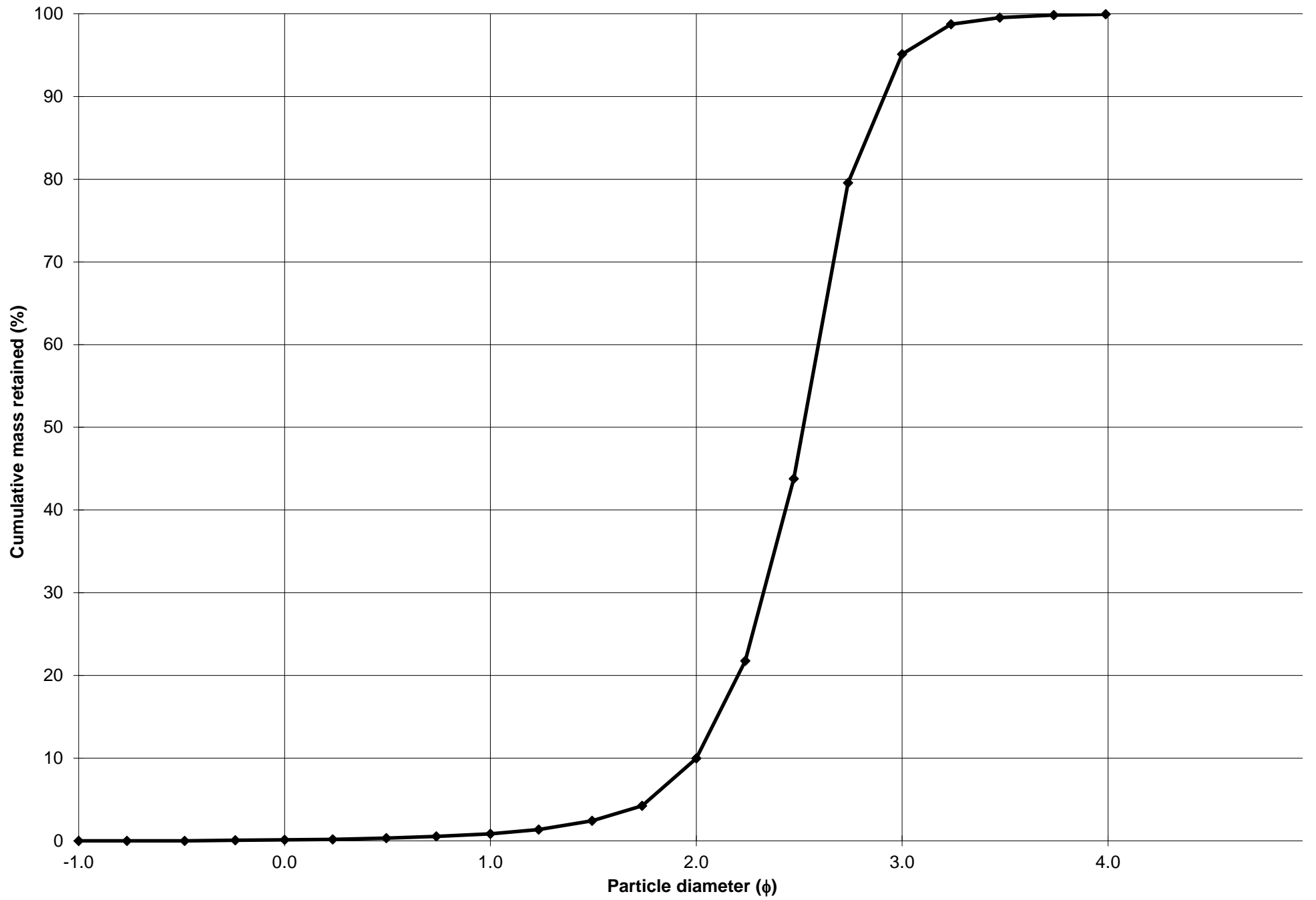
Cumulative Frequency Curve



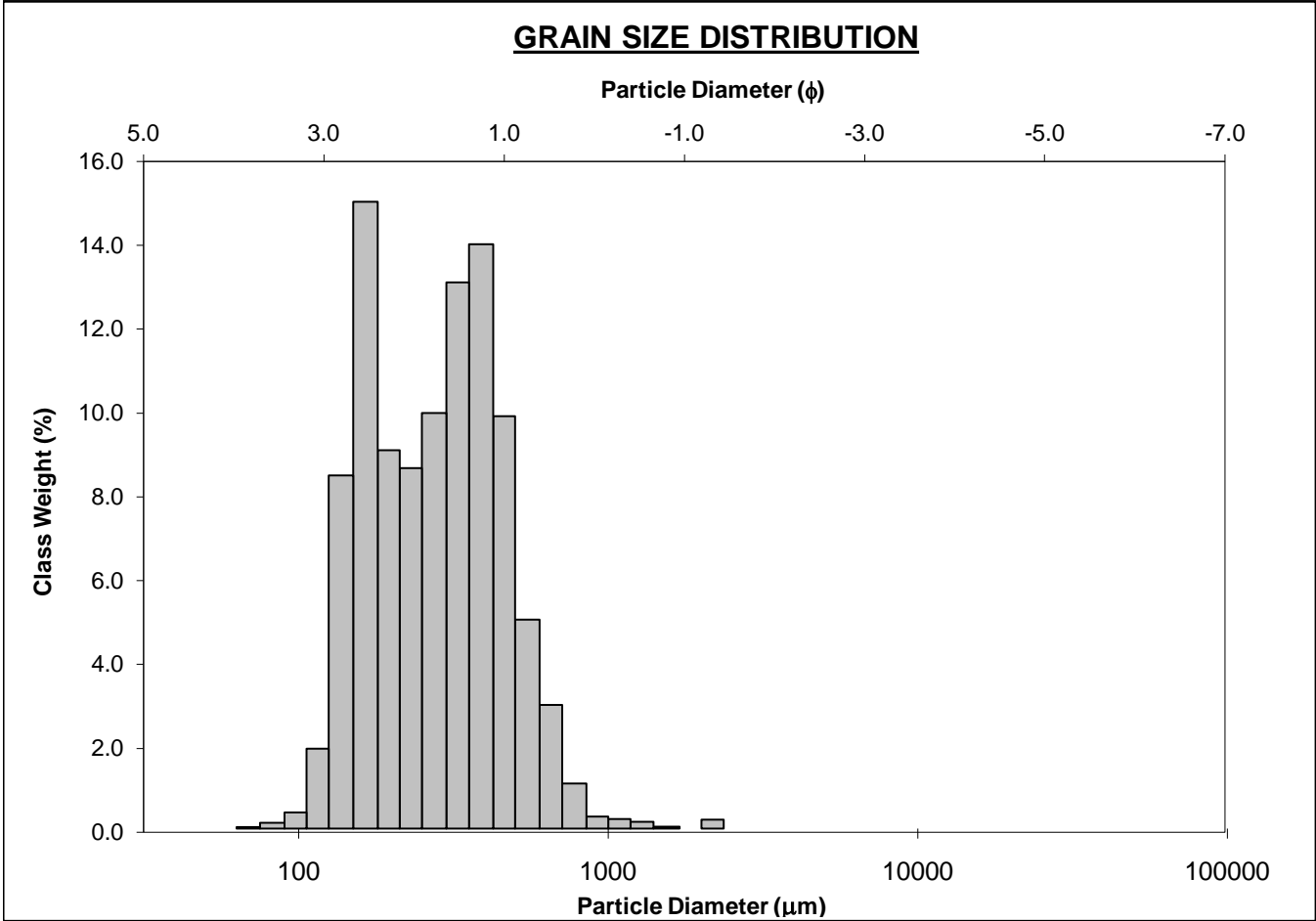
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-170cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.7%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 9.1%	
MODE 3:			MUD: 0.1%		FINE SAND: 85.1%	
D ₁₀ :	132.7	2.000			V FINE SAND: 4.8%	
MEDIAN or D ₅₀ :	174.4	2.520	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	249.9	2.913	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.883	1.456	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	117.2	0.913	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.348	1.190	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	53.45	0.431	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	190.6	180.9	2.467	178.7	2.484	Fine Sand
SORTING (σ):	75.36	1.341	0.423	1.282	0.358	Well Sorted
SKEWNESS (Sk):	5.556	0.458	-0.458	0.187	-0.187	Coarse Skewed
KURTOSIS (K):	58.35	15.57	15.57	1.166	1.166	Leptokurtic



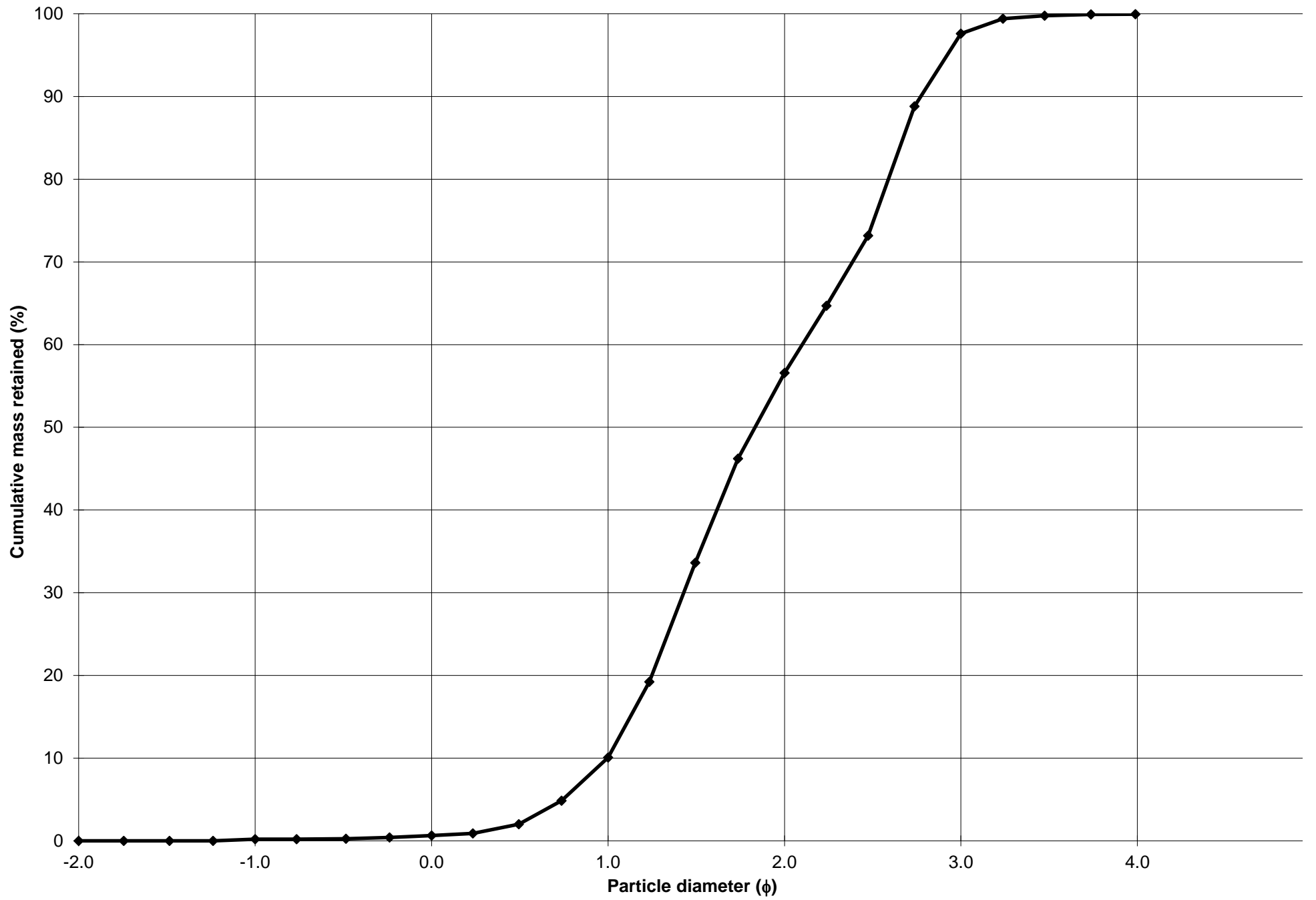
Cumulative Frequency Curve



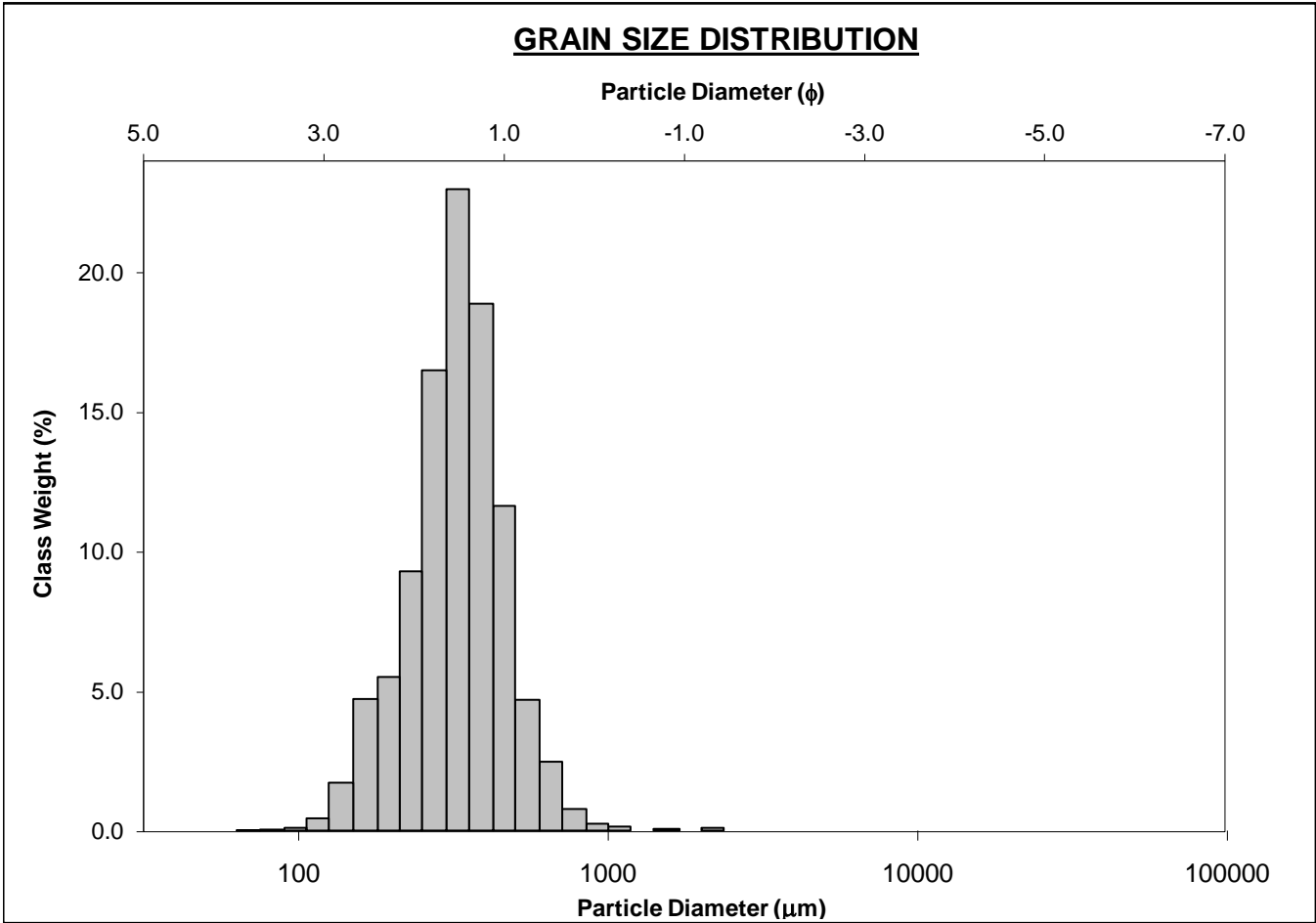
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-180cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.2%		COARSE SAND: 9.4%	
MODE 2:	390.0	1.364	SAND: 99.7%		MEDIUM SAND: 46.5%	
MODE 3:			MUD: 0.1%		FINE SAND: 41.0%	
D_{10} :	146.3	0.997			V FINE SAND: 2.3%	
MEDIAN or D_{50} :	280.6	1.833	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	501.1	2.773	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	3.425	2.782	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	354.8	1.776	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	2.244	1.871	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	219.2	1.166	V COARSE SAND: 0.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	312.1	273.6	1.870	271.6	1.881	Medium Sand
SORTING (σ):	179.5	1.646	0.719	1.631	0.706	Moderately Sorted
SKEWNESS (Sk):	3.324	0.082	-0.082	-0.047	0.047	Symmetrical
KURTOSIS (K):	28.62	3.977	3.977	0.765	0.765	Platykurtic



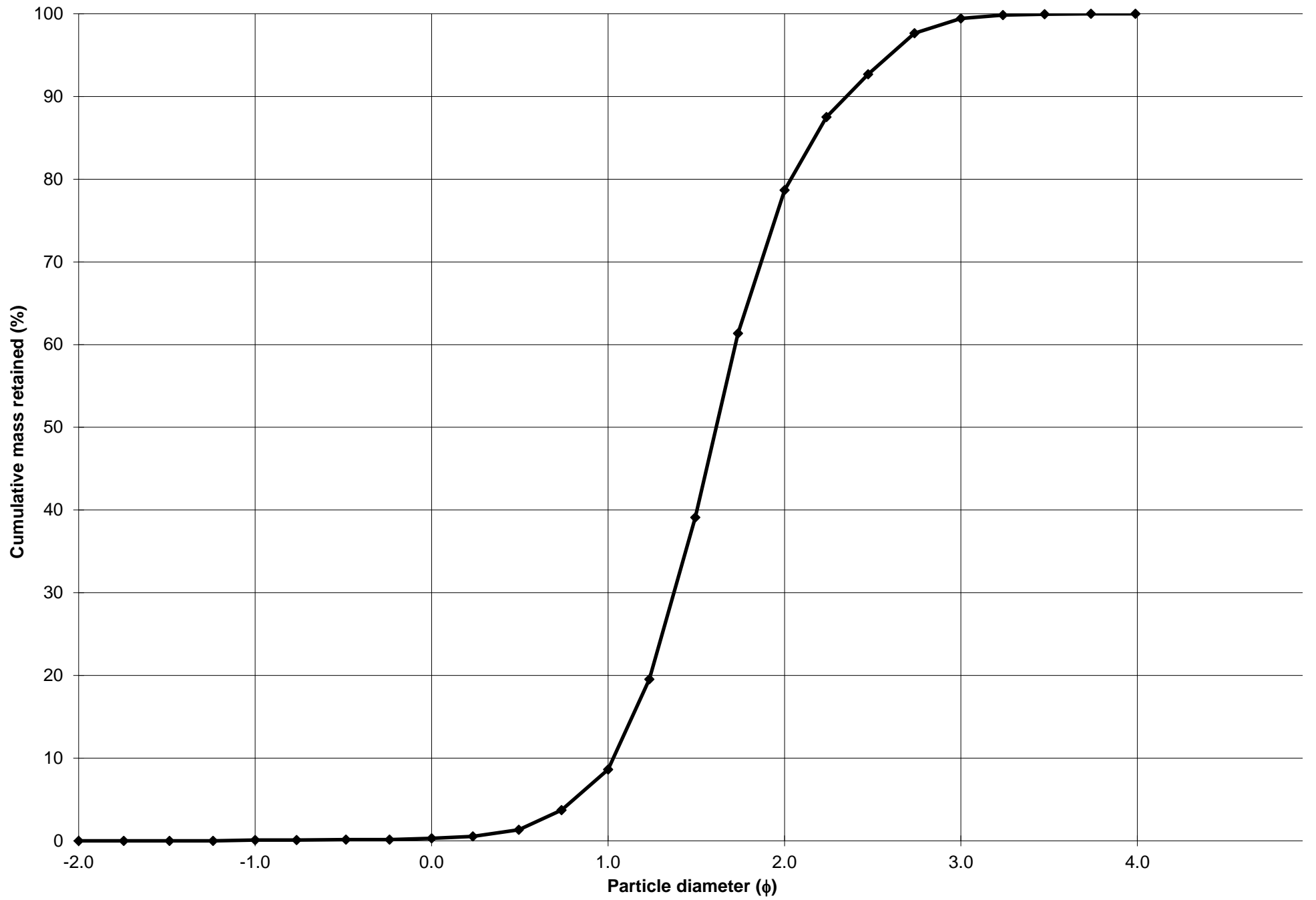
Cumulative Frequency Curve



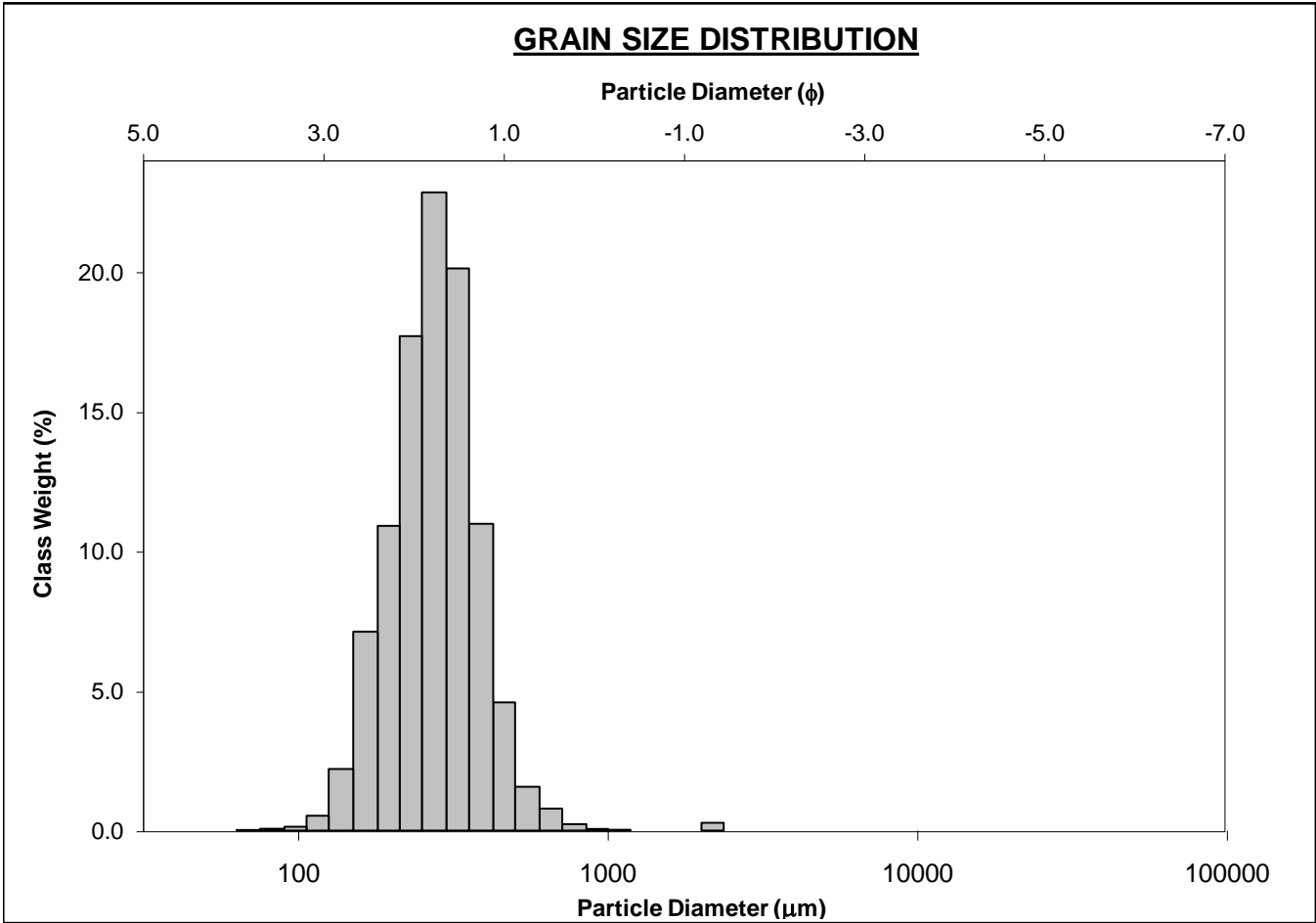
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-190cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.1%		COARSE SAND: 8.3%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 70.0%	
MODE 3:			MUD: 0.0%		FINE SAND: 20.8%	
D ₁₀ :	195.9	1.029			V FINE SAND: 0.6%	
MEDIAN or D ₅₀ :	326.9	1.613	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	489.9	2.351	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.500	2.285	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	294.0	1.322	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.555	1.487	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	144.2	0.637	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	344.7	321.2	1.639	321.2	1.638	Medium Sand
SORTING (σ):	139.1	1.439	0.525	1.432	0.518	Moderately Well Sorted
SKEWNESS (Sk):	3.377	-0.032	0.032	-0.088	0.088	Symmetrical
KURTOSIS (K):	35.96	4.101	4.101	1.153	1.153	Leptokurtic



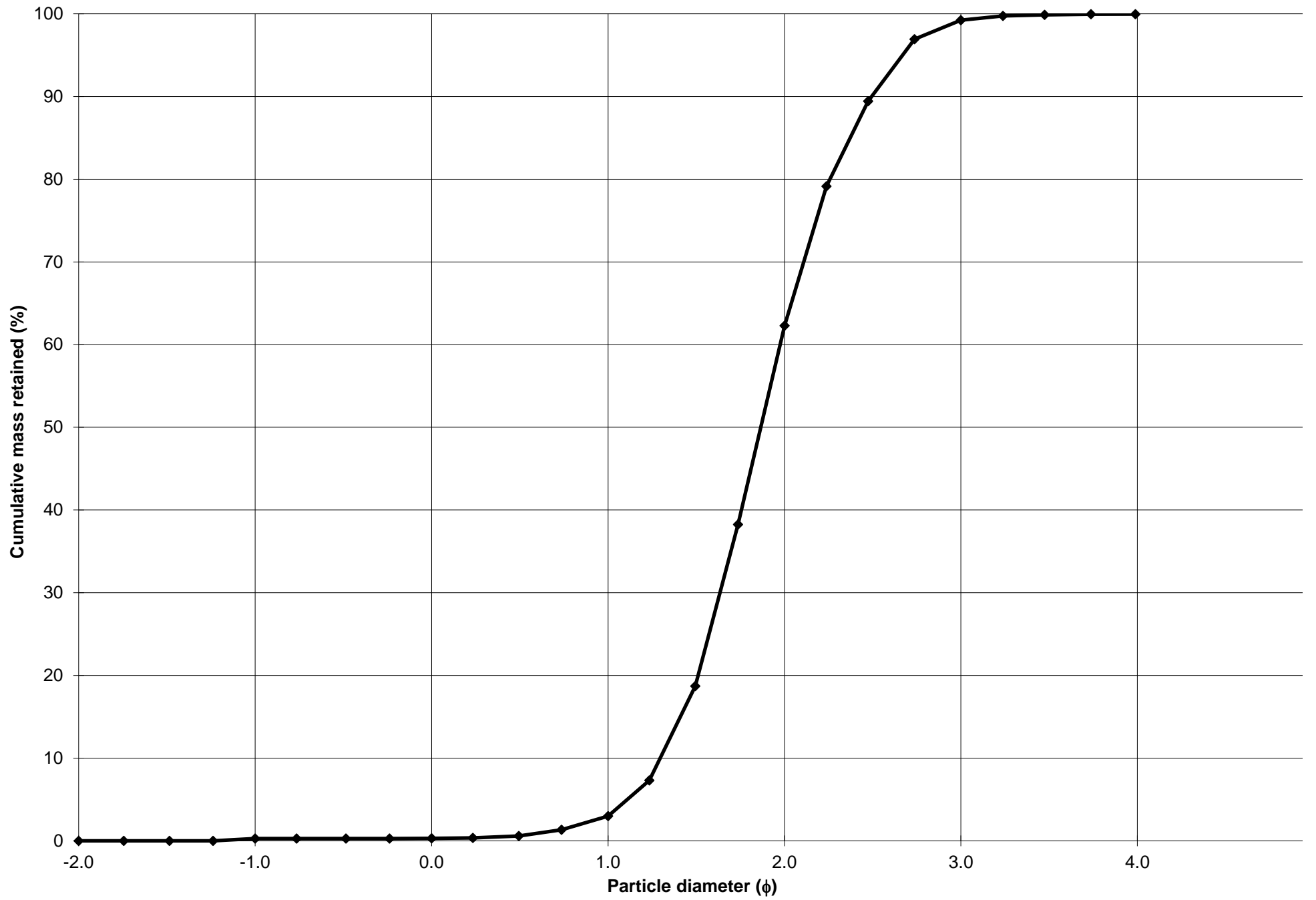
Cumulative Frequency Curve



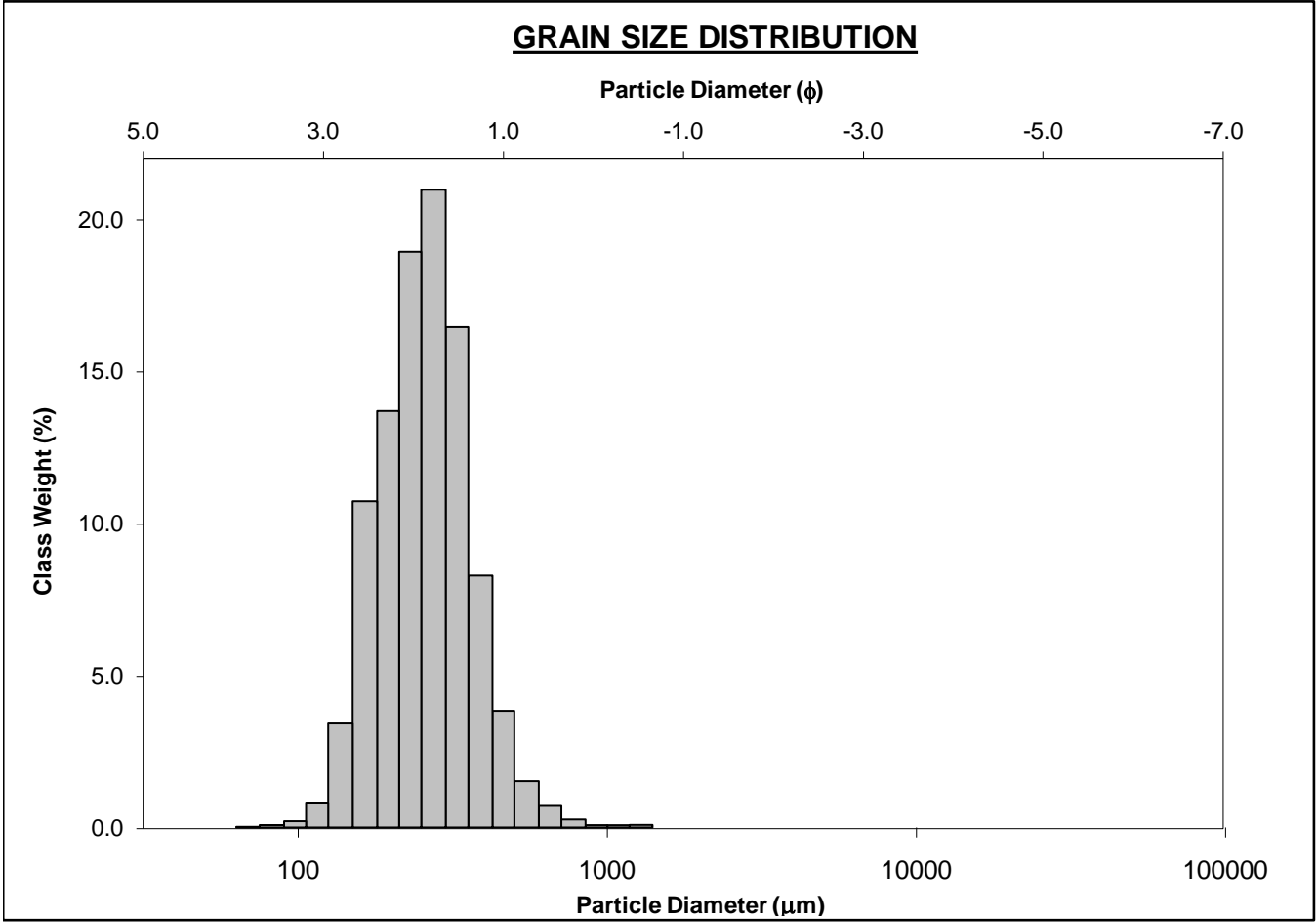
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-200cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.3%	COARSE SAND: 2.7%		
MODE 2:			SAND: 99.7%	MEDIUM SAND: 59.3%		
MODE 3:			MUD: 0.0%	FINE SAND: 36.9%		
D ₁₀ :	177.5	1.296		V FINE SAND: 0.7%		
MEDIAN or D ₅₀ :	274.4	1.865	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	407.3	2.494	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.294	1.925	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	229.8	1.198	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.523	1.386	V FINE GRAVEL: 0.3%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	115.5	0.607	V COARSE SAND: 0.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	292.5	273.0	1.873	271.2	1.882	Medium Sand
SORTING (σ):	137.2	1.414	0.499	1.381	0.466	Well Sorted
SKEWNESS (Sk):	7.353	0.102	-0.102	-0.043	0.043	Symmetrical
KURTOSIS (K):	97.13	10.50	10.50	1.053	1.053	Mesokurtic



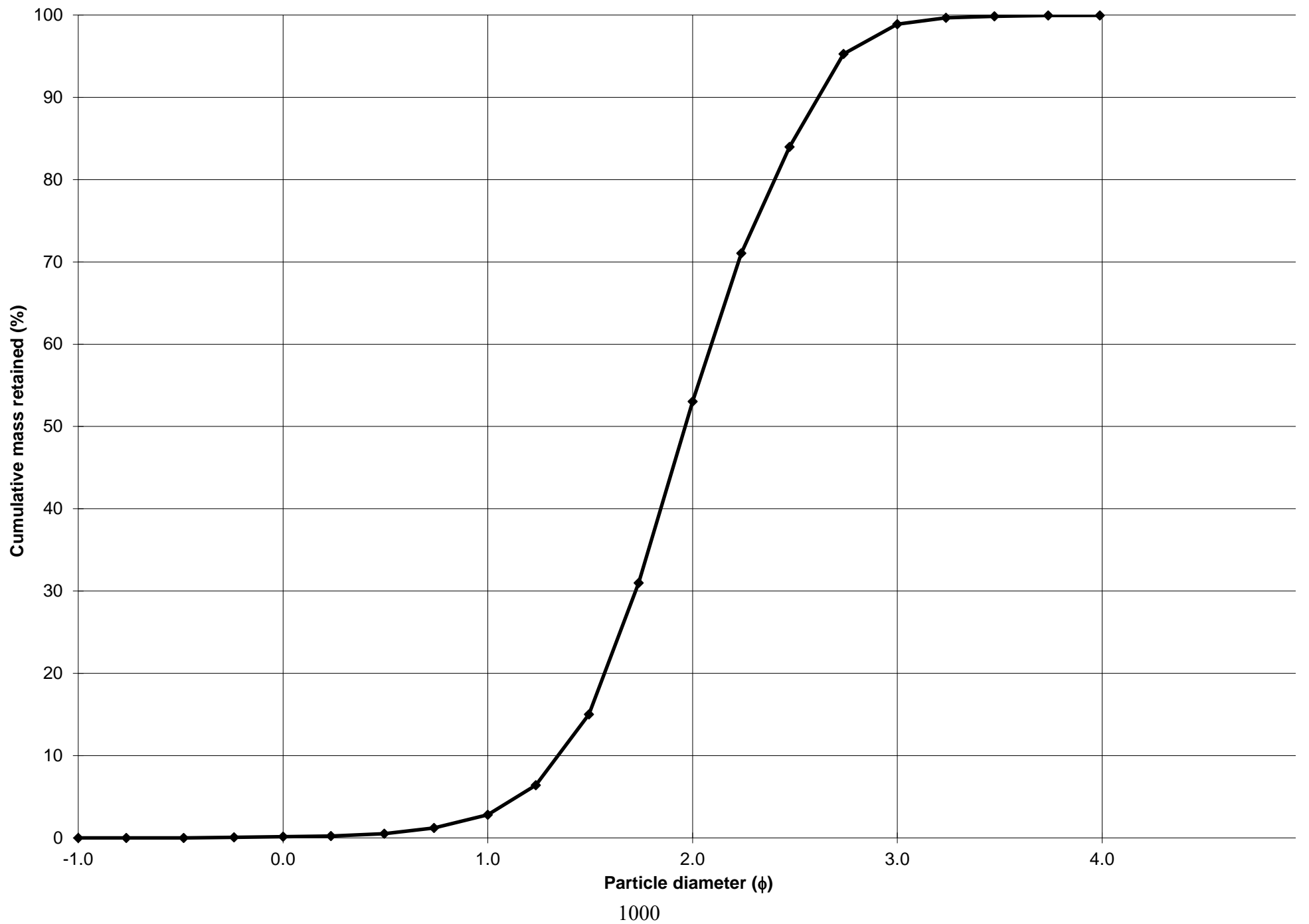
Cumulative Frequency Curve



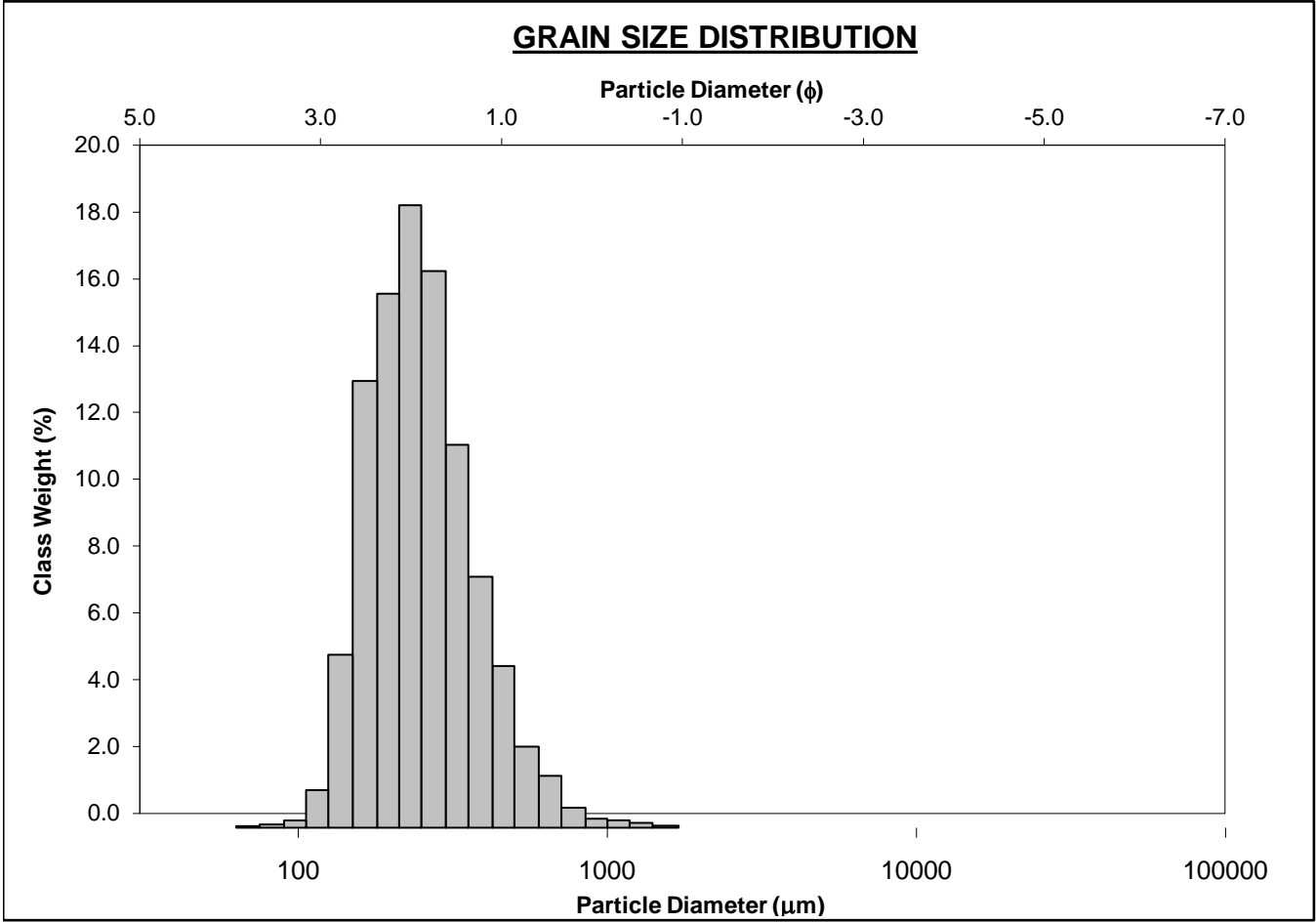
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-210cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 2.7%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 50.2%	
MODE 3:			MUD: 0.0%		FINE SAND: 45.8%	
D ₁₀ :	163.3	1.343			V FINE SAND: 1.1%	
MEDIAN or D ₅₀ :	256.4	1.964	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	394.2	2.614	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.414	1.947	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	230.9	1.272	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.585	1.404	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	117.9	0.664	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	273.0	255.6	1.968	253.1	1.982	Medium Sand
SORTING (σ):	104.6	1.419	0.505	1.397	0.482	Well Sorted
SKEWNESS (Sk):	2.282	-0.118	0.118	-0.012	0.012	Symmetrical
KURTOSIS (K):	15.65	7.217	7.217	0.980	0.980	Mesokurtic



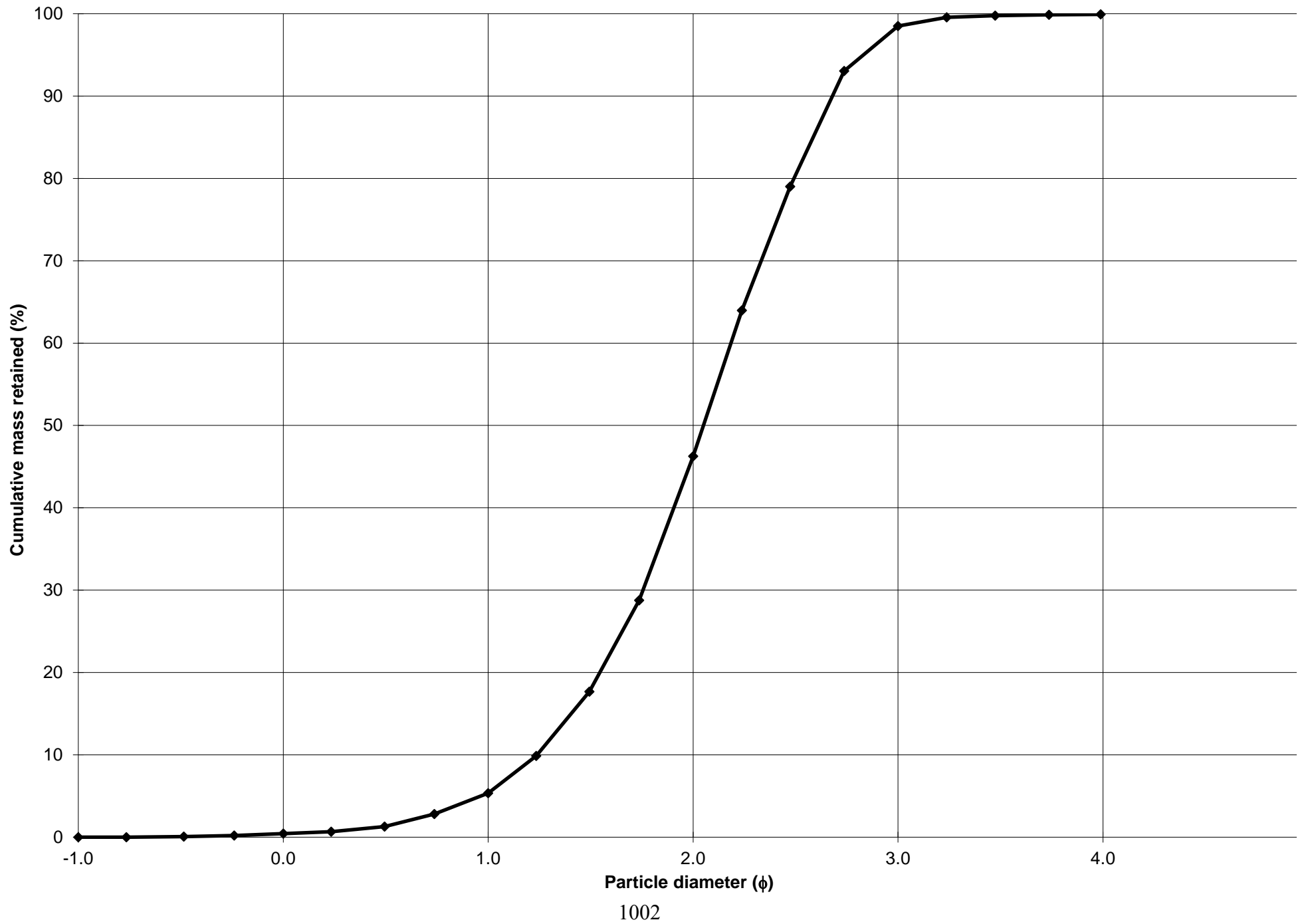
Cumulative Frequency Curve



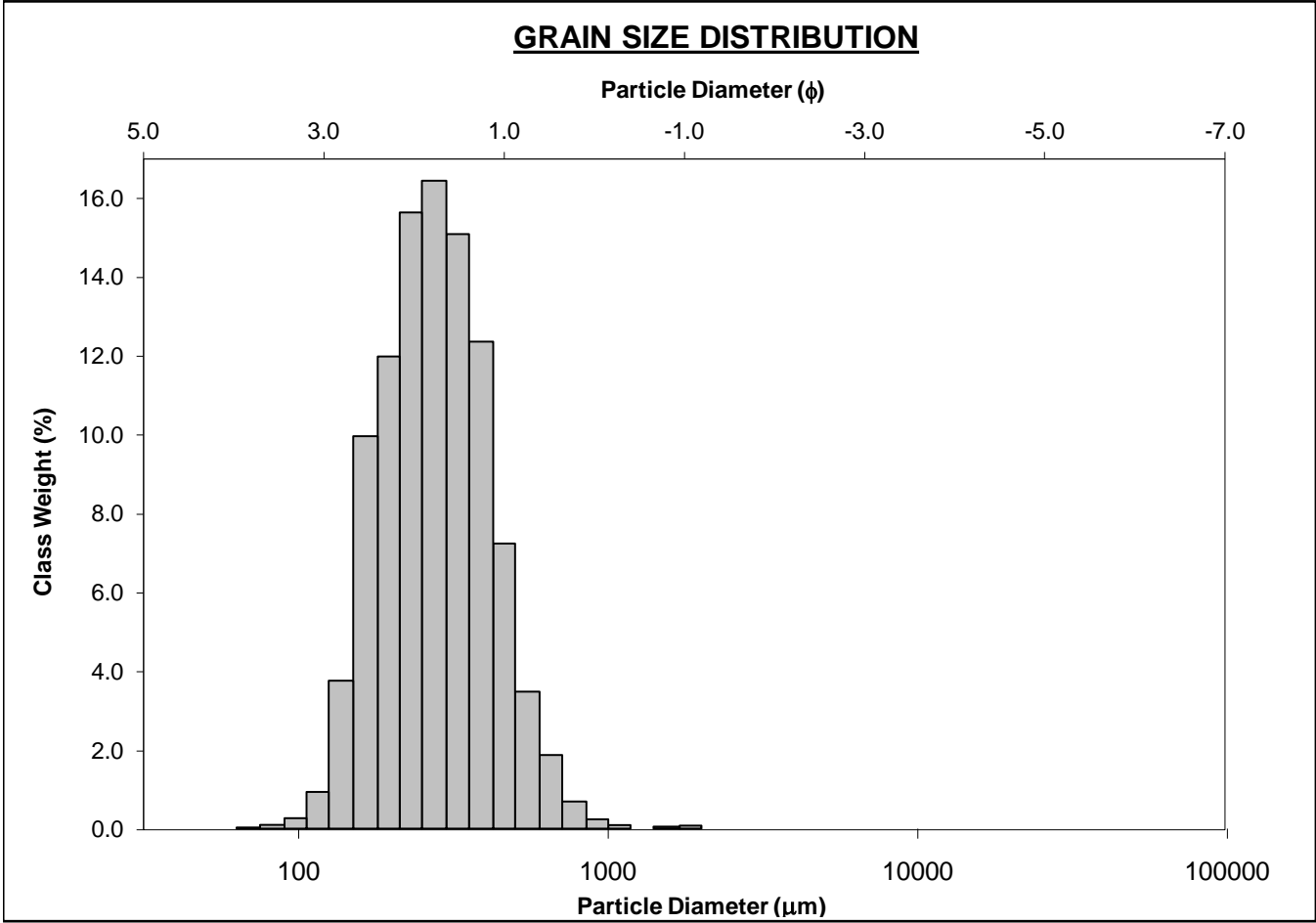
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-220cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 4.9%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 40.9%	
MODE 3:			MUD: 0.1%		FINE SAND: 52.2%	
D ₁₀ :	156.1	1.239			V FINE SAND: 1.4%	
MEDIAN or D ₅₀ :	241.5	2.050	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	423.8	2.680	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.715	2.164	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	267.7	1.441	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.689	1.457	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	129.6	0.756	V COARSE SAND: 0.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	274.7	250.2	1.999	246.8	2.019	Fine Sand
SORTING (σ):	134.6	1.508	0.593	1.479	0.565	Moderately Well Sorted
SKEWNESS (Sk):	2.812	0.123	-0.123	0.124	-0.124	Coarse Skewed
KURTOSIS (K):	17.39	7.556	7.556	1.011	1.011	Mesokurtic



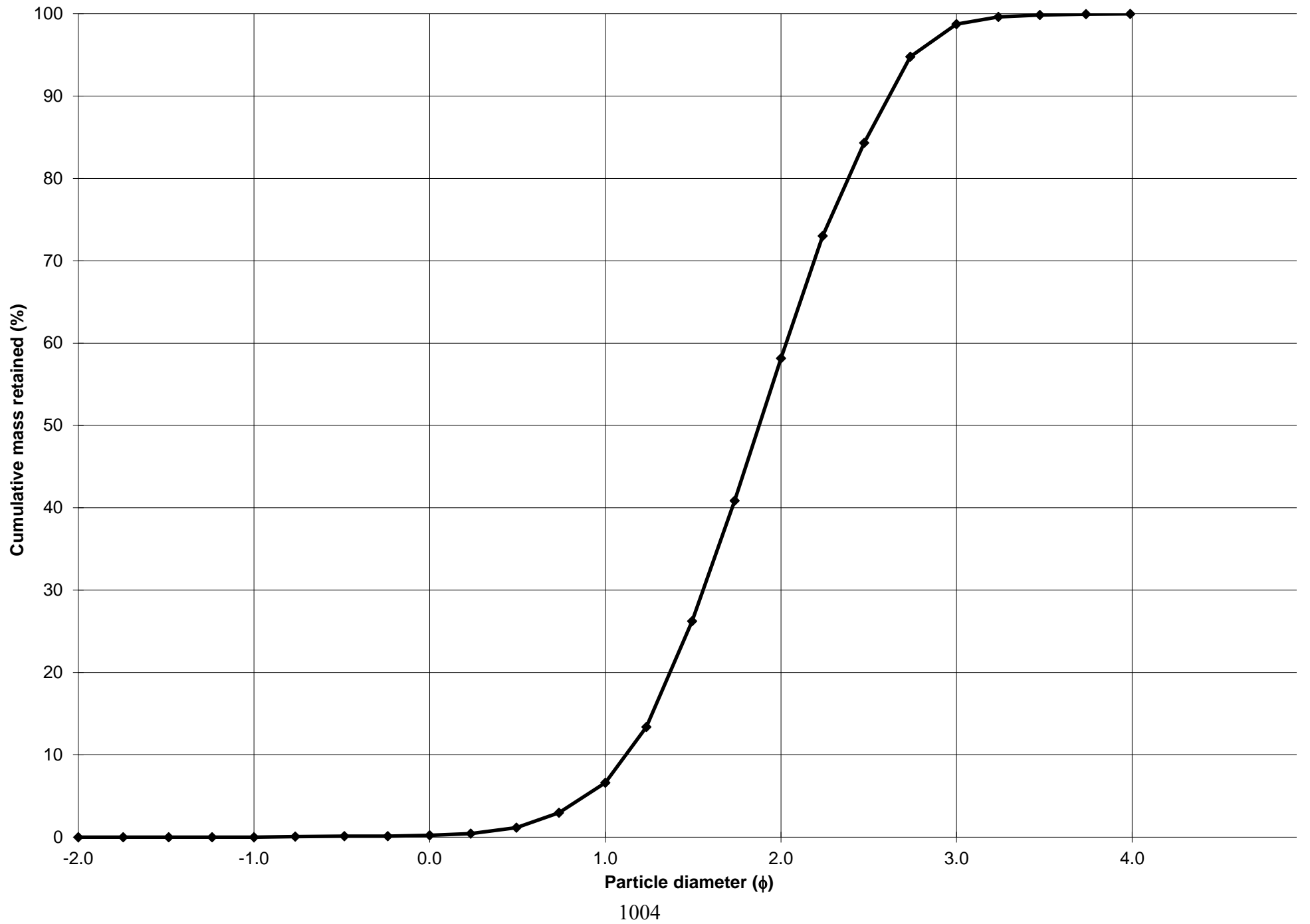
Cumulative Frequency Curve



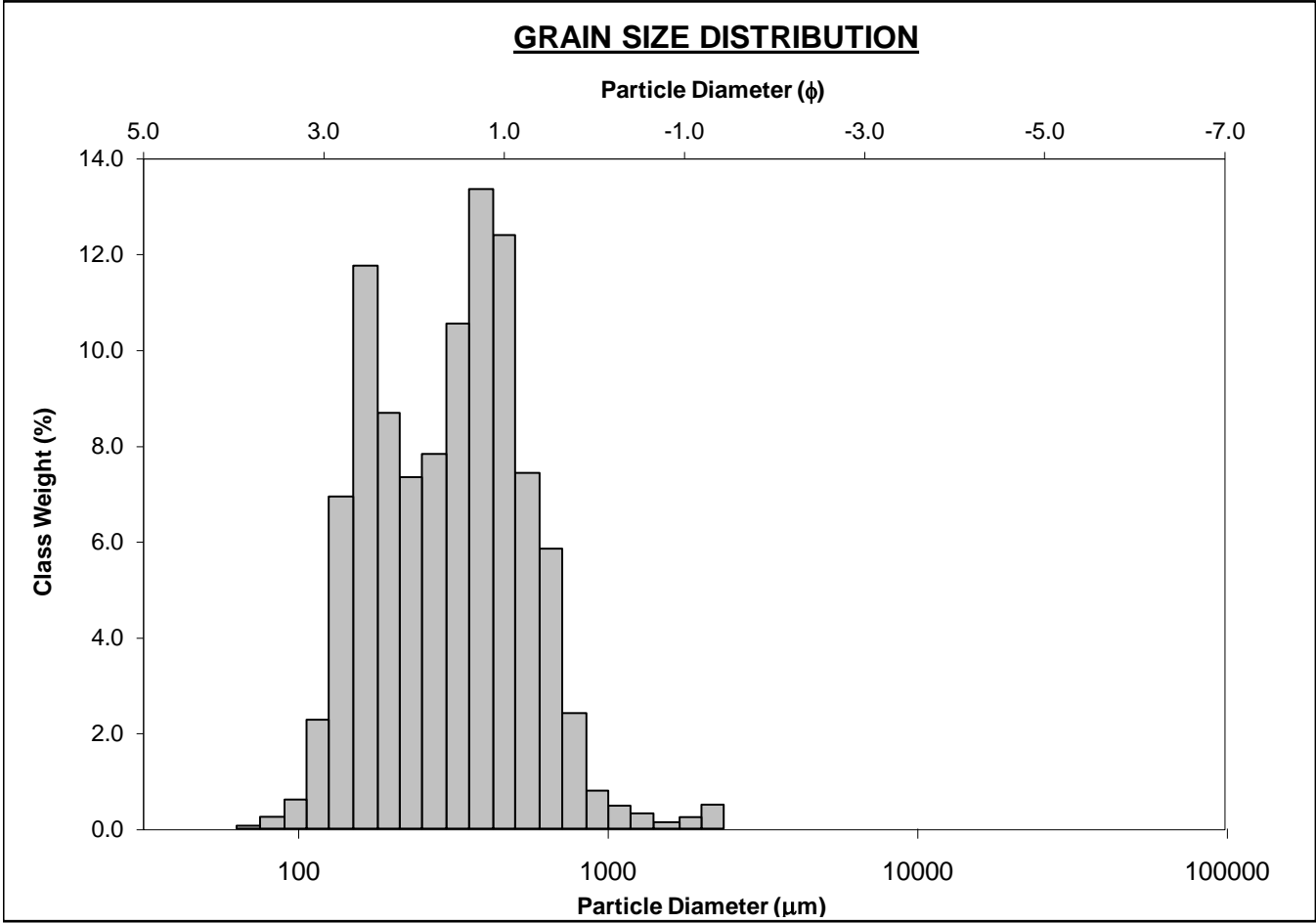
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-230cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 6.4%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 51.5%	
MODE 3:			MUD: 0.0%		FINE SAND: 40.6%	
D ₁₀ :	163.0	1.117			V FINE SAND: 1.3%	
MEDIAN or D ₅₀ :	272.4	1.876	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	461.0	2.617	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.828	2.343	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	298.0	1.500	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.753	1.551	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	155.1	0.810	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	300.1	274.8	1.864	272.3	1.877	Medium Sand
SORTING (σ):	136.5	1.498	0.583	1.493	0.578	Moderately Well Sorted
SKEWNESS (Sk):	2.593	0.163	-0.163	0.030	-0.030	Symmetrical
KURTOSIS (K):	20.60	4.043	4.043	0.945	0.945	Mesokurtic



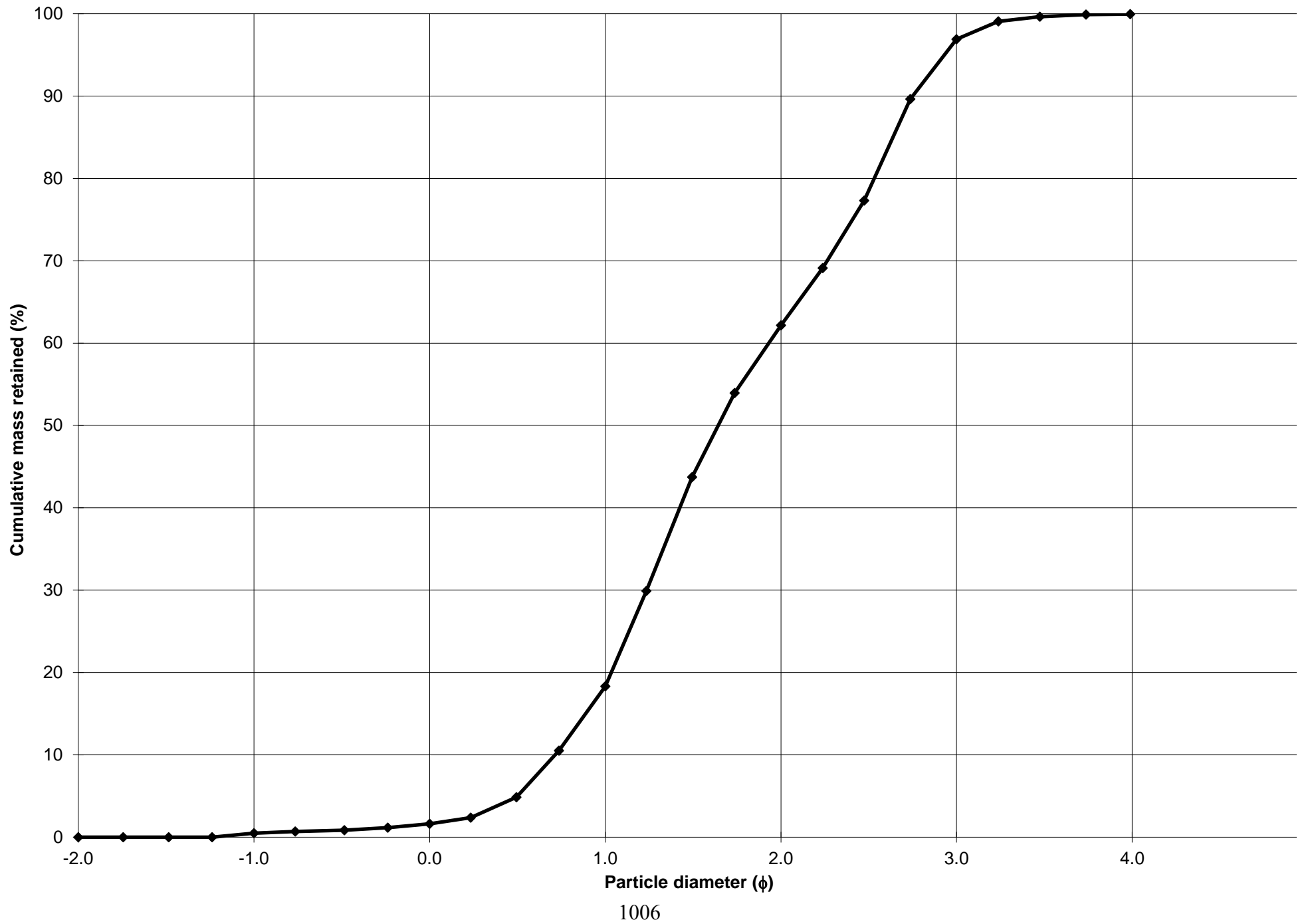
Cumulative Frequency Curve



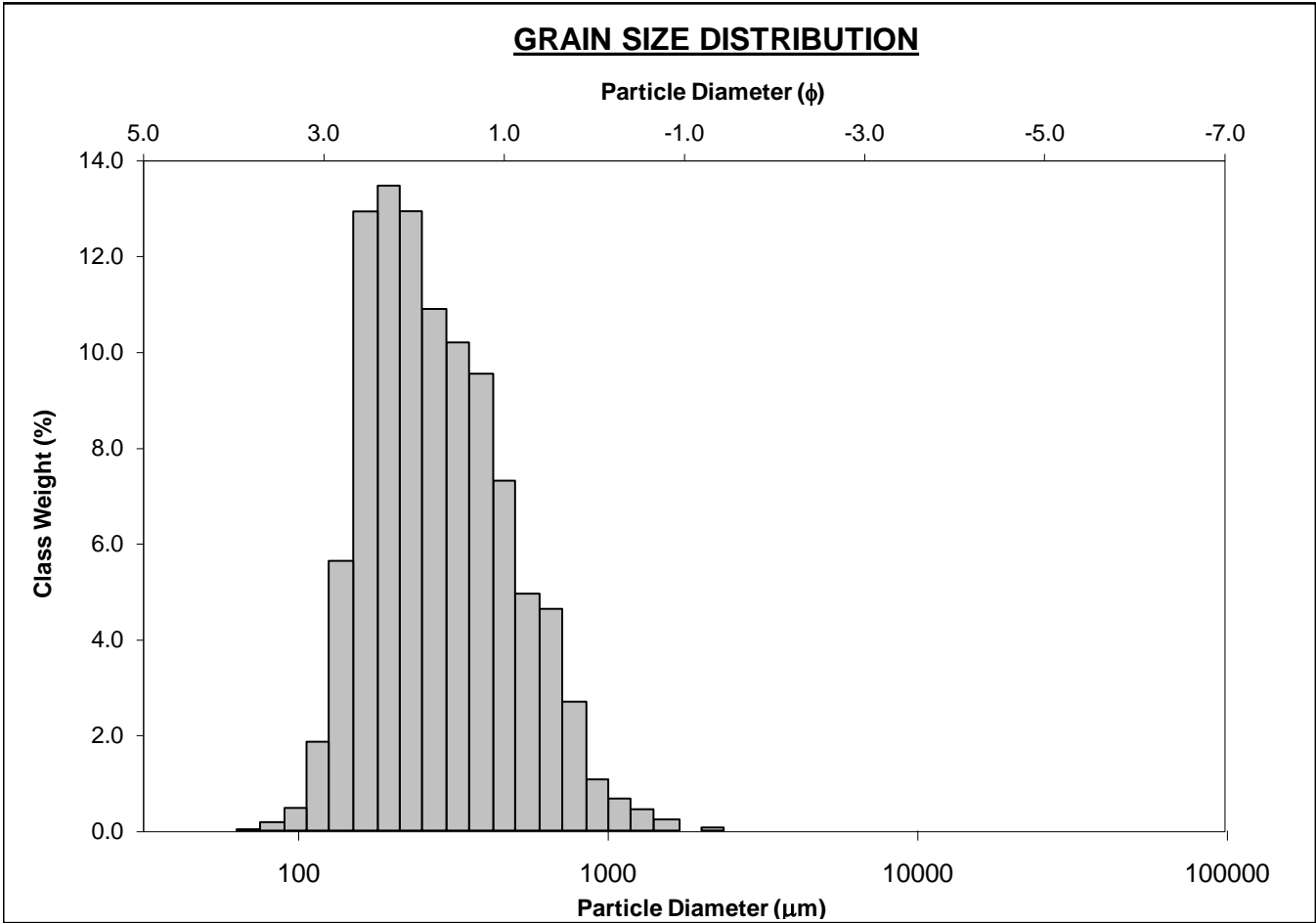
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-240cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.5%		COARSE SAND: 16.7%	
MODE 2:	165.0	2.605	SAND: 99.5%		MEDIUM SAND: 43.8%	
MODE 3:			MUD: 0.0%		FINE SAND: 34.7%	
D ₁₀ :	148.6	0.715			V FINE SAND: 3.0%	
MEDIAN or D ₅₀ :	320.2	1.643	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	609.4	2.750	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.101	3.849	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	460.8	2.036	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.416	2.121	V FINE GRAVEL: 0.5%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	266.8	1.272	V COARSE SAND: 1.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	361.5	305.5	1.711	302.0	1.727	Medium Sand
SORTING (σ):	241.3	1.759	0.815	1.732	0.792	Moderately Sorted
SKEWNESS (Sk):	3.220	0.104	-0.104	-0.104	0.104	Fine Skewed
KURTOSIS (K):	21.35	3.631	3.631	0.783	0.783	Platykurtic



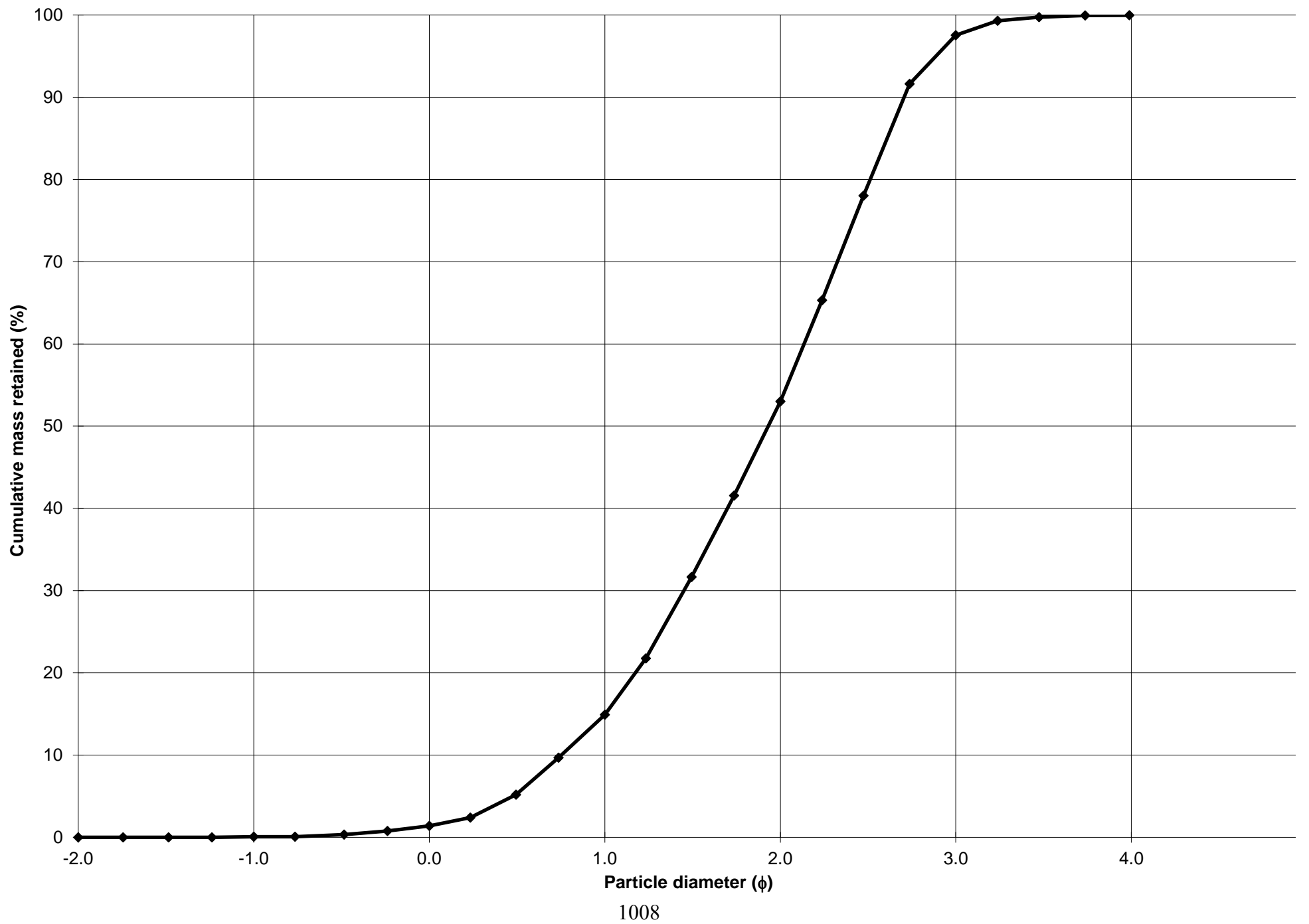
Cumulative Frequency Curve



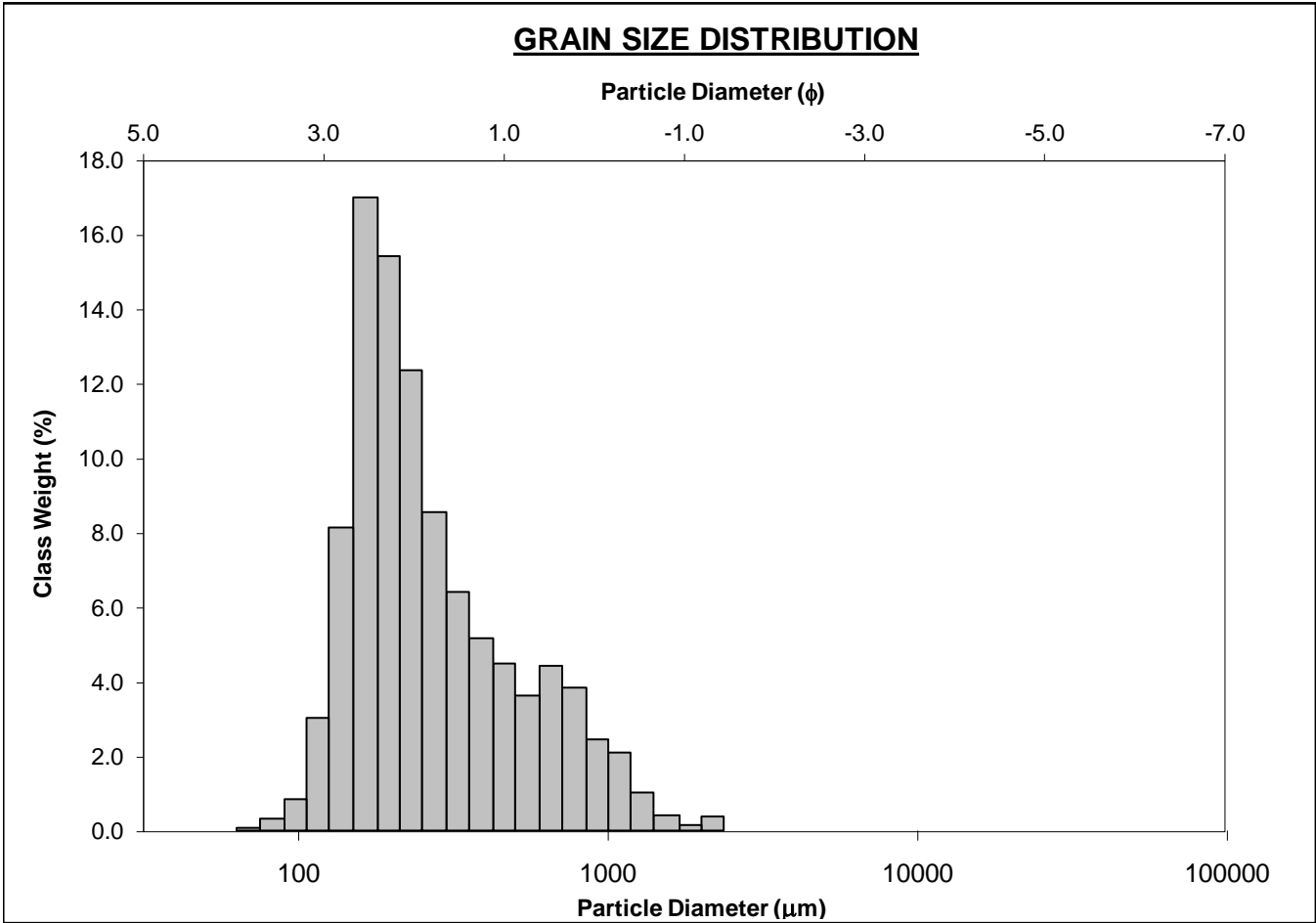
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-250cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.1%		COARSE SAND: 13.5%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 38.1%	
MODE 3:			MUD: 0.0%		FINE SAND: 44.5%	
D ₁₀ :	153.3	0.753			V FINE SAND: 2.4%	
MEDIAN or D ₅₀ :	262.3	1.931	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	593.6	2.706	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.872	3.596	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	440.3	1.953	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.141	1.832	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	213.5	1.098	V COARSE SAND: 1.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	328.0	281.3	1.830	276.9	1.853	Medium Sand
SORTING (σ):	206.7	1.694	0.760	1.686	0.753	Moderately Sorted
SKEWNESS (Sk):	2.355	0.418	-0.418	0.179	-0.179	Coarse Skewed
KURTOSIS (K):	12.28	3.540	3.540	0.900	0.900	Platykurtic



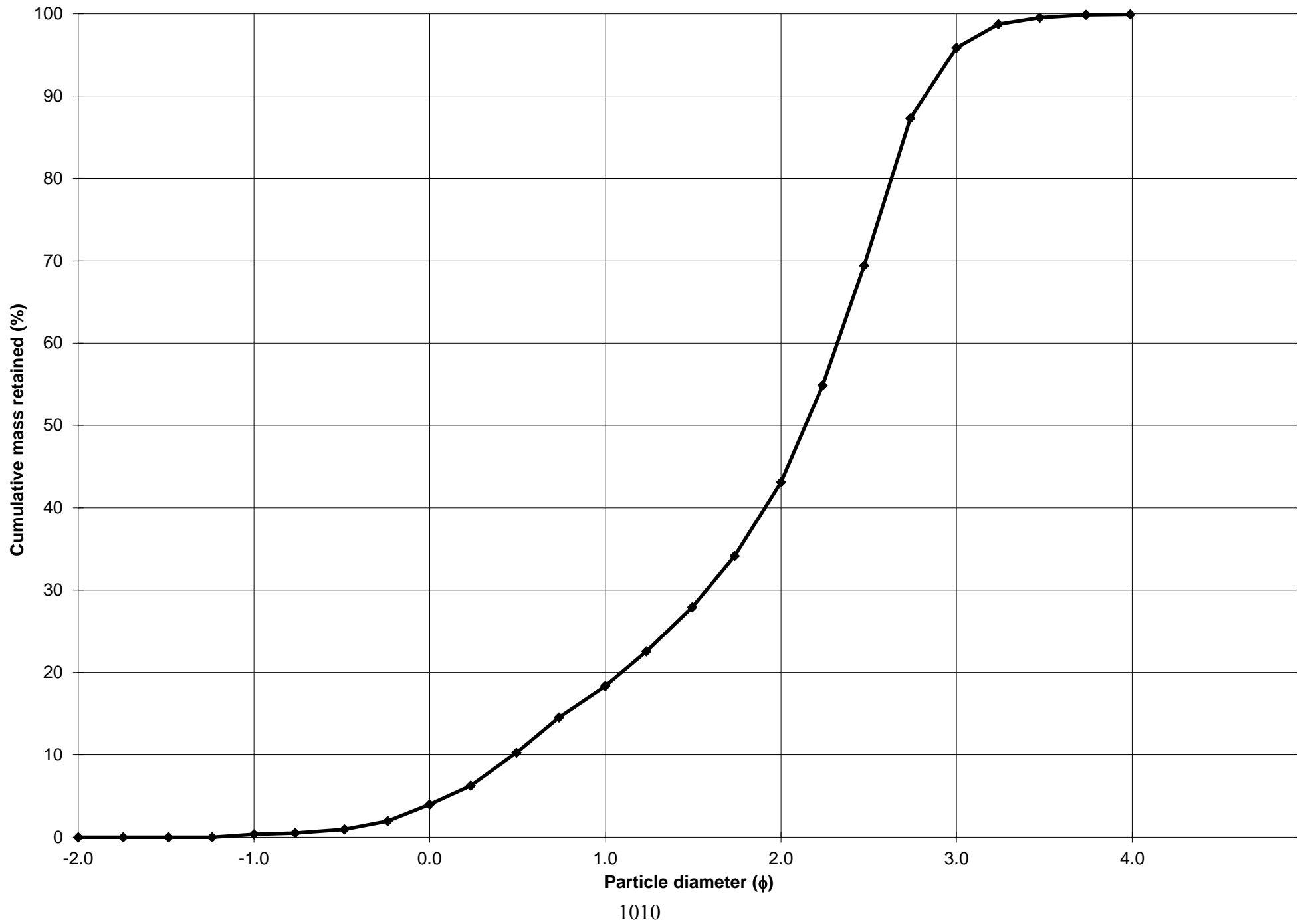
Cumulative Frequency Curve



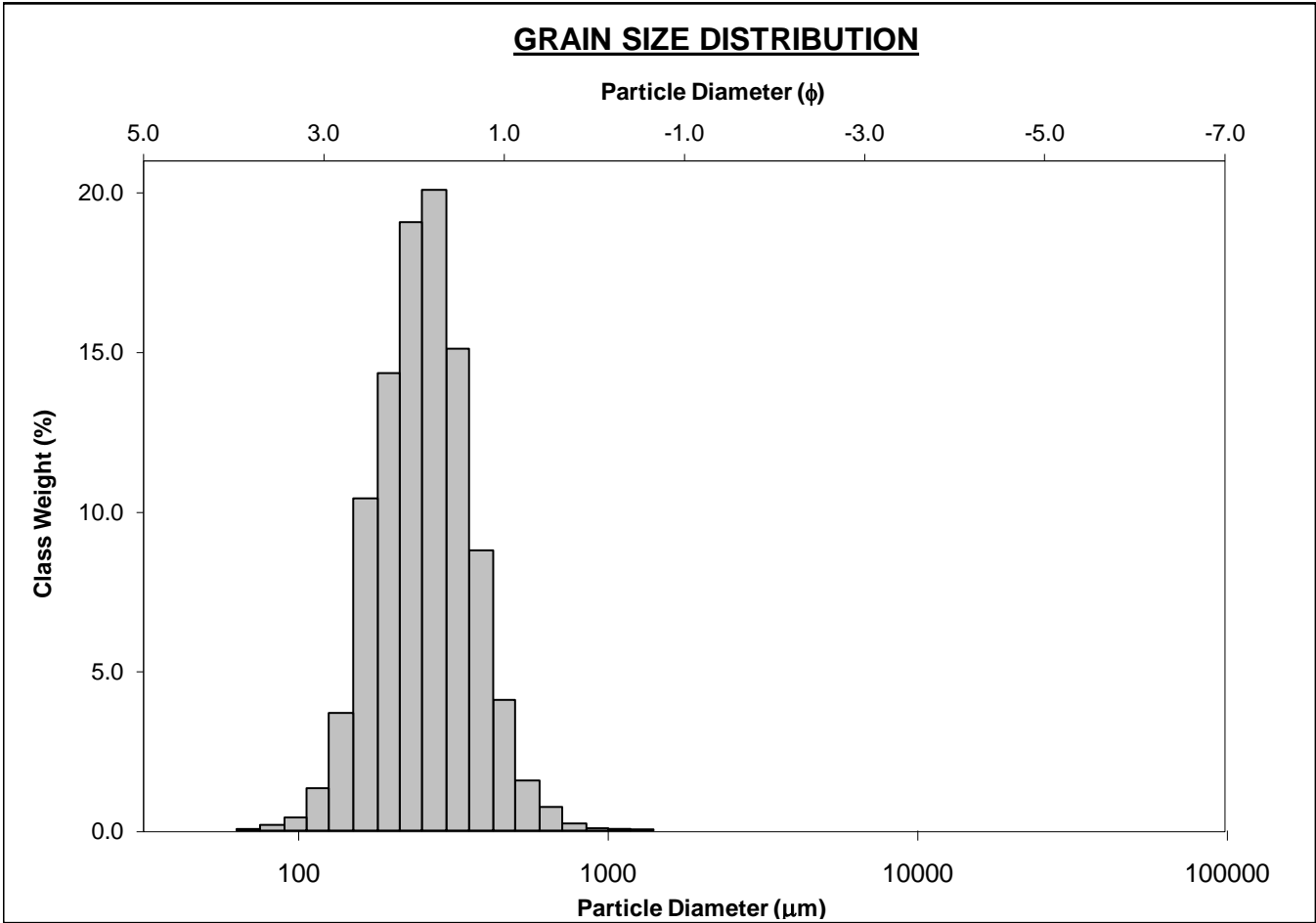
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-260cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.4%		COARSE SAND: 14.4%	
MODE 2:	655.0	0.616	SAND: 99.6%		MEDIUM SAND: 24.8%	
MODE 3:			MUD: 0.1%		FINE SAND: 52.7%	
D ₁₀ :	141.6	0.478			V FINE SAND: 4.1%	
MEDIAN or D ₅₀ :	227.0	2.139	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	717.9	2.820	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	5.069	5.897	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	576.2	2.342	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.302	1.889	V FINE GRAVEL: 0.4%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	221.4	1.203	V COARSE SAND: 3.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	340.5	269.8	1.890	270.1	1.889	Medium Sand
SORTING (σ):	284.2	1.877	0.908	1.862	0.897	Moderately Sorted
SKEWNESS (Sk):	2.584	0.742	-0.742	0.412	-0.412	Very Coarse Skewed
KURTOSIS (K):	11.96	3.651	3.651	0.977	0.977	Mesokurtic



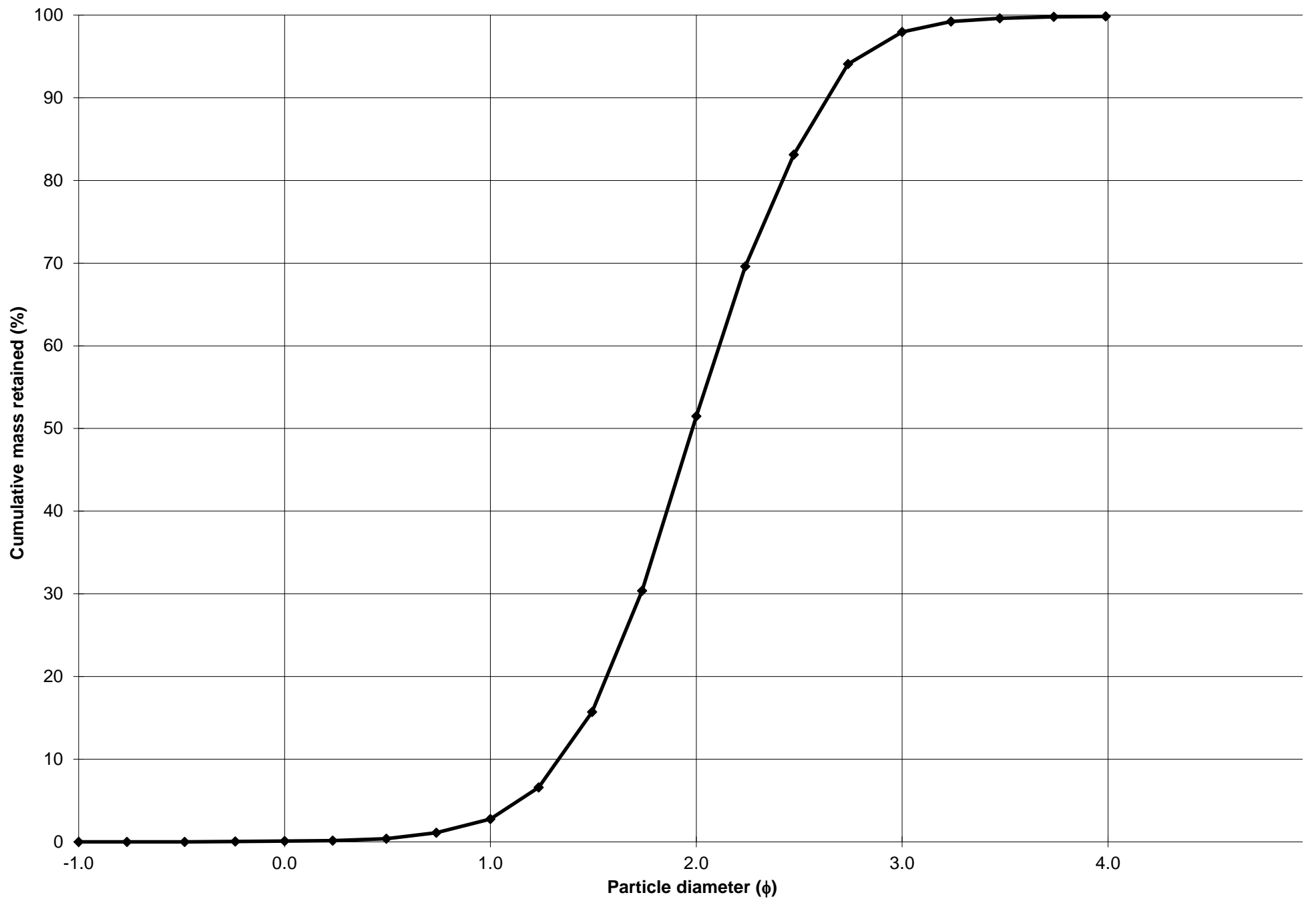
Cumulative Frequency Curve



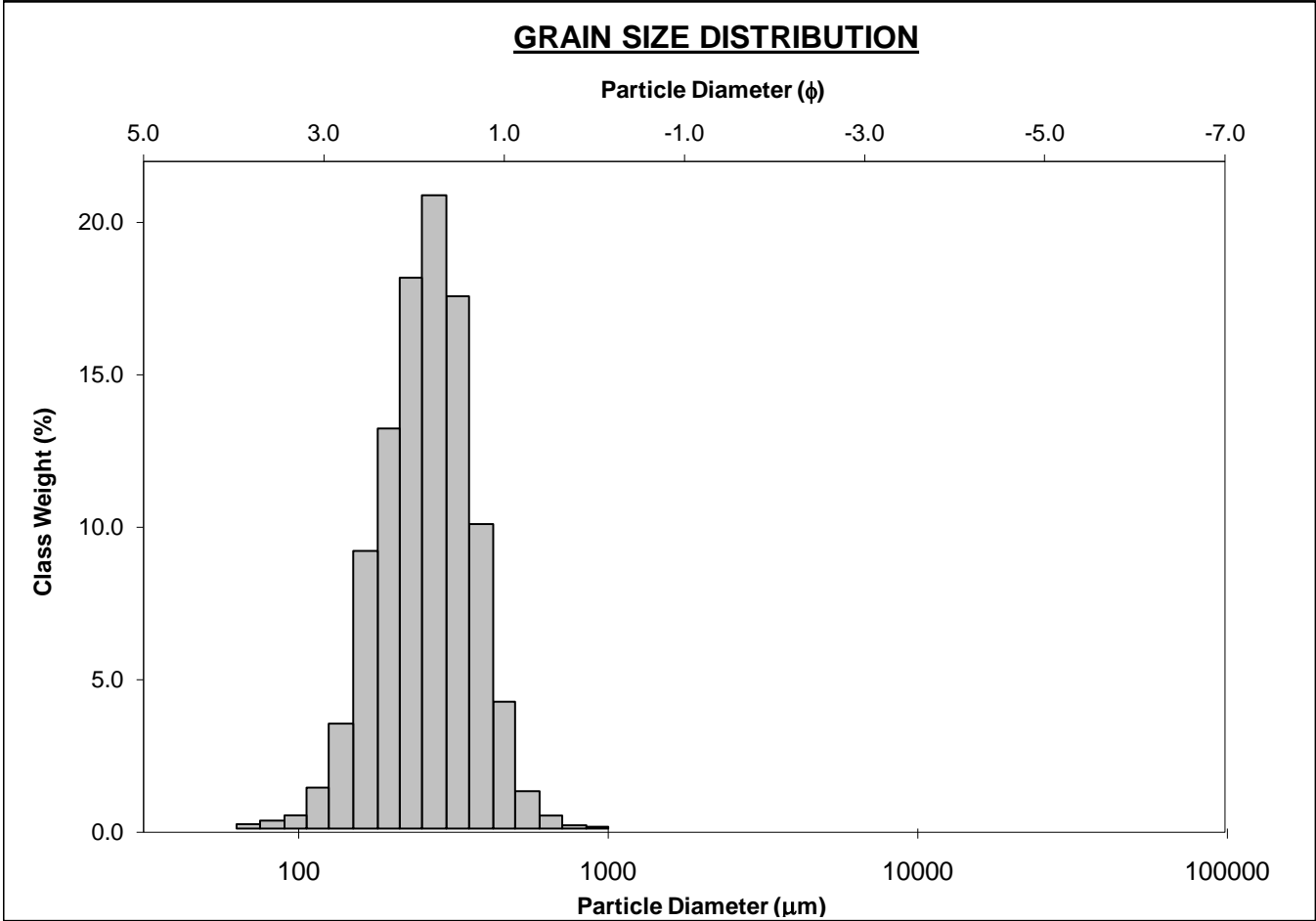
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-270cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 2.7%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 48.7%	
MODE 3:			MUD: 0.2%		FINE SAND: 46.5%	
D ₁₀ :	160.5	1.331			V FINE SAND: 1.9%	
MEDIAN or D ₅₀ :	253.2	1.982	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	397.4	2.639	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.475	1.982	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	236.8	1.308	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.607	1.415	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	120.5	0.684	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	270.5	251.8	1.989	251.4	1.992	Medium Sand
SORTING (σ):	103.5	1.461	0.547	1.415	0.501	Moderately Well Sorted
SKEWNESS (Sk):	1.809	-1.103	1.103	-0.007	0.007	Symmetrical
KURTOSIS (K):	11.28	14.00	14.00	0.996	0.996	Mesokurtic



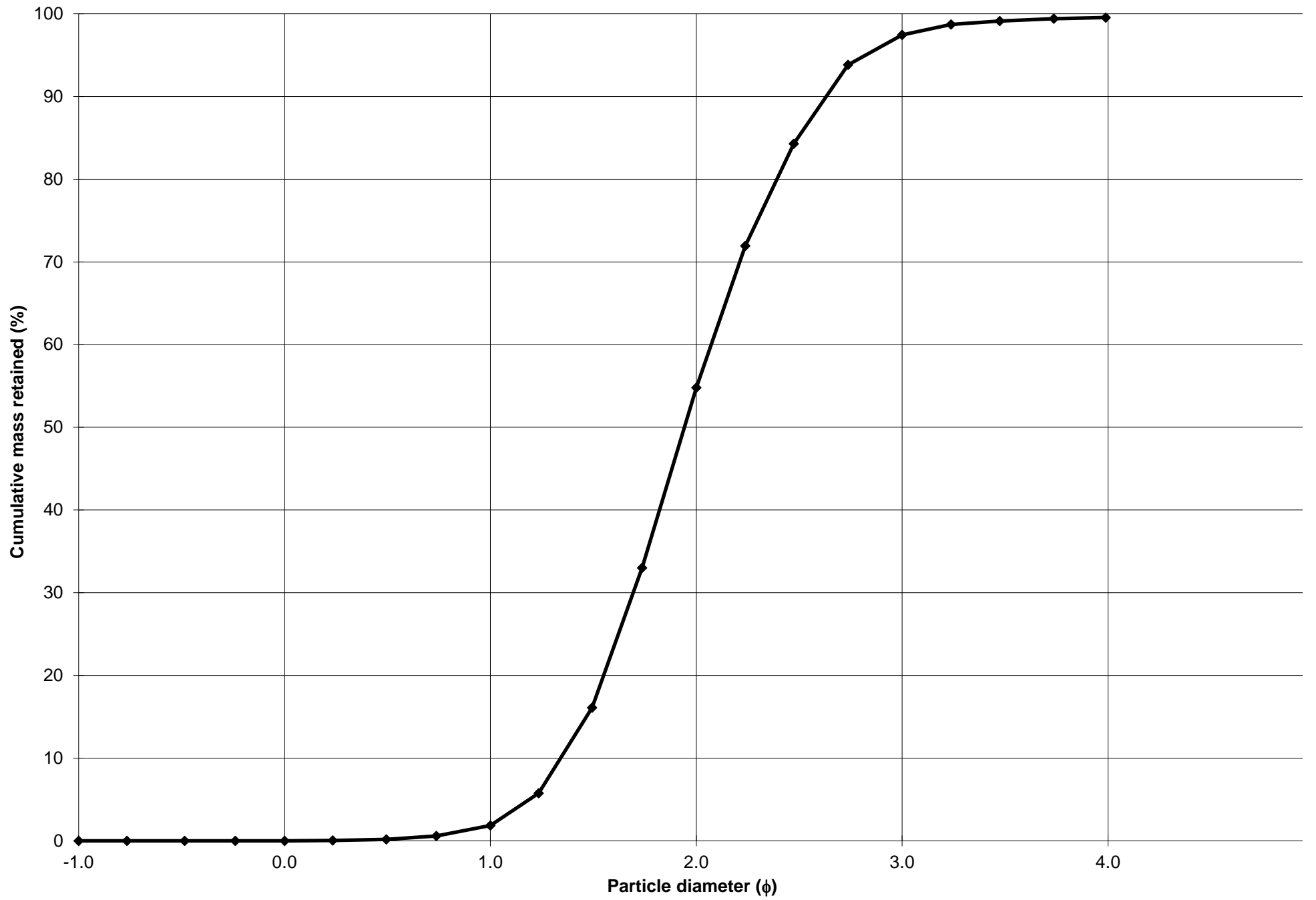
Cumulative Frequency Curve



SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-15-276cm			ANALYST & DATE: Chris, 8/13/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.9%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 52.9%	
MODE 3:			MUD: 0.5%		FINE SAND: 42.7%	
D ₁₀ :	161.4	1.341			V FINE SAND: 2.1%	
MEDIAN or D ₅₀ :	260.2	1.942	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	394.7	2.631	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.446	1.962	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	233.4	1.290	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.596	1.416	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	121.3	0.675	V COARSE SAND: 0.0%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	271.6	252.4	1.986	255.7	1.967	Medium Sand
SORTING (σ):	95.42	1.515	0.599	1.406	0.492	Well Sorted
SKEWNESS (Sk):	0.983	-2.683	2.683	-0.078	0.078	Symmetrical
KURTOSIS (K):	5.758	23.68	23.68	0.992	0.992	Mesokurtic



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 12 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

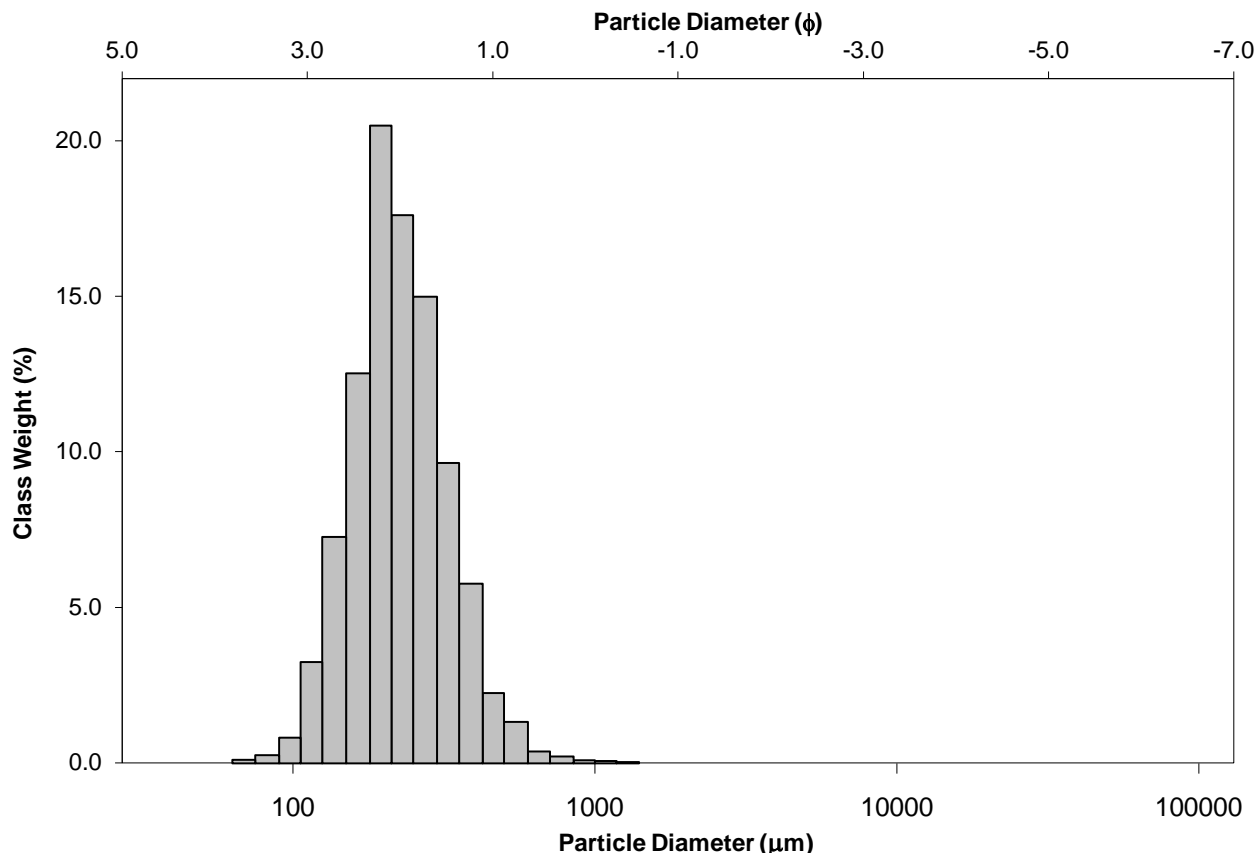
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

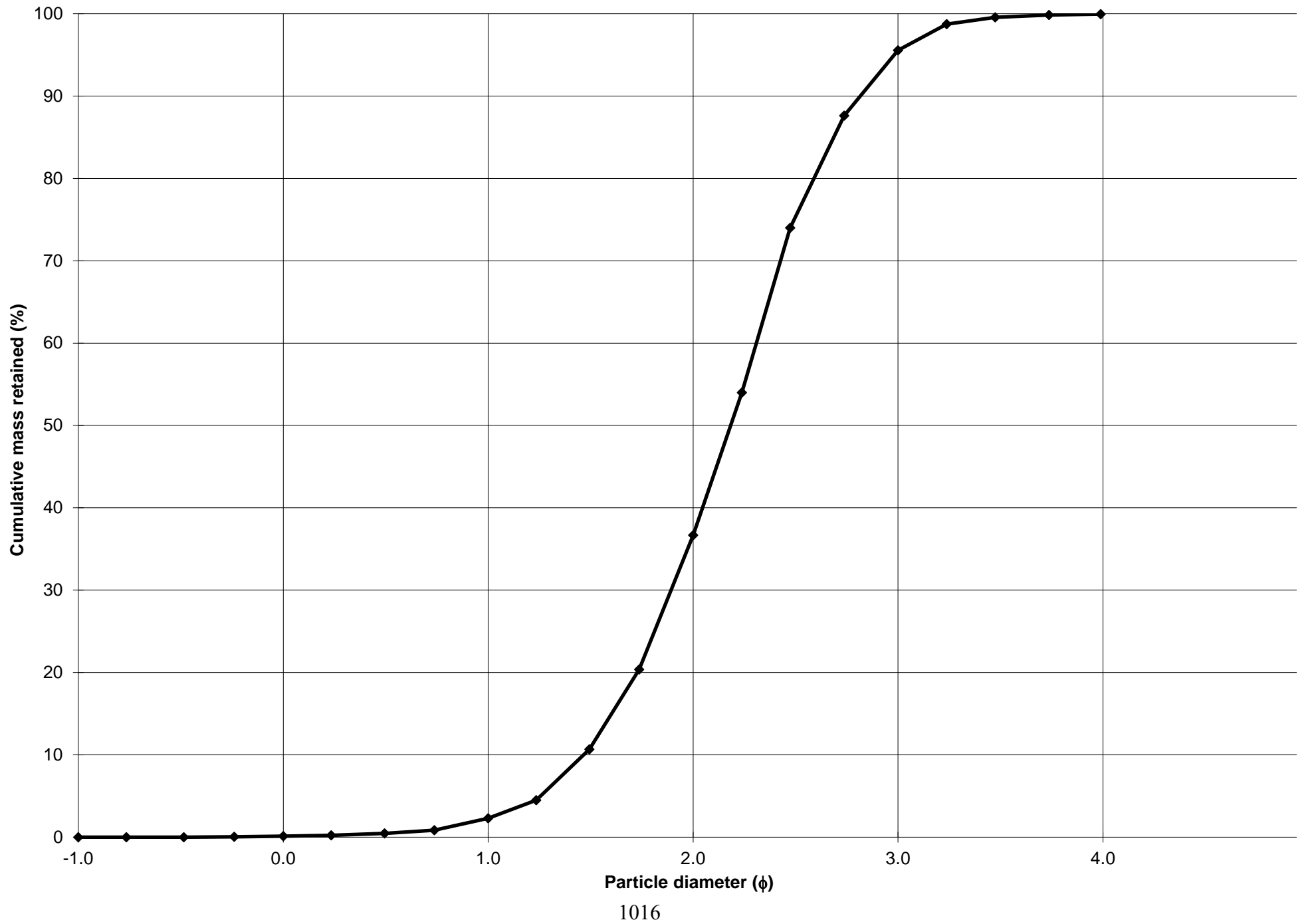
SEDIMENT NAME: Moderately Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 2.2%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 34.4%		
MODE 3:			MUD: 0.0%	FINE SAND: 58.9%		
D_{10} :	142.0	1.466		V FINE SAND: 4.4%		
MEDIAN or D_{50} :	220.2	2.183	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	362.0	2.816	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.549	1.921	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	220.0	1.350	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.604	1.376	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	107.3	0.682	V COARSE SAND: 0.1%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	242.9	225.1	2.151	223.9	2.159	Fine Sand
SORTING (σ):	102.1	1.455	0.541	1.435	0.521	Moderately Well Sorted
SKEWNESS (Sk):	2.372	0.027	-0.027	0.071	-0.071	Symmetrical
KURTOSIS (K):	15.41	6.191	6.191	1.038	1.038	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 25 cm**

ANALYST & DATE: Stephen Fabain, 1/25/15

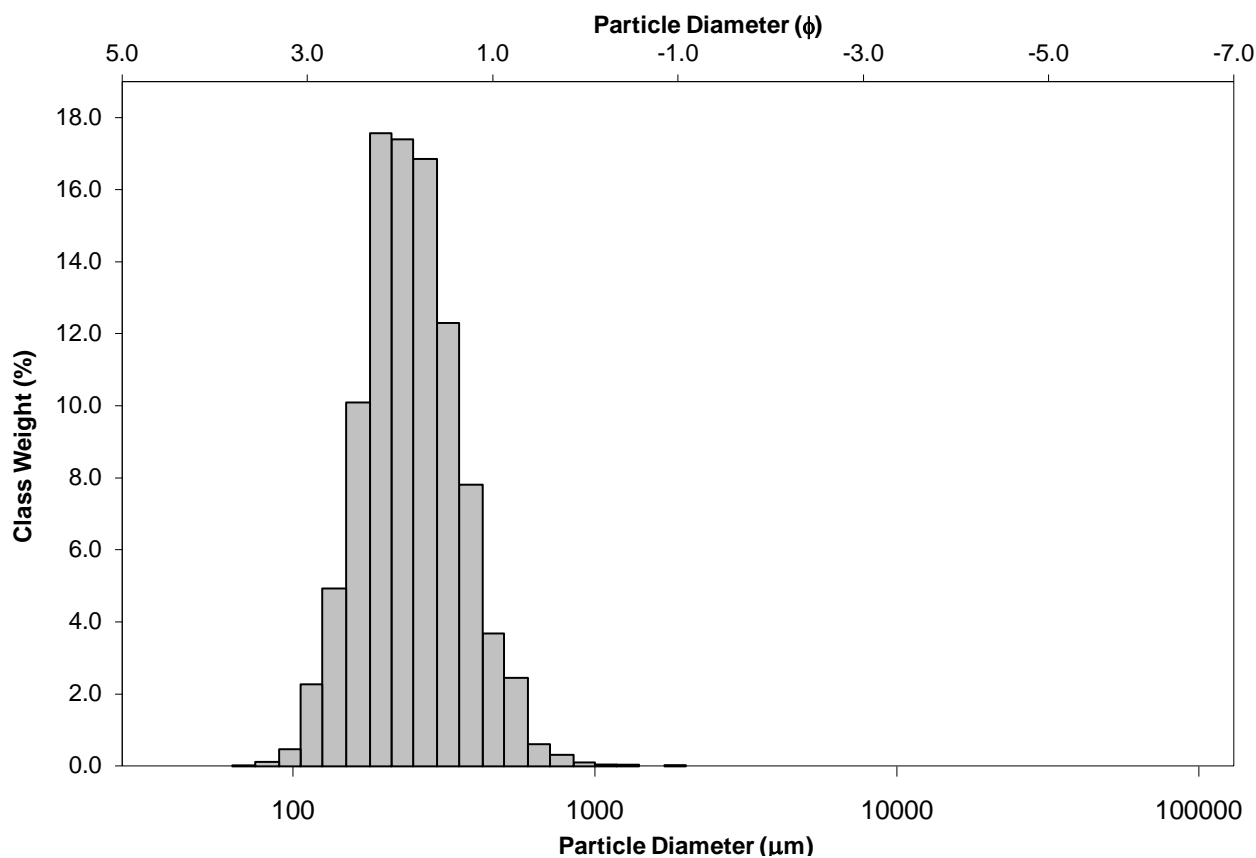
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

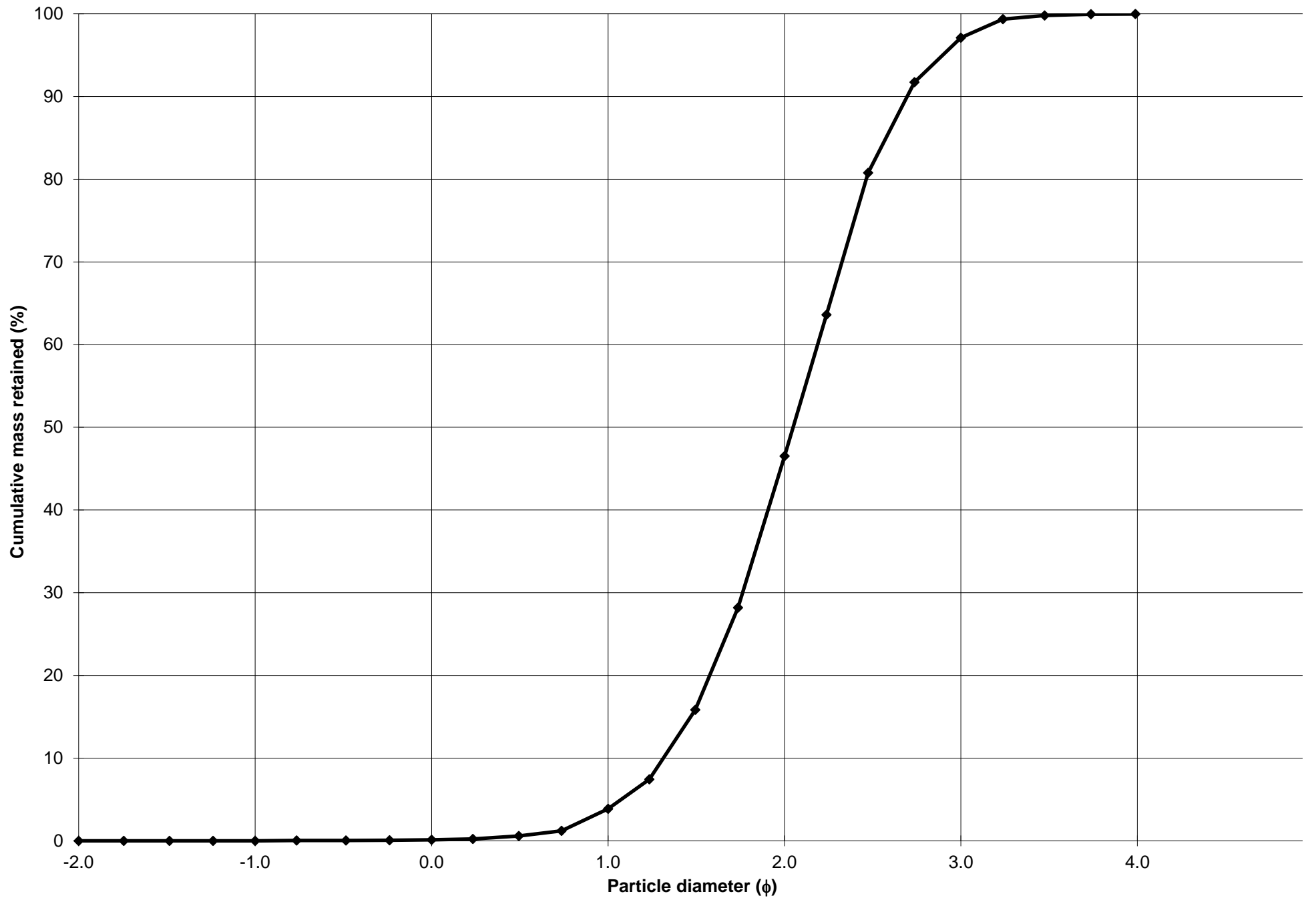
SEDIMENT NAME: Moderately Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 3.7%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 42.6%		
MODE 3:			MUD: 0.0%	FINE SAND: 50.6%		
D_{10} :	154.4	1.314		V FINE SAND: 2.9%		
MEDIAN or D_{50} :	241.7	2.049	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	402.3	2.695	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.606	2.052	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	247.9	1.382	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.648	1.430	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	123.1	0.720	V COARSE SAND: 0.1%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	266.1	245.9	2.024	244.4	2.033	Fine Sand
SORTING (σ):	114.2	1.464	0.550	1.454	0.540	Moderately Well Sorted
SKEWNESS (Sk):	2.619	0.103	-0.103	0.057	-0.057	Symmetrical
KURTOSIS (K):	21.78	5.294	5.294	1.037	1.037	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 35 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

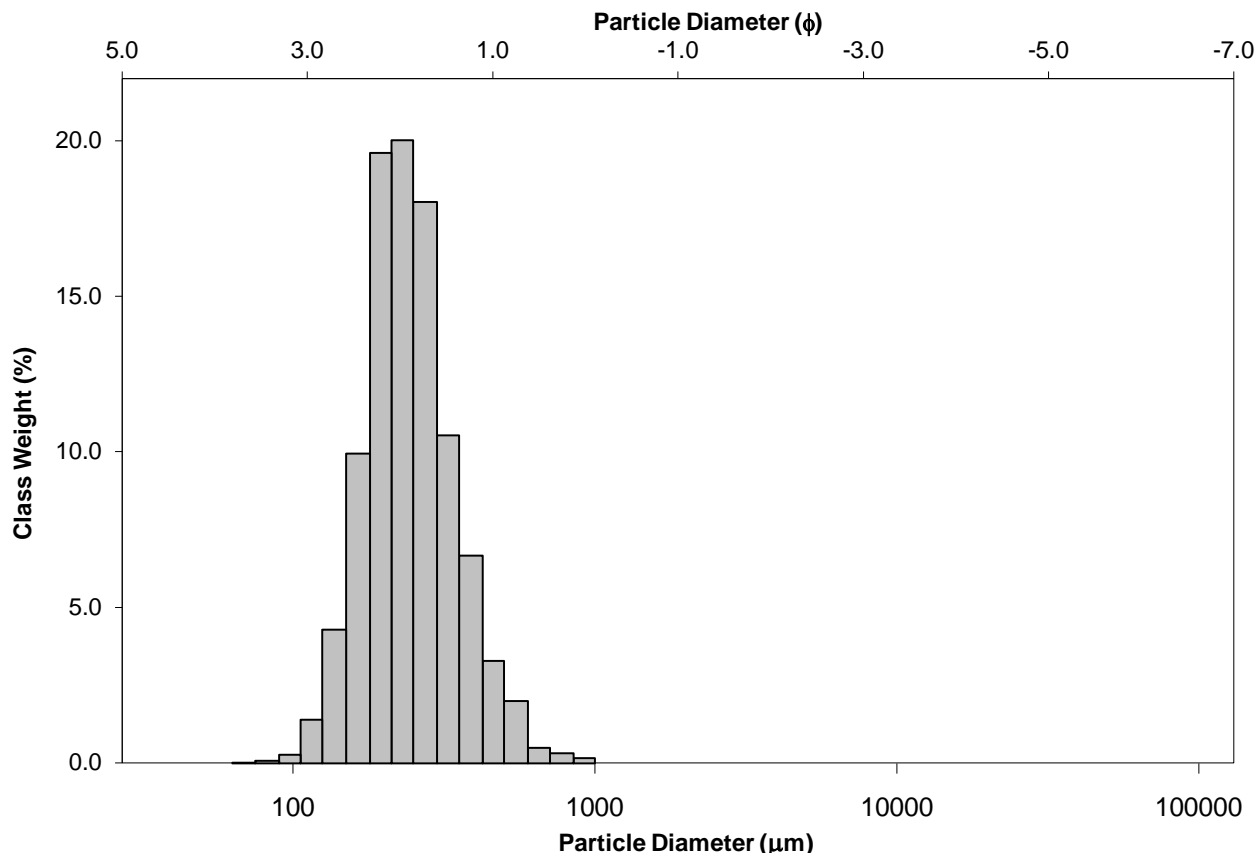
SAMPLE TYPE: Unimodal, Well Sorted

TEXTURAL GROUP: Sand

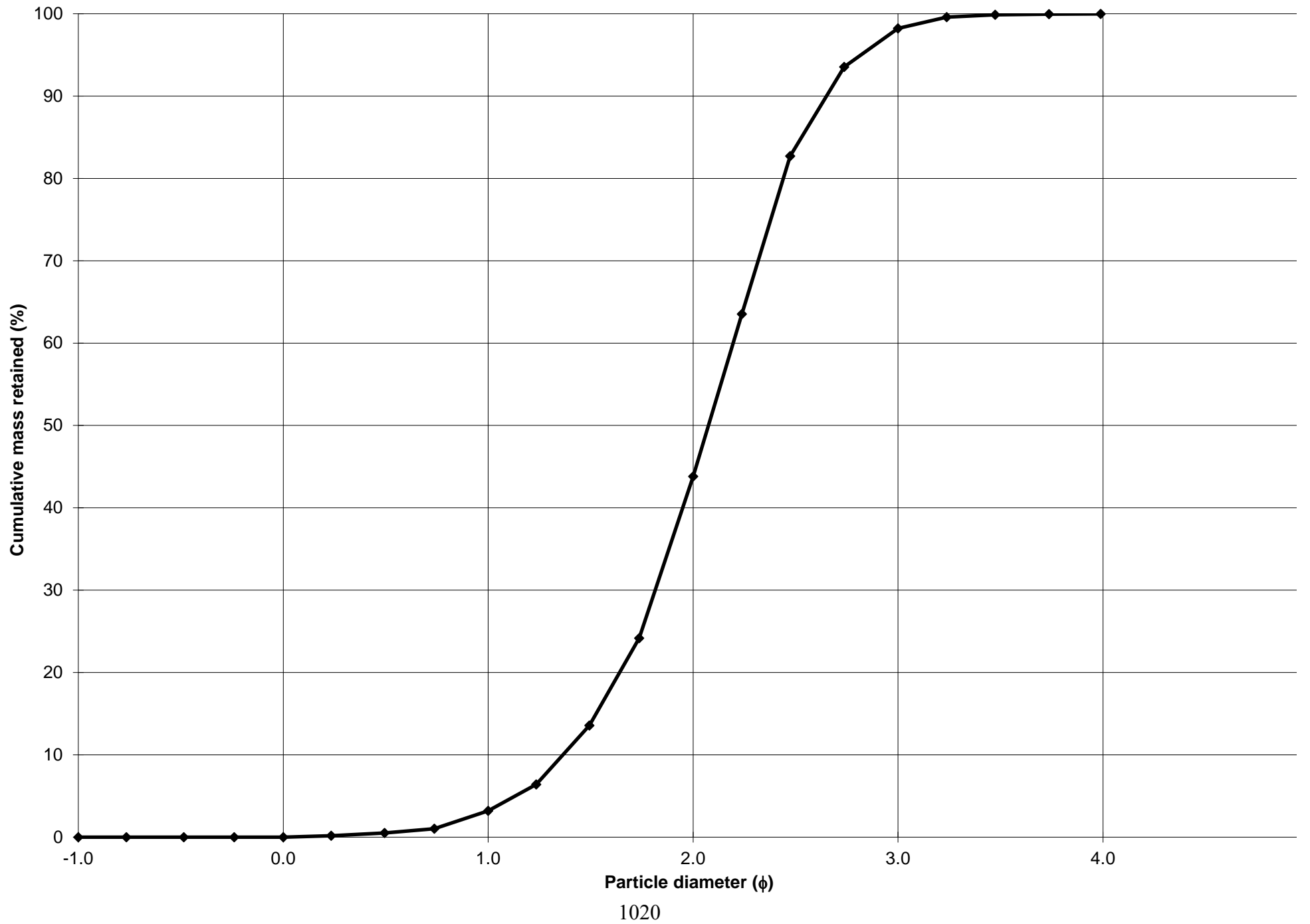
SEDIMENT NAME: Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%	COARSE SAND: 3.2%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 40.6%		
MODE 3:			MUD: 0.0%	FINE SAND: 54.4%		
D_{10} :	159.2	1.365		V FINE SAND: 1.8%		
MEDIAN or D_{50} :	237.4	2.075	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	388.2	2.651	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.439	1.942	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	229.0	1.286	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.549	1.361	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	105.5	0.631	V COARSE SAND: 0.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	260.4	243.3	2.039	242.6	2.043	Fine Sand
SORTING (σ):	101.9	1.421	0.507	1.409	0.495	Well Sorted
SKEWNESS (Sk):	1.855	0.194	-0.194	0.108	-0.108	Coarse Skewed
KURTOSIS (K):	8.894	5.425	5.425	1.096	1.096	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 45 cm**

ANALYST & DATE: Stephen Fabian , 1/25/15

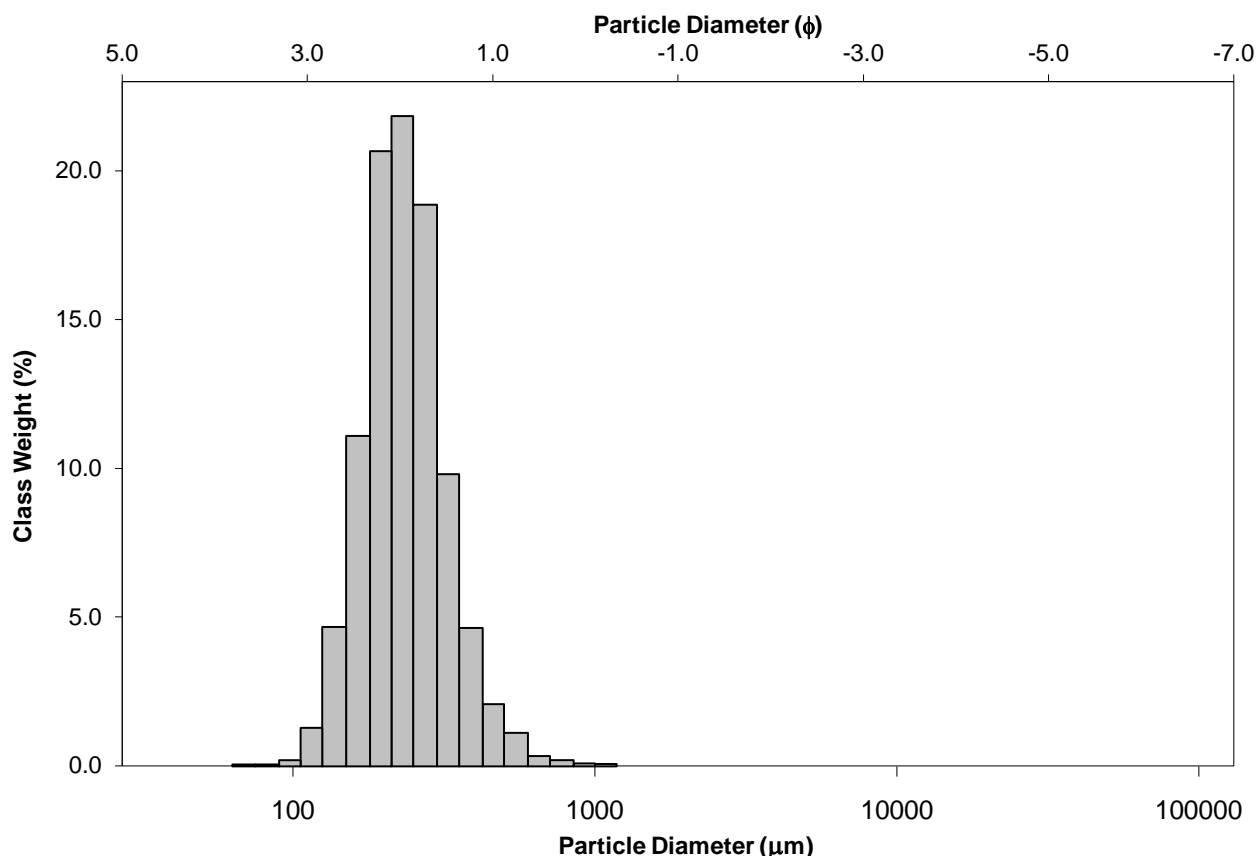
SAMPLE TYPE: Unimodal, Well Sorted

TEXTURAL GROUP: Sand

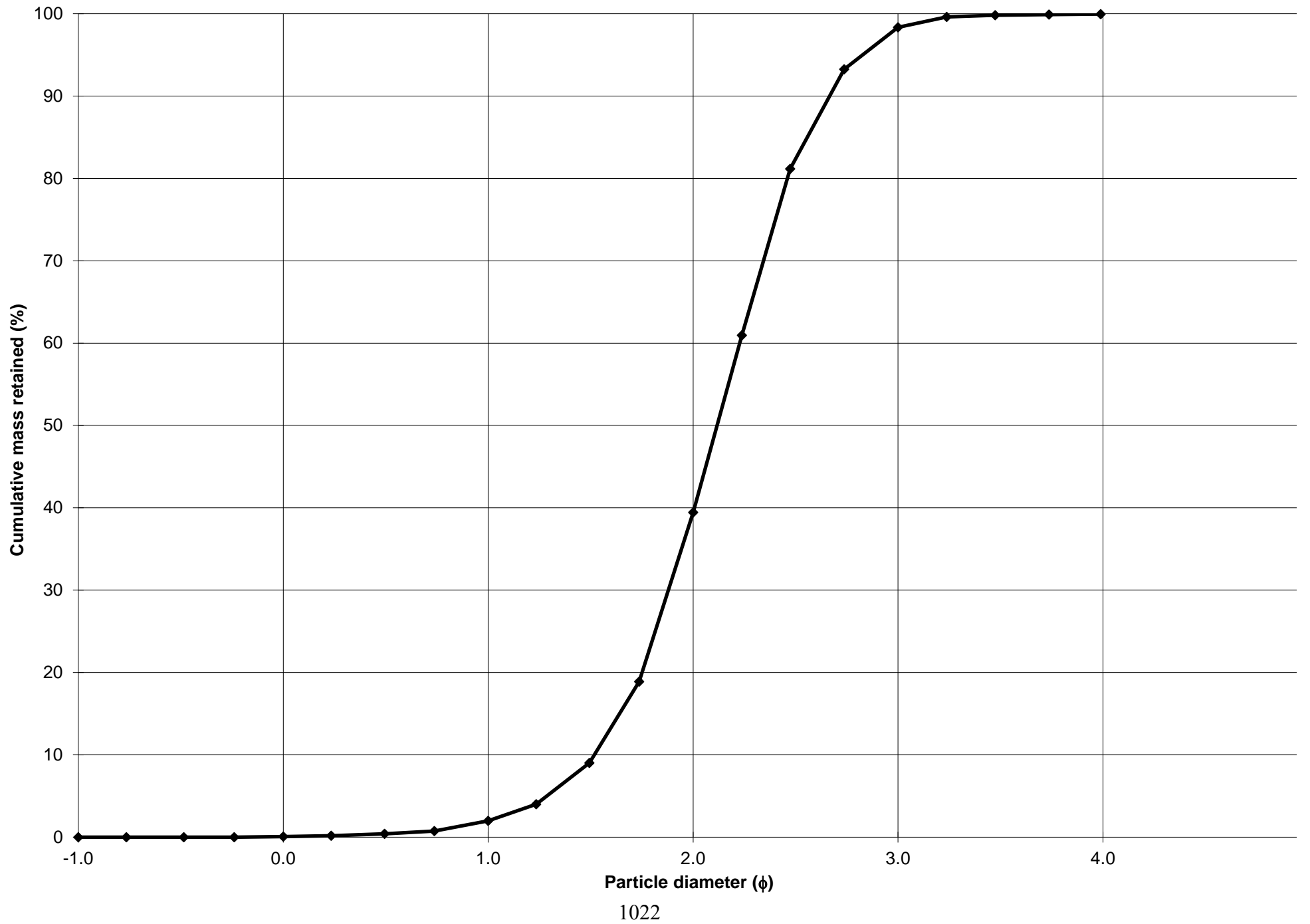
SEDIMENT NAME: Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%	COARSE SAND: 1.9%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 37.5%		
MODE 3:			MUD: 0.0%	FINE SAND: 58.9%		
D_{10} :	157.5	1.519		V FINE SAND: 1.6%		
MEDIAN or D_{50} :	230.6	2.117	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	349.0	2.666	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.216	1.756	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	191.5	1.148	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.502	1.323	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	94.95	0.587	V COARSE SAND: 0.1%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	248.3	233.9	2.096	232.2	2.106	Fine Sand
SORTING (σ):	91.93	1.390	0.475	1.367	0.451	Well Sorted
SKEWNESS (Sk):	2.395	0.002	-0.002	0.057	-0.057	Symmetrical
KURTOSIS (K):	14.95	8.307	8.307	1.077	1.077	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 55 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

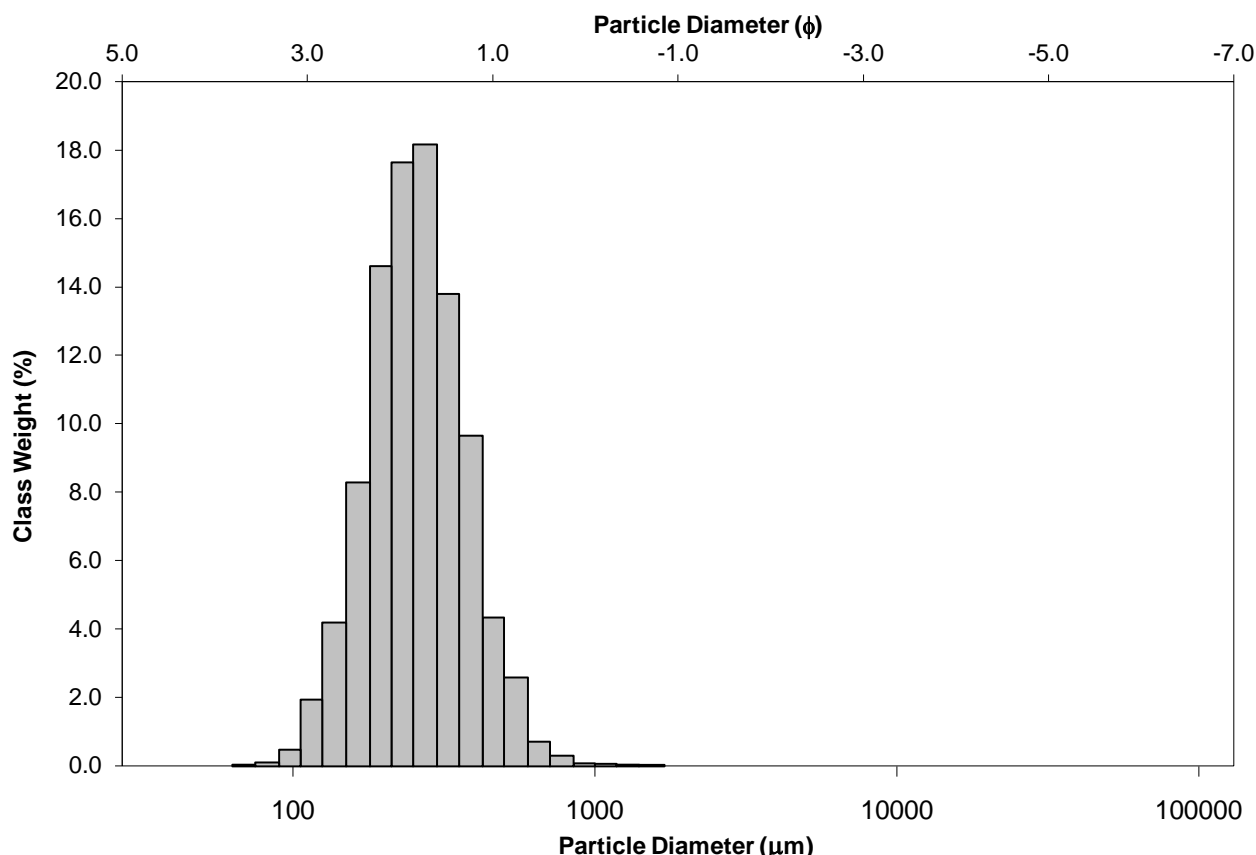
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

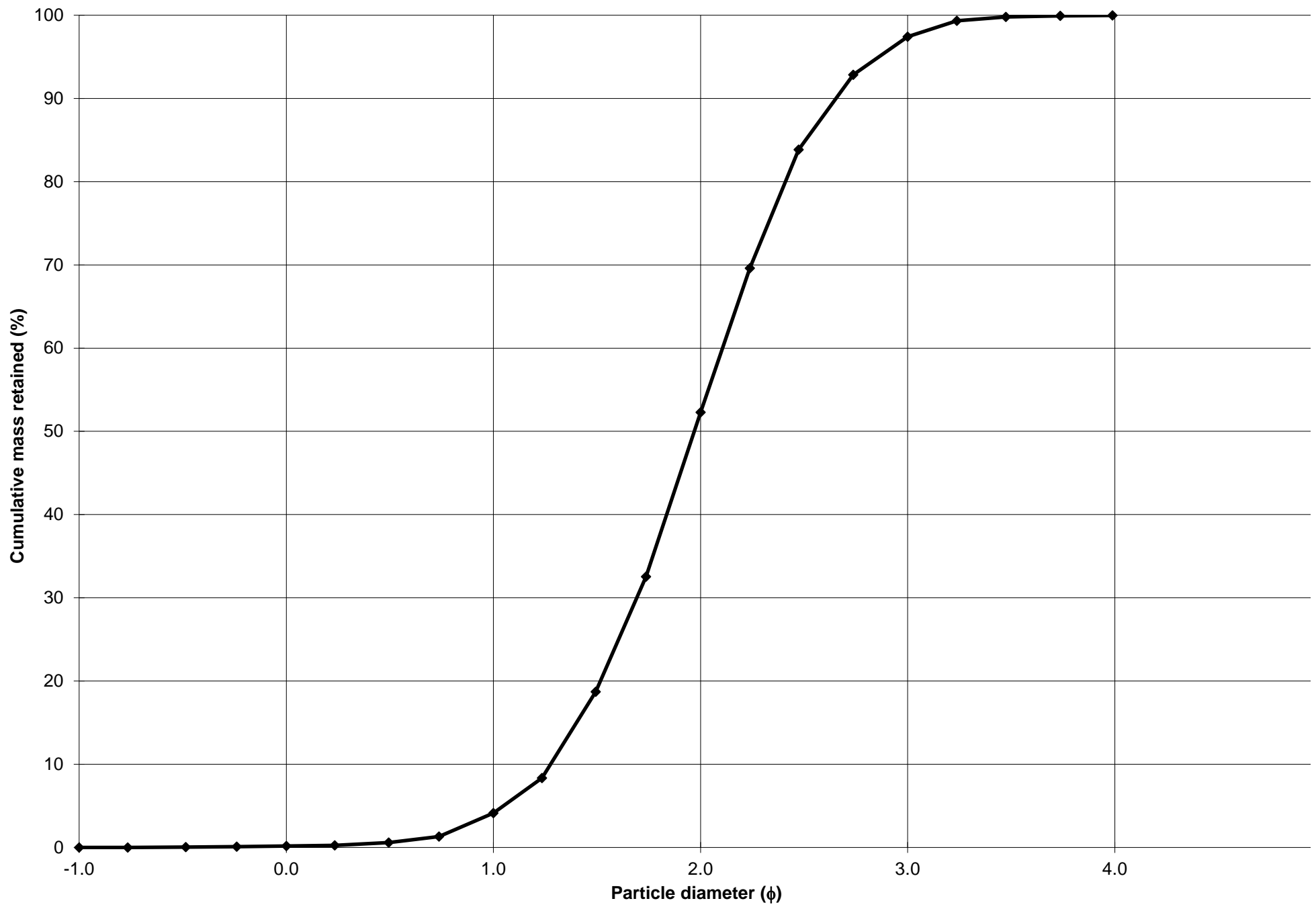
SEDIMENT NAME: Moderately Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%	COARSE SAND: 4.0%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 48.1%		
MODE 3:			MUD: 0.0%	FINE SAND: 45.1%		
D_{10} :	158.9	1.276		V FINE SAND: 2.6%		
MEDIAN or D_{50} :	255.3	1.970	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	413.0	2.654	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.599	2.080	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	254.1	1.378	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.650	1.450	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	129.6	0.723	V COARSE SAND: 0.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	277.2	256.6	1.962	257.4	1.958	Medium Sand
SORTING (σ):	115.6	1.462	0.548	1.452	0.538	Moderately Well Sorted
SKEWNESS (Sk):	2.306	0.010	-0.010	0.025	-0.025	Symmetrical
KURTOSIS (K):	16.77	4.946	4.946	1.028	1.028	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 65 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

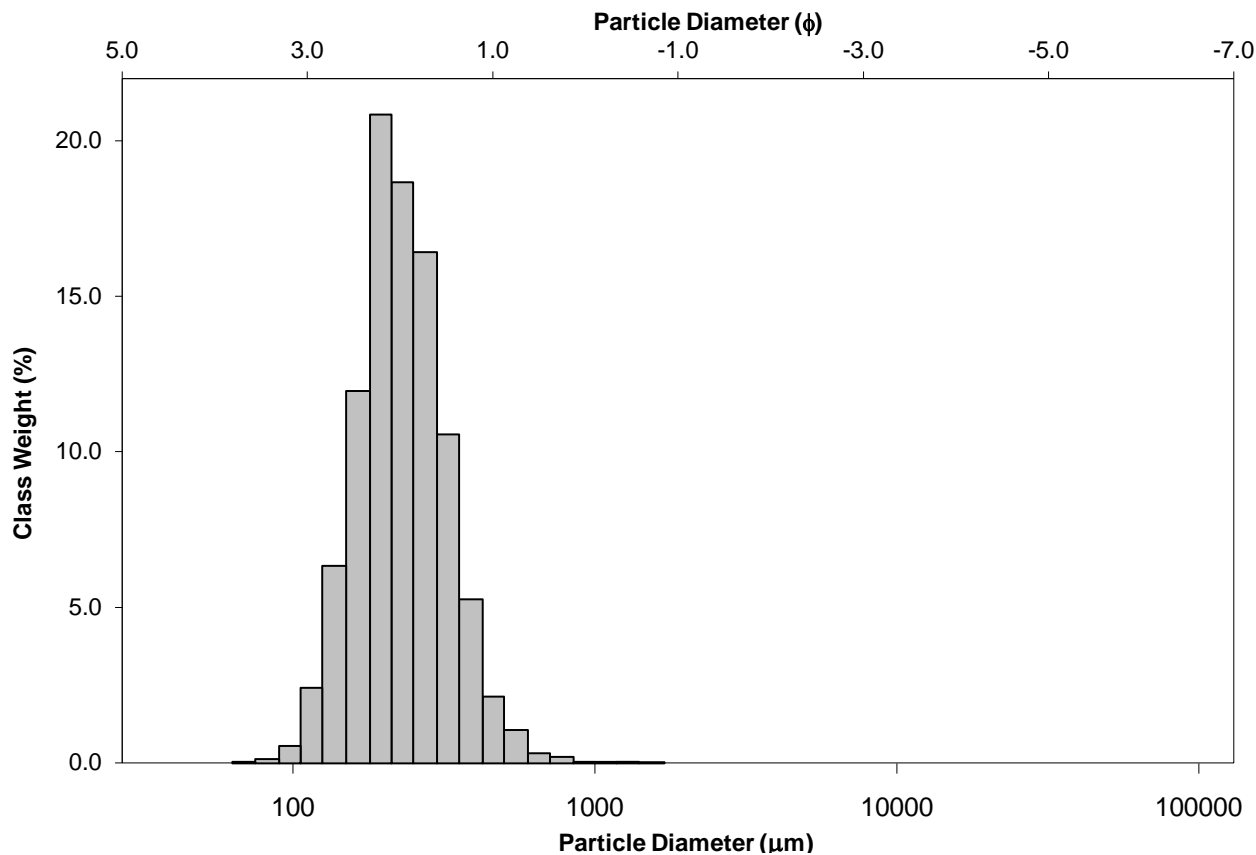
SAMPLE TYPE: Unimodal, Well Sorted

TEXTURAL GROUP: Sand

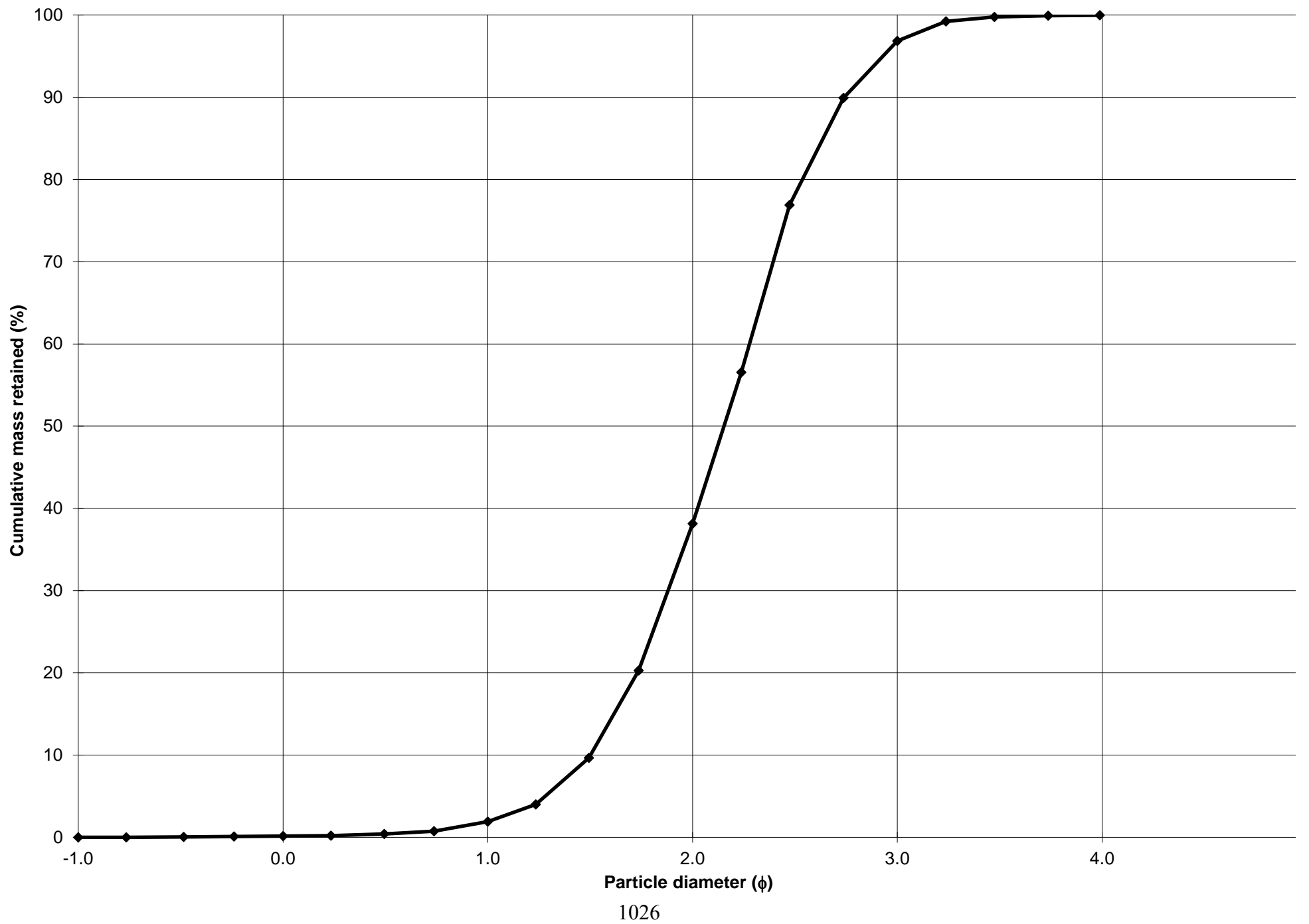
SEDIMENT NAME: Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 1.8%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 36.2%		
MODE 3:			MUD: 0.0%	FINE SAND: 58.7%		
D_{10} :	149.7	1.502		V FINE SAND: 3.1%		
MEDIAN or D_{50} :	224.8	2.153	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	353.1	2.740	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.358	1.824	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	203.3	1.238	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.564	1.357	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	103.1	0.645	V COARSE SAND: 0.1%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	245.1	228.8	2.128	227.4	2.137	Fine Sand
SORTING (σ):	99.76	1.423	0.509	1.409	0.494	Well Sorted
SKEWNESS (Sk):	3.115	0.167	-0.167	0.055	-0.055	Symmetrical
KURTOSIS (K):	27.41	5.996	5.996	1.047	1.047	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 75 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

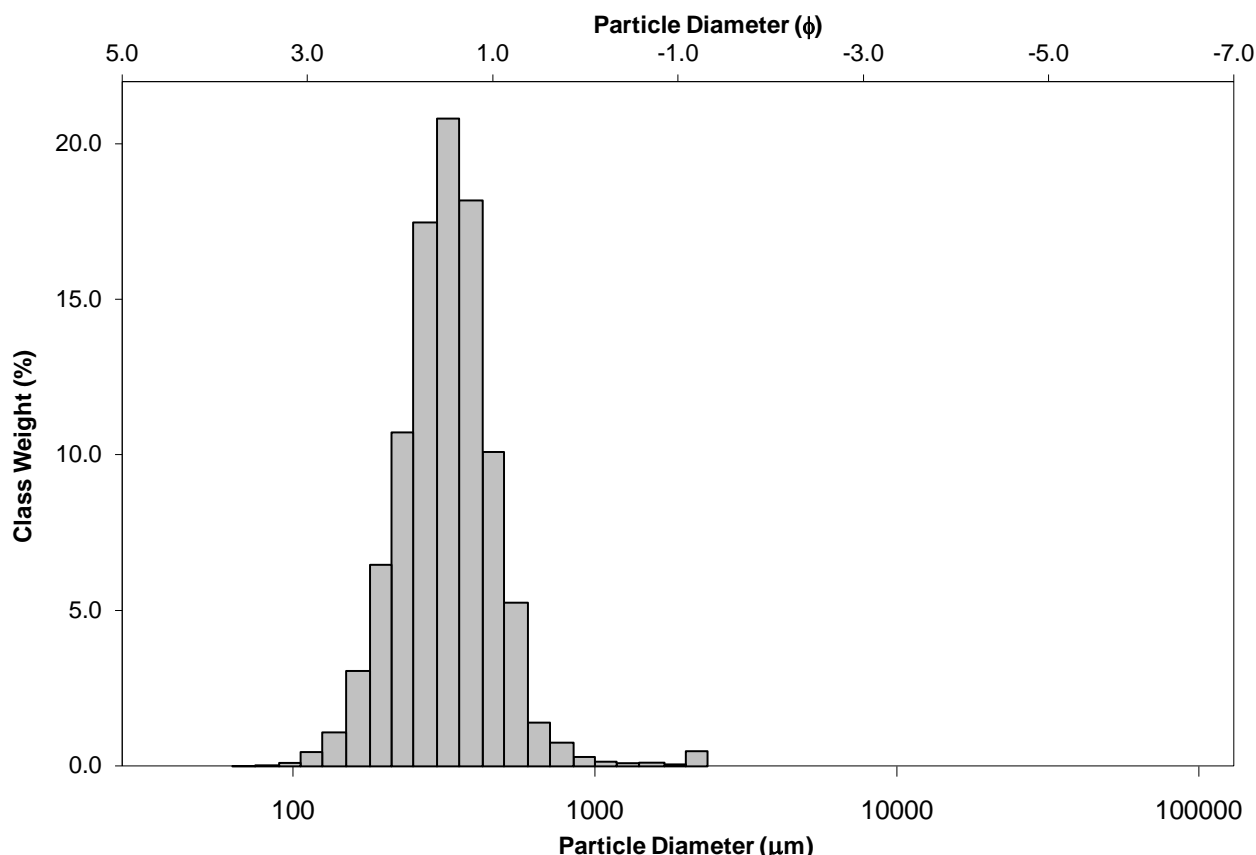
SAMPLE TYPE: Unimodal, Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

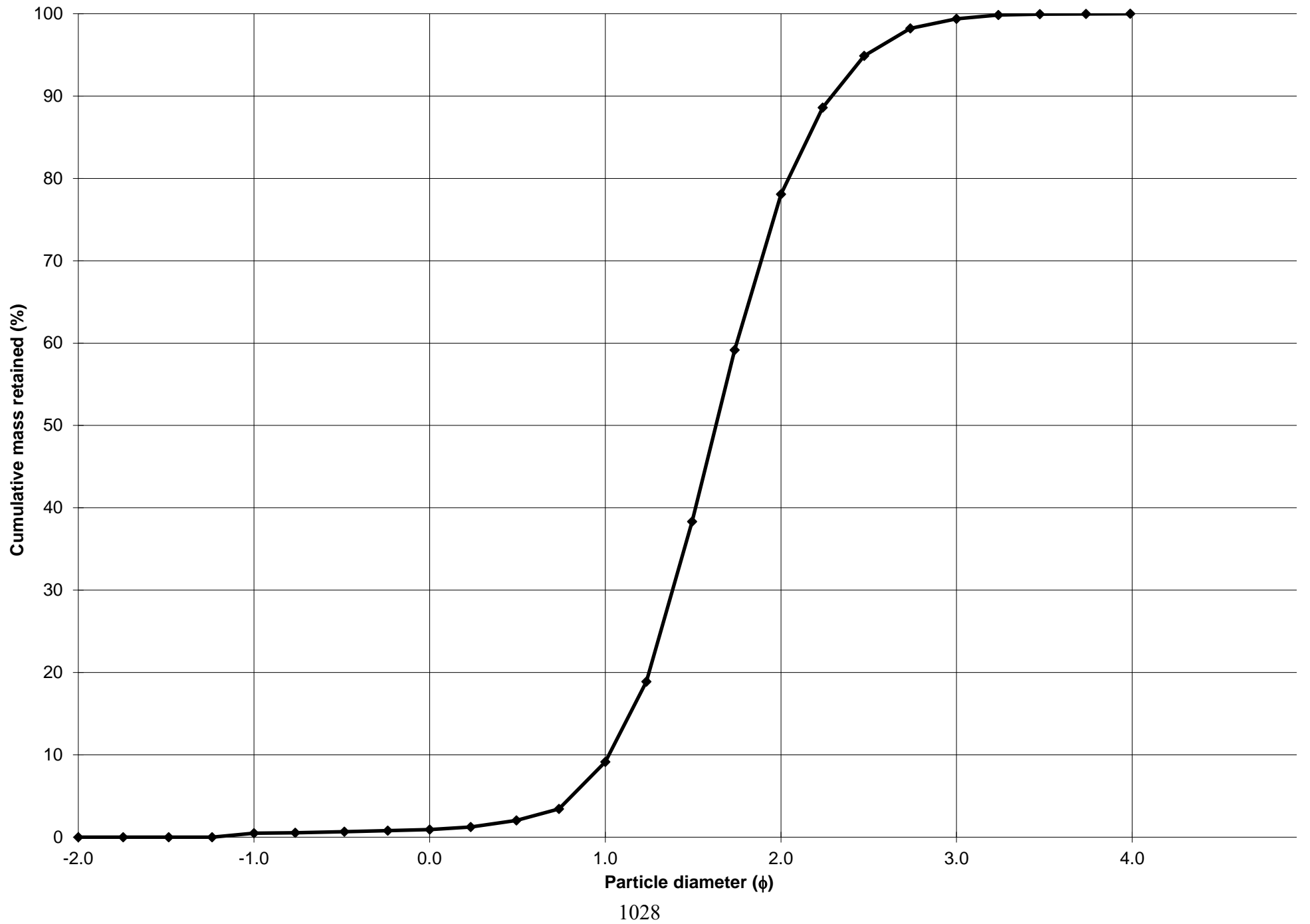
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.5%	COARSE SAND: 8.2%		
MODE 2:			SAND: 99.5%	MEDIUM SAND: 68.9%		
MODE 3:			MUD: 0.0%	FINE SAND: 21.3%		
D_{10} :	204.4	1.021		V FINE SAND: 0.6%		
MEDIAN or D_{50} :	323.0	1.630	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	492.9	2.291	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.412	2.244	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	288.5	1.270	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.560	1.487	V FINE GRAVEL: 0.5%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	144.1	0.641	V COARSE SAND: 0.5%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	351.8	323.2	1.629	320.2	1.643	Medium Sand
SORTING (σ):	186.9	1.459	0.545	1.410	0.496	Well Sorted
SKEWNESS (Sk):	5.579	0.628	-0.628	-0.029	0.029	Symmetrical
KURTOSIS (K):	50.58	6.712	6.712	1.070	1.070	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 85 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

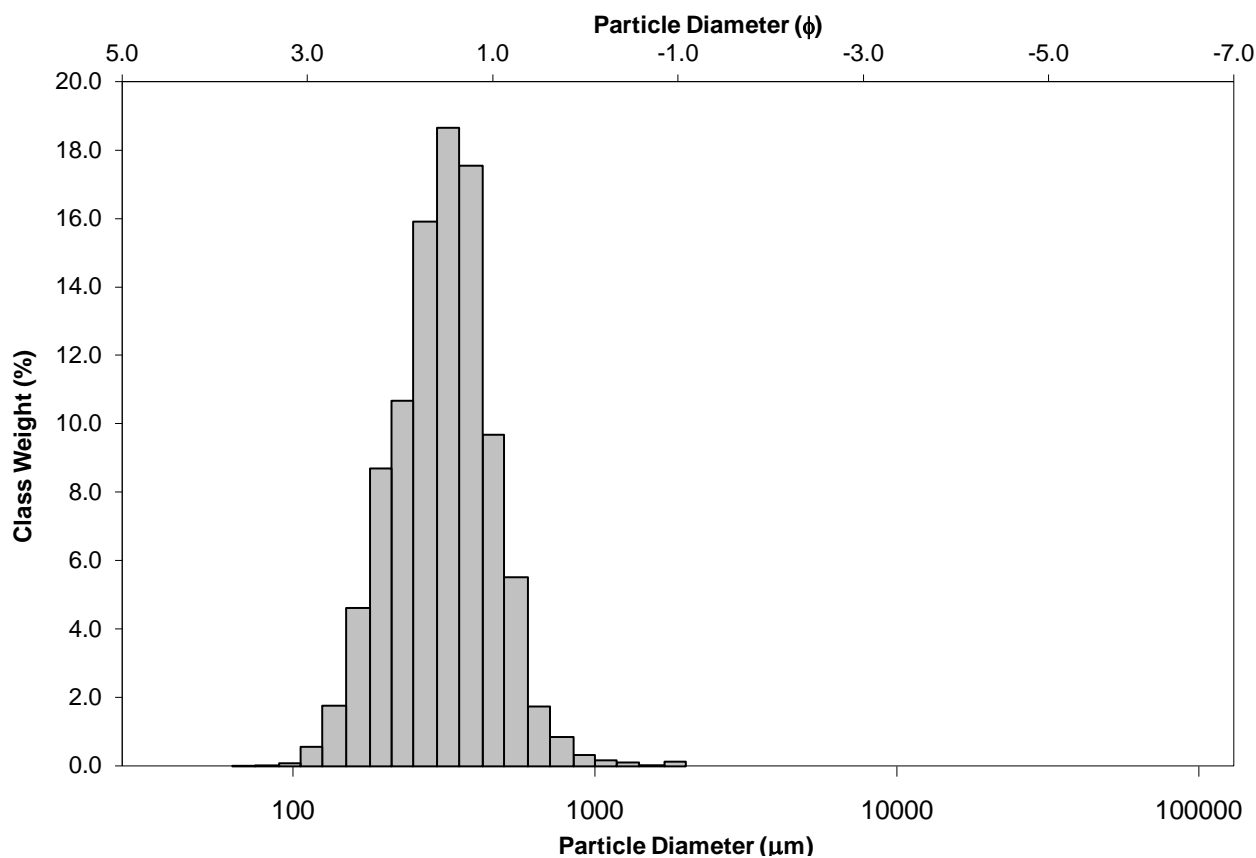
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

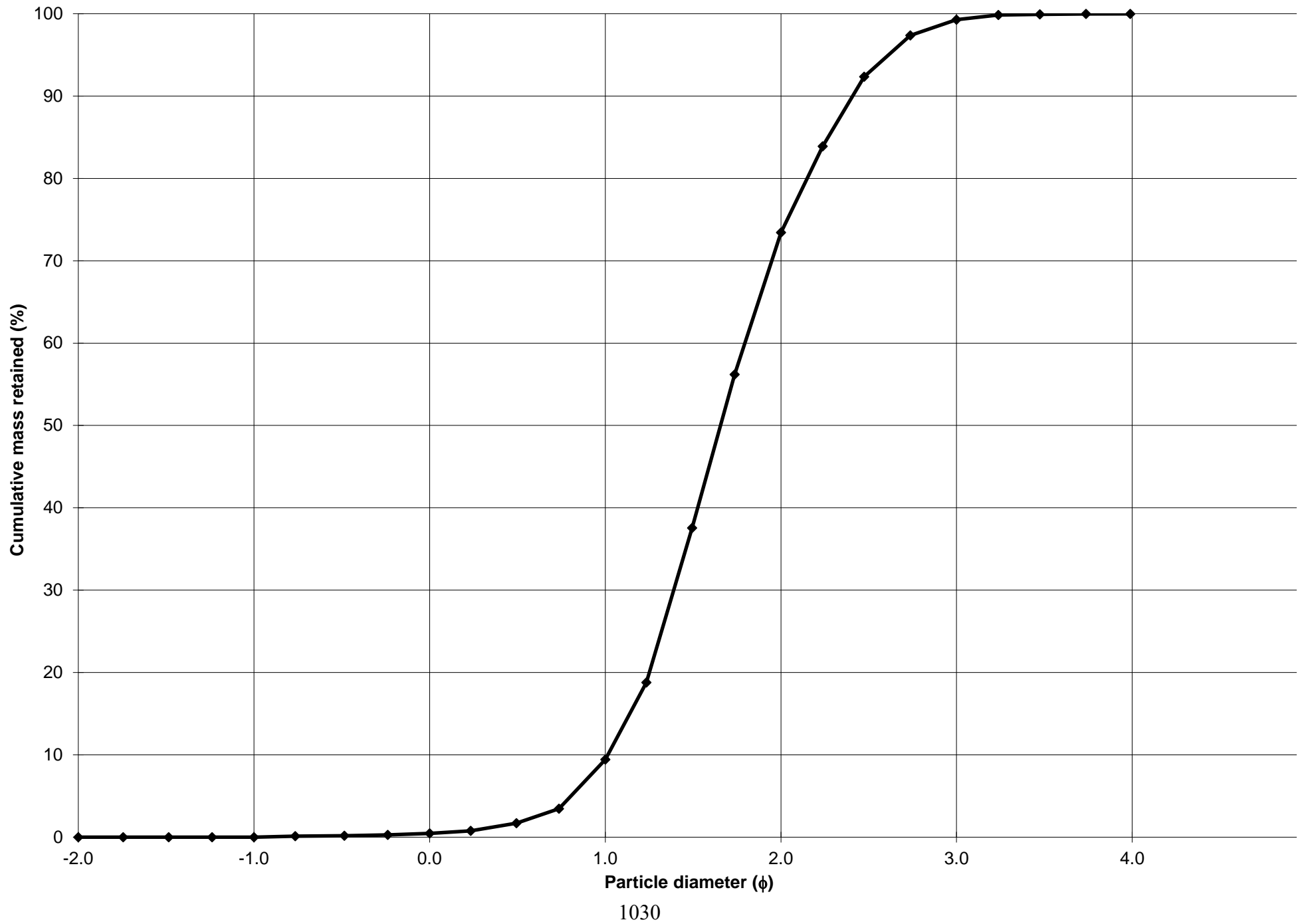
SEDIMENT NAME: Moderately Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%	COARSE SAND: 9.0%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 64.0%		
MODE 3:			MUD: 0.0%	FINE SAND: 25.9%		
D_{10} :	188.4	1.014		V FINE SAND: 0.7%		
MEDIAN or D_{50} :	317.3	1.656	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	495.1	2.408	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.628	2.374	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	306.7	1.394	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.642	1.542	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	156.5	0.715	V COARSE SAND: 0.5%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	338.3	312.5	1.678	310.5	1.687	Medium Sand
SORTING (σ):	145.5	1.470	0.556	1.457	0.543	Moderately Well Sorted
SKEWNESS (Sk):	2.870	-0.025	0.025	-0.072	0.072	Symmetrical
KURTOSIS (K):	23.31	5.074	5.074	1.036	1.036	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 95 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

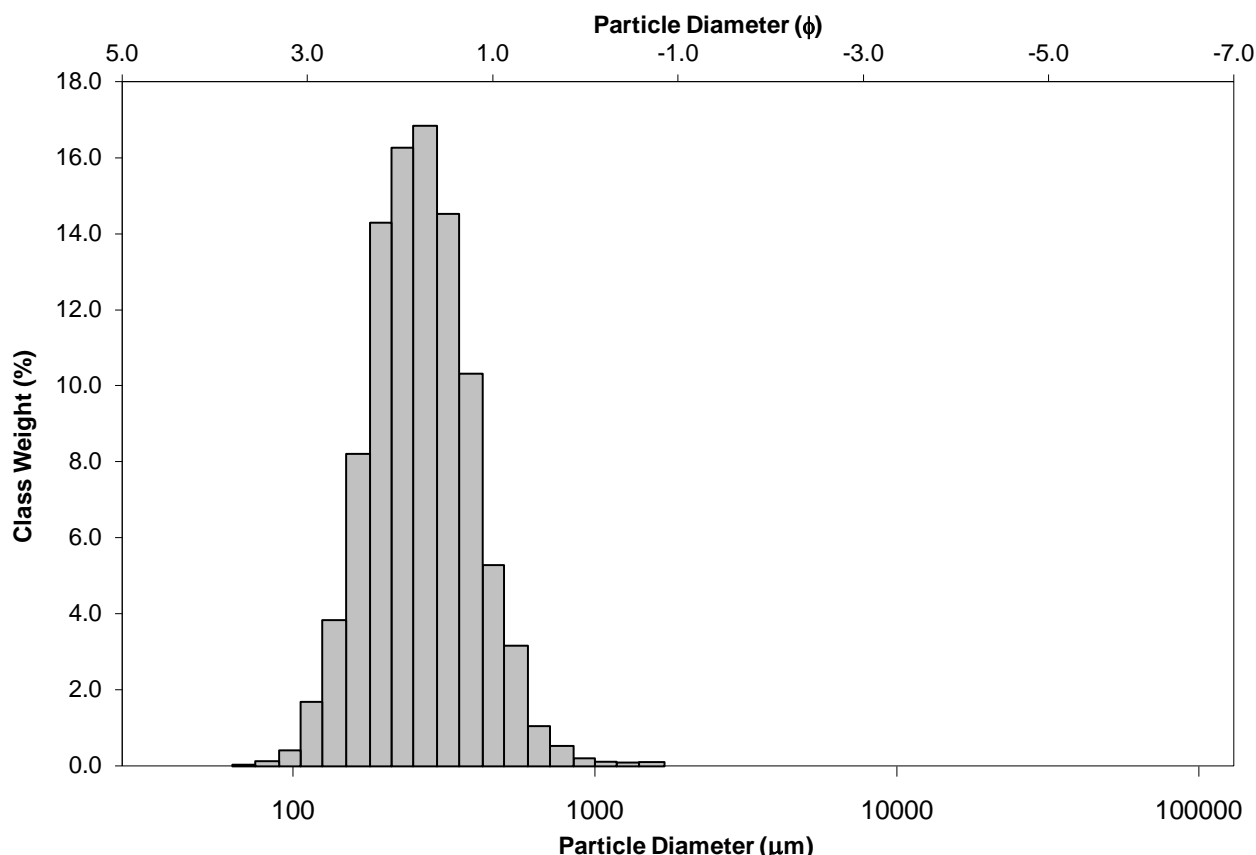
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

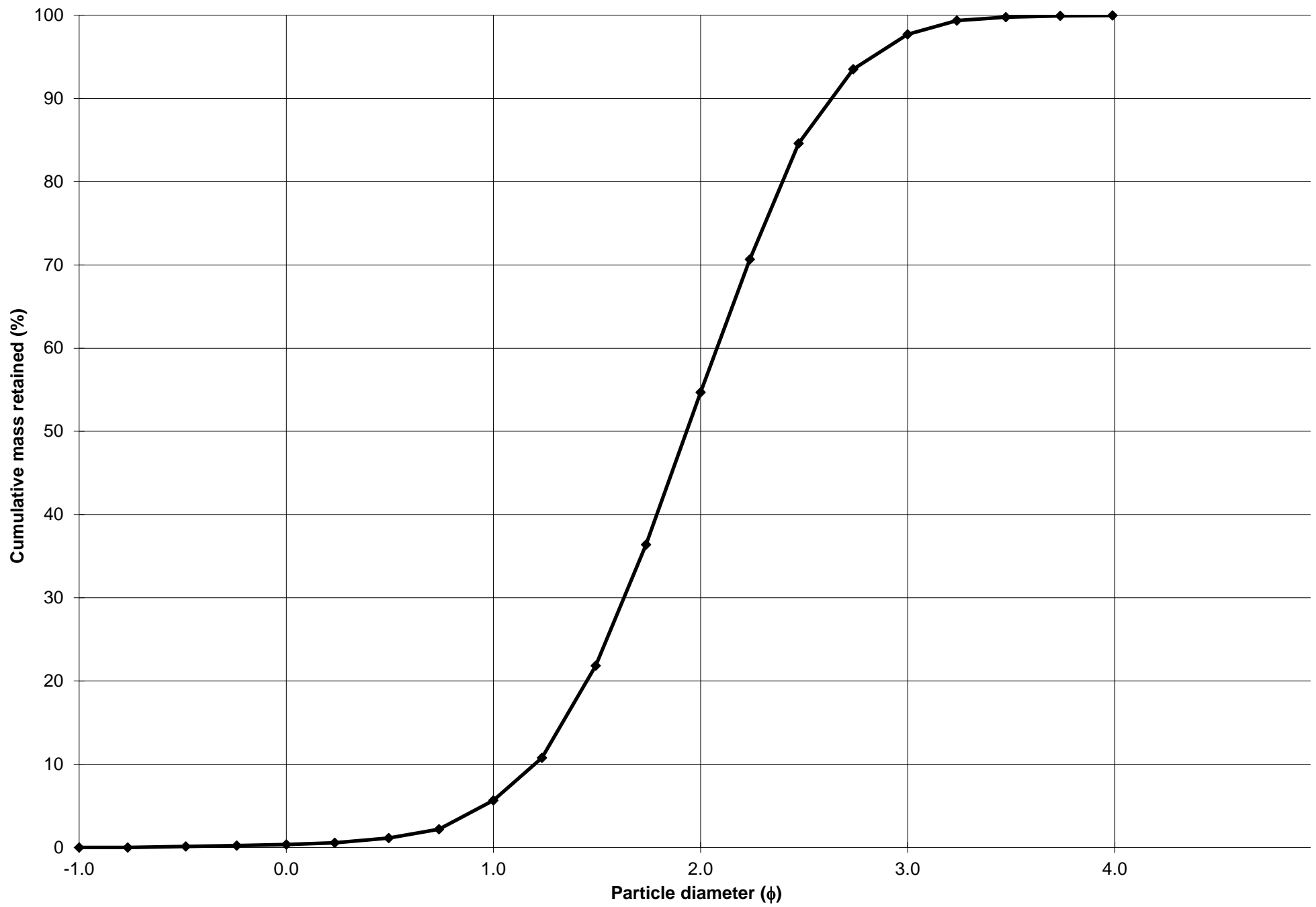
SEDIMENT NAME: Moderately Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%	COARSE SAND: 5.3%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 49.0%		
MODE 3:			MUD: 0.0%	FINE SAND: 43.0%		
D ₁₀ :	161.2	1.199		V FINE SAND: 2.3%		
MEDIAN or D ₅₀ :	262.0	1.933	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	435.4	2.633	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.702	2.195	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	274.3	1.434	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.699	1.494	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	140.8	0.764	V COARSE SAND: 0.4%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	289.0	264.8	1.917	264.6	1.918	Medium Sand
SORTING (σ):	132.8	1.495	0.580	1.476	0.561	Moderately Well Sorted
SKEWNESS (Sk):	2.740	0.076	-0.076	0.042	-0.042	Symmetrical
KURTOSIS (K):	19.32	5.492	5.492	1.008	1.008	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 110 cm**

ANALYST & DATE: Stephen Fabian, 1/26/15

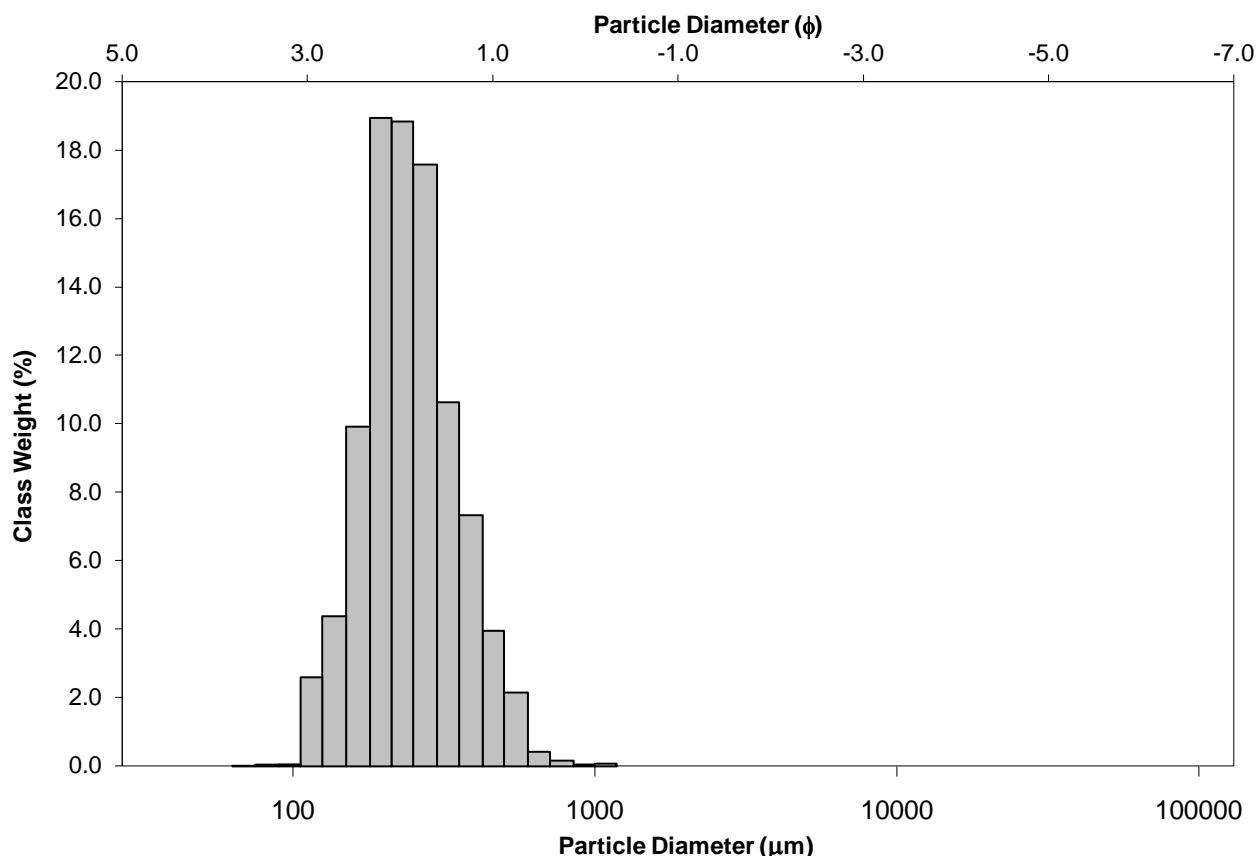
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

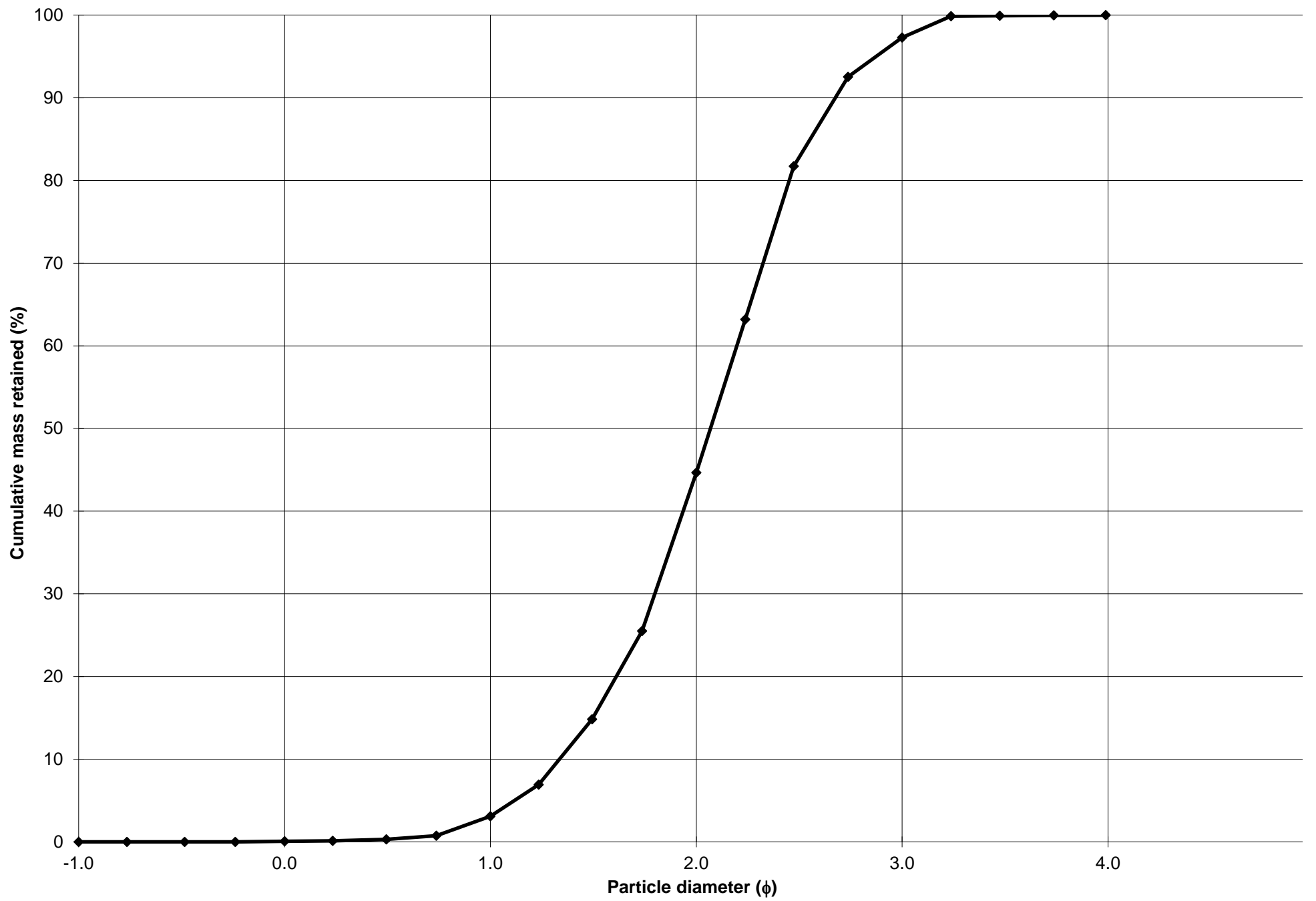
SEDIMENT NAME: Moderately Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 3.0%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 41.6%		
MODE 3:			MUD: 0.0%	FINE SAND: 52.6%		
D_{10} :	156.5	1.335		V FINE SAND: 2.7%		
MEDIAN or D_{50} :	238.4	2.069	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	396.3	2.676	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.532	2.003	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	239.7	1.340	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.583	1.384	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	111.4	0.663	V COARSE SAND: 0.1%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	261.3	243.6	2.037	243.2	2.040	Fine Sand
SORTING (σ):	102.6	1.431	0.517	1.432	0.518	Moderately Well Sorted
SKEWNESS (Sk):	1.724	0.242	-0.242	0.085	-0.085	Symmetrical
KURTOSIS (K):	8.972	3.800	3.800	1.086	1.086	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 120 cm**

ANALYST & DATE: Stephen Fabian, 1/26/15

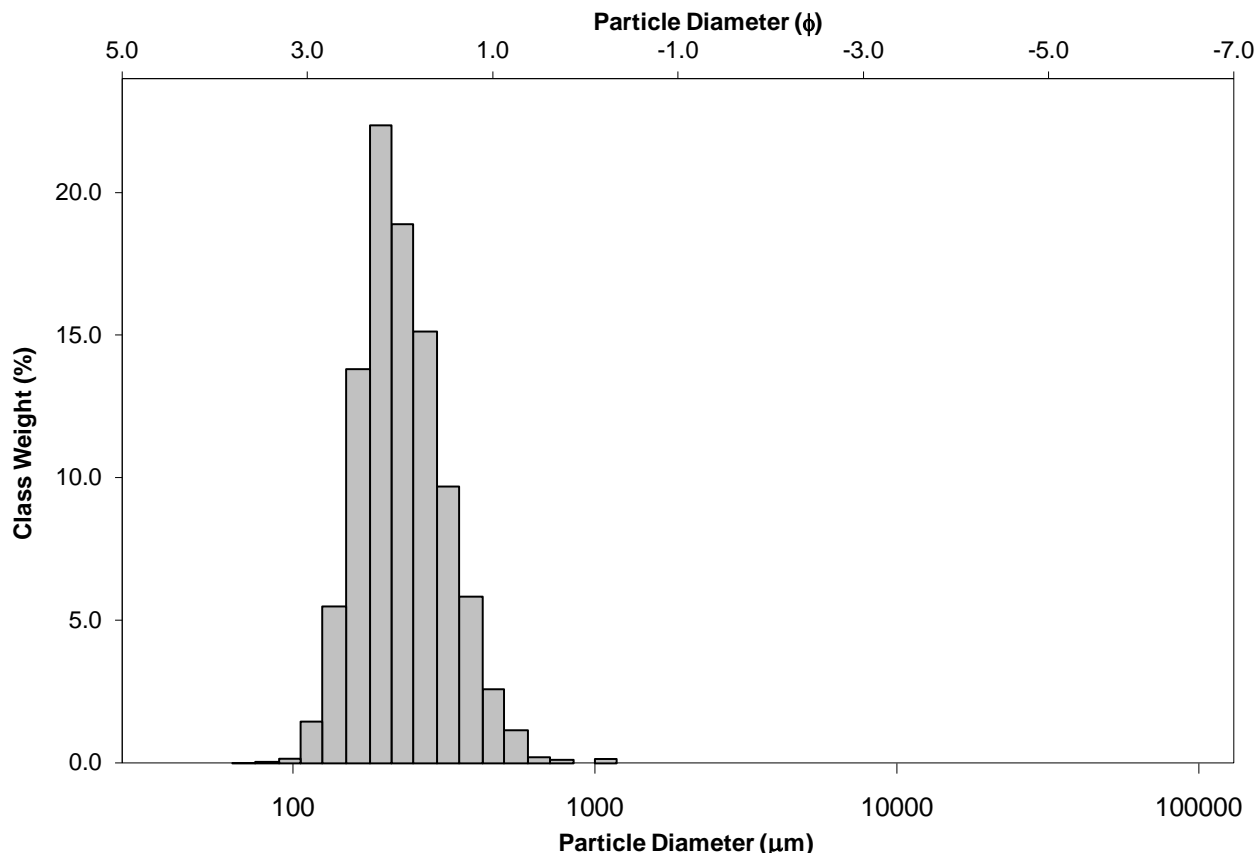
SAMPLE TYPE: Unimodal, Well Sorted

TEXTURAL GROUP: Sand

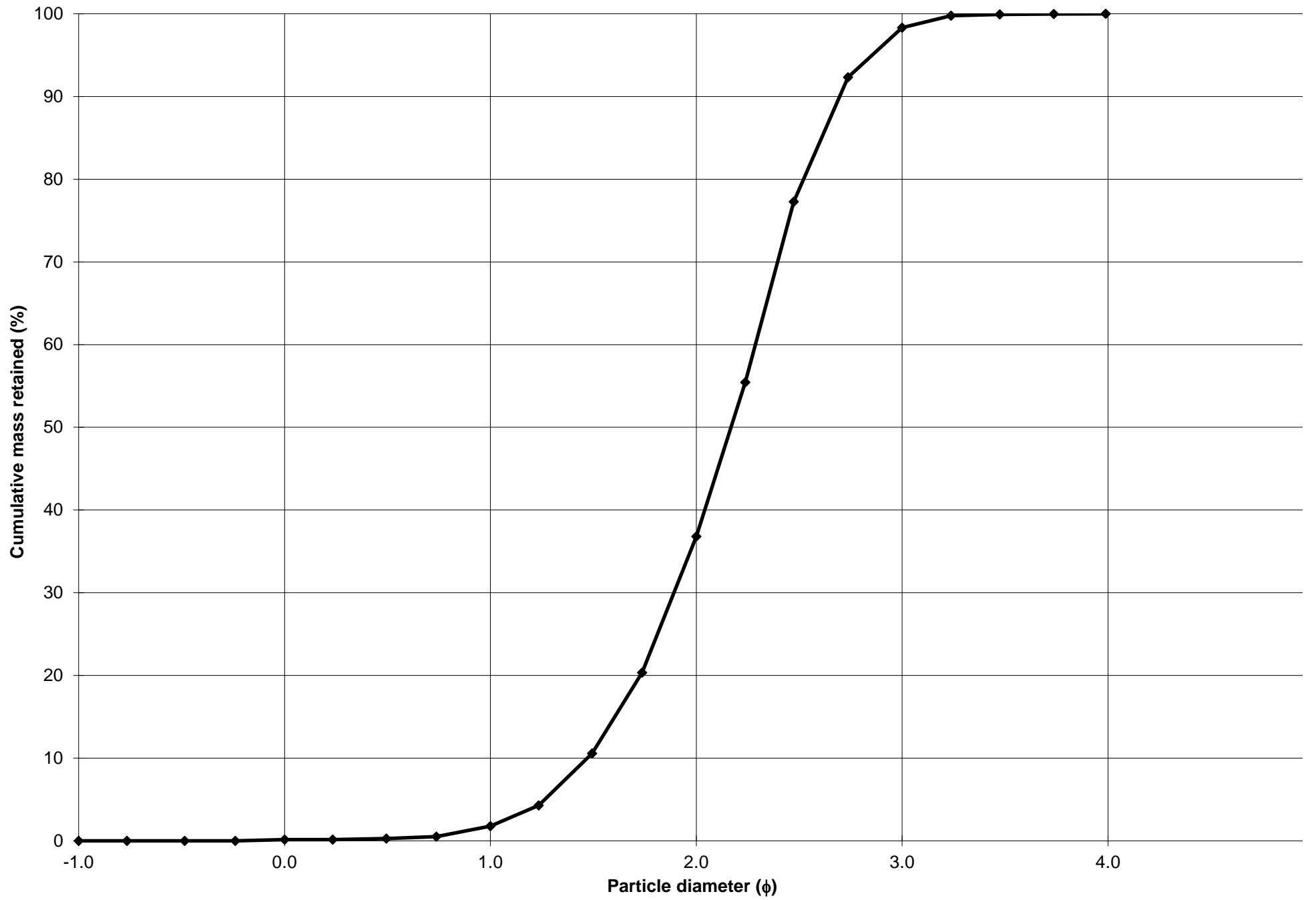
SEDIMENT NAME: Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 1.6%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 35.0%		
MODE 3:			MUD: 0.0%	FINE SAND: 61.5%		
D_{10} :	154.3	1.471		V FINE SAND: 1.7%		
MEDIAN or D_{50} :	222.4	2.169	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	360.8	2.696	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.339	1.833	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	206.5	1.226	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.556	1.352	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	101.8	0.638	V COARSE SAND: 0.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	245.3	230.2	2.119	228.5	2.130	Fine Sand
SORTING (σ):	94.08	1.398	0.484	1.396	0.481	Well Sorted
SKEWNESS (Sk):	2.301	0.448	-0.448	0.129	-0.129	Coarse Skewed
KURTOSIS (K):	14.86	4.224	4.224	1.022	1.022	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 130 cm**

ANALYST & DATE: Stephen Fabian, 1/26/15

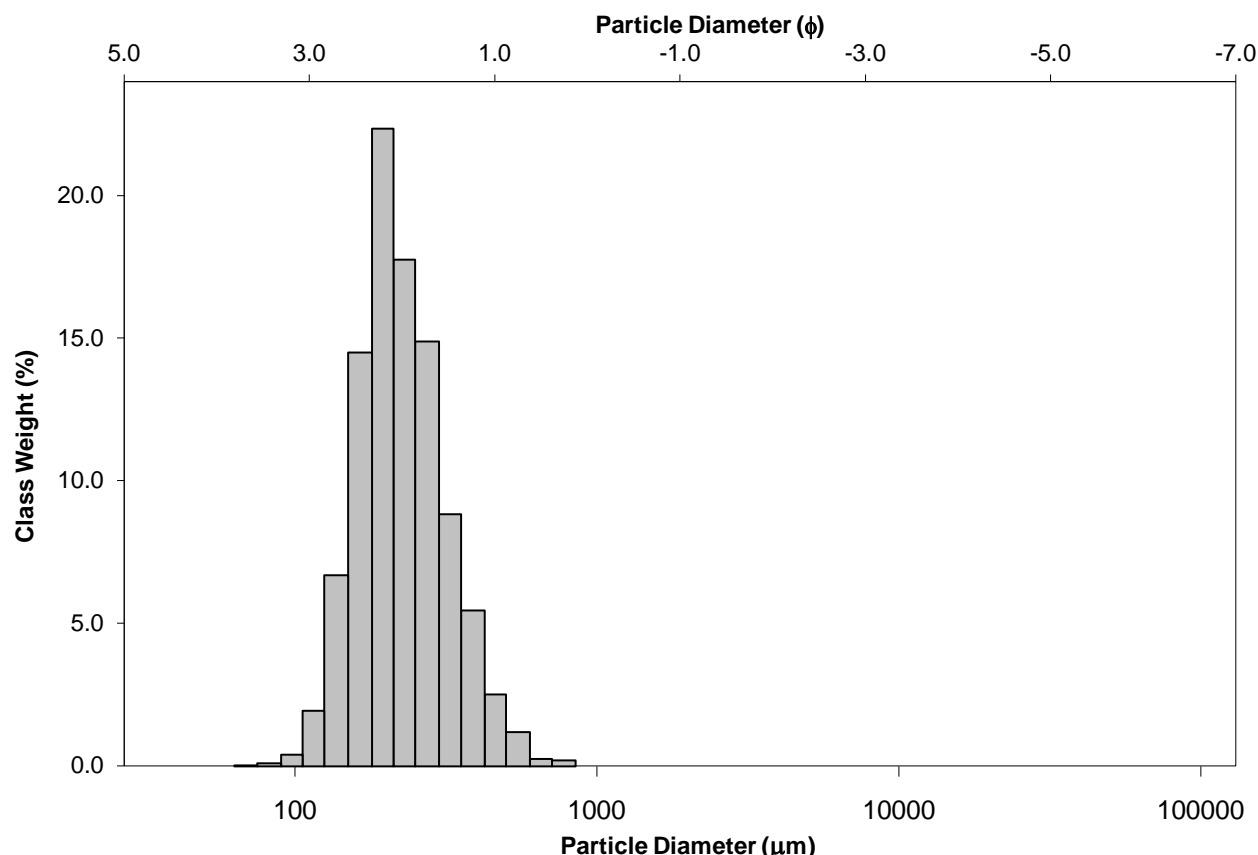
SAMPLE TYPE: Unimodal, Well Sorted

TEXTURAL GROUP: Sand

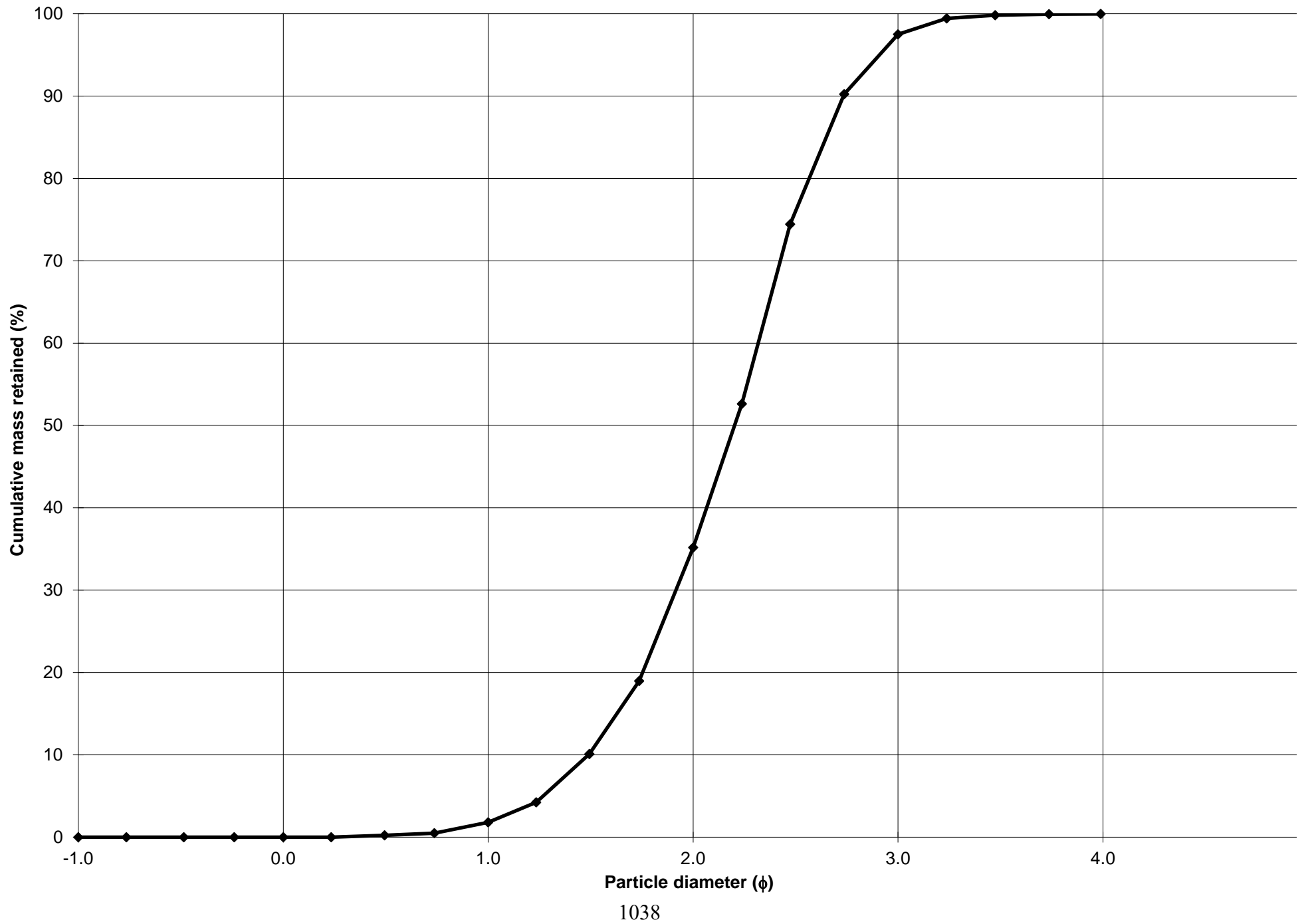
SEDIMENT NAME: Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 1.8%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 33.4%		
MODE 3:			MUD: 0.0%	FINE SAND: 62.3%		
D_{10} :	150.4	1.490		V FINE SAND: 2.5%		
MEDIAN or D_{50} :	217.3	2.202	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	356.1	2.733	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.368	1.835	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	205.7	1.244	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.567	1.353	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	101.5	0.648	V COARSE SAND: 0.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	240.3	225.1	2.152	223.2	2.164	Fine Sand
SORTING (σ):	91.03	1.413	0.498	1.407	0.493	Well Sorted
SKEWNESS (Sk):	1.638	0.167	-0.167	0.128	-0.128	Coarse Skewed
KURTOSIS (K):	7.352	5.392	5.392	1.038	1.038	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 140 cm**

ANALYST & DATE: Stephen Fabian, 1/26/15

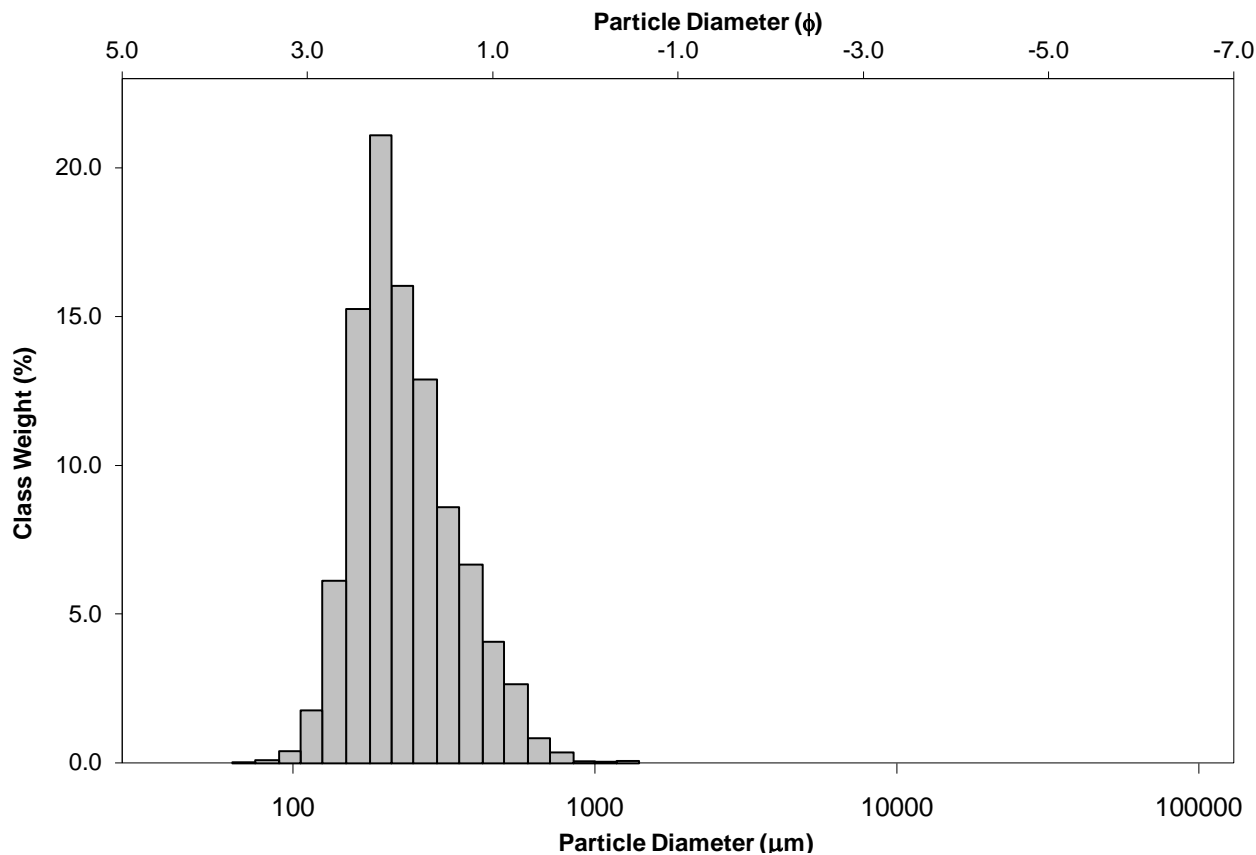
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

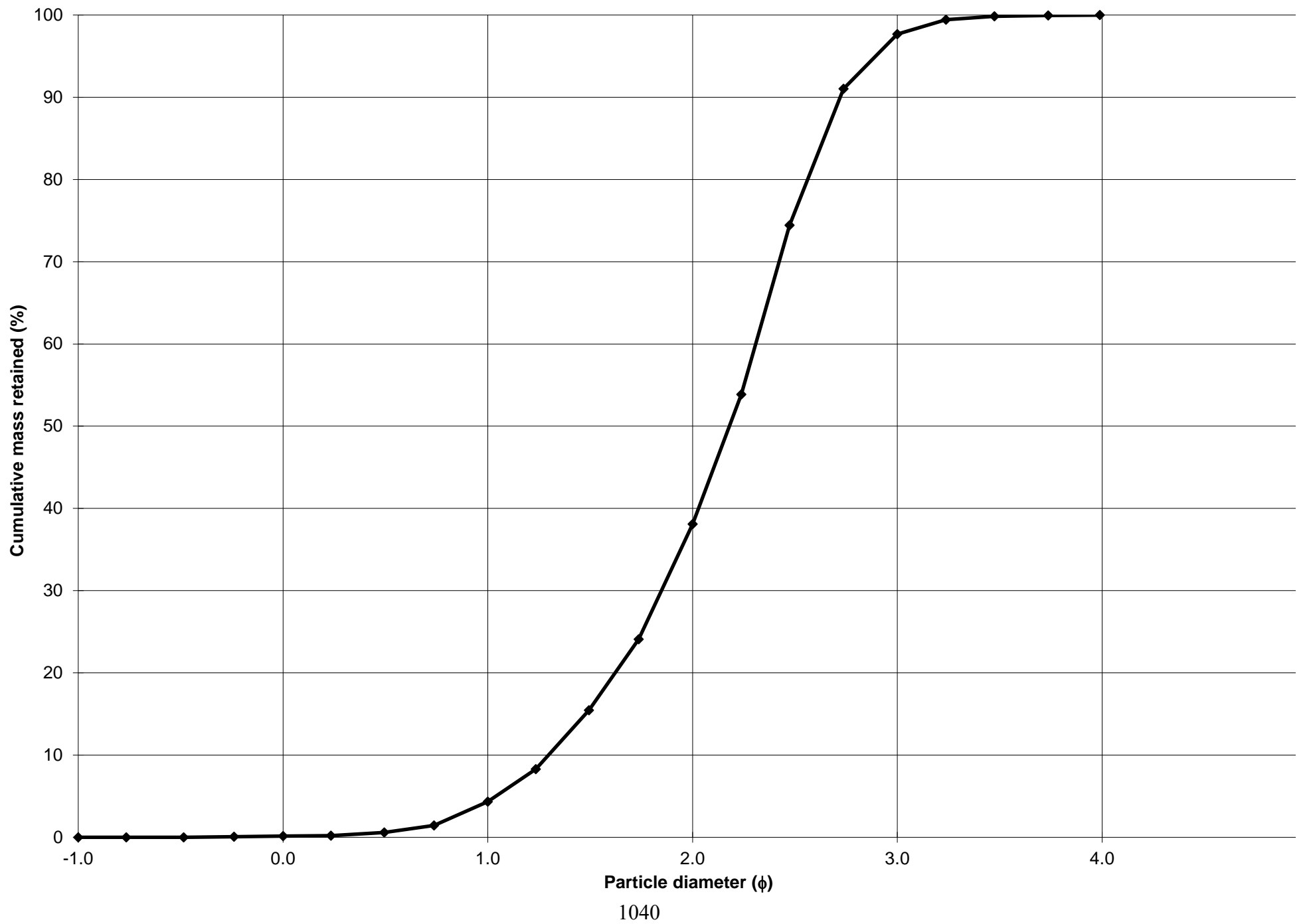
SEDIMENT NAME: Moderately Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 4.2%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 33.8%		
MODE 3:			MUD: 0.0%	FINE SAND: 59.6%		
D_{10} :	151.7	1.296		V FINE SAND: 2.3%		
MEDIAN or D_{50} :	220.7	2.180	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	407.1	2.721	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.684	2.099	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	255.5	1.424	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.657	1.415	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	117.6	0.729	V COARSE SAND: 0.1%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	255.6	234.7	2.091	232.5	2.105	Fine Sand
SORTING (σ):	116.6	1.476	0.562	1.474	0.560	Moderately Well Sorted
SKEWNESS (Sk):	2.194	0.542	-0.542	0.215	-0.215	Coarse Skewed
KURTOSIS (K):	11.95	3.885	3.885	1.043	1.043	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 150 cm**

ANALYST & DATE: Stephen Fabian, 1/28/15

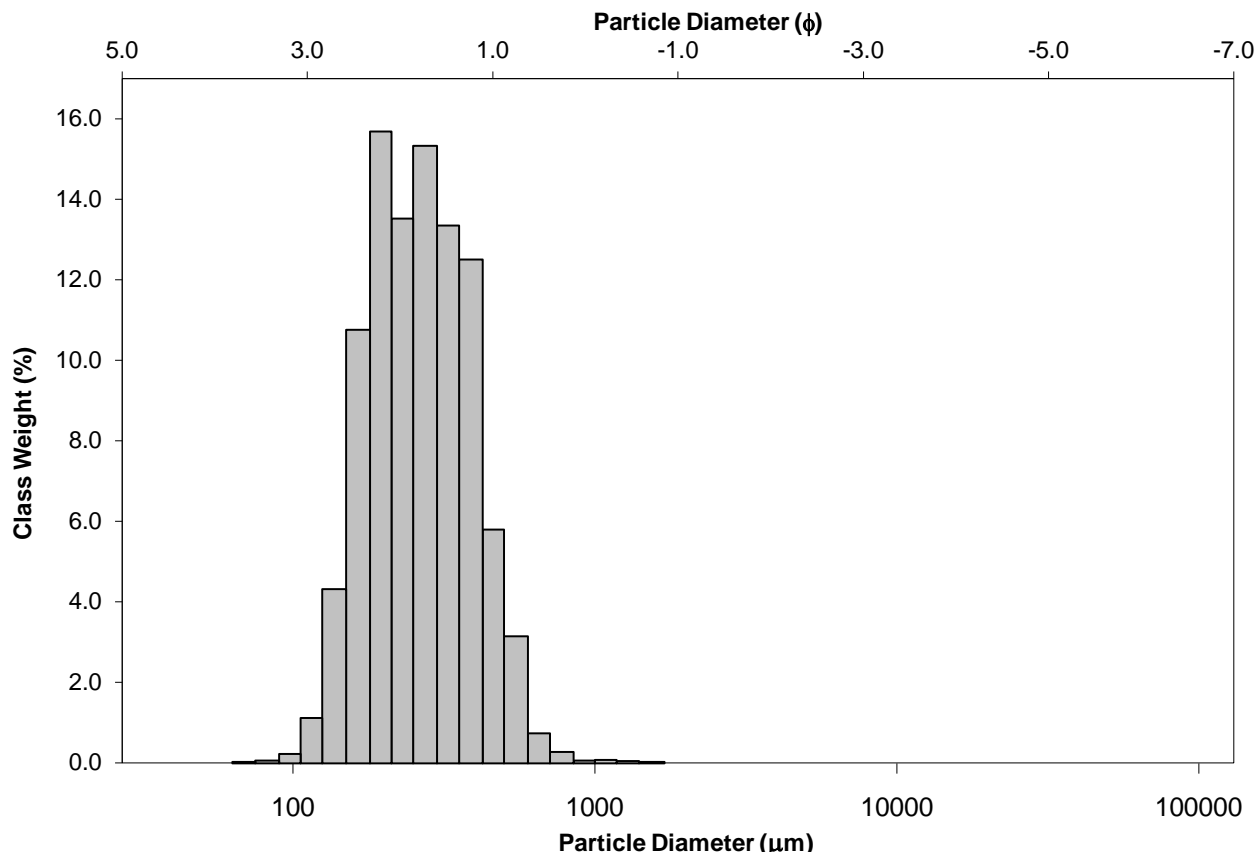
SAMPLE TYPE: Bimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

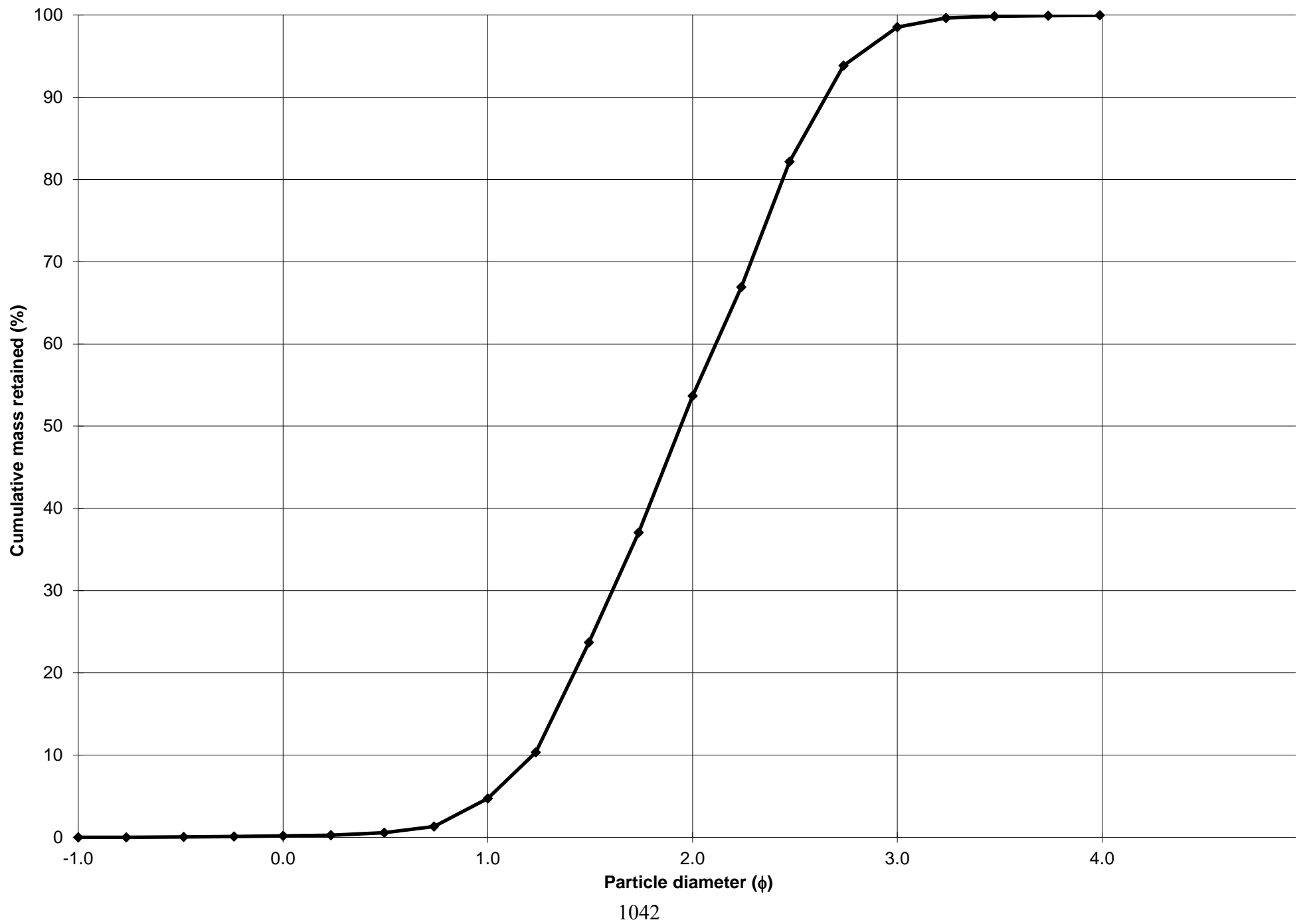
SEDIMENT NAME: Moderately Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 4.5%		
MODE 2:	275.0	1.868	SAND: 100.0%	MEDIUM SAND: 49.0%		
MODE 3:			MUD: 0.0%	FINE SAND: 44.9%		
D_{10} :	159.3	1.221		V FINE SAND: 1.4%		
MEDIAN or D_{50} :	260.3	1.942	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	429.0	2.650	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.694	2.171	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	269.8	1.430	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.797	1.557	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	154.8	0.845	V COARSE SAND: 0.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	284.3	261.9	1.933	261.7	1.934	Medium Sand
SORTING (σ):	120.5	1.482	0.568	1.478	0.564	Moderately Well Sorted
SKEWNESS (Sk):	1.941	-0.005	0.005	0.030	-0.030	Symmetrical
KURTOSIS (K):	13.26	4.642	4.642	0.868	0.868	Platykurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 160 cm**

ANALYST & DATE: Stephen Fabian, 1/28/15

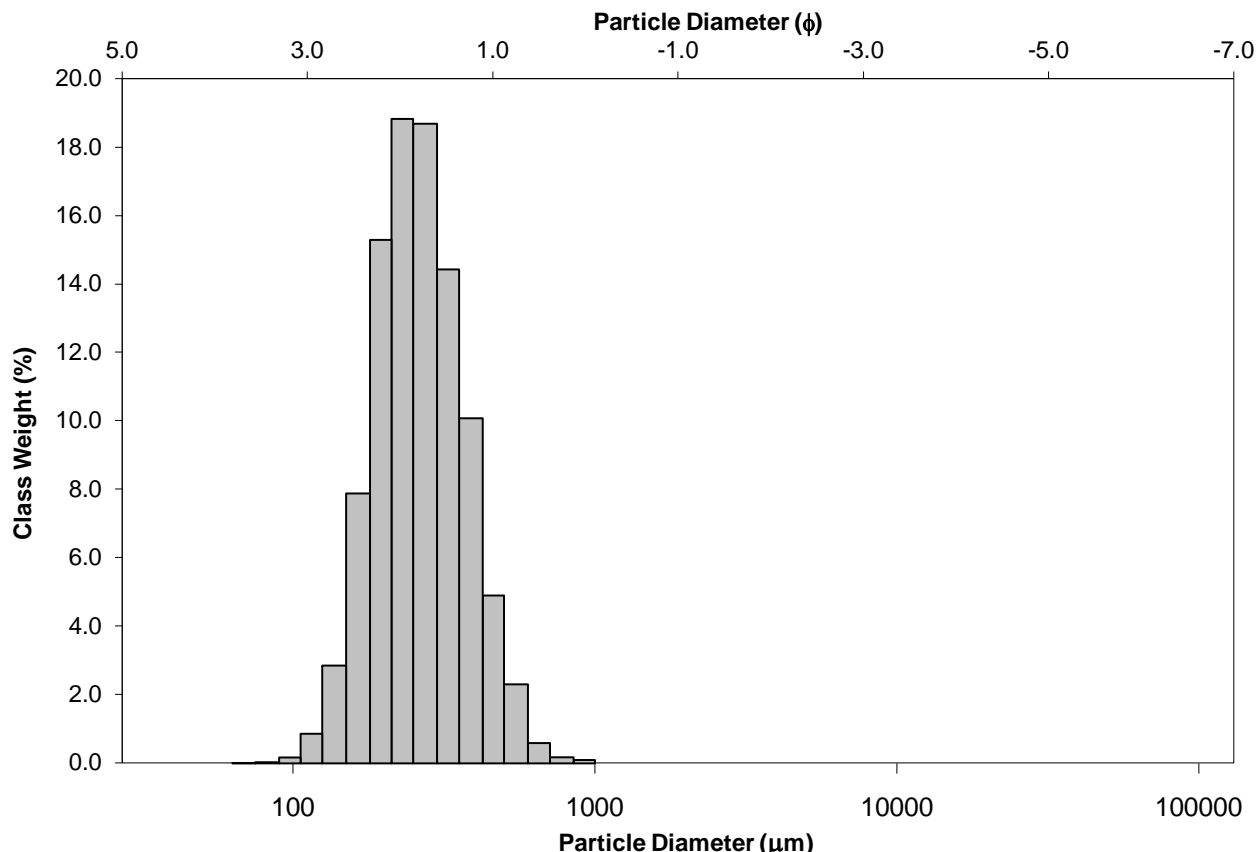
SAMPLE TYPE: Unimodal, Well Sorted

TEXTURAL GROUP: Sand

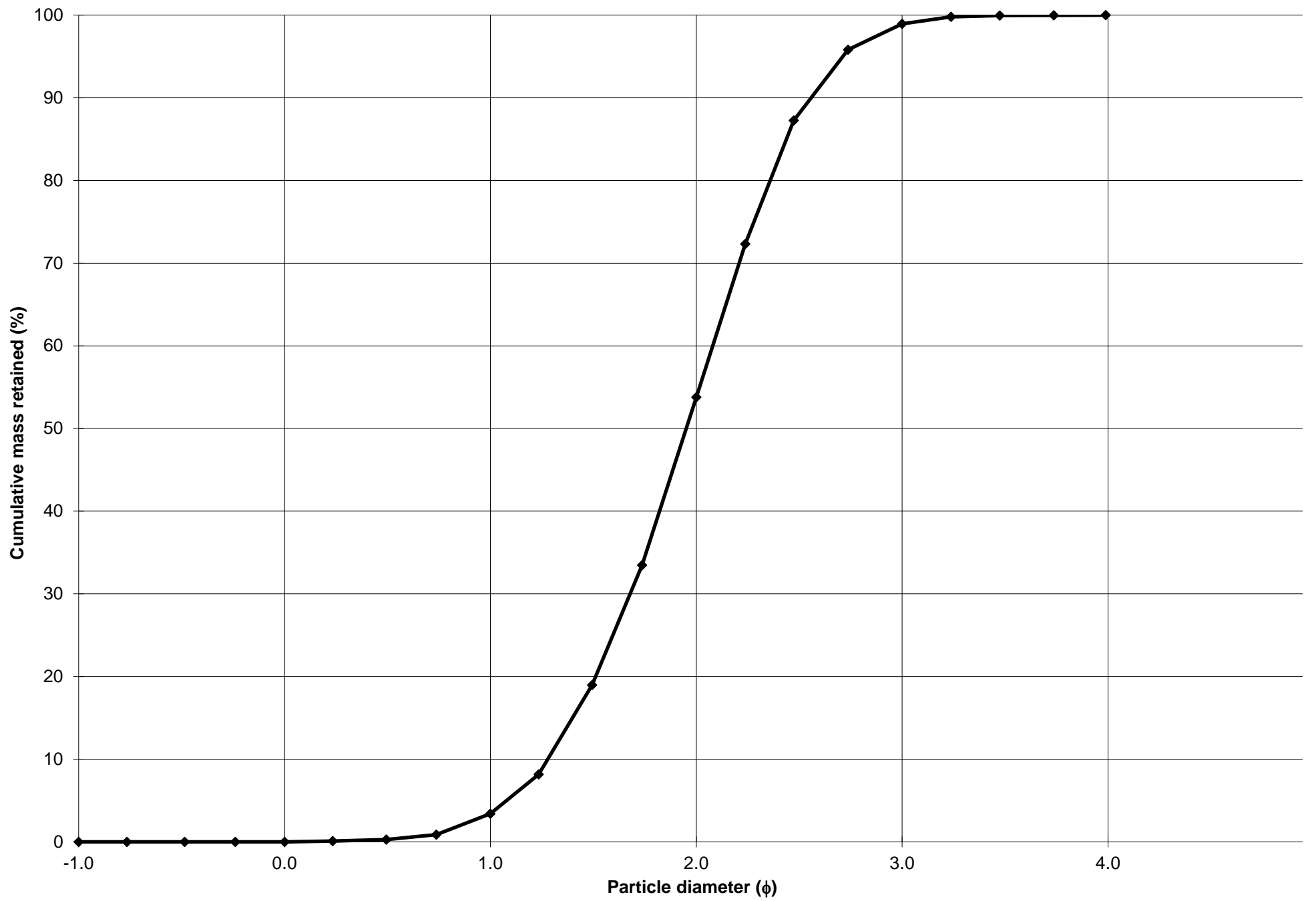
SEDIMENT NAME: Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%	COARSE SAND: 3.4%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 50.4%		
MODE 3:			MUD: 0.0%	FINE SAND: 45.1%		
D_{10} :	169.8	1.279		V FINE SAND: 1.1%		
MEDIAN or D_{50} :	258.7	1.951	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	412.1	2.558	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.428	2.001	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	242.4	1.280	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.608	1.430	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	125.2	0.685	V COARSE SAND: 0.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	279.3	262.1	1.932	262.0	1.932	Medium Sand
SORTING (σ):	101.7	1.410	0.496	1.412	0.497	Well Sorted
SKEWNESS (Sk):	1.322	0.127	-0.127	0.062	-0.062	Symmetrical
KURTOSIS (K):	6.121	3.477	3.477	0.976	0.976	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 170 cm**

ANALYST & DATE: Stephen Fabian, 1/29/15

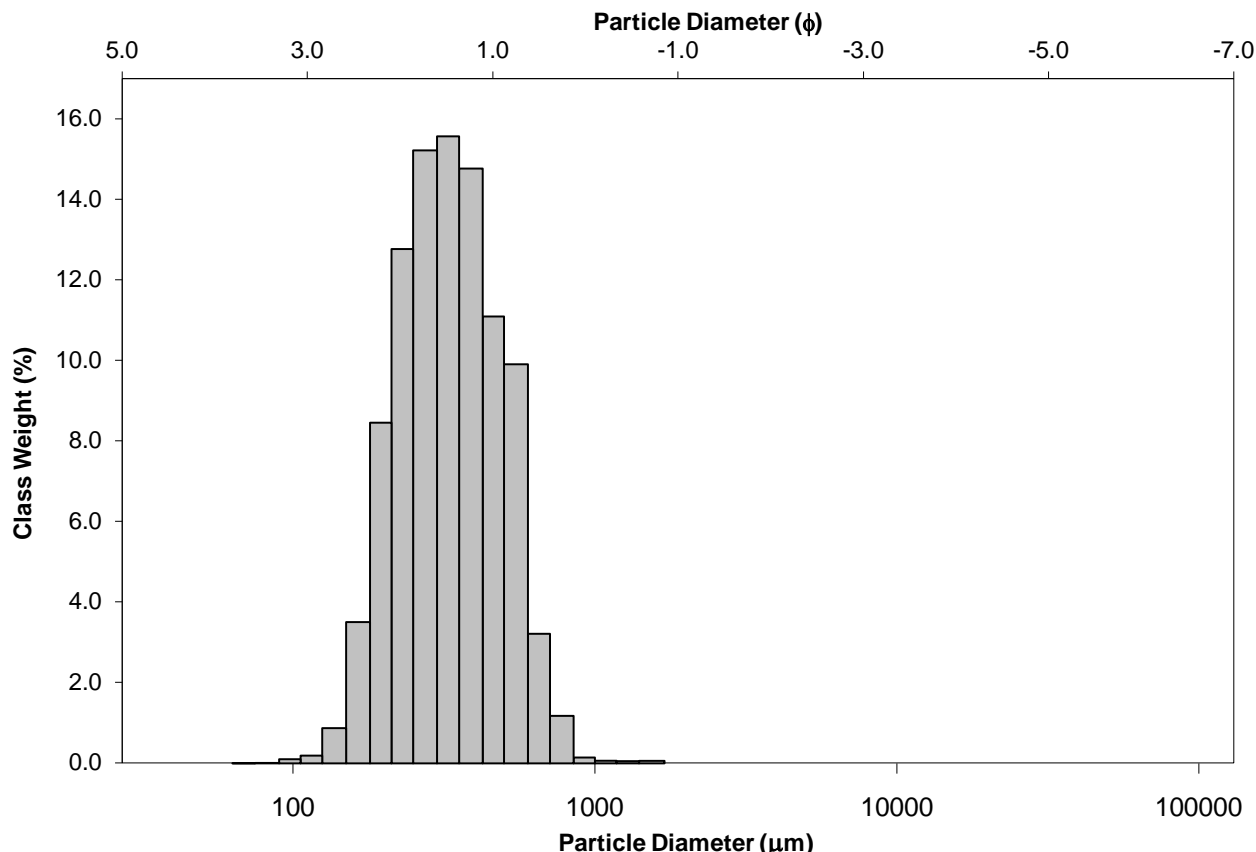
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

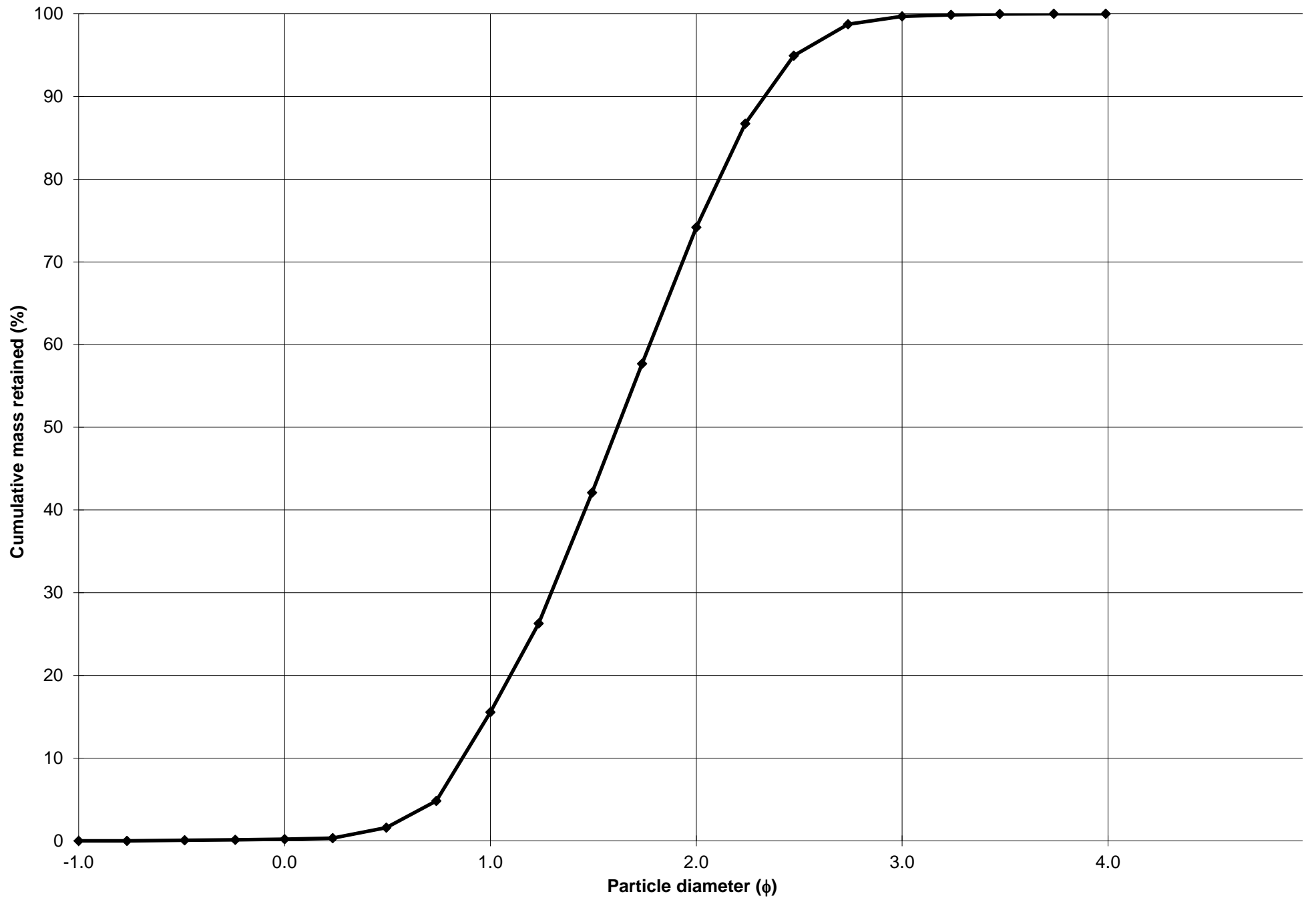
SEDIMENT NAME: Moderately Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%	COARSE SAND: 15.4%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 58.6%		
MODE 3:			MUD: 0.0%	FINE SAND: 25.5%		
D_{10} :	198.6	0.864		V FINE SAND: 0.3%		
MEDIAN or D_{50} :	326.0	1.617	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	549.5	2.332	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.767	2.700	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	350.9	1.468	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.752	1.671	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	186.0	0.809	V COARSE SAND: 0.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	354.6	328.0	1.608	328.9	1.604	Medium Sand
SORTING (σ):	142.2	1.468	0.554	1.472	0.557	Moderately Well Sorted
SKEWNESS (Sk):	1.374	0.063	-0.063	0.021	-0.021	Symmetrical
KURTOSIS (K):	7.984	2.741	2.741	0.880	0.880	Platykurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 180 cm**

ANALYST & DATE: Stephen Fabian, 1/29/15

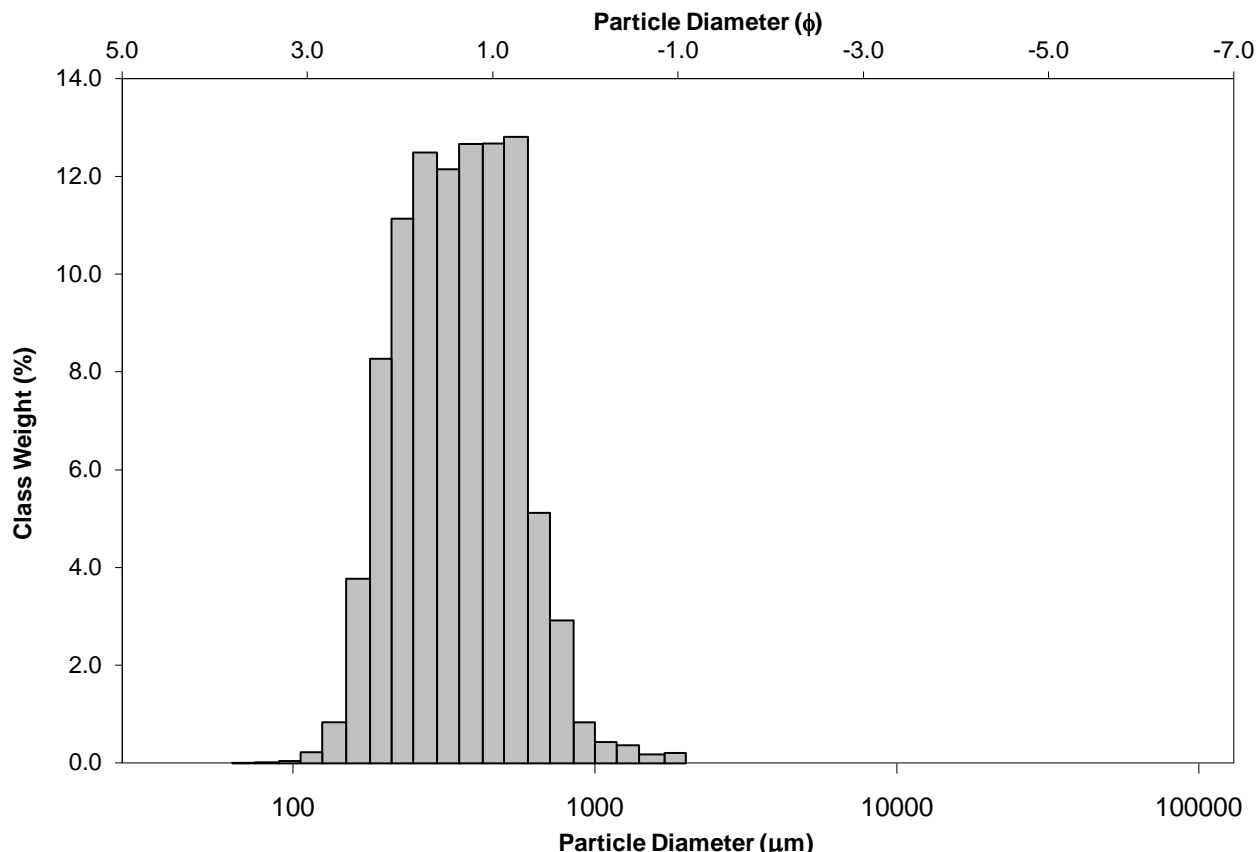
SAMPLE TYPE: Bimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

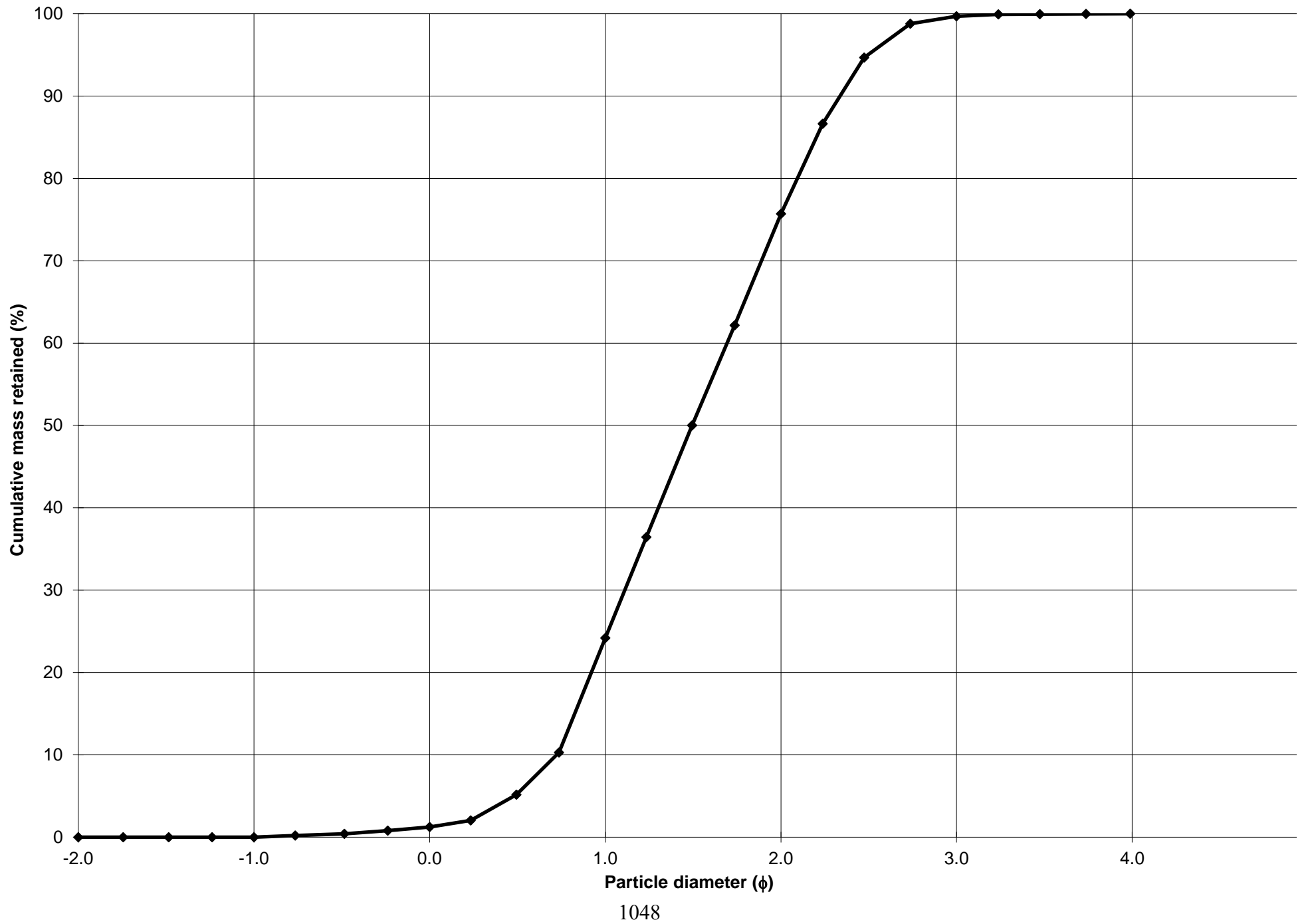
SEDIMENT NAME: Moderately Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 0.0%	COARSE SAND: 23.0%		
MODE 2:	275.0	1.868	SAND: 100.0%	MEDIUM SAND: 51.5%		
MODE 3:			MUD: 0.0%	FINE SAND: 24.0%		
D_{10} :	198.0	0.723		V FINE SAND: 0.3%		
MEDIAN or D_{50} :	355.0	1.494	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	605.8	2.337	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.060	3.232	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	407.8	1.614	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.960	1.956	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	242.2	0.971	V COARSE SAND: 1.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	394.5	354.7	1.495	351.9	1.507	Medium Sand
SORTING (σ):	195.5	1.564	0.645	1.557	0.639	Moderately Well Sorted
SKEWNESS (Sk):	2.159	0.156	-0.156	-0.011	0.011	Symmetrical
KURTOSIS (K):	12.67	3.226	3.226	0.850	0.850	Platykurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 190 cm**

ANALYST & DATE: Stephen Fabian, 1/30/15

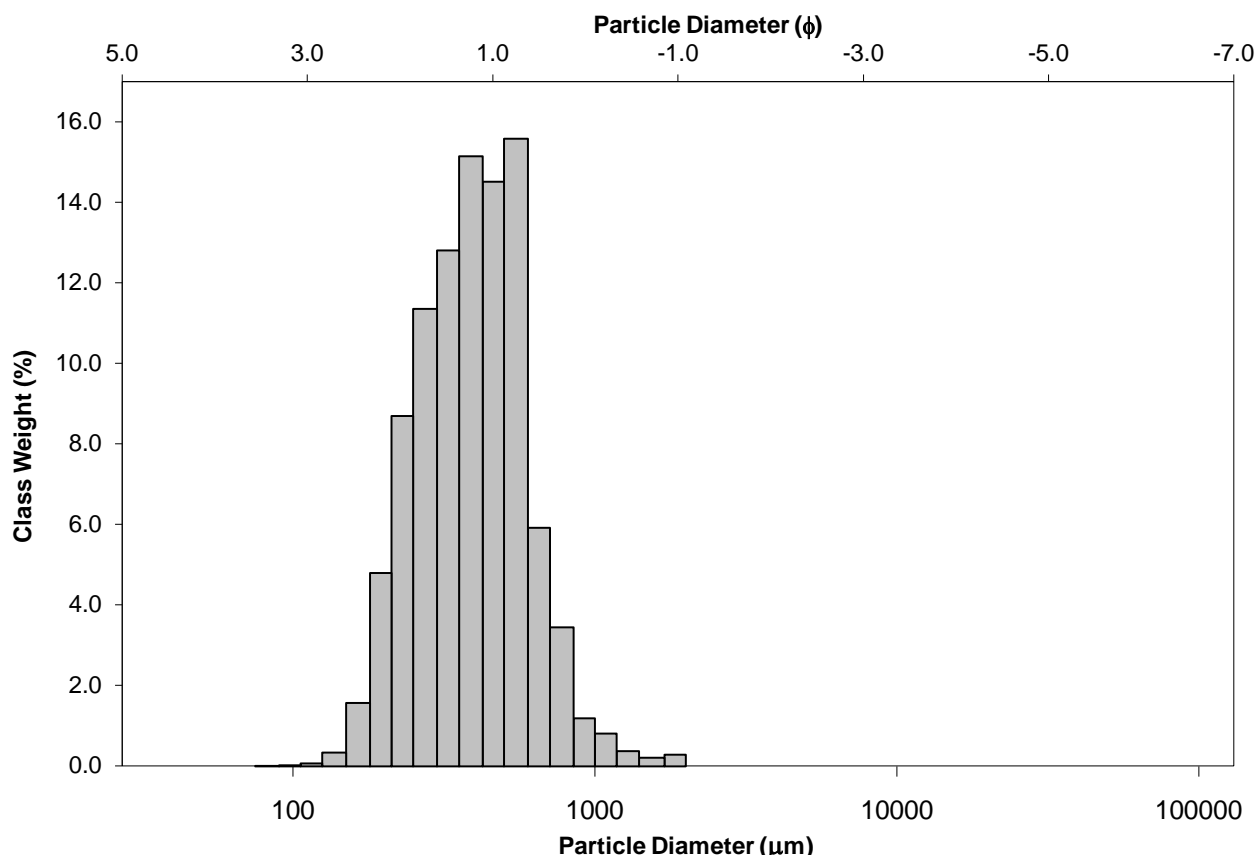
SAMPLE TYPE: Bimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

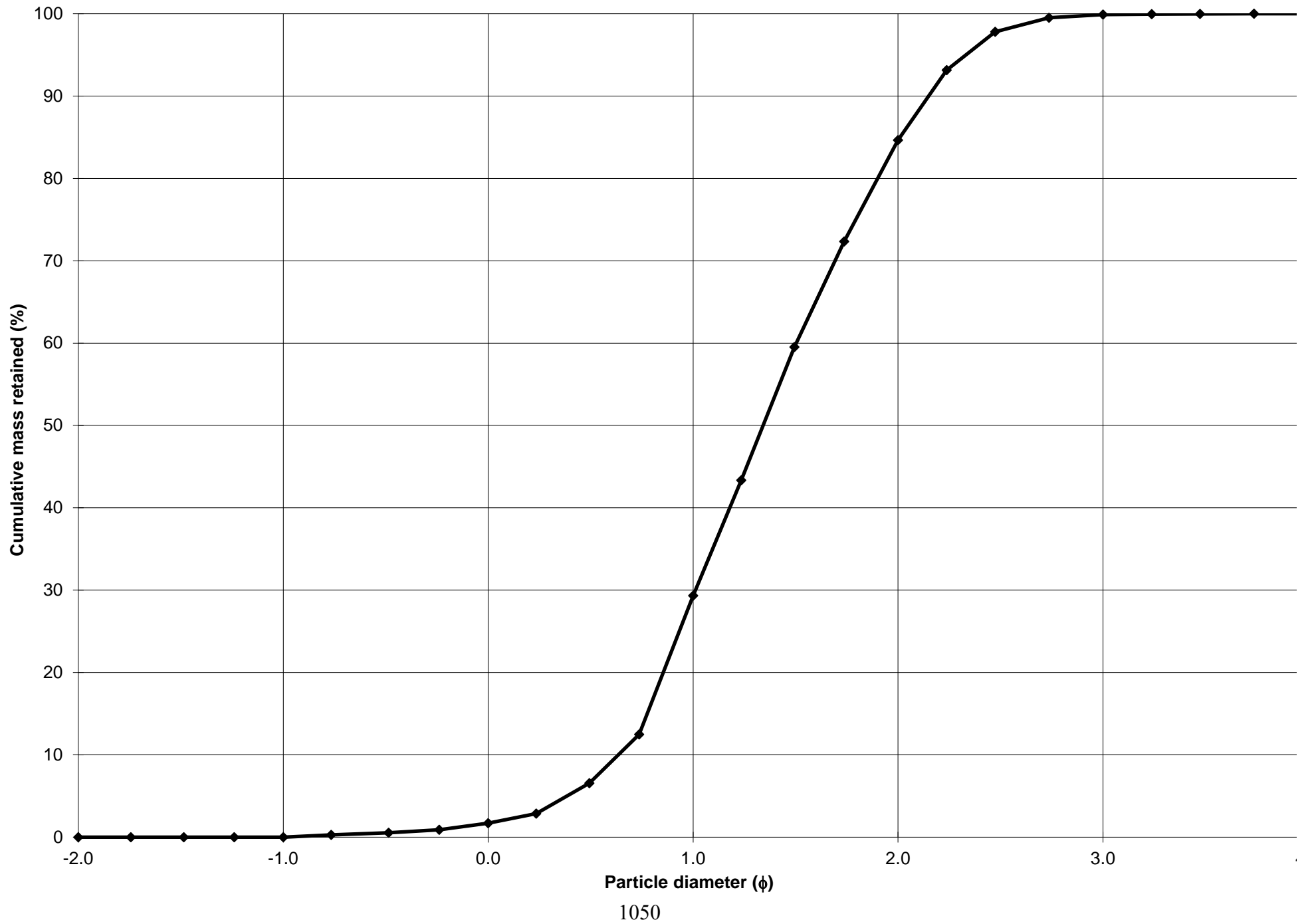
SEDIMENT NAME: Moderately Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 0.0%	COARSE SAND: 27.6%		
MODE 2:	390.0	1.364	SAND: 100.0%	MEDIUM SAND: 55.3%		
MODE 3:			MUD: 0.0%	FINE SAND: 15.3%		
D_{10} :	225.3	0.636		V FINE SAND: 0.1%		
MEDIAN or D_{50} :	394.7	1.341	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	643.7	2.150	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.857	3.383	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	418.4	1.514	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.817	1.924	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	235.6	0.862	V COARSE SAND: 1.7%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	429.6	391.1	1.354	386.0	1.373	Medium Sand
SORTING (σ):	200.2	1.518	0.603	1.509	0.594	Moderately Well Sorted
SKEWNESS (Sk):	2.230	0.185	-0.185	-0.049	0.049	Symmetrical
KURTOSIS (K):	12.95	3.261	3.261	0.926	0.926	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 200 cm**

ANALYST & DATE: Stephen Fabian, 1/30/15

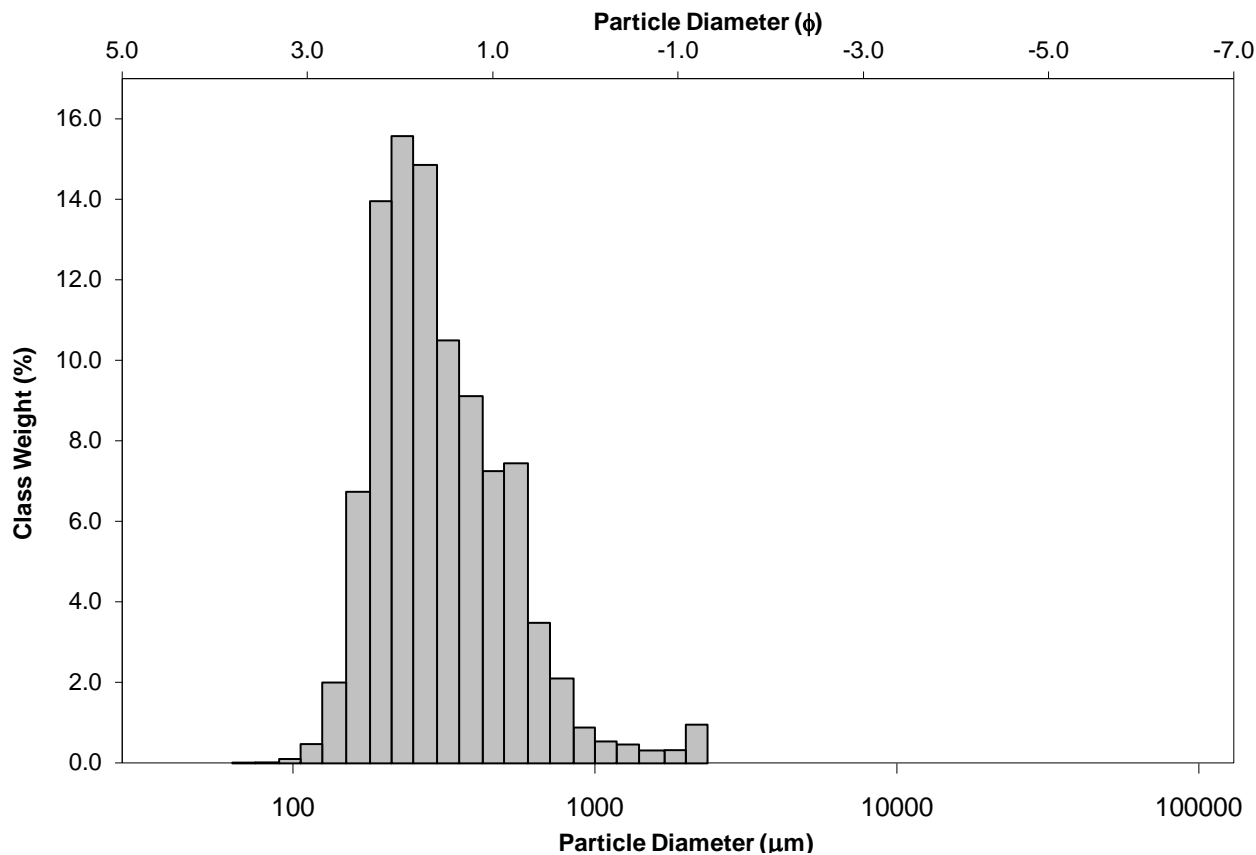
SAMPLE TYPE: Bimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

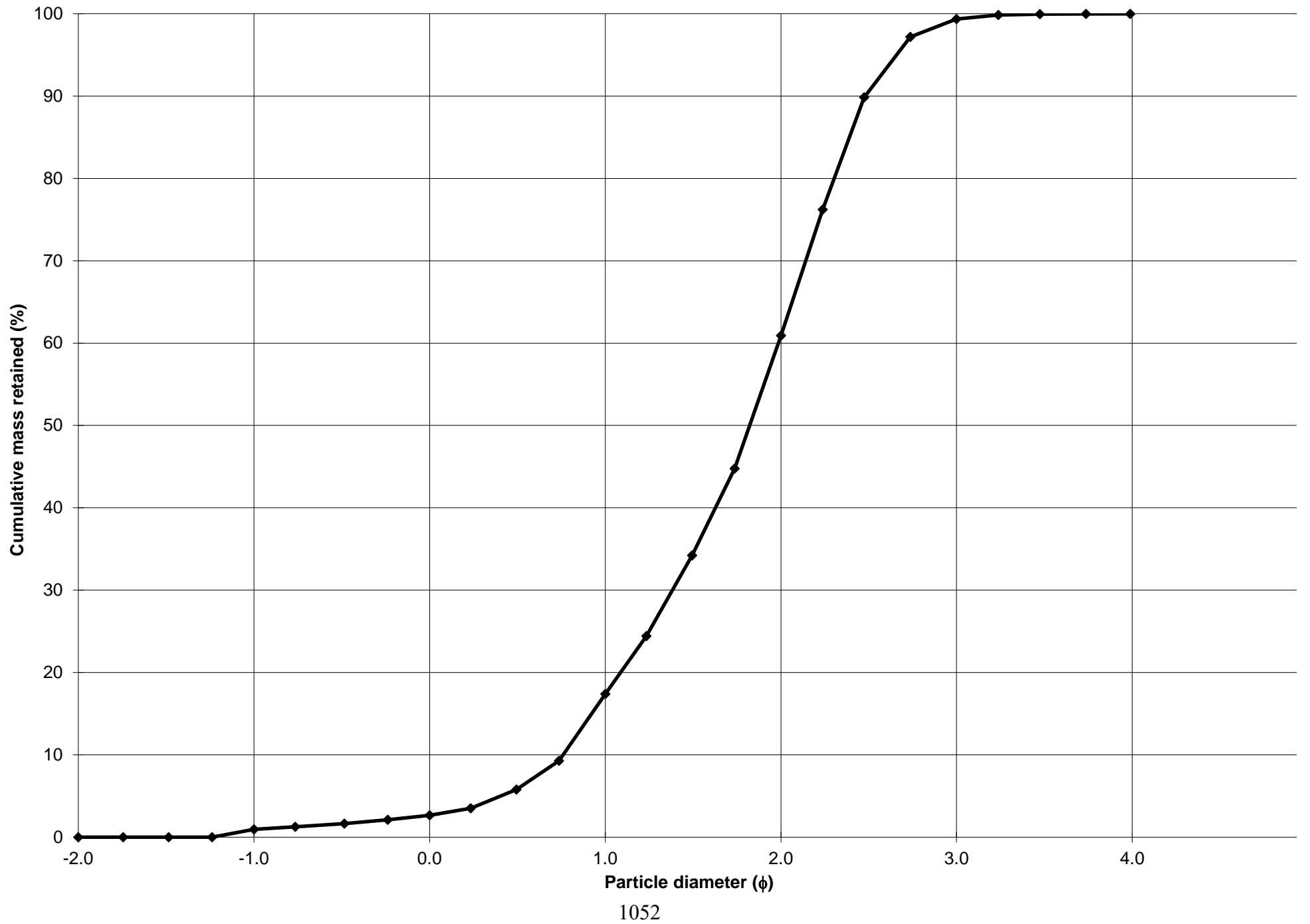
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.9%	COARSE SAND: 14.7%		
MODE 2:	550.0	0.868	SAND: 99.0%	MEDIUM SAND: 43.5%		
MODE 3:			MUD: 0.0%	FINE SAND: 38.5%		
D_{10} :	179.3	0.760		V FINE SAND: 0.6%		
MEDIAN or D_{50} :	282.7	1.822	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	590.4	2.479	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.292	3.261	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	411.1	1.719	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.957	1.775	V FINE GRAVEL: 0.9%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	205.7	0.969	V COARSE SAND: 1.7%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	365.0	310.5	1.687	304.2	1.717	Medium Sand
SORTING (σ):	275.8	1.670	0.740	1.620	0.696	Moderately Well Sorted
SKEWNESS (Sk):	3.893	0.946	-0.946	0.241	-0.241	Coarse Skewed
KURTOSIS (K):	23.00	4.860	4.860	0.953	0.953	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 210 cm**

ANALYST & DATE: Stephen Fabian, 1/30/15

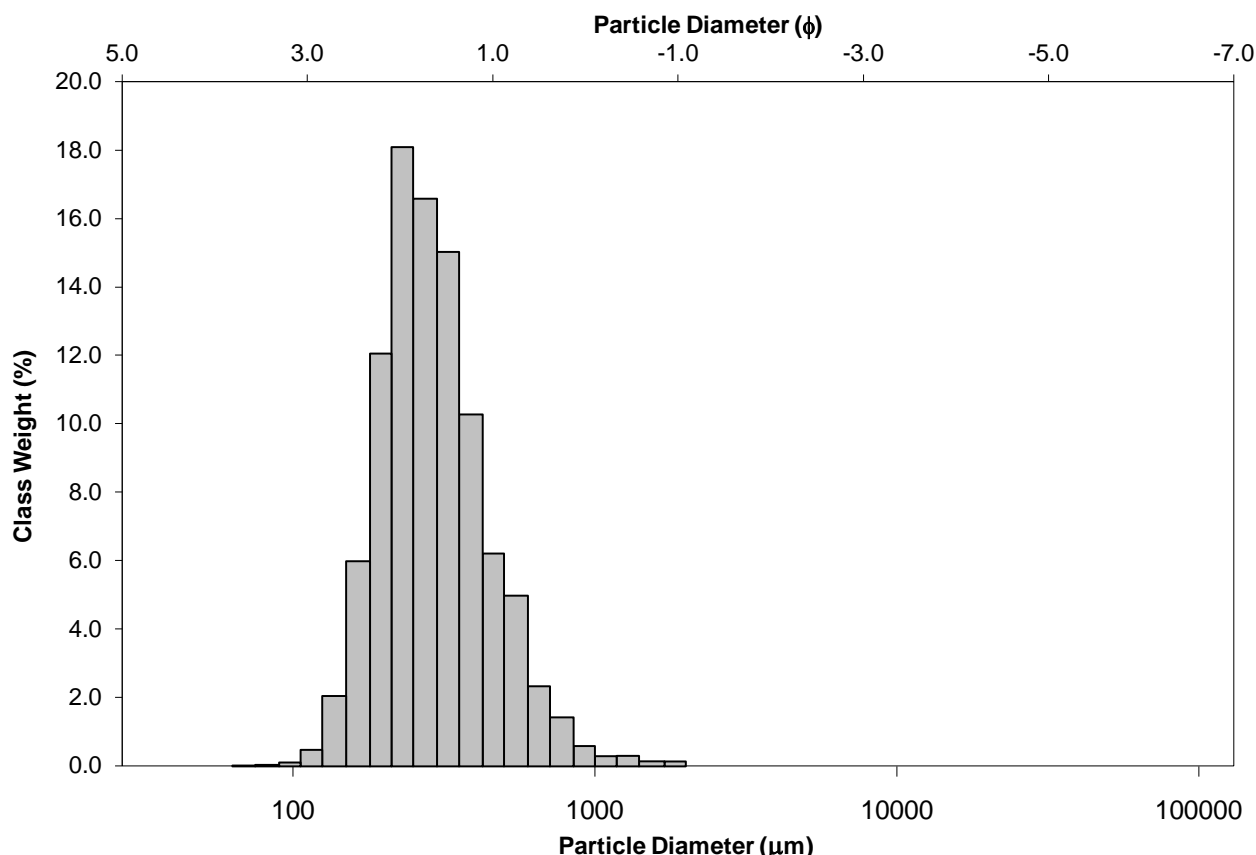
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

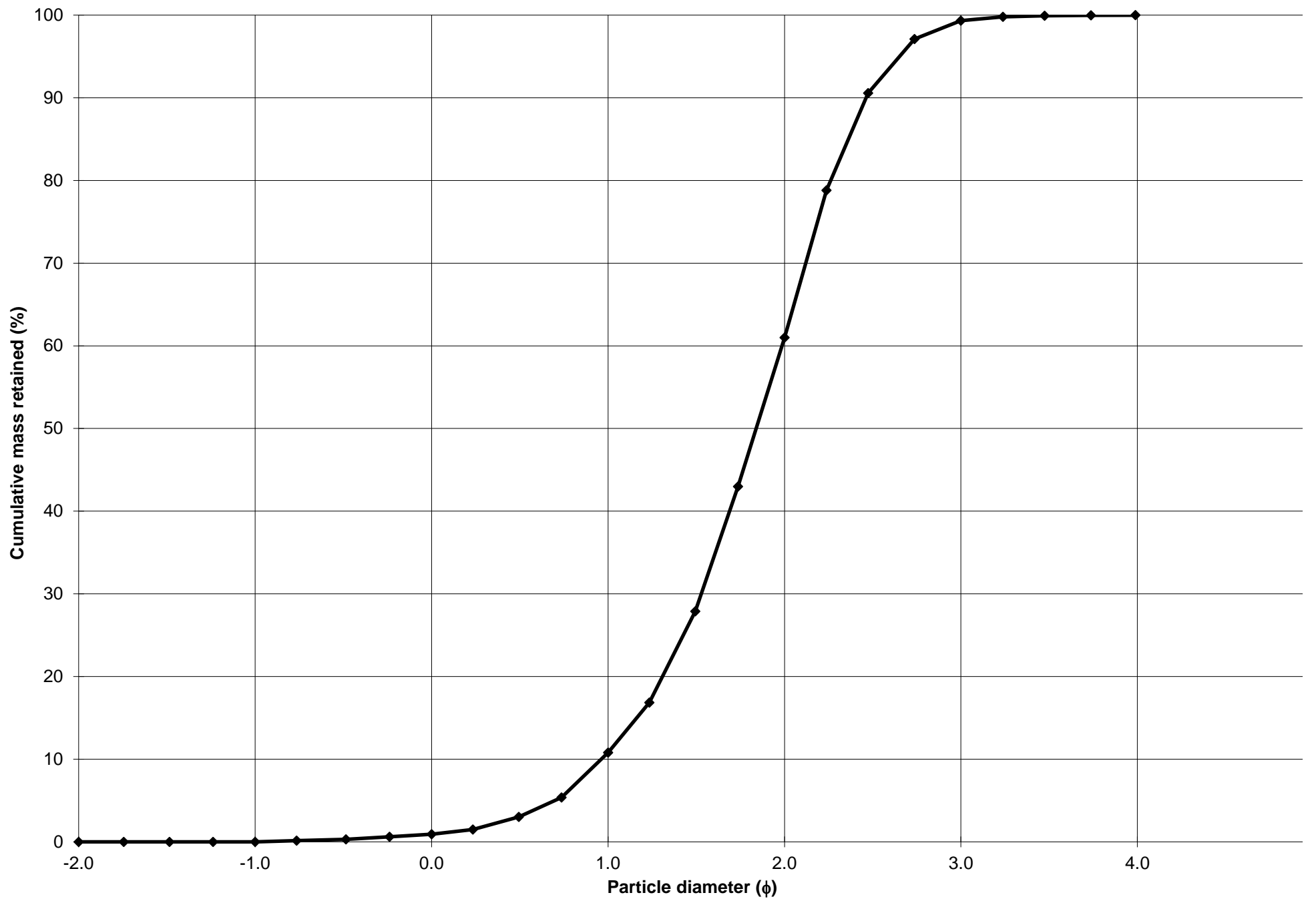
SEDIMENT NAME: Moderately Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%	COARSE SAND: 9.9%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 50.2%		
MODE 3:			MUD: 0.0%	FINE SAND: 38.3%		
D_{10} :	181.4	0.961		V FINE SAND: 0.7%		
MEDIAN or D_{50} :	279.4	1.840	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	513.7	2.462	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.831	2.562	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	332.3	1.501	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.694	1.533	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	152.4	0.761	V COARSE SAND: 0.9%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	323.7	292.5	1.773	288.3	1.795	Medium Sand
SORTING (σ):	171.4	1.522	0.606	1.496	0.581	Moderately Well Sorted
SKEWNESS (Sk):	3.131	0.604	-0.604	0.143	-0.143	Coarse Skewed
KURTOSIS (K):	19.90	4.686	4.686	1.053	1.053	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 219 cm**

ANALYST & DATE: Stephen Fabian, 1/30/15

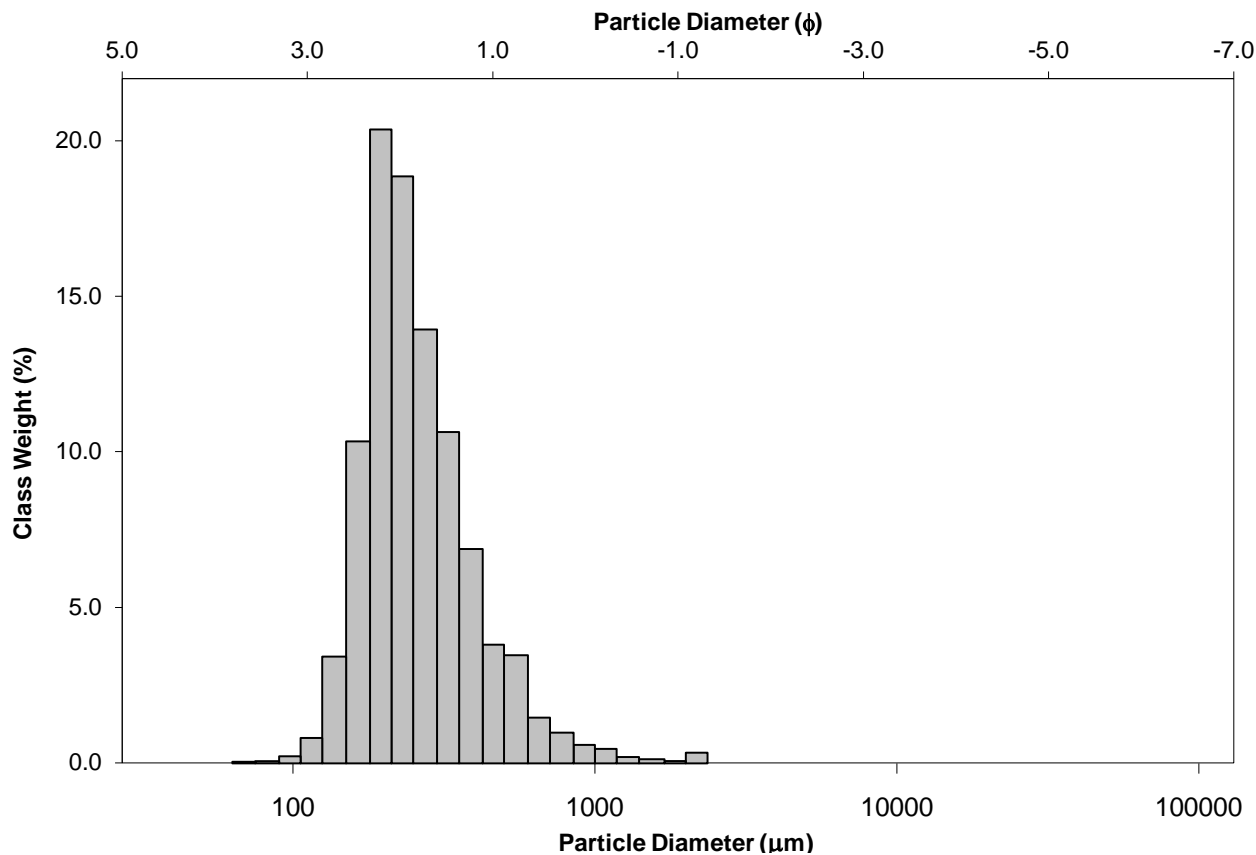
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

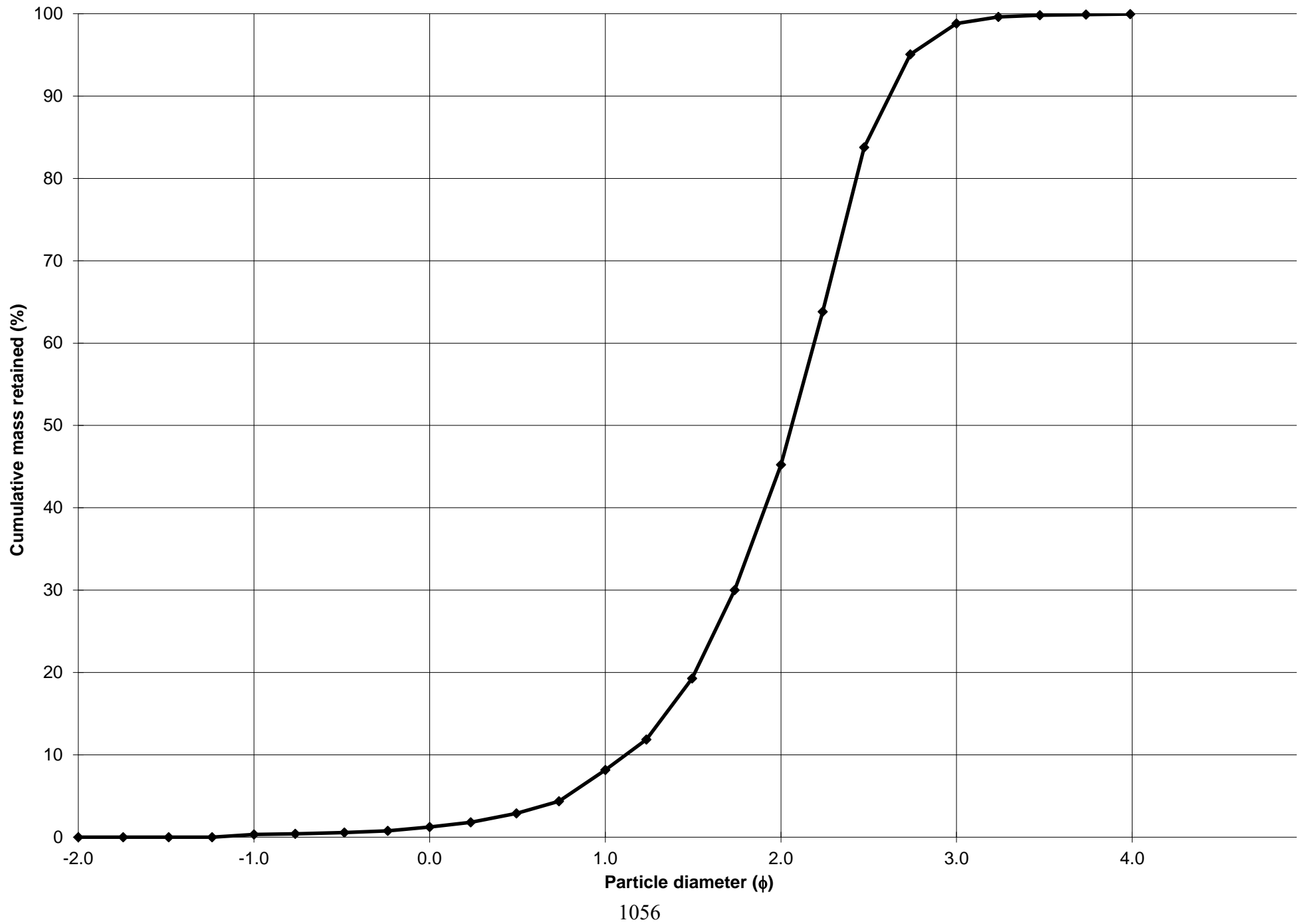
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.3%	COARSE SAND: 6.9%		
MODE 2:			SAND: 99.6%	MEDIUM SAND: 37.1%		
MODE 3:			MUD: 0.0%	FINE SAND: 53.6%		
D_{10} :	162.8	1.117		V FINE SAND: 1.2%		
MEDIAN or D_{50} :	239.6	2.061	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	461.1	2.619	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.833	2.345	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	298.3	1.502	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.678	1.460	V FINE GRAVEL: 0.3%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	131.1	0.746	V COARSE SAND: 0.9%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	293.2	259.6	1.946	254.7	1.973	Medium Sand
SORTING (σ):	195.7	1.557	0.639	1.486	0.571	Moderately Well Sorted
SKEWNESS (Sk):	4.886	0.973	-0.973	0.275	-0.275	Coarse Skewed
KURTOSIS (K):	38.97	6.961	6.961	1.073	1.073	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



Single Sample Data Input Screen

Enter your data in the columns below, ar
Statistics" button. See the "Information"

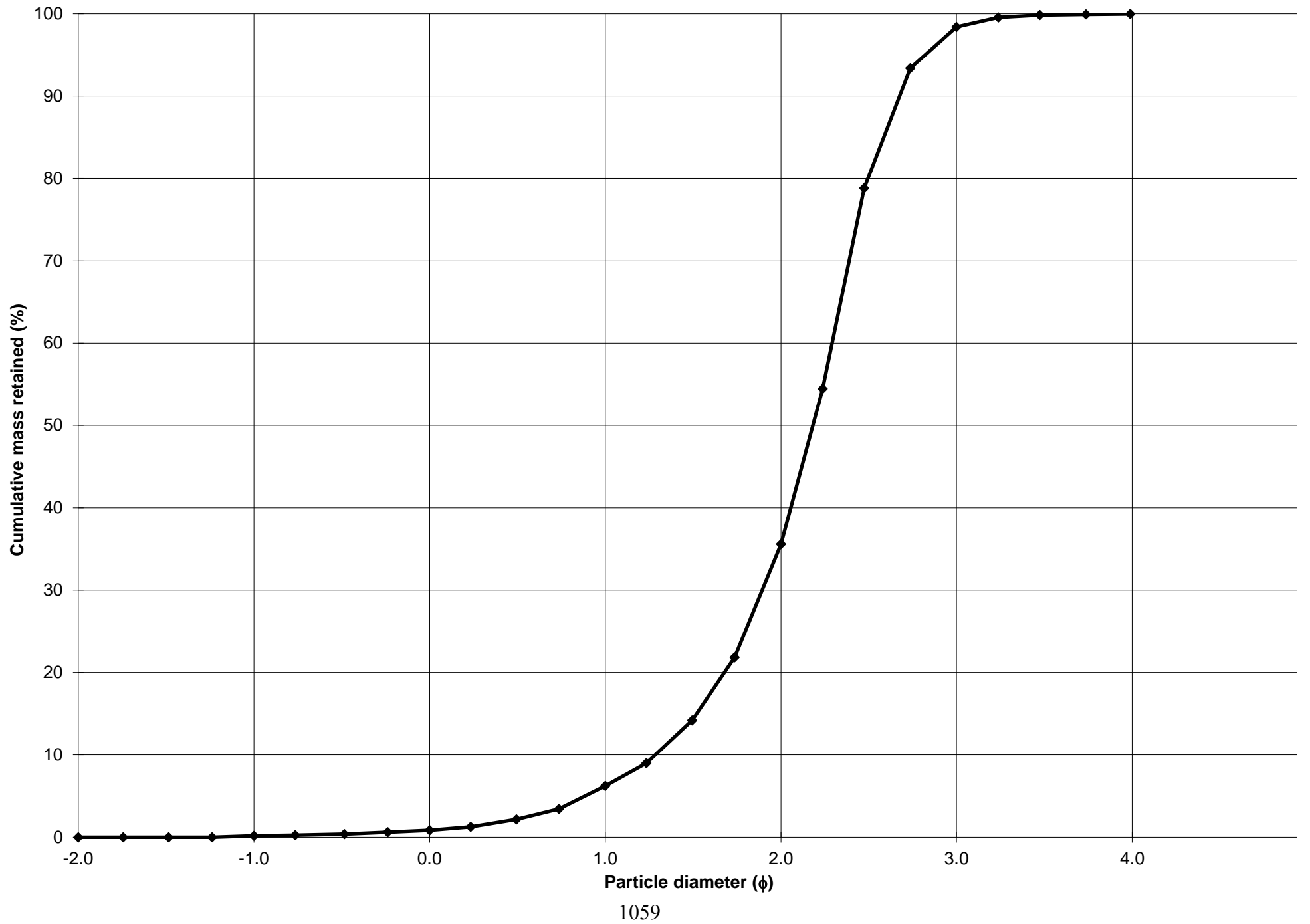
Sample Identity: **GR-14-PA 4 230 cm**
Analyst: **Stephen Fabian**
Date: **1/30/15**
Initial Sample Weight: (optional)

Auto. add
apertures
at:

Aperture (microns)	Class Weight Retained (g or %)
75000	
63000	
53000	
45000	
37500	
31500	
26500	
22400	
19000	
16000	
13200	
11200	
9500	
8000	
6700	
5600	
4750	
4000	
3350	
2800	
2360	
2000	0.056
1700	0.024
1400	0.036
1180	0.078
1000	0.074
850	0.126
710	0.285
600	0.392
500	0.876
425	0.867
355	1.632
300	2.391
250	4.309
212	5.911
180	7.621
150	4.569
125	1.57
106	0.363
90	0.09
75	0.027
63	0.013
	0.008

nd then click the "Calculate
sheet for more information.

Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 240 cm**

ANALYST & DATE: Stephen Fabian, 1/30/15

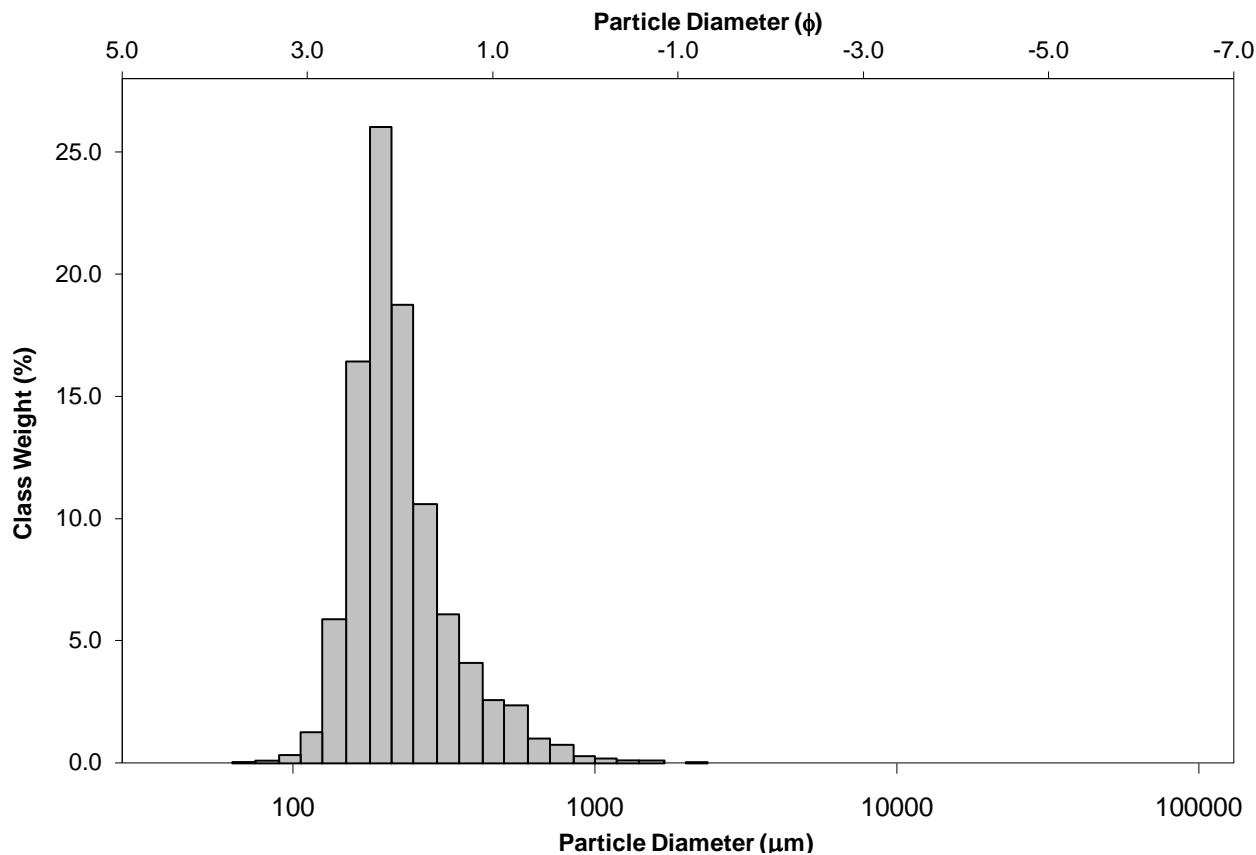
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

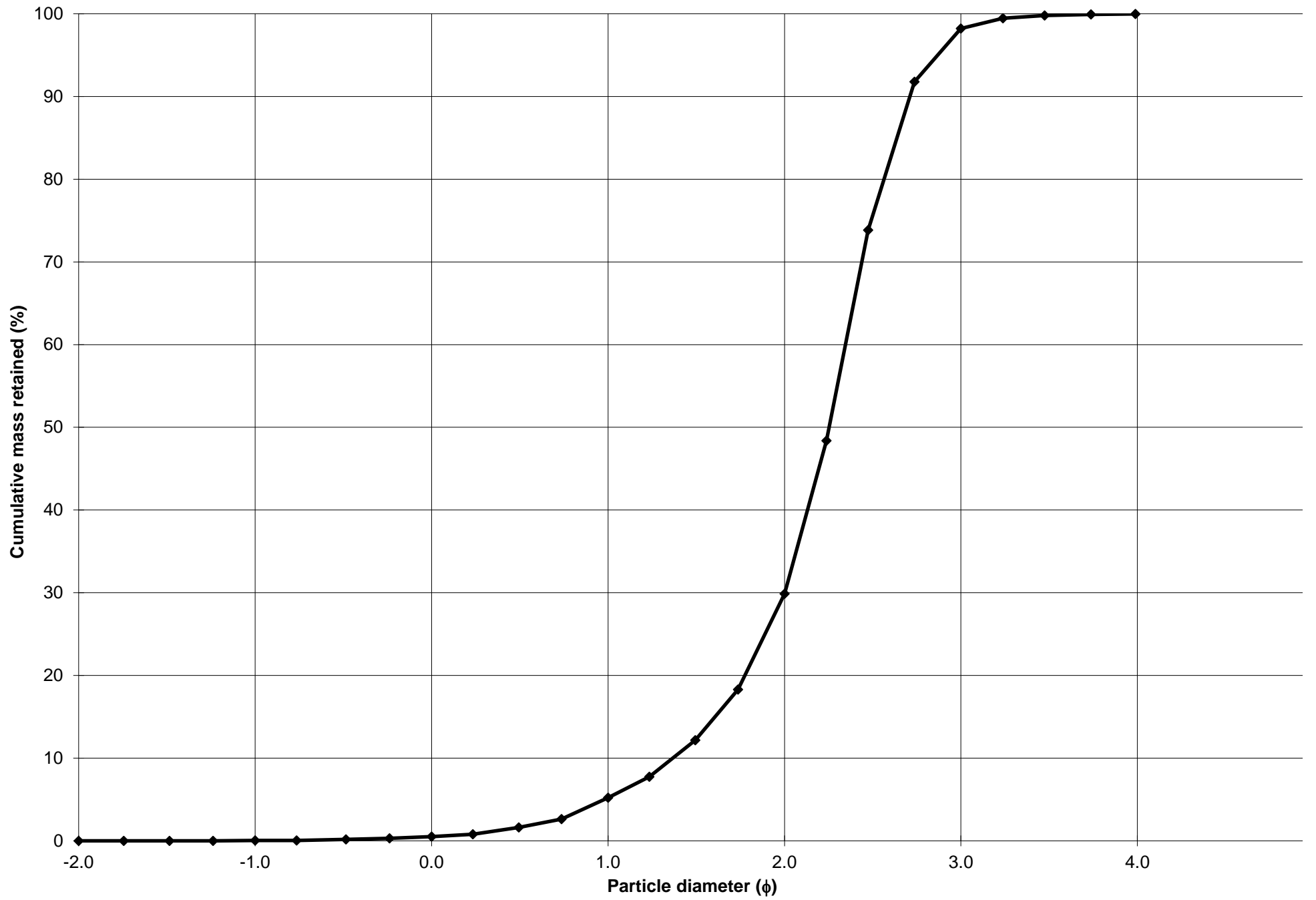
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 4.7%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 24.6%		
MODE 3:			MUD: 0.0%	FINE SAND: 68.3%		
D_{10} :	152.7	1.367		V FINE SAND: 1.8%		
MEDIAN or D_{50} :	209.8	2.253	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	387.7	2.711	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.538	1.983	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	234.9	1.344	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.517	1.318	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	92.04	0.602	V COARSE SAND: 0.5%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	250.8	227.5	2.136	221.6	2.174	Fine Sand
SORTING (σ):	142.2	1.485	0.571	1.445	0.531	Moderately Well Sorted
SKEWNESS (Sk):	4.395	1.132	-1.132	0.296	-0.296	Coarse Skewed
KURTOSIS (K):	36.57	6.551	6.551	1.289	1.289	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 250 cm**

ANALYST & DATE: Stephen Fabian, 1/31/15

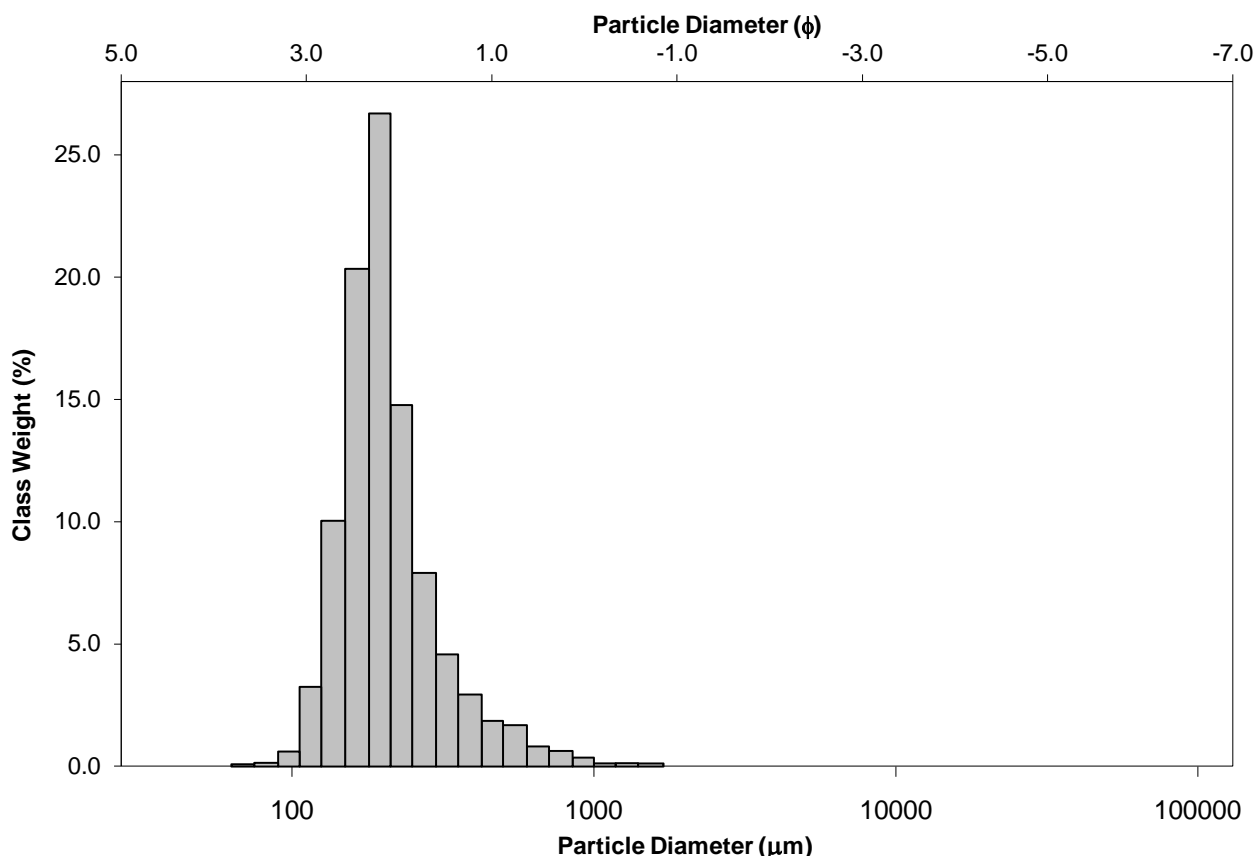
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

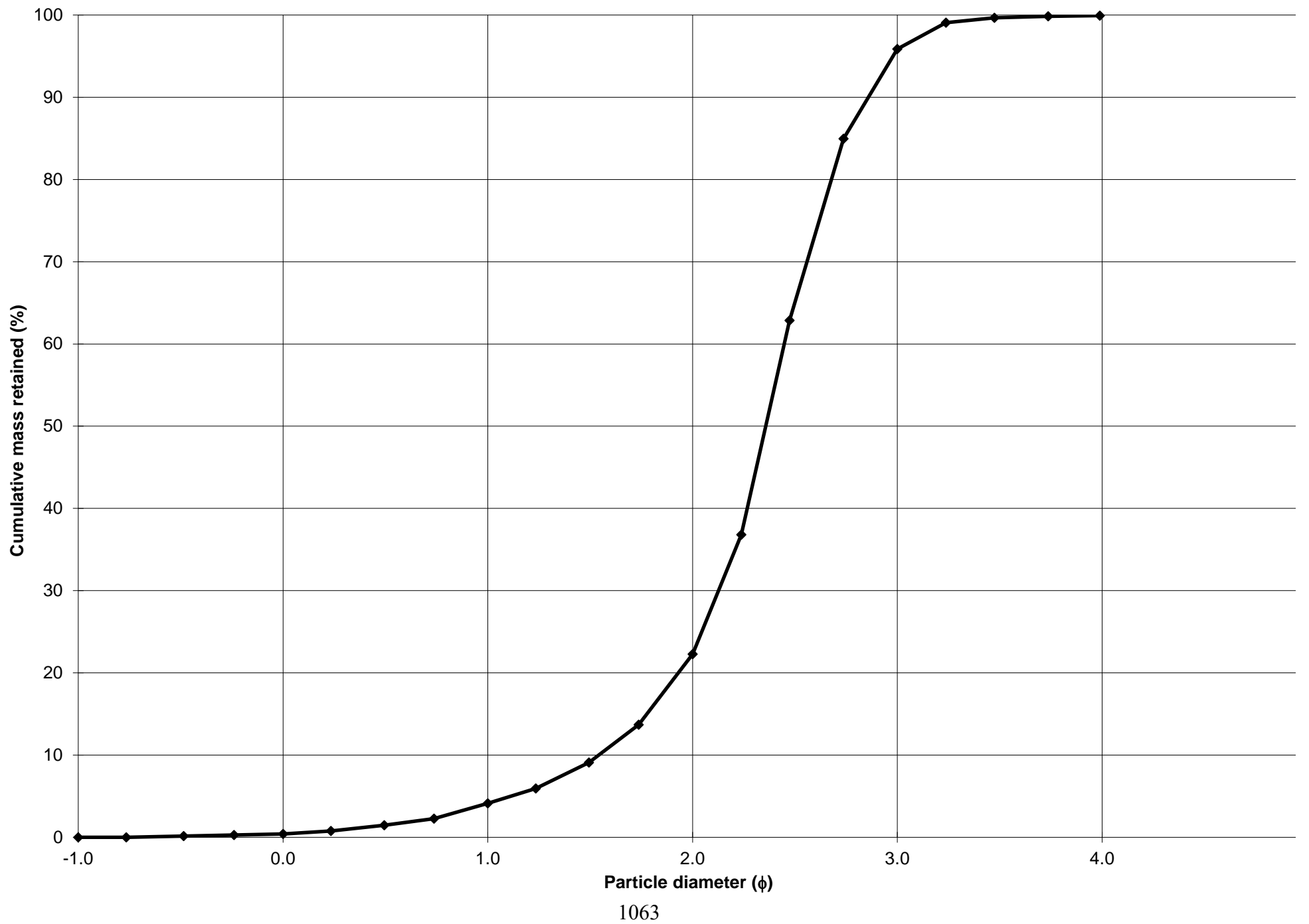
SEDIMENT NAME: Moderately Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 3.7%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 18.2%		
MODE 3:			MUD: 0.1%	FINE SAND: 73.6%		
D_{10} :	137.9	1.542		V FINE SAND: 4.1%		
MEDIAN or D_{50} :	195.1	2.357	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	343.3	2.859	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.490	1.853	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	205.4	1.316	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.489	1.281	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	79.58	0.574	V COARSE SAND: 0.4%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	229.6	208.0	2.265	203.5	2.297	Fine Sand
SORTING (σ):	132.0	1.491	0.577	1.426	0.512	Moderately Well Sorted
SKEWNESS (Sk):	4.186	0.923	-0.923	0.266	-0.266	Coarse Skewed
KURTOSIS (K):	29.54	8.680	8.680	1.331	1.331	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 260 cm**

ANALYST & DATE: Stephen Fabian, 1/31/15

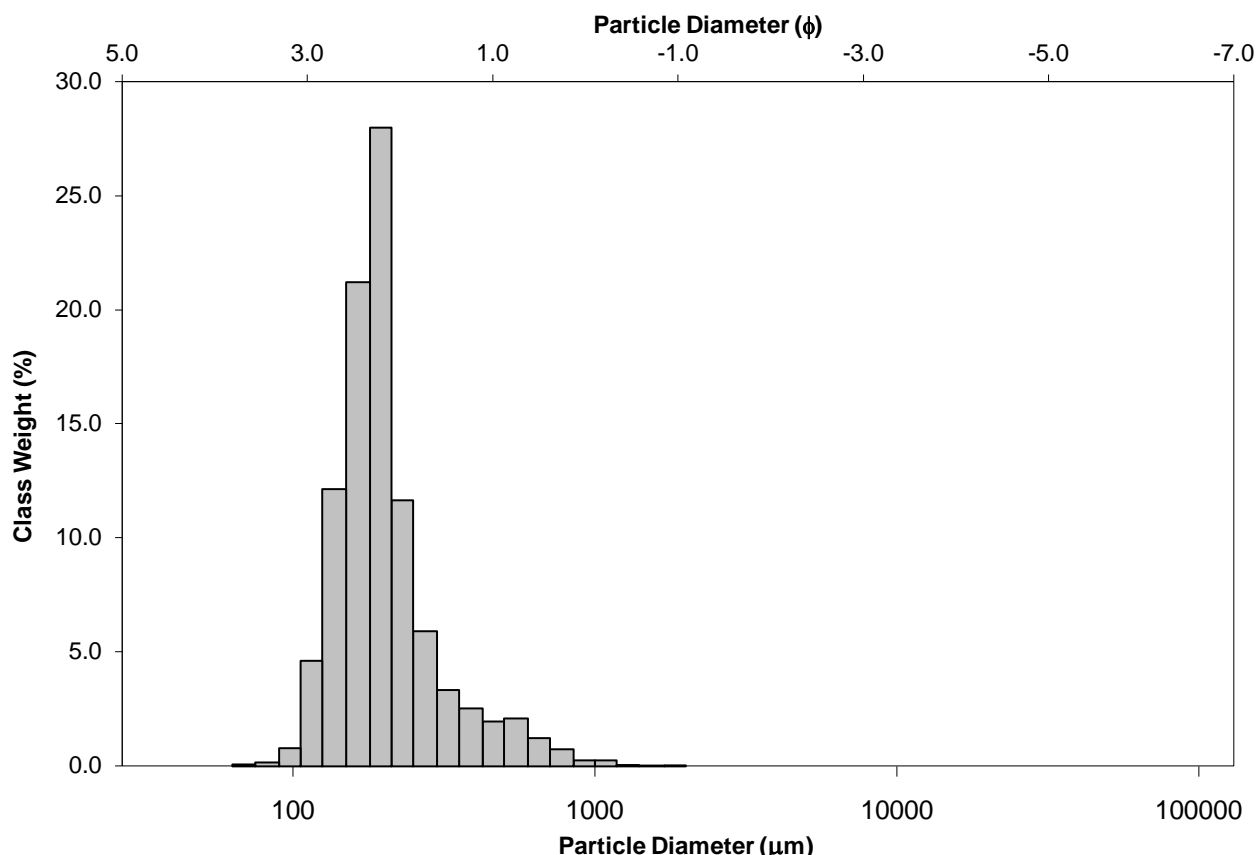
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

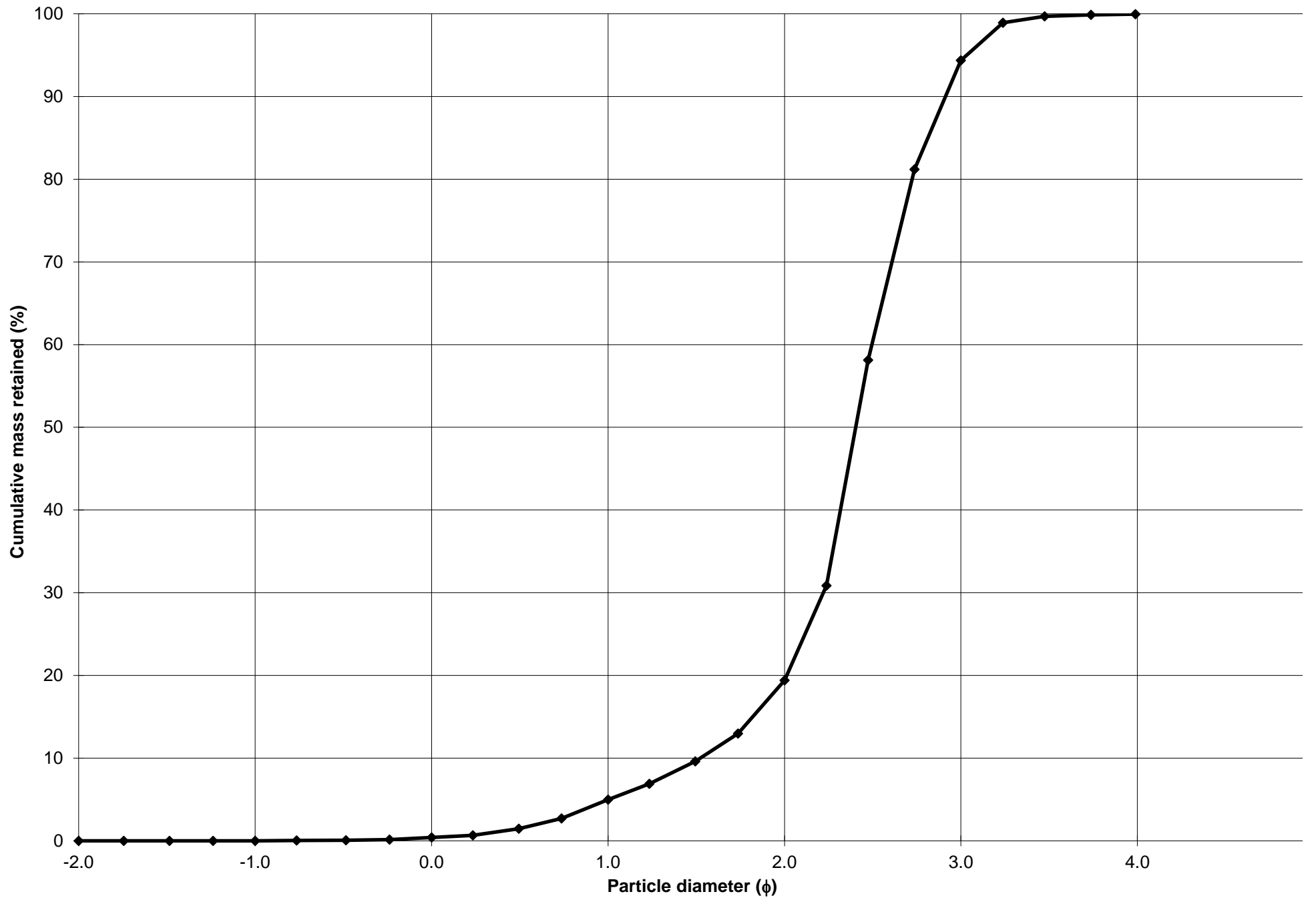
SEDIMENT NAME: Moderately Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 4.6%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 14.4%		
MODE 3:			MUD: 0.0%	FINE SAND: 75.0%		
D_{10} :	132.8	1.522		V FINE SAND: 5.6%		
MEDIAN or D_{50} :	189.0	2.404	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	348.1	2.913	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.622	1.914	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	215.4	1.391	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.464	1.260	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	73.12	0.550	V COARSE SAND: 0.4%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	224.8	202.0	2.307	195.8	2.353	Fine Sand
SORTING (σ):	134.3	1.509	0.593	1.455	0.541	Moderately Well Sorted
SKEWNESS (Sk):	3.880	1.175	-1.175	0.272	-0.272	Coarse Skewed
KURTOSIS (K):	26.45	7.214	7.214	1.513	1.513	Very Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 270 cm**

ANALYST & DATE: Stephen Fabian, 1/31/15

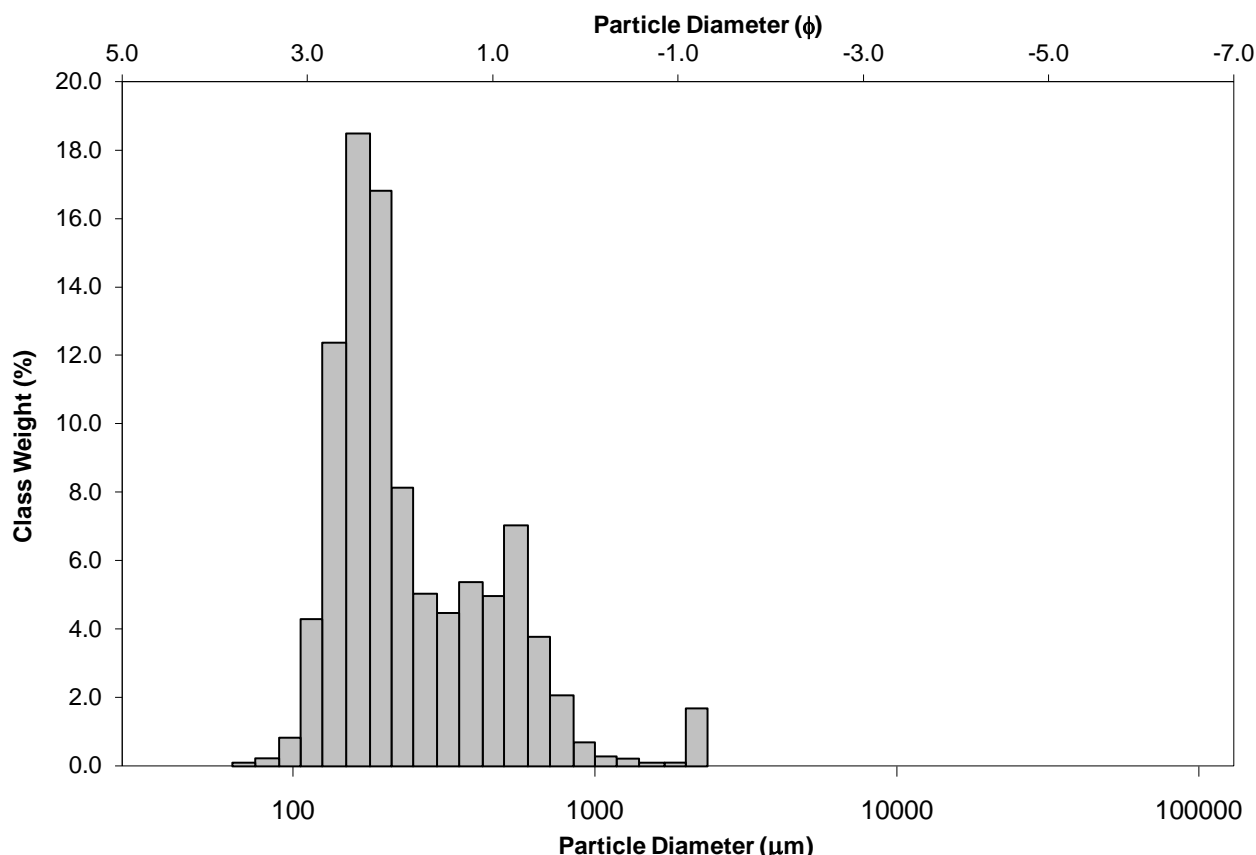
SAMPLE TYPE: Trimodal, Moderately Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

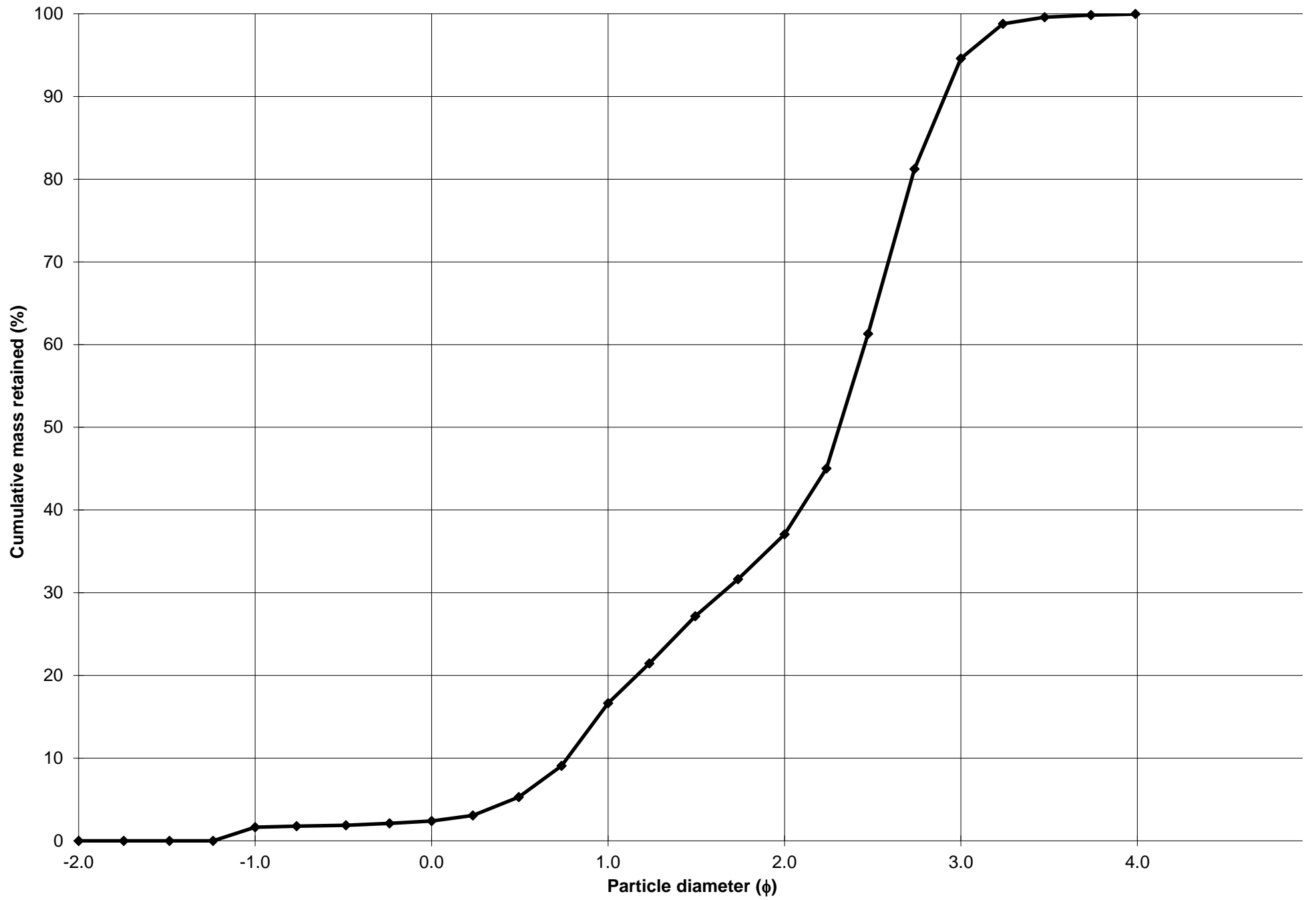
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 1.7%	COARSE SAND: 14.2%		
MODE 2:	550.0	0.868	SAND: 98.3%	MEDIUM SAND: 20.4%		
MODE 3:	390.0	1.364	MUD: 0.0%	FINE SAND: 57.5%		
D_{10} :	133.1	0.770		V FINE SAND: 5.4%		
MEDIAN or D_{50} :	201.6	2.310	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	586.6	2.910	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	4.407	3.780	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	453.5	2.140	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	2.393	1.902	V FINE GRAVEL: 1.7%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	221.2	1.259	V COARSE SAND: 0.7%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	317.6	248.2	2.011	245.5	2.026	Fine Sand
SORTING (σ):	311.6	1.864	0.899	1.792	0.842	Moderately Sorted
SKEWNESS (Sk):	3.987	1.039	-1.039	0.456	-0.456	Very Coarse Skewed
KURTOSIS (K):	22.74	4.399	4.399	0.834	0.834	Platykurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 280 cm**

ANALYST & DATE: Stephen Fabian, 1/31/15

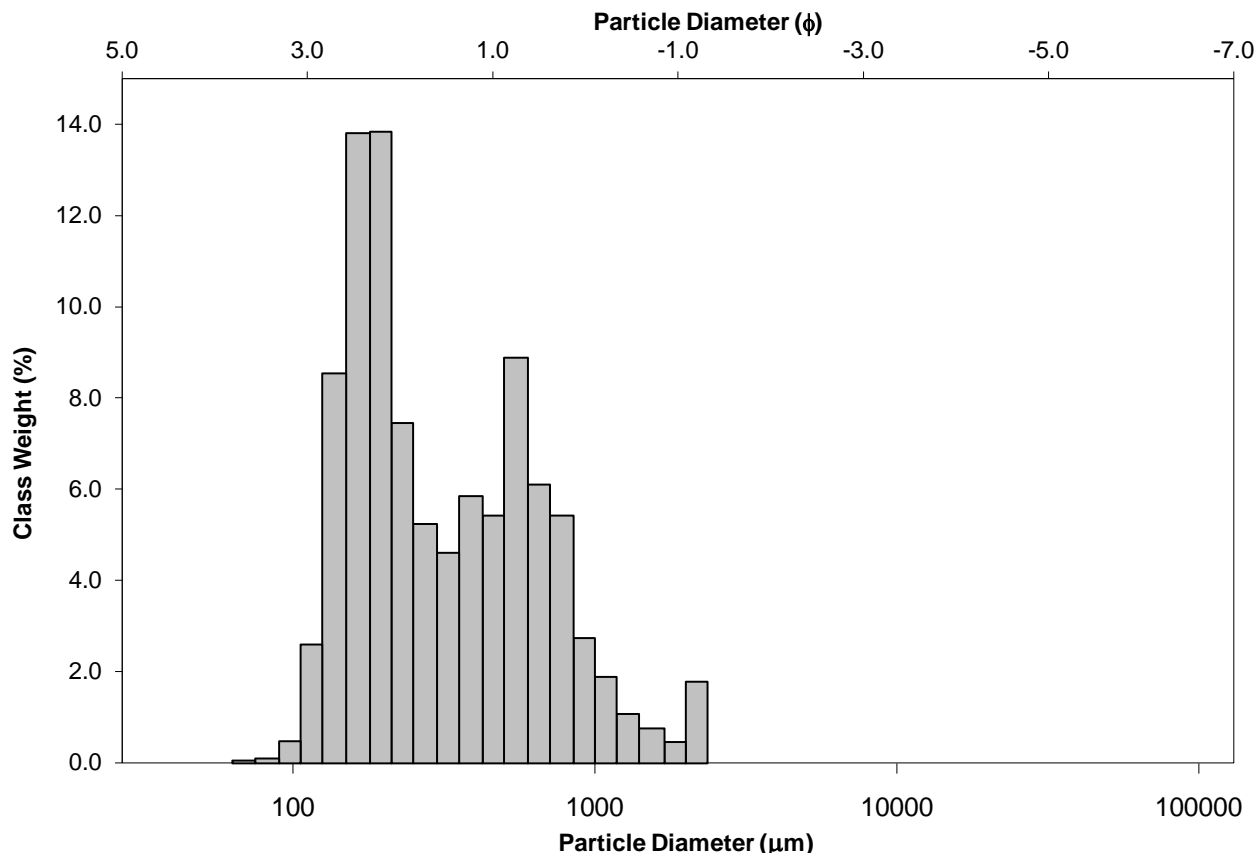
SAMPLE TYPE: Trimodal, Moderately Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

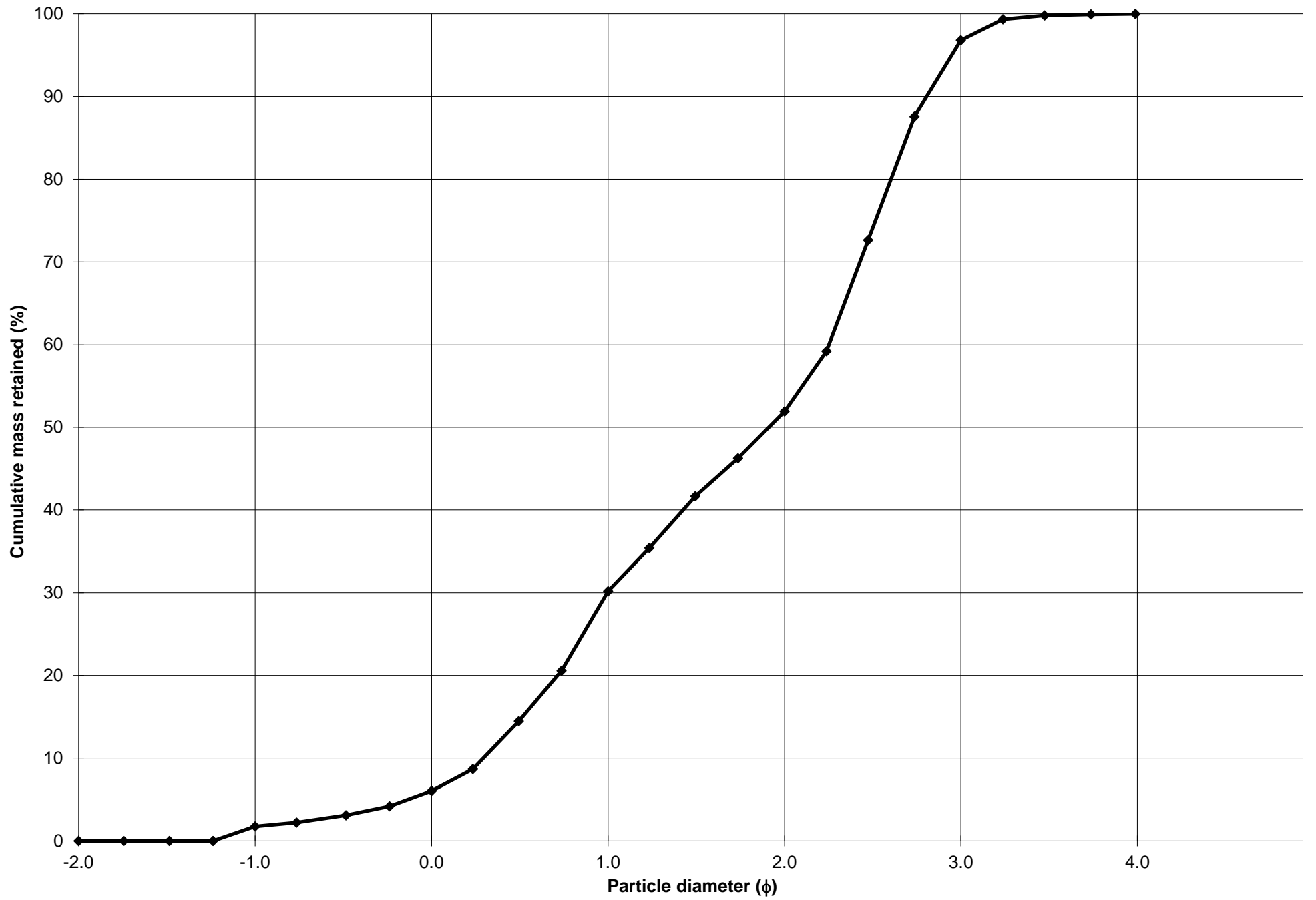
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 1.8%	COARSE SAND: 24.1%		
MODE 2:	550.0	0.868	SAND: 98.2%	MEDIUM SAND: 21.7%		
MODE 3:	390.0	1.364	MUD: 0.0%	FINE SAND: 44.9%		
D_{10} :	142.9	0.293		V FINE SAND: 3.2%		
MEDIAN or D_{50} :	266.0	1.911	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	816.0	2.807	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	5.709	9.569	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	673.1	2.513	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	3.155	2.931	V FINE GRAVEL: 1.8%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	376.8	1.657	V COARSE SAND: 4.3%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	420.3	316.2	1.661	305.0	1.713	Medium Sand
SORTING (σ):	376.8	2.037	1.026	1.996	0.997	Moderately Sorted
SKEWNESS (Sk):	2.499	0.575	-0.575	0.303	-0.303	Very Coarse Skewed
KURTOSIS (K):	10.74	2.654	2.654	0.762	0.762	Platykurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 290 cm**

ANALYST & DATE: Stephen Fabian, 2/1/15

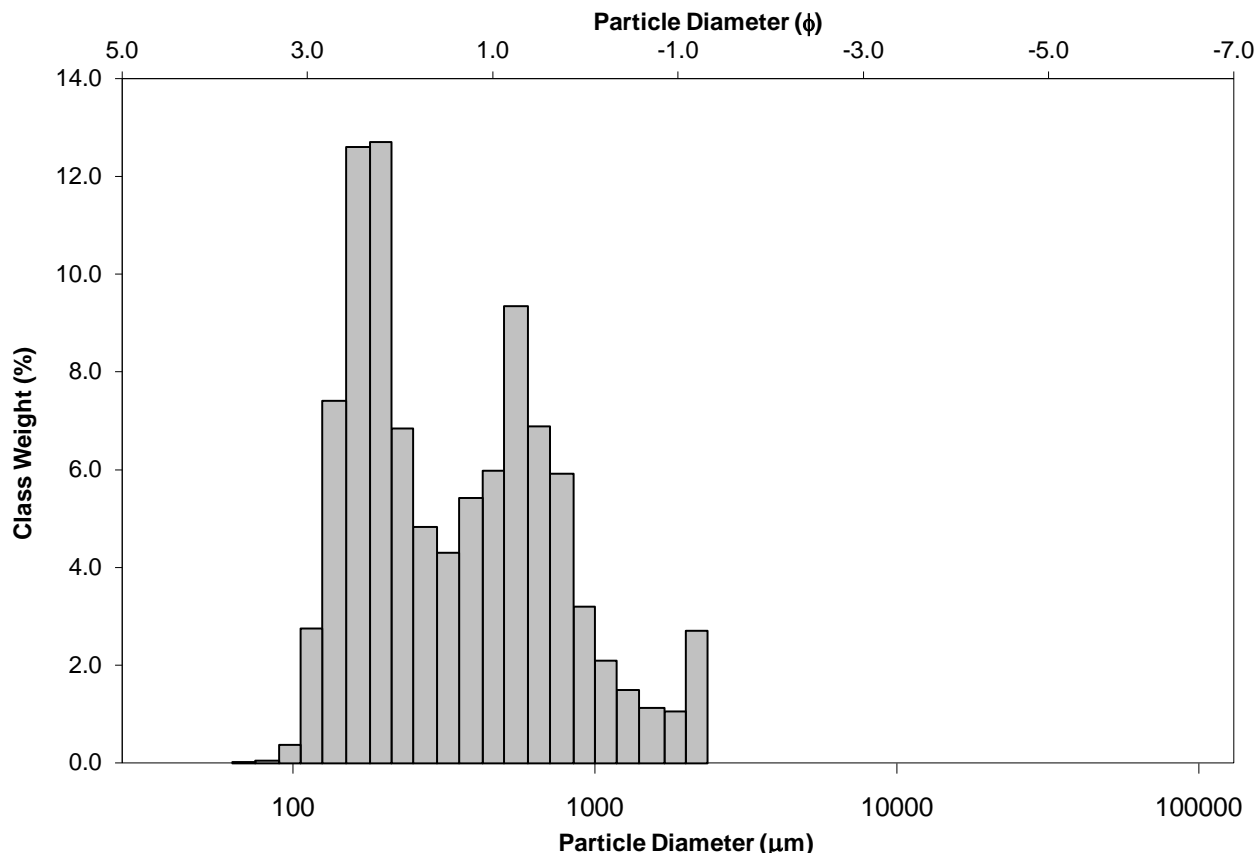
SAMPLE TYPE: Trimodal, Poorly Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

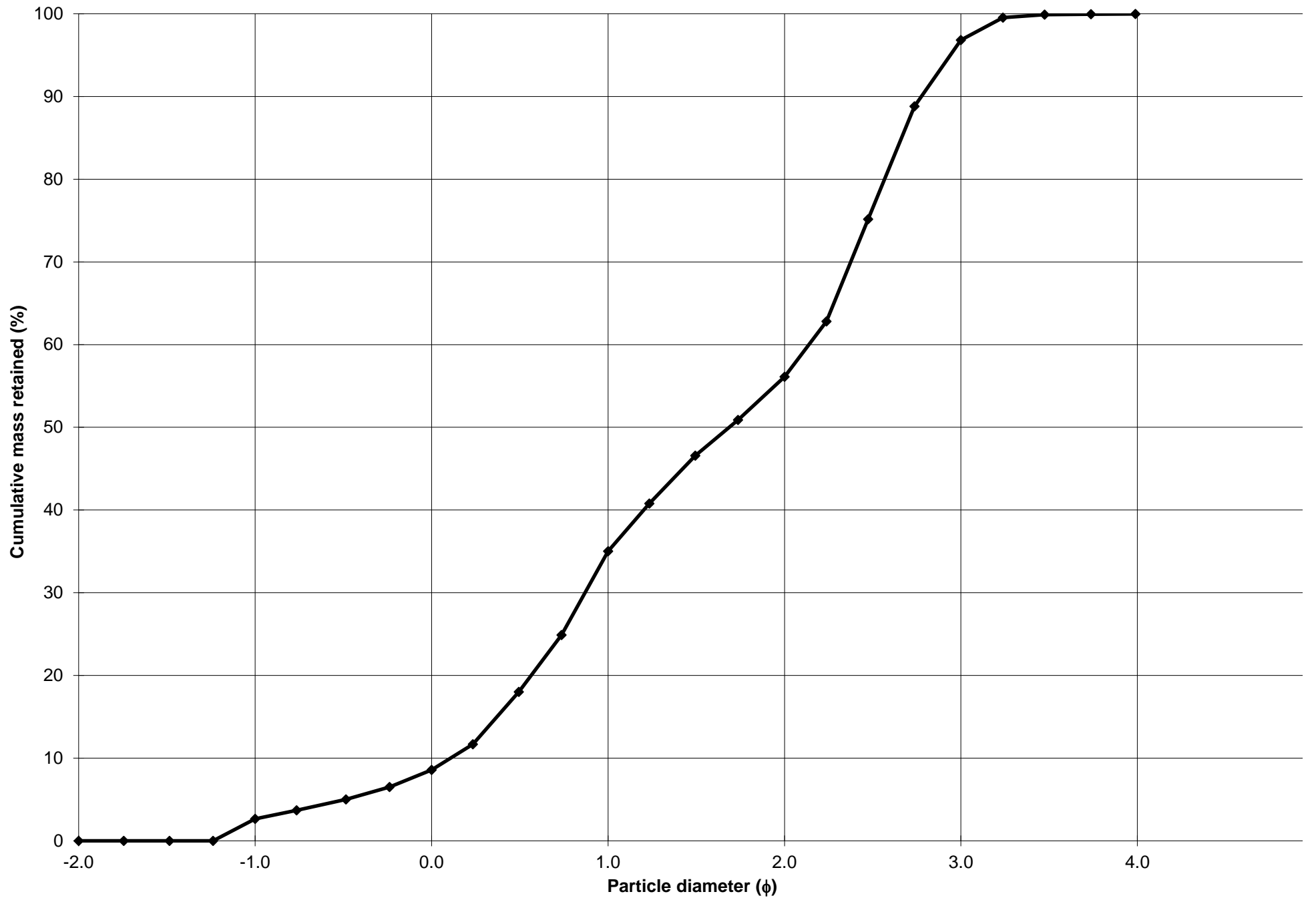
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 2.7%	COARSE SAND: 26.4%		
MODE 2:	550.0	0.868	SAND: 97.3%	MEDIUM SAND: 21.1%		
MODE 3:	2180.0	-1.119	MUD: 0.0%	FINE SAND: 40.7%		
D_{10} :	146.0	0.108		V FINE SAND: 3.2%		
MEDIAN or D_{50} :	310.5	1.687	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	928.2	2.776	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	6.359	25.82	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	782.2	2.669	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	3.320	3.340	V FINE GRAVEL: 2.7%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	418.4	1.731	V COARSE SAND: 5.9%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	472.7	345.7	1.532	334.2	1.581	Medium Sand
SORTING (σ):	433.9	2.127	1.089	2.110	1.077	Poorly Sorted
SKEWNESS (Sk):	2.220	0.486	-0.486	0.205	-0.205	Coarse Skewed
KURTOSIS (K):	8.361	2.515	2.515	0.811	0.811	Platykurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 300 cm**

ANALYST & DATE: Stephen Fabian, 2/3/15

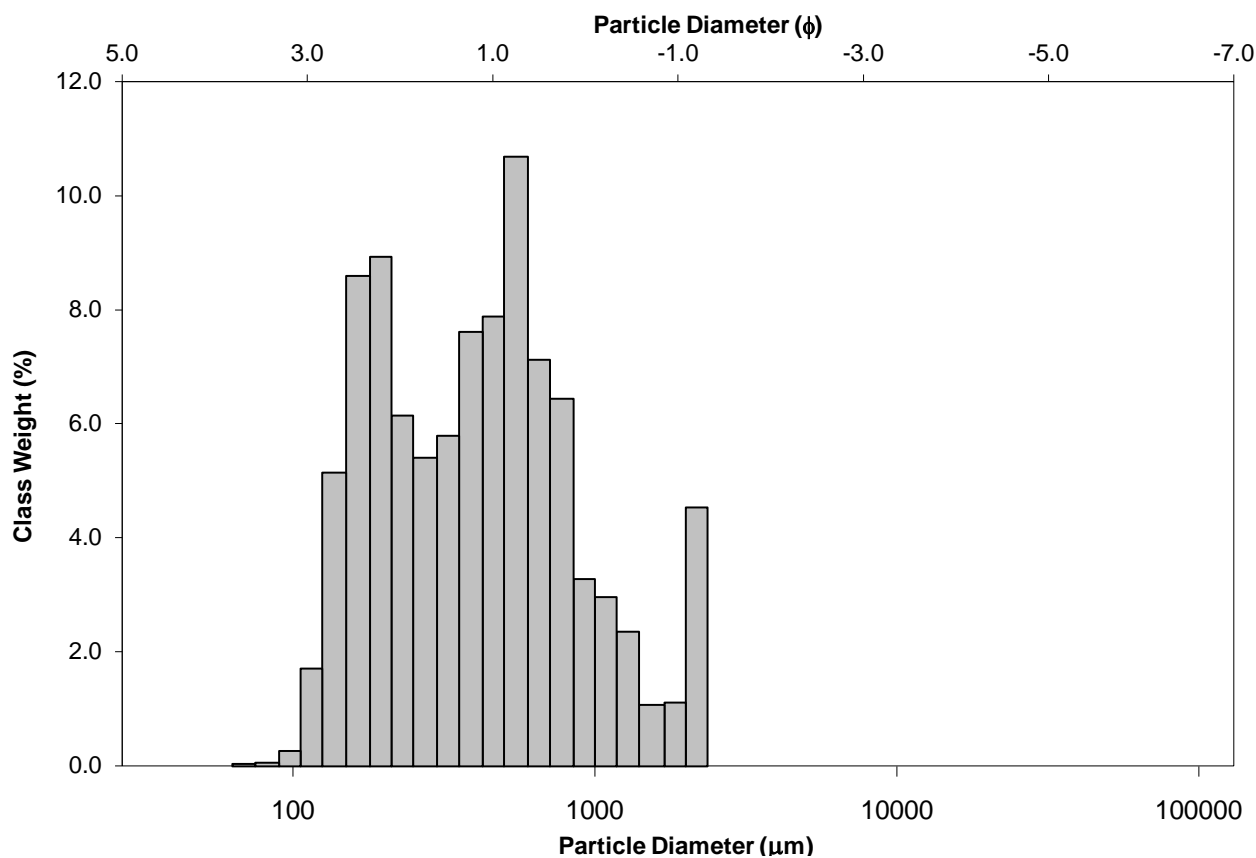
SAMPLE TYPE: Trimodal, Poorly Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

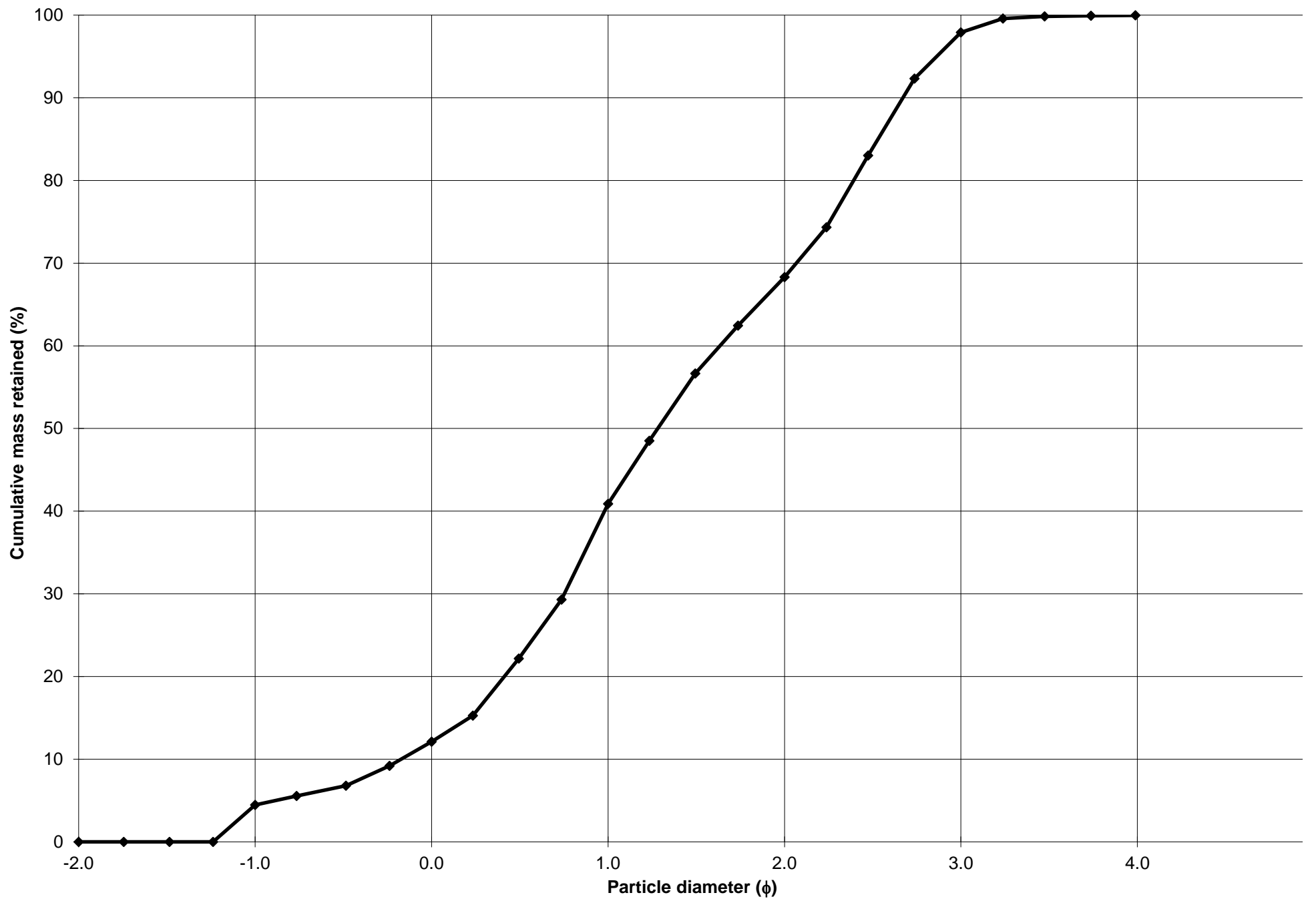
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 4.5%	COARSE SAND: 28.8%		
MODE 2:	196.0	2.356	SAND: 95.5%	MEDIUM SAND: 27.4%		
MODE 3:	2180.0	-1.119	MUD: 0.0%	FINE SAND: 29.6%		
D_{10} :	157.0	-0.172		V FINE SAND: 2.1%		
MEDIAN or D_{50} :	411.1	1.282	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	1126.9	2.671	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	7.177	-15.502	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	969.8	2.843	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	3.172	3.821	V FINE GRAVEL: 4.5%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	454.8	1.666	V COARSE SAND: 7.6%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	551.2	407.3	1.296	392.7	1.349	Medium Sand
SORTING (σ):	483.9	2.128	1.090	2.185	1.128	Poorly Sorted
SKEWNESS (Sk):	1.999	0.300	-0.300	0.034	-0.034	Symmetrical
KURTOSIS (K):	6.834	2.629	2.629	0.922	0.922	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 310 cm**

ANALYST & DATE: Stephen Fabian, 2/3/15

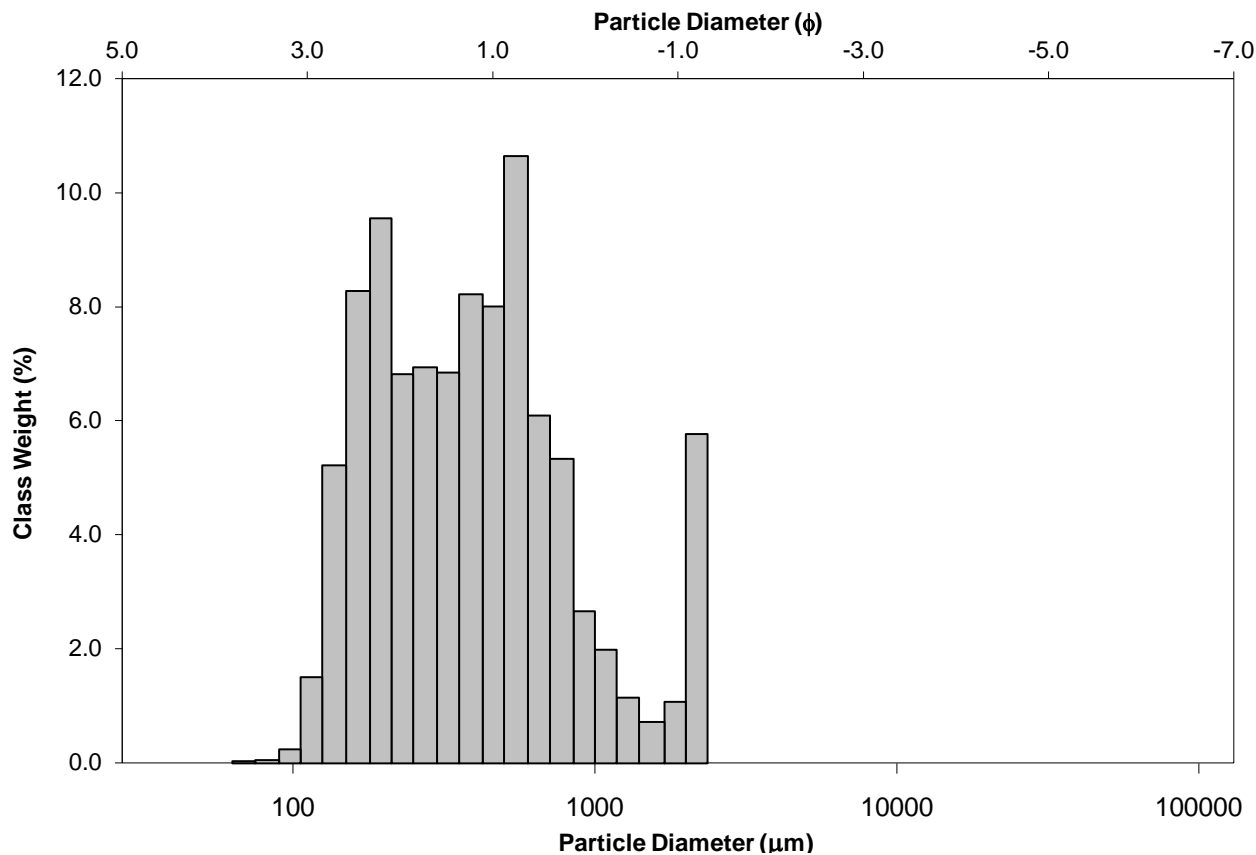
SAMPLE TYPE: Polymodal, Poorly Sorted

TEXTURAL GROUP: Gravelly Sand

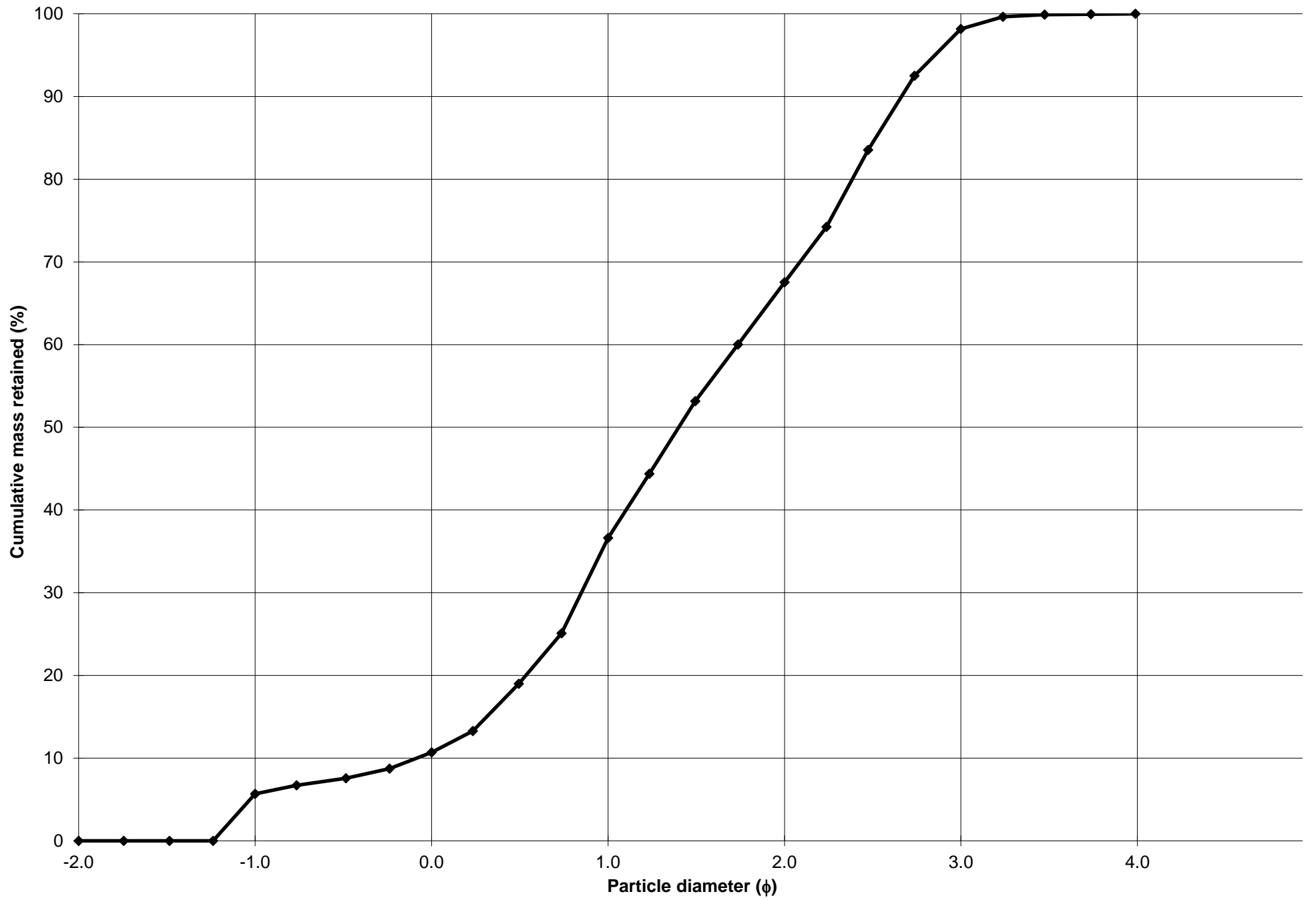
SEDIMENT NAME: Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 5.7%	COARSE SAND: 25.9%		
MODE 2:	196.0	2.356	SAND: 94.3%	MEDIUM SAND: 30.9%		
MODE 3:	390.0	1.364	MUD: 0.0%	FINE SAND: 30.6%		
D ₁₀ :	157.8	-0.084		V FINE SAND: 1.8%		
MEDIAN or D ₅₀ :	378.7	1.401	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	1060.2	2.664	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	6.718	-31.564	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	902.4	2.748	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	2.875	3.077	V FINE GRAVEL: 5.7%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	392.2	1.524	V COARSE SAND: 5.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	536.0	392.1	1.351	374.8	1.416	Medium Sand
SORTING (σ):	503.0	2.111	1.078	2.174	1.120	Poorly Sorted
SKEWNESS (Sk):	2.186	0.525	-0.525	0.115	-0.115	Coarse Skewed
KURTOSIS (K):	7.300	2.805	2.805	1.044	1.044	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 320 cm**

ANALYST & DATE: Stephen Fabian, 2/3/15

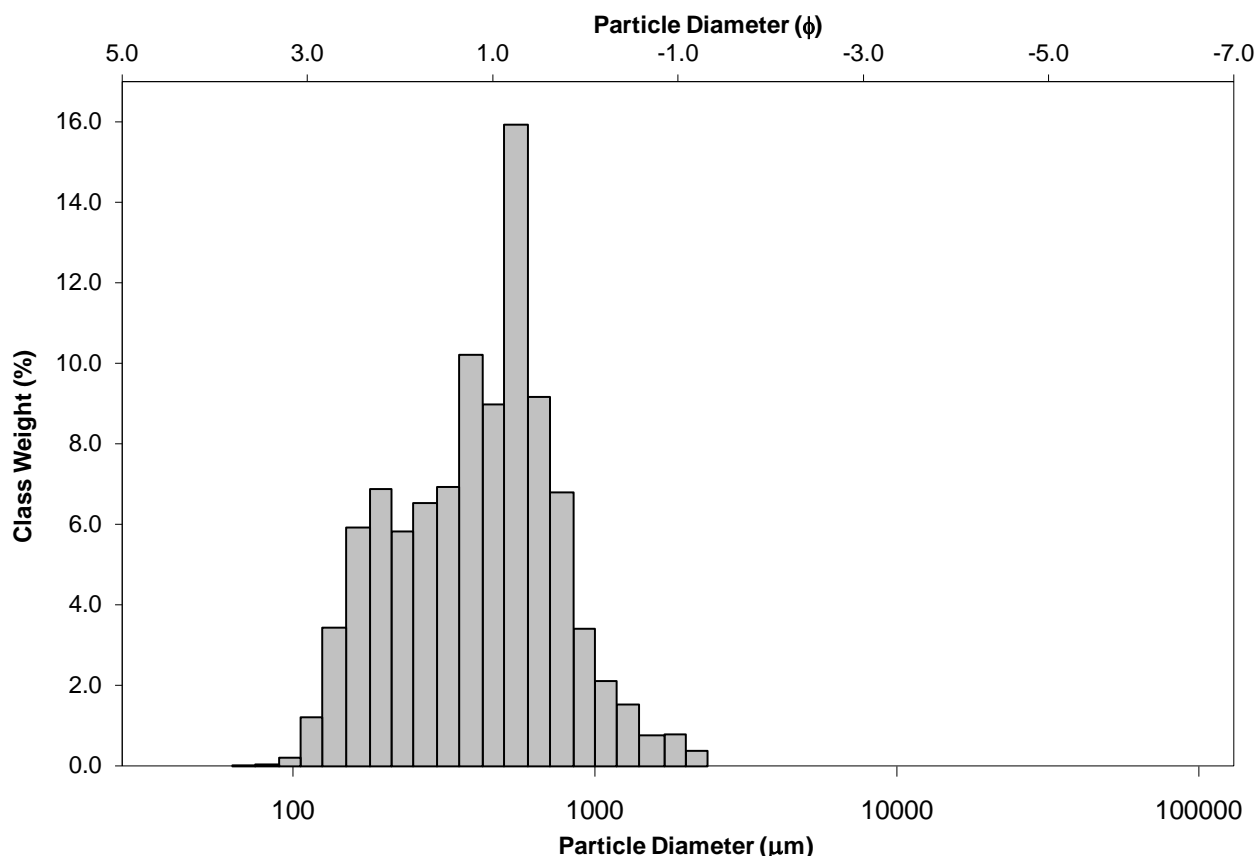
SAMPLE TYPE: Trimodal, Moderately Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

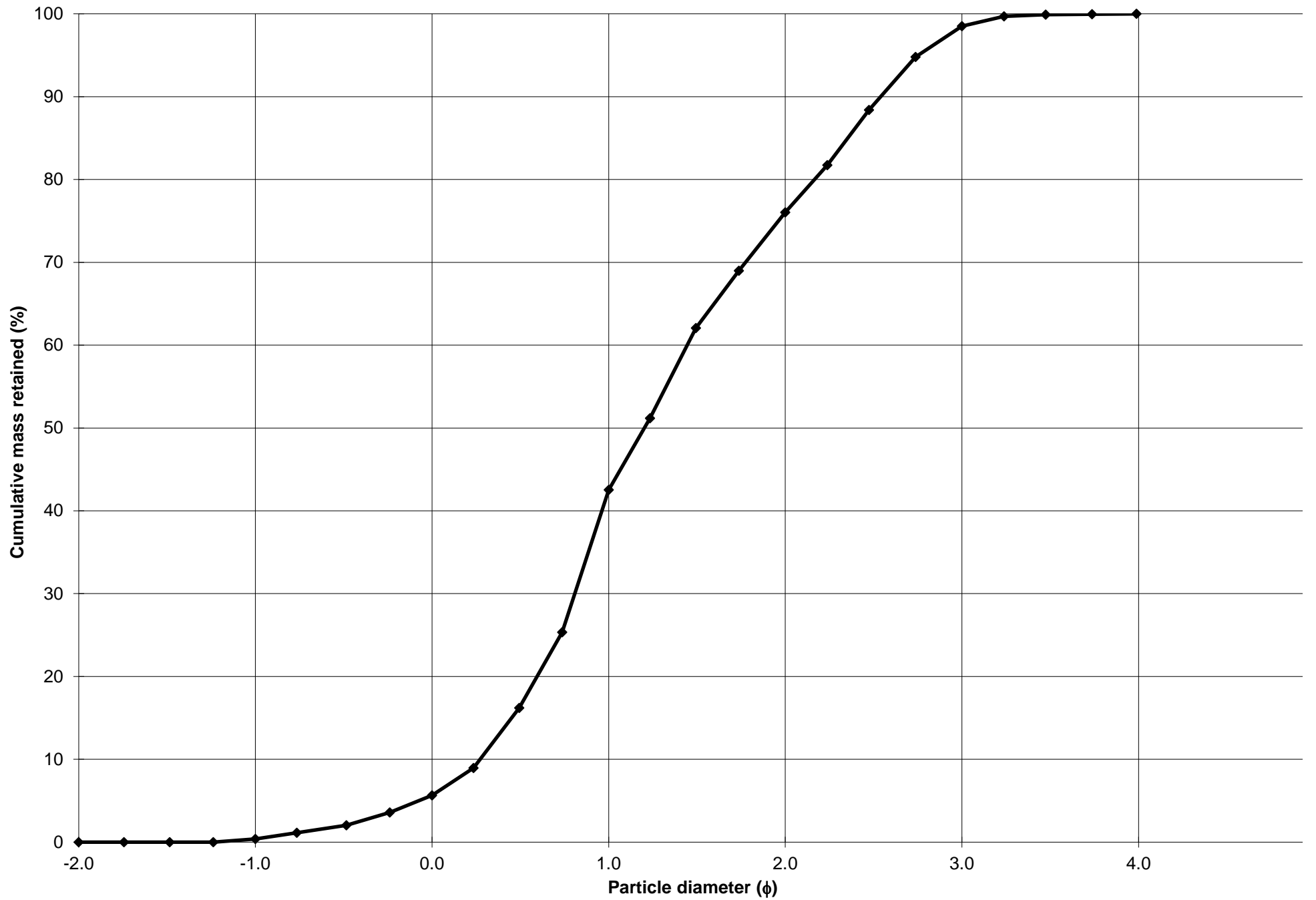
SEDIMENT NAME: Slightly Very Fine Gravelly Coarse Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 0.4%	COARSE SAND: 36.9%		
MODE 2:	390.0	1.364	SAND: 99.6%	MEDIUM SAND: 33.5%		
MODE 3:	196.0	2.356	MUD: 0.0%	FINE SAND: 22.5%		
D_{10} :	172.0	0.272		V FINE SAND: 1.5%		
MEDIAN or D_{50} :	434.5	1.203	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	828.0	2.540	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	4.815	9.329	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	656.1	2.268	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	2.351	2.694	V FINE GRAVEL: 0.4%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	346.9	1.233	V COARSE SAND: 5.3%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	488.2	406.5	1.299	396.1	1.336	Medium Sand
SORTING (σ):	311.6	1.831	0.873	1.848	0.886	Moderately Sorted
SKEWNESS (Sk):	1.900	-0.069	0.069	-0.157	0.157	Fine Skewed
KURTOSIS (K):	8.696	2.731	2.731	0.939	0.939	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 330 cm**

ANALYST & DATE: Stephen Fabian, 2/3/15

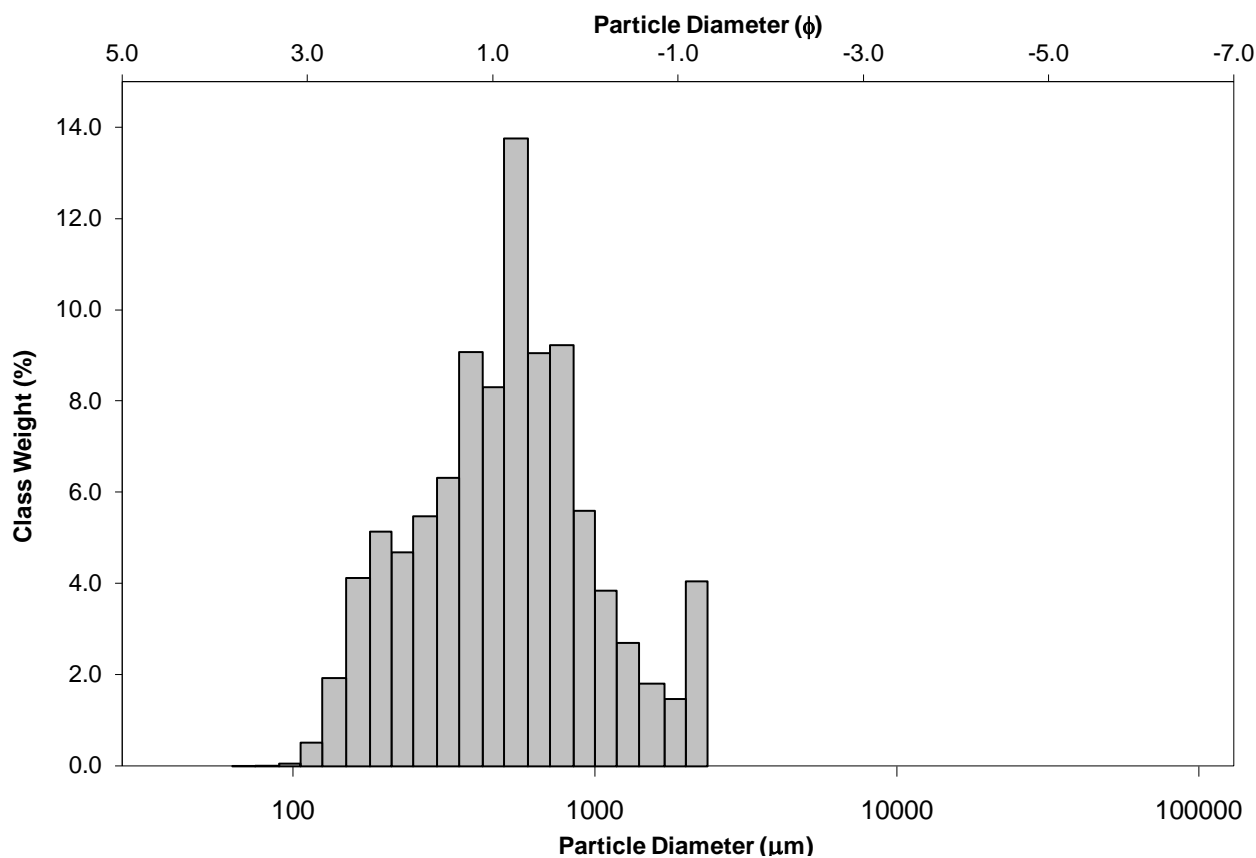
SAMPLE TYPE: Polymodal, Poorly Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

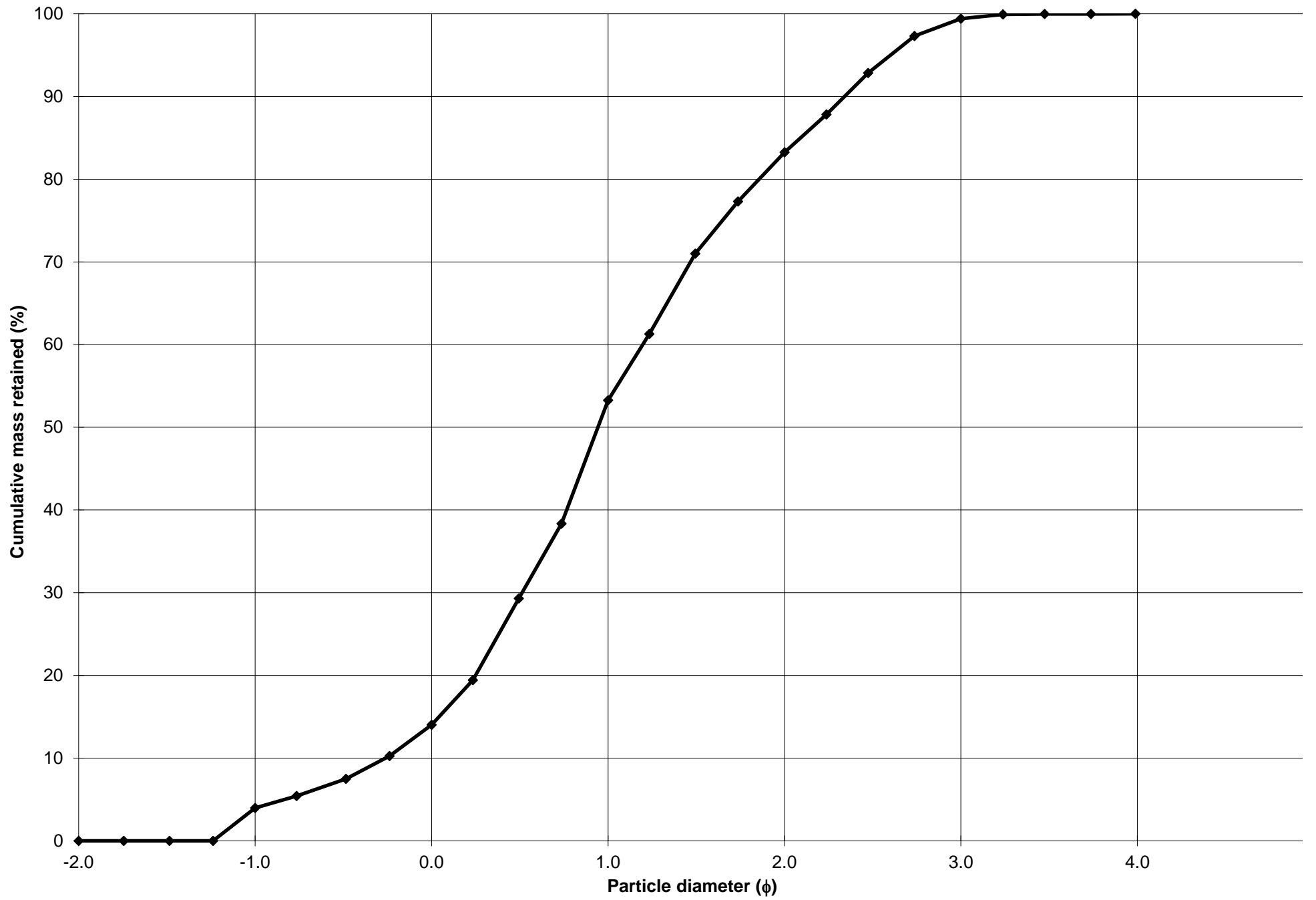
SEDIMENT NAME: Slightly Very Fine Gravelly Coarse Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 4.0%	COARSE SAND: 39.2%		
MODE 2:	780.0	0.364	SAND: 96.0%	MEDIUM SAND: 30.0%		
MODE 3:	390.0	1.364	MUD: 0.0%	FINE SAND: 16.2%		
D_{10} :	197.5	-0.261		V FINE SAND: 0.6%		
MEDIAN or D_{50} :	520.4	0.942	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	1198.4	2.340	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	6.068	-8.961	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	1000.9	2.601	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	2.407	4.329	V FINE GRAVEL: 4.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	449.0	1.267	V COARSE SAND: 10.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	633.9	504.0	0.989	492.3	1.022	Medium Sand
SORTING (σ):	465.6	1.952	0.965	2.012	1.009	Poorly Sorted
SKEWNESS (Sk):	1.787	0.091	-0.091	-0.044	0.044	Symmetrical
KURTOSIS (K):	6.167	2.727	2.727	1.110	1.110	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 340 cm**

ANALYST & DATE: Stephen Fabian, 2/3/15

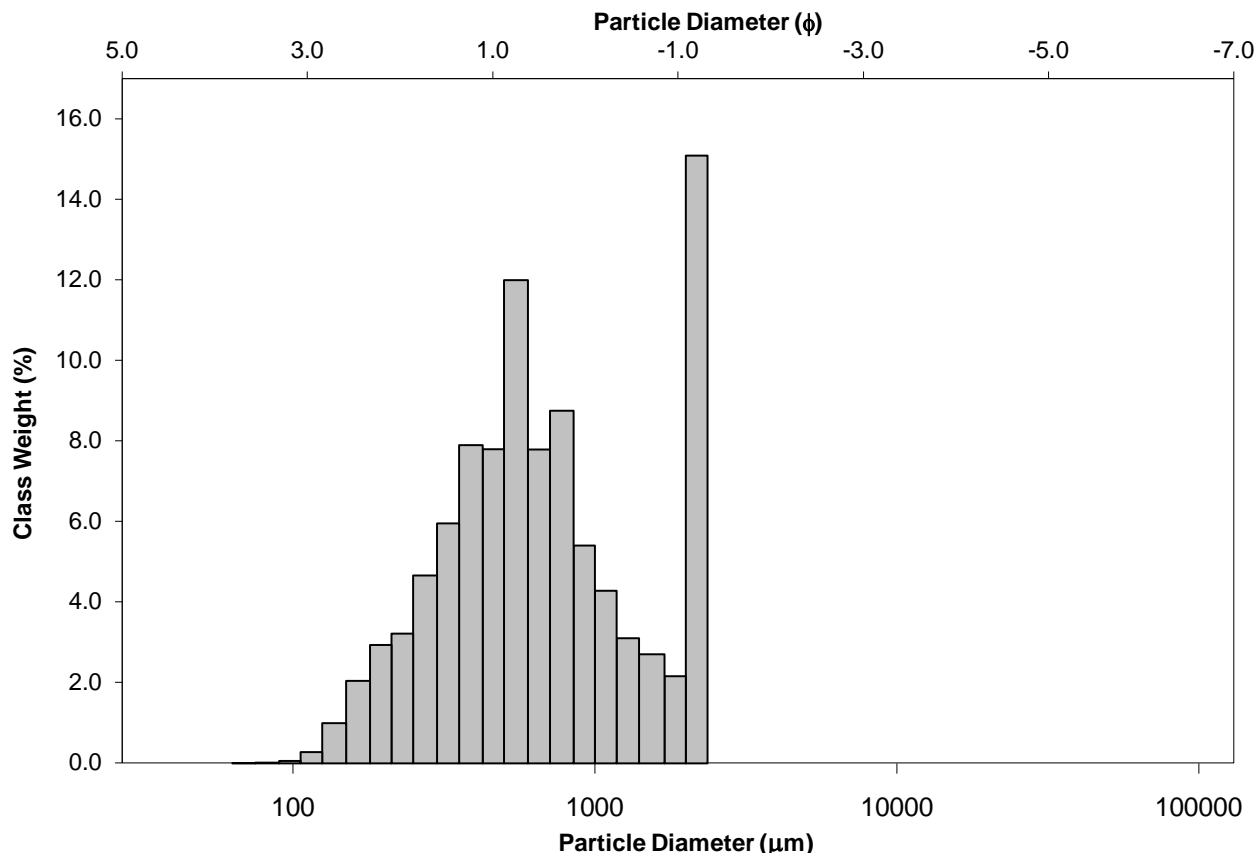
SAMPLE TYPE: Polymodal, Poorly Sorted

TEXTURAL GROUP: Gravelly Sand

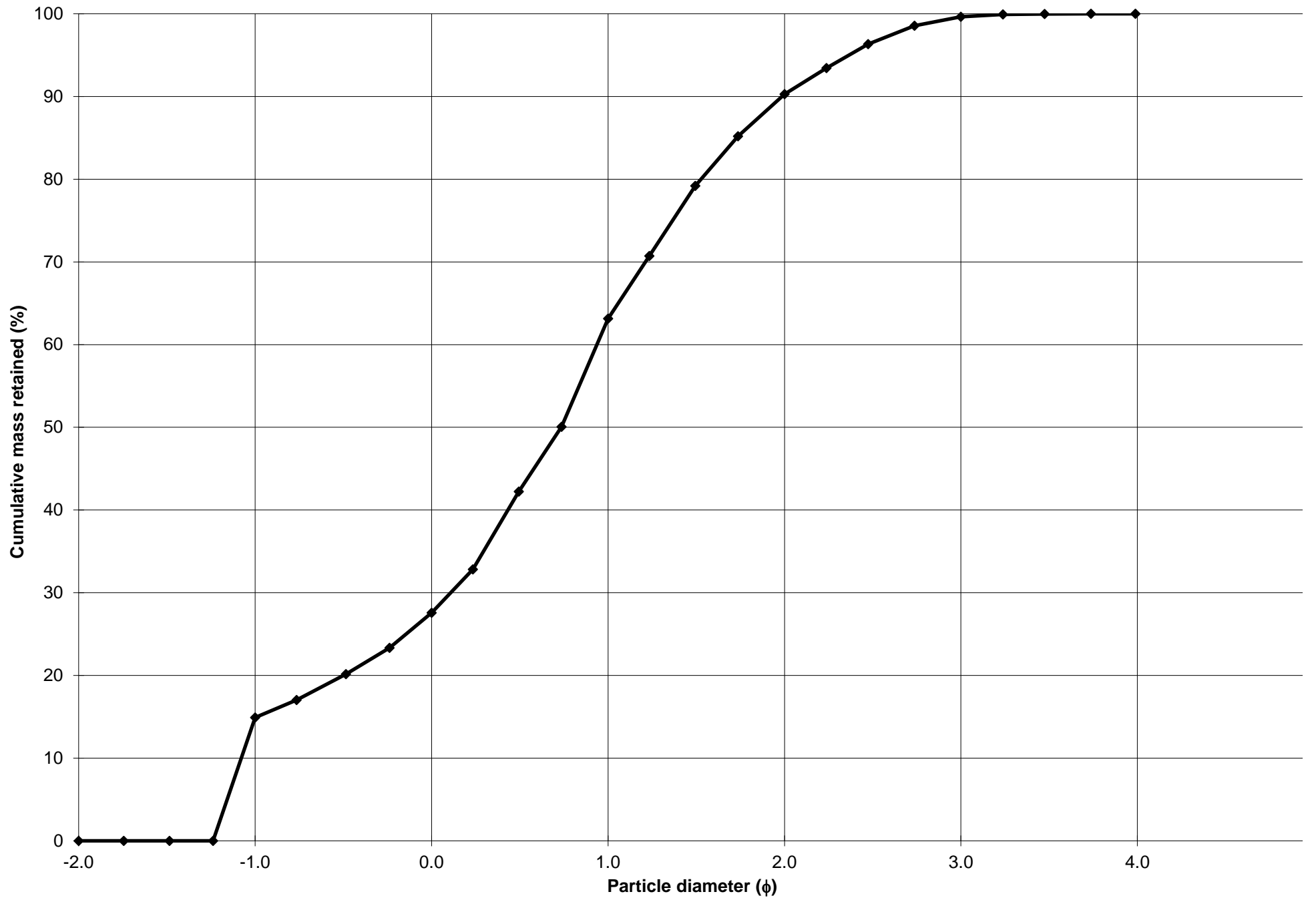
SEDIMENT NAME: Very Fine Gravelly Coarse Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	2180.0	-1.119	GRAVEL: 14.9%	COARSE SAND: 35.6%		
MODE 2:	550.0	0.868	SAND: 85.1%	MEDIUM SAND: 27.1%		
MODE 3:	780.0	0.364	MUD: 0.0%	FINE SAND: 9.4%		
D_{10} :	252.5	-1.079		V FINE SAND: 0.4%		
MEDIAN or D_{50} :	600.9	0.735	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	2112.2	1.986	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	8.367	-1.841	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	1859.7	3.065	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	2.849	-9.426	V FINE GRAVEL: 14.9%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	717.6	1.511	V COARSE SAND: 12.7%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	865.3	655.9	0.608	699.9	0.515	Coarse Sand
SORTING (σ):	655.0	2.108	1.076	2.259	1.176	Poorly Sorted
SKEWNESS (Sk):	1.079	0.088	-0.088	0.166	-0.166	Coarse Skewed
KURTOSIS (K):	2.786	2.246	2.246	0.956	0.956	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 350 cm**

ANALYST & DATE: Stephen Fabian, 2/4/15

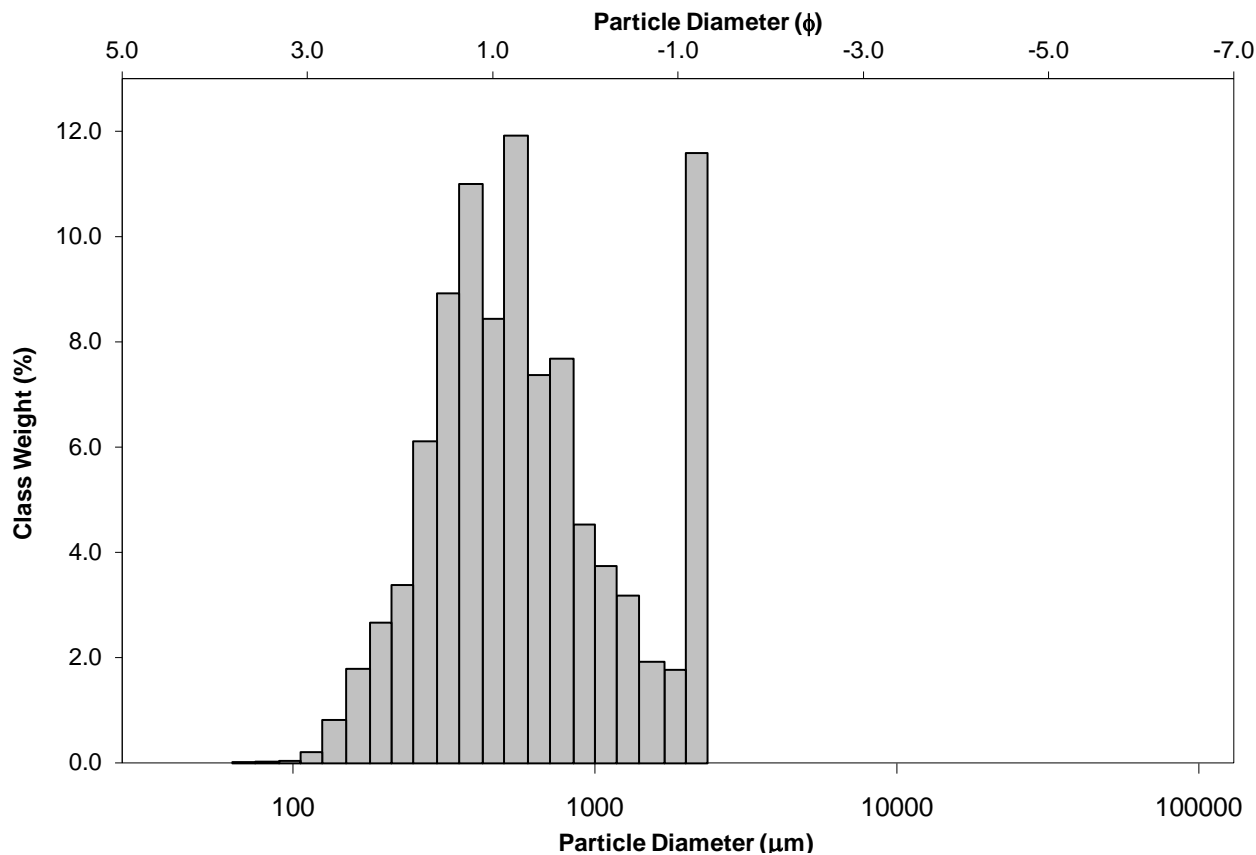
SAMPLE TYPE: Polymodal, Poorly Sorted

TEXTURAL GROUP: Gravelly Sand

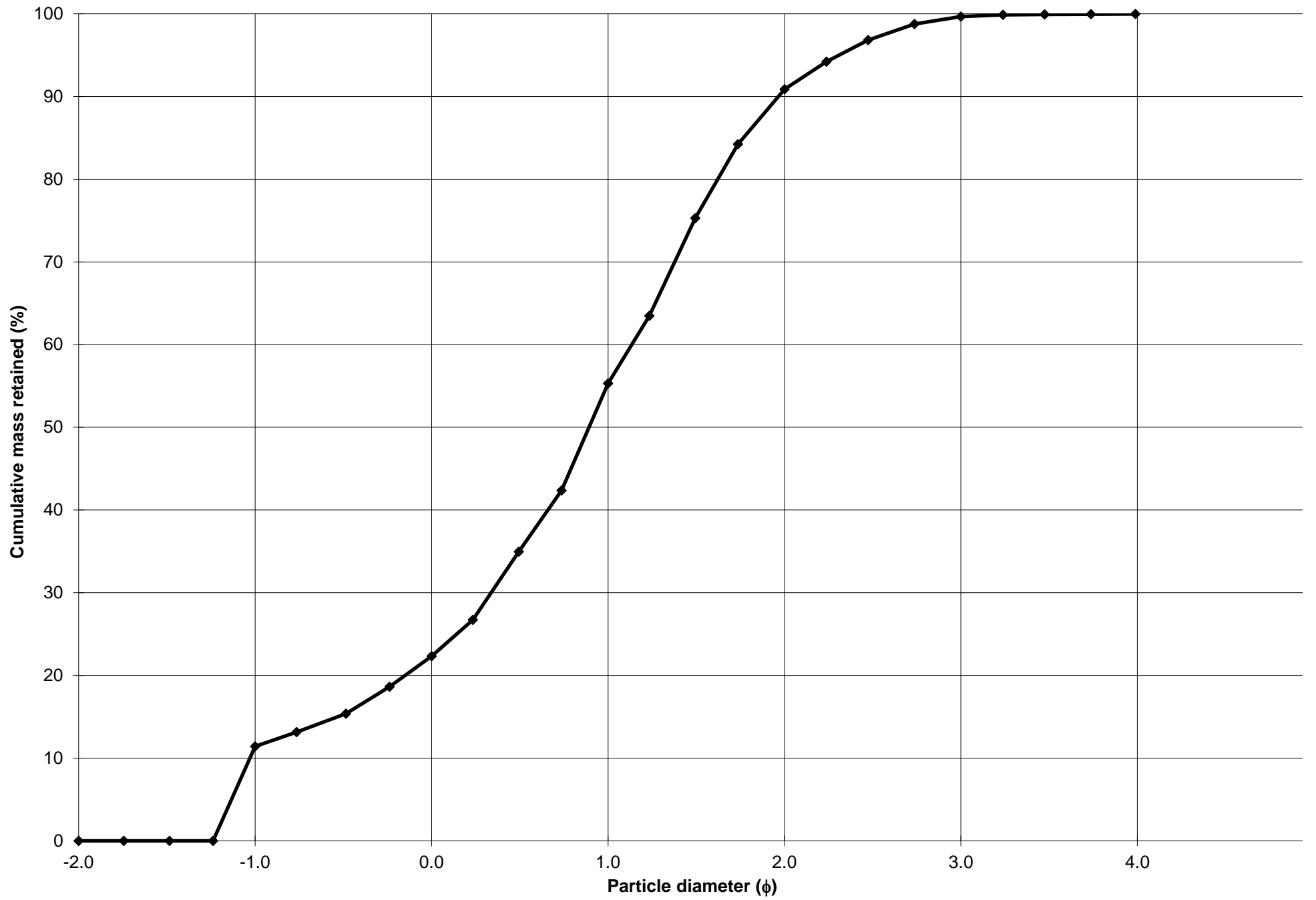
SEDIMENT NAME: Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 11.4%	COARSE SAND: 33.0%		
MODE 2:	2180.0	-1.119	SAND: 88.5%	MEDIUM SAND: 35.6%		
MODE 3:	390.0	1.364	MUD: 0.0%	FINE SAND: 8.8%		
D_{10} :	256.1	-1.030		V FINE SAND: 0.3%		
MEDIAN or D_{50} :	538.8	0.892	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	2041.9	1.965	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	7.973	-1.908	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	1785.8	2.995	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	2.540	10.42	V FINE GRAVEL: 11.4%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	549.2	1.345	V COARSE SAND: 10.9%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	771.4	589.8	0.762	603.7	0.728	Coarse Sand
SORTING (σ):	609.0	2.042	1.030	2.091	1.064	Poorly Sorted
SKEWNESS (Sk):	1.387	0.276	-0.276	0.202	-0.202	Coarse Skewed
KURTOSIS (K):	3.678	2.742	2.742	1.049	1.049	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 370 cm**

ANALYST & DATE: Stephen Fabian, 2/4/15

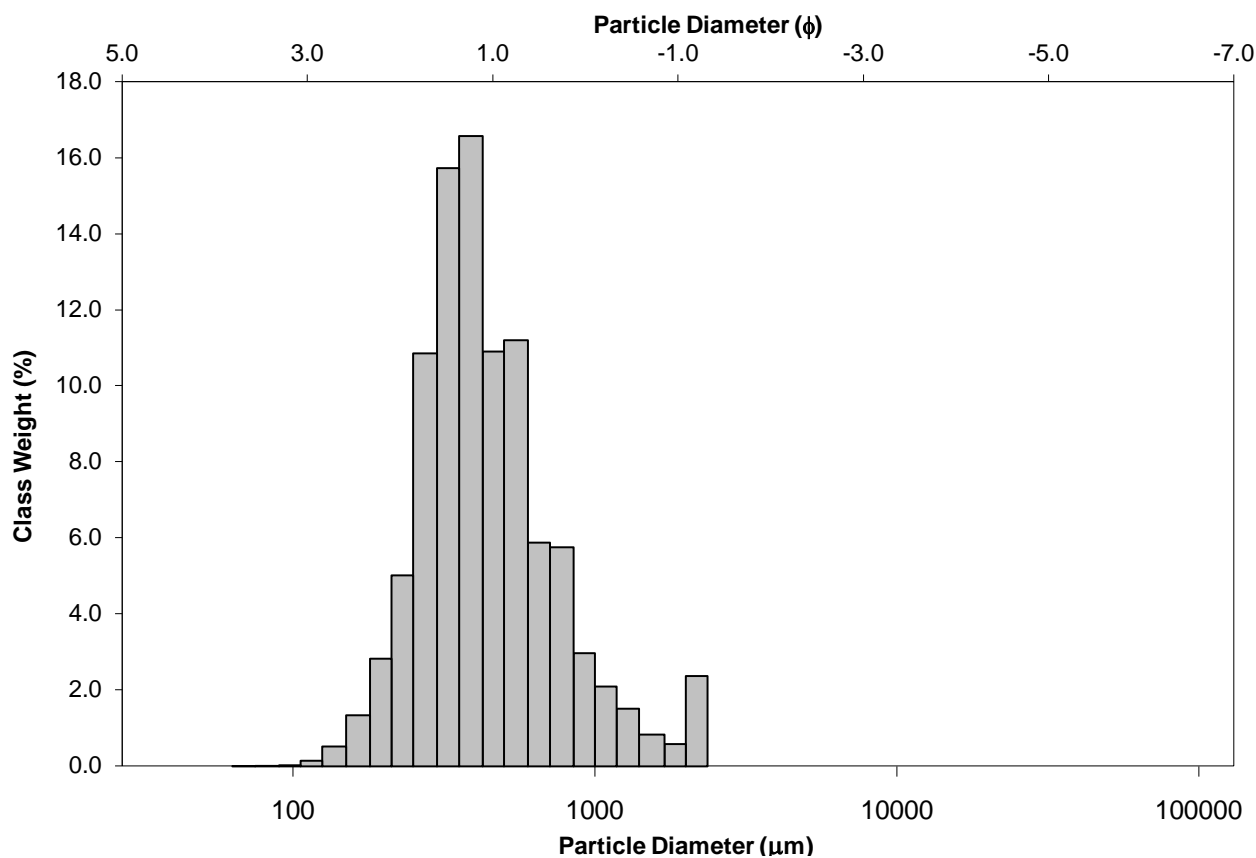
SAMPLE TYPE: Bimodal, Moderately Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

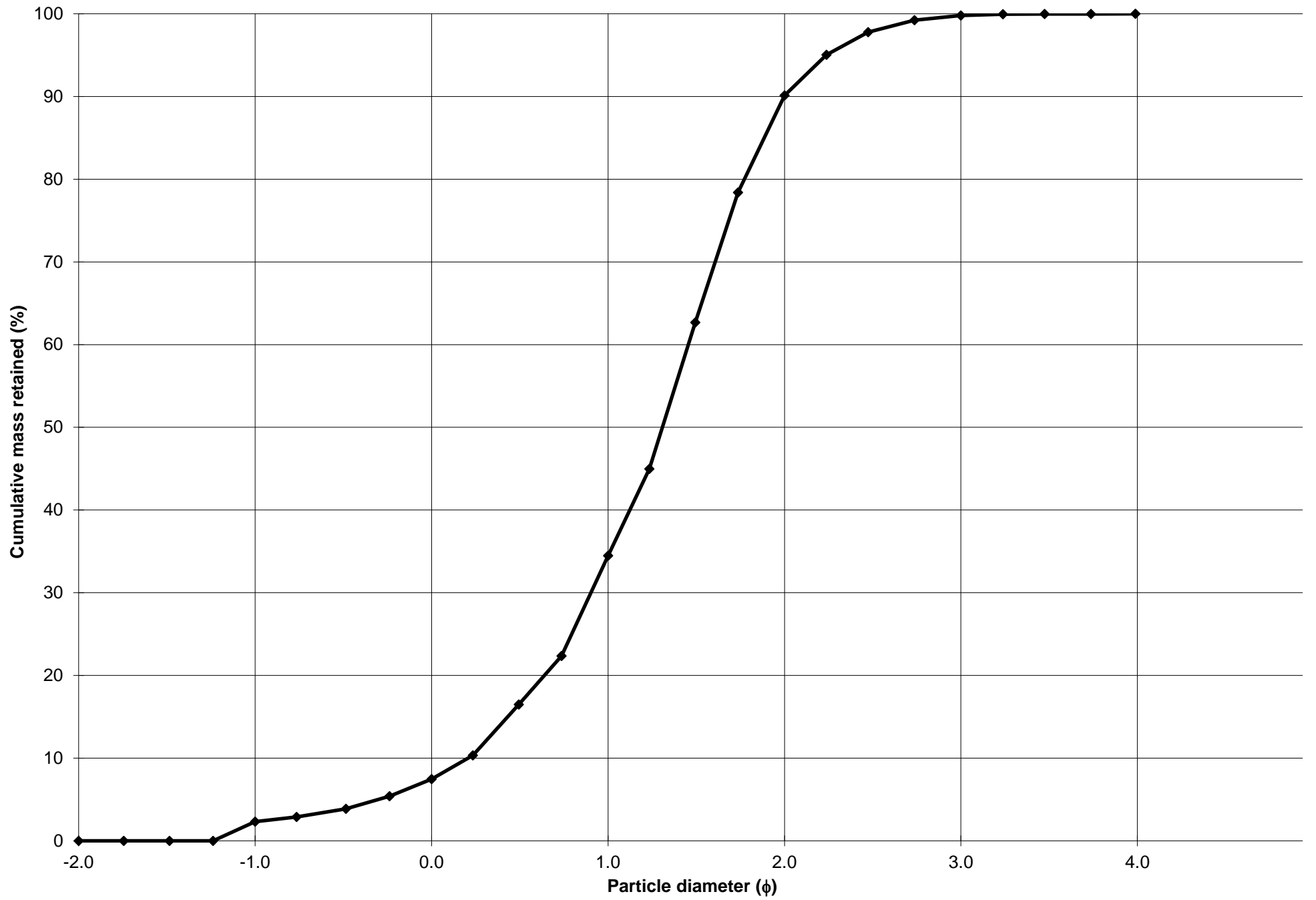
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 2.3%	COARSE SAND: 27.0%		
MODE 2:	550.0	0.868	SAND: 97.7%	MEDIUM SAND: 55.7%		
MODE 3:			MUD: 0.0%	FINE SAND: 9.7%		
D_{10} :	250.5	0.208		V FINE SAND: 0.2%		
MEDIAN or D_{50} :	403.8	1.308	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	865.9	1.997	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.457	9.615	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	615.4	1.790	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.853	2.121	V FINE GRAVEL: 2.3%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	265.5	0.890	V COARSE SAND: 5.1%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	519.6	440.3	1.184	430.8	1.215	Medium Sand
SORTING (σ):	369.5	1.697	0.763	1.661	0.732	Moderately Sorted
SKEWNESS (Sk):	2.738	0.778	-0.778	0.235	-0.235	Coarse Skewed
KURTOSIS (K):	11.60	4.116	4.116	1.169	1.169	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 370 cm**

ANALYST & DATE: Stephen Fabian, 2/4/15

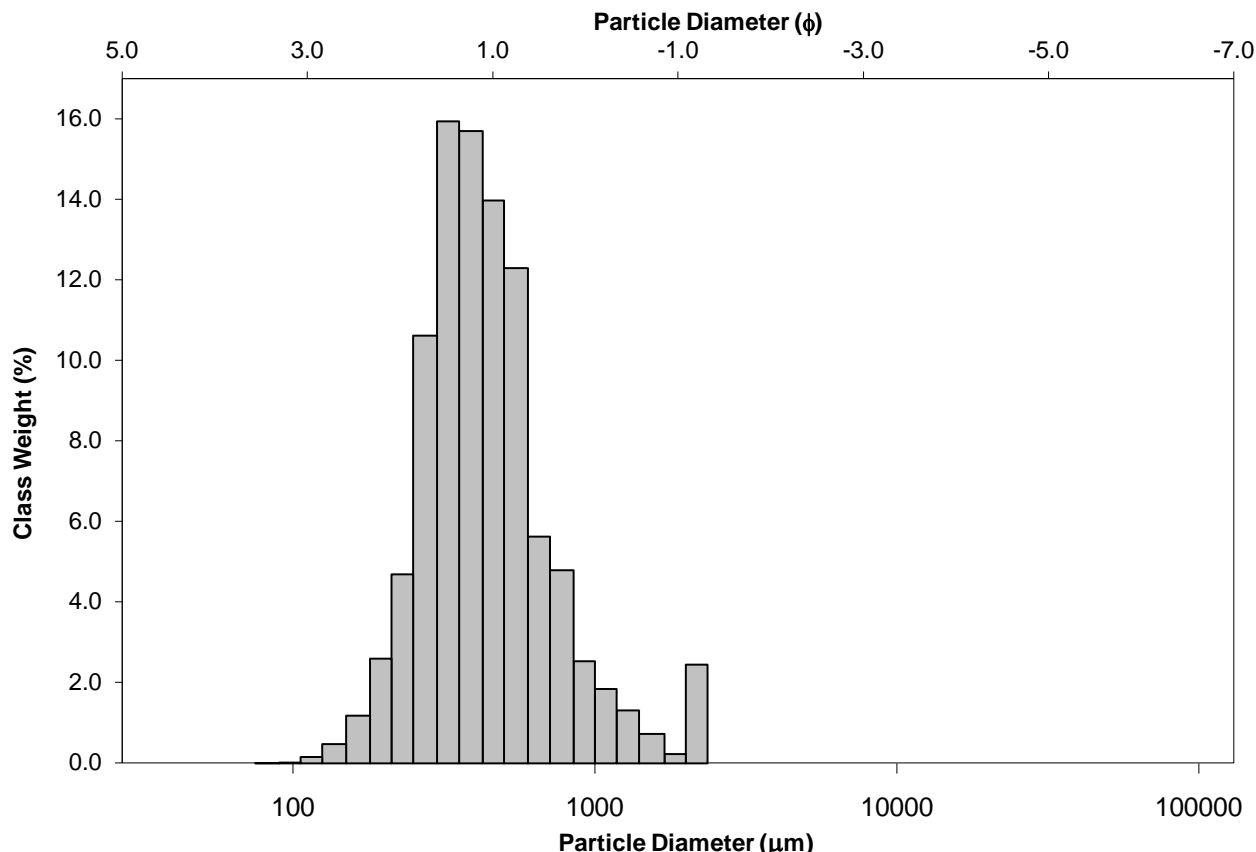
SAMPLE TYPE: Bimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

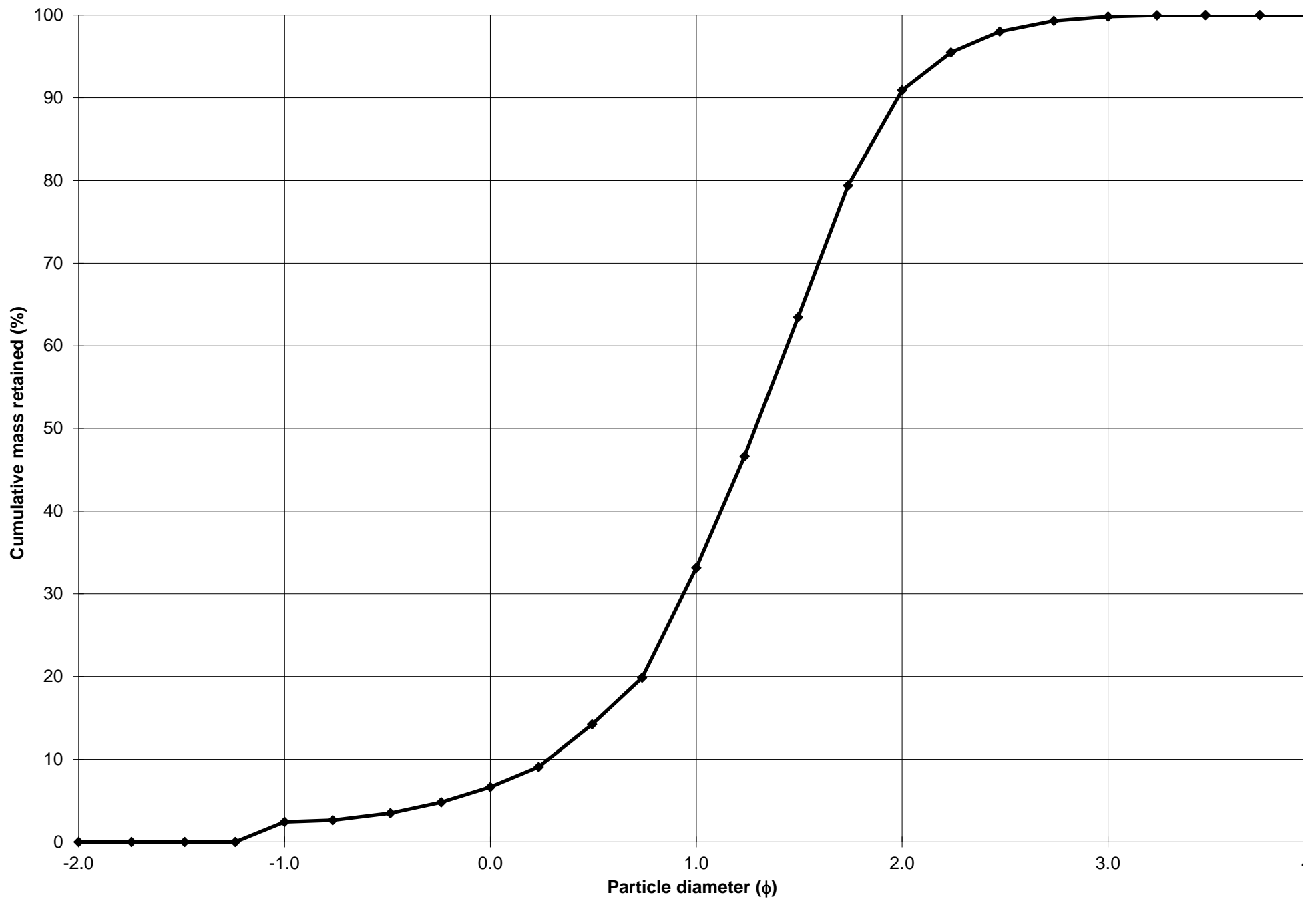
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 2.4%	COARSE SAND: 26.5%		
MODE 2:	2180.0	-1.119	SAND: 97.6%	MEDIUM SAND: 57.7%		
MODE 3:			MUD: 0.0%	FINE SAND: 8.9%		
D_{10} :	253.6	0.281		V FINE SAND: 0.2%		
MEDIAN or D_{50} :	410.0	1.286	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	823.0	1.980	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.246	7.042	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	569.4	1.699	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.779	1.991	V FINE GRAVEL: 2.4%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	244.9	0.831	V COARSE SAND: 4.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	509.9	437.1	1.194	425.3	1.233	Medium Sand
SORTING (σ):	356.3	1.659	0.731	1.608	0.685	Moderately Well Sorted
SKEWNESS (Sk):	2.974	0.866	-0.866	0.181	-0.181	Coarse Skewed
KURTOSIS (K):	13.28	4.387	4.387	1.197	1.197	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 380 cm**

ANALYST & DATE: Stephen Fabian, 2/5/15

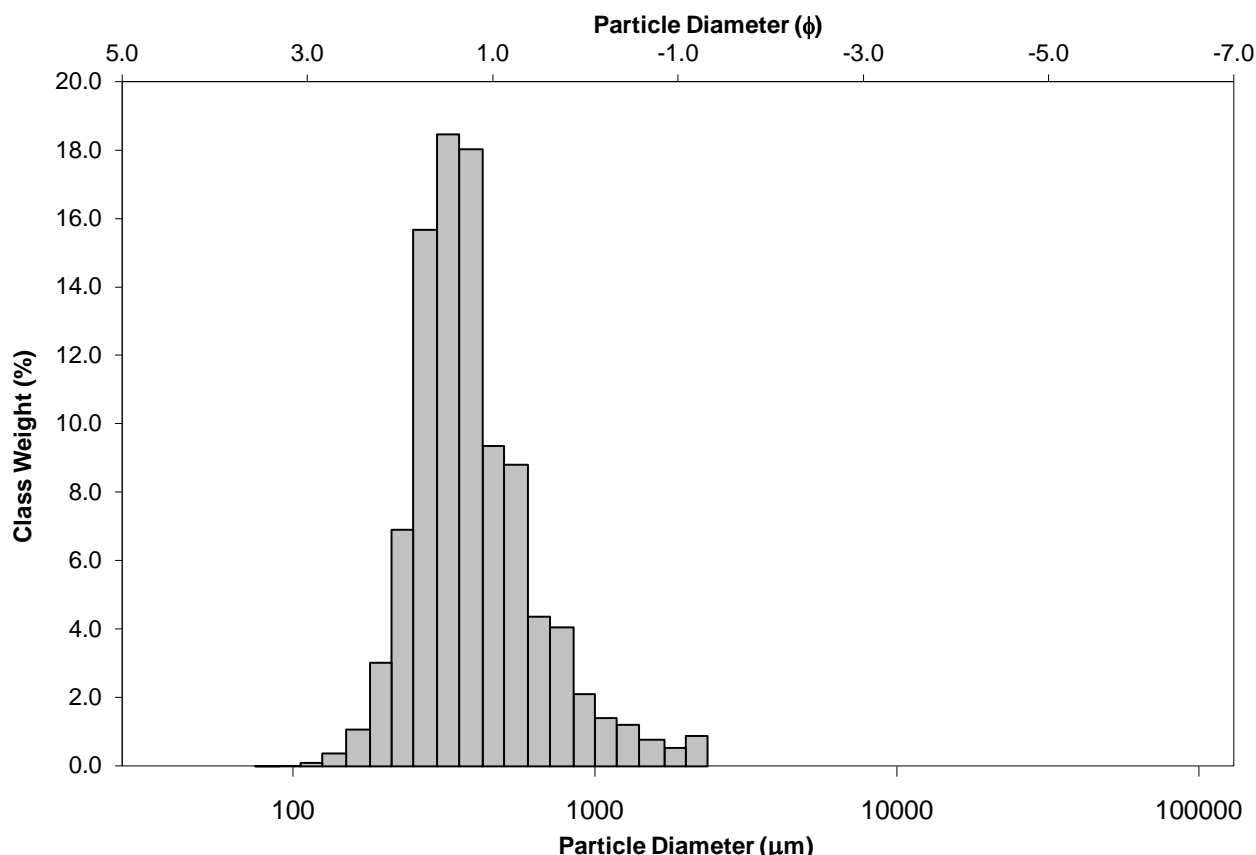
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

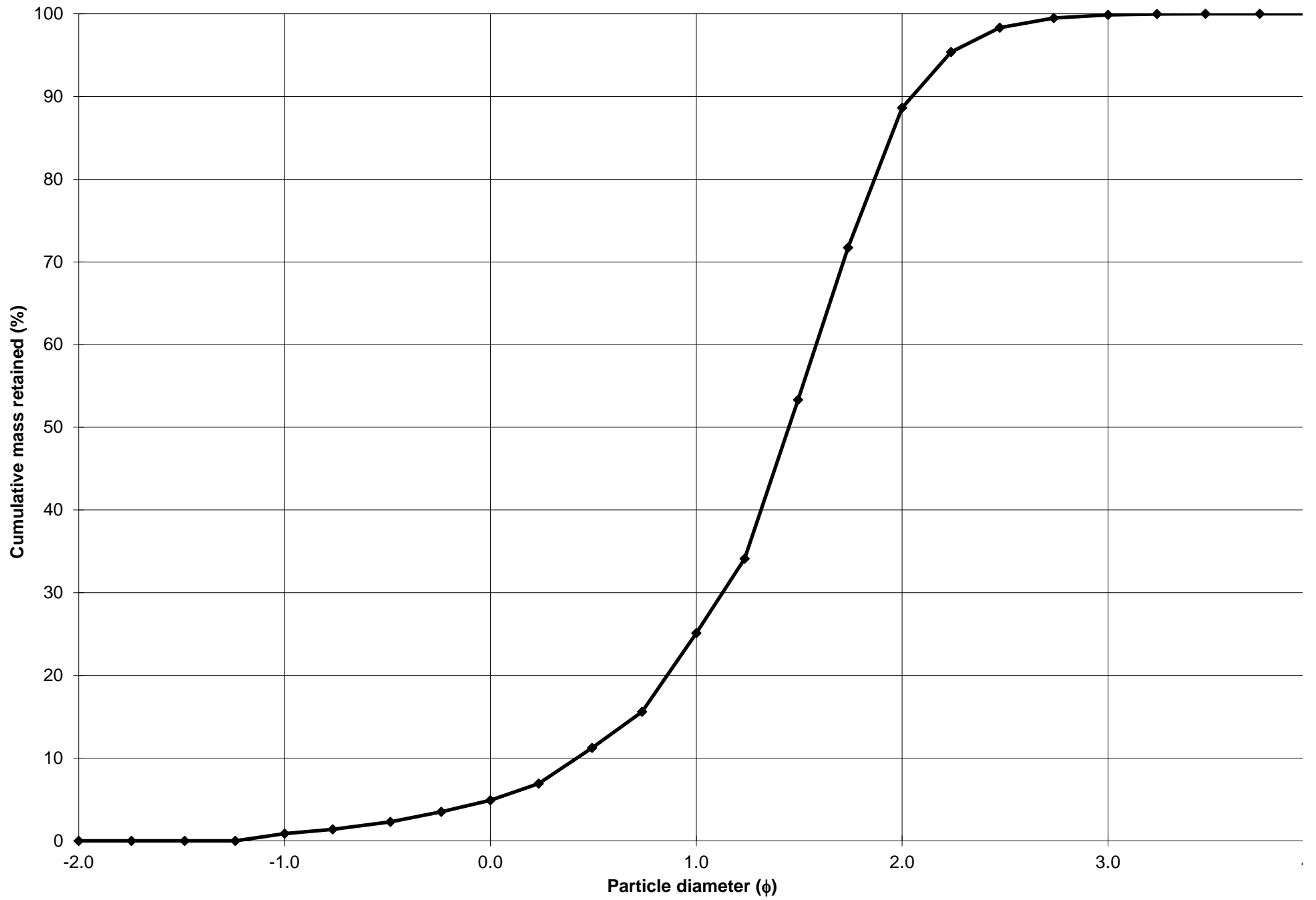
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.9%	COARSE SAND: 20.2%		
MODE 2:			SAND: 99.1%	MEDIUM SAND: 63.5%		
MODE 3:			MUD: 0.0%	FINE SAND: 11.2%		
D_{10} :	241.8	0.419		V FINE SAND: 0.1%		
MEDIAN or D_{50} :	366.2	1.449	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	747.9	2.048	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.093	4.887	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	506.1	1.629	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.730	1.794	V FINE GRAVEL: 0.9%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	211.5	0.791	V COARSE SAND: 4.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	454.0	396.4	1.335	385.6	1.375	Medium Sand
SORTING (σ):	297.8	1.602	0.680	1.548	0.630	Moderately Well Sorted
SKEWNESS (Sk):	3.118	1.015	-1.015	0.244	-0.244	Coarse Skewed
KURTOSIS (K):	15.31	4.561	4.561	1.146	1.146	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 400 cm**

ANALYST & DATE: Stephen Fabian, 2/4/15

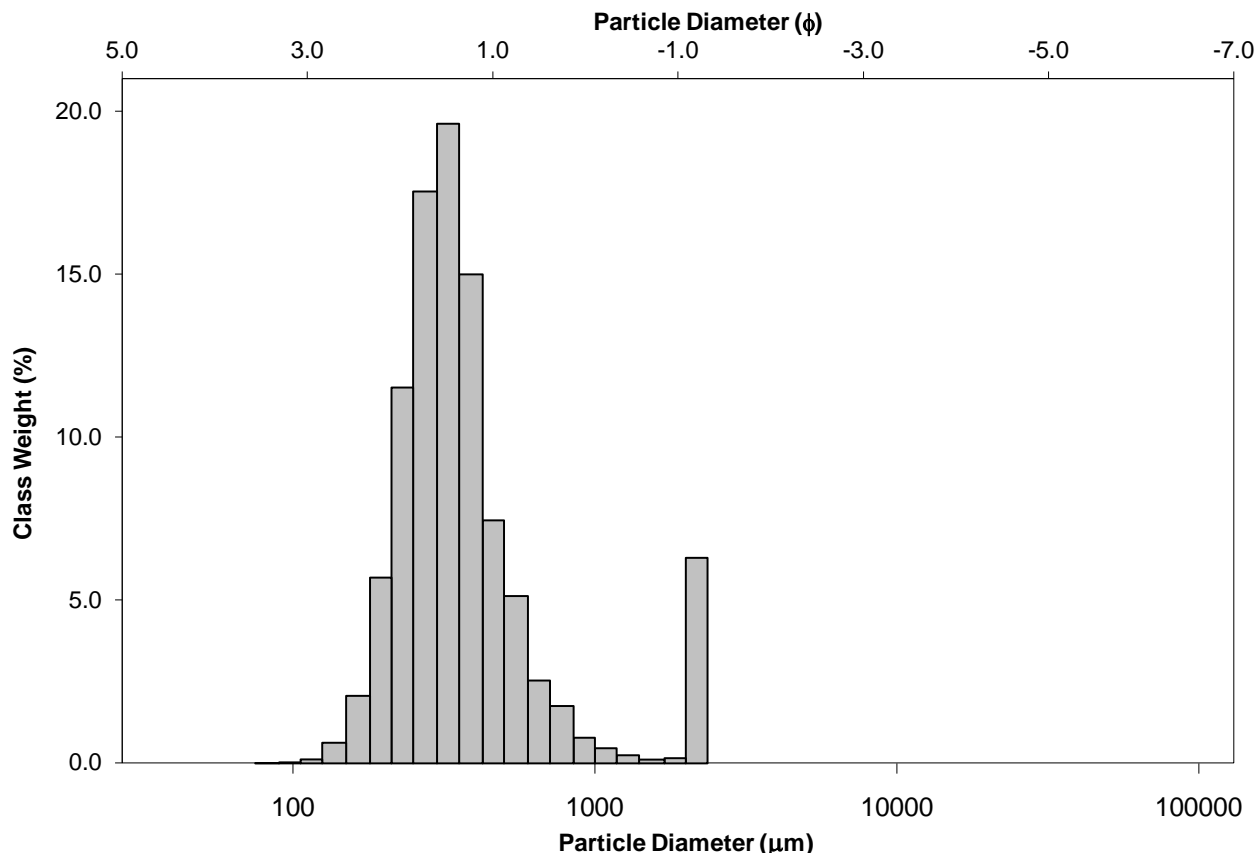
SAMPLE TYPE: Bimodal, Moderately Sorted

TEXTURAL GROUP: Gravelly Sand

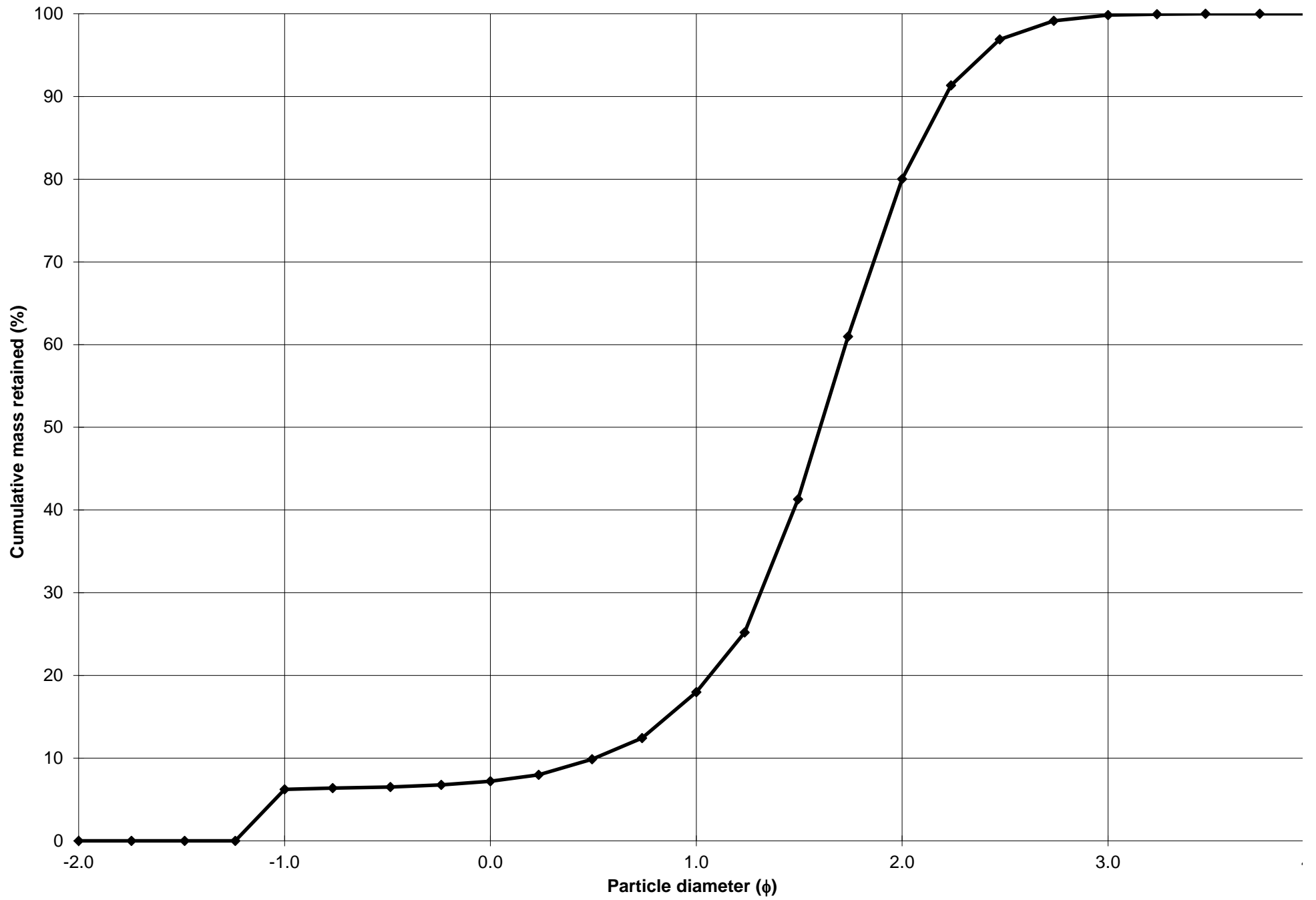
SEDIMENT NAME: Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 6.2%	COARSE SAND: 10.8%		
MODE 2:	2180.0	-1.119	SAND: 93.8%	MEDIUM SAND: 62.0%		
MODE 3:			MUD: 0.0%	FINE SAND: 19.8%		
D_{10} :	216.2	0.507		V FINE SAND: 0.2%		
MEDIAN or D_{50} :	329.5	1.602	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	703.7	2.210	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.255	4.359	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	487.5	1.703	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.628	1.573	V FINE GRAVEL: 6.2%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	164.7	0.703	V COARSE SAND: 1.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	472.7	371.9	1.427	346.2	1.530	Medium Sand
SORTING (σ):	469.4	1.793	0.842	1.760	0.816	Moderately Sorted
SKEWNESS (Sk):	3.027	1.654	-1.654	0.361	-0.361	Very Coarse Skewed
KURTOSIS (K):	11.11	5.890	5.890	2.006	2.006	Very Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 410 cm**

ANALYST & DATE: Stephen Fabian, 2/4/15

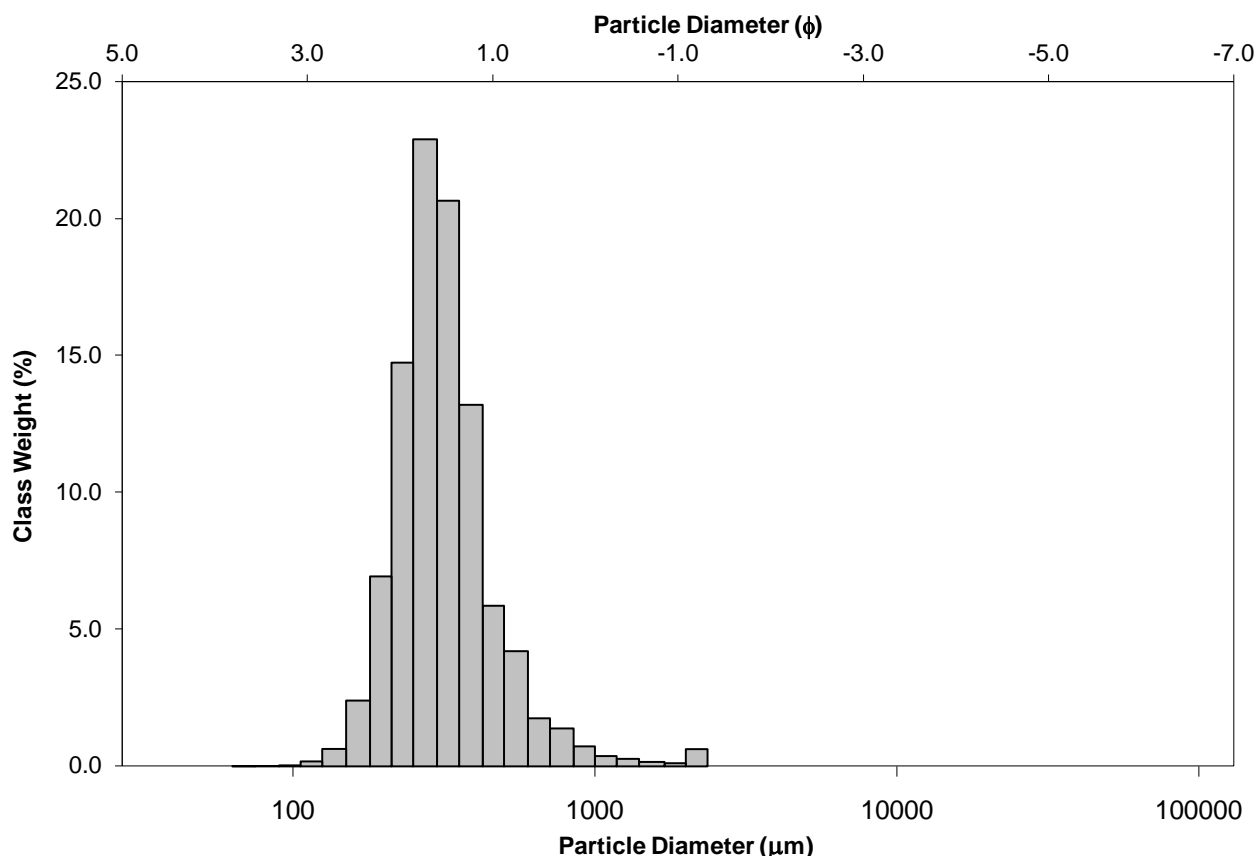
SAMPLE TYPE: Unimodal, Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

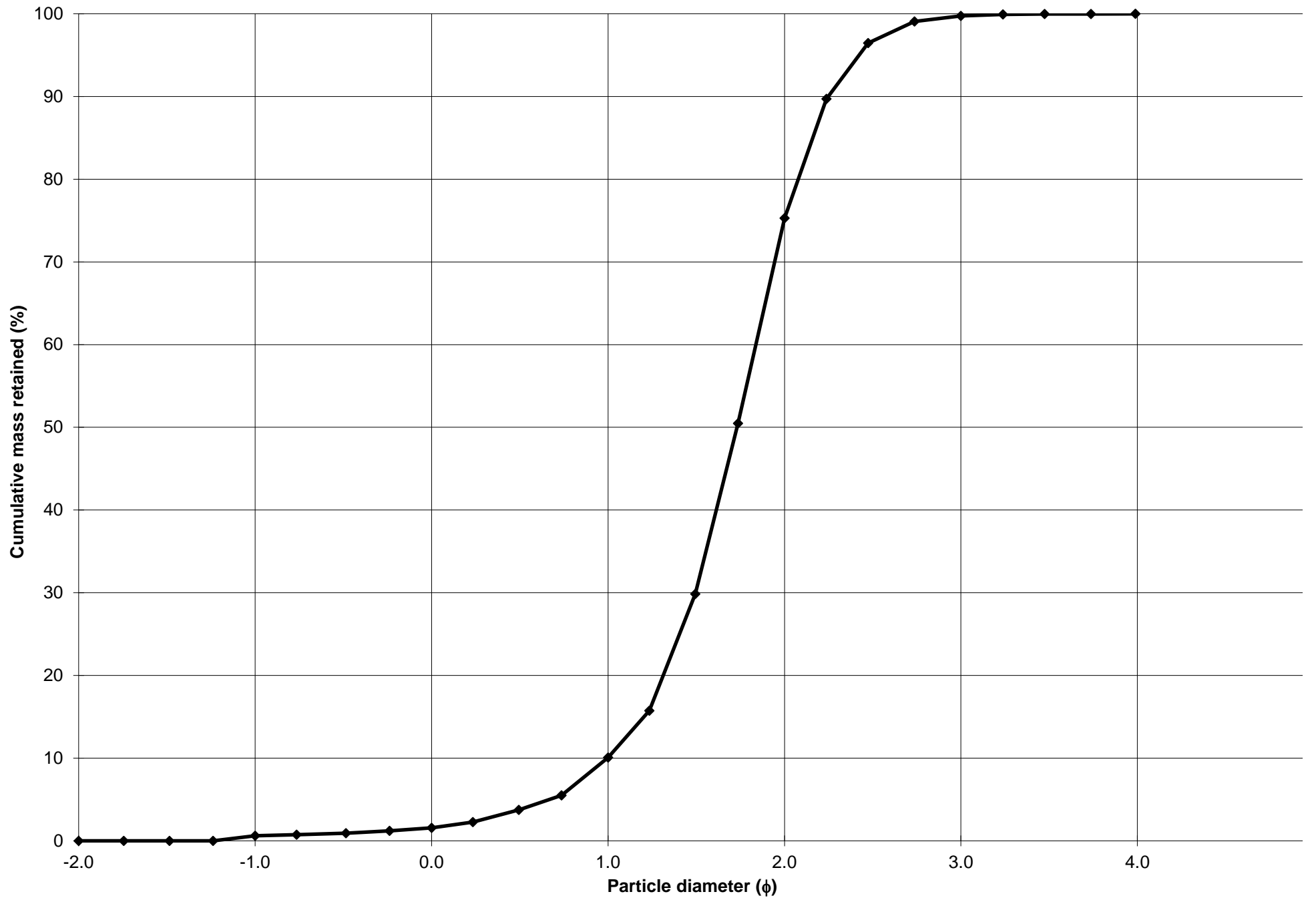
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.6%	COARSE SAND: 8.5%		
MODE 2:			SAND: 99.4%	MEDIUM SAND: 65.2%		
MODE 3:			MUD: 0.0%	FINE SAND: 24.5%		
D_{10} :	210.6	0.996		V FINE SAND: 0.2%		
MEDIAN or D_{50} :	301.2	1.731	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	501.3	2.248	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.381	2.256	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	290.7	1.251	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.507	1.421	V FINE GRAVEL: 0.6%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	127.1	0.592	V COARSE SAND: 0.9%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	349.8	316.6	1.659	306.8	1.705	Medium Sand
SORTING (σ):	215.4	1.482	0.568	1.407	0.492	Well Sorted
SKEWNESS (Sk):	5.142	1.268	-1.268	0.150	-0.150	Coarse Skewed
KURTOSIS (K):	38.99	8.000	8.000	1.216	1.216	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 423 cm**

ANALYST & DATE: Stephen Fabian, 2/4/15

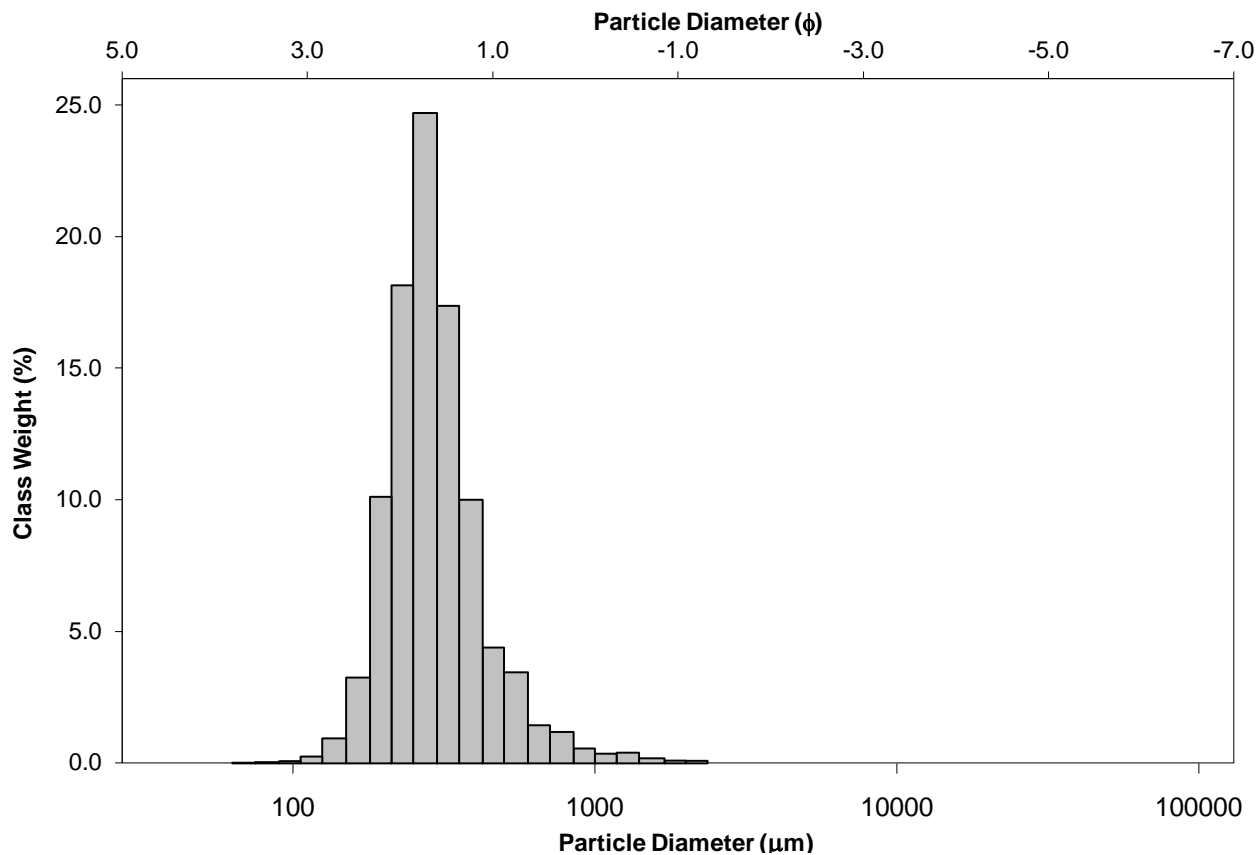
SAMPLE TYPE: Unimodal, Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

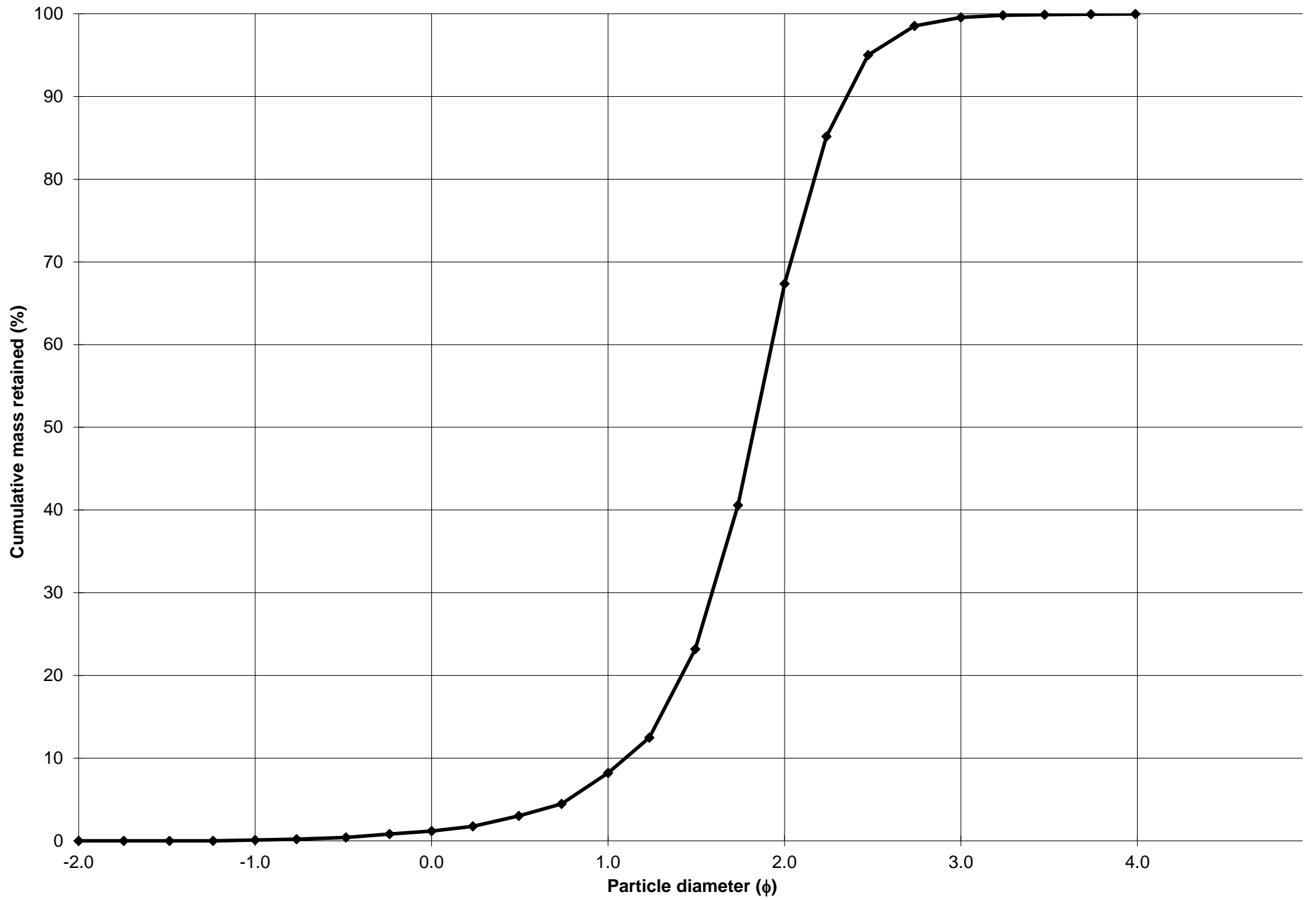
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.1%	COARSE SAND: 7.0%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 59.1%		
MODE 3:			MUD: 0.0%	FINE SAND: 32.2%		
D_{10} :	195.6	1.098		V FINE SAND: 0.4%		
MEDIAN or D_{50} :	281.4	1.830	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	467.1	2.354	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.388	2.143	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	271.4	1.256	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.498	1.383	V FINE GRAVEL: 0.1%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	115.9	0.583	V COARSE SAND: 1.1%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	322.0	294.8	1.762	289.0	1.791	Medium Sand
SORTING (σ):	172.2	1.461	0.547	1.398	0.483	Well Sorted
SKEWNESS (Sk):	4.348	0.950	-0.950	0.185	-0.185	Coarse Skewed
KURTOSIS (K):	32.44	7.606	7.606	1.195	1.195	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 4 430 cm**

ANALYST & DATE: Stephen Fabian, 2/4/15

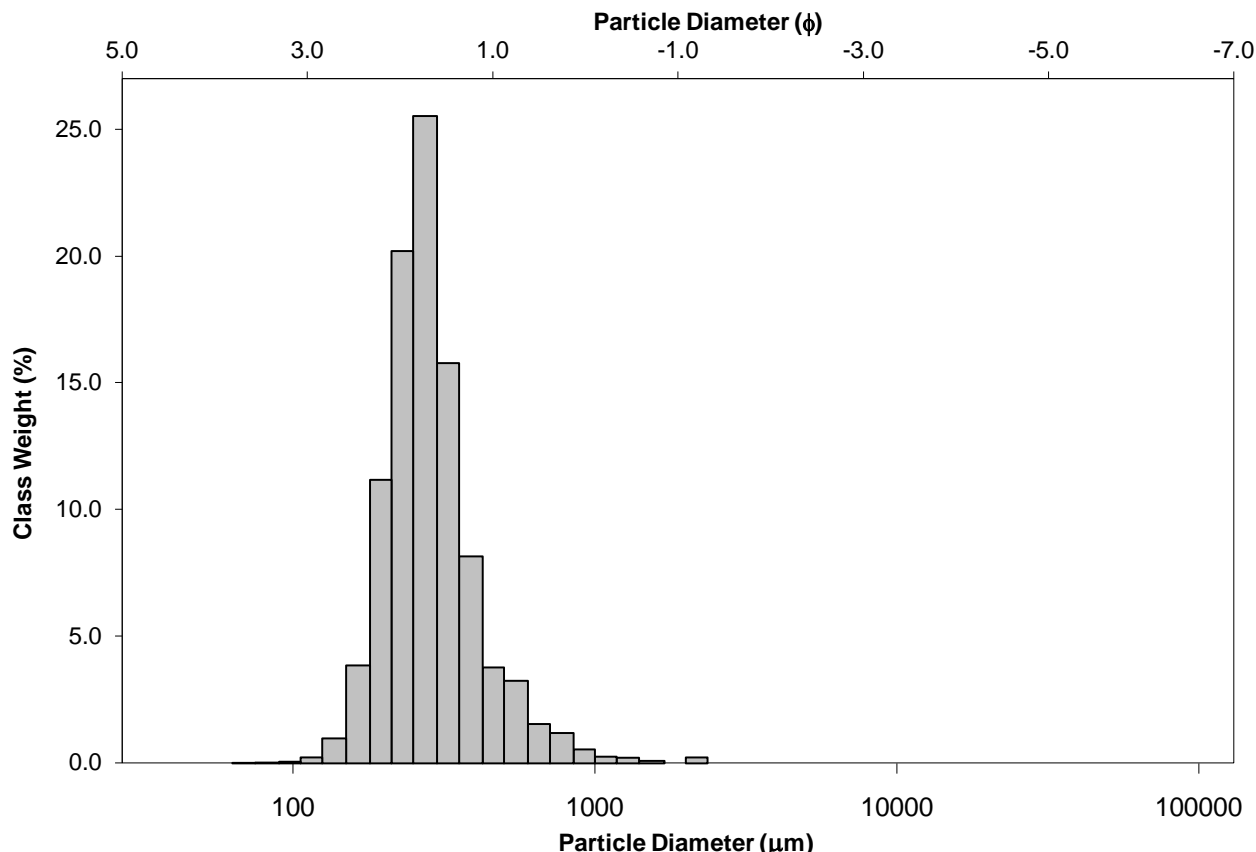
SAMPLE TYPE: Unimodal, Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

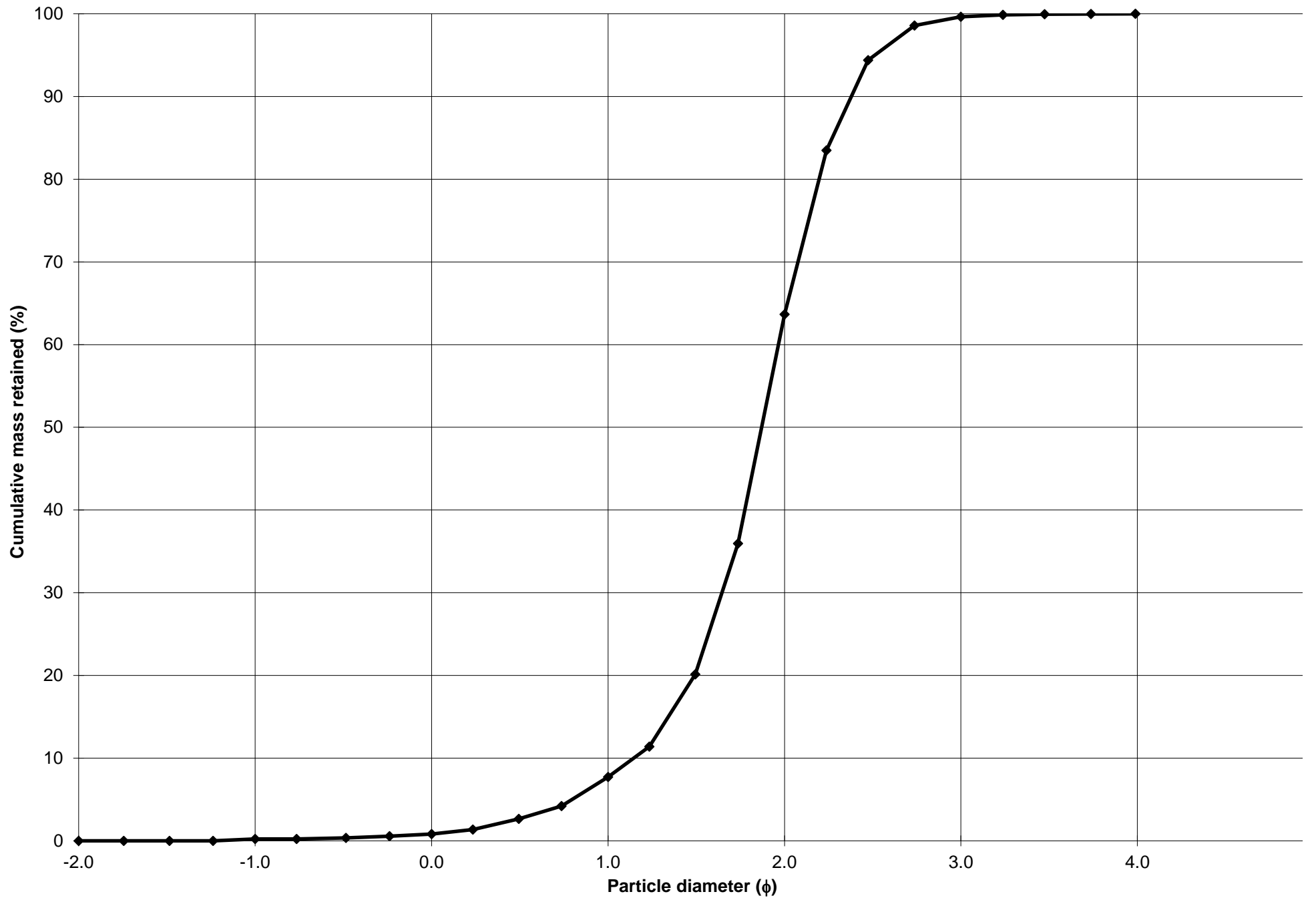
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.2%	COARSE SAND: 6.9%		
MODE 2:			SAND: 99.8%	MEDIUM SAND: 55.9%		
MODE 3:			MUD: 0.0%	FINE SAND: 36.0%		
D_{10} :	192.3	1.145		V FINE SAND: 0.3%		
MEDIAN or D_{50} :	273.5	1.870	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	452.1	2.379	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.352	2.077	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	259.9	1.234	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.482	1.362	V FINE GRAVEL: 0.2%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	109.6	0.567	V COARSE SAND: 0.6%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	312.0	286.6	1.803	281.2	1.830	Medium Sand
SORTING (σ):	167.6	1.447	0.533	1.394	0.479	Well Sorted
SKEWNESS (Sk):	5.058	1.135	-1.135	0.194	-0.194	Coarse Skewed
KURTOSIS (K):	45.03	7.229	7.229	1.240	1.240	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 40 cm**

ANALYST & DATE: Stephen Fabian, 1/23/15

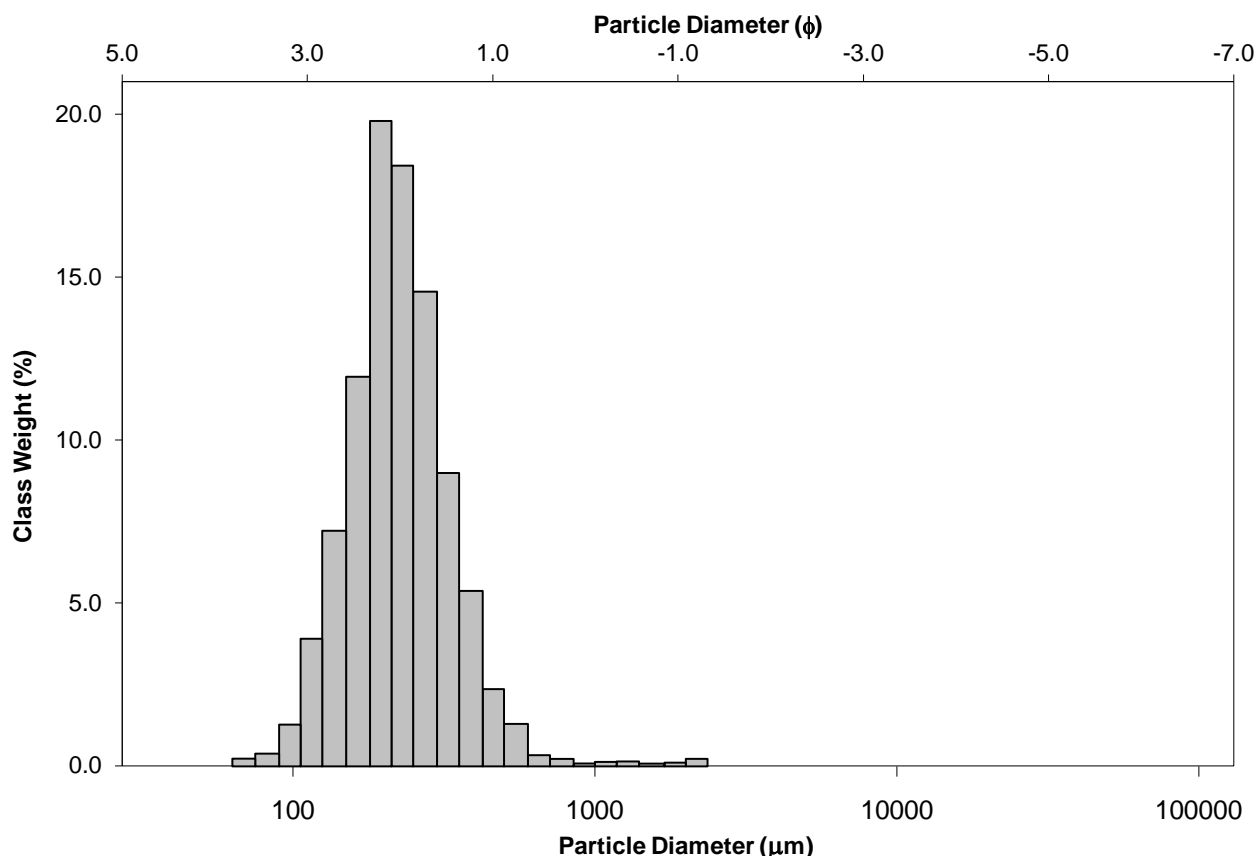
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

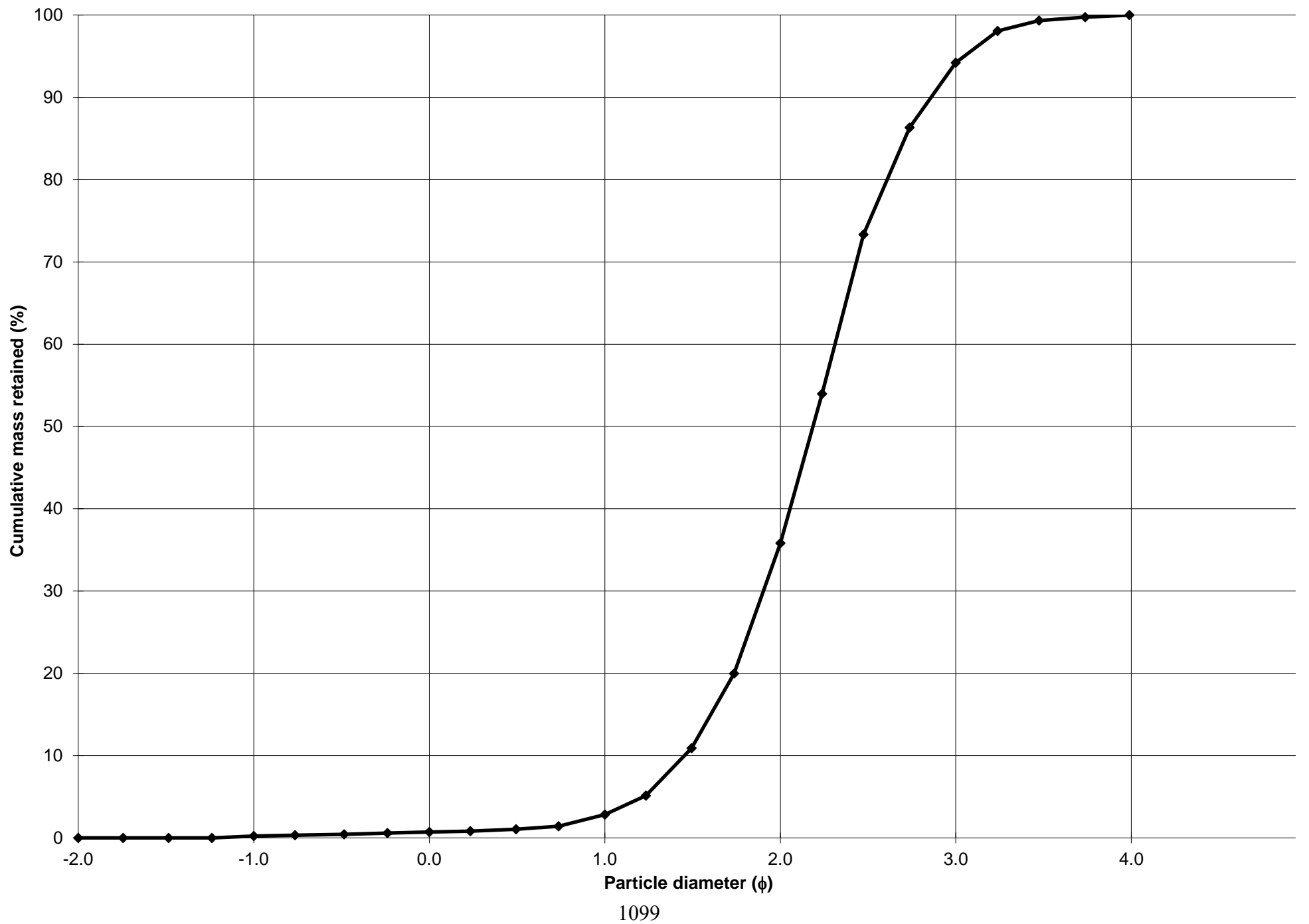
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.2%	COARSE SAND: 2.1%		
MODE 2:			SAND: 99.8%	MEDIUM SAND: 33.0%		
MODE 3:			MUD: 0.0%	FINE SAND: 58.4%		
D_{10} :	137.8	1.453		V FINE SAND: 5.8%		
MEDIAN or D_{50} :	219.8	2.186	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	365.2	2.859	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.650	1.968	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	227.4	1.406	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.610	1.378	V FINE GRAVEL: 0.2%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	107.3	0.687	V COARSE SAND: 0.5%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	249.6	225.1	2.151	222.4	2.169	Fine Sand
SORTING (σ):	158.6	1.507	0.592	1.456	0.542	Moderately Well Sorted
SKEWNESS (Sk):	6.763	0.811	-0.811	0.052	-0.052	Symmetrical
KURTOSIS (K):	71.16	7.026	7.026	1.090	1.090	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 50cm**

ANALYST & DATE: Stephen Fabian, 1/23/15

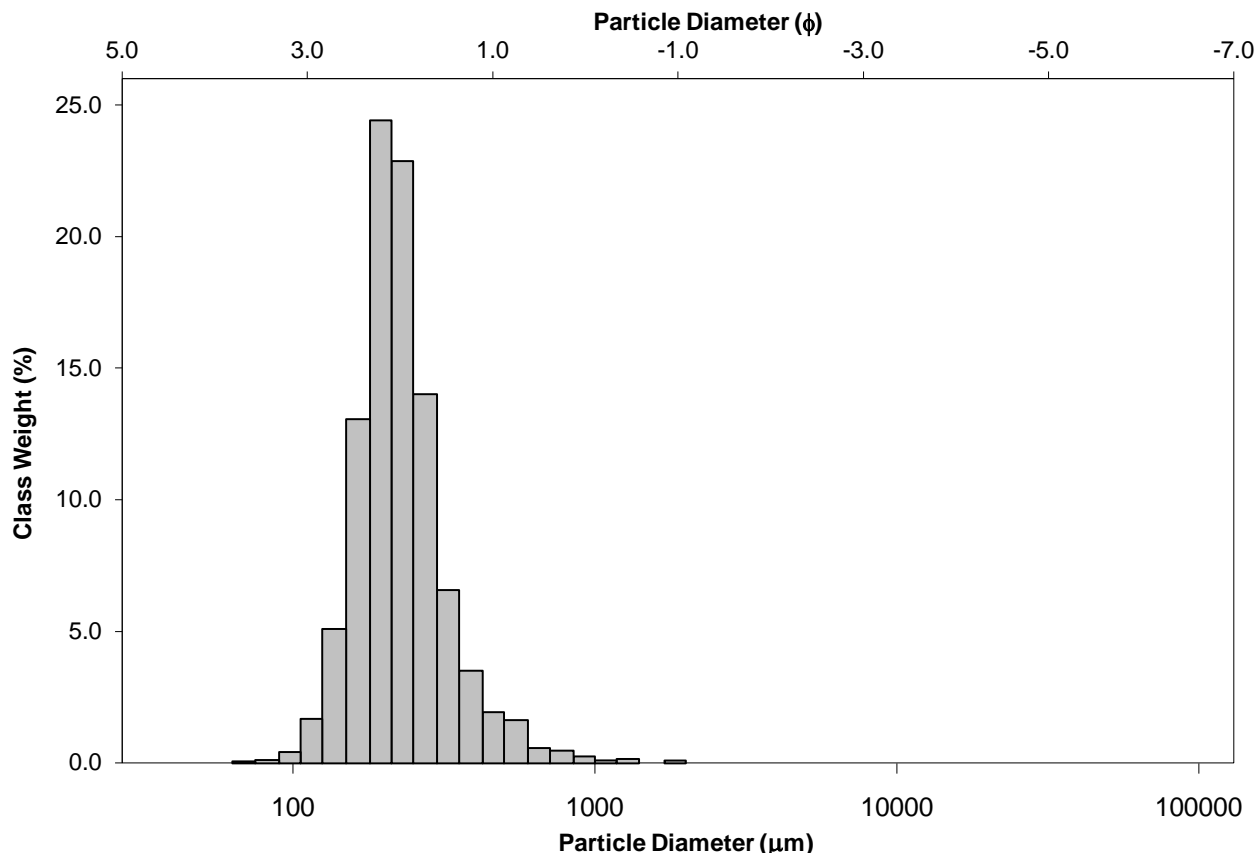
SAMPLE TYPE: Unimodal, Well Sorted

TEXTURAL GROUP: Sand

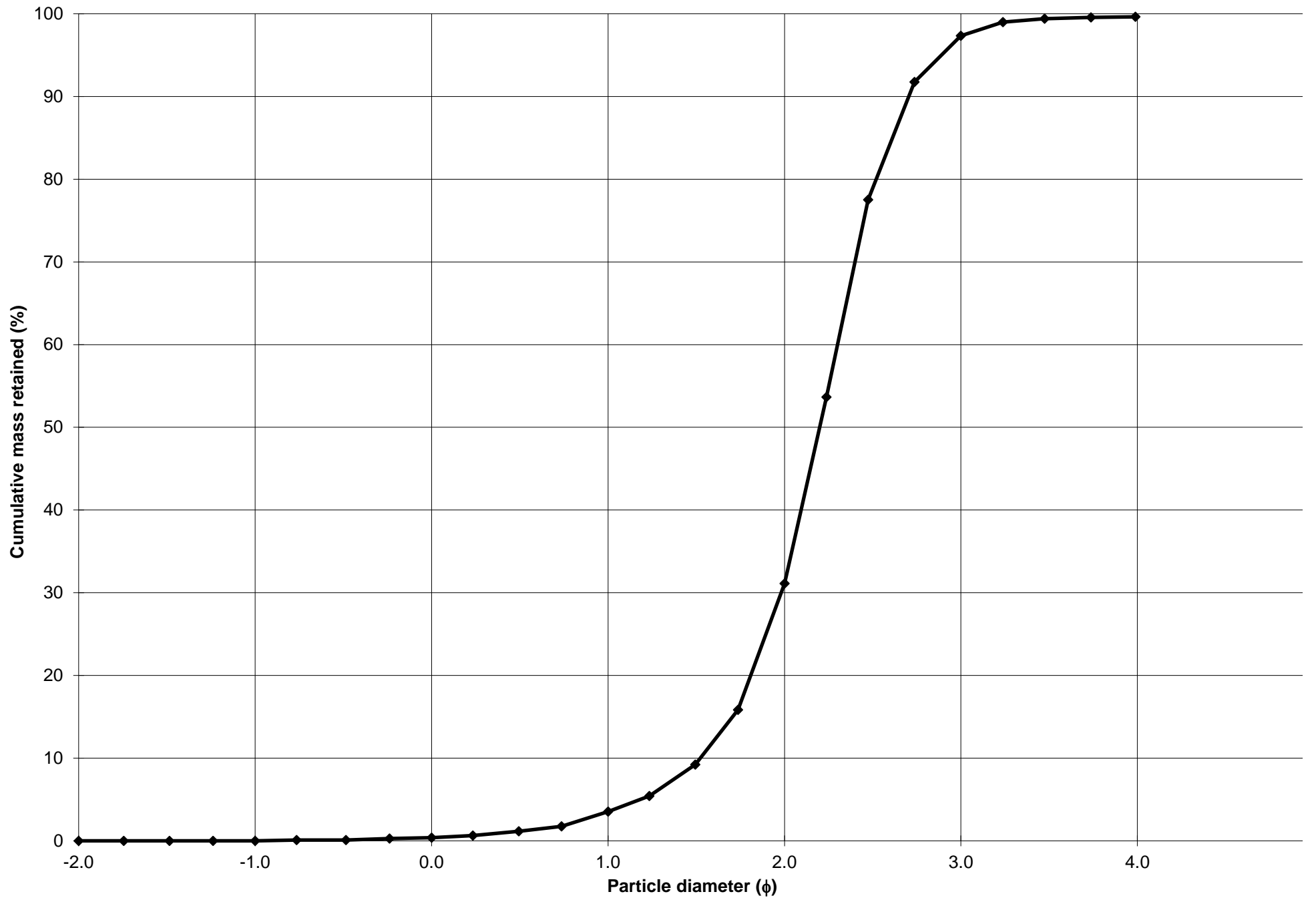
SEDIMENT NAME: Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 3.2%		
MODE 2:			SAND: 99.6%	MEDIUM SAND: 27.6%		
MODE 3:			MUD: 0.4%	FINE SAND: 66.2%		
D_{10} :	153.4	1.523		V FINE SAND: 2.3%		
MEDIAN or D_{50} :	217.7	2.199	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.1%		
D_{90} :	348.0	2.704	COARSE GRAVEL: 0.0%	COARSE SILT: 0.1%		
(D_{90} / D_{10}) :	2.268	1.776	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.1%		
$(D_{90} - D_{10})$:	194.5	1.181	FINE GRAVEL: 0.0%	FINE SILT: 0.1%		
(D_{75} / D_{25}) :	1.468	1.292	V FINE GRAVEL: 0.0%	V FINE SILT: 0.1%		
$(D_{75} - D_{25})$:	85.78	0.554	V COARSE SAND: 0.4%	CLAY: 0.1%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	245.3	224.5	2.155	221.0	2.178	Fine Sand
SORTING (σ):	125.5	1.510	0.594	1.387	0.472	Well Sorted
SKEWNESS (Sk):	4.839	-1.181	1.181	0.134	-0.134	Coarse Skewed
KURTOSIS (K):	44.23	19.95	19.95	1.264	1.264	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 60cm**

ANALYST & DATE: ,

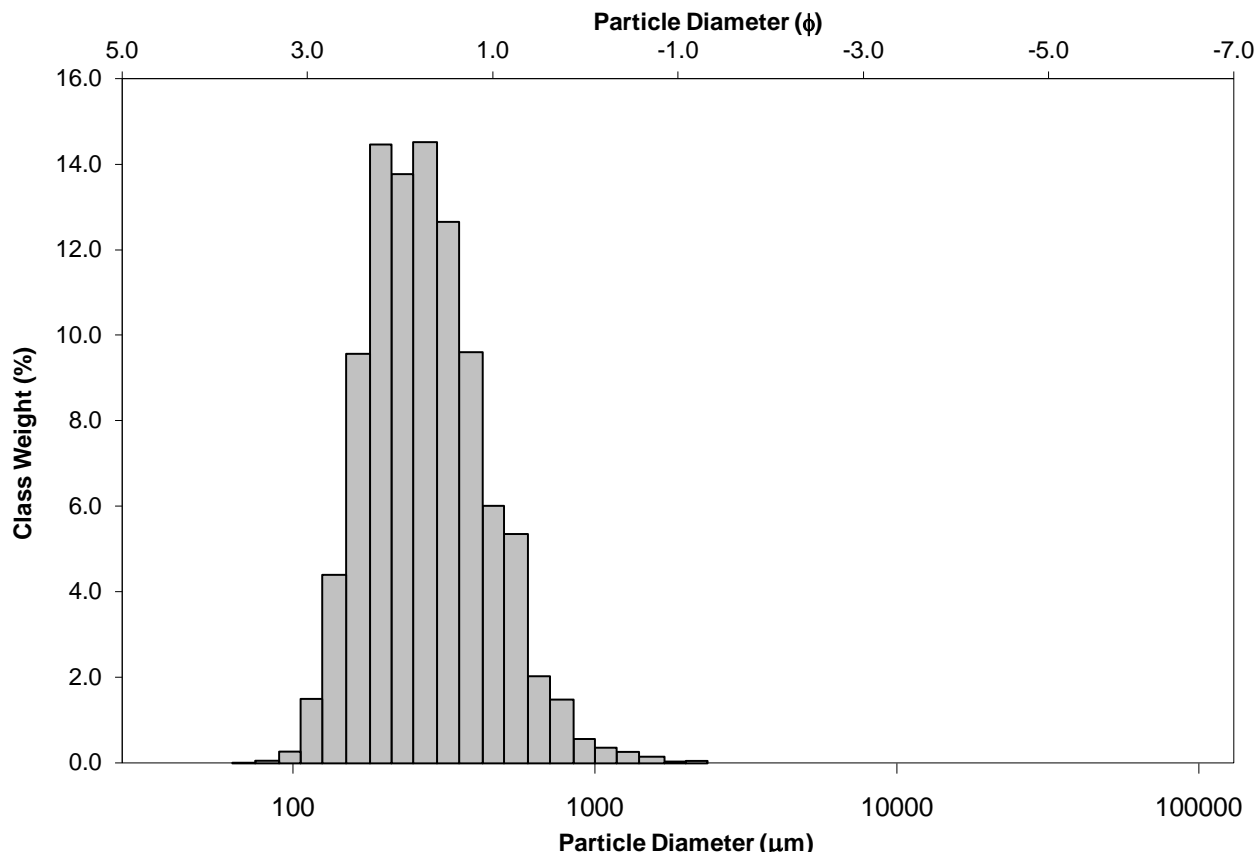
SAMPLE TYPE: Bimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

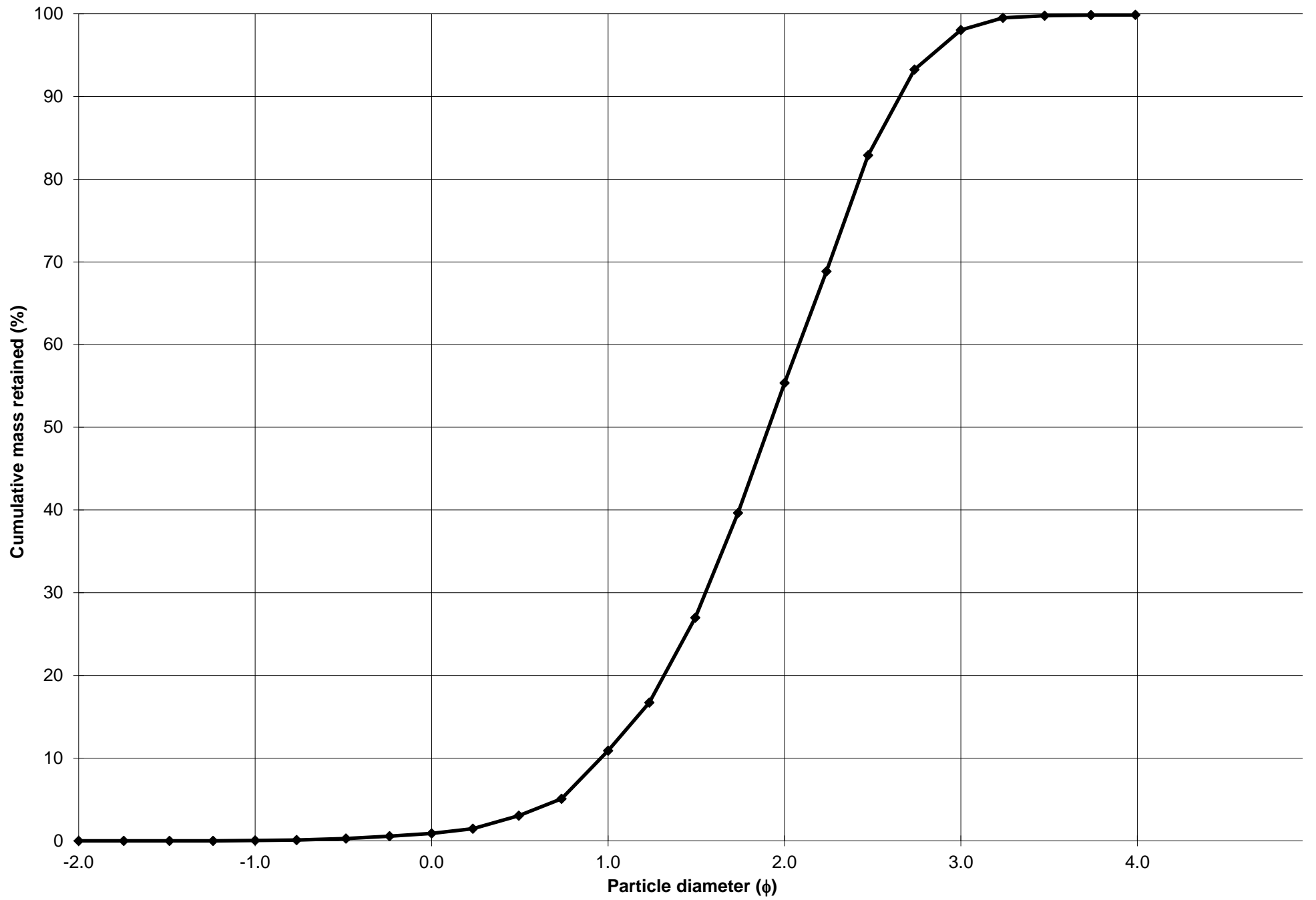
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.1%	COARSE SAND: 10.0%		
MODE 2:	196.0	2.356	SAND: 99.8%	MEDIUM SAND: 44.5%		
MODE 3:			MUD: 0.1%	FINE SAND: 42.7%		
D_{10} :	158.9	0.959		V FINE SAND: 1.8%		
MEDIAN or D_{50} :	266.0	1.910	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	514.3	2.654	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.237	2.766	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	355.4	1.695	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.862	1.621	V FINE GRAVEL: 0.1%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	170.2	0.897	V COARSE SAND: 0.9%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	311.1	275.3	1.861	273.0	1.873	Medium Sand
SORTING (σ):	176.7	1.609	0.686	1.562	0.643	Moderately Well Sorted
SKEWNESS (Sk):	3.011	-0.050	0.050	0.106	-0.106	Coarse Skewed
KURTOSIS (K):	19.99	7.358	7.358	0.962	0.962	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 70 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

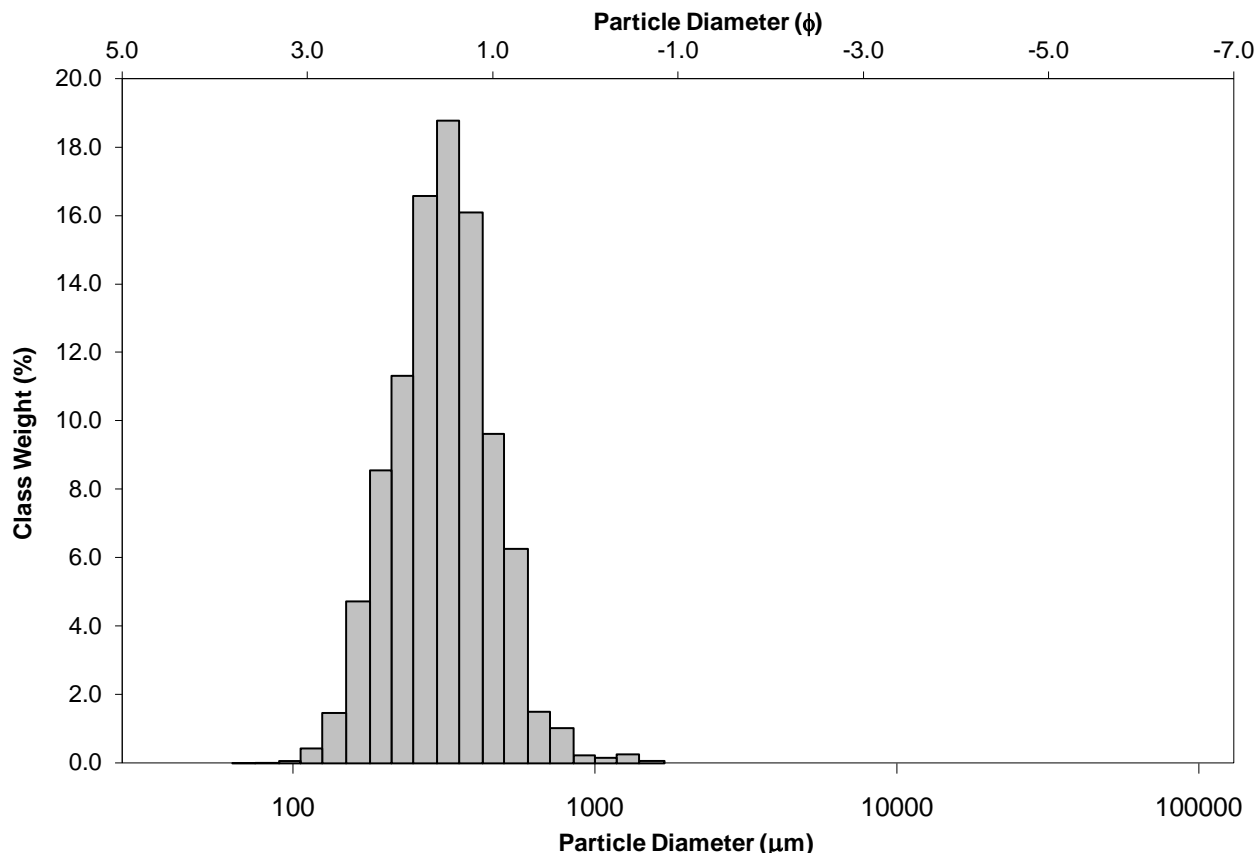
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

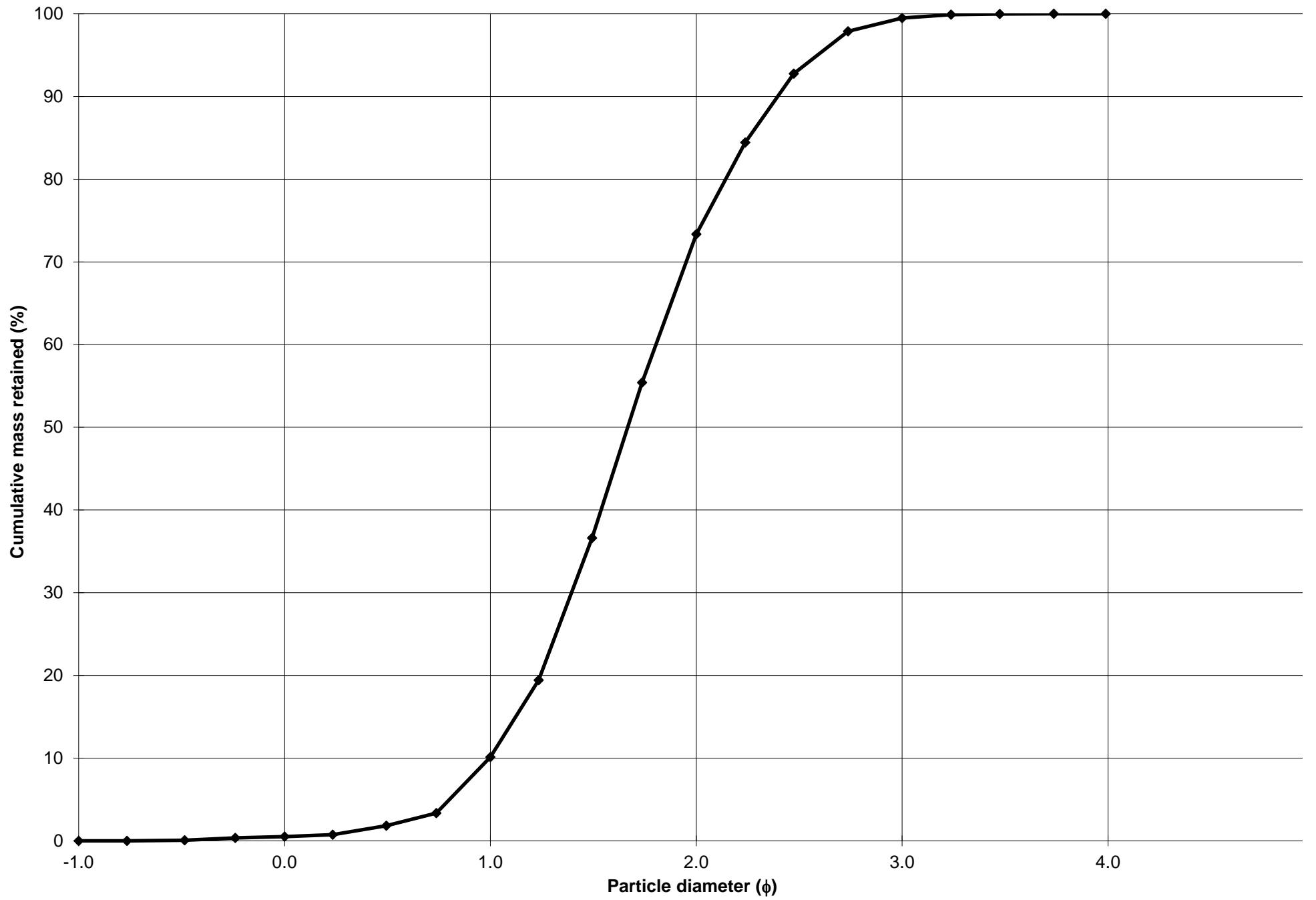
SEDIMENT NAME: Moderately Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%	COARSE SAND: 9.6%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 63.2%		
MODE 3:			MUD: 0.0%	FINE SAND: 26.1%		
D ₁₀ :	190.0	0.995		V FINE SAND: 0.5%		
MEDIAN or D ₅₀ :	314.9	1.667	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	501.8	2.396	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.640	2.408	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	311.7	1.401	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.643	1.544	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	157.0	0.717	V COARSE SAND: 0.5%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	338.4	313.2	1.675	311.8	1.681	Medium Sand
SORTING (σ):	141.6	1.460	0.546	1.455	0.541	Moderately Well Sorted
SKEWNESS (Sk):	2.215	0.160	-0.160	-0.035	0.035	Symmetrical
KURTOSIS (K):	13.95	3.499	3.499	1.022	1.022	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 80 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

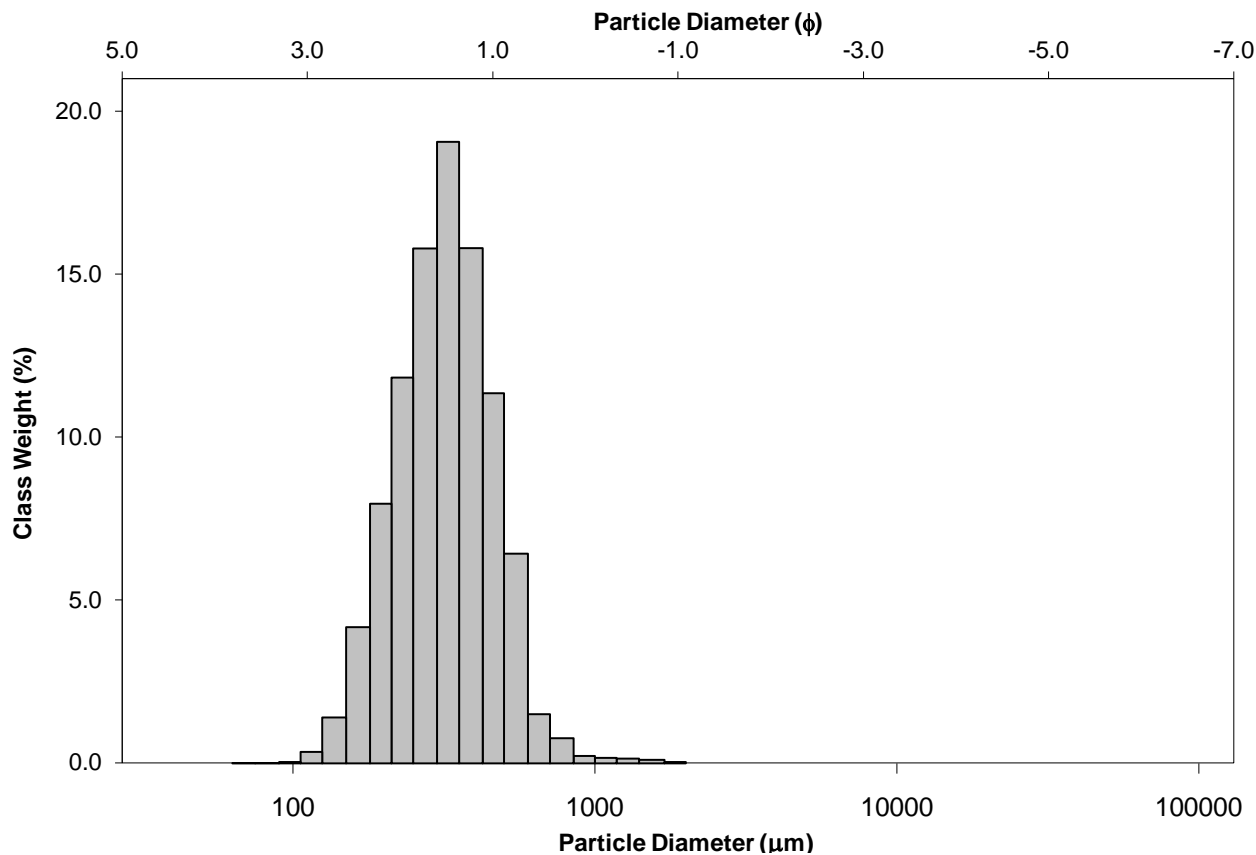
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

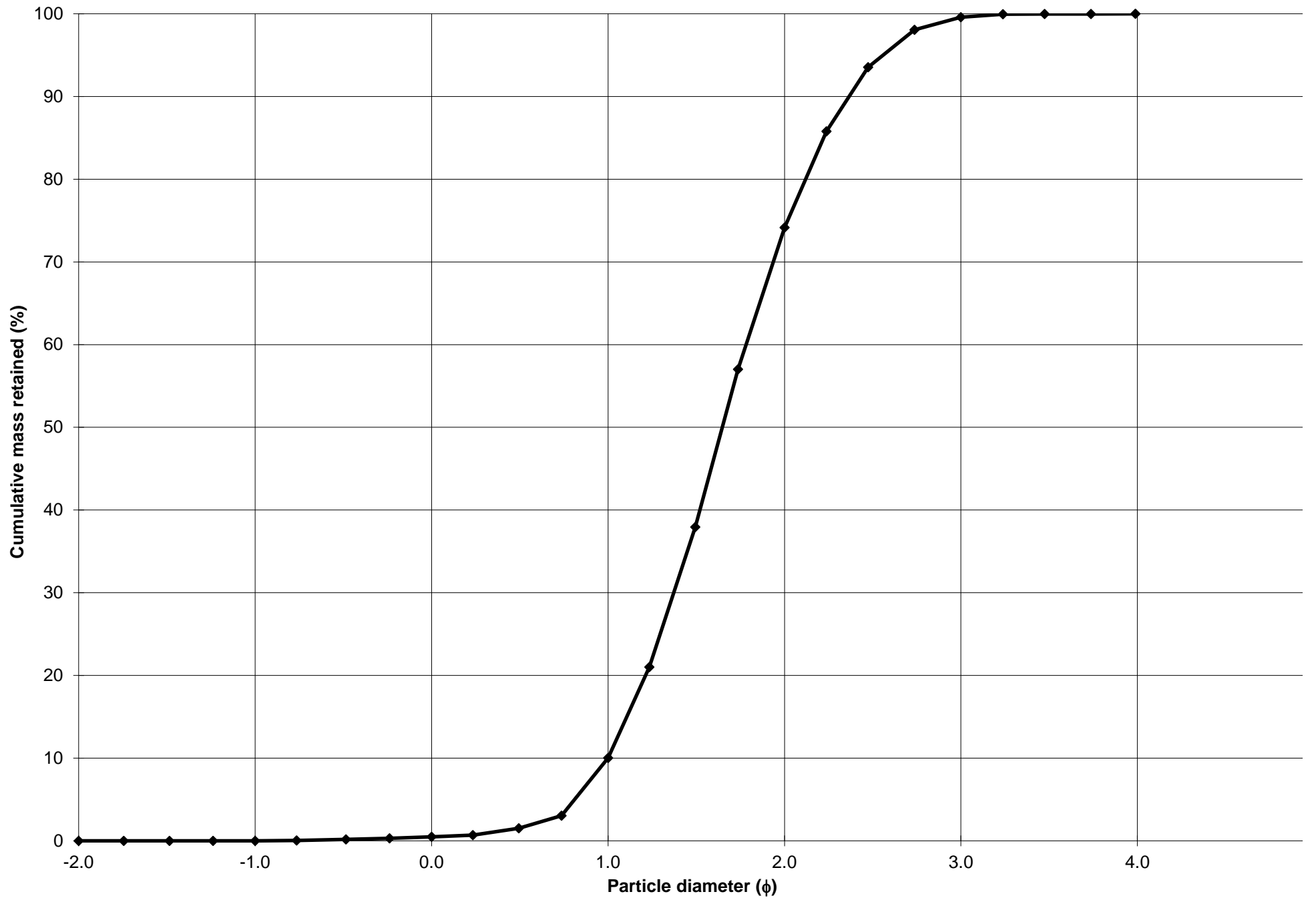
SEDIMENT NAME: Moderately Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%	COARSE SAND: 9.5%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 64.1%		
MODE 3:			MUD: 0.0%	FINE SAND: 25.4%		
D_{10} :	193.9	0.999		V FINE SAND: 0.4%		
MEDIAN or D_{50} :	319.2	1.648	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	500.2	2.367	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.580	2.368	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	306.3	1.367	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.649	1.557	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	160.3	0.721	V COARSE SAND: 0.5%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	341.7	317.0	1.657	316.7	1.659	Medium Sand
SORTING (σ):	141.5	1.453	0.539	1.447	0.533	Moderately Well Sorted
SKEWNESS (Sk):	2.519	0.110	-0.110	-0.037	0.037	Symmetrical
KURTOSIS (K):	18.73	3.891	3.891	0.993	0.993	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 90 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

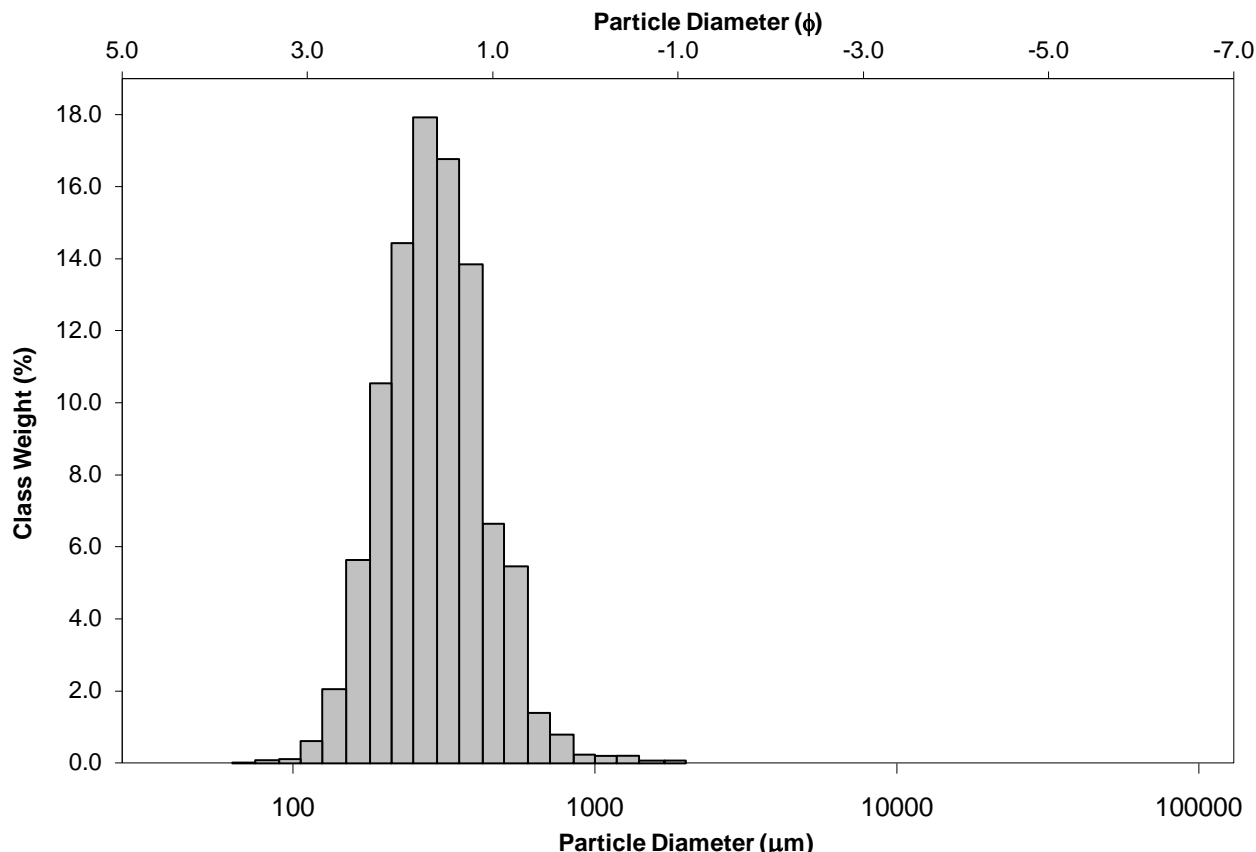
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

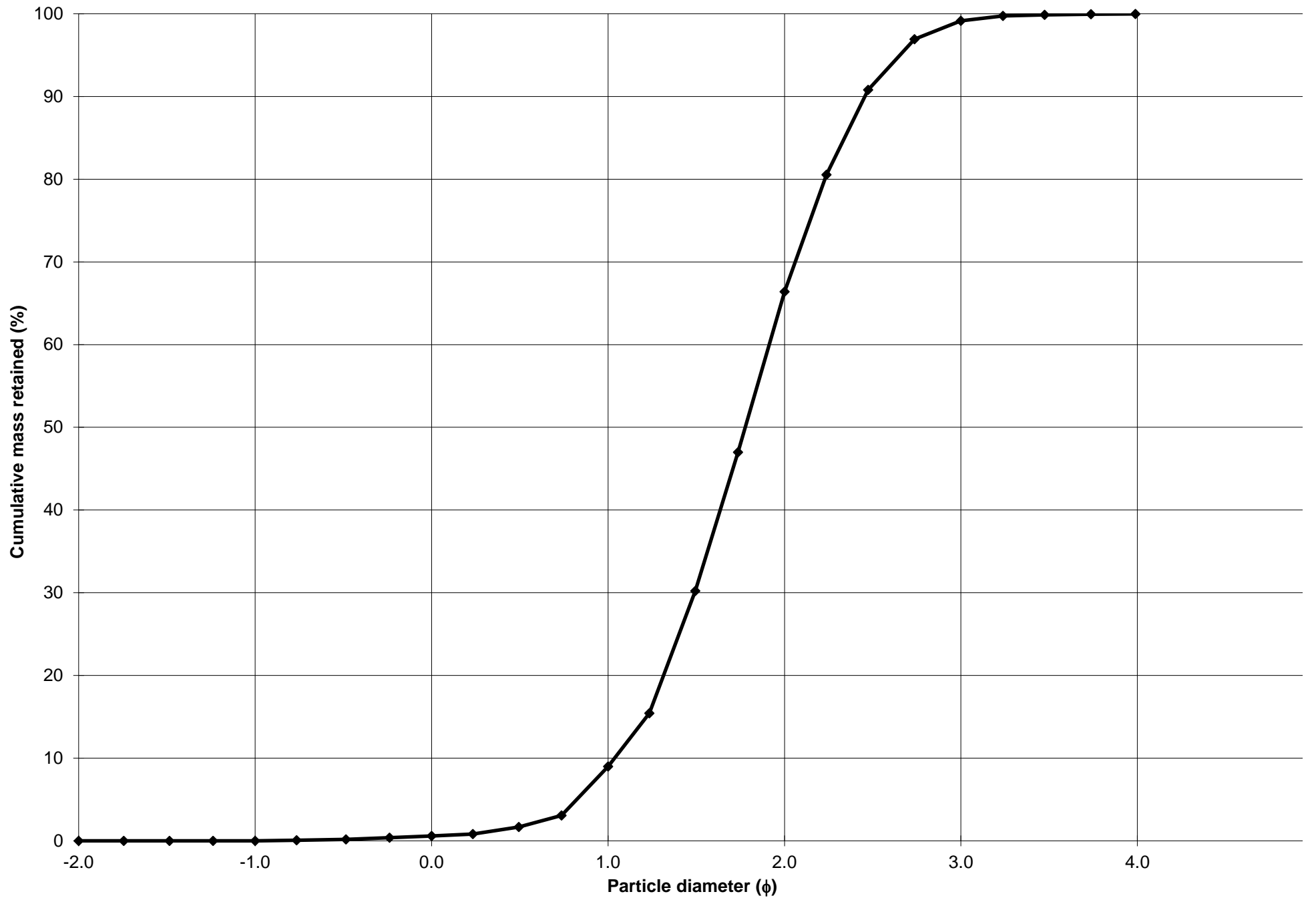
SEDIMENT NAME: Moderately Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%	COARSE SAND: 8.4%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 57.4%		
MODE 3:			MUD: 0.0%	FINE SAND: 32.7%		
D_{10} :	182.3	1.037		V FINE SAND: 0.8%		
MEDIAN or D_{50} :	291.6	1.778	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	487.4	2.456	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.674	2.368	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	305.1	1.419	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.672	1.529	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	152.1	0.742	V COARSE SAND: 0.6%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	320.9	295.0	1.761	291.2	1.780	Medium Sand
SORTING (σ):	146.4	1.480	0.565	1.460	0.546	Moderately Well Sorted
SKEWNESS (Sk):	2.952	0.206	-0.206	0.018	-0.018	Symmetrical
KURTOSIS (K):	21.64	4.971	4.971	1.012	1.012	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 101 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

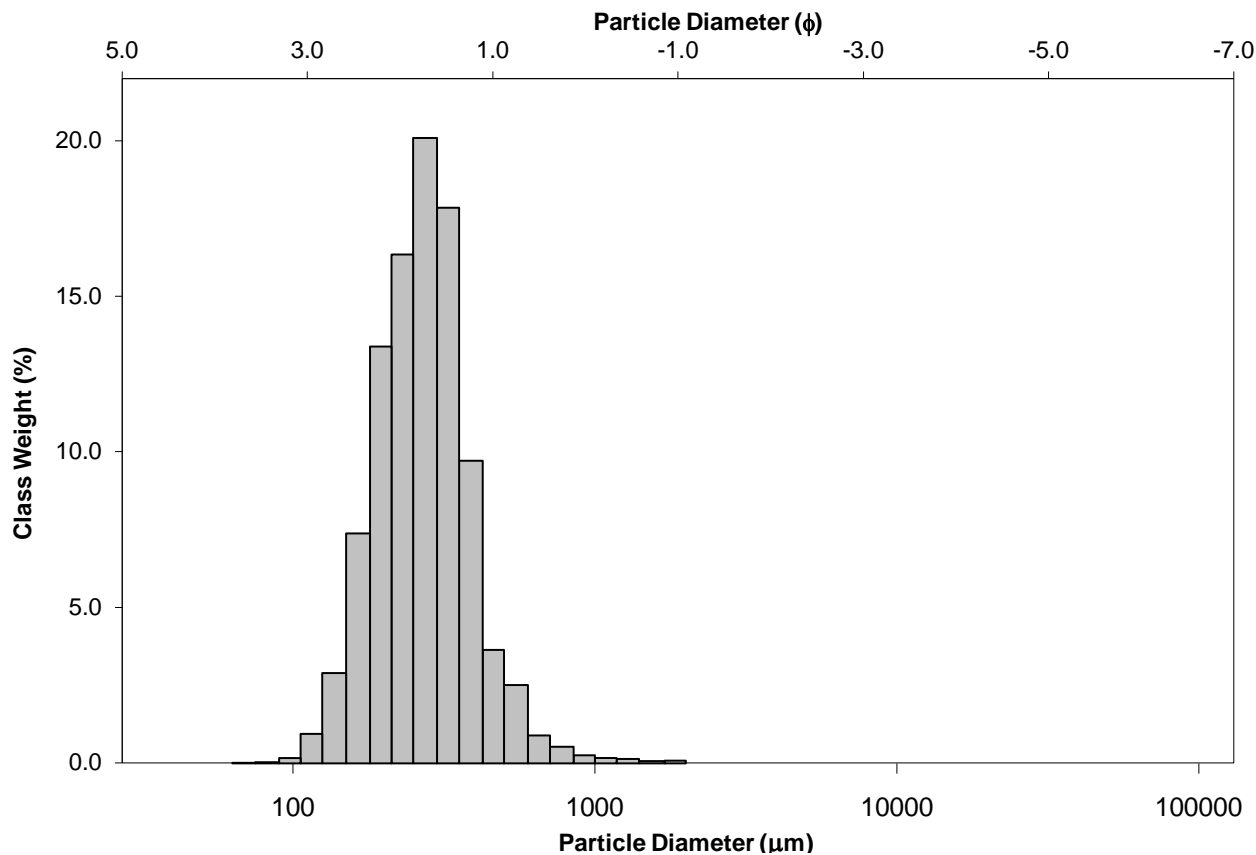
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

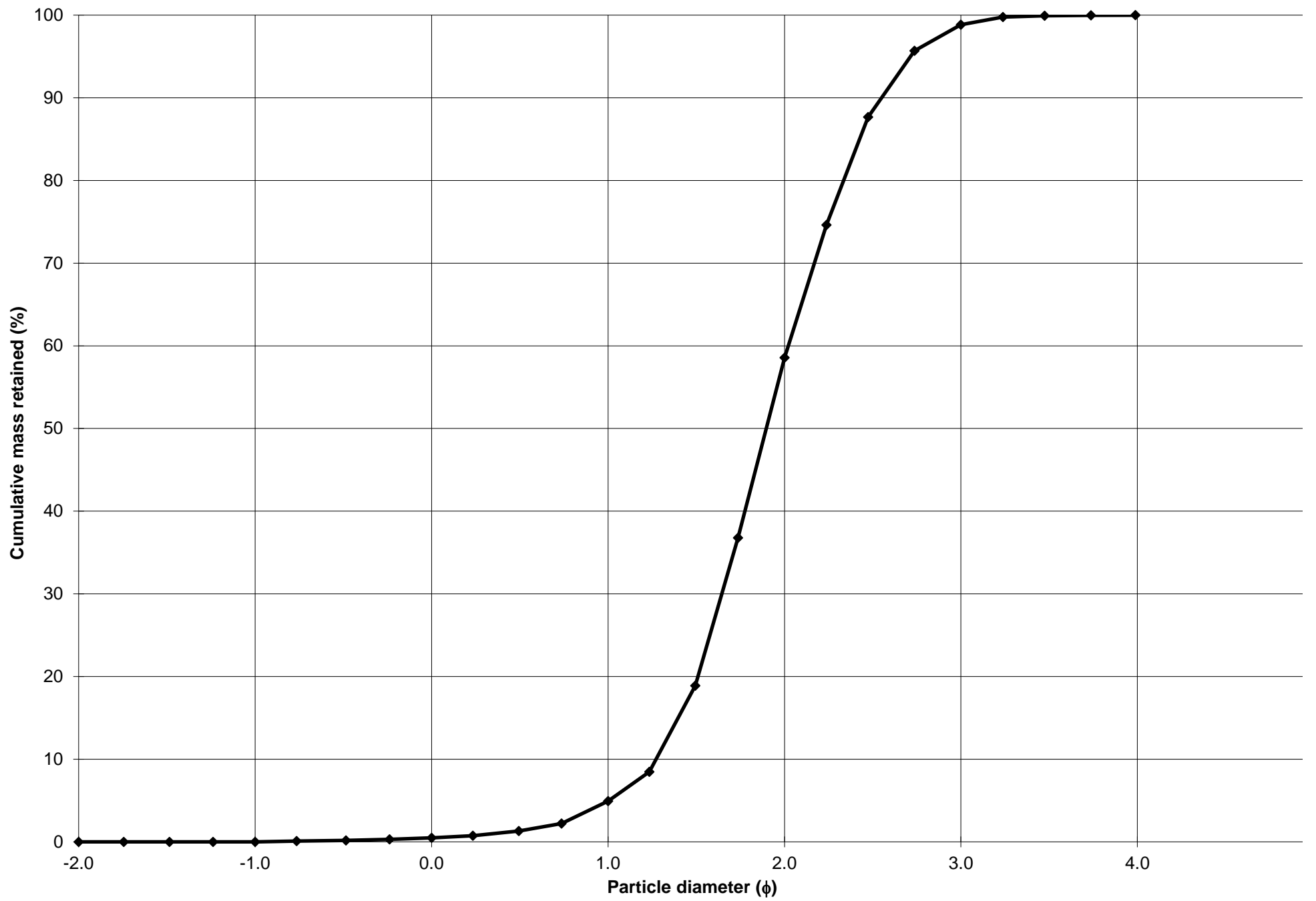
SEDIMENT NAME: Moderately Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%	COARSE SAND: 4.5%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 53.6%		
MODE 3:			MUD: 0.0%	FINE SAND: 40.3%		
D ₁₀ :	170.7	1.273		V FINE SAND: 1.2%		
MEDIAN or D ₅₀ :	268.6	1.897	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	413.9	2.551	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.425	2.004	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	243.2	1.278	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.588	1.423	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	124.1	0.668	V COARSE SAND: 0.5%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	291.3	269.5	1.892	266.3	1.909	Medium Sand
SORTING (σ):	133.6	1.447	0.533	1.420	0.505	Moderately Well Sorted
SKEWNESS (Sk):	3.867	0.420	-0.420	0.003	-0.003	Symmetrical
KURTOSIS (K):	32.62	5.648	5.648	1.050	1.050	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 110 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

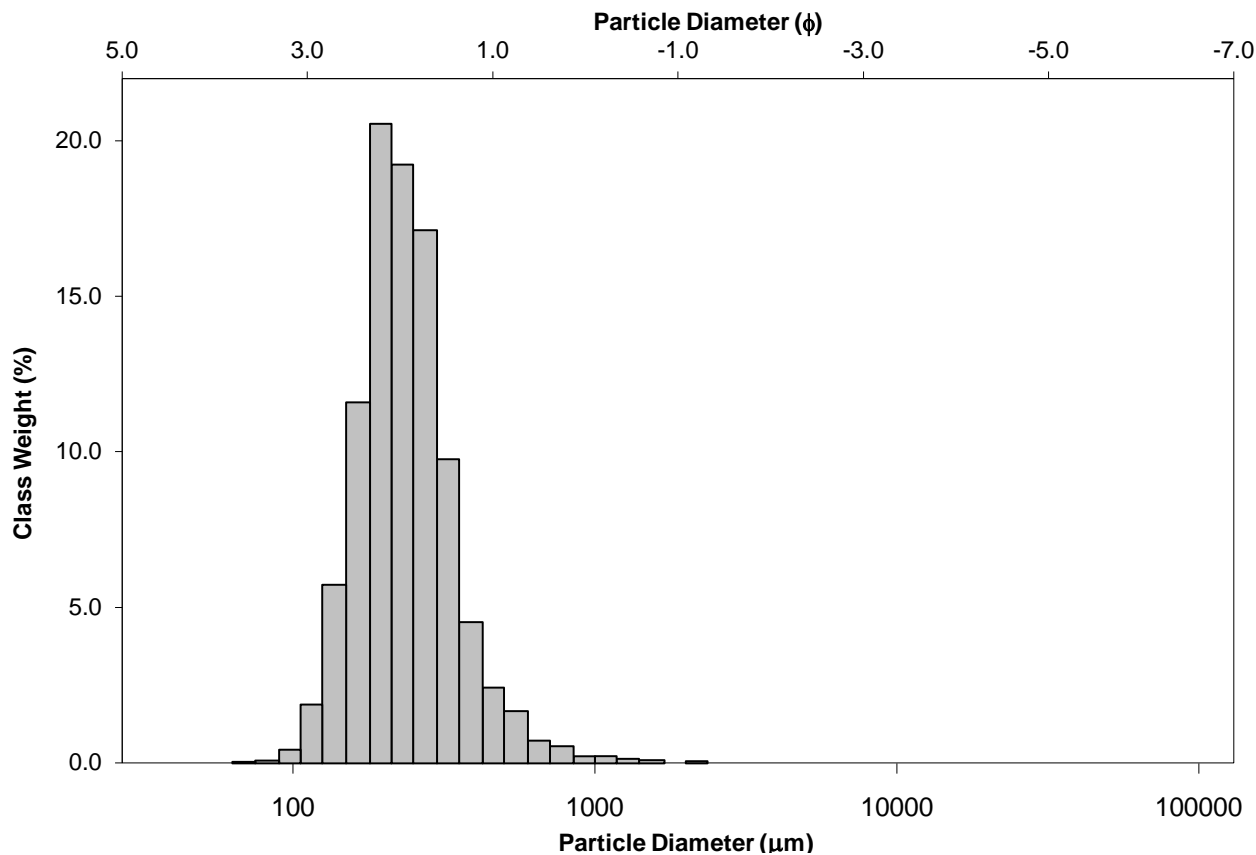
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

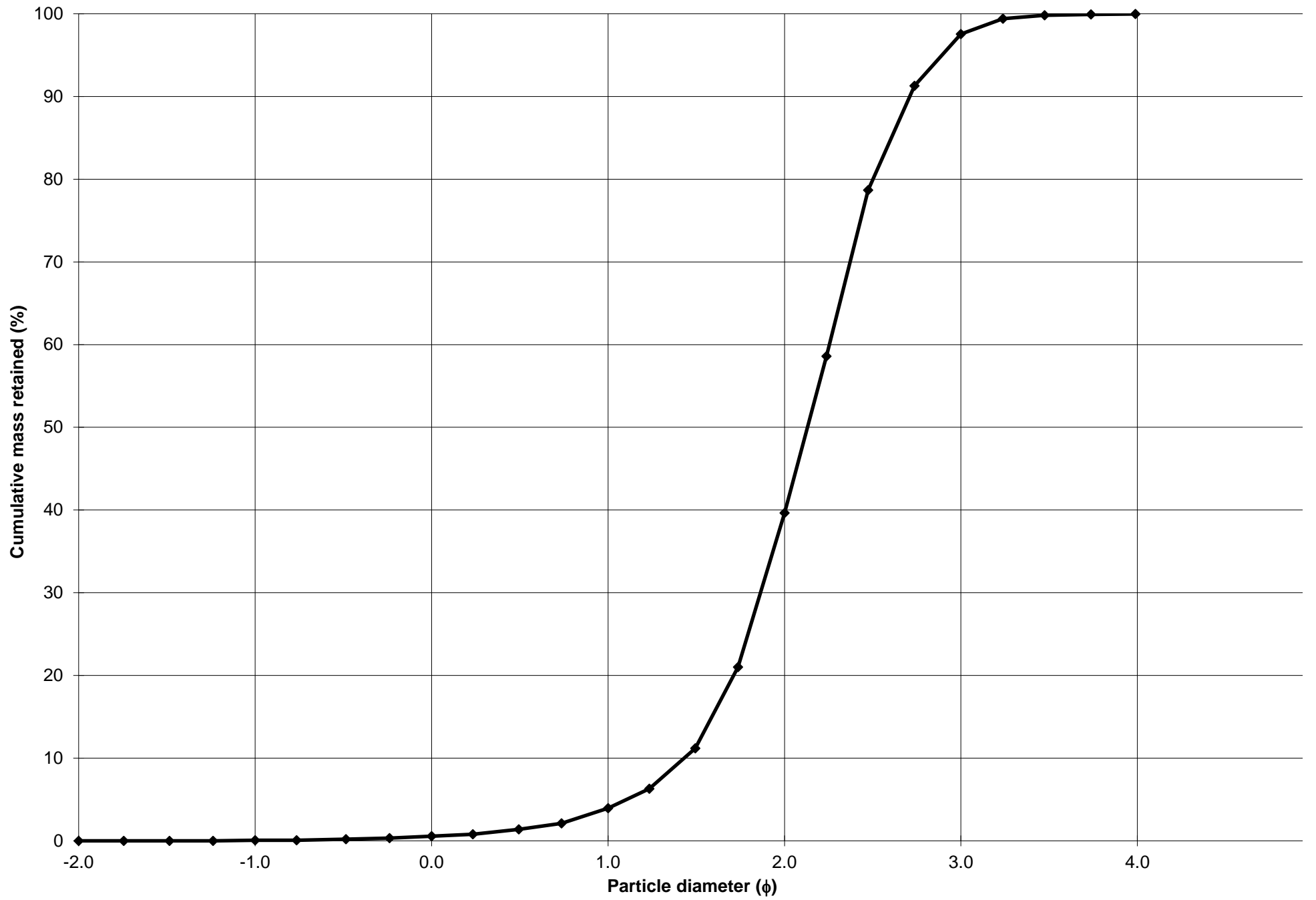
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.1%	COARSE SAND: 3.4%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 35.7%		
MODE 3:			MUD: 0.0%	FINE SAND: 57.9%		
D_{10} :	152.8	1.431		V FINE SAND: 2.4%		
MEDIAN or D_{50} :	228.5	2.130	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	370.8	2.710	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.426	1.894	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	218.0	1.279	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.556	1.355	V FINE GRAVEL: 0.1%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	103.0	0.637	V COARSE SAND: 0.5%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	257.9	236.1	2.083	231.7	2.109	Fine Sand
SORTING (σ):	137.3	1.468	0.554	1.428	0.514	Moderately Well Sorted
SKEWNESS (Sk):	4.967	0.753	-0.753	0.105	-0.105	Coarse Skewed
KURTOSIS (K):	47.35	7.068	7.068	1.150	1.150	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 120 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

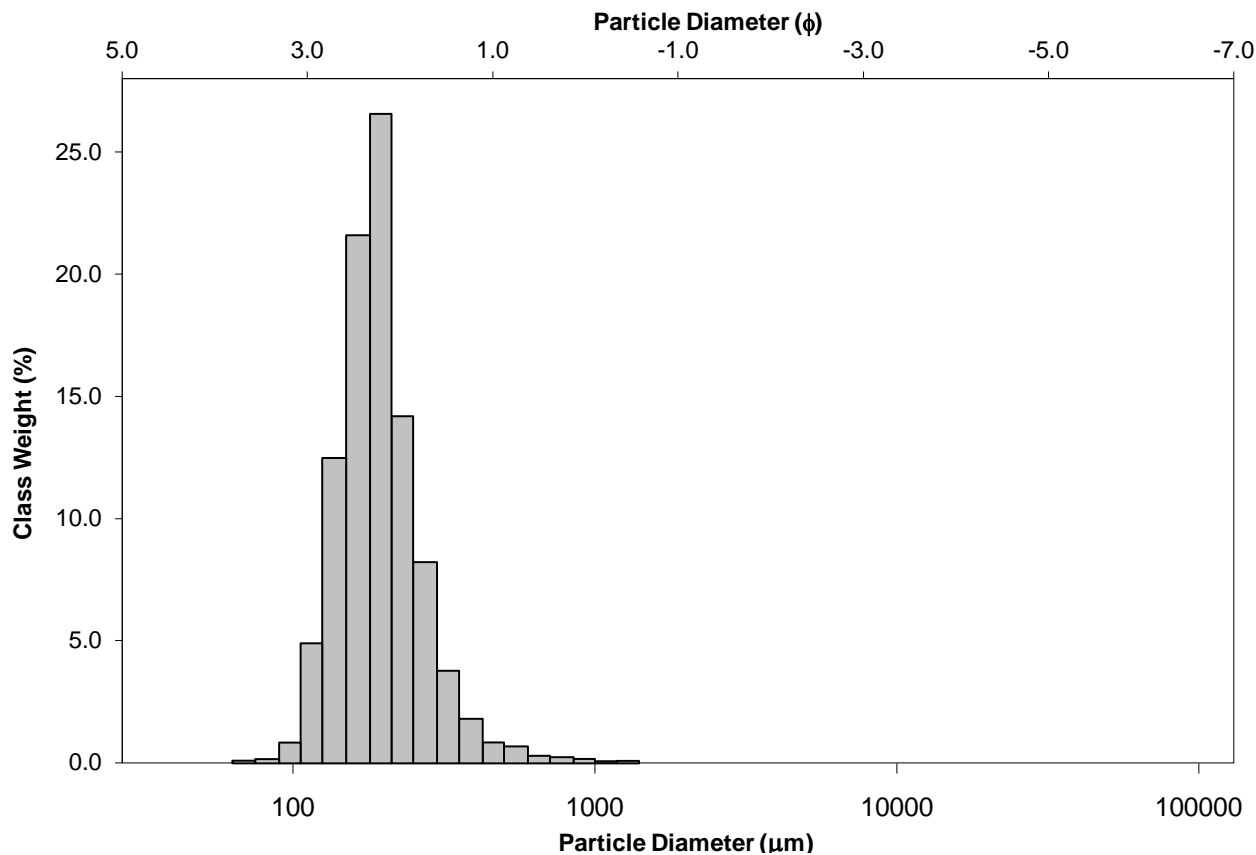
SAMPLE TYPE: Unimodal, Well Sorted

TEXTURAL GROUP: Sand

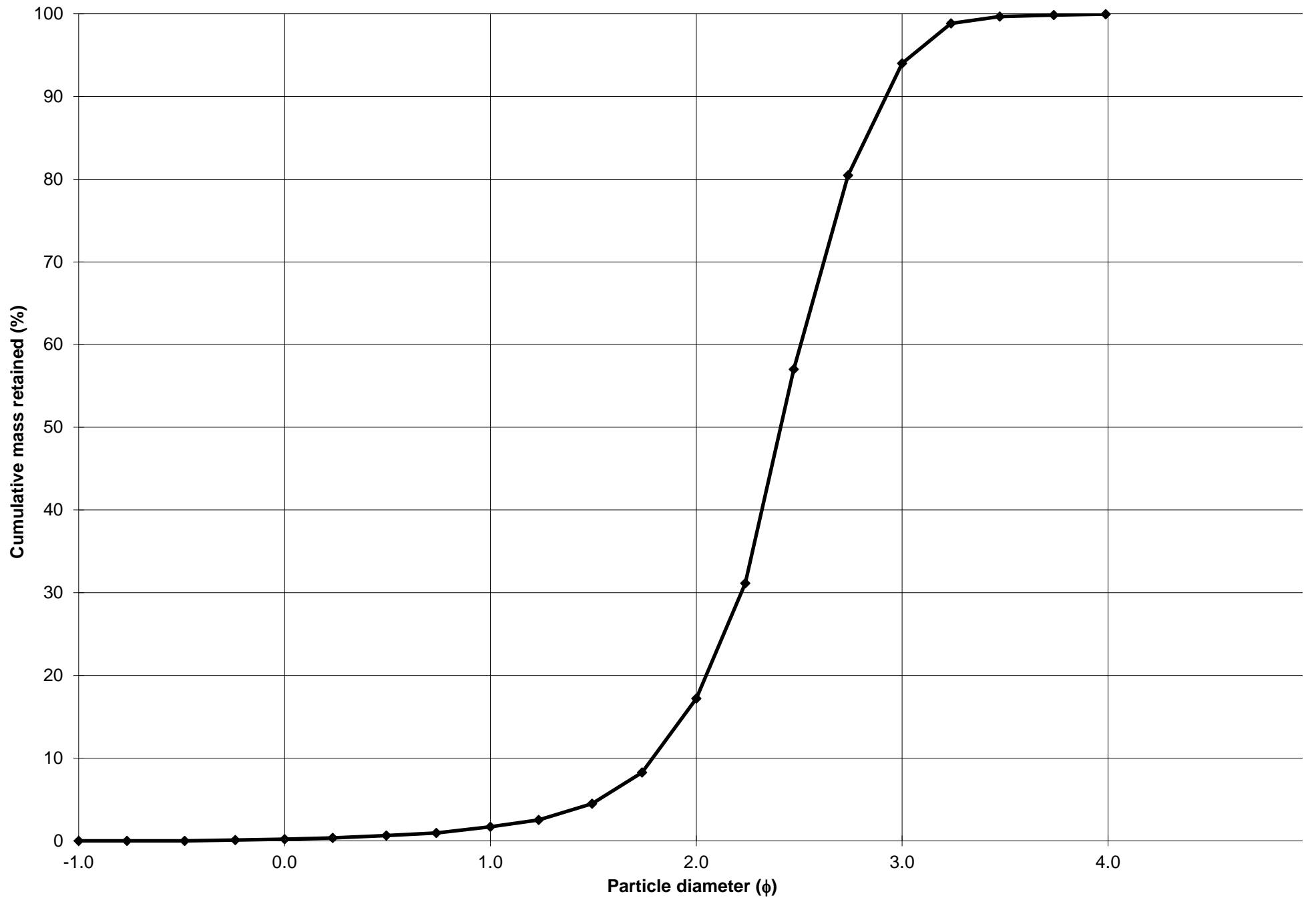
SEDIMENT NAME: Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 1.5%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 15.5%		
MODE 3:			MUD: 0.0%	FINE SAND: 76.8%		
D ₁₀ :	131.9	1.788		V FINE SAND: 6.0%		
MEDIAN or D ₅₀ :	188.2	2.410	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	289.6	2.922	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.195	1.635	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	157.7	1.134	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.457	1.254	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	71.48	0.543	V COARSE SAND: 0.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	207.5	193.5	2.370	190.3	2.393	Fine Sand
SORTING (σ):	95.33	1.405	0.491	1.357	0.441	Well Sorted
SKEWNESS (Sk):	4.465	0.762	-0.762	0.110	-0.110	Coarse Skewed
KURTOSIS (K):	36.34	9.116	9.116	1.149	1.149	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 131 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

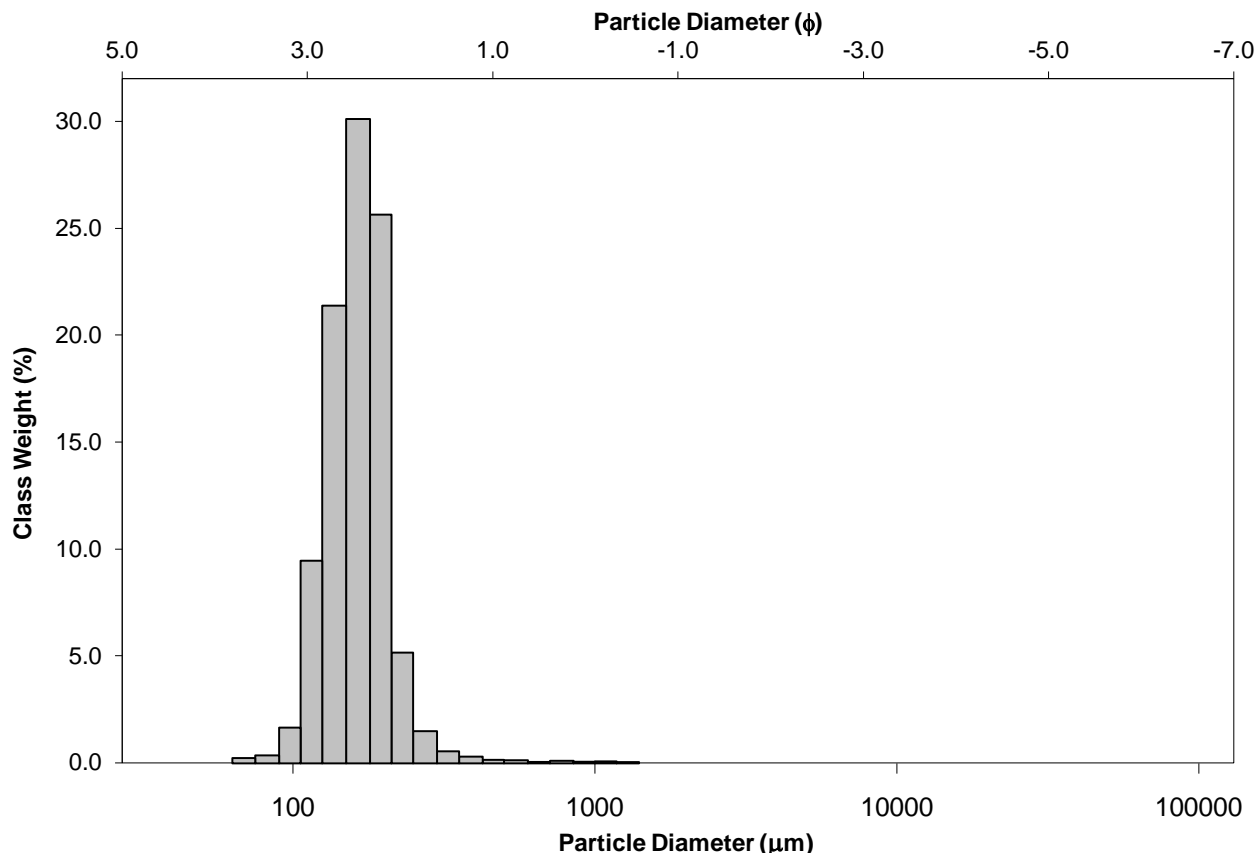
SAMPLE TYPE: Unimodal, Very Well Sorted

TEXTURAL GROUP: Sand

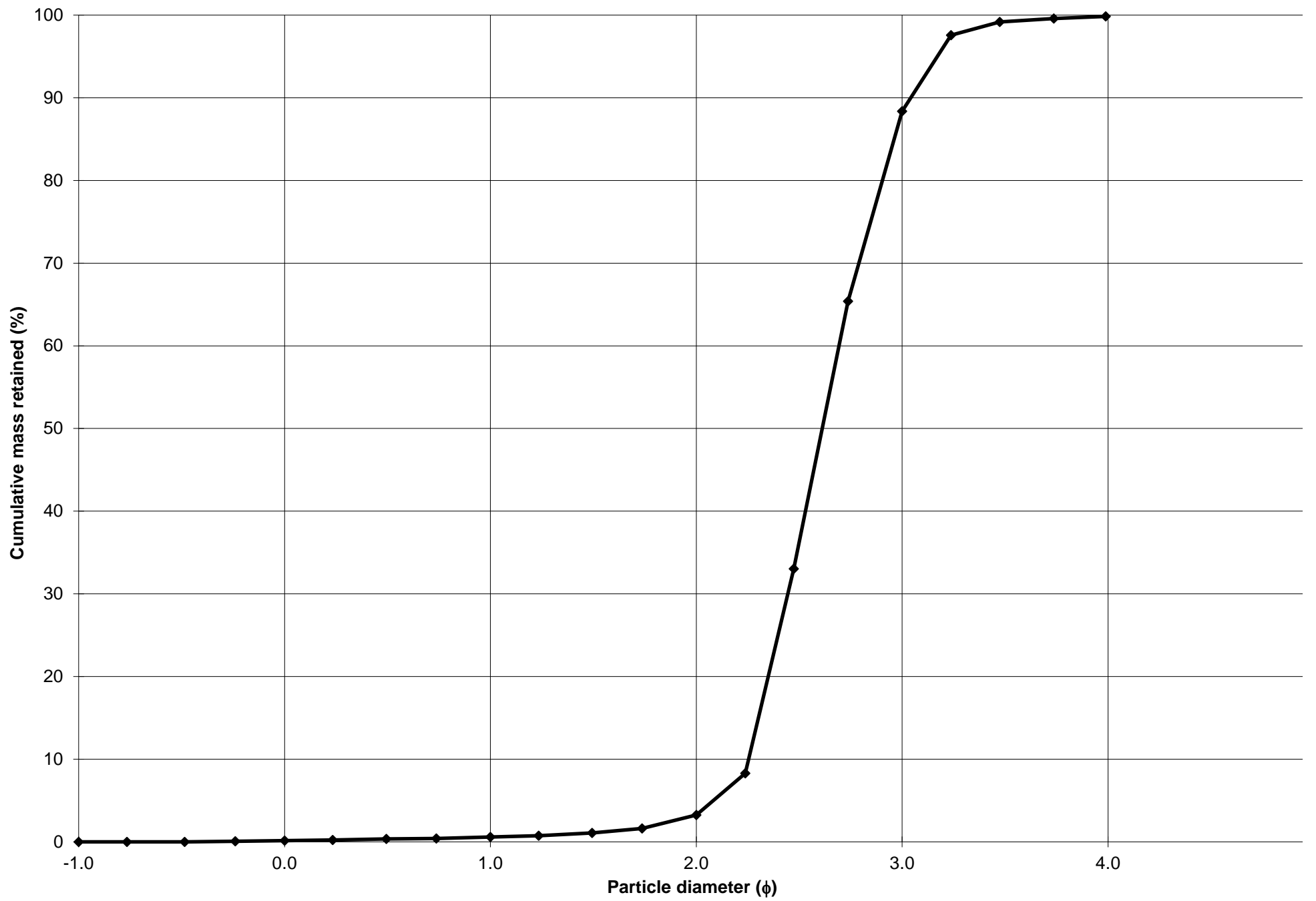
SEDIMENT NAME: Very Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%	COARSE SAND: 0.4%		
MODE 2:			SAND: 99.8%	MEDIUM SAND: 2.7%		
MODE 3:			MUD: 0.2%	FINE SAND: 85.1%		
D_{10} :	121.4	2.254		V FINE SAND: 11.5%		
MEDIAN or D_{50} :	163.6	2.612	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	209.6	3.042	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	1.727	1.350	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	88.20	0.788	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.366	1.188	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	50.82	0.450	V COARSE SAND: 0.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	171.0	163.1	2.616	162.2	2.625	Fine Sand
SORTING (σ):	66.90	1.329	0.410	1.252	0.325	Very Well Sorted
SKEWNESS (Sk):	8.059	-0.783	0.783	-0.043	0.043	Symmetrical
KURTOSIS (K):	105.5	28.90	28.90	0.992	0.992	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 140 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

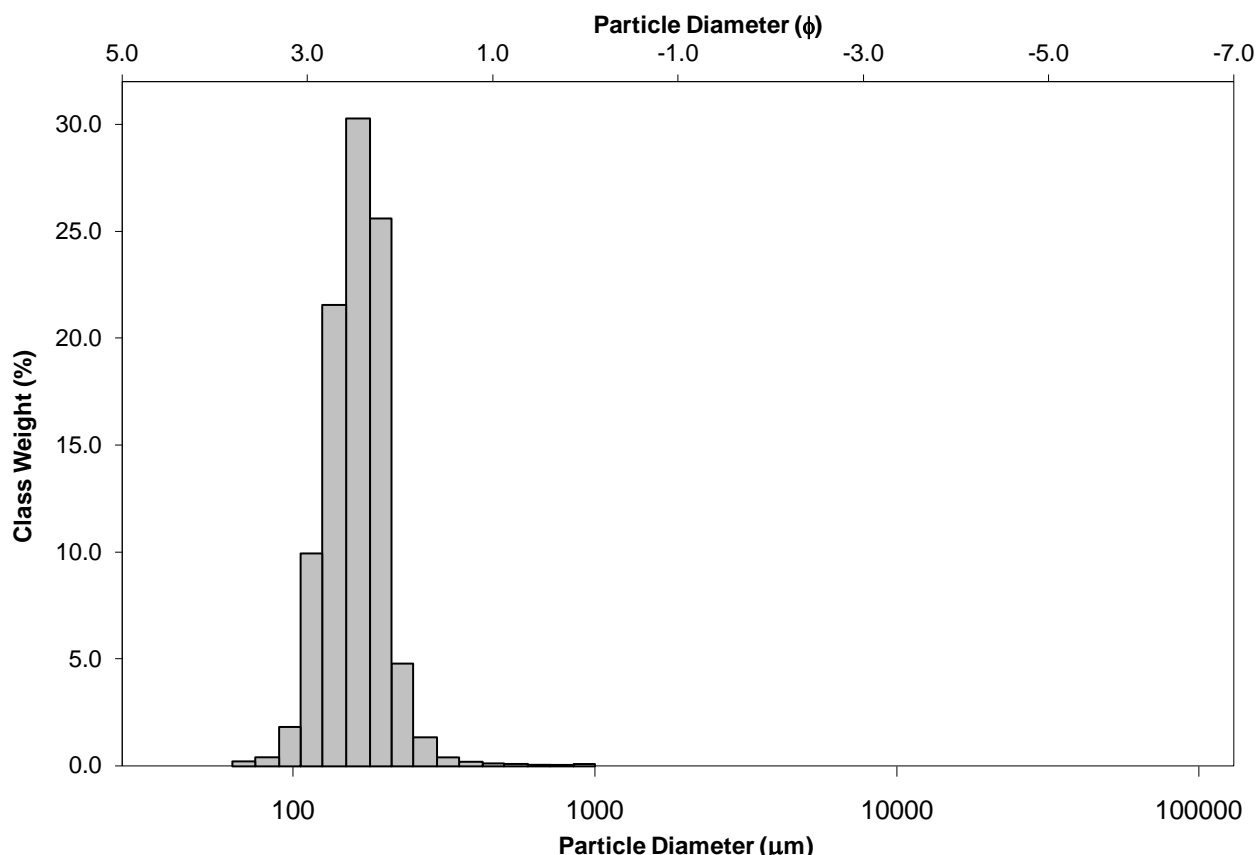
SAMPLE TYPE: Unimodal, Very Well Sorted

TEXTURAL GROUP: Sand

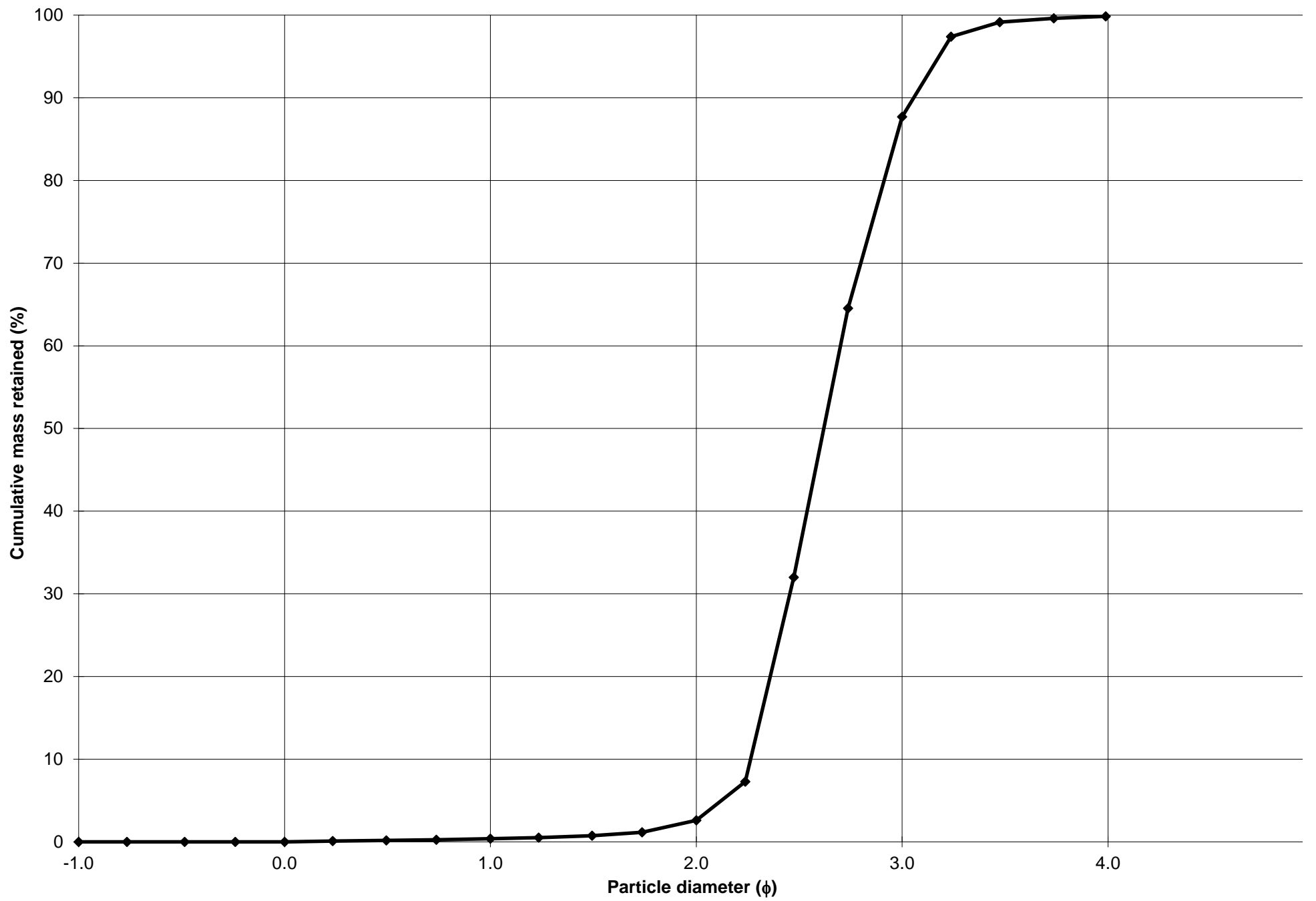
SEDIMENT NAME: Very Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%	COARSE SAND: 0.4%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 2.2%		
MODE 3:			MUD: 0.1%	FINE SAND: 85.1%		
D_{10} :	120.2	2.264		V FINE SAND: 12.1%		
MEDIAN or D_{50} :	162.7	2.620	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	208.2	3.056	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	1.732	1.350	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	88.01	0.793	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.365	1.186	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	50.38	0.449	V COARSE SAND: 0.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	167.9	161.4	2.631	161.2	2.633	Fine Sand
SORTING (σ):	52.59	1.307	0.386	1.248	0.319	Very Well Sorted
SKEWNESS (Sk):	5.872	-1.402	1.402	-0.061	0.061	Symmetrical
KURTOSIS (K):	70.61	29.69	29.69	0.966	0.966	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 150 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

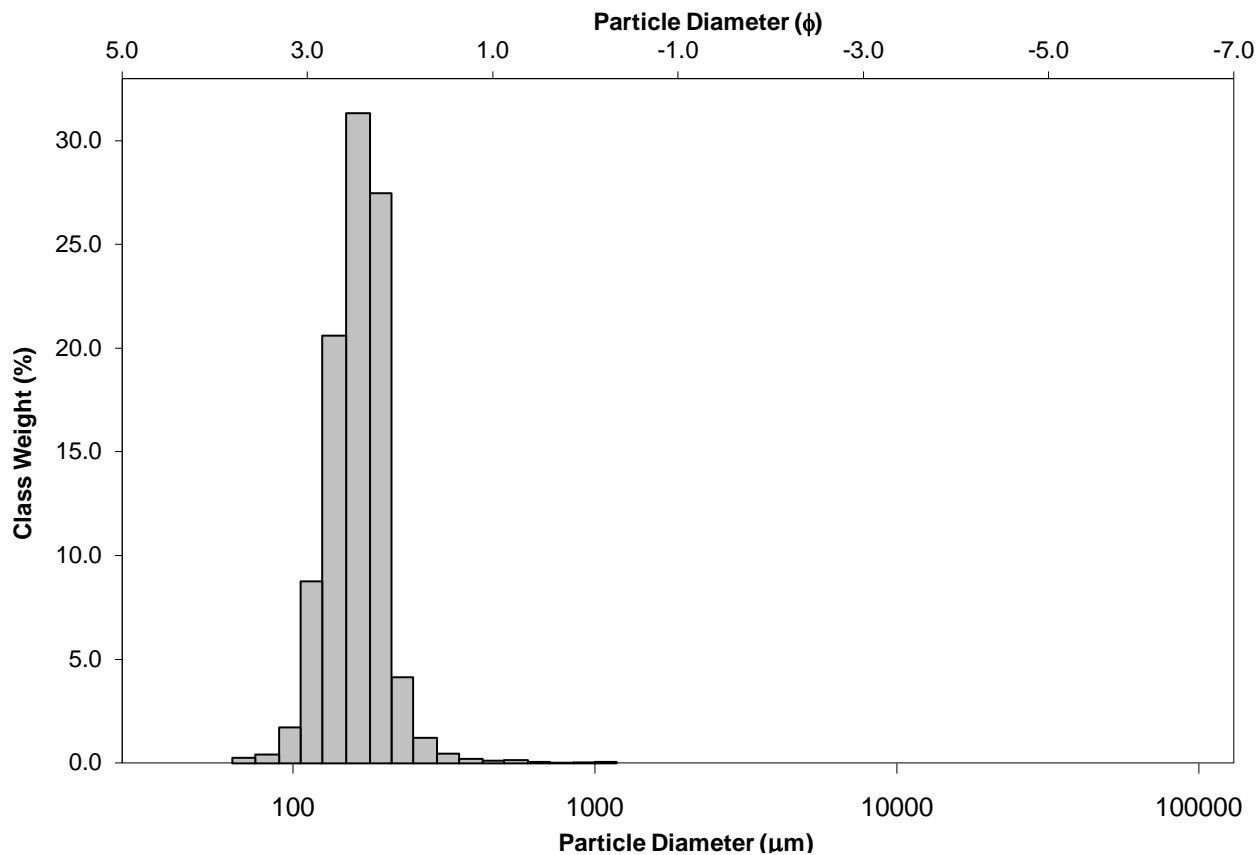
SAMPLE TYPE: Unimodal, Very Well Sorted

TEXTURAL GROUP: Sand

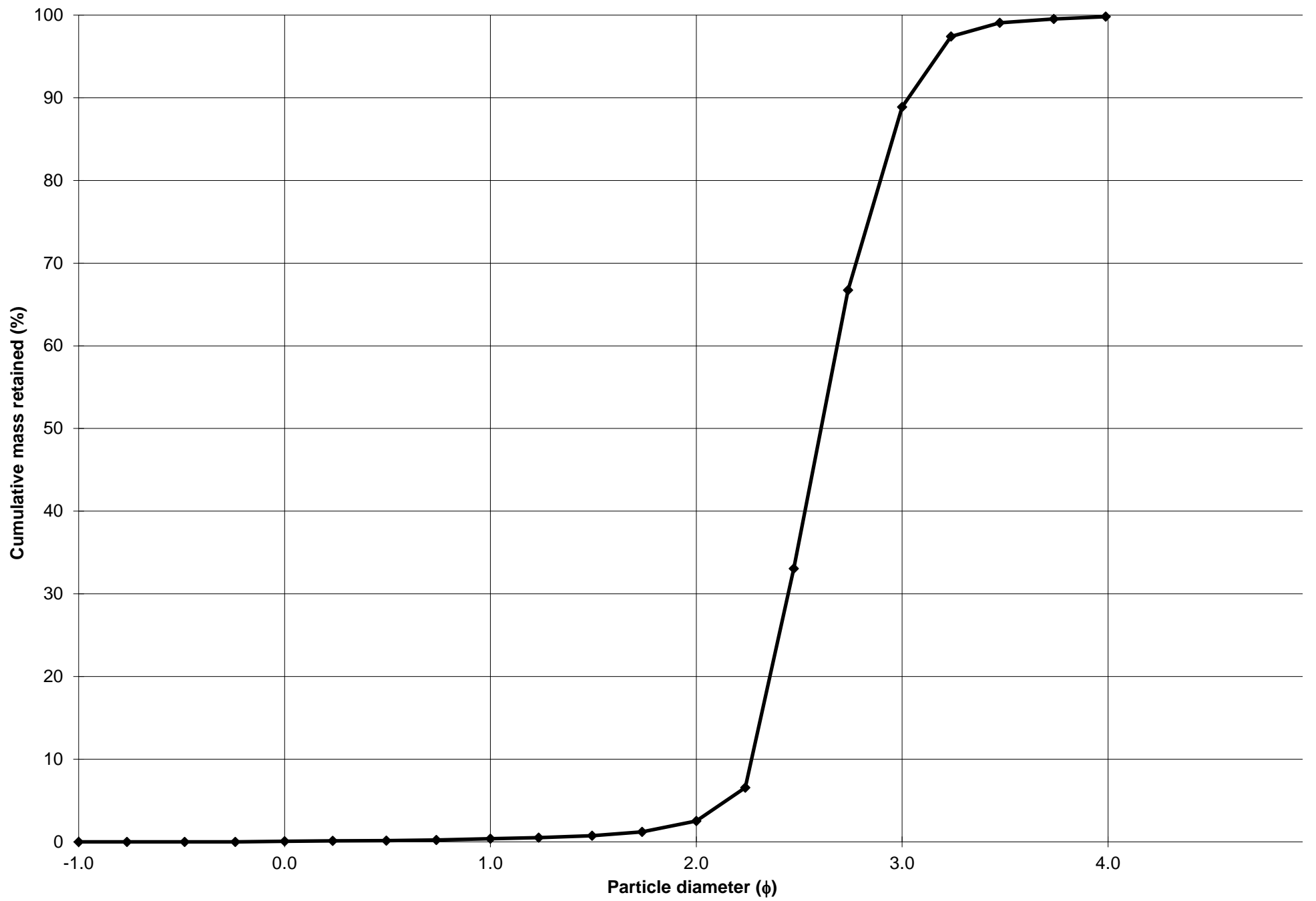
SEDIMENT NAME: Very Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%	COARSE SAND: 0.3%		
MODE 2:			SAND: 99.8%	MEDIUM SAND: 2.1%		
MODE 3:			MUD: 0.2%	FINE SAND: 86.3%		
D_{10} :	122.3	2.268		V FINE SAND: 10.9%		
MEDIAN or D_{50} :	164.2	2.606	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	207.5	3.031	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	1.697	1.336	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	85.23	0.763	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.350	1.180	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	49.06	0.433	V COARSE SAND: 0.1%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	168.8	162.3	2.624	162.3	2.623	Fine Sand
SORTING (σ):	53.60	1.313	0.393	1.240	0.310	Very Well Sorted
SKEWNESS (Sk):	6.899	-1.972	1.972	-0.092	0.092	Symmetrical
KURTOSIS (K):	96.38	35.19	35.19	0.970	0.970	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 160 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

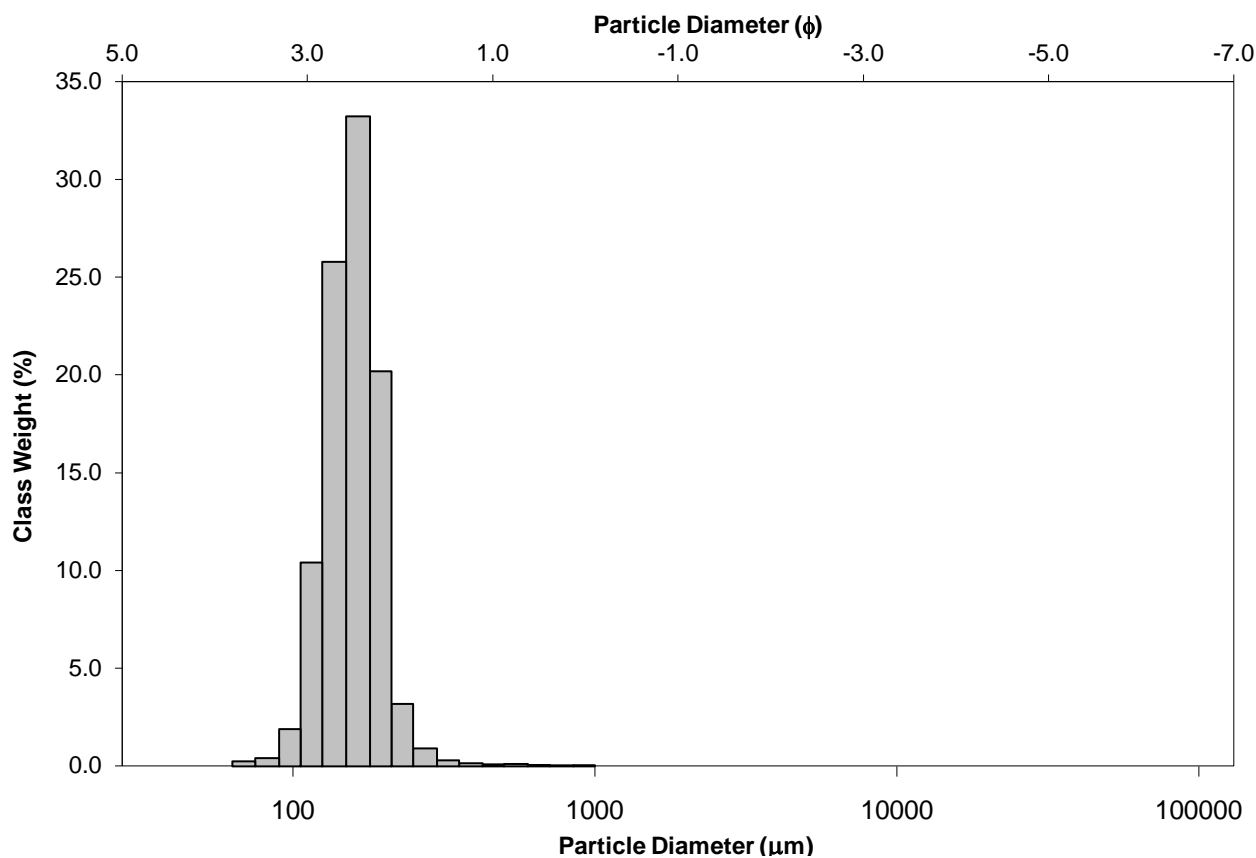
SAMPLE TYPE: Unimodal, Very Well Sorted

TEXTURAL GROUP: Sand

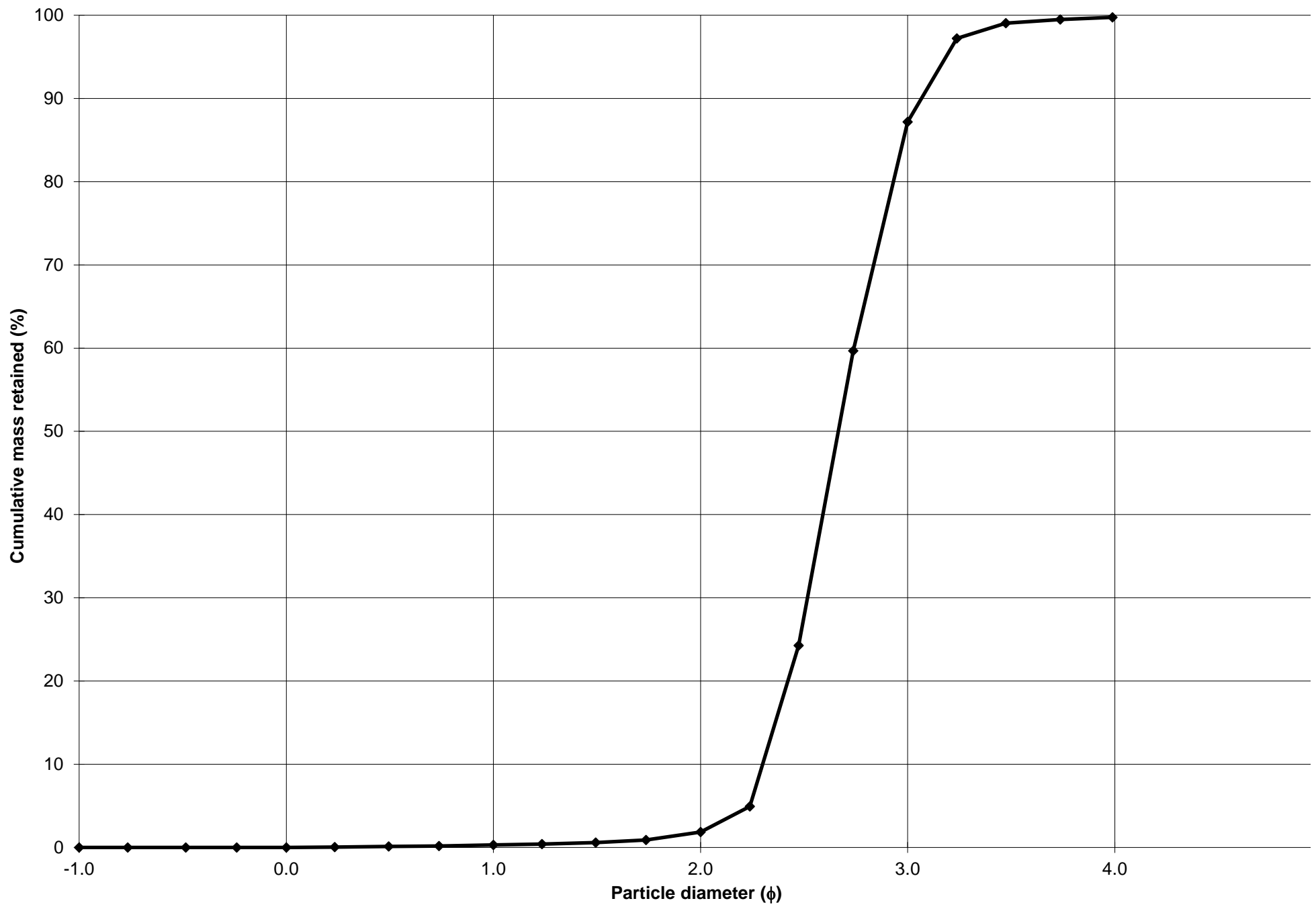
SEDIMENT NAME: Very Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%	COARSE SAND: 0.3%		
MODE 2:			SAND: 99.7%	MEDIUM SAND: 1.6%		
MODE 3:			MUD: 0.3%	FINE SAND: 85.3%		
D_{10} :	119.3	2.300		V FINE SAND: 12.6%		
MEDIAN or D_{50} :	157.7	2.665	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	203.1	3.067	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	1.702	1.334	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	83.79	0.767	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.323	1.163	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	43.81	0.404	V COARSE SAND: 0.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	162.2	156.2	2.679	157.2	2.669	Fine Sand
SORTING (σ):	47.11	1.312	0.391	1.225	0.293	Very Well Sorted
SKEWNESS (Sk):	5.793	-2.810	2.810	-0.060	0.060	Symmetrical
KURTOSIS (K):	73.67	41.96	41.96	0.960	0.960	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 170 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

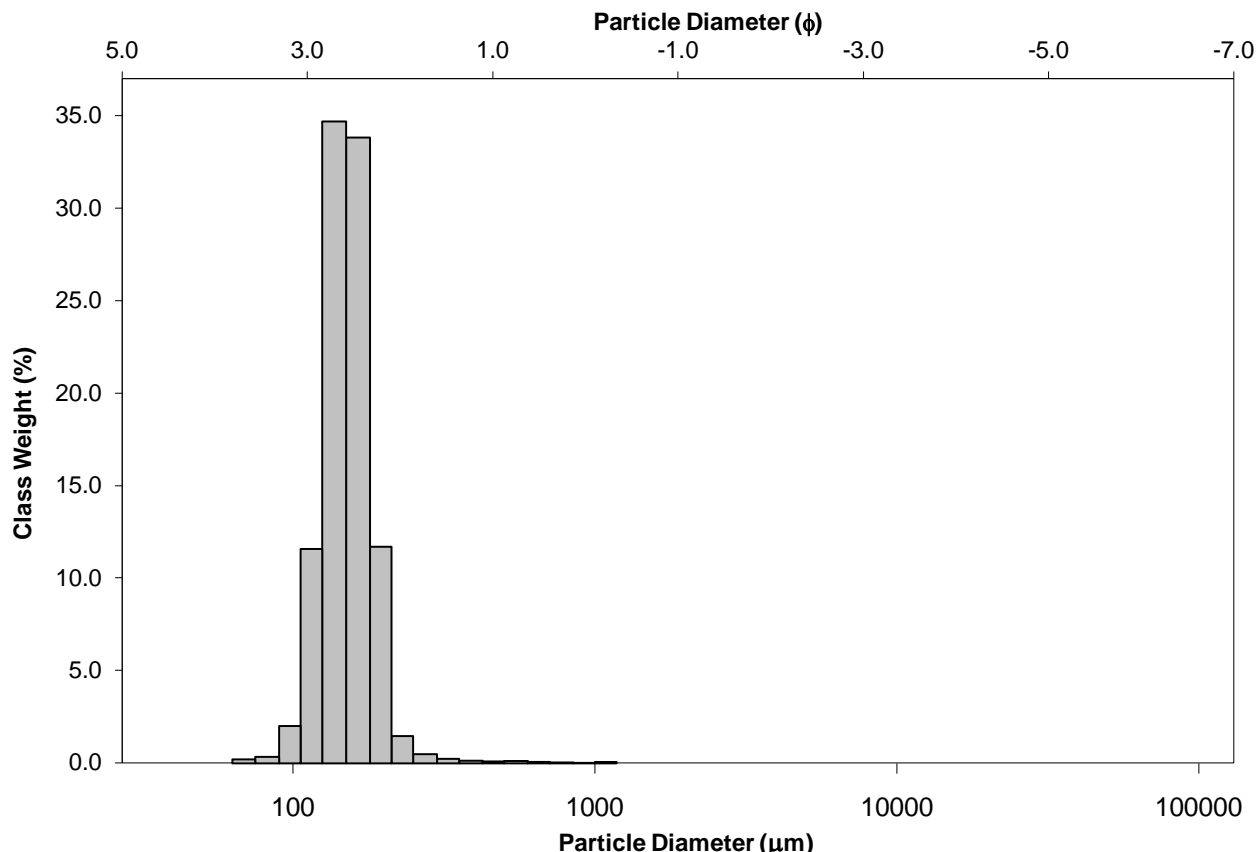
SAMPLE TYPE: Unimodal, Very Well Sorted

TEXTURAL GROUP: Sand

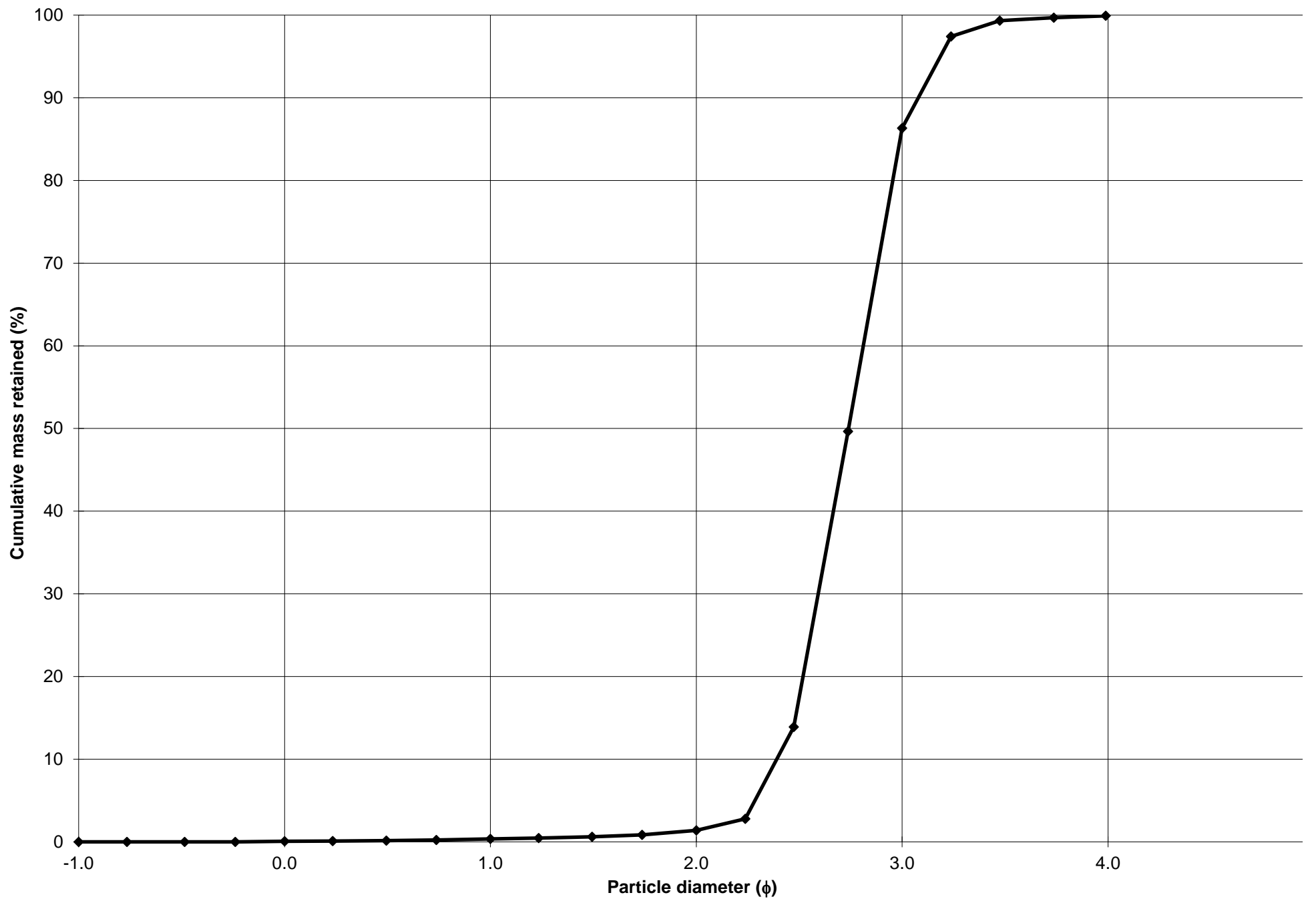
SEDIMENT NAME: Very Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%	COARSE SAND: 0.3%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 1.0%		
MODE 3:			MUD: 0.1%	FINE SAND: 85.0%		
D_{10} :	118.3	2.391		V FINE SAND: 13.6%		
MEDIAN or D_{50} :	149.7	2.739	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	190.6	3.079	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	1.611	1.288	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	72.28	0.688	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.286	1.142	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	37.85	0.363	V COARSE SAND: 0.1%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	155.6	150.5	2.732	150.0	2.737	Fine Sand
SORTING (σ):	49.16	1.259	0.333	1.198	0.260	Very Well Sorted
SKEWNESS (Sk):	9.088	-0.497	0.497	0.011	-0.011	Symmetrical
KURTOSIS (K):	140.6	35.88	35.88	1.017	1.017	Mesokurtic

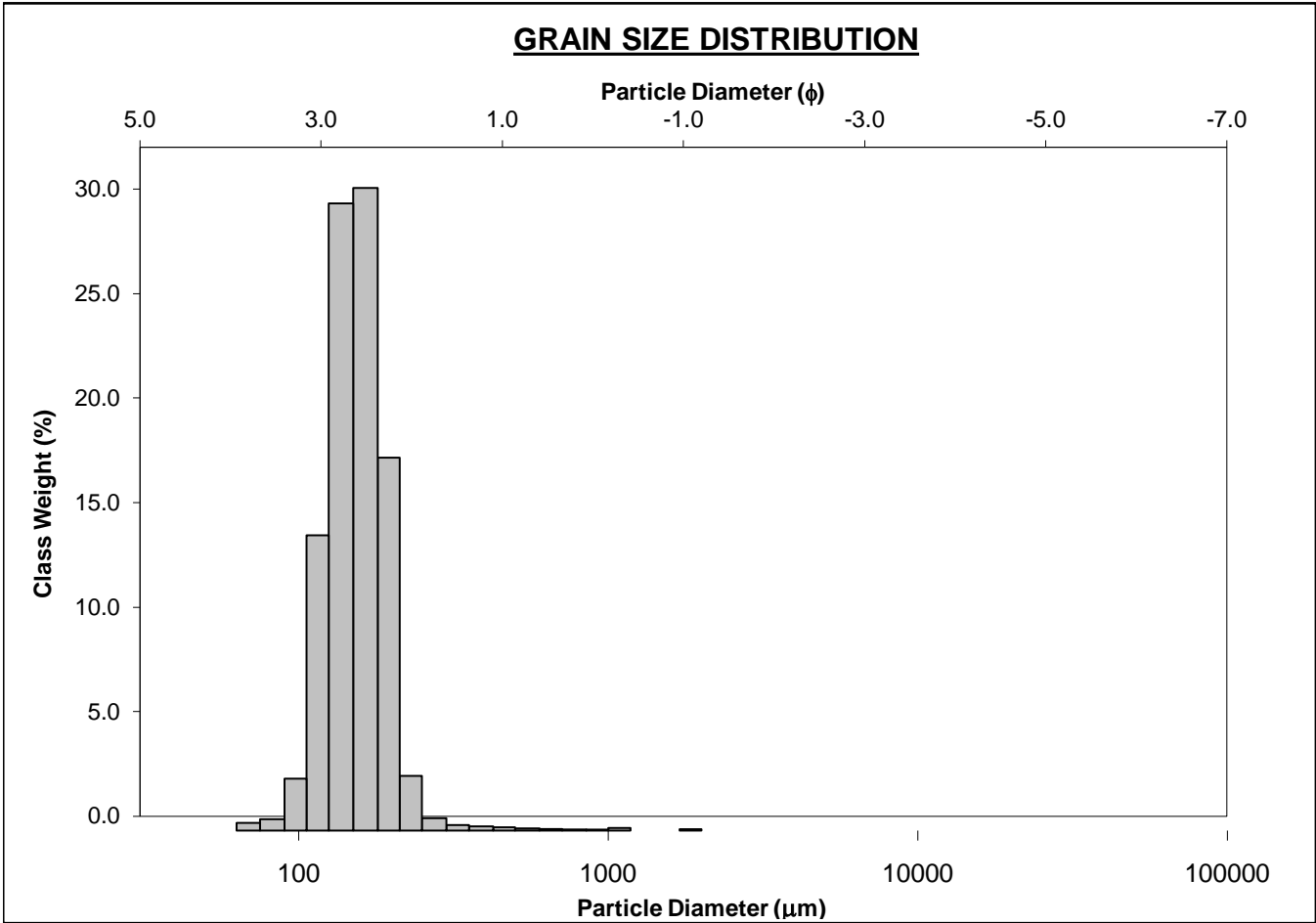
GRAIN SIZE DISTRIBUTION



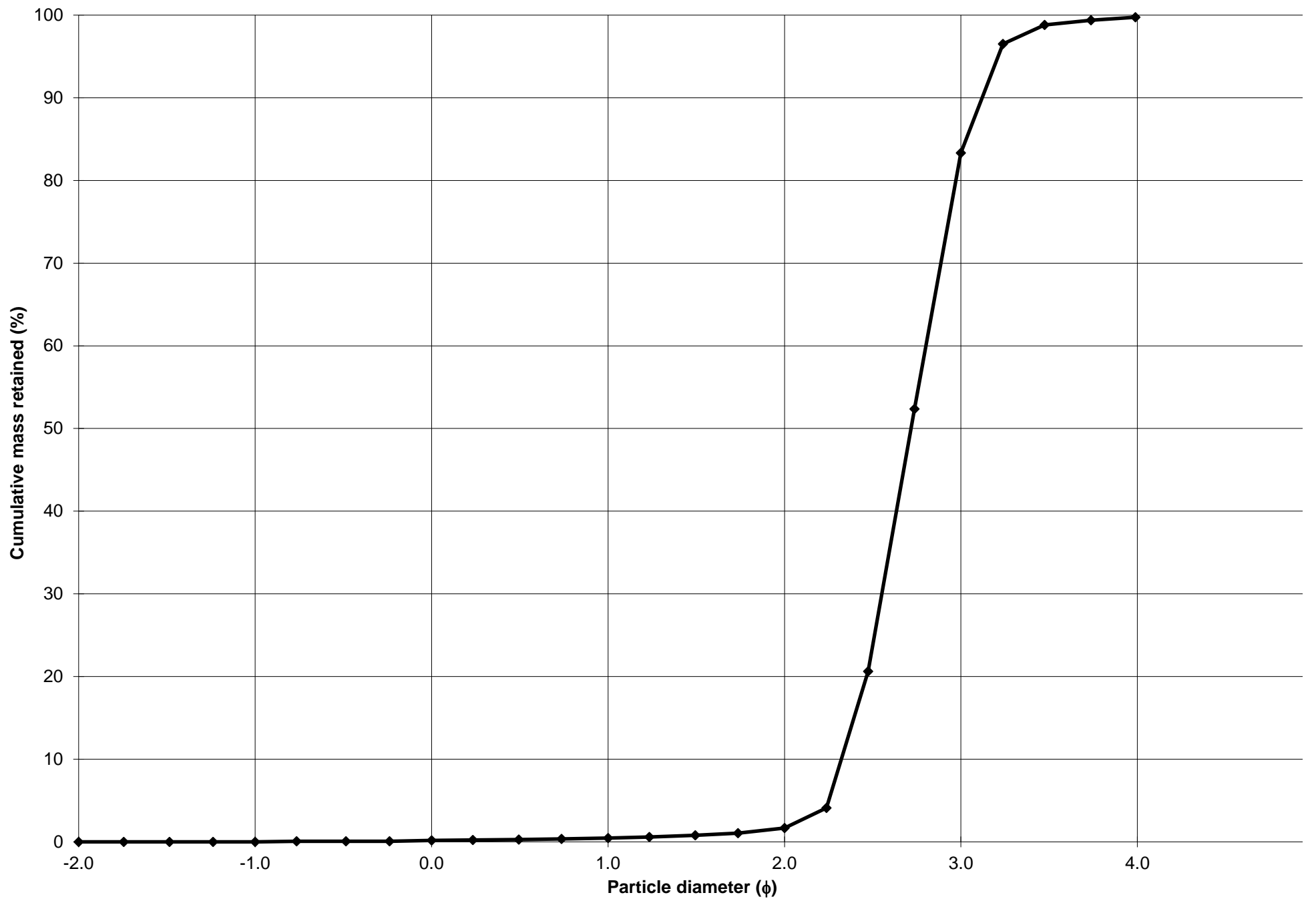
Cumulative Frequency Curve



SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: GR-14-PA 2 180 cm			ANALYST & DATE: Stephen Fabian, 1/25/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.3%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 1.2%	
MODE 3:			MUD: 0.3%		FINE SAND: 81.7%	
D ₁₀ :	115.0	2.322			V FINE SAND: 16.4%	
MEDIAN or D ₅₀ :	152.1	2.717	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	200.0	3.120	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.739	1.344	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	84.98	0.798	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.337	1.167	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	44.25	0.419	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	159.5	152.0	2.718	152.6	2.712	Fine Sand
SORTING (σ):	69.93	1.335	0.416	1.228	0.297	Very Well Sorted
SKEWNESS (Sk):	12.91	-1.557	1.557	-0.001	0.001	Symmetrical
KURTOSIS (K):	256.7	38.30	38.30	0.939	0.939	Mesokurtic



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 190 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

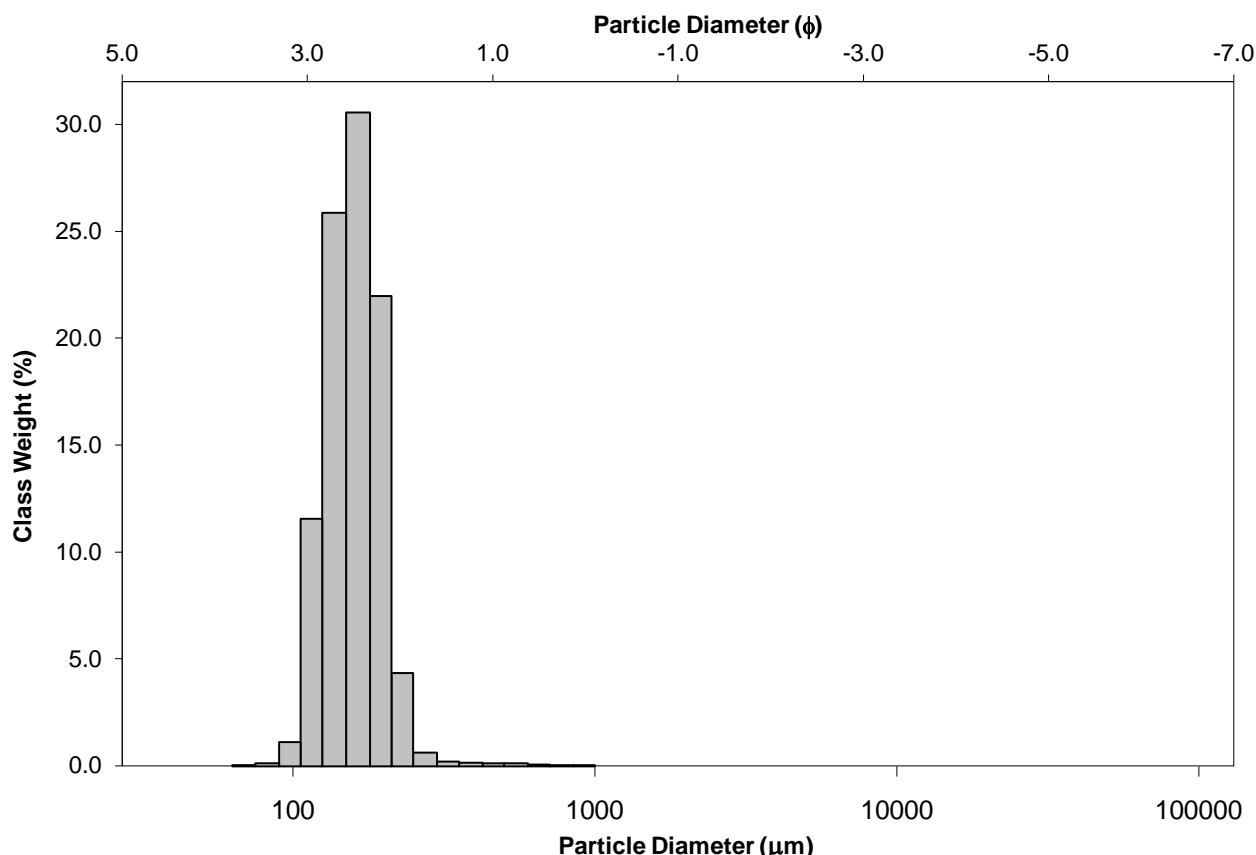
SAMPLE TYPE: Unimodal, Very Well Sorted

TEXTURAL GROUP: Sand

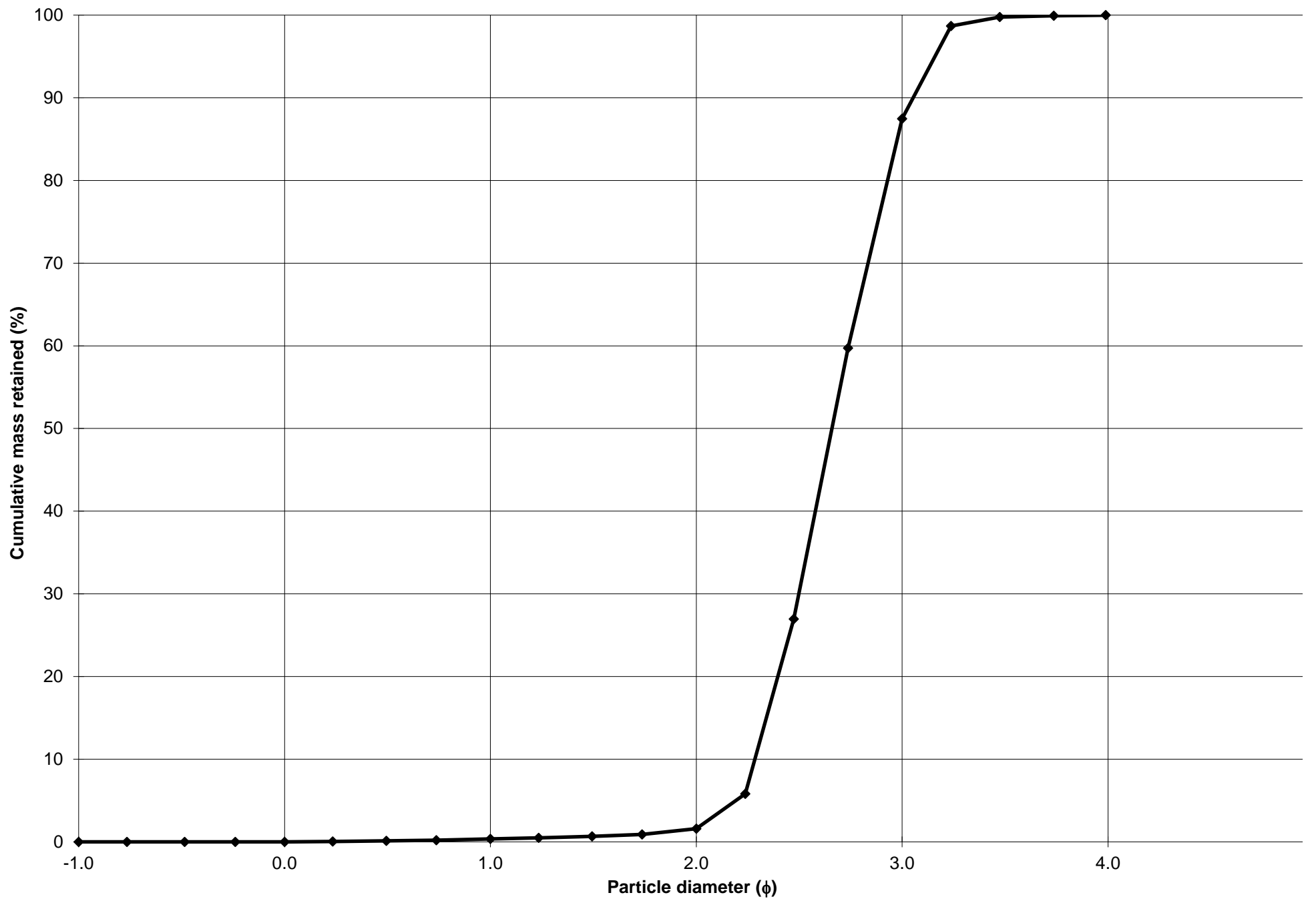
SEDIMENT NAME: Very Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%	COARSE SAND: 0.4%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 1.2%		
MODE 3:			MUD: 0.0%	FINE SAND: 85.9%		
D_{10} :	120.4	2.285		V FINE SAND: 12.5%		
MEDIAN or D_{50} :	158.3	2.659	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	205.2	3.054	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	1.704	1.337	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	84.82	0.769	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.347	1.175	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	47.08	0.430	V COARSE SAND: 0.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	164.0	158.8	2.655	158.3	2.659	Fine Sand
SORTING (σ):	47.59	1.254	0.326	1.232	0.301	Very Well Sorted
SKEWNESS (Sk):	5.946	0.838	-0.838	-0.018	0.018	Symmetrical
KURTOSIS (K):	72.40	12.85	12.85	0.923	0.923	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 201 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

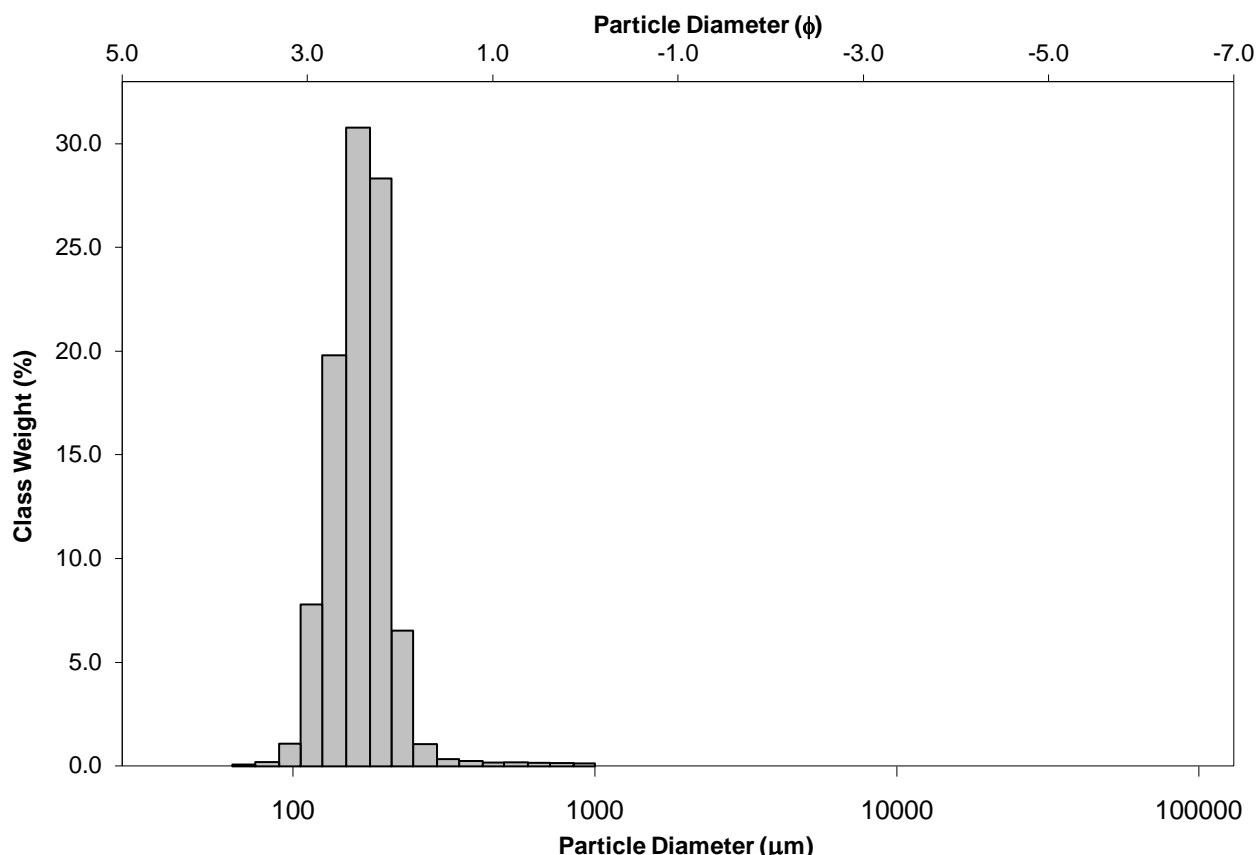
SAMPLE TYPE: Unimodal, Very Well Sorted

TEXTURAL GROUP: Sand

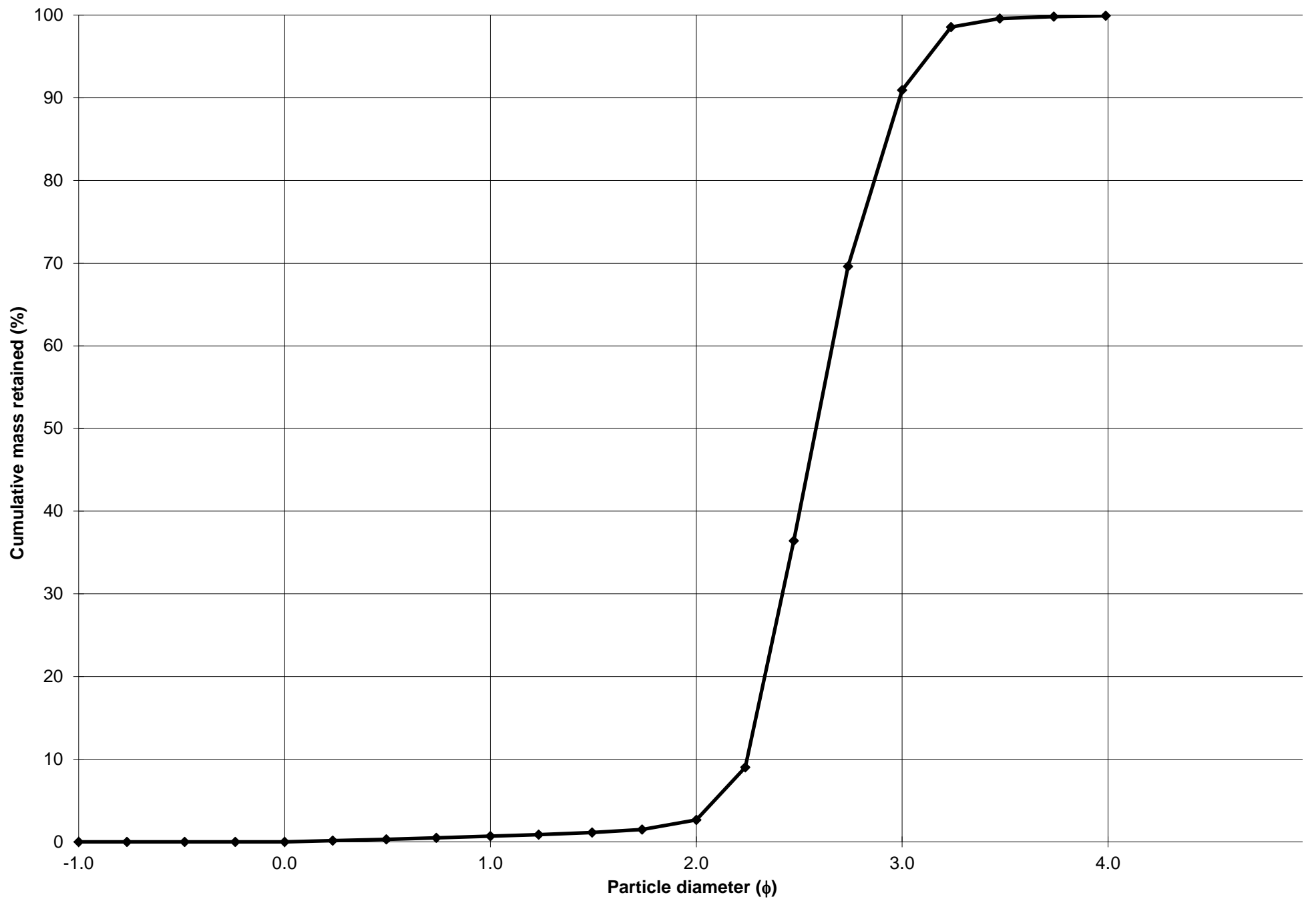
SEDIMENT NAME: Very Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%	COARSE SAND: 0.7%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 2.0%		
MODE 3:			MUD: 0.1%	FINE SAND: 88.3%		
D_{10} :	126.0	2.246		V FINE SAND: 9.0%		
MEDIAN or D_{50} :	167.1	2.582	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	210.8	2.988	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	1.673	1.330	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	84.76	0.742	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.345	1.180	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	49.48	0.428	V COARSE SAND: 0.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	173.7	166.8	2.584	165.2	2.598	Fine Sand
SORTING (σ):	59.94	1.297	0.375	1.241	0.312	Very Well Sorted
SKEWNESS (Sk):	6.239	-0.157	0.157	-0.065	0.065	Symmetrical
KURTOSIS (K):	64.20	25.25	25.25	0.995	0.995	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 212 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

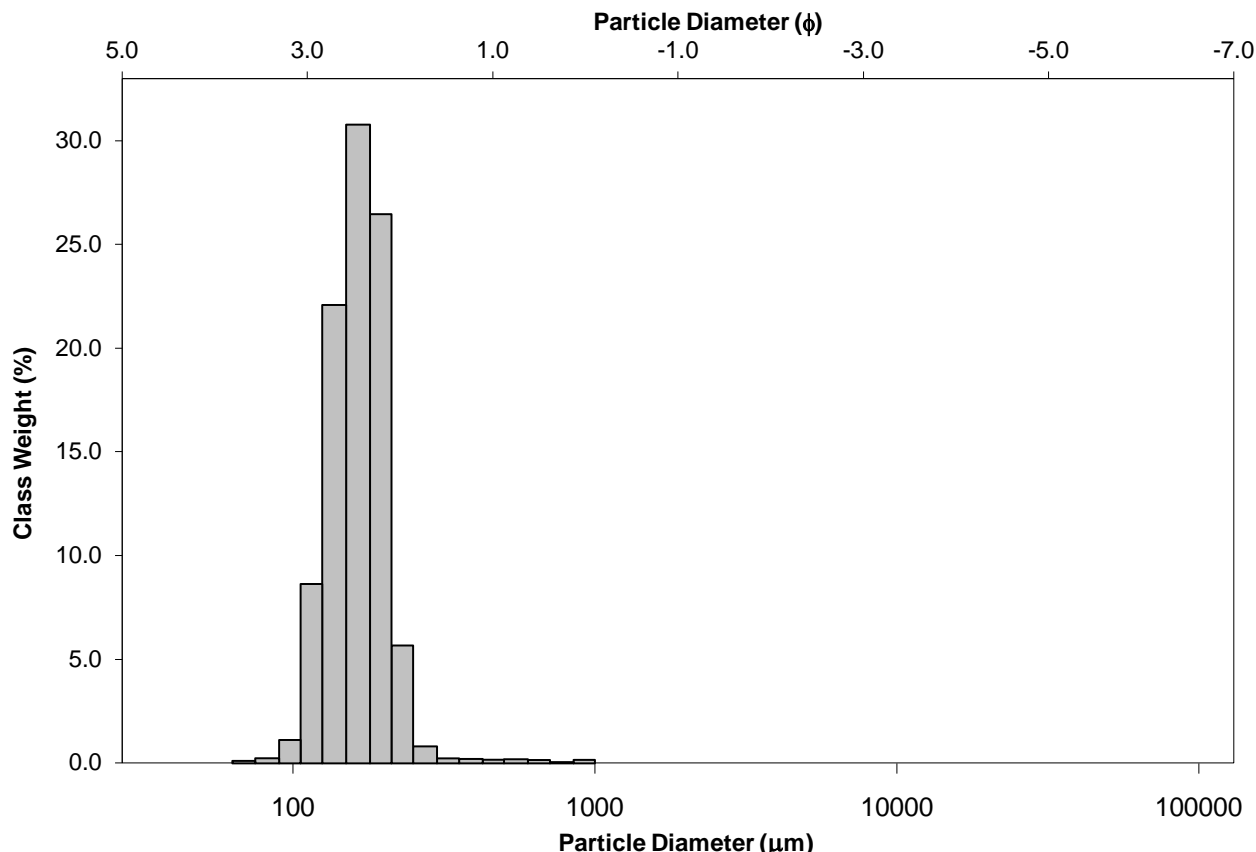
SAMPLE TYPE: Unimodal, Very Well Sorted

TEXTURAL GROUP: Sand

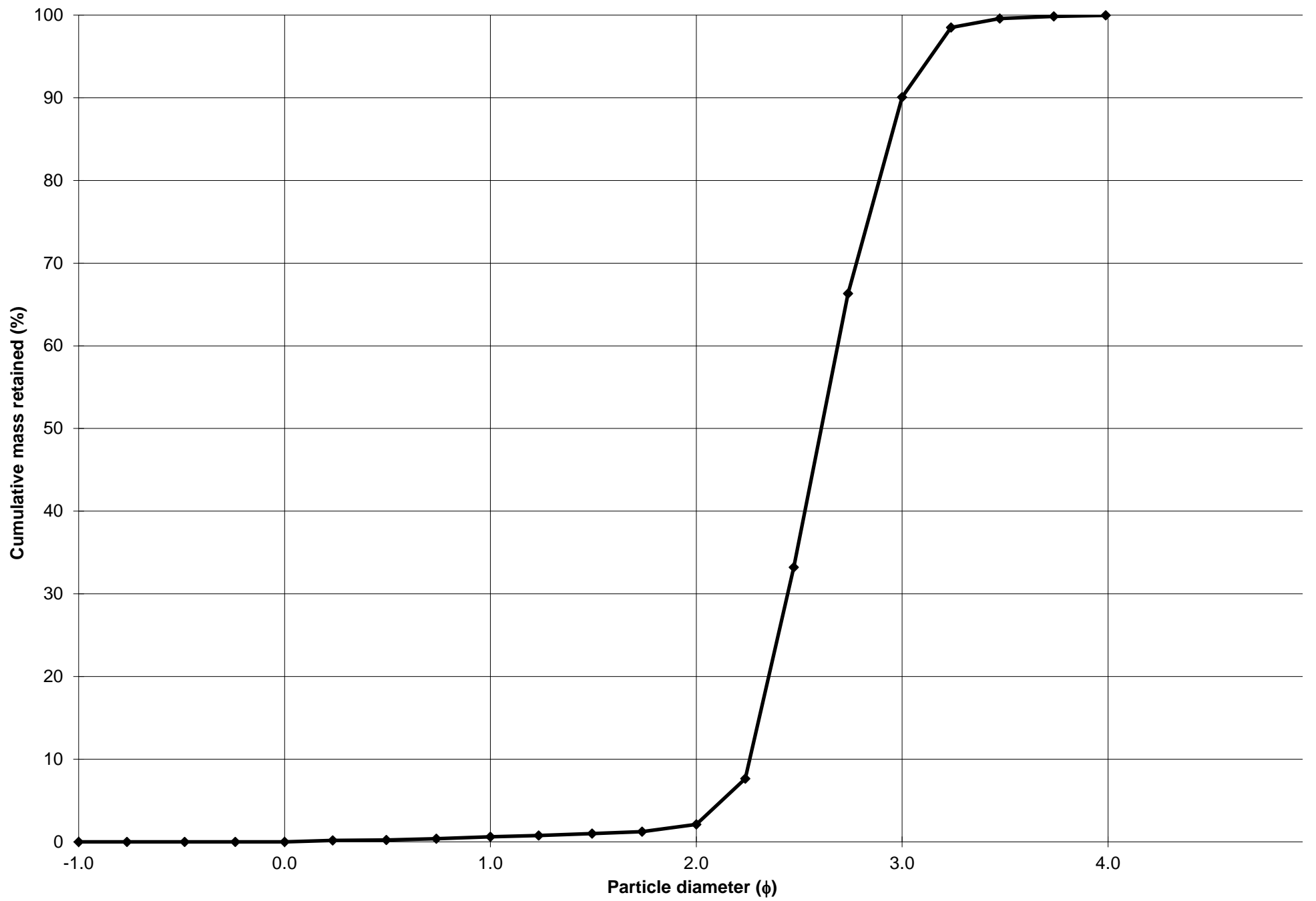
SEDIMENT NAME: Very Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%	COARSE SAND: 0.6%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 1.5%		
MODE 3:			MUD: 0.0%	FINE SAND: 88.0%		
D_{10} :	125.1	2.260		V FINE SAND: 9.9%		
MEDIAN or D_{50} :	164.1	2.607	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	208.8	2.999	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	1.670	1.327	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	83.75	0.739	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.352	1.181	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	49.37	0.435	V COARSE SAND: 0.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	170.4	164.1	2.608	162.9	2.618	Fine Sand
SORTING (σ):	56.99	1.278	0.354	1.238	0.308	Very Well Sorted
SKEWNESS (Sk):	6.569	0.685	-0.685	-0.051	0.051	Symmetrical
KURTOSIS (K):	73.12	18.06	18.06	0.957	0.957	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 220 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

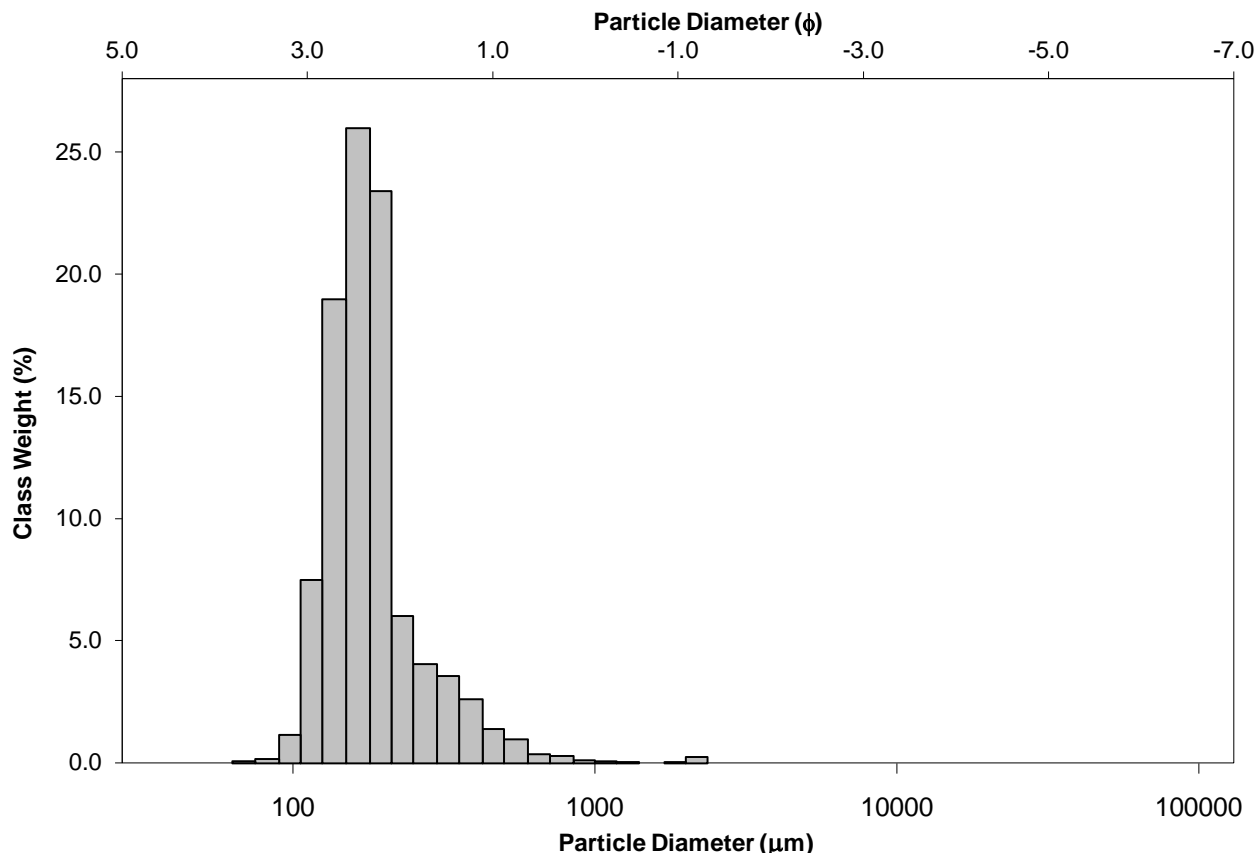
SAMPLE TYPE: Unimodal, Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

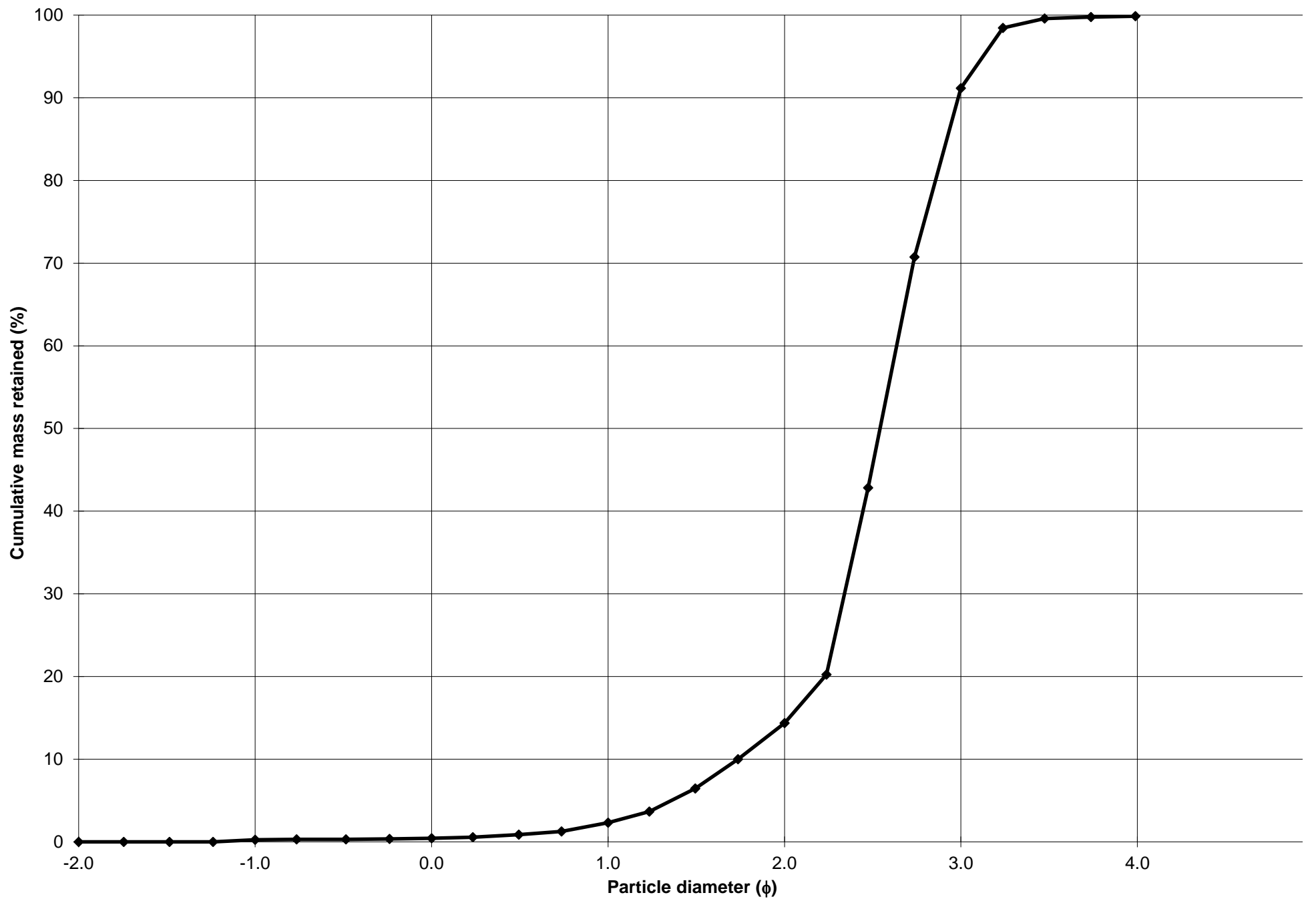
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.3%	COARSE SAND: 1.9%		
MODE 2:			SAND: 99.6%	MEDIUM SAND: 12.0%		
MODE 3:			MUD: 0.1%	FINE SAND: 76.8%		
D_{10} :	126.3	1.737		V FINE SAND: 8.7%		
MEDIAN or D_{50} :	171.8	2.542	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	299.9	2.985	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.374	1.718	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	173.6	1.248	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.418	1.220	V FINE GRAVEL: 0.3%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	60.37	0.504	V COARSE SAND: 0.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	202.5	182.2	2.456	176.1	2.505	Fine Sand
SORTING (σ):	145.3	1.488	0.573	1.393	0.478	Well Sorted
SKEWNESS (Sk):	8.300	1.055	-1.055	0.234	-0.234	Coarse Skewed
KURTOSIS (K):	101.1	13.58	13.58	1.436	1.436	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 2 230 cm**

ANALYST & DATE: Stephen Fabian, 1/25/15

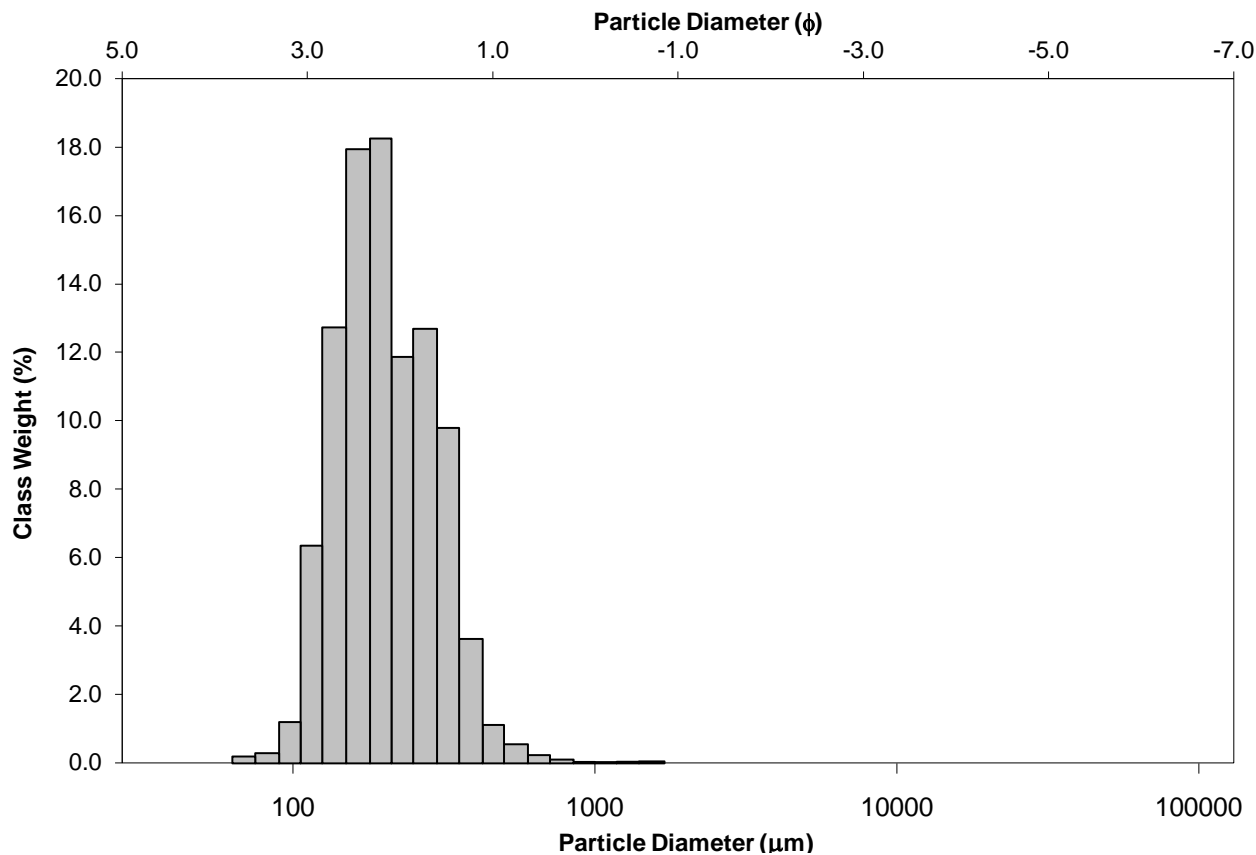
SAMPLE TYPE: Bimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

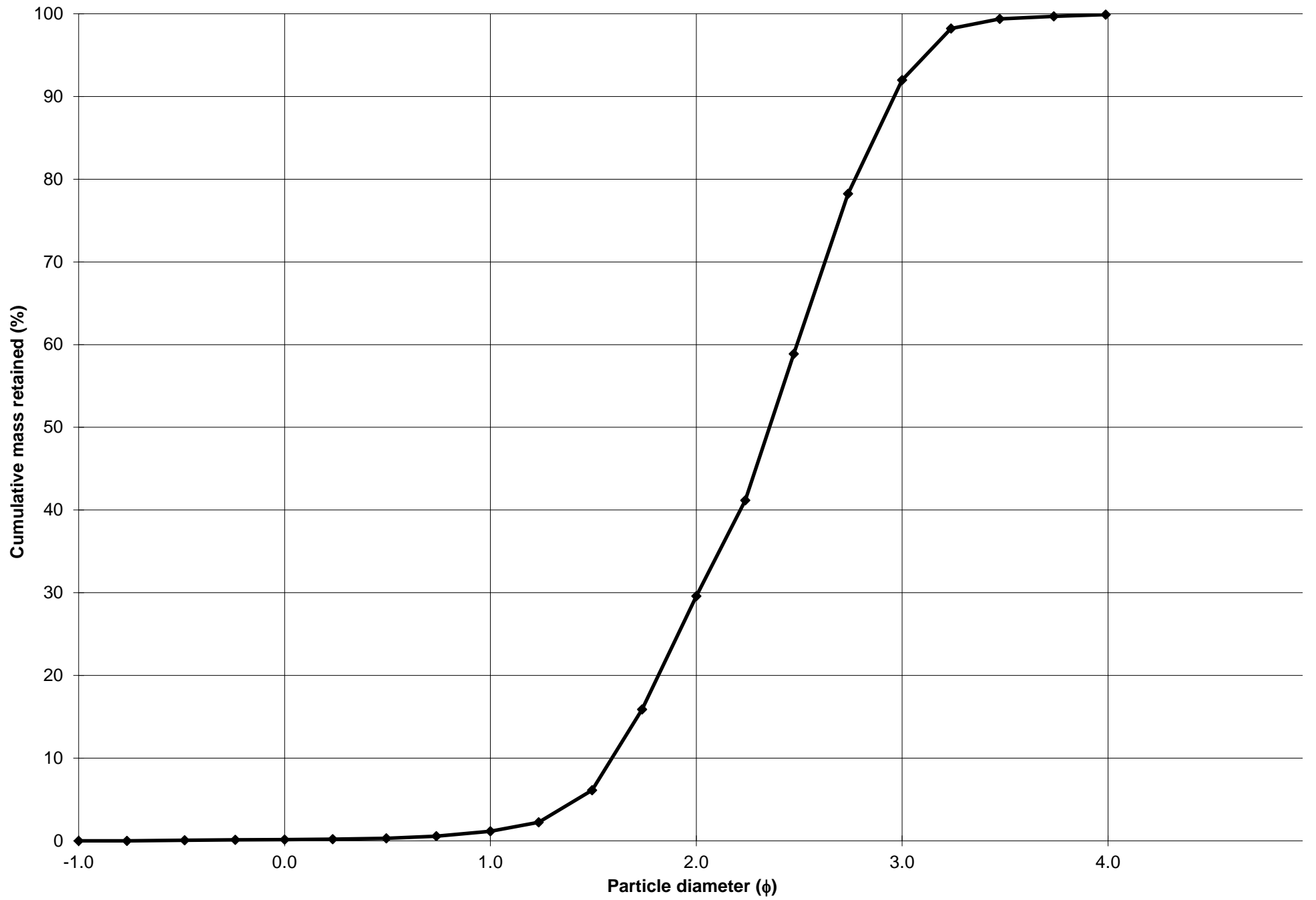
SEDIMENT NAME: Moderately Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 1.0%		
MODE 2:	275.0	1.868	SAND: 99.9%	MEDIUM SAND: 28.4%		
MODE 3:			MUD: 0.1%	FINE SAND: 62.4%		
D_{10} :	128.4	1.591		V FINE SAND: 7.9%		
MEDIAN or D_{50} :	195.4	2.356	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	332.0	2.962	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.587	1.862	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	203.6	1.371	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.718	1.408	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	111.1	0.781	V COARSE SAND: 0.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	219.1	202.2	2.306	201.1	2.314	Fine Sand
SORTING (σ):	98.11	1.471	0.557	1.448	0.534	Moderately Well Sorted
SKEWNESS (Sk):	3.657	-0.125	0.125	0.108	-0.108	Coarse Skewed
KURTOSIS (K):	36.91	8.095	8.095	0.890	0.890	Platykurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 30 cm**

ANALYST & DATE: Stephen Fabian, 2/7/15

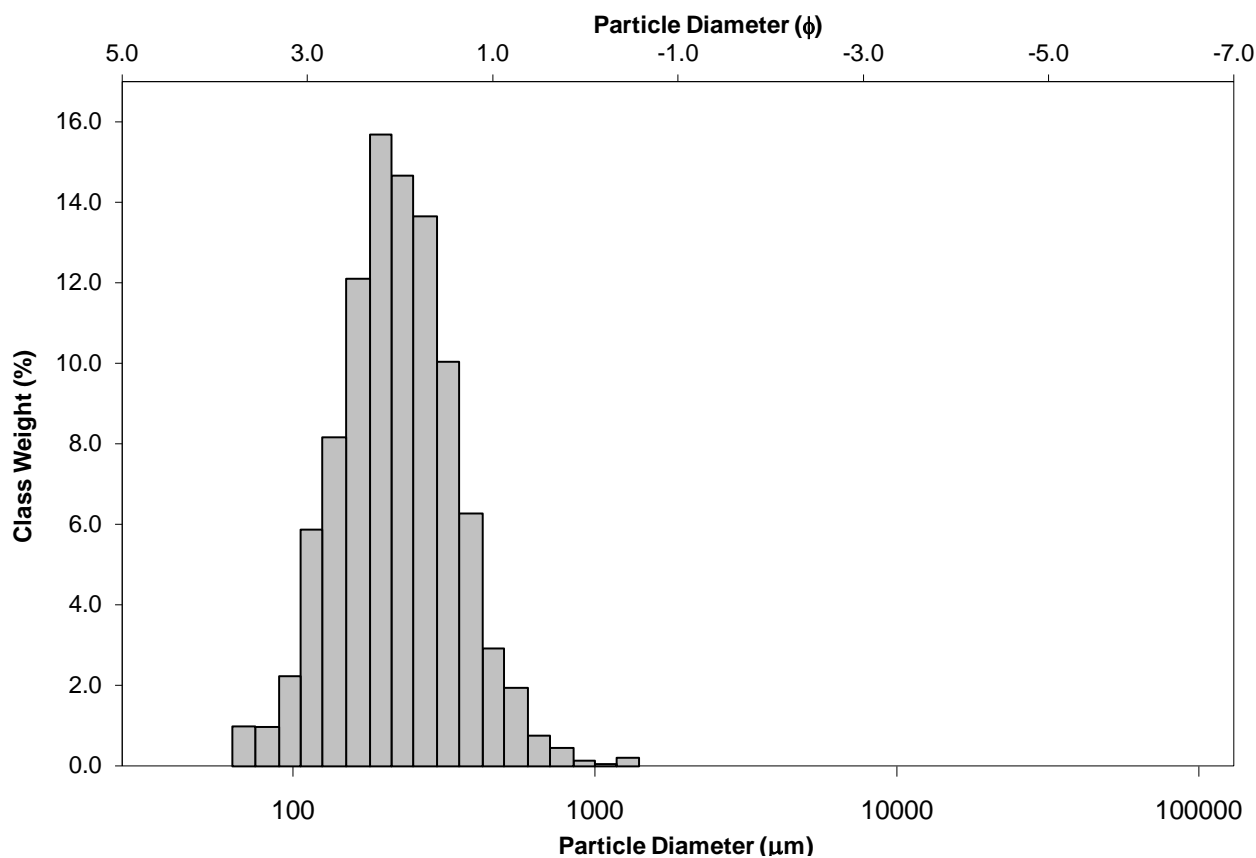
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

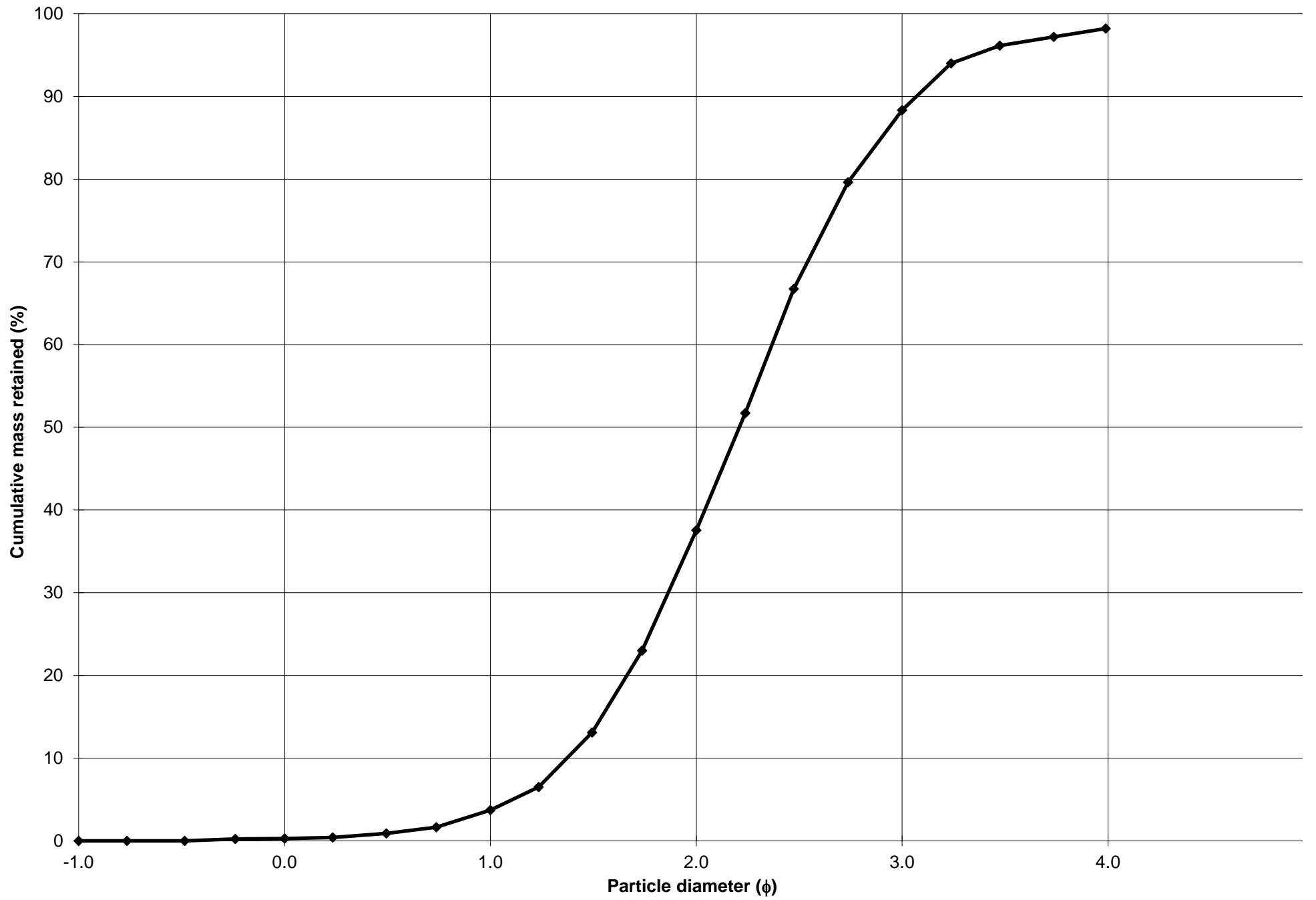
SEDIMENT NAME: Moderately Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 3.4%		
MODE 2:			SAND: 98.2%	MEDIUM SAND: 33.8%		
MODE 3:			MUD: 1.8%	FINE SAND: 50.8%		
D_{10} :	119.1	1.372		V FINE SAND: 9.9%		
MEDIAN or D_{50} :	216.3	2.209	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.3%		
D_{90} :	386.4	3.069	COARSE GRAVEL: 0.0%	COARSE SILT: 0.3%		
(D_{90} / D_{10}) :	3.243	2.237	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.3%		
$(D_{90} - D_{10})$:	267.2	1.697	FINE GRAVEL: 0.0%	FINE SILT: 0.3%		
(D_{75} / D_{25}) :	1.827	1.490	V FINE GRAVEL: 0.0%	V FINE SILT: 0.3%		
$(D_{75} - D_{25})$:	132.4	0.869	V COARSE SAND: 0.3%	CLAY: 0.3%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	242.0	207.7	2.267	215.5	2.214	Fine Sand
SORTING (σ):	128.3	1.873	0.905	1.586	0.665	Moderately Well Sorted
SKEWNESS (Sk):	2.405	-2.331	2.331	-0.014	0.014	Symmetrical
KURTOSIS (K):	15.34	14.23	14.23	1.055	1.055	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 40 cm**

ANALYST & DATE: Stephen Fabian, 2/7/15

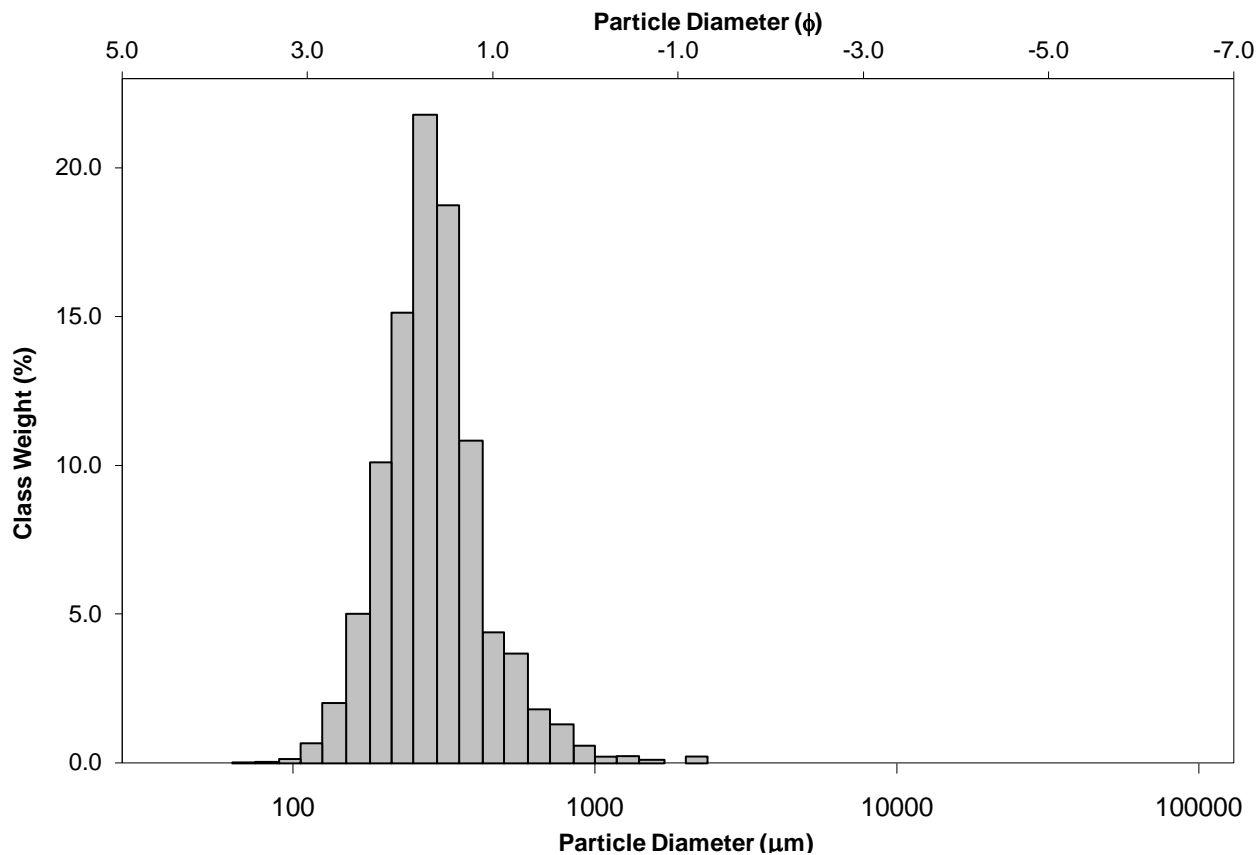
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

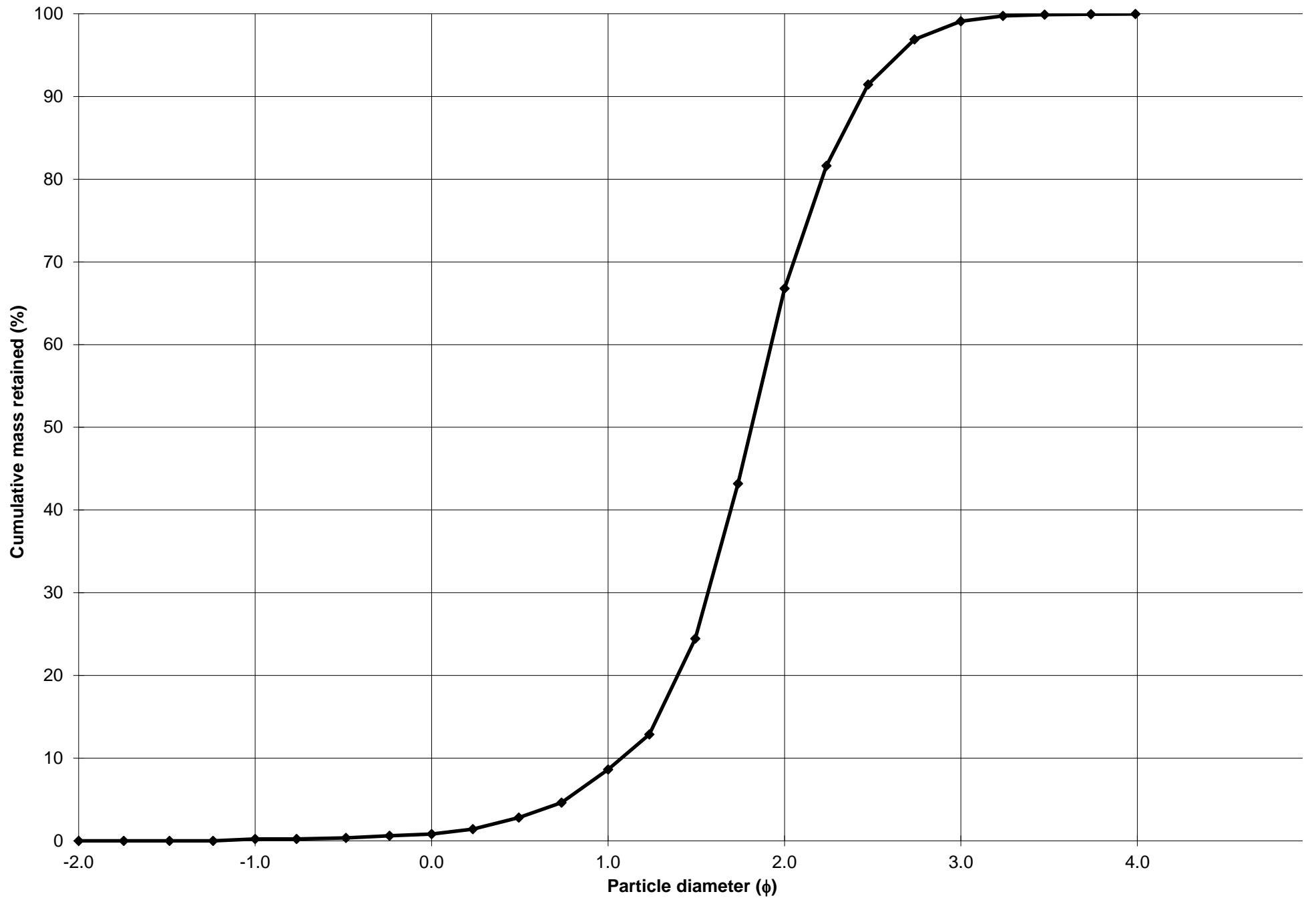
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.2%	COARSE SAND: 7.8%		
MODE 2:			SAND: 99.7%	MEDIUM SAND: 58.2%		
MODE 3:			MUD: 0.0%	FINE SAND: 32.3%		
D_{10} :	184.4	1.076		V FINE SAND: 0.9%		
MEDIAN or D_{50} :	284.6	1.813	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	474.2	2.439	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.572	2.266	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	289.8	1.363	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.548	1.420	V FINE GRAVEL: 0.2%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	125.1	0.630	V COARSE SAND: 0.6%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	320.4	291.8	1.777	286.3	1.804	Medium Sand
SORTING (σ):	172.7	1.491	0.576	1.447	0.533	Moderately Well Sorted
SKEWNESS (Sk):	4.577	0.578	-0.578	0.071	-0.071	Symmetrical
KURTOSIS (K):	39.37	6.857	6.857	1.225	1.225	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 50 cm**

ANALYST & DATE: Stephen Fabian, 2/7/15

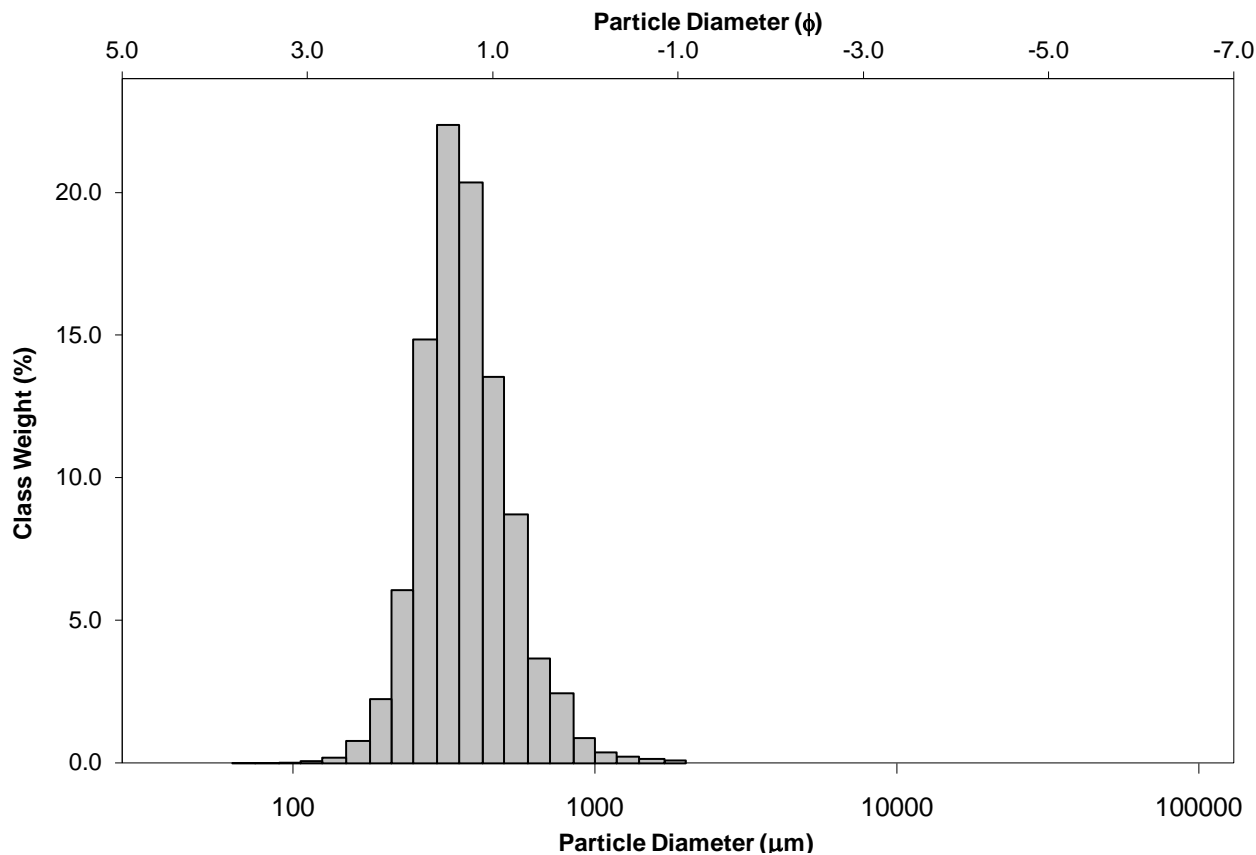
SAMPLE TYPE: Unimodal, Well Sorted

TEXTURAL GROUP: Sand

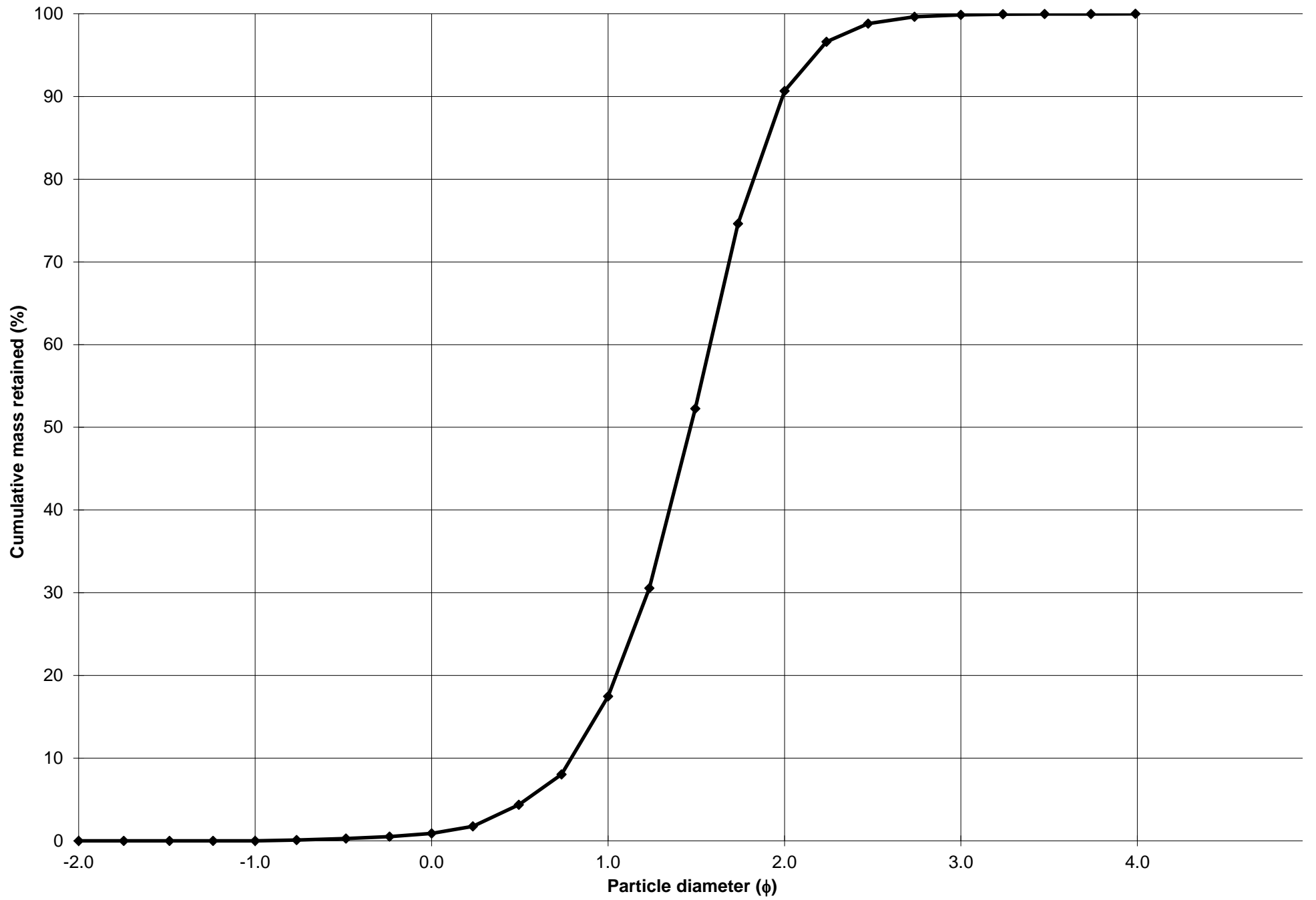
SEDIMENT NAME: Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%	COARSE SAND: 16.6%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 73.2%		
MODE 3:			MUD: 0.0%	FINE SAND: 9.2%		
D_{10} :	251.9	0.792		V FINE SAND: 0.1%		
MEDIAN or D_{50} :	361.7	1.467	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	577.7	1.989	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.293	2.513	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	325.8	1.197	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.524	1.536	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	156.6	0.608	V COARSE SAND: 0.9%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	398.4	372.2	1.426	368.9	1.439	Medium Sand
SORTING (σ):	162.4	1.415	0.501	1.396	0.481	Well Sorted
SKEWNESS (Sk):	2.658	0.382	-0.382	0.114	-0.114	Coarse Skewed
KURTOSIS (K):	16.59	5.662	5.662	1.103	1.103	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 60 cm**

ANALYST & DATE: Stephen Fabian, 2/7/15

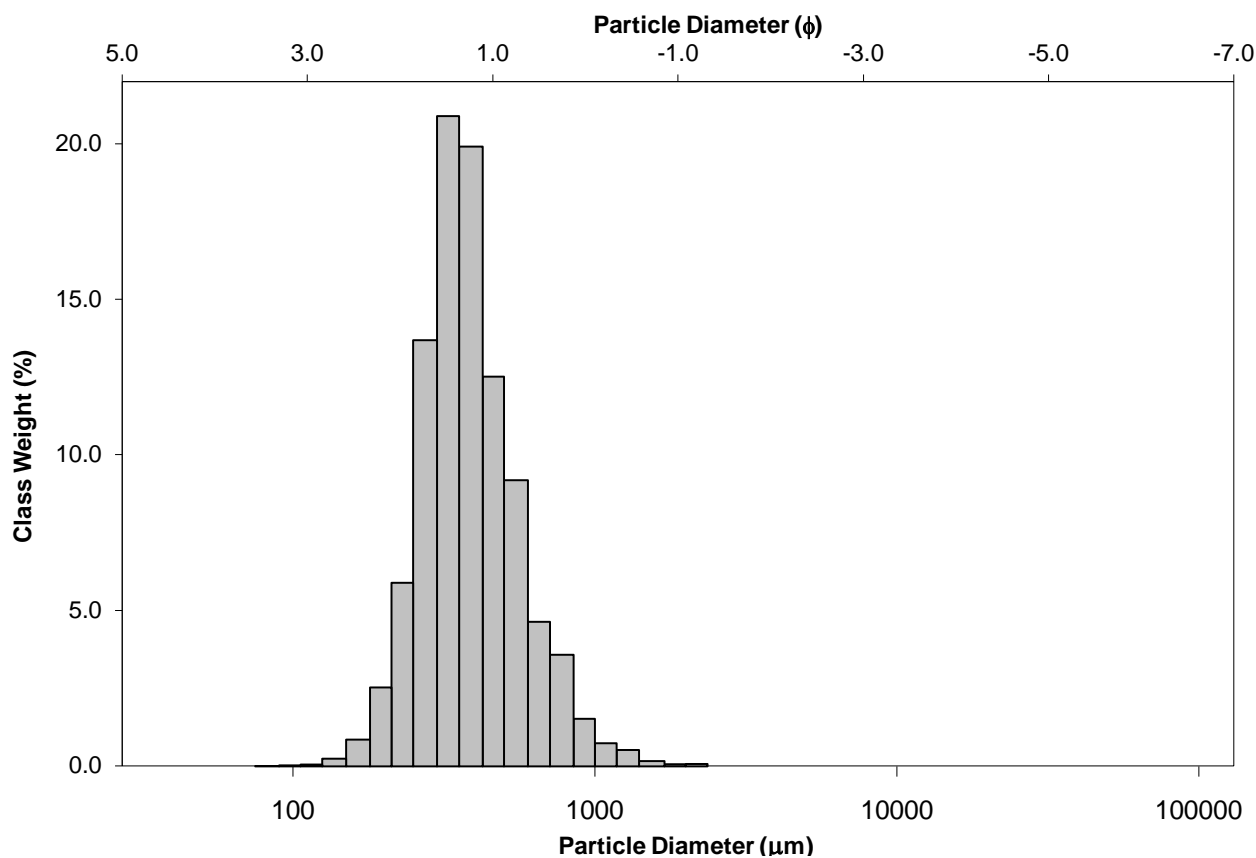
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

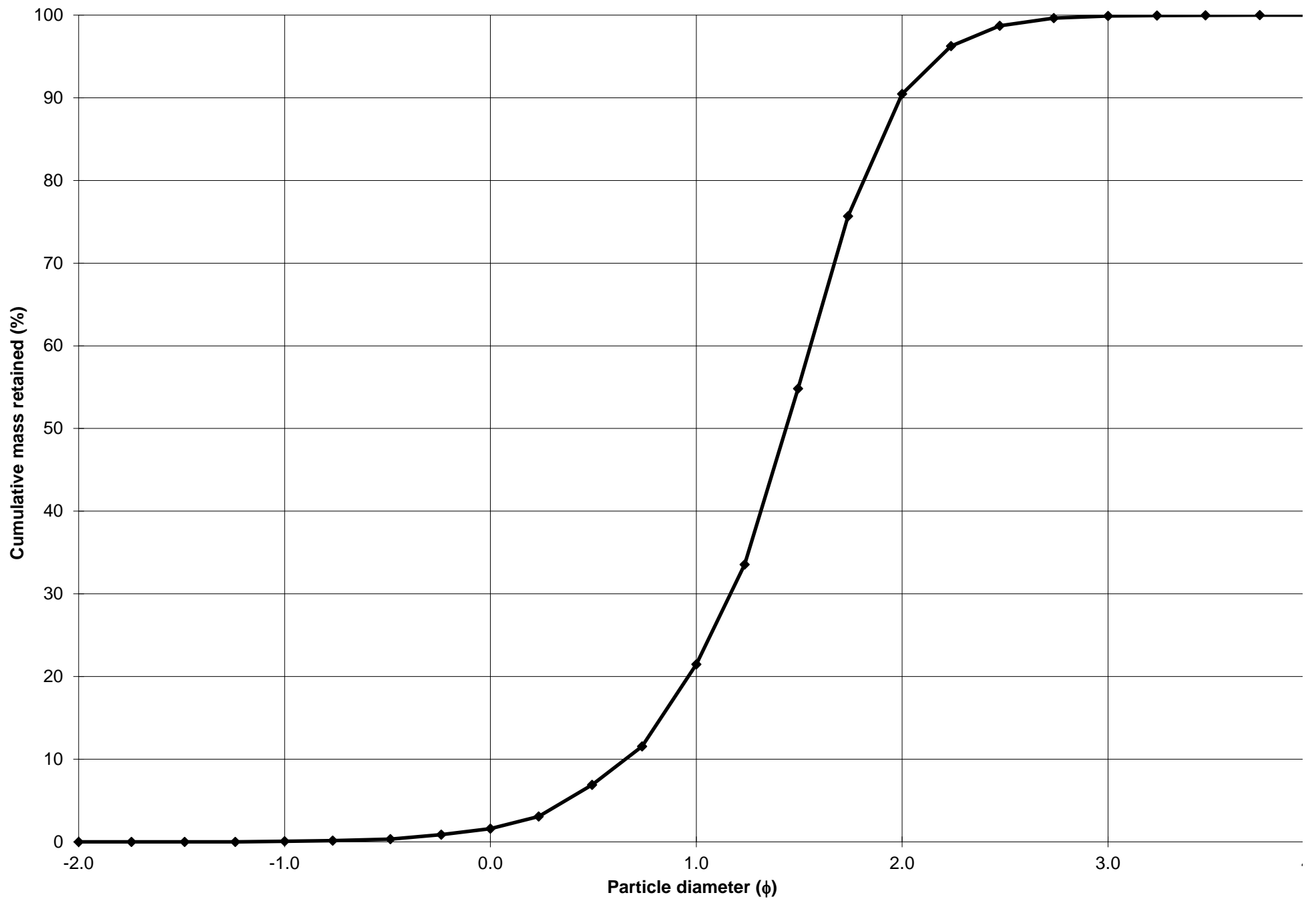
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.1%	COARSE SAND: 19.9%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 69.0%		
MODE 3:			MUD: 0.0%	FINE SAND: 9.4%		
D ₁₀ :	251.5	0.656		V FINE SAND: 0.1%		
MEDIAN or D ₅₀ :	369.7	1.435	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	634.5	1.992	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.523	3.035	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	383.0	1.335	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.581	1.619	V FINE GRAVEL: 0.1%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	175.3	0.661	V COARSE SAND: 1.5%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	417.2	384.5	1.379	381.1	1.392	Medium Sand
SORTING (σ):	189.7	1.460	0.546	1.447	0.534	Moderately Well Sorted
SKEWNESS (Sk):	2.620	0.578	-0.578	0.151	-0.151	Coarse Skewed
KURTOSIS (K):	15.45	4.062	4.062	1.130	1.130	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 70 cm**

ANALYST & DATE: Stephen Fabian, 2/7/15

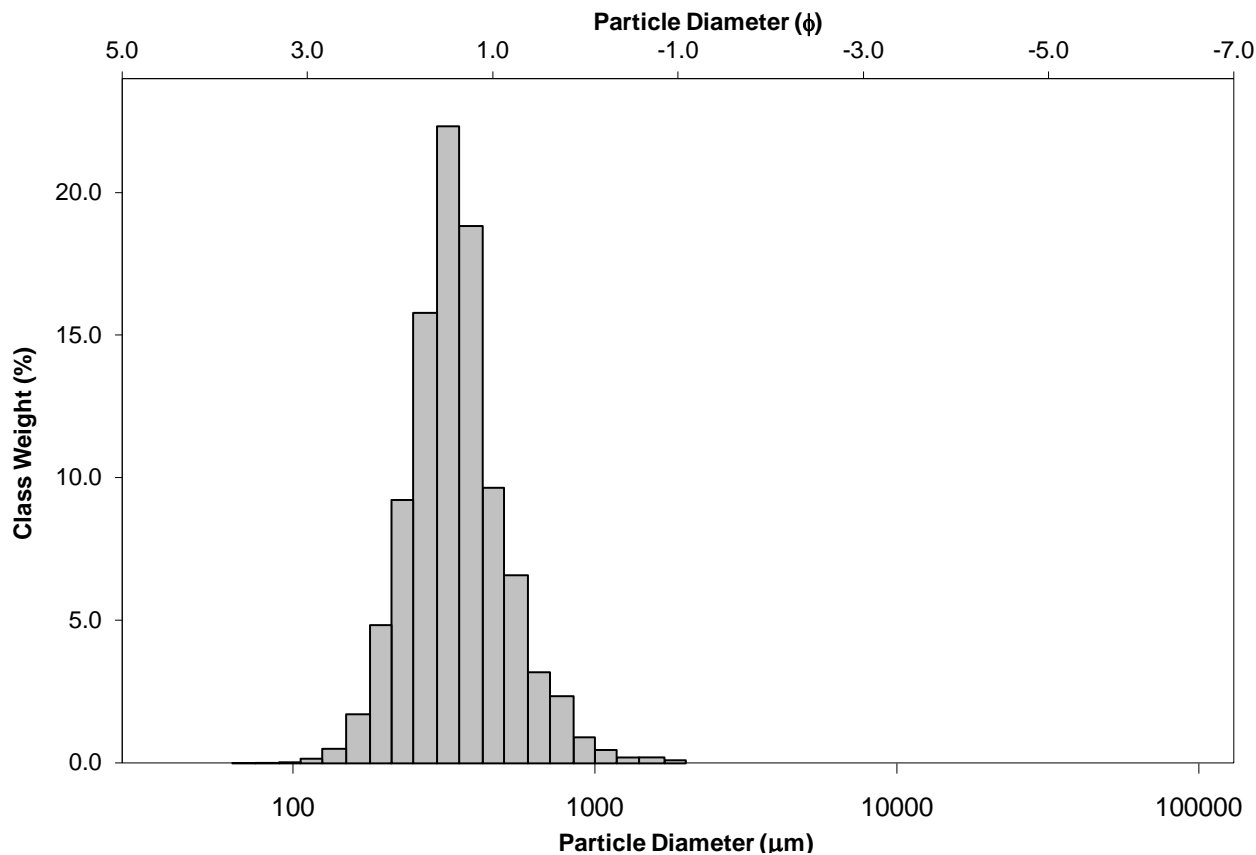
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

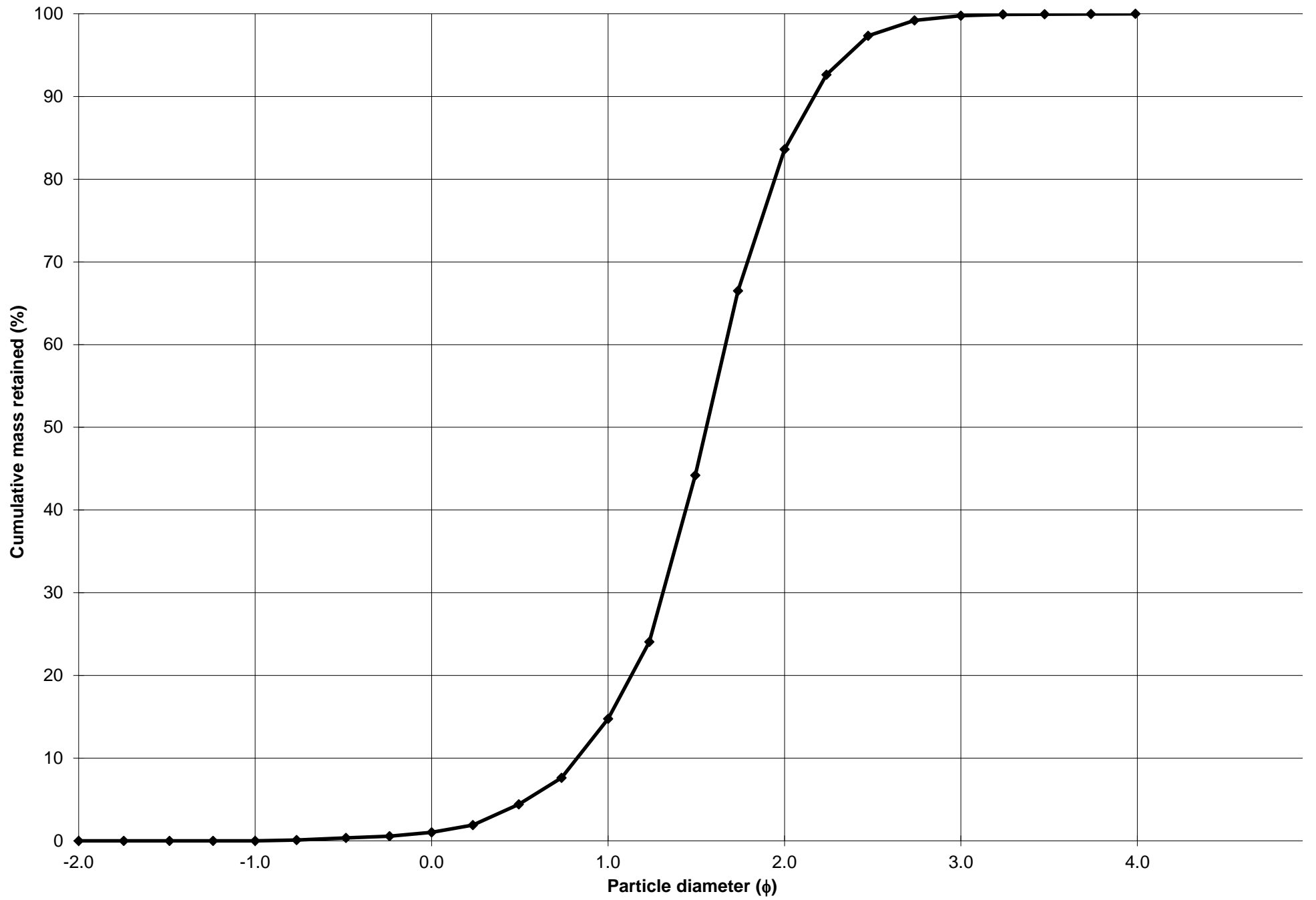
SEDIMENT NAME: Moderately Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%	COARSE SAND: 13.7%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 68.9%		
MODE 3:			MUD: 0.0%	FINE SAND: 16.2%		
D ₁₀ :	222.5	0.825		V FINE SAND: 0.2%		
MEDIAN or D ₅₀ :	339.8	1.557	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	564.4	2.168	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.537	2.628	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	342.0	1.343	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.538	1.498	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	147.4	0.621	V COARSE SAND: 1.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	377.3	348.3	1.522	345.5	1.533	Medium Sand
SORTING (σ):	169.9	1.456	0.542	1.434	0.520	Moderately Well Sorted
SKEWNESS (Sk):	2.781	0.430	-0.430	0.098	-0.098	Symmetrical
KURTOSIS (K):	16.86	5.175	5.175	1.199	1.199	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 80 cm**

ANALYST & DATE: Stephen Fabian, 2/7/15

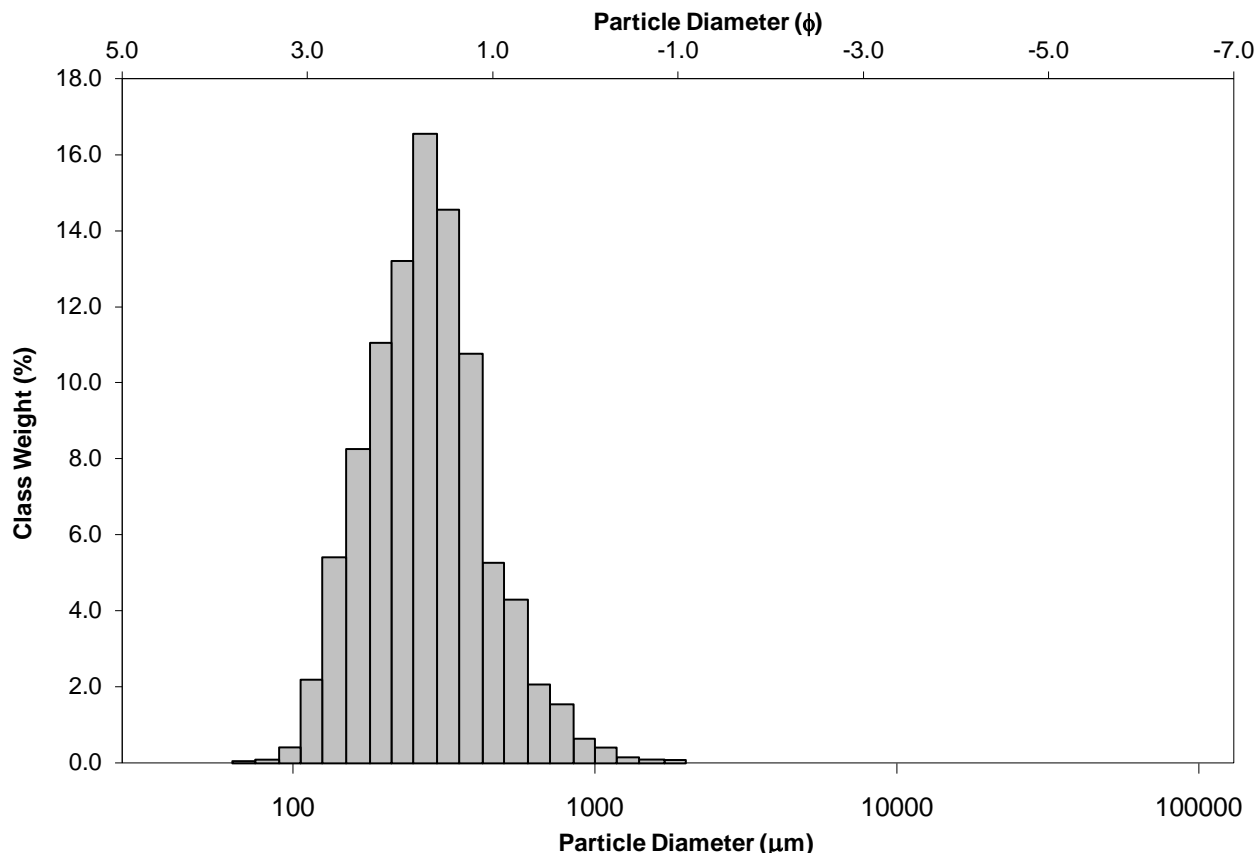
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

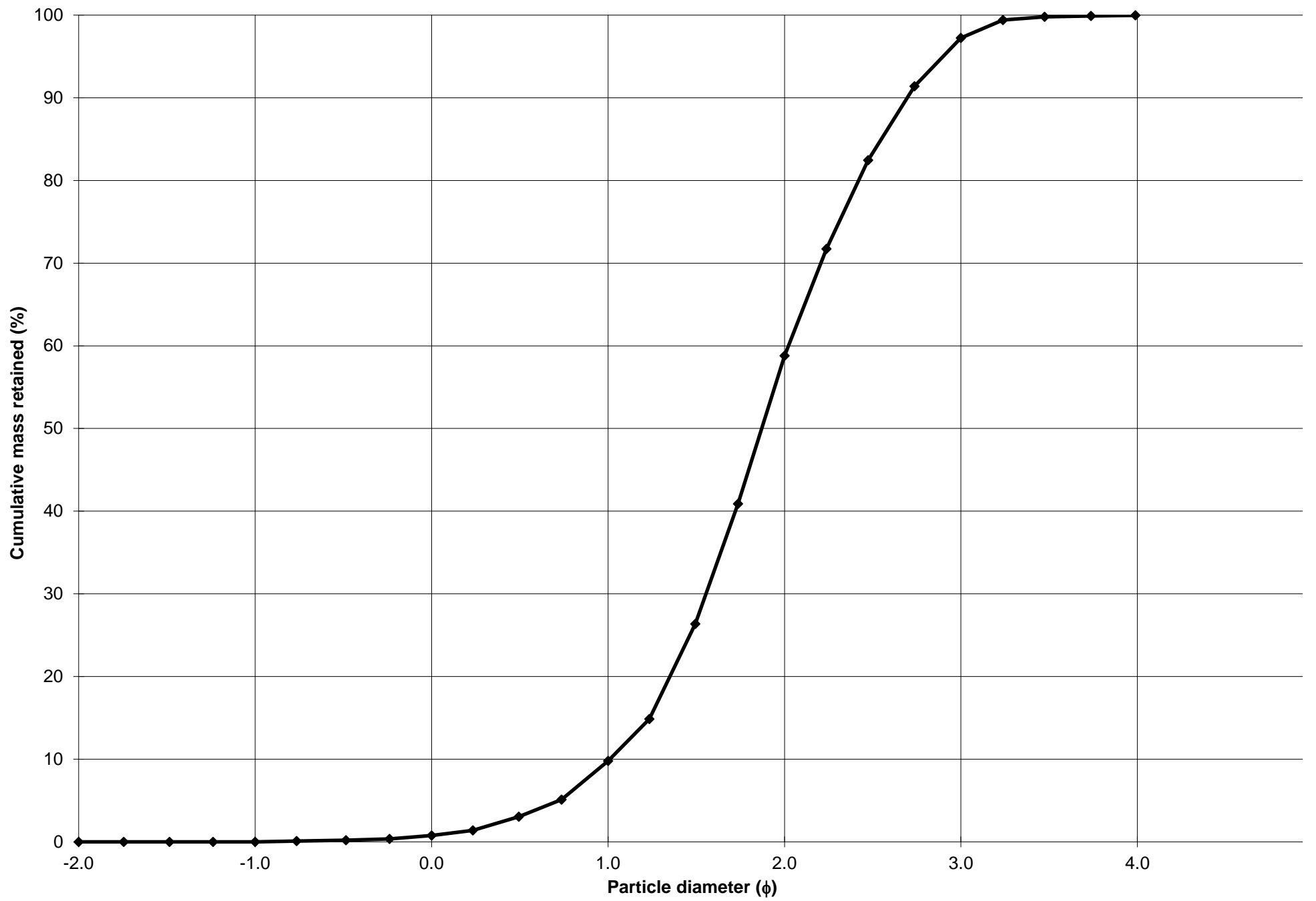
SEDIMENT NAME: Moderately Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%	COARSE SAND: 9.0%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 49.0%		
MODE 3:			MUD: 0.0%	FINE SAND: 38.4%		
D ₁₀ :	154.3	1.010		V FINE SAND: 2.7%		
MEDIAN or D ₅₀ :	273.4	1.871	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	496.5	2.696	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	3.218	2.669	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	342.2	1.686	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.798	1.579	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	161.0	0.847	V COARSE SAND: 0.8%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	309.7	276.1	1.857	271.0	1.884	Medium Sand
SORTING (σ):	167.7	1.582	0.662	1.563	0.645	Moderately Well Sorted
SKEWNESS (Sk):	2.692	0.246	-0.246	0.012	-0.012	Symmetrical
KURTOSIS (K):	16.32	4.446	4.446	1.054	1.054	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 90 cm**

ANALYST & DATE: Stephen Fabian, 2/7/15

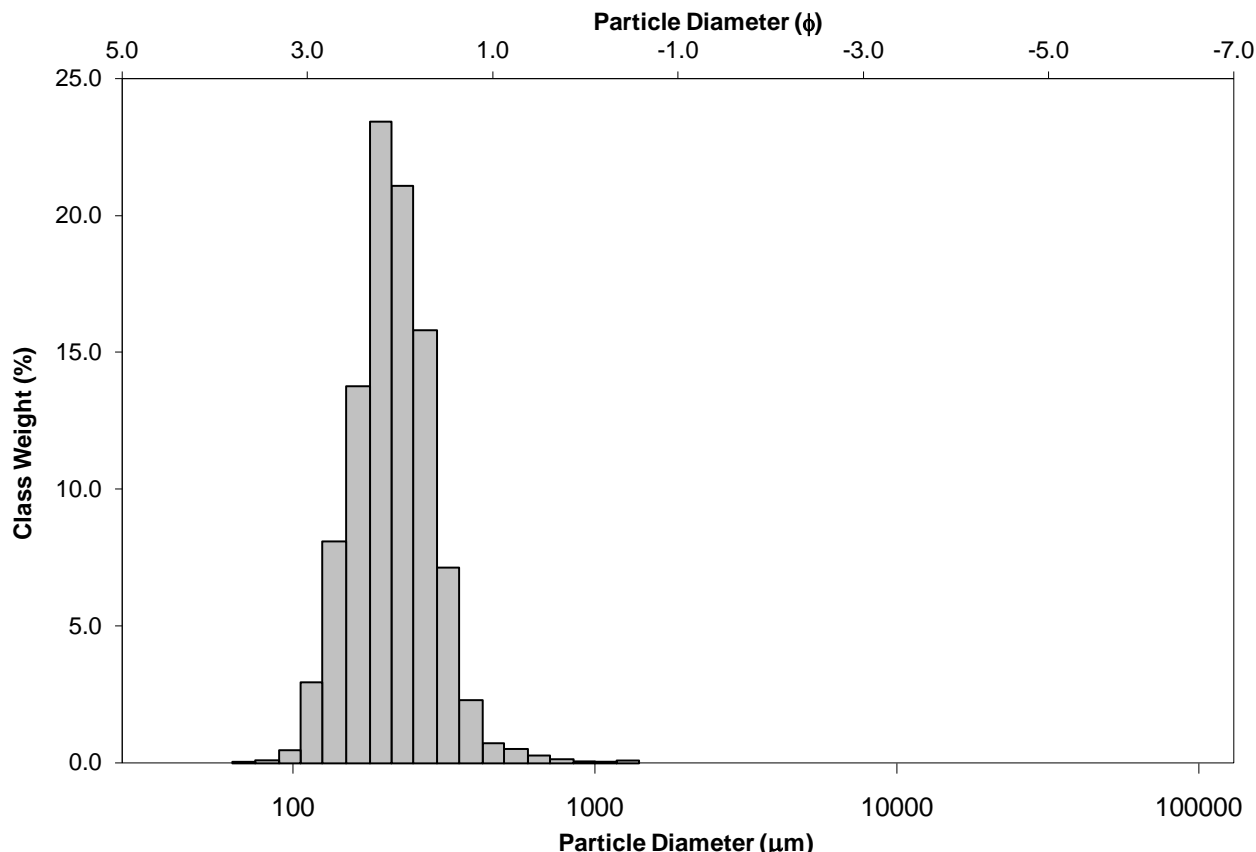
SAMPLE TYPE: Unimodal, Well Sorted

TEXTURAL GROUP: Sand

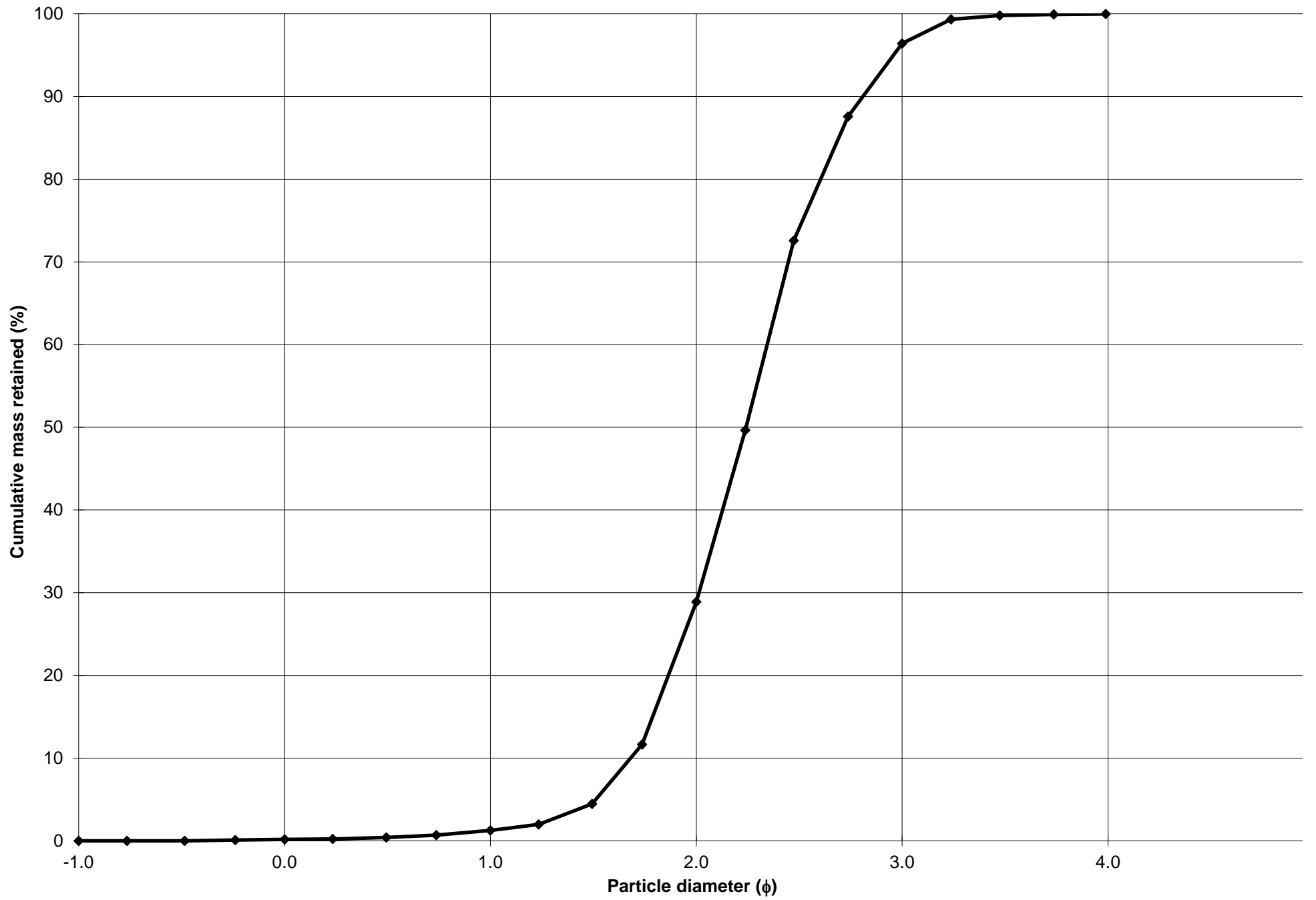
SEDIMENT NAME: Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 1.1%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 27.6%		
MODE 3:			MUD: 0.0%	FINE SAND: 67.5%		
D_{10} :	142.7	1.681		V FINE SAND: 3.6%		
MEDIAN or D_{50} :	211.5	2.241	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	311.8	2.809	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.185	1.671	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	169.1	1.128	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.490	1.297	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	85.72	0.576	V COARSE SAND: 0.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	226.7	213.7	2.226	211.7	2.240	Fine Sand
SORTING (σ):	88.31	1.381	0.465	1.354	0.437	Well Sorted
SKEWNESS (Sk):	3.977	0.264	-0.264	0.007	-0.007	Symmetrical
KURTOSIS (K):	36.88	7.728	7.728	1.029	1.029	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 100 cm**

ANALYST & DATE: Stephen Fabian, 2/7/15

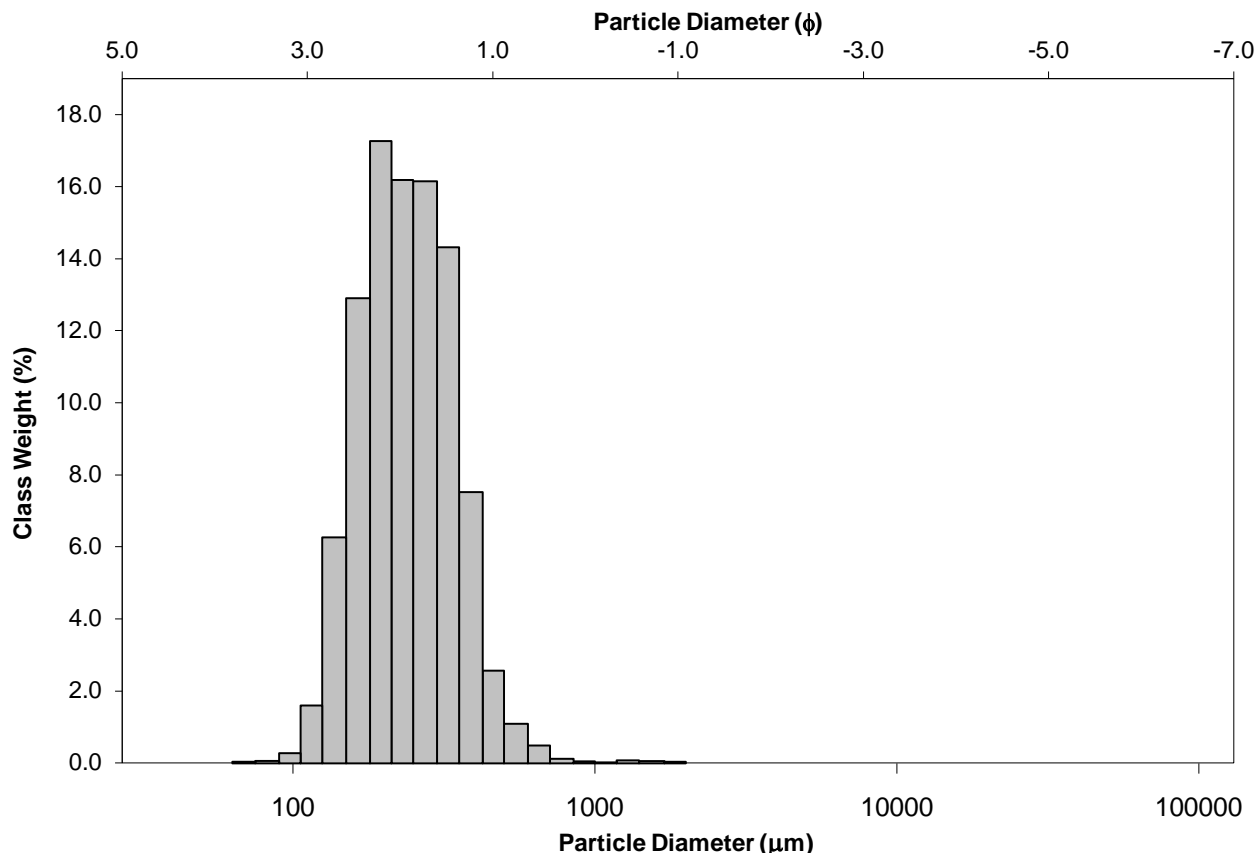
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

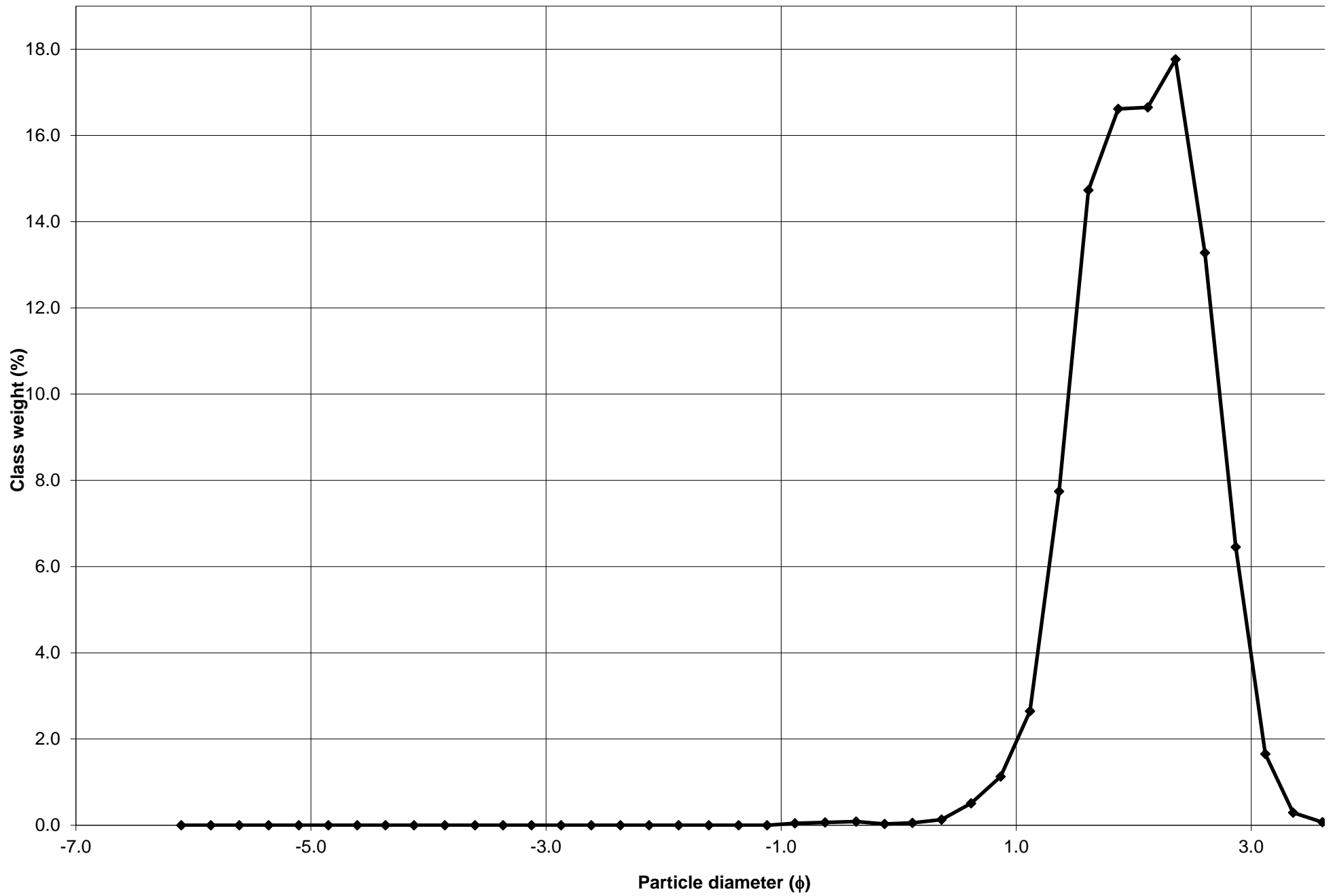
SEDIMENT NAME: Moderately Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 1.9%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 42.4%		
MODE 3:			MUD: 0.0%	FINE SAND: 53.5%		
D_{10} :	152.4	1.409		V FINE SAND: 2.0%		
MEDIAN or D_{50} :	236.2	2.082	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	376.7	2.714	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.472	1.927	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	224.3	1.306	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.670	1.434	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	123.2	0.740	V COARSE SAND: 0.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	257.0	238.7	2.067	236.8	2.078	Fine Sand
SORTING (σ):	111.4	1.442	0.528	1.425	0.511	Moderately Well Sorted
SKEWNESS (Sk):	3.984	0.155	-0.155	0.016	-0.016	Symmetrical
KURTOSIS (K):	41.82	6.157	6.157	0.907	0.907	Mesokurtic

GRAIN SIZE DISTRIBUTION



Frequency Distribution Histogram



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 110 cm**

ANALYST & DATE: Stephen Fabian, 2/7/15

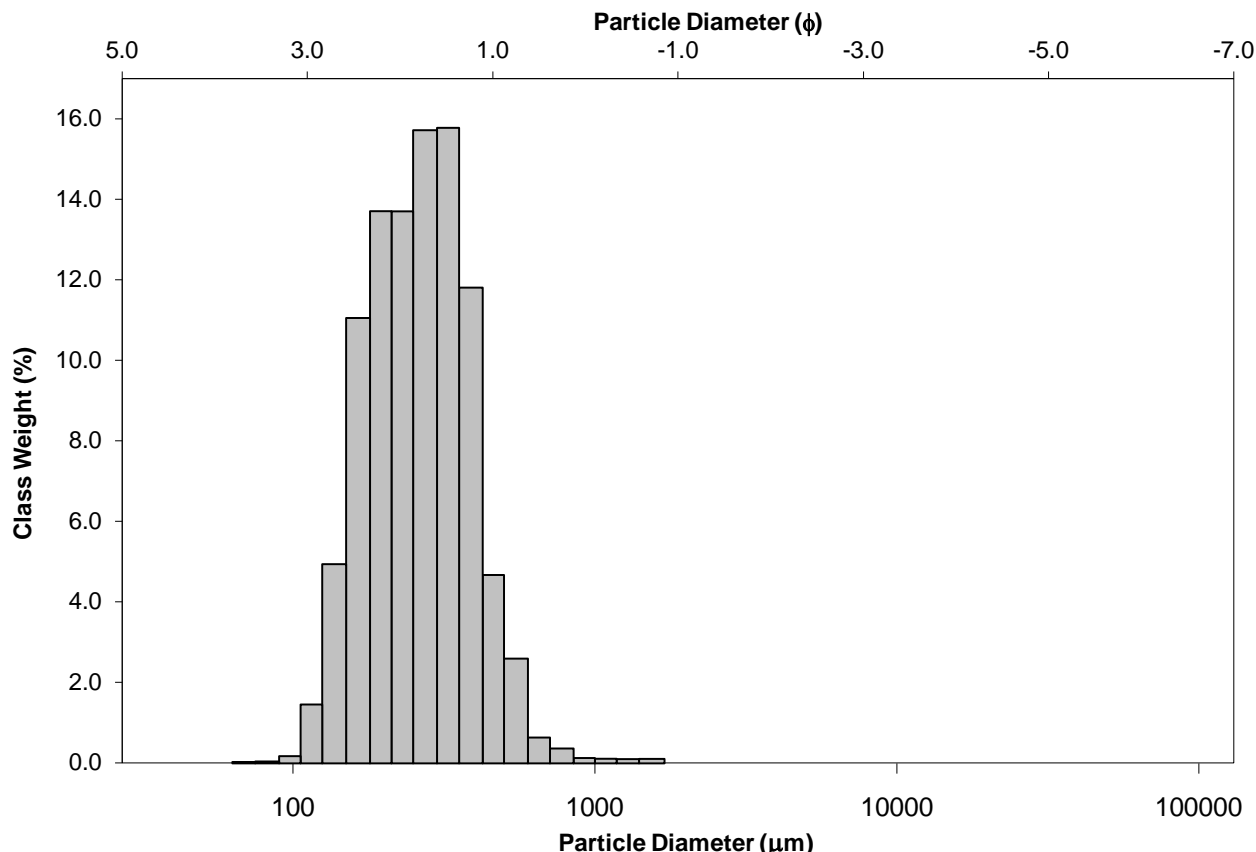
SAMPLE TYPE: Bimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

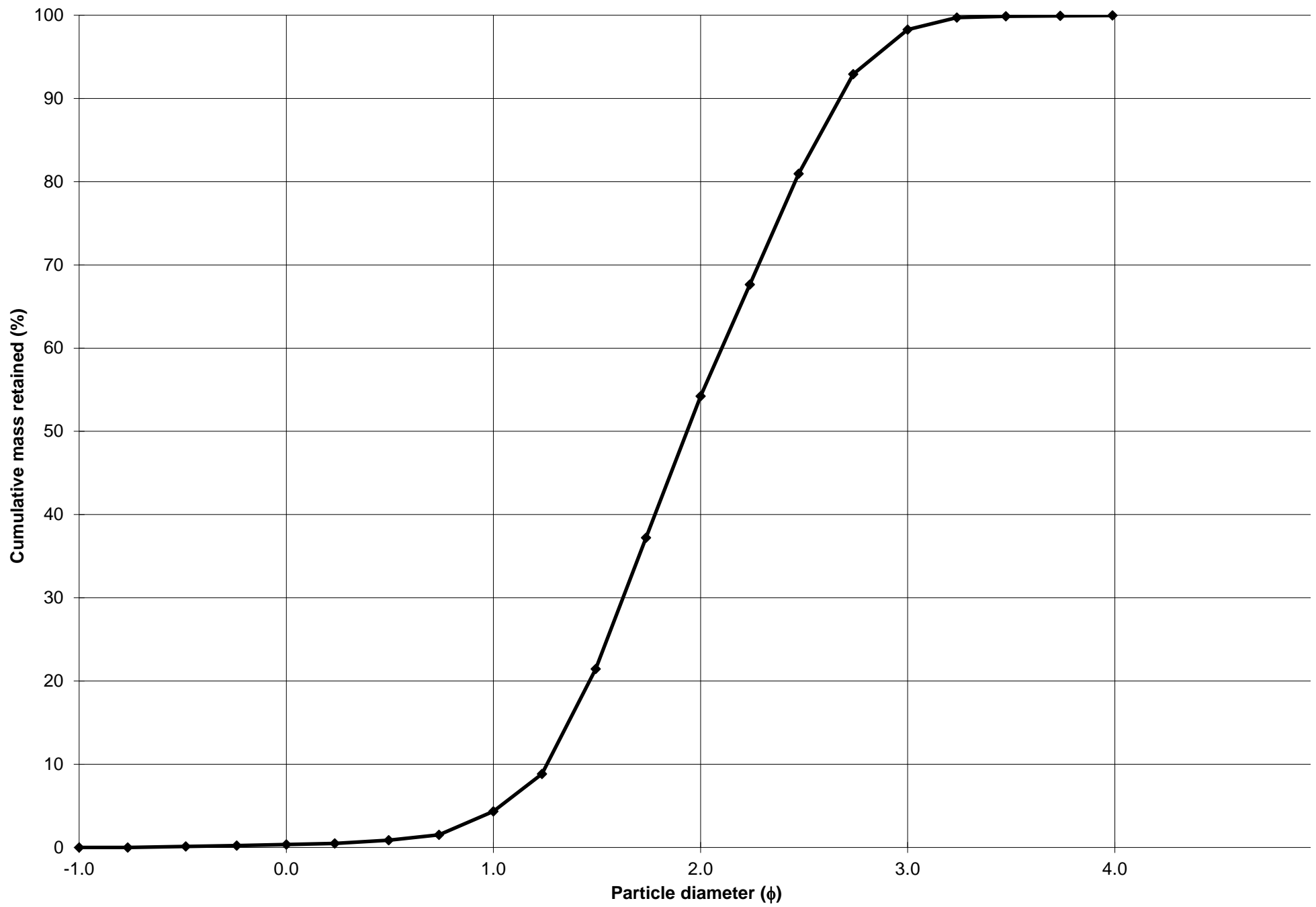
SEDIMENT NAME: Moderately Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%	COARSE SAND: 4.0%		
MODE 2:	196.0	2.356	SAND: 100.0%	MEDIUM SAND: 49.9%		
MODE 3:			MUD: 0.0%	FINE SAND: 44.0%		
D_{10} :	156.8	1.258		V FINE SAND: 1.7%		
MEDIAN or D_{50} :	261.6	1.935	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	418.0	2.673	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.665	2.124	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	261.2	1.414	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.765	1.529	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	148.1	0.820	V COARSE SAND: 0.3%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	283.1	260.1	1.943	258.4	1.952	Medium Sand
SORTING (σ):	127.2	1.486	0.572	1.477	0.563	Moderately Well Sorted
SKEWNESS (Sk):	2.842	0.071	-0.071	-0.024	0.024	Symmetrical
KURTOSIS (K):	21.92	5.144	5.144	0.902	0.902	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 121 cm**

ANALYST & DATE: Stephen Fabian, 2/7/15

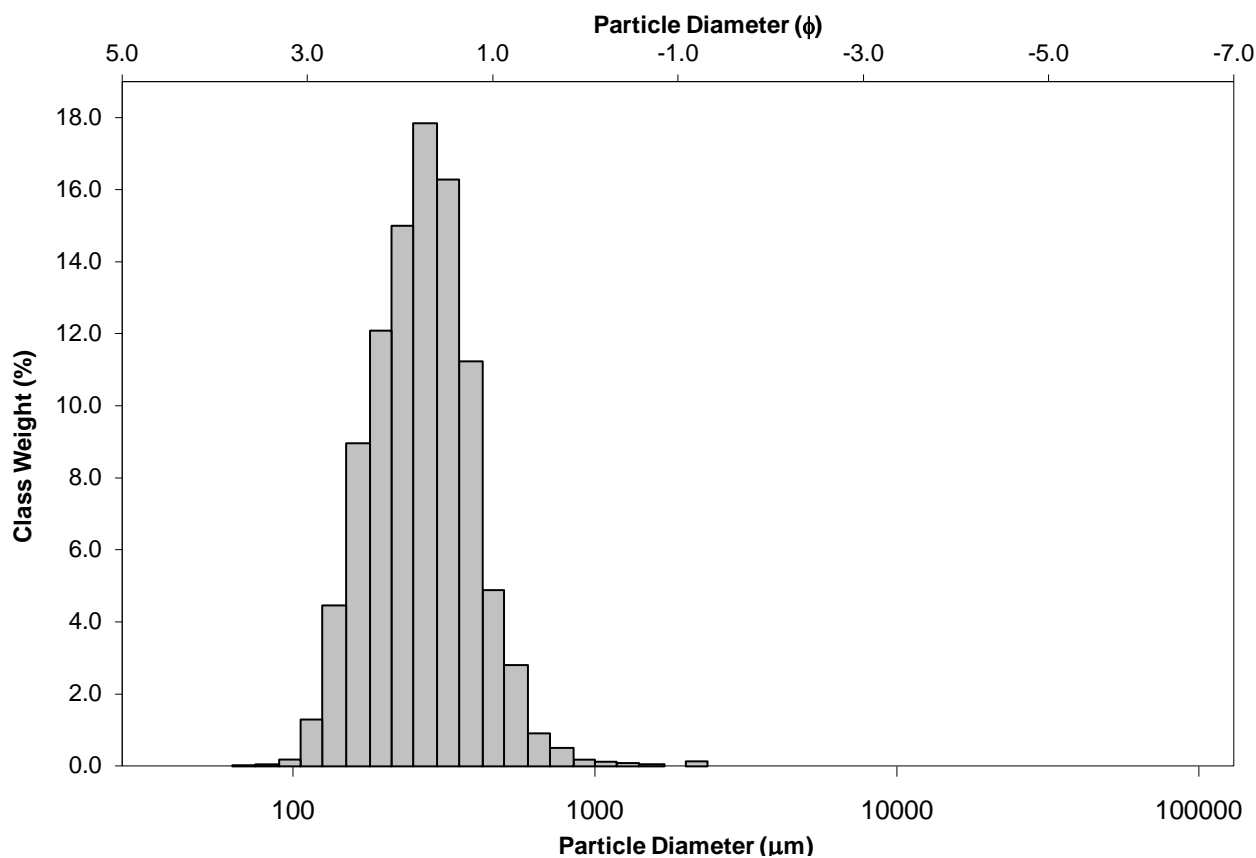
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

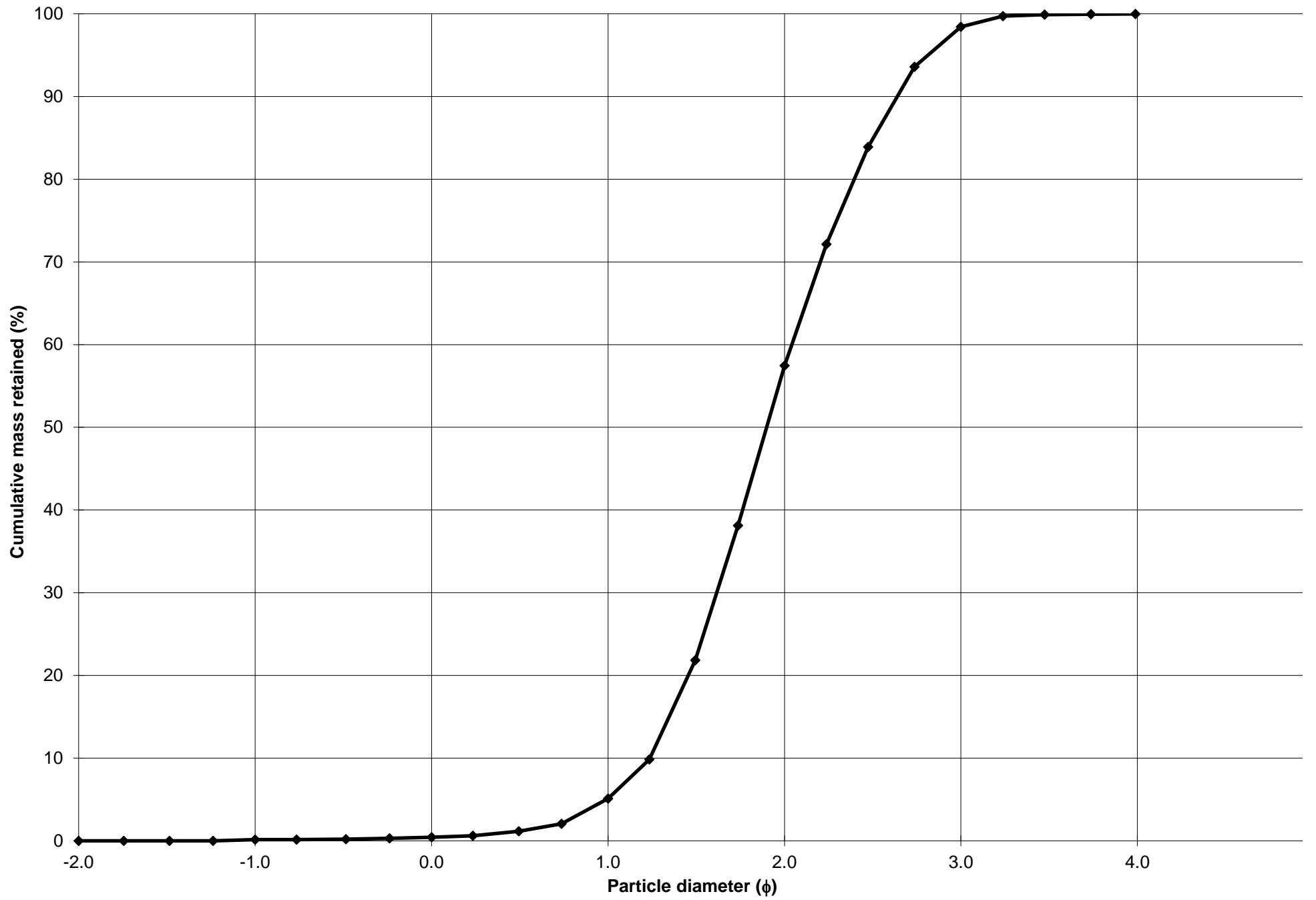
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.1%	COARSE SAND: 4.7%		
MODE 2:			SAND: 99.8%	MEDIUM SAND: 52.3%		
MODE 3:			MUD: 0.0%	FINE SAND: 41.0%		
D_{10} :	160.5	1.238		V FINE SAND: 1.6%		
MEDIAN or D_{50} :	268.2	1.899	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	423.9	2.640	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.642	2.132	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	263.5	1.402	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.687	1.489	V FINE GRAVEL: 0.1%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	139.9	0.754	V COARSE SAND: 0.3%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	291.8	267.4	1.903	265.3	1.914	Medium Sand
SORTING (σ):	143.6	1.485	0.570	1.468	0.554	Moderately Well Sorted
SKEWNESS (Sk):	4.716	0.279	-0.279	-0.023	0.023	Symmetrical
KURTOSIS (K):	50.80	5.332	5.332	0.991	0.991	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 130 cm**

ANALYST & DATE: Stephen Fabian, 2/7/15

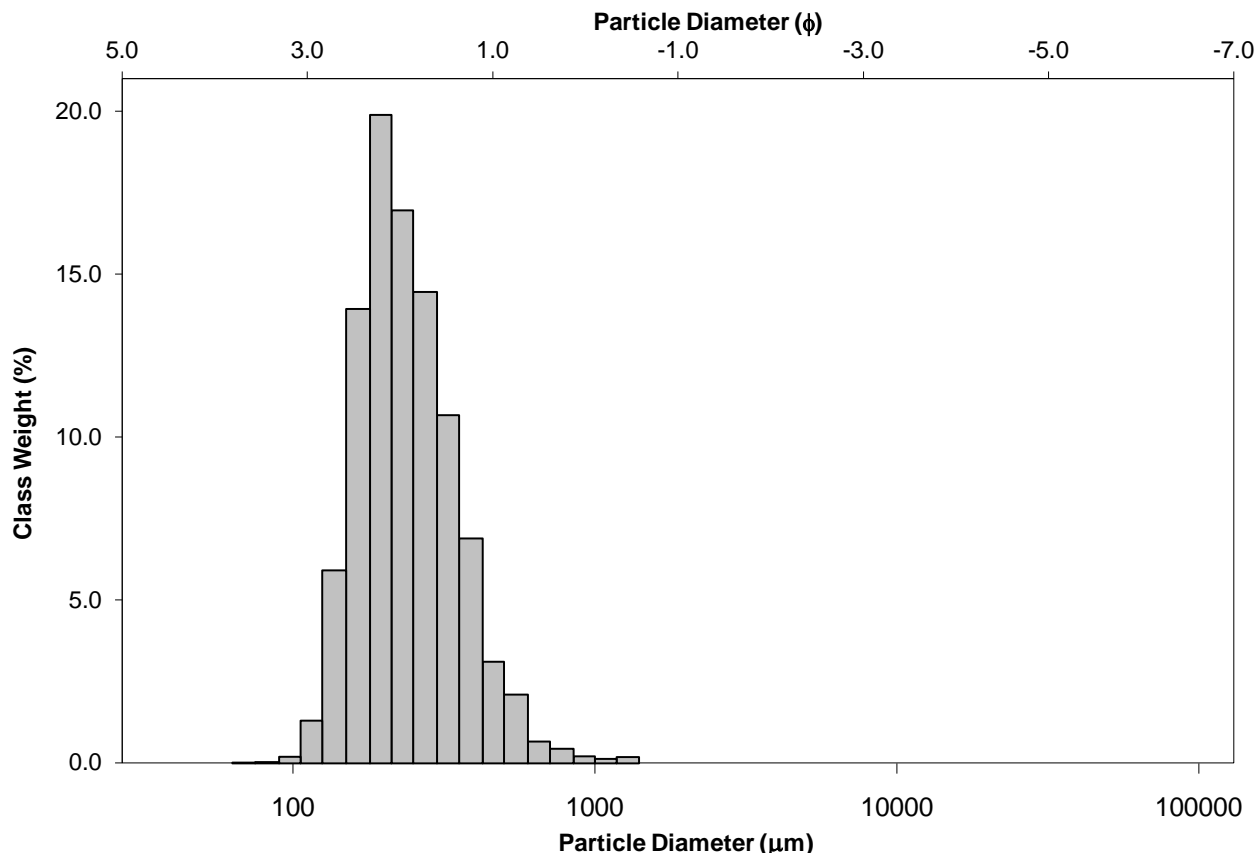
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

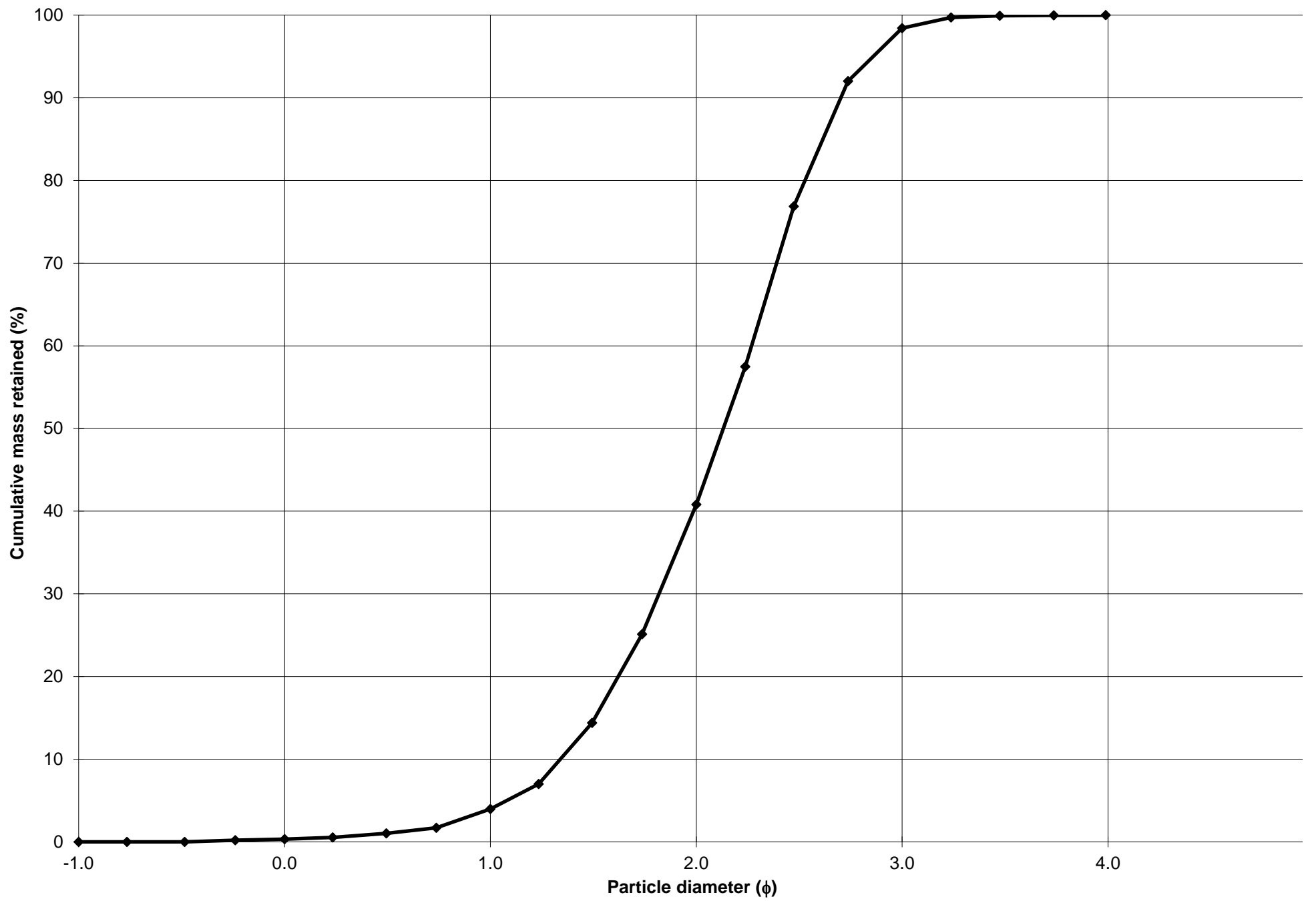
SEDIMENT NAME: Moderately Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 3.7%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 36.8%		
MODE 3:			MUD: 0.0%	FINE SAND: 57.6%		
D_{10} :	153.7	1.340		V FINE SAND: 1.6%		
MEDIAN or D_{50} :	228.3	2.131	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	395.1	2.702	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.571	2.017	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	241.4	1.362	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.643	1.413	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	117.7	0.717	V COARSE SAND: 0.3%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	259.8	239.0	2.065	235.5	2.086	Fine Sand
SORTING (σ):	121.9	1.465	0.550	1.451	0.537	Moderately Well Sorted
SKEWNESS (Sk):	2.924	0.625	-0.625	0.154	-0.154	Coarse Skewed
KURTOSIS (K):	18.43	4.719	4.719	1.018	1.018	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 140 cm**

ANALYST & DATE: Stephen Fabian, 2/7/15

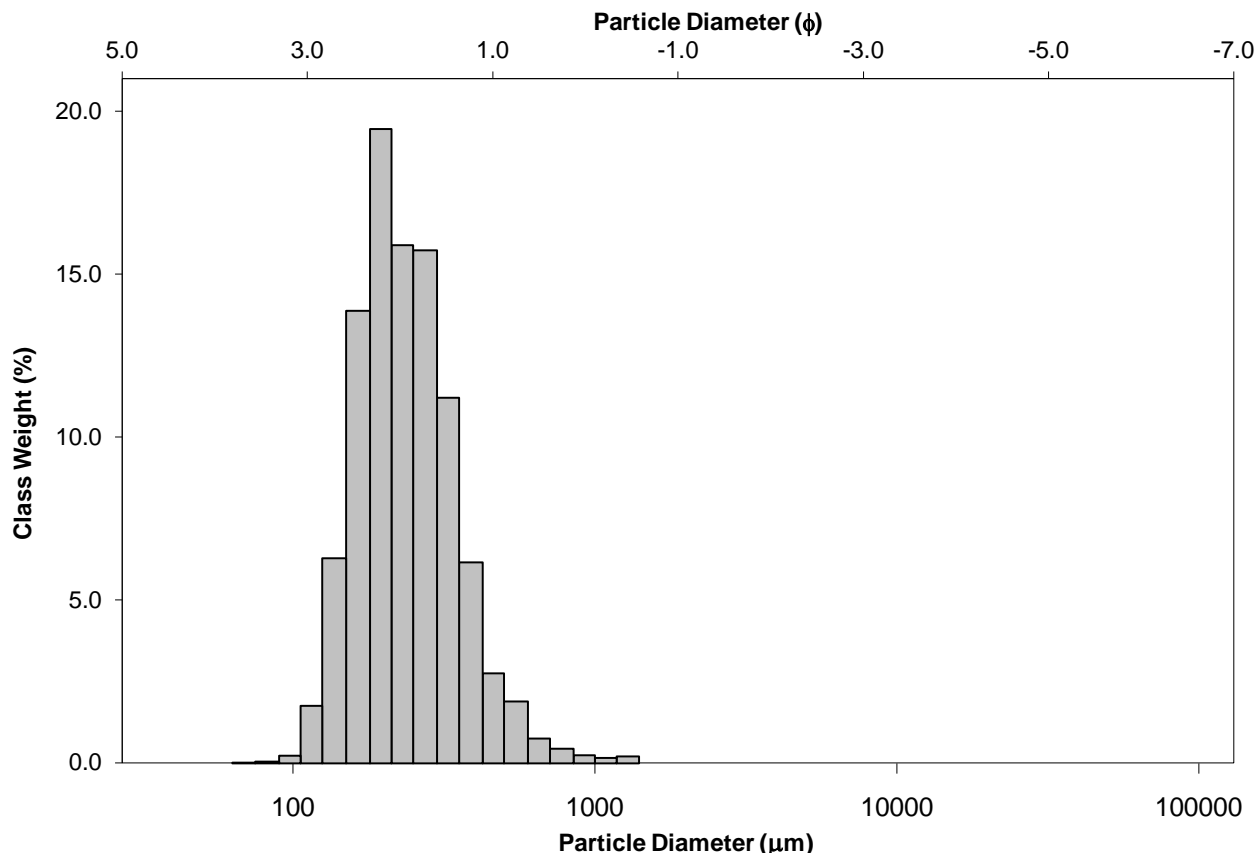
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

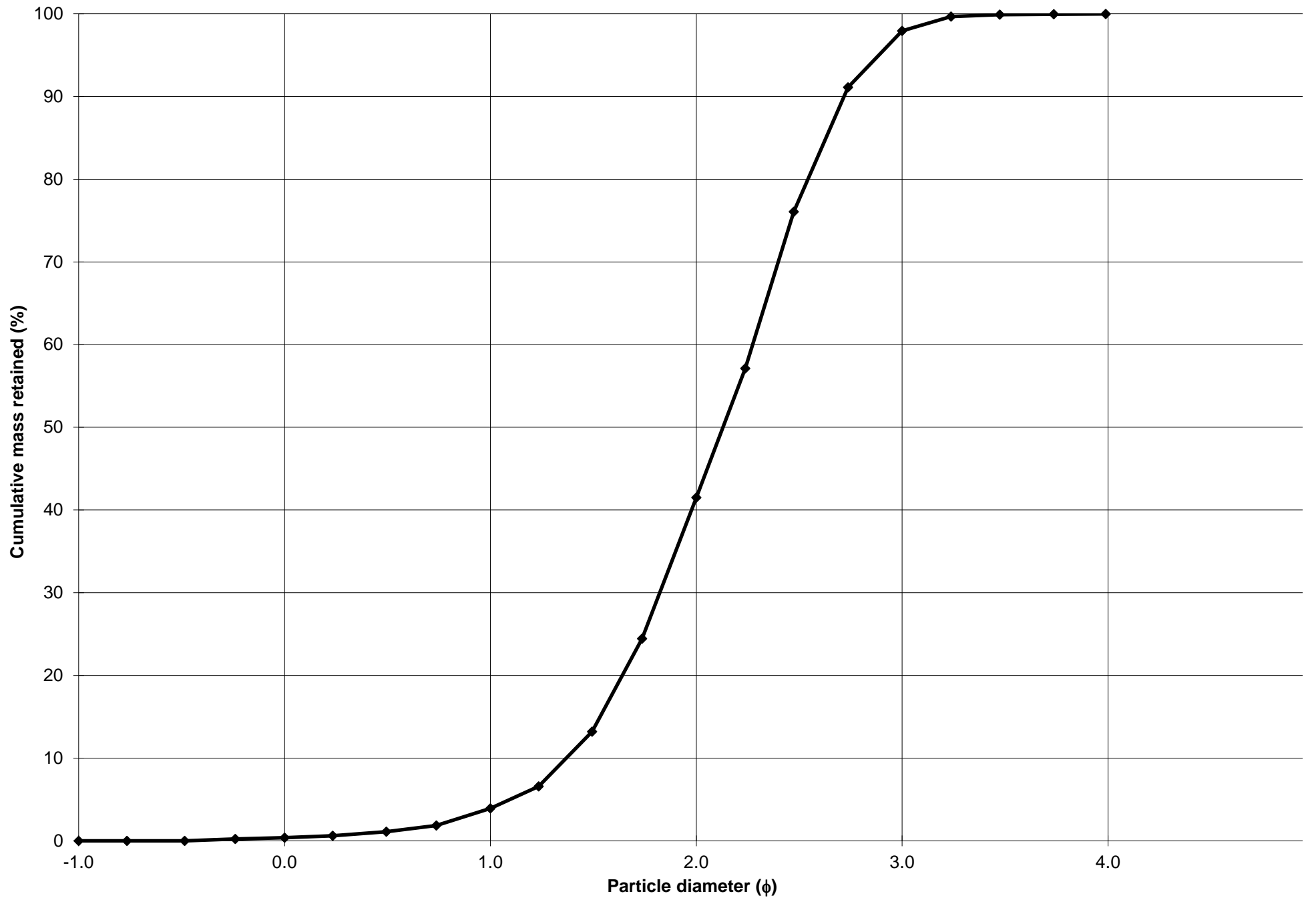
SEDIMENT NAME: Moderately Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 3.5%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 37.6%		
MODE 3:			MUD: 0.0%	FINE SAND: 56.4%		
D_{10} :	152.0	1.368		V FINE SAND: 2.0%		
MEDIAN or D_{50} :	228.5	2.129	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	387.4	2.718	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.548	1.986	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	235.3	1.349	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.642	1.410	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	116.6	0.715	V COARSE SAND: 0.4%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	258.4	237.3	2.075	233.4	2.099	Fine Sand
SORTING (σ):	123.4	1.470	0.556	1.450	0.536	Moderately Well Sorted
SKEWNESS (Sk):	3.067	0.587	-0.587	0.121	-0.121	Coarse Skewed
KURTOSIS (K):	19.49	5.136	5.136	1.027	1.027	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 150 cm**

ANALYST & DATE: Stephen Fabian, 2/7/15

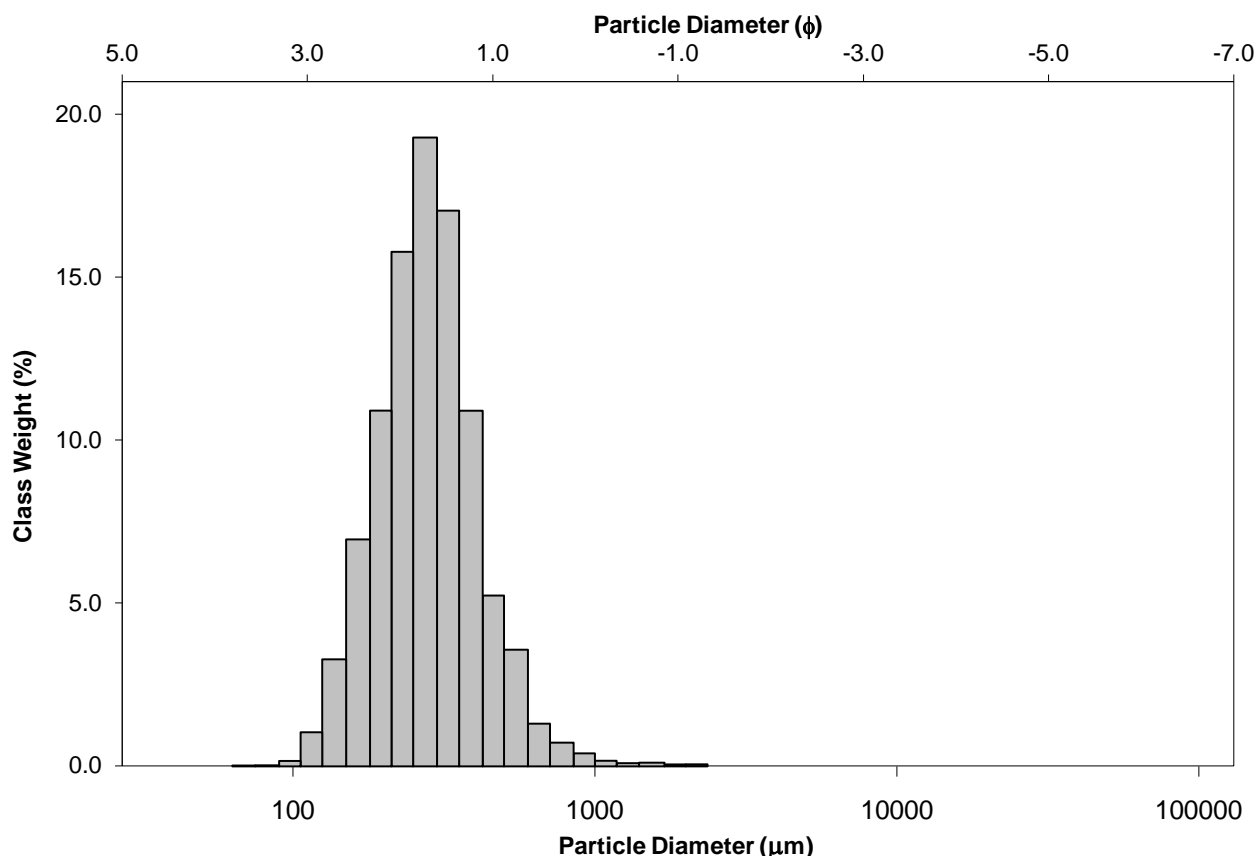
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

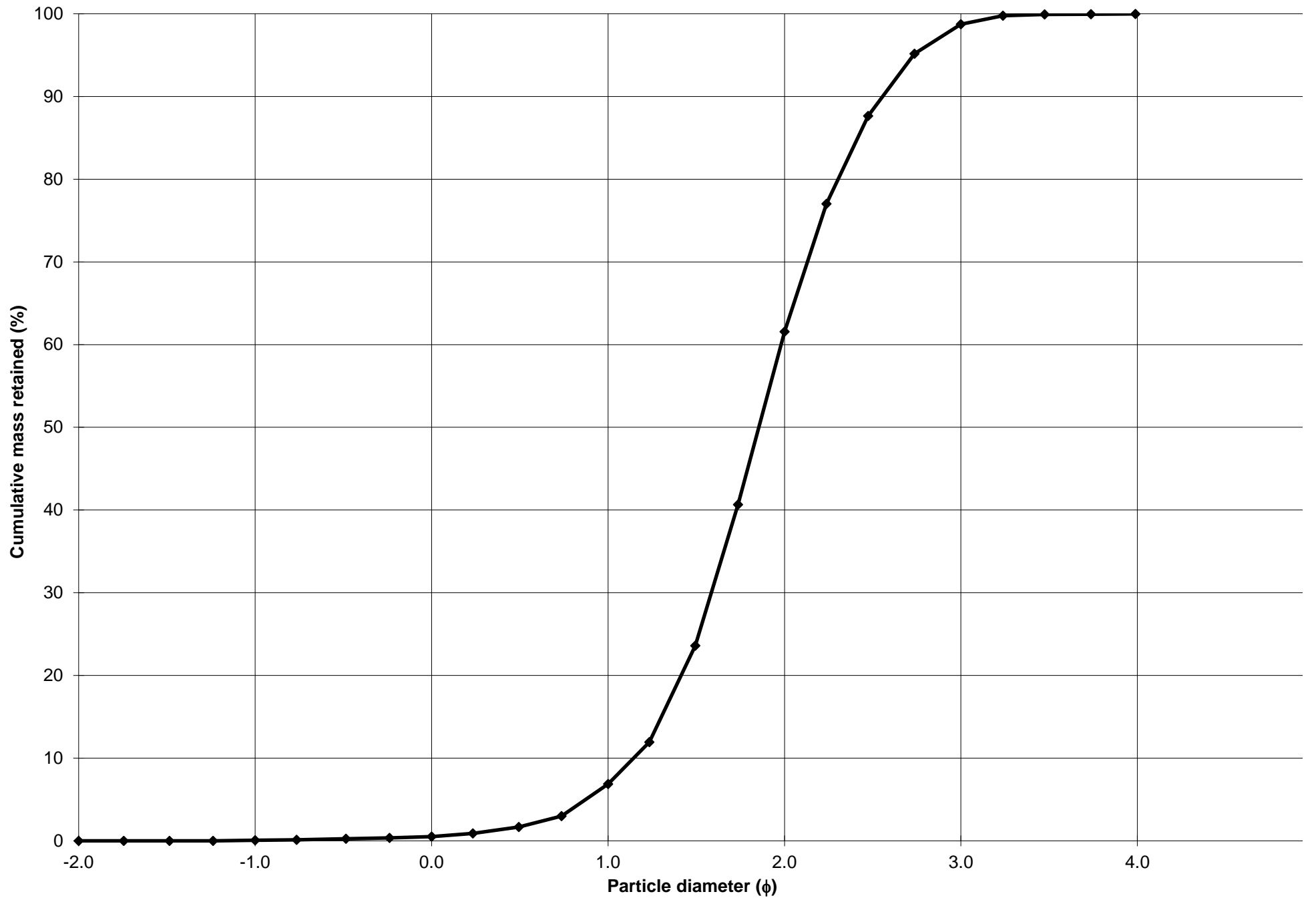
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.1%	COARSE SAND: 6.4%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 54.7%		
MODE 3:			MUD: 0.0%	FINE SAND: 37.2%		
D ₁₀ :	170.0	1.145		V FINE SAND: 1.2%		
MEDIAN or D ₅₀ :	276.5	1.855	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	452.2	2.556	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.660	2.233	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	282.2	1.412	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.616	1.458	V FINE GRAVEL: 0.1%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	133.5	0.693	V COARSE SAND: 0.5%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	304.6	279.1	1.841	275.9	1.858	Medium Sand
SORTING (σ):	149.0	1.484	0.569	1.463	0.549	Moderately Well Sorted
SKEWNESS (Sk):	3.932	0.364	-0.364	0.024	-0.024	Symmetrical
KURTOSIS (K):	34.69	5.314	5.314	1.099	1.099	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 160 cm**

ANALYST & DATE: Stephen Fabian, 2/7/15

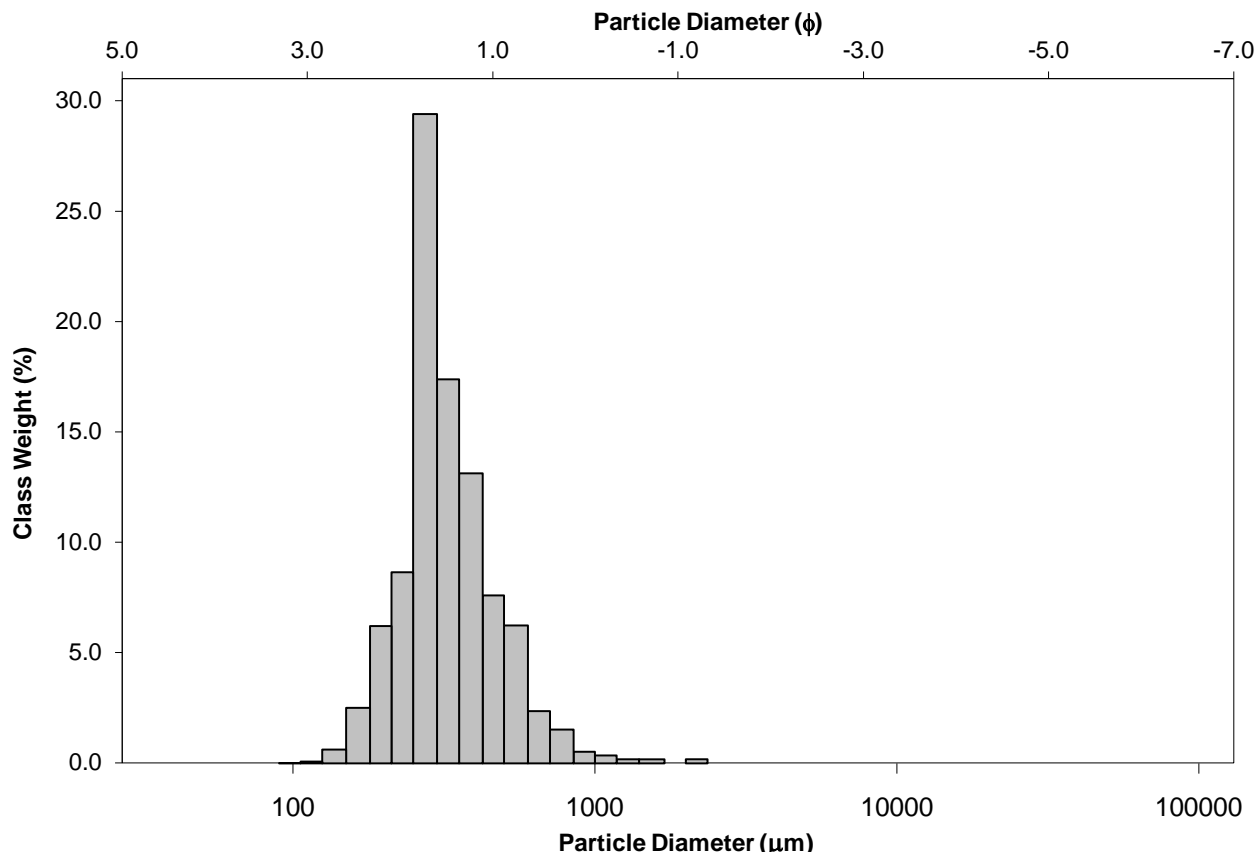
SAMPLE TYPE: Unimodal, Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

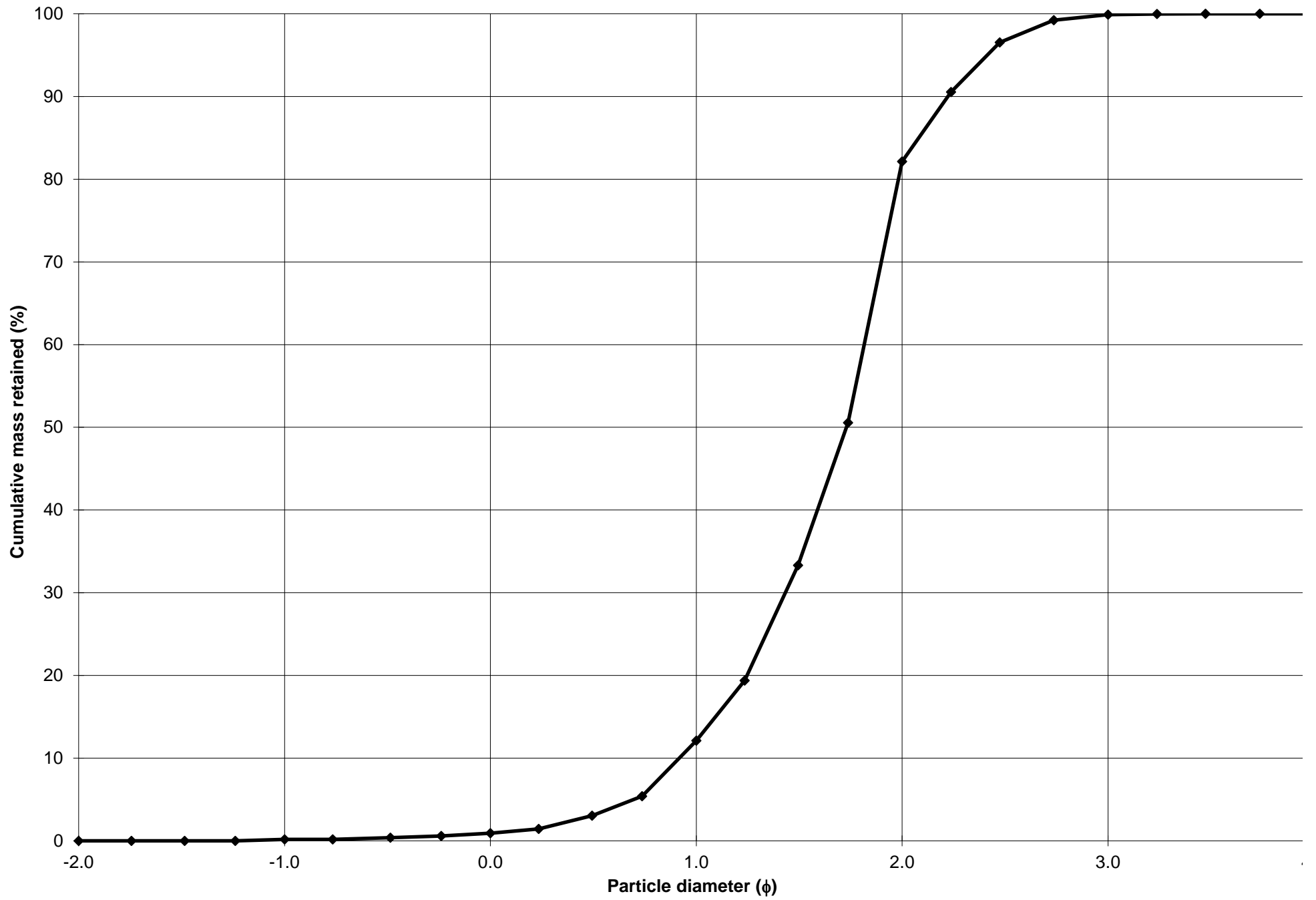
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.2%	COARSE SAND: 11.2%		
MODE 2:			SAND: 99.8%	MEDIUM SAND: 70.0%		
MODE 3:			MUD: 0.0%	FINE SAND: 17.8%		
D_{10} :	214.3	0.917		V FINE SAND: 0.1%		
MEDIAN or D_{50} :	301.6	1.729	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	529.5	2.223	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.471	2.423	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	315.2	1.305	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.517	1.449	V FINE GRAVEL: 0.2%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	134.8	0.601	V COARSE SAND: 0.7%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	351.0	323.9	1.627	321.8	1.636	Medium Sand
SORTING (σ):	170.6	1.443	0.529	1.407	0.492	Well Sorted
SKEWNESS (Sk):	4.123	0.886	-0.886	0.253	-0.253	Coarse Skewed
KURTOSIS (K):	33.89	5.202	5.202	1.171	1.171	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 170 cm**

ANALYST & DATE: Stephen Fabian, 2/7/15

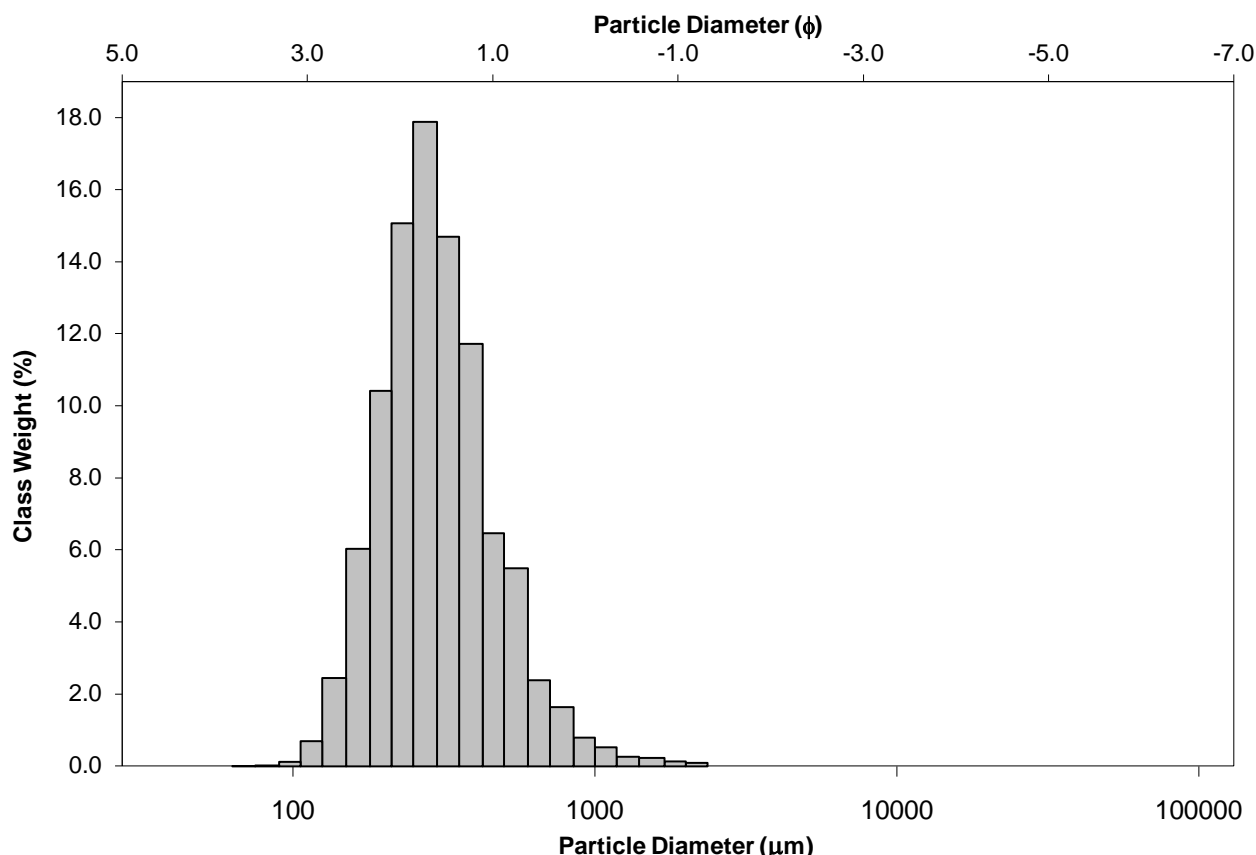
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

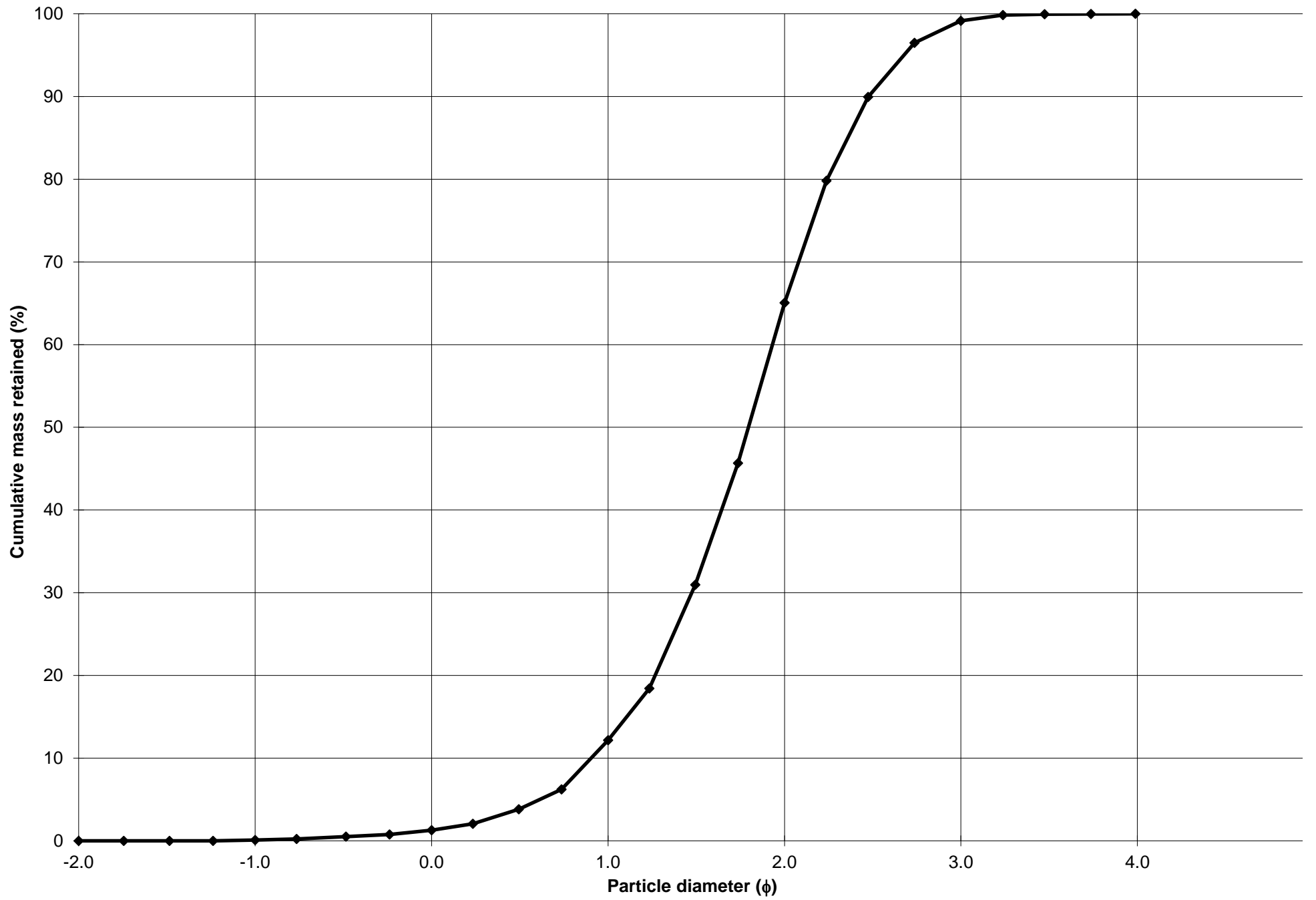
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.1%	COARSE SAND: 10.9%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 52.9%		
MODE 3:			MUD: 0.0%	FINE SAND: 34.1%		
D_{10} :	179.8	0.904		V FINE SAND: 0.8%		
MEDIAN or D_{50} :	288.0	1.796	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	534.3	2.476	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.973	2.738	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	354.6	1.572	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.729	1.576	V FINE GRAVEL: 0.1%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	163.0	0.790	V COARSE SAND: 1.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	335.8	300.5	1.734	295.6	1.758	Medium Sand
SORTING (σ):	190.1	1.550	0.633	1.527	0.611	Moderately Well Sorted
SKEWNESS (Sk):	3.430	0.640	-0.640	0.120	-0.120	Coarse Skewed
KURTOSIS (K):	23.02	4.376	4.376	1.071	1.071	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 180 cm**

ANALYST & DATE: Stephen Fabian, 2/8/15

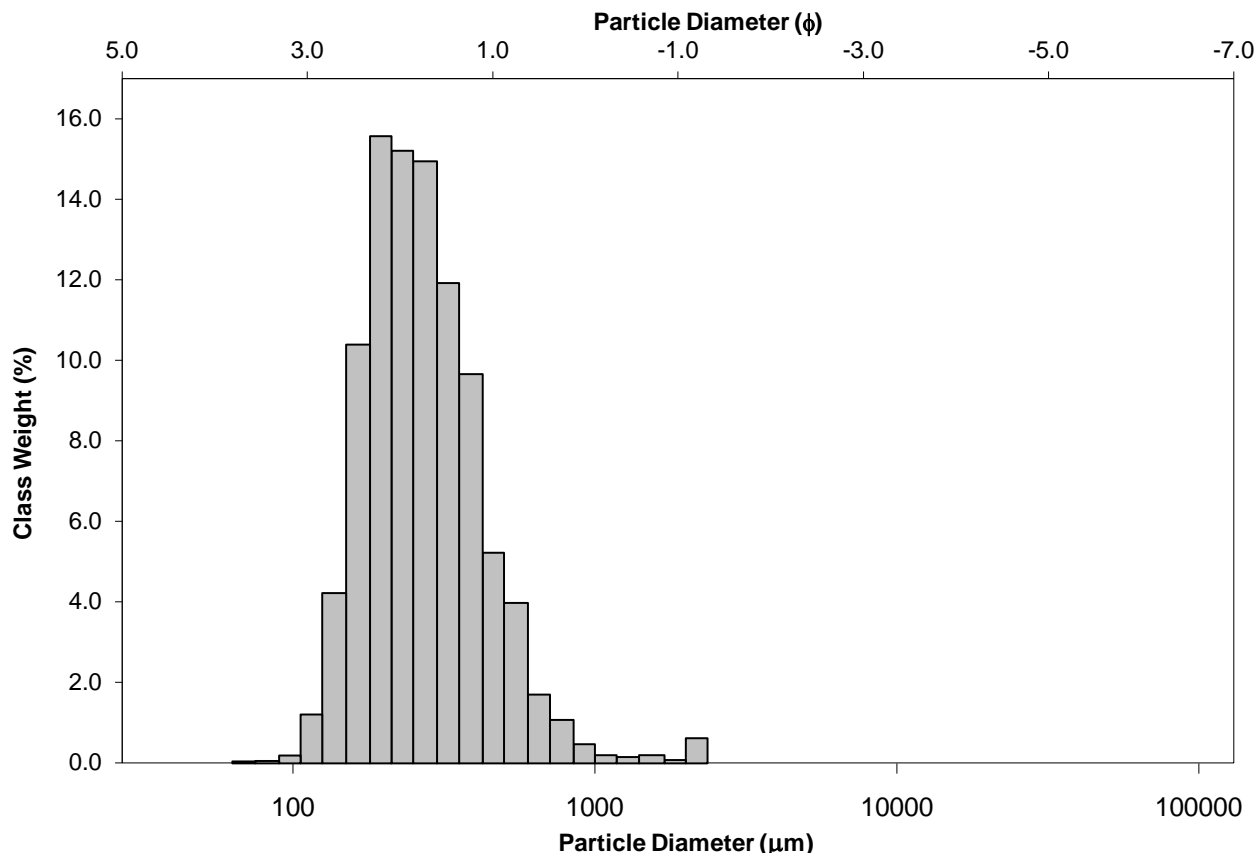
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

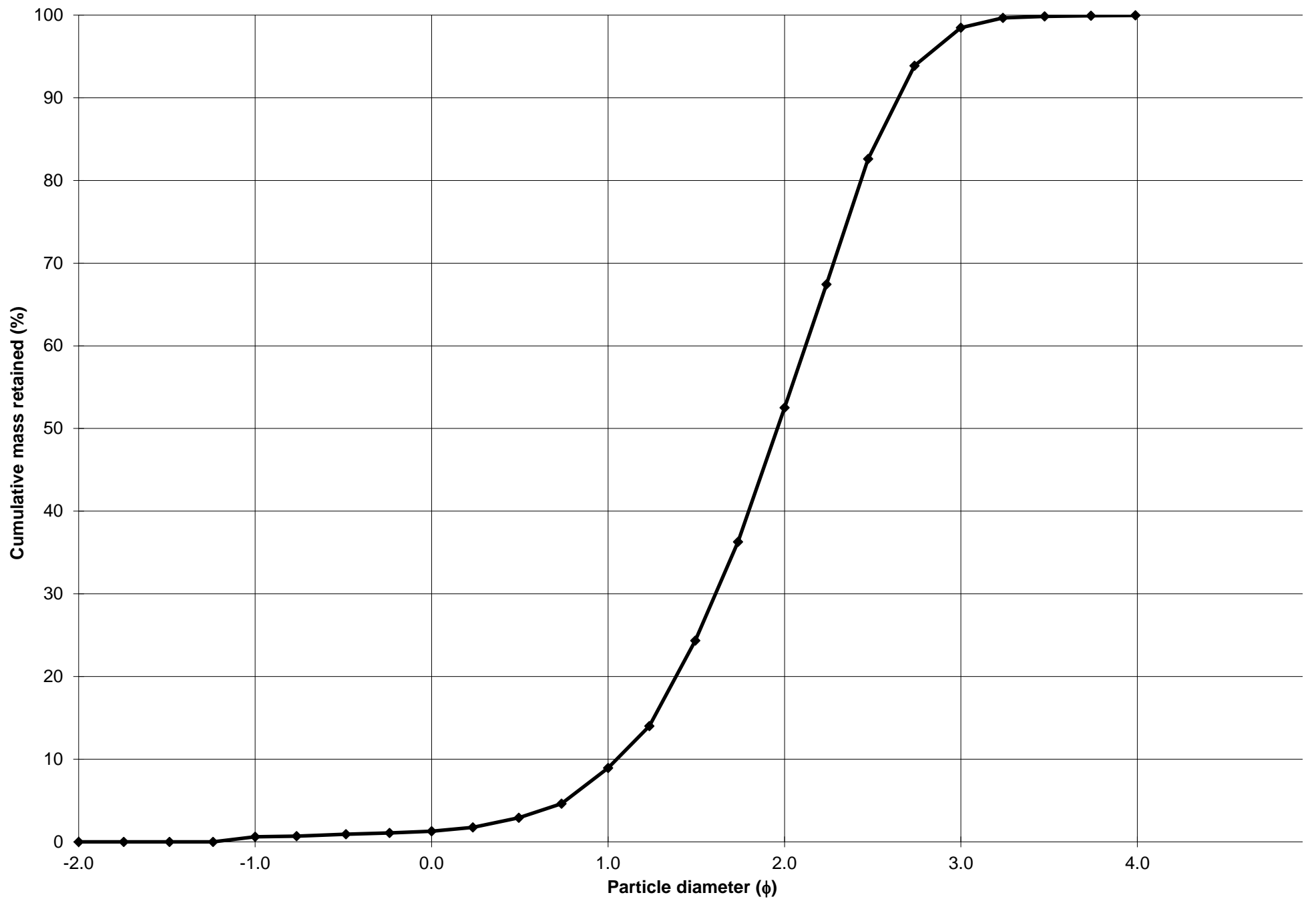
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.6%	COARSE SAND: 7.6%		
MODE 2:			SAND: 99.3%	MEDIUM SAND: 43.6%		
MODE 3:			MUD: 0.0%	FINE SAND: 46.0%		
D_{10} :	159.7	1.049		V FINE SAND: 1.5%		
MEDIAN or D_{50} :	257.2	1.959	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	483.3	2.646	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.026	2.522	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	323.5	1.597	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.800	1.563	V FINE GRAVEL: 0.6%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	156.4	0.848	V COARSE SAND: 0.7%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	309.3	270.6	1.886	264.8	1.917	Medium Sand
SORTING (σ):	219.0	1.594	0.673	1.531	0.615	Moderately Well Sorted
SKEWNESS (Sk):	5.048	0.844	-0.844	0.140	-0.140	Coarse Skewed
KURTOSIS (K):	38.92	6.390	6.390	0.986	0.986	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 190 cm**

ANALYST & DATE: Stephen Fabian, 2/8/15

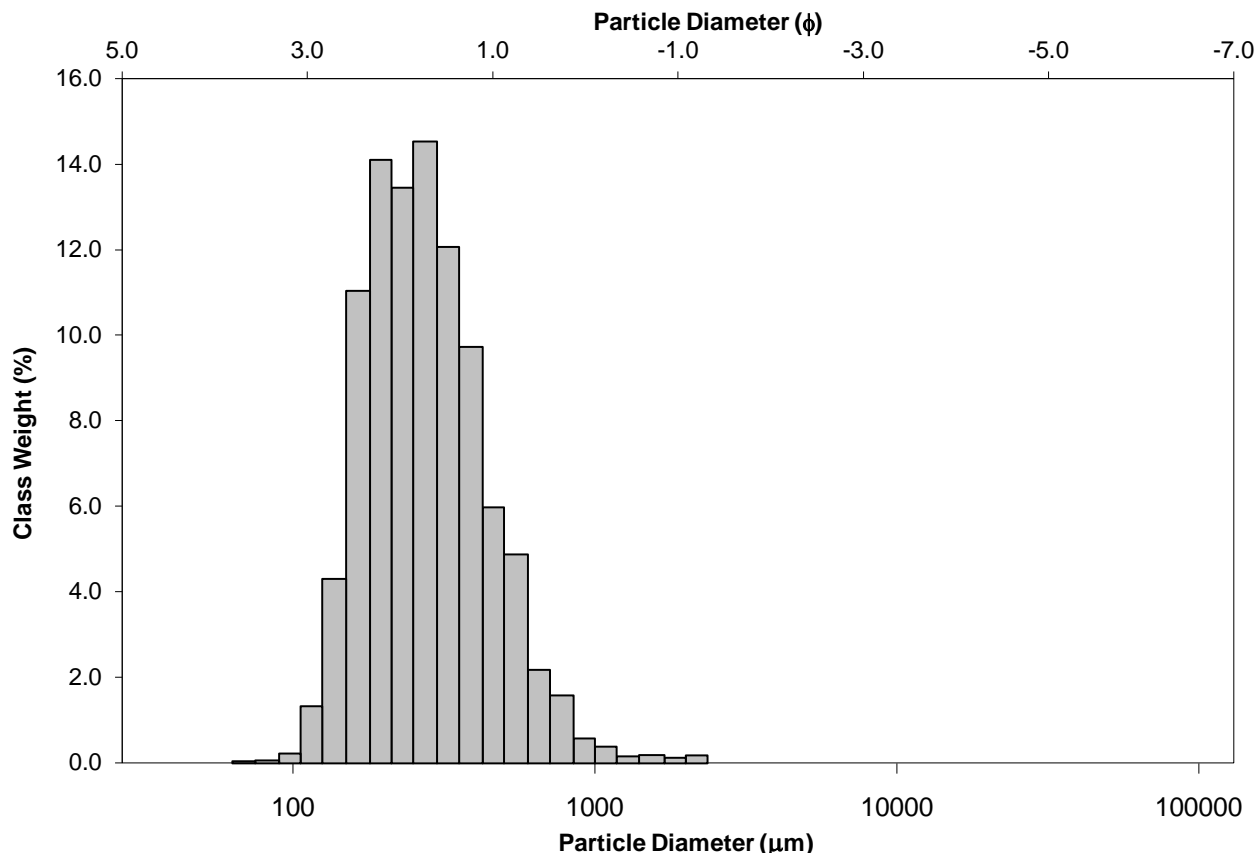
SAMPLE TYPE: Bimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

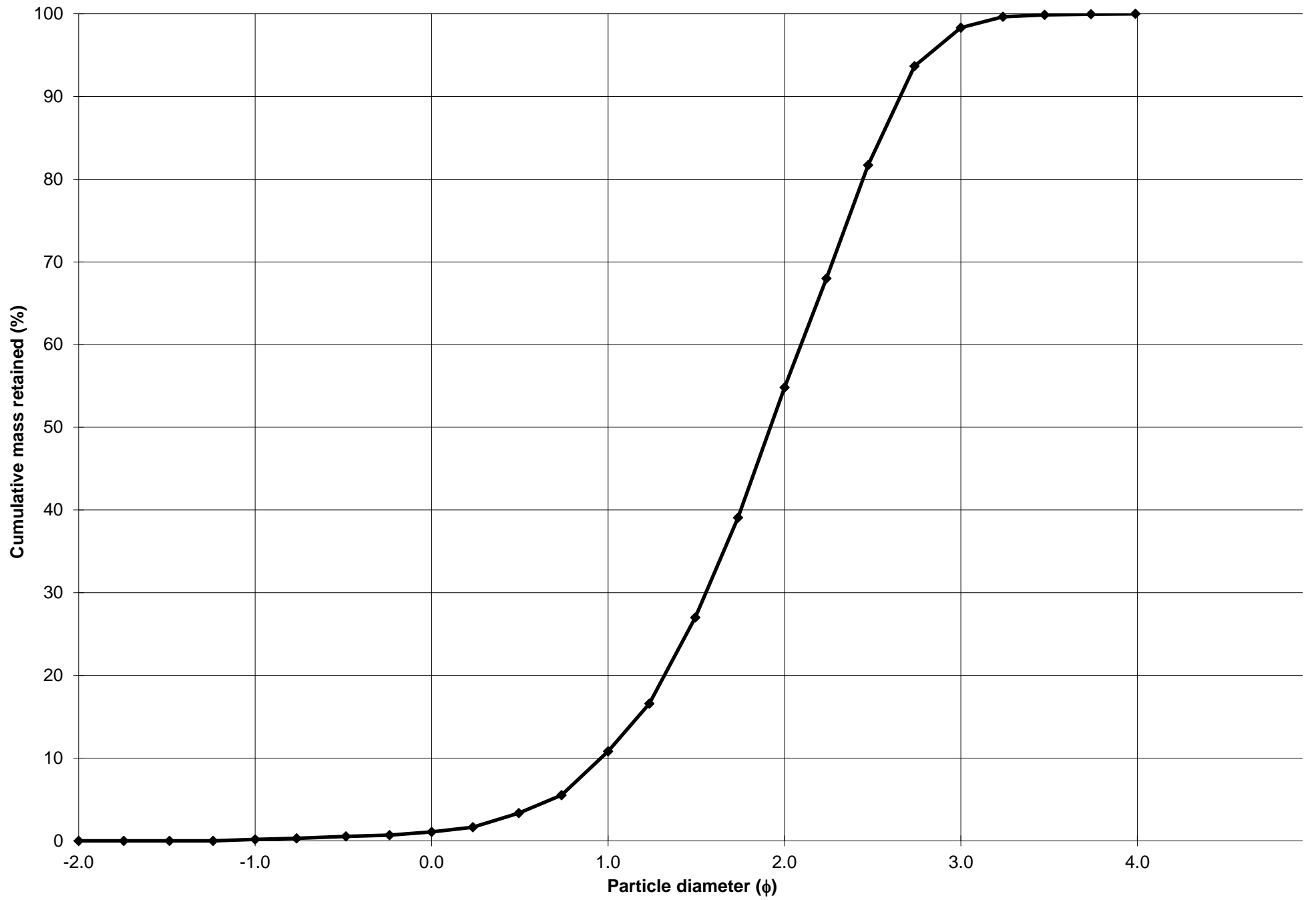
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.2%	COARSE SAND: 9.7%		
MODE 2:	196.0	2.356	SAND: 99.8%	MEDIUM SAND: 44.0%		
MODE 3:			MUD: 0.0%	FINE SAND: 43.5%		
D_{10} :	158.6	0.959		V FINE SAND: 1.7%		
MEDIAN or D_{50} :	264.3	1.920	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	514.3	2.656	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.243	2.769	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	355.7	1.697	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.885	1.633	V FINE GRAVEL: 0.2%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	172.5	0.914	V COARSE SAND: 0.9%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	313.4	275.9	1.858	270.8	1.885	Medium Sand
SORTING (σ):	194.2	1.599	0.677	1.571	0.652	Moderately Well Sorted
SKEWNESS (Sk):	3.798	0.641	-0.641	0.121	-0.121	Coarse Skewed
KURTOSIS (K):	27.91	4.275	4.275	0.957	0.957	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 200 cm**

ANALYST & DATE: Stephen Fabian, 2/8/15

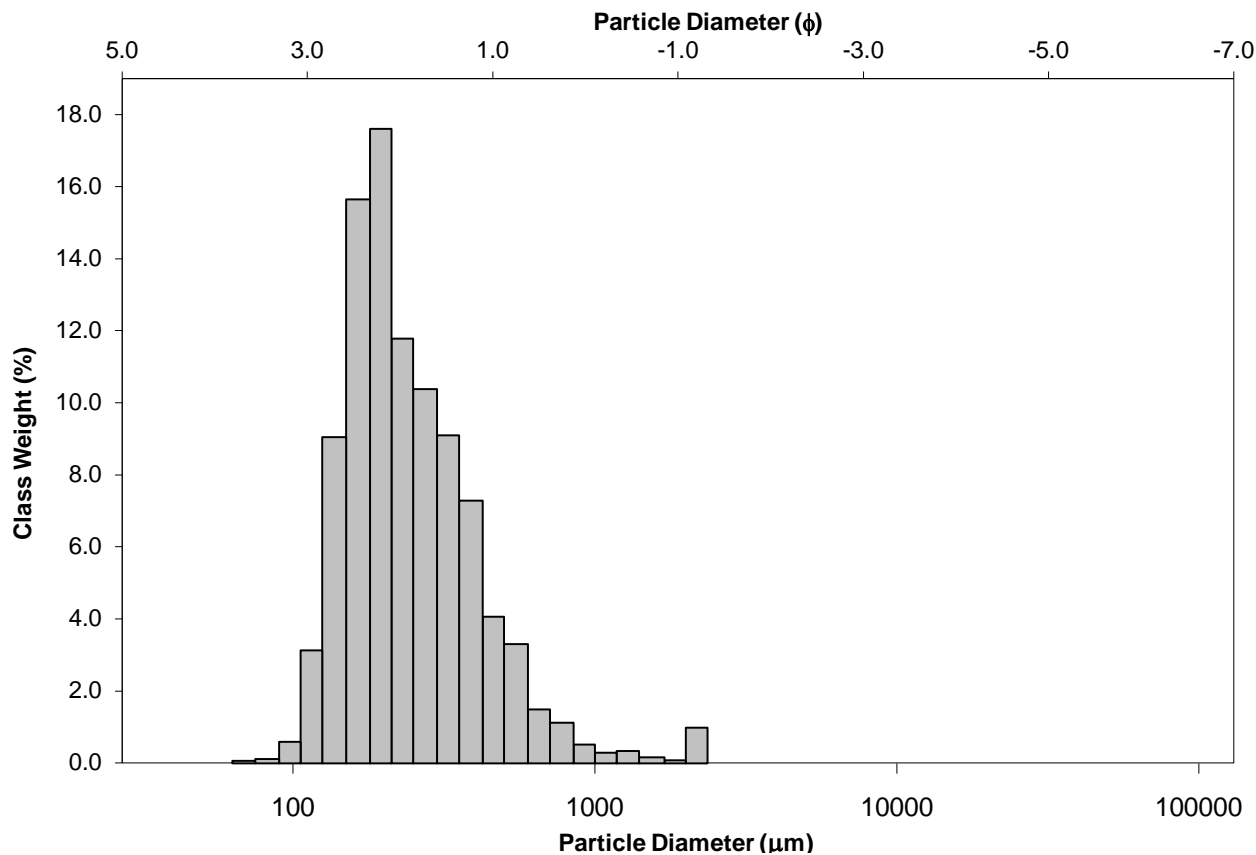
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

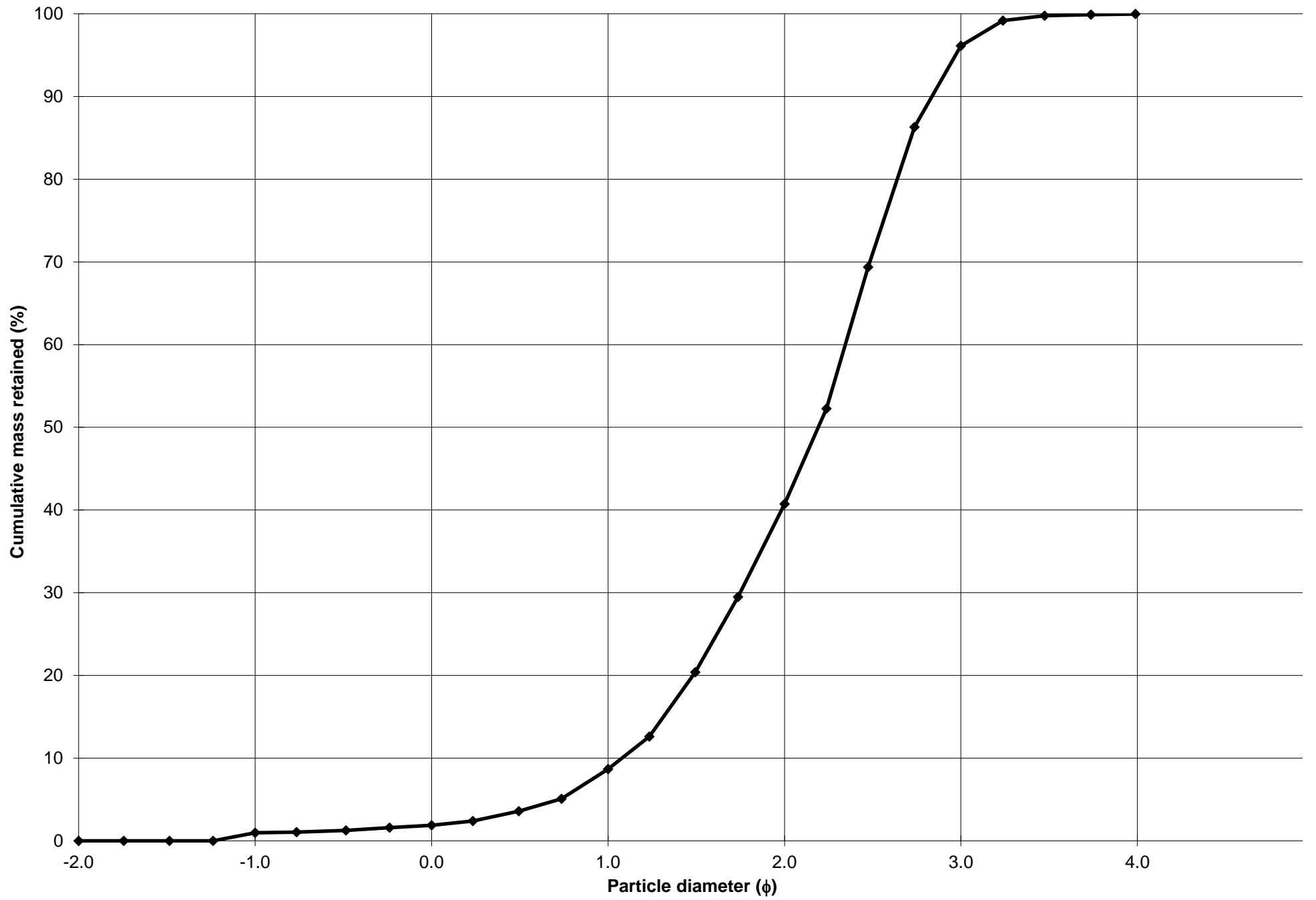
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 1.0%	COARSE SAND: 6.8%		
MODE 2:			SAND: 99.0%	MEDIUM SAND: 32.1%		
MODE 3:			MUD: 0.0%	FINE SAND: 55.4%		
D_{10} :	140.1	1.079		V FINE SAND: 3.9%		
MEDIAN or D_{50} :	219.0	2.191	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	473.3	2.836	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.380	2.628	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	333.3	1.757	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.924	1.584	V FINE GRAVEL: 1.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	156.6	0.944	V COARSE SAND: 0.9%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	292.1	244.3	2.033	236.5	2.080	Fine Sand
SORTING (σ):	254.4	1.689	0.756	1.601	0.679	Moderately Well Sorted
SKEWNESS (Sk):	4.891	1.138	-1.138	0.277	-0.277	Coarse Skewed
KURTOSIS (K):	33.44	6.062	6.062	0.976	0.976	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 210 cm**

ANALYST & DATE: Stephen Fabian, 2/8/15

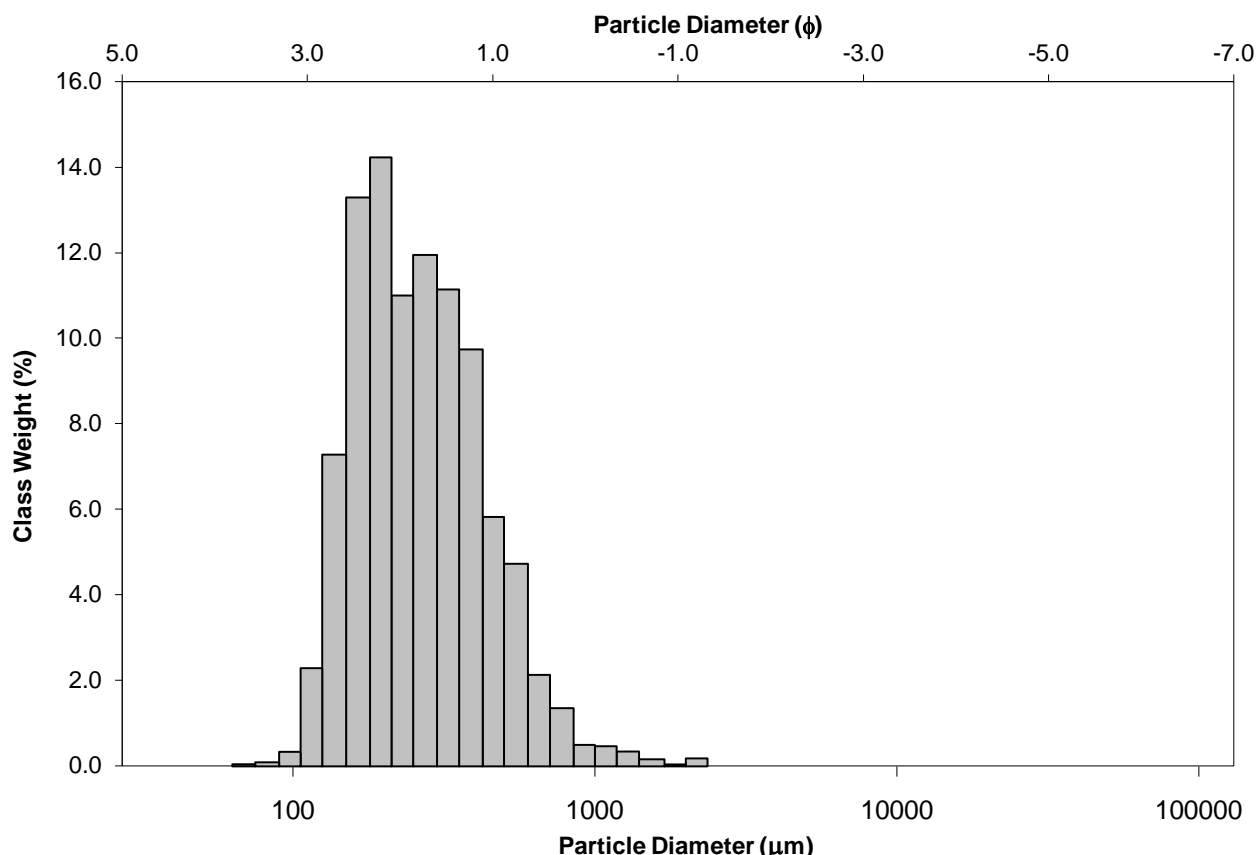
SAMPLE TYPE: Bimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

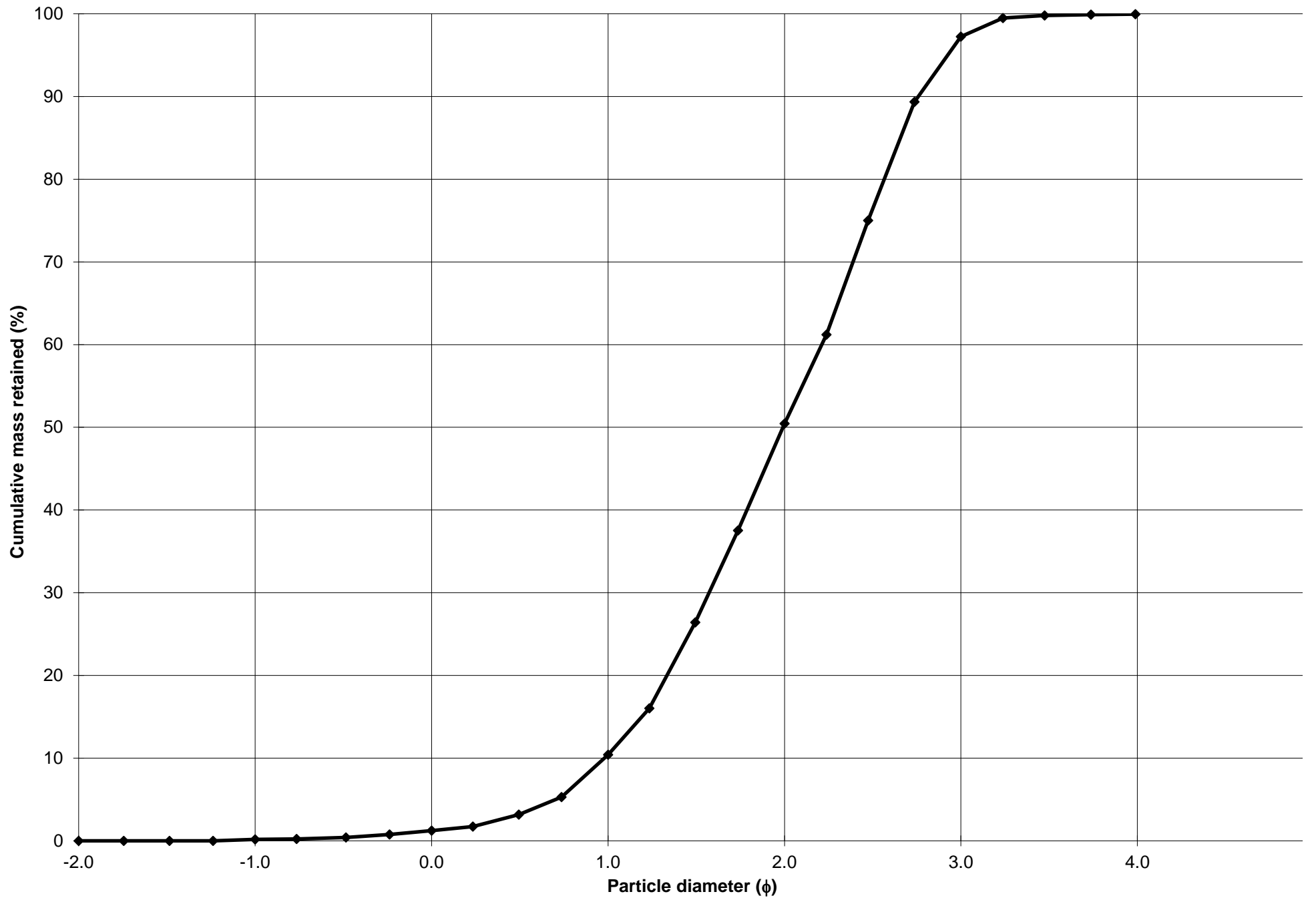
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.2%	COARSE SAND: 9.2%		
MODE 2:	275.0	1.868	SAND: 99.8%	MEDIUM SAND: 40.0%		
MODE 3:			MUD: 0.0%	FINE SAND: 46.8%		
D_{10} :	147.8	0.979		V FINE SAND: 2.7%		
MEDIAN or D_{50} :	251.6	1.991	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	507.4	2.758	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.433	2.818	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	359.6	1.780	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	2.021	1.696	V FINE GRAVEL: 0.2%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	183.8	1.015	V COARSE SAND: 1.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	303.1	263.2	1.926	258.0	1.954	Medium Sand
SORTING (σ):	195.3	1.646	0.719	1.611	0.688	Moderately Well Sorted
SKEWNESS (Sk):	3.578	0.491	-0.491	0.118	-0.118	Coarse Skewed
KURTOSIS (K):	25.56	4.514	4.514	0.897	0.897	Platykurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 220 cm**

ANALYST & DATE: Stephen Fabian, 2/8/15

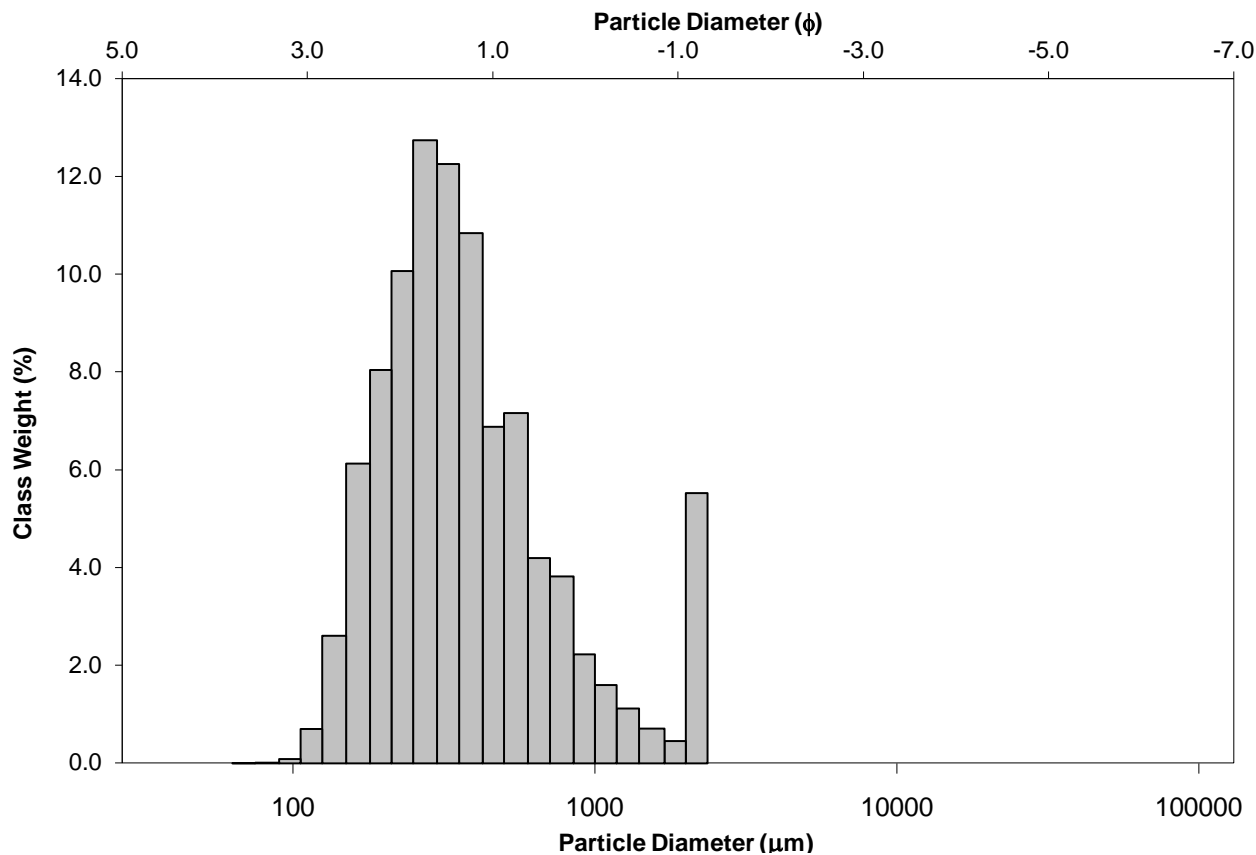
SAMPLE TYPE: Trimodal, Poorly Sorted

TEXTURAL GROUP: Gravelly Sand

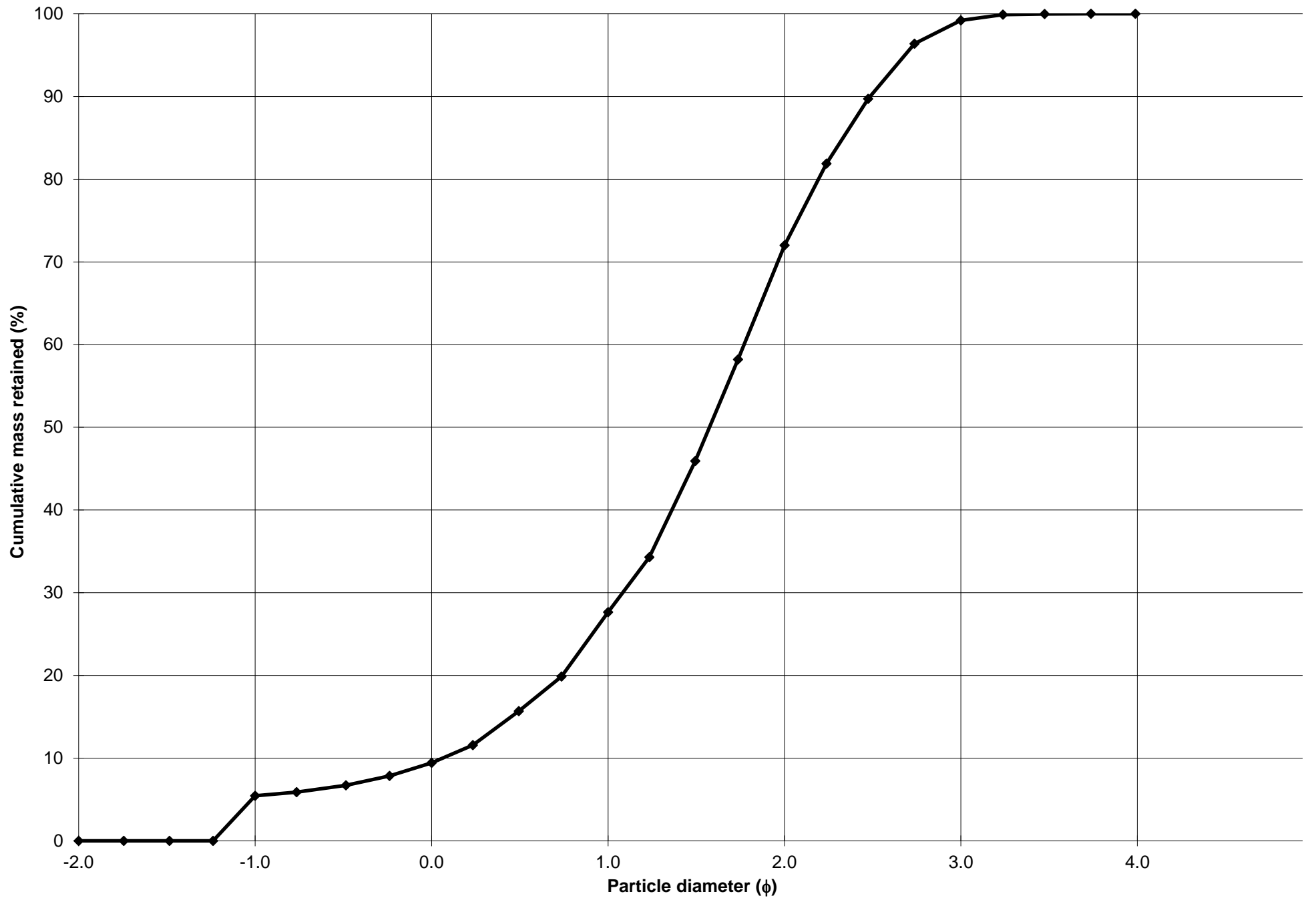
SEDIMENT NAME: Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 5.4%	COARSE SAND: 18.2%		
MODE 2:	550.0	0.868	SAND: 94.6%	MEDIUM SAND: 44.4%		
MODE 3:	2180.0	-1.119	MUD: 0.0%	FINE SAND: 27.2%		
D_{10} :	178.6	0.063		V FINE SAND: 0.8%		
MEDIAN or D_{50} :	335.7	1.575	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	957.6	2.485	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	5.360	39.72	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	778.9	2.422	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	2.237	2.276	V FINE GRAVEL: 5.4%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	294.2	1.162	V COARSE SAND: 4.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	501.8	379.6	1.398	362.7	1.463	Medium Sand
SORTING (σ):	480.2	1.964	0.974	2.011	1.008	Poorly Sorted
SKEWNESS (Sk):	2.511	0.928	-0.928	0.295	-0.295	Coarse Skewed
KURTOSIS (K):	8.780	3.578	3.578	1.306	1.306	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 230 cm**

ANALYST & DATE: Stephen Fabian, 2/8/15

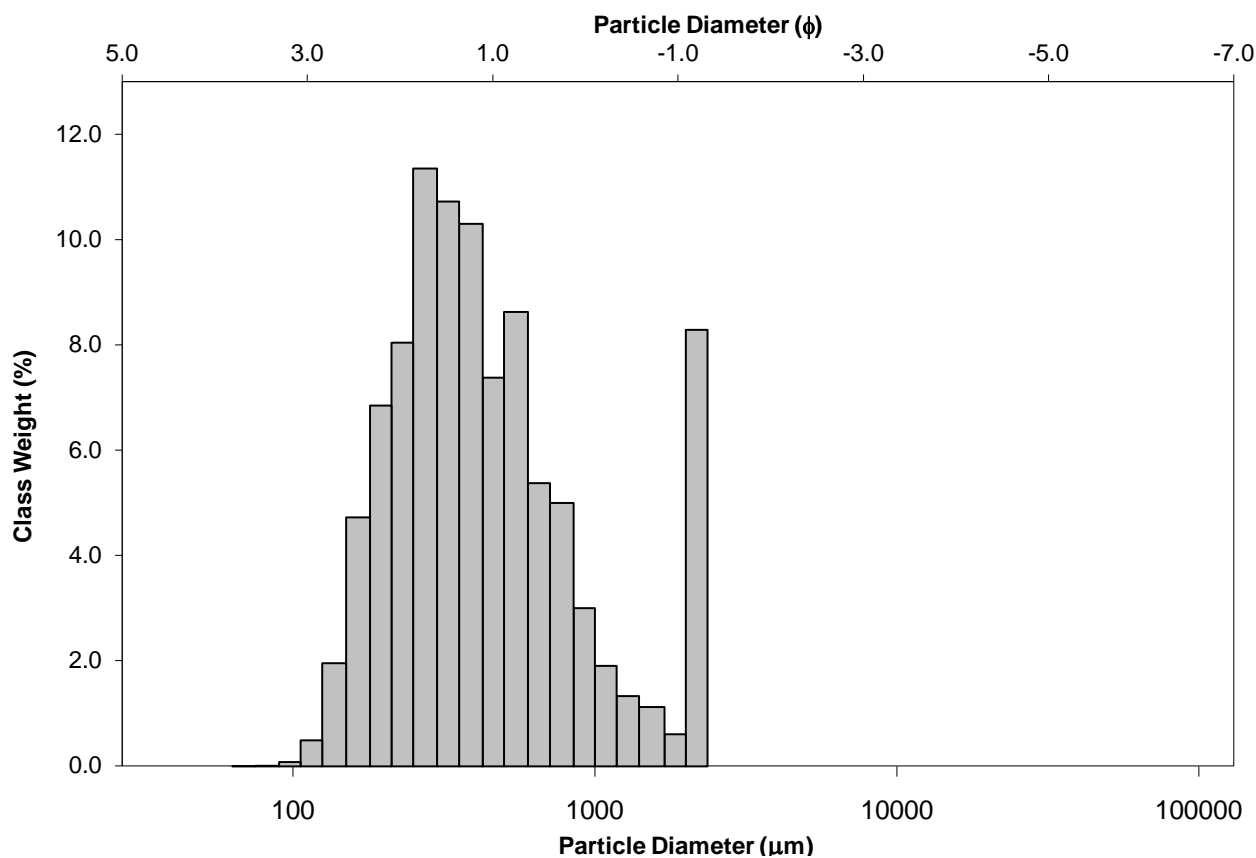
SAMPLE TYPE: Trimodal, Poorly Sorted

TEXTURAL GROUP: Gravelly Sand

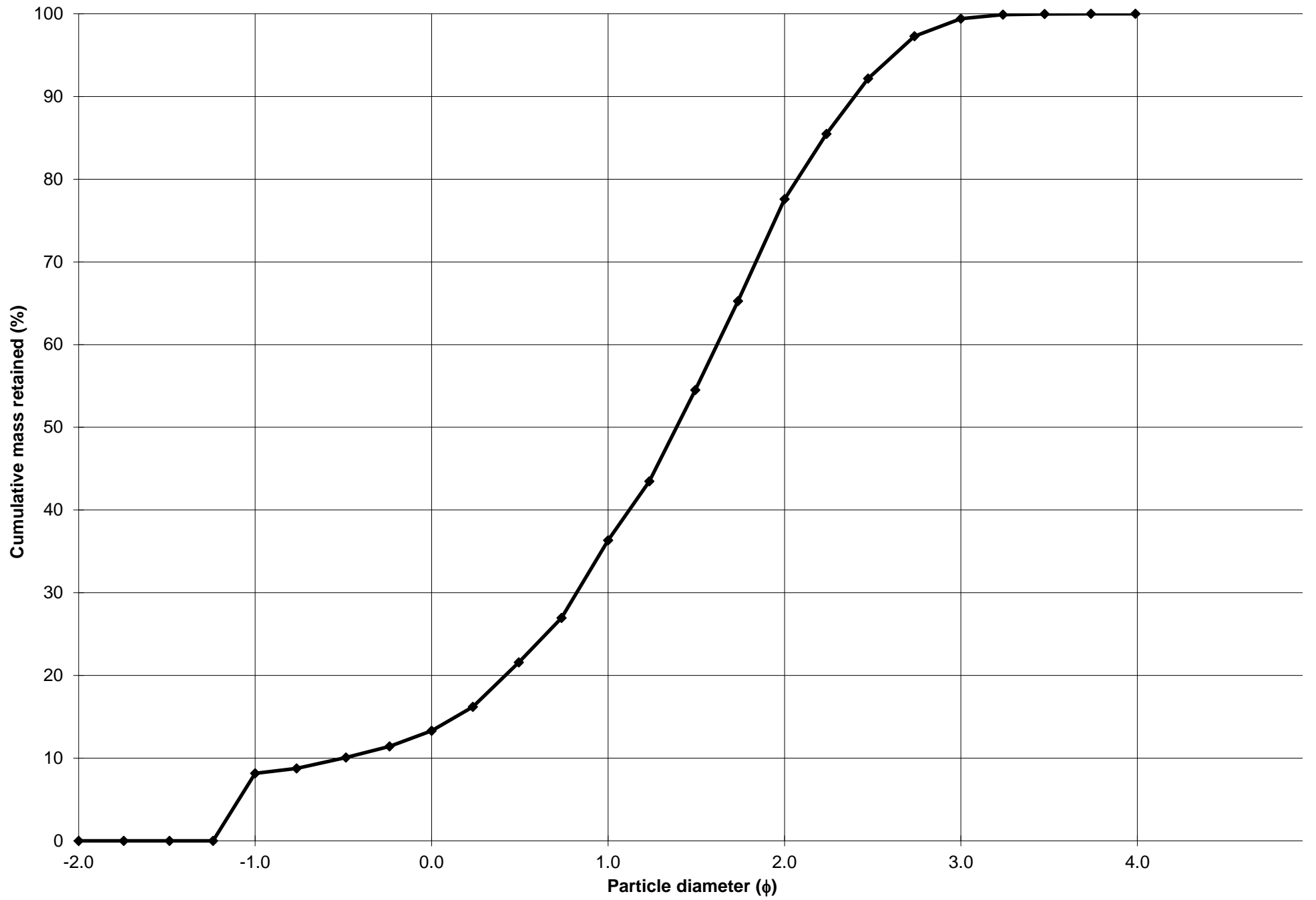
SEDIMENT NAME: Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 8.2%	COARSE SAND: 23.0%		
MODE 2:	550.0	0.868	SAND: 91.8%	MEDIUM SAND: 41.3%		
MODE 3:	2180.0	-1.119	MUD: 0.0%	FINE SAND: 21.8%		
D_{10} :	189.8	-0.499		V FINE SAND: 0.6%		
MEDIAN or D_{50} :	382.1	1.388	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	1413.0	2.398	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	7.446	-4.807	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	1223.2	2.896	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	2.456	2.998	V FINE GRAVEL: 8.2%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	378.1	1.296	V COARSE SAND: 5.1%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	591.3	436.0	1.198	415.7	1.266	Medium Sand
SORTING (σ):	552.8	2.063	1.044	2.080	1.056	Poorly Sorted
SKEWNESS (Sk):	2.000	0.725	-0.725	0.261	-0.261	Coarse Skewed
KURTOSIS (K):	5.986	2.926	2.926	1.174	1.174	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 240 cm**

ANALYST & DATE: Stephen Fabian, 2/8/15

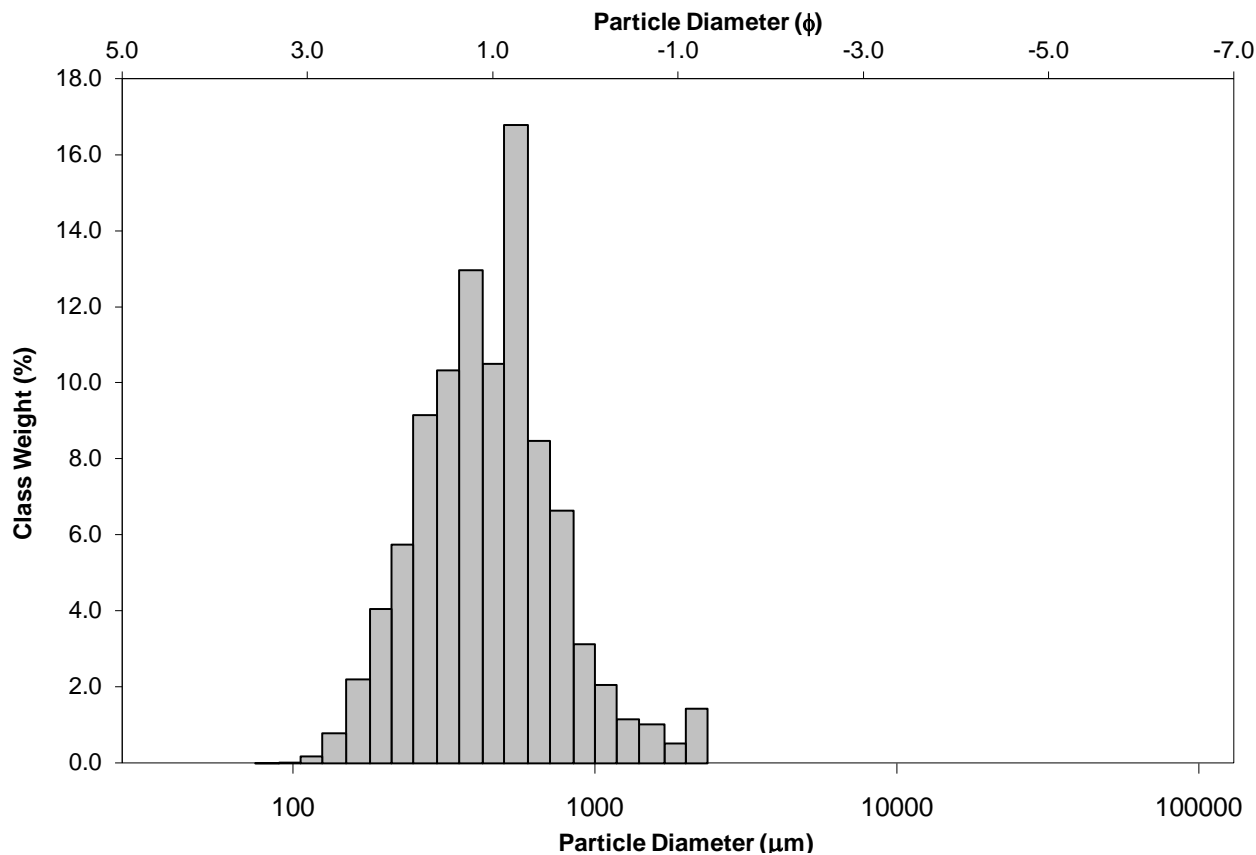
SAMPLE TYPE: Bimodal, Moderately Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

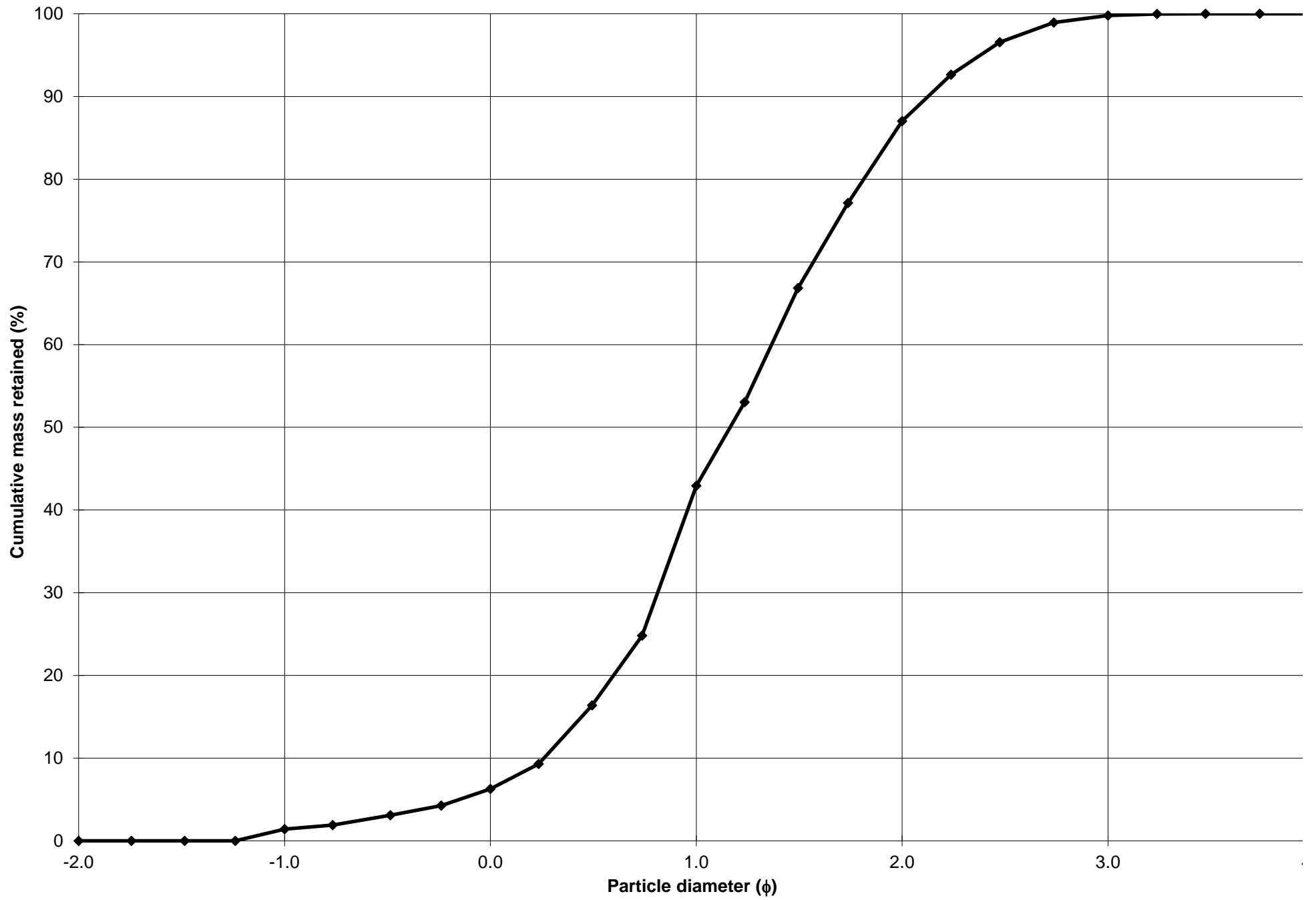
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 1.4%	COARSE SAND: 36.6%		
MODE 2:	390.0	1.364	SAND: 98.6%	MEDIUM SAND: 44.1%		
MODE 3:			MUD: 0.0%	FINE SAND: 12.8%		
D_{10} :	229.0	0.260		V FINE SAND: 0.2%		
MEDIAN or D_{50} :	446.2	1.164	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	834.9	2.126	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.645	8.167	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	605.9	1.866	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.928	2.280	V FINE GRAVEL: 1.4%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	288.2	0.947	V COARSE SAND: 4.9%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	520.9	447.2	1.161	438.9	1.188	Medium Sand
SORTING (σ):	333.1	1.693	0.760	1.674	0.743	Moderately Sorted
SKEWNESS (Sk):	2.557	0.357	-0.357	-0.005	0.005	Symmetrical
KURTOSIS (K):	11.78	3.433	3.433	1.096	1.096	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 260 cm**

ANALYST & DATE: Stephen Fabian, 2/9/15

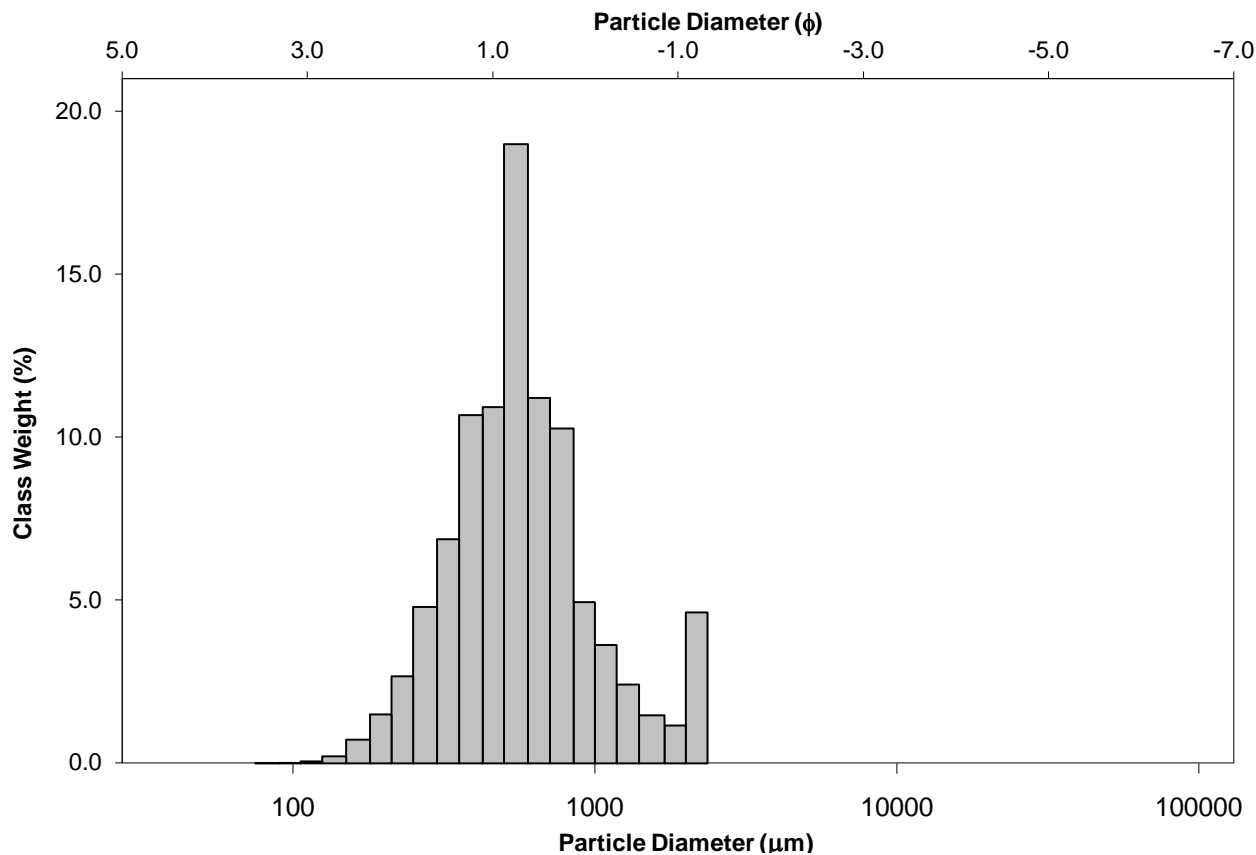
SAMPLE TYPE: Bimodal, Moderately Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

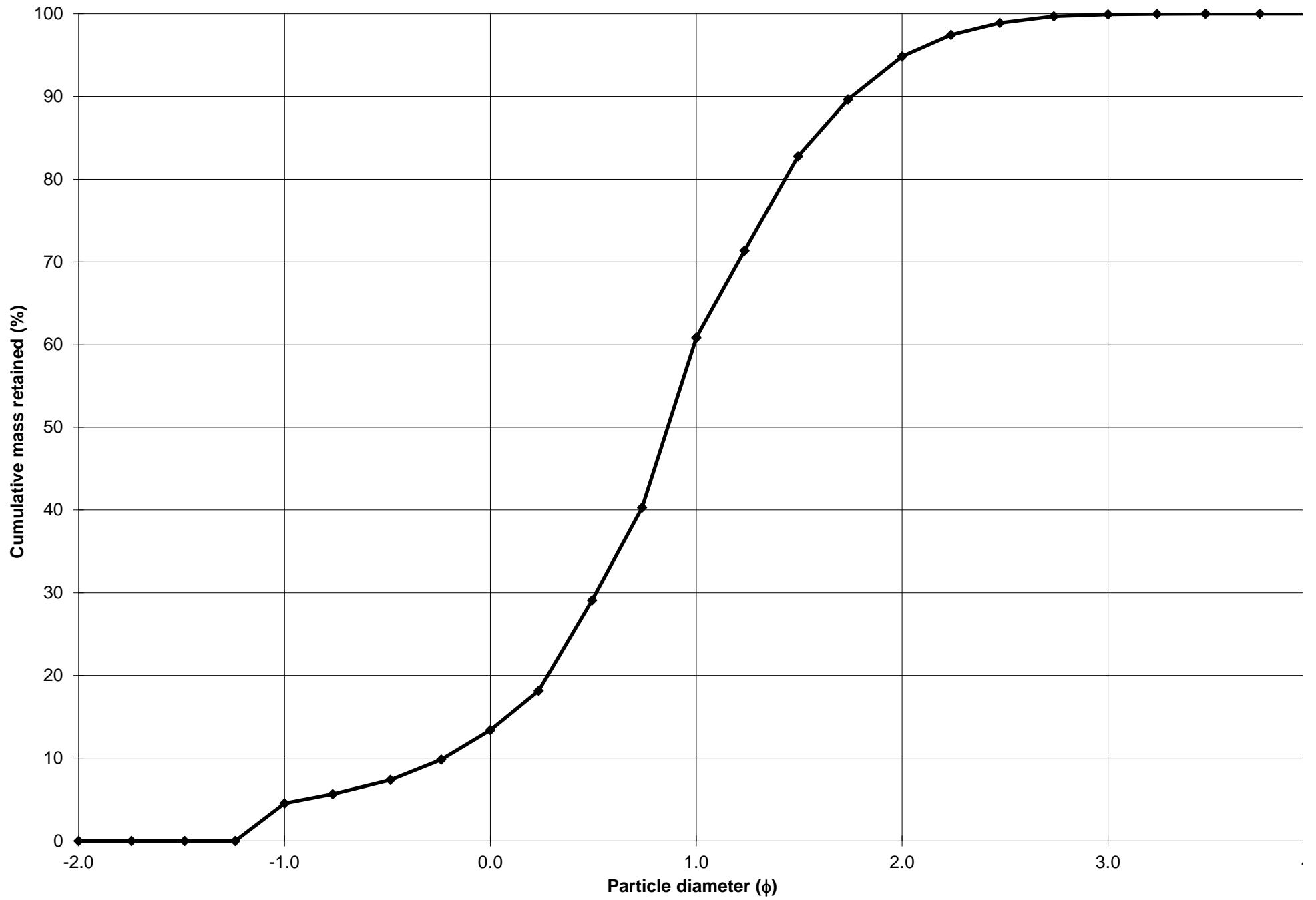
SEDIMENT NAME: Slightly Very Fine Gravelly Coarse Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 4.5%	COARSE SAND: 47.5%		
MODE 2:	2180.0	-1.119	SAND: 95.5%	MEDIUM SAND: 34.0%		
MODE 3:			MUD: 0.0%	FINE SAND: 5.1%		
D_{10} :	296.2	-0.226		V FINE SAND: 0.1%		
MEDIAN or D_{50} :	550.5	0.861	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	1169.8	1.755	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.949	-7.756	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	873.6	1.981	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.892	3.319	V FINE GRAVEL: 4.5%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	358.2	0.920	V COARSE SAND: 8.8%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	673.0	570.8	0.809	557.7	0.843	Coarse Sand
SORTING (σ):	443.1	1.724	0.786	1.735	0.795	Moderately Sorted
SKEWNESS (Sk):	2.058	0.440	-0.440	0.125	-0.125	Coarse Skewed
KURTOSIS (K):	7.175	3.406	3.406	1.301	1.301	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 272 cm**

ANALYST & DATE: Stephen Fabian, 2/9/15

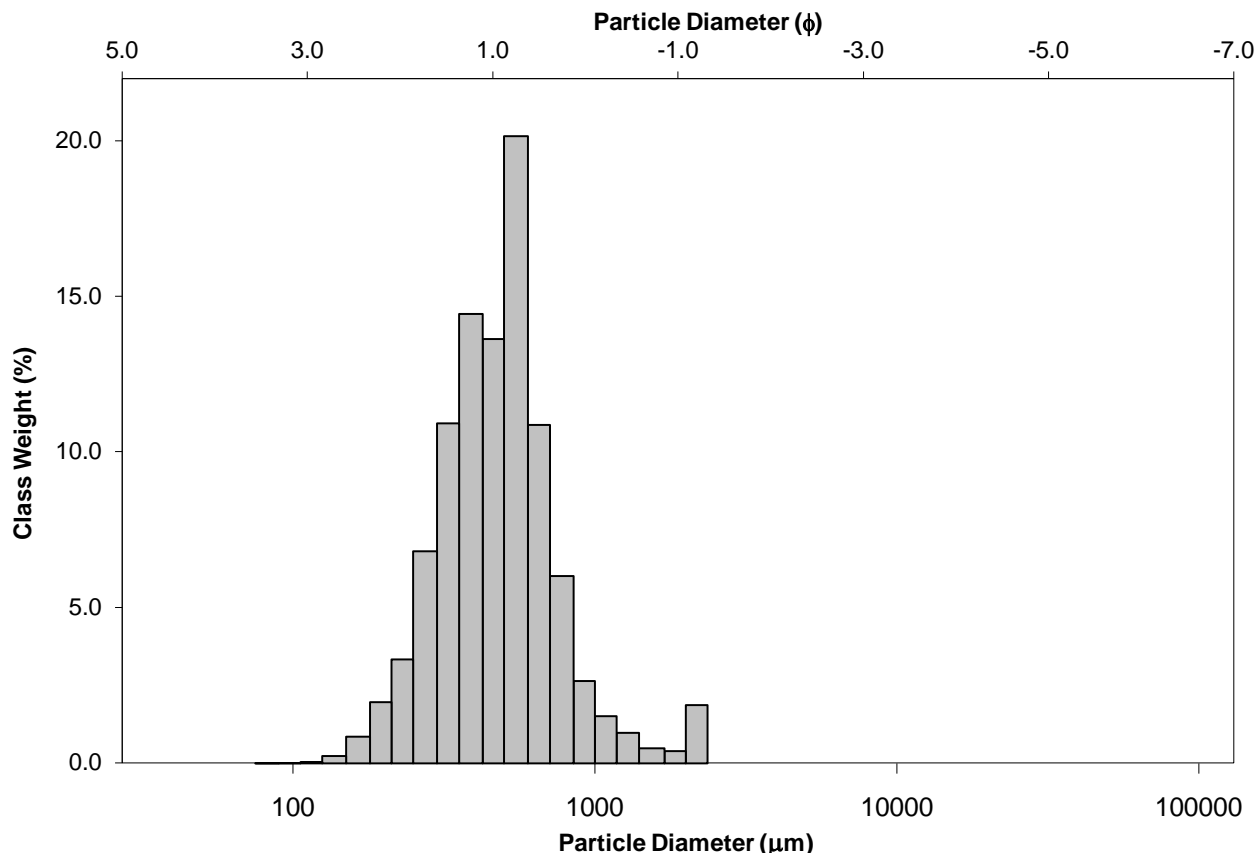
SAMPLE TYPE: Bimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

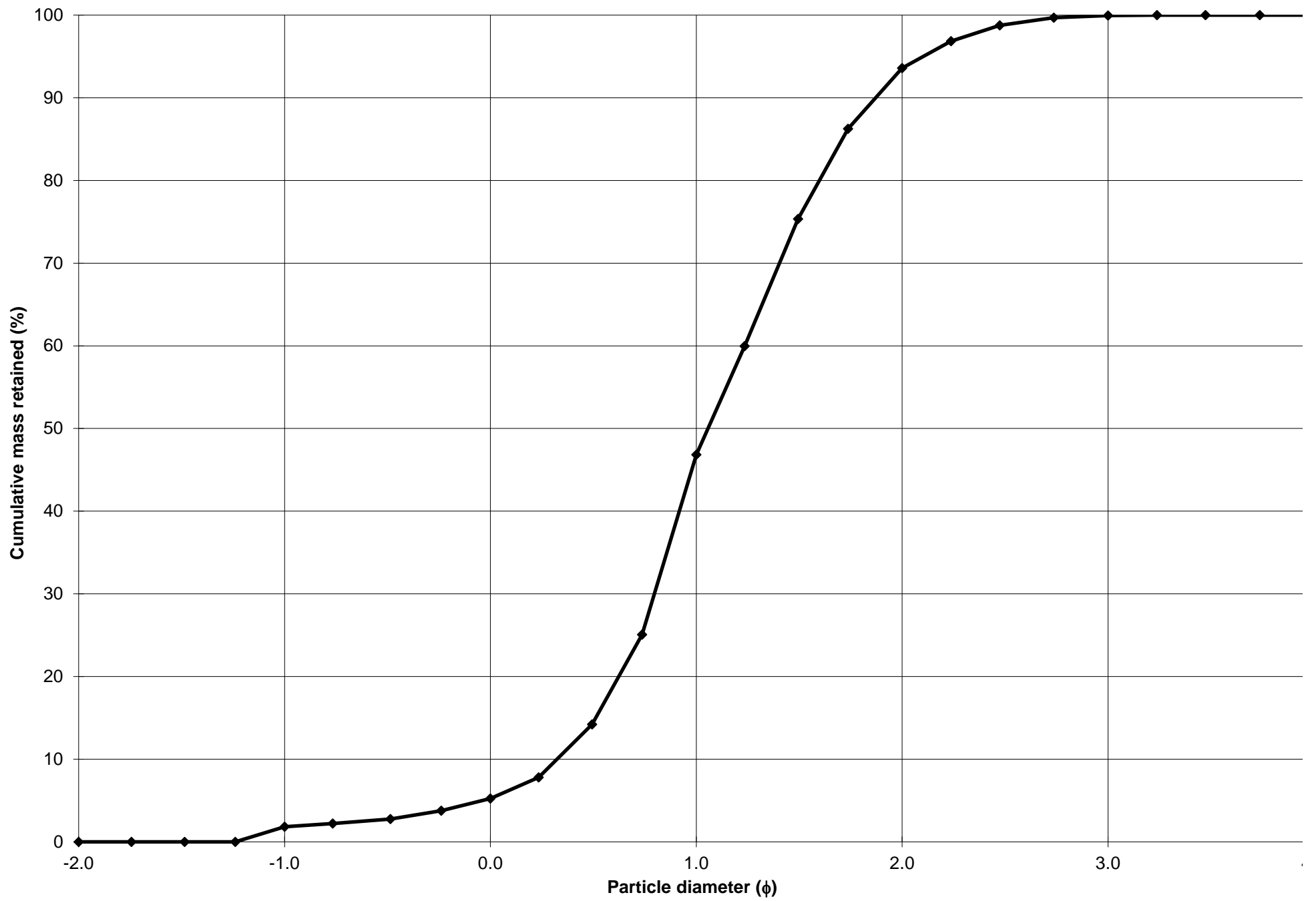
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 1.8%	COARSE SAND: 41.6%		
MODE 2:	390.0	1.364	SAND: 98.2%	MEDIUM SAND: 46.8%		
MODE 3:			MUD: 0.0%	FINE SAND: 6.3%		
D_{10} :	273.3	0.324		V FINE SAND: 0.1%		
MEDIAN or D_{50} :	480.7	1.057	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	799.1	1.871	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.924	5.785	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	525.8	1.548	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.685	2.023	V FINE GRAVEL: 1.8%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	244.1	0.753	V COARSE SAND: 3.4%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	538.9	477.4	1.067	468.9	1.093	Medium Sand
SORTING (σ):	319.5	1.583	0.663	1.529	0.613	Moderately Well Sorted
SKEWNESS (Sk):	3.044	0.563	-0.563	-0.035	0.035	Symmetrical
KURTOSIS (K):	15.06	4.439	4.439	1.167	1.167	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 280 cm**

ANALYST & DATE: Stephen Fabian, 2/9/15

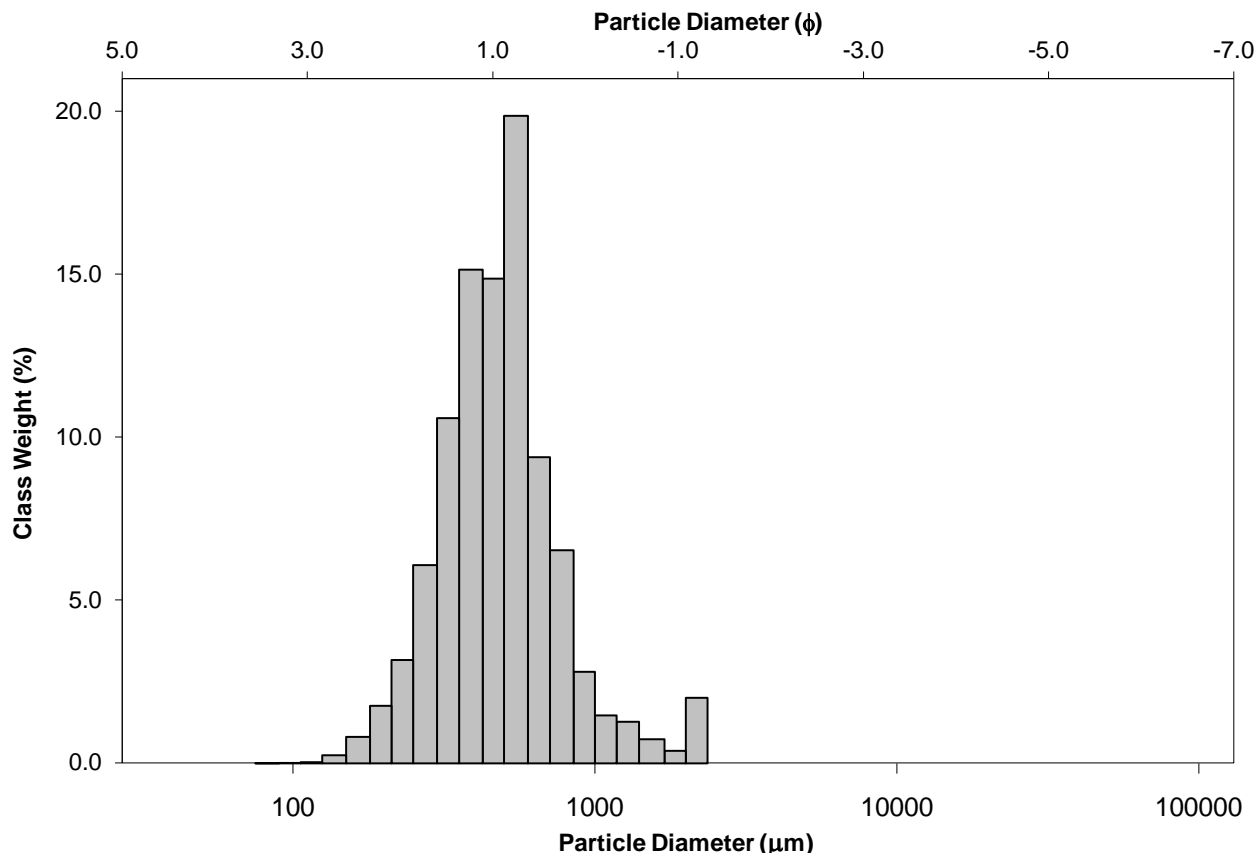
SAMPLE TYPE: Bimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

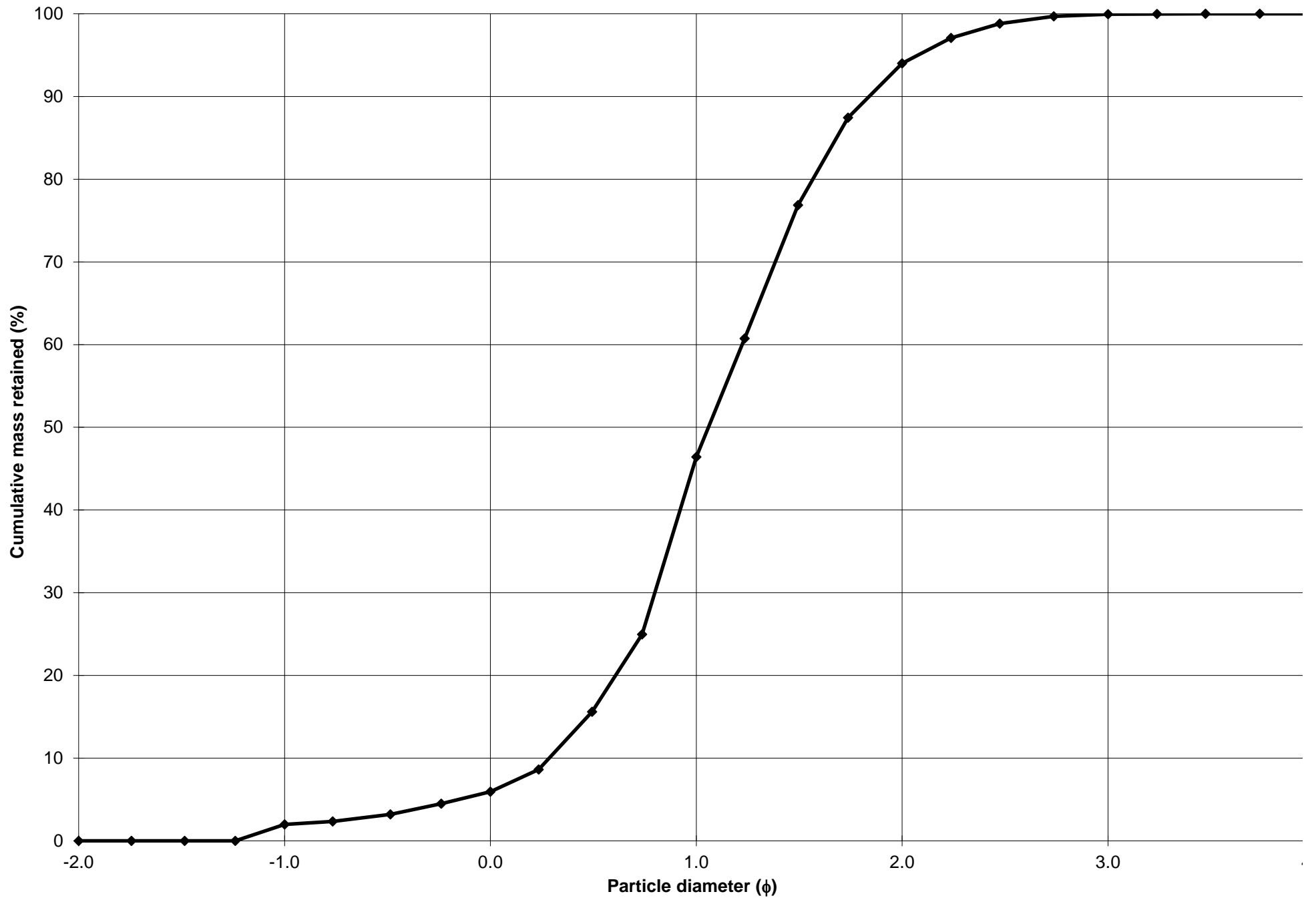
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 2.0%	COARSE SAND: 40.5%		
MODE 2:	390.0	1.364	SAND: 98.0%	MEDIUM SAND: 47.6%		
MODE 3:			MUD: 0.0%	FINE SAND: 6.0%		
D_{10} :	279.3	0.285		V FINE SAND: 0.1%		
MEDIAN or D_{50} :	480.0	1.059	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	820.5	1.840	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.938	6.446	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	541.2	1.555	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.655	1.985	V FINE GRAVEL: 2.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	237.3	0.727	V COARSE SAND: 4.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	548.3	484.0	1.047	475.1	1.074	Medium Sand
SORTING (σ):	331.0	1.591	0.670	1.544	0.626	Moderately Well Sorted
SKEWNESS (Sk):	2.944	0.619	-0.619	0.024	-0.024	Symmetrical
KURTOSIS (K):	13.88	4.452	4.452	1.258	1.258	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 290 cm**

ANALYST & DATE: Stephen Fabian, 2/9/15

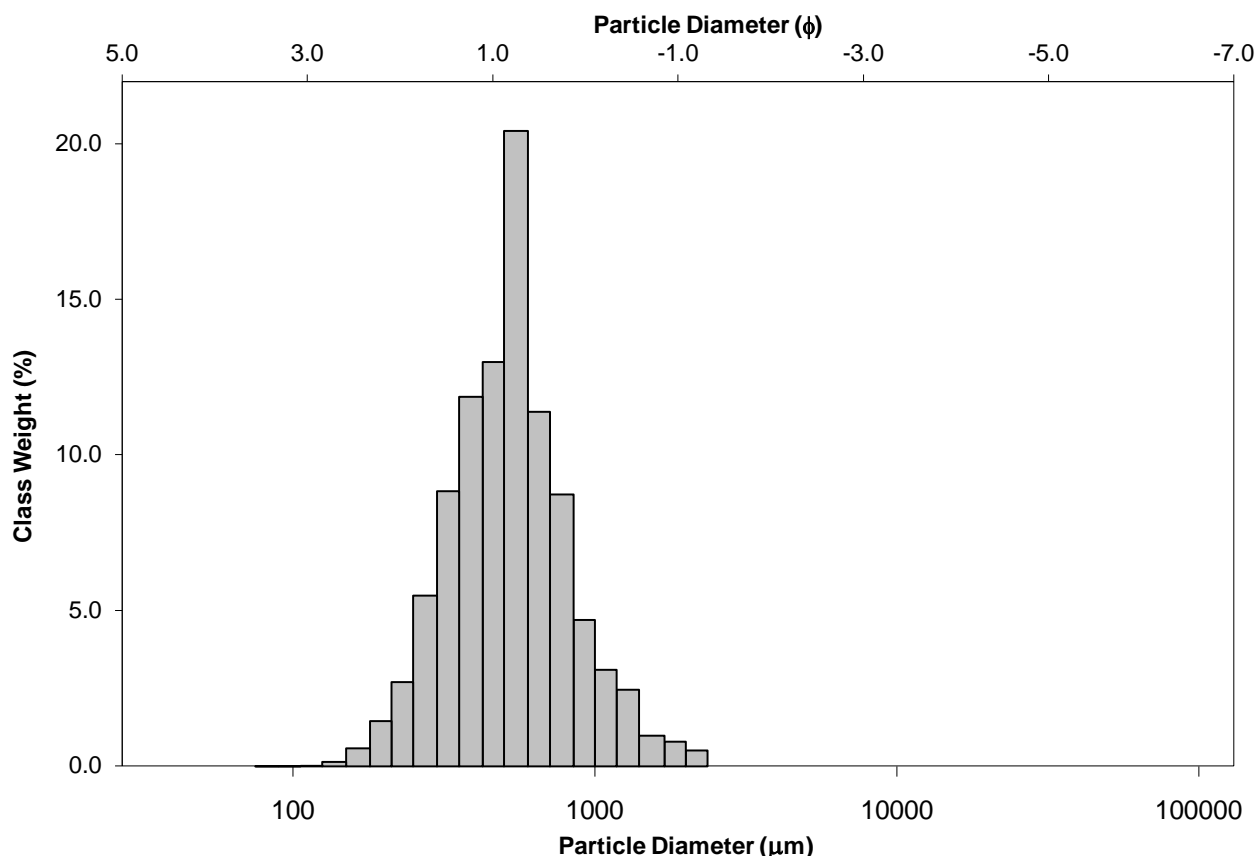
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

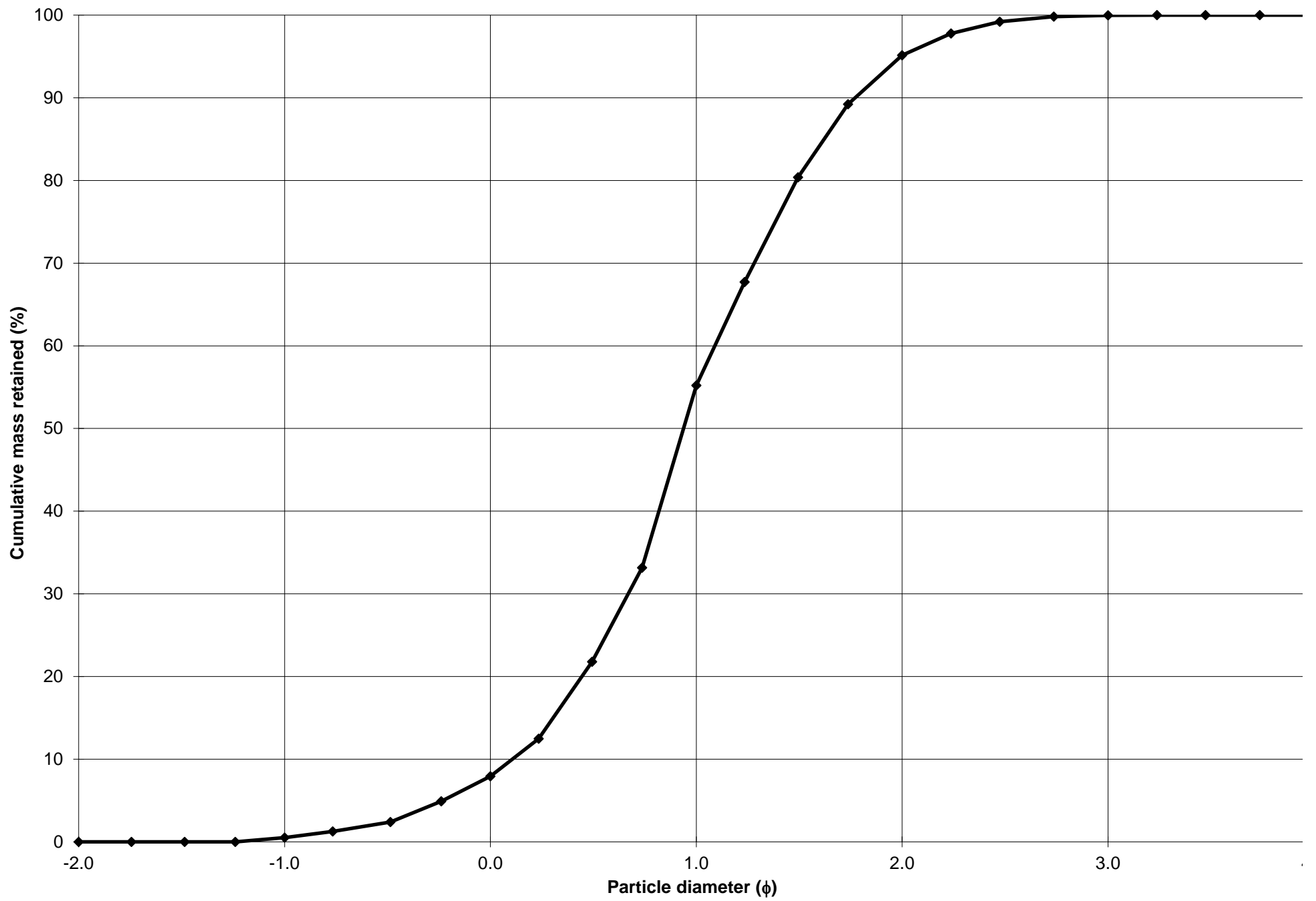
SEDIMENT NAME: Slightly Very Fine Gravelly Coarse Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 0.5%	COARSE SAND: 47.3%		
MODE 2:			SAND: 99.5%	MEDIUM SAND: 39.9%		
MODE 3:			MUD: 0.0%	FINE SAND: 4.8%		
D_{10} :	292.8	0.107		V FINE SAND: 0.0%		
MEDIAN or D_{50} :	522.0	0.938	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	928.7	1.772	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.172	16.61	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	635.9	1.665	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.766	2.459	V FINE GRAVEL: 0.5%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	293.7	0.821	V COARSE SAND: 7.4%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	581.0	519.3	0.945	515.9	0.955	Coarse Sand
SORTING (σ):	300.8	1.578	0.658	1.572	0.652	Moderately Well Sorted
SKEWNESS (Sk):	2.029	0.237	-0.237	0.005	-0.005	Symmetrical
KURTOSIS (K):	9.017	3.397	3.397	1.111	1.111	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 300 cm**

ANALYST & DATE: Stephen Fabian, 2/9/15

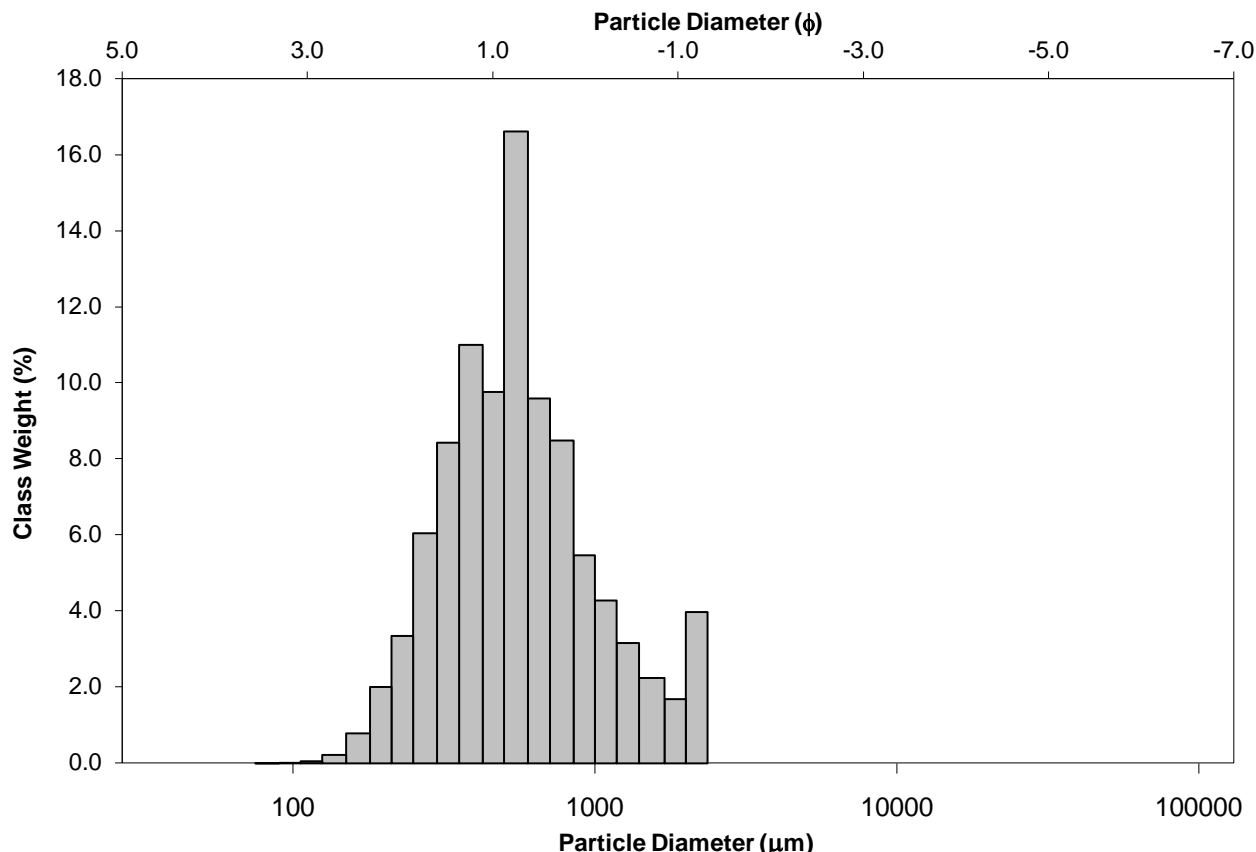
SAMPLE TYPE: Trimodal, Moderately Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

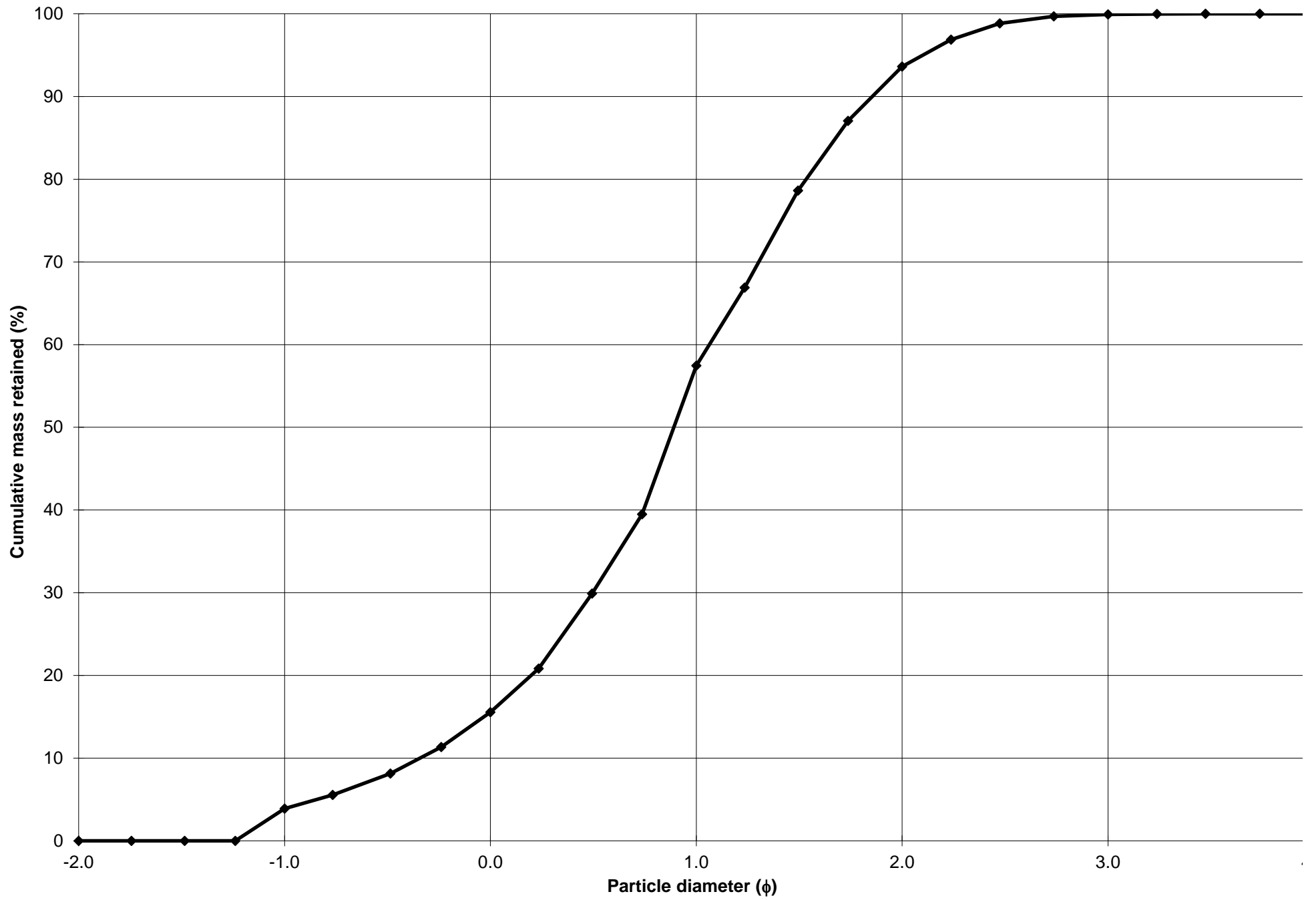
SEDIMENT NAME: Slightly Very Fine Gravelly Coarse Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 3.9%	COARSE SAND: 41.9%		
MODE 2:	390.0	1.364	SAND: 96.1%	MEDIUM SAND: 36.1%		
MODE 3:	2180.0	-1.119	MUD: 0.0%	FINE SAND: 6.3%		
D ₁₀ :	276.4	-0.342		V FINE SAND: 0.1%		
MEDIAN or D ₅₀ :	539.3	0.891	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	1267.1	1.855	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	4.584	-5.432	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	990.7	2.197	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	2.085	3.993	V FINE GRAVEL: 3.9%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	407.1	1.060	V COARSE SAND: 11.6%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	672.2	560.8	0.834	553.5	0.853	Coarse Sand
SORTING (σ):	453.8	1.779	0.831	1.807	0.853	Moderately Sorted
SKEWNESS (Sk):	1.839	0.398	-0.398	0.124	-0.124	Coarse Skewed
KURTOSIS (K):	6.175	2.947	2.947	1.139	1.139	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 313 cm**

ANALYST & DATE: Stephen Fabian, 2/9/15

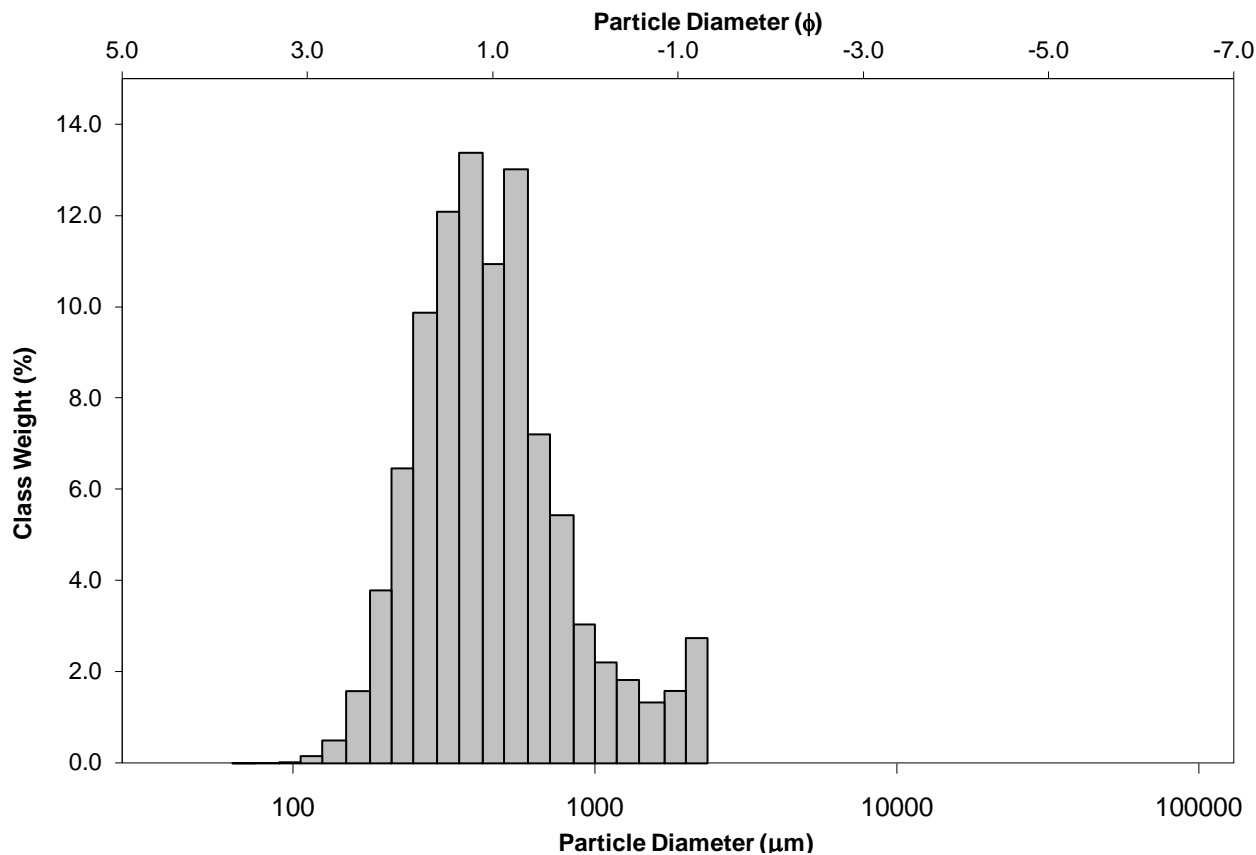
SAMPLE TYPE: Trimodal, Moderately Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

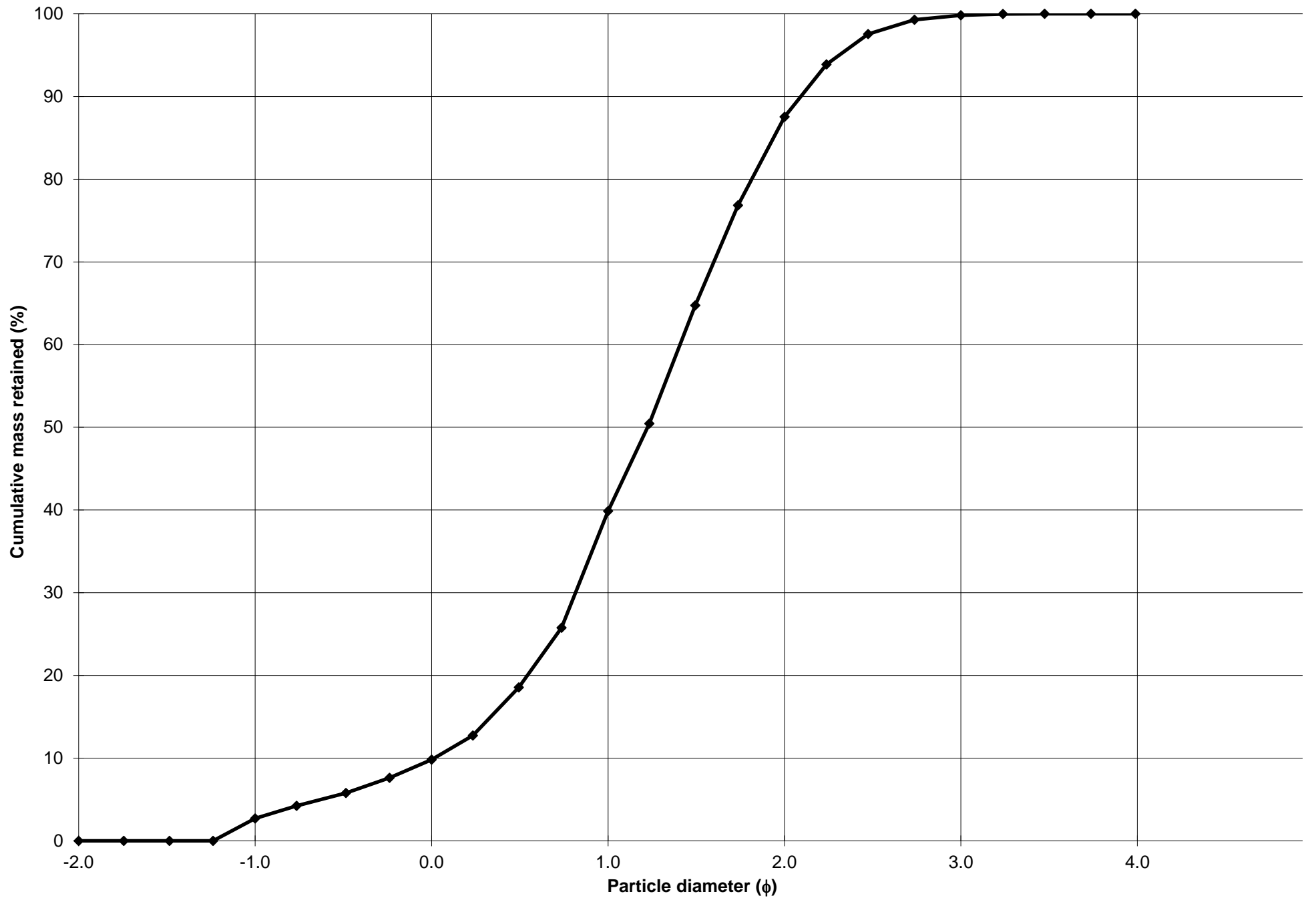
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 2.7%	COARSE SAND: 30.1%		
MODE 2:	550.0	0.868	SAND: 97.3%	MEDIUM SAND: 47.7%		
MODE 3:	2180.0	-1.119	MUD: 0.0%	FINE SAND: 12.3%		
D_{10} :	234.4	0.016		V FINE SAND: 0.2%		
MEDIAN or D_{50} :	427.9	1.225	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	989.3	2.093	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	4.219	134.2	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	754.8	2.077	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.985	2.391	V FINE GRAVEL: 2.7%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	303.1	0.989	V COARSE SAND: 7.1%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	555.4	458.6	1.125	443.6	1.173	Medium Sand
SORTING (σ):	413.5	1.777	0.830	1.776	0.828	Moderately Sorted
SKEWNESS (Sk):	2.364	0.682	-0.682	0.181	-0.181	Coarse Skewed
KURTOSIS (K):	8.797	3.443	3.443	1.217	1.217	Leptokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 323 cm**

ANALYST & DATE: Stephen Fabian, 2/9/15

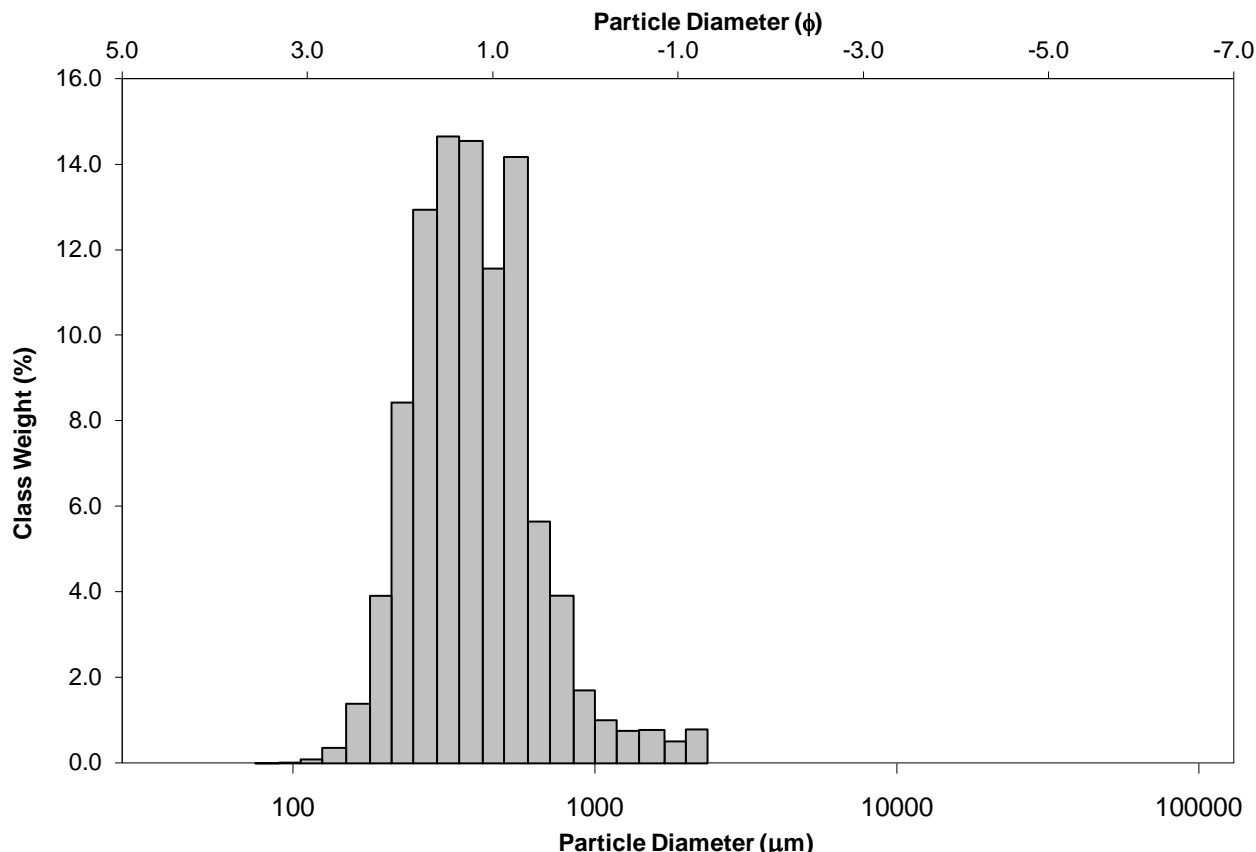
SAMPLE TYPE: Bimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

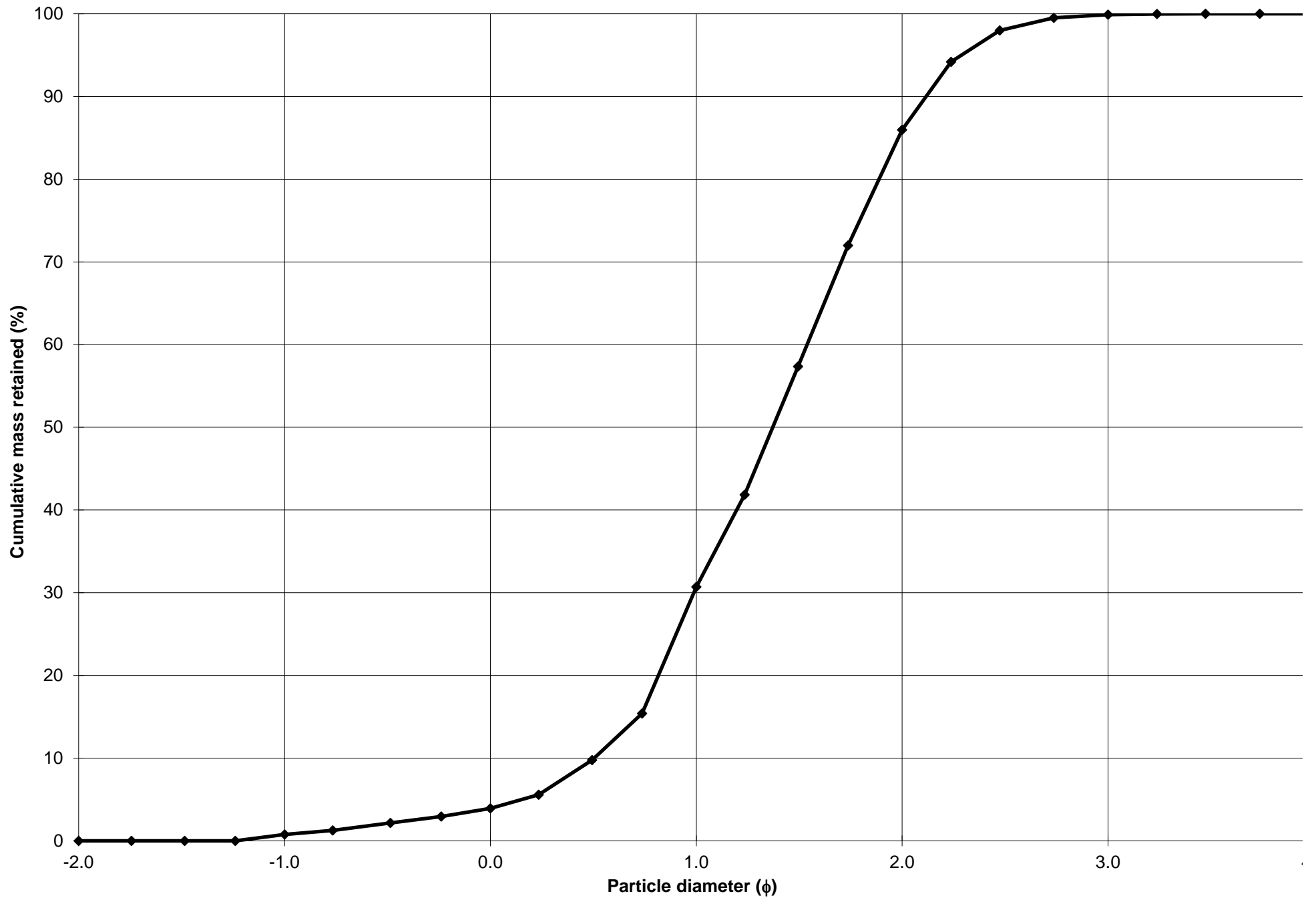
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.8%	COARSE SAND: 26.8%		
MODE 2:	550.0	0.868	SAND: 99.2%	MEDIUM SAND: 55.3%		
MODE 3:			MUD: 0.0%	FINE SAND: 13.9%		
D_{10} :	230.6	0.505		V FINE SAND: 0.1%		
MEDIAN or D_{50} :	386.6	1.371	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	704.8	2.117	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.057	4.194	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	474.2	1.612	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.856	1.989	V FINE GRAVEL: 0.8%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	246.7	0.892	V COARSE SAND: 3.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	457.7	402.3	1.314	389.4	1.361	Medium Sand
SORTING (σ):	284.0	1.599	0.677	1.545	0.627	Moderately Well Sorted
SKEWNESS (Sk):	3.144	0.722	-0.722	0.083	-0.083	Symmetrical
KURTOSIS (K):	16.50	4.165	4.165	0.981	0.981	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 330 cm**

ANALYST & DATE: Stephen Fabian, 2/10/15

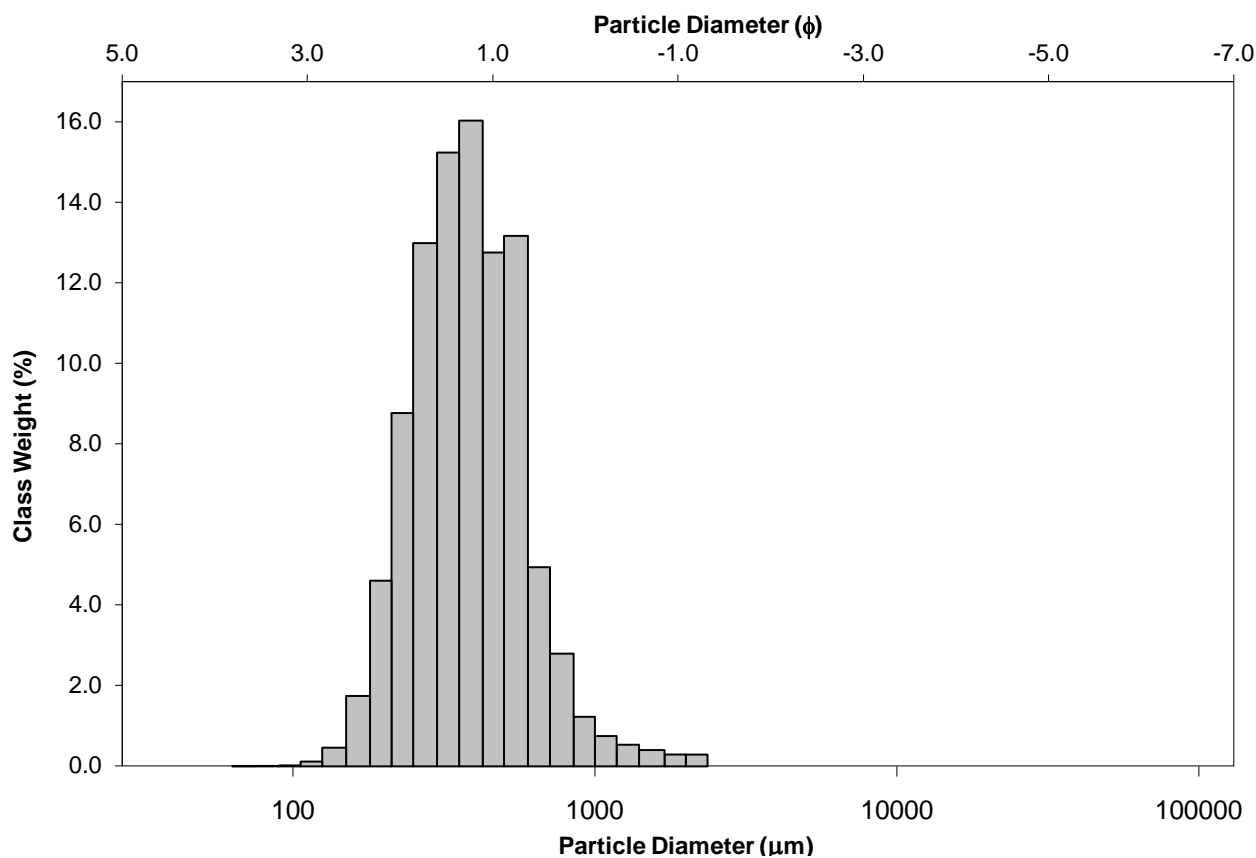
SAMPLE TYPE: Bimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

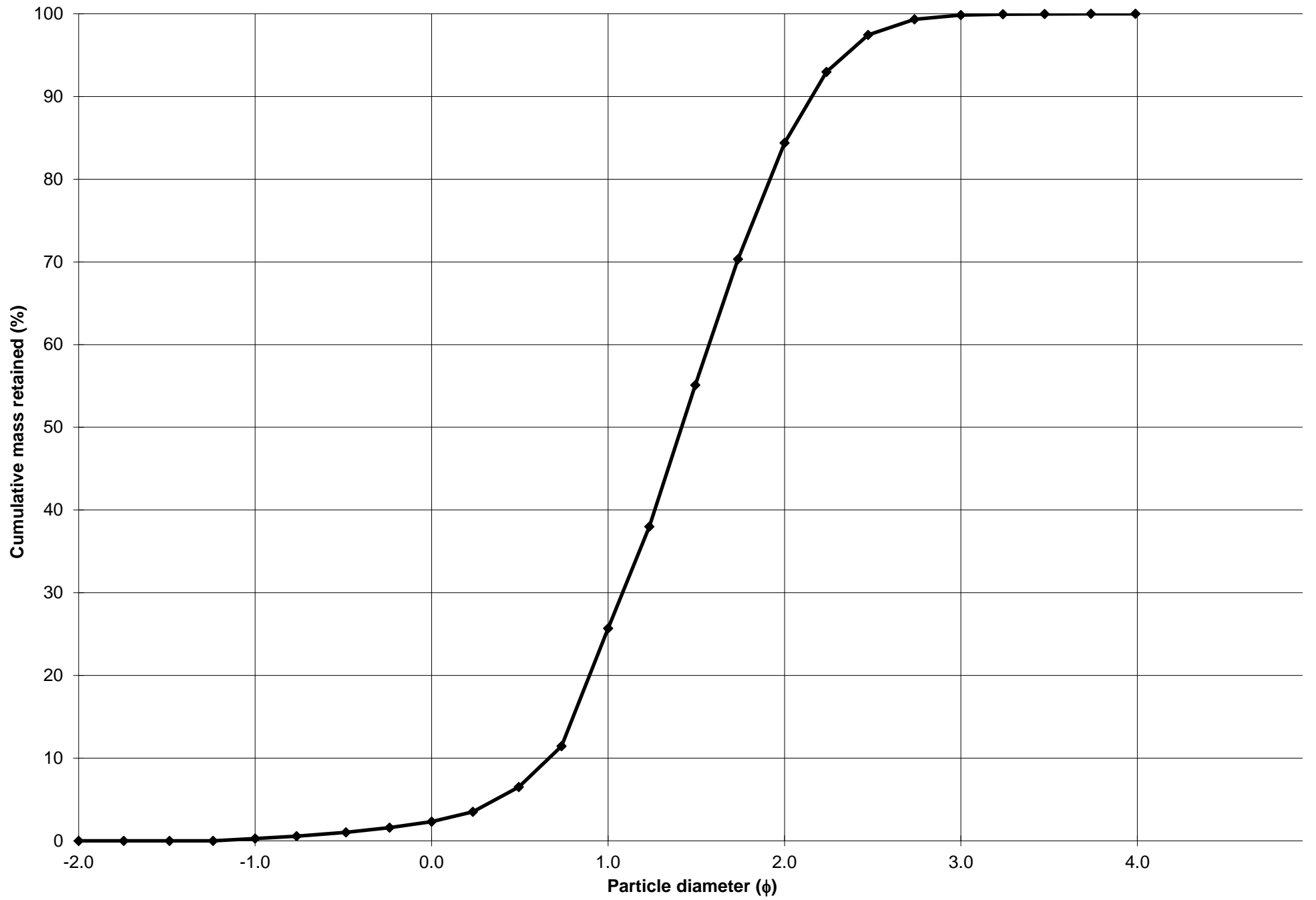
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.3%	COARSE SAND: 23.4%		
MODE 2:	550.0	0.868	SAND: 99.7%	MEDIUM SAND: 58.7%		
MODE 3:			MUD: 0.0%	FINE SAND: 15.5%		
D_{10} :	224.4	0.666		V FINE SAND: 0.2%		
MEDIAN or D_{50} :	374.6	1.417	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	630.1	2.156	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.808	3.236	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	405.7	1.489	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.786	1.848	V FINE GRAVEL: 0.3%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	222.0	0.837	V COARSE SAND: 2.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	423.6	381.3	1.391	376.3	1.410	Medium Sand
SORTING (σ):	227.8	1.539	0.622	1.508	0.593	Moderately Well Sorted
SKEWNESS (Sk):	3.195	0.488	-0.488	0.040	-0.040	Symmetrical
KURTOSIS (K):	19.71	4.315	4.315	0.970	0.970	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 341 cm**

ANALYST & DATE: Stephen Fabian, 2/10/15

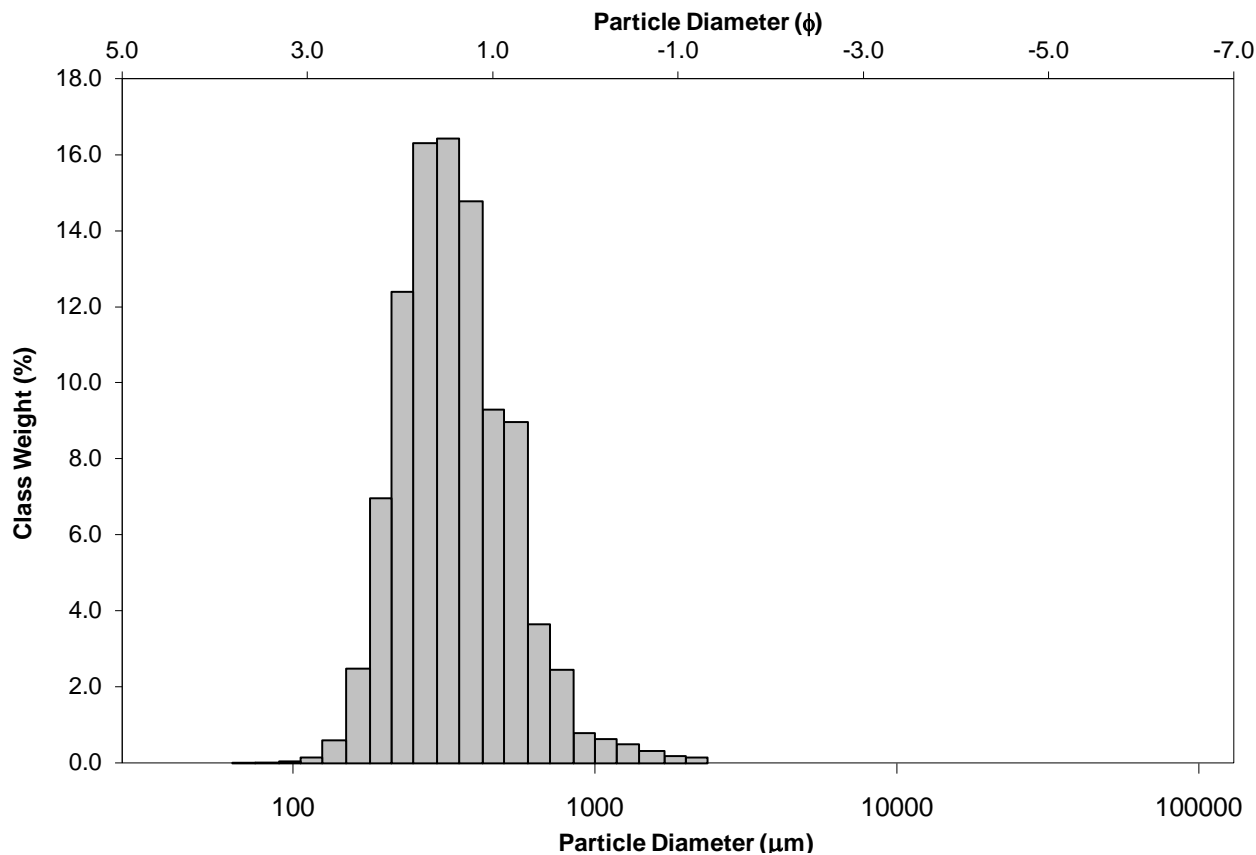
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

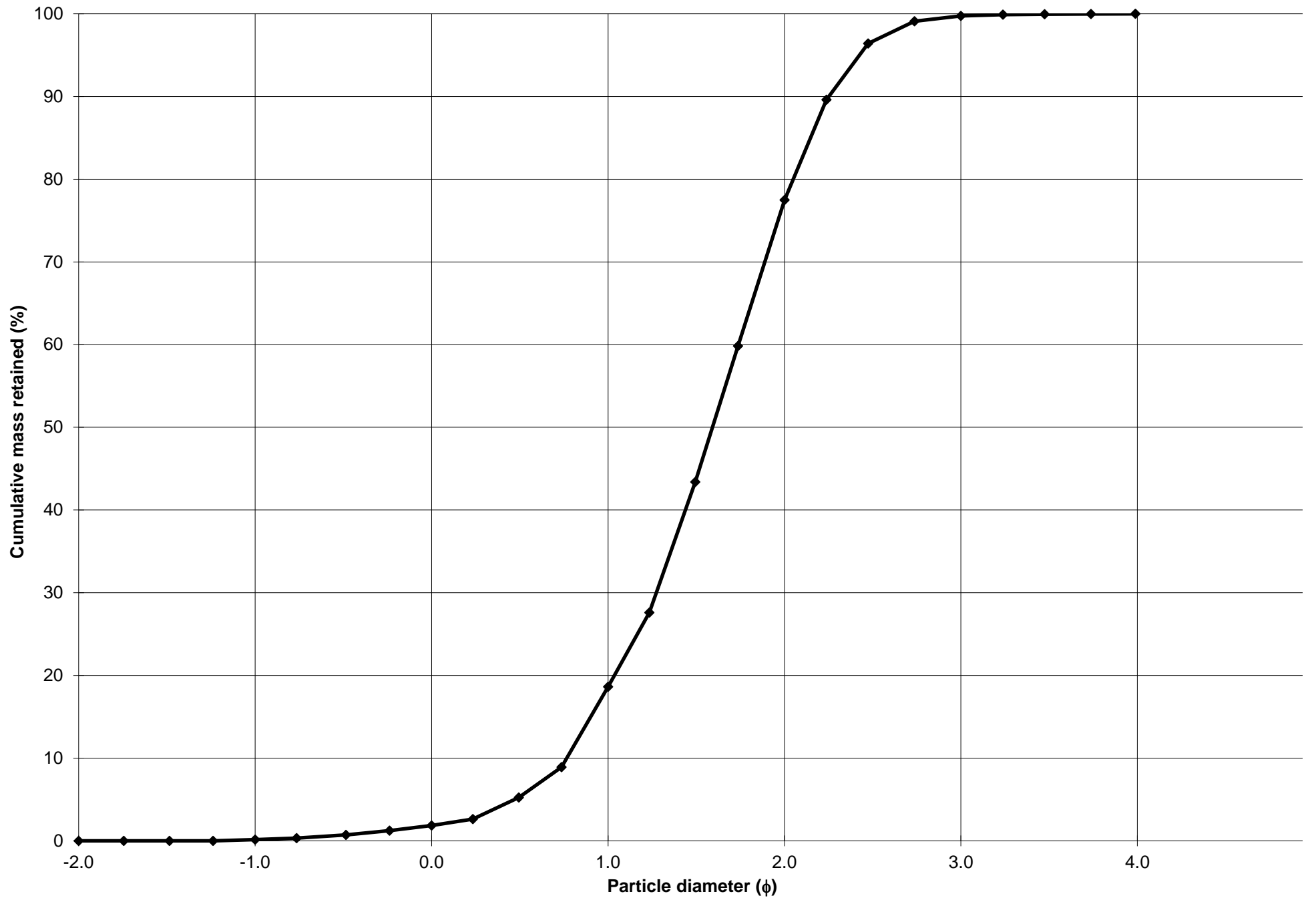
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.2%	COARSE SAND: 16.8%		
MODE 2:			SAND: 99.8%	MEDIUM SAND: 58.9%		
MODE 3:			MUD: 0.0%	FINE SAND: 22.3%		
D_{10} :	210.1	0.767		V FINE SAND: 0.2%		
MEDIAN or D_{50} :	331.8	1.592	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	587.8	2.251	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.798	2.936	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	377.7	1.484	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.737	1.683	V FINE GRAVEL: 0.2%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	189.0	0.797	V COARSE SAND: 1.7%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	383.4	345.1	1.535	341.6	1.549	Medium Sand
SORTING (σ):	208.2	1.534	0.618	1.512	0.596	Moderately Well Sorted
SKEWNESS (Sk):	3.228	0.576	-0.576	0.127	-0.127	Coarse Skewed
KURTOSIS (K):	20.33	4.735	4.735	1.006	1.006	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 350 cm**

ANALYST & DATE: Stephen Fabian, 2/10/15

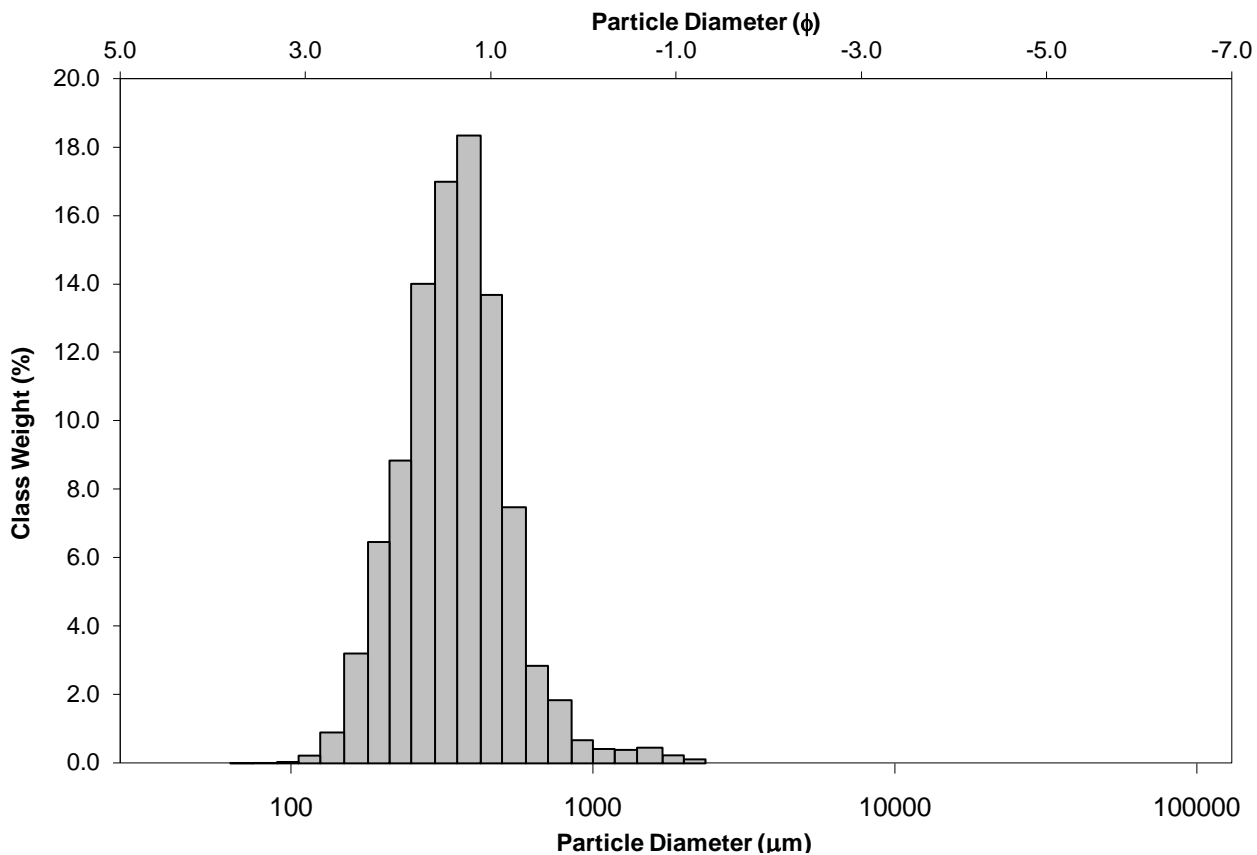
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

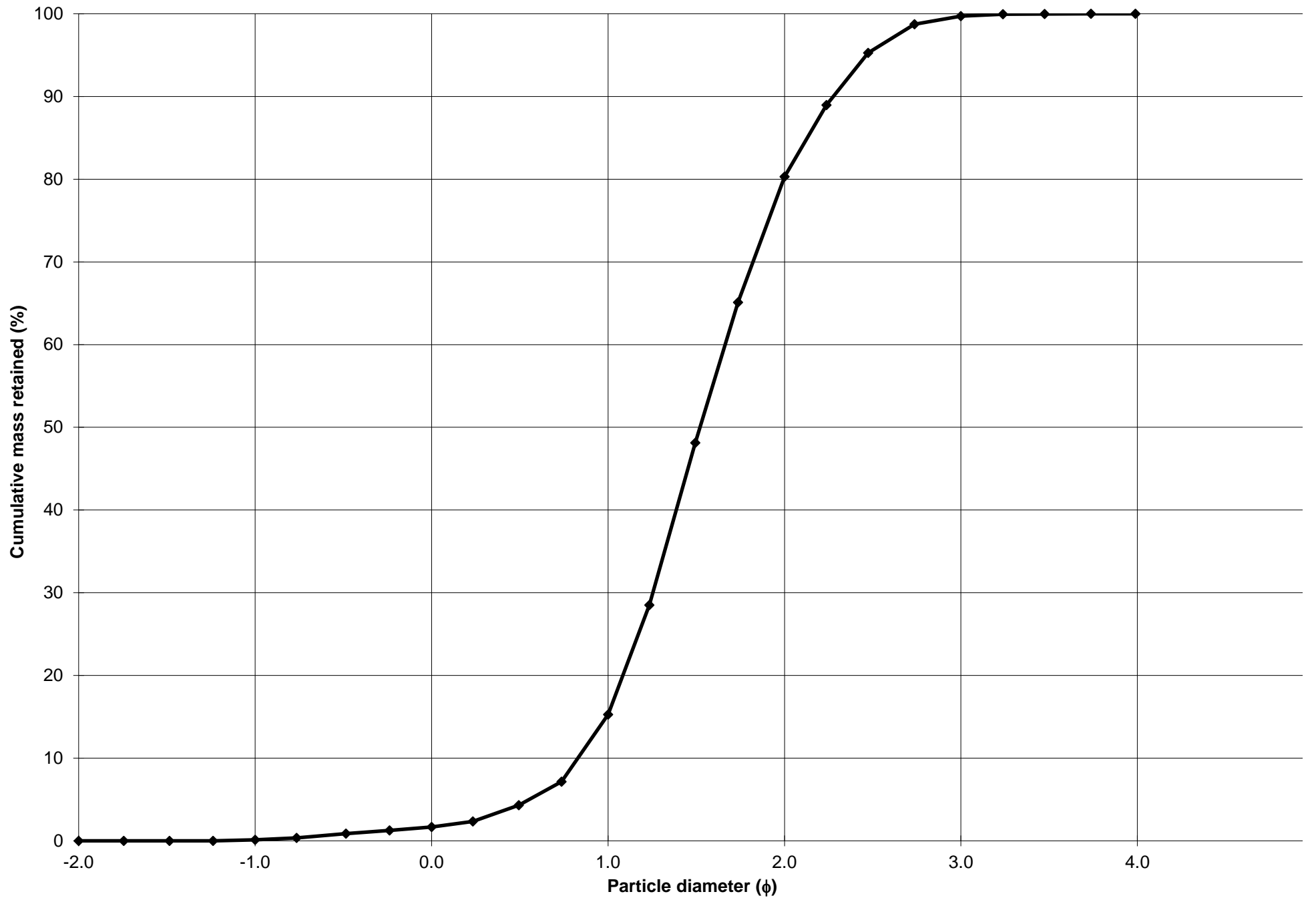
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.1%	COARSE SAND: 13.6%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 65.0%		
MODE 3:			MUD: 0.0%	FINE SAND: 19.4%		
D_{10} :	206.4	0.829		V FINE SAND: 0.3%		
MEDIAN or D_{50} :	348.4	1.521	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	563.0	2.277	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.728	2.747	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	356.6	1.448	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.665	1.627	V FINE GRAVEL: 0.1%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	177.2	0.736	V COARSE SAND: 1.6%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	384.2	348.5	1.521	342.7	1.545	Medium Sand
SORTING (σ):	201.0	1.512	0.597	1.476	0.562	Moderately Well Sorted
SKEWNESS (Sk):	3.498	0.508	-0.508	-0.027	0.027	Symmetrical
KURTOSIS (K):	23.02	4.509	4.509	1.065	1.065	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 360 cm**

ANALYST & DATE: Stephen Fabian, 2/10/15

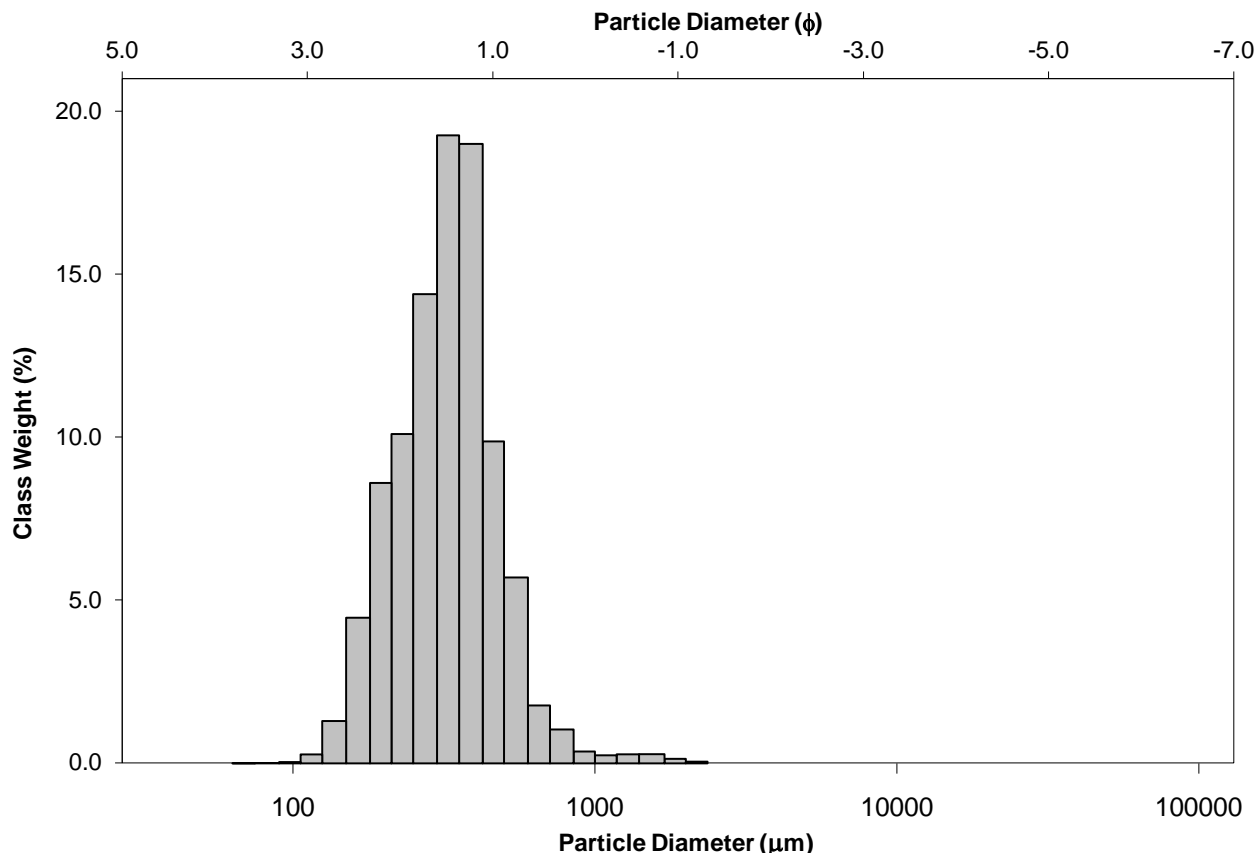
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

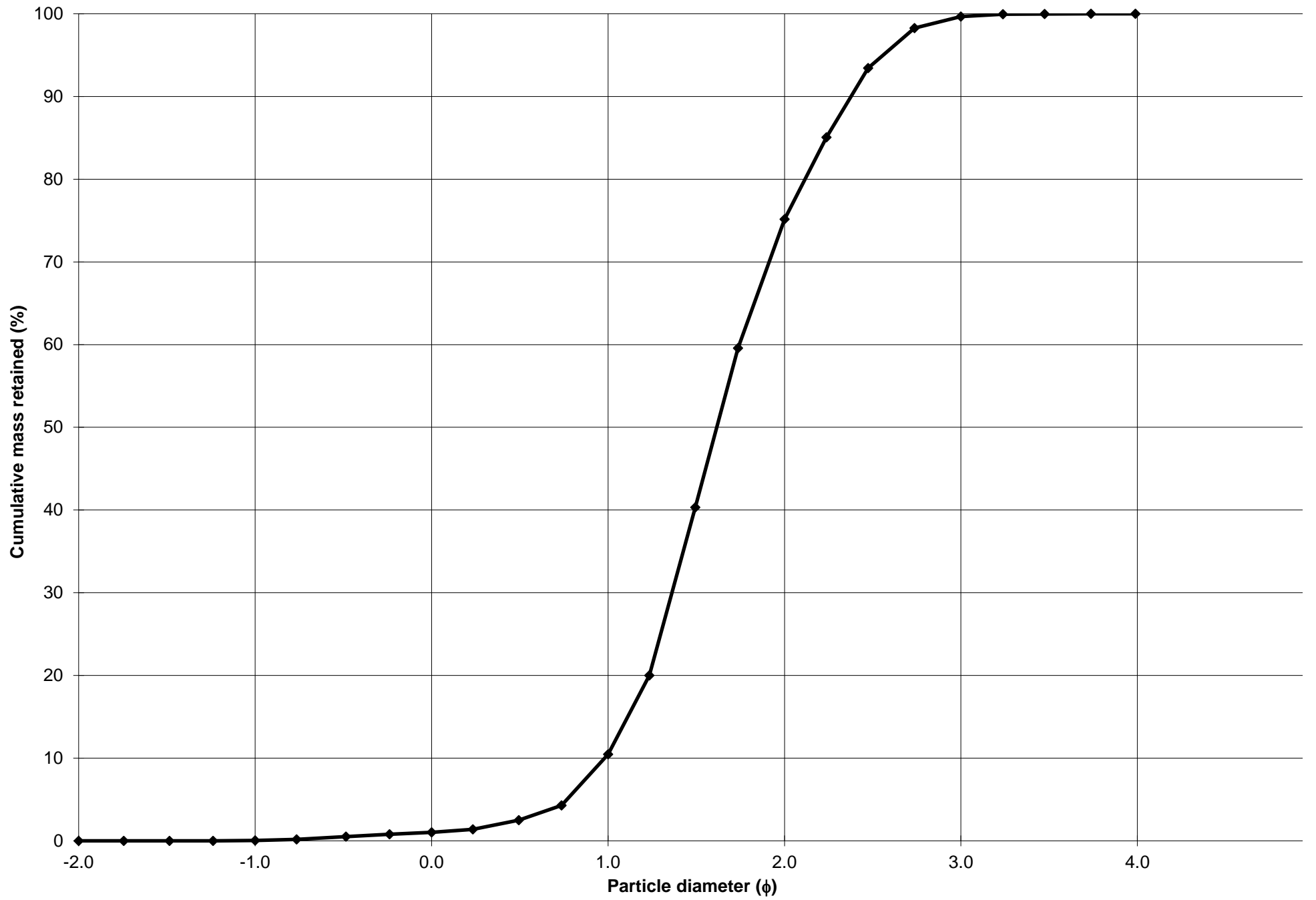
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.1%	COARSE SAND: 9.4%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 64.7%		
MODE 3:			MUD: 0.0%	FINE SAND: 24.5%		
D_{10} :	192.5	0.981		V FINE SAND: 0.3%		
MEDIAN or D_{50} :	326.2	1.616	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	506.8	2.377	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.633	2.424	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	314.3	1.397	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.623	1.538	V FINE GRAVEL: 0.1%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	156.1	0.699	V COARSE SAND: 1.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	351.4	322.2	1.634	317.6	1.655	Medium Sand
SORTING (σ):	170.3	1.479	0.565	1.454	0.540	Moderately Well Sorted
SKEWNESS (Sk):	3.696	0.422	-0.422	-0.080	0.080	Symmetrical
KURTOSIS (K):	27.88	4.480	4.480	1.051	1.051	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 370 cm**

ANALYST & DATE: Stephen Fabian, 2/10/15

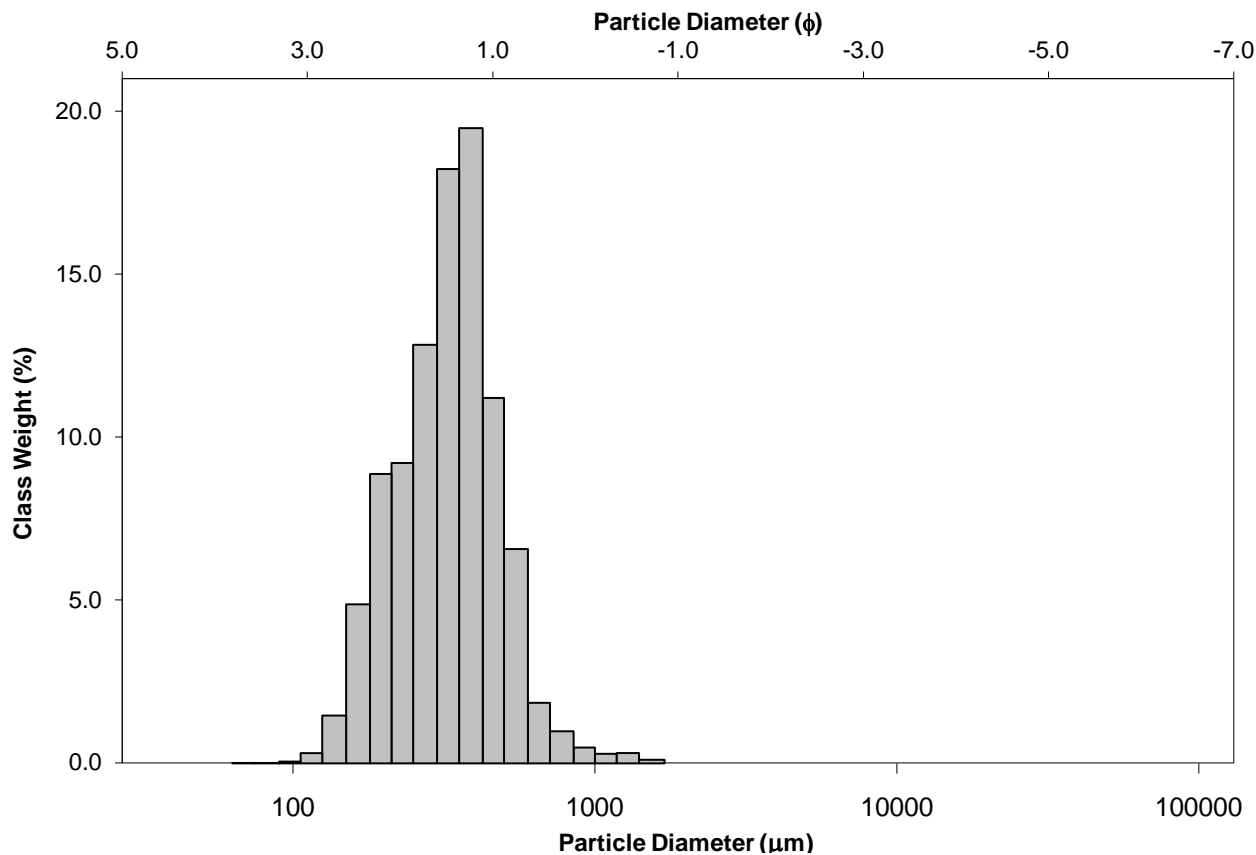
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

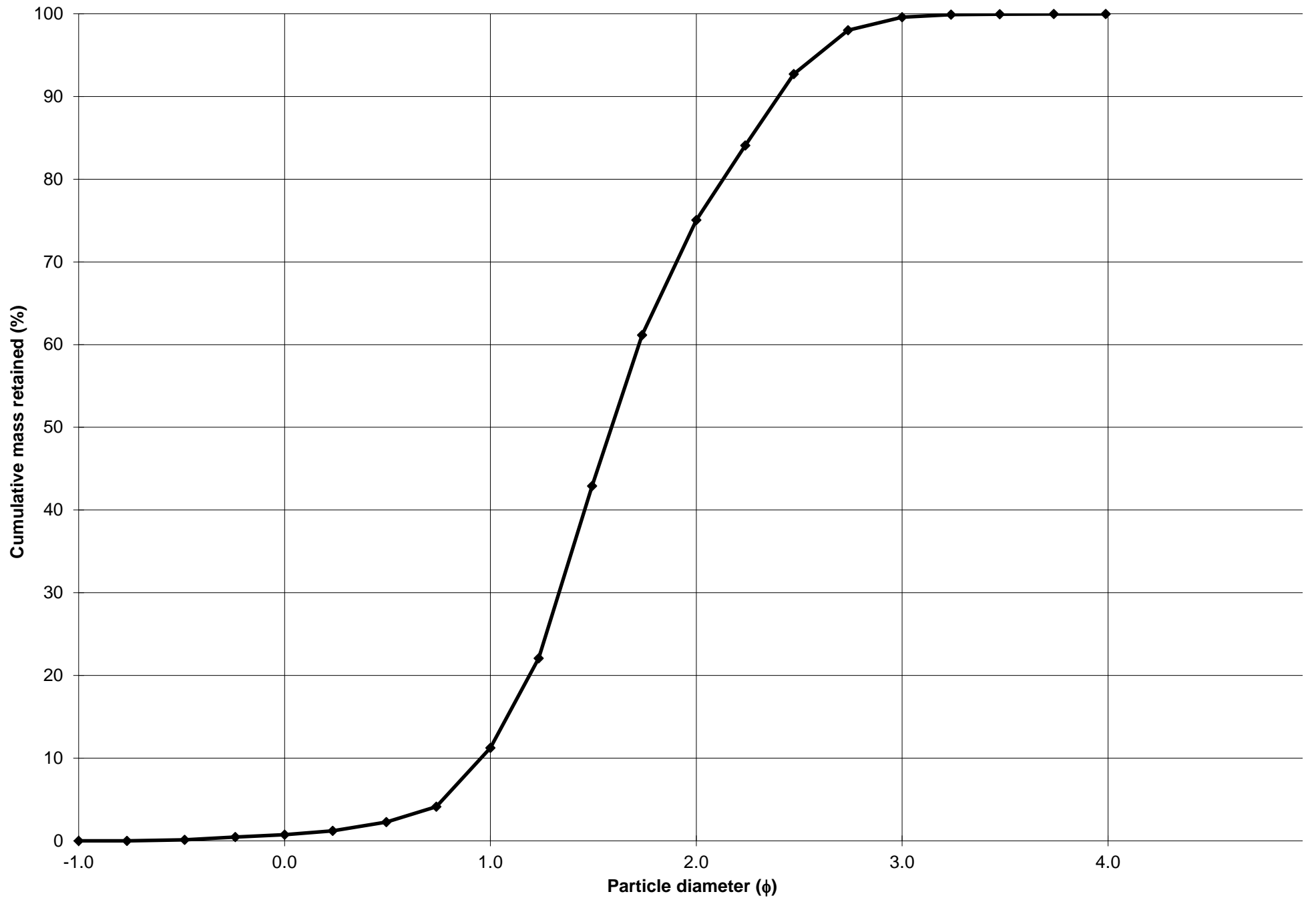
SEDIMENT NAME: Moderately Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.0%	COARSE SAND: 10.5%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 63.8%		
MODE 3:			MUD: 0.0%	FINE SAND: 24.5%		
D_{10} :	189.5	0.954		V FINE SAND: 0.4%		
MEDIAN or D_{50} :	332.5	1.589	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	516.2	2.399	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.723	2.515	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	326.6	1.445	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.656	1.573	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	164.2	0.728	V COARSE SAND: 0.7%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	351.6	323.8	1.627	320.3	1.642	Medium Sand
SORTING (σ):	151.7	1.482	0.568	1.473	0.559	Moderately Well Sorted
SKEWNESS (Sk):	2.251	-0.009	0.009	-0.121	0.121	Fine Skewed
KURTOSIS (K):	13.82	4.478	4.478	1.024	1.024	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 380 cm**

ANALYST & DATE: Stephen Fabian, 2/10/15

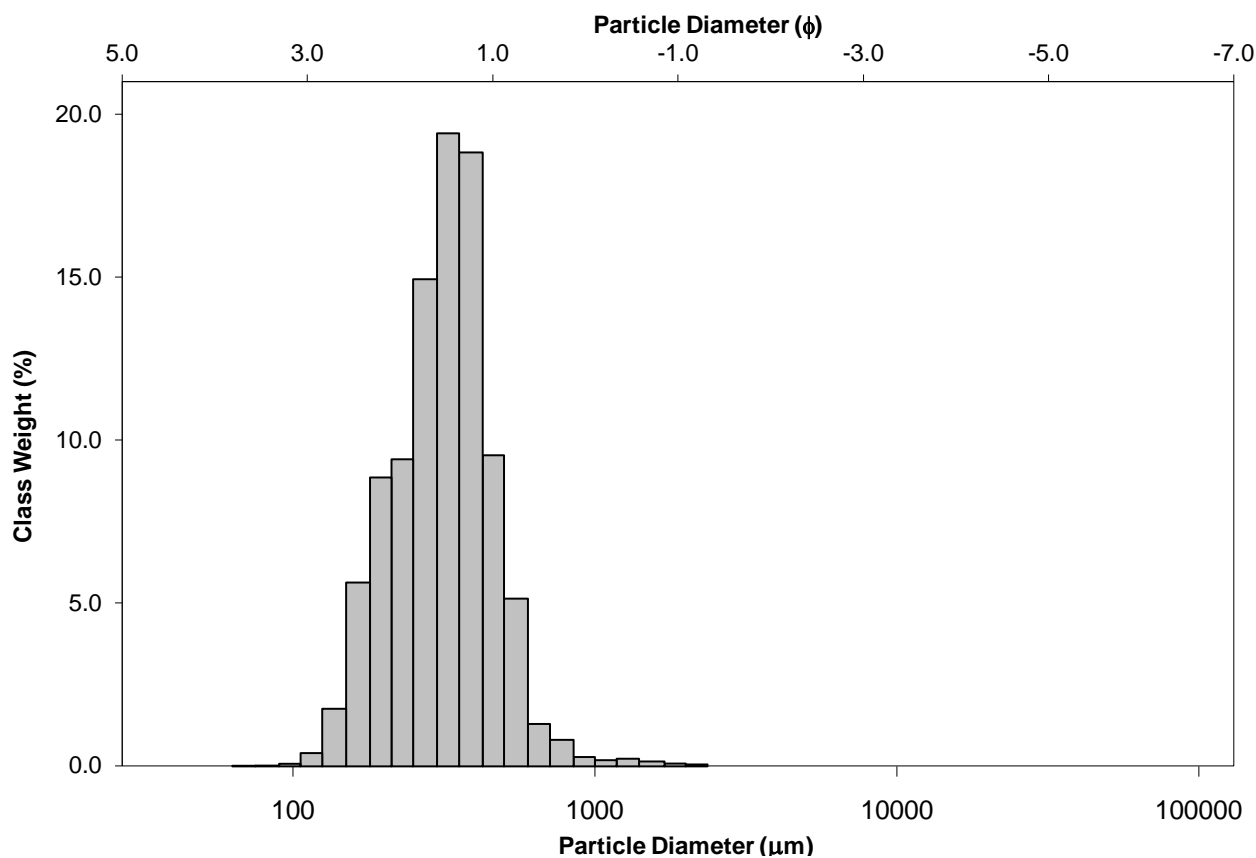
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

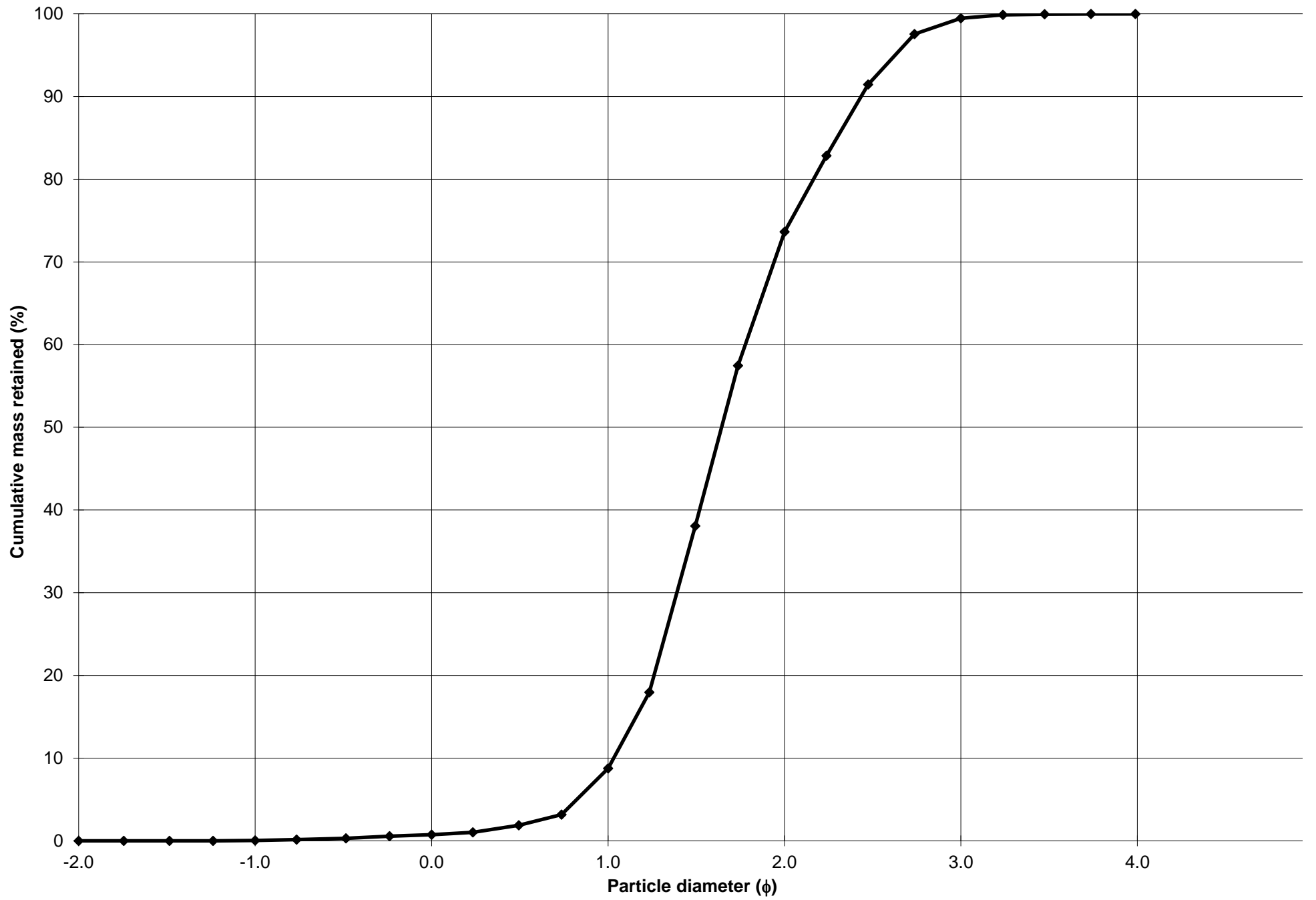
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.1%	COARSE SAND: 8.0%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 64.9%		
MODE 3:			MUD: 0.0%	FINE SAND: 25.8%		
D_{10} :	185.0	1.032		V FINE SAND: 0.5%		
MEDIAN or D_{50} :	320.1	1.644	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	489.1	2.434	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.643	2.359	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	304.1	1.402	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.636	1.536	V FINE GRAVEL: 0.1%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	155.1	0.710	V COARSE SAND: 0.7%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	339.5	312.4	1.679	307.9	1.699	Medium Sand
SORTING (σ):	156.2	1.478	0.564	1.459	0.545	Moderately Well Sorted
SKEWNESS (Sk):	3.636	0.069	-0.069	-0.122	0.122	Fine Skewed
KURTOSIS (K):	30.78	5.587	5.587	1.042	1.042	Mesokurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **GR-14-PA 3 390 cm**

ANALYST & DATE: Stephen Fabian, 2/10/15

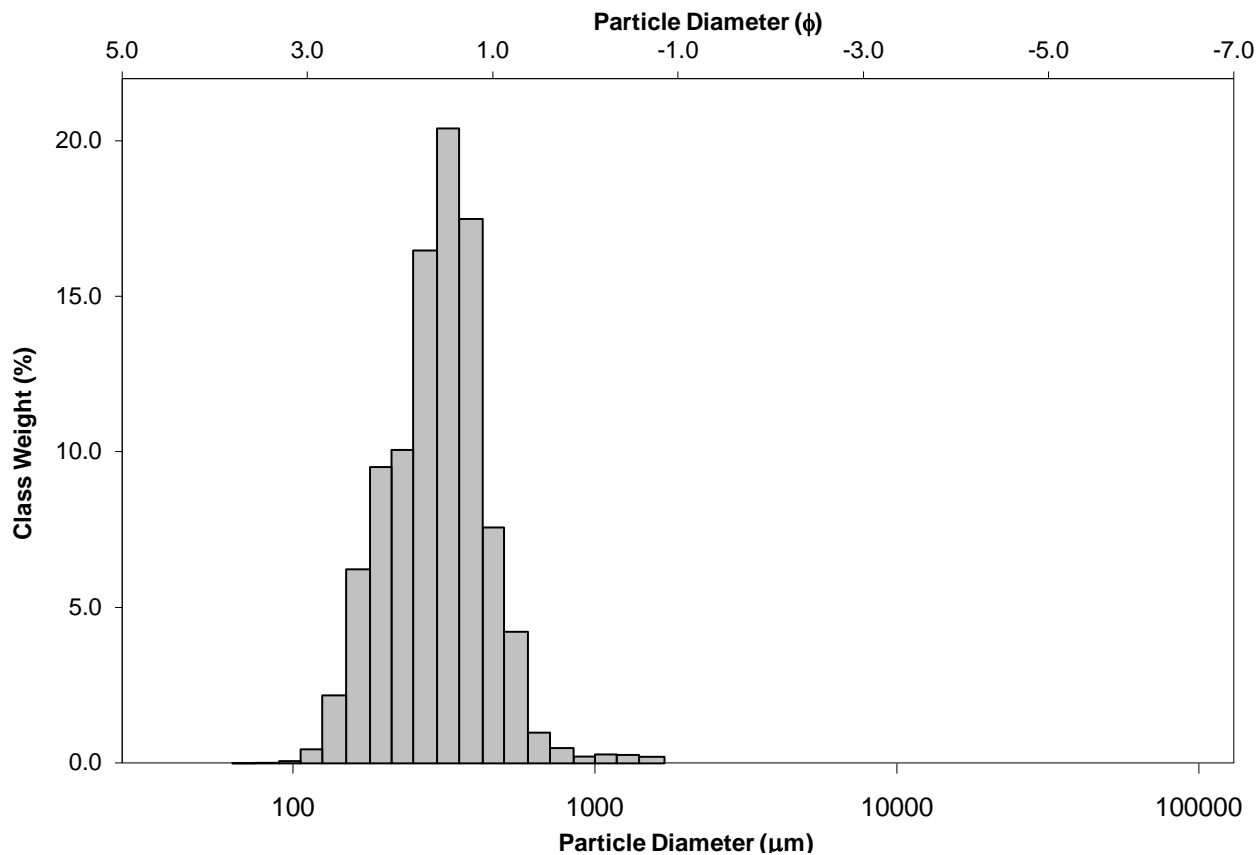
SAMPLE TYPE: Unimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

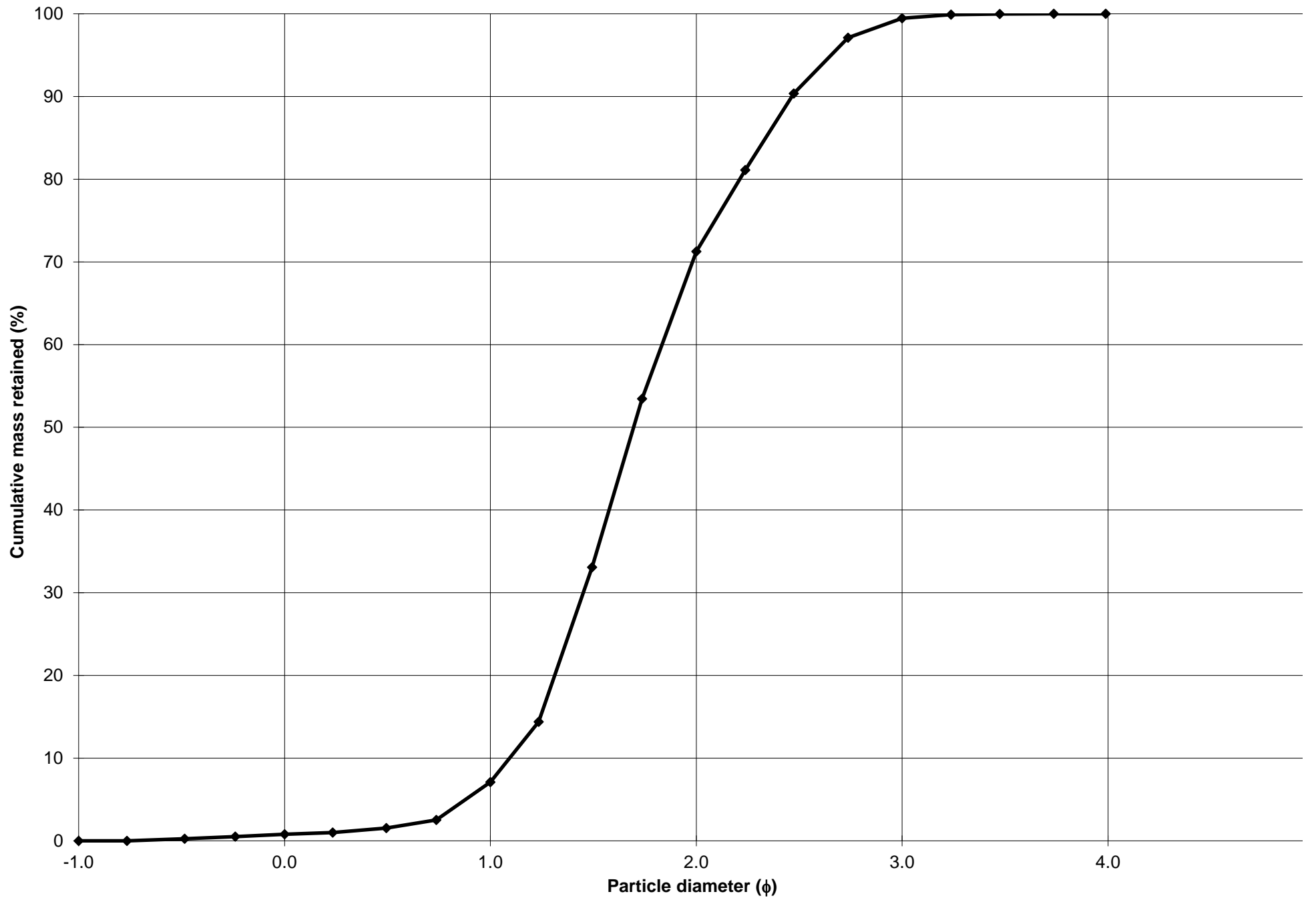
SEDIMENT NAME: Moderately Well Sorted Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%	COARSE SAND: 6.3%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 64.2%		
MODE 3:			MUD: 0.0%	FINE SAND: 28.2%		
D ₁₀ :	181.1	1.093		V FINE SAND: 0.5%		
MEDIAN or D ₅₀ :	308.7	1.696	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	468.7	2.465	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.588	2.255	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	287.6	1.372	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.634	1.513	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	148.9	0.708	V COARSE SAND: 0.8%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	326.2	301.3	1.730	296.3	1.755	Medium Sand
SORTING (σ):	144.7	1.462	0.548	1.447	0.533	Moderately Well Sorted
SKEWNESS (Sk):	3.109	0.249	-0.249	-0.124	0.124	Fine Skewed
KURTOSIS (K):	22.07	4.093	4.093	1.027	1.027	Mesokurtic

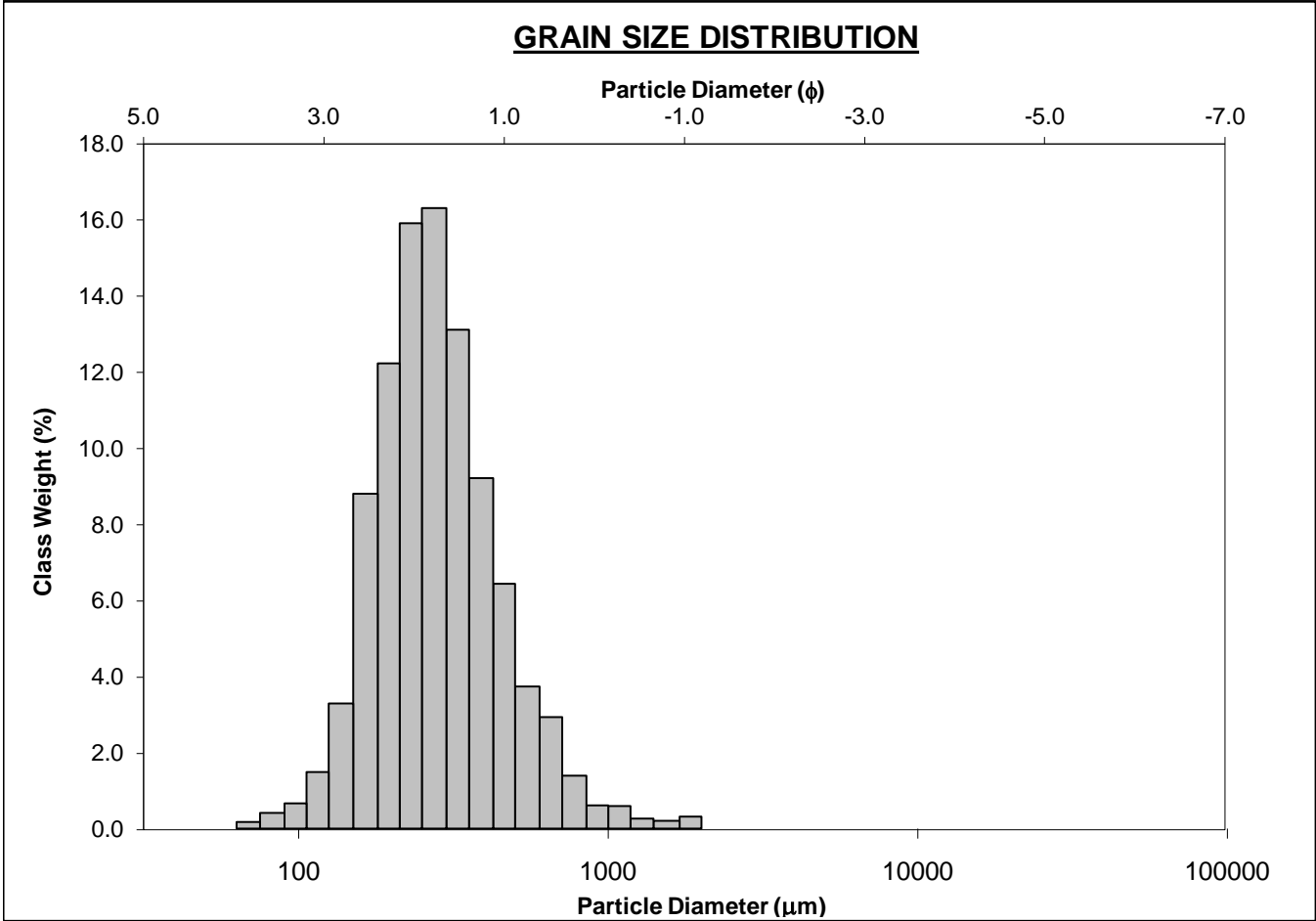
GRAIN SIZE DISTRIBUTION



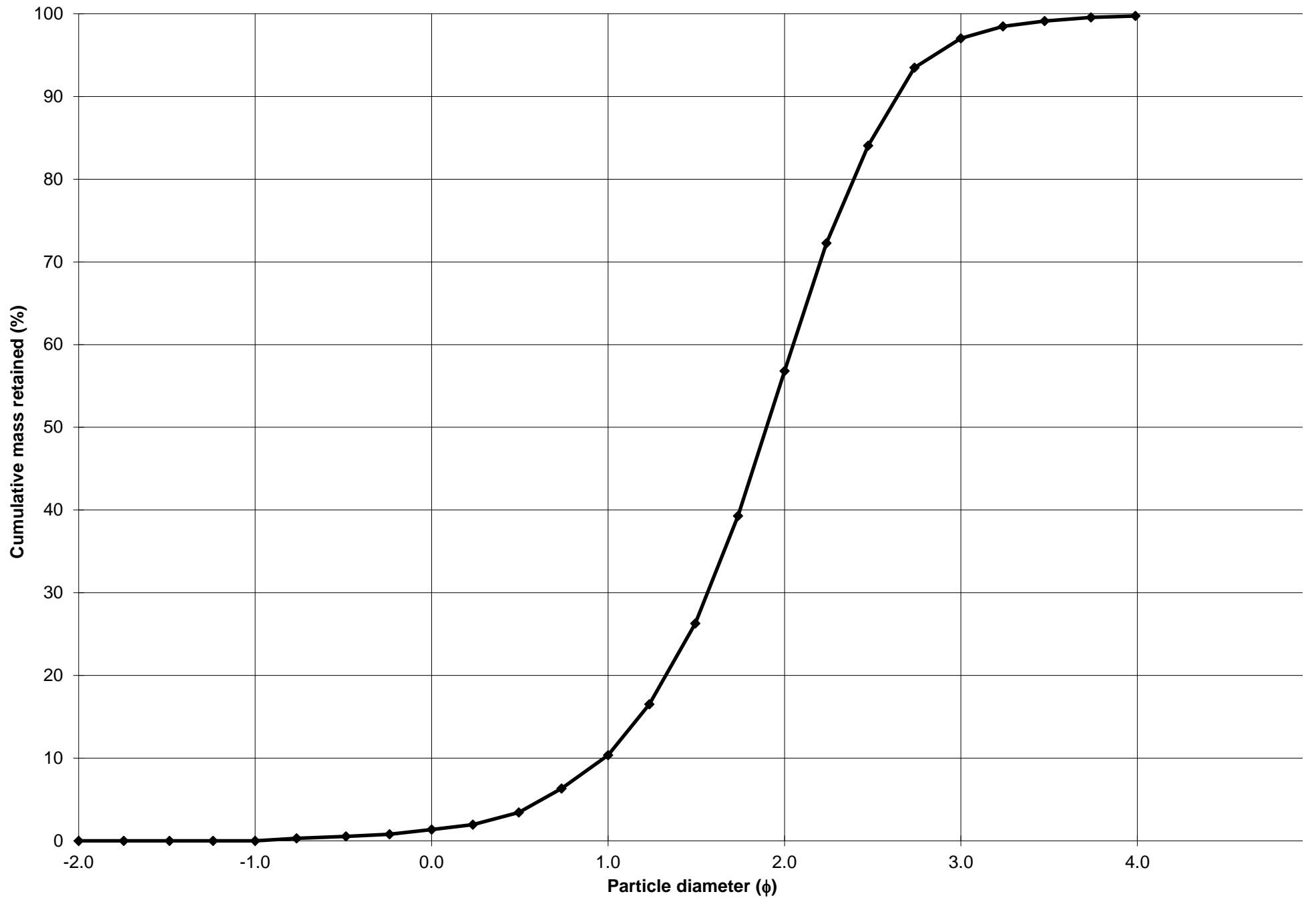
Cumulative Frequency Curve



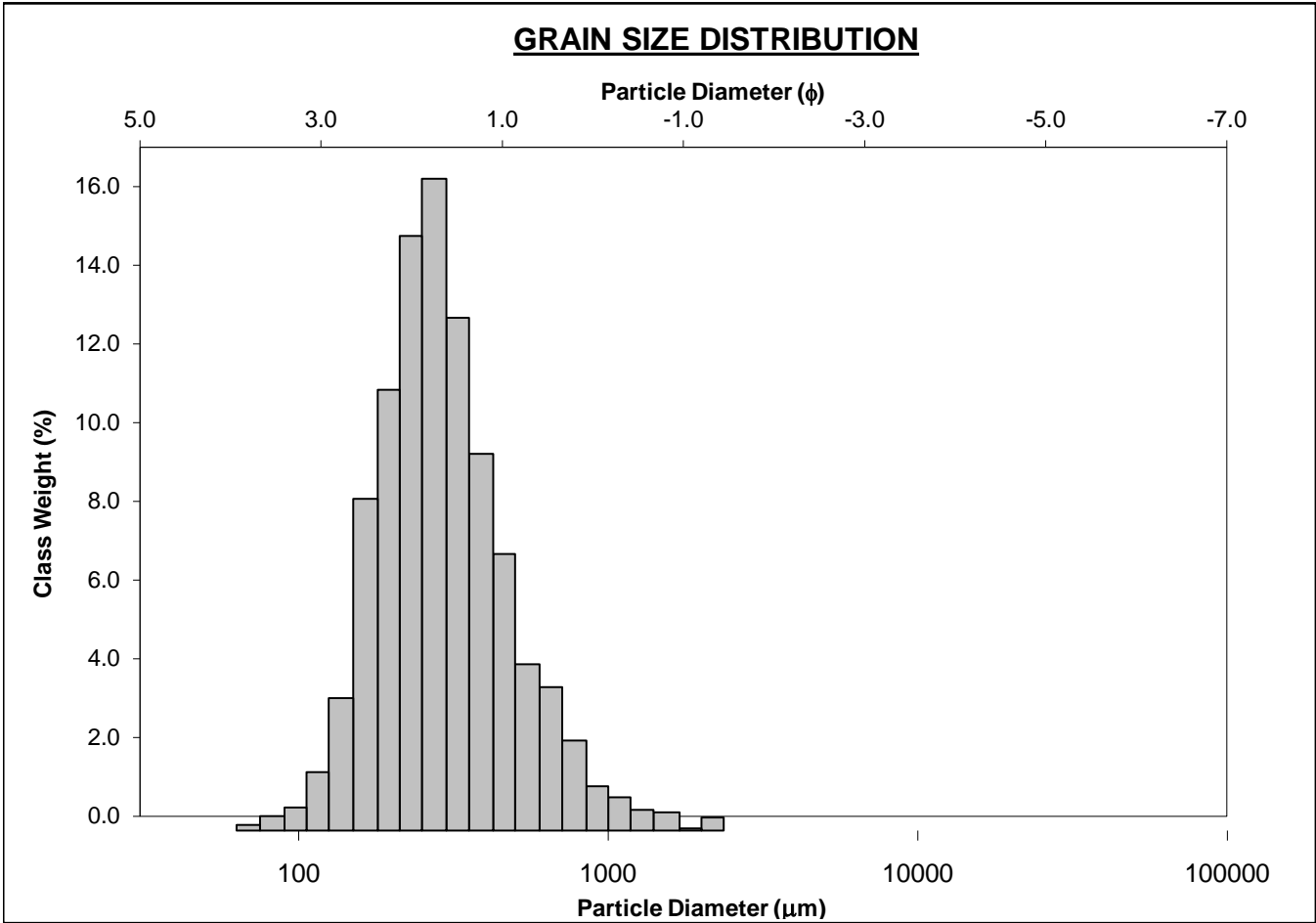
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-20cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 9.0%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 46.4%	
MODE 3:			MUD: 0.3%		FINE SAND: 40.2%	
D ₁₀ :	160.5	0.977			V FINE SAND: 2.7%	
MEDIAN or D ₅₀ :	268.3	1.898	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	508.0	2.640	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.166	2.702	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	347.6	1.663	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.781	1.570	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	159.4	0.833	V COARSE SAND: 1.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	316.3	276.7	1.853	275.1	1.862	Medium Sand
SORTING (σ):	192.8	1.657	0.728	1.571	0.651	Moderately Well Sorted
SKEWNESS (Sk):	3.323	-0.442	0.442	0.115	-0.115	Coarse Skewed
KURTOSIS (K):	20.76	9.836	9.836	1.095	1.095	Mesokurtic



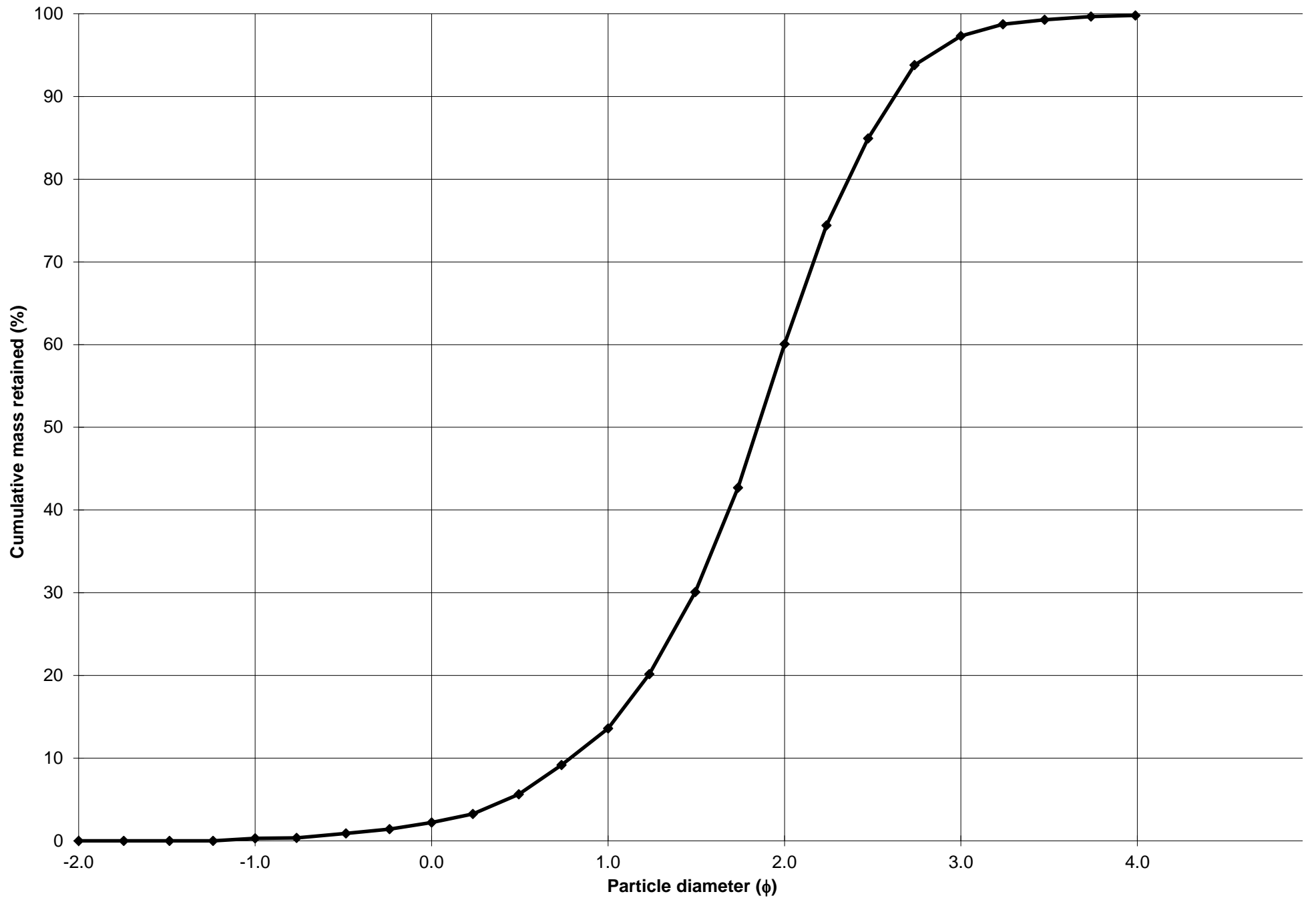
Cumulative Frequency Curve



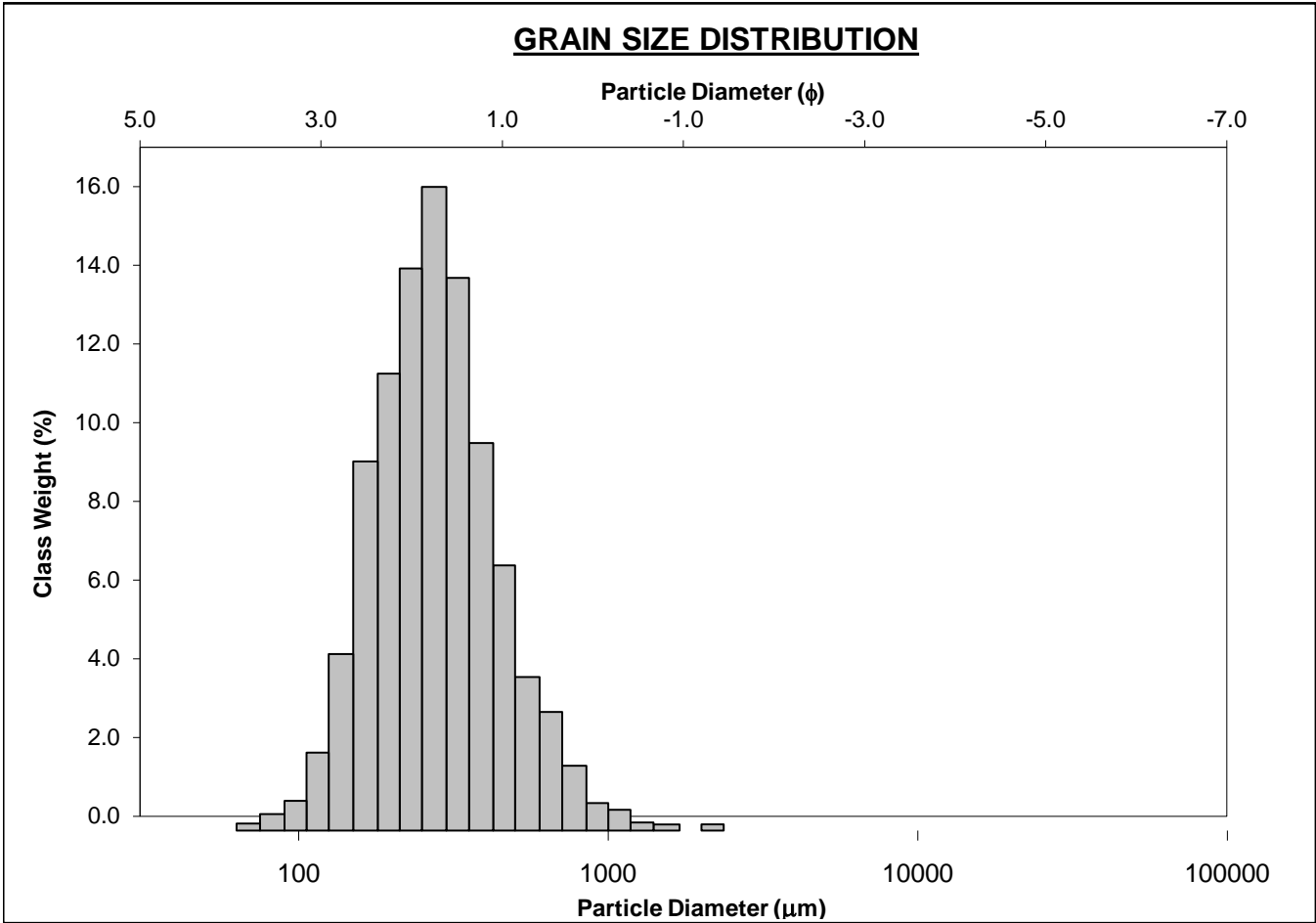
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-30cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.3%		COARSE SAND: 11.4%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 46.5%	
MODE 3:			MUD: 0.2%		FINE SAND: 37.2%	
D ₁₀ :	162.2	0.787			V FINE SAND: 2.5%	
MEDIAN or D ₅₀ :	277.9	1.848	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	579.6	2.624	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.574	3.335	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	417.4	1.837	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.853	1.654	V FINE GRAVEL: 0.3%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	179.2	0.890	V COARSE SAND: 1.9%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	341.0	291.9	1.776	288.1	1.795	Medium Sand
SORTING (σ):	232.2	1.703	0.768	1.631	0.706	Moderately Sorted
SKEWNESS (Sk):	3.385	0.001	-0.001	0.149	-0.149	Coarse Skewed
KURTOSIS (K):	20.47	7.539	7.539	1.106	1.106	Mesokurtic



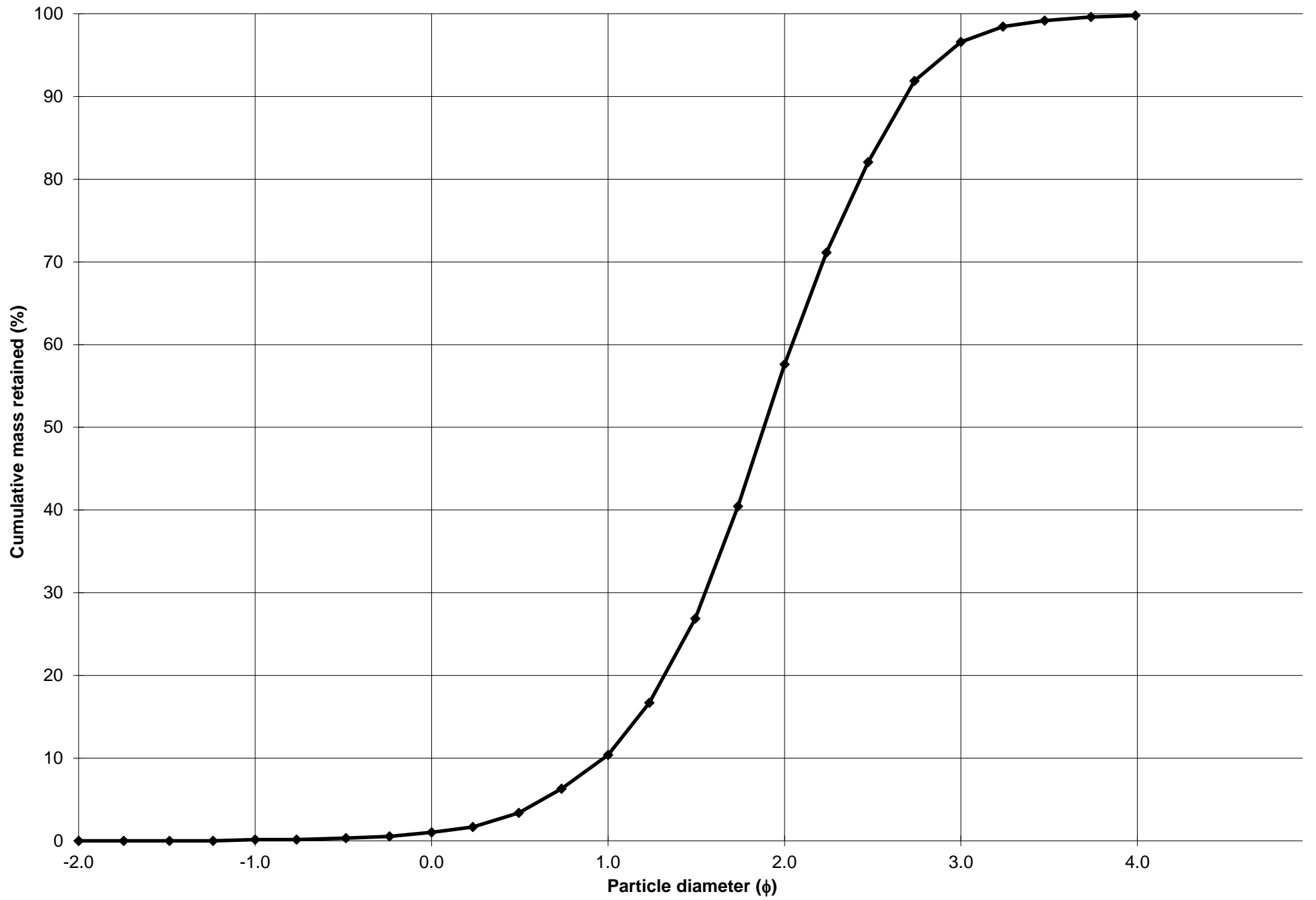
Cumulative Frequency Curve



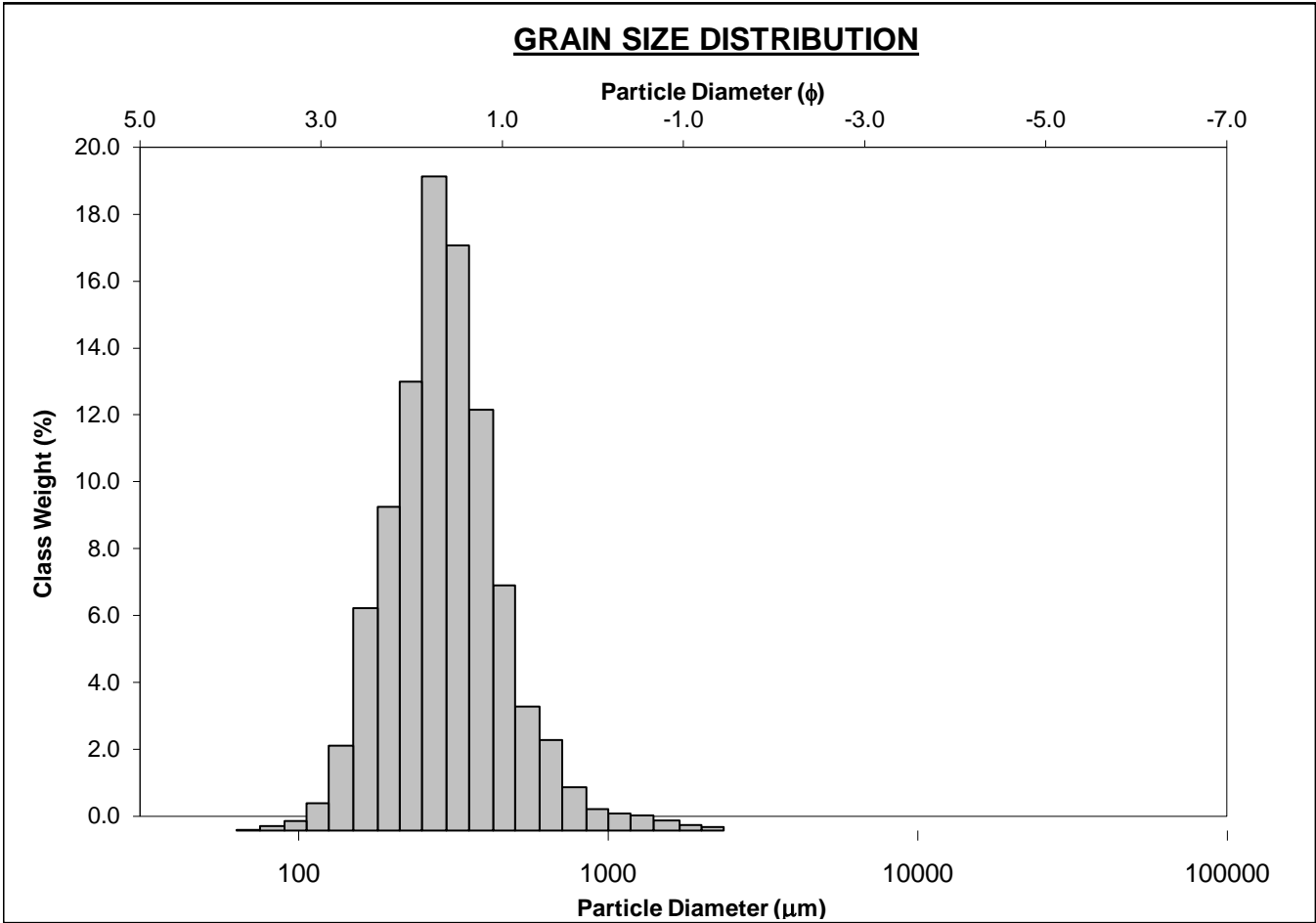
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-40cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.2%		COARSE SAND: 9.4%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 47.2%	
MODE 3:			MUD: 0.2%		FINE SAND: 39.0%	
D ₁₀ :	155.3	0.975			V FINE SAND: 3.2%	
MEDIAN or D ₅₀ :	271.0	1.883	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	508.7	2.687	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.275	2.756	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	353.4	1.712	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.834	1.605	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	166.9	0.875	V COARSE SAND: 0.9%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	314.2	275.4	1.860	273.0	1.873	Medium Sand
SORTING (σ):	185.9	1.653	0.725	1.597	0.675	Moderately Well Sorted
SKEWNESS (Sk):	3.297	-0.359	0.359	0.062	-0.062	Symmetrical
KURTOSIS (K):	23.72	8.374	8.374	1.069	1.069	Mesokurtic



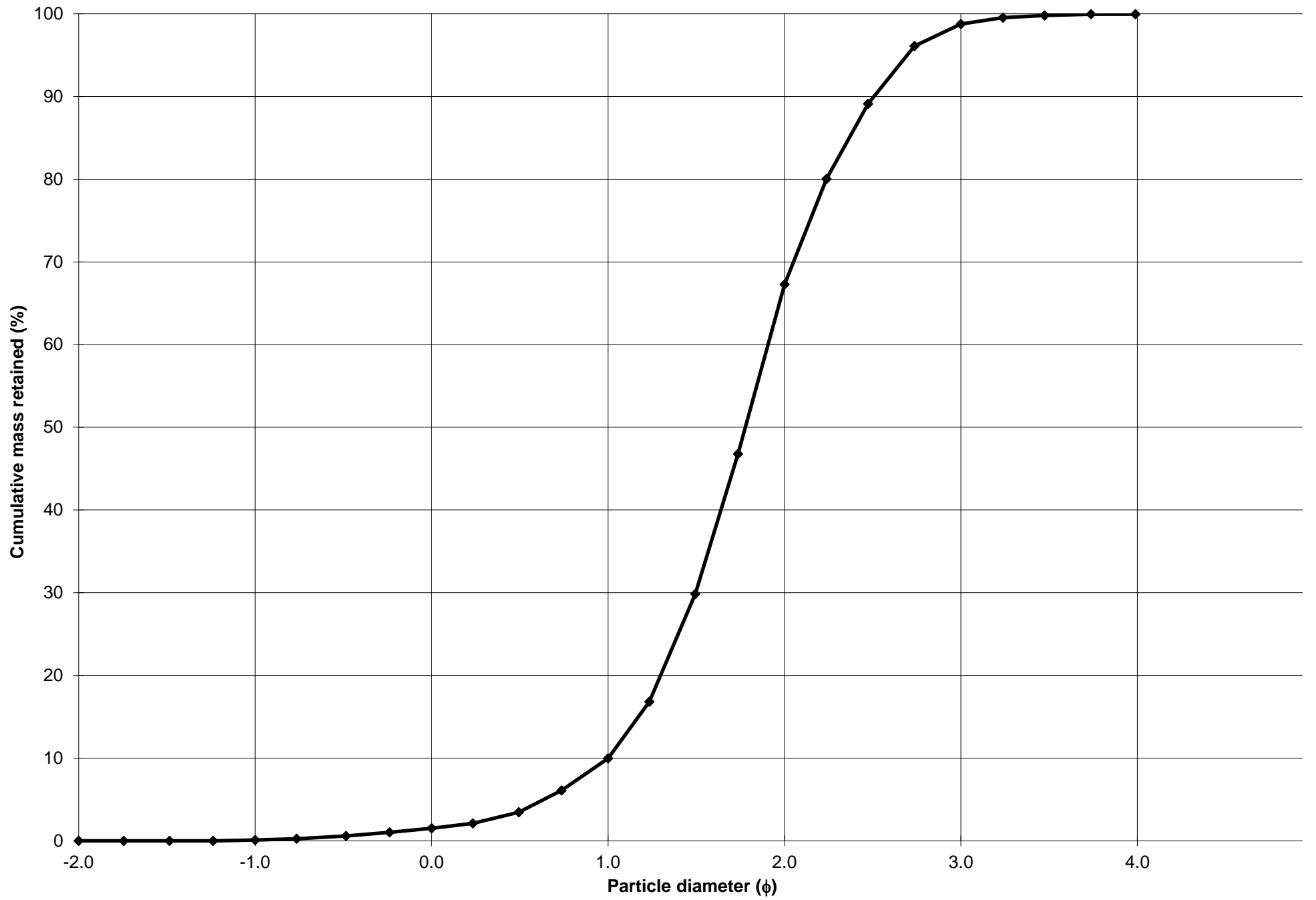
Cumulative Frequency Curve



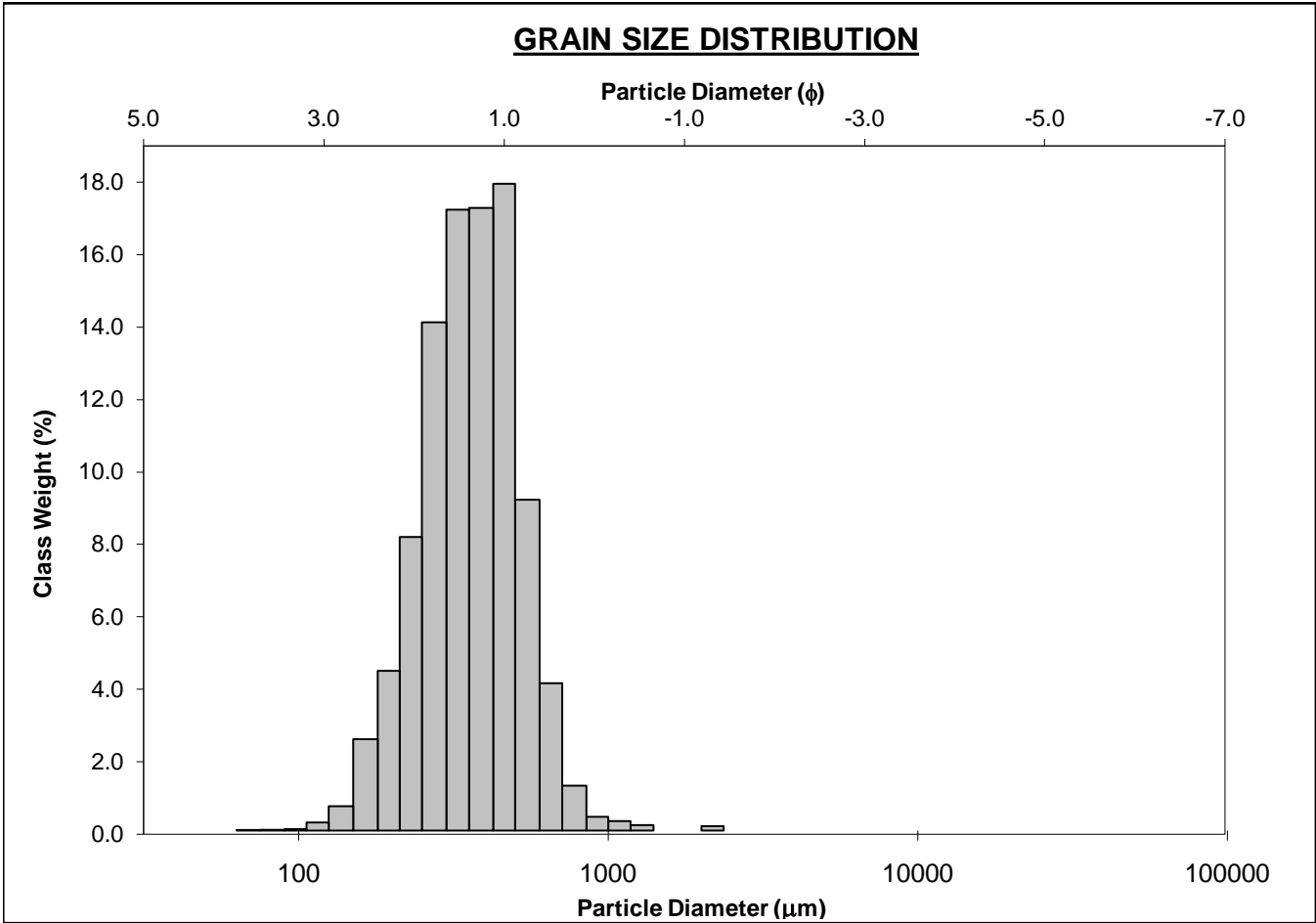
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-50cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.1%		COARSE SAND: 8.4%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 57.3%	
MODE 3:			MUD: 0.0%		FINE SAND: 31.5%	
D ₁₀ :	175.9	1.001			V FINE SAND: 1.2%	
MEDIAN or D ₅₀ :	291.5	1.778	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	499.6	2.507	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.840	2.505	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	323.7	1.506	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.678	1.534	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	153.4	0.747	V COARSE SAND: 1.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	333.9	298.6	1.744	292.1	1.775	Medium Sand
SORTING (σ):	192.7	1.556	0.638	1.511	0.596	Moderately Well Sorted
SKEWNESS (Sk):	3.711	0.413	-0.413	0.058	-0.058	Symmetrical
KURTOSIS (K):	24.98	6.249	6.249	1.130	1.130	Leptokurtic



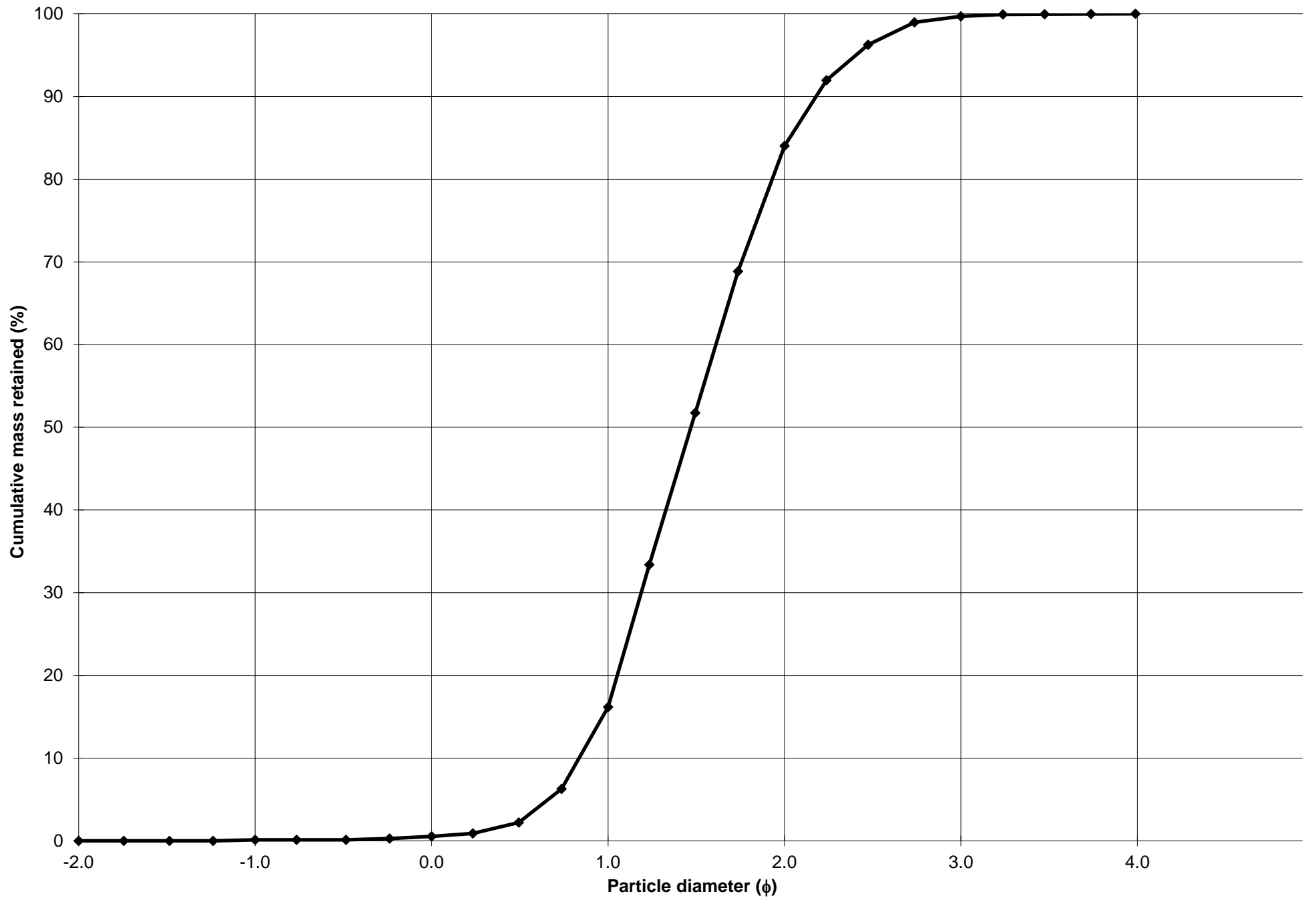
Cumulative Frequency Curve



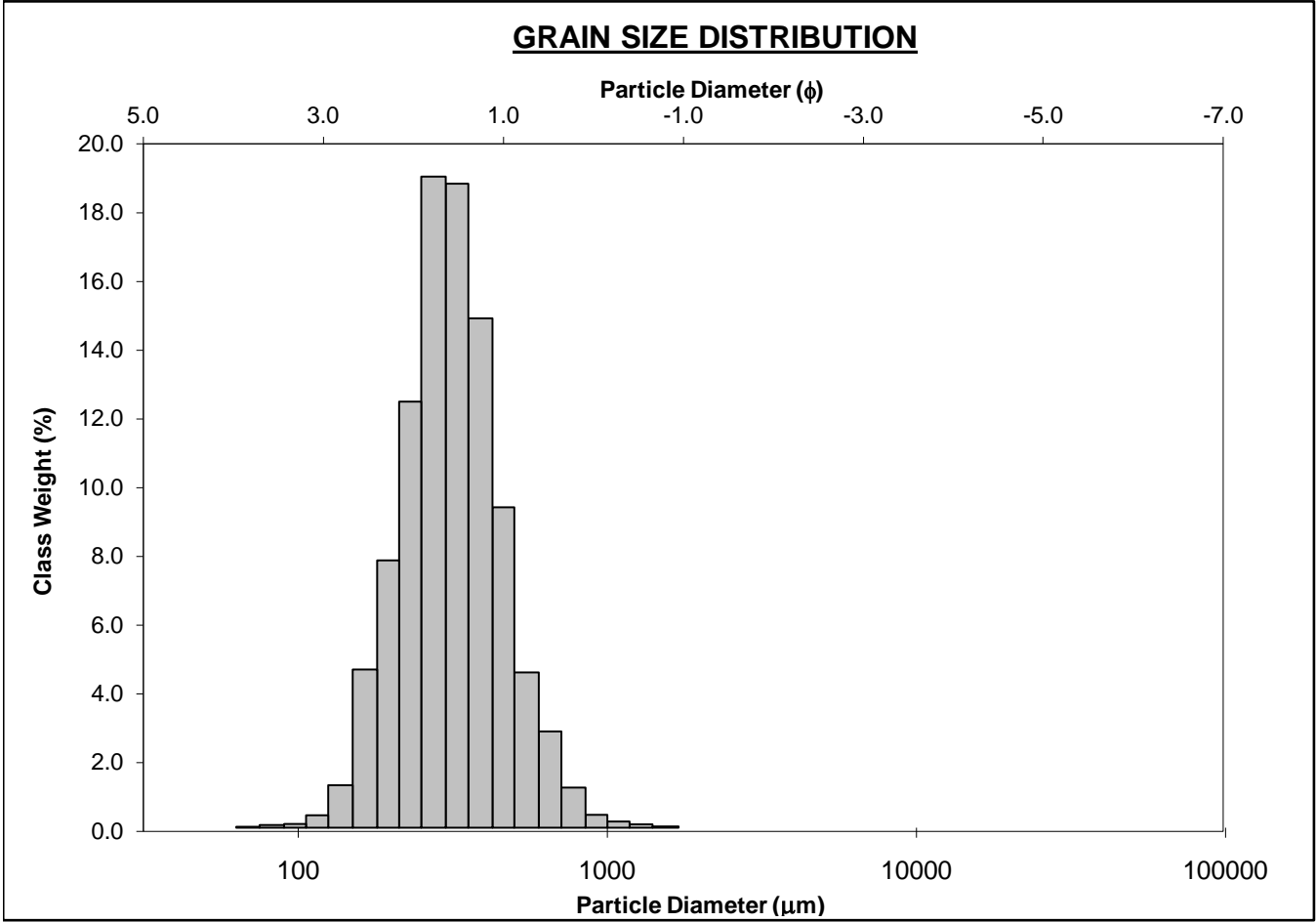
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-60cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	462.5	1.117	GRAVEL: 0.1%		COARSE SAND: 15.6%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 67.9%	
MODE 3:			MUD: 0.0%		FINE SAND: 15.7%	
D ₁₀ :	220.8	0.836			V FINE SAND: 0.3%	
MEDIAN or D ₅₀ :	361.1	1.470	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	560.2	2.179	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.537	2.607	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	339.4	1.343	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.651	1.645	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	181.3	0.723	V COARSE SAND: 0.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	383.6	356.6	1.488	356.5	1.488	Medium Sand
SORTING (σ):	155.0	1.449	0.535	1.429	0.515	Moderately Well Sorted
SKEWNESS (Sk):	2.825	-0.066	0.066	-0.064	0.064	Symmetrical
KURTOSIS (K):	26.60	4.337	4.337	0.989	0.989	Mesokurtic



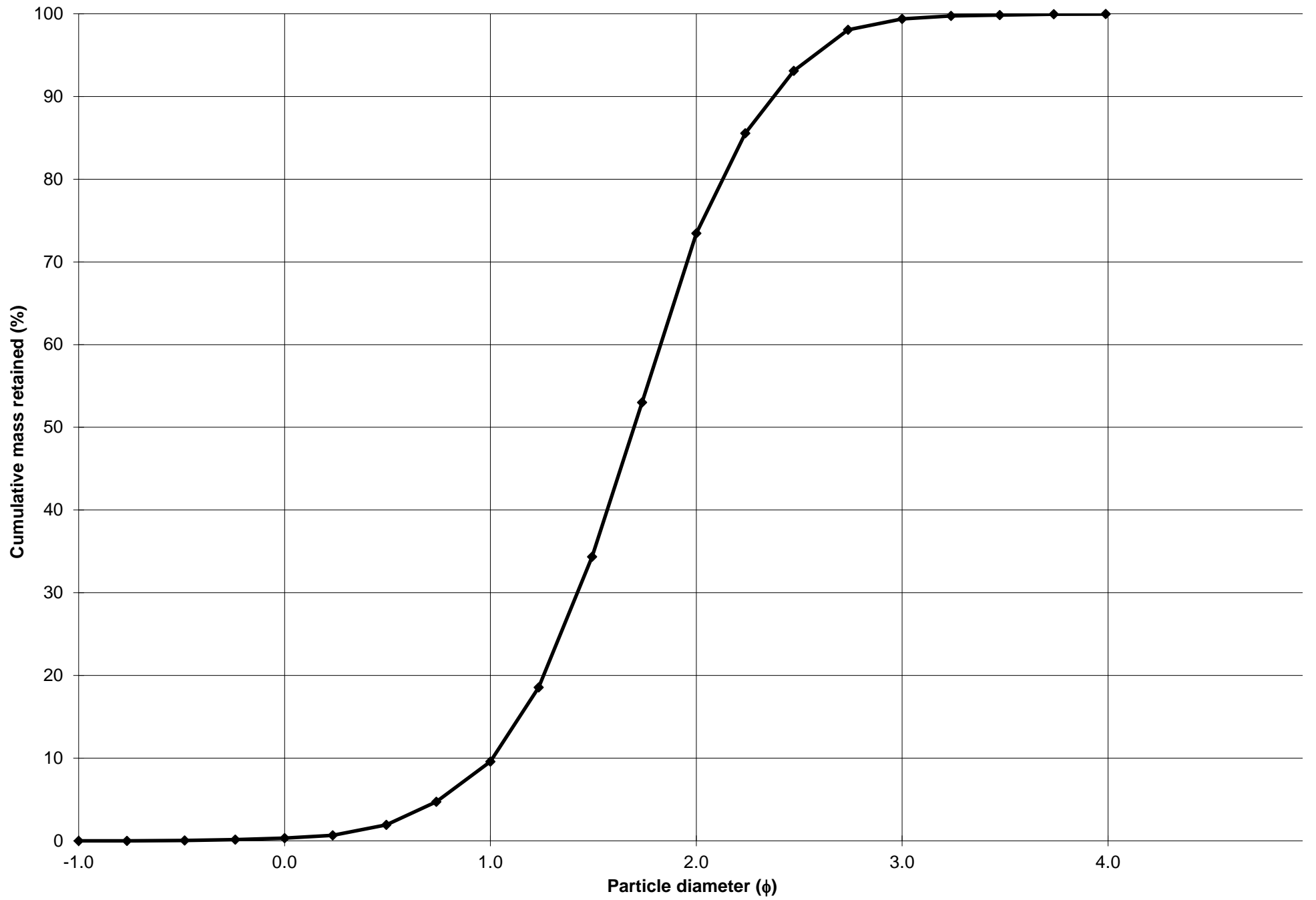
Cumulative Frequency Curve



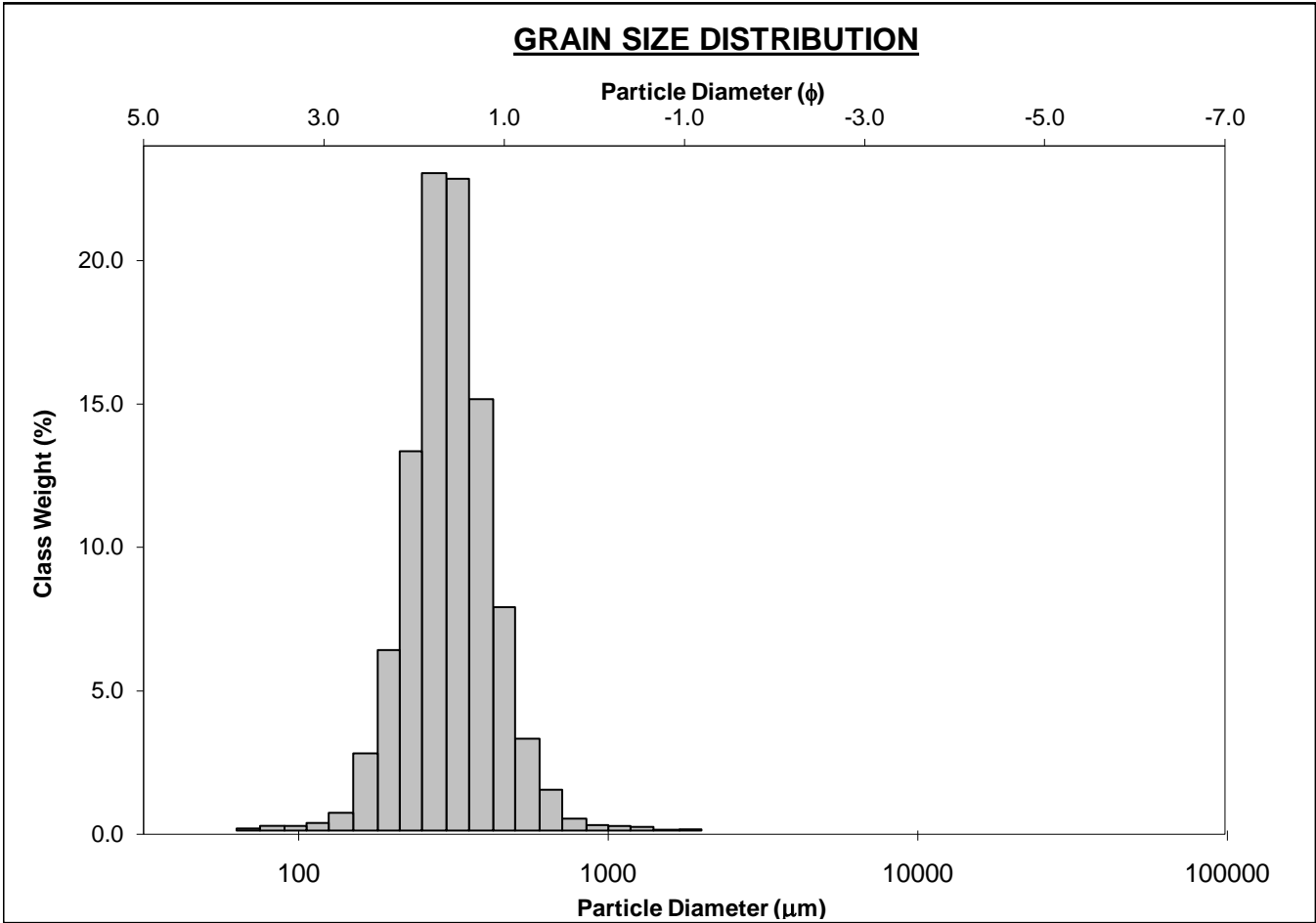
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-70cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 9.3%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 63.9%	
MODE 3:			MUD: 0.0%		FINE SAND: 25.9%	
D ₁₀ :	192.5	1.011			V FINE SAND: 0.6%	
MEDIAN or D ₅₀ :	308.3	1.698	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	496.3	2.377	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.578	2.352	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	303.8	1.366	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.613	1.515	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	150.1	0.690	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	335.8	310.9	1.686	309.7	1.691	Medium Sand
SORTING (σ):	138.2	1.464	0.550	1.450	0.536	Moderately Well Sorted
SKEWNESS (Sk):	1.885	-0.135	0.135	0.029	-0.029	Symmetrical
KURTOSIS (K):	10.35	6.355	6.355	1.083	1.083	Mesokurtic



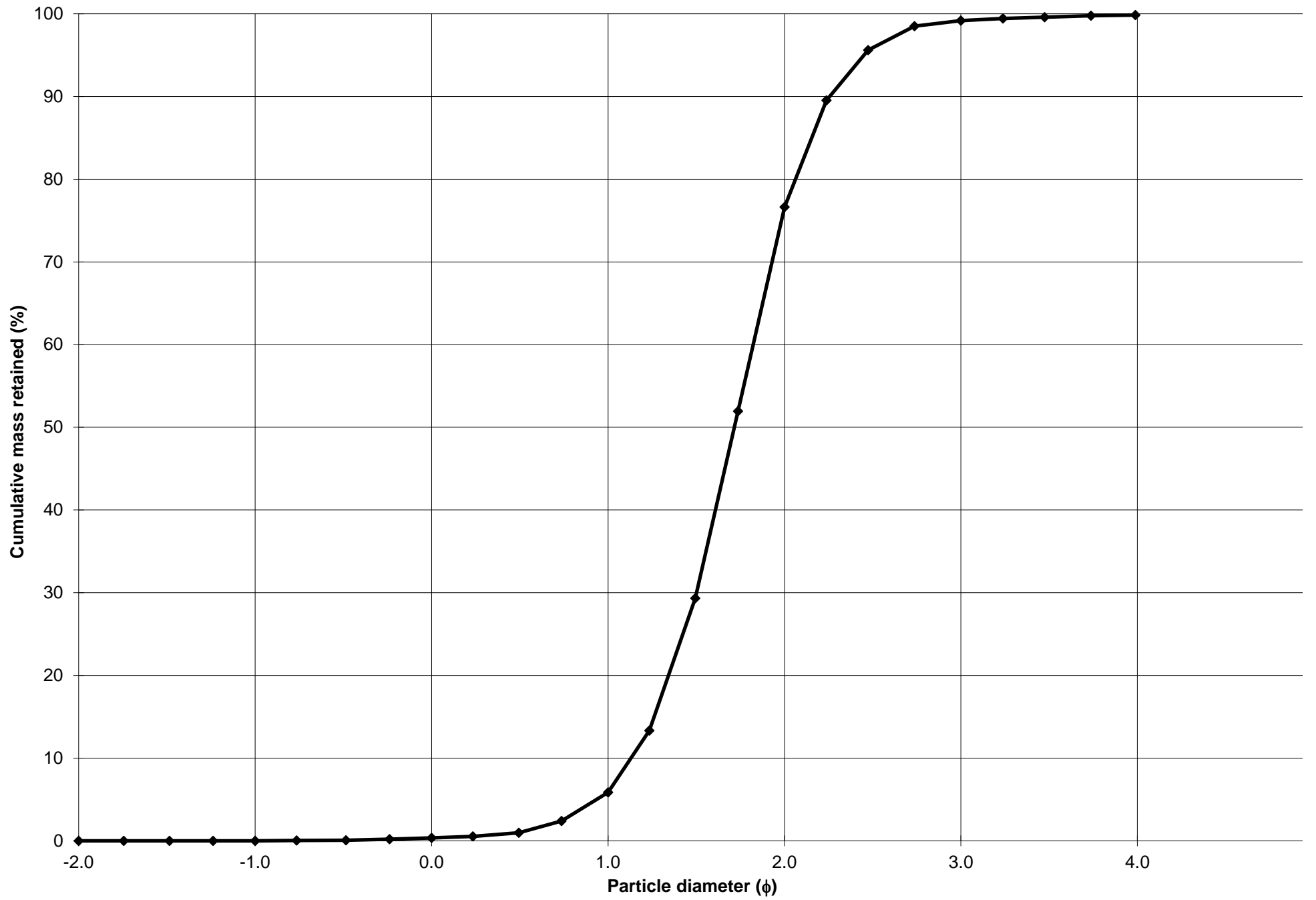
Cumulative Frequency Curve



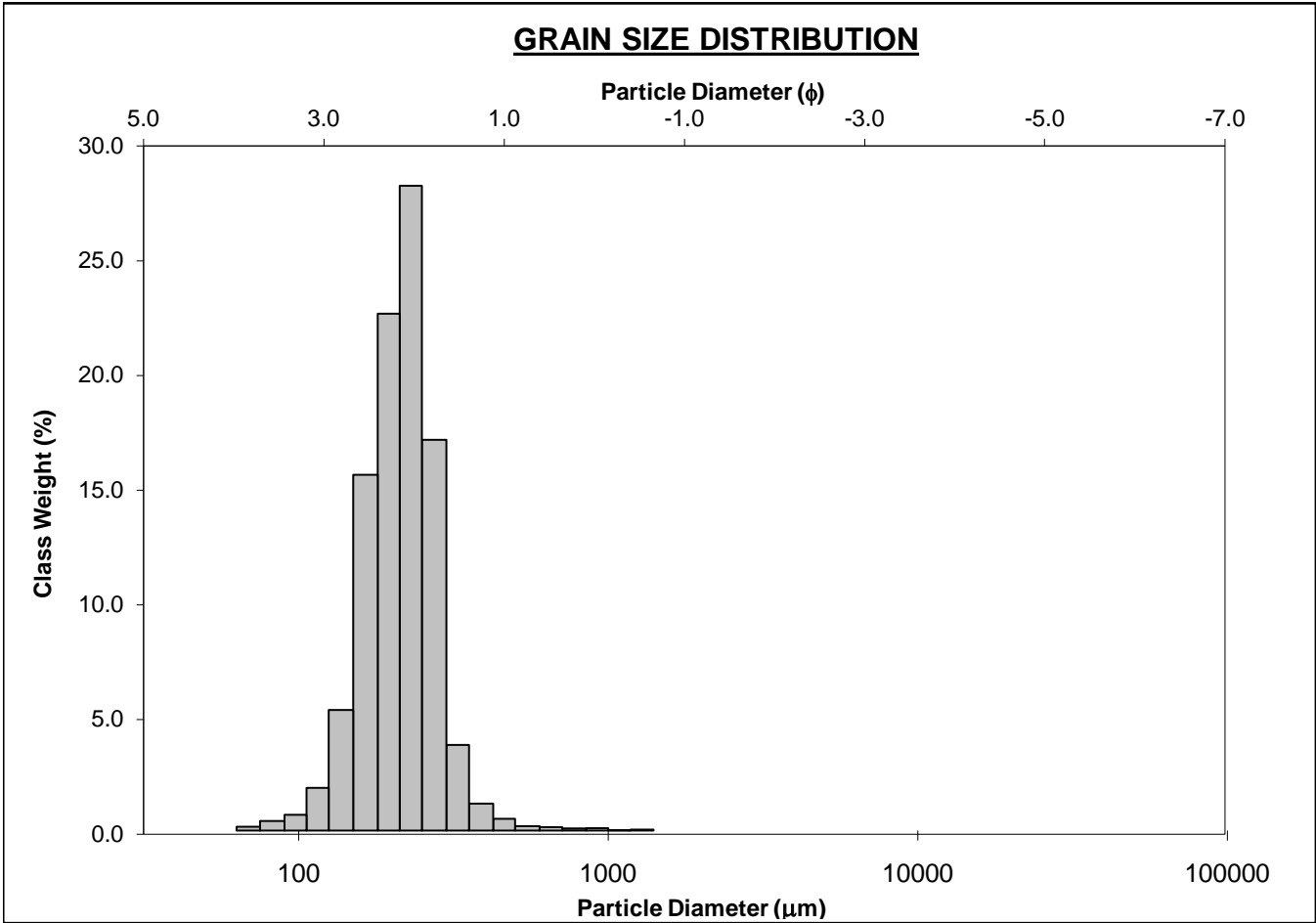
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-80cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 5.5%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 70.8%	
MODE 3:			MUD: 0.2%		FINE SAND: 22.5%	
D ₁₀ :	209.3	1.130			V FINE SAND: 0.7%	
MEDIAN or D ₅₀ :	304.4	1.716	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	456.9	2.256	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.183	1.997	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	247.6	1.126	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.473	1.392	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	119.7	0.559	V COARSE SAND: 0.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	325.1	305.1	1.712	305.7	1.710	Medium Sand
SORTING (σ):	121.5	1.429	0.515	1.361	0.444	Well Sorted
SKEWNESS (Sk):	2.974	-1.523	1.523	0.026	-0.026	Symmetrical
KURTOSIS (K):	24.90	20.90	20.90	1.111	1.111	Leptokurtic



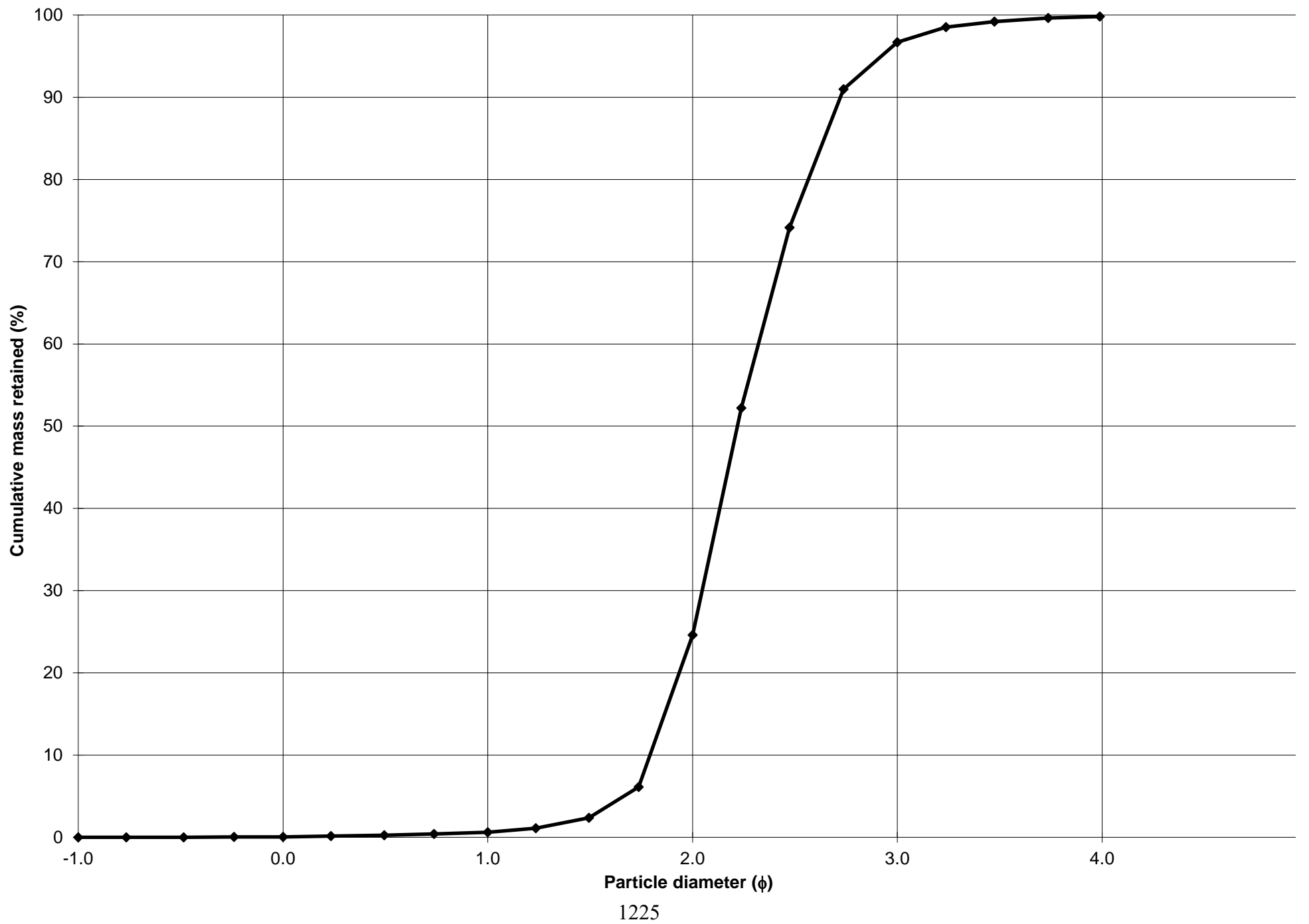
Cumulative Frequency Curve



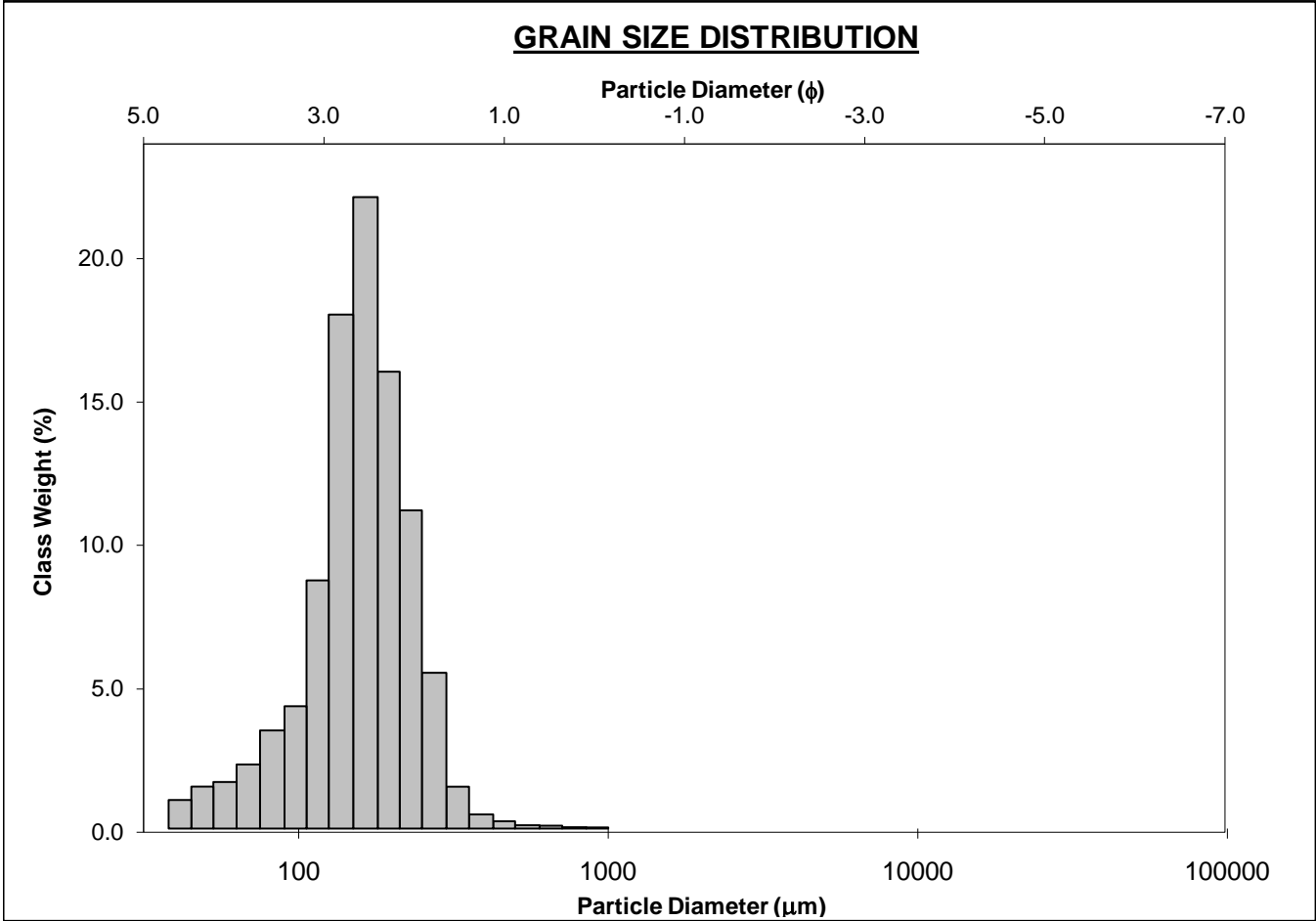
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-90cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.6%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 24.0%	
MODE 3:			MUD: 0.2%		FINE SAND: 72.1%	
D ₁₀ :	151.6	1.792			V FINE SAND: 3.1%	
MEDIAN or D ₅₀ :	214.8	2.219	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	288.7	2.722	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.904	1.519	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	137.1	0.929	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.398	1.242	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	71.06	0.484	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	220.6	210.0	2.251	211.5	2.241	Fine Sand
SORTING (σ):	71.61	1.369	0.453	1.300	0.378	Well Sorted
SKEWNESS (Sk):	3.889	-1.990	1.990	-0.104	0.104	Fine Skewed
KURTOSIS (K):	42.55	26.27	26.27	1.065	1.065	Mesokurtic



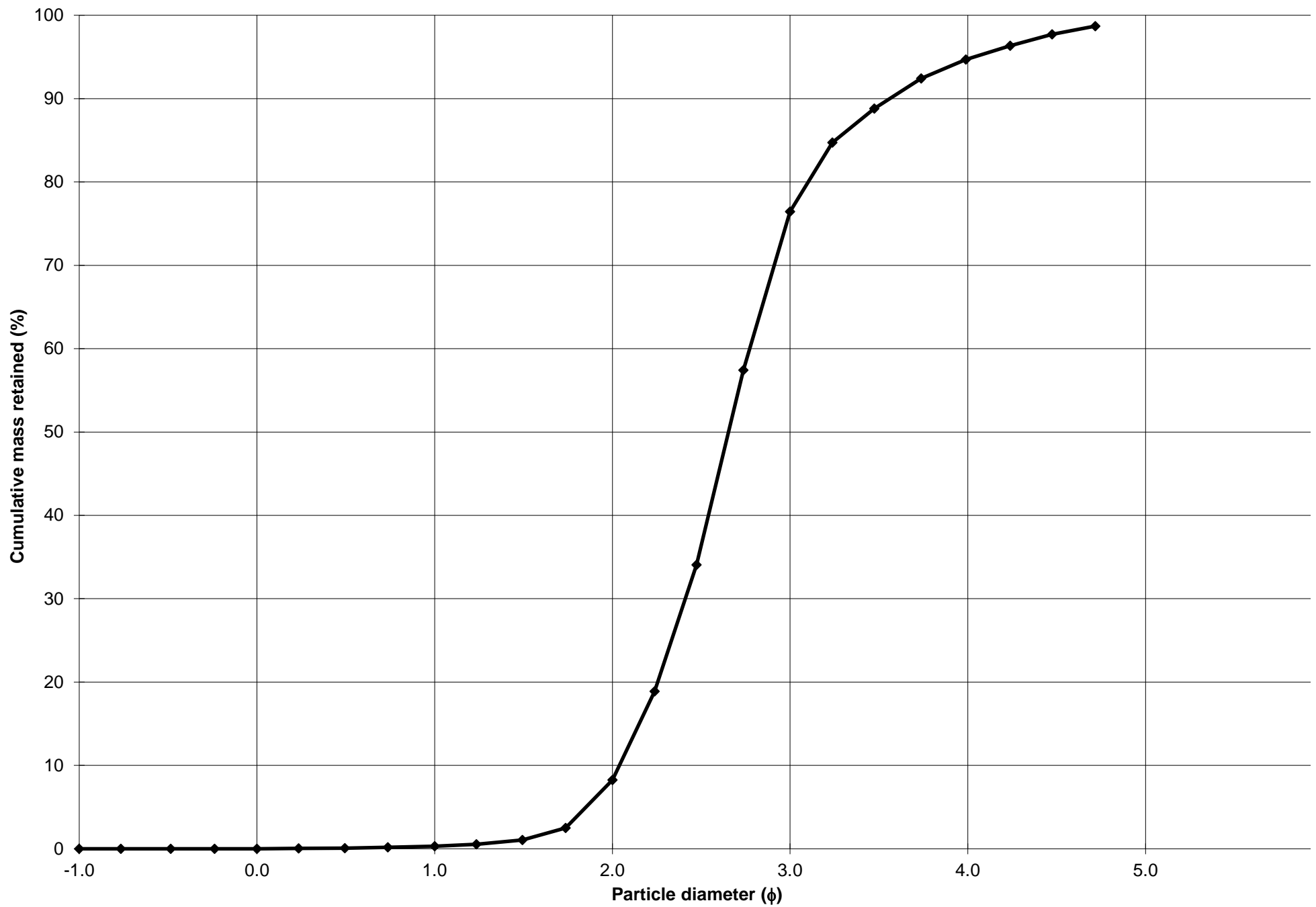
Cumulative Frequency Curve



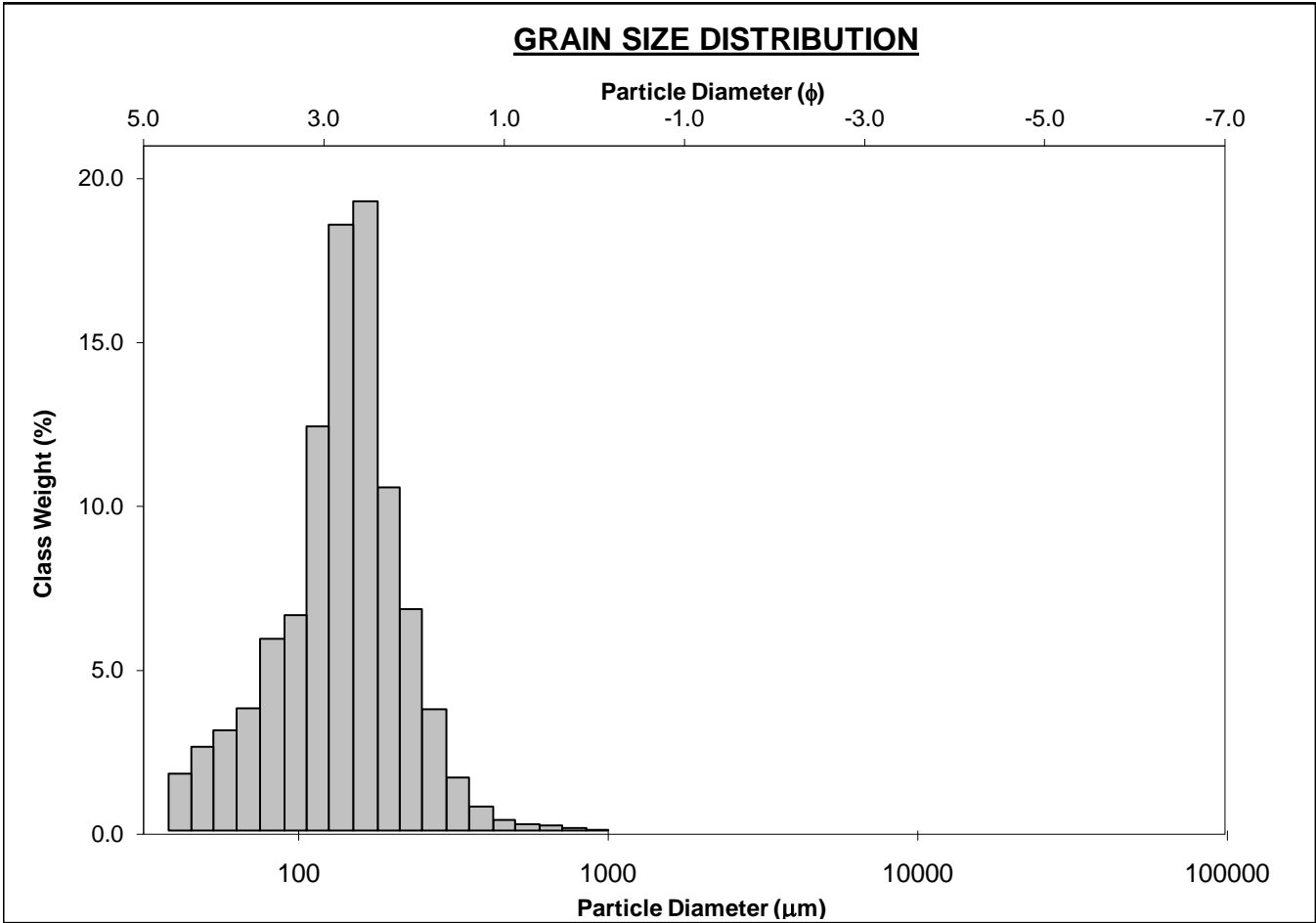
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-100cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.3%	
MODE 2:			SAND: 94.8%		MEDIUM SAND: 7.9%	
MODE 3:			MUD: 5.2%		FINE SAND: 68.2%	
D ₁₀ :	84.72	2.039			V FINE SAND: 18.3%	
MEDIAN or D ₅₀ :	158.9	2.653	V COARSE GRAVEL: 0.0%		V COARSE SILT: 4.0%	
D ₉₀ :	243.3	3.561	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	2.872	1.747	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	158.6	1.522	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.566	1.277	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	71.77	0.647	V COARSE SAND: 0.0%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	165.1	147.5	2.761	155.9	2.681	Fine Sand
SORTING (σ):	69.01	1.729	0.790	1.507	0.592	Moderately Well Sorted
SKEWNESS (Sk):	1.795	-2.694	2.694	-0.173	0.173	Fine Skewed
KURTOSIS (K):	15.34	16.23	16.23	1.383	1.383	Leptokurtic



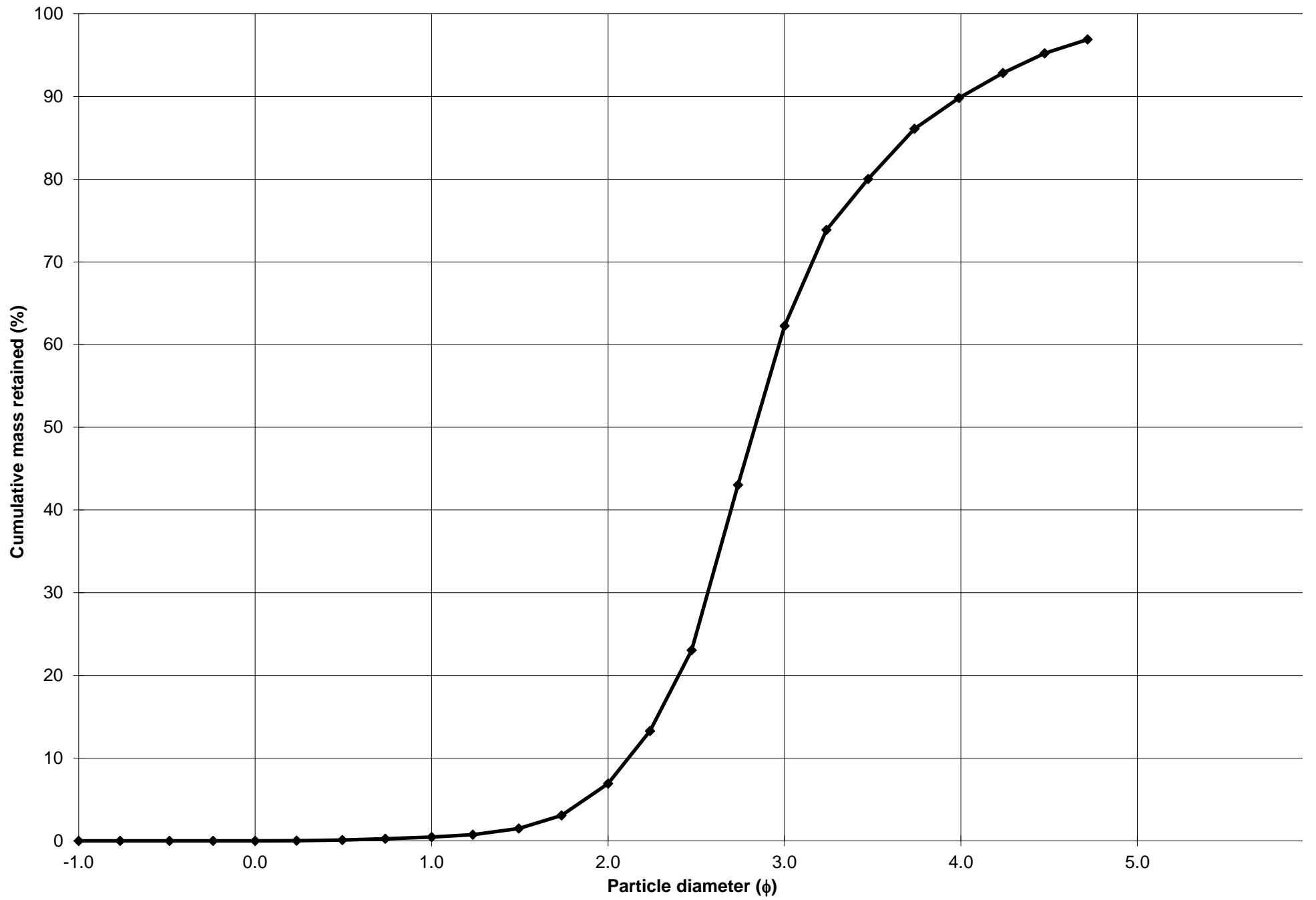
Cumulative Frequency Curve



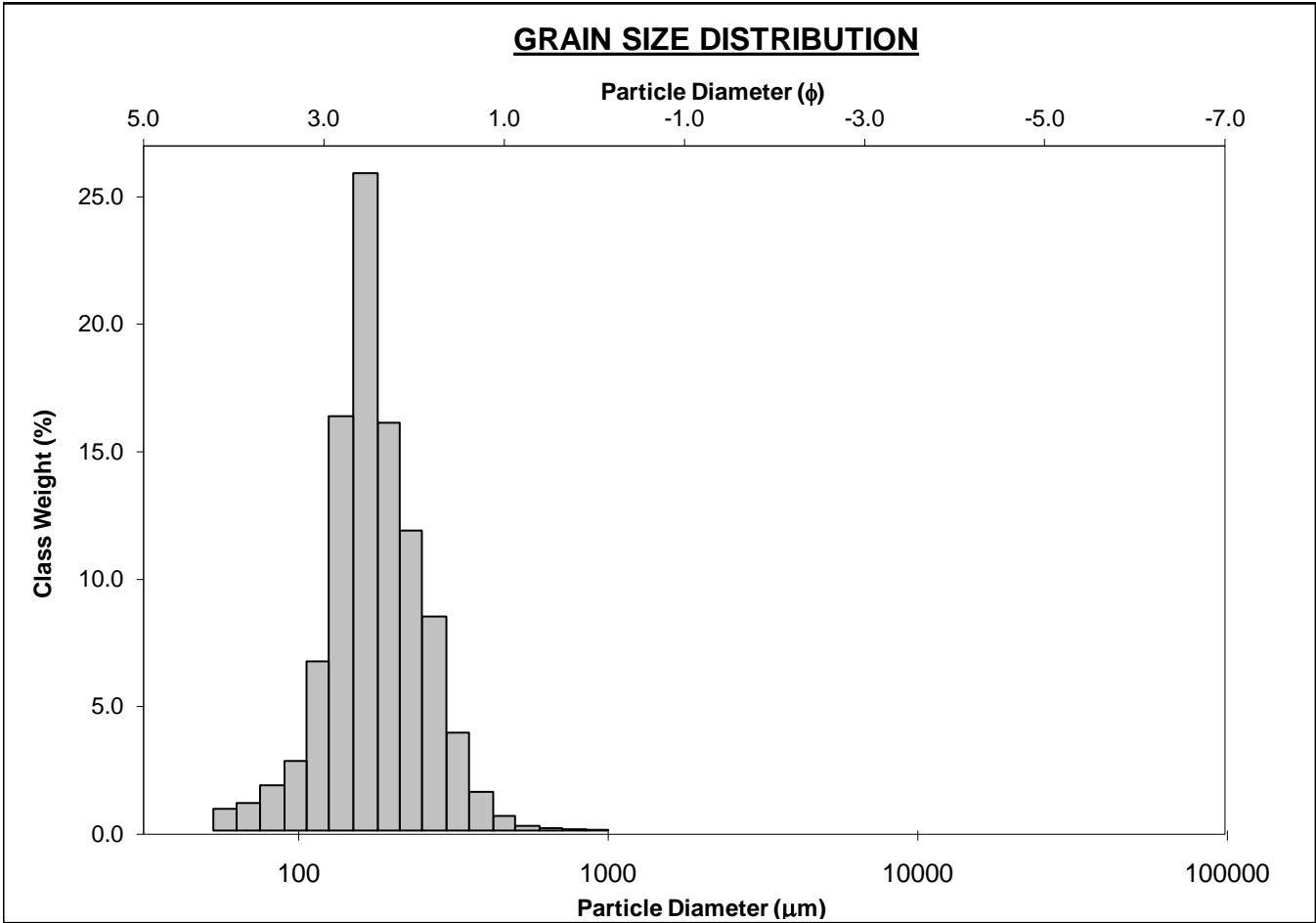
SIEVING ERROR: 1.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-110cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Muddy Sand			
SEDIMENT NAME: Very Coarse Silty Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.5%	
MODE 2:			SAND: 89.9%		MEDIUM SAND: 6.5%	
MODE 3:			MUD: 10.1%		FINE SAND: 55.4%	
D_{10} :	62.32	2.116			V FINE SAND: 27.7%	
MEDIAN or D_{50} :	140.4	2.832	V COARSE GRAVEL: 0.0%		V COARSE SILT: 7.1%	
D_{90} :	230.8	4.004	COARSE GRAVEL: 0.0%		COARSE SILT: 0.6%	
(D_{90} / D_{10}) :	3.703	1.893	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.6%	
$(D_{90} - D_{10})$:	168.4	1.889	FINE GRAVEL: 0.0%		FINE SILT: 0.6%	
(D_{75} / D_{25}) :	1.719	1.313	V FINE GRAVEL: 0.0%		V FINE SILT: 0.6%	
$(D_{75} - D_{25})$:	73.96	0.782	V COARSE SAND: 0.0%		CLAY: 0.6%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	147.4	123.6	3.016	131.4	2.927	Fine Sand
SORTING (σ):	75.54	2.023	1.016	1.655	0.727	Moderately Sorted
SKEWNESS (Sk):	2.022	-2.327	2.327	-0.234	0.234	Fine Skewed
KURTOSIS (K):	14.07	11.01	11.01	1.354	1.354	Leptokurtic



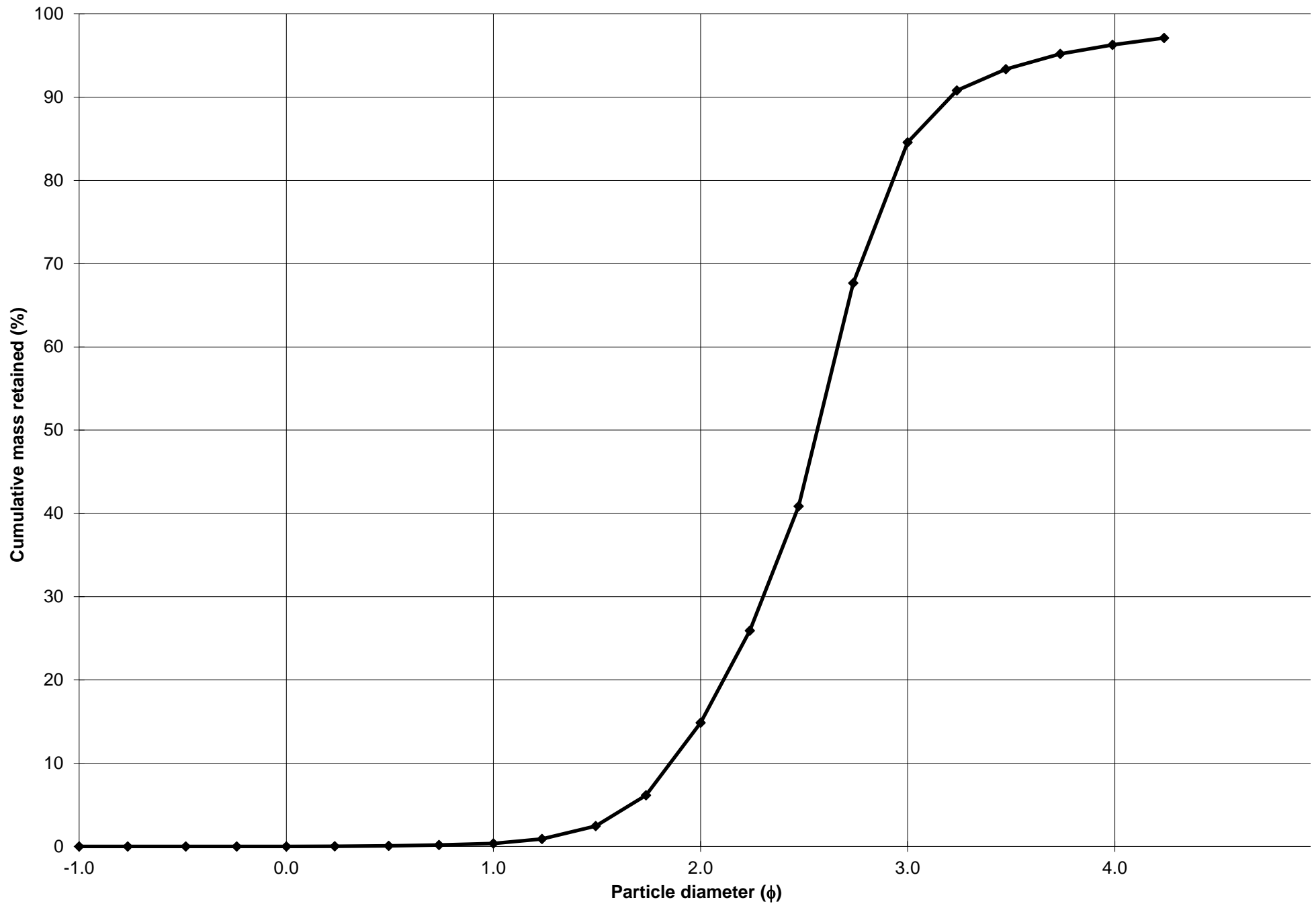
Cumulative Frequency Curve



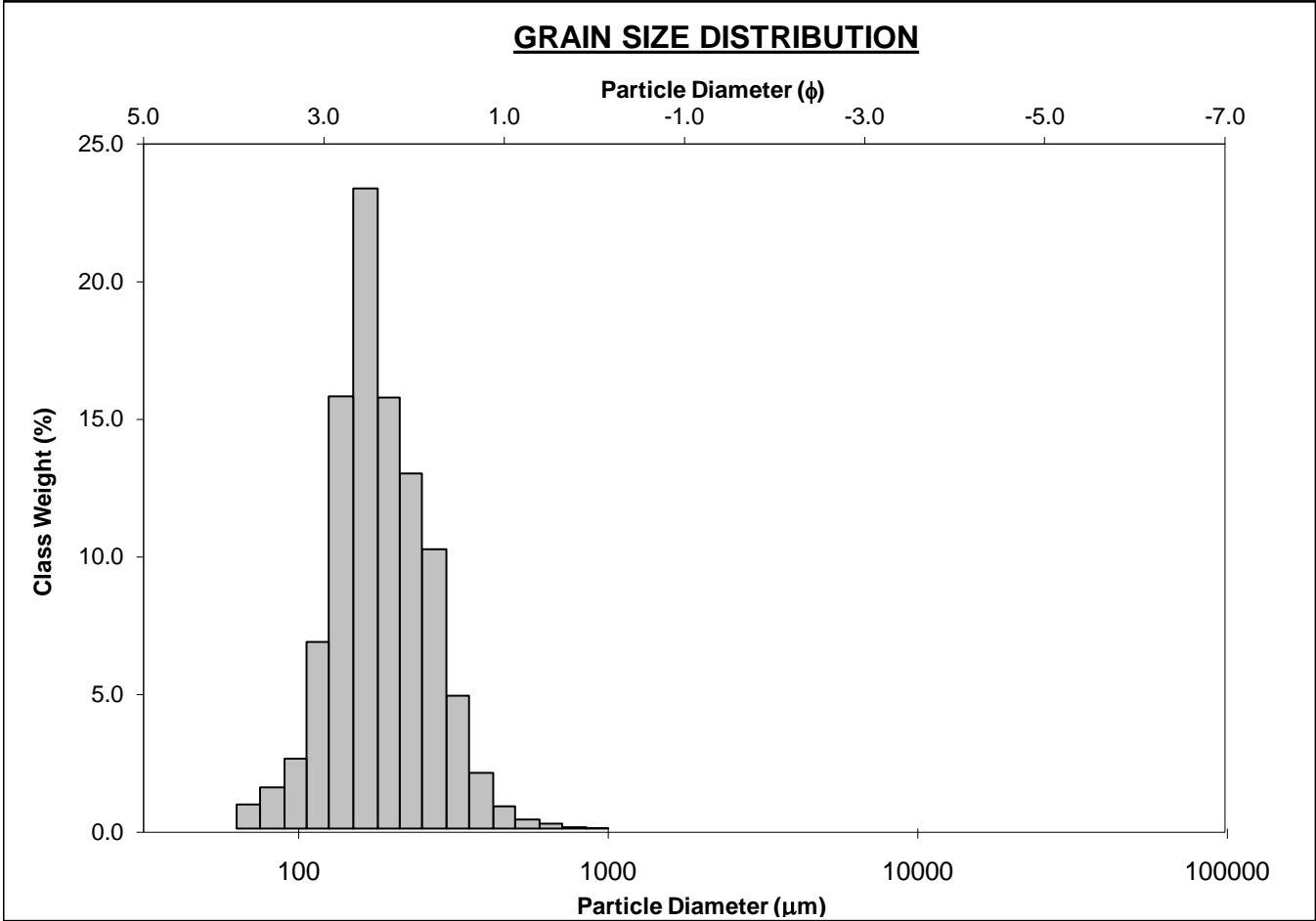
SIEVING ERROR: 1.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-120cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.4%	
MODE 2:			SAND: 96.3%		MEDIUM SAND: 14.5%	
MODE 3:			MUD: 3.7%		FINE SAND: 69.7%	
D ₁₀ :	108.3	1.853			V FINE SAND: 11.7%	
MEDIAN or D ₅₀ :	169.1	2.564	V COARSE GRAVEL: 0.0%		V COARSE SILT: 1.2%	
D ₉₀ :	276.7	3.207	COARSE GRAVEL: 0.0%		COARSE SILT: 0.5%	
(D ₉₀ / D ₁₀):	2.556	1.731	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.5%	
(D ₉₀ - D ₁₀):	168.5	1.354	FINE GRAVEL: 0.0%		FINE SILT: 0.5%	
(D ₇₅ / D ₂₅):	1.551	1.286	V FINE GRAVEL: 0.0%		V FINE SILT: 0.5%	
(D ₇₅ - D ₂₅):	76.38	0.633	V COARSE SAND: 0.0%		CLAY: 0.5%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	182.4	159.3	2.650	173.6	2.526	Fine Sand
SORTING (σ):	75.72	1.897	0.924	1.466	0.552	Moderately Well Sorted
SKEWNESS (Sk):	1.507	-3.144	3.144	-0.002	0.002	Symmetrical
KURTOSIS (K):	10.33	16.28	16.28	1.325	1.325	Leptokurtic



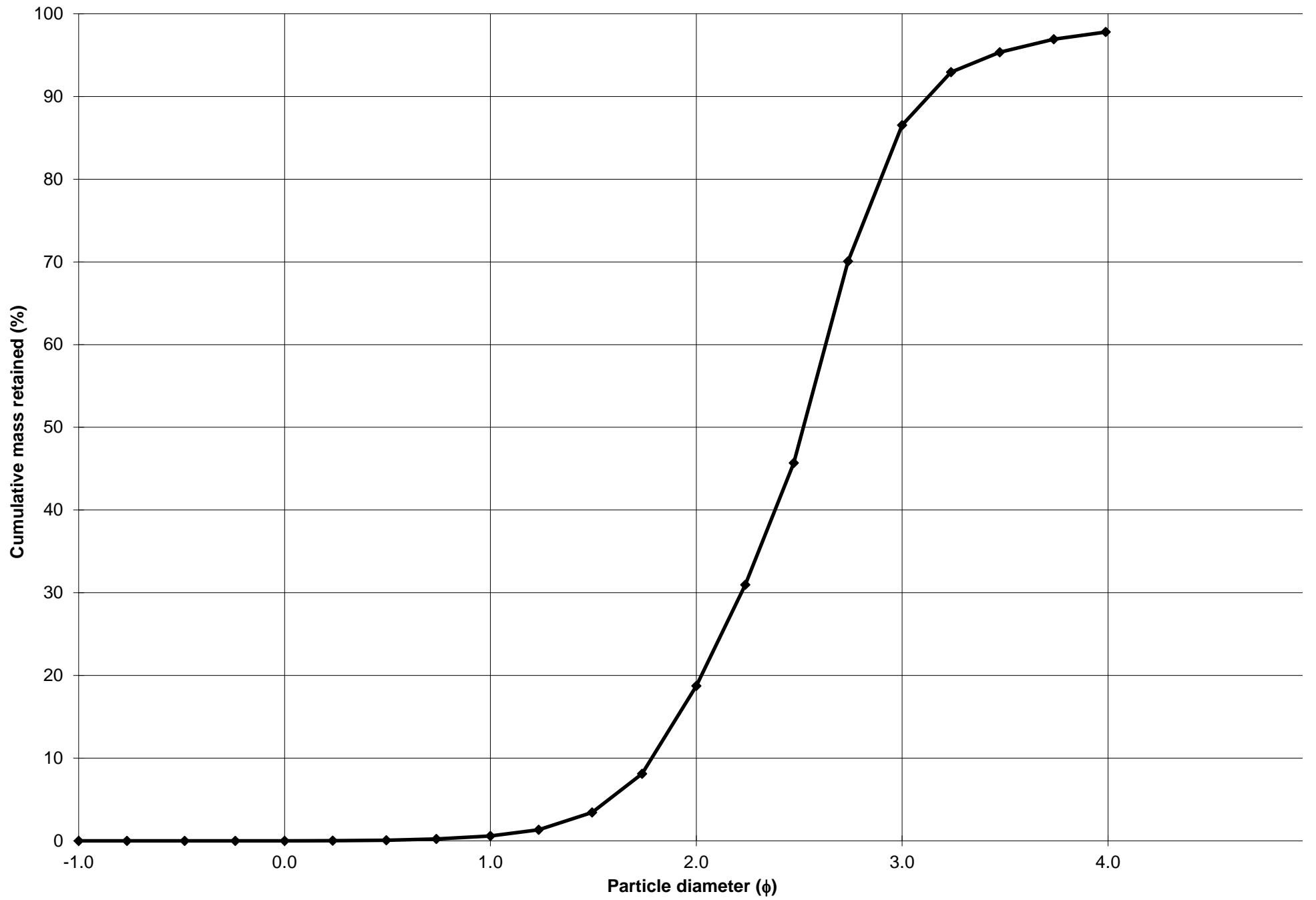
Cumulative Frequency Curve



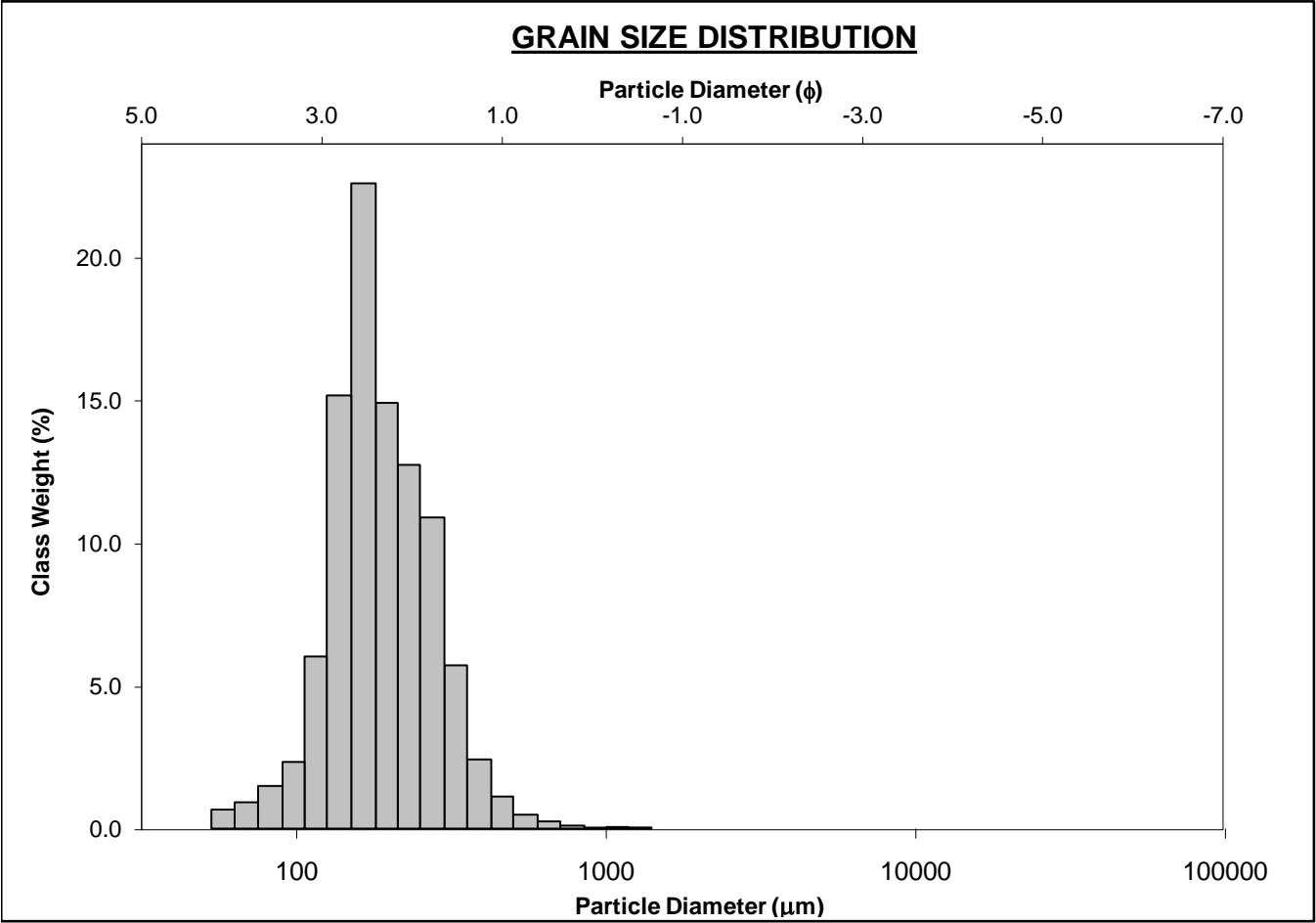
SIEVING ERROR: 1.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-130cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.6%	
MODE 2:			SAND: 97.8%		MEDIUM SAND: 18.2%	
MODE 3:			MUD: 2.2%		FINE SAND: 67.8%	
D ₁₀ :	114.3	1.784			V FINE SAND: 11.3%	
MEDIAN or D ₅₀ :	174.3	2.520	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.4%	
D ₉₀ :	290.4	3.128	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D ₉₀ / D ₁₀):	2.540	1.754	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
(D ₉₀ - D ₁₀):	176.1	1.345	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D ₇₅ / D ₂₅):	1.618	1.327	V FINE GRAVEL: 0.0%		V FINE SILT: 0.4%	
(D ₇₅ - D ₂₅):	87.73	0.694	V COARSE SAND: 0.0%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	192.1	170.2	2.554	180.4	2.471	Fine Sand
SORTING (σ):	79.73	1.790	0.840	1.453	0.539	Moderately Well Sorted
SKEWNESS (Sk):	1.531	-3.074	3.074	0.079	-0.079	Symmetrical
KURTOSIS (K):	8.801	17.79	17.79	1.101	1.101	Mesokurtic



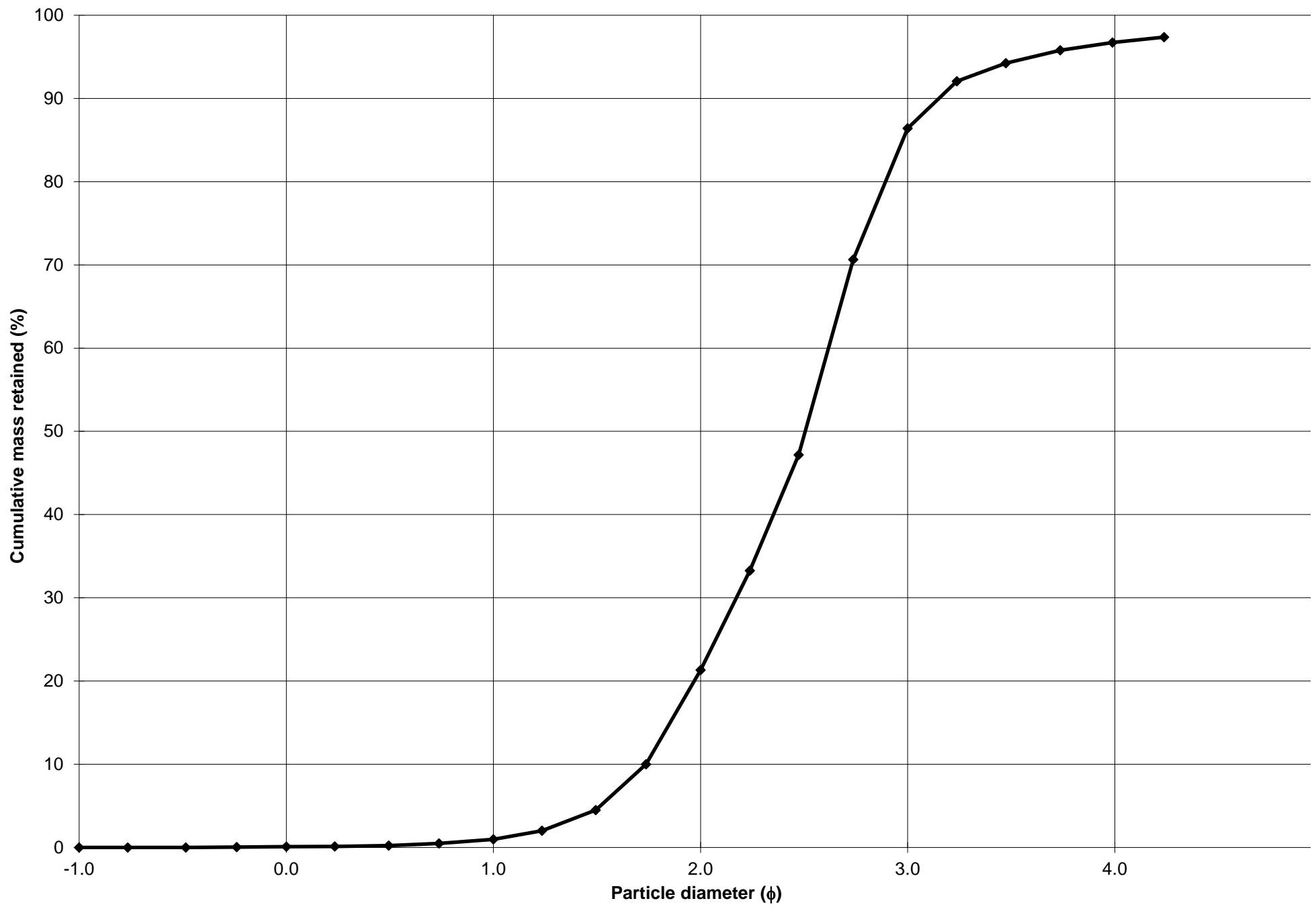
Cumulative Frequency Curve



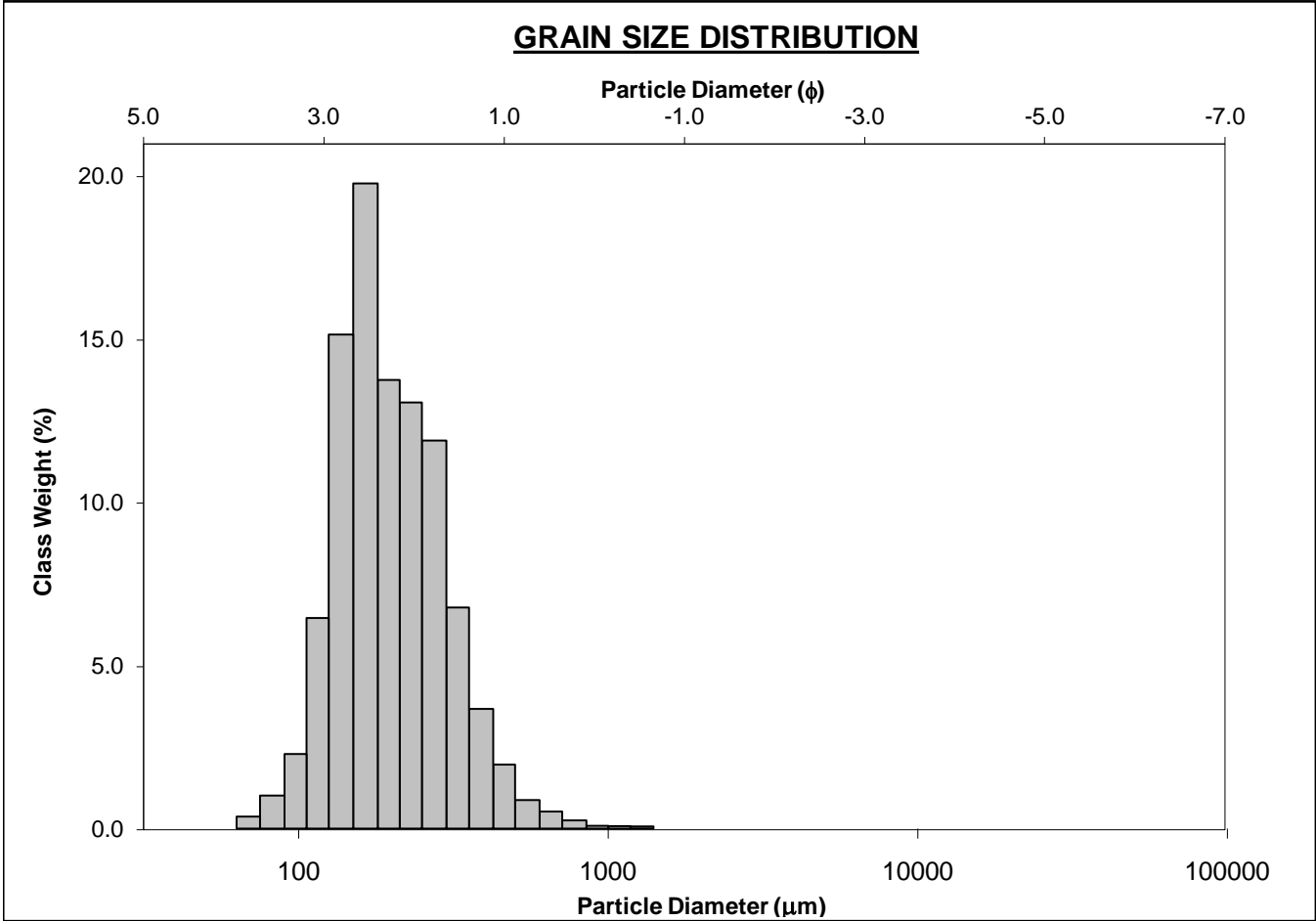
SIEVING ERROR: 2.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-140cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.9%	
MODE 2:			SAND: 96.7%		MEDIUM SAND: 20.3%	
MODE 3:			MUD: 3.3%		FINE SAND: 65.1%	
D ₁₀ :	112.6	1.737			V FINE SAND: 10.3%	
MEDIAN or D ₅₀ :	176.1	2.506	V COARSE GRAVEL: 0.0%		V COARSE SILT: 1.0%	
D ₉₀ :	299.9	3.151	COARSE GRAVEL: 0.0%		COARSE SILT: 0.5%	
(D ₉₀ / D ₁₀):	2.665	1.814	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.5%	
(D ₉₀ - D ₁₀):	187.4	1.414	FINE GRAVEL: 0.0%		FINE SILT: 0.5%	
(D ₇₅ / D ₂₅):	1.666	1.355	V FINE GRAVEL: 0.0%		V FINE SILT: 0.5%	
(D ₇₅ - D ₂₅):	94.97	0.736	V COARSE SAND: 0.1%		CLAY: 0.5%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	197.1	170.5	2.552	183.3	2.447	Fine Sand
SORTING (σ):	92.77	1.909	0.933	1.502	0.587	Moderately Well Sorted
SKEWNESS (Sk):	2.427	-2.907	2.907	0.055	-0.055	Symmetrical
KURTOSIS (K):	19.22	15.72	15.72	1.161	1.161	Leptokurtic



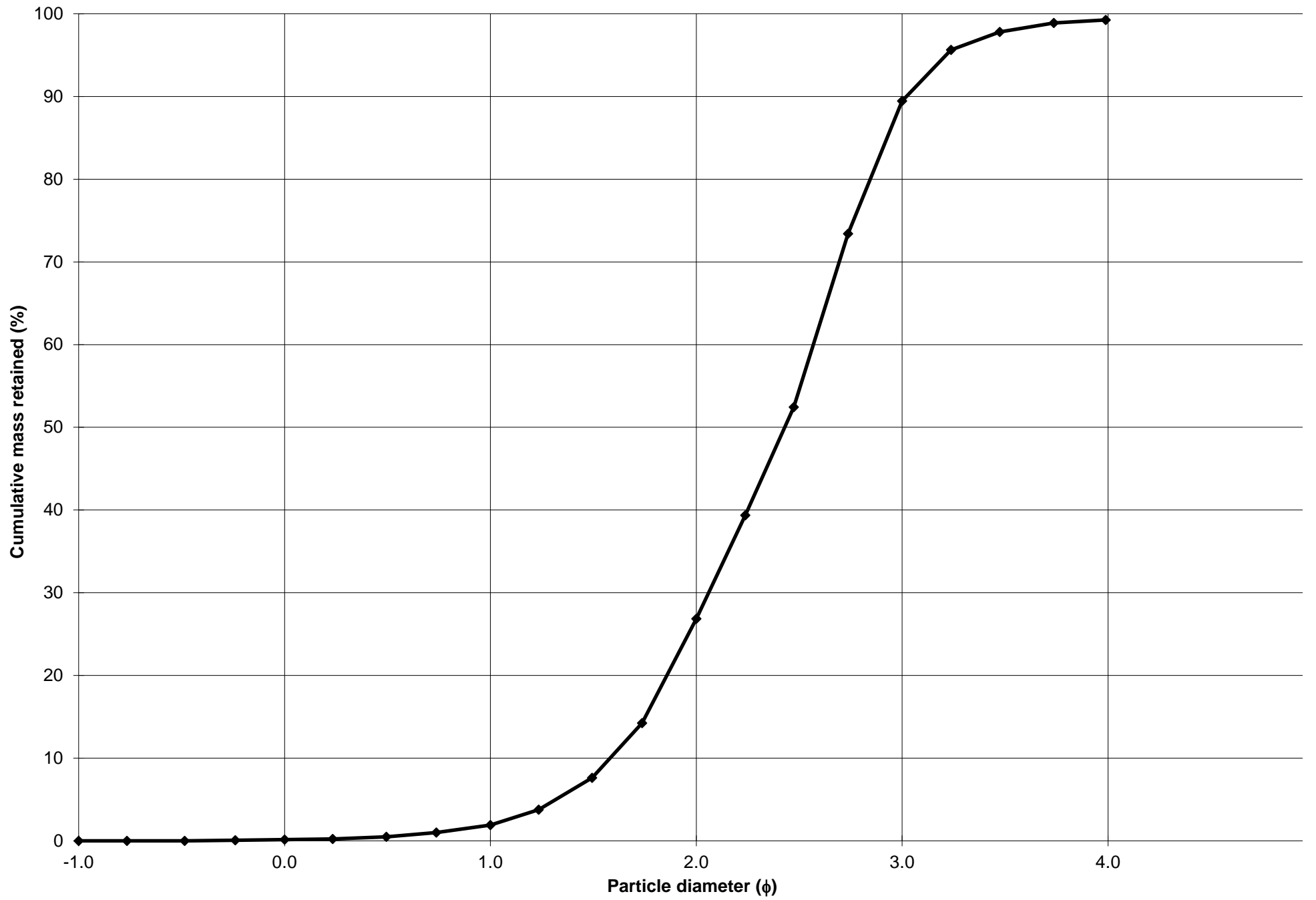
Cumulative Frequency Curve



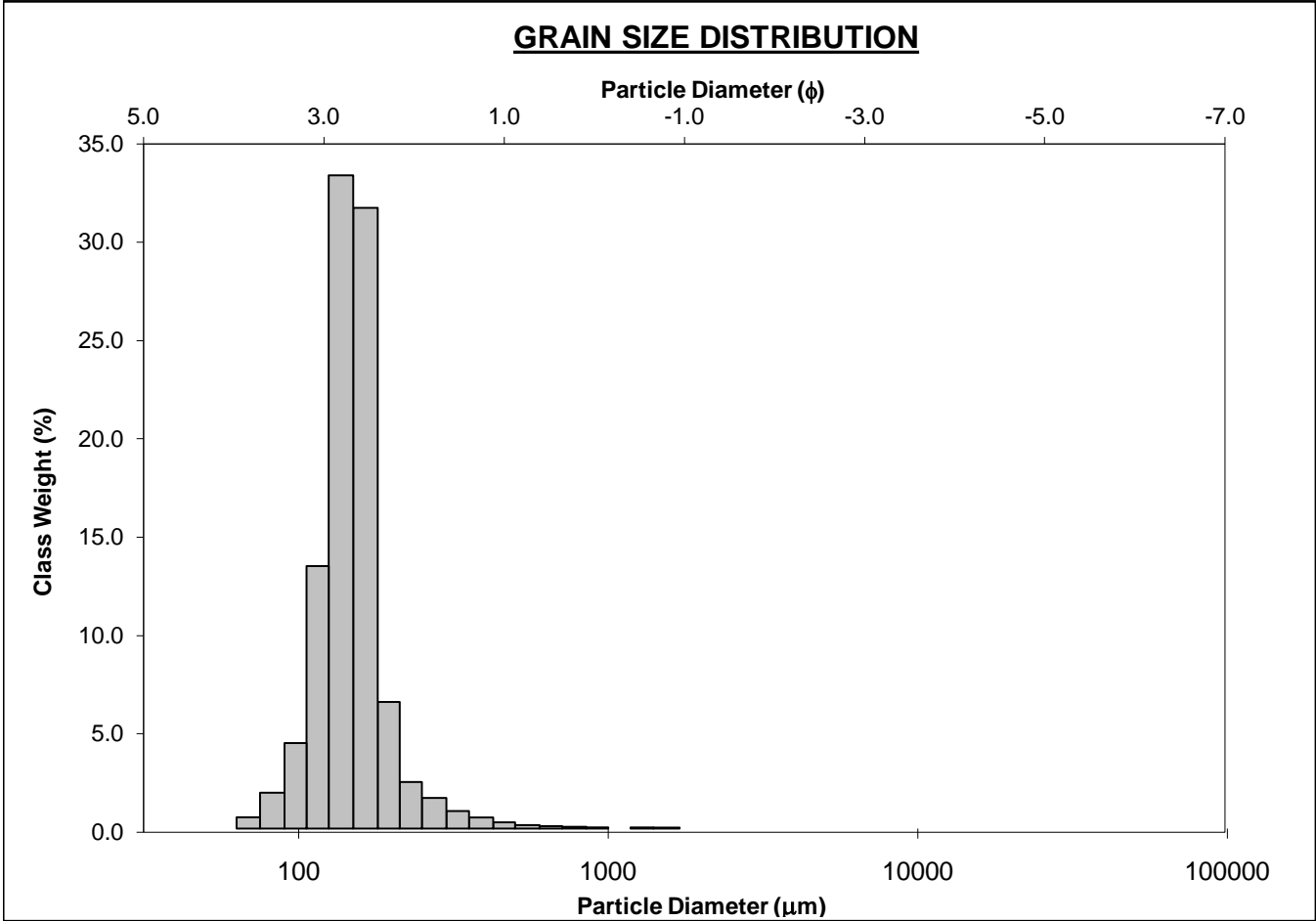
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-150cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 1.8%	
MODE 2:			SAND: 99.3%		MEDIUM SAND: 24.9%	
MODE 3:			MUD: 0.7%		FINE SAND: 62.6%	
D_{10} :	123.2	1.582			V FINE SAND: 9.8%	
MEDIAN or D_{50} :	185.6	2.430	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D_{90} :	334.1	3.021	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D_{90} / D_{10}) :	2.712	1.910	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
$(D_{90} - D_{10})$:	210.9	1.439	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D_{75} / D_{25}) :	1.743	1.409	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
$(D_{75} - D_{25})$:	109.5	0.802	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	214.6	192.3	2.378	193.3	2.371	Fine Sand
SORTING (σ):	105.8	1.630	0.705	1.486	0.571	Moderately Well Sorted
SKEWNESS (Sk):	2.696	-1.683	1.683	0.164	-0.164	Coarse Skewed
KURTOSIS (K):	17.88	15.45	15.45	0.969	0.969	Mesokurtic



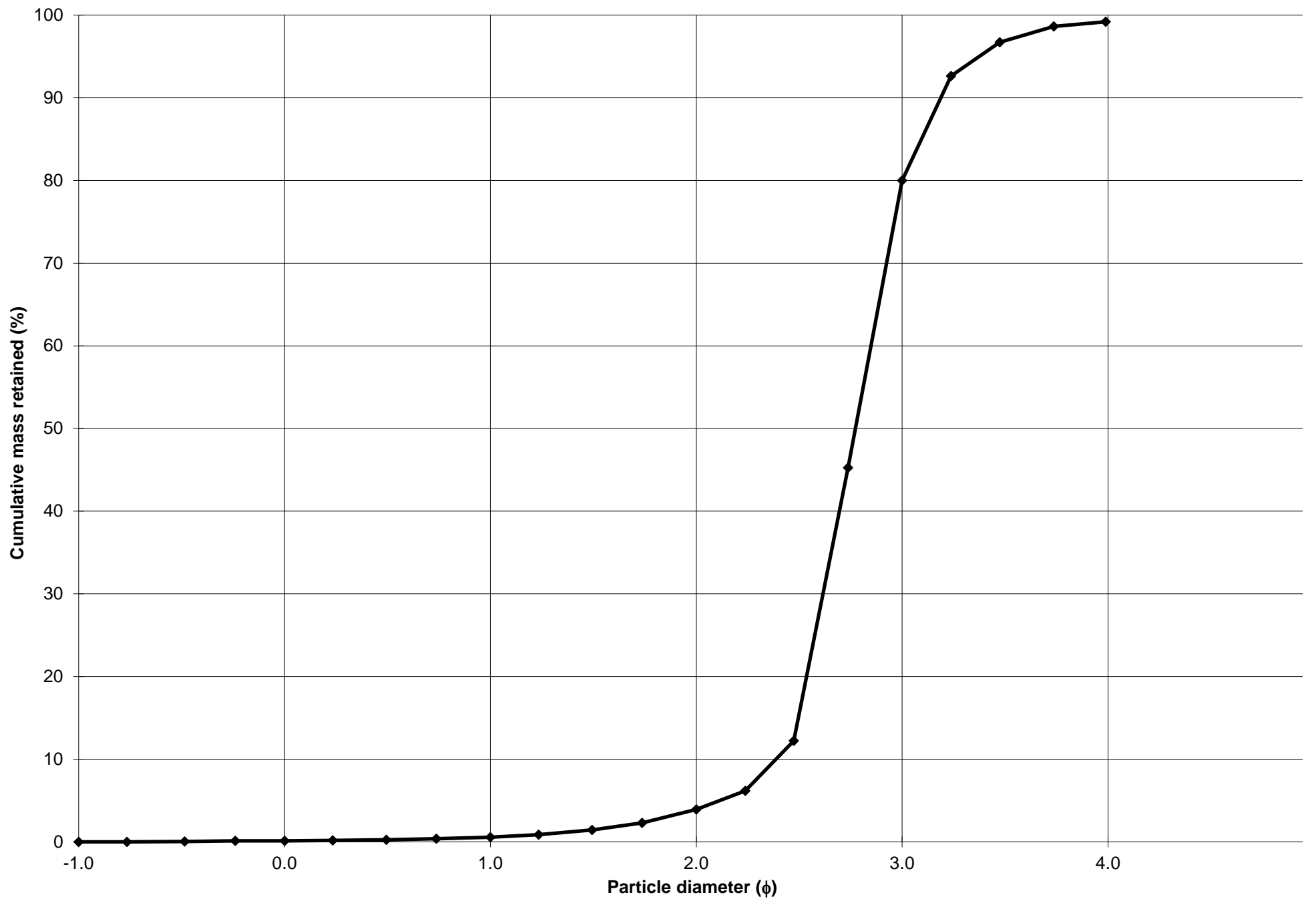
Cumulative Frequency Curve



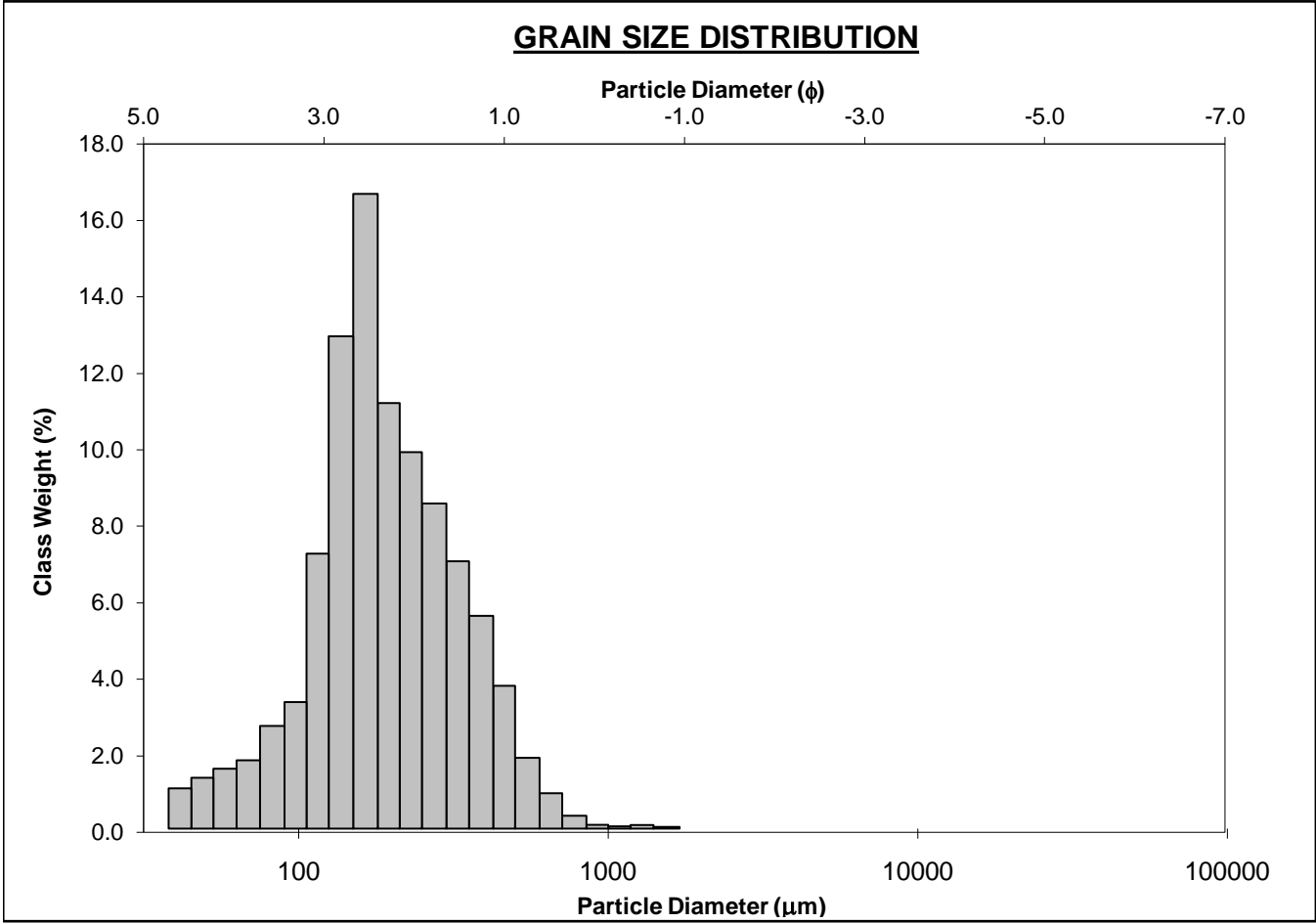
SIEVING ERROR: 0.6%		<u>SAMPLE STATISTICS</u>				
SAMPLE IDENTITY: SI-14-01-160cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.5%			
MODE 2:			SAND: 99.2% MEDIUM SAND: 3.4%			
MODE 3:			MUD: 0.8% FINE SAND: 76.1%			
D ₁₀ :	109.7	2.387	V FINE SAND: 19.2%			
MEDIAN or D ₅₀ :	146.3	2.773	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%			
D ₉₀ :	191.2	3.188	COARSE GRAVEL: 0.0% COARSE SILT: 0.1%			
(D ₉₀ / D ₁₀):	1.742	1.336	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%			
(D ₉₀ - D ₁₀):	81.45	0.801	FINE GRAVEL: 0.0% FINE SILT: 0.1%			
(D ₇₅ / D ₂₅):	1.307	1.150	V FINE GRAVEL: 0.0% V FINE SILT: 0.1%			
(D ₇₅ - D ₂₅):	39.42	0.386	V COARSE SAND: 0.1% CLAY: 0.1%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	155.7	145.3	2.783	145.2	2.784	Fine Sand
SORTING (σ):	71.66	1.465	0.550	1.261	0.334	Very Well Sorted
SKEWNESS (Sk):	8.858	-2.842	2.842	-0.006	0.006	Symmetrical
KURTOSIS (K):	134.0	31.32	31.32	1.338	1.338	Leptokurtic



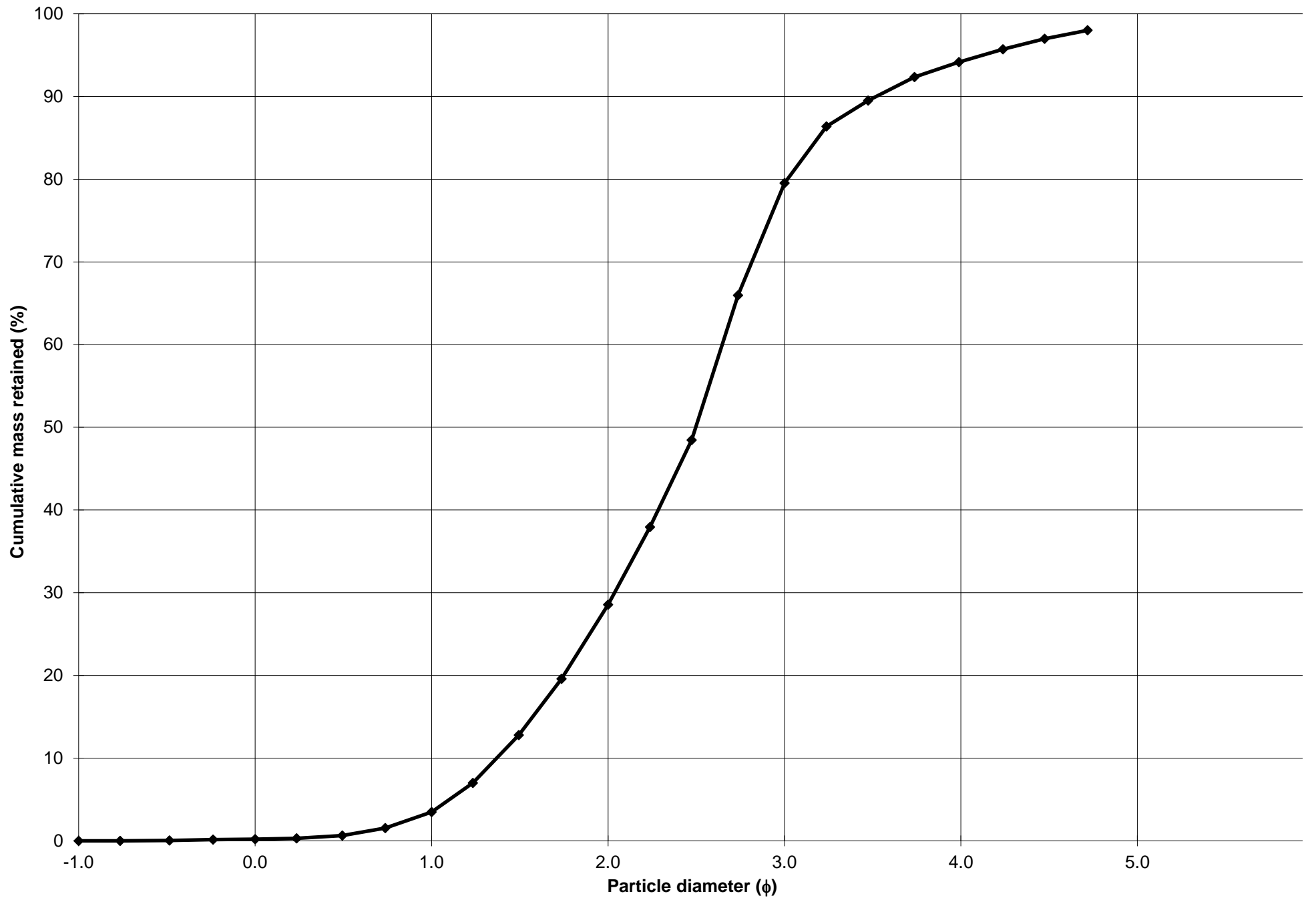
Cumulative Frequency Curve



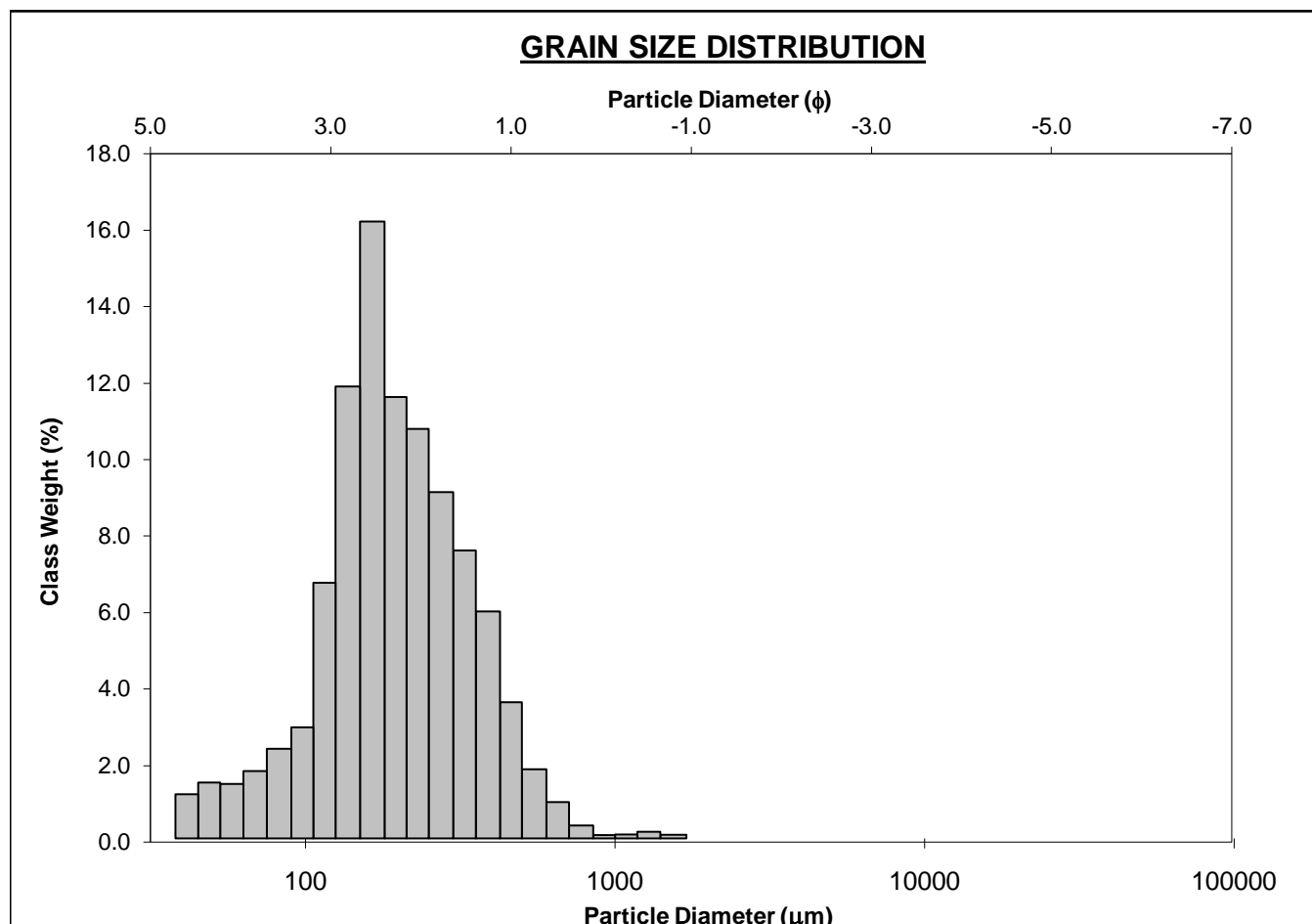
SIEVING ERROR: 1.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-170cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 3.3%	
MODE 2:			SAND: 94.2%		MEDIUM SAND: 25.1%	
MODE 3:			MUD: 5.8%		FINE SAND: 51.0%	
D ₁₀ :	87.24	1.369			V FINE SAND: 14.7%	
MEDIAN or D ₅₀ :	177.1	2.497	V COARSE GRAVEL: 0.0%		V COARSE SILT: 3.9%	
D ₉₀ :	387.2	3.519	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D ₉₀ / D ₁₀):	4.438	2.571	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
(D ₉₀ - D ₁₀):	300.0	2.150	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D ₇₅ / D ₂₅):	2.023	1.536	V FINE GRAVEL: 0.0%		V FINE SILT: 0.4%	
(D ₇₅ - D ₂₅):	135.9	1.017	V COARSE SAND: 0.2%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	215.3	175.0	2.515	186.8	2.420	Fine Sand
SORTING (σ):	134.7	2.074	1.052	1.796	0.845	Moderately Sorted
SKEWNESS (Sk):	2.247	-1.822	1.822	0.036	-0.036	Symmetrical
KURTOSIS (K):	14.06	10.11	10.11	1.219	1.219	Leptokurtic



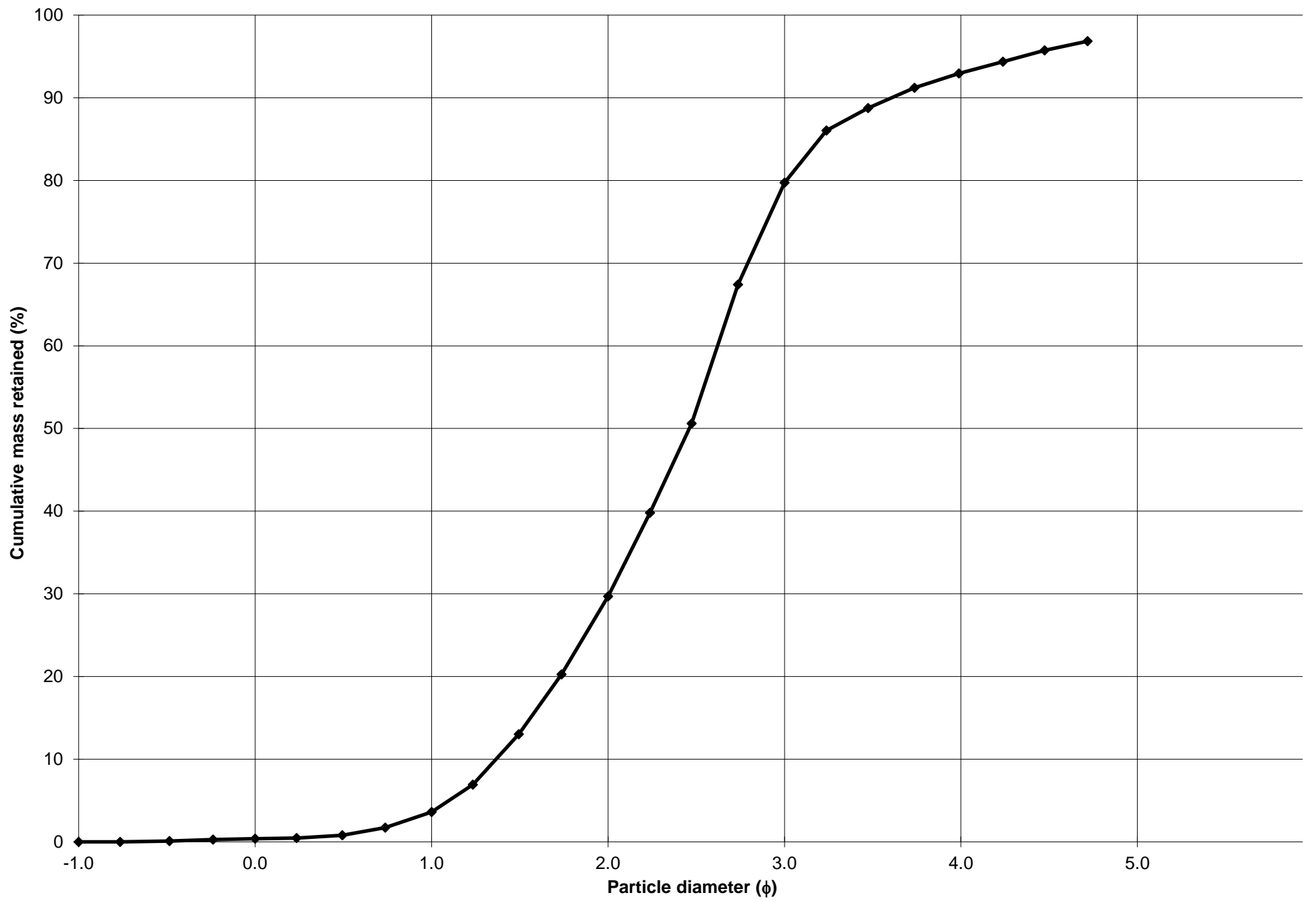
Cumulative Frequency Curve



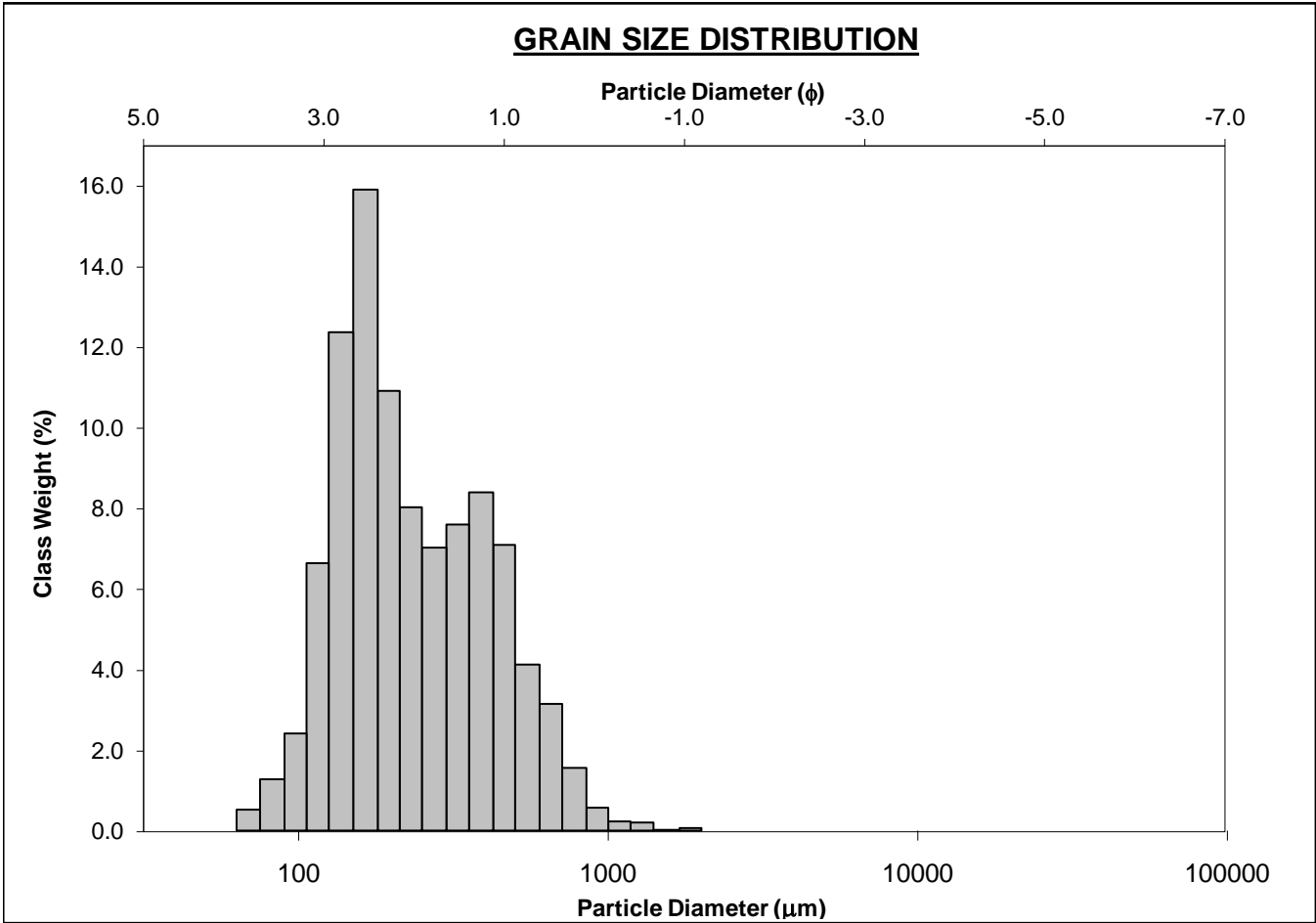
SIEVING ERROR: 1.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-180cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 3.2%	
MODE 2:			SAND: 93.0%		MEDIUM SAND: 26.1%	
MODE 3:			MUD: 7.0%		FINE SAND: 50.0%	
D ₁₀ :	82.02	1.366			V FINE SAND: 13.3%	
MEDIAN or D ₅₀ :	181.6	2.461	V COARSE GRAVEL: 0.0%		V COARSE SILT: 4.0%	
D ₉₀ :	388.0	3.608	COARSE GRAVEL: 0.0%		COARSE SILT: 0.6%	
(D ₉₀ / D ₁₀):	4.730	2.641	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.6%	
(D ₉₀ - D ₁₀):	306.0	2.242	FINE GRAVEL: 0.0%		FINE SILT: 0.6%	
(D ₇₅ / D ₂₅):	2.042	1.551	V FINE GRAVEL: 0.0%		V FINE SILT: 0.6%	
(D ₇₅ - D ₂₅):	139.7	1.030	V COARSE SAND: 0.4%		CLAY: 0.6%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	218.4	171.9	2.540	188.8	2.405	Fine Sand
SORTING (σ):	142.9	2.263	1.178	1.845	0.884	Moderately Sorted
SKEWNESS (Sk):	2.641	-2.007	2.007	-0.028	0.028	Symmetrical
KURTOSIS (K):	18.02	9.615	9.615	1.293	1.293	Leptokurtic



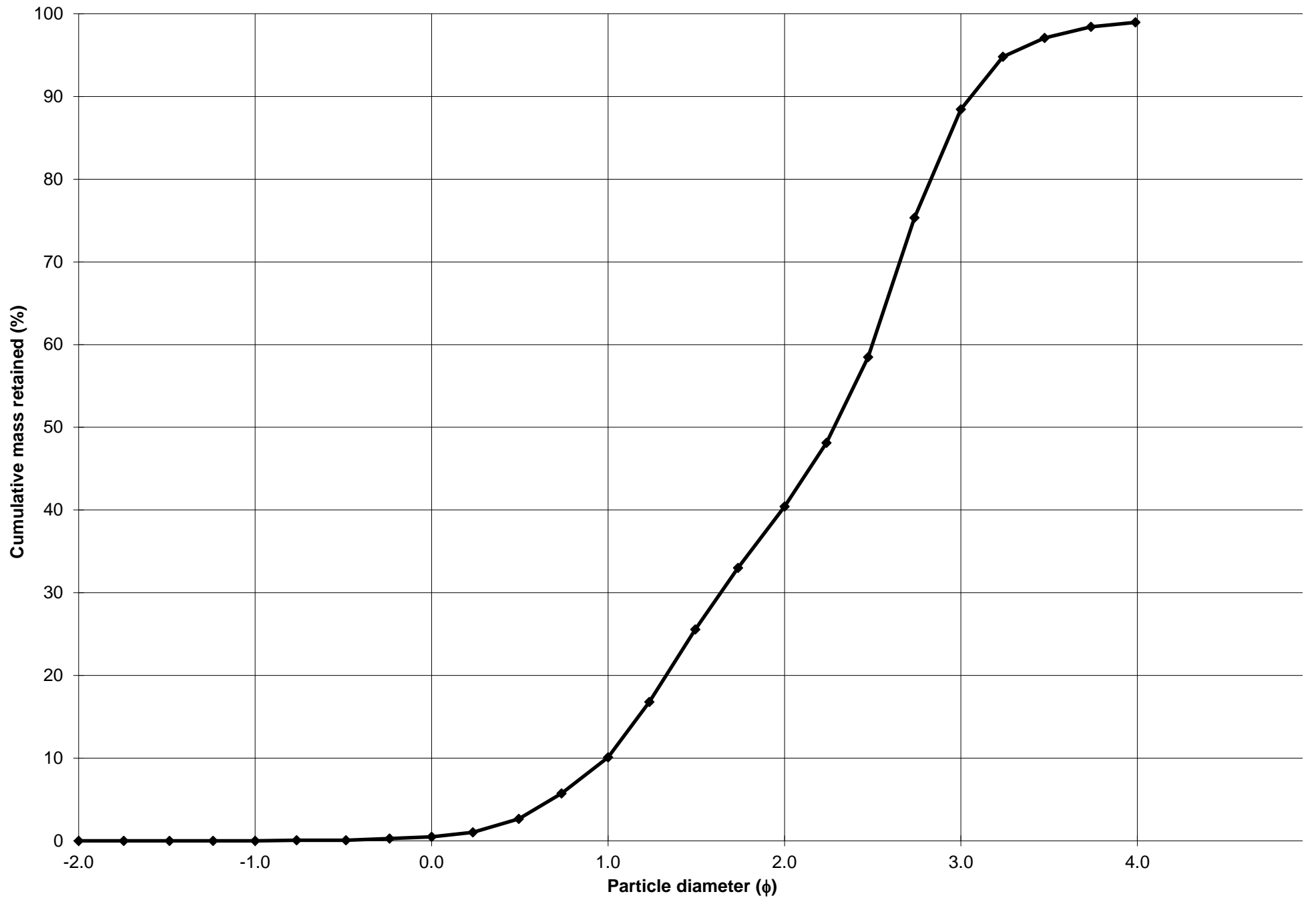
Cumulative Frequency Curve



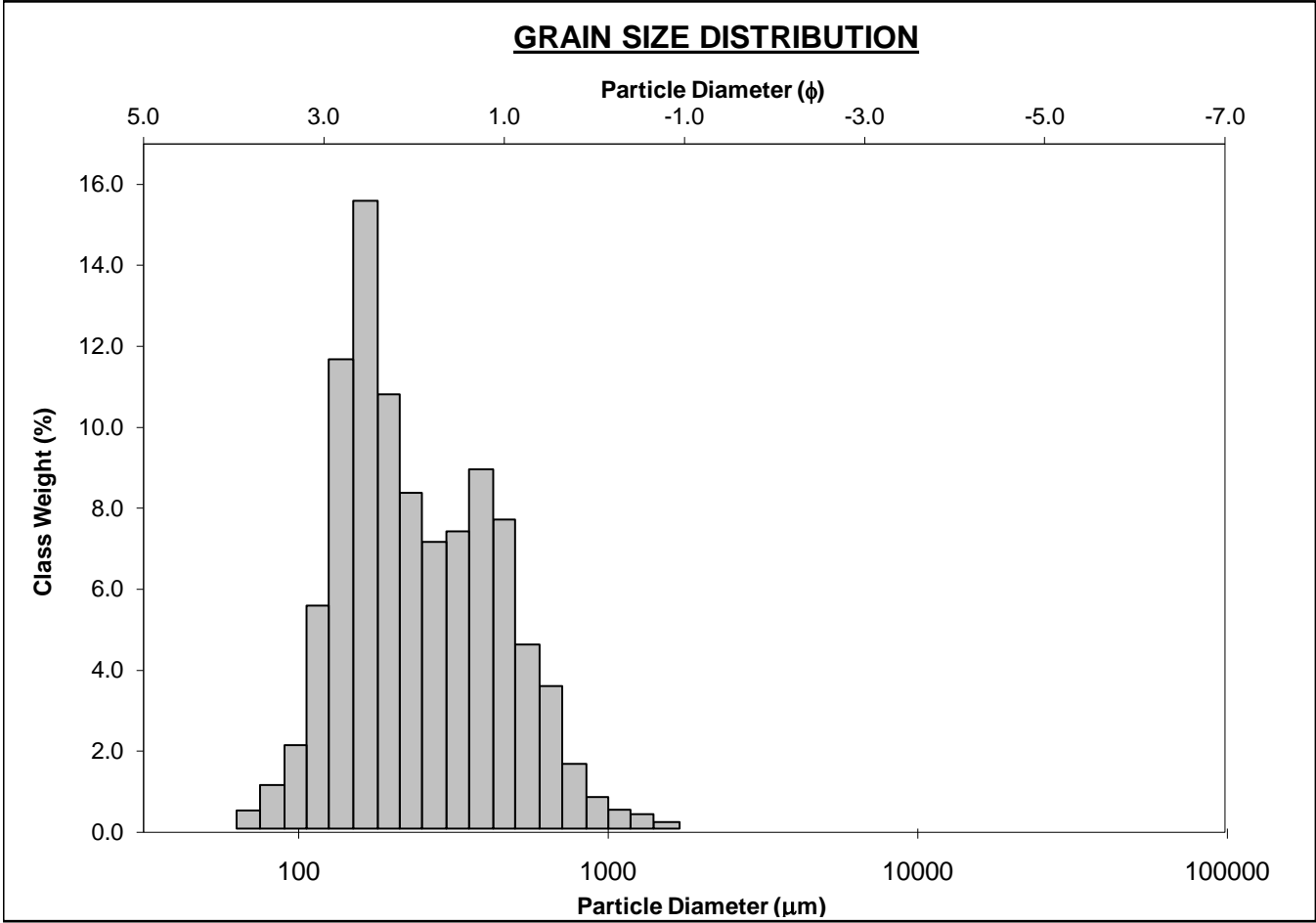
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-190cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 9.6%	
MODE 2:	390.0	1.364	SAND: 99.0%		MEDIUM SAND: 30.3%	
MODE 3:			MUD: 1.0%		FINE SAND: 48.0%	
D ₁₀ :	120.0	0.994			V FINE SAND: 10.5%	
MEDIAN or D ₅₀ :	205.8	2.281	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	502.0	3.058	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	4.182	3.076	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	382.0	2.064	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	2.386	1.849	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	208.6	1.254	V COARSE SAND: 0.5%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	273.4	224.7	2.154	228.0	2.133	Fine Sand
SORTING (σ):	179.3	1.923	0.943	1.762	0.817	Moderately Sorted
SKEWNESS (Sk):	2.012	-1.021	1.021	0.251	-0.251	Coarse Skewed
KURTOSIS (K):	10.20	8.629	8.629	0.843	0.843	Platykurtic



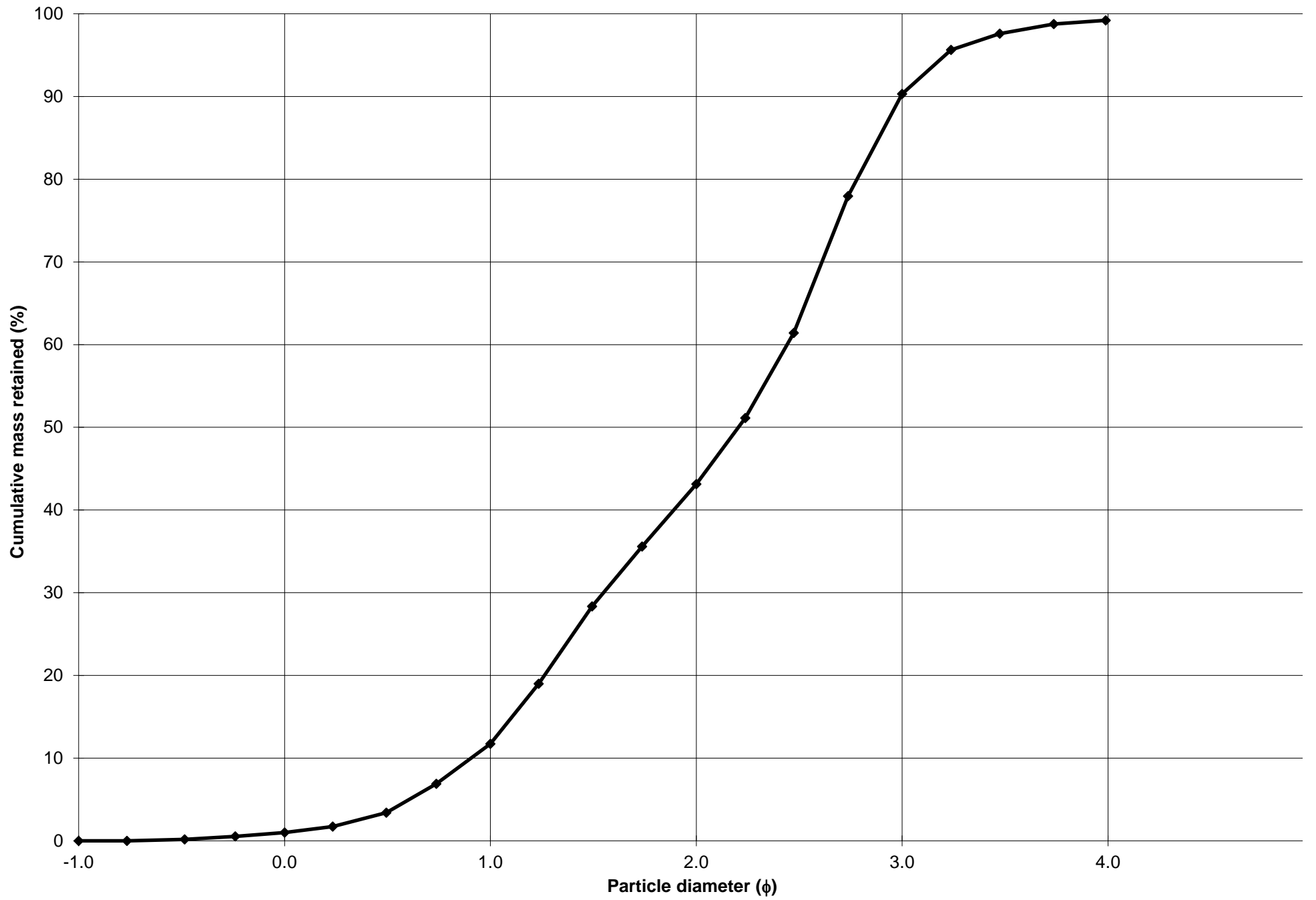
Cumulative Frequency Curve



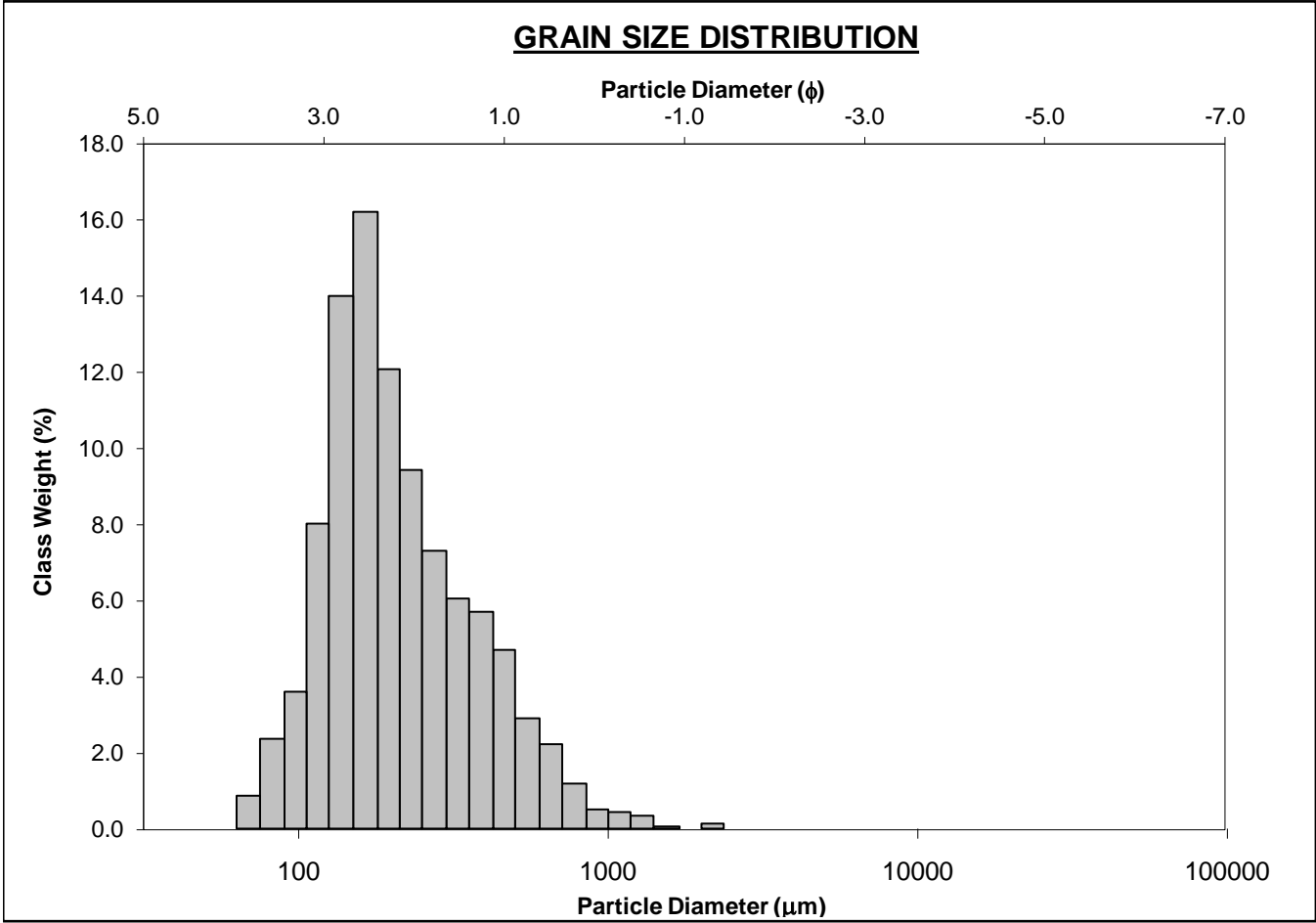
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-200cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 10.7%	
MODE 2:	390.0	1.364	SAND: 99.2%		MEDIUM SAND: 31.4%	
MODE 3:			MUD: 0.8%		FINE SAND: 47.2%	
D ₁₀ :	125.6	0.906			V FINE SAND: 8.9%	
MEDIAN or D ₅₀ :	217.0	2.204	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	533.7	2.993	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	4.250	3.305	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	408.2	2.088	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	2.443	1.920	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	223.7	1.289	V COARSE SAND: 1.0%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	288.8	236.9	2.078	238.3	2.069	Fine Sand
SORTING (σ):	194.3	1.907	0.931	1.774	0.827	Moderately Sorted
SKEWNESS (Sk):	2.046	-0.767	0.767	0.231	-0.231	Coarse Skewed
KURTOSIS (K):	9.450	7.781	7.781	0.828	0.828	Platykurtic



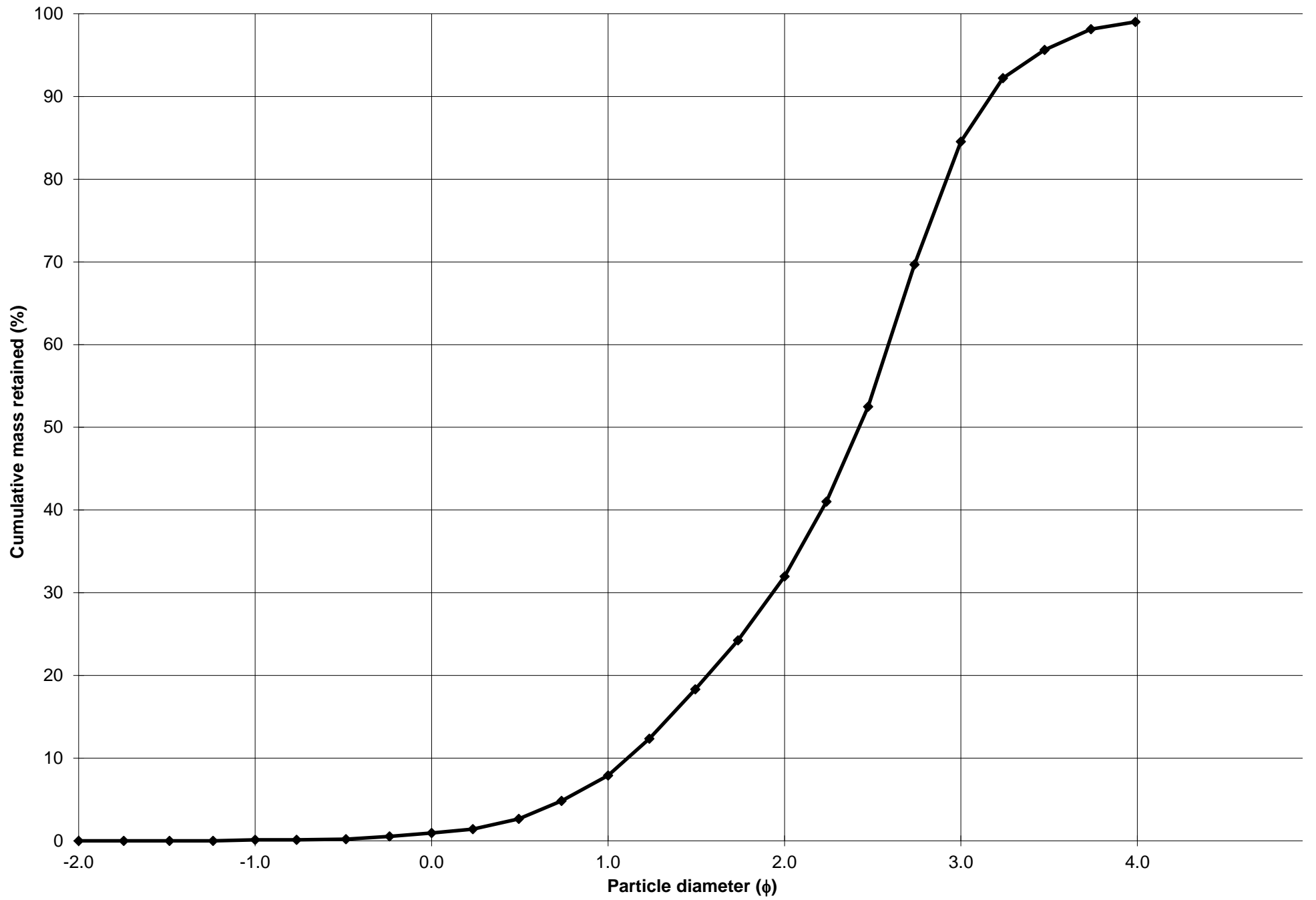
Cumulative Frequency Curve



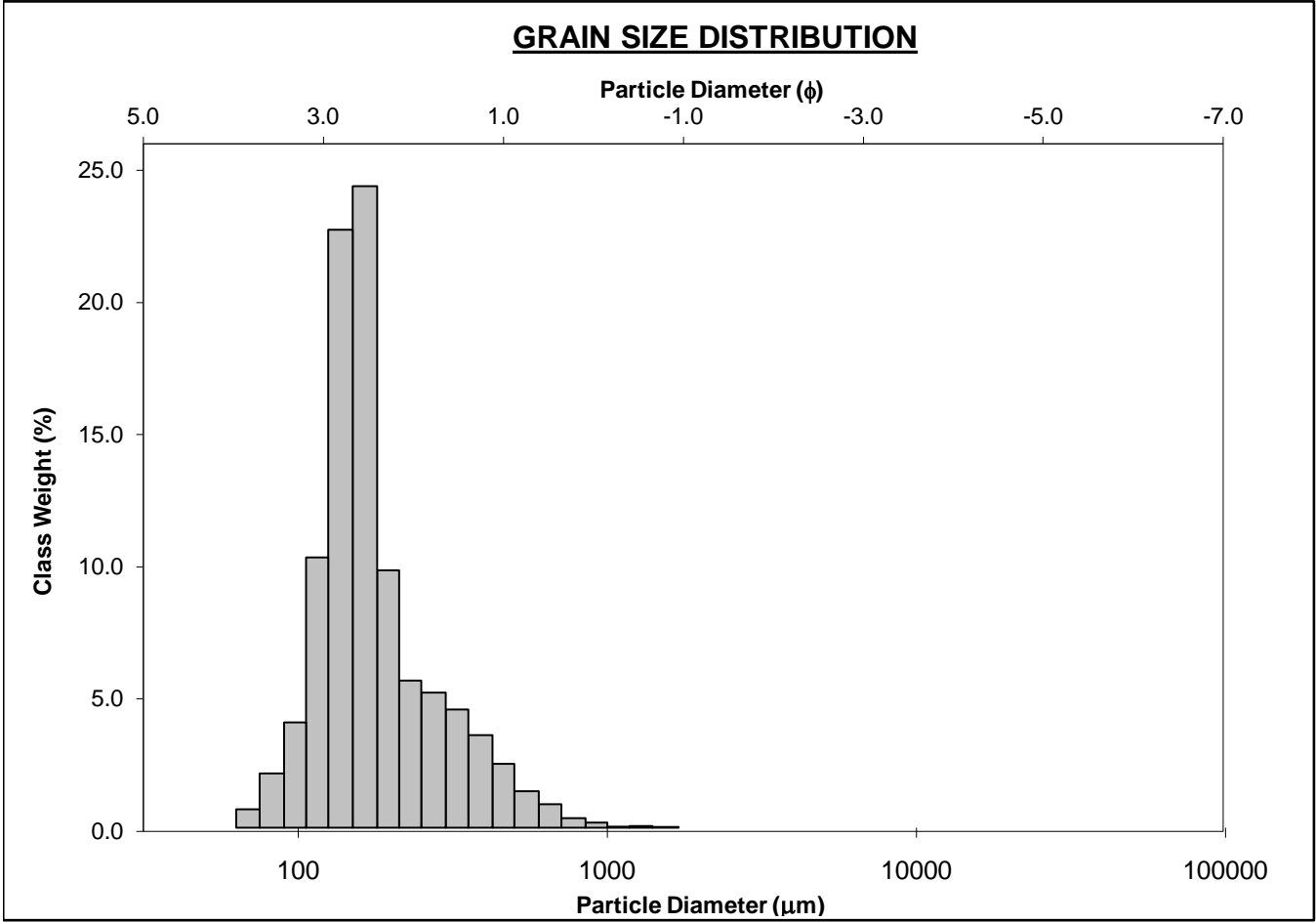
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-210cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.1%		COARSE SAND: 7.0%	
MODE 2:			SAND: 98.9%		MEDIUM SAND: 24.1%	
MODE 3:			MUD: 1.0%		FINE SAND: 52.6%	
D ₁₀ :	111.2	1.110			V FINE SAND: 14.5%	
MEDIAN or D ₅₀ :	186.5	2.423	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	463.1	3.169	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	4.166	2.854	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	352.0	2.059	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	2.097	1.606	V FINE GRAVEL: 0.1%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	154.1	1.068	V COARSE SAND: 0.8%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	249.7	203.7	2.296	207.5	2.269	Fine Sand
SORTING (σ):	187.3	1.899	0.925	1.747	0.805	Moderately Sorted
SKEWNESS (Sk):	3.365	-0.702	0.702	0.268	-0.268	Coarse Skewed
KURTOSIS (K):	23.18	8.533	8.533	1.028	1.028	Mesokurtic



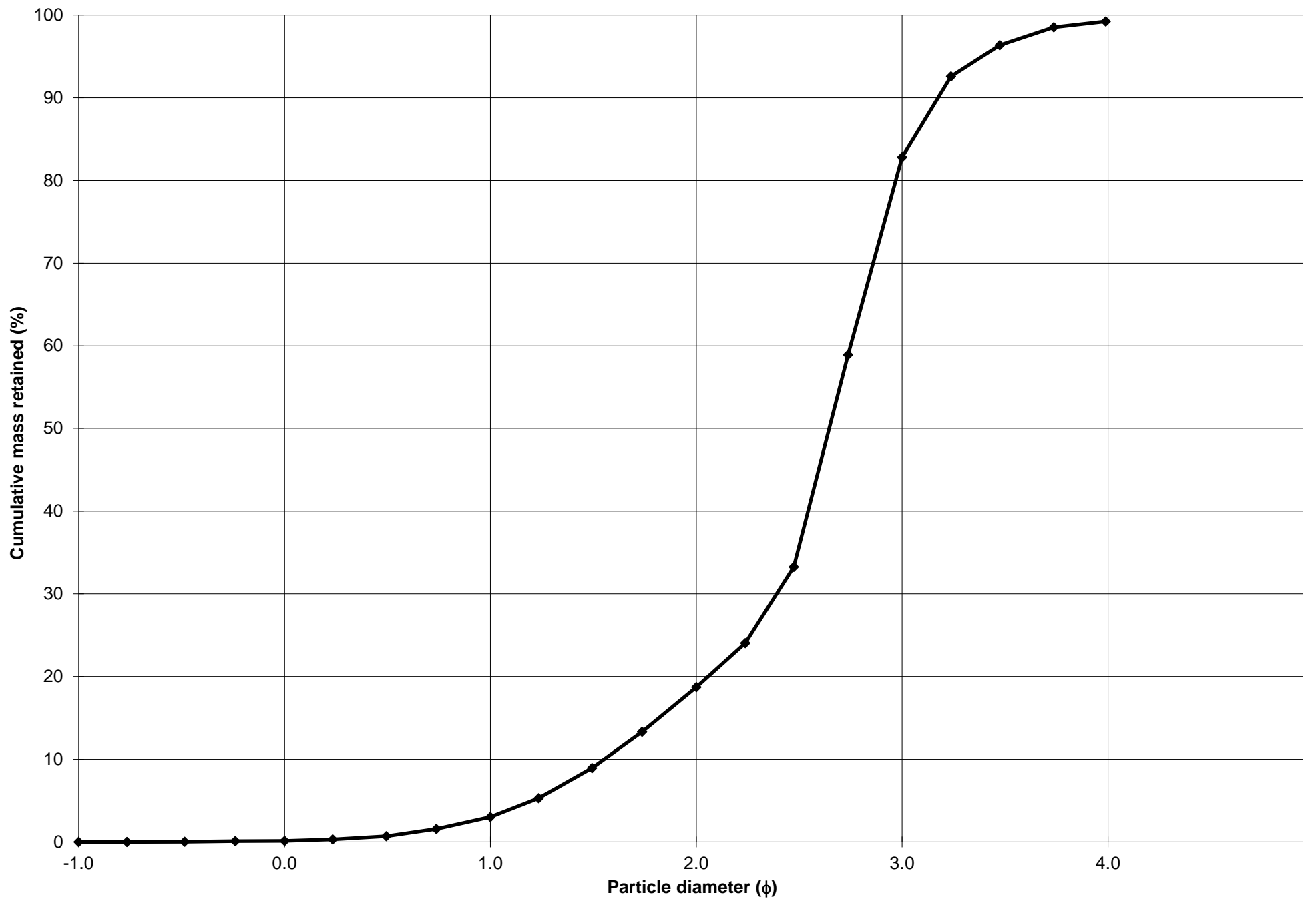
Cumulative Frequency Curve



SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-01-220cm			ANALYST & DATE: Chris, 10/6/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 2.9%	
MODE 2:			SAND: 99.2%		MEDIUM SAND: 15.7%	
MODE 3:			MUD: 0.8%		FINE SAND: 64.1%	
D ₁₀ :	110.7	1.553			V FINE SAND: 16.4%	
MEDIAN or D ₅₀ :	159.8	2.646	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	340.9	3.175	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.079	2.045	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	230.1	1.622	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.571	1.288	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	75.71	0.651	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	197.0	171.9	2.540	175.0	2.514	Fine Sand
SORTING (σ):	119.8	1.678	0.746	1.538	0.621	Moderately Well Sorted
SKEWNESS (Sk):	3.128	-0.866	0.866	0.330	-0.330	Very Coarse Skewed
KURTOSIS (K):	19.17	12.18	12.18	1.375	1.375	Leptokurtic



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **SI-14-02-15cm**

ANALYST & DATE: Chris, 9/4/15

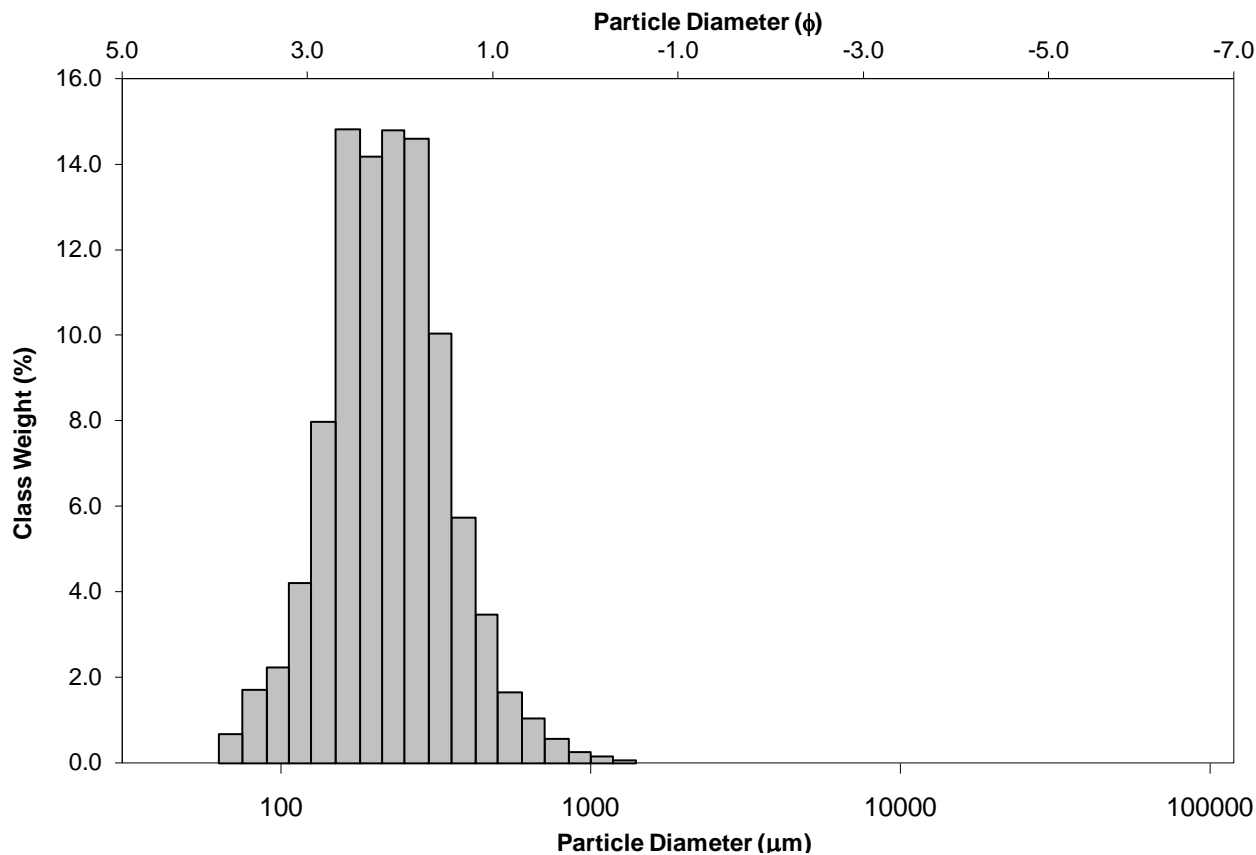
SAMPLE TYPE: Bimodal, Moderately Well Sorted

TEXTURAL GROUP: Sand

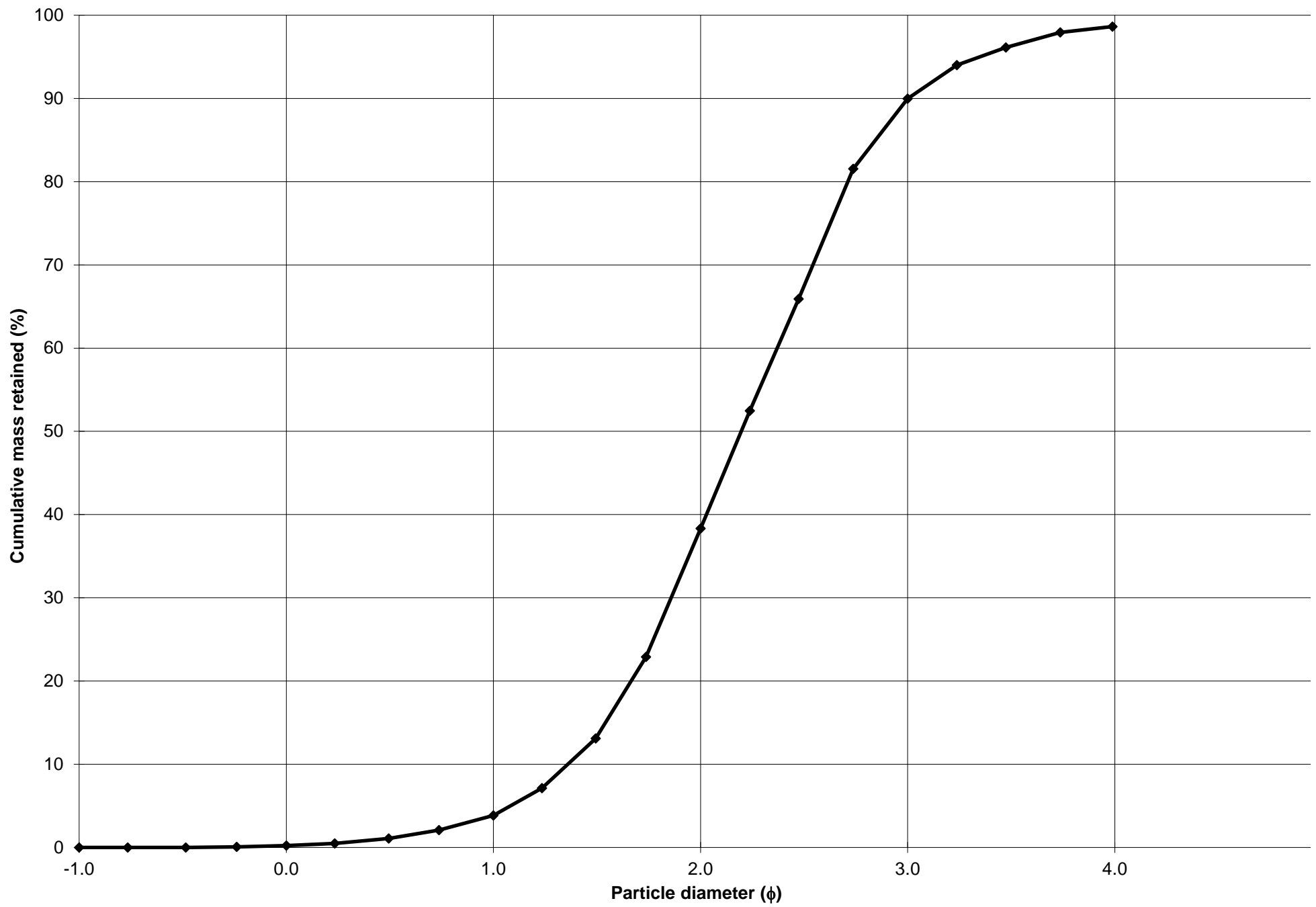
SEDIMENT NAME: Moderately Well Sorted Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%	COARSE SAND: 3.6%		
MODE 2:	231.0	2.119	SAND: 98.6%	MEDIUM SAND: 34.5%		
MODE 3:			MUD: 1.4%	FINE SAND: 51.7%		
D_{10} :	124.9	1.359		V FINE SAND: 8.7%		
MEDIAN or D_{50} :	218.2	2.197	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.2%		
D_{90} :	389.8	3.001	COARSE GRAVEL: 0.0%	COARSE SILT: 0.2%		
(D_{90} / D_{10}) :	3.121	2.208	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.2%		
$(D_{90} - D_{10})$:	264.9	1.642	FINE GRAVEL: 0.0%	FINE SILT: 0.2%		
(D_{75} / D_{25}) :	1.808	1.482	V FINE GRAVEL: 0.0%	V FINE SILT: 0.2%		
$(D_{75} - D_{25})$:	130.8	0.854	V COARSE SAND: 0.2%	CLAY: 0.2%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	244.4	211.9	2.238	218.9	2.192	Fine Sand
SORTING (σ):	128.3	1.807	0.853	1.575	0.655	Moderately Well Sorted
SKEWNESS (Sk):	2.194	-2.137	2.137	-0.003	0.003	Symmetrical
KURTOSIS (K):	12.12	14.34	14.34	1.087	1.087	Mesokurtic

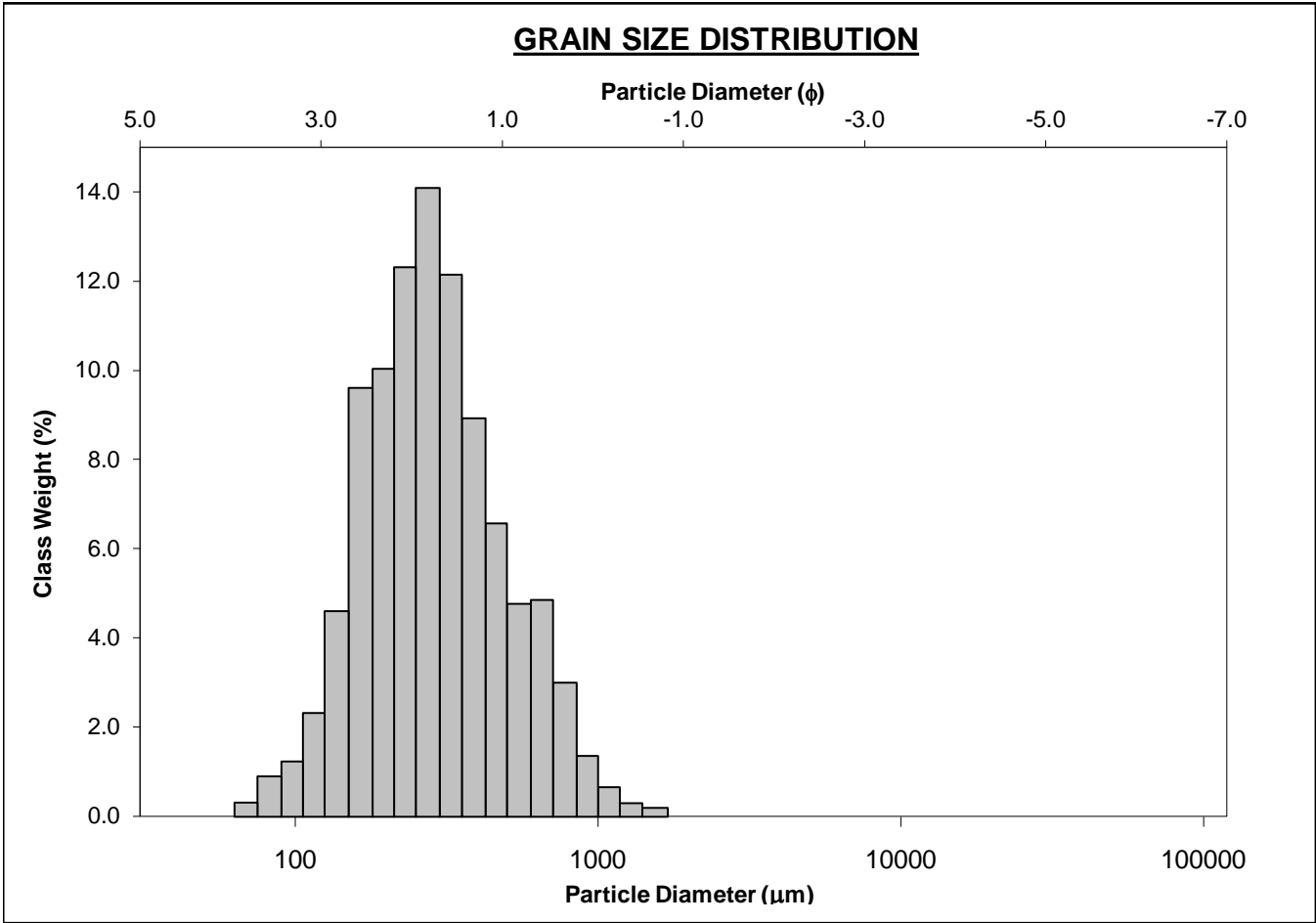
GRAIN SIZE DISTRIBUTION



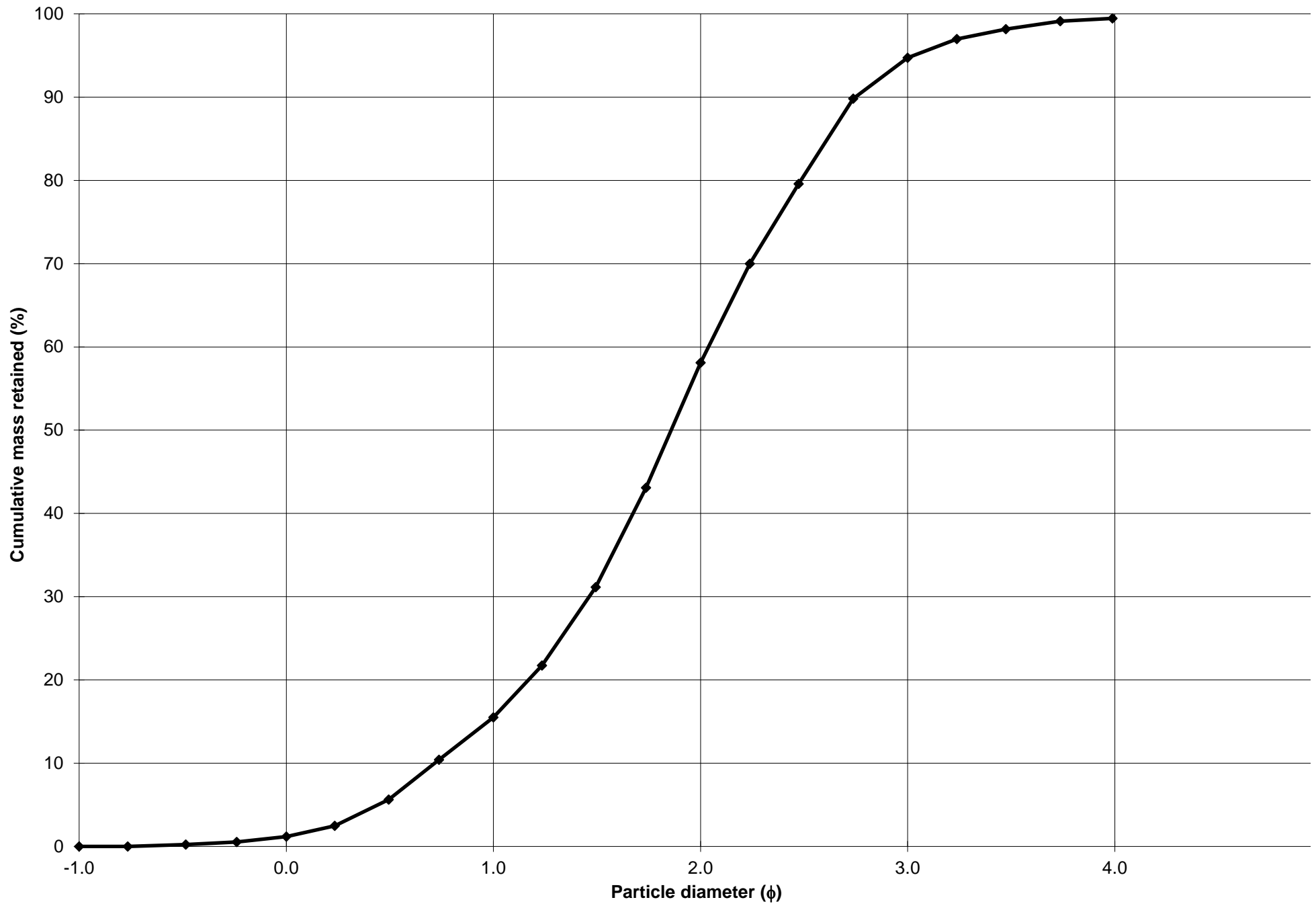
Cumulative Frequency Curve



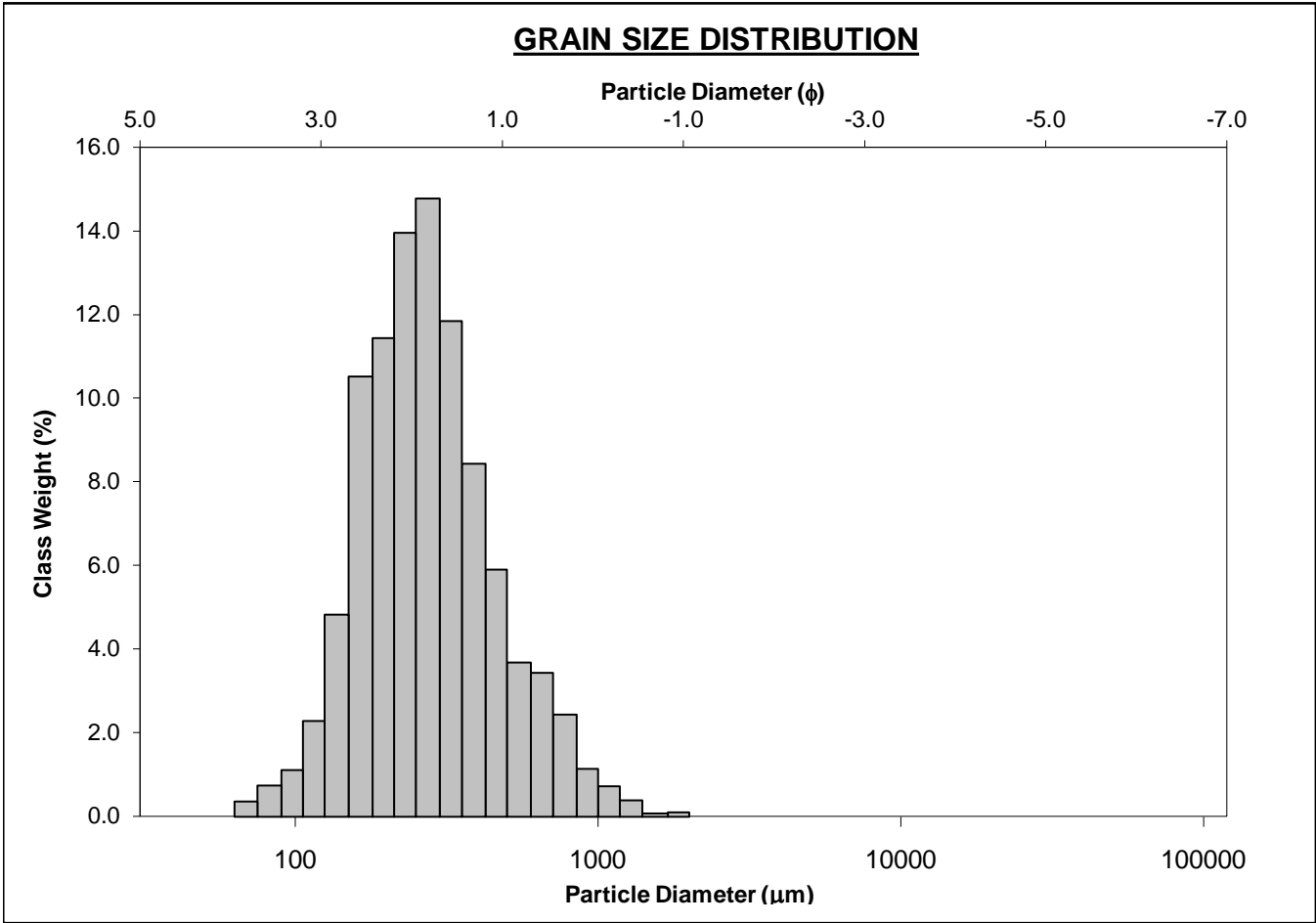
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-20cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 14.3%	
MODE 2:	655.0	0.616	SAND: 99.5%		MEDIUM SAND: 42.6%	
MODE 3:			MUD: 0.5%		FINE SAND: 36.6%	
D ₁₀ :	149.0	0.716			V FINE SAND: 4.7%	
MEDIAN or D ₅₀ :	275.9	1.858	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	608.8	2.746	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	4.085	3.835	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	459.7	2.030	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	2.052	1.783	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	204.7	1.037	V COARSE SAND: 1.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	331.2	280.2	1.836	283.0	1.821	Medium Sand
SORTING (σ):	201.8	1.814	0.860	1.722	0.784	Moderately Sorted
SKEWNESS (Sk):	1.890	-0.923	0.923	0.083	-0.083	Symmetrical
KURTOSIS (K):	8.214	8.992	8.992	1.022	1.022	Mesokurtic



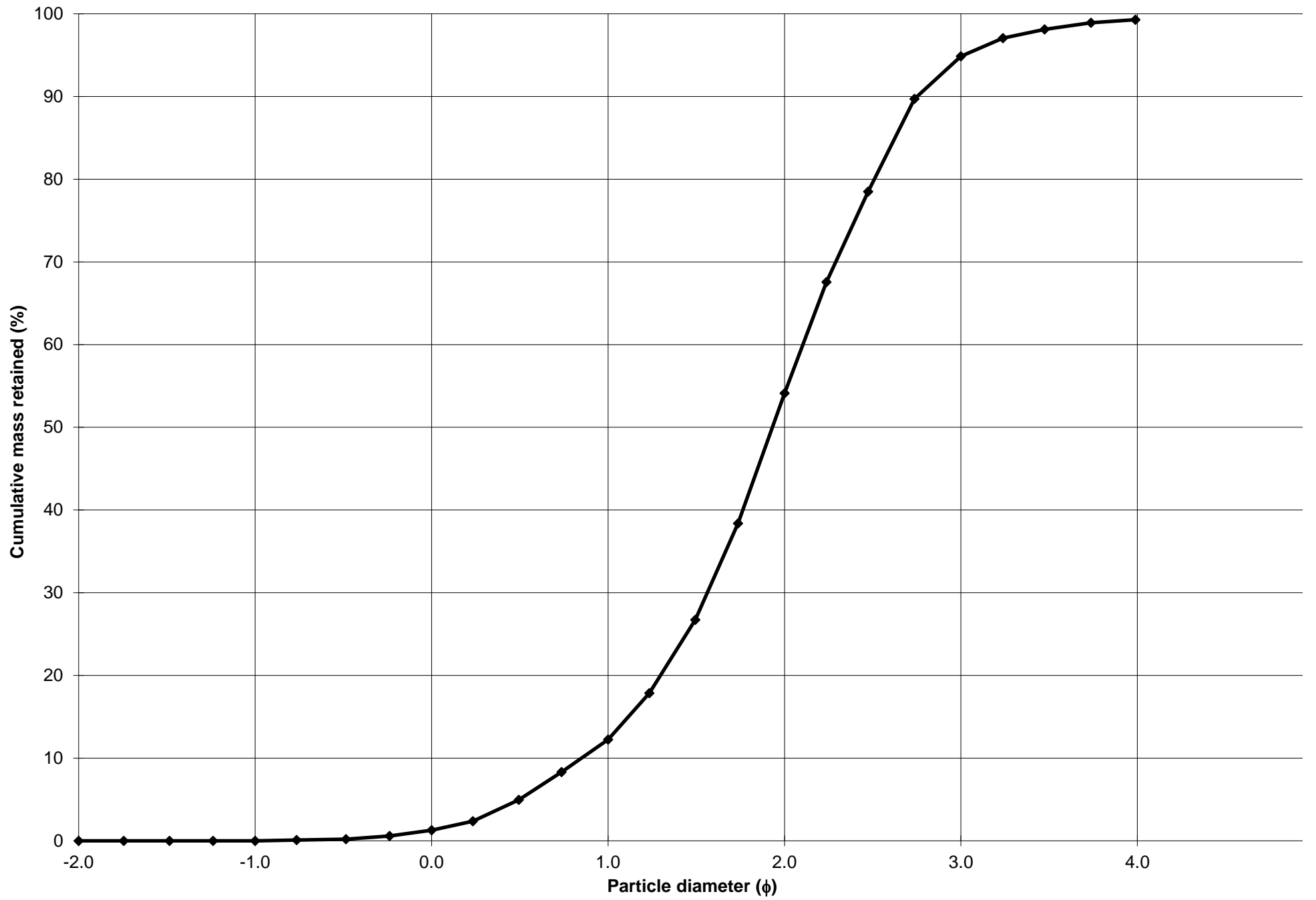
Cumulative Frequency Curve



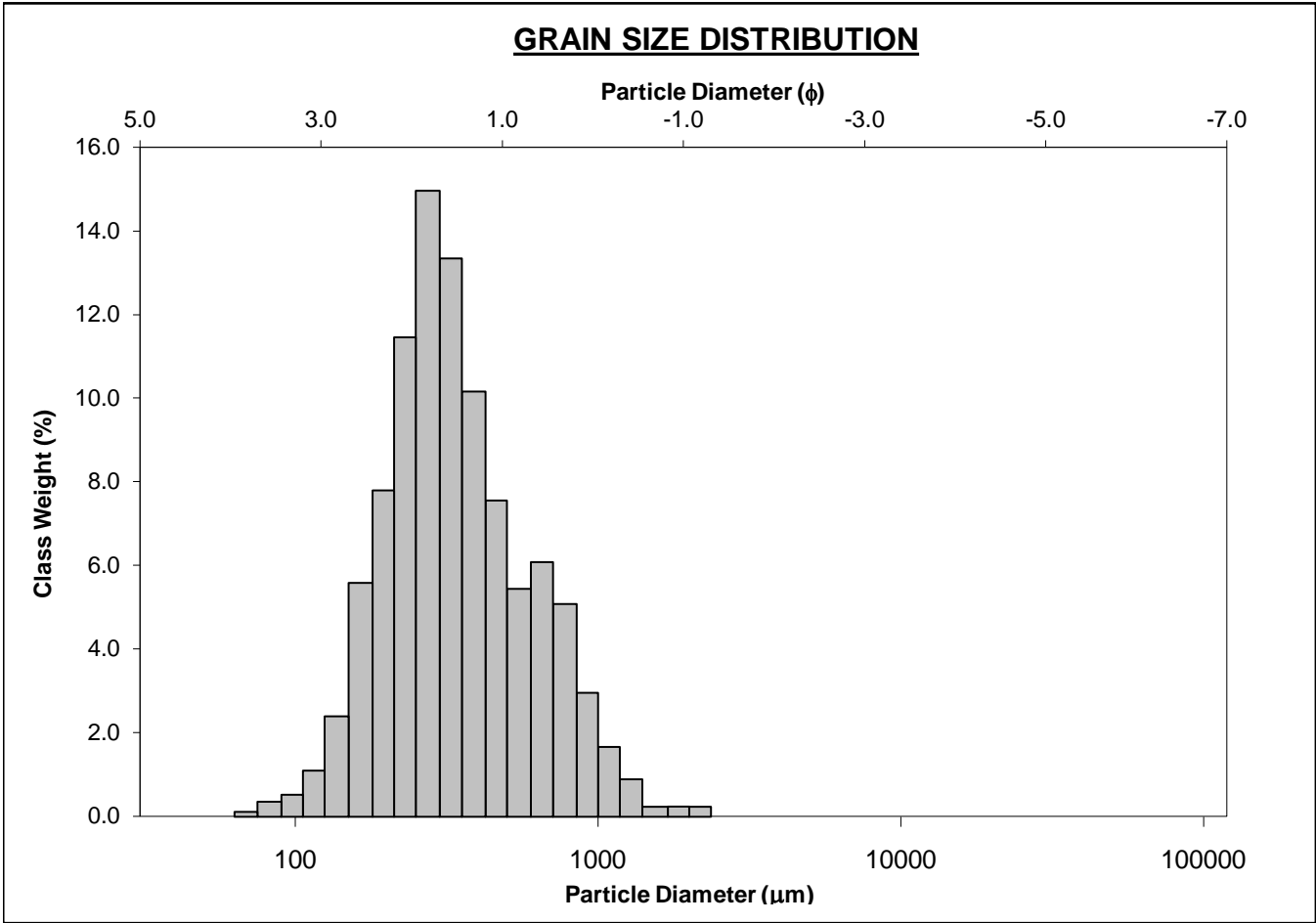
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-30cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 11.0%	
MODE 2:			SAND: 99.3%		MEDIUM SAND: 41.9%	
MODE 3:			MUD: 0.7%		FINE SAND: 40.7%	
D ₁₀ :	148.4	0.849			V FINE SAND: 4.4%	
MEDIAN or D ₅₀ :	262.2	1.931	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	555.1	2.752	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.741	3.242	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	406.7	1.903	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.939	1.662	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	178.0	0.955	V COARSE SAND: 1.3%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	314.6	266.6	1.907	268.5	1.897	Medium Sand
SORTING (σ):	196.6	1.812	0.858	1.674	0.743	Moderately Sorted
SKEWNESS (Sk):	2.355	-1.132	1.132	0.104	-0.104	Coarse Skewed
KURTOSIS (K):	11.66	10.75	10.75	1.081	1.081	Mesokurtic



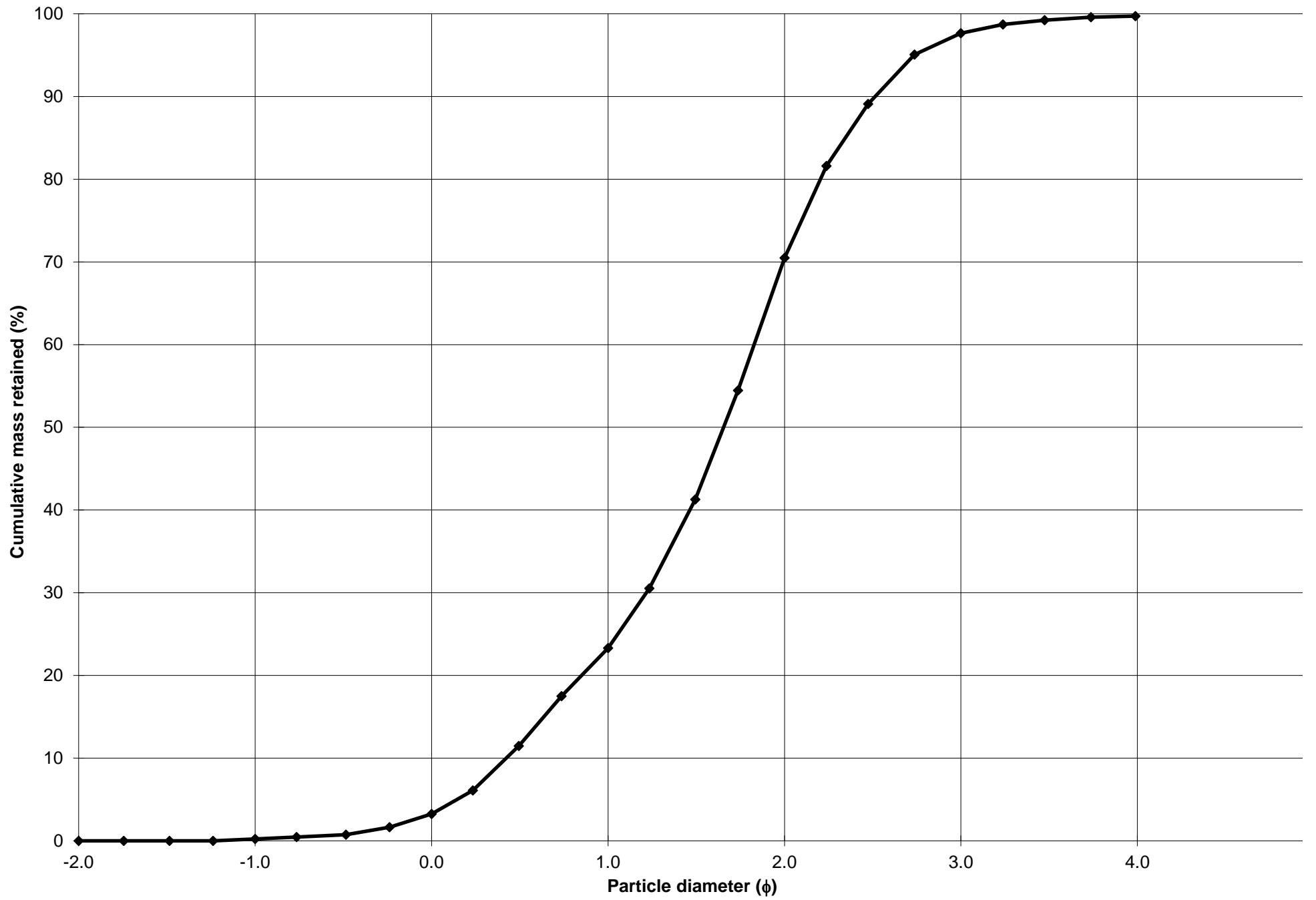
Cumulative Frequency Curve



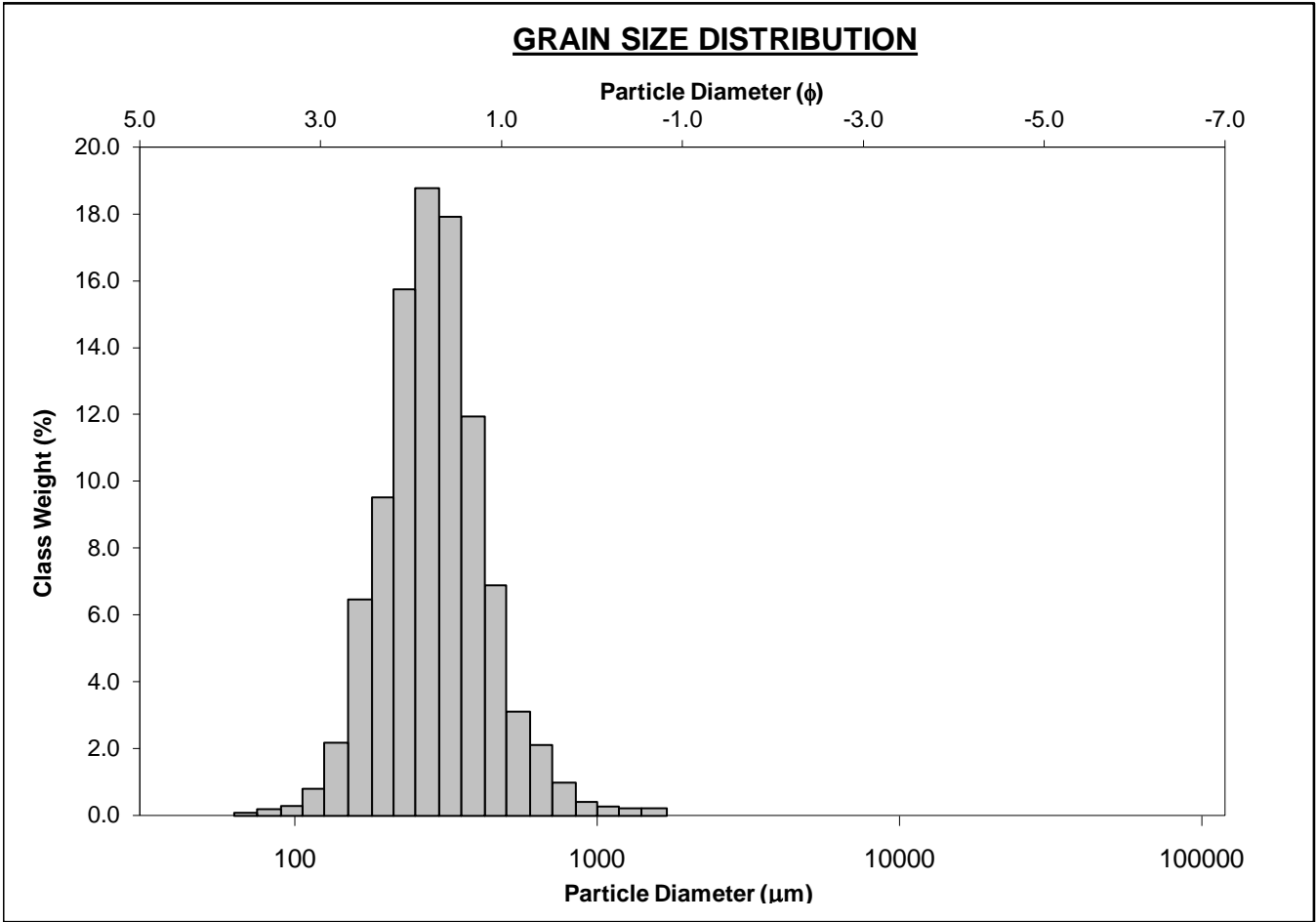
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-40cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.2%		COARSE SAND: 20.1%	
MODE 2:	655.0	0.616	SAND: 99.5%		MEDIUM SAND: 47.2%	
MODE 3:			MUD: 0.3%		FINE SAND: 27.1%	
D ₁₀ :	175.0	0.423			V FINE SAND: 2.1%	
MEDIAN or D ₅₀ :	317.6	1.655	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	745.7	2.514	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.260	5.940	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	570.7	2.091	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.059	1.988	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	247.6	1.042	V COARSE SAND: 3.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	401.0	337.1	1.569	341.8	1.549	Medium Sand
SORTING (σ):	261.9	1.796	0.845	1.743	0.802	Moderately Sorted
SKEWNESS (Sk):	2.262	-0.392	0.392	0.181	-0.181	Coarse Skewed
KURTOSIS (K):	11.04	7.202	7.202	1.019	1.019	Mesokurtic



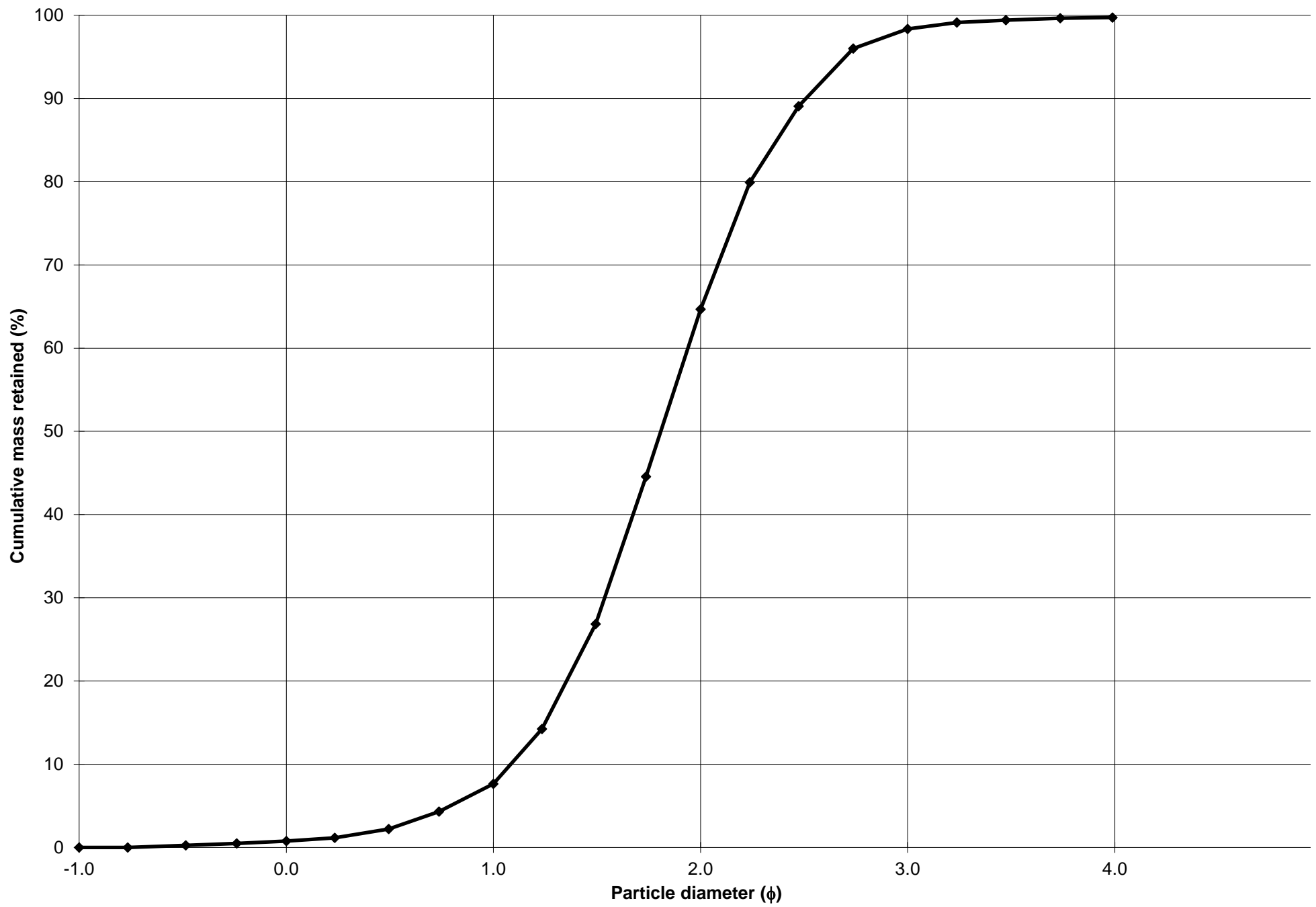
Cumulative Frequency Curve



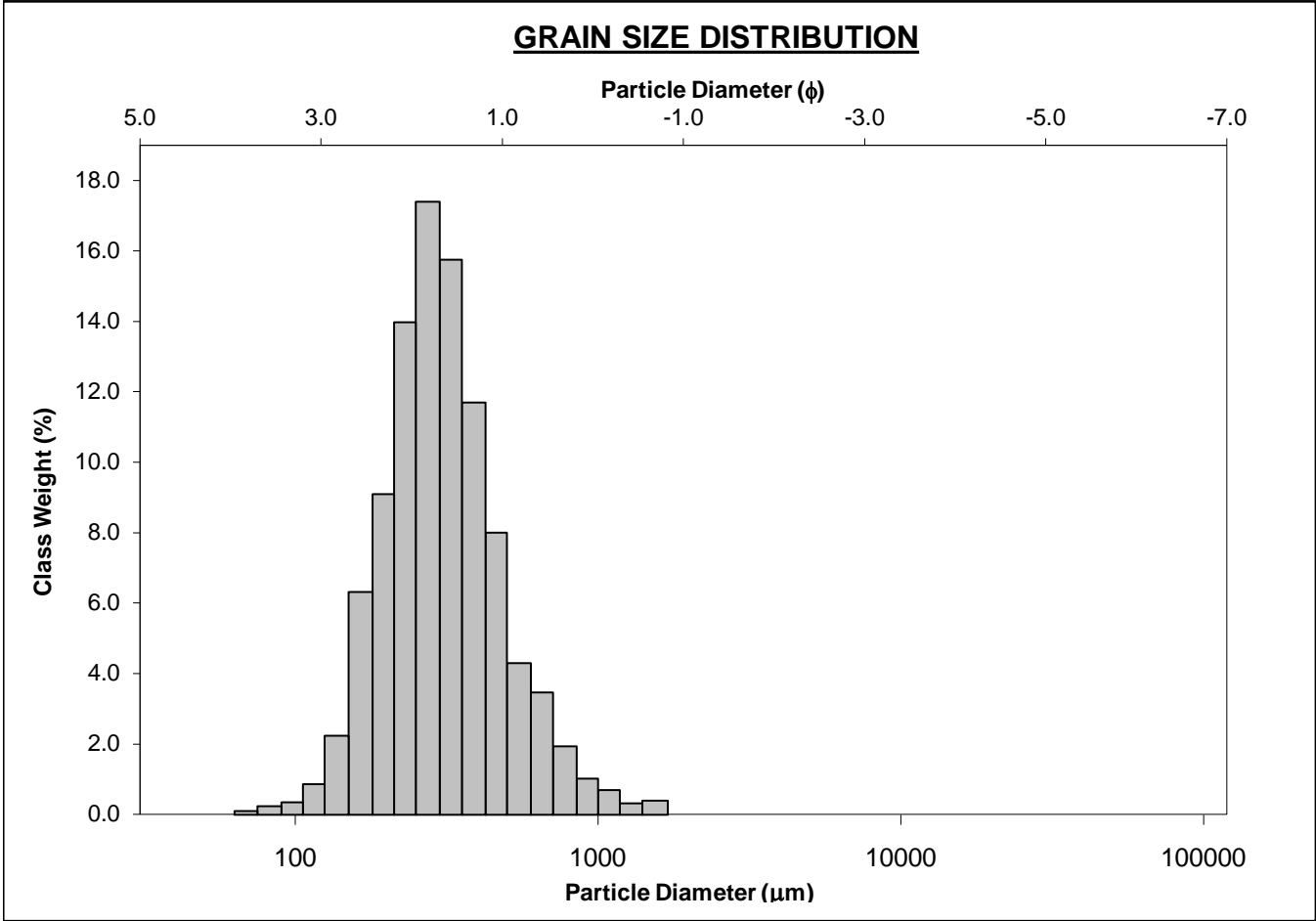
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-50cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 6.9%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 57.0%	
MODE 3:			MUD: 0.3%		FINE SAND: 33.7%	
D ₁₀ :	175.7	1.084			V FINE SAND: 1.4%	
MEDIAN or D ₅₀ :	285.6	1.808	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	471.8	2.509	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.686	2.315	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	296.1	1.425	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.630	1.484	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	140.9	0.705	V COARSE SAND: 0.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	316.2	286.8	1.802	285.7	1.807	Medium Sand
SORTING (σ):	154.2	1.558	0.640	1.471	0.557	Moderately Well Sorted
SKEWNESS (Sk):	2.958	-1.109	1.109	0.034	-0.034	Symmetrical
KURTOSIS (K):	18.77	14.72	14.72	1.109	1.109	Mesokurtic



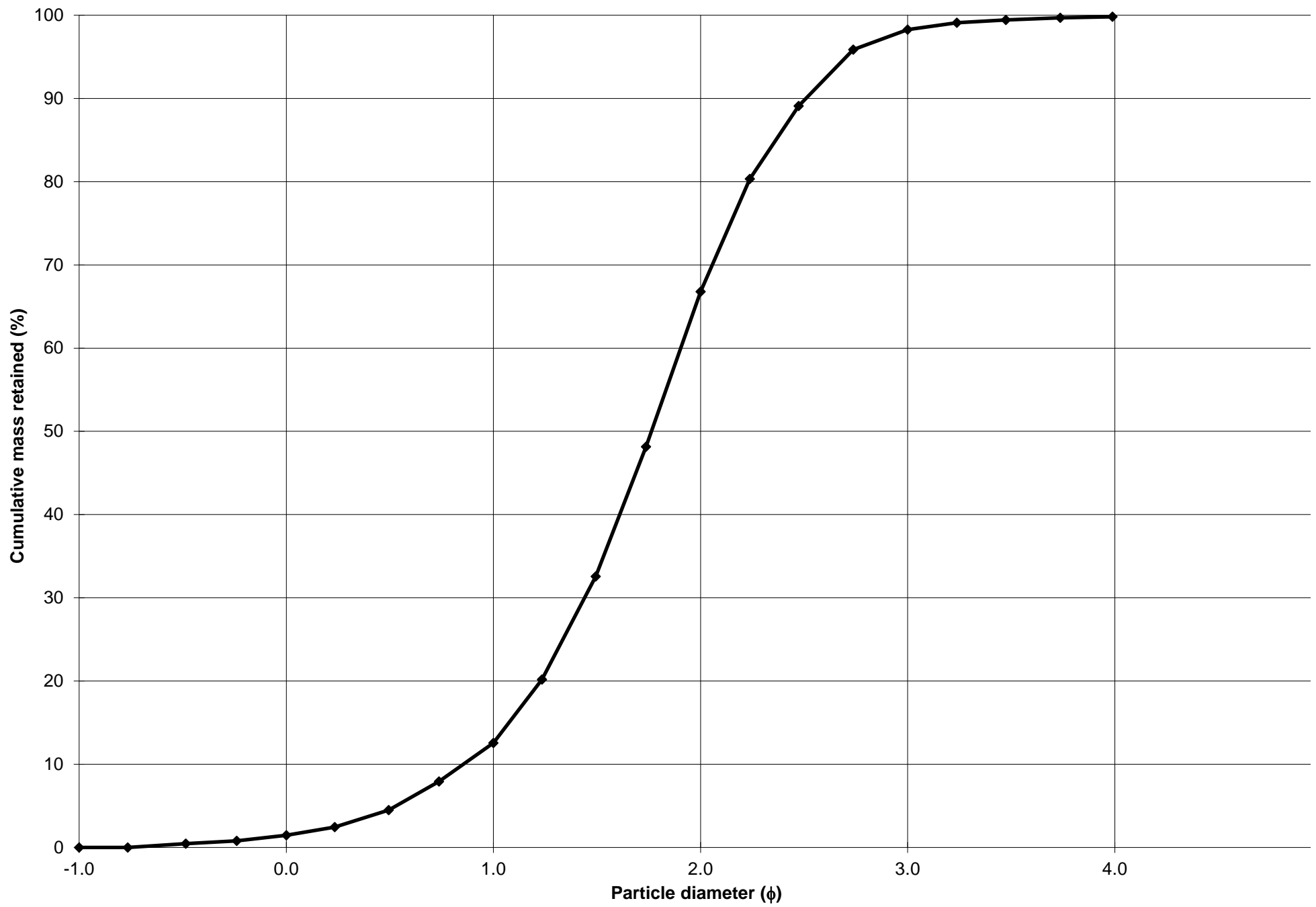
Cumulative Frequency Curve



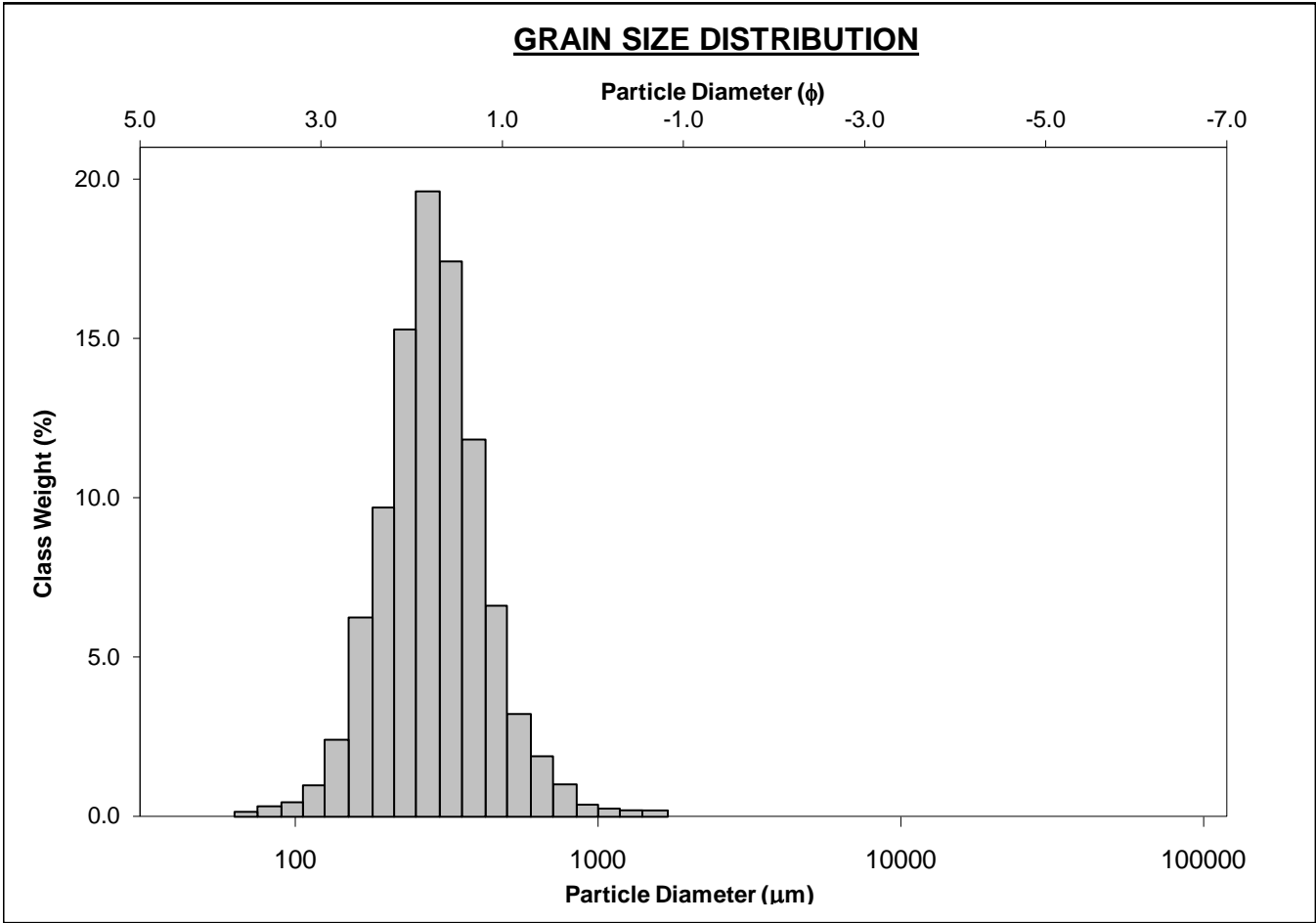
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-60cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 11.1%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 54.2%	
MODE 3:			MUD: 0.2%		FINE SAND: 31.5%	
D ₁₀ :	175.6	0.855			V FINE SAND: 1.6%	
MEDIAN or D ₅₀ :	294.6	1.763	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	553.0	2.510	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.149	2.936	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	377.4	1.655	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.752	1.606	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	170.1	0.809	V COARSE SAND: 1.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	342.2	303.1	1.722	300.3	1.735	Medium Sand
SORTING (σ):	189.9	1.620	0.696	1.555	0.637	Moderately Well Sorted
SKEWNESS (Sk):	2.570	-0.402	0.402	0.101	-0.101	Coarse Skewed
KURTOSIS (K):	13.12	9.272	9.272	1.102	1.102	Mesokurtic



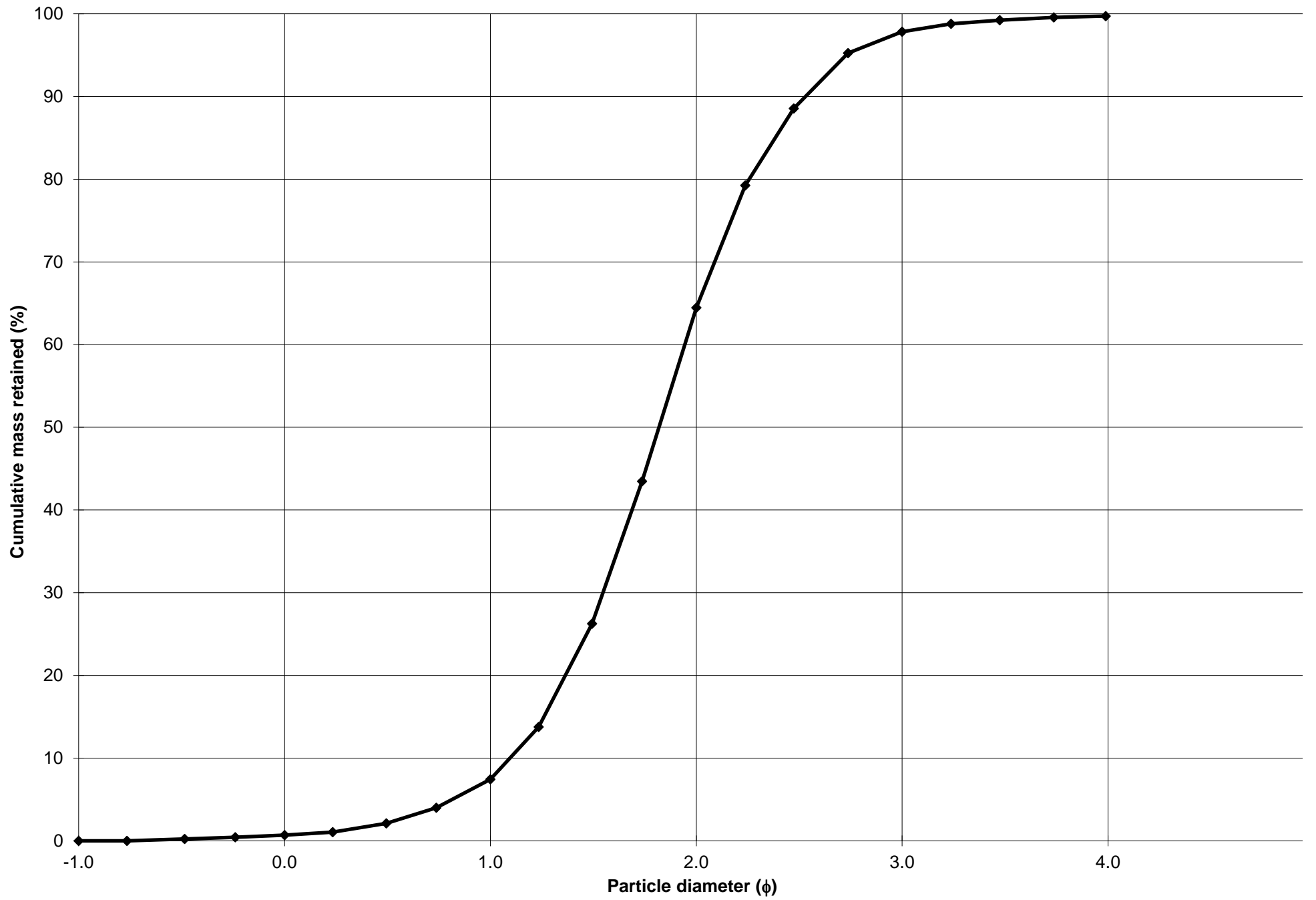
Cumulative Frequency Curve



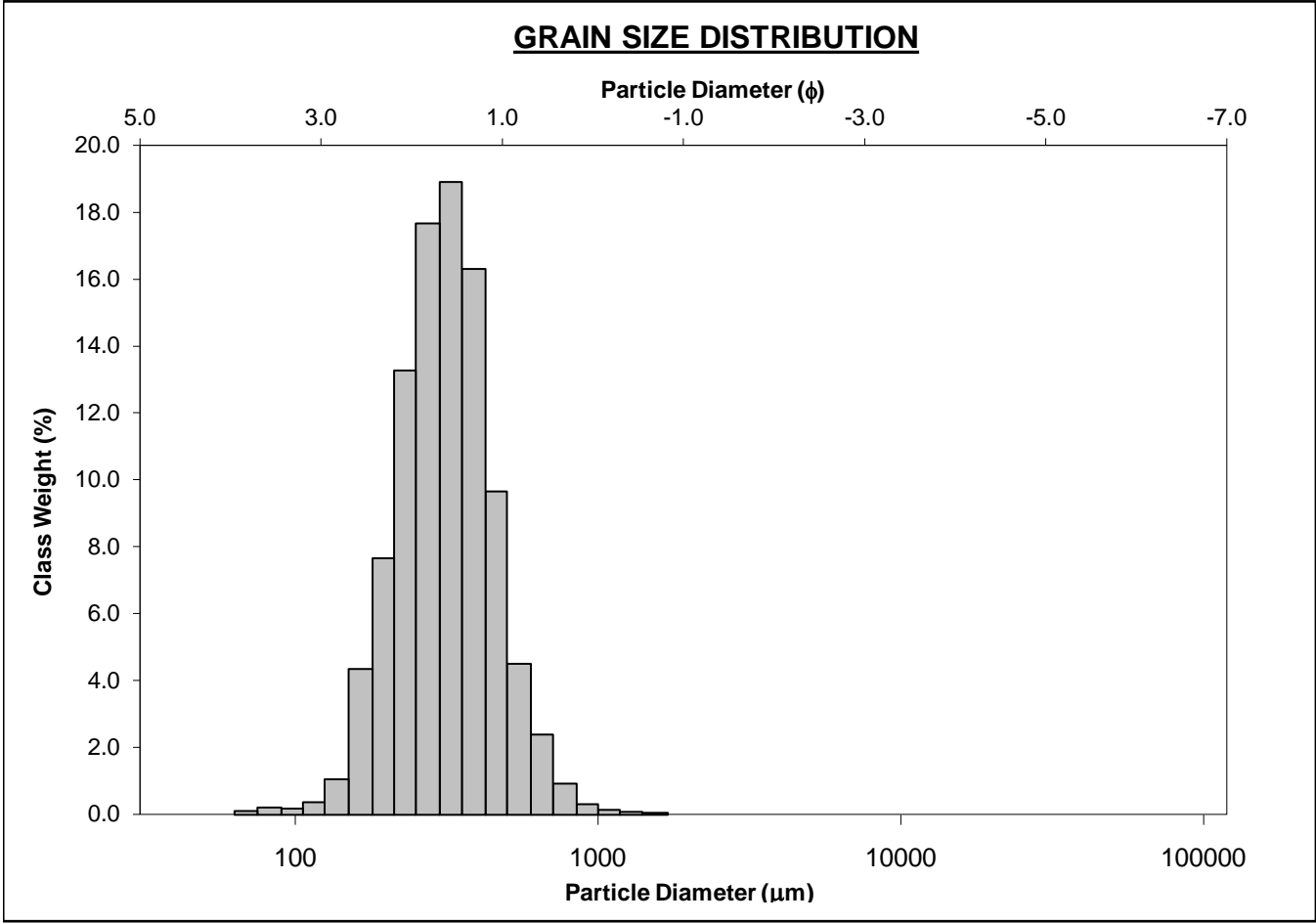
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-70cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 6.8%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 57.0%	
MODE 3:			MUD: 0.3%		FINE SAND: 33.4%	
D ₁₀ :	173.0	1.095			V FINE SAND: 1.9%	
MEDIAN or D ₅₀ :	283.4	1.819	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	468.2	2.531	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.706	2.312	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	295.1	1.436	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.626	1.478	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	139.2	0.702	V COARSE SAND: 0.7%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	312.9	283.6	1.818	283.3	1.820	Medium Sand
SORTING (σ):	151.2	1.564	0.645	1.474	0.559	Moderately Well Sorted
SKEWNESS (Sk):	2.878	-1.153	1.153	0.024	-0.024	Symmetrical
KURTOSIS (K):	18.47	14.25	14.25	1.118	1.118	Leptokurtic



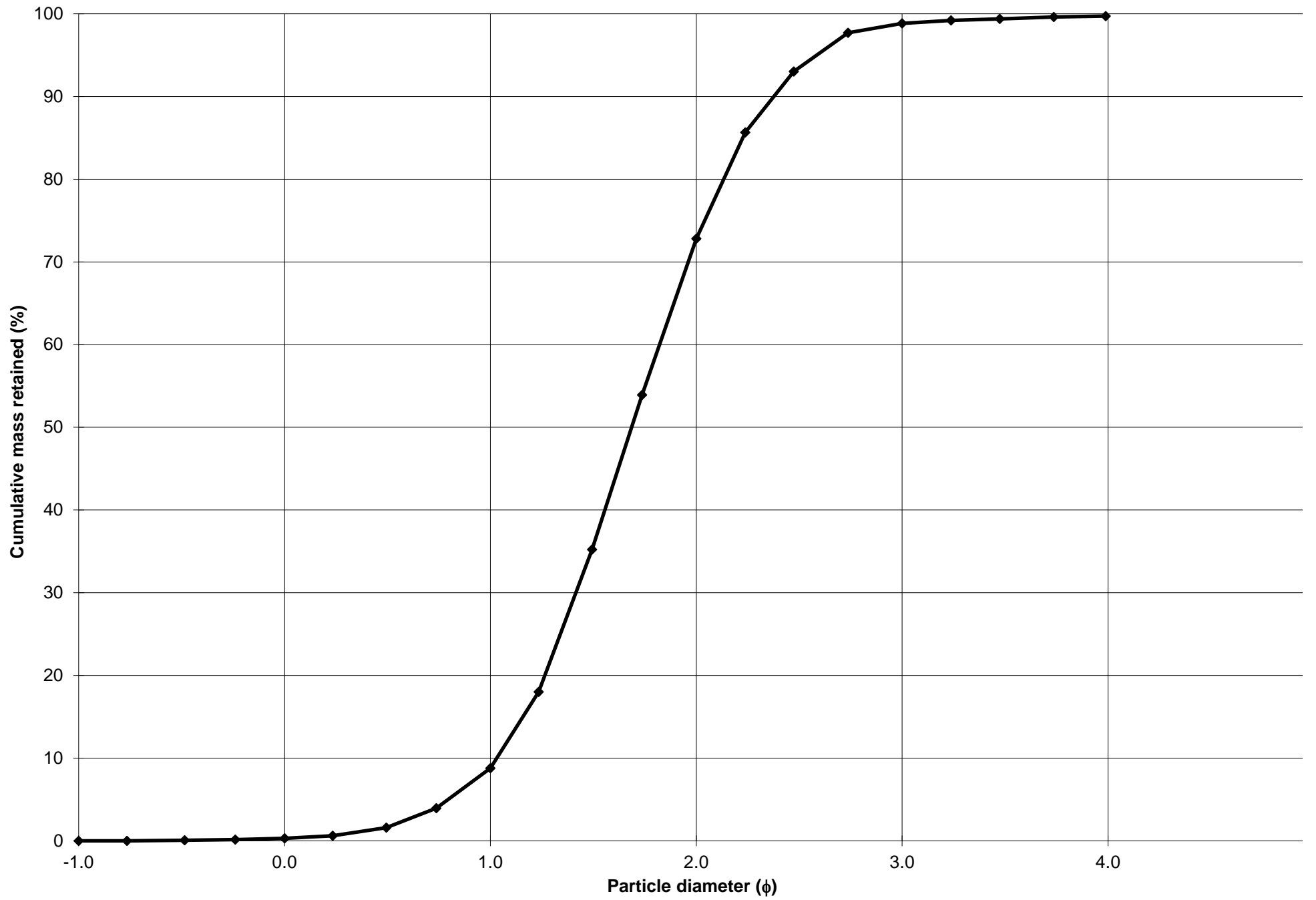
Cumulative Frequency Curve



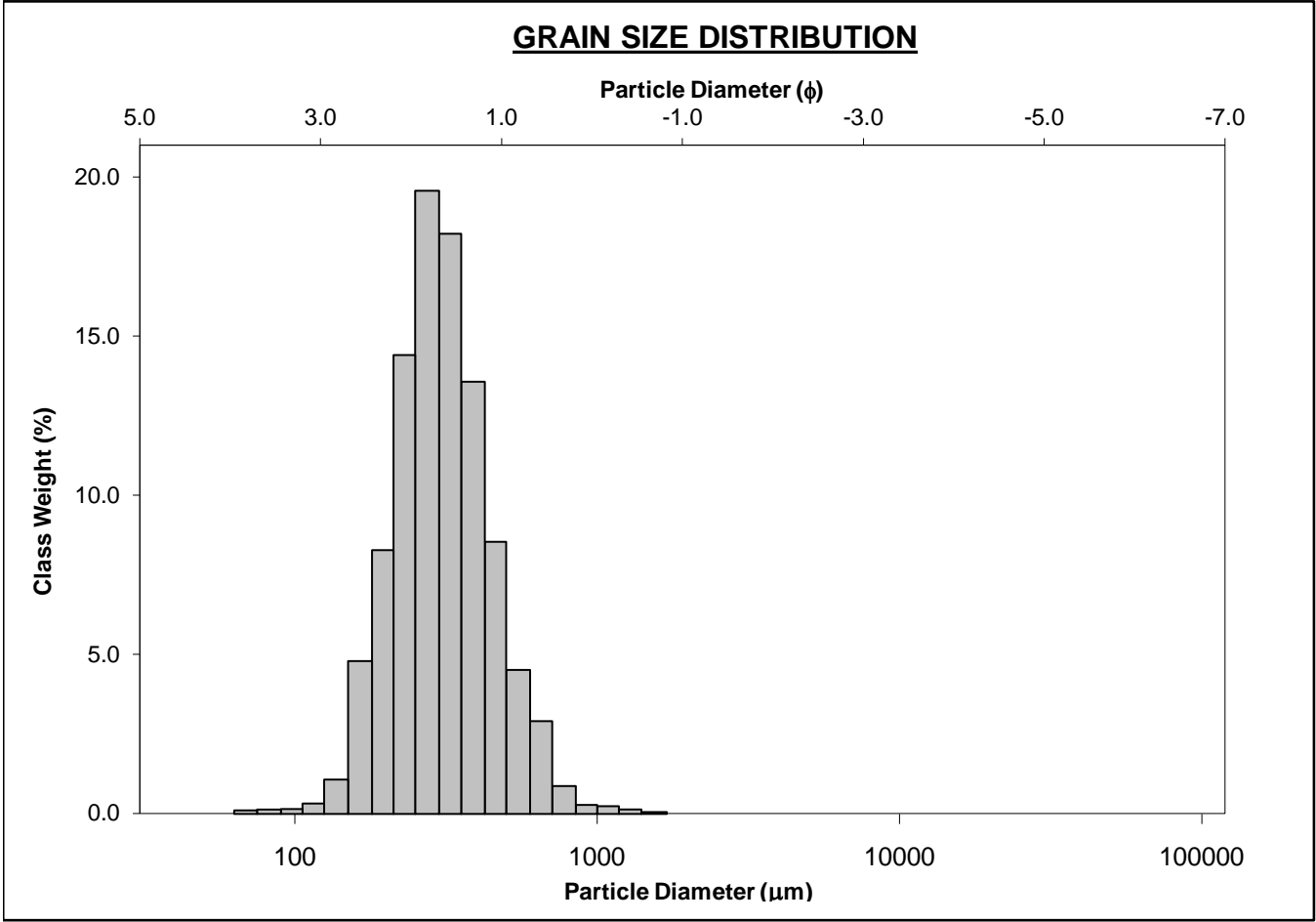
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-80cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 8.5%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 64.0%	
MODE 3:			MUD: 0.3%		FINE SAND: 26.0%	
D ₁₀ :	192.5	1.031			V FINE SAND: 0.9%	
MEDIAN or D ₅₀ :	310.8	1.686	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	489.4	2.377	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.542	2.306	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	296.9	1.346	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.625	1.523	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	151.9	0.700	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	333.7	307.4	1.702	309.5	1.692	Medium Sand
SORTING (σ):	135.6	1.522	0.606	1.441	0.527	Moderately Well Sorted
SKEWNESS (Sk):	1.916	-1.766	1.766	-0.011	0.011	Symmetrical
KURTOSIS (K):	11.90	18.41	18.41	1.048	1.048	Mesokurtic



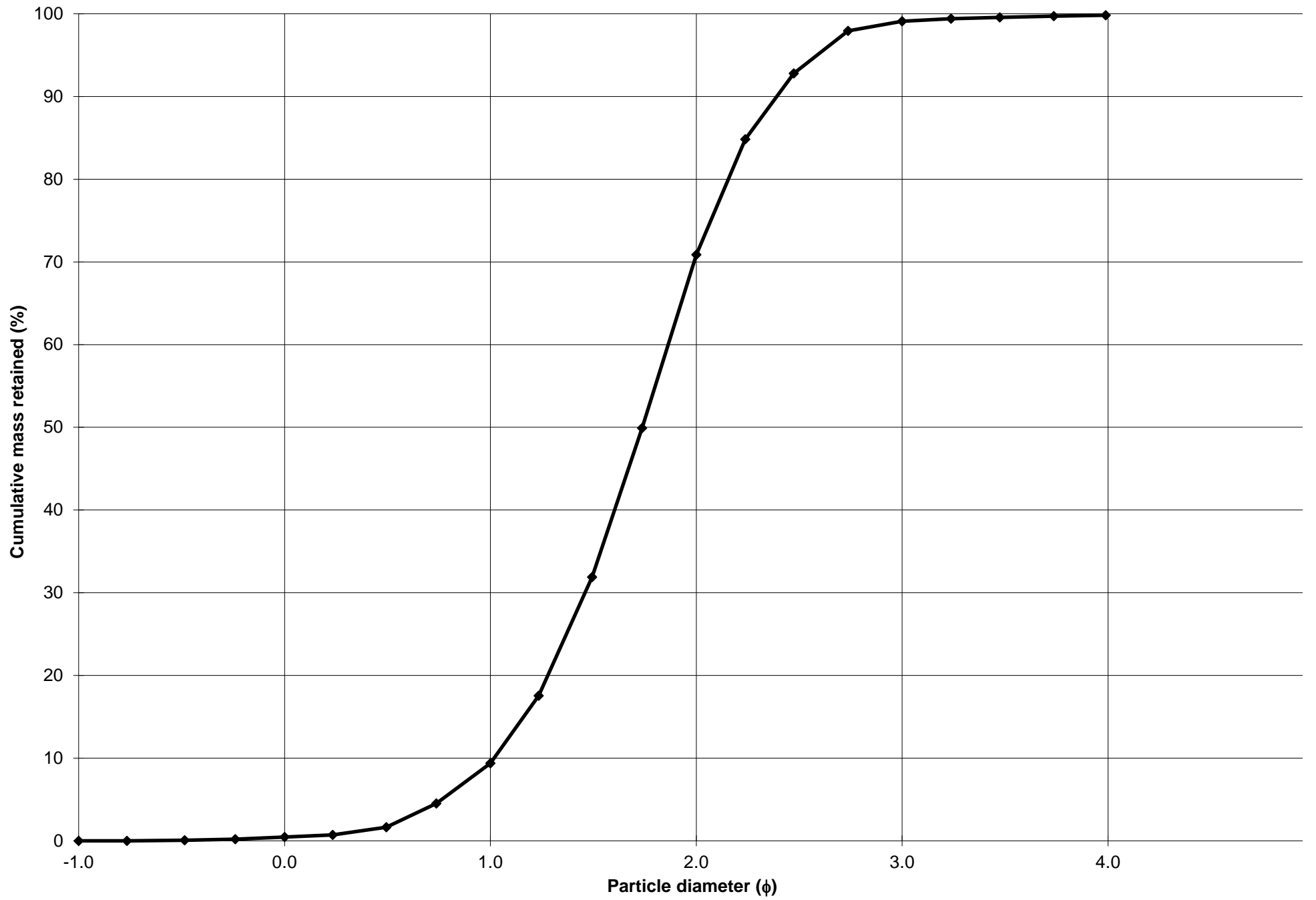
Cumulative Frequency Curve



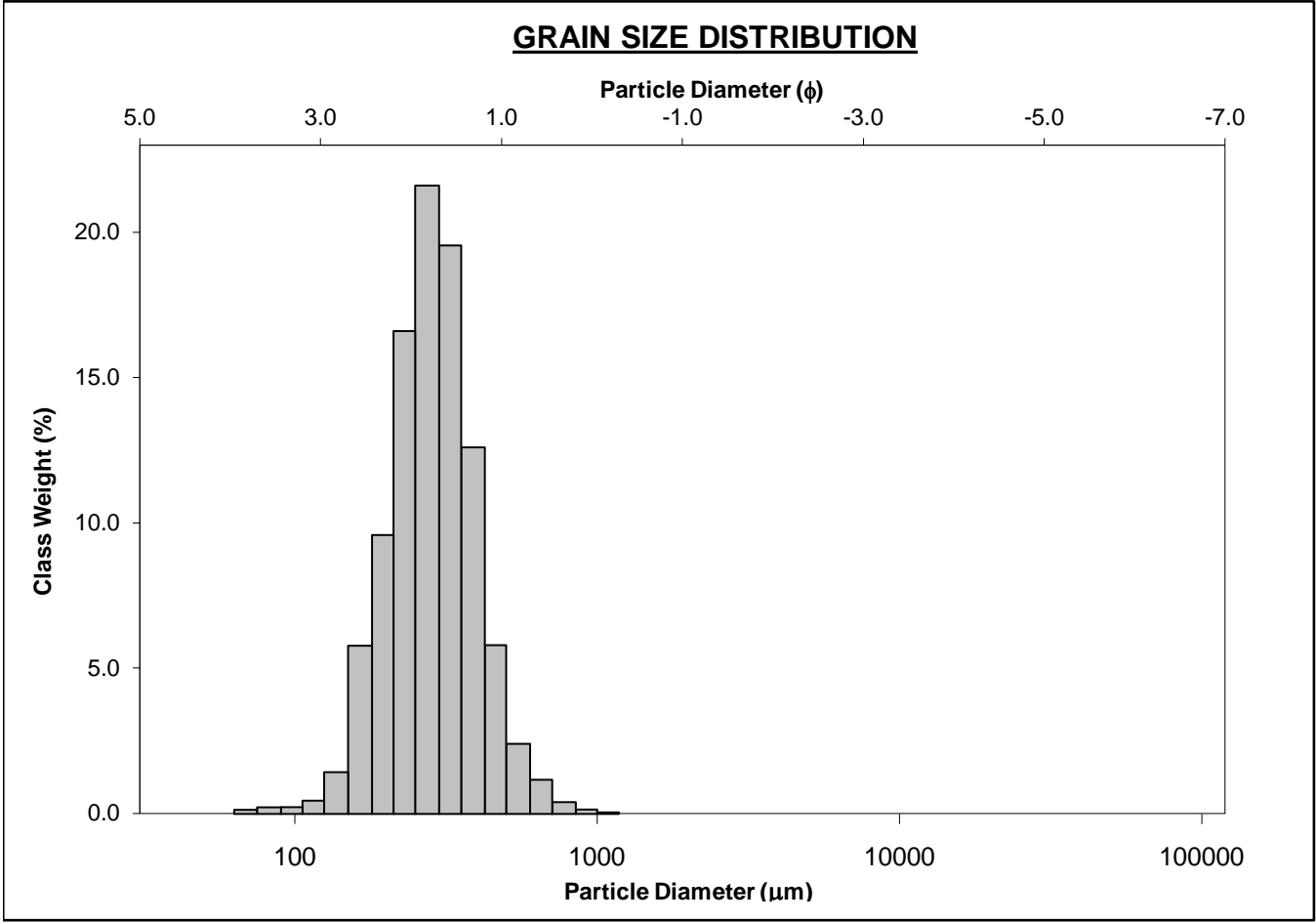
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-90cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 8.9%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 61.5%	
MODE 3:			MUD: 0.2%		FINE SAND: 28.2%	
D ₁₀ :	190.6	1.018			V FINE SAND: 0.7%	
MEDIAN or D ₅₀ :	299.8	1.738	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	493.8	2.391	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.590	2.349	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	303.2	1.373	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.625	1.512	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	148.9	0.701	V COARSE SAND: 0.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	329.8	303.6	1.720	304.1	1.717	Medium Sand
SORTING (σ):	140.3	1.504	0.588	1.449	0.535	Moderately Well Sorted
SKEWNESS (Sk):	2.124	-1.052	1.052	0.065	-0.065	Symmetrical
KURTOSIS (K):	12.43	14.18	14.18	1.067	1.067	Mesokurtic



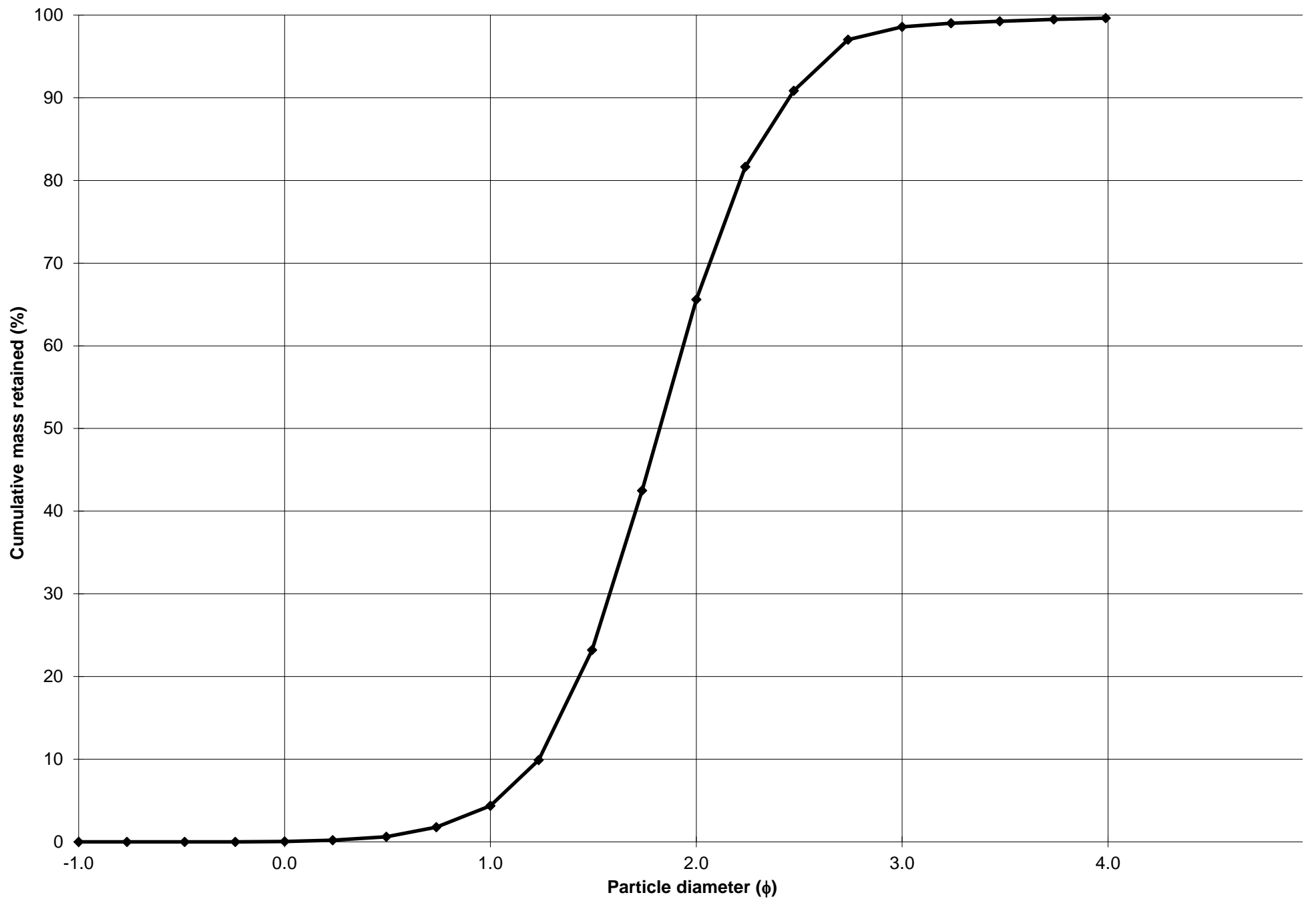
Cumulative Frequency Curve



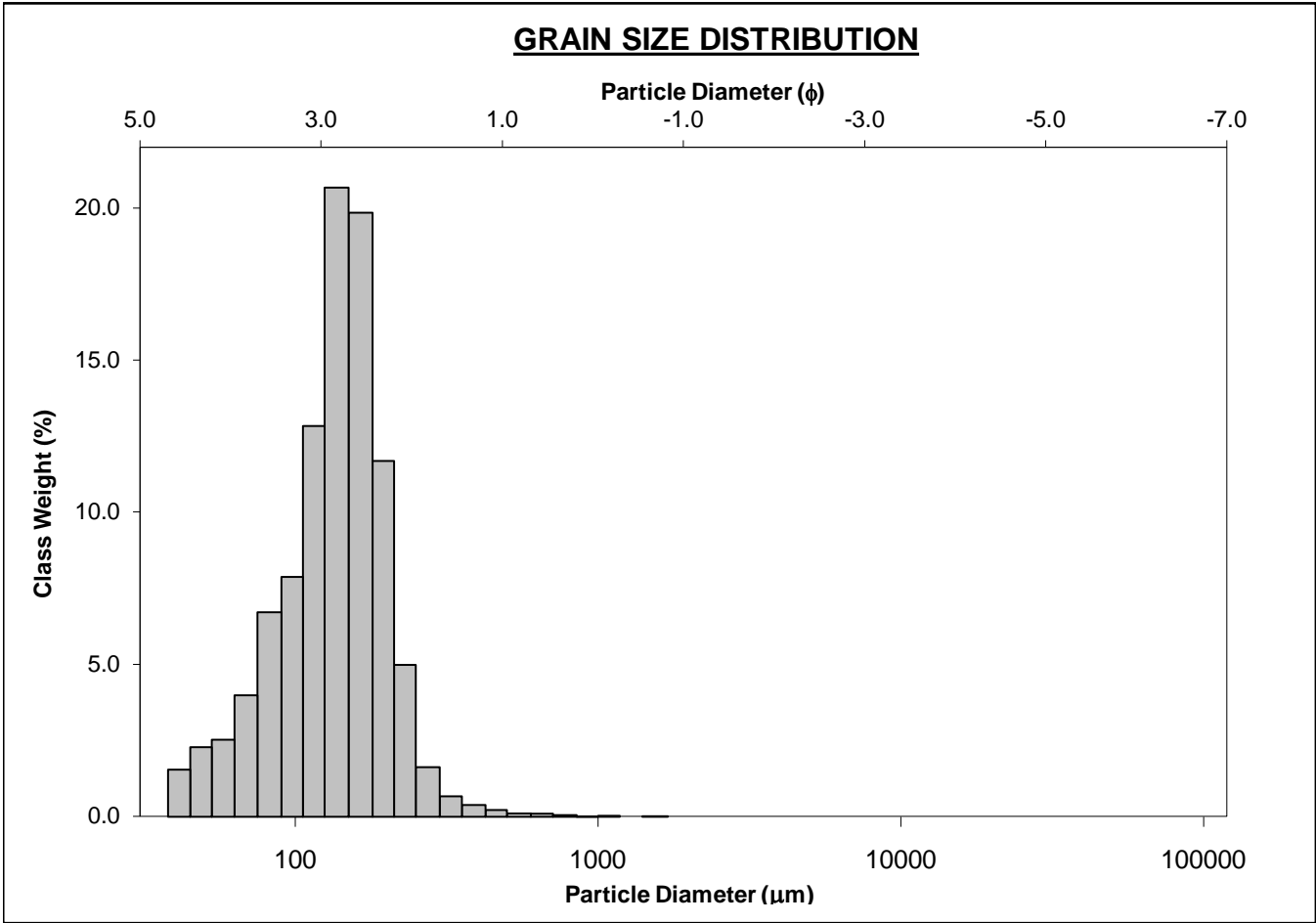
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-100cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 4.3%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 61.2%	
MODE 3:			MUD: 0.4%		FINE SAND: 33.0%	
D ₁₀ :	182.8	1.236			V FINE SAND: 1.1%	
MEDIAN or D ₅₀ :	282.8	1.822	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	424.4	2.452	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.322	1.983	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	241.6	1.215	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.540	1.410	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	122.5	0.623	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	299.8	279.0	1.842	282.3	1.825	Medium Sand
SORTING (σ):	108.5	1.498	0.583	1.397	0.482	Well Sorted
SKEWNESS (Sk):	1.421	-2.522	2.522	-0.014	0.014	Symmetrical
KURTOSIS (K):	7.723	24.54	24.54	1.069	1.069	Mesokurtic



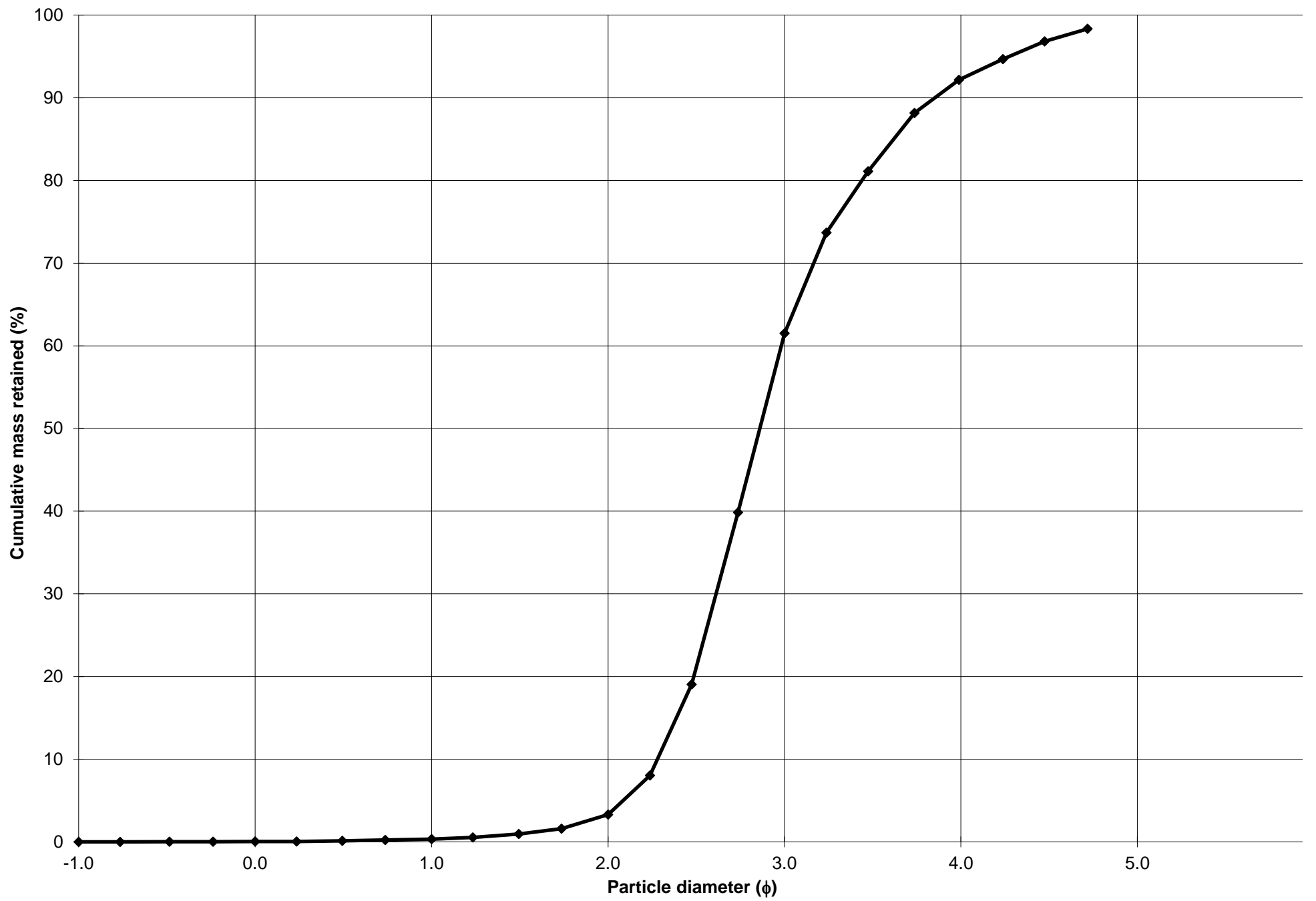
Cumulative Frequency Curve



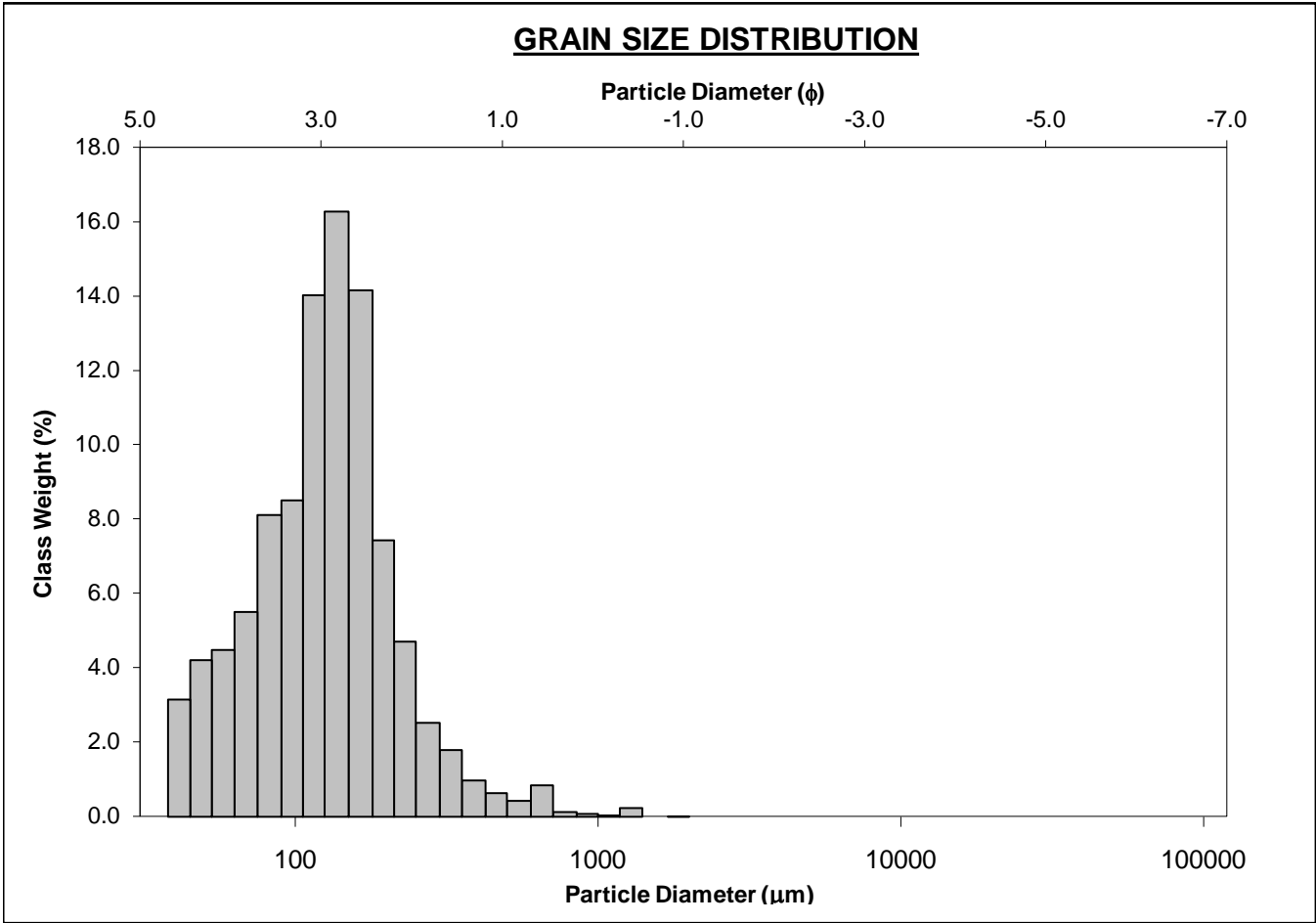
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-110cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.3%			
MODE 2:			SAND: 92.3% MEDIUM SAND: 3.0%			
MODE 3:			MUD: 7.7% FINE SAND: 58.2%			
D ₁₀ :	69.22	2.280	V FINE SAND: 30.8%			
MEDIAN or D ₅₀ :	137.7	2.860	V COARSE GRAVEL: 0.0% V COARSE SILT: 6.1%			
D ₉₀ :	205.9	3.853	COARSE GRAVEL: 0.0% COARSE SILT: 0.3%			
(D ₉₀ / D ₁₀):	2.974	1.690	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.3%			
(D ₉₀ - D ₁₀):	136.7	1.573	FINE GRAVEL: 0.0% FINE SILT: 0.3%			
(D ₇₅ / D ₂₅):	1.659	1.286	V FINE GRAVEL: 0.0% V FINE SILT: 0.3%			
(D ₇₅ - D ₂₅):	67.84	0.730	V COARSE SAND: 0.1% CLAY: 0.3%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	141.8	124.9	3.002	129.4	2.950	Fine Sand
SORTING (σ):	68.31	1.774	0.827	1.542	0.625	Moderately Well Sorted
SKEWNESS (Sk):	4.343	-2.412	2.412	-0.261	0.261	Fine Skewed
KURTOSIS (K):	62.12	14.00	14.00	1.228	1.228	Leptokurtic



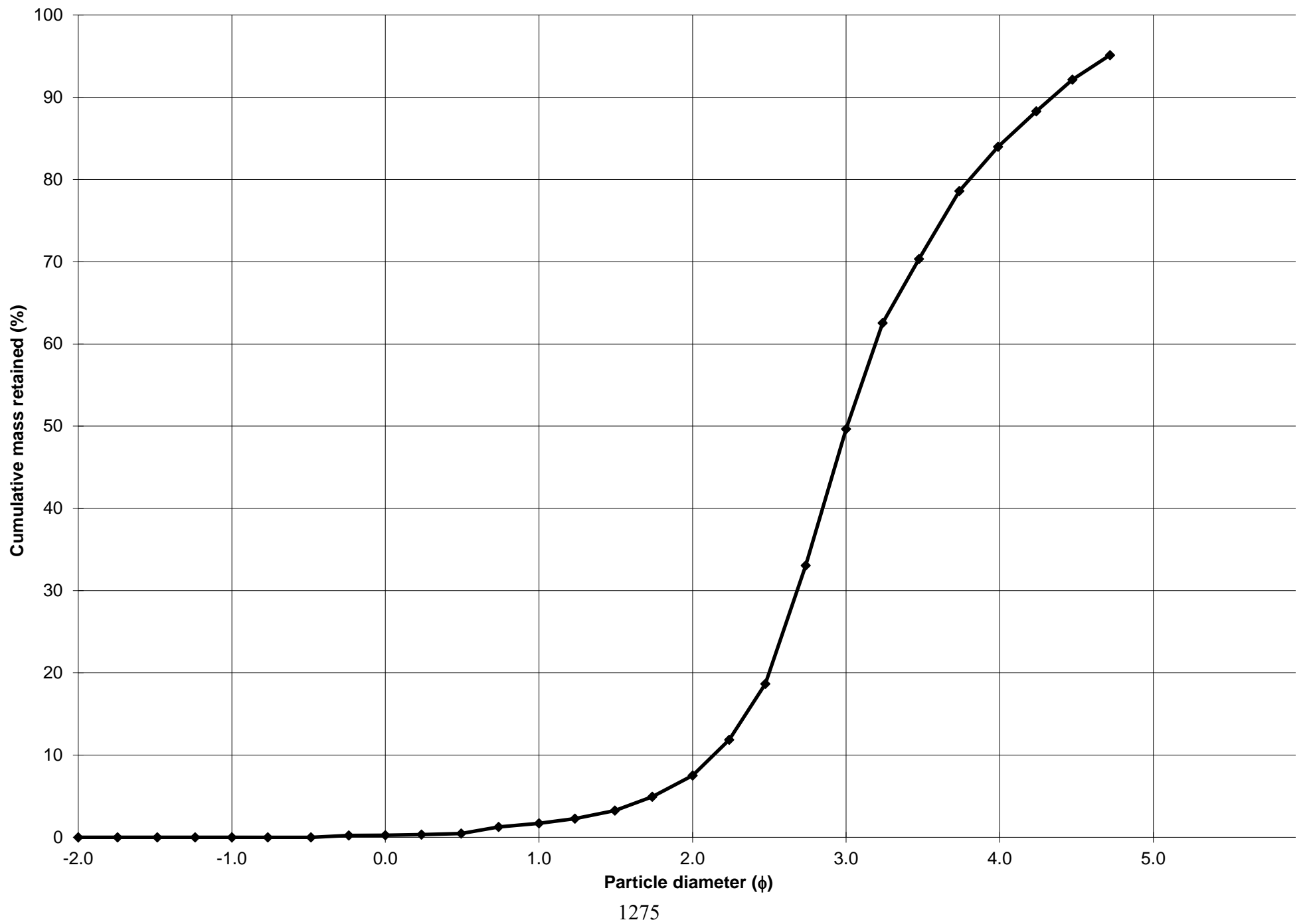
Cumulative Frequency Curve



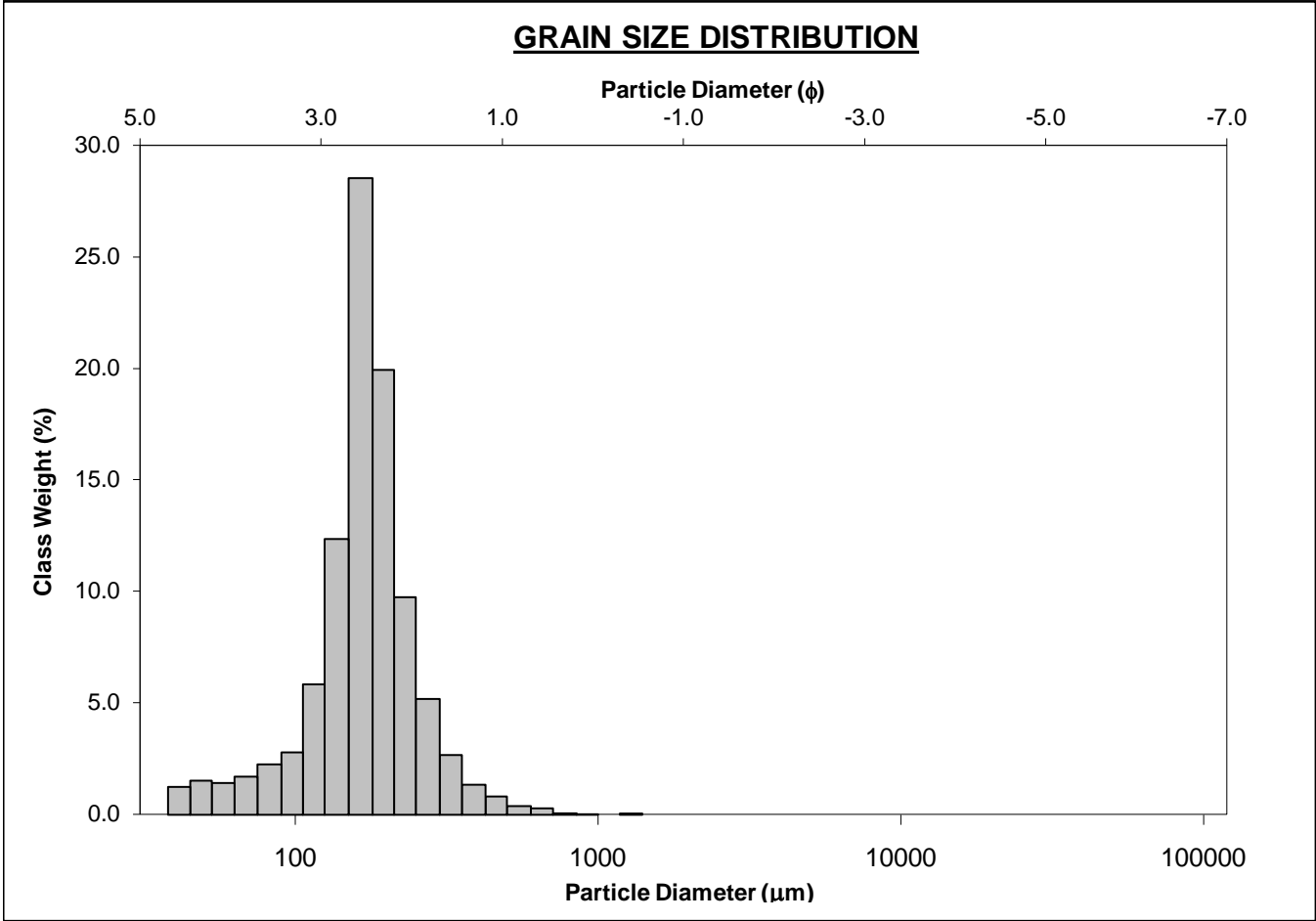
SIEVING ERROR: 1.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-120cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Muddy Sand			
SEDIMENT NAME: Very Coarse Silty Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 1.4%			
MODE 2:			SAND: 84.2% MEDIUM SAND: 5.8%			
MODE 3:			MUD: 15.8% FINE SAND: 42.1%			
D ₁₀ :	49.30	2.136	V FINE SAND: 34.5%			
MEDIAN or D ₅₀ :	124.4	3.007	V COARSE GRAVEL: 0.0% V COARSE SILT: 11.2%			
D ₉₀ :	227.5	4.342	COARSE GRAVEL: 0.0% COARSE SILT: 0.9%			
(D ₉₀ / D ₁₀):	4.614	2.033	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.9%			
(D ₉₀ - D ₁₀):	178.2	2.206	FINE GRAVEL: 0.0% FINE SILT: 0.9%			
(D ₇₅ / D ₂₅):	2.046	1.399	V FINE GRAVEL: 0.0% V FINE SILT: 0.9%			
(D ₇₅ - D ₂₅):	84.91	1.033	V COARSE SAND: 0.3% CLAY: 0.9%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	141.3	107.5	3.217	114.5	3.126	Very Fine Sand
SORTING (σ):	112.1	2.317	1.212	1.804	0.851	Moderately Sorted
SKEWNESS (Sk):	4.540	-1.623	1.623	-0.185	0.185	Fine Skewed
KURTOSIS (K):	38.22	7.487	7.487	1.177	1.177	Leptokurtic



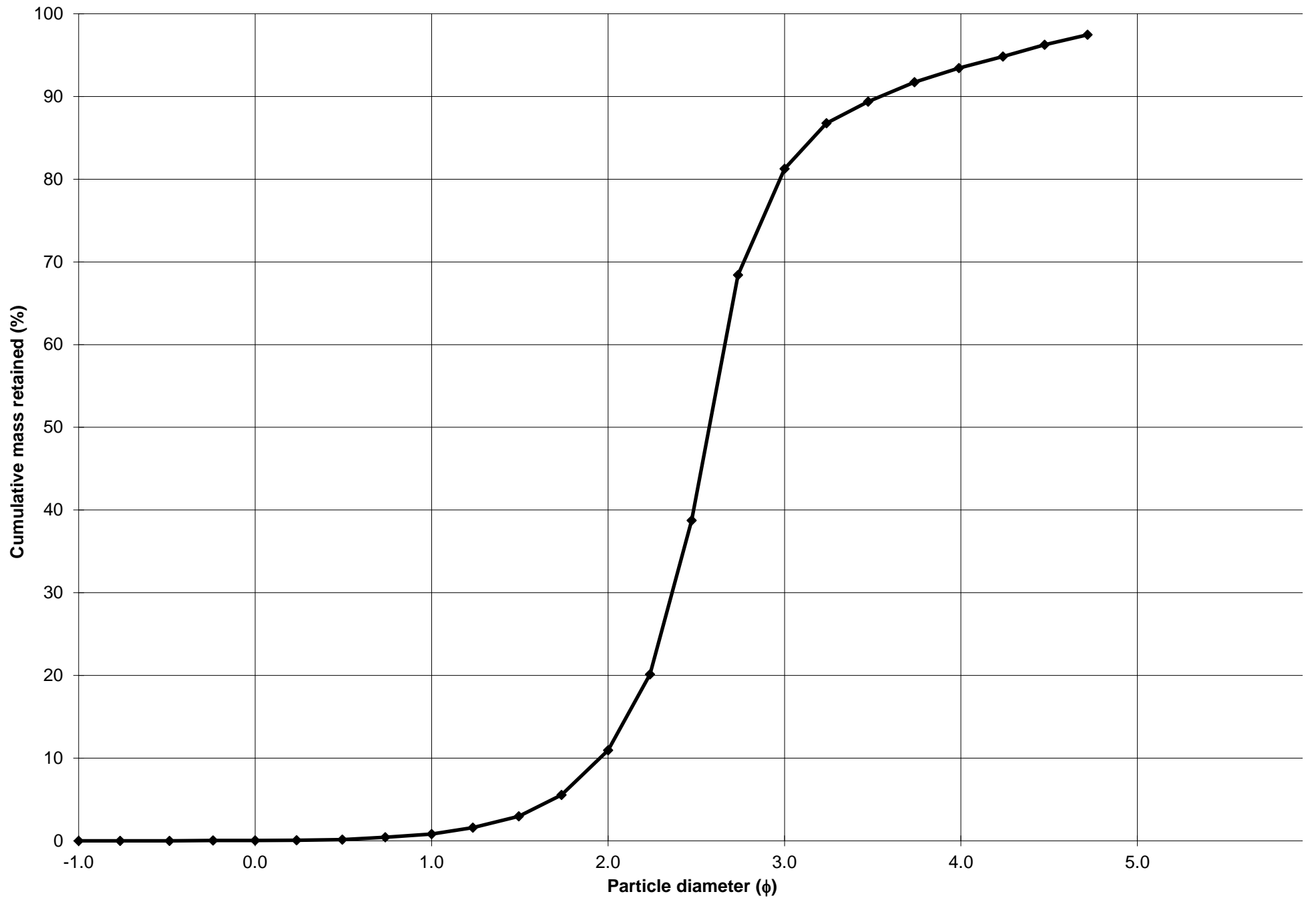
Cumulative Frequency Curve



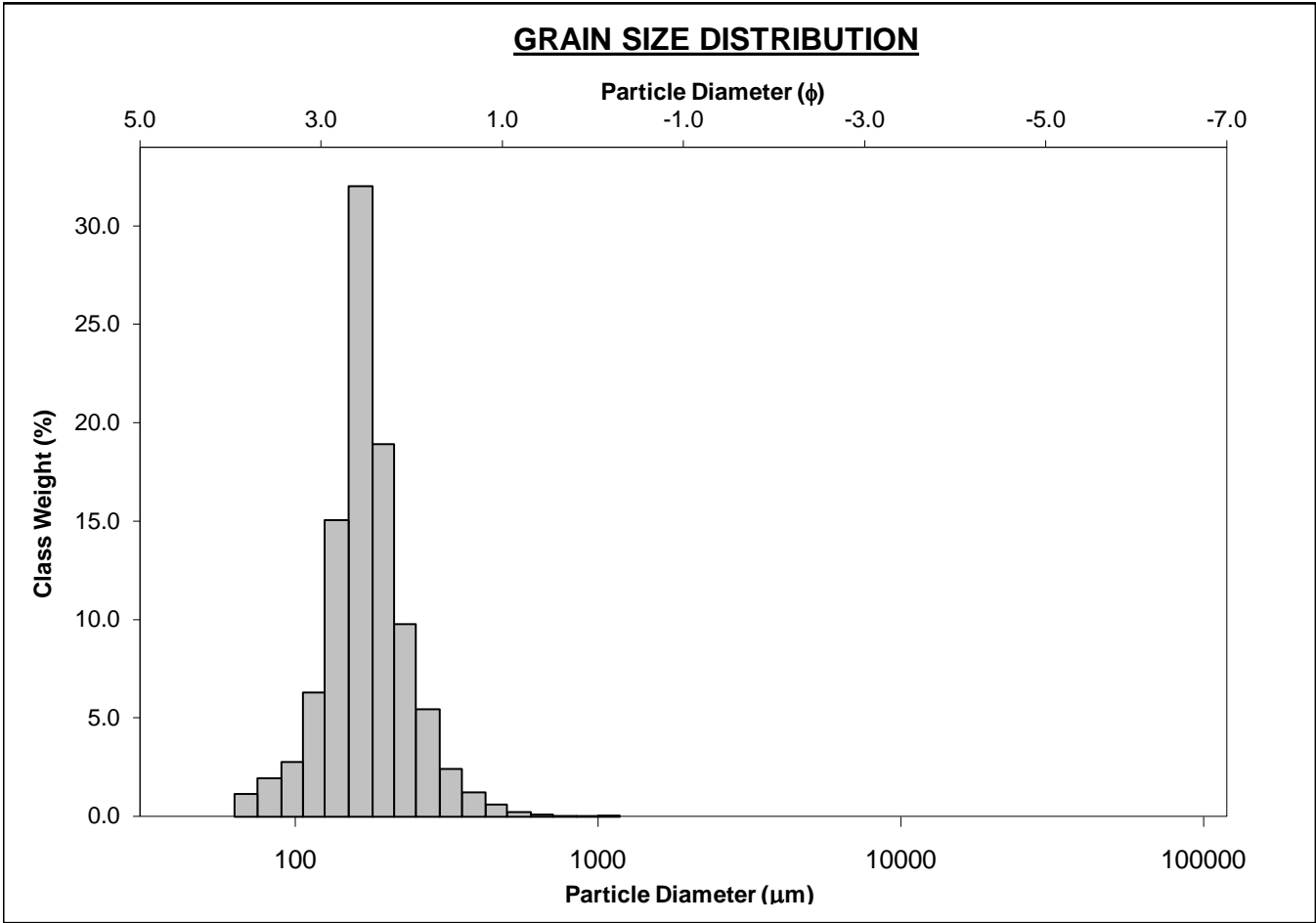
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-130cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.8%	
MODE 2:			SAND: 93.5%		MEDIUM SAND: 10.1%	
MODE 3:			MUD: 6.5%		FINE SAND: 70.3%	
D ₁₀ :	85.72	1.954			V FINE SAND: 12.2%	
MEDIAN or D ₅₀ :	168.0	2.574	V COARSE GRAVEL: 0.0%		V COARSE SILT: 4.1%	
D ₉₀ :	258.1	3.544	COARSE GRAVEL: 0.0%		COARSE SILT: 0.5%	
(D ₉₀ / D ₁₀):	3.011	1.814	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.5%	
(D ₉₀ - D ₁₀):	172.4	1.590	FINE GRAVEL: 0.0%		FINE SILT: 0.5%	
(D ₇₅ / D ₂₅):	1.487	1.249	V FINE GRAVEL: 0.0%		V FINE SILT: 0.5%	
(D ₇₅ - D ₂₅):	66.48	0.572	V COARSE SAND: 0.1%		CLAY: 0.5%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	176.5	151.6	2.722	164.0	2.608	Fine Sand
SORTING (σ):	85.11	1.952	0.965	1.556	0.638	Moderately Well Sorted
SKEWNESS (Sk):	2.816	-2.804	2.804	-0.207	0.207	Fine Skewed
KURTOSIS (K):	26.06	14.37	14.37	1.849	1.849	Very Leptokurtic



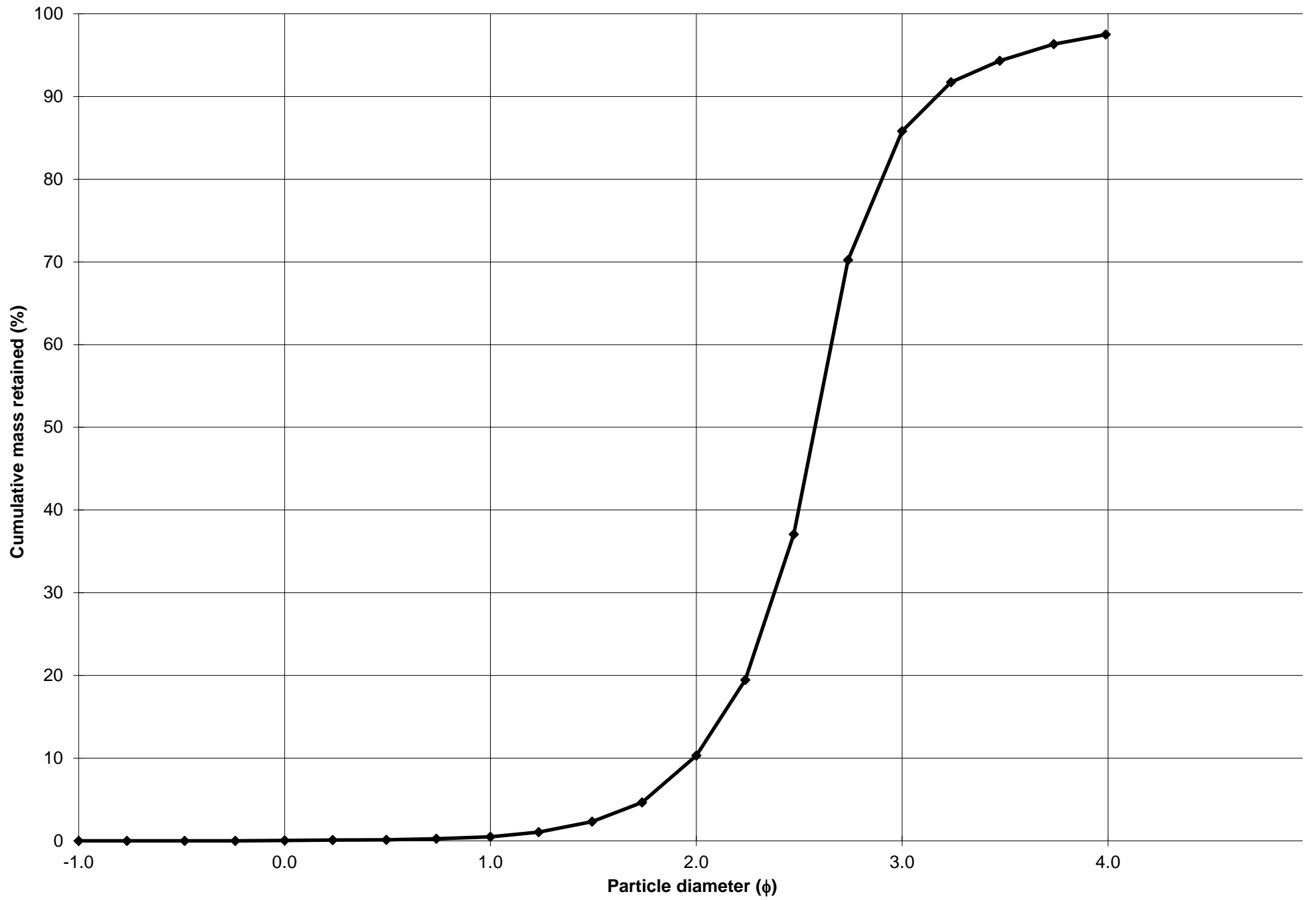
Cumulative Frequency Curve



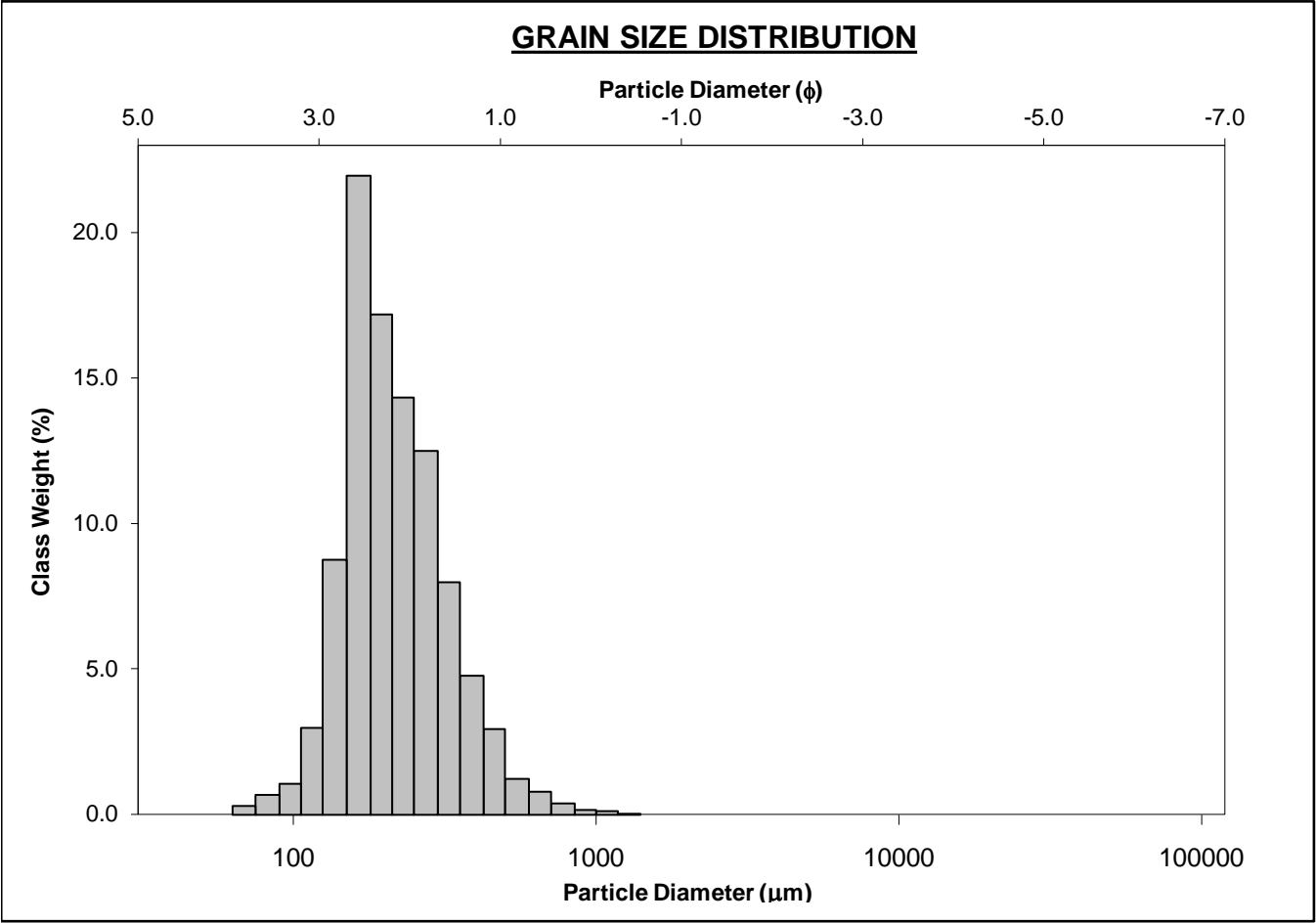
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-140cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.4%			
MODE 2:			SAND: 97.5% MEDIUM SAND: 9.8%			
MODE 3:			MUD: 2.5% FINE SAND: 75.5%			
D ₁₀ :	111.2	1.986	V FINE SAND: 11.7%			
MEDIAN or D ₅₀ :	167.6	2.577	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.4%			
D ₉₀ :	252.5	3.168	COARSE GRAVEL: 0.0% COARSE SILT: 0.4%			
(D ₉₀ / D ₁₀):	2.270	1.596	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.4%			
(D ₉₀ - D ₁₀):	141.3	1.183	FINE GRAVEL: 0.0% FINE SILT: 0.4%			
(D ₇₅ / D ₂₅):	1.420	1.219	V FINE GRAVEL: 0.0% V FINE SILT: 0.4%			
(D ₇₅ - D ₂₅):	59.53	0.506	V COARSE SAND: 0.1% CLAY: 0.4%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	178.5	158.9	2.654	169.0	2.565	Fine Sand
SORTING (σ):	73.31	1.786	0.837	1.394	0.480	Well Sorted
SKEWNESS (Sk):	2.925	-3.319	3.319	-0.023	0.023	Symmetrical
KURTOSIS (K):	26.18	18.78	18.78	1.468	1.468	Leptokurtic



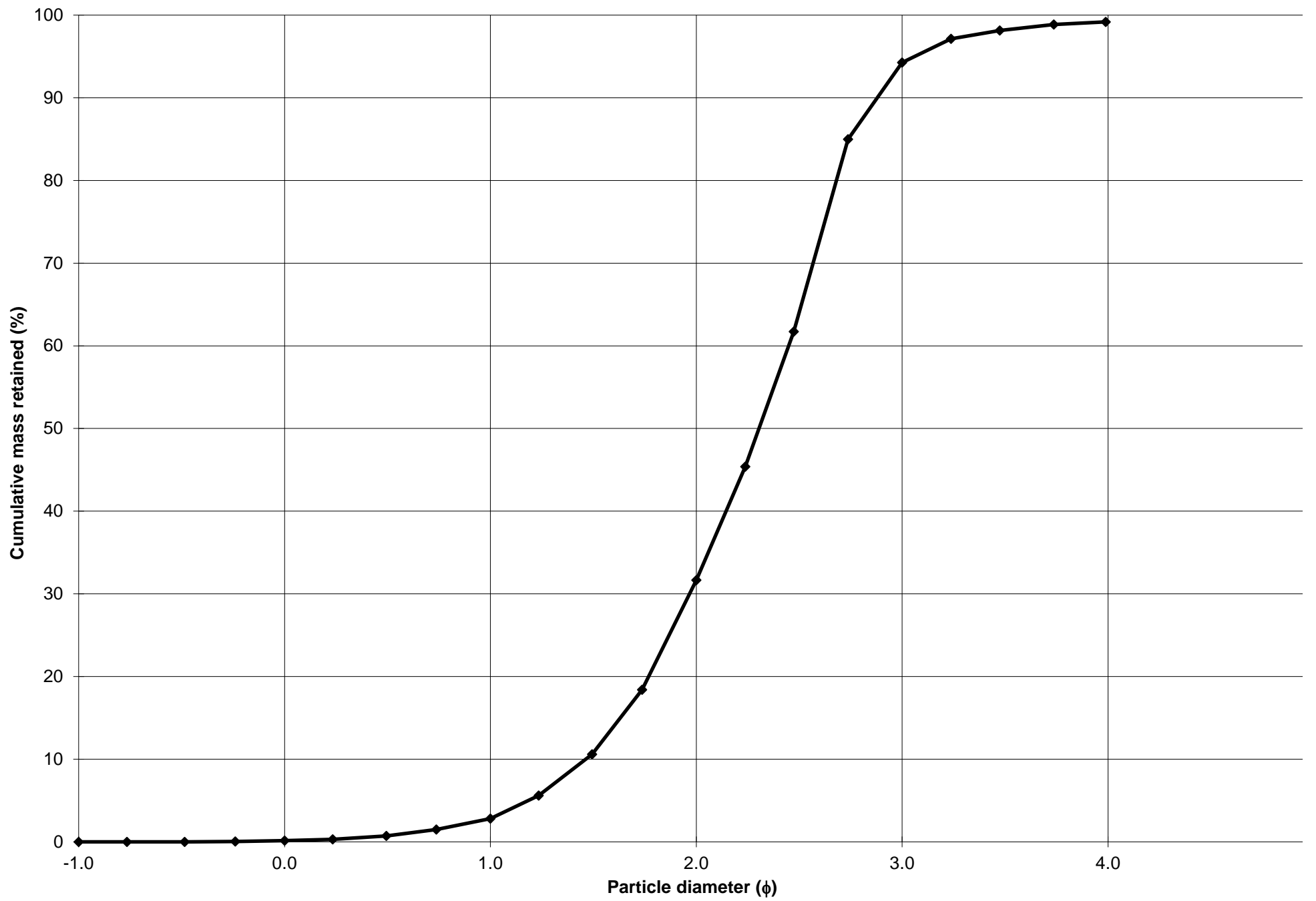
Cumulative Frequency Curve



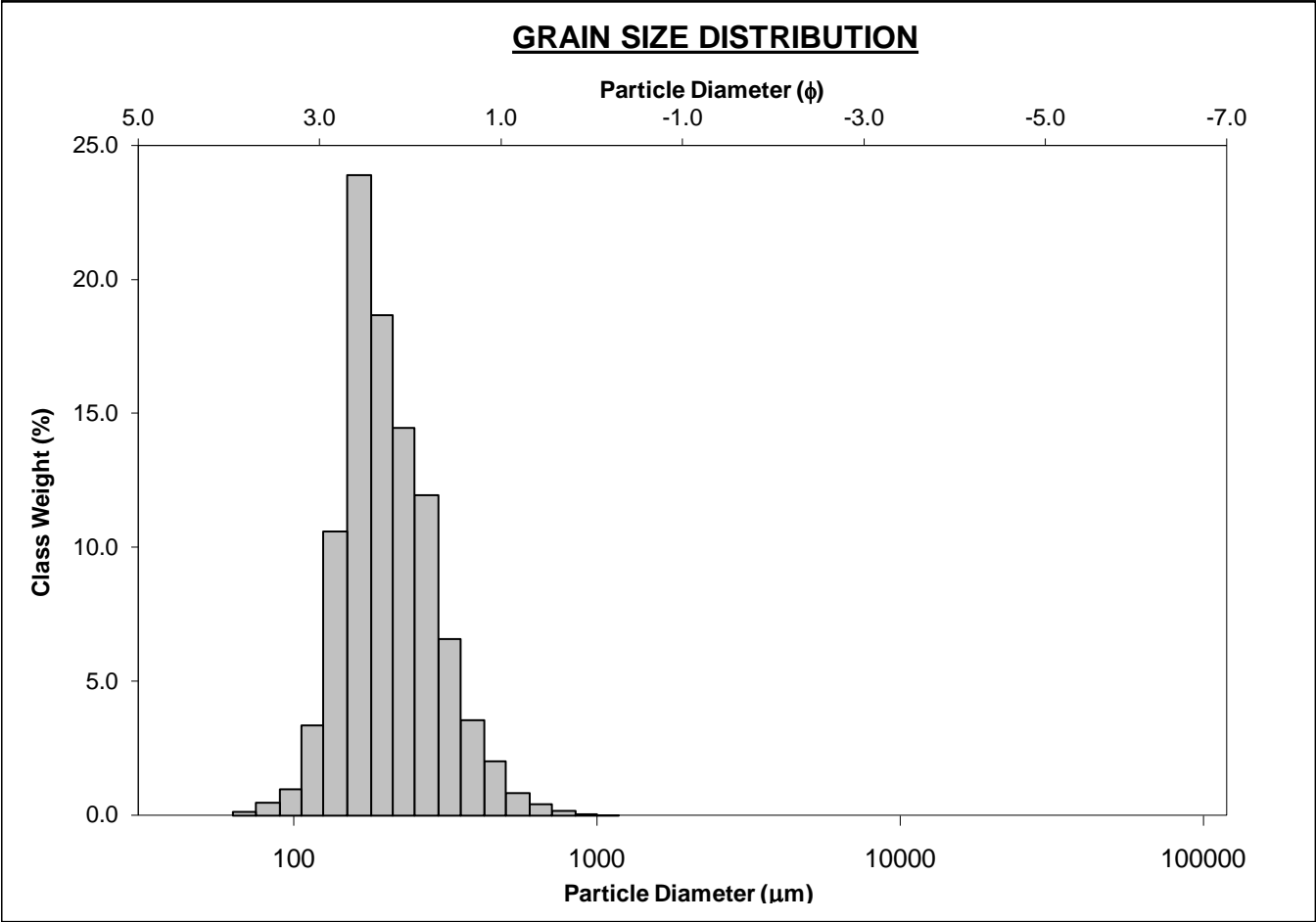
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-150cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 2.7%	
MODE 2:			SAND: 99.2%		MEDIUM SAND: 28.8%	
MODE 3:			MUD: 0.8%		FINE SAND: 62.6%	
D ₁₀ :	135.9	1.463			V FINE SAND: 4.9%	
MEDIAN or D ₅₀ :	202.4	2.305	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	362.6	2.879	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.668	1.967	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	226.7	1.416	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.689	1.405	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	111.8	0.756	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	233.4	209.1	2.258	213.0	2.231	Fine Sand
SORTING (σ):	113.6	1.642	0.715	1.464	0.550	Moderately Well Sorted
SKEWNESS (Sk):	2.481	-1.977	1.977	0.201	-0.201	Coarse Skewed
KURTOSIS (K):	14.18	17.44	17.44	1.017	1.017	Mesokurtic



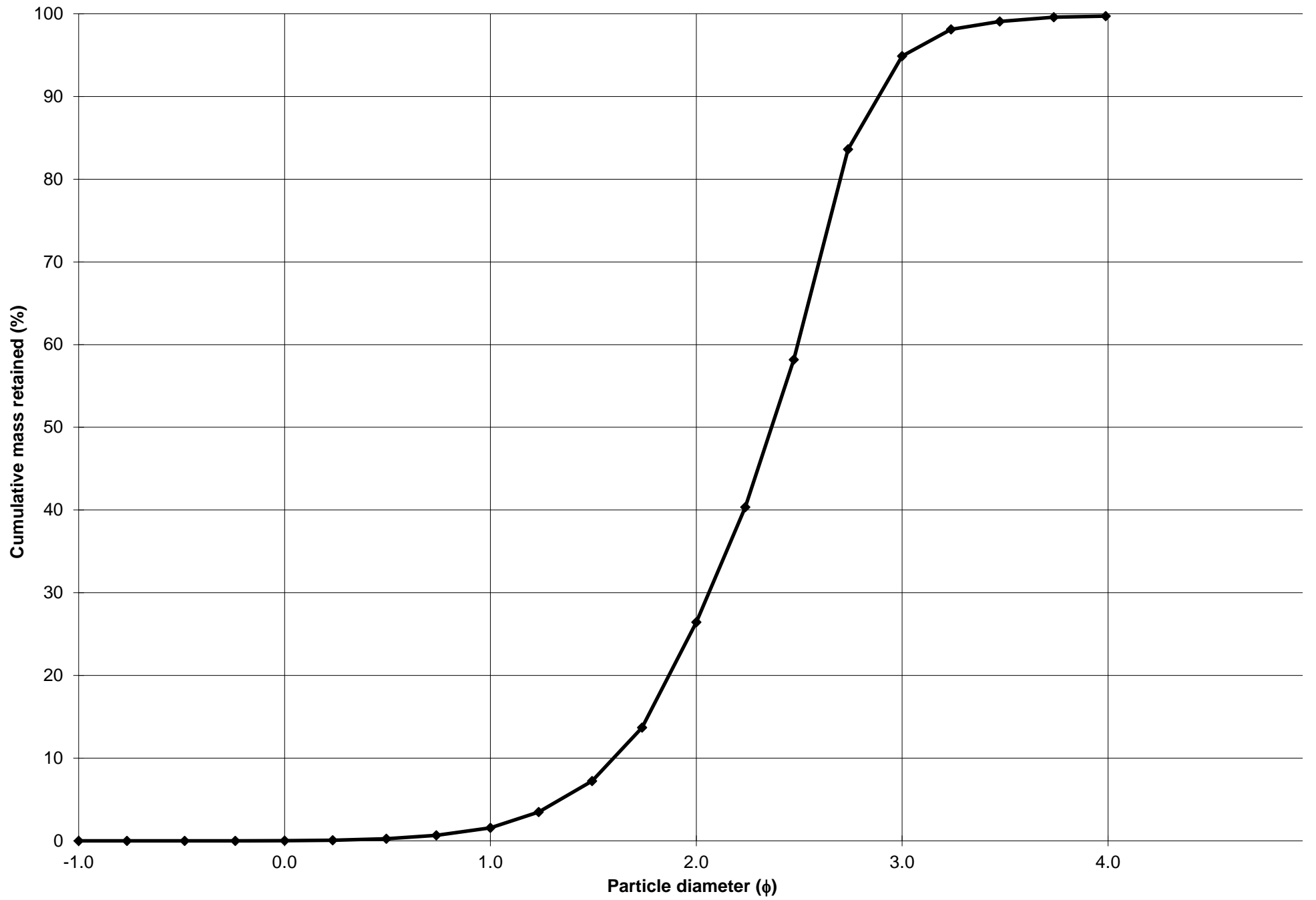
Cumulative Frequency Curve



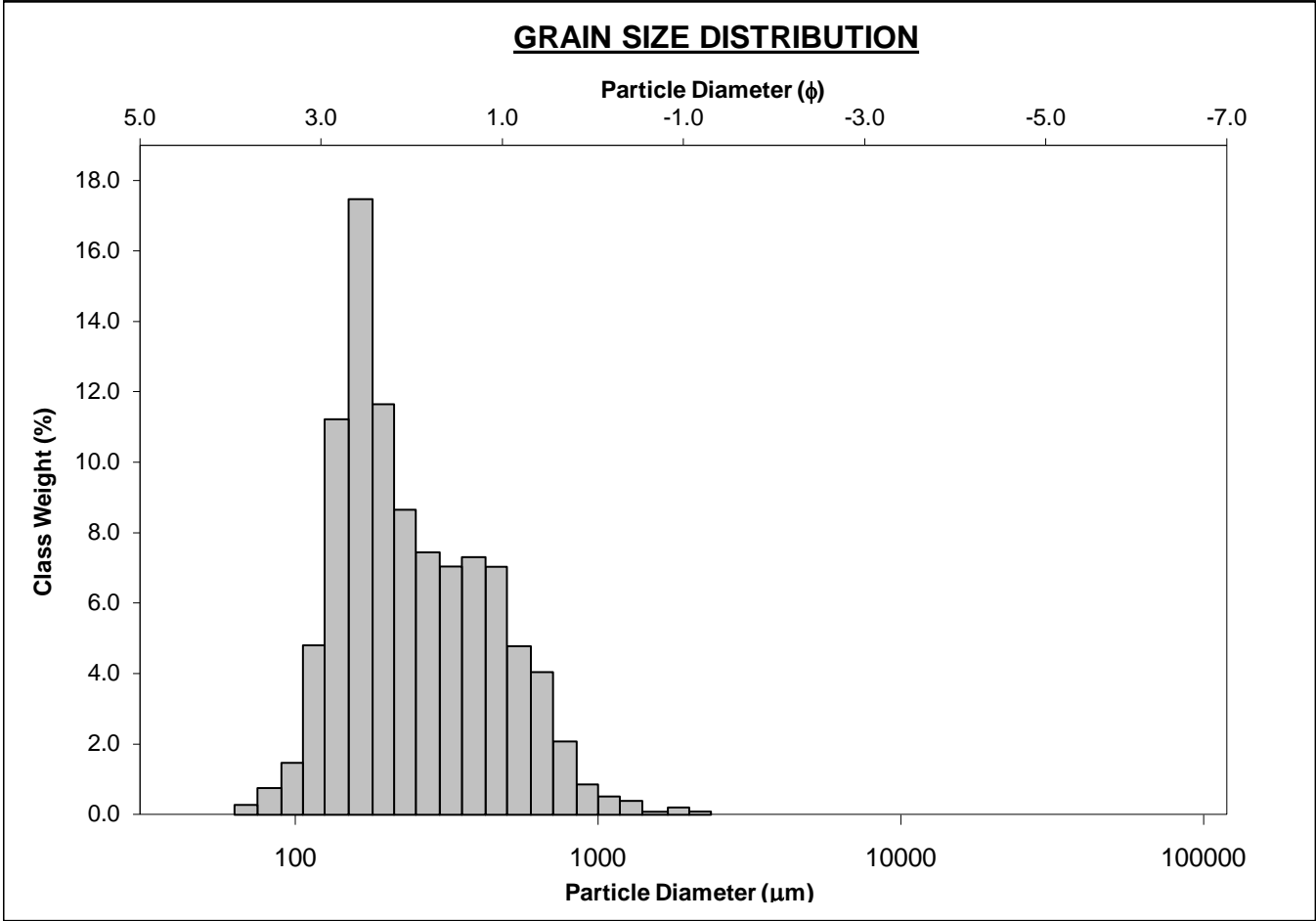
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-160cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 1.6%			
MODE 2:			SAND: 99.7% MEDIUM SAND: 24.9%			
MODE 3:			MUD: 0.3% FINE SAND: 68.5%			
D ₁₀ :	135.3	1.598	V FINE SAND: 4.8%			
MEDIAN or D ₅₀ :	194.0	2.366	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	330.3	2.886	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.442	1.806	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	195.1	1.288	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.599	1.344	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	95.62	0.678	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	219.3	202.6	2.303	203.2	2.299	Fine Sand
SORTING (σ):	91.81	1.486	0.571	1.408	0.493	Well Sorted
SKEWNESS (Sk):	2.114	-1.080	1.080	0.219	-0.219	Coarse Skewed
KURTOSIS (K):	10.83	15.32	15.32	1.010	1.010	Mesokurtic



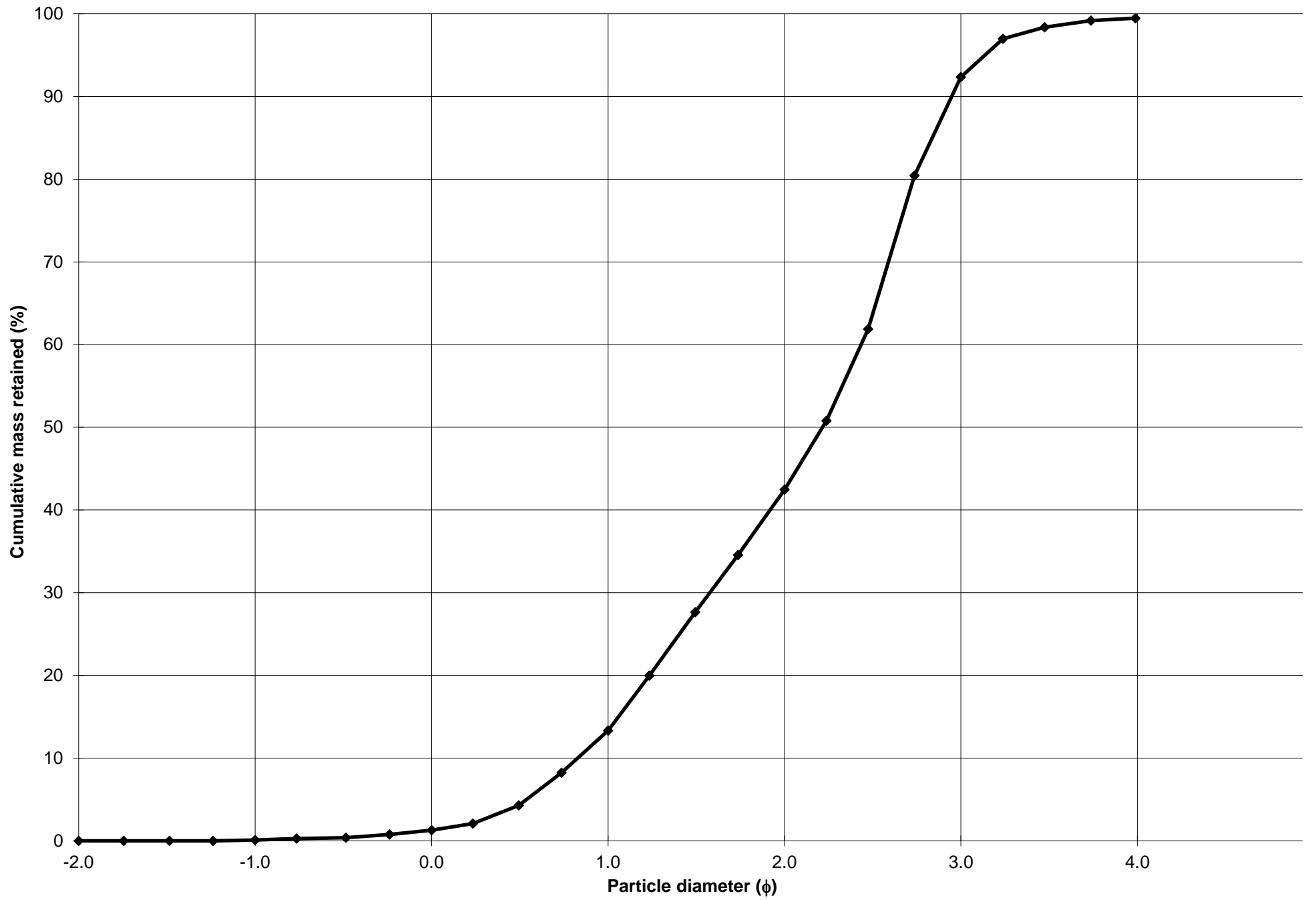
Cumulative Frequency Curve



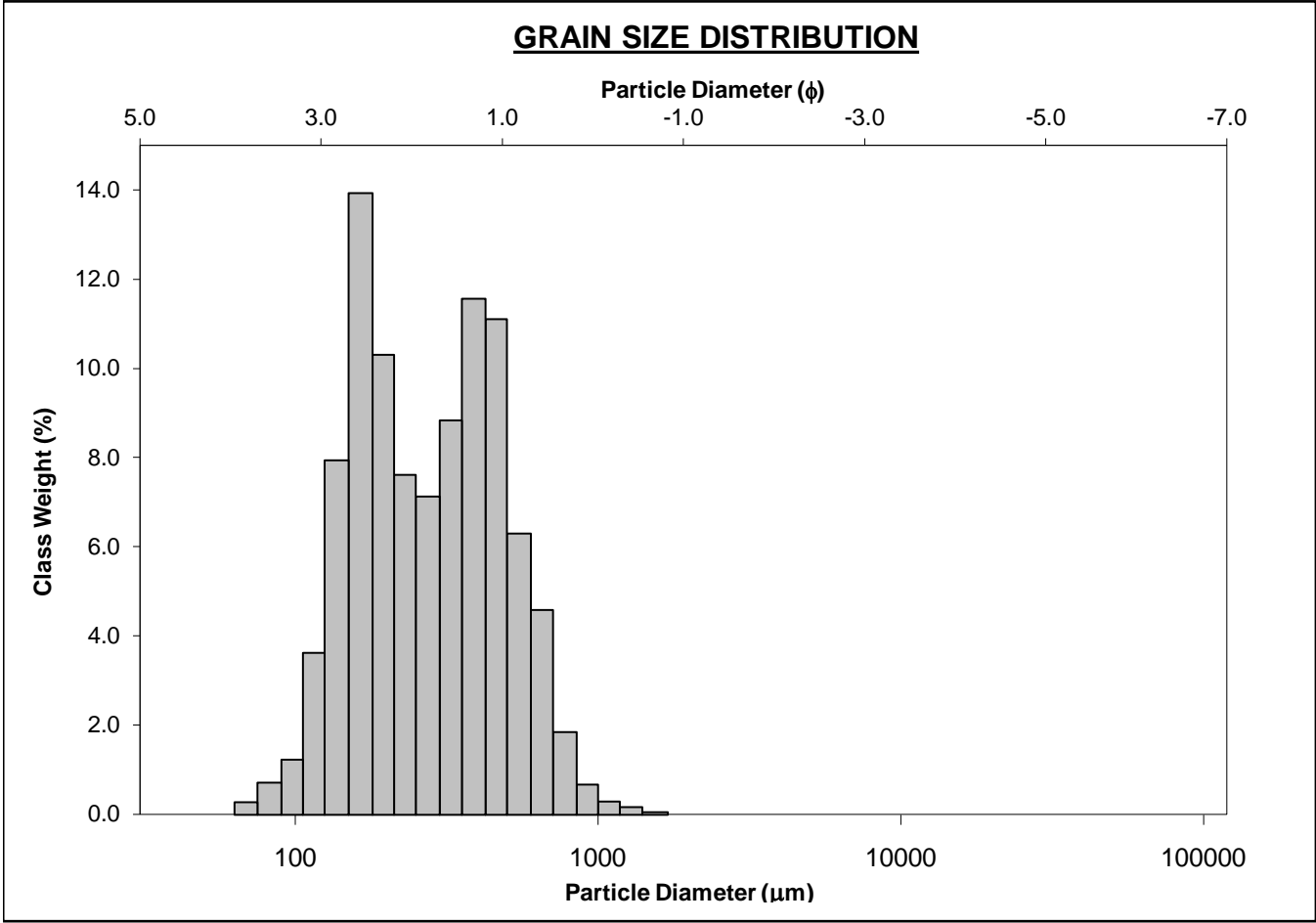
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-170cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.1%		COARSE SAND: 12.0%	
MODE 2:	390.0	1.364	SAND: 99.4%		MEDIUM SAND: 29.1%	
MODE 3:			MUD: 0.5%		FINE SAND: 49.9%	
D ₁₀ :	129.6	0.828			V FINE SAND: 7.1%	
MEDIAN or D ₅₀ :	215.3	2.216	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	563.4	2.948	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	4.347	3.561	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	433.8	2.120	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	2.388	1.894	V FINE GRAVEL: 0.1%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	219.6	1.256	V COARSE SAND: 1.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	296.9	242.9	2.042	242.9	2.042	Fine Sand
SORTING (σ):	215.4	1.871	0.904	1.770	0.824	Moderately Sorted
SKEWNESS (Sk):	2.740	-0.331	0.331	0.297	-0.297	Coarse Skewed
KURTOSIS (K):	15.98	6.869	6.869	0.848	0.848	Platykurtic



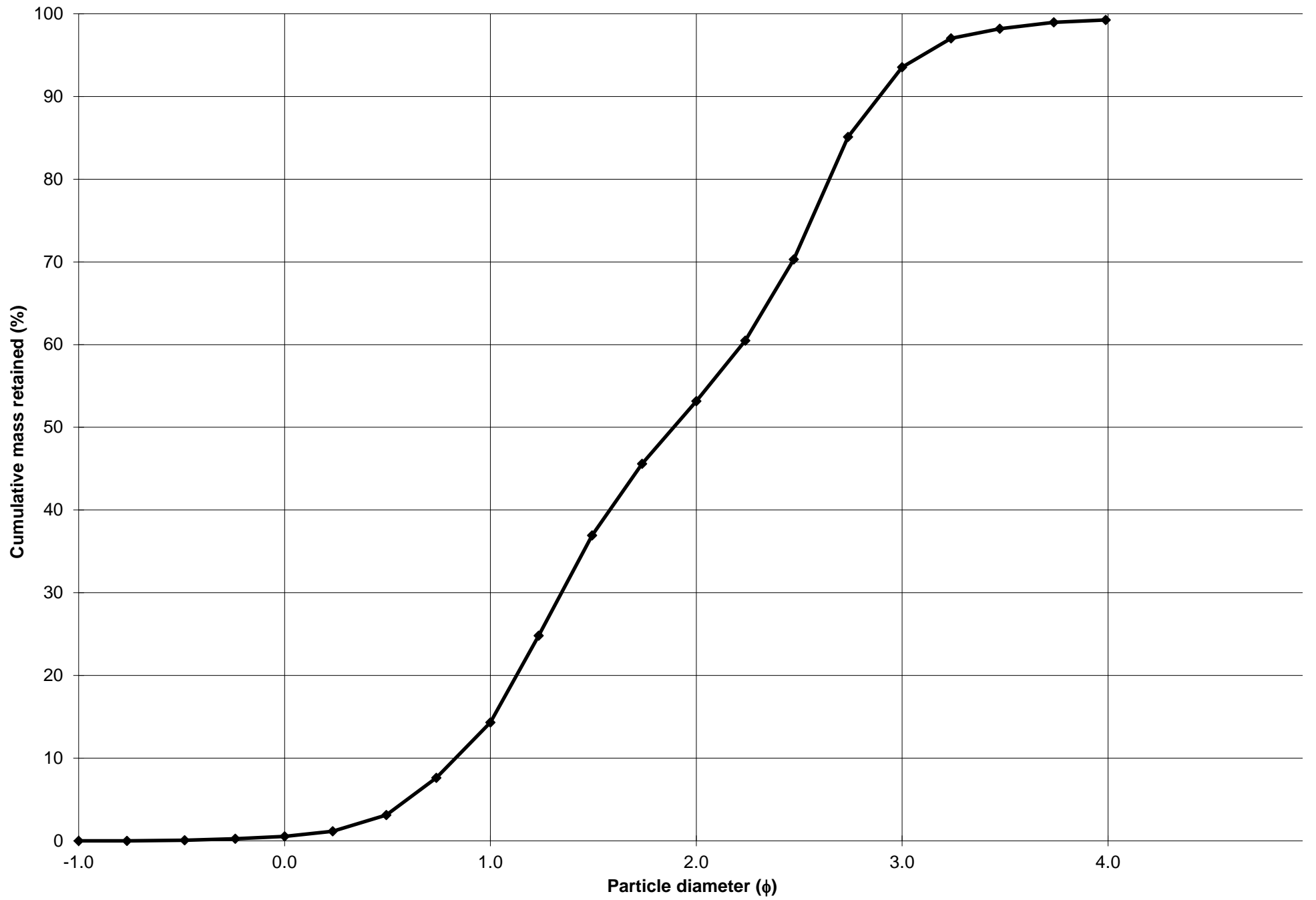
Cumulative Frequency Curve



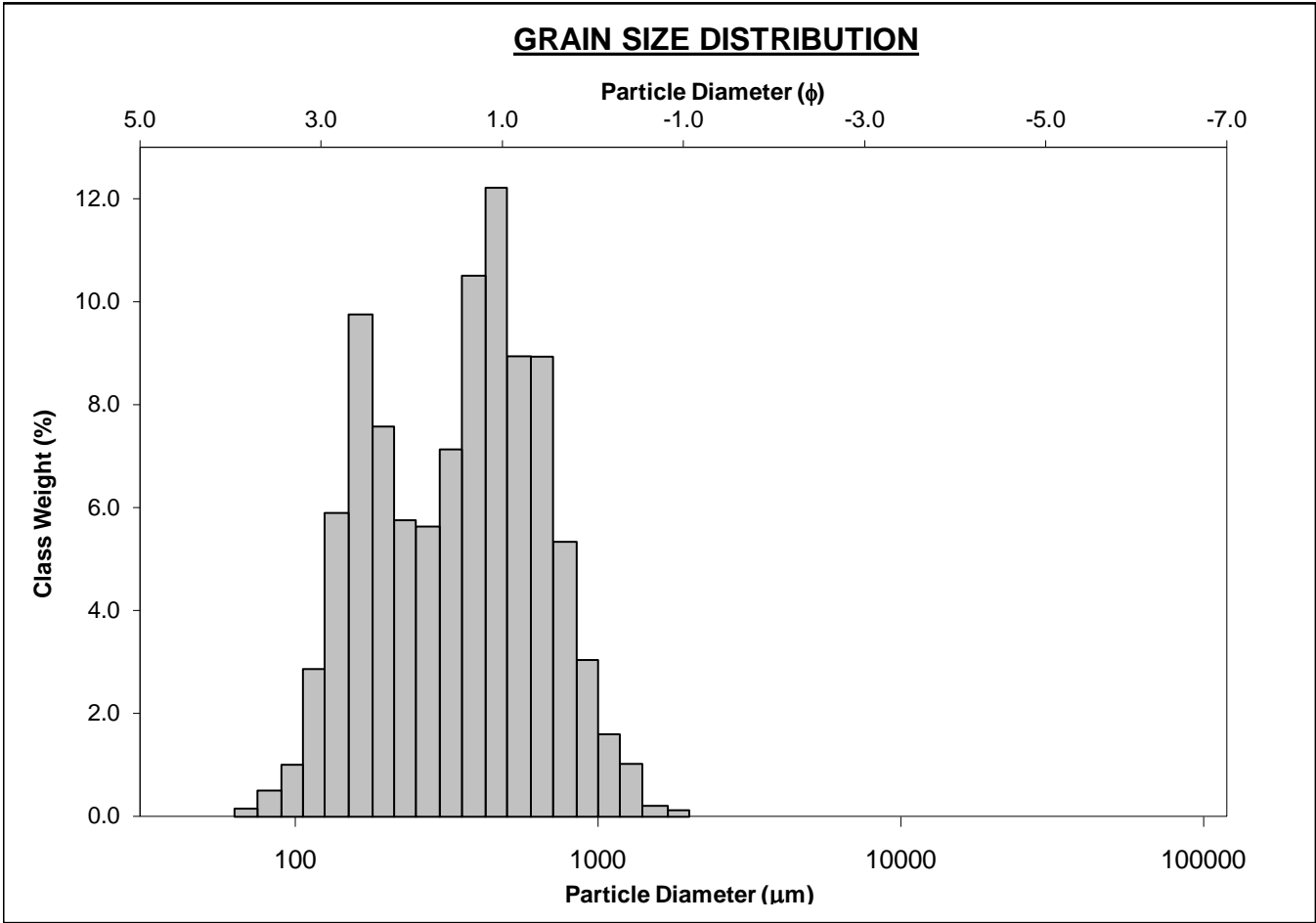
SIEVING ERROR: 1.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-180cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 13.8%	
MODE 2:	390.0	1.364	SAND: 99.3%		MEDIUM SAND: 38.9%	
MODE 3:			MUD: 0.7%		FINE SAND: 40.4%	
D ₁₀ :	134.9	0.831			V FINE SAND: 5.7%	
MEDIAN or D ₅₀ :	269.9	1.890	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	562.2	2.890	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	4.166	3.478	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	427.3	2.059	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	2.495	2.065	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	253.9	1.319	V COARSE SAND: 0.5%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	317.3	266.2	1.909	271.4	1.882	Medium Sand
SORTING (σ):	184.4	1.876	0.907	1.740	0.799	Moderately Sorted
SKEWNESS (Sk):	1.358	-1.152	1.152	0.024	-0.024	Symmetrical
KURTOSIS (K):	6.123	8.692	8.692	0.778	0.778	Platykurtic



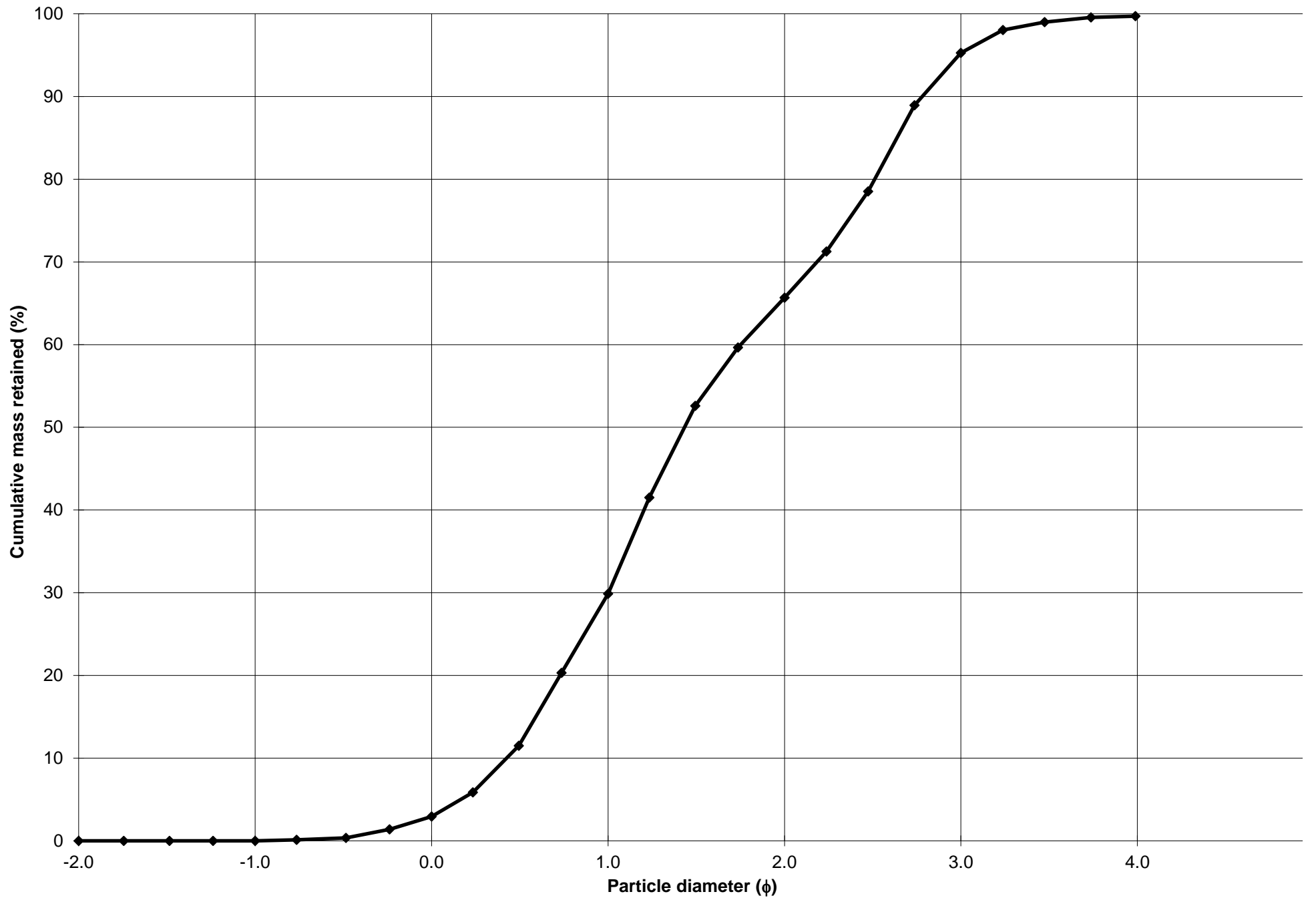
Cumulative Frequency Curve



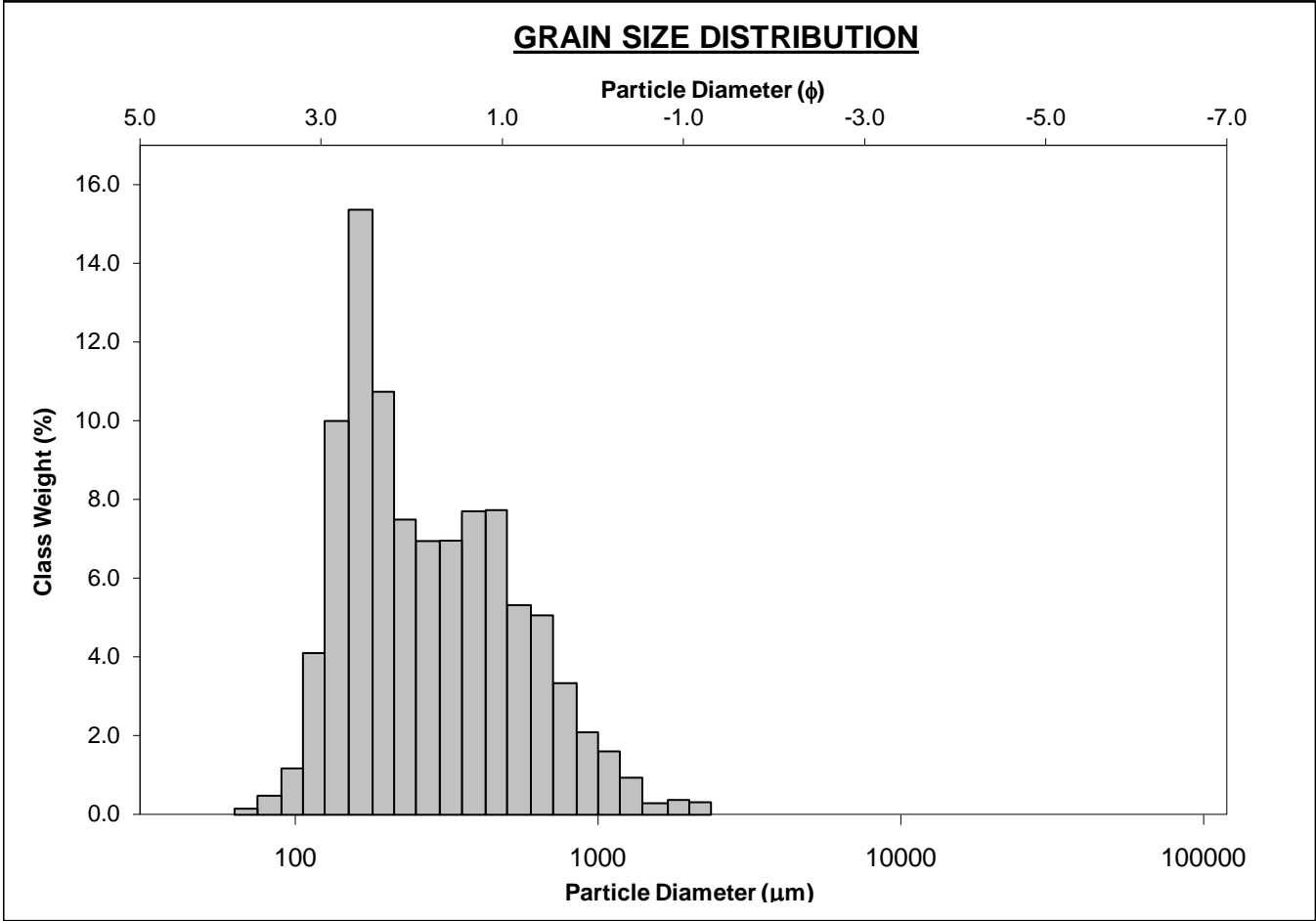
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-190cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	462.5	1.117	GRAVEL: 0.0%		COARSE SAND: 26.9%	
MODE 2:	165.0	2.605	SAND: 99.7%		MEDIUM SAND: 35.8%	
MODE 3:			MUD: 0.3%		FINE SAND: 29.6%	
D ₁₀ :	145.5	0.426			V FINE SAND: 4.5%	
MEDIAN or D ₅₀ :	370.3	1.433	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	744.6	2.781	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	5.117	6.534	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	599.0	2.355	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.816	2.725	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	353.8	1.494	V COARSE SAND: 2.9%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	412.0	337.2	1.568	340.4	1.555	Medium Sand
SORTING (σ):	256.8	1.930	0.949	1.900	0.926	Moderately Sorted
SKEWNESS (Sk):	1.280	-0.572	0.572	-0.142	0.142	Fine Skewed
KURTOSIS (K):	5.400	4.886	4.886	0.775	0.775	Platykurtic



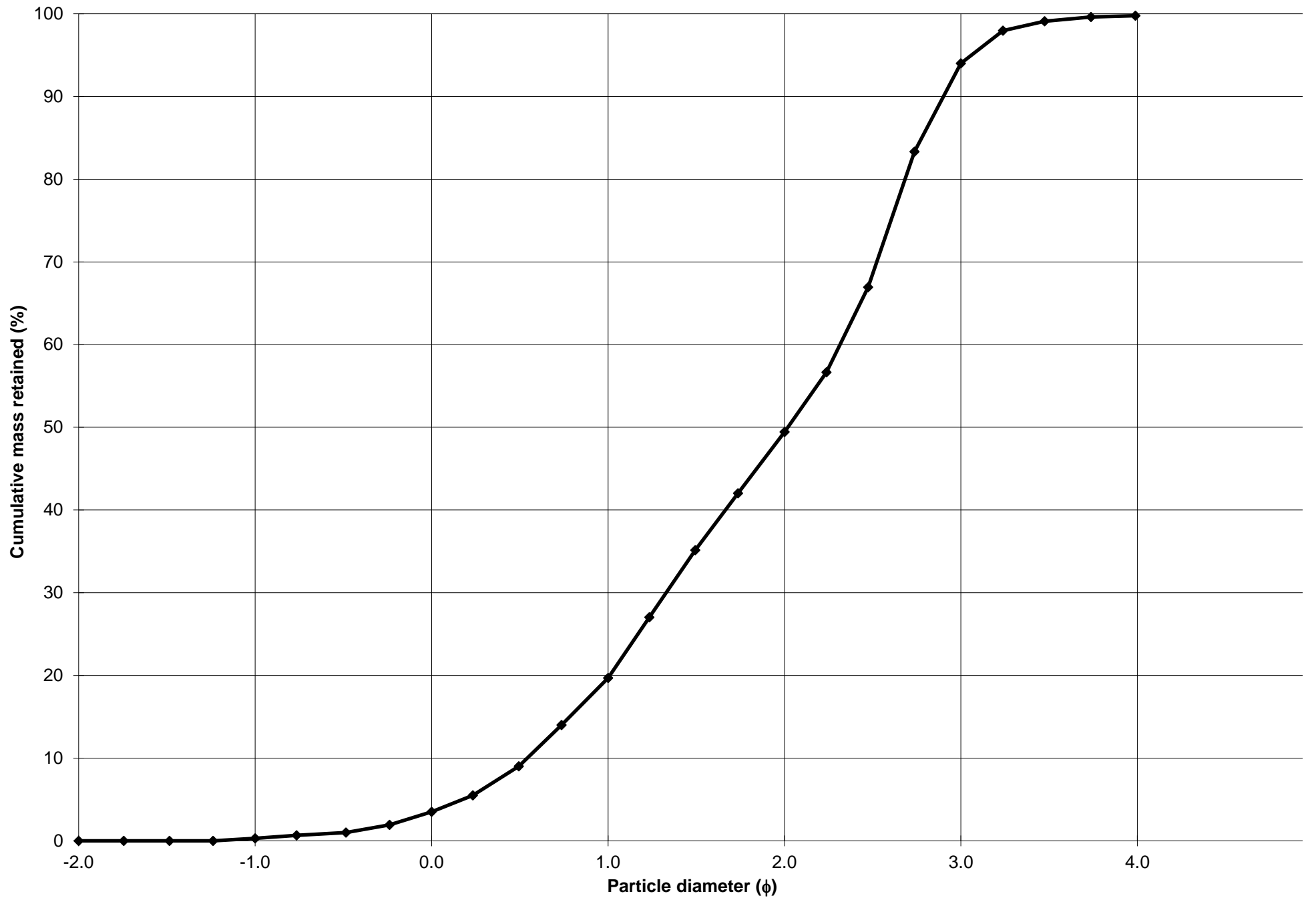
Cumulative Frequency Curve



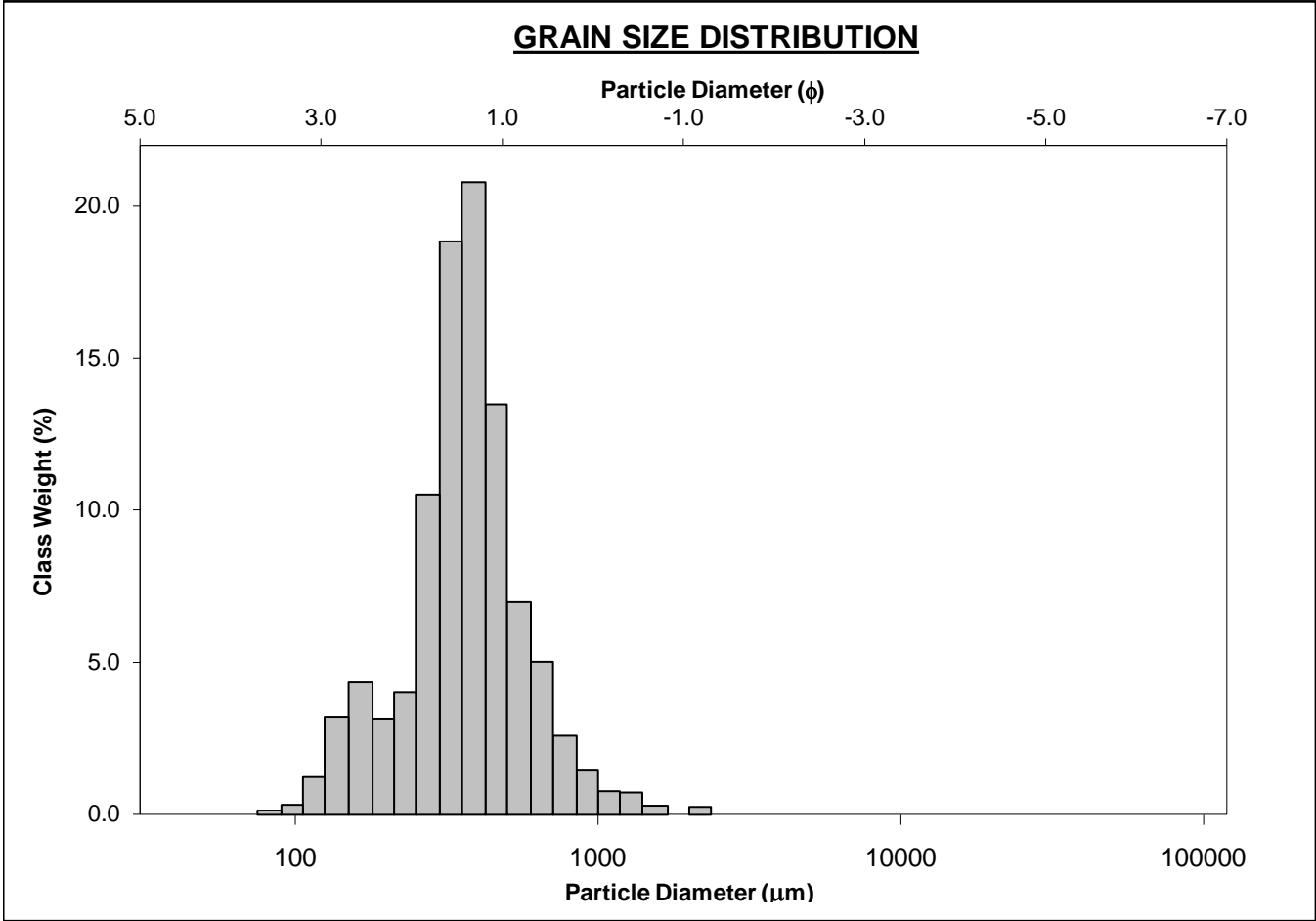
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-200cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.3%		COARSE SAND: 16.2%	
MODE 2:	462.5	1.117	SAND: 99.5%		MEDIUM SAND: 29.7%	
MODE 3:			MUD: 0.2%		FINE SAND: 44.6%	
D ₁₀ :	133.9	0.542			V FINE SAND: 5.8%	
MEDIAN or D ₅₀ :	246.8	2.019	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	686.8	2.901	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	5.131	5.353	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	553.0	2.359	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.702	2.226	V FINE GRAVEL: 0.3%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	280.0	1.434	V COARSE SAND: 3.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	350.9	276.5	1.854	274.1	1.867	Medium Sand
SORTING (σ):	281.3	1.945	0.960	1.889	0.918	Moderately Sorted
SKEWNESS (Sk):	2.507	0.190	-0.190	0.257	-0.257	Coarse Skewed
KURTOSIS (K):	12.17	4.268	4.268	0.824	0.824	Platykurtic



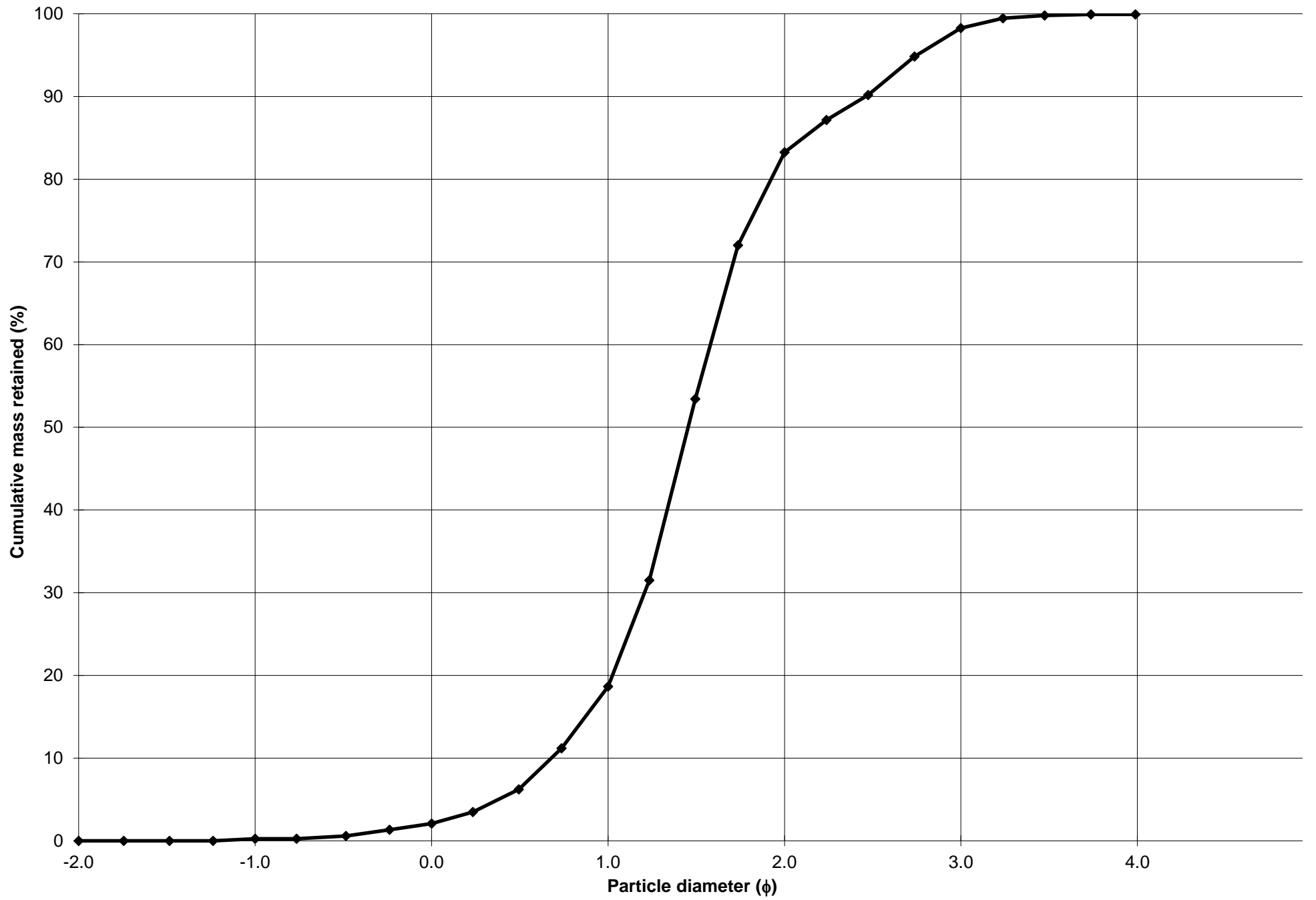
Cumulative Frequency Curve



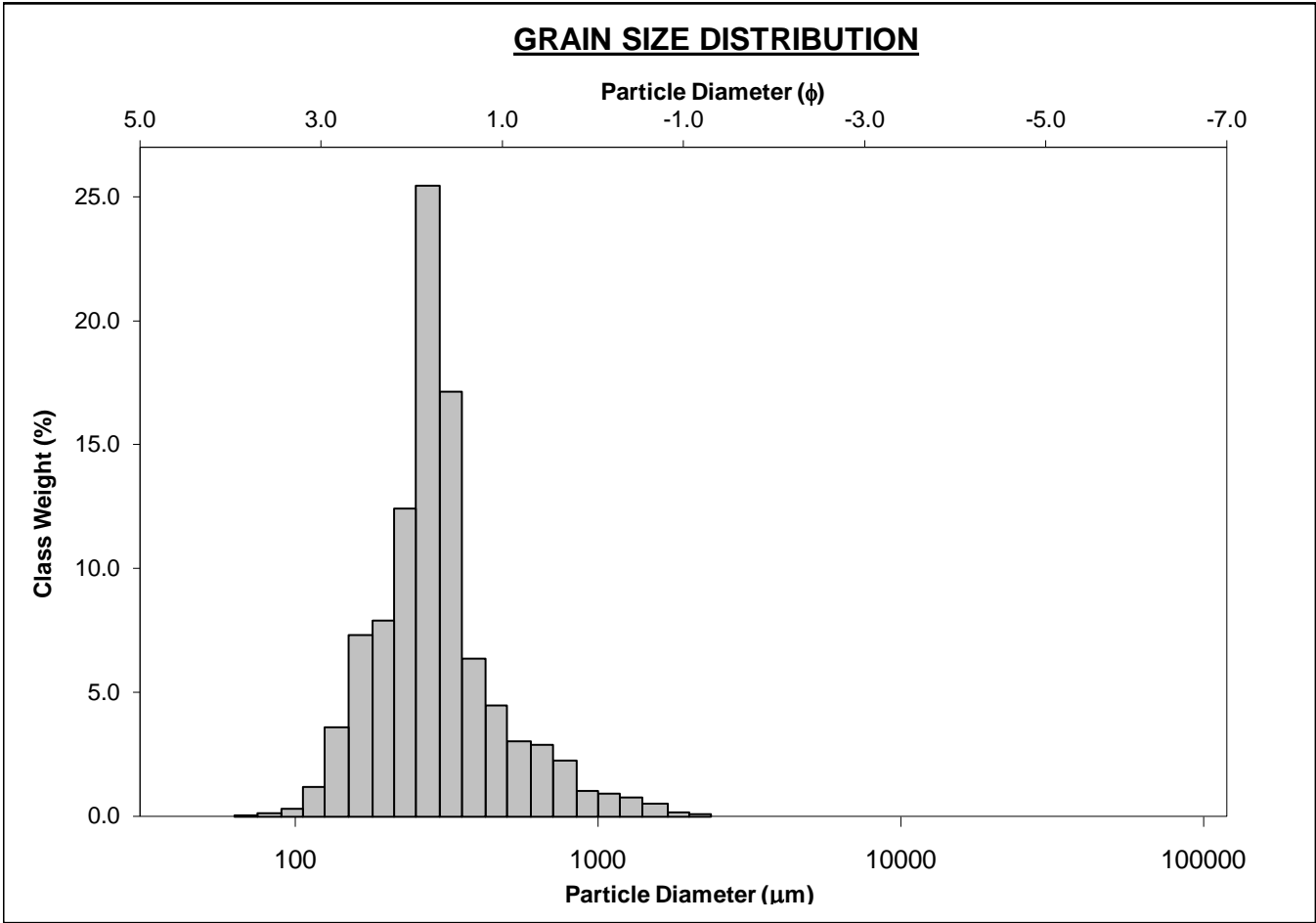
SIEVING ERROR: 1.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-210cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.3%		COARSE SAND: 16.6%	
MODE 2:	165.0	2.605	SAND: 99.7%		MEDIUM SAND: 64.6%	
MODE 3:			MUD: 0.1%		FINE SAND: 15.0%	
D ₁₀ :	181.7	0.679			V FINE SAND: 1.7%	
MEDIAN or D ₅₀ :	365.1	1.454	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	624.4	2.460	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.436	3.621	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	442.7	1.781	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.614	1.619	V FINE GRAVEL: 0.3%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	175.6	0.691	V COARSE SAND: 1.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	402.3	357.6	1.484	361.3	1.469	Medium Sand
SORTING (σ):	216.2	1.614	0.691	1.563	0.644	Moderately Well Sorted
SKEWNESS (Sk):	2.878	-0.346	0.346	-0.067	0.067	Symmetrical
KURTOSIS (K):	18.30	6.493	6.493	1.407	1.407	Leptokurtic



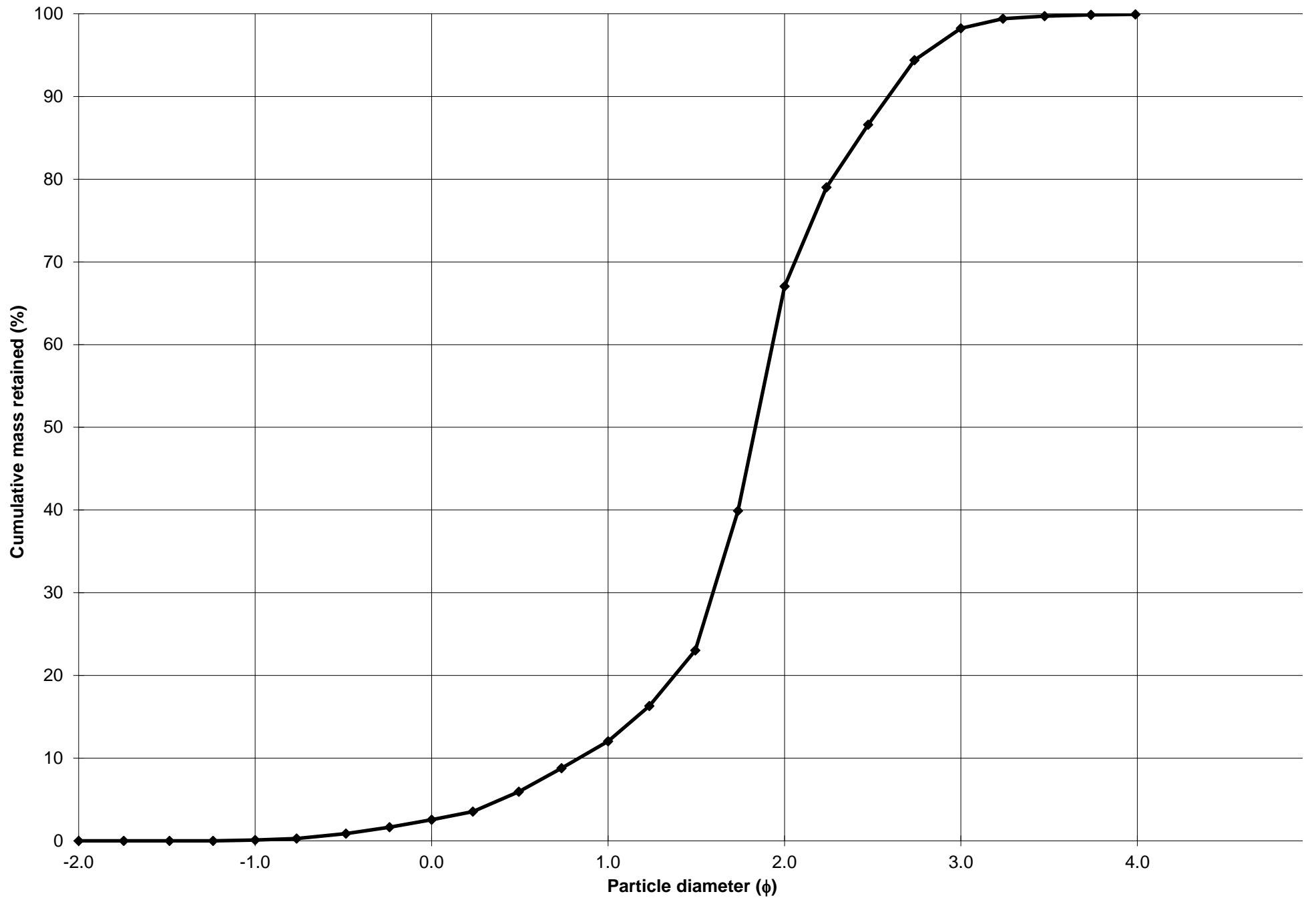
Cumulative Frequency Curve



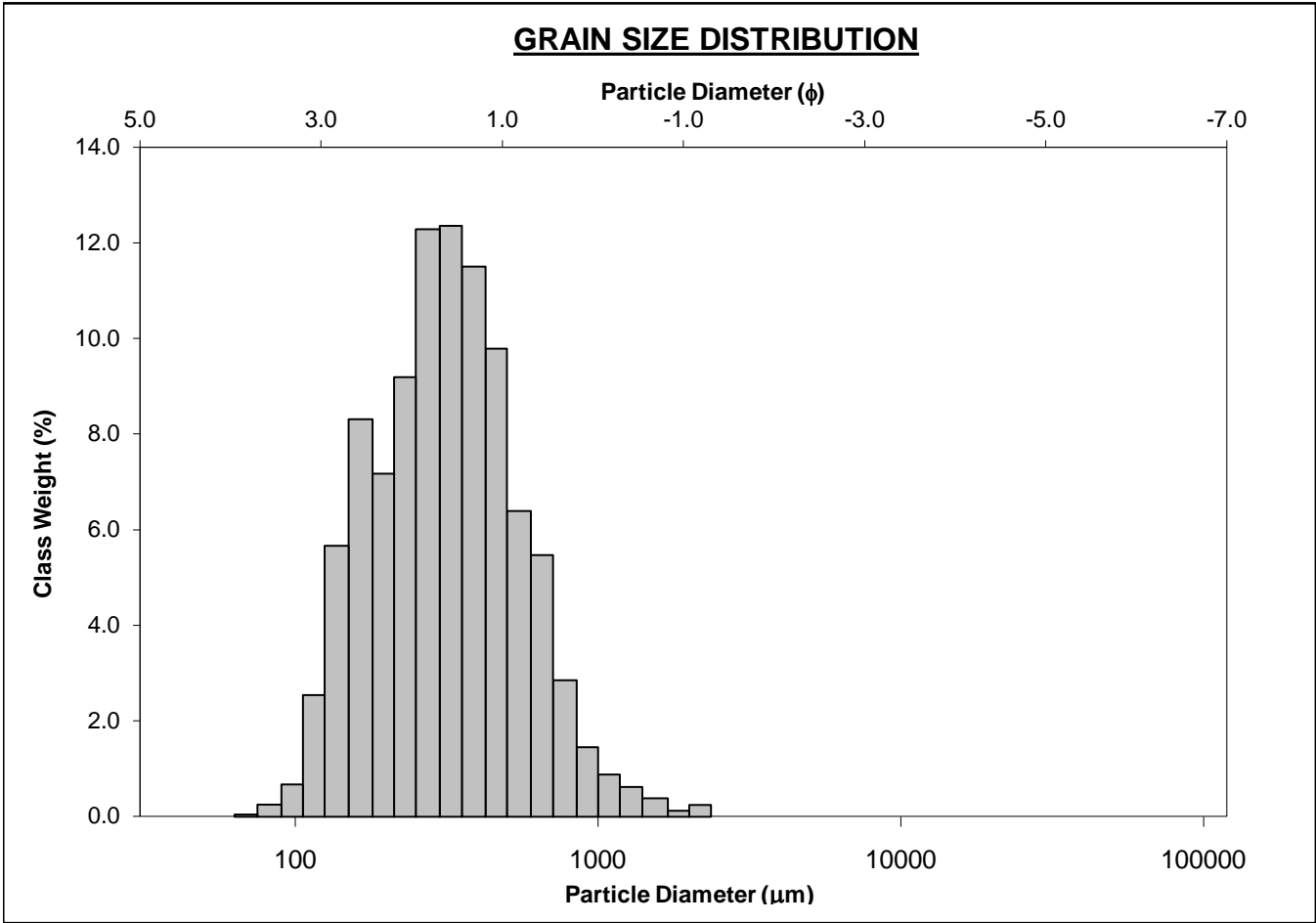
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-220cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.1%		COARSE SAND: 9.5%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 55.0%	
MODE 3:			MUD: 0.1%		FINE SAND: 31.2%	
D ₁₀ :	166.2	0.835			V FINE SAND: 1.7%	
MEDIAN or D ₅₀ :	280.3	1.835	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	560.6	2.589	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.372	3.101	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	394.4	1.754	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.553	1.417	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	124.0	0.635	V COARSE SAND: 2.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	337.3	293.3	1.770	284.1	1.815	Medium Sand
SORTING (σ):	224.6	1.627	0.703	1.575	0.655	Moderately Well Sorted
SKEWNESS (Sk):	3.323	0.587	-0.587	0.130	-0.130	Coarse Skewed
KURTOSIS (K):	17.97	6.414	6.414	1.538	1.538	Very Leptokurtic



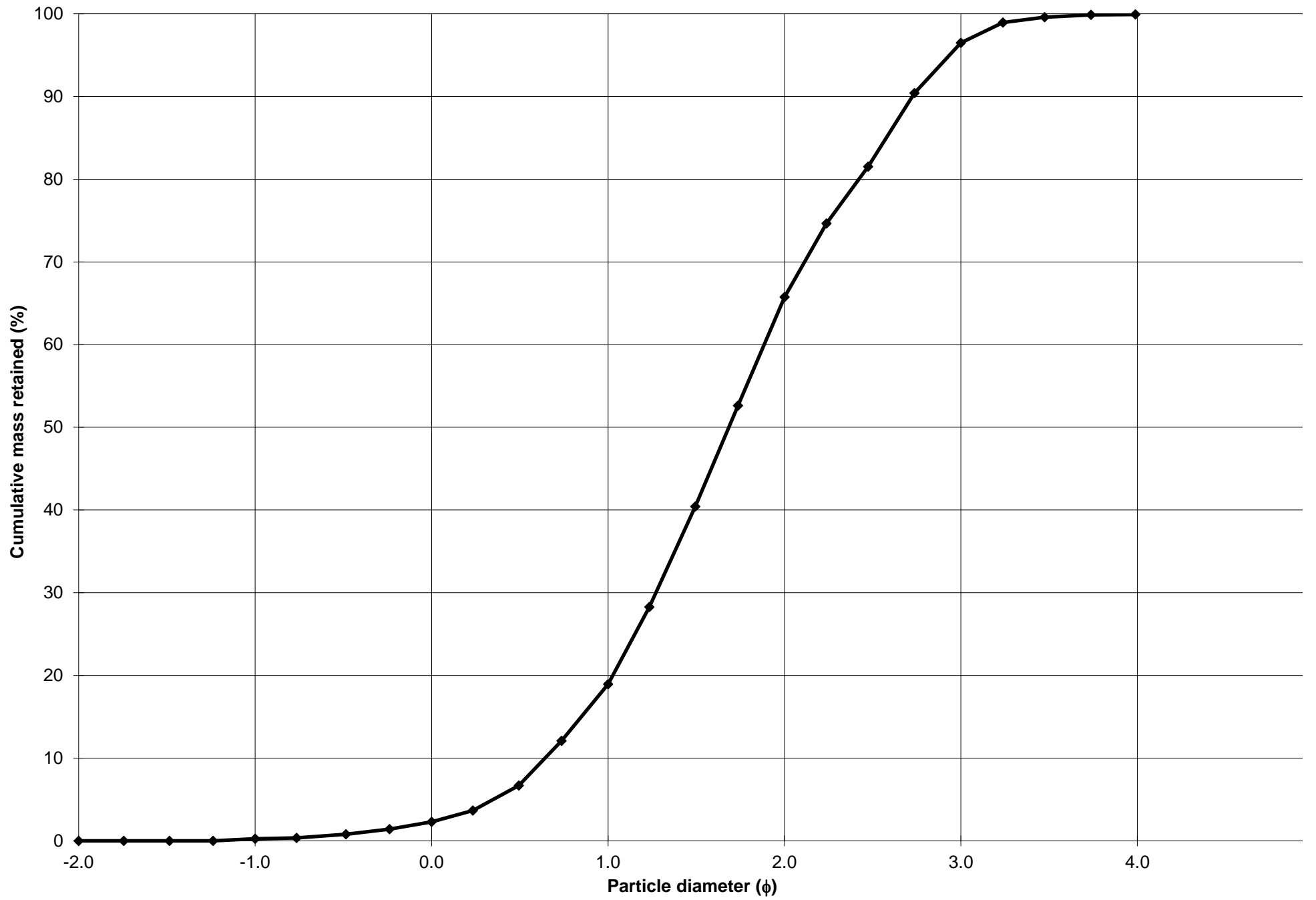
Cumulative Frequency Curve



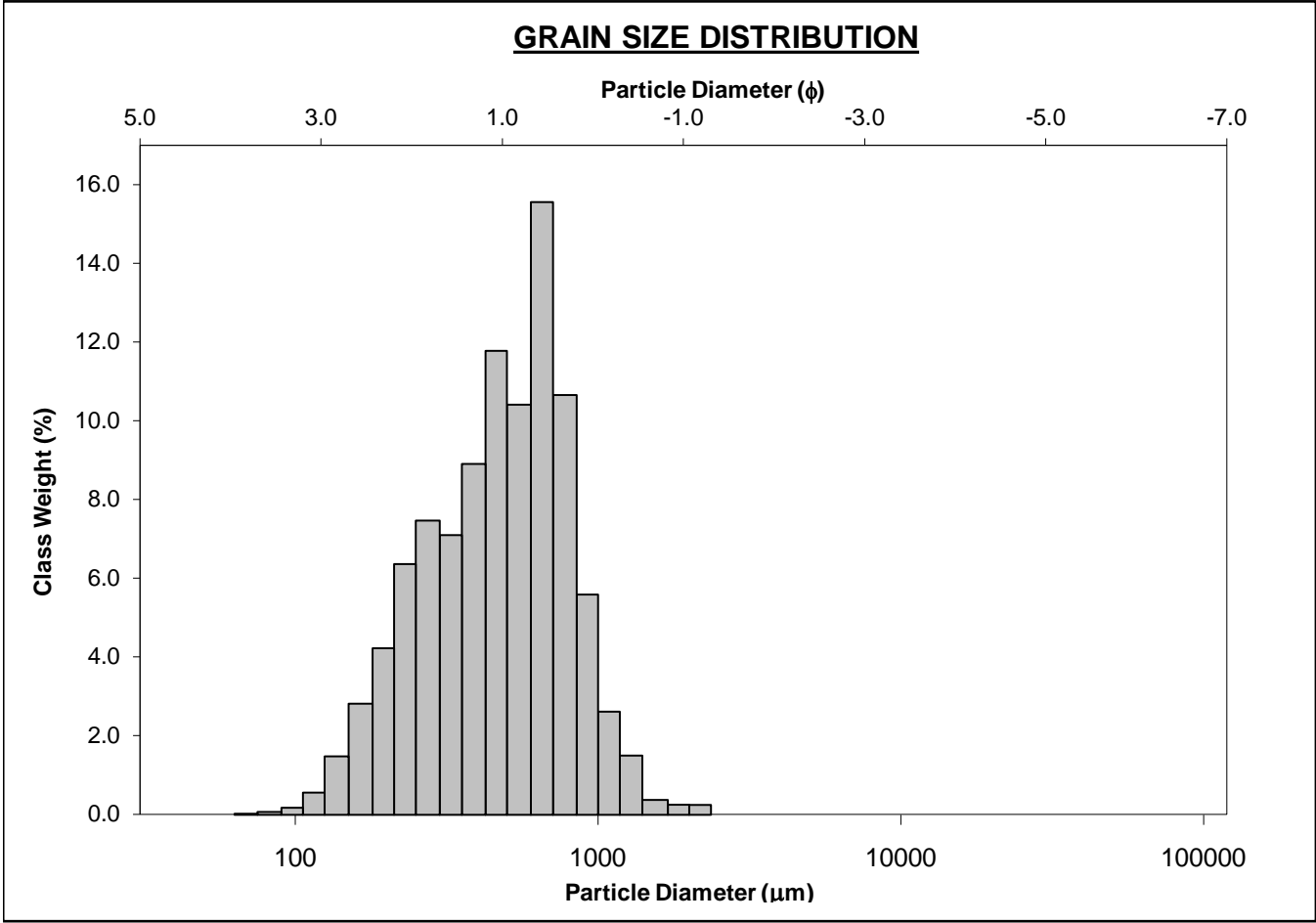
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-230cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.2%		COARSE SAND: 16.6%	
MODE 2:	165.0	2.605	SAND: 99.7%		MEDIUM SAND: 46.8%	
MODE 3:			MUD: 0.1%		FINE SAND: 30.7%	
D ₁₀ :	151.3	0.643			V FINE SAND: 3.4%	
MEDIAN or D ₅₀ :	311.0	1.685	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	640.4	2.725	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.233	4.237	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	489.1	2.082	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.140	1.952	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	239.6	1.098	V COARSE SAND: 2.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	368.5	311.9	1.681	306.4	1.706	Medium Sand
SORTING (σ):	240.5	1.756	0.812	1.749	0.807	Moderately Sorted
SKEWNESS (Sk):	2.660	0.024	-0.024	-0.003	0.003	Symmetrical
KURTOSIS (K):	15.05	4.402	4.402	0.966	0.966	Mesokurtic



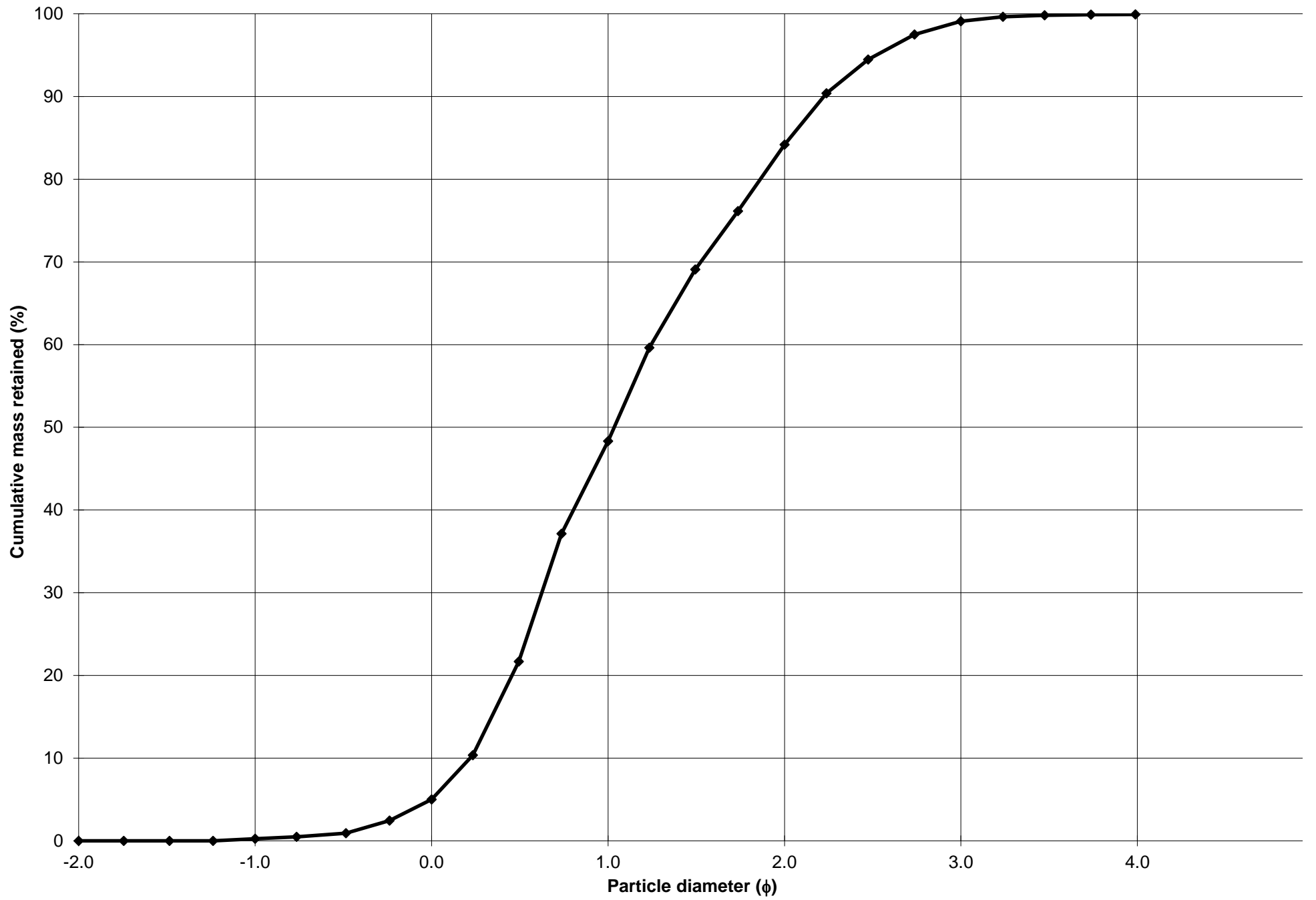
Cumulative Frequency Curve



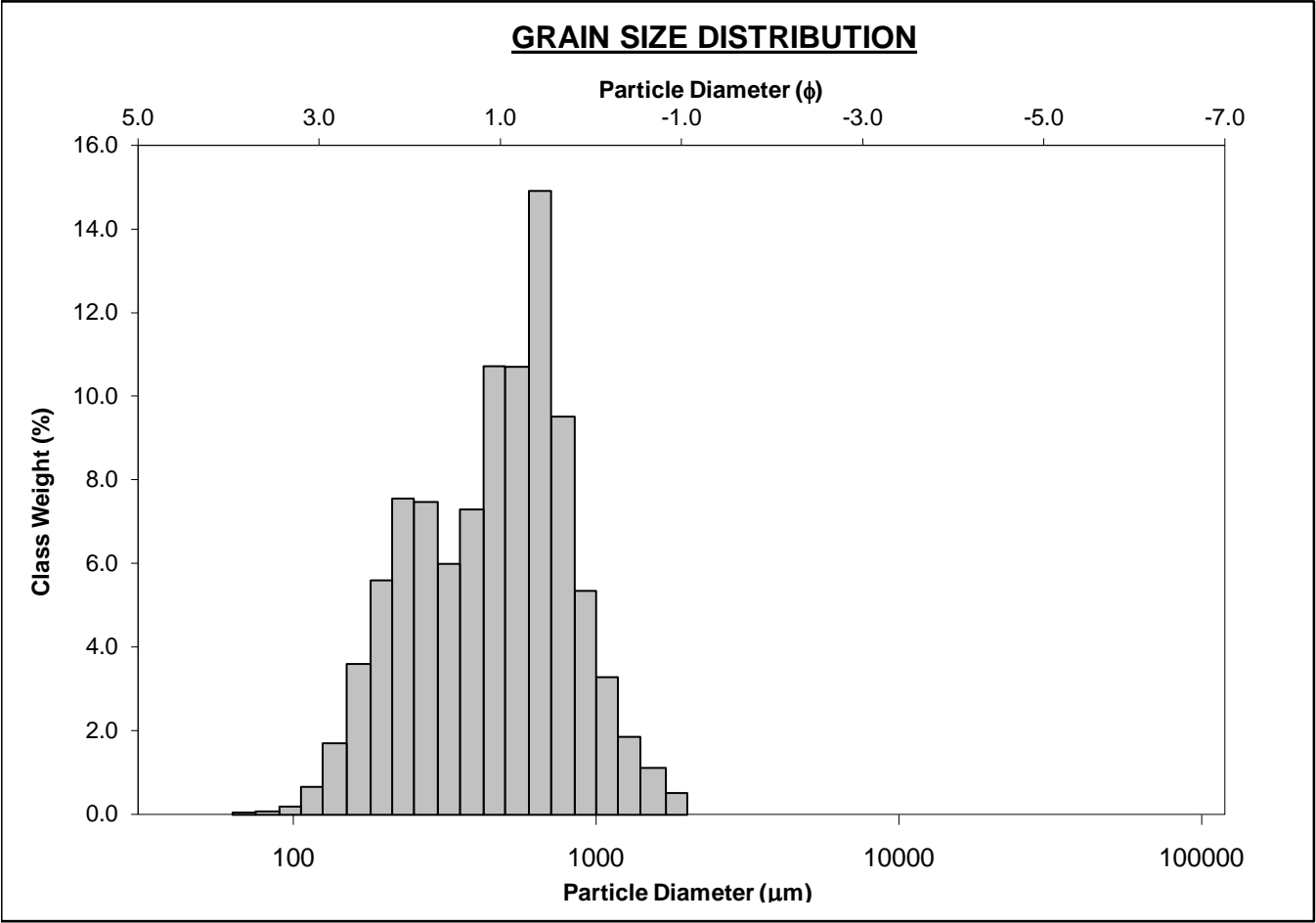
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-240cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Coarse Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	655.0	0.616	GRAVEL: 0.2%		COARSE SAND: 43.3%	
MODE 2:	462.5	1.117	SAND: 99.7%		MEDIUM SAND: 35.8%	
MODE 3:	275.0	1.868	MUD: 0.1%		FINE SAND: 14.9%	
D ₁₀ :	214.1	0.219			V FINE SAND: 0.8%	
MEDIAN or D ₅₀ :	488.2	1.035	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	859.4	2.224	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.014	10.17	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	645.3	2.005	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.221	3.108	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	376.5	1.151	V COARSE SAND: 4.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	529.6	457.6	1.128	456.7	1.131	Medium Sand
SORTING (σ):	281.0	1.746	0.804	1.729	0.790	Moderately Sorted
SKEWNESS (Sk):	1.324	-0.581	0.581	-0.178	0.178	Fine Skewed
KURTOSIS (K):	6.823	4.732	4.732	0.897	0.897	Platykurtic



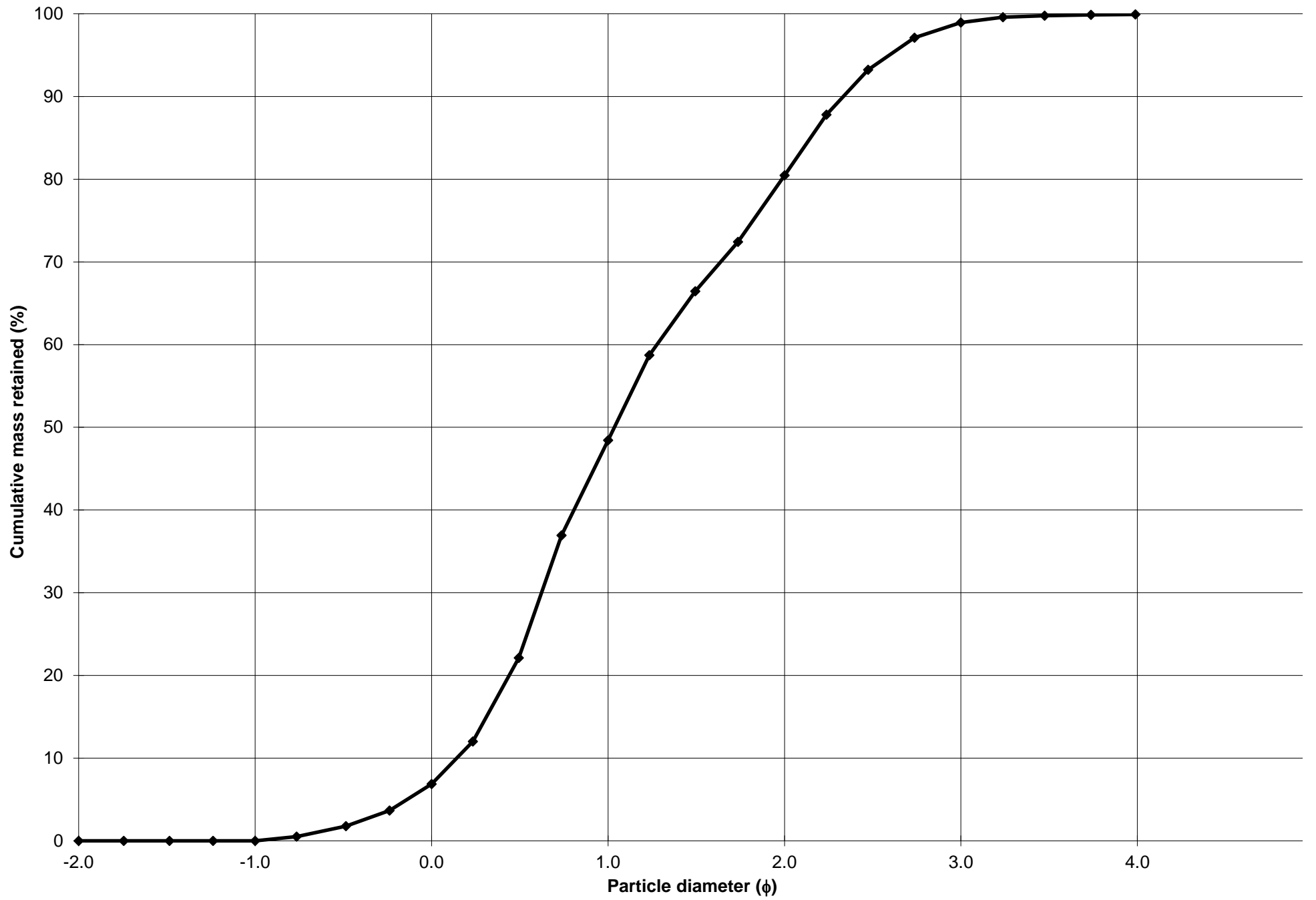
Cumulative Frequency Curve



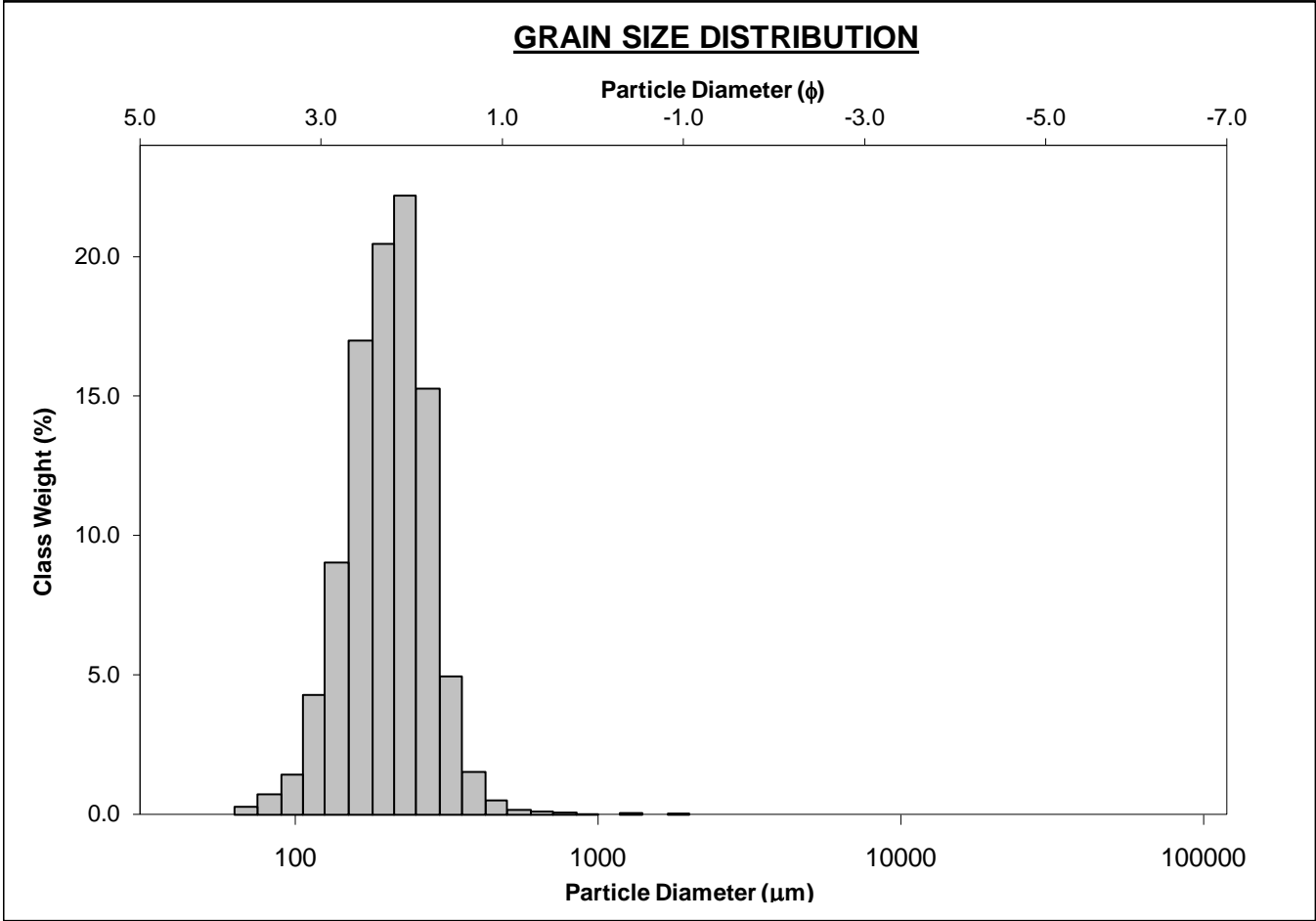
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-250cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Coarse Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	655.0	0.616	GRAVEL: 0.0%		COARSE SAND: 41.6%	
MODE 2:	462.5	1.117	SAND: 99.9%		MEDIUM SAND: 32.0%	
MODE 3:	231.0	2.119	MUD: 0.1%		FINE SAND: 18.5%	
D ₁₀ :	198.4	0.143			V FINE SAND: 1.0%	
MEDIAN or D ₅₀ :	487.8	1.036	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	905.8	2.333	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.565	16.35	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	707.4	2.191	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.428	3.364	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	404.1	1.280	V COARSE SAND: 6.9%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	532.0	449.9	1.152	446.7	1.162	Medium Sand
SORTING (σ):	303.2	1.814	0.859	1.813	0.859	Moderately Sorted
SKEWNESS (Sk):	1.206	-0.447	0.447	-0.177	0.177	Fine Skewed
KURTOSIS (K):	5.108	3.988	3.988	0.875	0.875	Platykurtic



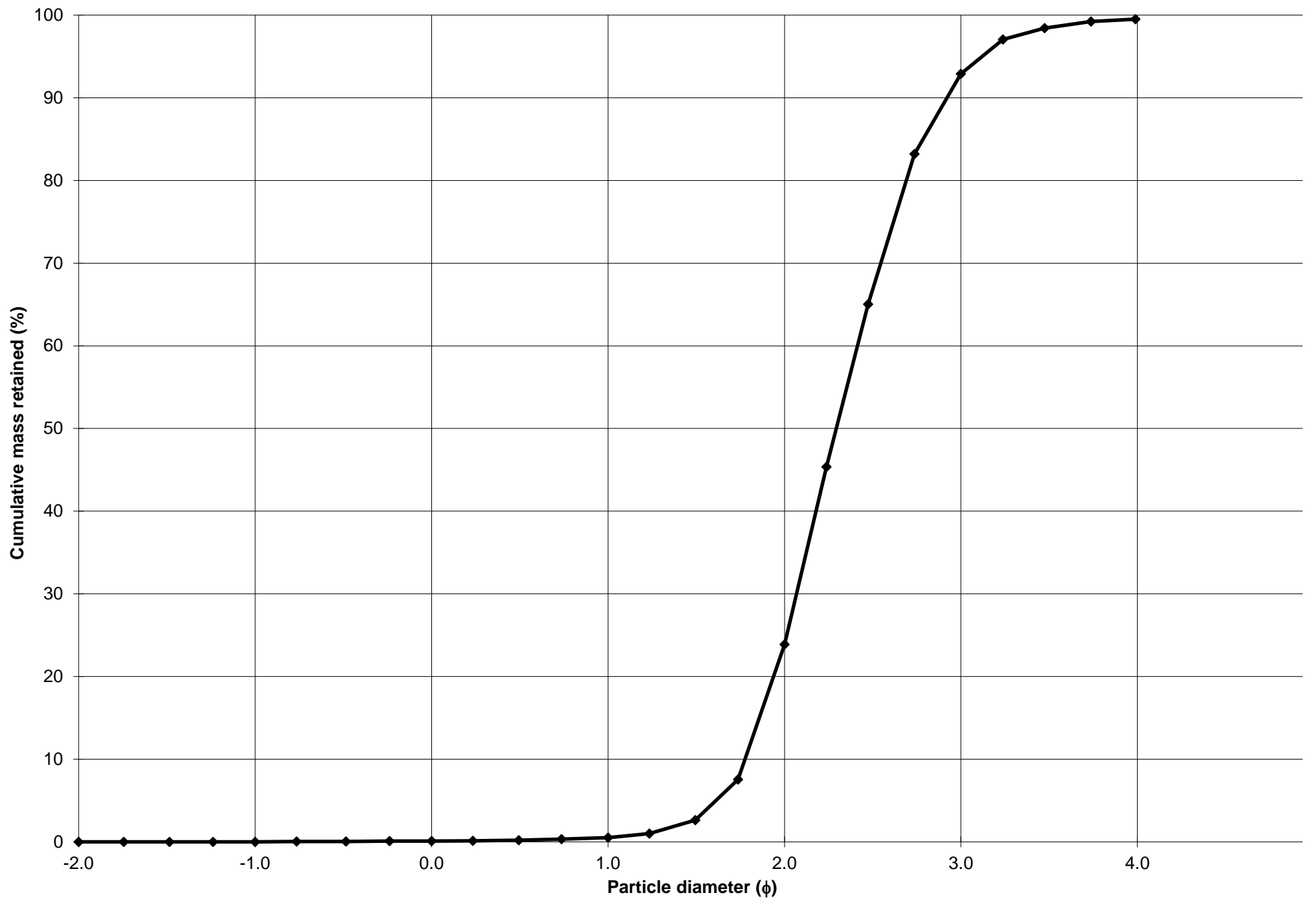
Cumulative Frequency Curve



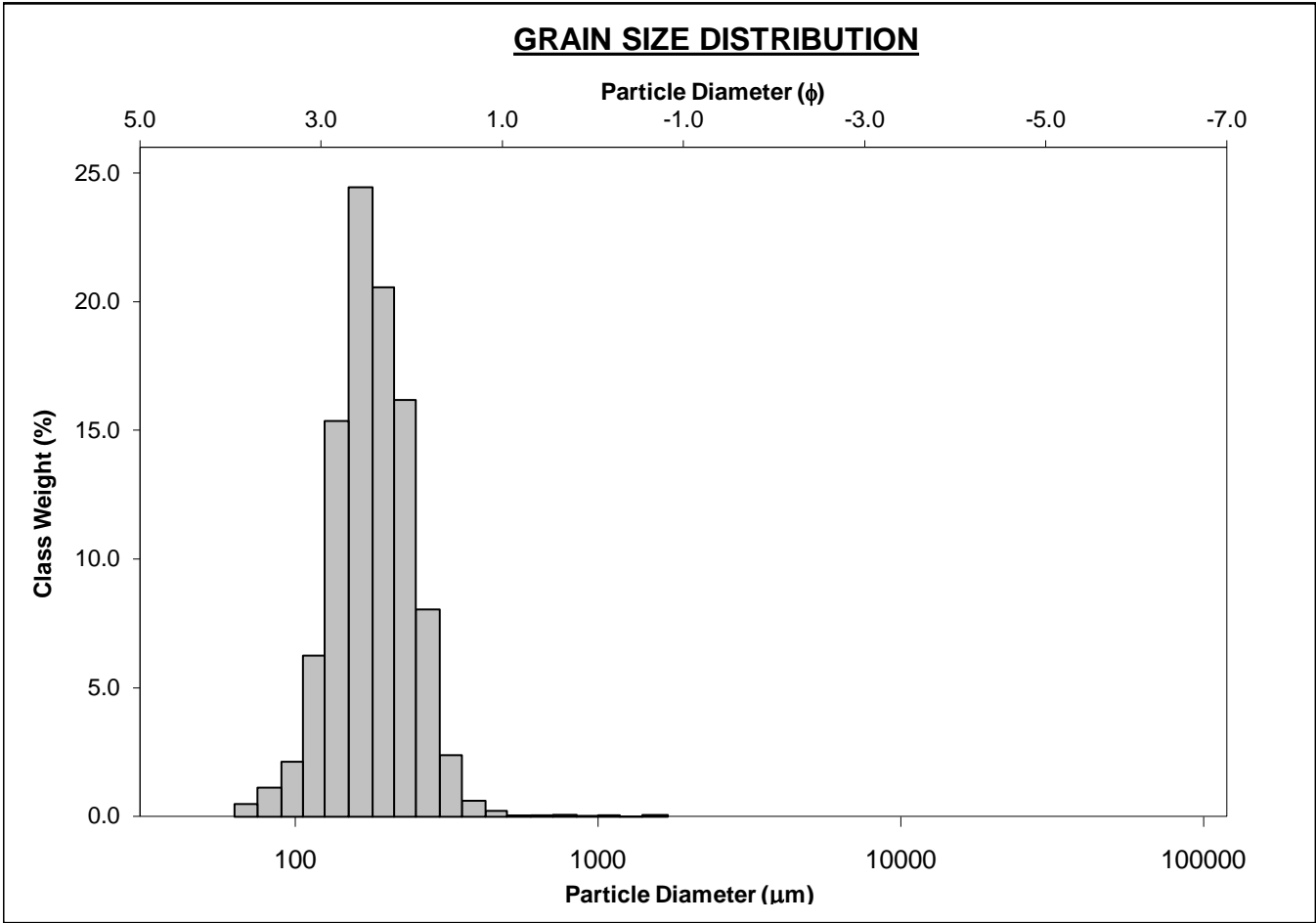
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-260cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.4%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 23.4%	
MODE 3:			MUD: 0.5%		FINE SAND: 69.0%	
D ₁₀ :	132.0	1.777			V FINE SAND: 6.6%	
MEDIAN or D ₅₀ :	204.0	2.294	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	291.9	2.921	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.211	1.644	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	159.9	1.145	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.522	1.301	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	84.99	0.606	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	212.5	198.3	2.334	201.9	2.308	Fine Sand
SORTING (σ):	82.36	1.481	0.567	1.366	0.450	Well Sorted
SKEWNESS (Sk):	5.613	-2.581	2.581	-0.073	0.073	Symmetrical
KURTOSIS (K):	89.84	24.75	24.75	1.021	1.021	Mesokurtic



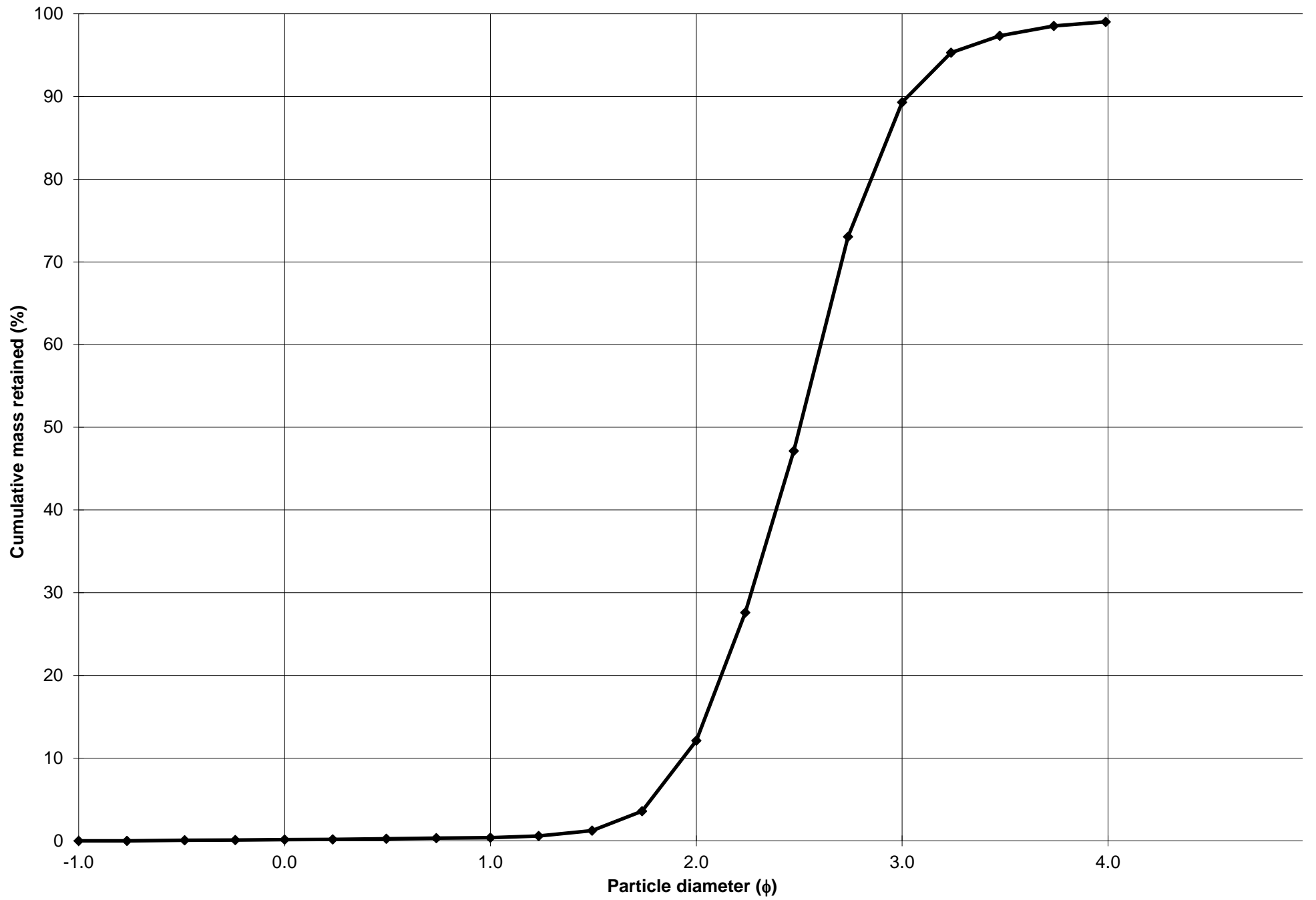
Cumulative Frequency Curve



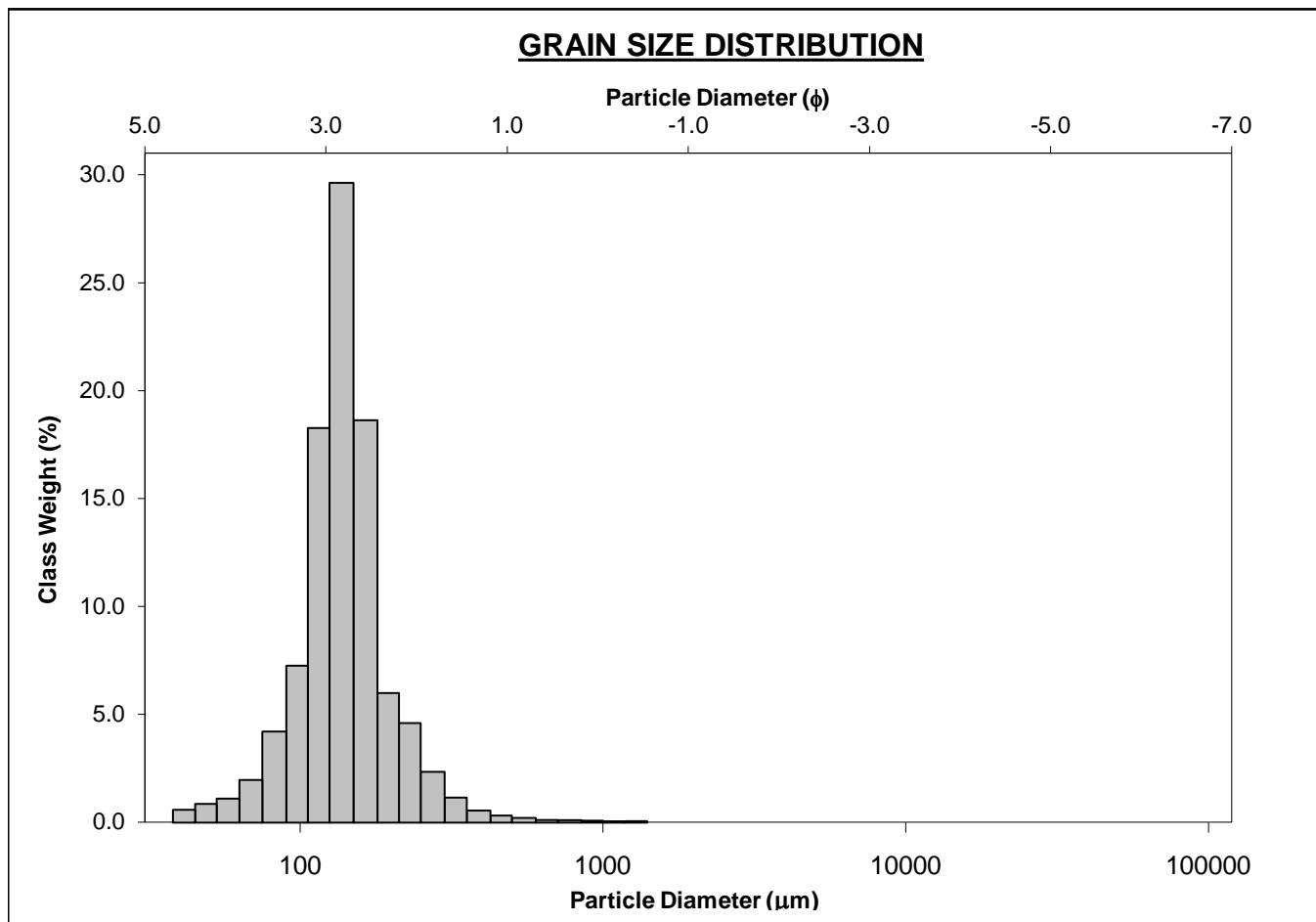
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-270cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%	COARSE SAND: 0.2%		
MODE 2:			SAND: 99.0%	MEDIUM SAND: 11.7%		
MODE 3:			MUD: 1.0%	FINE SAND: 77.2%		
D ₁₀ :	122.6	1.935		V FINE SAND: 9.7%		
MEDIAN or D ₅₀ :	176.4	2.503	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.2%		
D ₉₀ :	261.5	3.028	COARSE GRAVEL: 0.0%	COARSE SILT: 0.2%		
(D ₉₀ / D ₁₀):	2.133	1.565	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.2%		
(D ₉₀ - D ₁₀):	138.9	1.093	FINE GRAVEL: 0.0%	FINE SILT: 0.2%		
(D ₇₅ / D ₂₅):	1.485	1.260	V FINE GRAVEL: 0.0%	V FINE SILT: 0.2%		
(D ₇₅ - D ₂₅):	71.24	0.571	V COARSE SAND: 0.1%	CLAY: 0.2%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	188.0	173.8	2.524	177.7	2.492	Fine Sand
SORTING (σ):	77.79	1.546	0.629	1.350	0.433	Well Sorted
SKEWNESS (Sk):	6.559	-3.210	3.210	0.018	-0.018	Symmetrical
KURTOSIS (K):	97.81	26.47	26.47	1.038	1.038	Mesokurtic



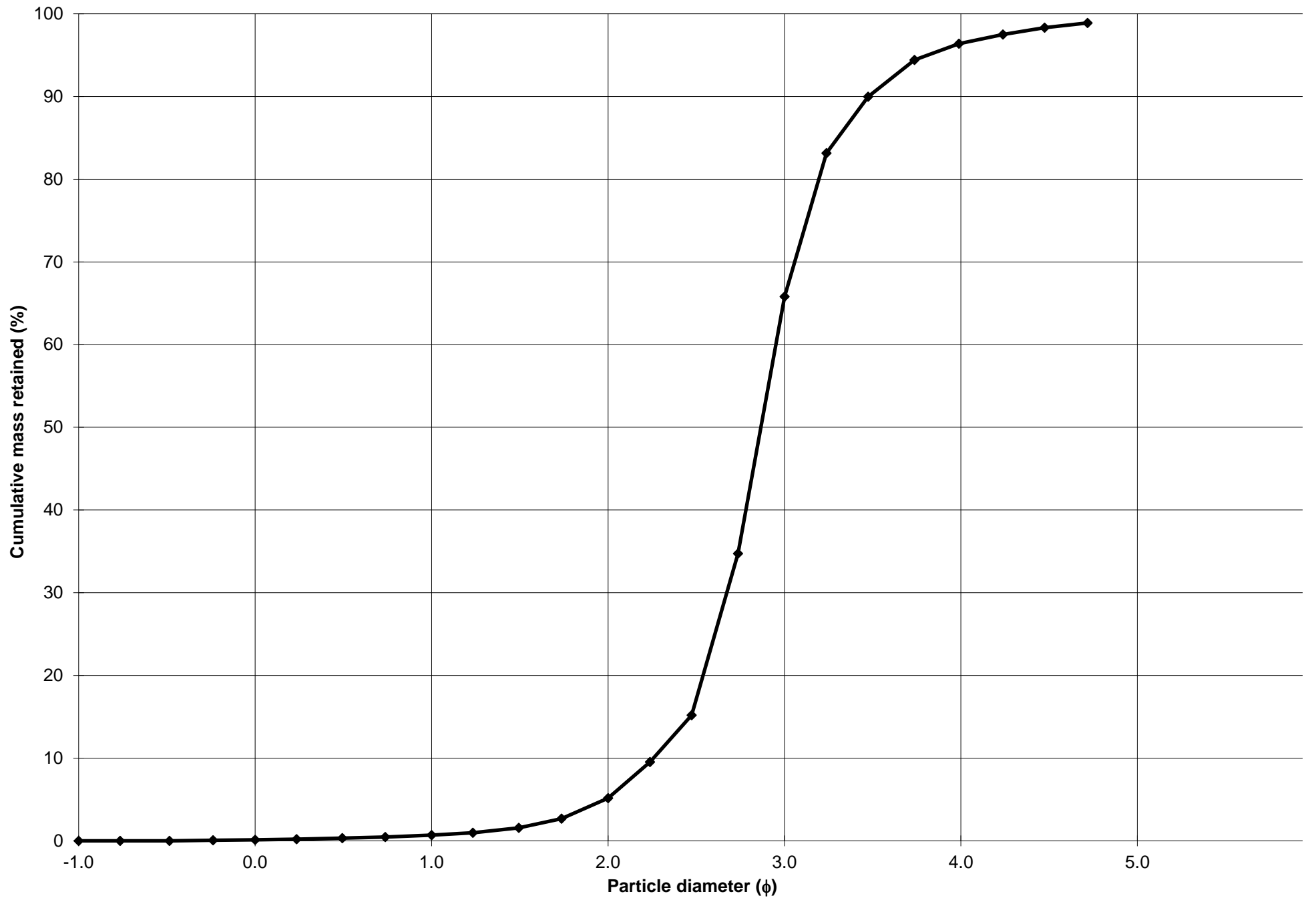
Cumulative Frequency Curve



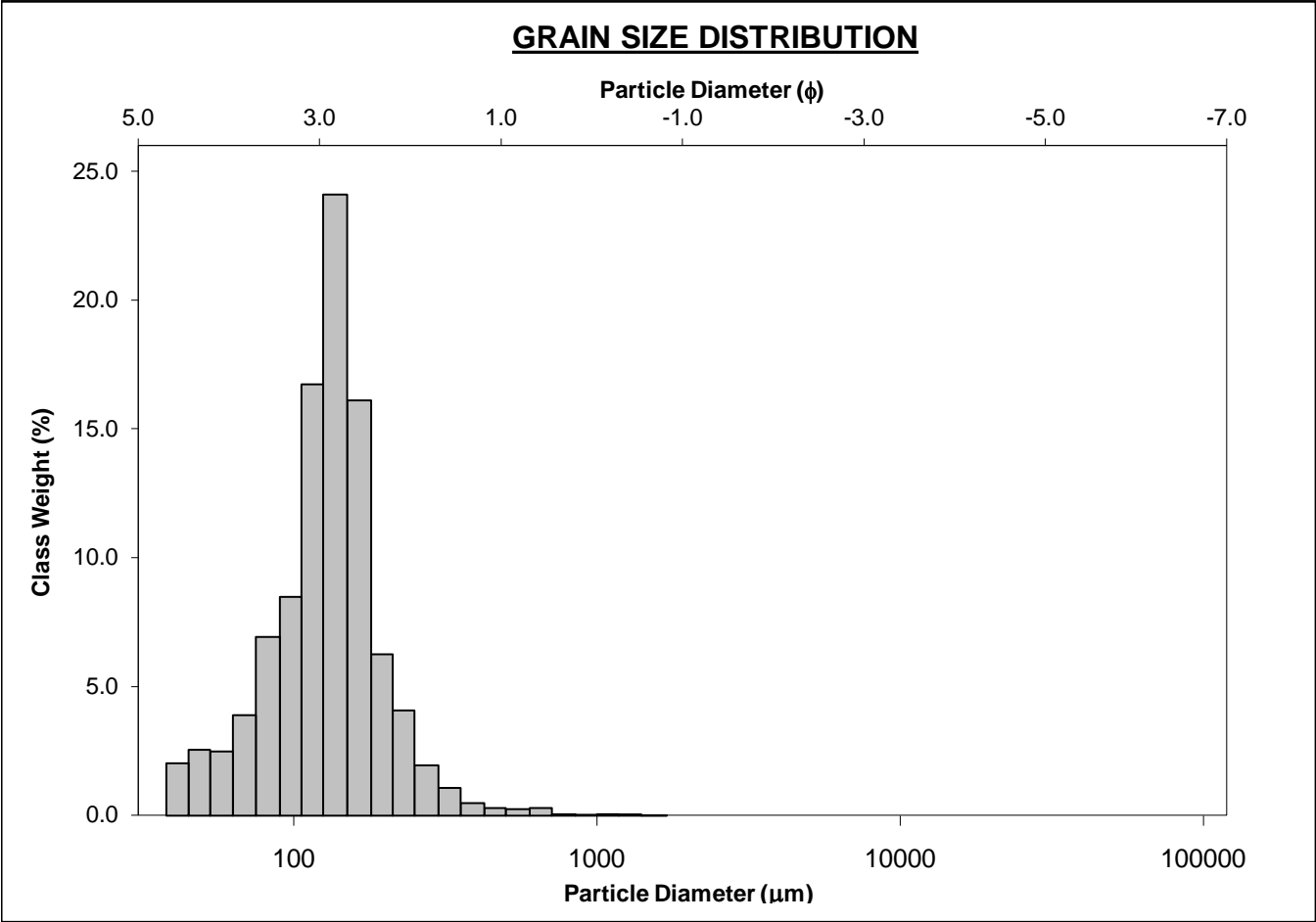
SIEVING ERROR: 1.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-280cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.6%			
MODE 2:			SAND: 96.4% MEDIUM SAND: 4.5%			
MODE 3:			MUD: 3.6% FINE SAND: 60.7%			
D ₁₀ :	89.94	2.257	V FINE SAND: 30.6%			
MEDIAN or D ₅₀ :	137.1	2.866	V COARSE GRAVEL: 0.0% V COARSE SILT: 2.5%			
D ₉₀ :	209.1	3.475	COARSE GRAVEL: 0.0% COARSE SILT: 0.2%			
(D ₉₀ / D ₁₀):	2.325	1.539	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.2%			
(D ₉₀ - D ₁₀):	119.2	1.217	FINE GRAVEL: 0.0% FINE SILT: 0.2%			
(D ₇₅ / D ₂₅):	1.434	1.200	V FINE GRAVEL: 0.0% V FINE SILT: 0.2%			
(D ₇₅ - D ₂₅):	49.71	0.520	V COARSE SAND: 0.1% CLAY: 0.2%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	148.8	133.9	2.901	136.5	2.873	Fine Sand
SORTING (σ):	78.06	1.636	0.710	1.388	0.473	Well Sorted
SKEWNESS (Sk):	5.767	-2.397	2.397	-0.030	0.030	Symmetrical
KURTOSIS (K):	62.89	19.45	19.45	1.441	1.441	Leptokurtic



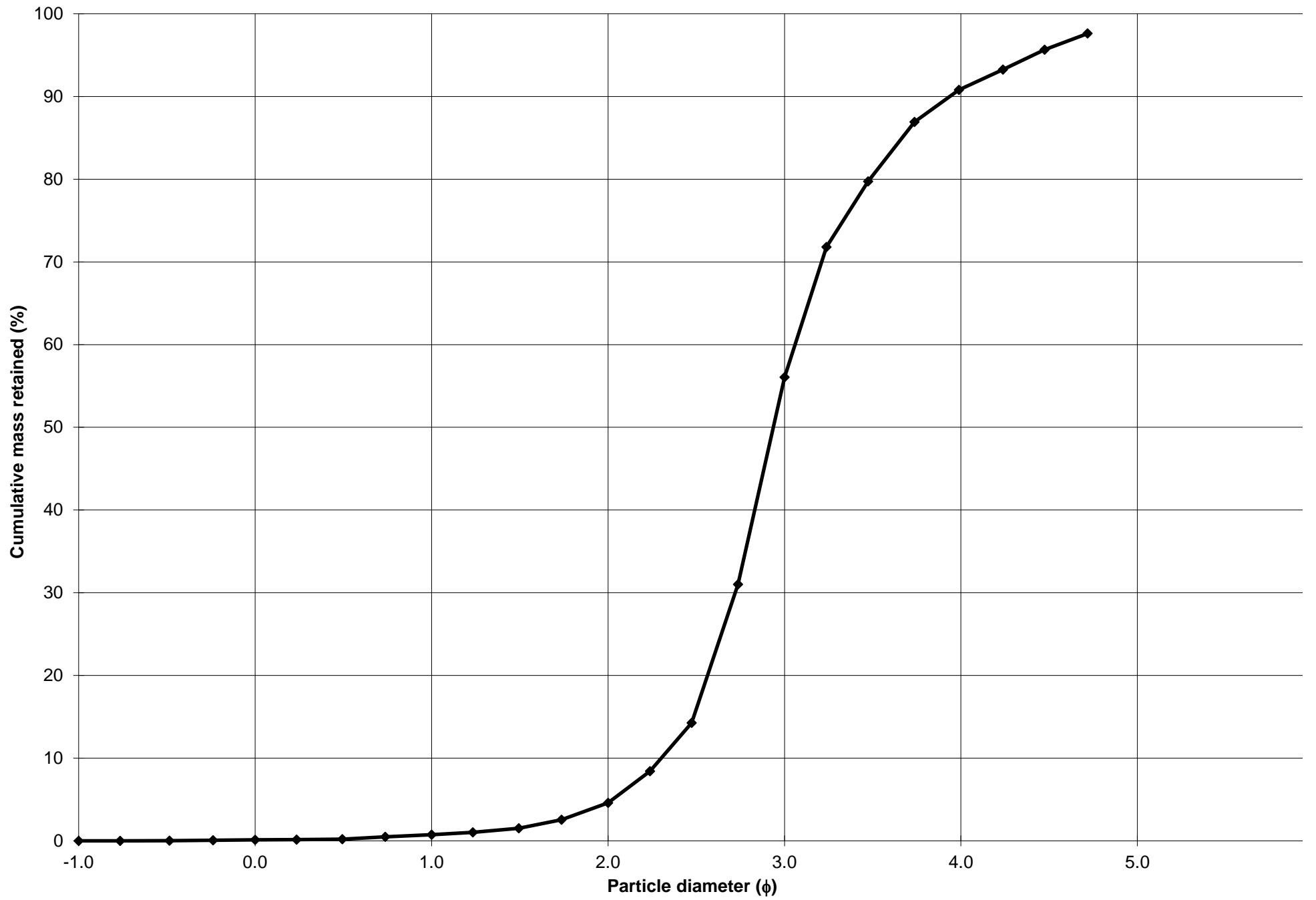
Cumulative Frequency Curve



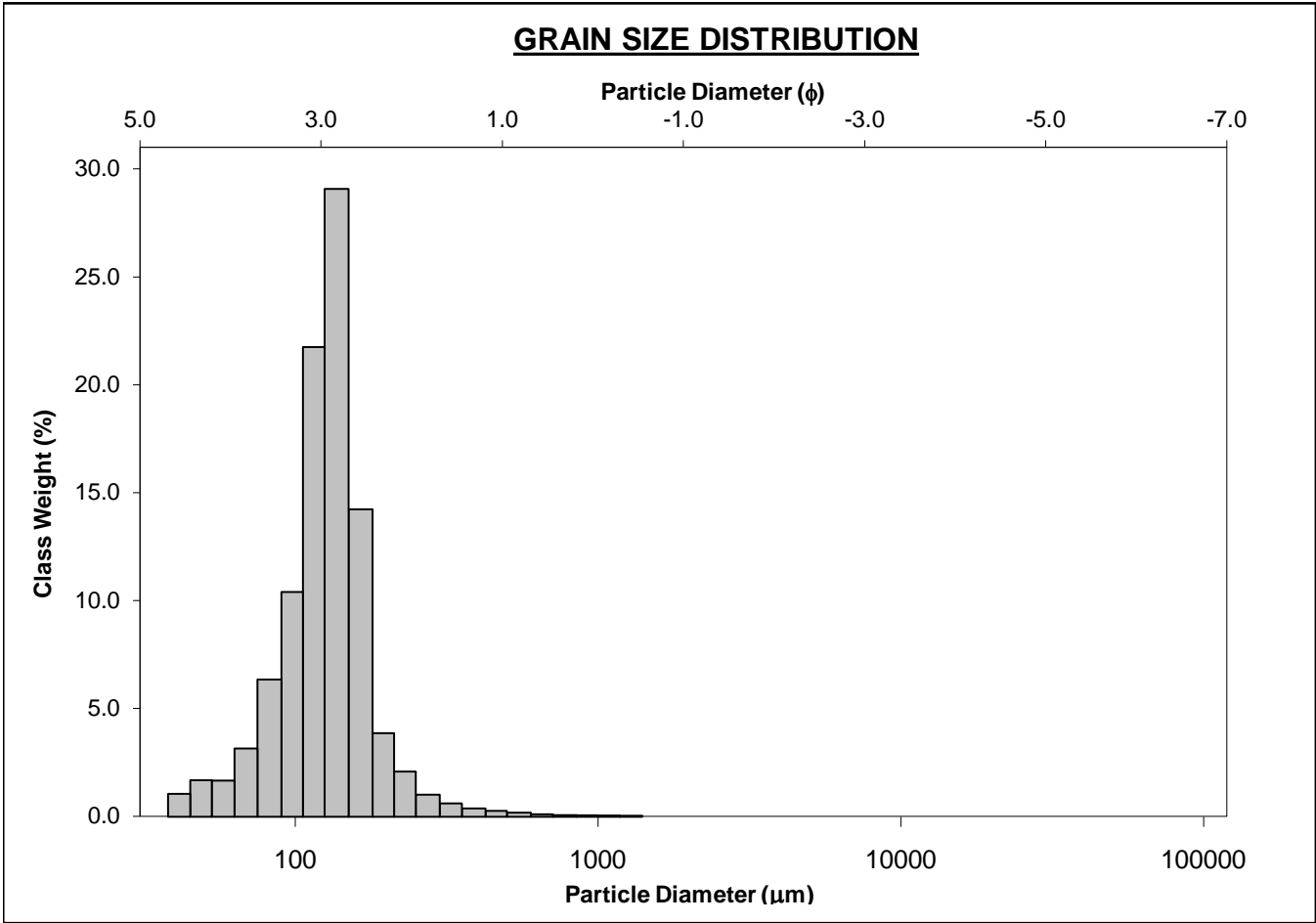
SIEVING ERROR: 1.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-290cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 0.6%	
MODE 2:			SAND: 90.9%		MEDIUM SAND: 3.8%	
MODE 3:			MUD: 9.1%		FINE SAND: 51.5%	
D_{10} :	65.34	2.301			V FINE SAND: 34.9%	
MEDIAN or D_{50} :	130.6	2.936	V COARSE GRAVEL: 0.0%		V COARSE SILT: 6.8%	
D_{90} :	202.9	3.936	COARSE GRAVEL: 0.0%		COARSE SILT: 0.5%	
(D_{90} / D_{10}) :	3.105	1.710	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.5%	
$(D_{90} - D_{10})$:	137.5	1.635	FINE GRAVEL: 0.0%		FINE SILT: 0.5%	
(D_{75} / D_{25}) :	1.614	1.261	V FINE GRAVEL: 0.0%		V FINE SILT: 0.5%	
$(D_{75} - D_{25})$:	60.93	0.691	V COARSE SAND: 0.1%		CLAY: 0.5%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	138.4	118.3	3.080	123.1	3.022	Very Fine Sand
SORTING (σ):	80.41	1.887	0.916	1.562	0.643	Moderately Well Sorted
SKEWNESS (Sk):	5.005	-2.242	2.242	-0.233	0.233	Fine Skewed
KURTOSIS (K):	55.02	12.53	12.53	1.415	1.415	Leptokurtic



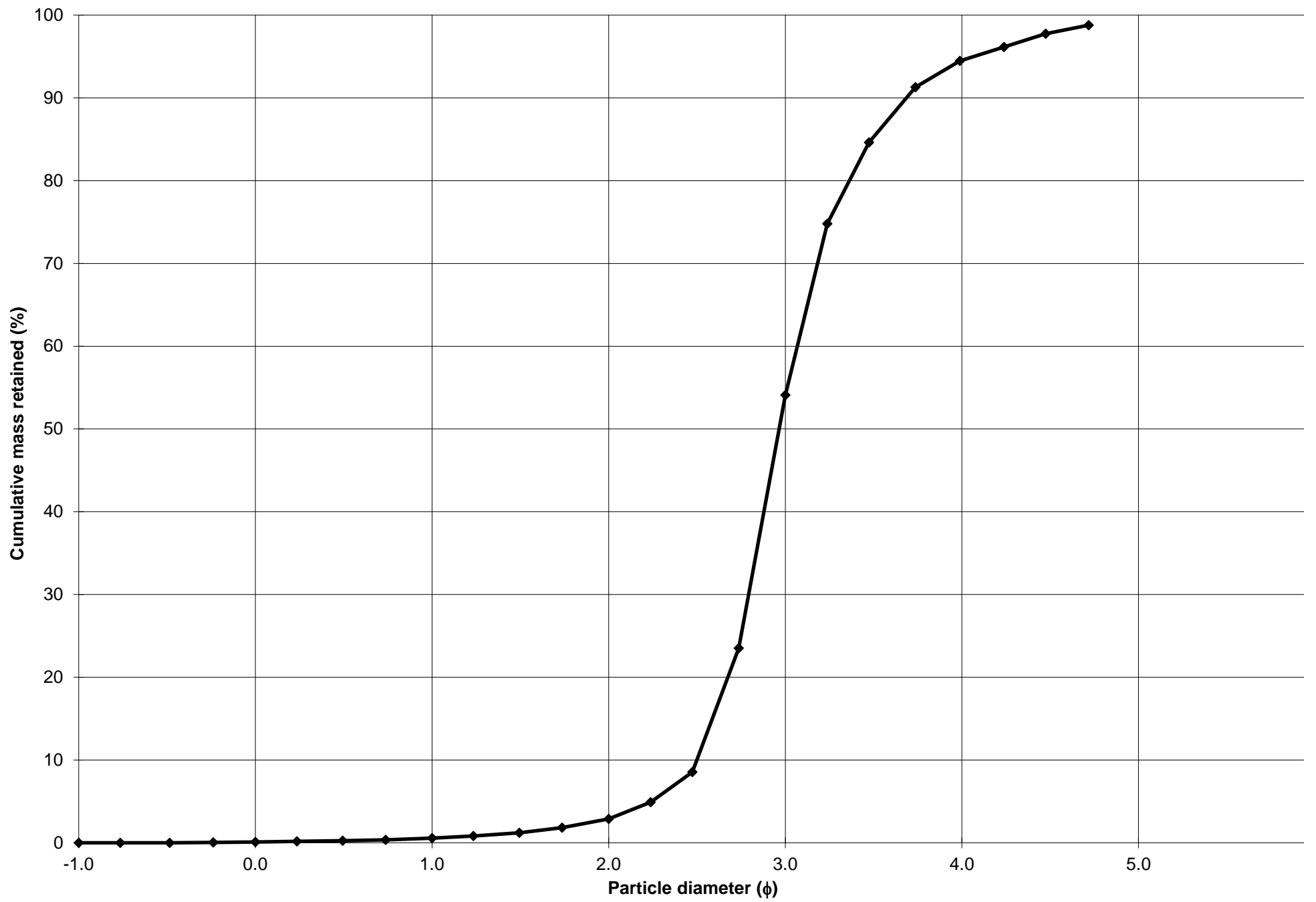
Cumulative Frequency Curve



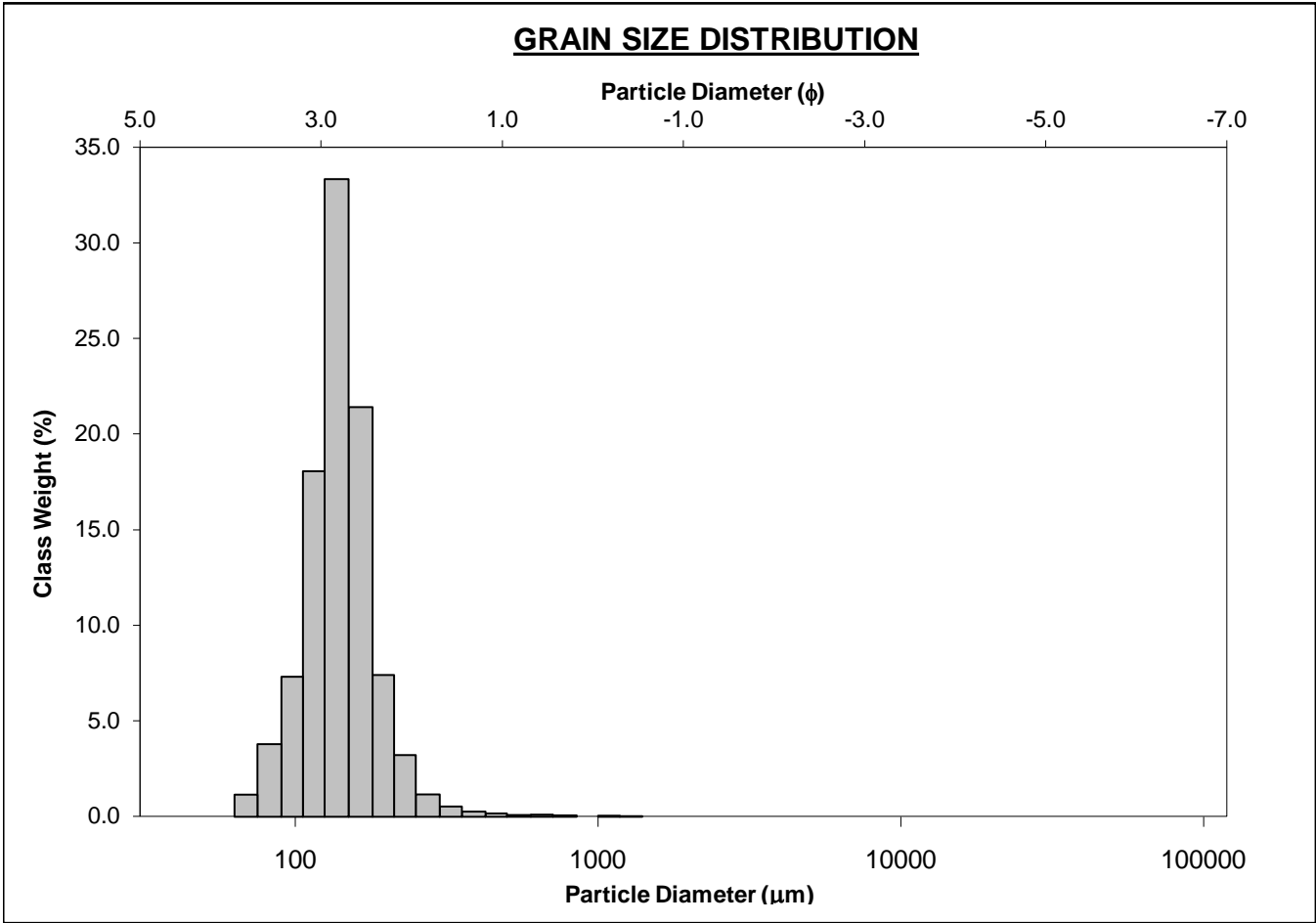
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-300cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.5%			
MODE 2:			SAND: 94.6% MEDIUM SAND: 2.3%			
MODE 3:			MUD: 5.4% FINE SAND: 51.2%			
D ₁₀ :	77.71	2.499	V FINE SAND: 40.5%			
MEDIAN or D ₅₀ :	128.1	2.965	V COARSE GRAVEL: 0.0% V COARSE SILT: 4.3%			
D ₉₀ :	176.8	3.686	COARSE GRAVEL: 0.0% COARSE SILT: 0.2%			
(D ₉₀ / D ₁₀):	2.276	1.475	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.2%			
(D ₉₀ - D ₁₀):	99.14	1.186	FINE GRAVEL: 0.0% FINE SILT: 0.2%			
(D ₇₅ / D ₂₅):	1.408	1.179	V FINE GRAVEL: 0.0% V FINE SILT: 0.2%			
(D ₇₅ - D ₂₅):	43.06	0.493	V COARSE SAND: 0.1% CLAY: 0.2%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	134.2	120.7	3.051	124.2	3.010	Very Fine Sand
SORTING (σ):	70.53	1.640	0.714	1.404	0.490	Well Sorted
SKEWNESS (Sk):	6.466	-2.397	2.397	-0.183	0.183	Fine Skewed
KURTOSIS (K):	78.07	18.35	18.35	1.513	1.513	Very Leptokurtic



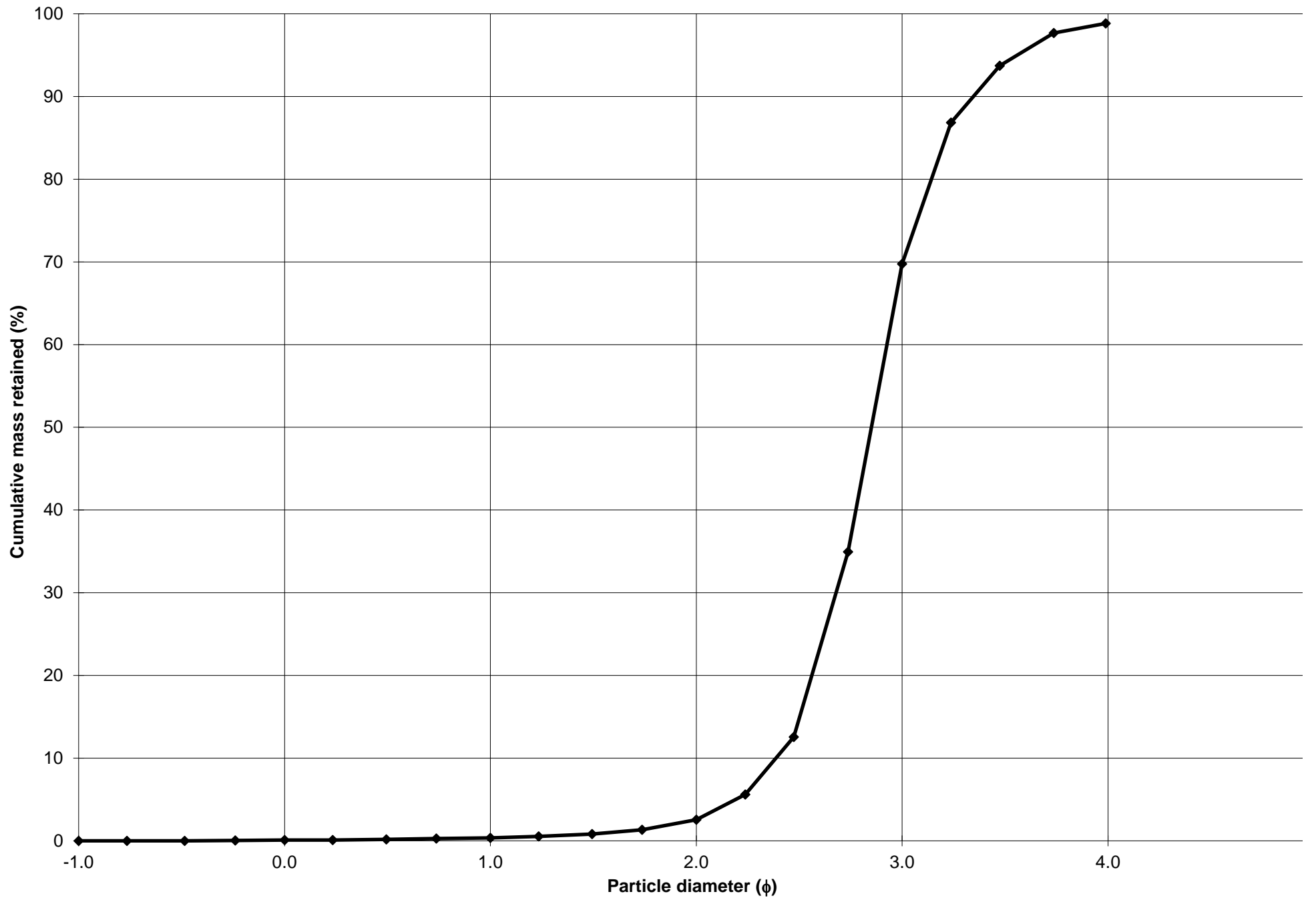
Cumulative Frequency Curve



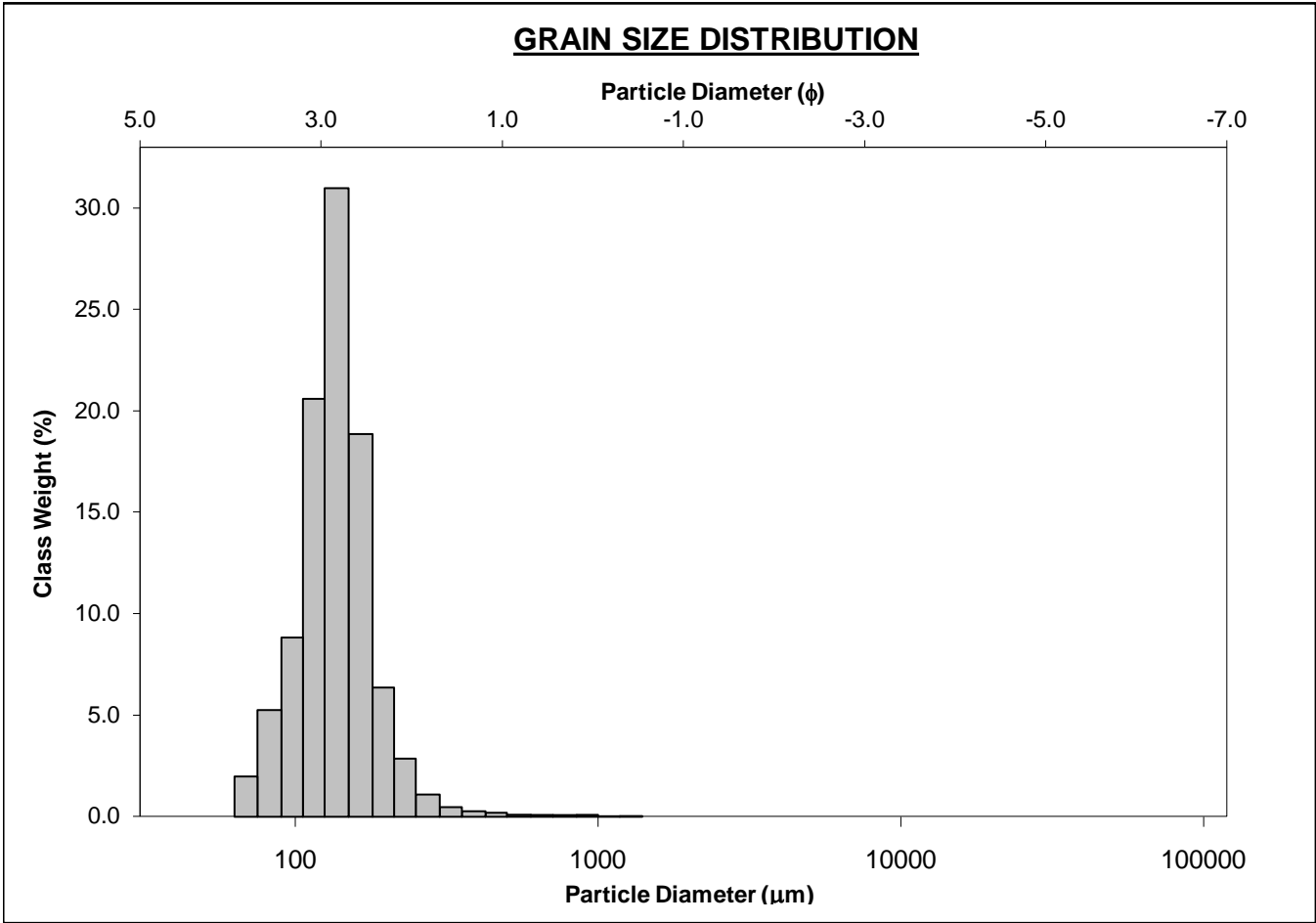
SIEVING ERROR: 1.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-310cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.3%			
MODE 2:			SAND: 98.8% MEDIUM SAND: 2.2%			
MODE 3:			MUD: 1.2% FINE SAND: 67.2%			
D_{10} :	98.31	2.387	V FINE SAND: 29.1%			
MEDIAN or D_{50} :	138.6	2.851	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.2%			
D_{90} :	191.1	3.346	COARSE GRAVEL: 0.0% COARSE SILT: 0.2%			
(D_{90} / D_{10}) :	1.944	1.402	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.2%			
$(D_{90} - D_{10})$:	92.83	0.959	FINE GRAVEL: 0.0% FINE SILT: 0.2%			
(D_{75} / D_{25}) :	1.369	1.173	V FINE GRAVEL: 0.0% V FINE SILT: 0.2%			
$(D_{75} - D_{25})$:	43.80	0.453	V COARSE SAND: 0.1% CLAY: 0.2%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	146.1	135.7	2.882	138.3	2.854	Fine Sand
SORTING (σ):	59.59	1.519	0.603	1.300	0.378	Well Sorted
SKEWNESS (Sk):	6.955	-3.282	3.282	-0.026	0.026	Symmetrical
KURTOSIS (K):	98.79	27.20	27.20	1.239	1.239	Leptokurtic



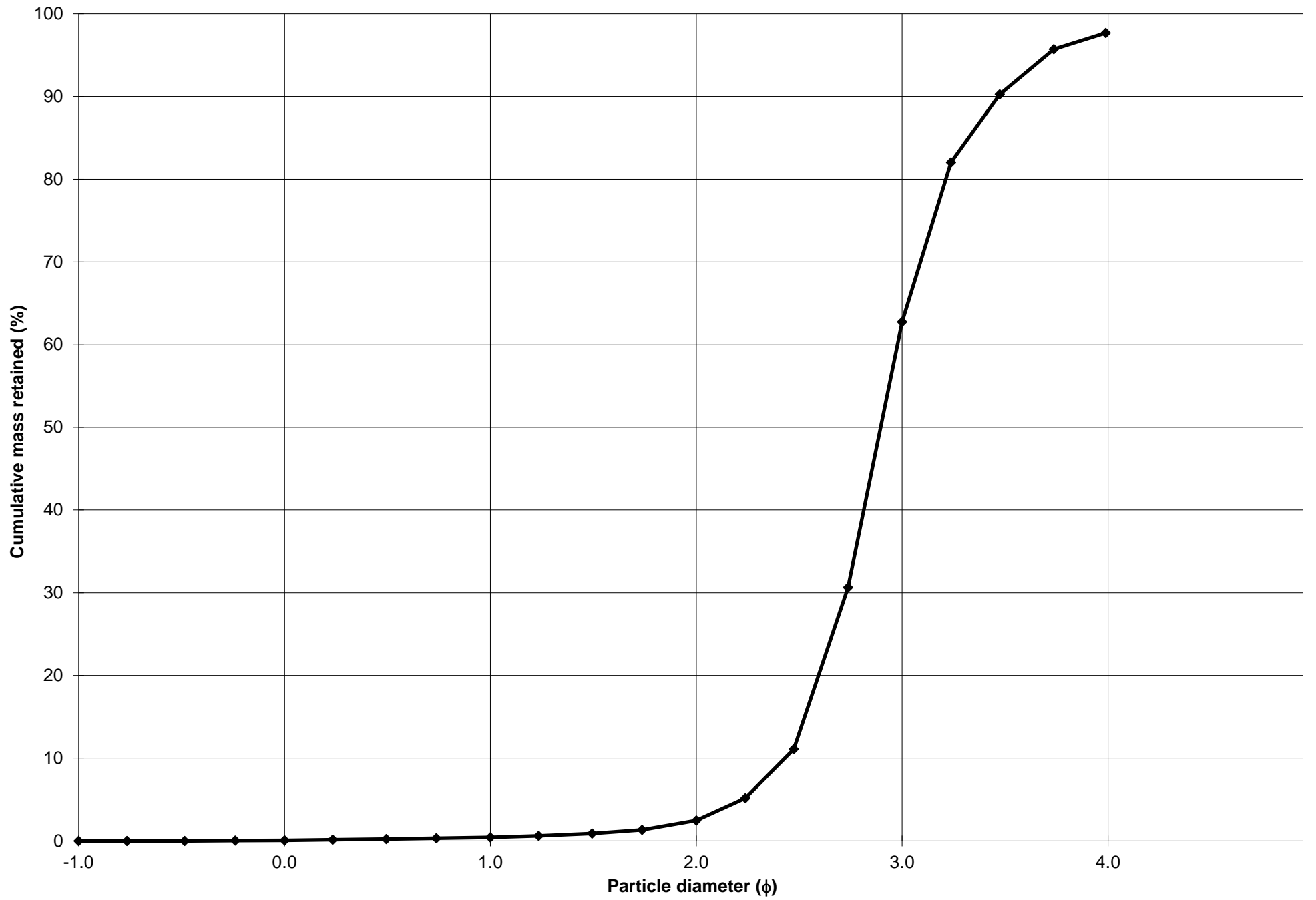
Cumulative Frequency Curve



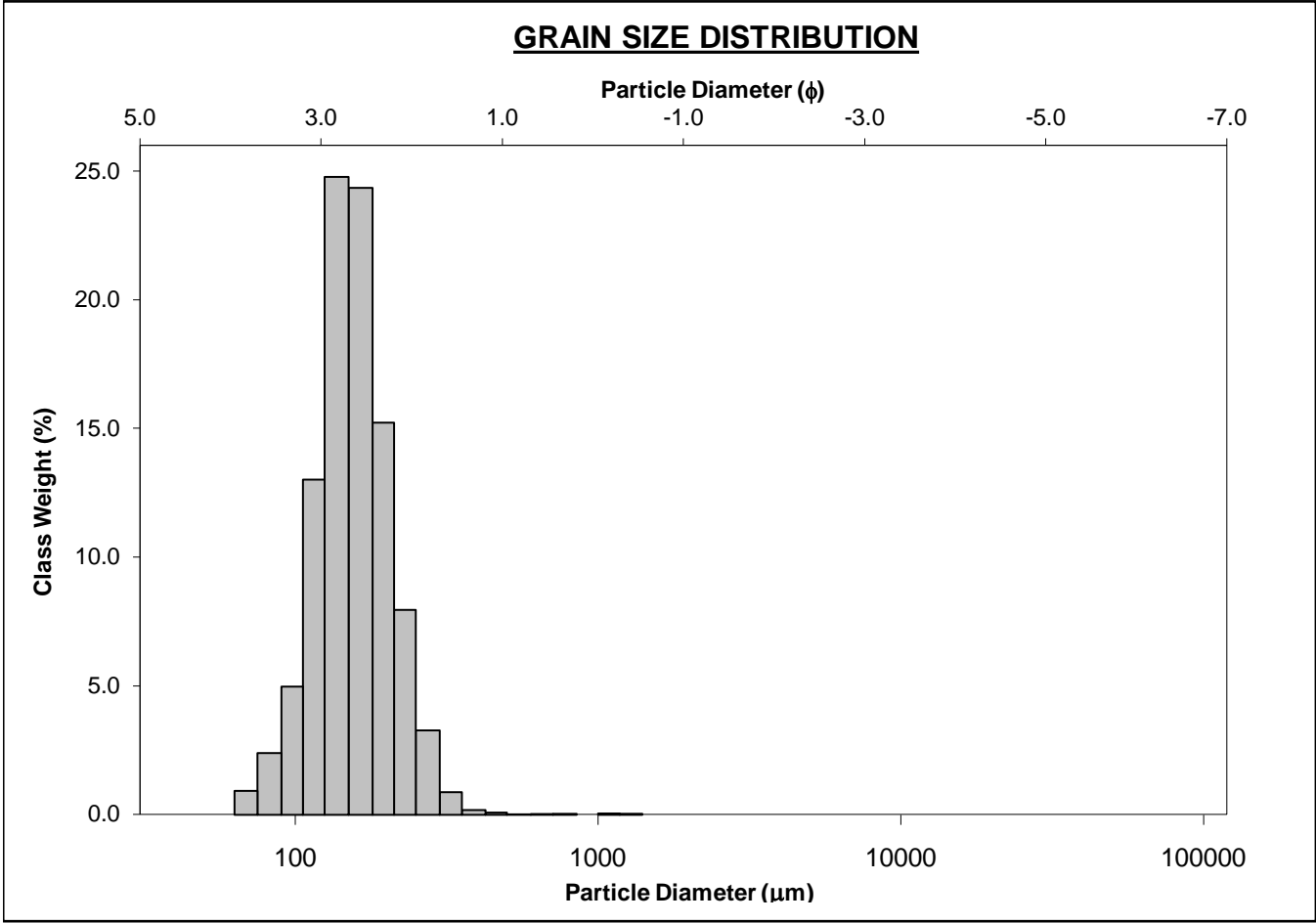
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-320cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.4%			
MODE 2:			SAND: 97.7% MEDIUM SAND: 2.1%			
MODE 3:			MUD: 2.3% FINE SAND: 60.3%			
D ₁₀ :	90.46	2.430	V FINE SAND: 34.9%			
MEDIAN or D ₅₀ :	134.4	2.896	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.4%			
D ₉₀ :	185.5	3.467	COARSE GRAVEL: 0.0% COARSE SILT: 0.4%			
(D ₉₀ / D ₁₀):	2.051	1.426	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.4%			
(D ₉₀ - D ₁₀):	95.07	1.036	FINE GRAVEL: 0.0% FINE SILT: 0.4%			
(D ₇₅ / D ₂₅):	1.404	1.184	V FINE GRAVEL: 0.0% V FINE SILT: 0.4%			
(D ₇₅ - D ₂₅):	45.53	0.490	V COARSE SAND: 0.1% CLAY: 0.4%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	141.1	127.1	2.976	133.1	2.910	Fine Sand
SORTING (σ):	63.89	1.685	0.753	1.331	0.413	Well Sorted
SKEWNESS (Sk):	6.633	-3.218	3.218	-0.074	0.074	Symmetrical
KURTOSIS (K):	86.18	19.95	19.95	1.238	1.238	Leptokurtic



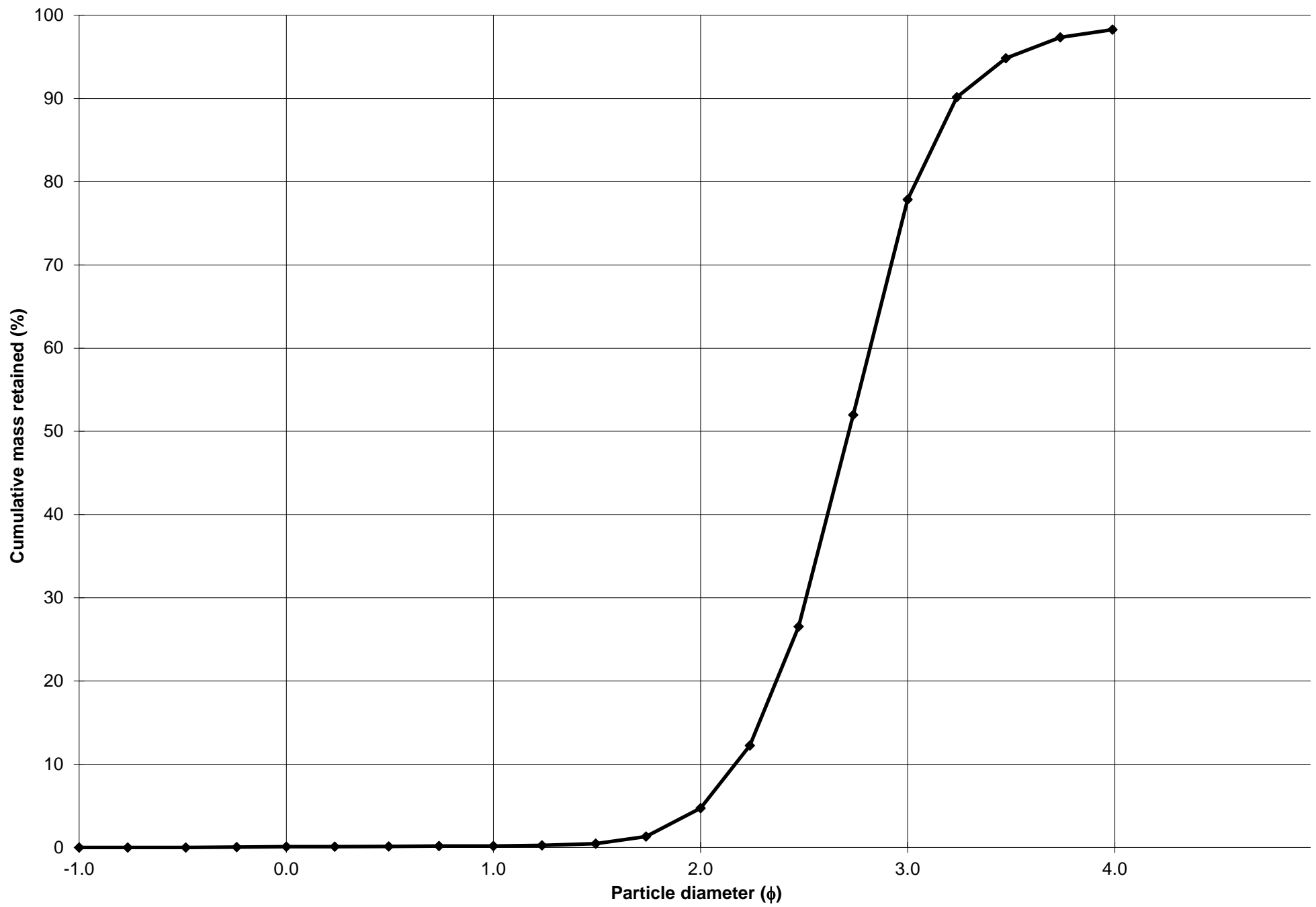
Cumulative Frequency Curve



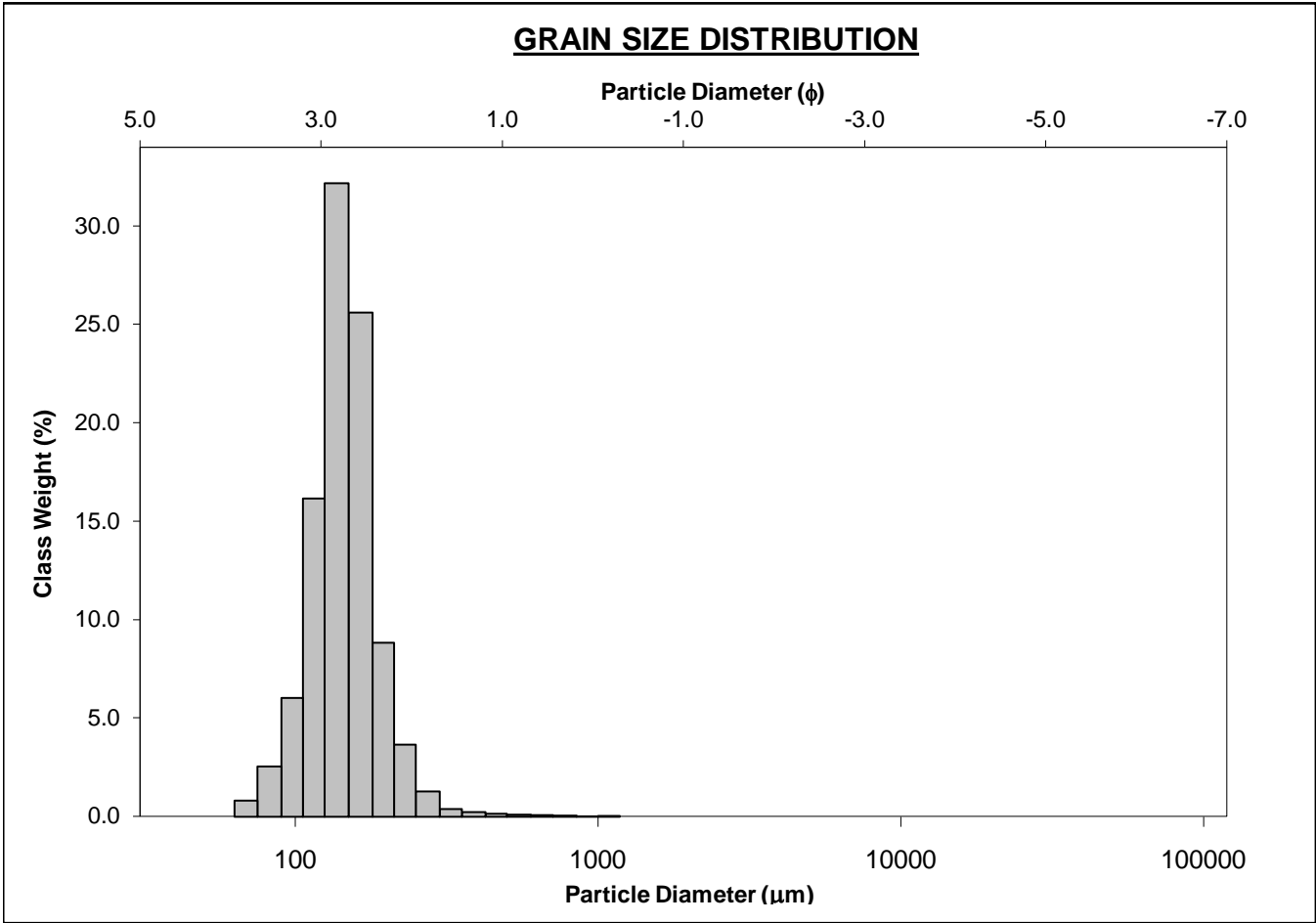
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-330cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 0.1%	
MODE 2:			SAND: 98.3%		MEDIUM SAND: 4.5%	
MODE 3:			MUD: 1.7%		FINE SAND: 73.1%	
D_{10} :	106.2	2.167			V FINE SAND: 20.4%	
MEDIAN or D_{50} :	152.1	2.717	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.3%	
D_{90} :	222.7	3.235	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D_{90} / D_{10}) :	2.097	1.493	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
$(D_{90} - D_{10})$:	116.5	1.068	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D_{75} / D_{25}) :	1.436	1.213	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
$(D_{75} - D_{25})$:	55.65	0.522	V COARSE SAND: 0.1%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	160.0	146.5	2.771	152.6	2.712	Fine Sand
SORTING (σ):	60.97	1.627	0.702	1.347	0.430	Well Sorted
SKEWNESS (Sk):	5.410	-3.569	3.569	-0.014	0.014	Symmetrical
KURTOSIS (K):	83.51	23.54	23.54	1.164	1.164	Leptokurtic



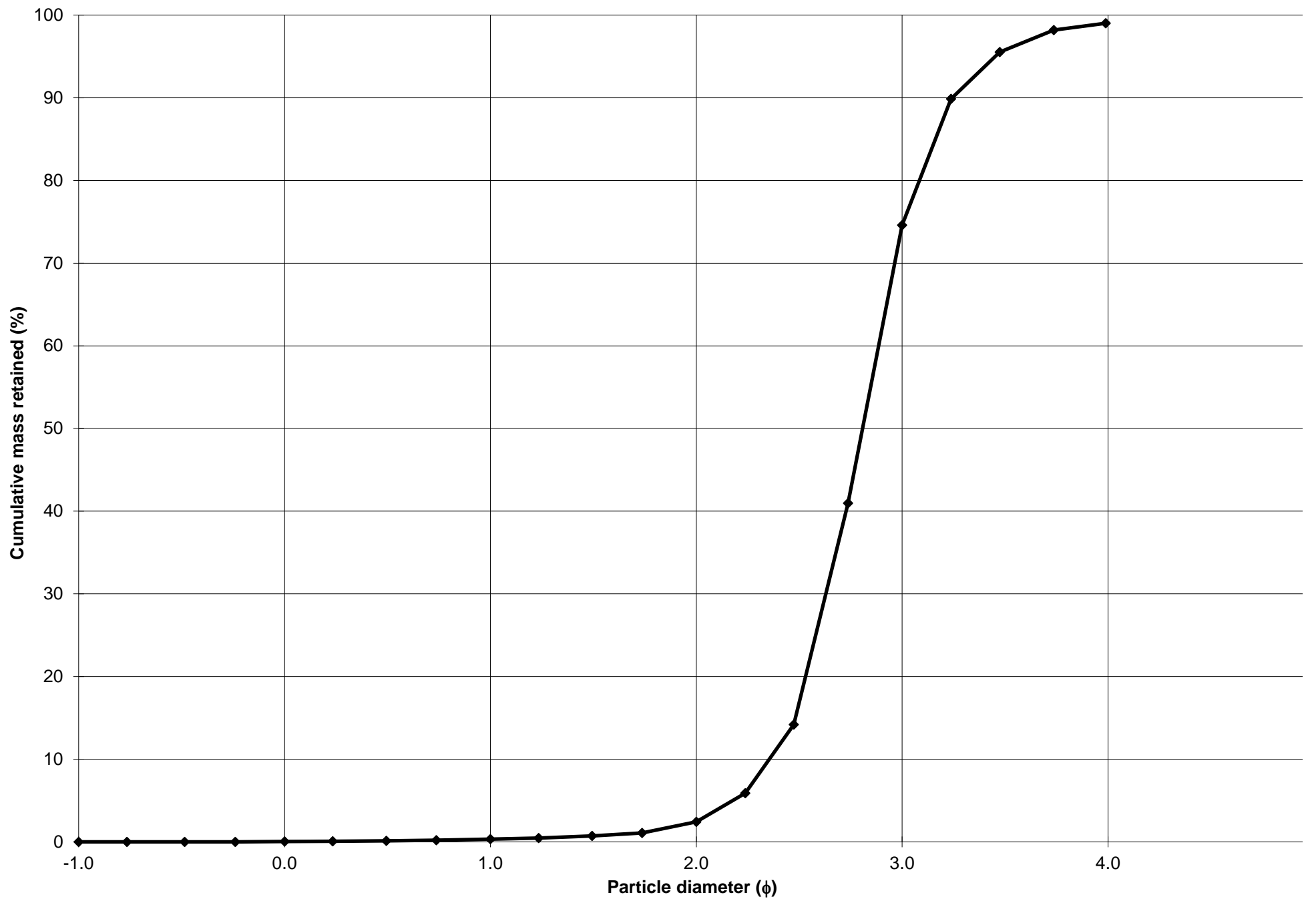
Cumulative Frequency Curve



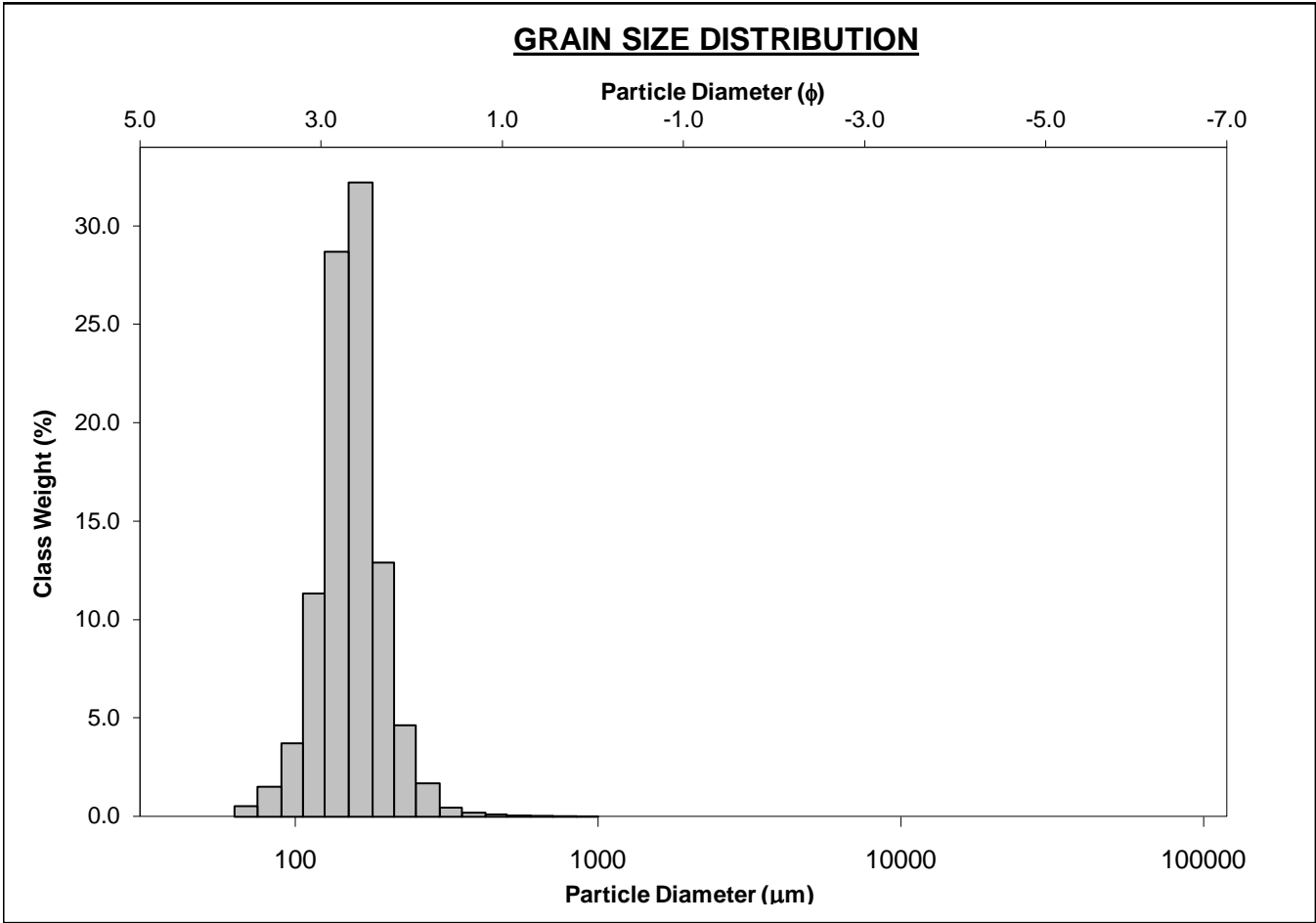
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-340cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.3%			
MODE 2:			SAND: 99.0% MEDIUM SAND: 2.1%			
MODE 3:			MUD: 1.0% FINE SAND: 72.1%			
D ₁₀ :	105.6	2.355	V FINE SAND: 24.4%			
MEDIAN or D ₅₀ :	142.8	2.808	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.2%			
D ₉₀ :	195.5	3.244	COARSE GRAVEL: 0.0% COARSE SILT: 0.2%			
(D ₉₀ / D ₁₀):	1.852	1.378	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.2%			
(D ₉₀ - D ₁₀):	89.94	0.889	FINE GRAVEL: 0.0% FINE SILT: 0.2%			
(D ₇₅ / D ₂₅):	1.344	1.165	V FINE GRAVEL: 0.0% V FINE SILT: 0.2%			
(D ₇₅ - D ₂₅):	42.78	0.426	V COARSE SAND: 0.0% CLAY: 0.2%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	149.8	140.4	2.832	142.1	2.815	Fine Sand
SORTING (σ):	53.83	1.479	0.565	1.281	0.357	Well Sorted
SKEWNESS (Sk):	5.645	-3.572	3.572	-0.023	0.023	Symmetrical
KURTOSIS (K):	72.60	30.85	30.85	1.227	1.227	Leptokurtic



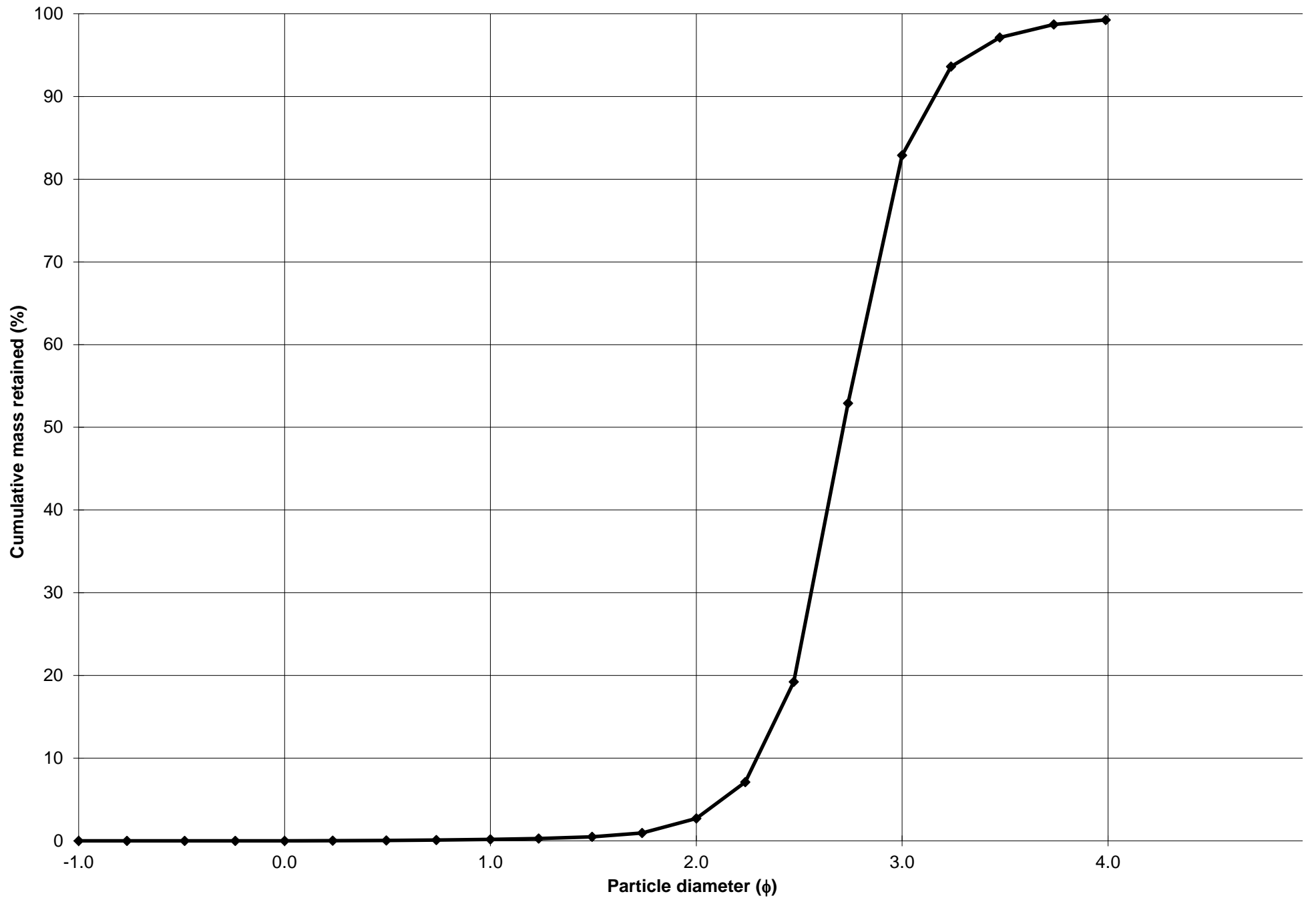
Cumulative Frequency Curve



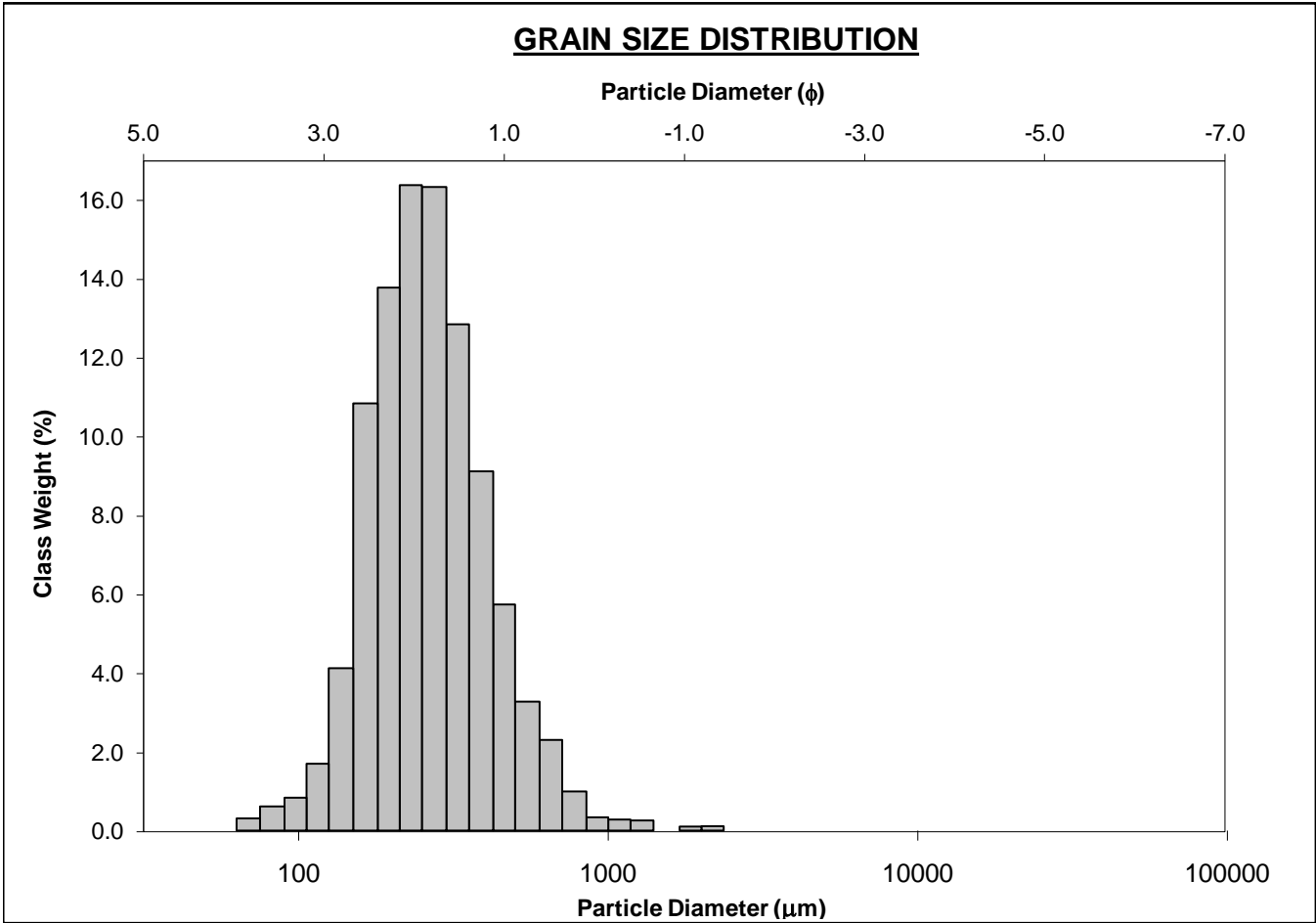
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-02-350cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.2%			
MODE 2:			SAND: 99.3% MEDIUM SAND: 2.6%			
MODE 3:			MUD: 0.7% FINE SAND: 80.2%			
D_{10} :	112.1	2.294	V FINE SAND: 16.4%			
MEDIAN or D_{50} :	152.4	2.714	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%			
D_{90} :	203.9	3.158	COARSE GRAVEL: 0.0% COARSE SILT: 0.1%			
(D_{90} / D_{10}) :	1.819	1.376	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%			
$(D_{90} - D_{10})$:	91.81	0.863	FINE GRAVEL: 0.0% FINE SILT: 0.1%			
(D_{75} / D_{25}) :	1.330	1.163	V FINE GRAVEL: 0.0% V FINE SILT: 0.1%			
$(D_{75} - D_{25})$:	43.31	0.412	V COARSE SAND: 0.0% CLAY: 0.1%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	157.3	149.2	2.744	152.1	2.717	Fine Sand
SORTING (σ):	46.54	1.425	0.511	1.262	0.336	Very Well Sorted
SKEWNESS (Sk):	3.519	-4.025	4.025	-0.016	0.016	Symmetrical
KURTOSIS (K):	40.15	37.00	37.00	1.202	1.202	Leptokurtic



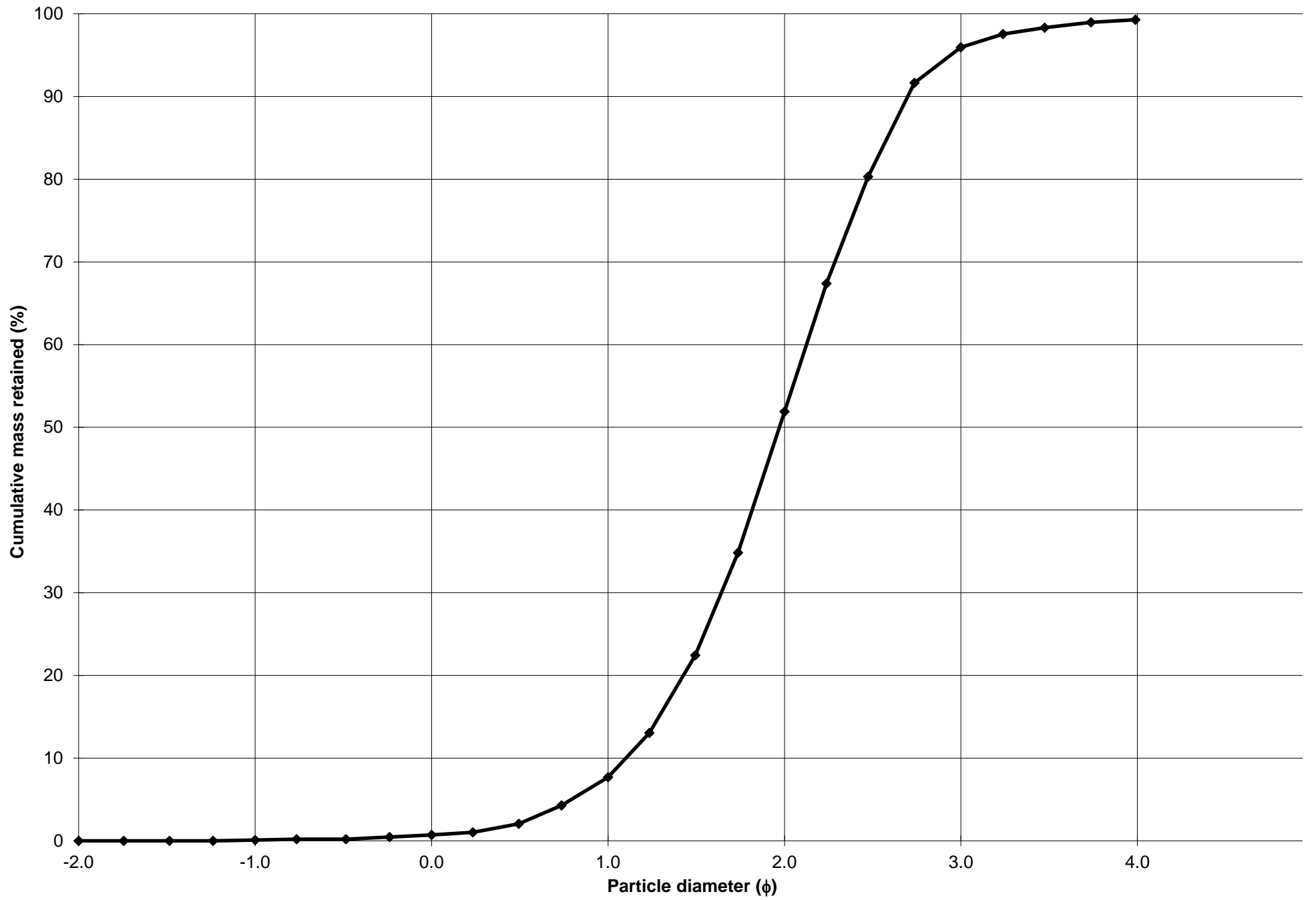
Cumulative Frequency Curve



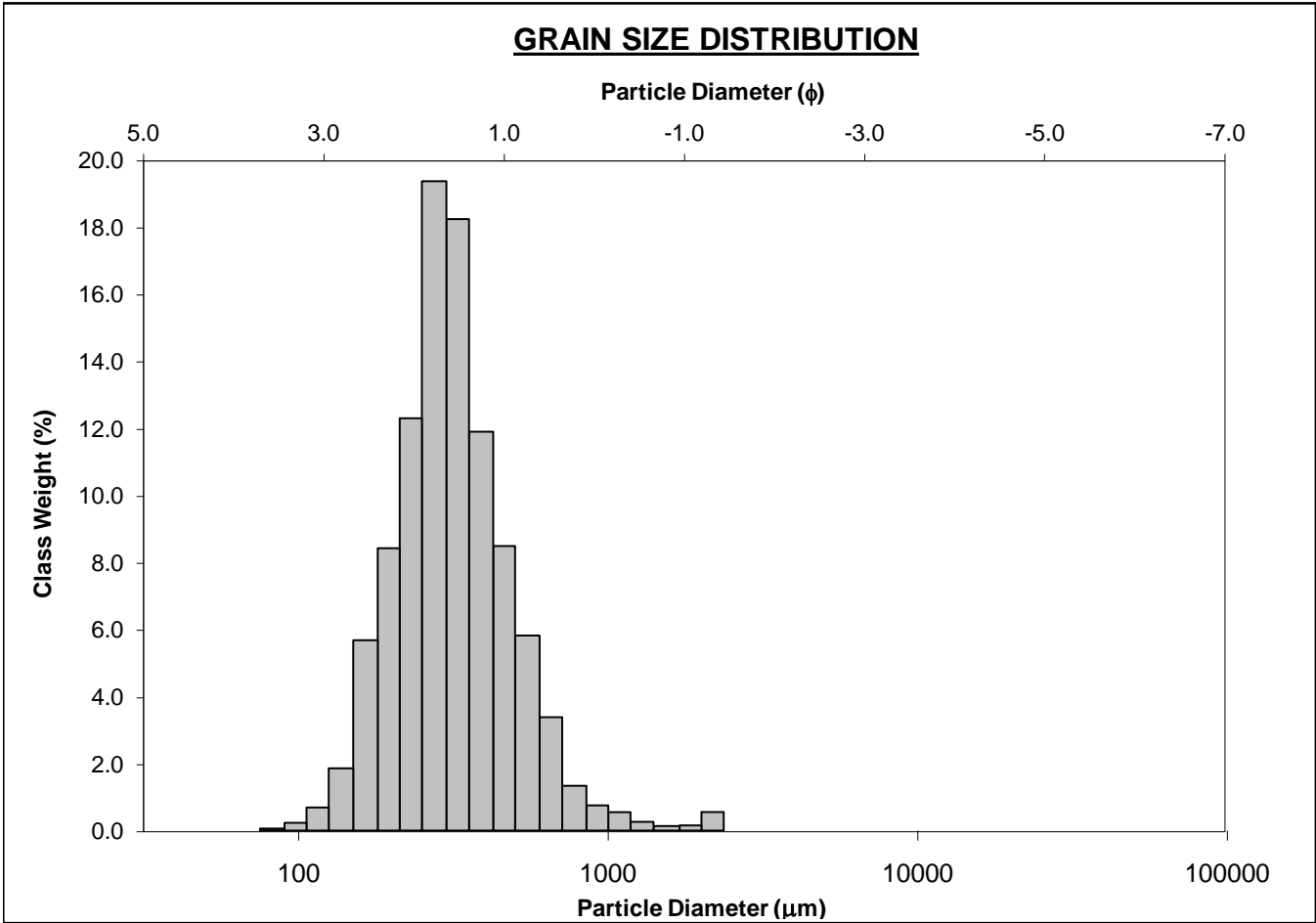
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-10cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.1%		COARSE SAND: 7.0%	
MODE 2:			SAND: 99.2%		MEDIUM SAND: 44.2%	
MODE 3:			MUD: 0.7%		FINE SAND: 44.0%	
D ₁₀ :	154.0	1.101			V FINE SAND: 3.3%	
MEDIAN or D ₅₀ :	255.1	1.971	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	466.1	2.699	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.027	2.451	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	312.1	1.598	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.781	1.539	V FINE GRAVEL: 0.1%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	150.4	0.833	V COARSE SAND: 0.6%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	292.6	256.3	1.964	259.0	1.949	Medium Sand
SORTING (σ):	167.7	1.713	0.776	1.555	0.636	Moderately Well Sorted
SKEWNESS (Sk):	3.711	-1.615	1.615	0.074	-0.074	Symmetrical
KURTOSIS (K):	30.62	14.76	14.76	1.058	1.058	Mesokurtic



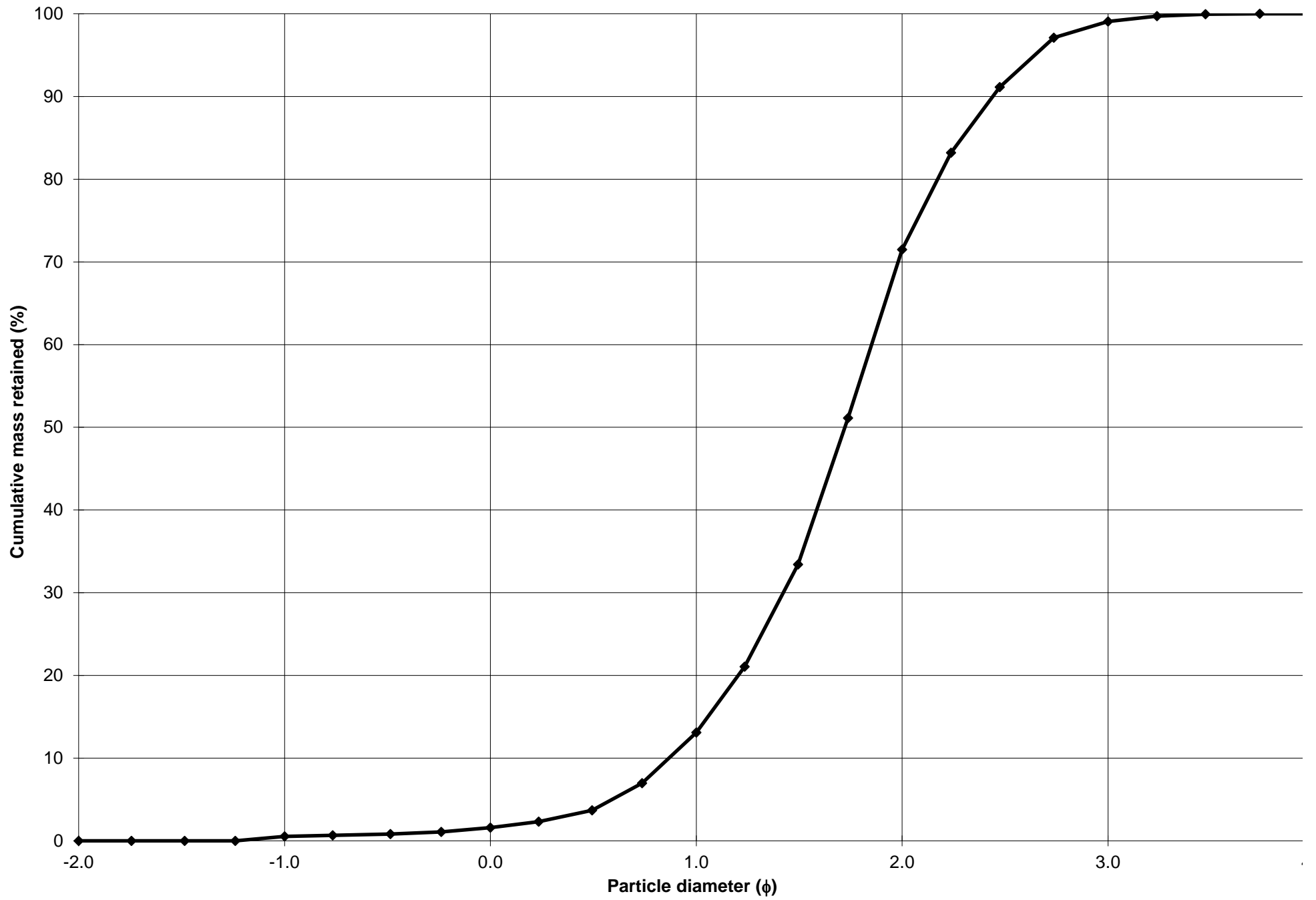
Cumulative Frequency Curve



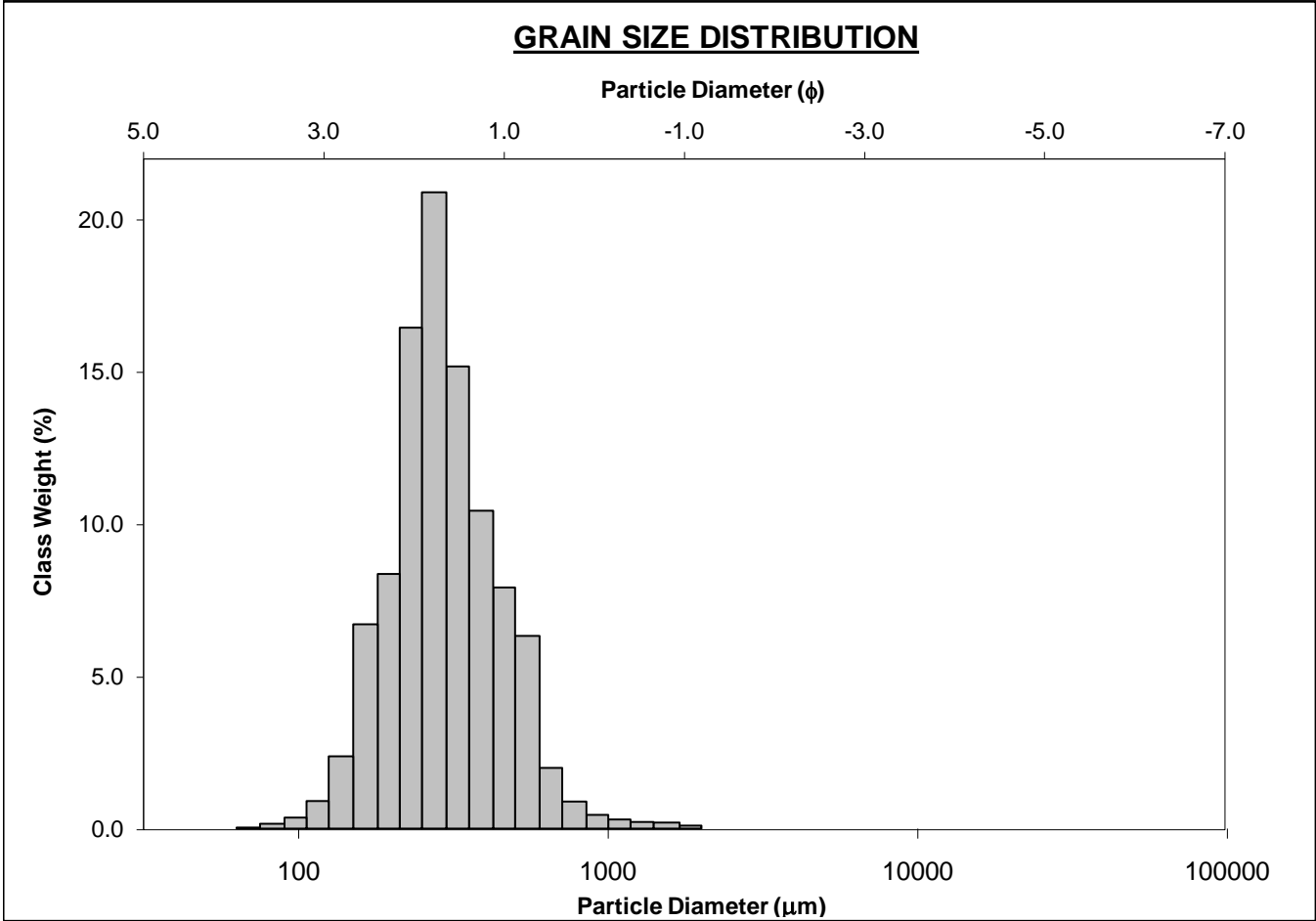
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-20cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.5%		COARSE SAND: 11.5%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 58.4%	
MODE 3:			MUD: 0.0%		FINE SAND: 27.6%	
D ₁₀ :	184.3	0.867			V FINE SAND: 0.9%	
MEDIAN or D ₅₀ :	303.2	1.722	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	548.3	2.440	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.976	2.815	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	364.1	1.573	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.686	1.572	V FINE GRAVEL: 0.5%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	163.3	0.754	V COARSE SAND: 1.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	353.2	314.1	1.671	310.0	1.690	Medium Sand
SORTING (σ):	219.3	1.559	0.641	1.521	0.605	Moderately Well Sorted
SKEWNESS (Sk):	4.396	0.754	-0.754	0.092	-0.092	Symmetrical
KURTOSIS (K):	32.22	4.993	4.993	1.116	1.116	Leptokurtic



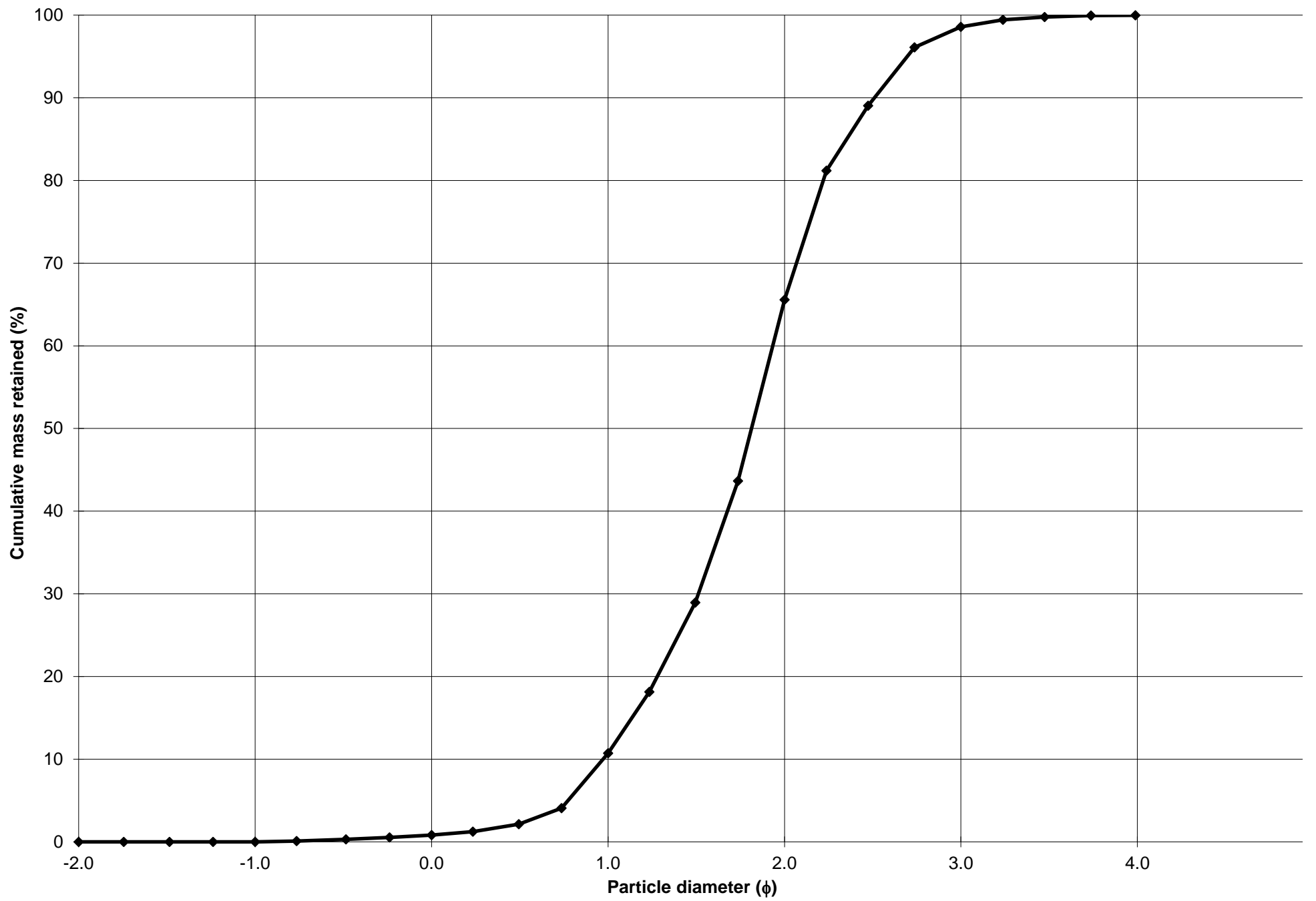
Cumulative Frequency Curve



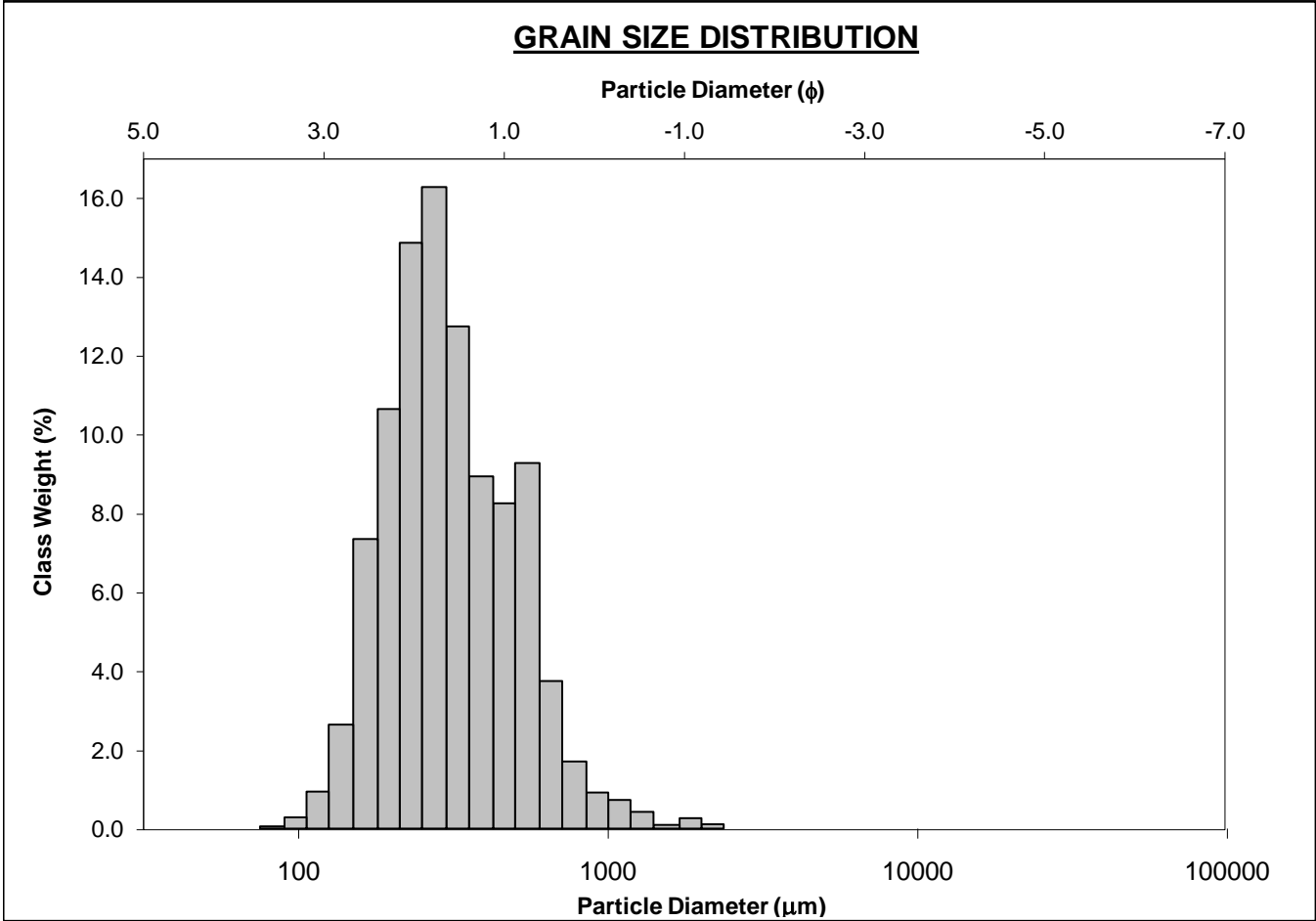
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-30cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 9.9%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 54.8%	
MODE 3:			MUD: 0.0%		FINE SAND: 33.0%	
D ₁₀ :	175.6	0.971			V FINE SAND: 1.4%	
MEDIAN or D ₅₀ :	284.6	1.813	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	510.0	2.509	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.904	2.583	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	334.4	1.538	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.675	1.532	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	152.8	0.744	V COARSE SAND: 0.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	324.1	294.1	1.766	293.7	1.768	Medium Sand
SORTING (σ):	162.6	1.520	0.604	1.495	0.580	Moderately Well Sorted
SKEWNESS (Sk):	3.044	0.272	-0.272	0.100	-0.100	Coarse Skewed
KURTOSIS (K):	20.47	5.008	5.008	1.059	1.059	Mesokurtic



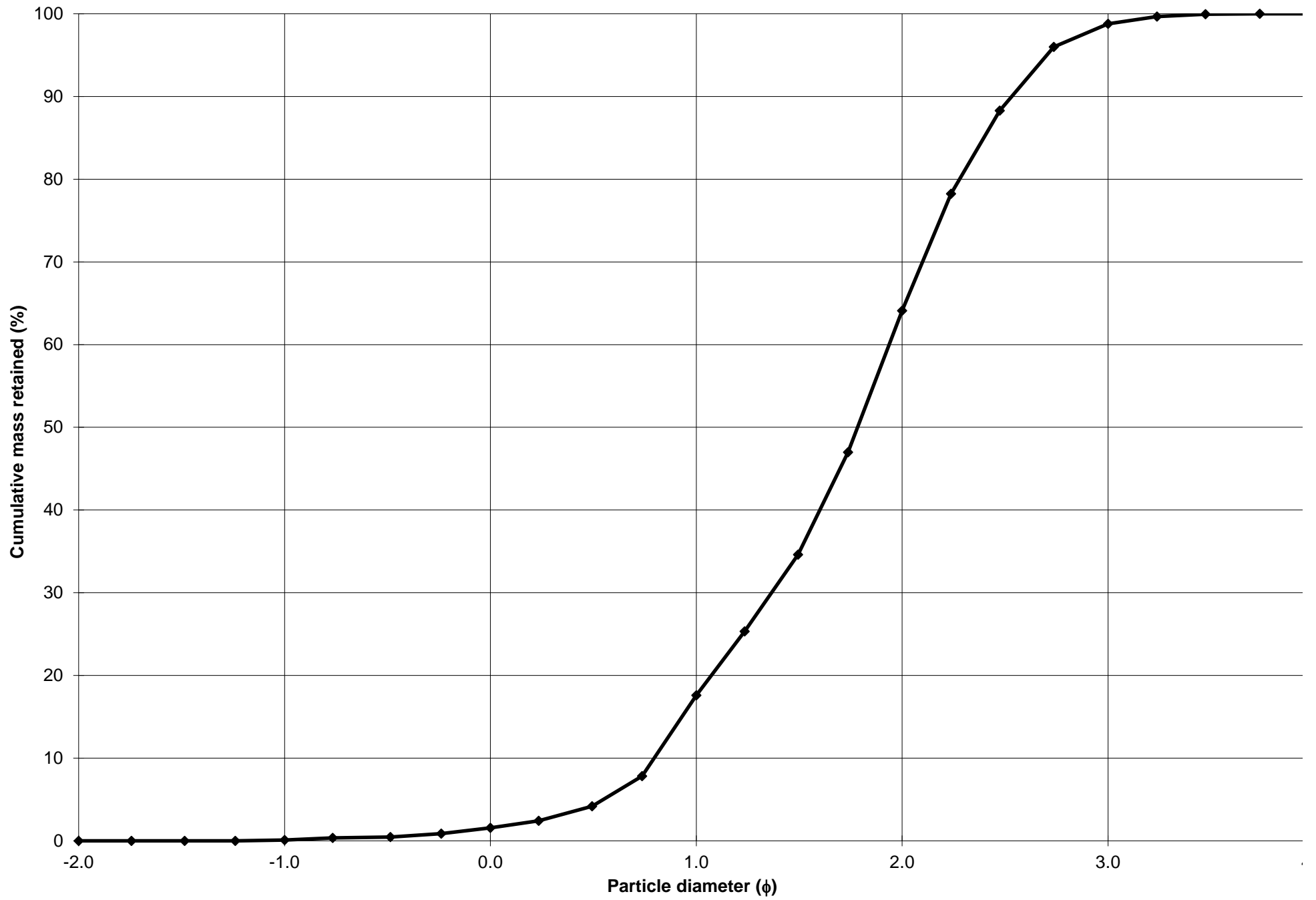
Cumulative Frequency Curve



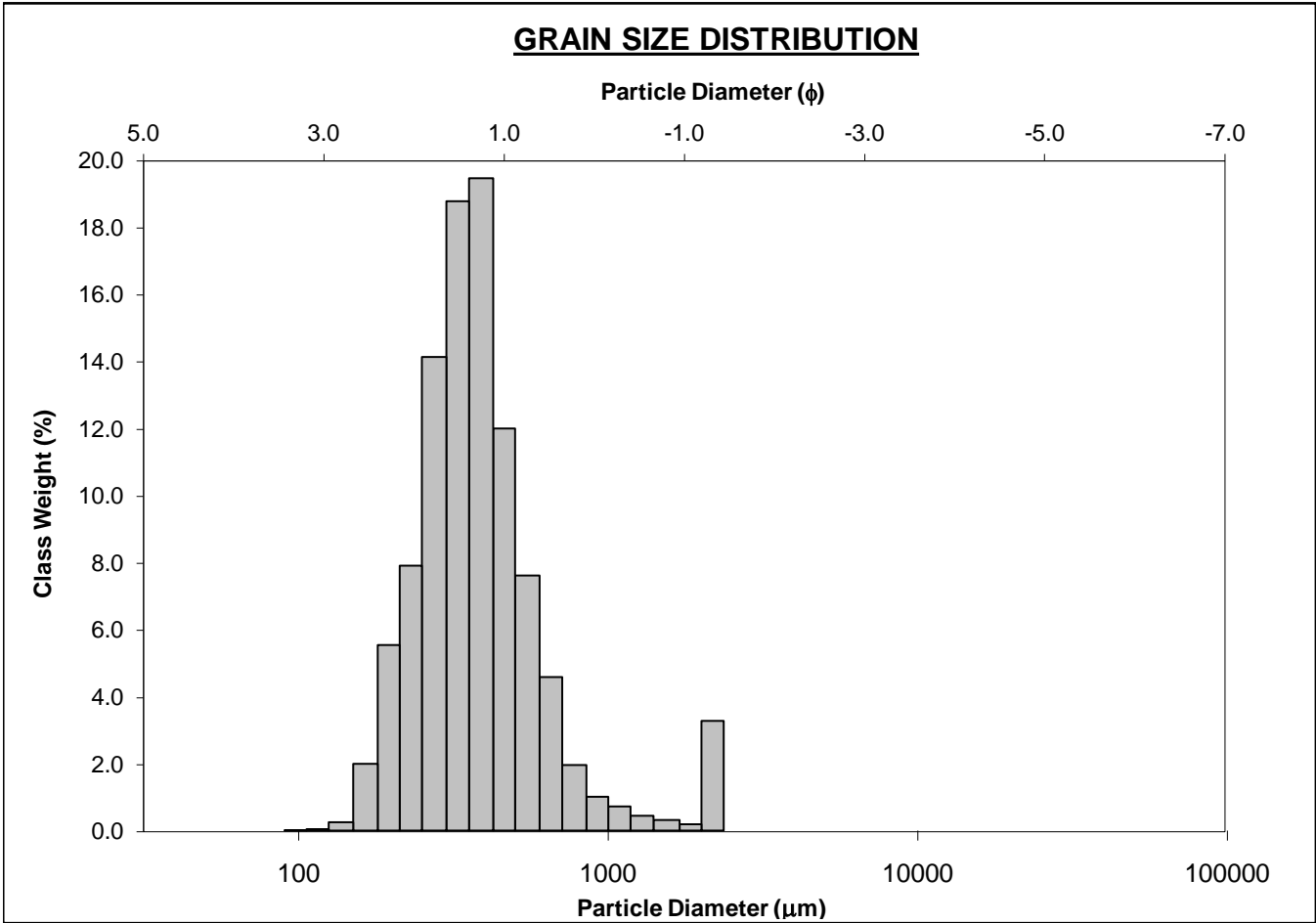
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-40cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.1%		COARSE SAND: 16.0%	
MODE 2:	550.0	0.868	SAND: 99.9%		MEDIUM SAND: 46.5%	
MODE 3:			MUD: 0.0%		FINE SAND: 34.7%	
D ₁₀ :	172.8	0.796			V FINE SAND: 1.2%	
MEDIAN or D ₅₀ :	290.5	1.783	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	576.1	2.533	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.333	3.183	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	403.3	1.737	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.944	1.783	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	207.7	0.959	V COARSE SAND: 1.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	350.4	308.4	1.697	306.8	1.705	Medium Sand
SORTING (σ):	206.4	1.611	0.688	1.603	0.681	Moderately Well Sorted
SKEWNESS (Sk):	2.975	0.516	-0.516	0.157	-0.157	Coarse Skewed
KURTOSIS (K):	18.75	3.408	3.408	0.921	0.921	Mesokurtic



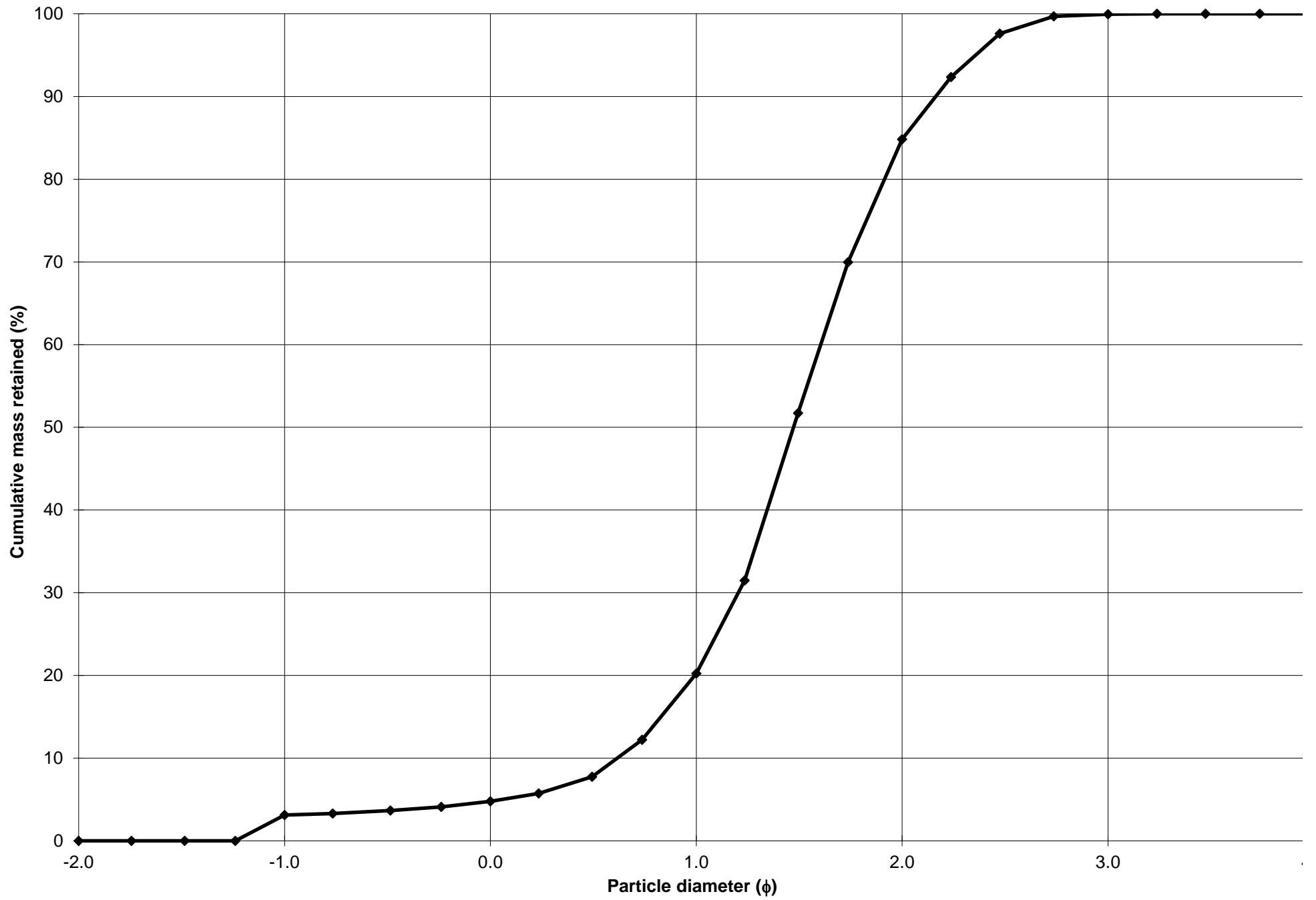
Cumulative Frequency Curve



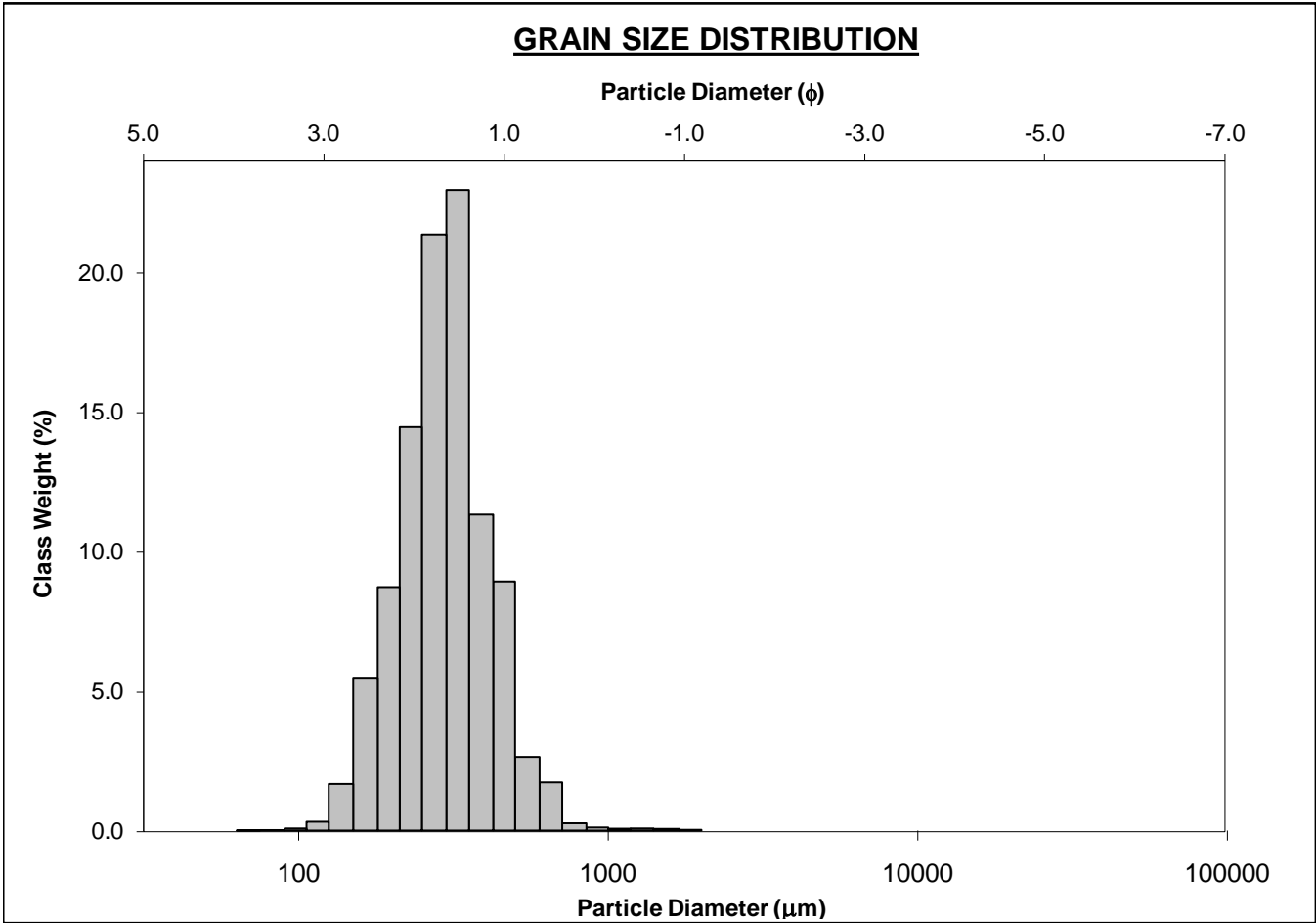
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-50cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 3.1%		COARSE SAND: 15.4%	
MODE 2:	2180.0	-1.119	SAND: 96.9%		MEDIUM SAND: 64.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 15.1%	
D ₁₀ :	223.2	0.616			V FINE SAND: 0.1%	
MEDIAN or D ₅₀ :	360.4	1.472	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	652.3	2.163	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.922	3.510	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	429.1	1.547	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.655	1.661	V FINE GRAVEL: 3.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	184.7	0.727	V COARSE SAND: 1.7%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	451.0	382.8	1.385	368.7	1.440	Medium Sand
SORTING (σ):	362.4	1.643	0.717	1.547	0.630	Moderately Well Sorted
SKEWNESS (Sk):	3.663	1.401	-1.401	0.159	-0.159	Coarse Skewed
KURTOSIS (K):	17.18	6.145	6.145	1.299	1.299	Leptokurtic



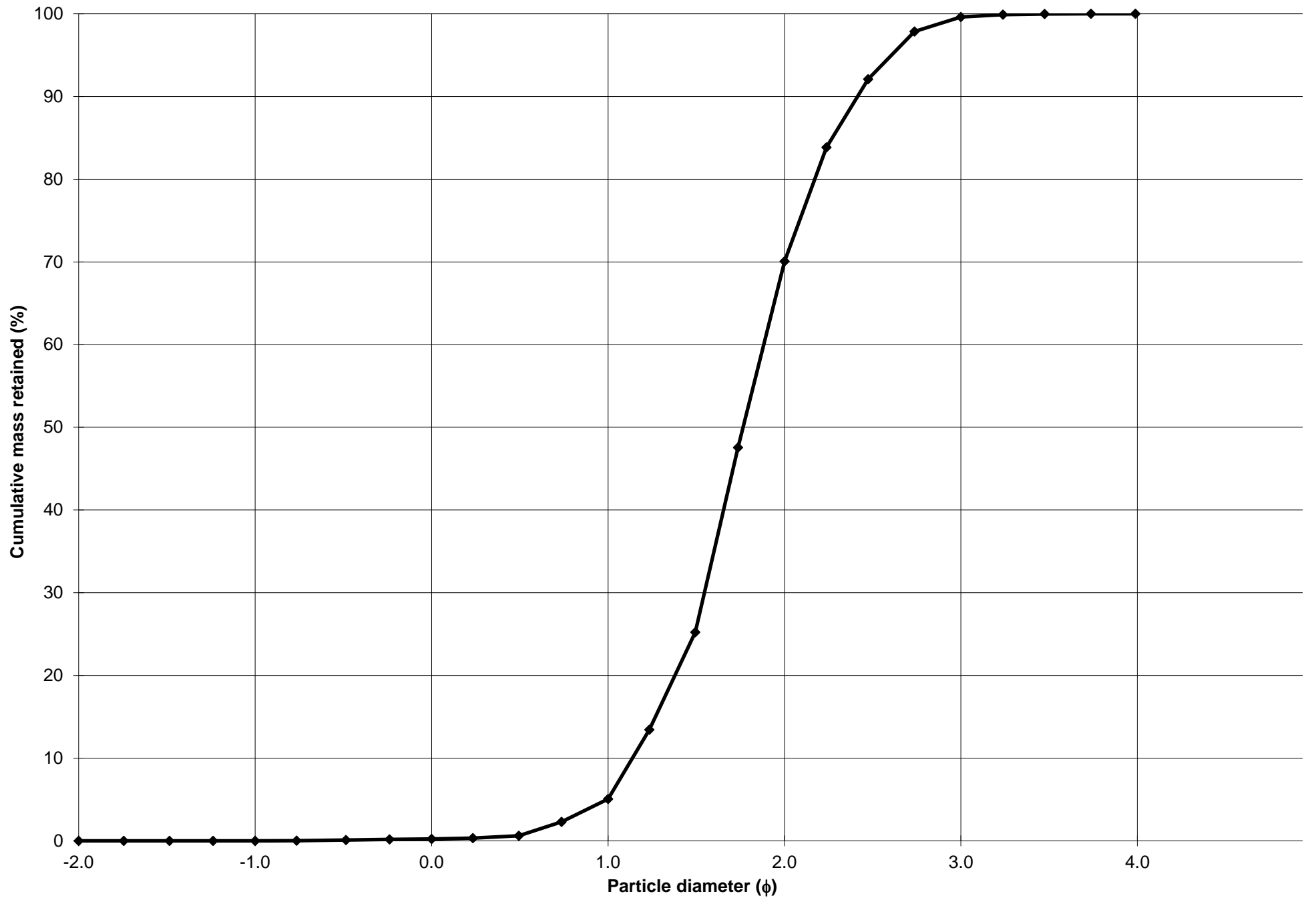
Cumulative Frequency Curve



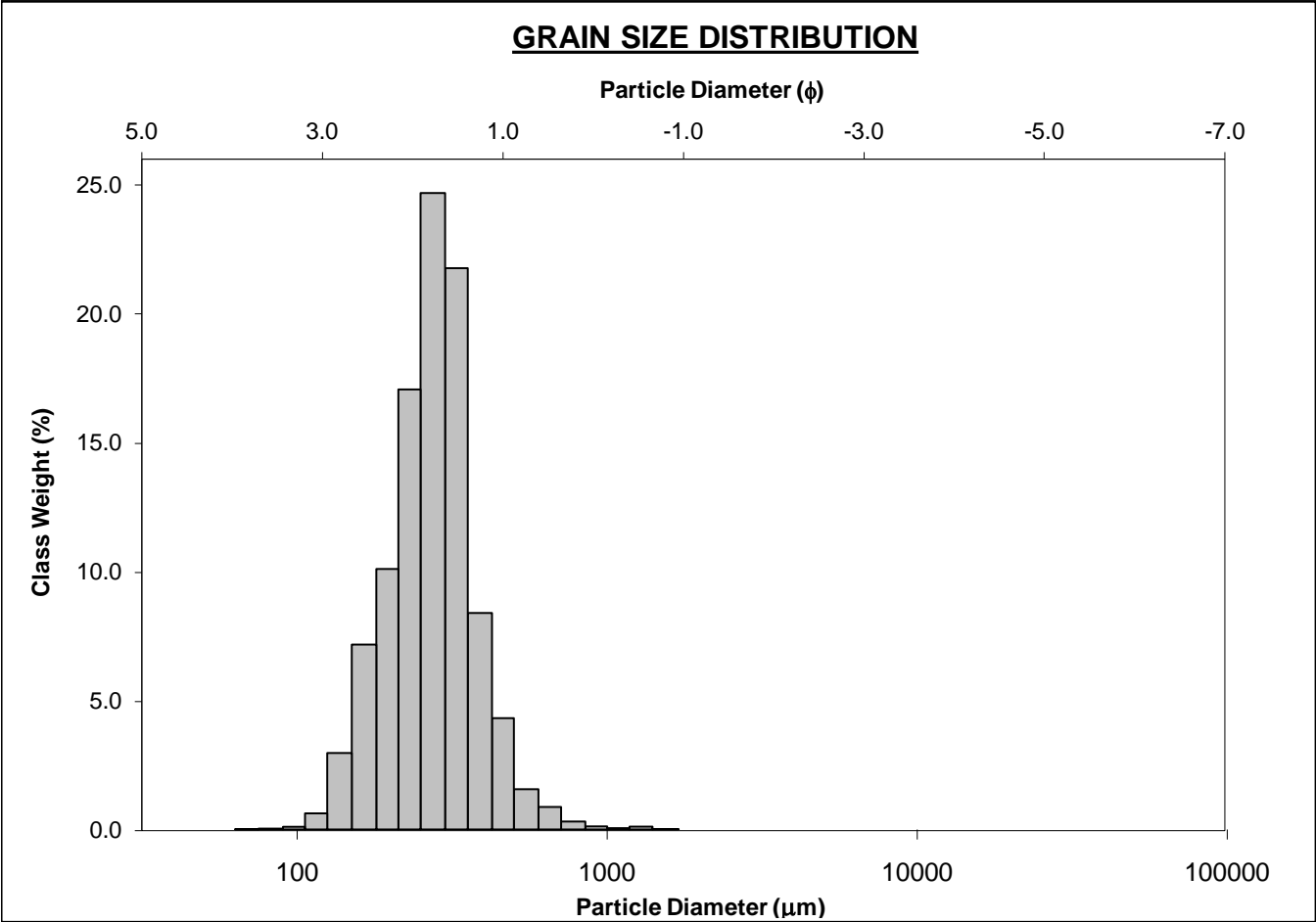
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-60cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%	COARSE SAND: 4.8%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 65.0%		
MODE 3:			MUD: 0.0%	FINE SAND: 29.5%		
D ₁₀ :	187.6	1.138		V FINE SAND: 0.4%		
MEDIAN or D ₅₀ :	294.1	1.766	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	454.4	2.414	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.422	2.122	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	266.8	1.276	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.512	1.400	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	120.6	0.596	V COARSE SAND: 0.2%	CLAY: 0.0%		
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	312.6	293.3	1.770	294.0	1.766	Medium Sand
SORTING (σ):	119.2	1.406	0.492	1.397	0.482	Well Sorted
SKEWNESS (Sk):	2.700	0.207	-0.207	-0.023	0.023	Symmetrical
KURTOSIS (K):	22.94	3.873	3.873	1.109	1.109	Mesokurtic



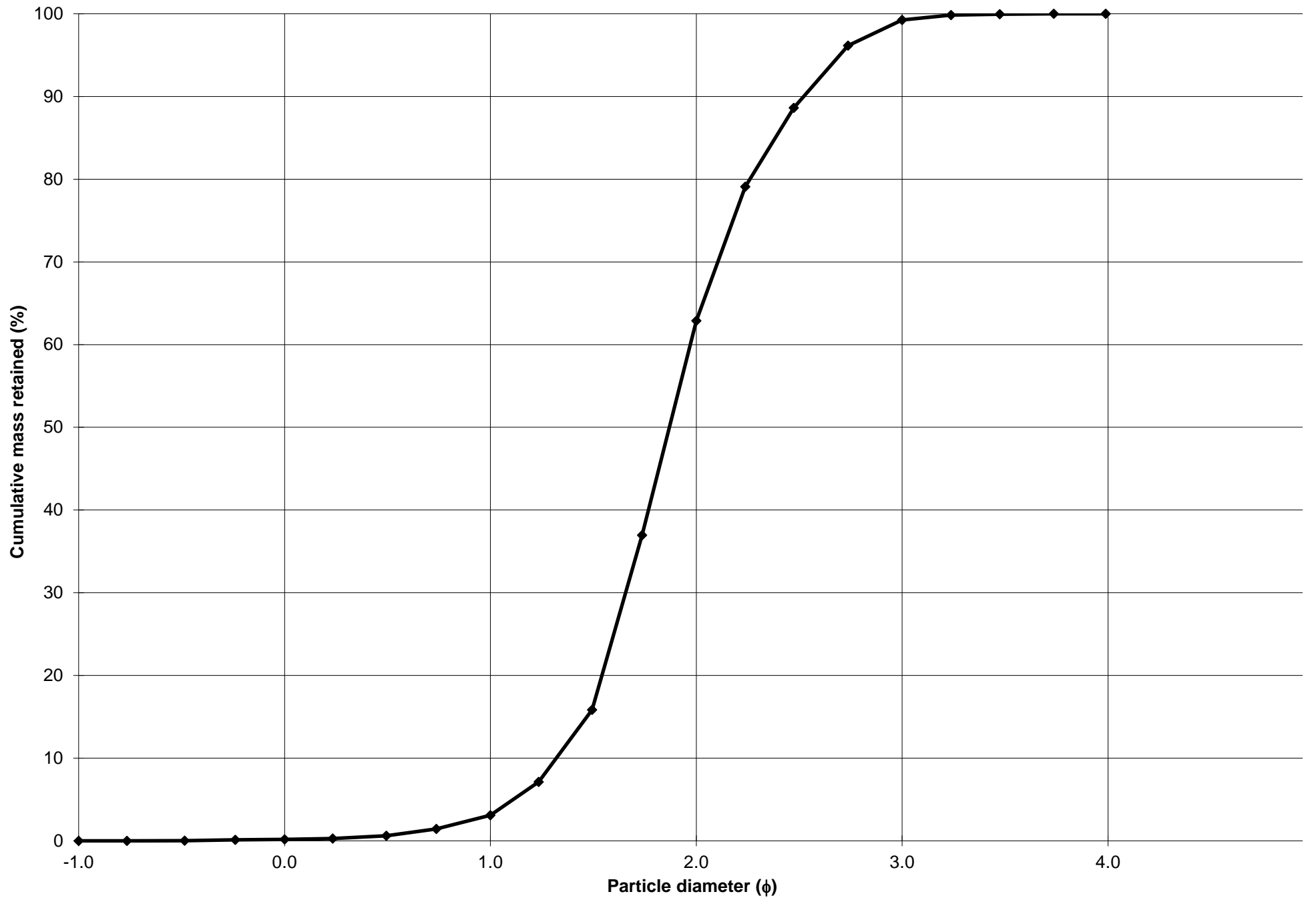
Cumulative Frequency Curve



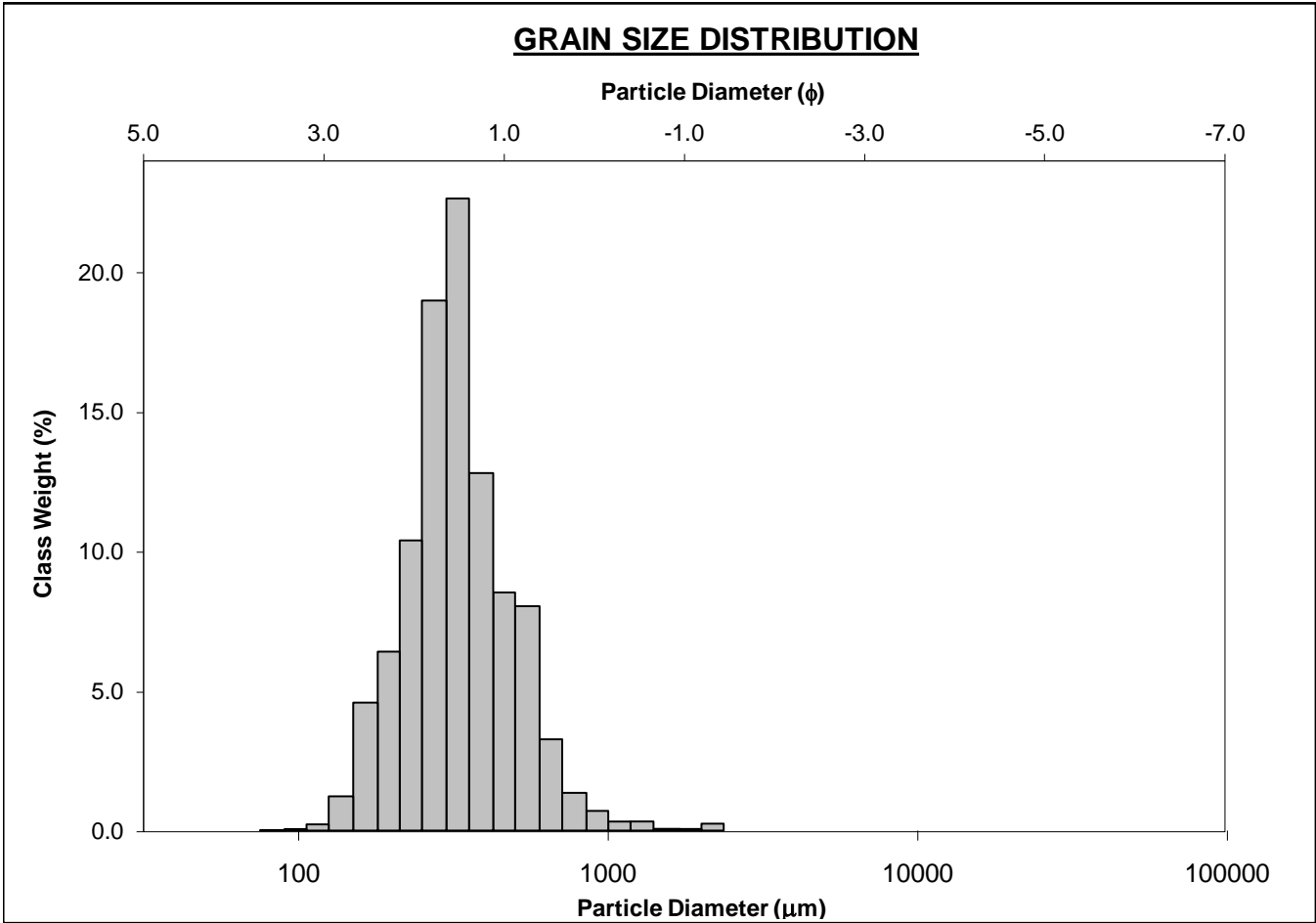
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-70cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 2.9%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 59.8%	
MODE 3:			MUD: 0.0%		FINE SAND: 36.4%	
D ₁₀ :	174.1	1.320			V FINE SAND: 0.7%	
MEDIAN or D ₅₀ :	273.7	1.869	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	400.6	2.522	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.301	1.911	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	226.5	1.202	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.493	1.362	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	109.0	0.578	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	287.0	270.4	1.887	266.4	1.908	Medium Sand
SORTING (σ):	105.4	1.389	0.474	1.372	0.456	Well Sorted
SKEWNESS (Sk):	2.603	0.189	-0.189	-0.089	0.089	Symmetrical
KURTOSIS (K):	19.94	4.150	4.150	1.124	1.124	Leptokurtic



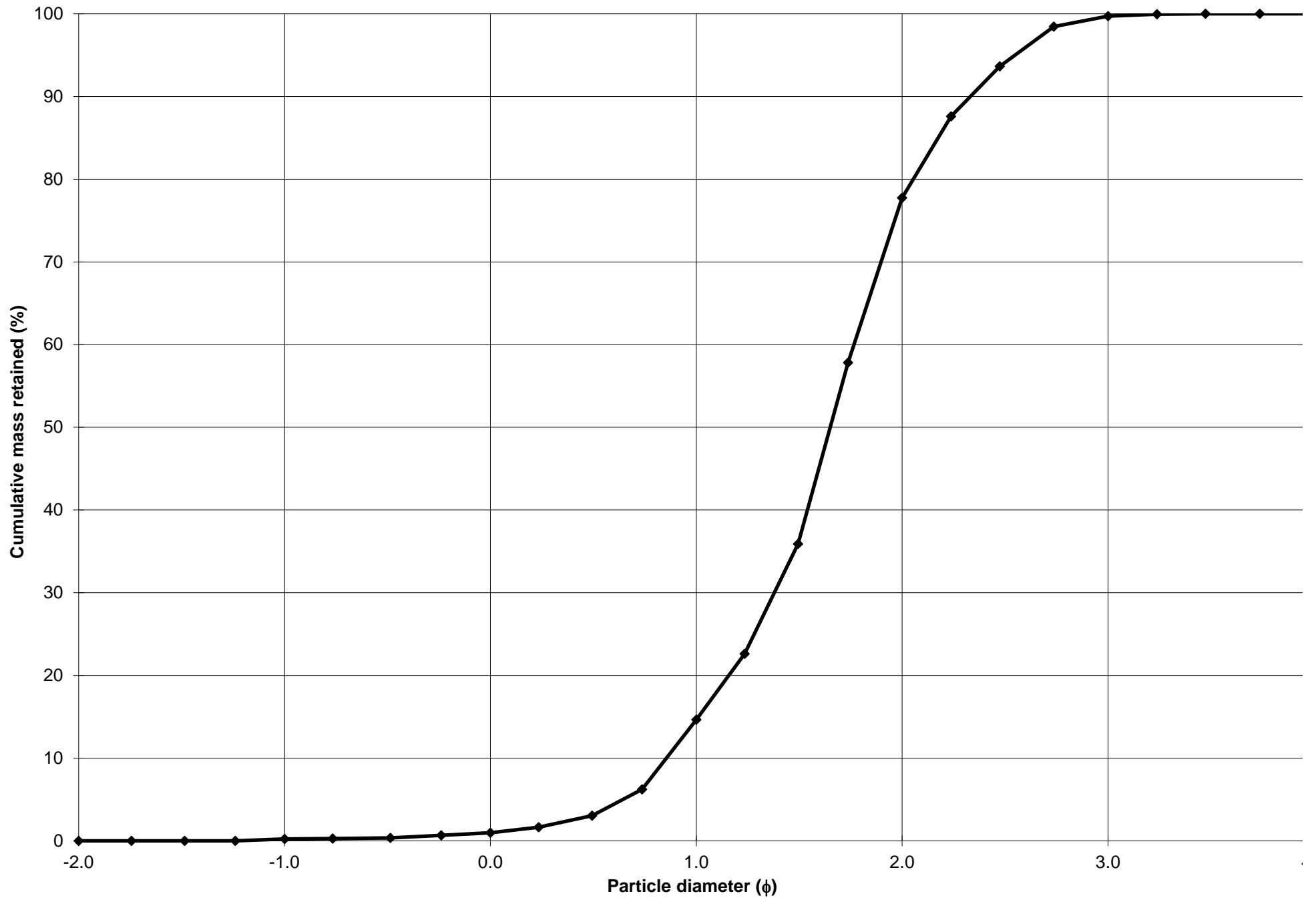
Cumulative Frequency Curve



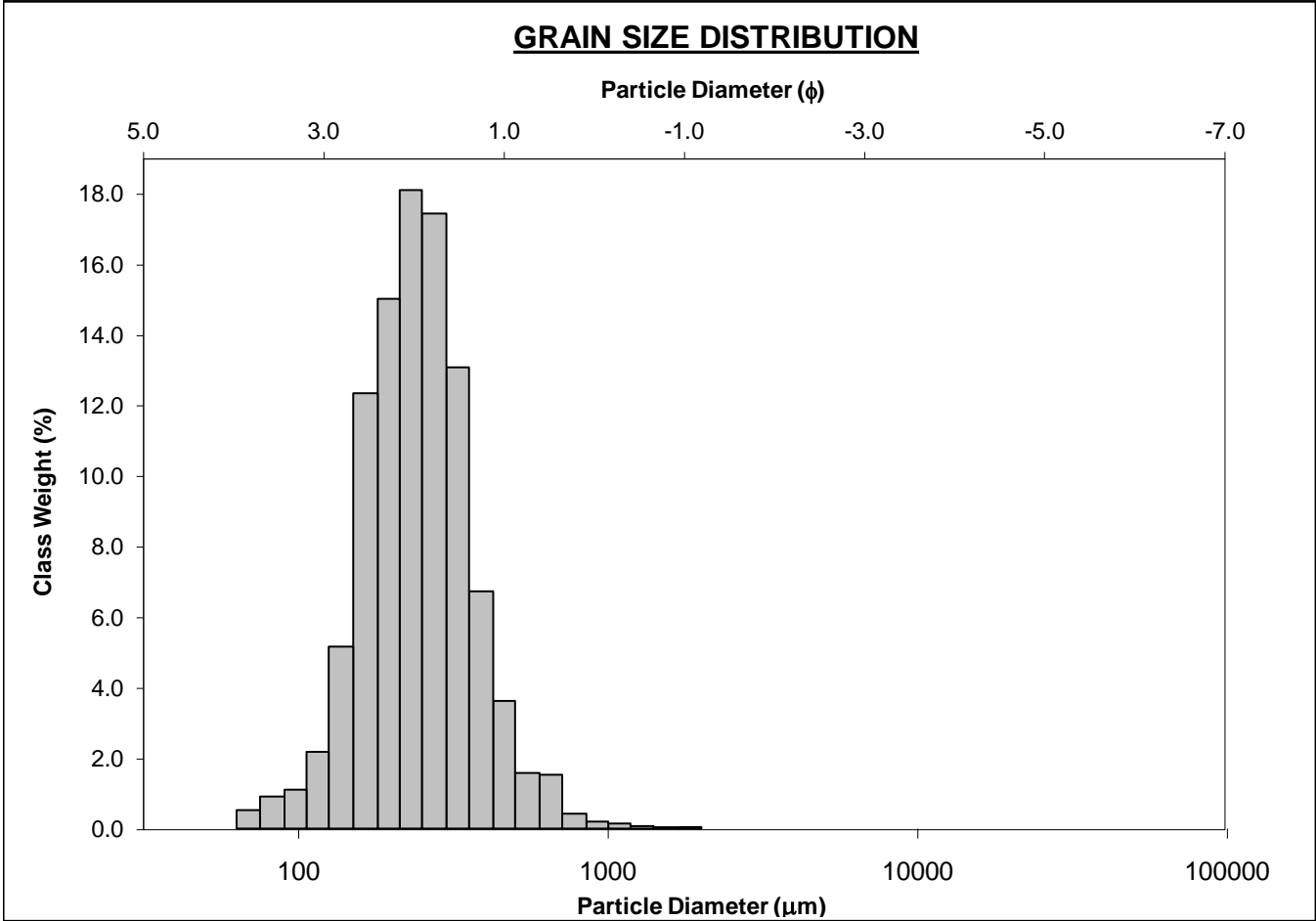
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-80cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.2%		COARSE SAND: 13.7%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 63.1%	
MODE 3:			MUD: 0.0%		FINE SAND: 22.0%	
D ₁₀ :	198.6	0.855			V FINE SAND: 0.3%	
MEDIAN or D ₅₀ :	318.5	1.650	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	552.8	2.332	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.783	2.727	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	354.2	1.477	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.605	1.533	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	155.2	0.683	V COARSE SAND: 0.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	358.6	327.1	1.612	326.7	1.614	Medium Sand
SORTING (σ):	182.4	1.493	0.579	1.481	0.566	Moderately Well Sorted
SKEWNESS (Sk):	3.887	0.553	-0.553	0.078	-0.078	Symmetrical
KURTOSIS (K):	31.53	4.433	4.433	1.143	1.143	Leptokurtic



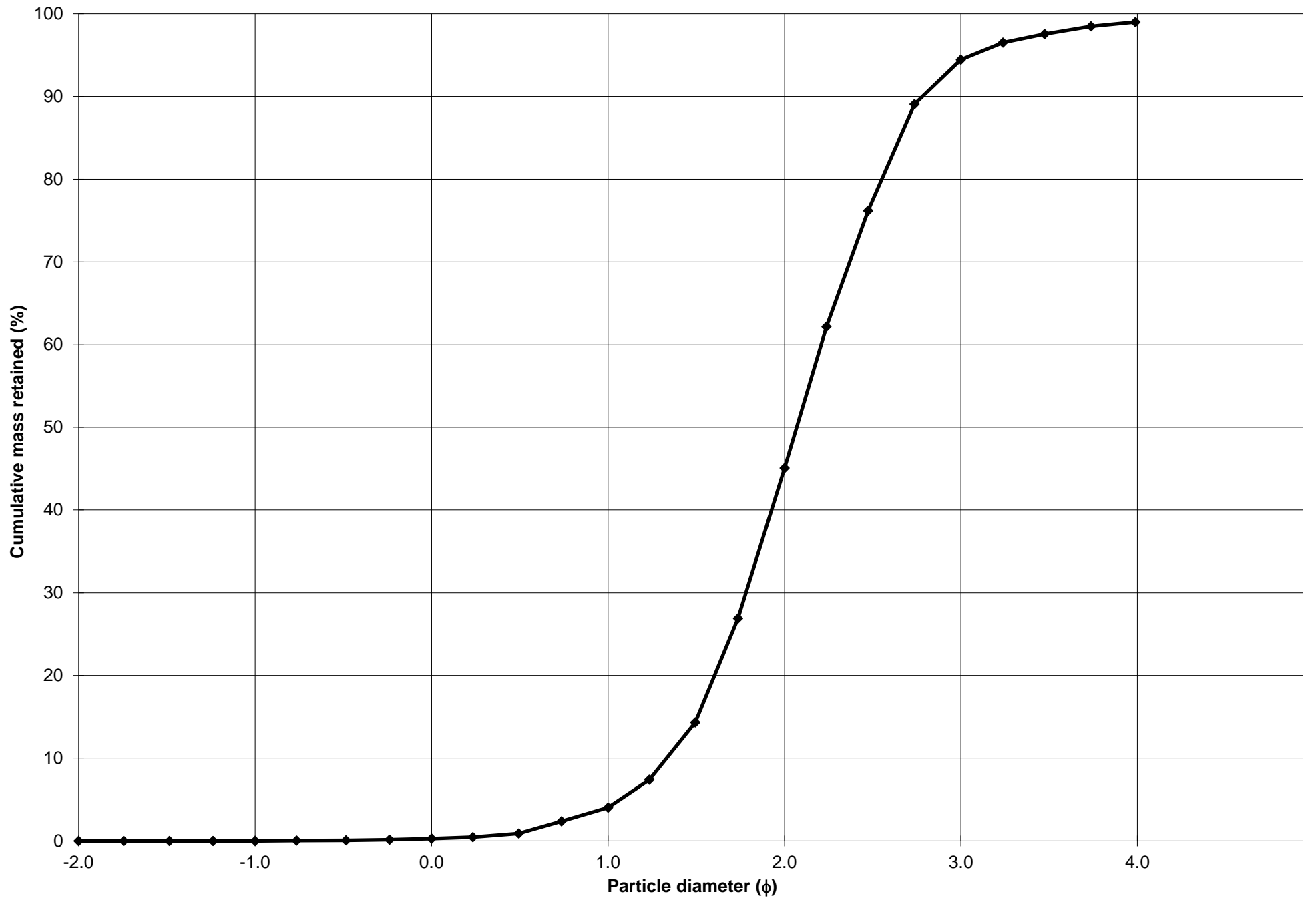
Cumulative Frequency Curve



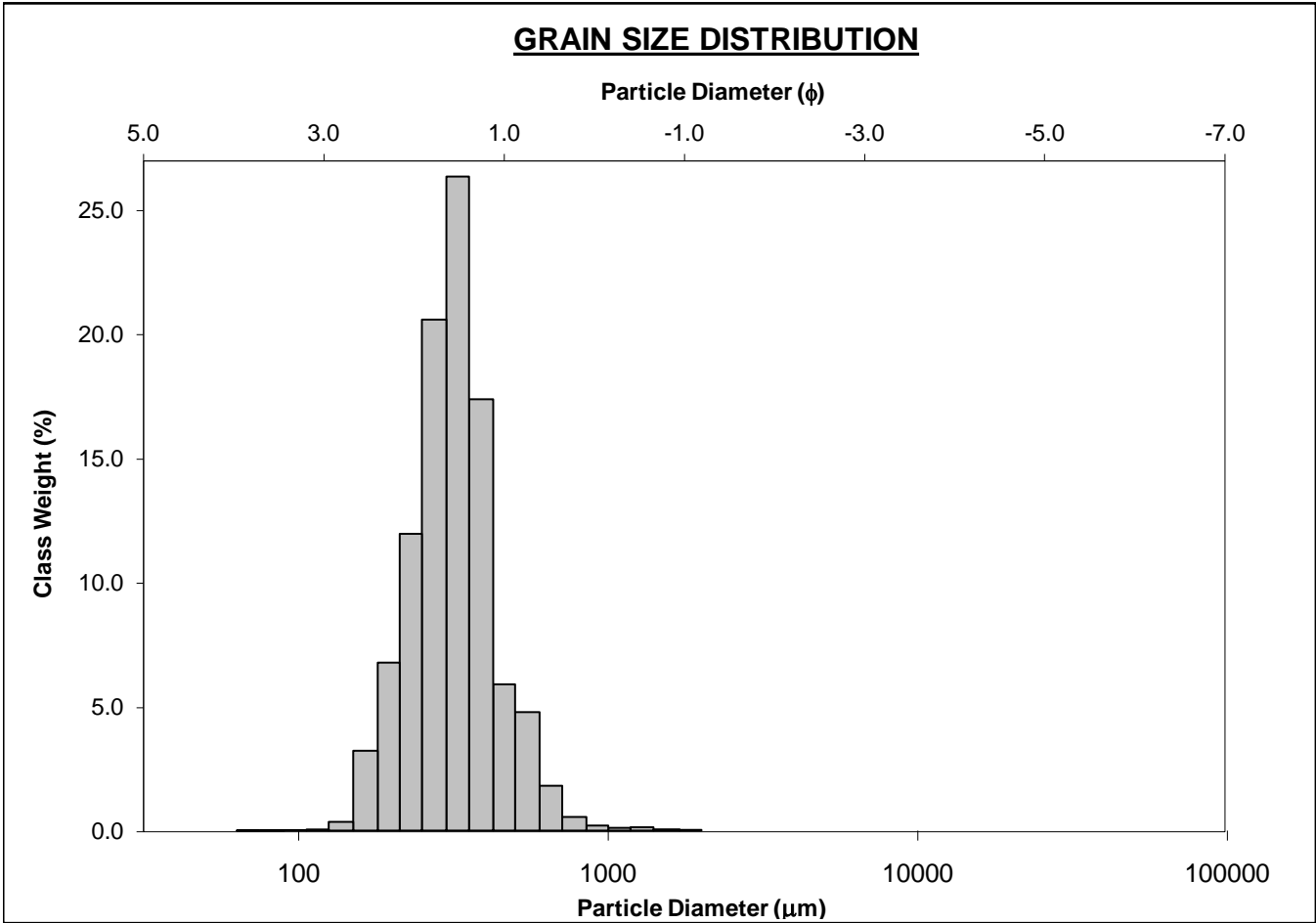
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-90cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 3.7%	
MODE 2:			SAND: 99.0%		MEDIUM SAND: 41.1%	
MODE 3:			MUD: 1.0%		FINE SAND: 49.4%	
D ₁₀ :	145.3	1.333			V FINE SAND: 4.6%	
MEDIAN or D ₅₀ :	238.4	2.069	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	397.0	2.782	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	2.732	2.088	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	251.7	1.450	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.686	1.443	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	125.2	0.753	V COARSE SAND: 0.3%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	261.7	232.5	2.104	237.1	2.076	Fine Sand
SORTING (σ):	128.8	1.705	0.770	1.494	0.579	Moderately Well Sorted
SKEWNESS (Sk):	2.948	-2.352	2.352	-0.009	0.009	Symmetrical
KURTOSIS (K):	23.17	17.74	17.74	1.086	1.086	Mesokurtic



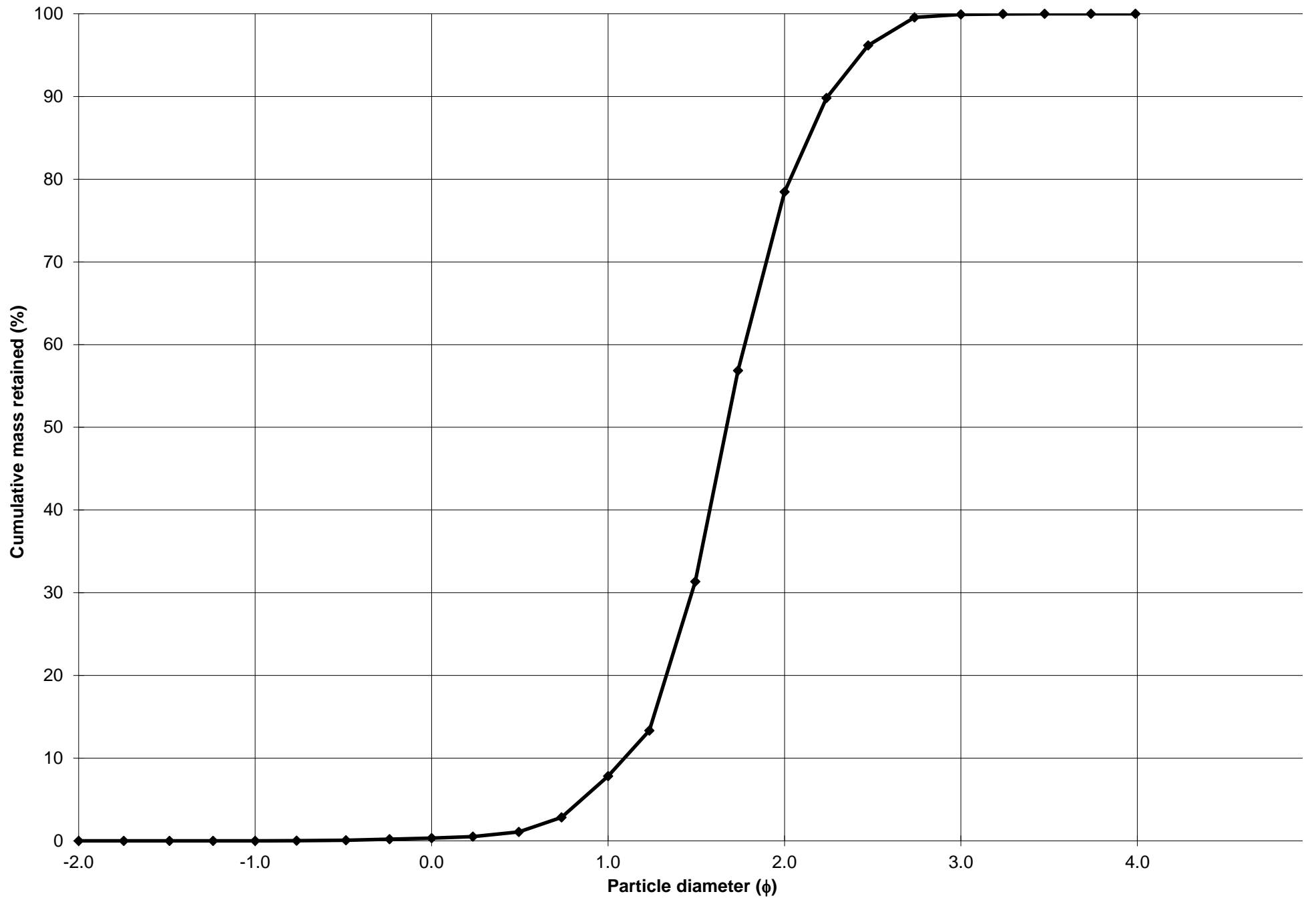
Cumulative Frequency Curve



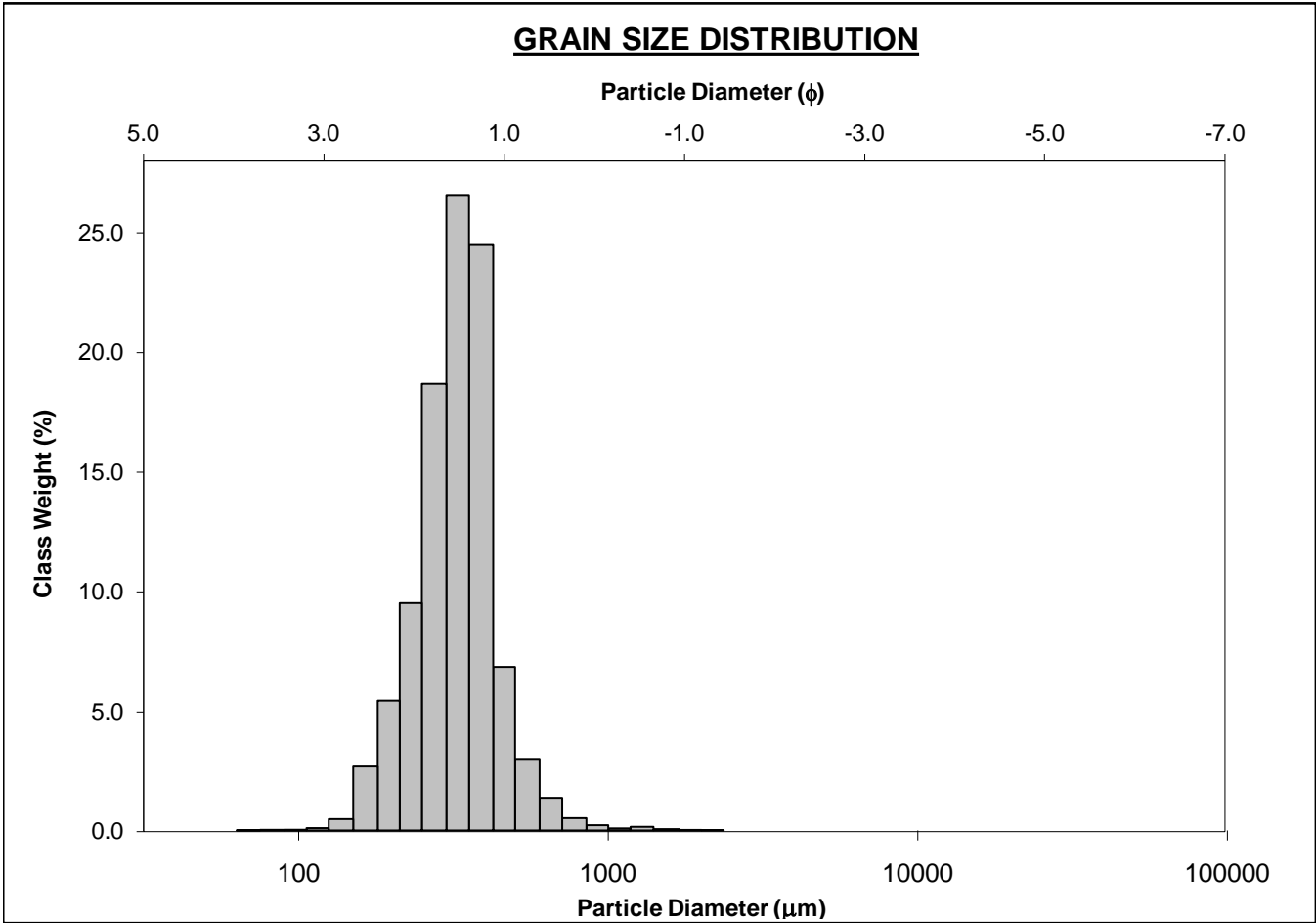
SIEVING ERROR: 0.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-100cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 7.5%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 70.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 21.5%	
D ₁₀ :	211.0	1.092			V FINE SAND: 0.1%	
MEDIAN or D ₅₀ :	313.9	1.672	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	469.0	2.245	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.223	2.055	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	258.0	1.152	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.469	1.396	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	120.8	0.555	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	332.9	314.3	1.670	310.6	1.687	Medium Sand
SORTING (σ):	122.3	1.376	0.461	1.366	0.450	Well Sorted
SKEWNESS (Sk):	2.819	0.361	-0.361	-0.007	0.007	Symmetrical
KURTOSIS (K):	21.93	4.757	4.757	1.166	1.166	Leptokurtic



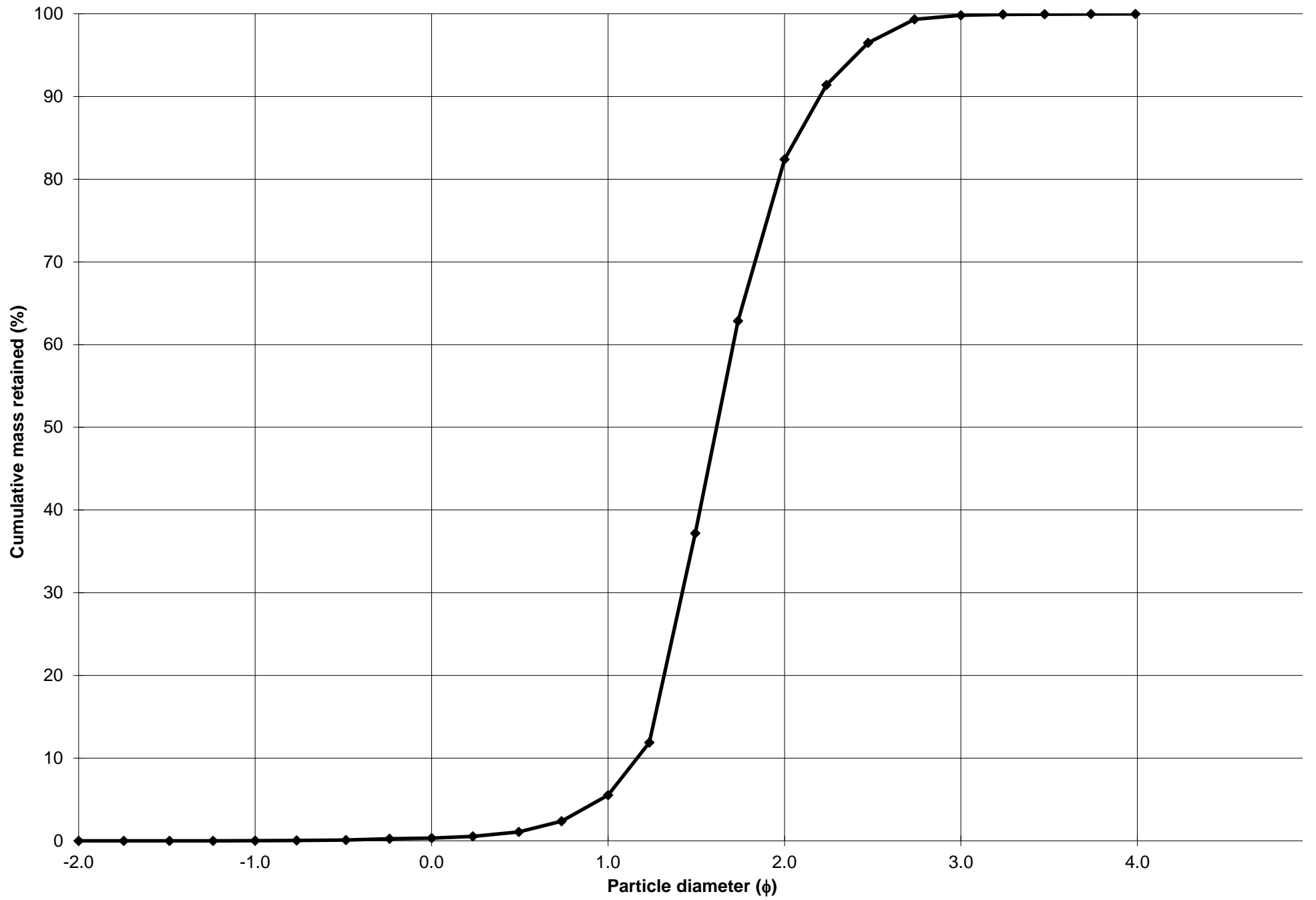
Cumulative Frequency Curve



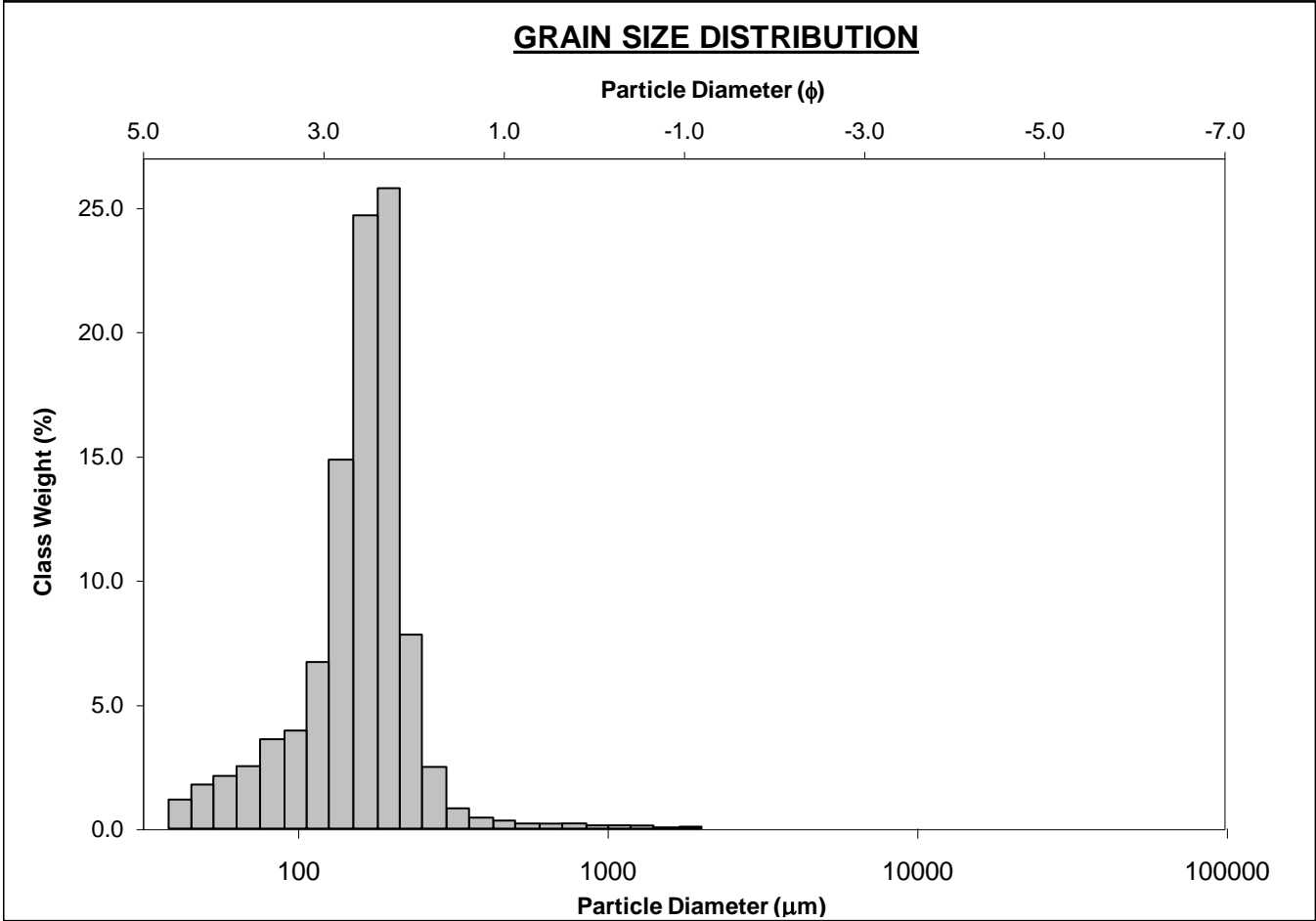
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-110cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 5.2%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 76.9%	
MODE 3:			MUD: 0.0%		FINE SAND: 17.4%	
D ₁₀ :	217.5	1.165			V FINE SAND: 0.2%	
MEDIAN or D ₅₀ :	326.4	1.615	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	446.0	2.201	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.051	1.889	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	228.5	1.036	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.445	1.388	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	119.3	0.531	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	338.6	321.4	1.637	319.8	1.645	Medium Sand
SORTING (σ):	117.7	1.359	0.443	1.329	0.411	Well Sorted
SKEWNESS (Sk):	3.407	-0.053	0.053	-0.103	0.103	Fine Skewed
KURTOSIS (K):	32.60	7.899	7.899	1.117	1.117	Leptokurtic



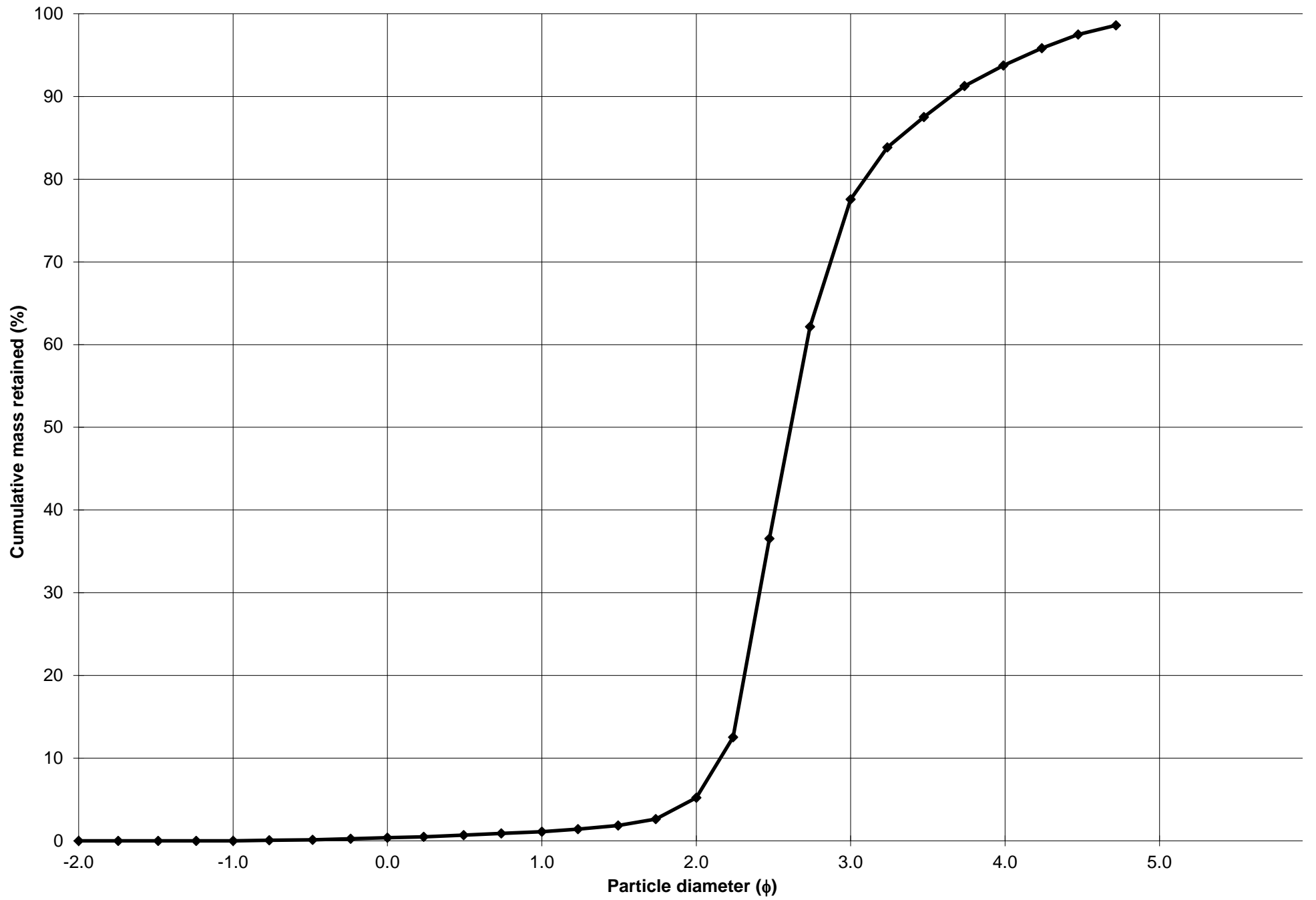
Cumulative Frequency Curve



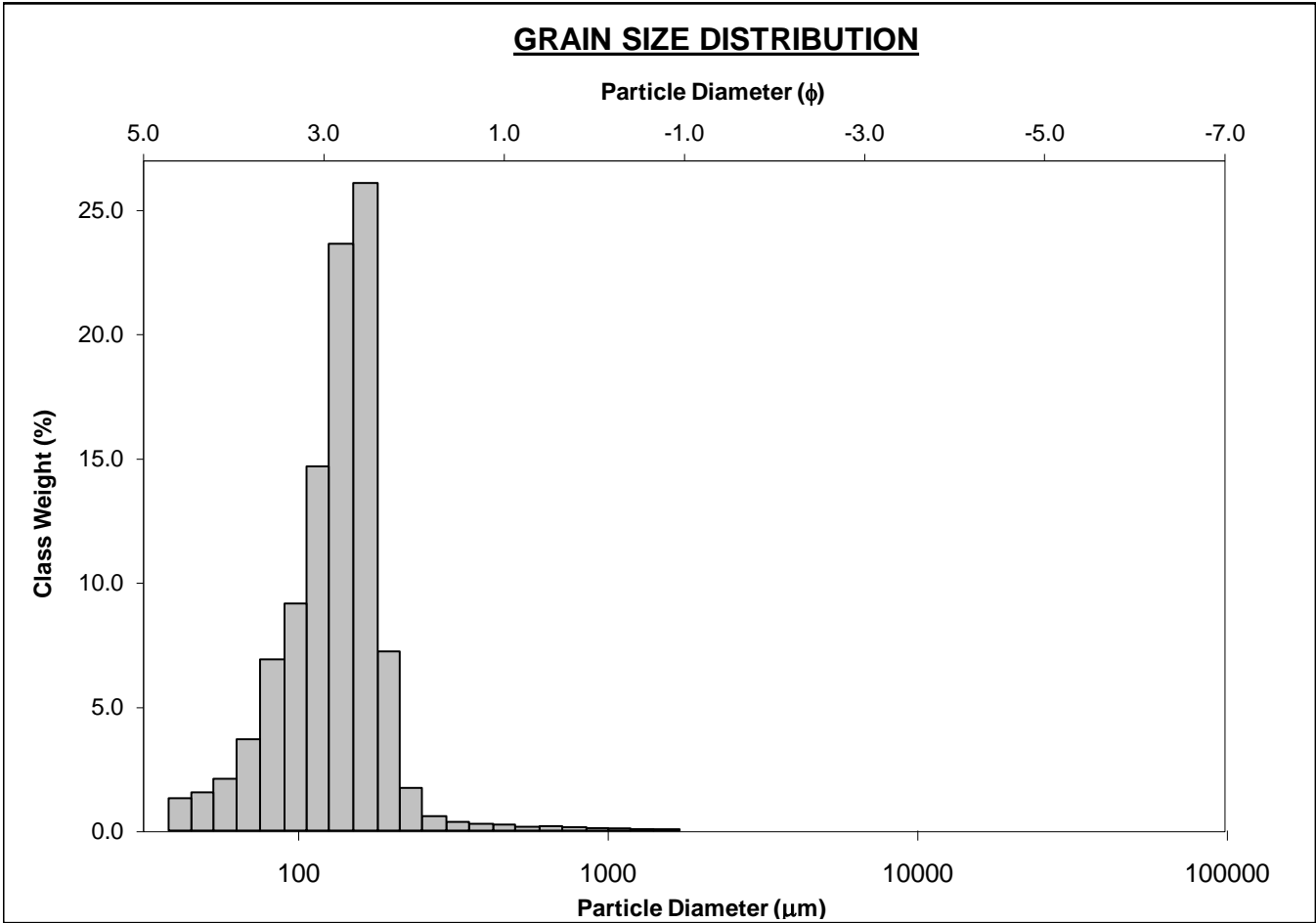
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-120cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 0.7%	
MODE 2:			SAND: 93.8%		MEDIUM SAND: 4.1%	
MODE 3:			MUD: 6.2%		FINE SAND: 72.3%	
D_{10} :	79.74	2.156			V FINE SAND: 16.3%	
MEDIAN or D_{50} :	163.6	2.612	V COARSE GRAVEL: 0.0%		V COARSE SILT: 4.8%	
D_{90} :	224.5	3.649	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D_{90} / D_{10}) :	2.815	1.693	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
$(D_{90} - D_{10})$:	144.7	1.493	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D_{75} / D_{25}) :	1.511	1.252	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
$(D_{75} - D_{25})$:	65.89	0.596	V COARSE SAND: 0.4%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	168.9	147.1	2.765	152.8	2.711	Fine Sand
SORTING (σ):	106.4	1.779	0.831	1.486	0.571	Moderately Well Sorted
SKEWNESS (Sk):	7.350	-2.271	2.271	-0.358	0.358	Very Fine Skewed
KURTOSIS (K):	89.05	15.22	15.22	1.486	1.486	Leptokurtic



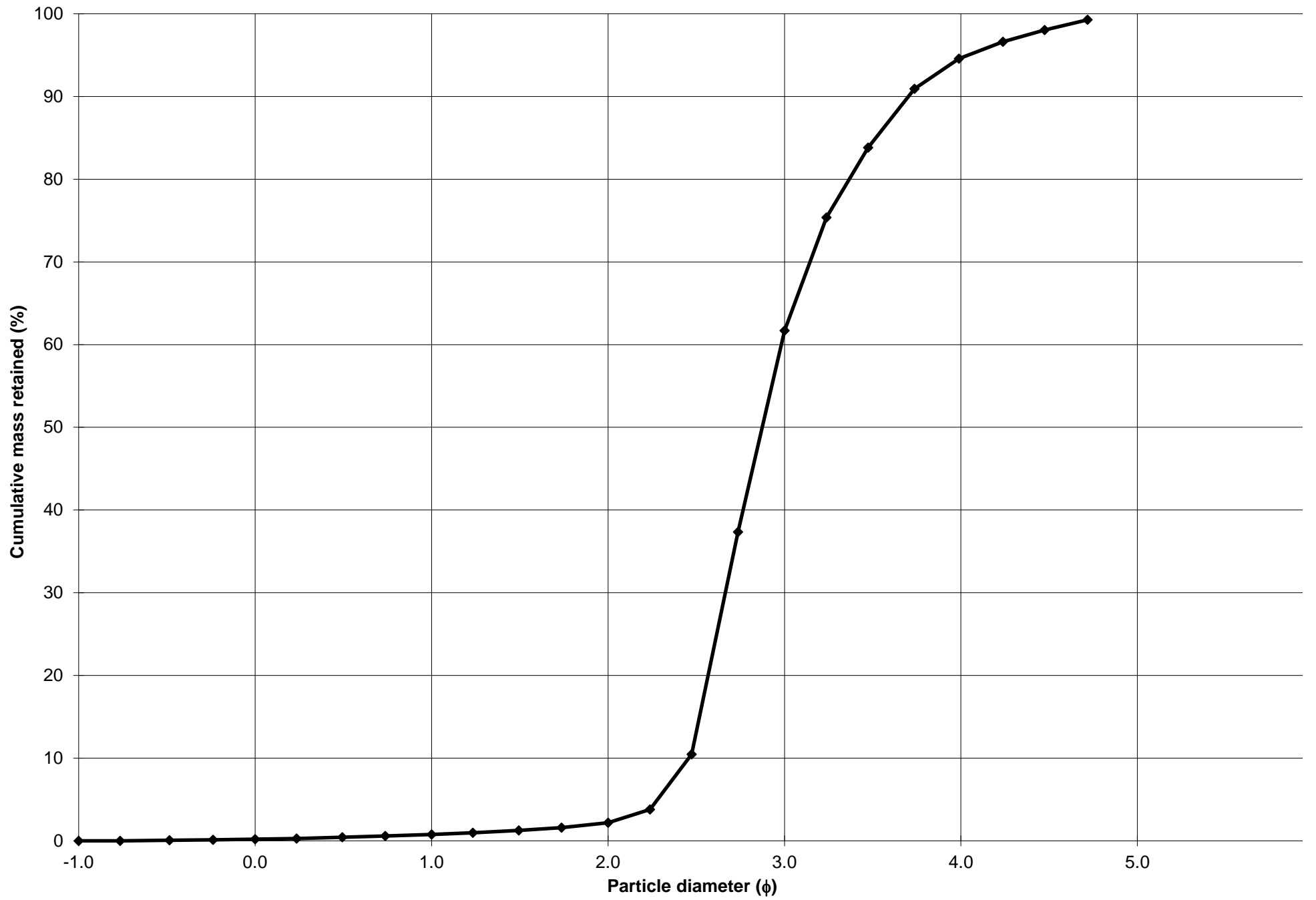
Cumulative Frequency Curve



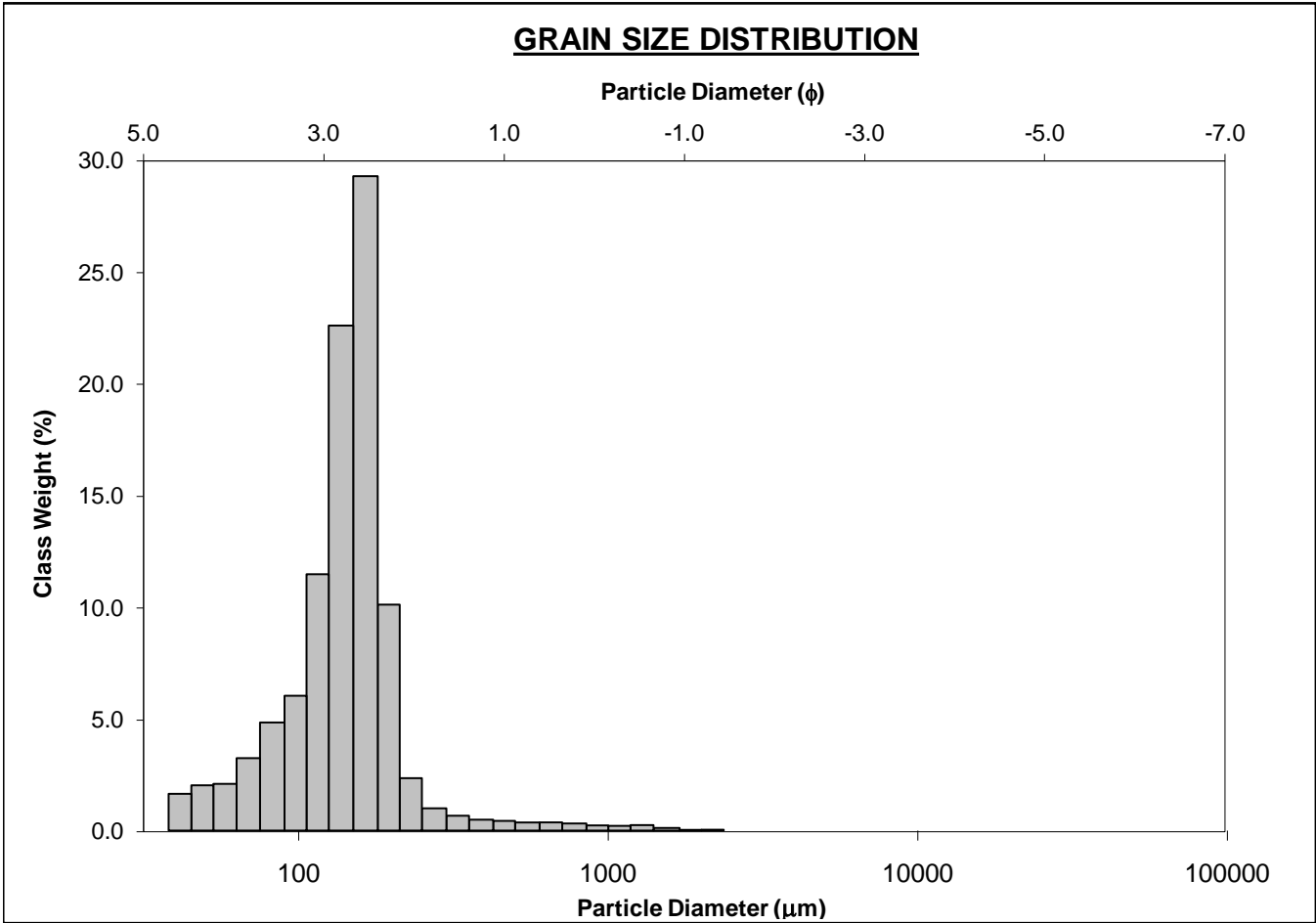
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-130cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.6%	
MODE 2:			SAND: 94.7%		MEDIUM SAND: 1.4%	
MODE 3:			MUD: 5.3%		FINE SAND: 59.5%	
D ₁₀ :	76.83	2.457			V FINE SAND: 33.0%	
MEDIAN or D ₅₀ :	136.4	2.874	V COARSE GRAVEL: 0.0%		V COARSE SILT: 4.7%	
D ₉₀ :	182.1	3.702	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.370	1.507	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	105.2	1.245	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.532	1.235	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	56.62	0.615	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	140.9	126.9	2.979	128.5	2.961	Fine Sand
SORTING (σ):	82.40	1.599	0.677	1.419	0.505	Moderately Well Sorted
SKEWNESS (Sk):	7.964	-1.738	1.738	-0.300	0.300	Very Fine Skewed
KURTOSIS (K):	103.6	16.33	16.33	1.173	1.173	Leptokurtic



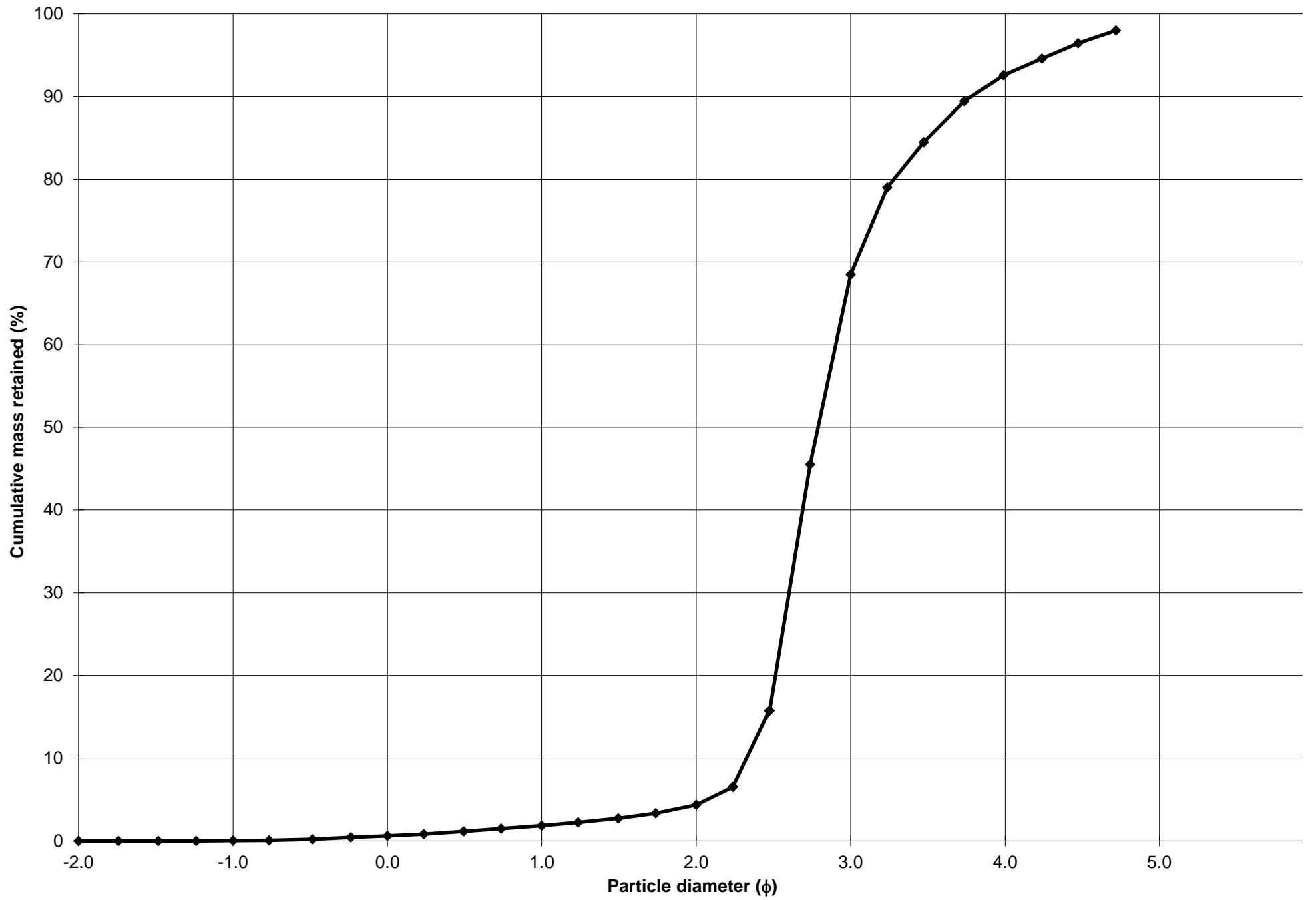
Cumulative Frequency Curve



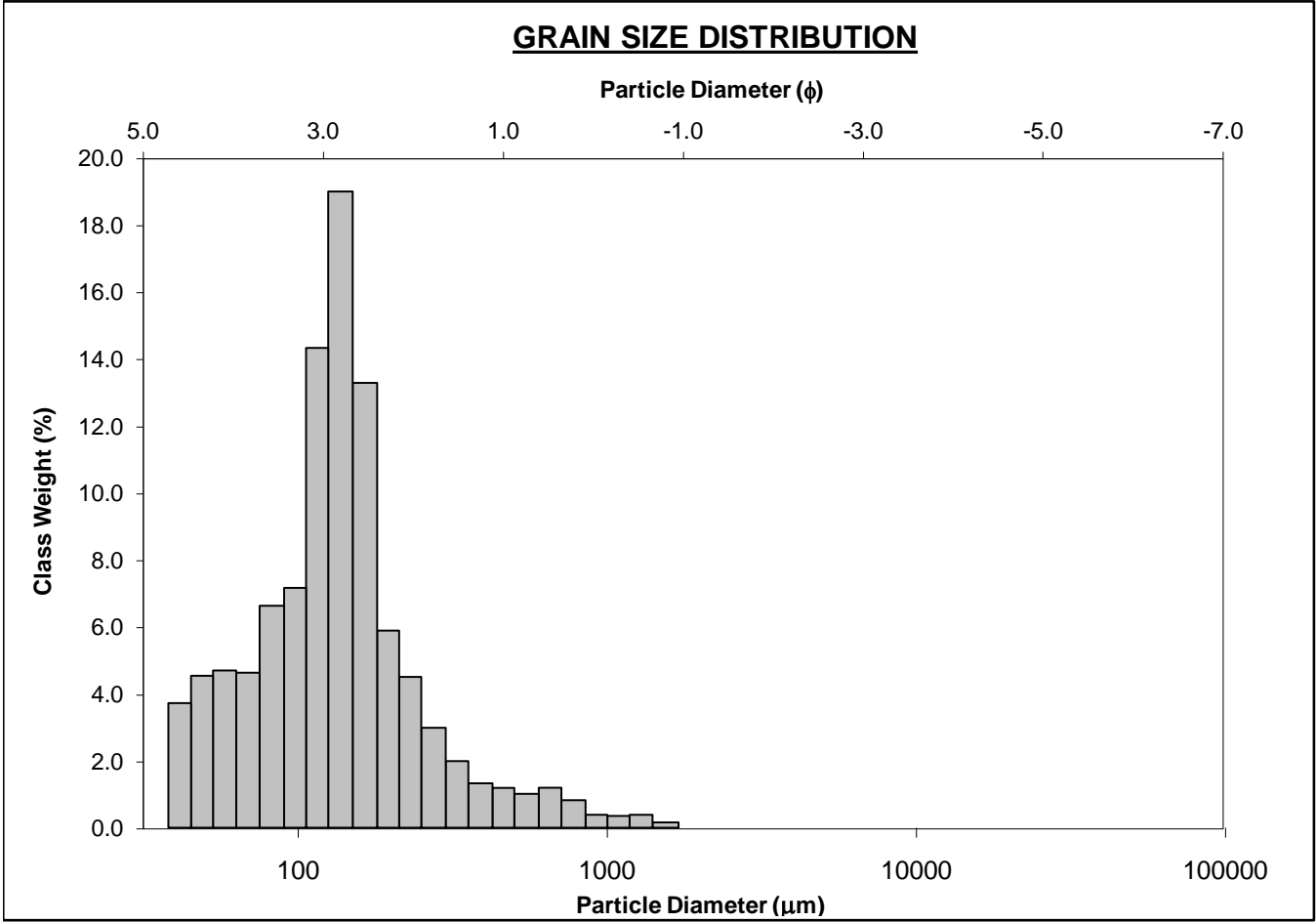
SIEVING ERROR: 1.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-140cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 1.2%	
MODE 2:			SAND: 92.6%		MEDIUM SAND: 2.5%	
MODE 3:			MUD: 7.3%		FINE SAND: 64.1%	
D ₁₀ :	72.62	2.327			V FINE SAND: 24.2%	
MEDIAN or D ₅₀ :	144.7	2.788	V COARSE GRAVEL: 0.0%		V COARSE SILT: 5.4%	
D ₉₀ :	199.3	3.783	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D ₉₀ / D ₁₀):	2.745	1.626	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
(D ₉₀ - D ₁₀):	126.7	1.457	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D ₇₅ / D ₂₅):	1.507	1.232	V FINE GRAVEL: 0.0%		V FINE SILT: 0.4%	
(D ₇₅ - D ₂₅):	57.23	0.592	V COARSE SAND: 0.6%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	156.2	130.6	2.936	133.4	2.906	Fine Sand
SORTING (σ):	128.5	1.883	0.913	1.496	0.581	Moderately Well Sorted
SKEWNESS (Sk):	7.149	-1.876	1.876	-0.356	0.356	Very Fine Skewed
KURTOSIS (K):	73.29	13.49	13.49	1.539	1.539	Very Leptokurtic



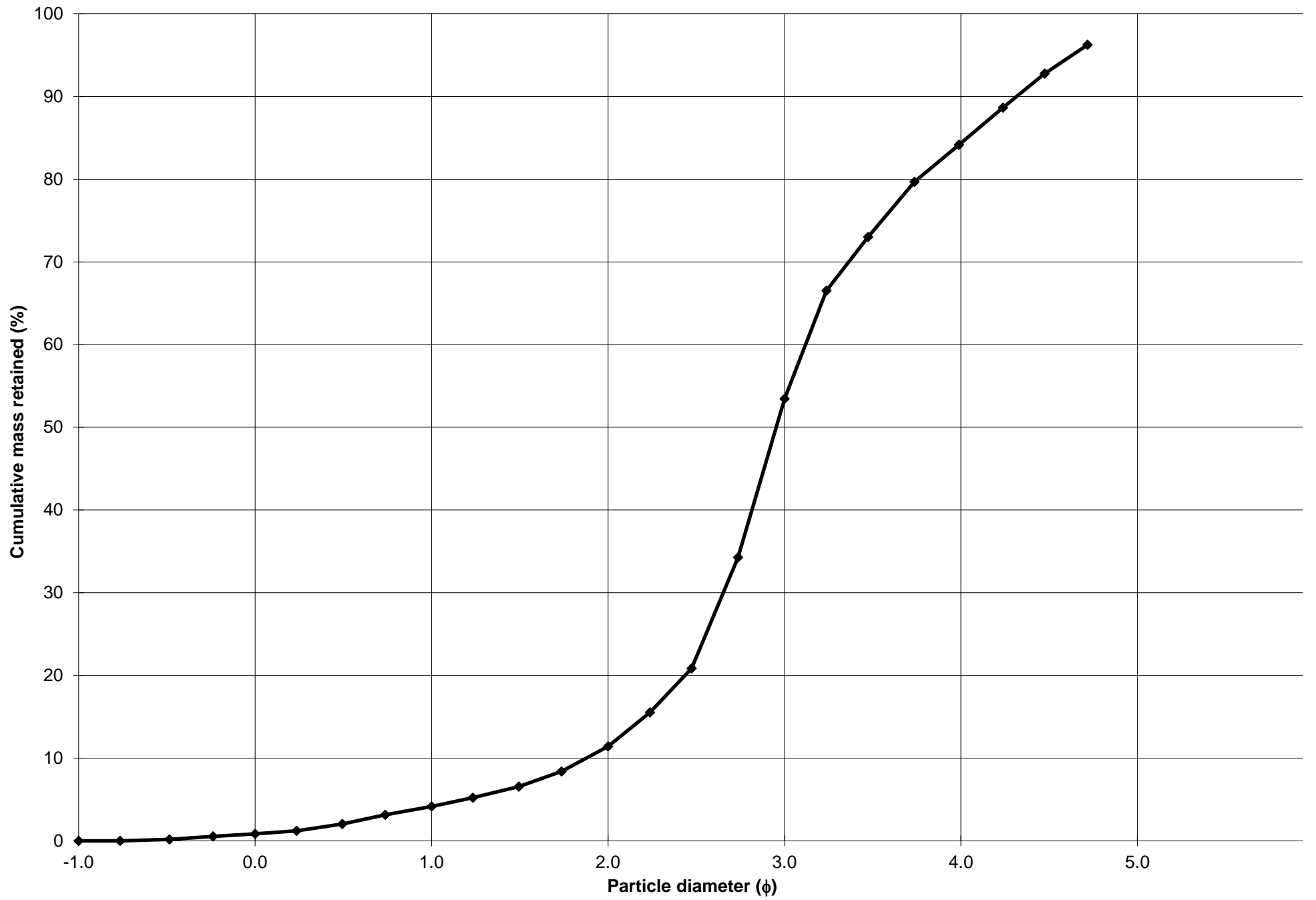
Cumulative Frequency Curve



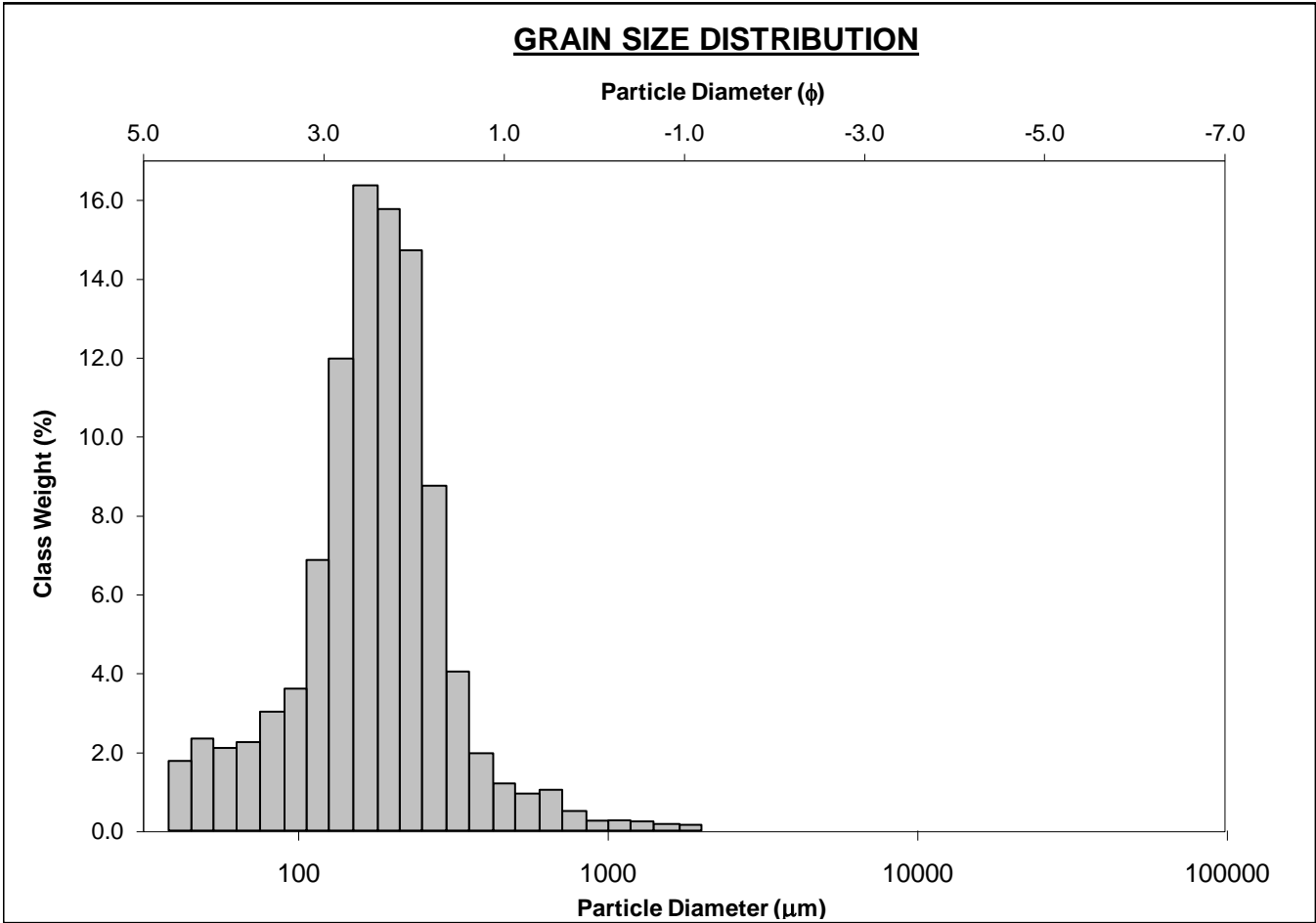
SIEVING ERROR: 1.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-150cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Muddy Sand			
SEDIMENT NAME: Very Coarse Silty Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 3.3%	
MODE 2:	58.00	4.113	SAND: 84.4%		MEDIUM SAND: 7.3%	
MODE 3:			MUD: 15.6%		FINE SAND: 42.0%	
D ₁₀ :	50.24	1.877			V FINE SAND: 30.9%	
MEDIAN or D ₅₀ :	129.2	2.953	V COARSE GRAVEL: 0.0%		V COARSE SILT: 12.1%	
D ₉₀ :	272.3	4.315	COARSE GRAVEL: 0.0%		COARSE SILT: 0.7%	
(D ₉₀ / D ₁₀):	5.421	2.299	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.7%	
(D ₉₀ - D ₁₀):	222.1	2.439	FINE GRAVEL: 0.0%		FINE SILT: 0.7%	
(D ₇₅ / D ₂₅):	1.996	1.390	V FINE GRAVEL: 0.0%		V FINE SILT: 0.7%	
(D ₇₅ - D ₂₅):	84.90	0.997	V COARSE SAND: 0.9%		CLAY: 0.7%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	163.1	117.9	3.084	119.6	3.064	Very Fine Sand
SORTING (σ):	163.2	2.343	1.229	1.935	0.952	Moderately Sorted
SKEWNESS (Sk):	4.114	-1.081	1.081	-0.084	0.084	Symmetrical
KURTOSIS (K):	25.33	6.991	6.991	1.416	1.416	Leptokurtic



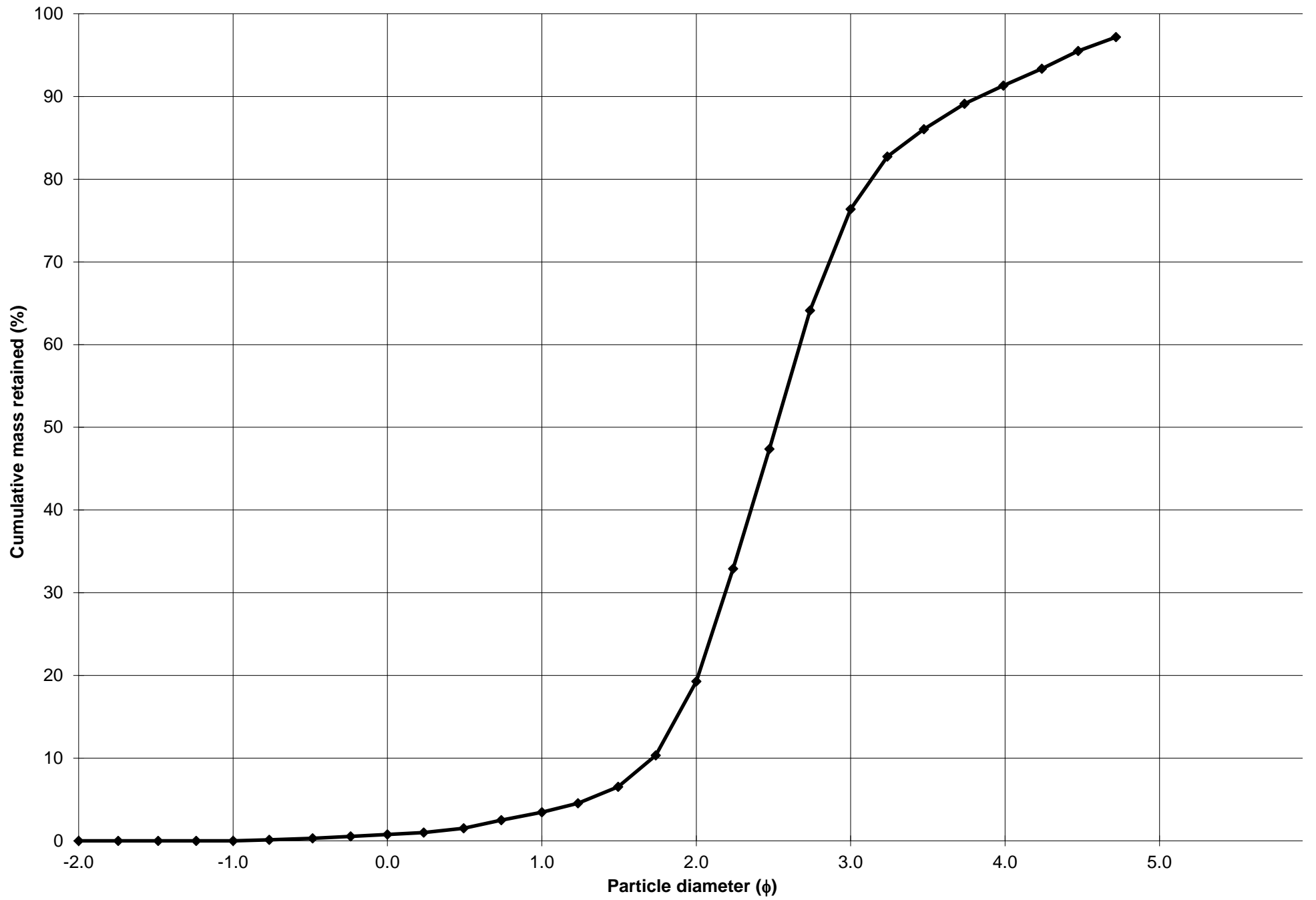
Cumulative Frequency Curve



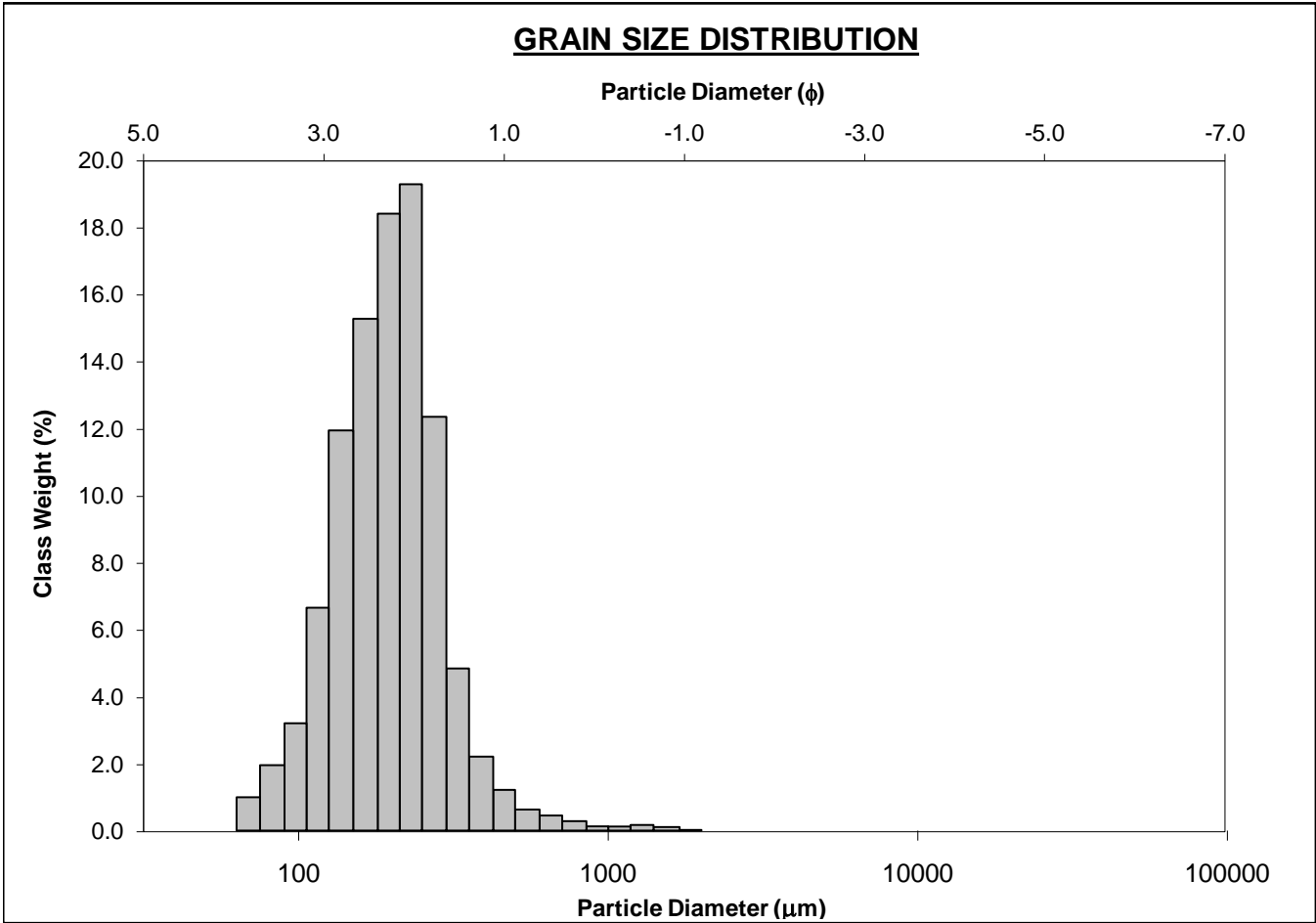
SIEVING ERROR: 1.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-160cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 2.7%	
MODE 2:			SAND: 91.4%		MEDIUM SAND: 15.8%	
MODE 3:			MUD: 8.6%		FINE SAND: 57.1%	
D ₁₀ :	69.97	1.716			V FINE SAND: 15.0%	
MEDIAN or D ₅₀ :	174.9	2.515	V COARSE GRAVEL: 0.0%		V COARSE SILT: 5.9%	
D ₉₀ :	304.4	3.837	COARSE GRAVEL: 0.0%		COARSE SILT: 0.5%	
(D ₉₀ / D ₁₀):	4.351	2.236	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.5%	
(D ₉₀ - D ₁₀):	234.5	2.121	FINE GRAVEL: 0.0%		FINE SILT: 0.5%	
(D ₇₅ / D ₂₅):	1.828	1.415	V FINE GRAVEL: 0.0%		V FINE SILT: 0.5%	
(D ₇₅ - D ₂₅):	105.7	0.870	V COARSE SAND: 0.8%		CLAY: 0.5%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	200.8	157.6	2.666	167.0	2.582	Fine Sand
SORTING (σ):	157.7	2.194	1.133	1.777	0.830	Moderately Sorted
SKEWNESS (Sk):	4.612	-1.793	1.793	-0.180	0.180	Fine Skewed
KURTOSIS (K):	36.40	9.560	9.560	1.471	1.471	Leptokurtic



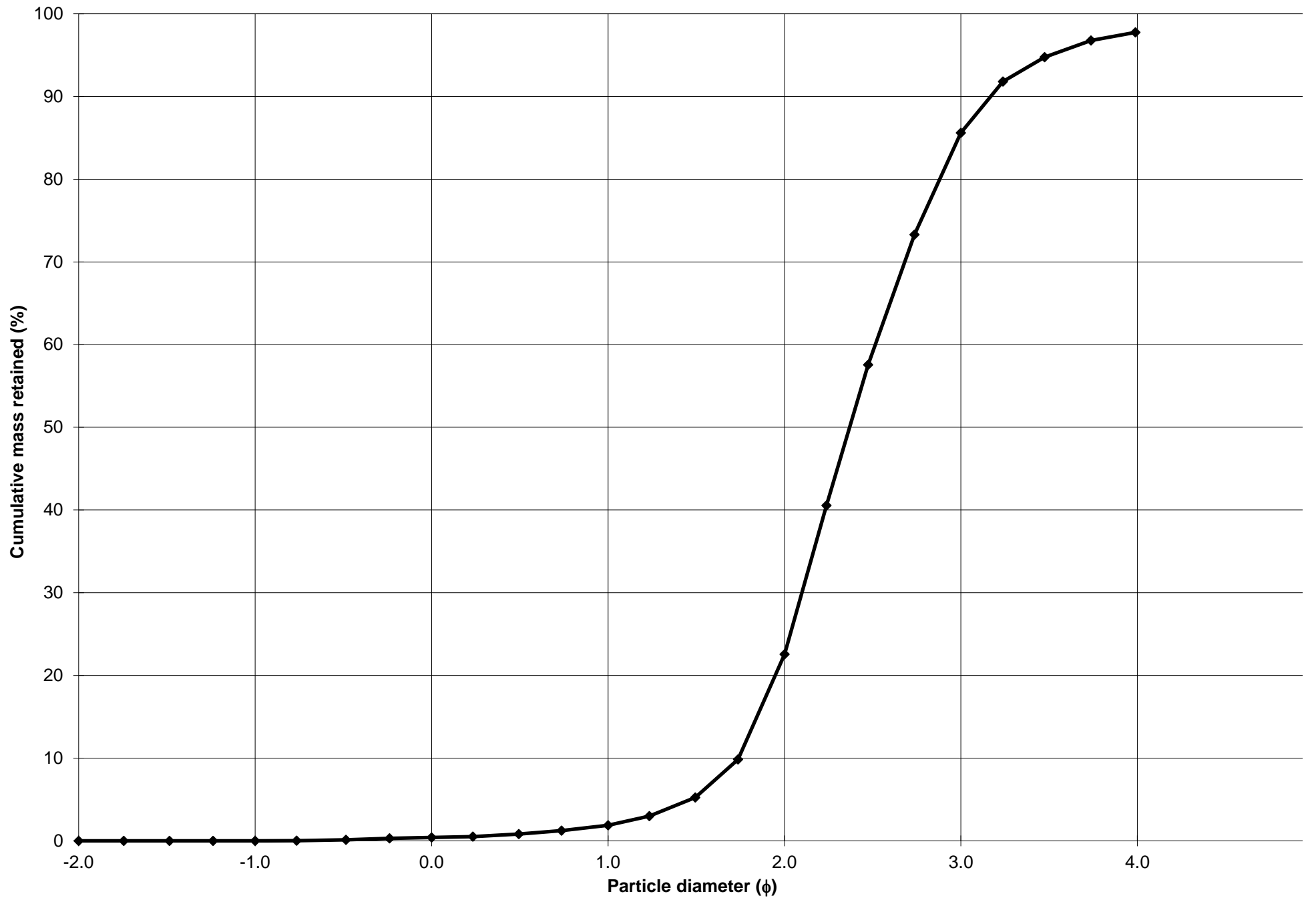
Cumulative Frequency Curve



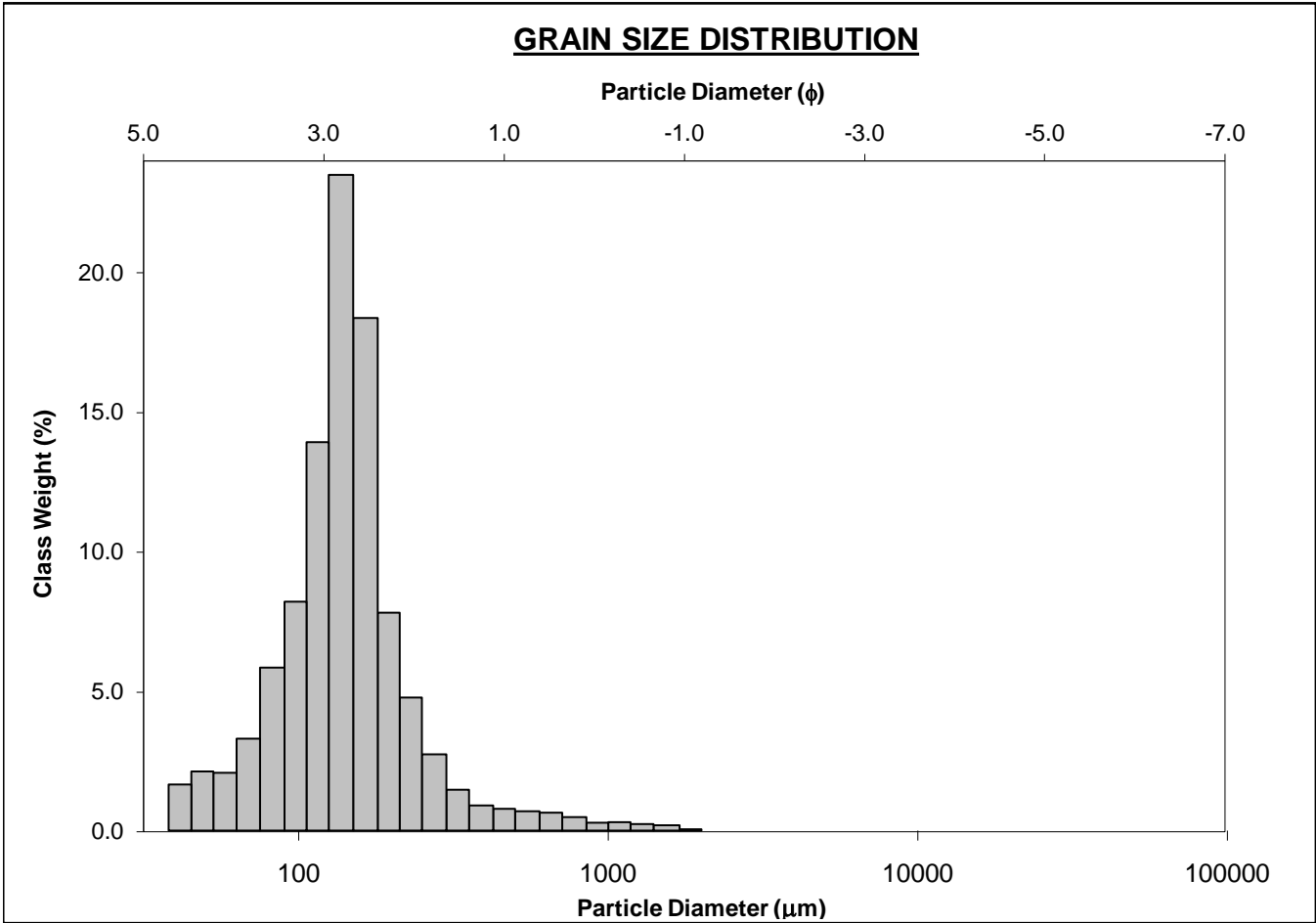
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-170cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 1.5%	
MODE 2:			SAND: 97.8%		MEDIUM SAND: 20.7%	
MODE 3:			MUD: 2.2%		FINE SAND: 63.0%	
D ₁₀ :	111.2	1.740			V FINE SAND: 12.2%	
MEDIAN or D ₅₀ :	193.6	2.369	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.4%	
D ₉₀ :	299.3	3.169	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D ₉₀ / D ₁₀):	2.692	1.821	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
(D ₉₀ - D ₁₀):	188.1	1.429	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D ₇₅ / D ₂₅):	1.672	1.365	V FINE GRAVEL: 0.0%		V FINE SILT: 0.4%	
(D ₇₅ - D ₂₅):	98.22	0.741	V COARSE SAND: 0.4%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	209.9	180.7	2.468	189.5	2.400	Fine Sand
SORTING (σ):	119.4	1.868	0.902	1.499	0.584	Moderately Well Sorted
SKEWNESS (Sk):	4.700	-2.558	2.558	-0.099	0.099	Symmetrical
KURTOSIS (K):	43.46	15.32	15.32	1.128	1.128	Leptokurtic



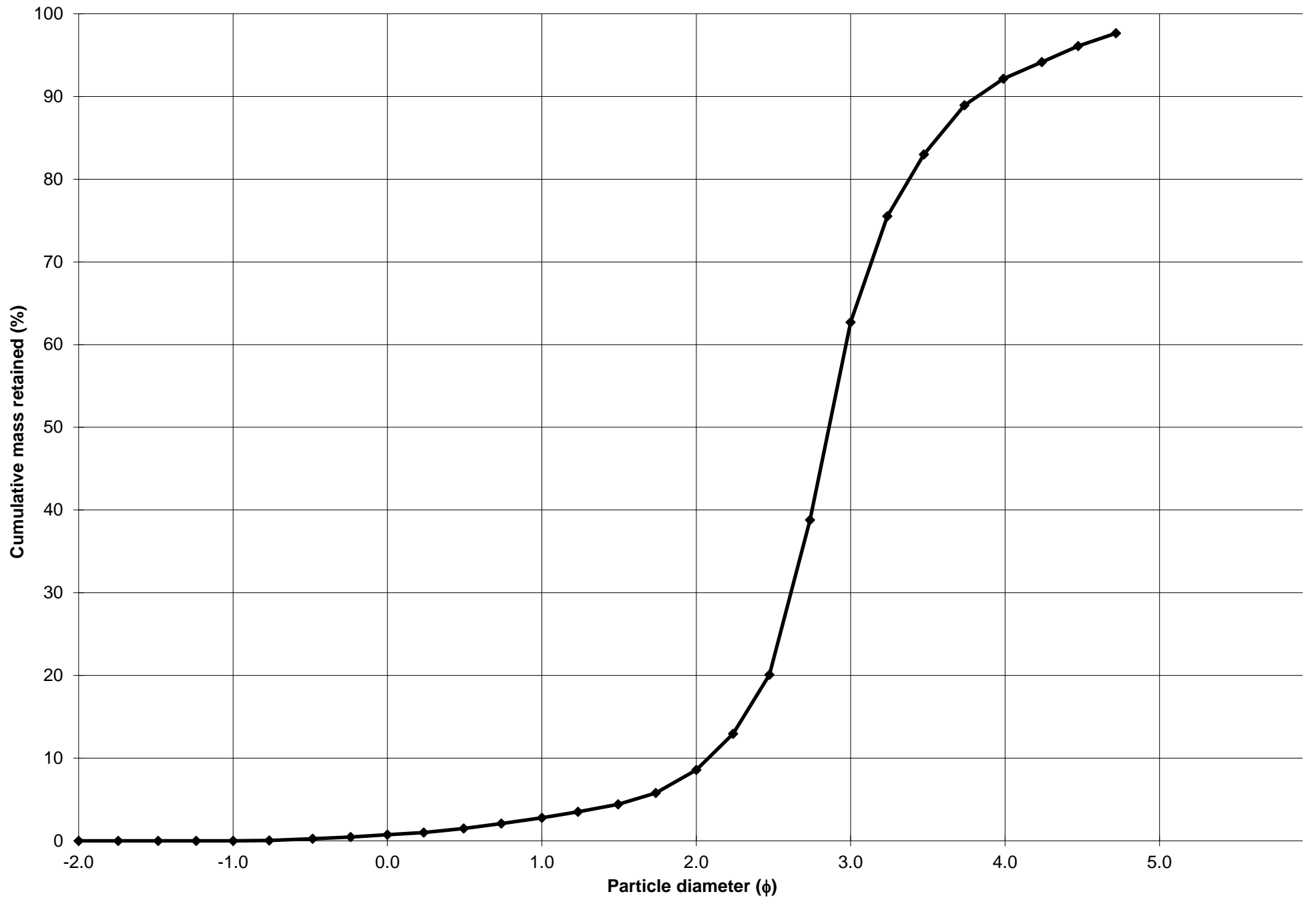
Cumulative Frequency Curve



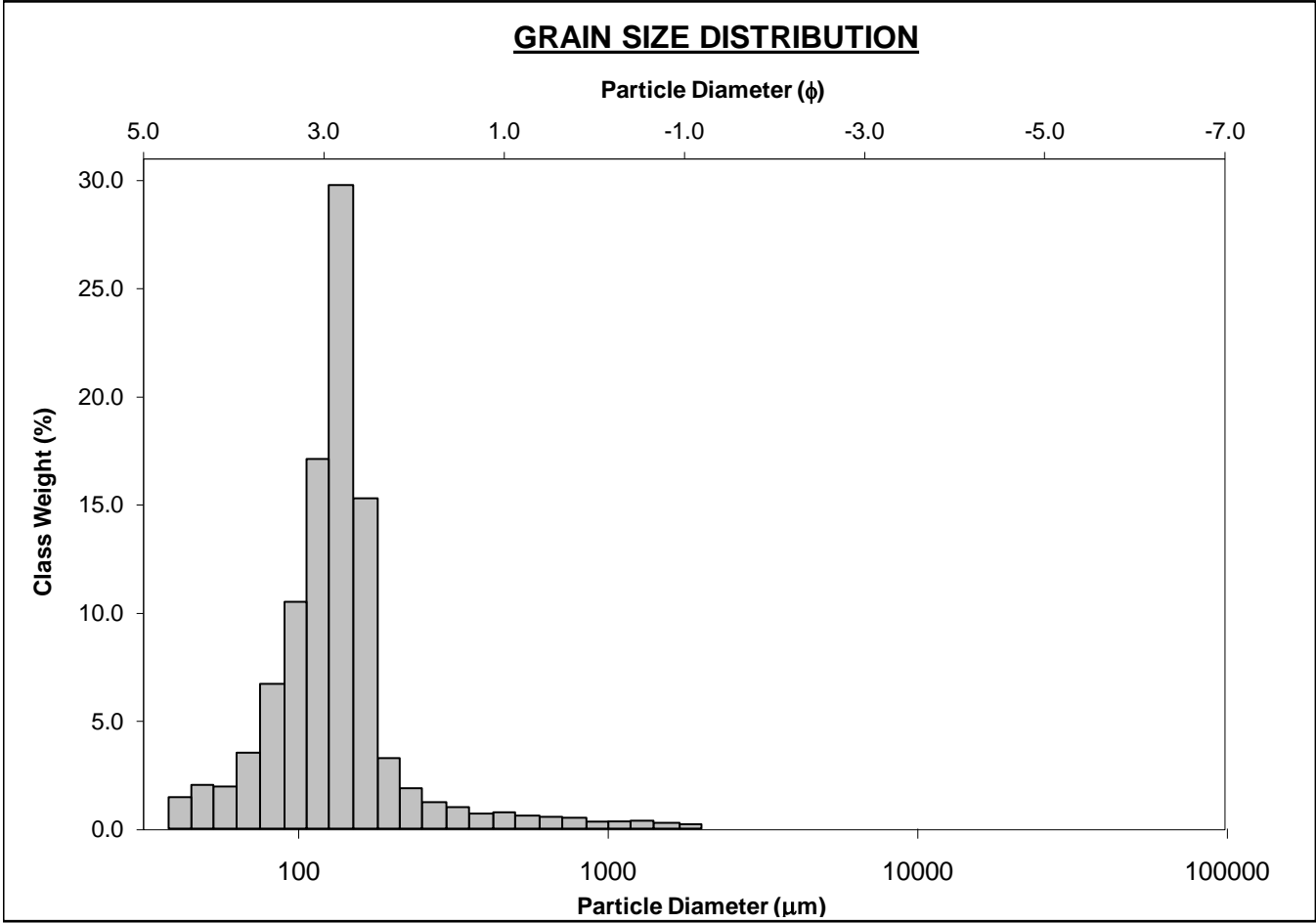
SIEVING ERROR: 1.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-180cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 2.0%			
MODE 2:			SAND: 92.2% MEDIUM SAND: 5.8%			
MODE 3:			MUD: 7.8% FINE SAND: 54.1%			
D ₁₀ :	70.83	2.078	V FINE SAND: 29.5%			
MEDIAN or D ₅₀ :	137.7	2.860	V COARSE GRAVEL: 0.0% V COARSE SILT: 5.5%			
D ₉₀ :	236.9	3.820	COARSE GRAVEL: 0.0% COARSE SILT: 0.4%			
(D ₉₀ / D ₁₀):	3.344	1.838	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.4%			
(D ₉₀ - D ₁₀):	166.0	1.742	FINE GRAVEL: 0.0% FINE SILT: 0.4%			
(D ₇₅ / D ₂₅):	1.608	1.269	V FINE GRAVEL: 0.0% V FINE SILT: 0.4%			
(D ₇₅ - D ₂₅):	64.88	0.685	V COARSE SAND: 0.7% CLAY: 0.4%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	163.1	130.5	2.938	133.4	2.906	Fine Sand
SORTING (σ):	144.8	2.011	1.008	1.636	0.710	Moderately Sorted
SKEWNESS (Sk):	5.439	-1.464	1.464	-0.098	0.098	Symmetrical
KURTOSIS (K):	43.06	10.78	10.78	1.640	1.640	Very Leptokurtic



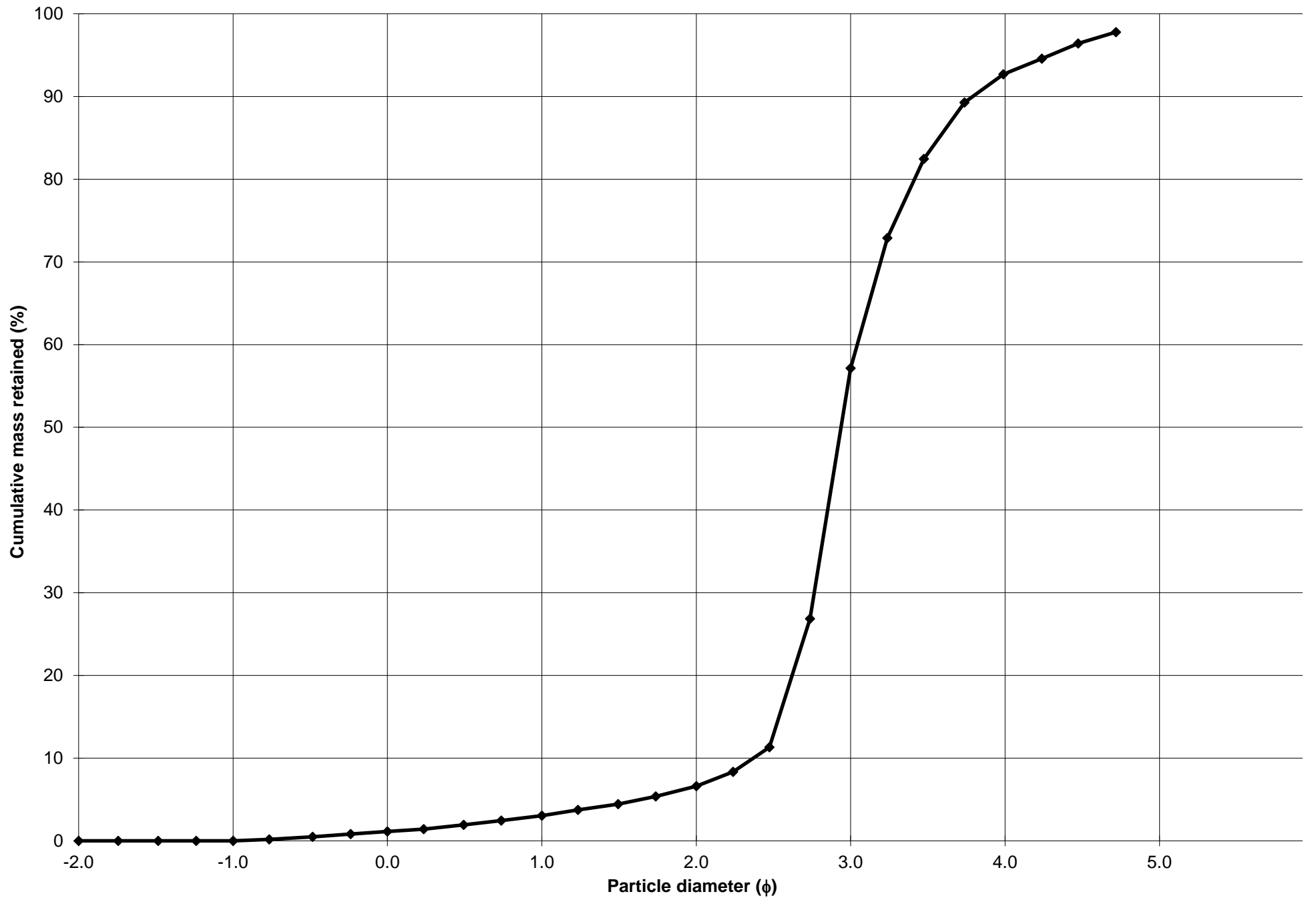
Cumulative Frequency Curve



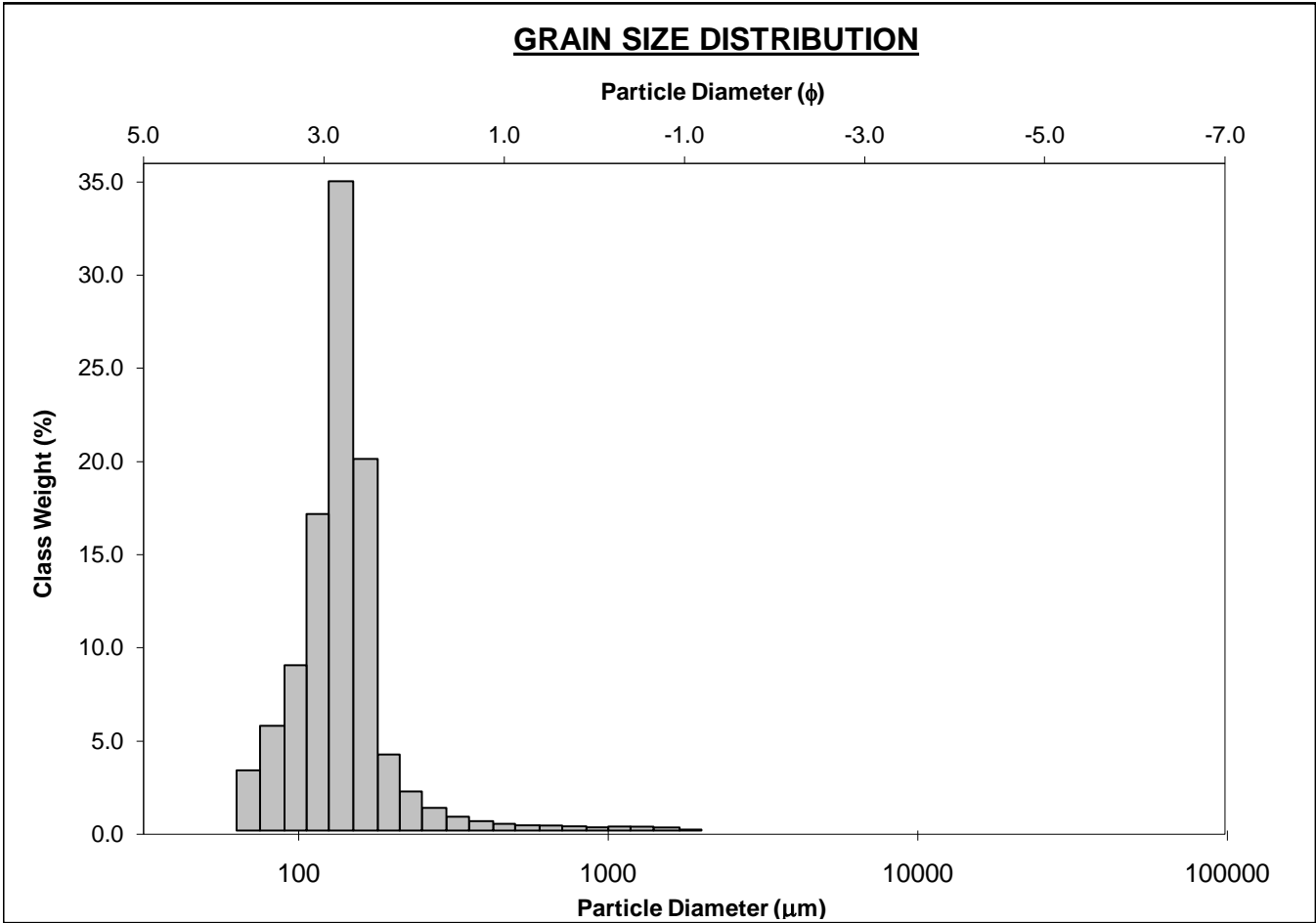
SIEVING ERROR: 1.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-190cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 1.9%	
MODE 2:			SAND: 92.8%		MEDIUM SAND: 3.6%	
MODE 3:			MUD: 7.2%		FINE SAND: 50.5%	
D ₁₀ :	72.25	2.370			V FINE SAND: 35.6%	
MEDIAN or D ₅₀ :	130.5	2.938	V COARSE GRAVEL: 0.0%		V COARSE SILT: 5.1%	
D ₉₀ :	193.5	3.791	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D ₉₀ / D ₁₀):	2.677	1.600	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
(D ₉₀ - D ₁₀):	121.2	1.421	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D ₇₅ / D ₂₅):	1.500	1.216	V FINE GRAVEL: 0.0%		V FINE SILT: 0.4%	
(D ₇₅ - D ₂₅):	51.08	0.585	V COARSE SAND: 1.1%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	157.1	123.7	3.015	124.3	3.008	Very Fine Sand
SORTING (σ):	167.1	1.973	0.981	1.566	0.647	Moderately Well Sorted
SKEWNESS (Sk):	6.001	-1.113	1.113	-0.119	0.119	Fine Skewed
KURTOSIS (K):	46.67	11.63	11.63	1.860	1.860	Very Leptokurtic



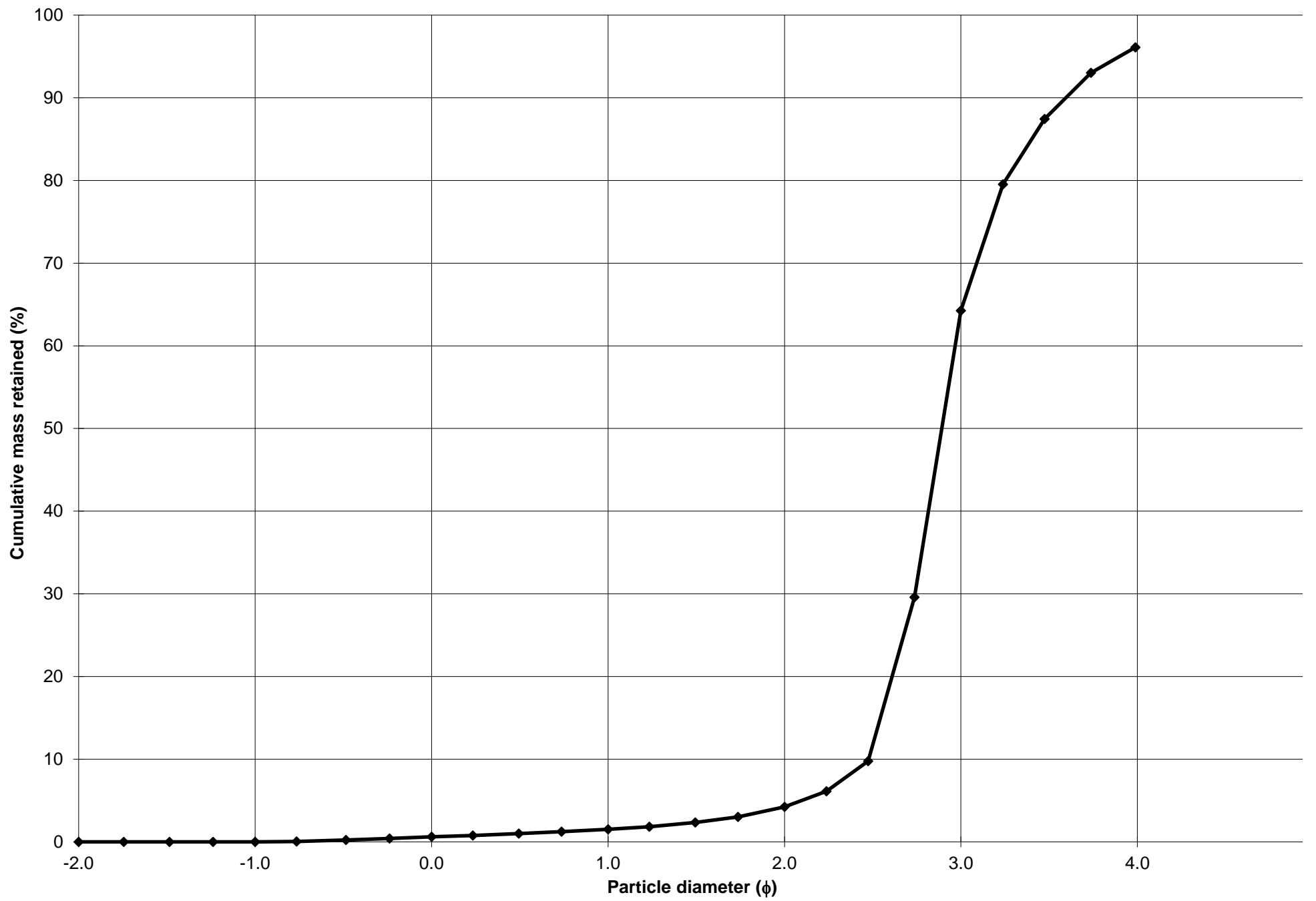
Cumulative Frequency Curve



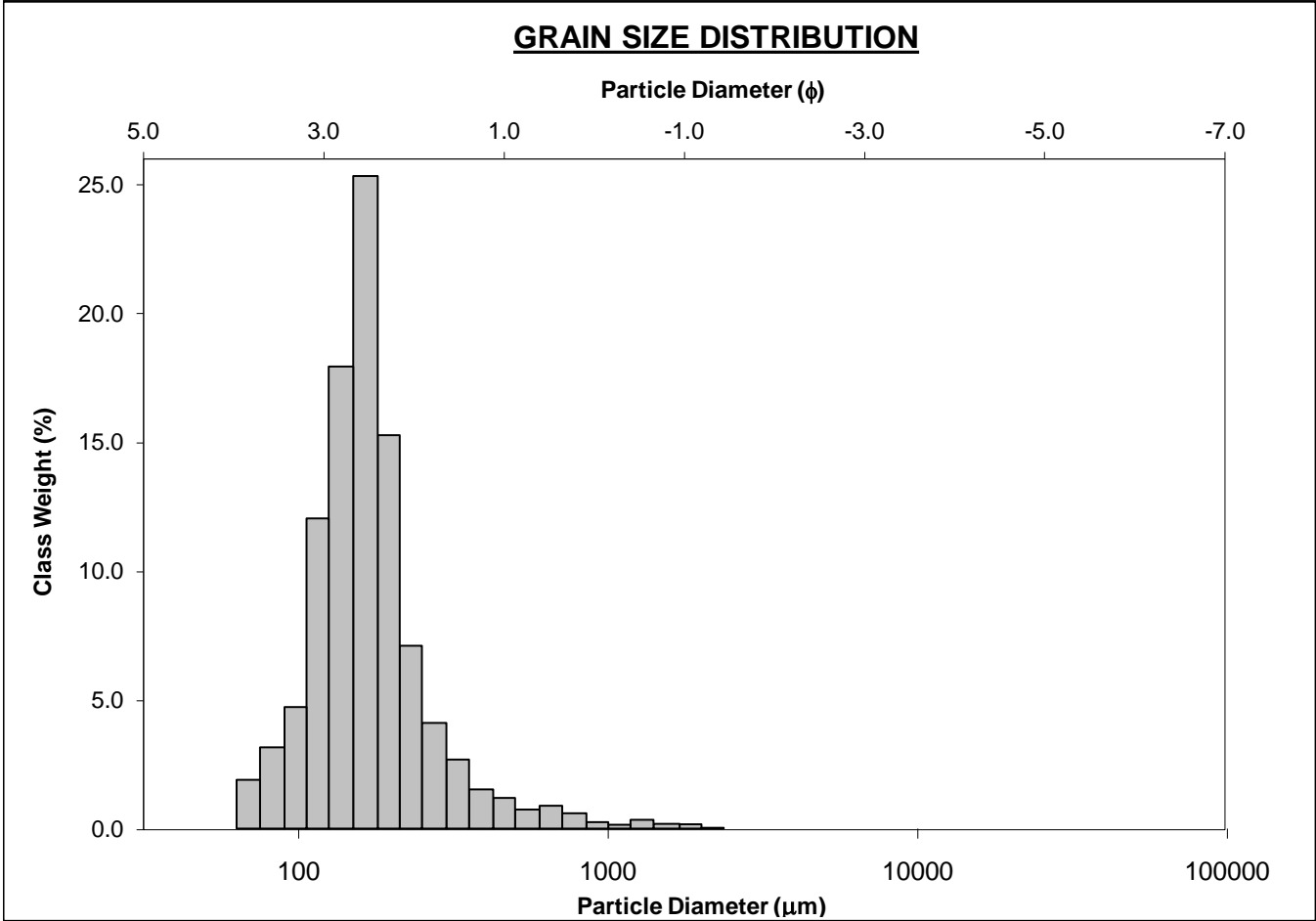
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-200cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.9%			
MODE 2:			SAND: 96.1% MEDIUM SAND: 2.7%			
MODE 3:			MUD: 3.9% FINE SAND: 60.0%			
D ₁₀ :	82.79	2.477	V FINE SAND: 31.9%			
MEDIAN or D ₅₀ :	134.7	2.892	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.6%			
D ₉₀ :	179.6	3.594	COARSE GRAVEL: 0.0% COARSE SILT: 0.6%			
(D ₉₀ / D ₁₀):	2.170	1.451	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.6%			
(D ₉₀ - D ₁₀):	96.82	1.117	FINE GRAVEL: 0.0% FINE SILT: 0.6%			
(D ₇₅ / D ₂₅):	1.406	1.184	V FINE GRAVEL: 0.0% V FINE SILT: 0.6%			
(D ₇₅ - D ₂₅):	45.17	0.491	V COARSE SAND: 0.6% CLAY: 0.6%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	148.8	123.4	3.018	130.3	2.940	Fine Sand
SORTING (σ):	121.1	1.947	0.961	1.391	0.477	Well Sorted
SKEWNESS (Sk):	7.666	-2.222	2.222	-0.147	0.147	Fine Skewed
KURTOSIS (K):	78.10	13.07	13.07	1.502	1.502	Very Leptokurtic



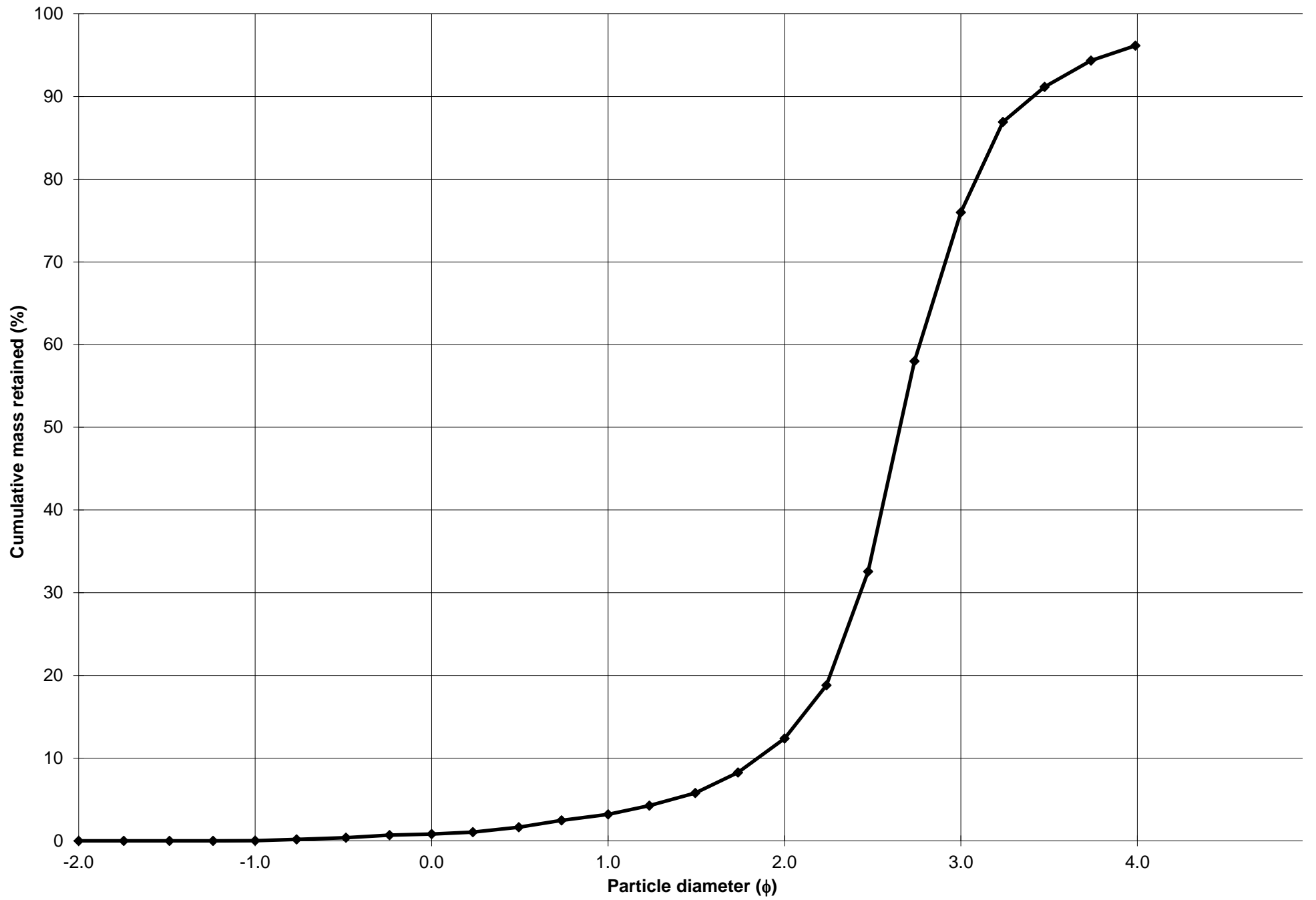
Cumulative Frequency Curve



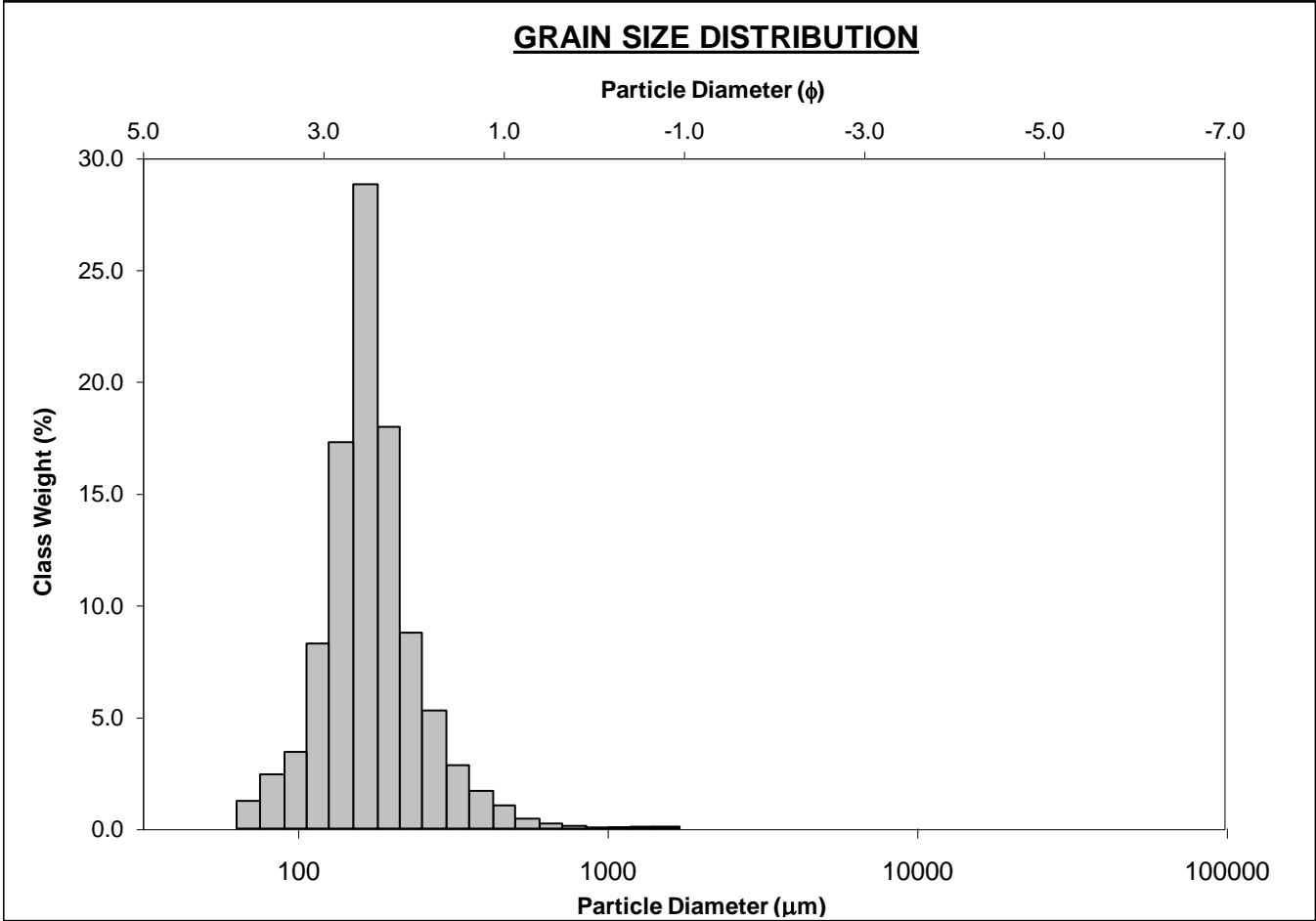
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-210cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 2.4%	
MODE 2:			SAND: 96.1%		MEDIUM SAND: 9.2%	
MODE 3:			MUD: 3.8%		FINE SAND: 63.6%	
D ₁₀ :	94.12	1.848			V FINE SAND: 20.2%	
MEDIAN or D ₅₀ :	158.8	2.654	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.6%	
D ₉₀ :	277.7	3.409	COARSE GRAVEL: 0.0%		COARSE SILT: 0.6%	
(D ₉₀ / D ₁₀):	2.950	1.844	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.6%	
(D ₉₀ - D ₁₀):	183.6	1.561	FINE GRAVEL: 0.0%		FINE SILT: 0.6%	
(D ₇₅ / D ₂₅):	1.560	1.274	V FINE GRAVEL: 0.0%		V FINE SILT: 0.6%	
(D ₇₅ - D ₂₅):	70.70	0.641	V COARSE SAND: 0.8%		CLAY: 0.6%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	188.8	150.1	2.736	158.9	2.654	Fine Sand
SORTING (σ):	159.0	2.101	1.071	1.552	0.634	Moderately Well Sorted
SKEWNESS (Sk):	5.632	-1.903	1.903	0.024	-0.024	Symmetrical
KURTOSIS (K):	47.02	10.96	10.96	1.578	1.578	Very Leptokurtic



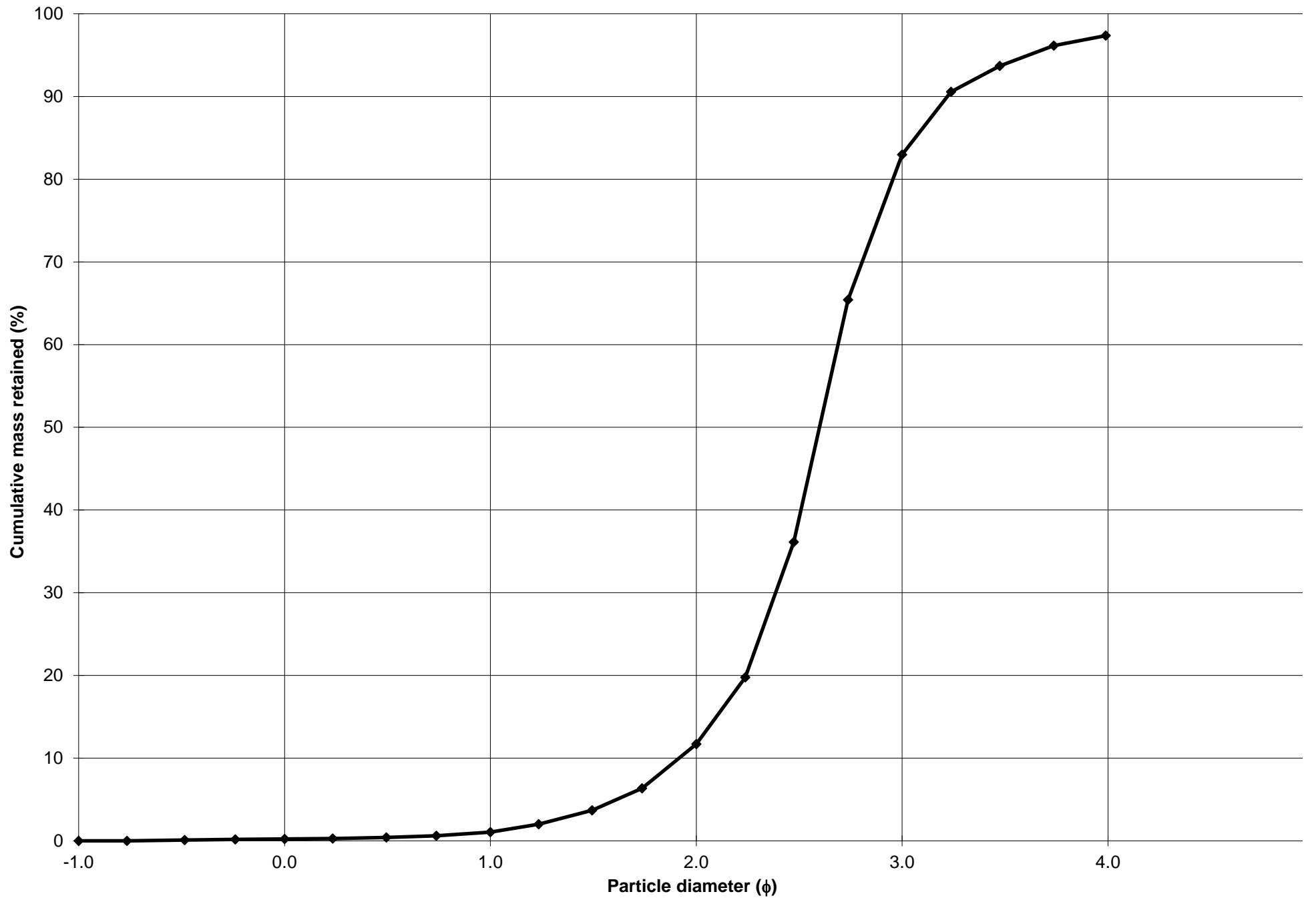
Cumulative Frequency Curve



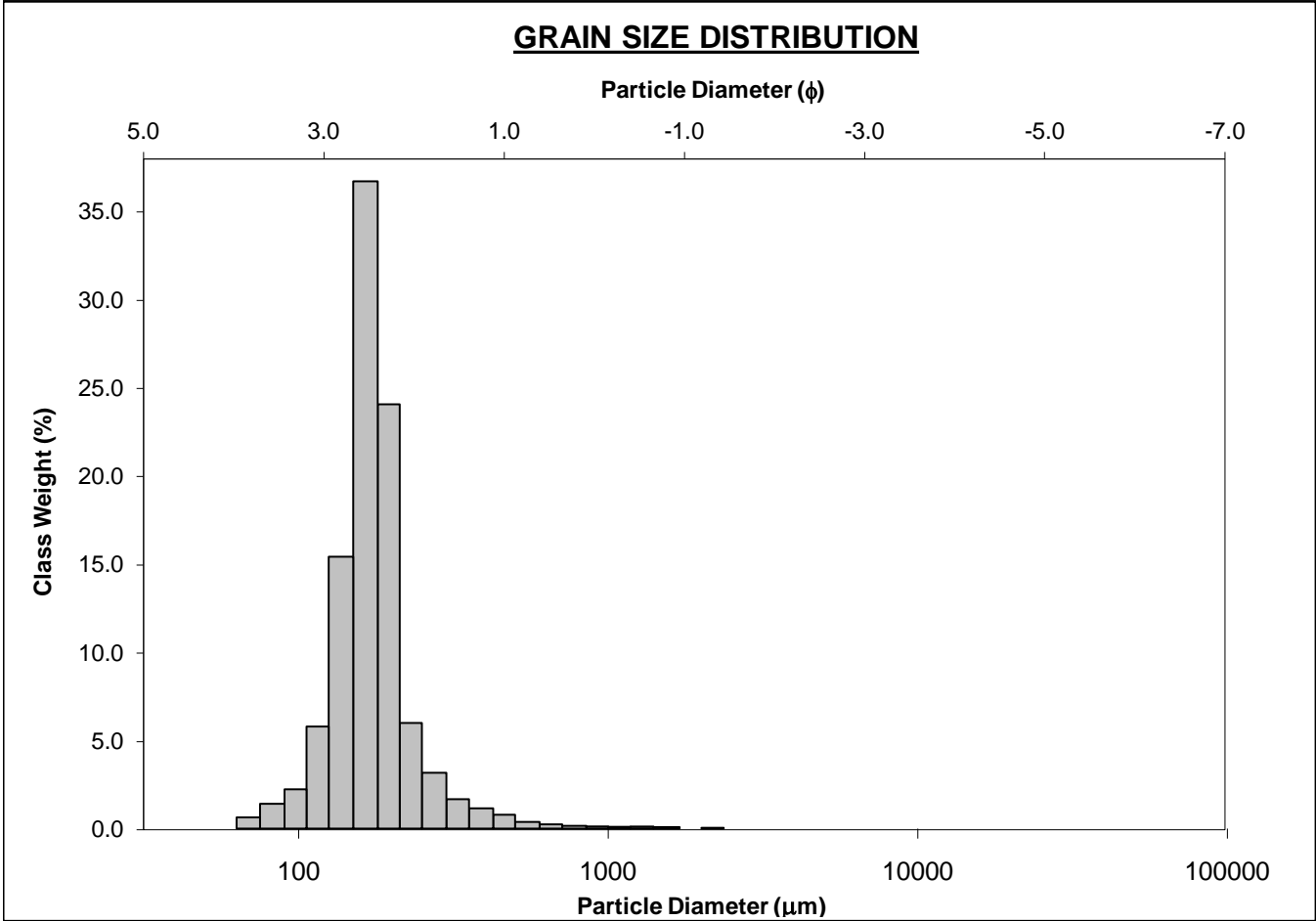
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-220cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.8%	
MODE 2:			SAND: 97.4%		MEDIUM SAND: 10.7%	
MODE 3:			MUD: 2.6%		FINE SAND: 71.2%	
D ₁₀ :	107.3	1.916			V FINE SAND: 14.4%	
MEDIAN or D ₅₀ :	165.1	2.599	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.4%	
D ₉₀ :	265.0	3.220	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D ₉₀ / D ₁₀):	2.470	1.681	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
(D ₉₀ - D ₁₀):	157.7	1.304	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D ₇₅ / D ₂₅):	1.482	1.245	V FINE GRAVEL: 0.0%		V FINE SILT: 0.4%	
(D ₇₅ - D ₂₅):	65.42	0.567	V COARSE SAND: 0.2%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	181.4	157.5	2.666	166.6	2.586	Fine Sand
SORTING (σ):	98.53	1.847	0.885	1.444	0.530	Moderately Well Sorted
SKEWNESS (Sk):	5.402	-2.774	2.774	0.013	-0.013	Symmetrical
KURTOSIS (K):	58.81	16.08	16.08	1.445	1.445	Leptokurtic



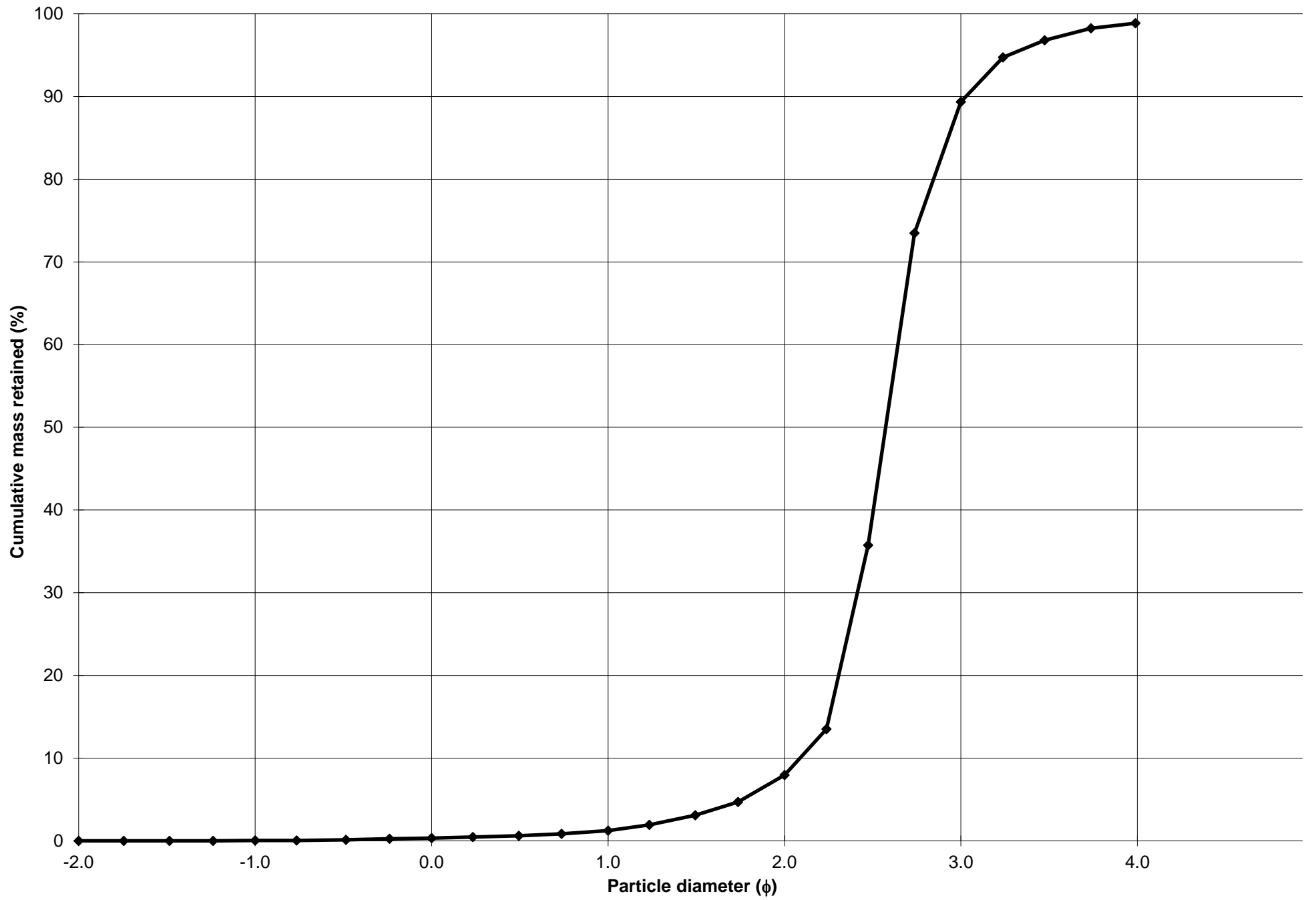
Cumulative Frequency Curve



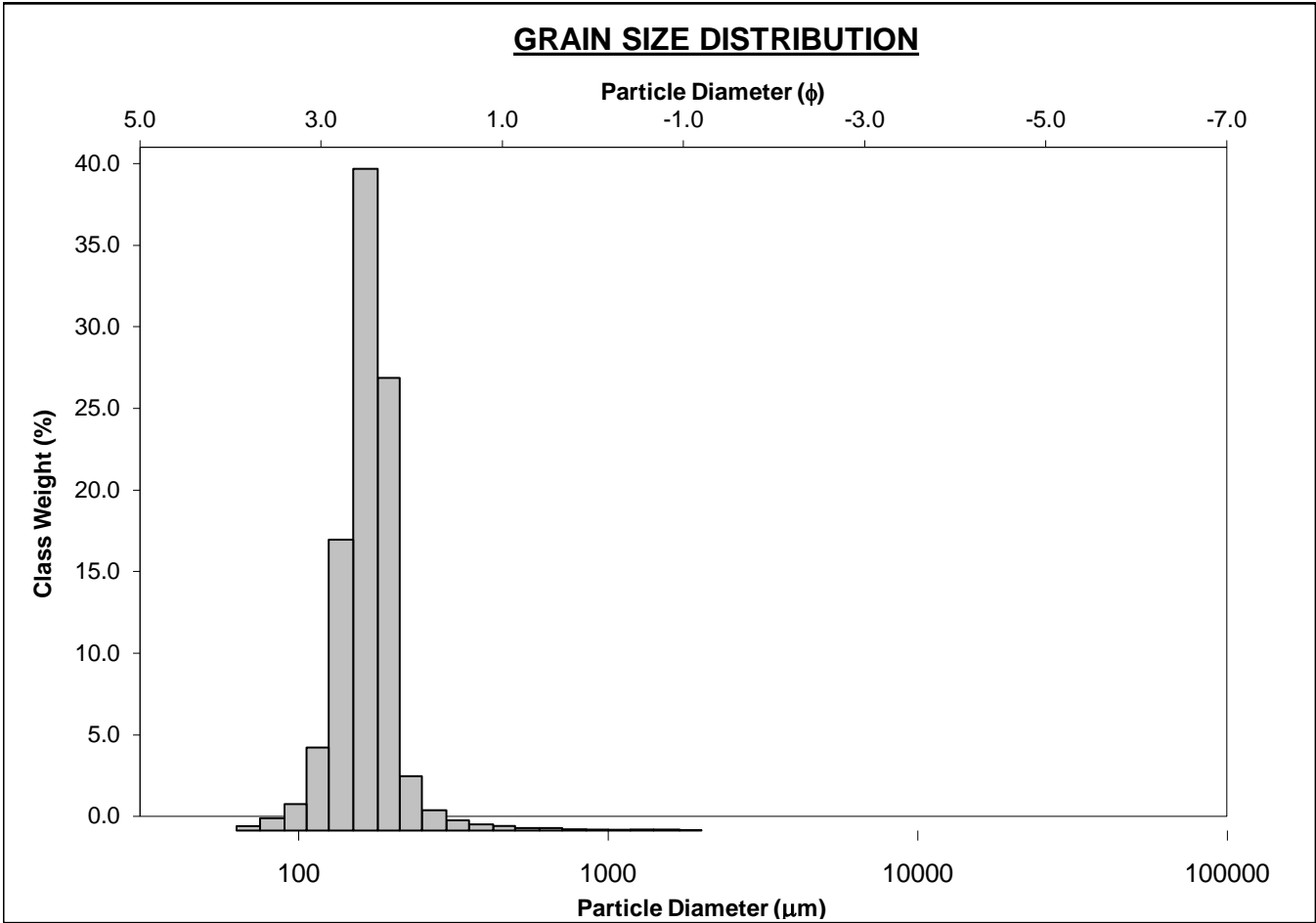
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-230cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.9%	
MODE 2:			SAND: 98.8%		MEDIUM SAND: 6.7%	
MODE 3:			MUD: 1.1%		FINE SAND: 81.4%	
D ₁₀ :	122.5	2.088			V FINE SAND: 9.5%	
MEDIAN or D ₅₀ :	168.0	2.573	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	235.3	3.029	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	1.920	1.451	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	112.7	0.941	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.321	1.170	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	47.38	0.402	V COARSE SAND: 0.3%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	183.4	166.4	2.587	166.9	2.583	Fine Sand
SORTING (σ):	104.3	1.586	0.665	1.310	0.390	Well Sorted
SKEWNESS (Sk):	8.200	-2.641	2.641	0.016	-0.016	Symmetrical
KURTOSIS (K):	109.0	25.01	25.01	1.535	1.535	Very Leptokurtic



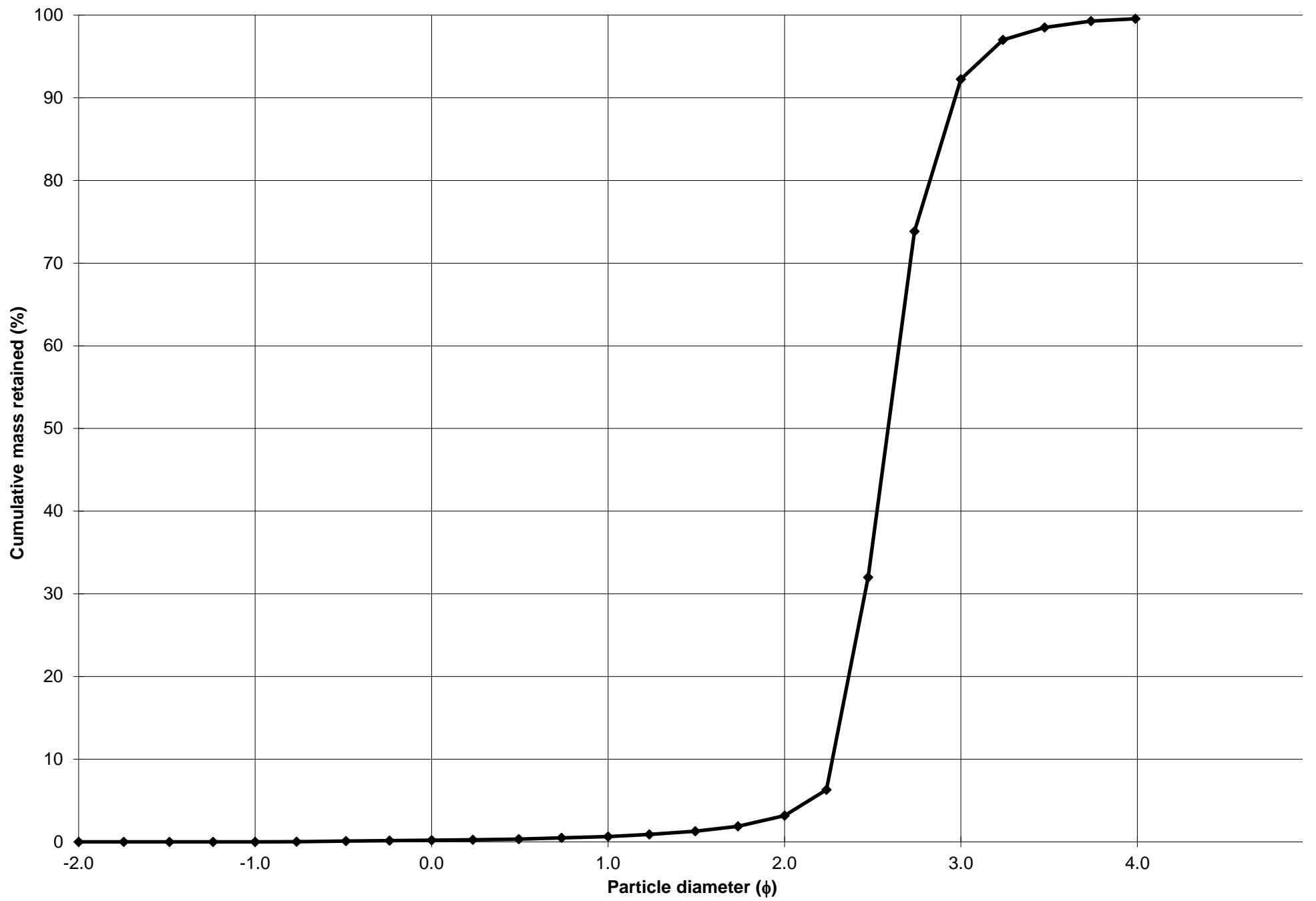
Cumulative Frequency Curve



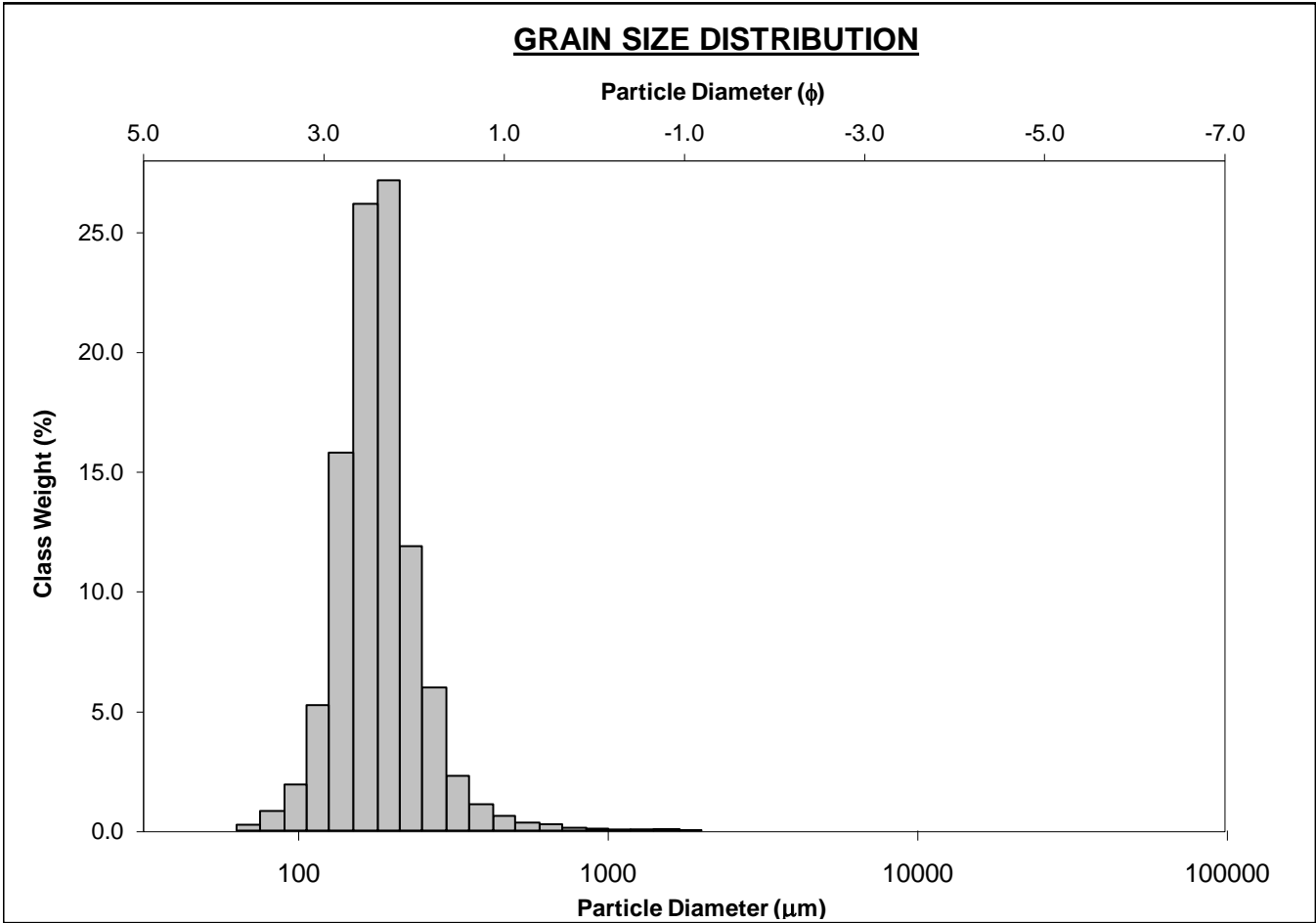
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-240cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.4%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 2.5%	
MODE 3:			MUD: 0.4%		FINE SAND: 89.1%	
D ₁₀ :	127.8	2.272			V FINE SAND: 7.3%	
MEDIAN or D ₅₀ :	166.4	2.587	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	207.1	2.968	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	1.620	1.306	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	79.23	0.696	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.269	1.143	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	39.89	0.344	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	173.9	164.7	2.602	165.1	2.599	Fine Sand
SORTING (σ):	77.56	1.381	0.466	1.223	0.290	Very Well Sorted
SKEWNESS (Sk):	10.85	-2.726	2.726	-0.083	0.083	Symmetrical
KURTOSIS (K):	175.6	42.09	42.09	1.191	1.191	Leptokurtic



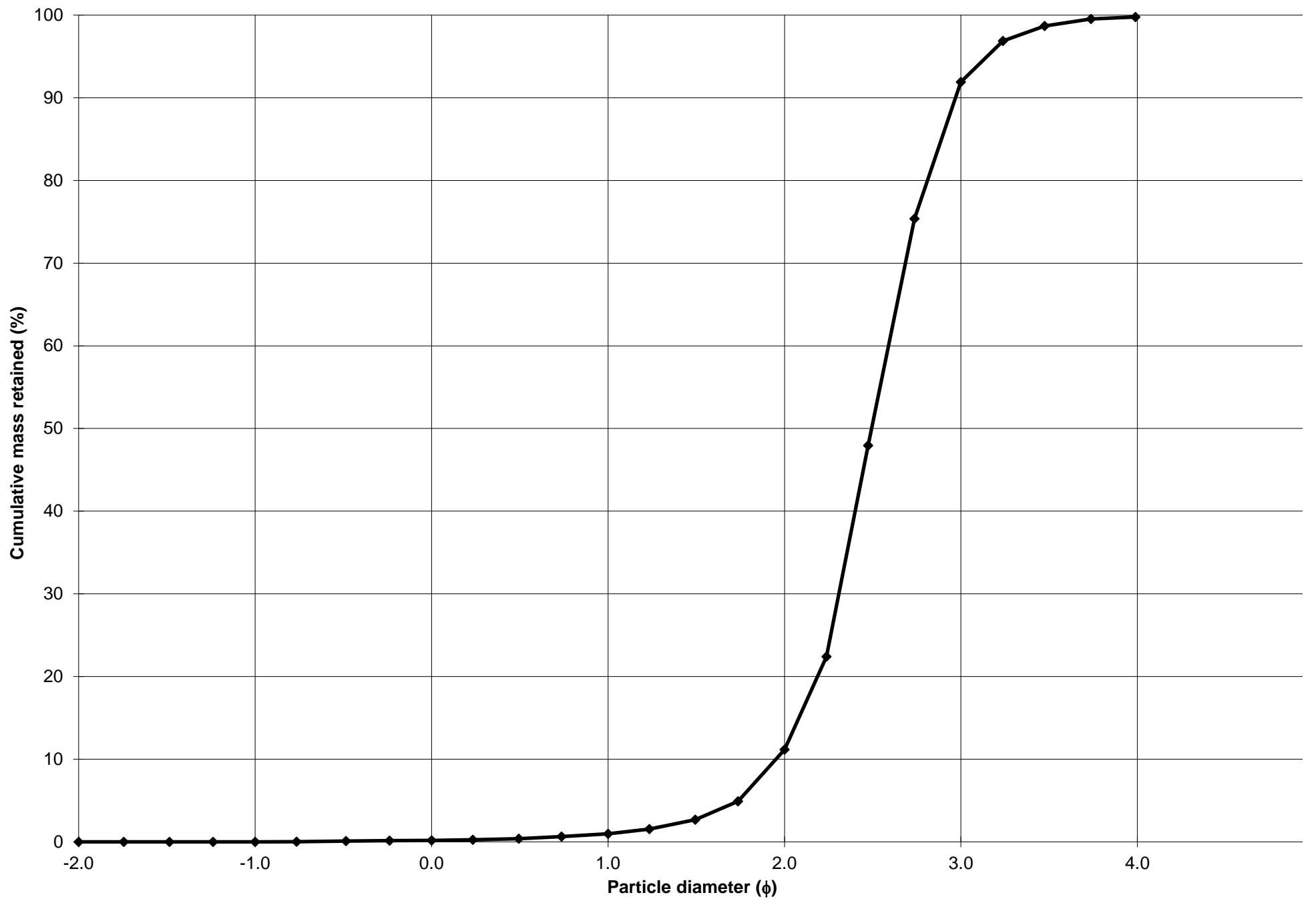
Cumulative Frequency Curve



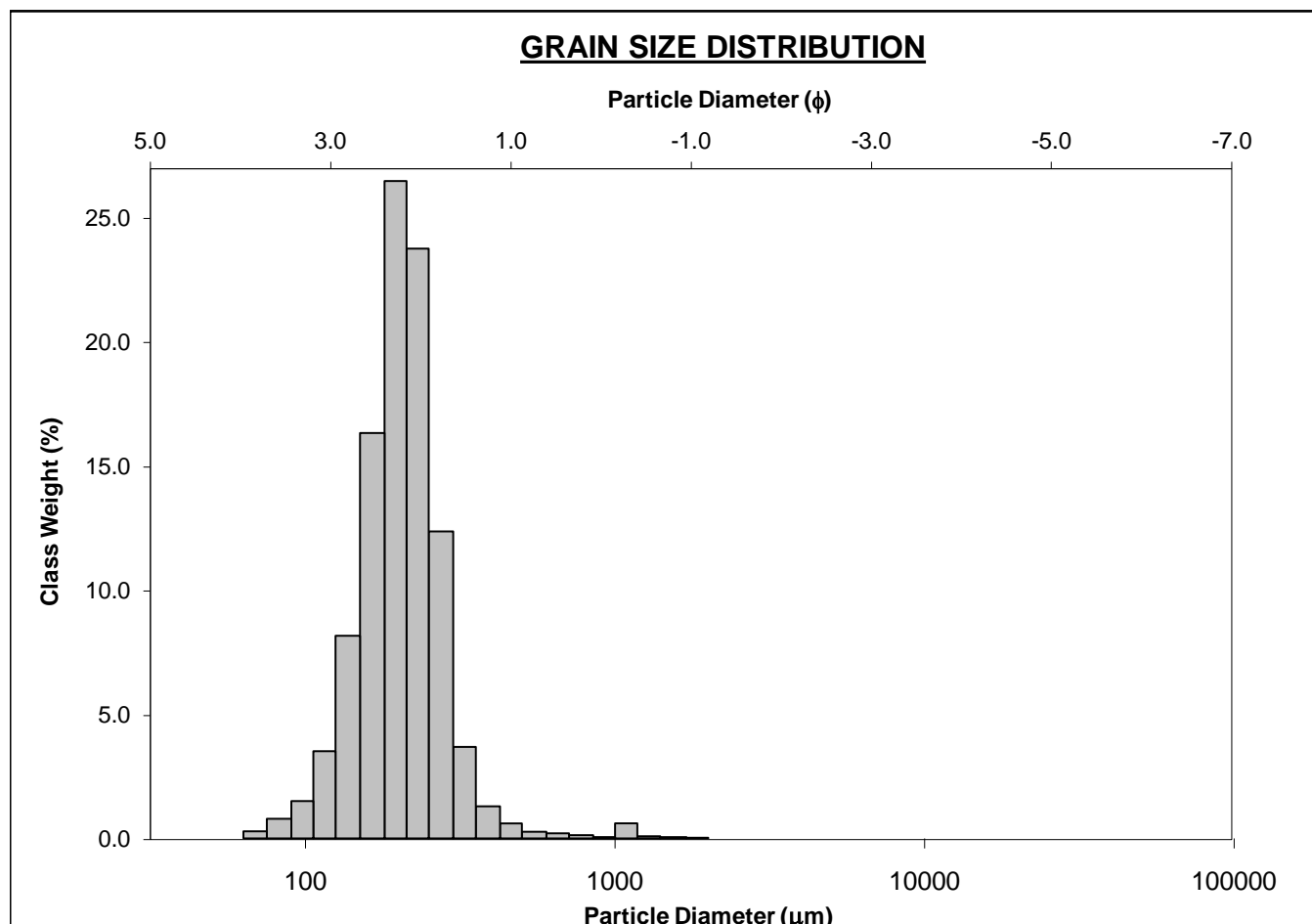
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-250cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 0.8%			
MODE 2:			SAND: 99.8% MEDIUM SAND: 10.2%			
MODE 3:			MUD: 0.2% FINE SAND: 80.7%			
D ₁₀ :	127.6	1.951	V FINE SAND: 7.9%			
MEDIAN or D ₅₀ :	177.6	2.494	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	258.6	2.970	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.026	1.522	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	131.0	1.019	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.387	1.209	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	58.15	0.472	V COARSE SAND: 0.2% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	191.8	179.3	2.479	178.0	2.490	Fine Sand
SORTING (σ):	88.07	1.416	0.502	1.325	0.406	Well Sorted
SKEWNESS (Sk):	6.858	-0.786	0.786	0.042	-0.042	Symmetrical
KURTOSIS (K):	88.19	20.35	20.35	1.223	1.223	Leptokurtic



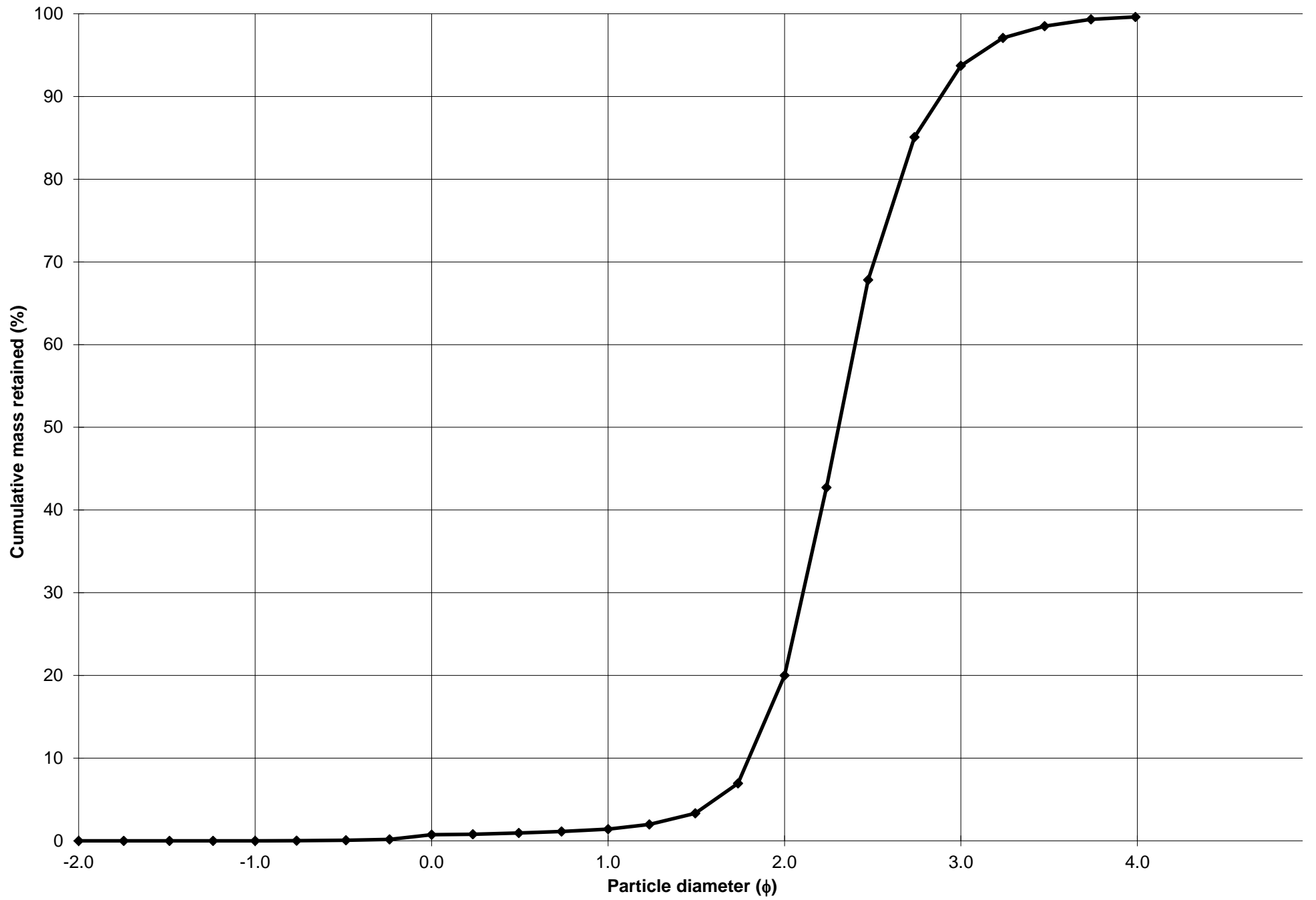
Cumulative Frequency Curve



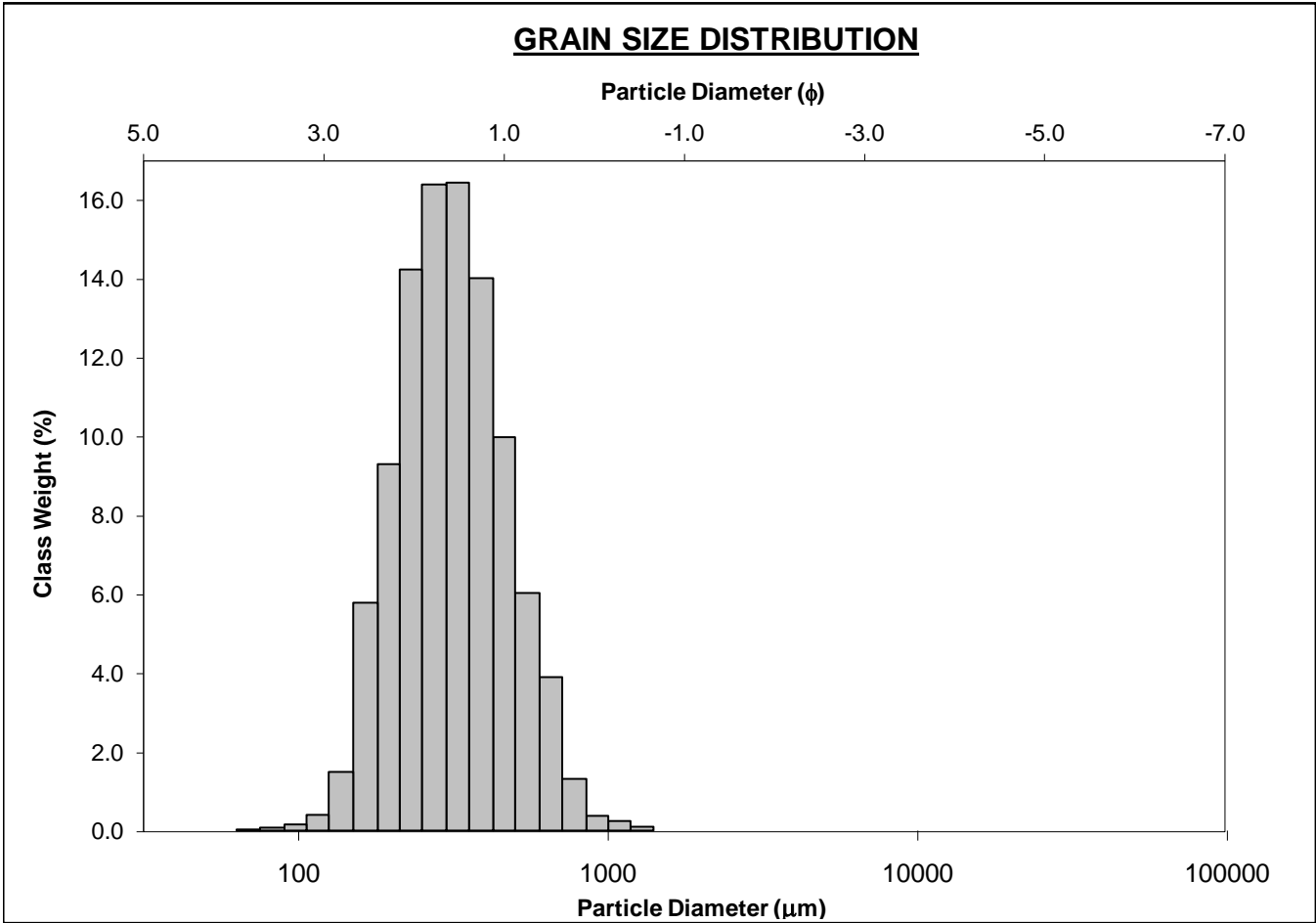
SIEVING ERROR: 0.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-03-260cm			ANALYST & DATE: Chris, 7/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 0.7%			
MODE 2:			SAND: 99.6% MEDIUM SAND: 18.6%			
MODE 3:			MUD: 0.4% FINE SAND: 73.7%			
D ₁₀ :	135.2	1.799	V FINE SAND: 5.9%			
MEDIAN or D ₅₀ :	202.2	2.306	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%			
D ₉₀ :	287.4	2.887	COARSE GRAVEL: 0.0% COARSE SILT: 0.1%			
(D ₉₀ / D ₁₀):	2.126	1.605	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%			
(D ₉₀ - D ₁₀):	152.2	1.088	FINE GRAVEL: 0.0% FINE SILT: 0.1%			
(D ₇₅ / D ₂₅):	1.445	1.259	V FINE GRAVEL: 0.0% V FINE SILT: 0.1%			
(D ₇₅ - D ₂₅):	74.23	0.531	V COARSE SAND: 0.8% CLAY: 0.1%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	217.1	200.3	2.320	200.9	2.315	Fine Sand
SORTING (σ):	110.4	1.483	0.568	1.343	0.425	Well Sorted
SKEWNESS (Sk):	6.044	-1.424	1.424	-0.045	0.045	Symmetrical
KURTOSIS (K):	57.59	22.18	22.18	1.146	1.146	Leptokurtic



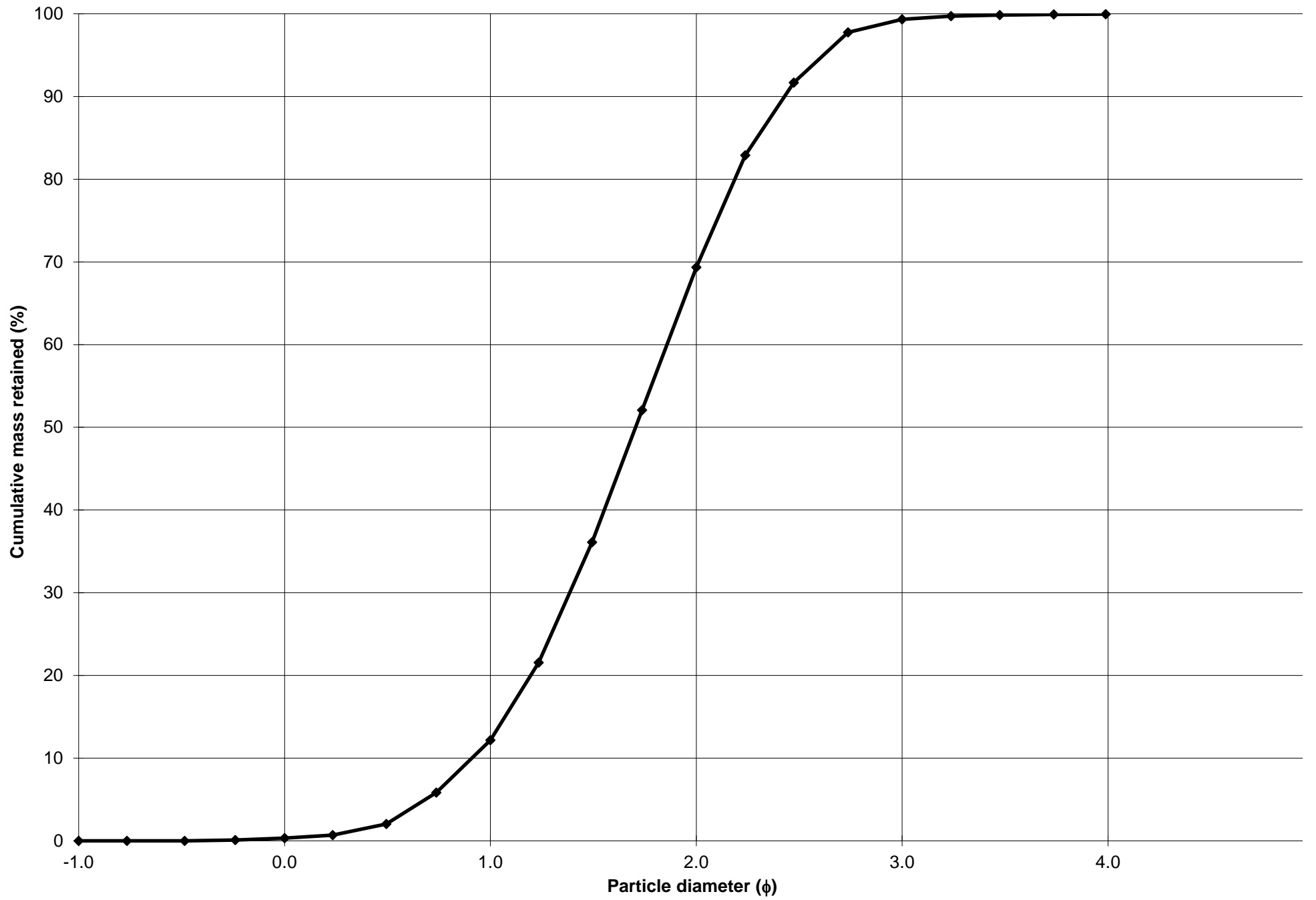
Cumulative Frequency Curve



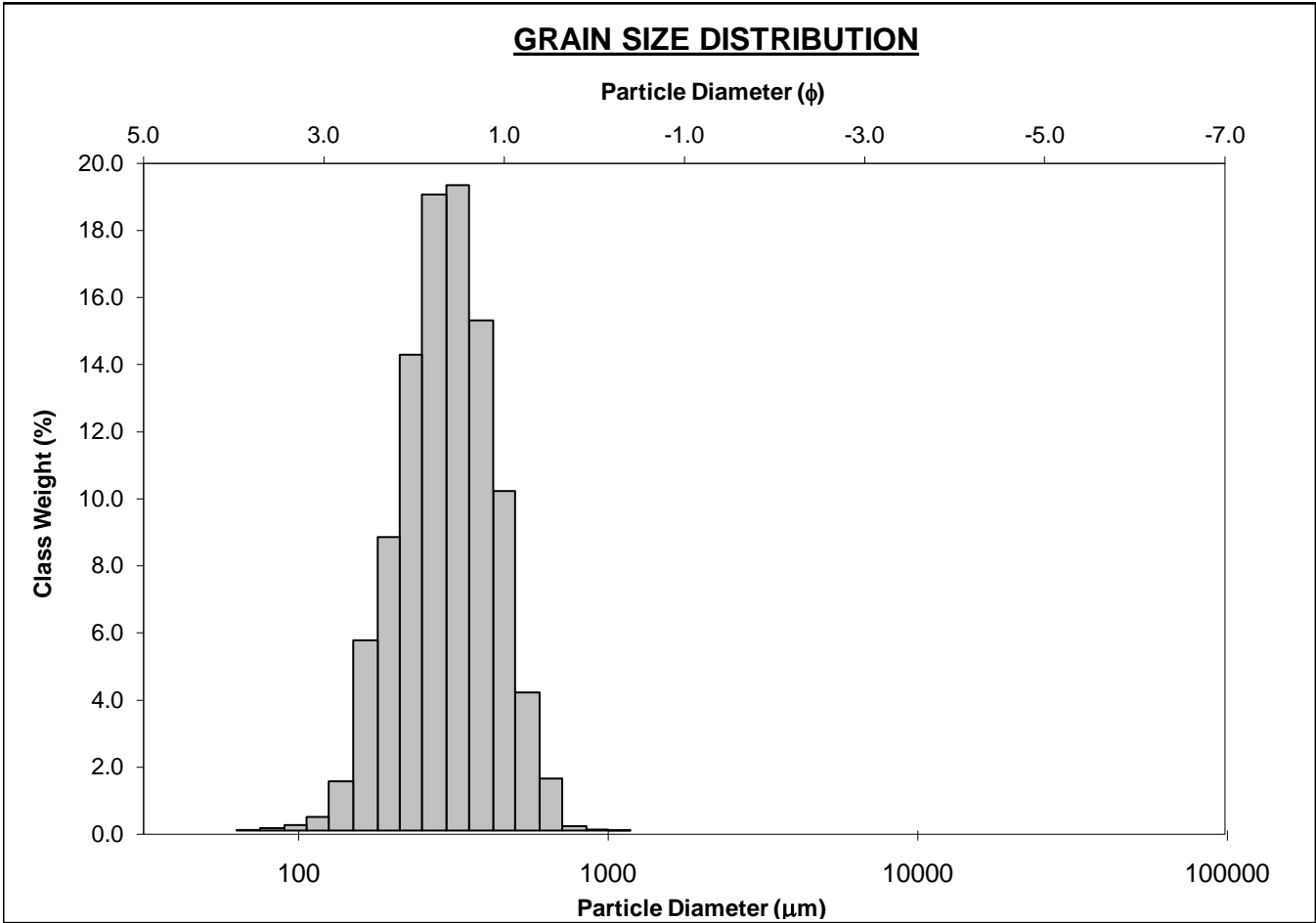
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-10cm			ANALYST & DATE: Chris, 6/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0% COARSE SAND: 11.8%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 57.2%			
MODE 3:			MUD: 0.0% FINE SAND: 30.0%			
D ₁₀ :	185.7	0.910	V FINE SAND: 0.6%			
MEDIAN or D ₅₀ :	306.7	1.705	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	532.2	2.429	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.866	2.669	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	346.5	1.519	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.745	1.620	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	173.8	0.803	V COARSE SAND: 0.3% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	338.6	310.3	1.688	310.0	1.690	Medium Sand
SORTING (σ):	146.3	1.504	0.589	1.501	0.586	Moderately Well Sorted
SKEWNESS (Sk):	1.493	-0.122	0.122	0.048	-0.048	Symmetrical
KURTOSIS (K):	6.867	5.386	5.386	0.987	0.987	Mesokurtic



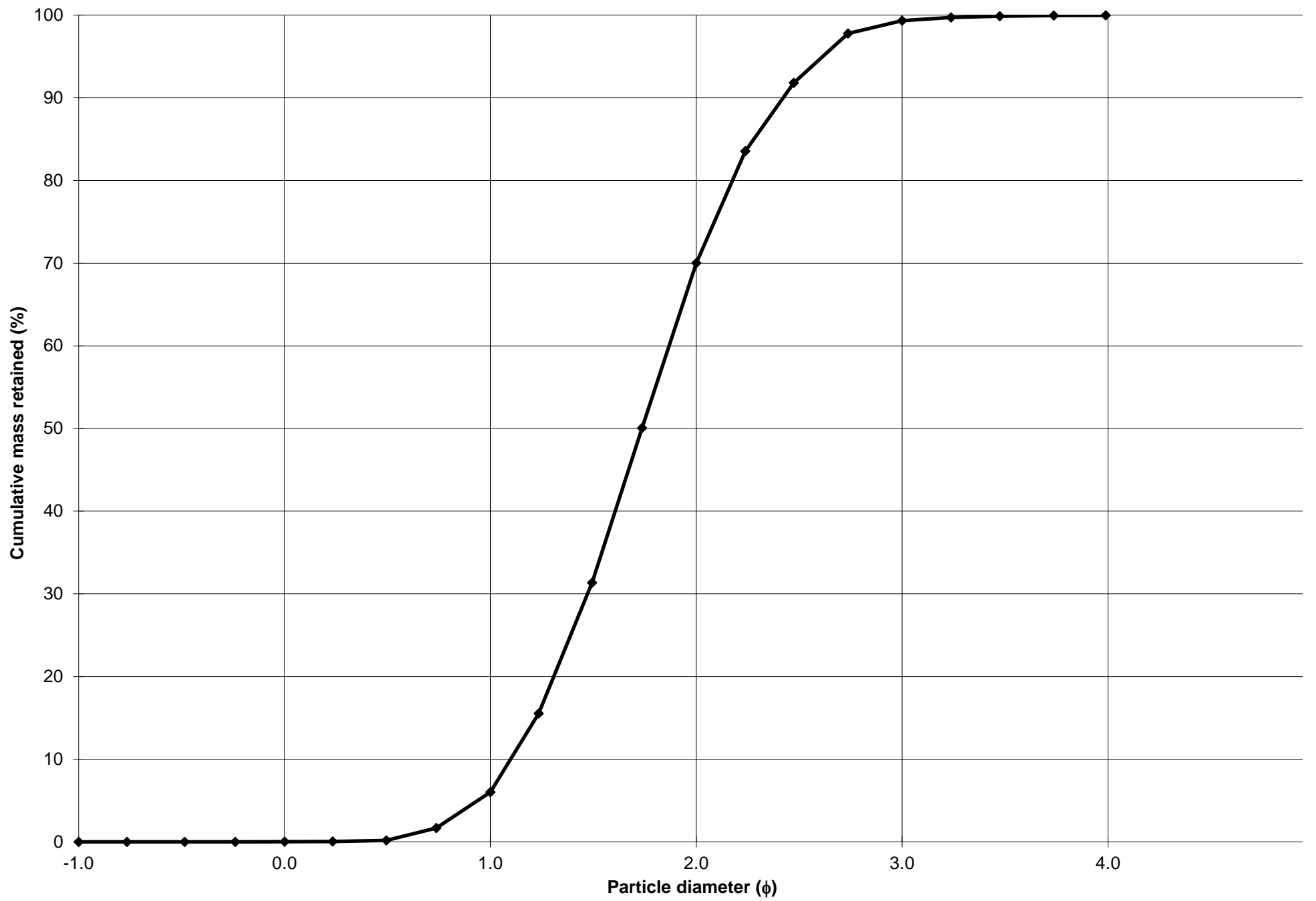
Cumulative Frequency Curve



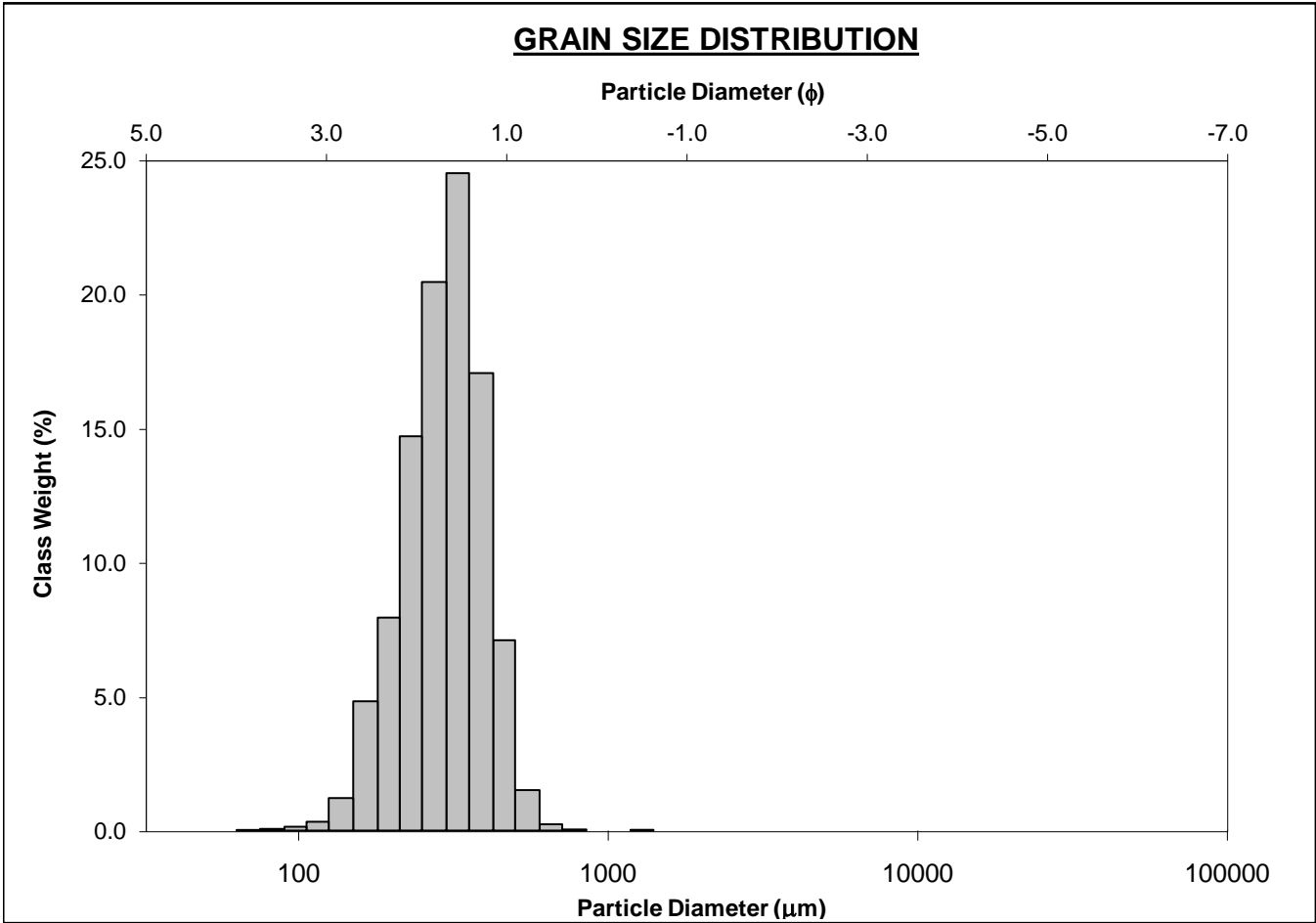
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-20cm			ANALYST & DATE: Chris, 6/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 6.0%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 64.0%	
MODE 3:			MUD: 0.0%		FINE SAND: 29.3%	
D ₁₀ :	186.6	1.098			V FINE SAND: 0.6%	
MEDIAN or D ₅₀ :	300.1	1.736	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	467.1	2.422	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.504	2.206	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	280.5	1.324	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.622	1.502	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	146.3	0.697	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	317.1	297.5	1.749	298.7	1.743	Medium Sand
SORTING (σ):	110.2	1.423	0.509	1.420	0.506	Moderately Well Sorted
SKEWNESS (Sk):	0.822	-0.443	0.443	-0.034	0.034	Symmetrical
KURTOSIS (K):	3.978	5.939	5.939	0.985	0.985	Mesokurtic



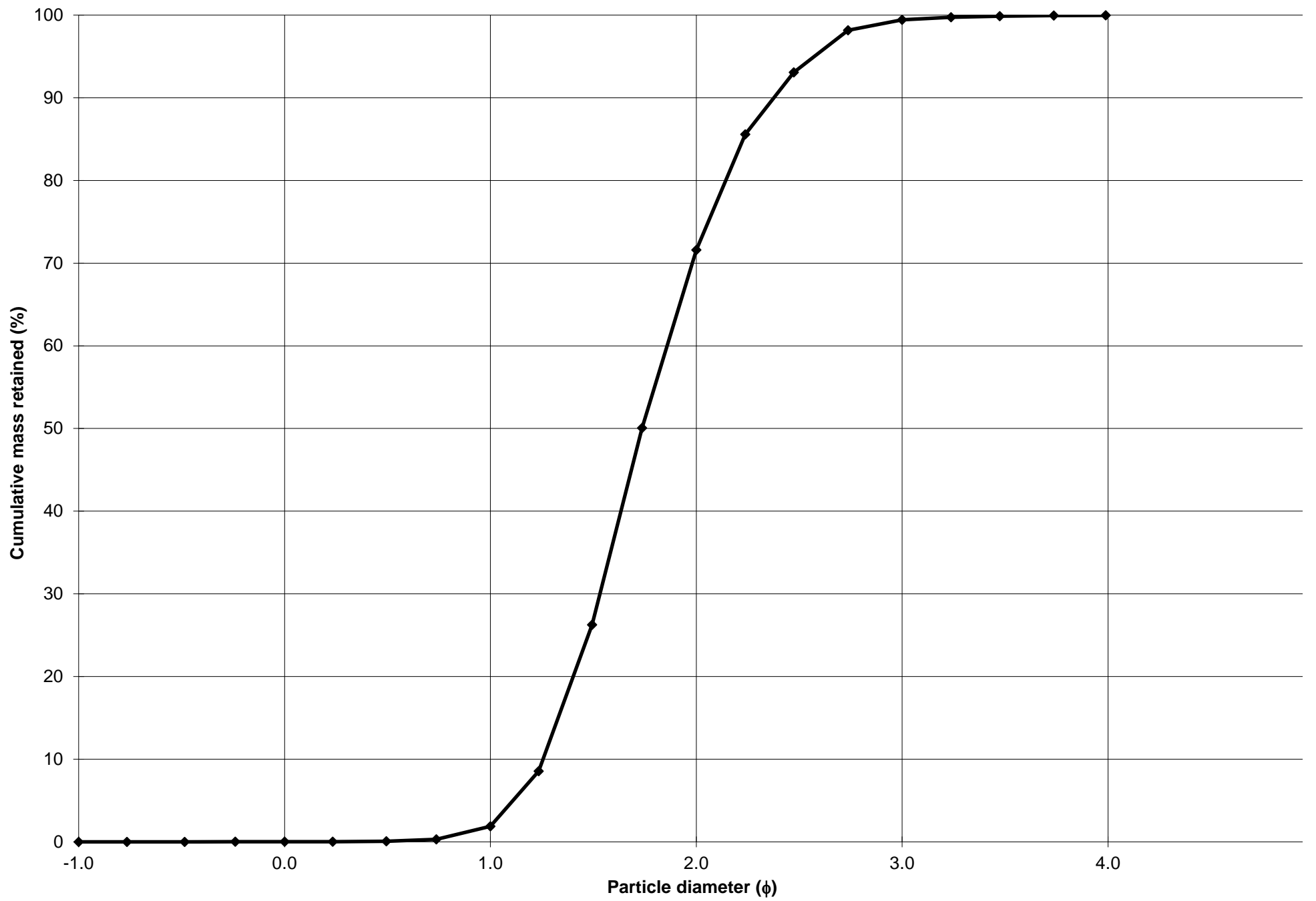
Cumulative Frequency Curve



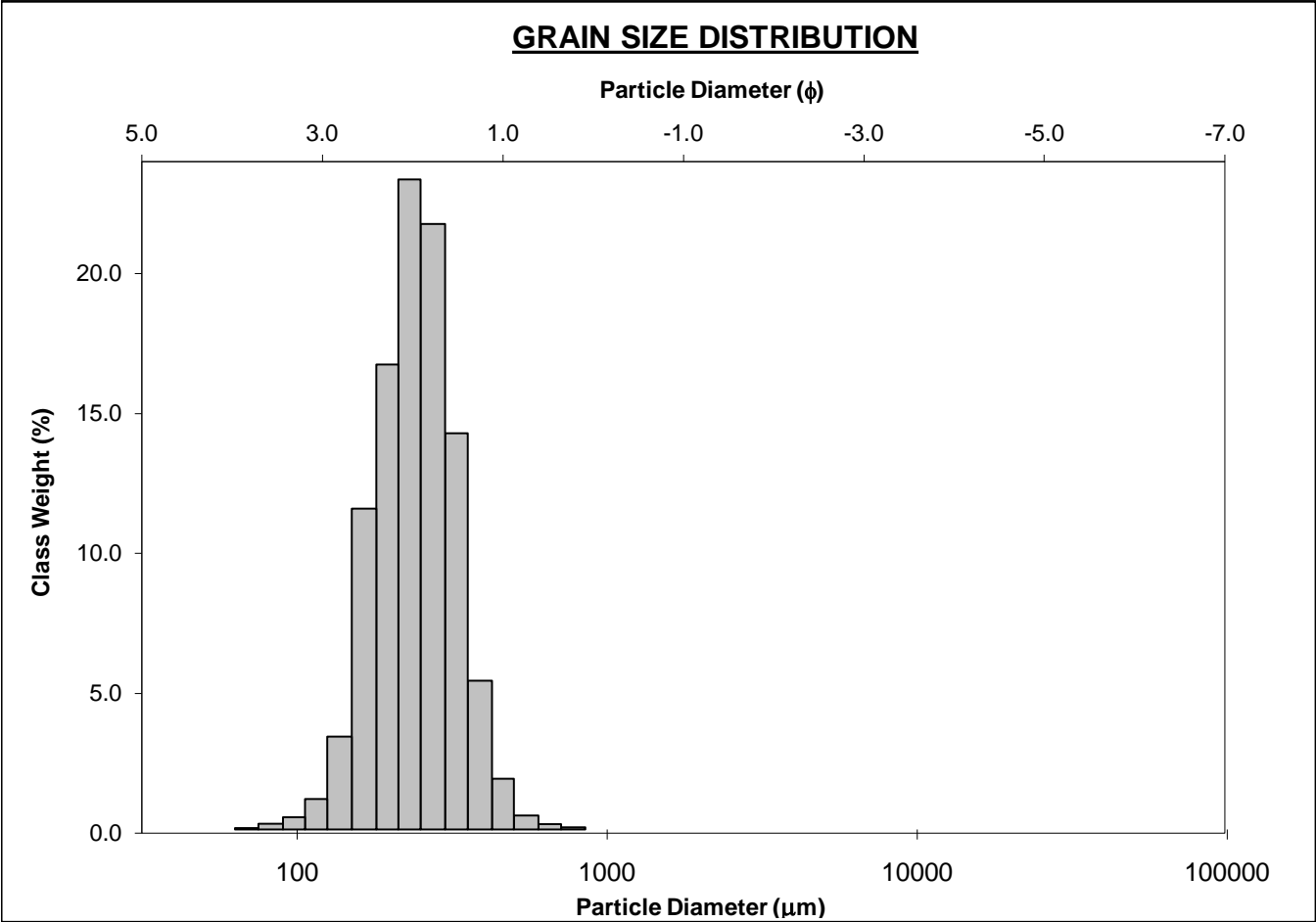
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-30cm			ANALYST & DATE: Chris, 6/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0% COARSE SAND: 1.9%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 69.7%			
MODE 3:			MUD: 0.0% FINE SAND: 27.8%			
D ₁₀ :	192.5	1.256	V FINE SAND: 0.5%			
MEDIAN or D ₅₀ :	300.2	1.736	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	418.8	2.377	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.175	1.893	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	226.2	1.121	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.497	1.395	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	119.4	0.582	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	305.7	291.2	1.780	294.5	1.764	Medium Sand
SORTING (σ):	89.91	1.361	0.444	1.355	0.439	Well Sorted
SKEWNESS (Sk):	0.800	-0.855	0.855	-0.119	0.119	Fine Skewed
KURTOSIS (K):	7.213	8.996	8.996	1.030	1.030	Mesokurtic



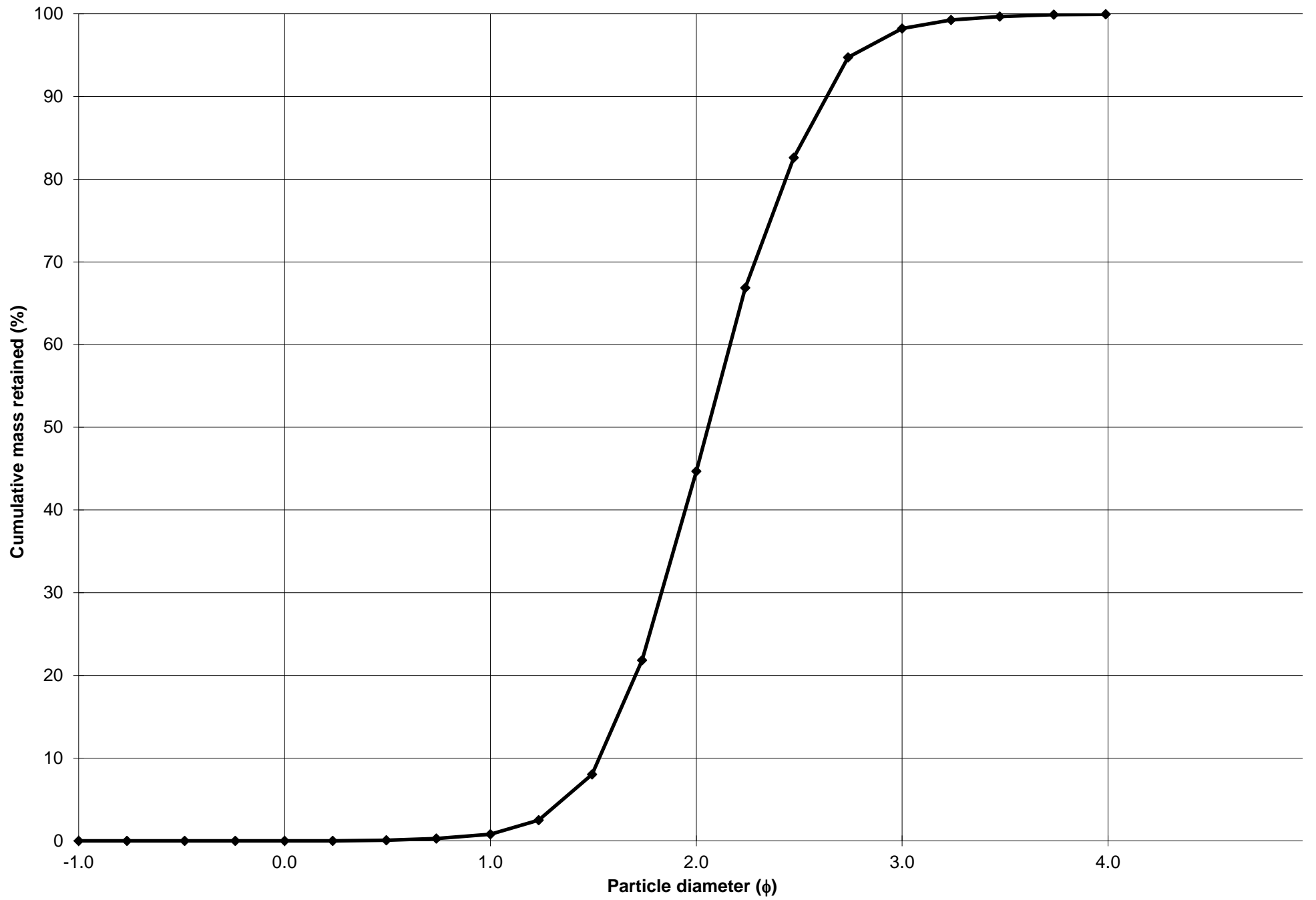
Cumulative Frequency Curve



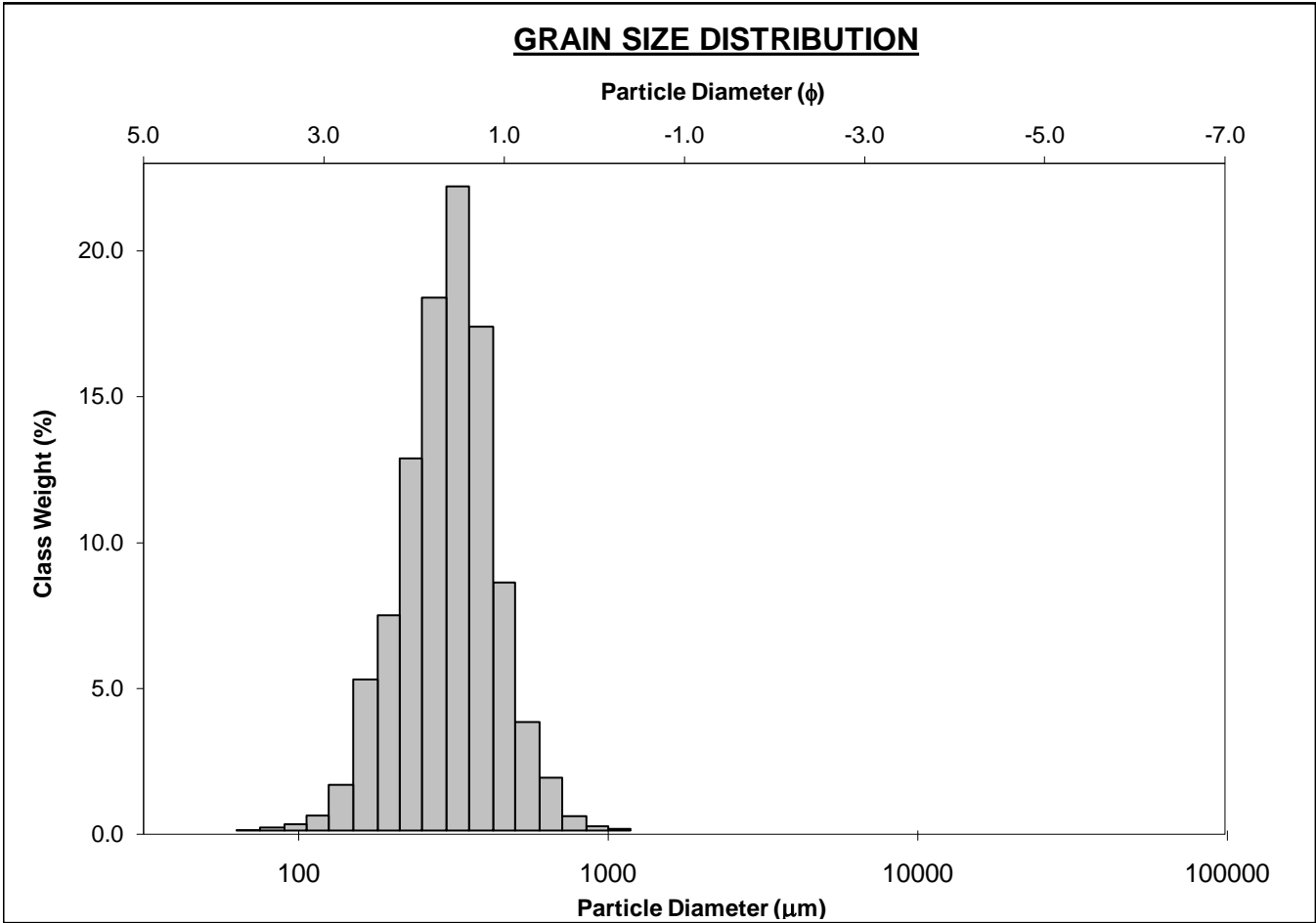
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-40cm			ANALYST & DATE: Chris, 6/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.8%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 43.9%	
MODE 3:			MUD: 0.1%		FINE SAND: 53.5%	
D ₁₀ :	161.0	1.529			V FINE SAND: 1.7%	
MEDIAN or D ₅₀ :	240.3	2.057	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	346.6	2.635	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.152	1.723	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	185.6	1.106	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.502	1.331	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	97.72	0.587	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	251.0	238.6	2.068	239.0	2.065	Fine Sand
SORTING (σ):	77.97	1.368	0.453	1.348	0.431	Well Sorted
SKEWNESS (Sk):	1.141	-0.833	0.833	-0.013	0.013	Symmetrical
KURTOSIS (K):	6.428	11.48	11.48	0.983	0.983	Mesokurtic



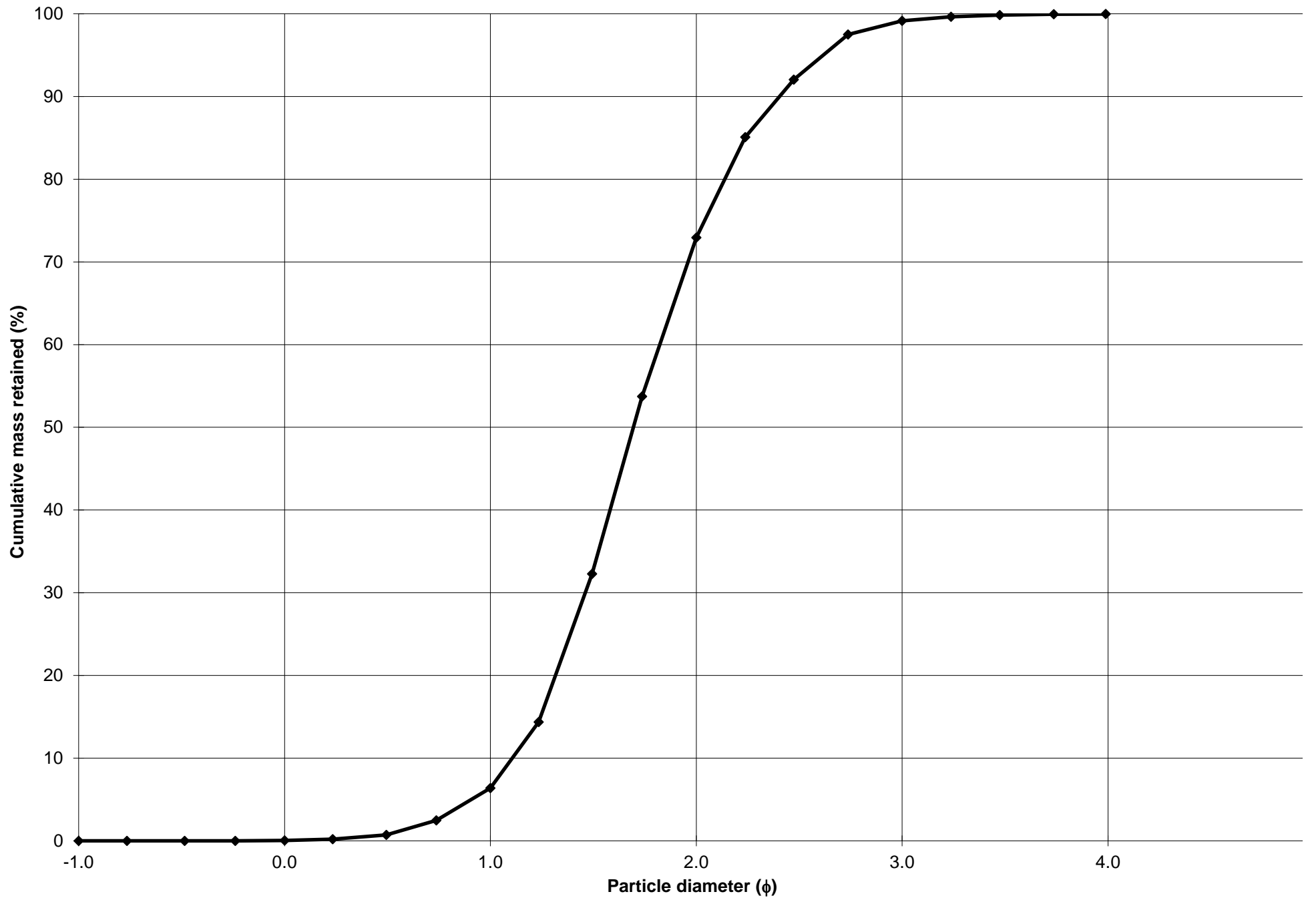
Cumulative Frequency Curve



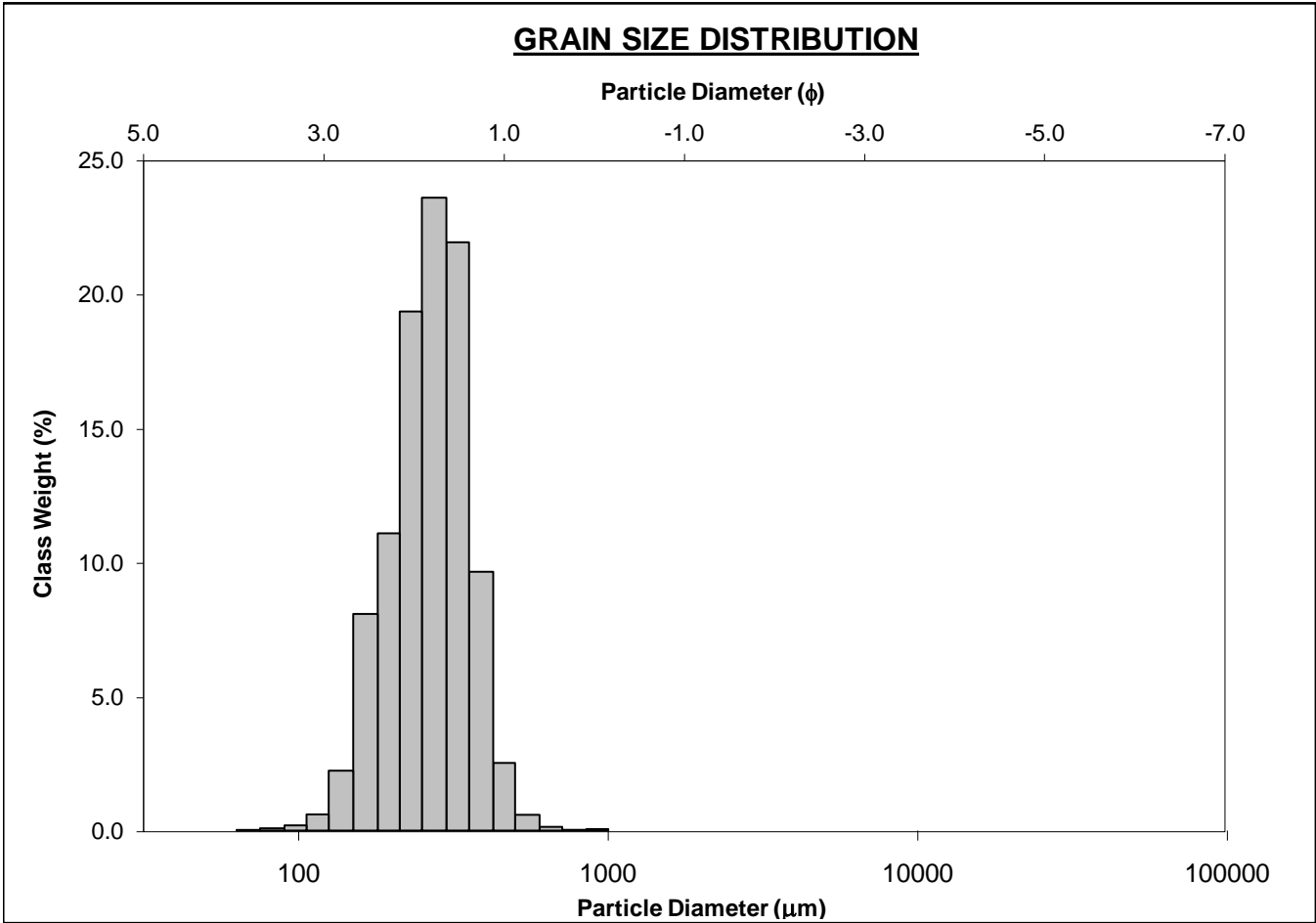
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-50cm			ANALYST & DATE: Chris, 6/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 6.3%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 66.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 26.2%	
D ₁₀ :	188.9	1.106			V FINE SAND: 0.8%	
MEDIAN or D ₅₀ :	308.9	1.695	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	464.4	2.404	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.459	2.173	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	275.5	1.298	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.571	1.469	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	138.8	0.652	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	322.6	302.4	1.726	302.9	1.723	Medium Sand
SORTING (σ):	114.7	1.427	0.513	1.413	0.499	Well Sorted
SKEWNESS (Sk):	1.163	-0.494	0.494	-0.084	0.084	Symmetrical
KURTOSIS (K):	6.086	6.678	6.678	1.075	1.075	Mesokurtic



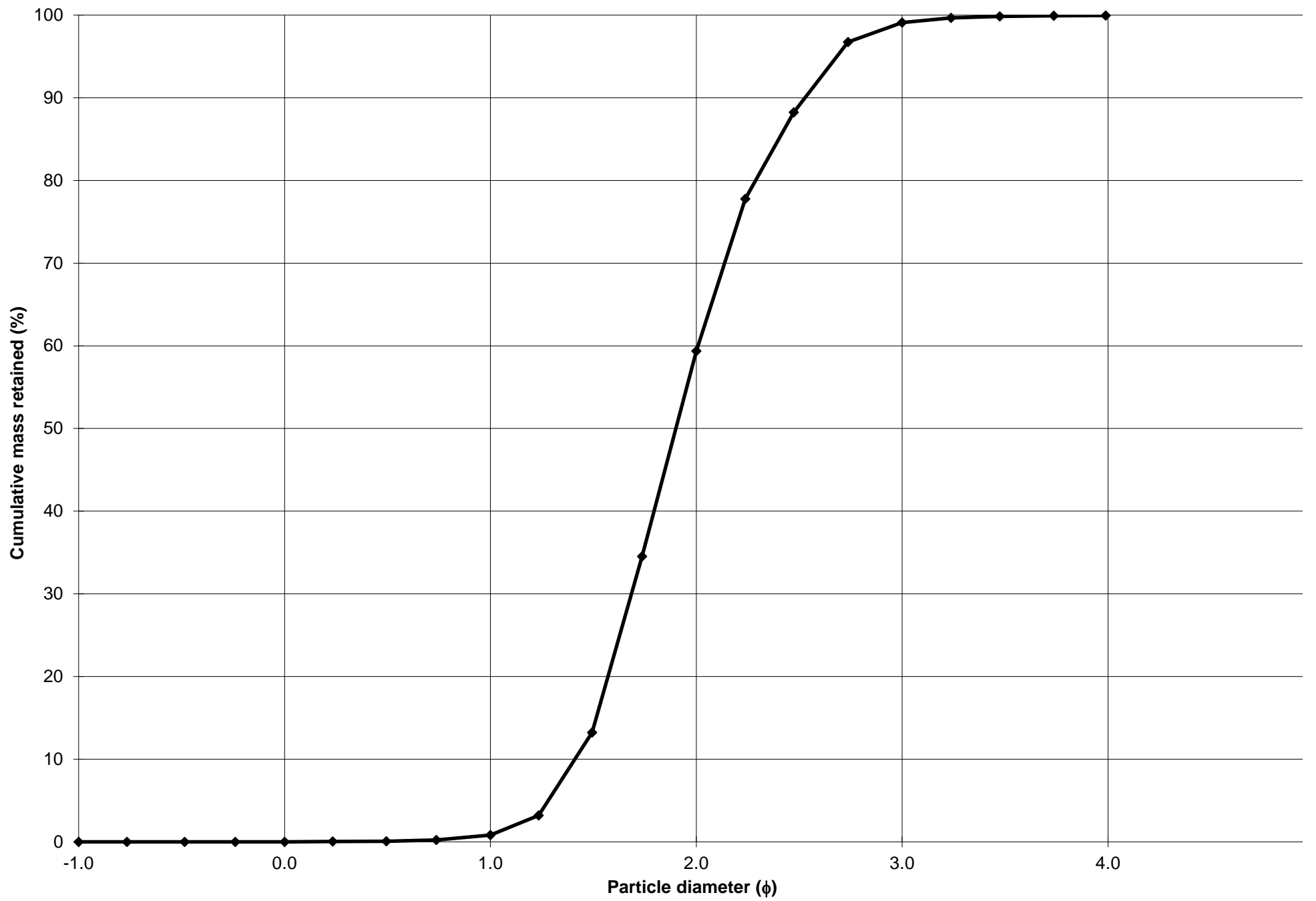
Cumulative Frequency Curve



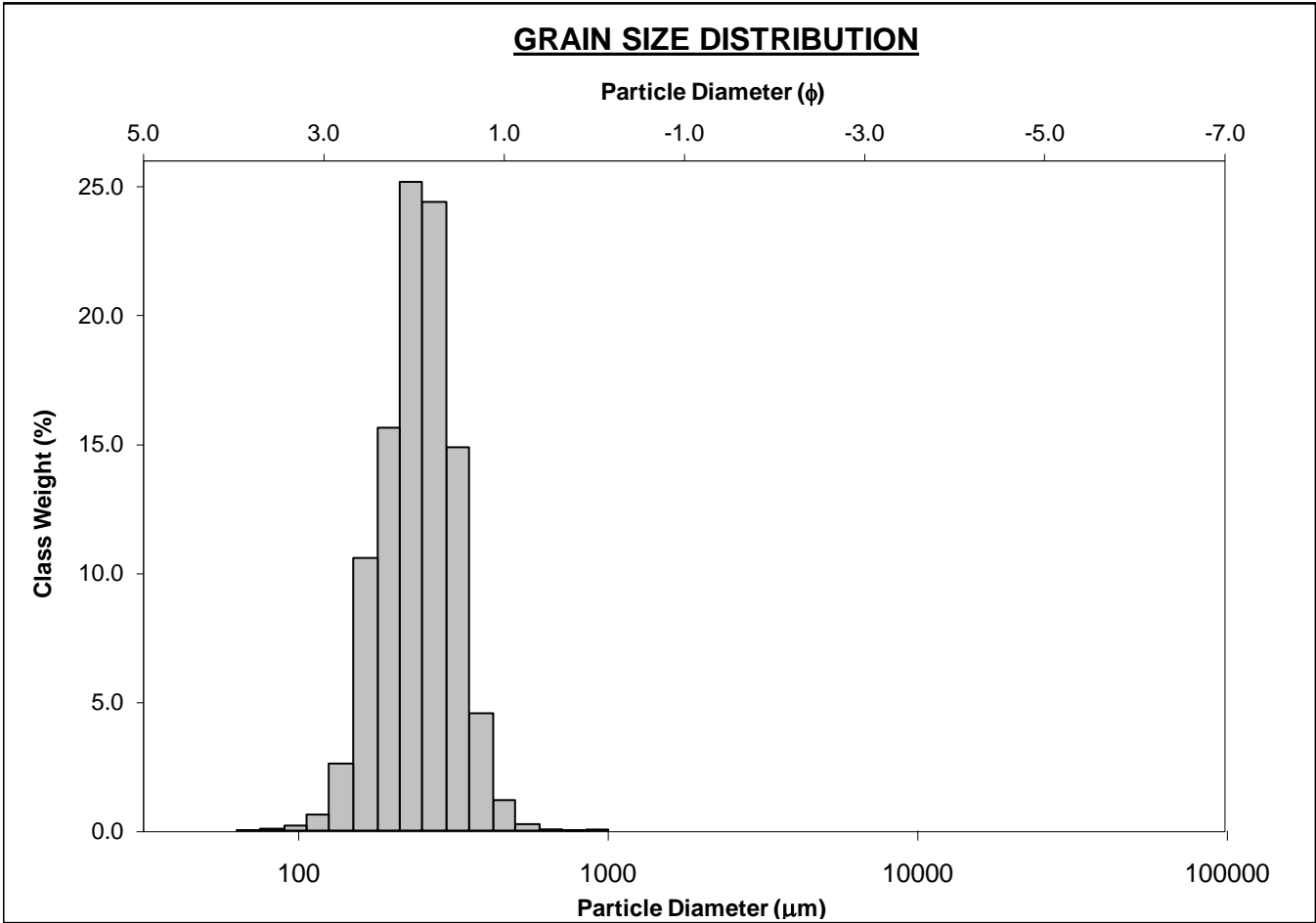
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-60cm			ANALYST & DATE: Chris, 6/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%	COARSE SAND: 0.8%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 58.5%		
MODE 3:			MUD: 0.0%	FINE SAND: 39.7%		
D ₁₀ :	173.3	1.411		V FINE SAND: 0.9%		
MEDIAN or D ₅₀ :	267.8	1.901	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	376.1	2.528	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.170	1.792	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	202.8	1.118	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.488	1.352	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	106.1	0.574	V COARSE SAND: 0.0%	CLAY: 0.0%		
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	274.3	261.6	1.935	261.5	1.935	Medium Sand
SORTING (σ):	80.35	1.356	0.439	1.343	0.426	Well Sorted
SKEWNESS (Sk):	0.860	-0.932	0.932	-0.118	0.118	Fine Skewed
KURTOSIS (K):	6.239	10.82	10.82	1.002	1.002	Mesokurtic



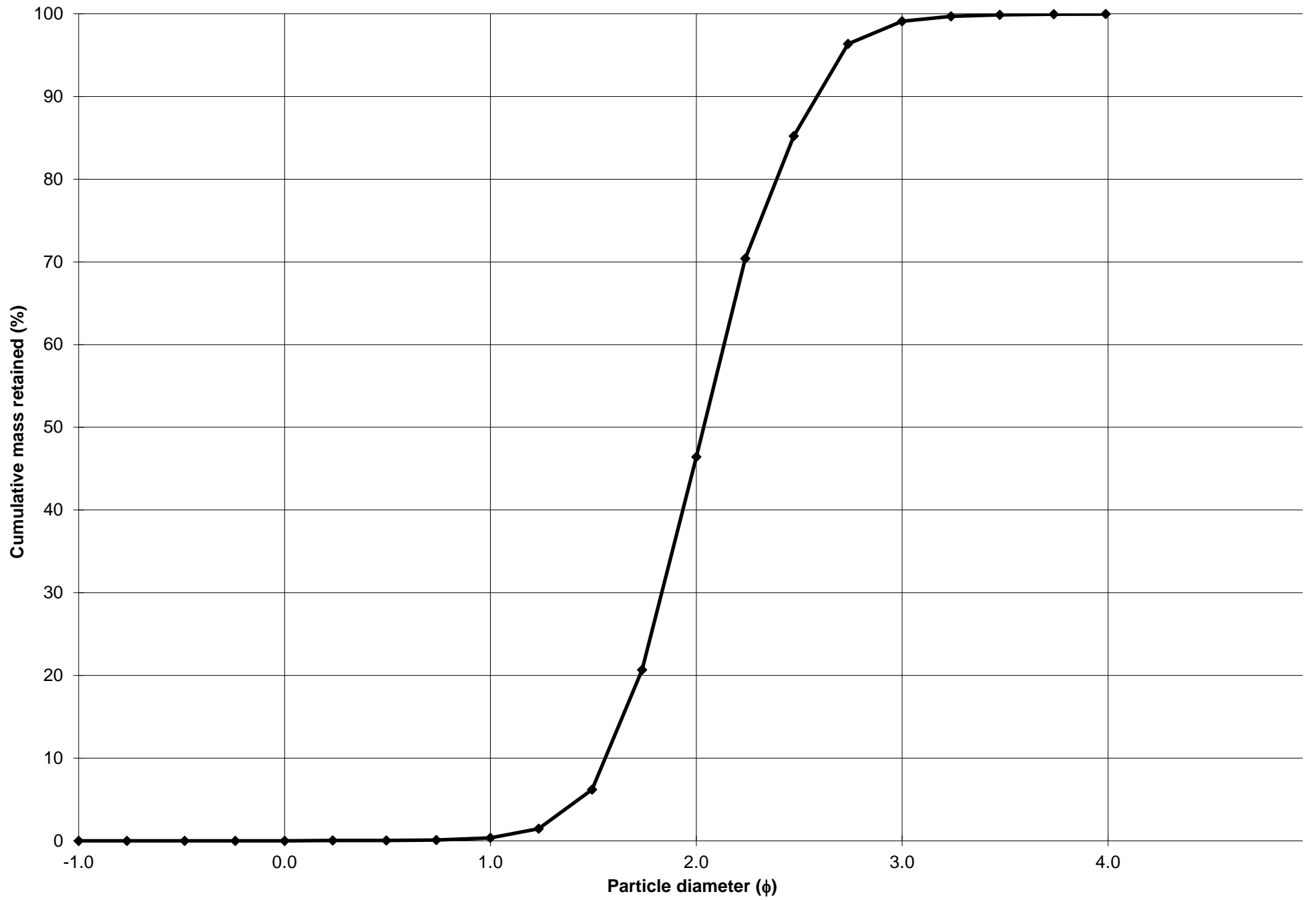
Cumulative Frequency Curve



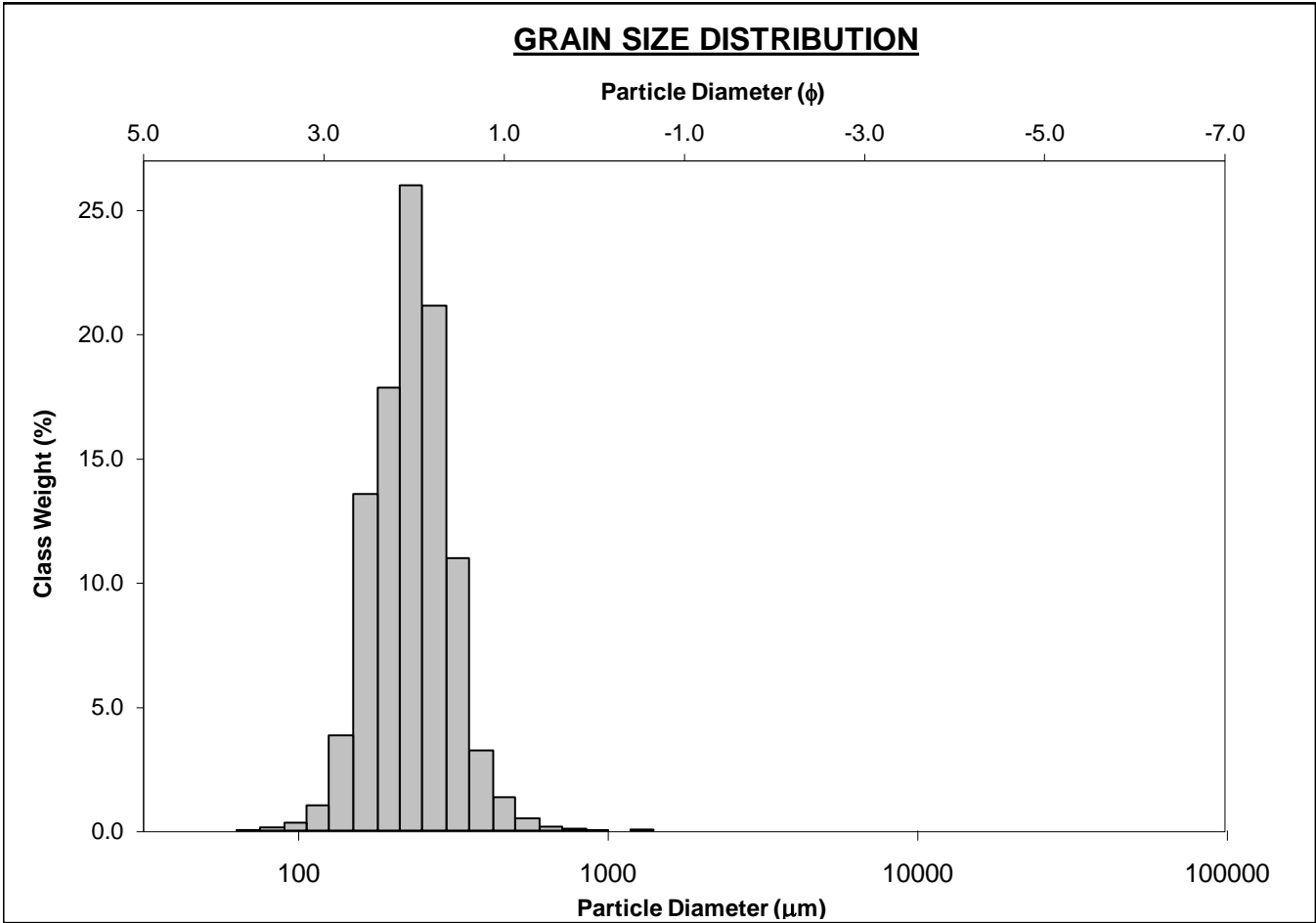
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-70cm			ANALYST & DATE: Chris, 6/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.4%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 46.1%	
MODE 3:			MUD: 0.0%		FINE SAND: 52.7%	
D ₁₀ :	166.4	1.558			V FINE SAND: 0.9%	
MEDIAN or D ₅₀ :	243.9	2.036	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	339.7	2.587	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.041	1.661	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	173.2	1.029	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.444	1.298	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	89.46	0.530	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	251.5	241.3	2.051	241.6	2.050	Fine Sand
SORTING (σ):	69.49	1.322	0.403	1.313	0.393	Well Sorted
SKEWNESS (Sk):	1.059	-0.735	0.735	-0.051	0.051	Symmetrical
KURTOSIS (K):	7.670	10.84	10.84	0.987	0.987	Mesokurtic



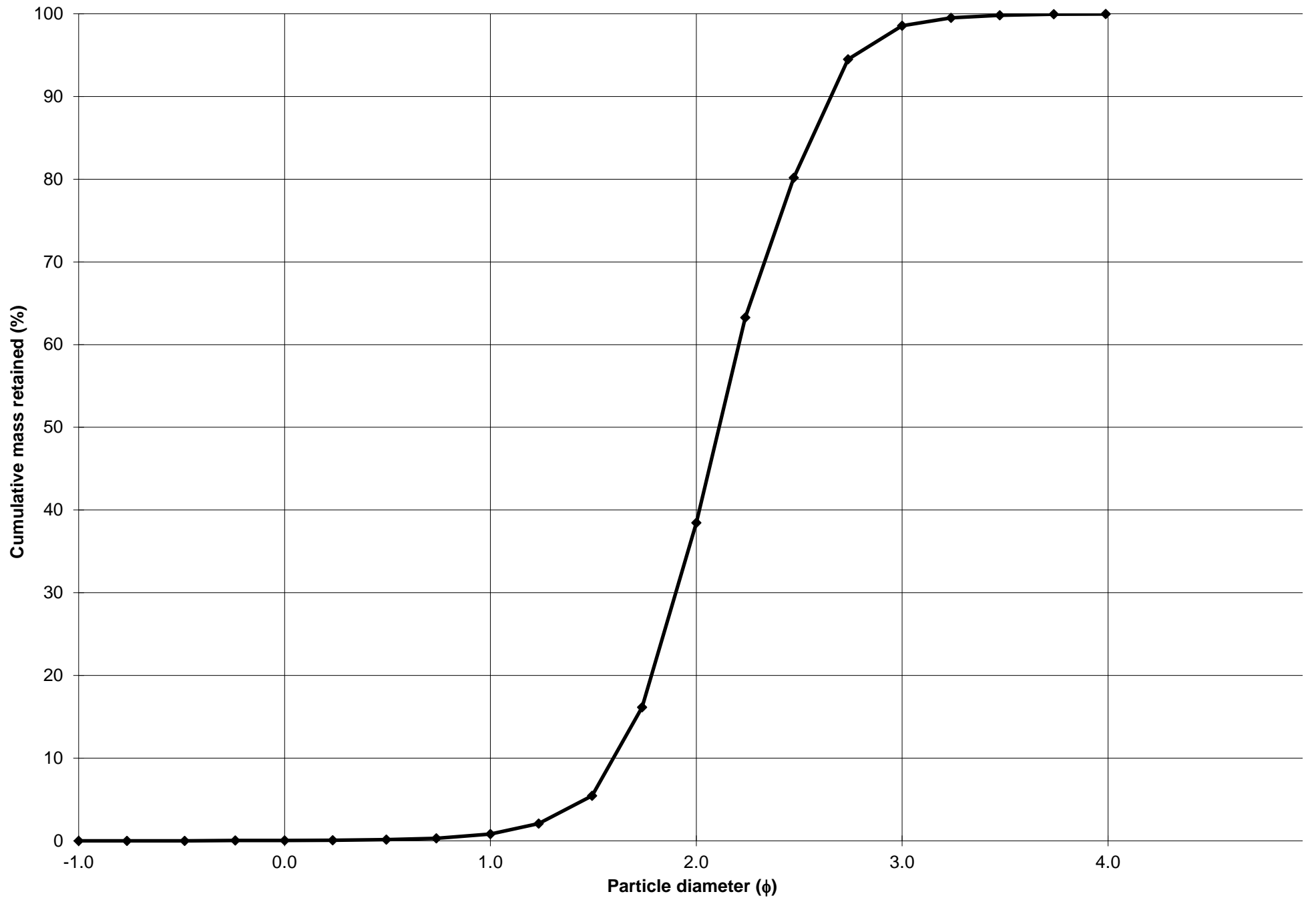
Cumulative Frequency Curve



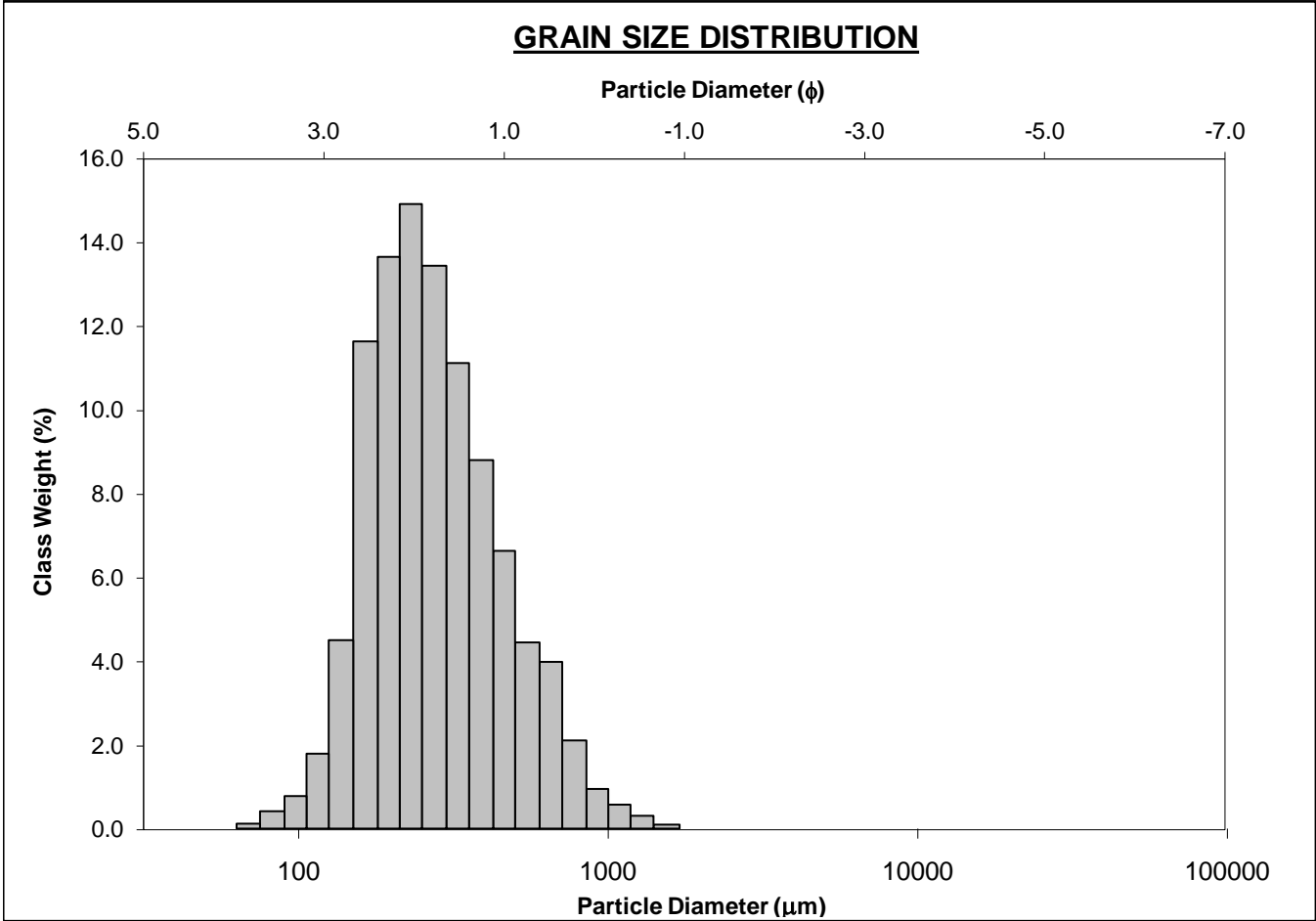
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-80cm			ANALYST & DATE: Chris, 6/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%	COARSE SAND: 0.8%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 37.6%		
MODE 3:			MUD: 0.0%	FINE SAND: 60.1%		
D ₁₀ :	158.8	1.598		V FINE SAND: 1.4%		
MEDIAN or D ₅₀ :	231.6	2.111	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	330.4	2.654	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.080	1.662	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	171.6	1.057	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.475	1.304	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	89.80	0.560	V COARSE SAND: 0.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	241.8	230.6	2.117	228.5	2.130	Fine Sand
SORTING (σ):	76.53	1.344	0.426	1.321	0.401	Well Sorted
SKEWNESS (Sk):	2.404	-0.271	0.271	-0.038	0.038	Symmetrical
KURTOSIS (K):	22.37	8.953	8.953	0.958	0.958	Mesokurtic



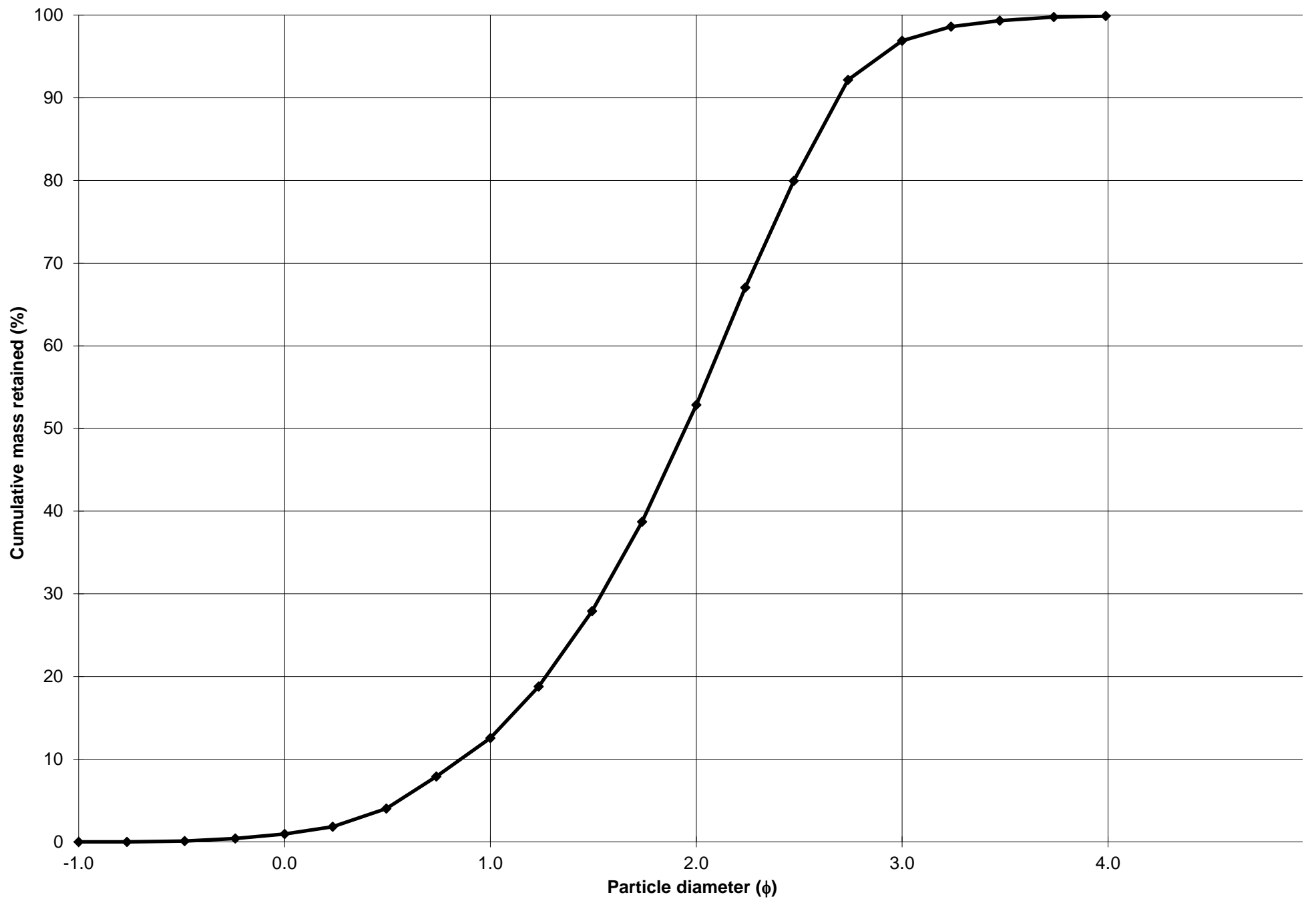
Cumulative Frequency Curve



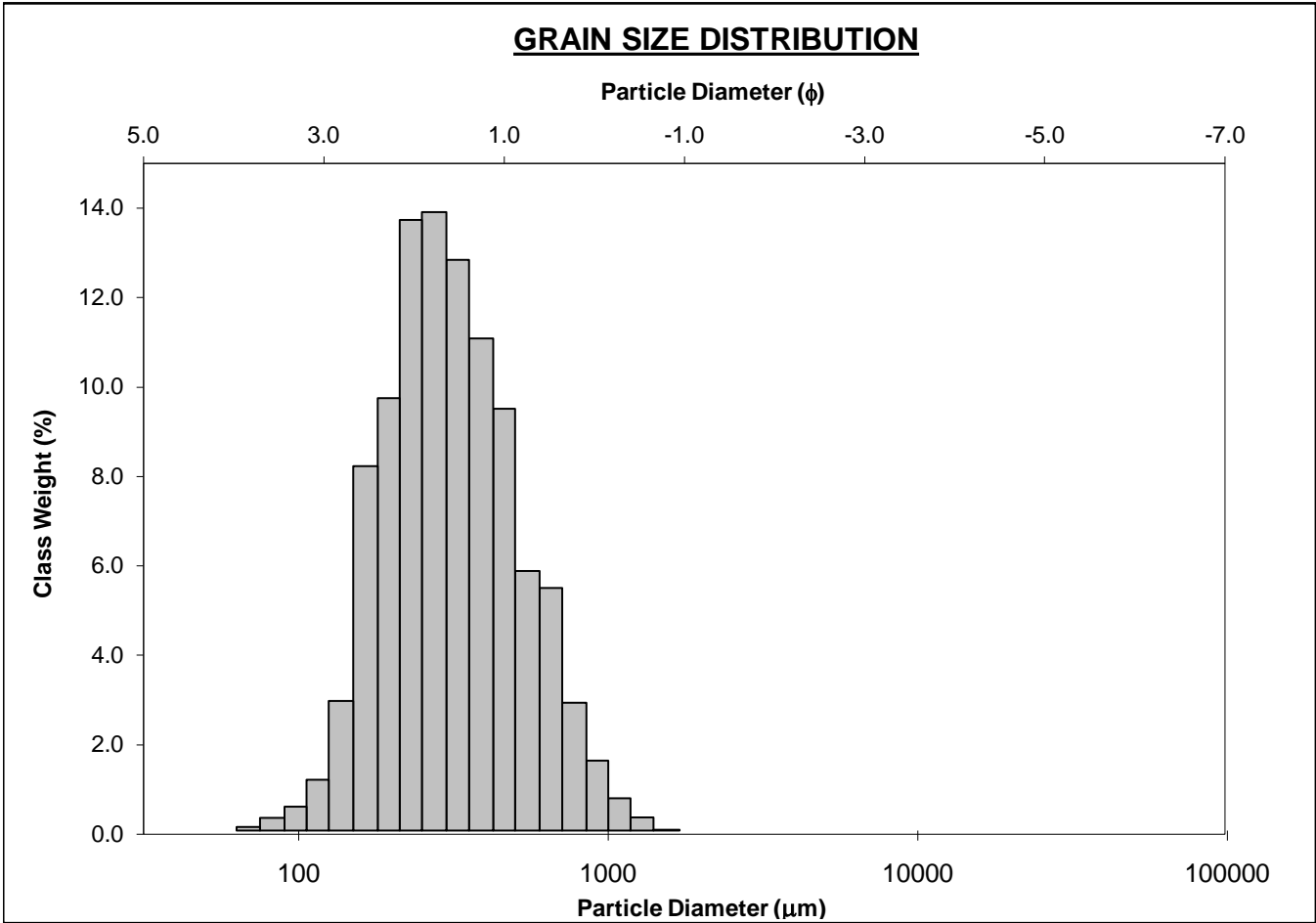
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-90cm			ANALYST & DATE: Chris, 6/30/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 11.6%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 40.3%	
MODE 3:			MUD: 0.1%		FINE SAND: 44.0%	
D ₁₀ :	154.9	0.856			V FINE SAND: 3.0%	
MEDIAN or D ₅₀ :	259.4	1.947	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	552.6	2.690	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.567	3.144	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	397.7	1.835	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.962	1.689	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	184.4	0.973	V COARSE SAND: 1.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	314.3	273.9	1.868	271.8	1.879	Medium Sand
SORTING (σ):	182.8	1.661	0.732	1.638	0.712	Moderately Sorted
SKEWNESS (Sk):	2.074	0.066	-0.066	0.166	-0.166	Coarse Skewed
KURTOSIS (K):	9.251	5.409	5.409	0.986	0.986	Mesokurtic



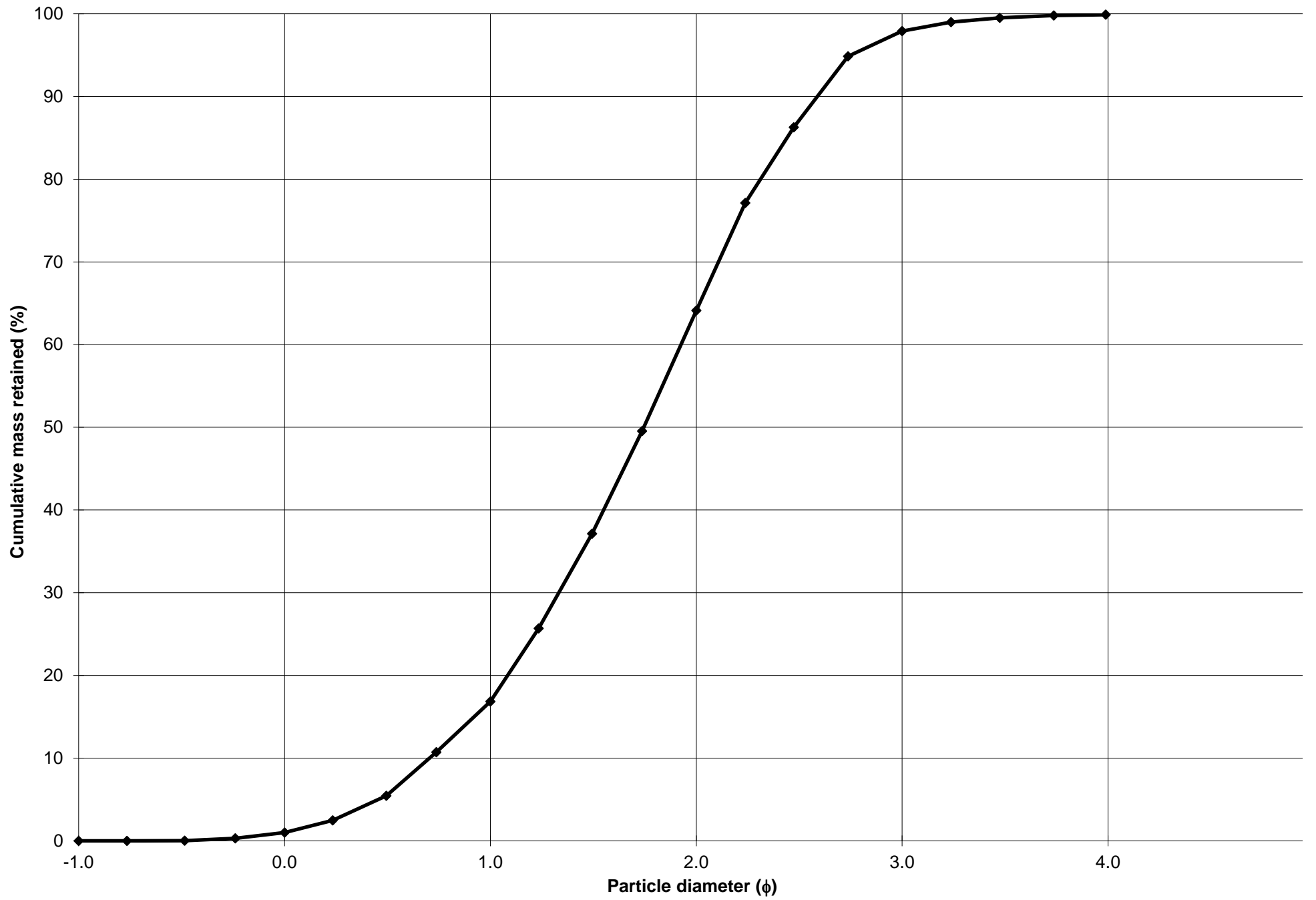
Cumulative Frequency Curve



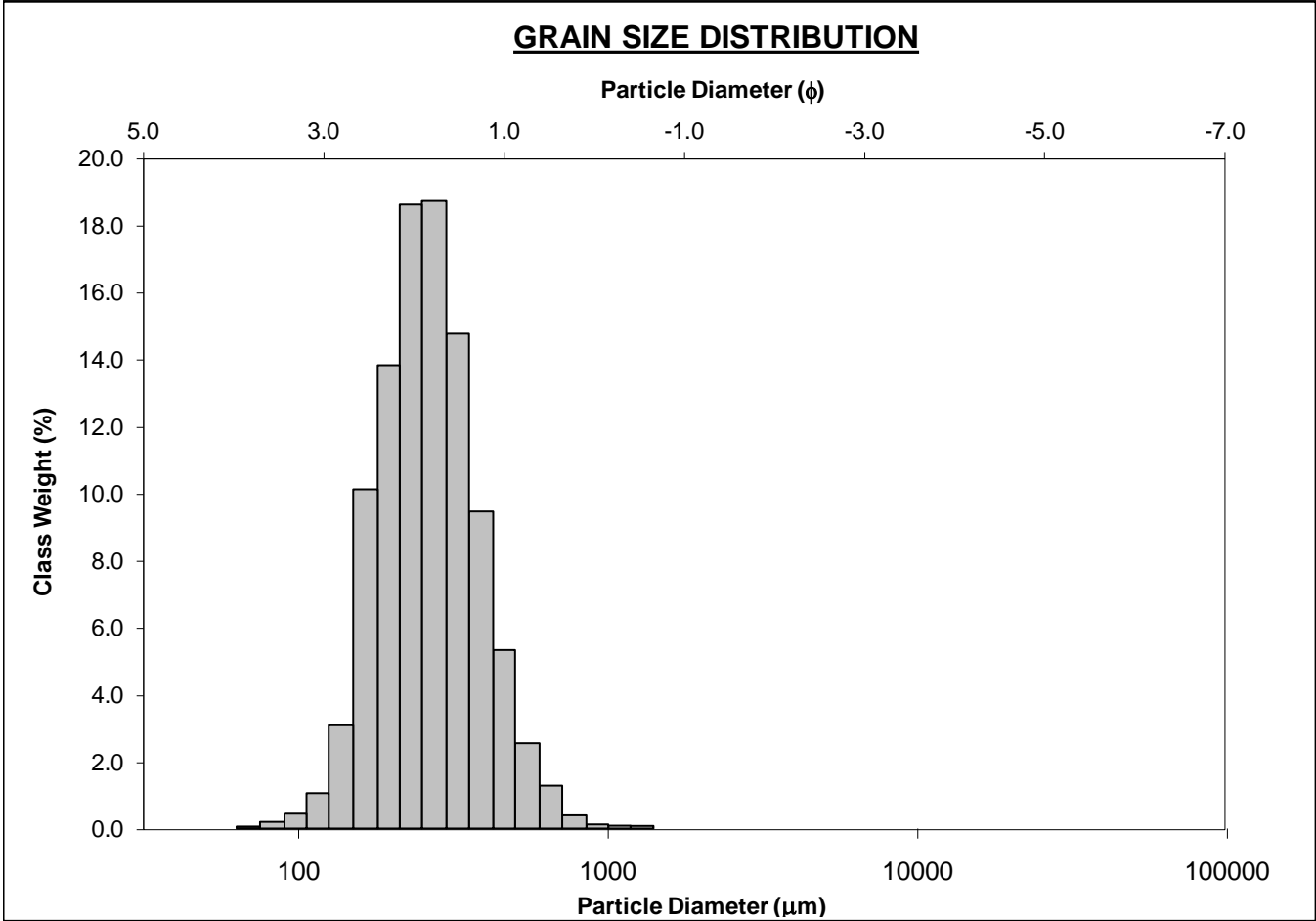
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-100cm			ANALYST & DATE: Chris, 6/30/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 15.8%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 47.3%			
MODE 3:			MUD: 0.1% FINE SAND: 33.8%			
D ₁₀ :	166.3	0.704	V FINE SAND: 2.0%			
MEDIAN or D ₅₀ :	298.3	1.745	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	613.9	2.588	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	3.691	3.677	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	447.6	1.884	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.976	1.808	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	212.6	0.983	V COARSE SAND: 1.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	351.3	308.0	1.699	306.1	1.708	Medium Sand
SORTING (σ):	190.2	1.660	0.731	1.636	0.710	Moderately Sorted
SKEWNESS (Sk):	1.586	-0.199	0.199	0.101	-0.101	Coarse Skewed
KURTOSIS (K):	6.285	5.592	5.592	0.956	0.956	Mesokurtic



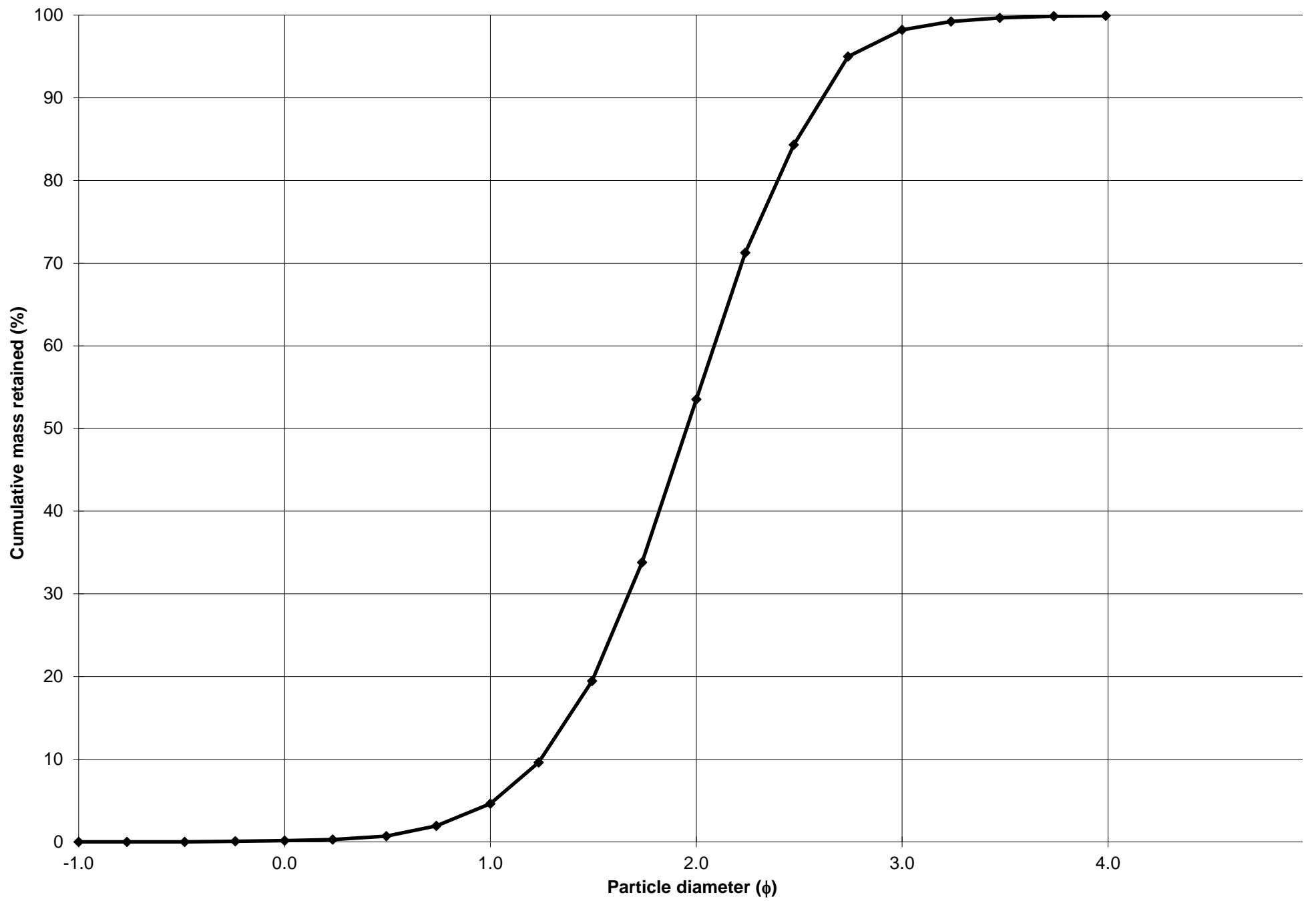
Cumulative Frequency Curve



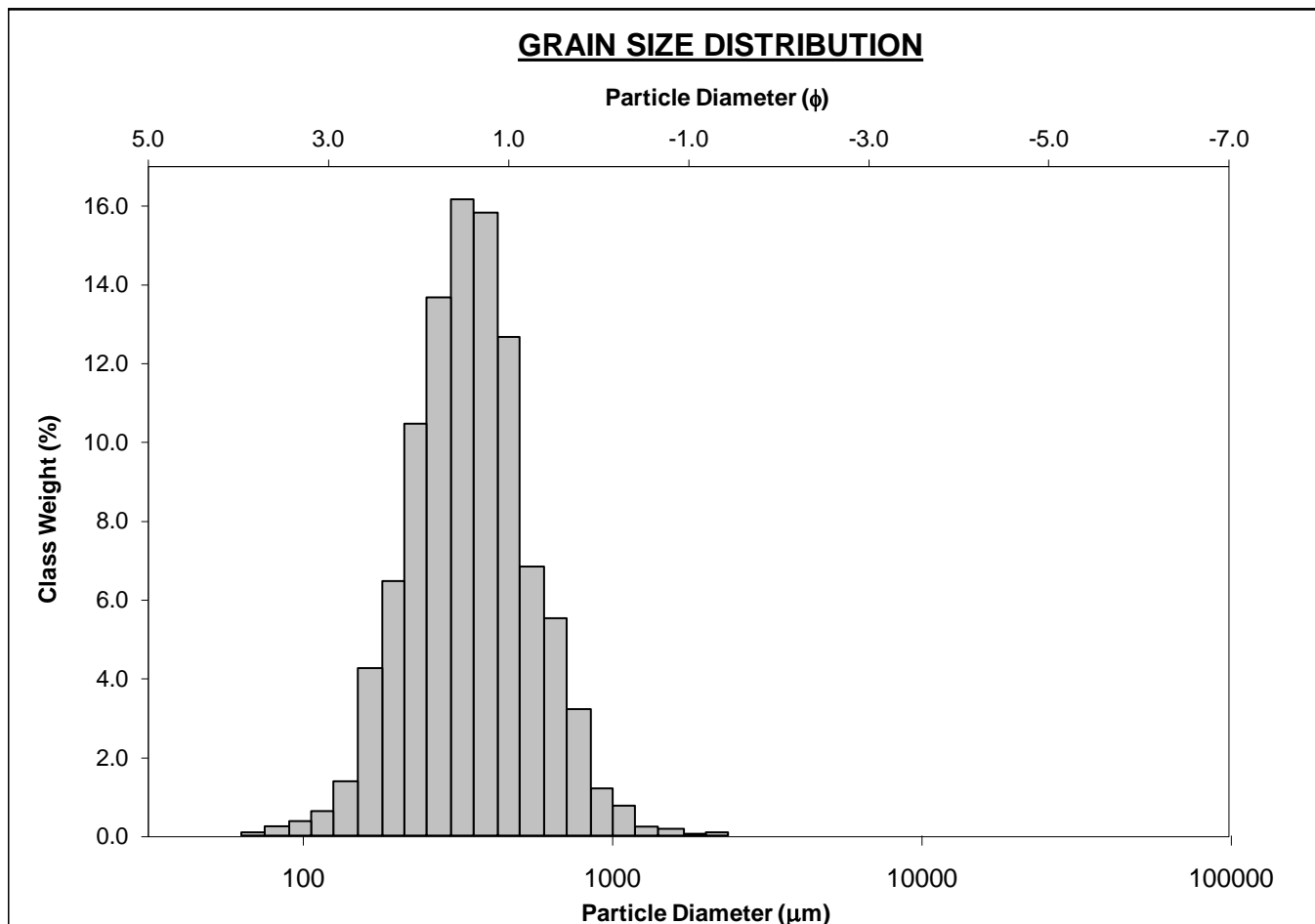
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-110cm			ANALYST & DATE: Chris, 6/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 4.5%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 48.9%	
MODE 3:			MUD: 0.1%		FINE SAND: 44.7%	
D ₁₀ :	163.3	1.245			V FINE SAND: 1.7%	
MEDIAN or D ₅₀ :	258.3	1.953	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	422.0	2.614	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.583	2.100	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	258.7	1.369	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.644	1.452	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	130.3	0.717	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	282.2	261.0	1.938	260.4	1.941	Medium Sand
SORTING (σ):	117.0	1.471	0.557	1.441	0.527	Moderately Well Sorted
SKEWNESS (Sk):	1.955	-0.339	0.339	0.060	-0.060	Symmetrical
KURTOSIS (K):	11.18	8.266	8.266	0.983	0.983	Mesokurtic



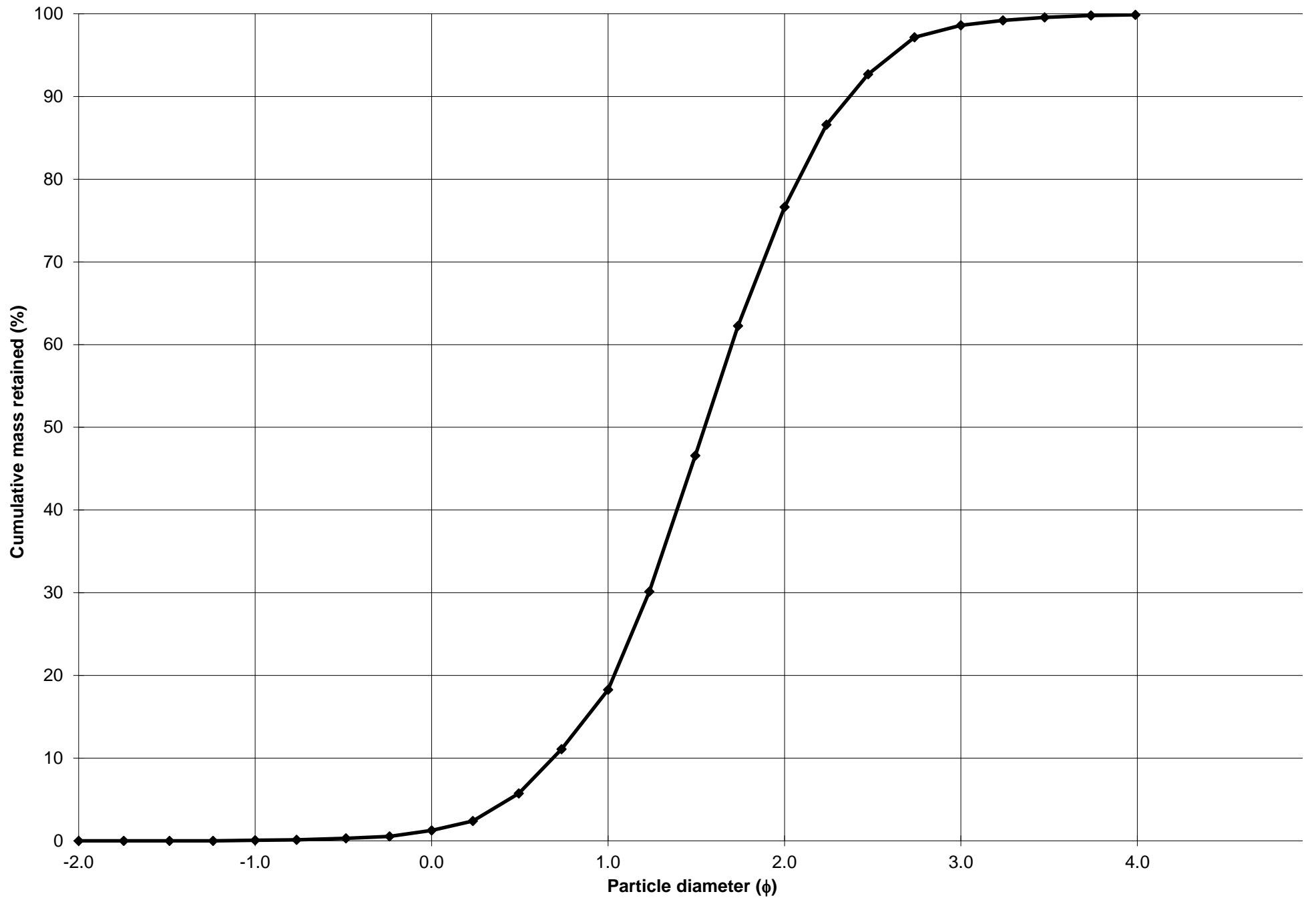
Cumulative Frequency Curve



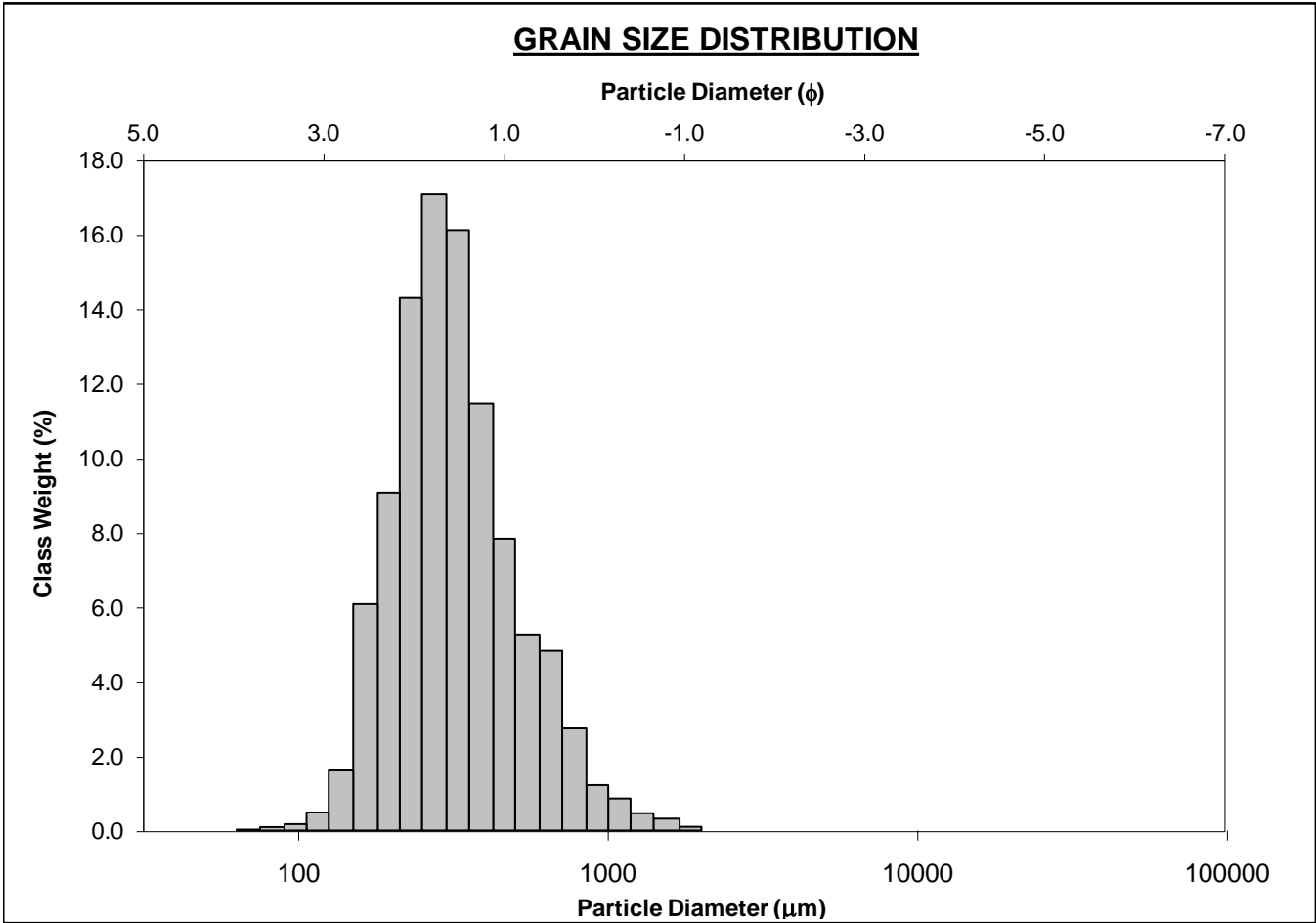
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-120cm			ANALYST & DATE: Chris, 6/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.1%		COARSE SAND: 17.0%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 58.4%	
MODE 3:			MUD: 0.1%		FINE SAND: 22.0%	
D ₁₀ :	193.5	0.688			V FINE SAND: 1.3%	
MEDIAN or D ₅₀ :	342.2	1.547	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	620.8	2.370	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.209	3.445	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	427.3	1.682	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.787	1.739	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	200.8	0.837	V COARSE SAND: 1.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	382.9	342.3	1.547	342.3	1.547	Medium Sand
SORTING (σ):	194.0	1.602	0.680	1.563	0.644	Moderately Well Sorted
SKEWNESS (Sk):	2.281	-0.493	0.493	0.011	-0.011	Symmetrical
KURTOSIS (K):	13.93	7.867	7.867	1.063	1.063	Mesokurtic



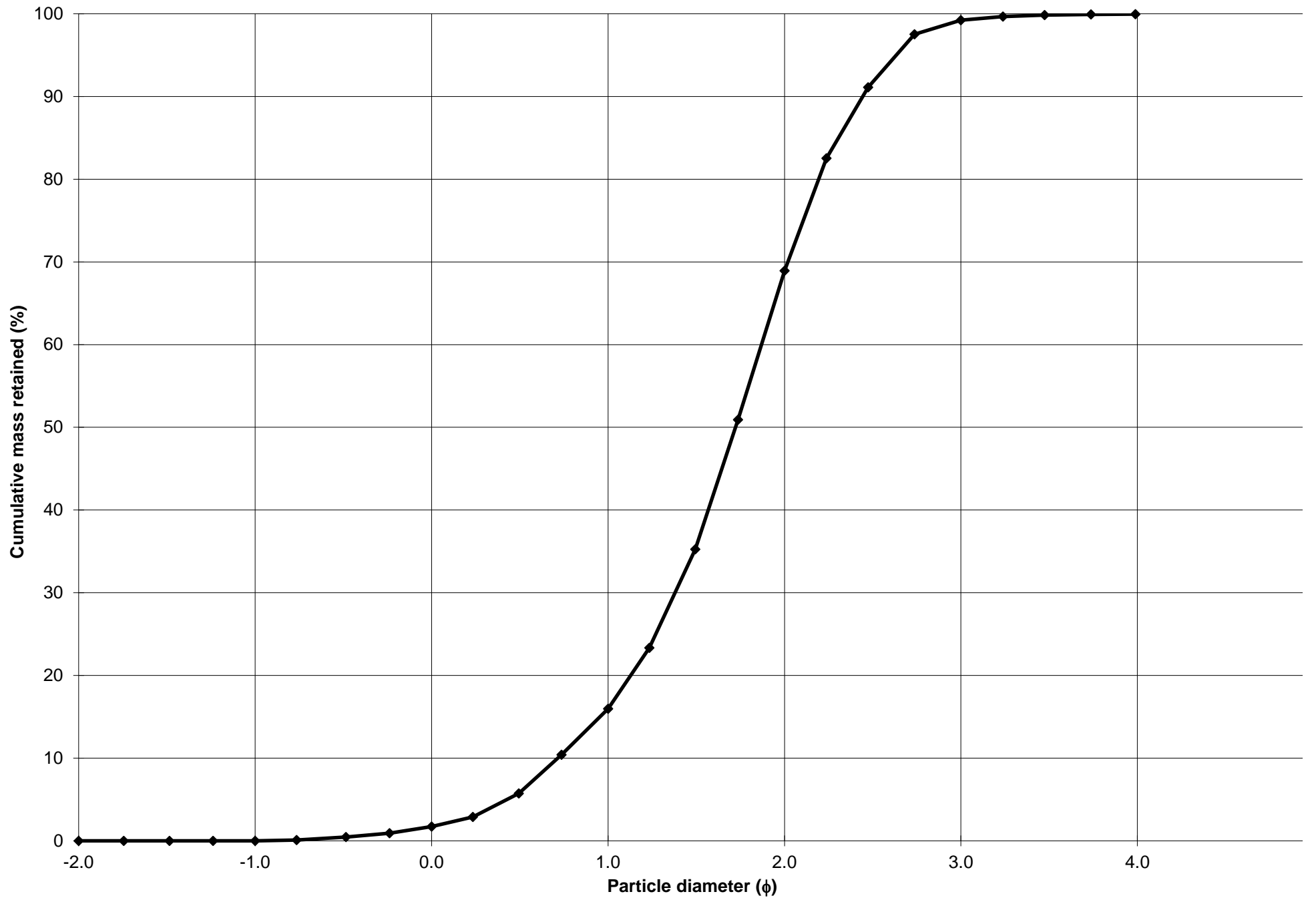
Cumulative Frequency Curve



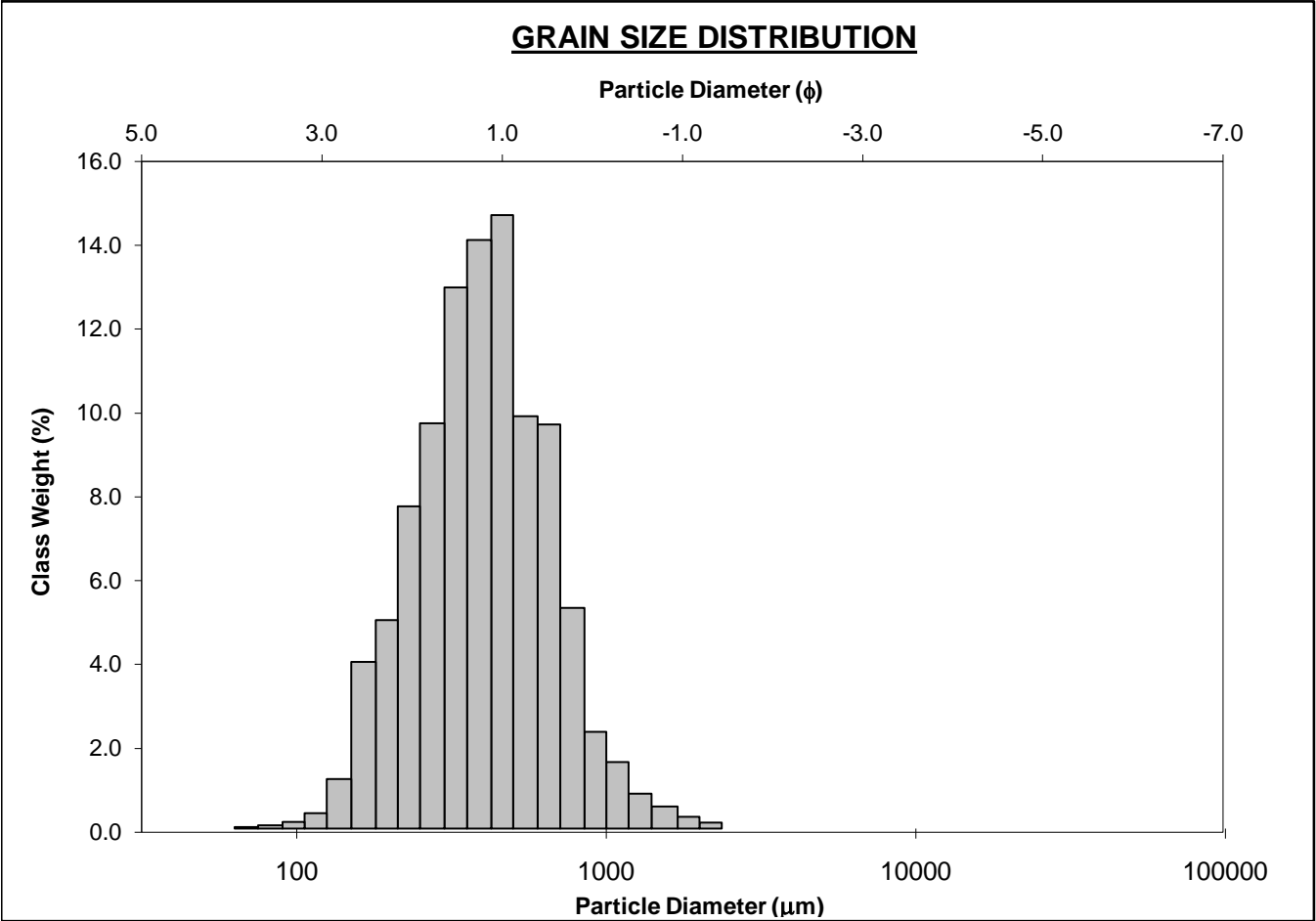
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-130cm			ANALYST & DATE: Chris, 6/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 14.2%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 53.0%	
MODE 3:			MUD: 0.0%		FINE SAND: 30.3%	
D ₁₀ :	183.9	0.715			V FINE SAND: 0.7%	
MEDIAN or D ₅₀ :	303.0	1.723	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	609.2	2.443	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.313	3.417	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	425.3	1.728	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.784	1.657	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	182.1	0.835	V COARSE SAND: 1.7%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	359.6	318.5	1.651	314.8	1.667	Medium Sand
SORTING (σ):	202.5	1.595	0.674	1.573	0.654	Moderately Well Sorted
SKEWNESS (Sk):	2.452	0.361	-0.361	0.152	-0.152	Coarse Skewed
KURTOSIS (K):	12.13	4.893	4.893	1.083	1.083	Mesokurtic



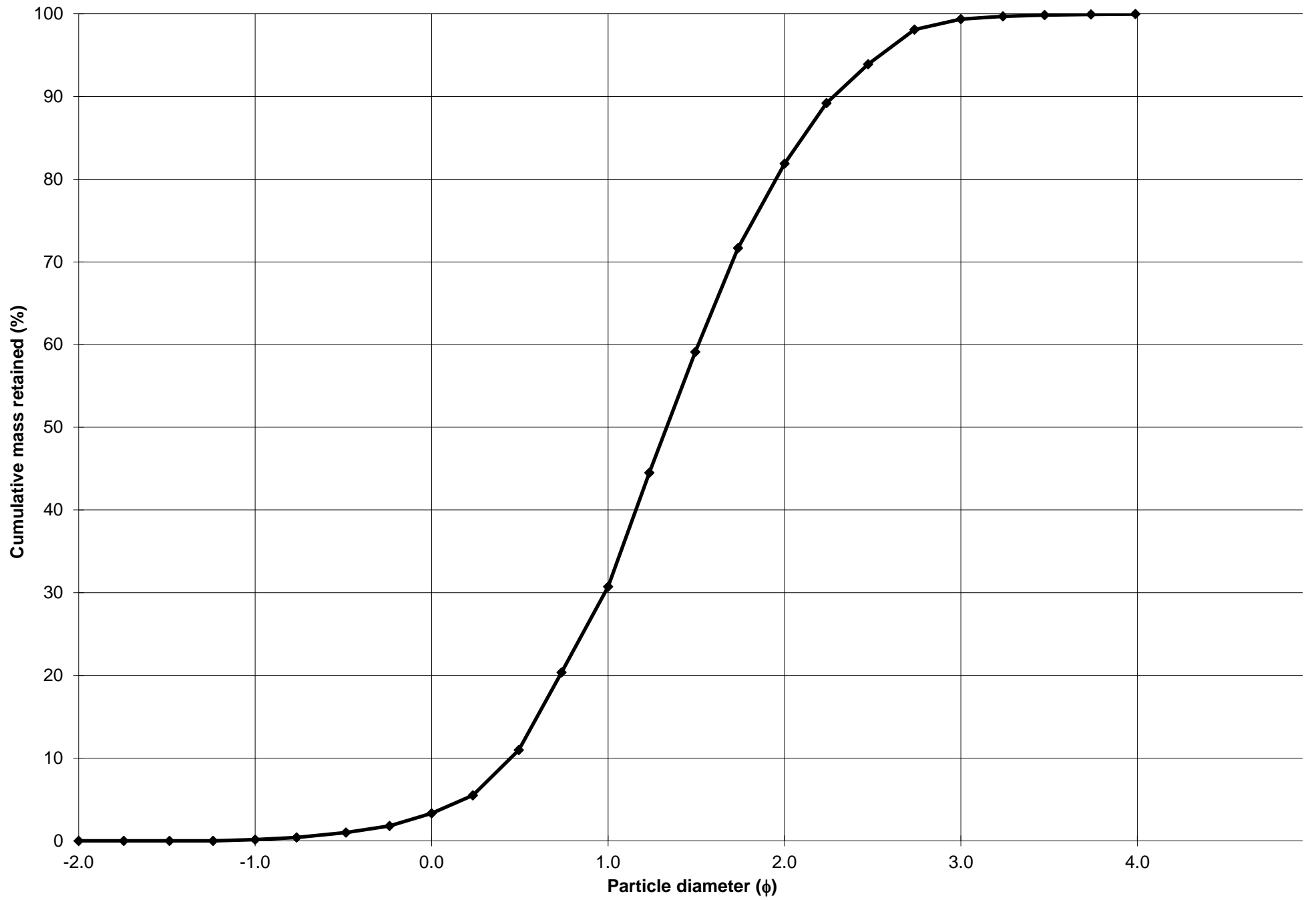
Cumulative Frequency Curve



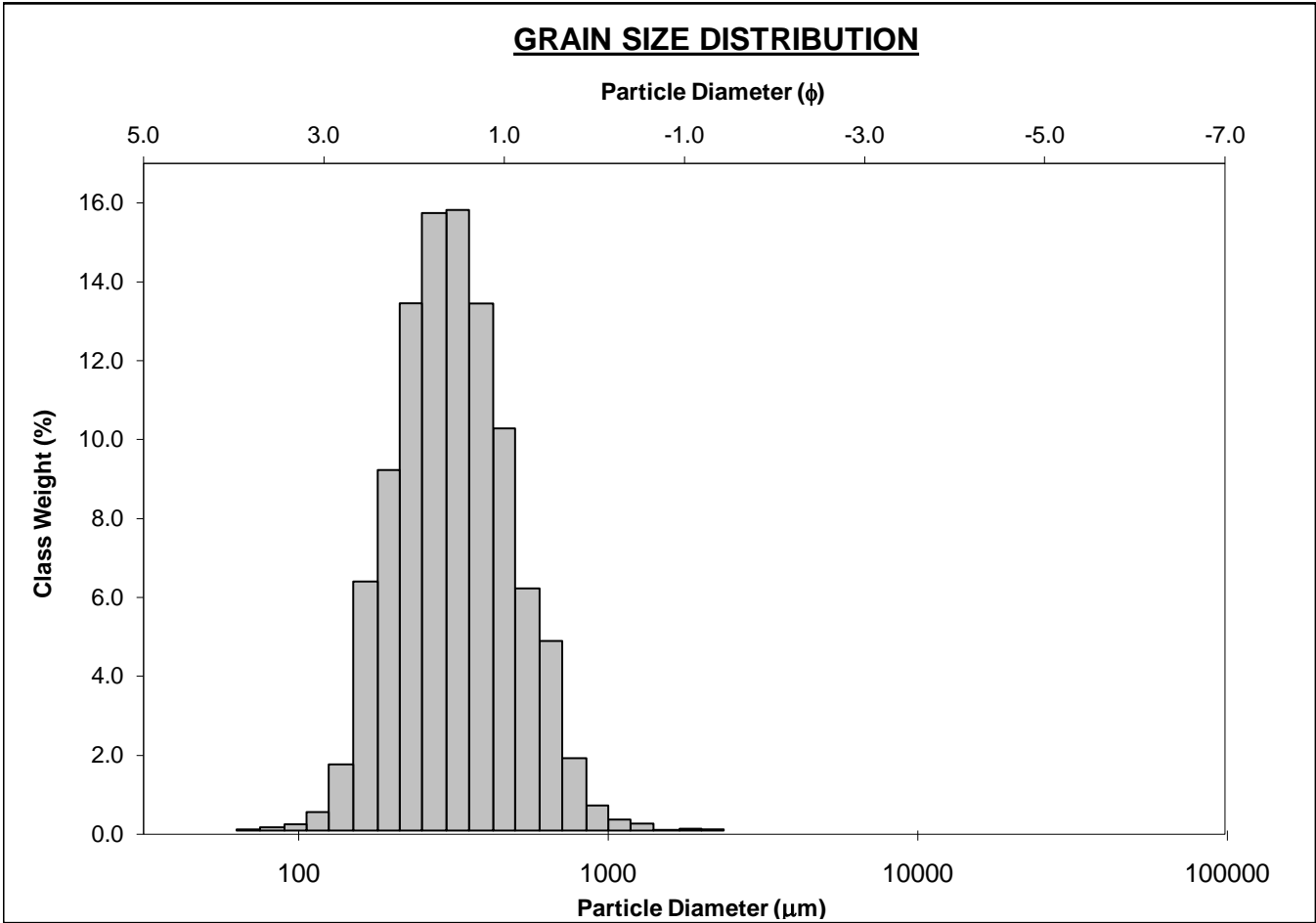
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-140cm			ANALYST & DATE: Chris, 6/30/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	462.5	1.117	GRAVEL: 0.1%		COARSE SAND: 27.4%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 51.1%	
MODE 3:			MUD: 0.0%		FINE SAND: 17.5%	
D ₁₀ :	206.2	0.448			V FINE SAND: 0.6%	
MEDIAN or D ₅₀ :	397.1	1.332	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	733.3	2.278	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.556	5.089	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	527.1	1.830	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.956	2.133	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	270.4	0.968	V COARSE SAND: 3.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	450.8	395.4	1.339	394.5	1.342	Medium Sand
SORTING (σ):	248.6	1.654	0.726	1.646	0.719	Moderately Sorted
SKEWNESS (Sk):	2.090	-0.068	0.068	-0.022	0.022	Symmetrical
KURTOSIS (K):	10.59	4.322	4.322	1.000	1.000	Mesokurtic



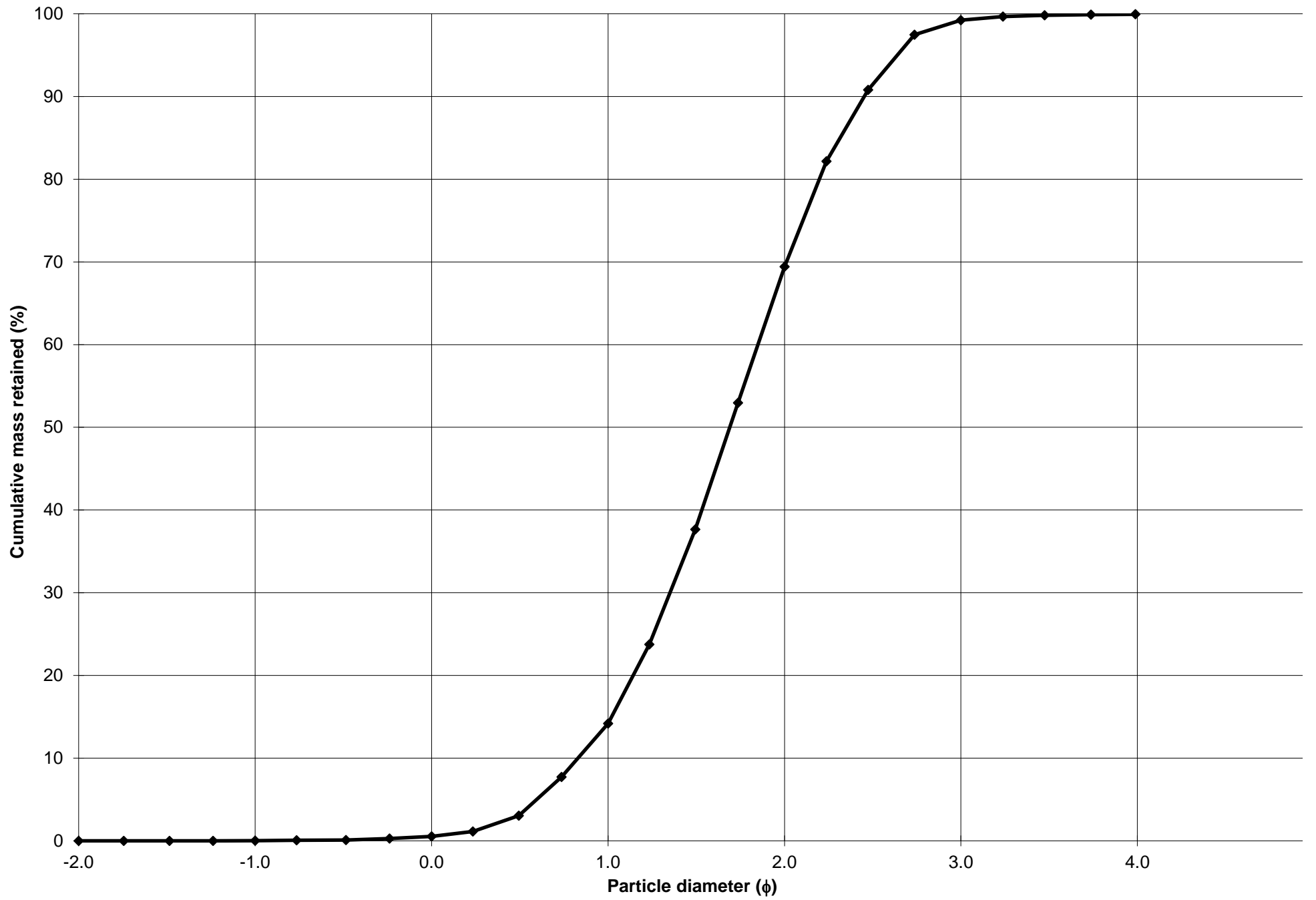
Cumulative Frequency Curve



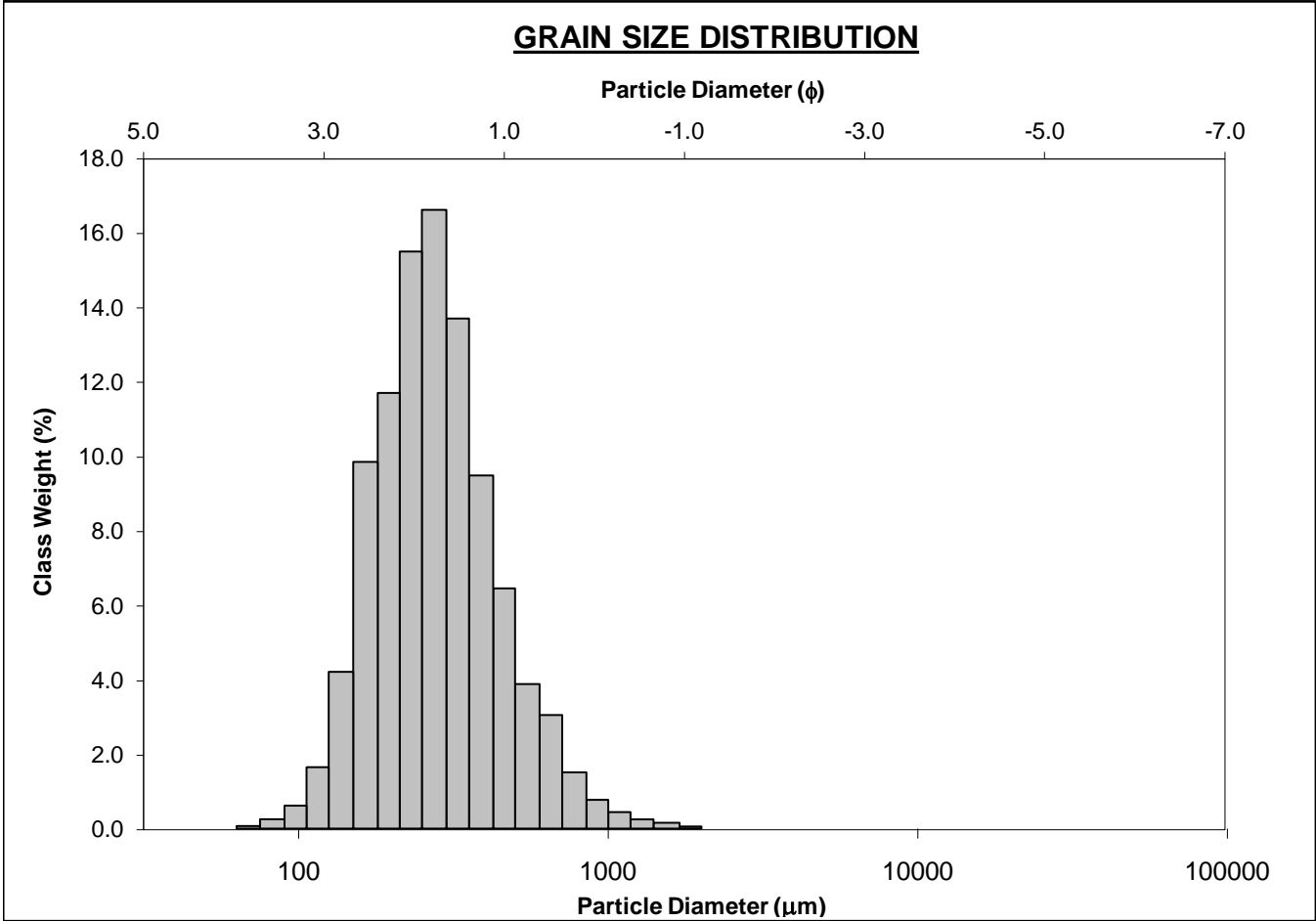
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-150cm			ANALYST & DATE: Chris, 6/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 13.6%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 55.3%	
MODE 3:			MUD: 0.1%		FINE SAND: 29.8%	
D ₁₀ :	182.8	0.830			V FINE SAND: 0.7%	
MEDIAN or D ₅₀ :	309.9	1.690	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	562.5	2.452	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.078	2.954	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	379.8	1.622	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.798	1.673	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	185.6	0.846	V COARSE SAND: 0.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	347.9	314.8	1.668	313.3	1.674	Medium Sand
SORTING (σ):	165.9	1.548	0.631	1.537	0.621	Moderately Well Sorted
SKEWNESS (Sk):	2.107	-0.139	0.139	0.055	-0.055	Symmetrical
KURTOSIS (K):	13.43	6.033	6.033	0.990	0.990	Mesokurtic



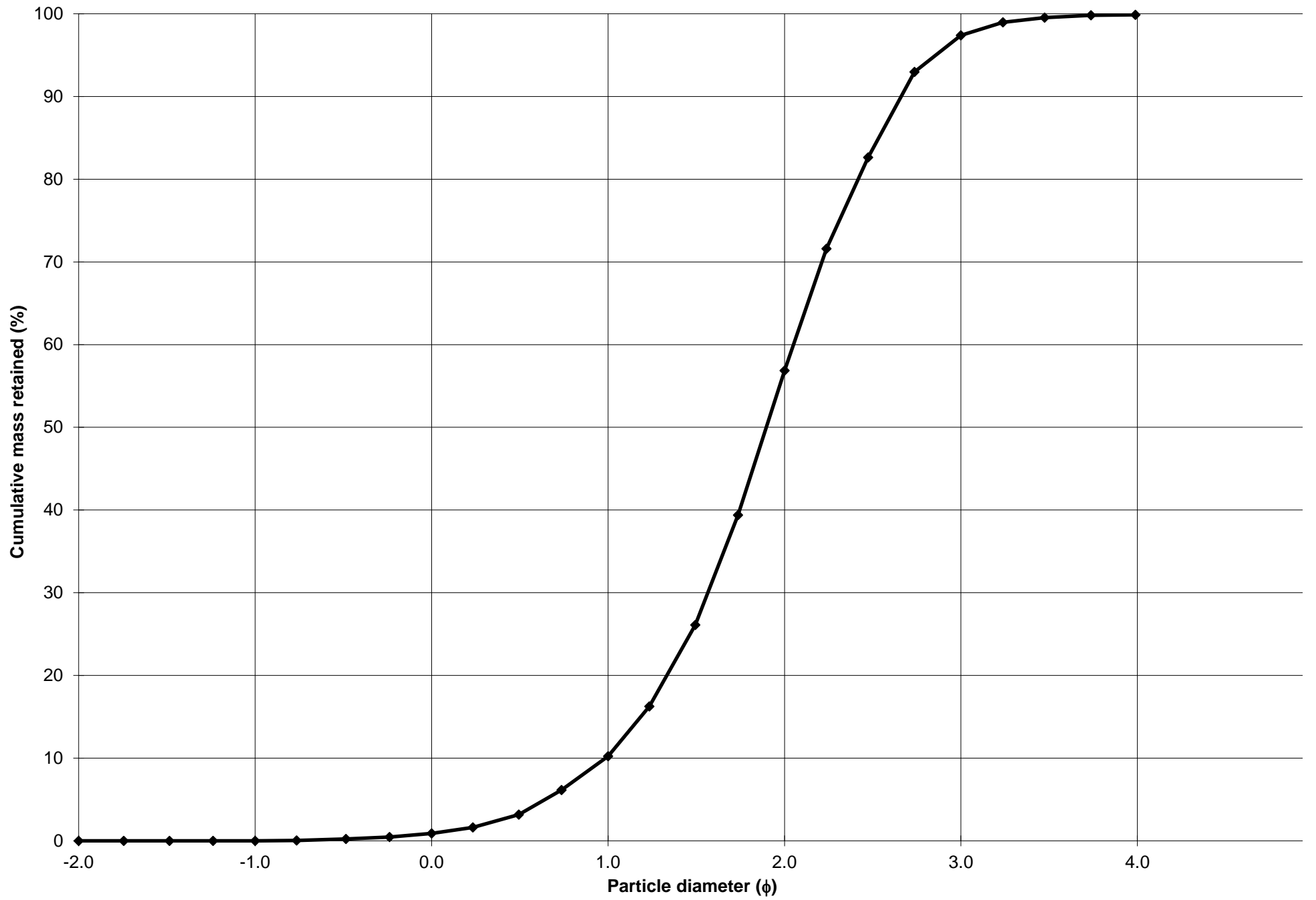
Cumulative Frequency Curve



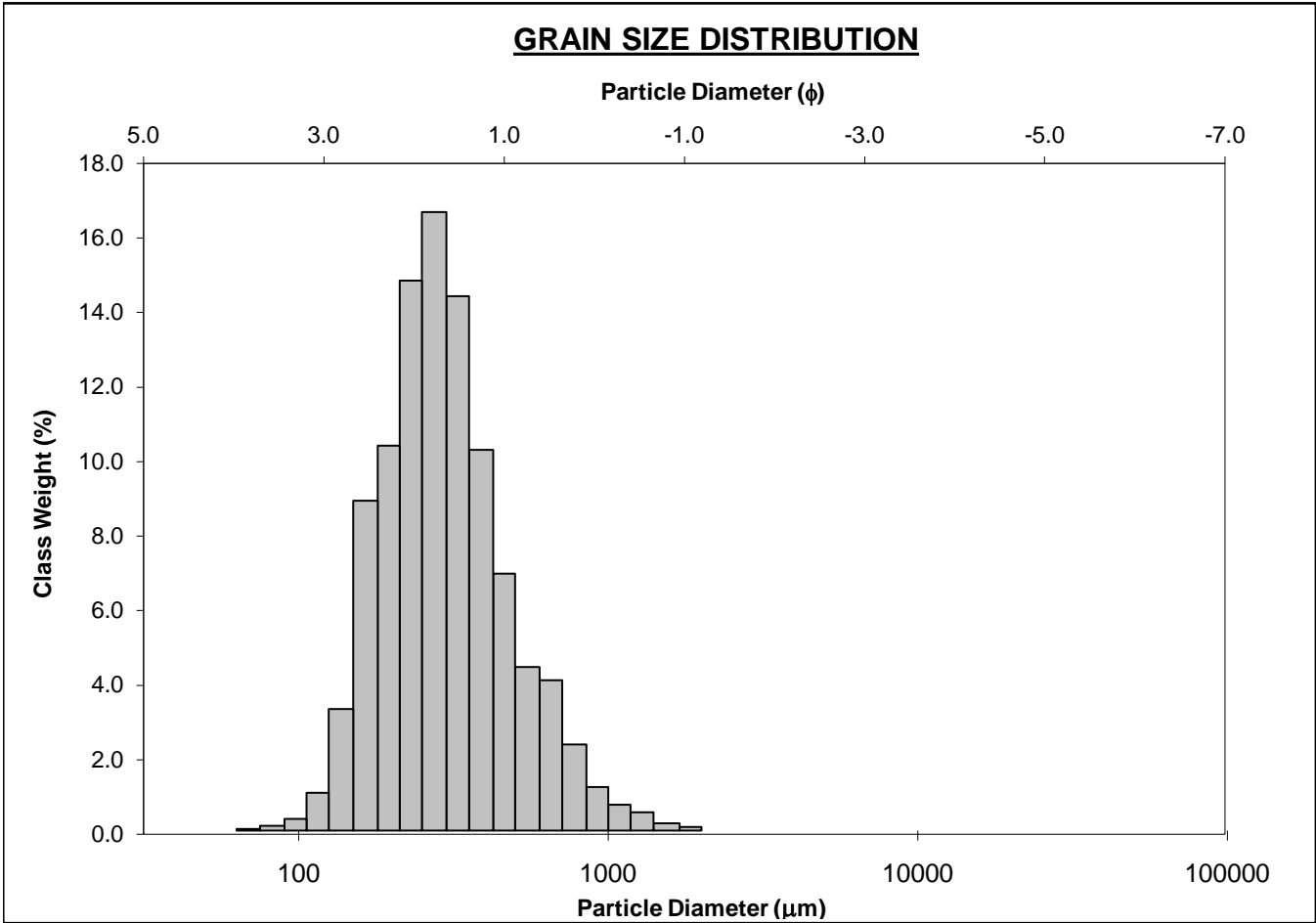
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-160cm			ANALYST & DATE: Chris, 6/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 9.3%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 46.6%	
MODE 3:			MUD: 0.1%		FINE SAND: 40.5%	
D ₁₀ :	158.1	0.986			V FINE SAND: 2.5%	
MEDIAN or D ₅₀ :	268.6	1.897	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	504.9	2.661	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.194	2.700	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	346.9	1.676	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.797	1.577	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	160.7	0.846	V COARSE SAND: 0.9%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	311.5	275.9	1.858	272.3	1.877	Medium Sand
SORTING (σ):	173.7	1.610	0.687	1.576	0.657	Moderately Well Sorted
SKEWNESS (Sk):	2.623	-0.059	0.059	0.090	-0.090	Symmetrical
KURTOSIS (K):	14.69	6.897	6.897	1.073	1.073	Mesokurtic



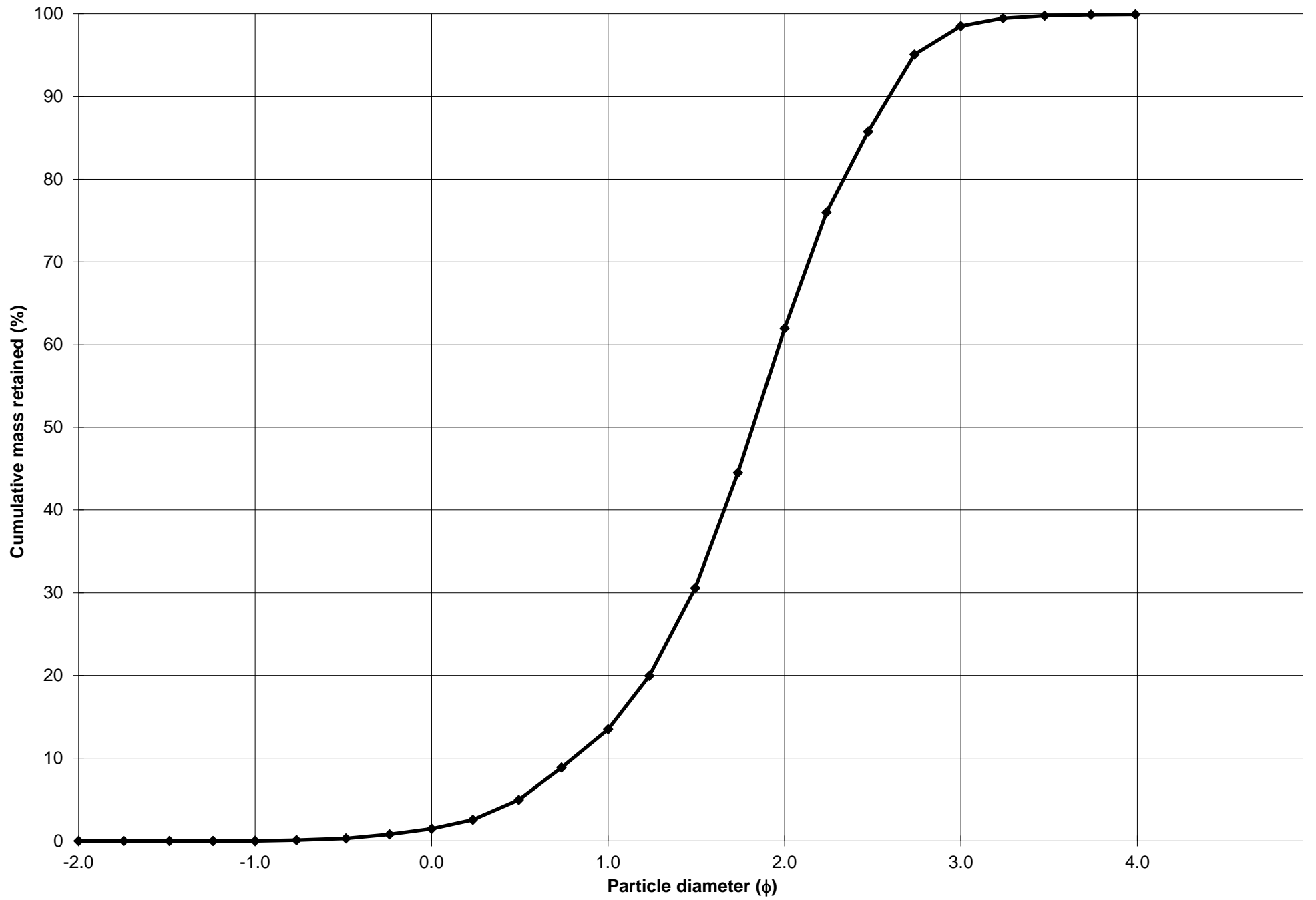
Cumulative Frequency Curve



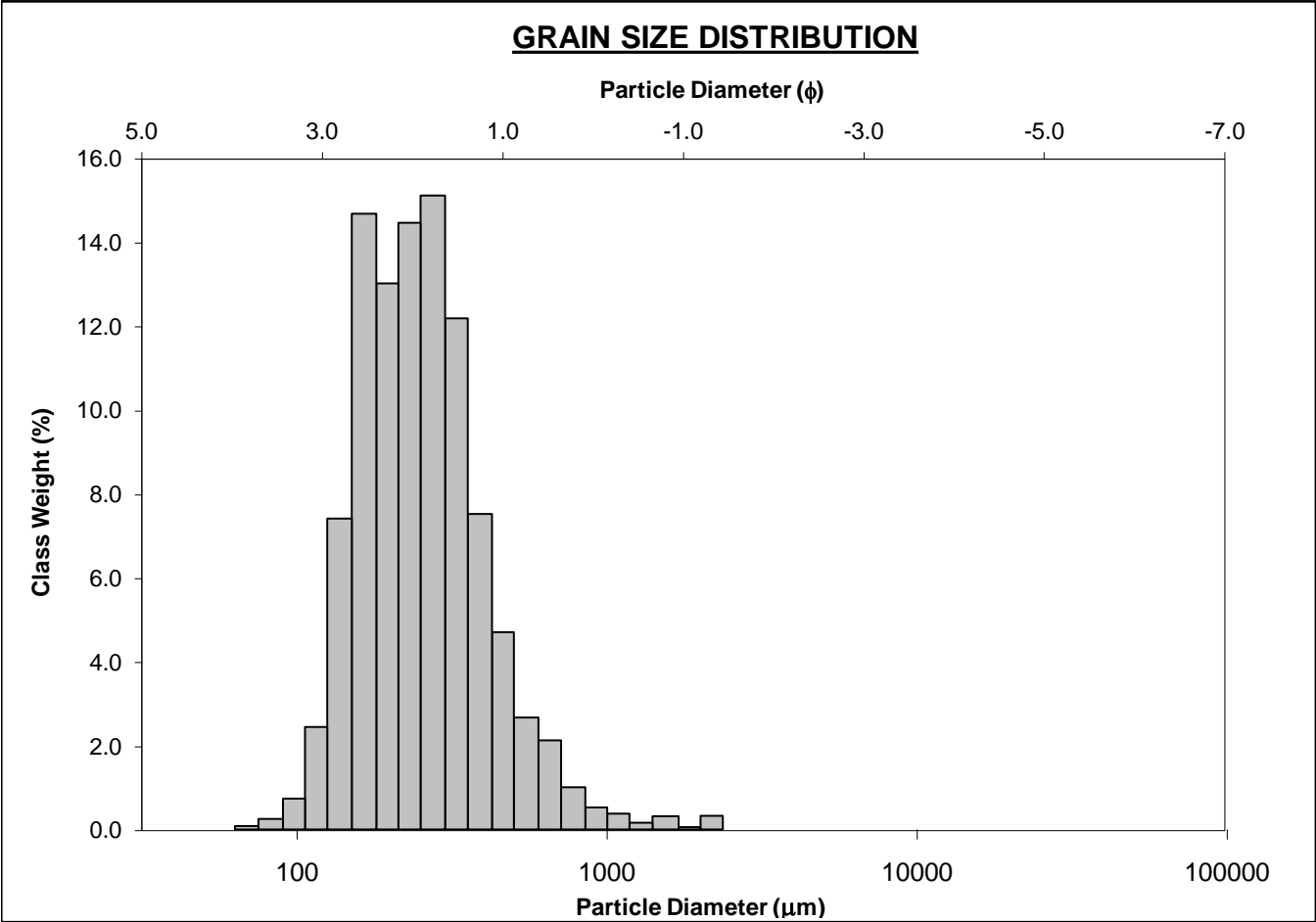
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-170cm			ANALYST & DATE: Chris, 7/1/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 12.0%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 48.5%	
MODE 3:			MUD: 0.1%		FINE SAND: 36.5%	
D ₁₀ :	165.6	0.801			V FINE SAND: 1.4%	
MEDIAN or D ₅₀ :	283.2	1.820	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	573.8	2.594	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.464	3.237	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	408.2	1.793	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.819	1.636	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	175.6	0.863	V COARSE SAND: 1.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	336.6	295.8	1.757	291.0	1.781	Medium Sand
SORTING (σ):	196.1	1.623	0.699	1.596	0.674	Moderately Well Sorted
SKEWNESS (Sk):	2.499	0.255	-0.255	0.135	-0.135	Coarse Skewed
KURTOSIS (K):	12.59	5.329	5.329	1.063	1.063	Mesokurtic



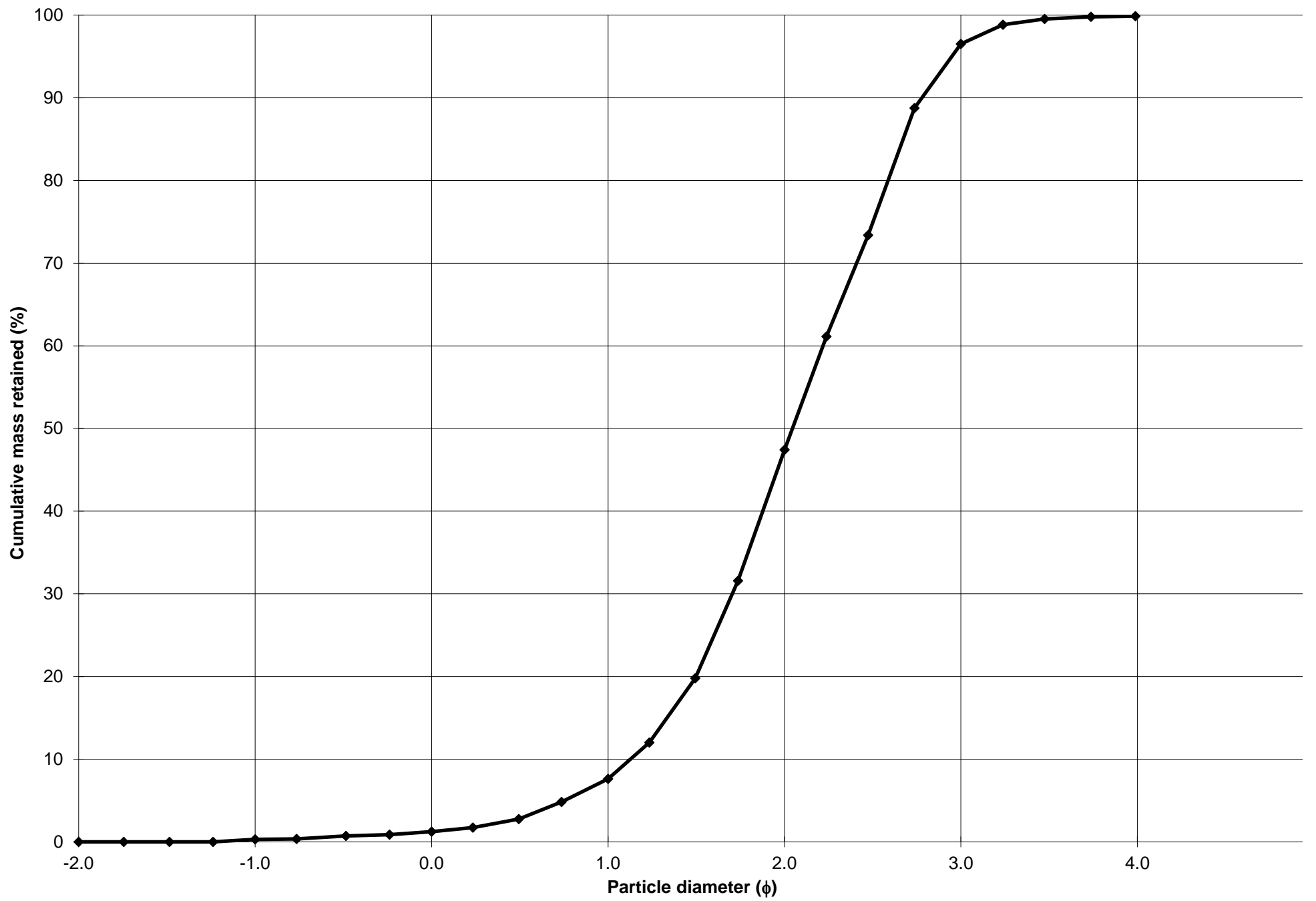
Cumulative Frequency Curve



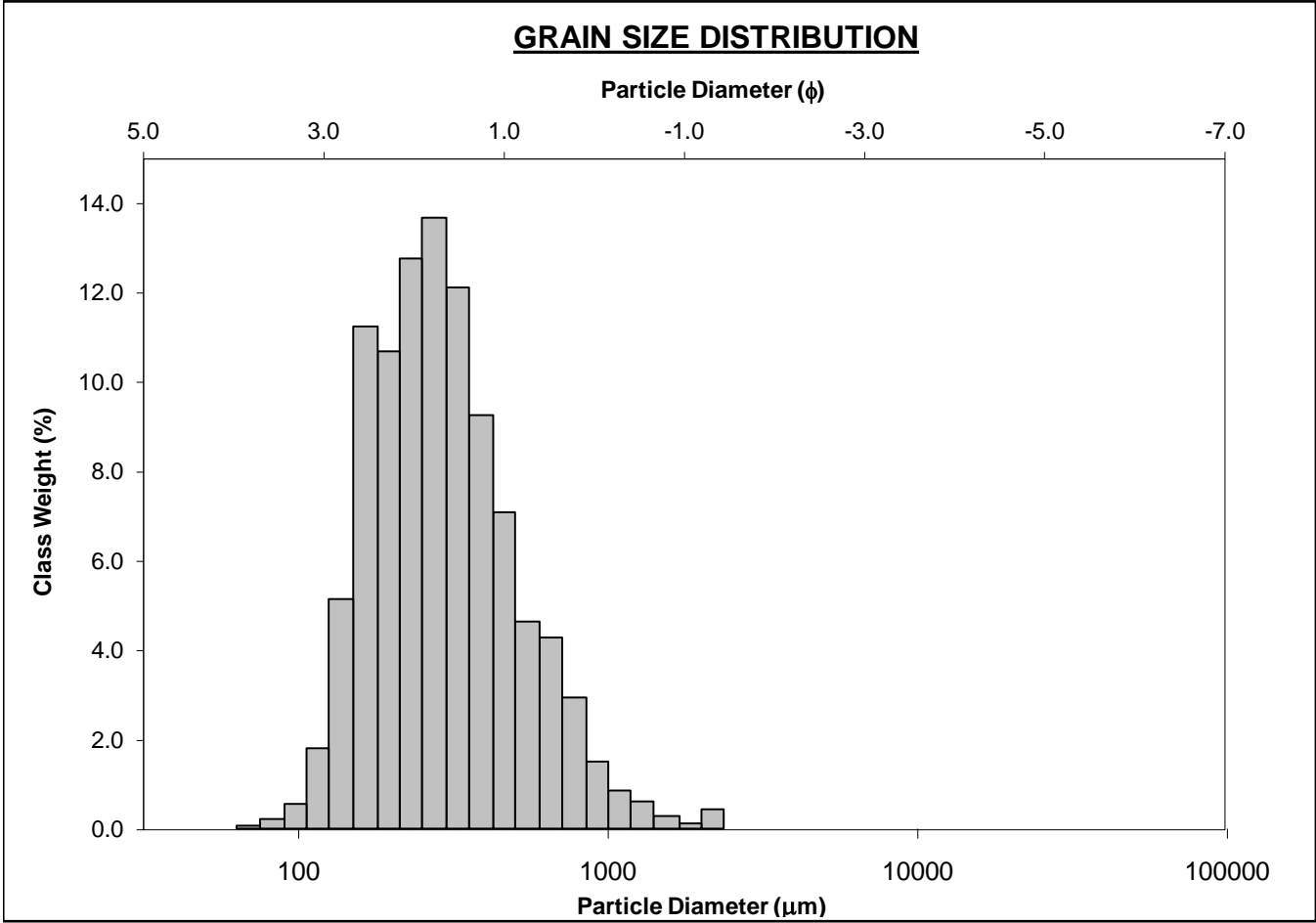
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-180cm			ANALYST & DATE: Chris, 7/1/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.3%		COARSE SAND: 6.4%	
MODE 2:	165.0	2.605	SAND: 99.6%		MEDIUM SAND: 39.8%	
MODE 3:			MUD: 0.1%		FINE SAND: 49.1%	
D ₁₀ :	145.7	1.127			V FINE SAND: 3.4%	
MEDIAN or D ₅₀ :	242.4	2.045	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	457.8	2.779	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.143	2.466	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	312.1	1.652	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.867	1.562	V FINE GRAVEL: 0.3%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	153.0	0.900	V COARSE SAND: 0.9%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	288.9	250.8	1.995	246.1	2.023	Fine Sand
SORTING (σ):	200.4	1.637	0.711	1.574	0.655	Moderately Well Sorted
SKEWNESS (Sk):	4.577	0.368	-0.368	0.114	-0.114	Coarse Skewed
KURTOSIS (K):	35.19	7.304	7.304	0.999	0.999	Mesokurtic



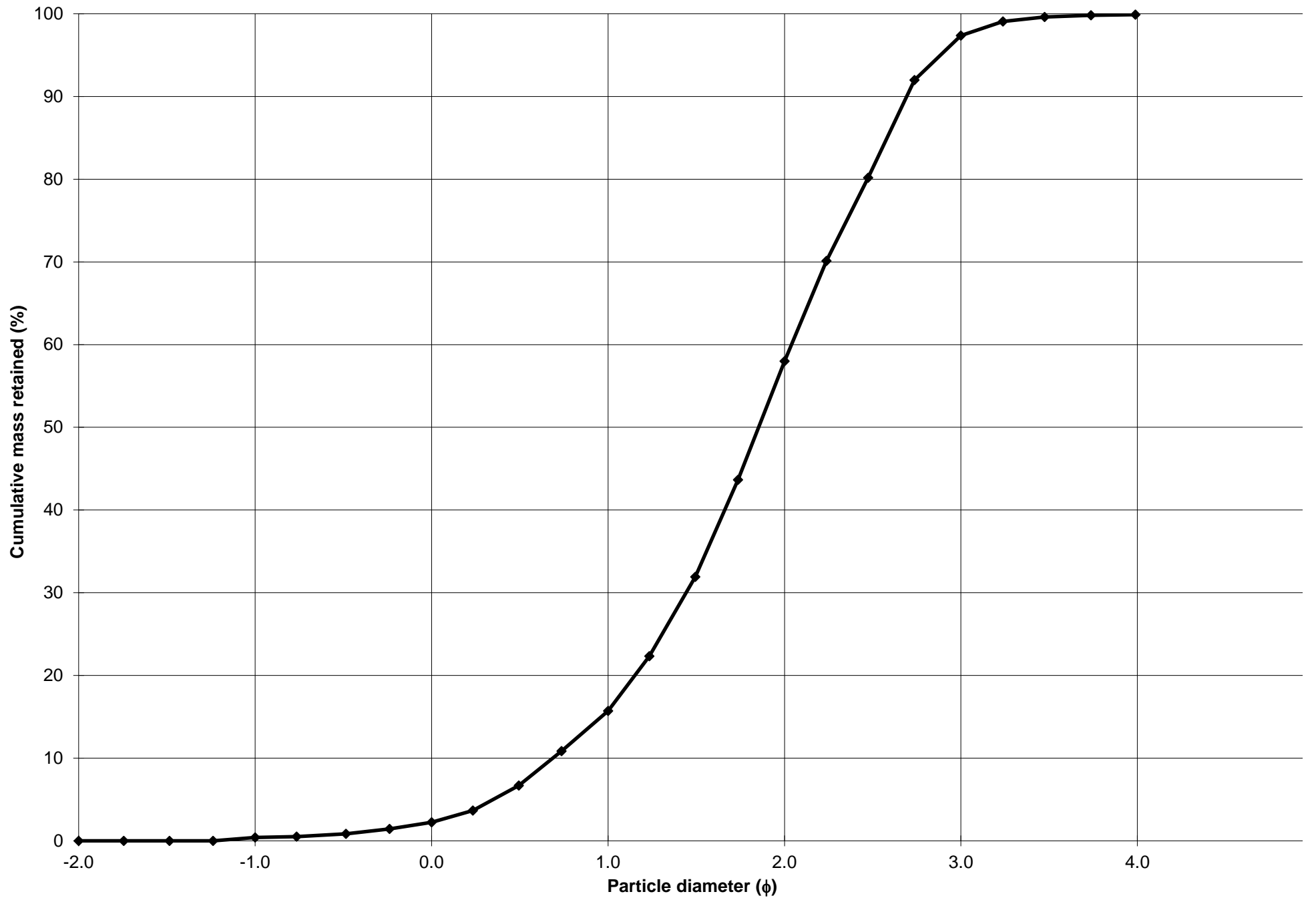
Cumulative Frequency Curve



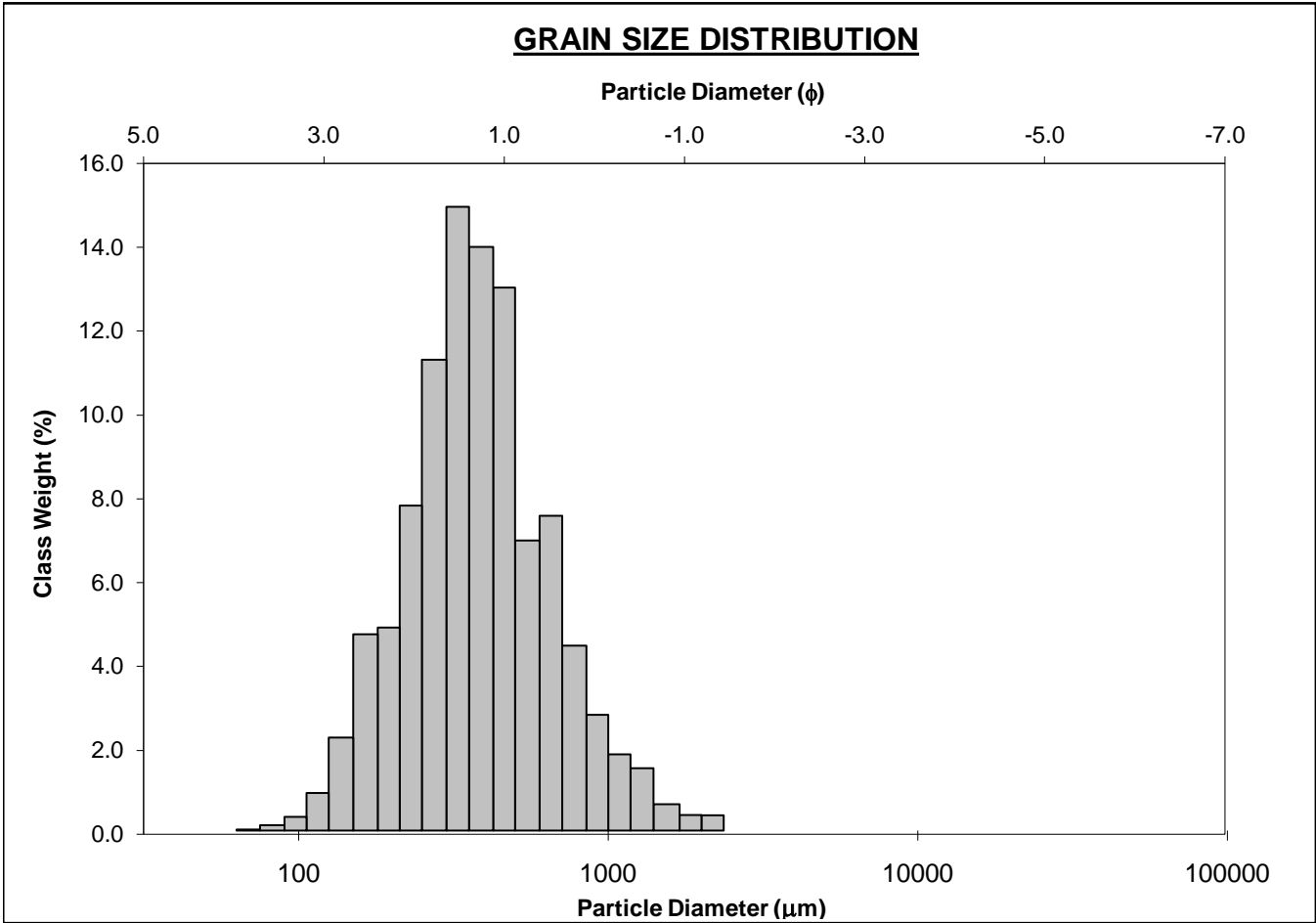
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-190cm			ANALYST & DATE: Chris, 7/1/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.4%	COARSE SAND: 13.5%		
MODE 2:	165.0	2.605	SAND: 99.5%	MEDIUM SAND: 42.3%		
MODE 3:			MUD: 0.1%	FINE SAND: 39.4%		
D_{10} :	154.7	0.688		V FINE SAND: 2.5%		
MEDIAN or D_{50} :	276.8	1.853	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	620.7	2.693	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	4.014	3.914	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	466.1	2.005	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	2.064	1.800	V FINE GRAVEL: 0.4%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	208.4	1.045	V COARSE SAND: 1.8%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	346.4	291.8	1.777	285.7	1.808	Medium Sand
SORTING (σ):	246.2	1.739	0.799	1.707	0.771	Moderately Sorted
SKEWNESS (Sk):	3.201	0.321	-0.321	0.137	-0.137	Coarse Skewed
KURTOSIS (K):	18.93	5.114	5.114	0.994	0.994	Mesokurtic



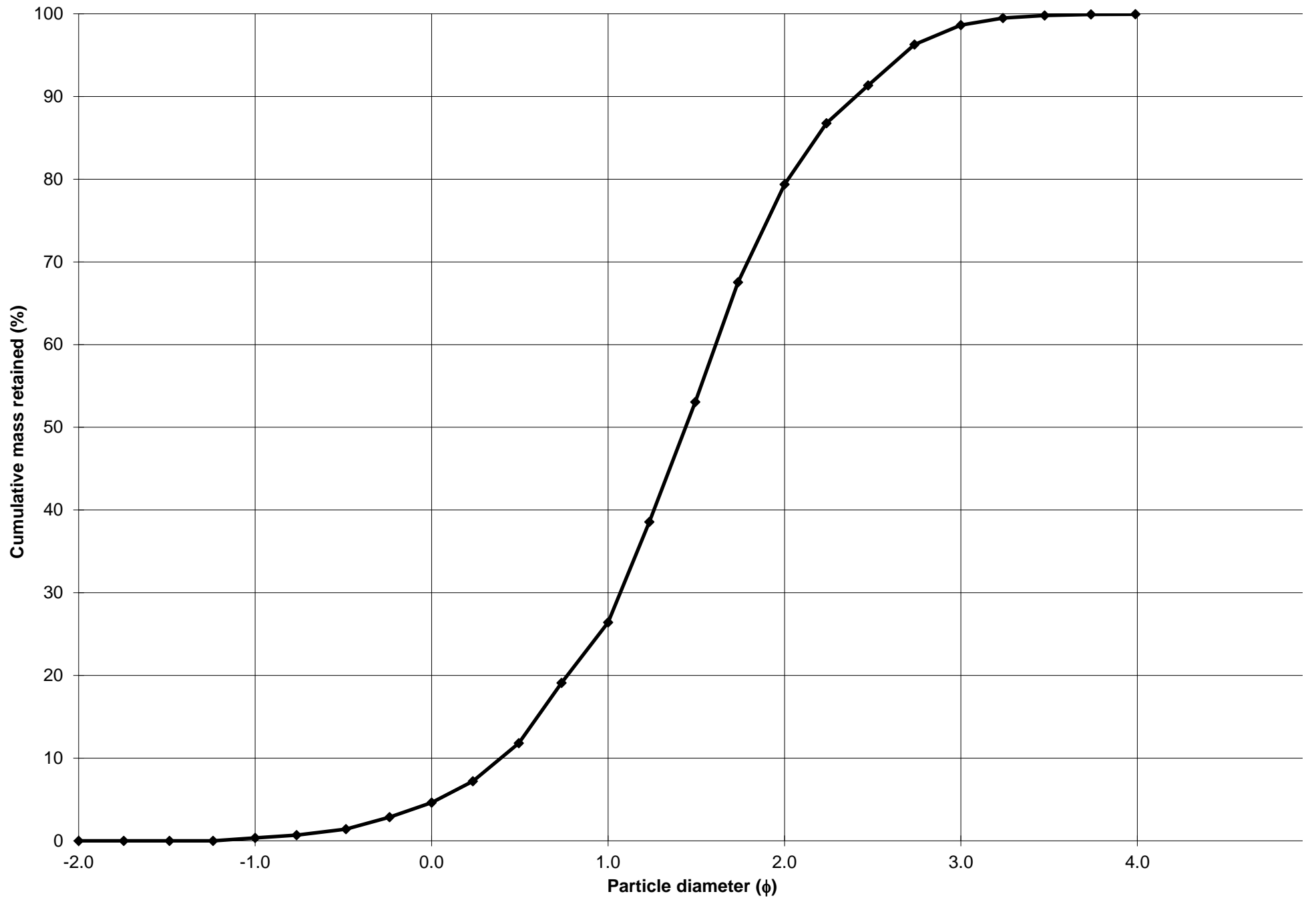
Cumulative Frequency Curve



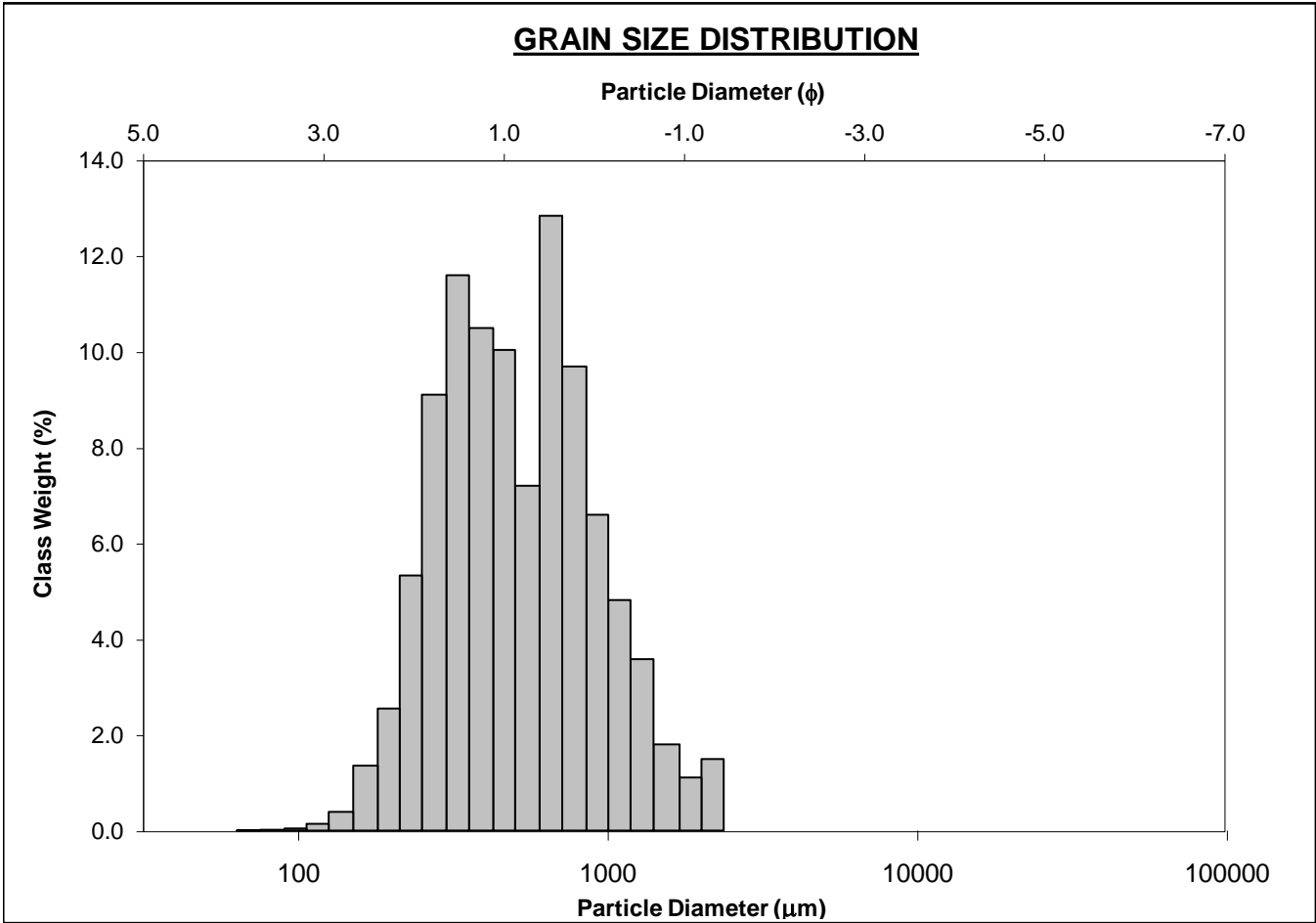
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-200cm			ANALYST & DATE: Chris, 7/1/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.3%		COARSE SAND: 21.8%	
MODE 2:	655.0	0.616	SAND: 99.6%		MEDIUM SAND: 53.0%	
MODE 3:			MUD: 0.1%		FINE SAND: 19.2%	
D ₁₀ :	188.9	0.392			V FINE SAND: 1.3%	
MEDIAN or D ₅₀ :	368.7	1.439	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	761.8	2.405	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.034	6.127	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	573.0	2.012	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.936	2.004	V FINE GRAVEL: 0.3%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	250.4	0.953	V COARSE SAND: 4.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	442.3	377.6	1.405	377.0	1.407	Medium Sand
SORTING (σ):	280.5	1.726	0.787	1.715	0.778	Moderately Sorted
SKEWNESS (Sk):	2.371	0.075	-0.075	0.065	-0.065	Symmetrical
KURTOSIS (K):	11.31	4.512	4.512	1.132	1.132	Leptokurtic



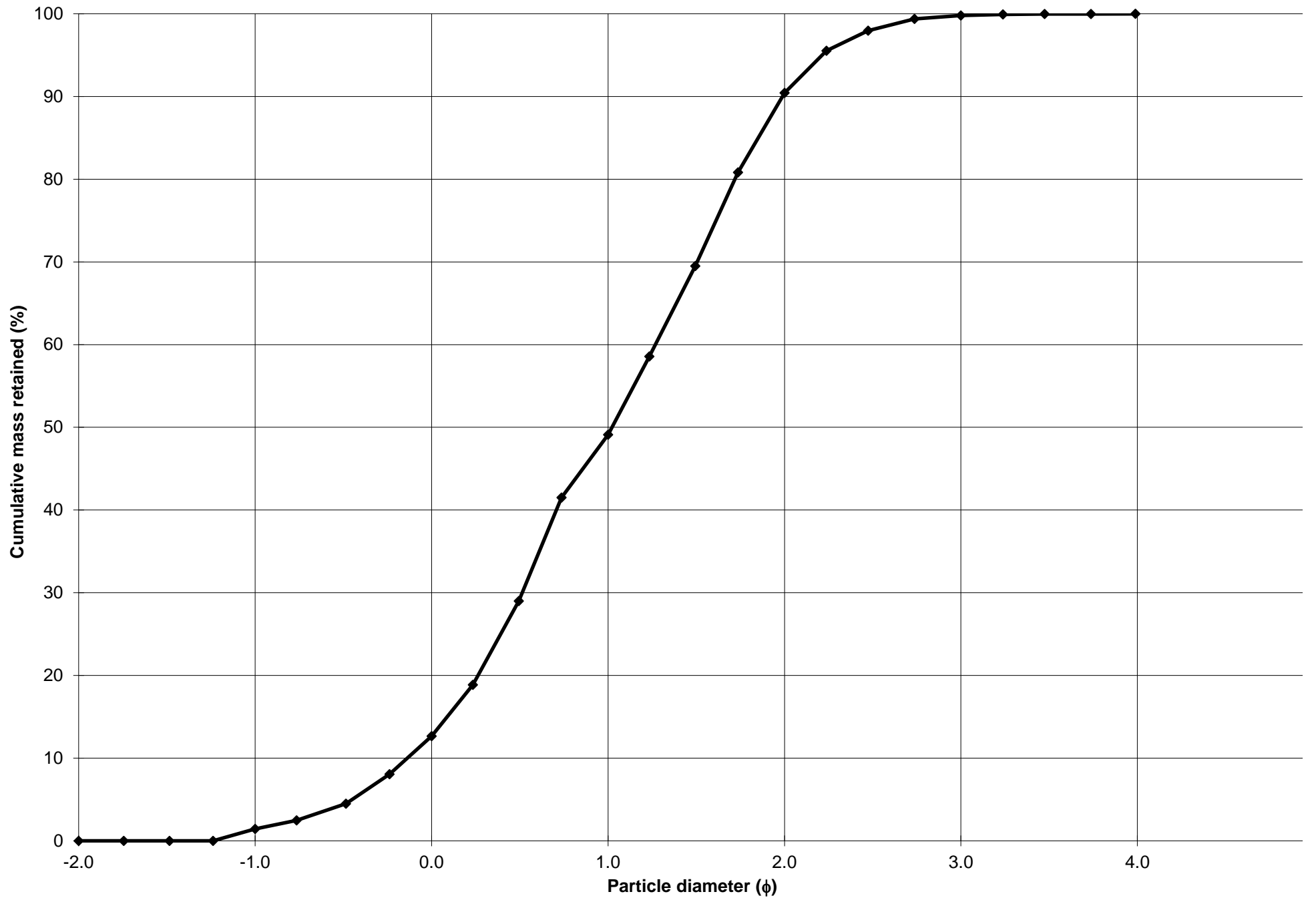
Cumulative Frequency Curve



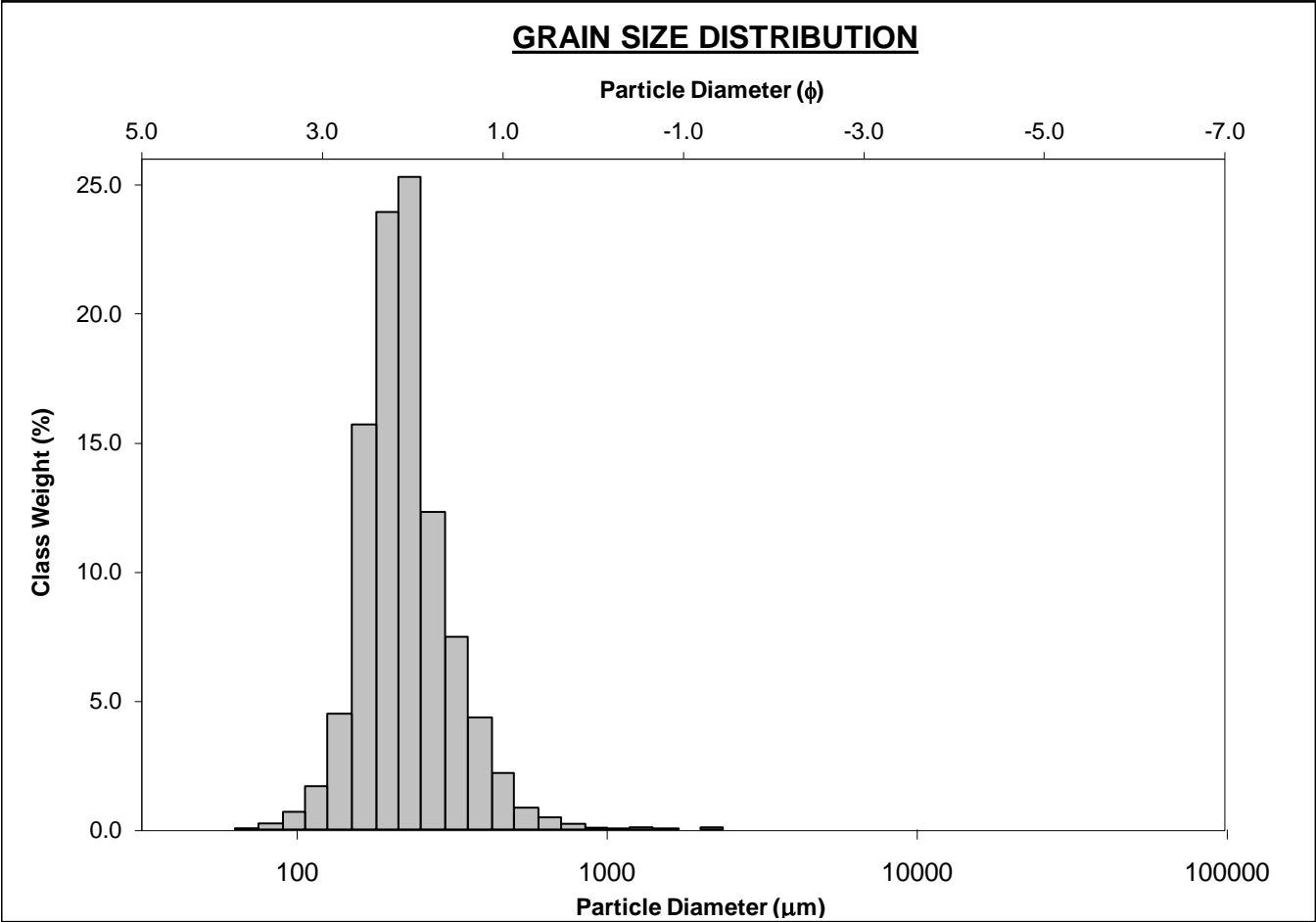
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-210cm			ANALYST & DATE: Chris, 7/1/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	655.0	0.616	GRAVEL: 1.4%	COARSE SAND: 36.4%		
MODE 2:	327.5	1.616	SAND: 98.6%	MEDIUM SAND: 41.3%		
MODE 3:			MUD: 0.0%	FINE SAND: 9.4%		
D ₁₀ :	252.1	-0.138		V FINE SAND: 0.2%		
MEDIAN or D ₅₀ :	492.4	1.022	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	1100.2	1.988	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	4.364	-14.428	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	848.1	2.126	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	2.330	4.114	V FINE GRAVEL: 1.4%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	435.0	1.220	V COARSE SAND: 11.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	607.7	510.7	0.969	503.3	0.991	Coarse Sand
SORTING (σ):	385.8	1.780	0.832	1.775	0.828	Moderately Sorted
SKEWNESS (Sk):	1.703	0.173	-0.173	0.081	-0.081	Symmetrical
KURTOSIS (K):	6.505	2.890	2.890	0.895	0.895	Platykurtic



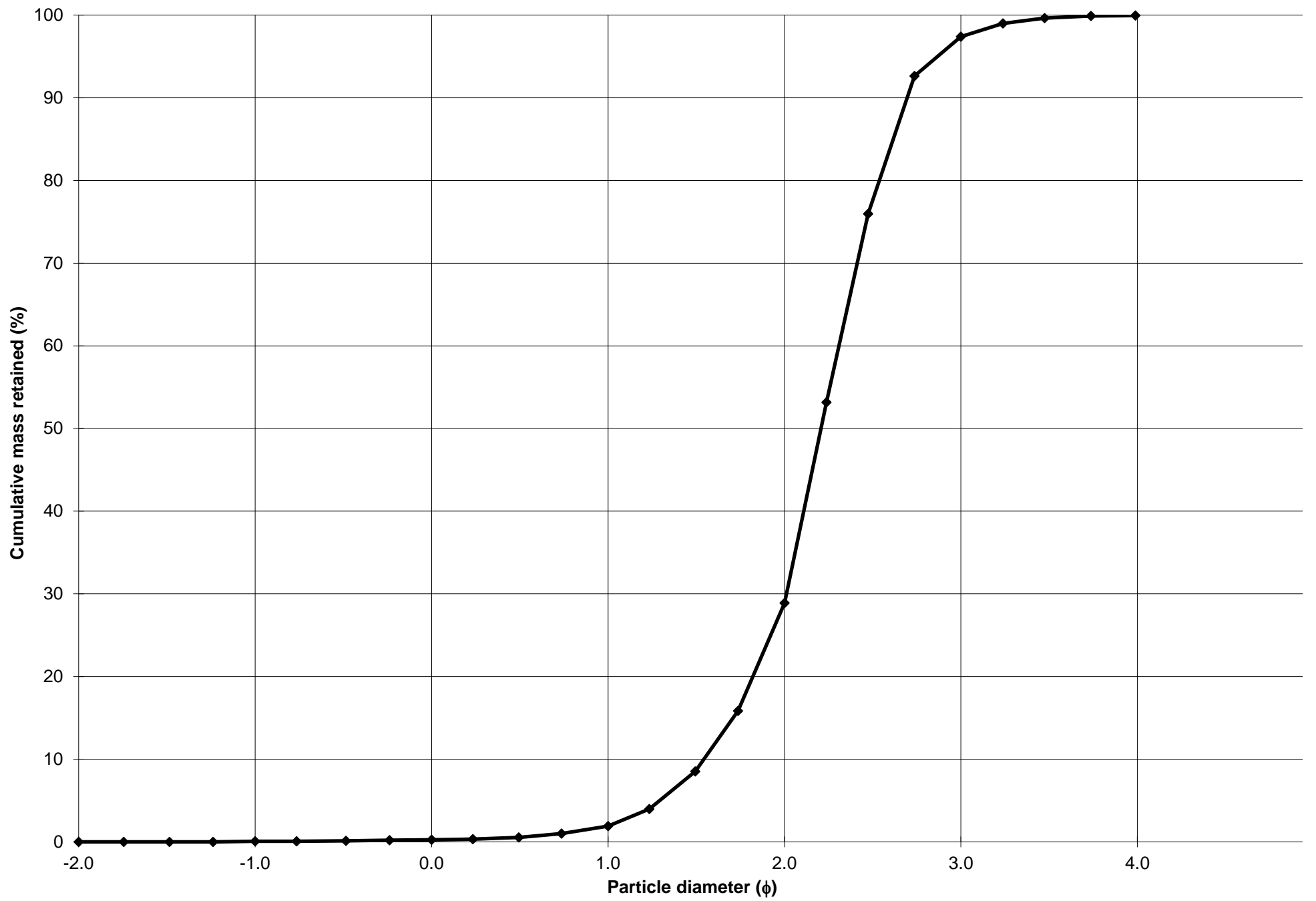
Cumulative Frequency Curve



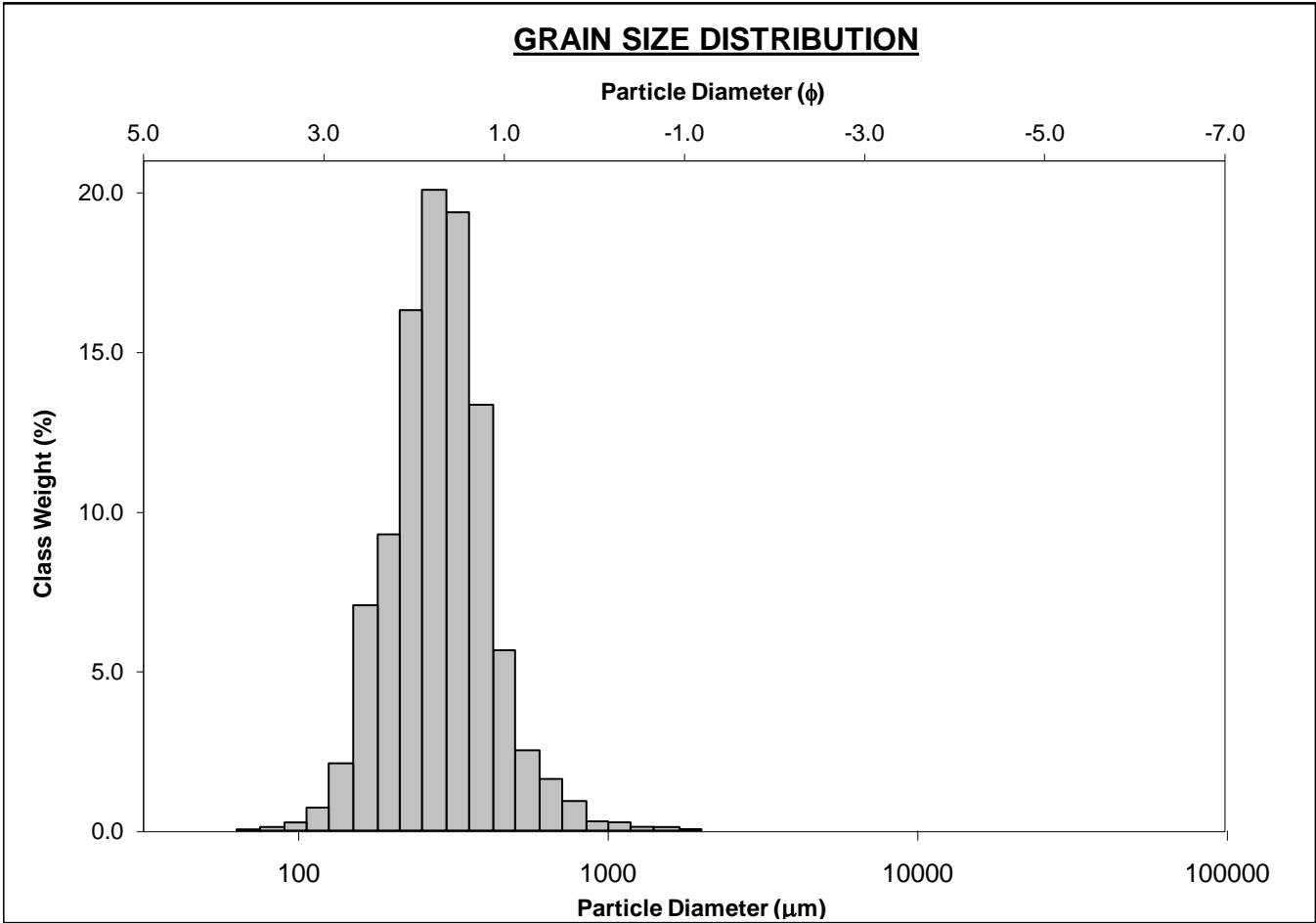
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-220cm			ANALYST & DATE: Chris, 7/1/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.1%		COARSE SAND: 1.7%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 27.0%	
MODE 3:			MUD: 0.1%		FINE SAND: 68.5%	
D ₁₀ :	154.4	1.543			V FINE SAND: 2.6%	
MEDIAN or D ₅₀ :	216.6	2.207	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	343.2	2.696	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.223	1.747	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	188.8	1.152	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.457	1.282	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	82.74	0.543	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	239.1	222.8	2.166	220.3	2.183	Fine Sand
SORTING (σ):	113.4	1.414	0.500	1.370	0.454	Well Sorted
SKEWNESS (Sk):	6.594	0.382	-0.382	0.122	-0.122	Coarse Skewed
KURTOSIS (K):	89.23	10.67	10.67	1.190	1.190	Leptokurtic



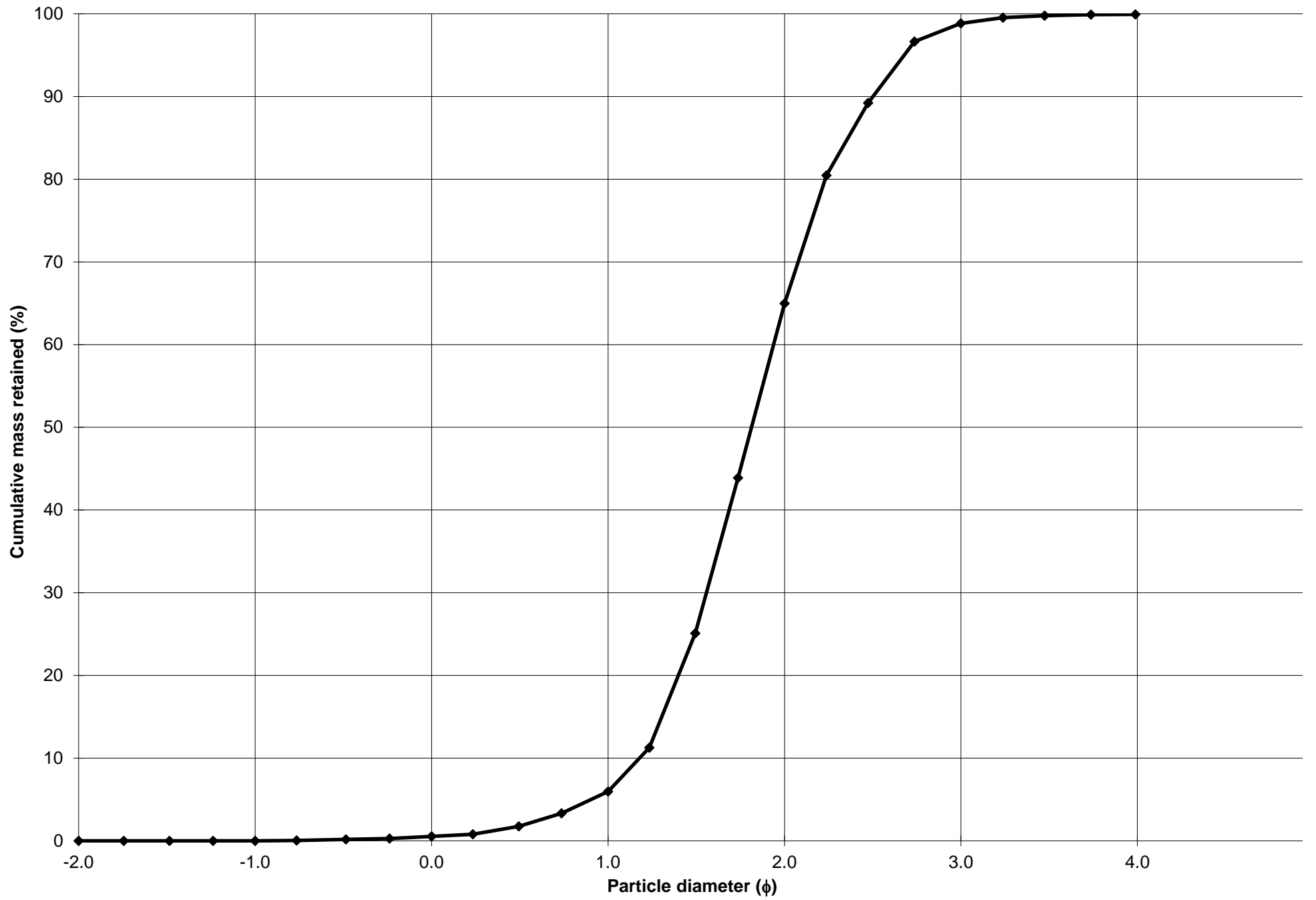
Cumulative Frequency Curve



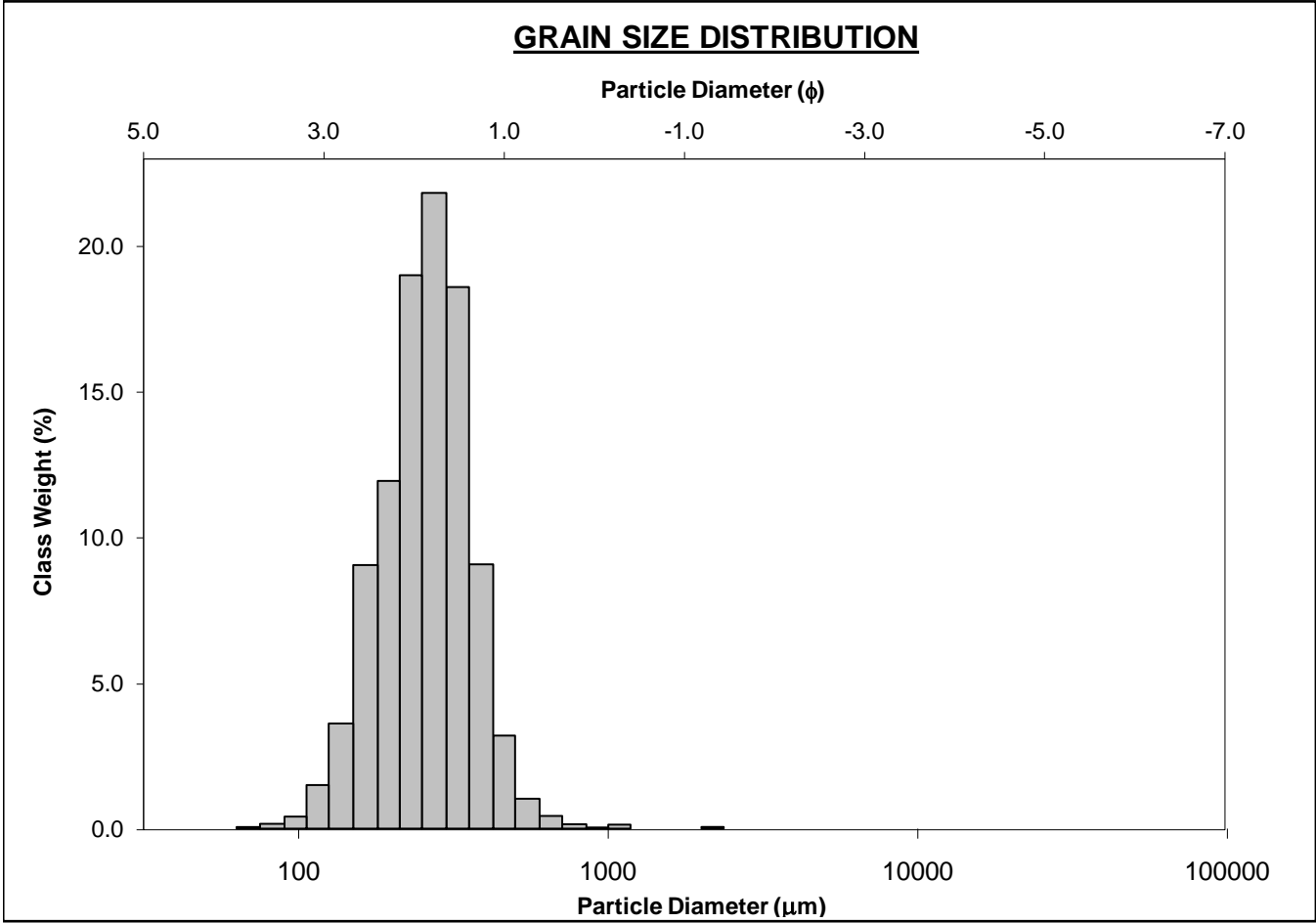
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-230cm			ANALYST & DATE: Chris, 7/1/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 5.4%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 59.0%	
MODE 3:			MUD: 0.1%		FINE SAND: 33.9%	
D ₁₀ :	176.6	1.179			V FINE SAND: 1.1%	
MEDIAN or D ₅₀ :	284.6	1.813	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	441.8	2.502	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.502	2.123	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	265.2	1.323	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.582	1.443	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	130.7	0.662	V COARSE SAND: 0.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	309.0	284.9	1.811	282.6	1.823	Medium Sand
SORTING (σ):	139.0	1.475	0.560	1.435	0.522	Moderately Well Sorted
SKEWNESS (Sk):	3.148	-0.211	0.211	-0.003	0.003	Symmetrical
KURTOSIS (K):	23.07	9.075	9.075	1.100	1.100	Mesokurtic



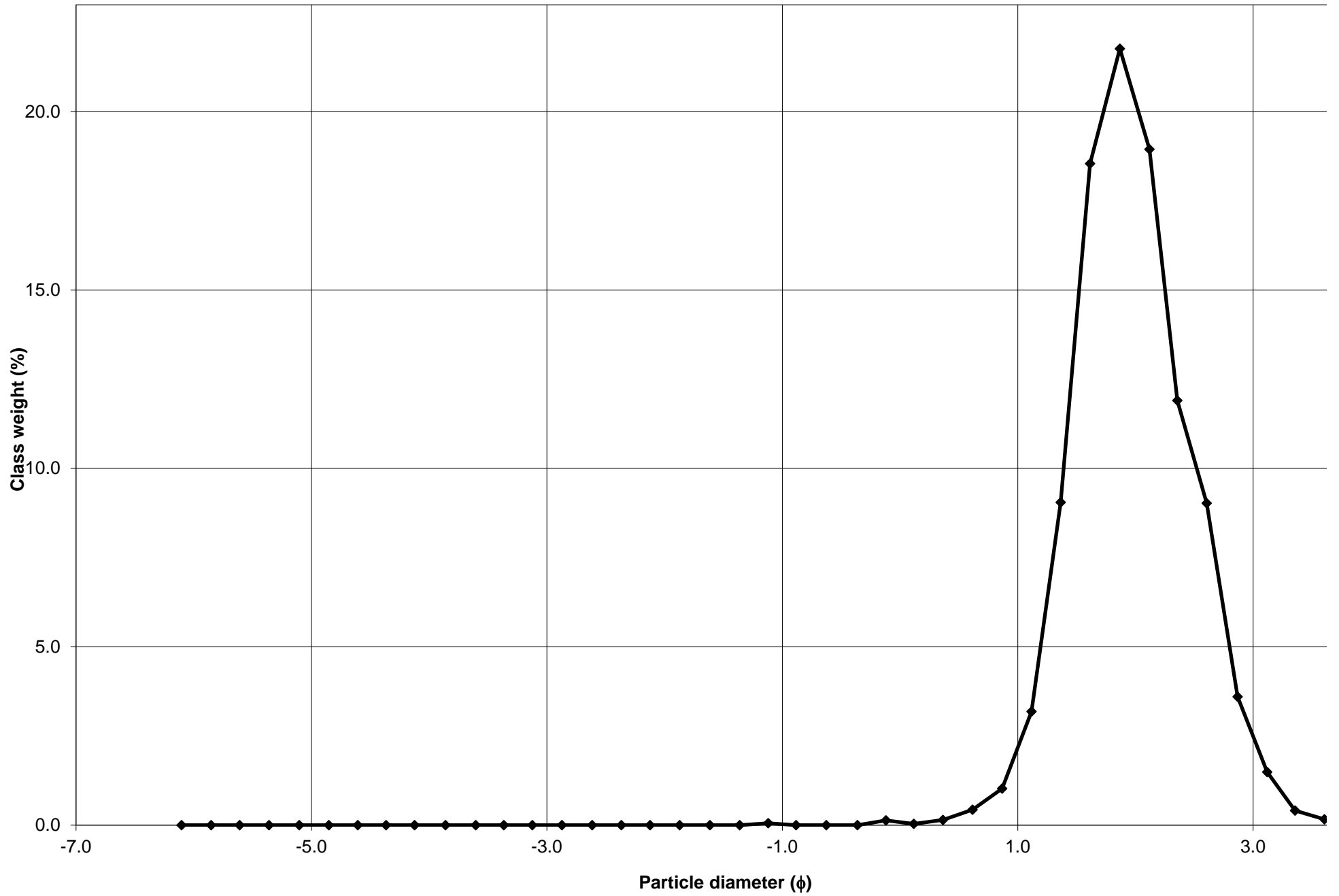
Cumulative Frequency Curve



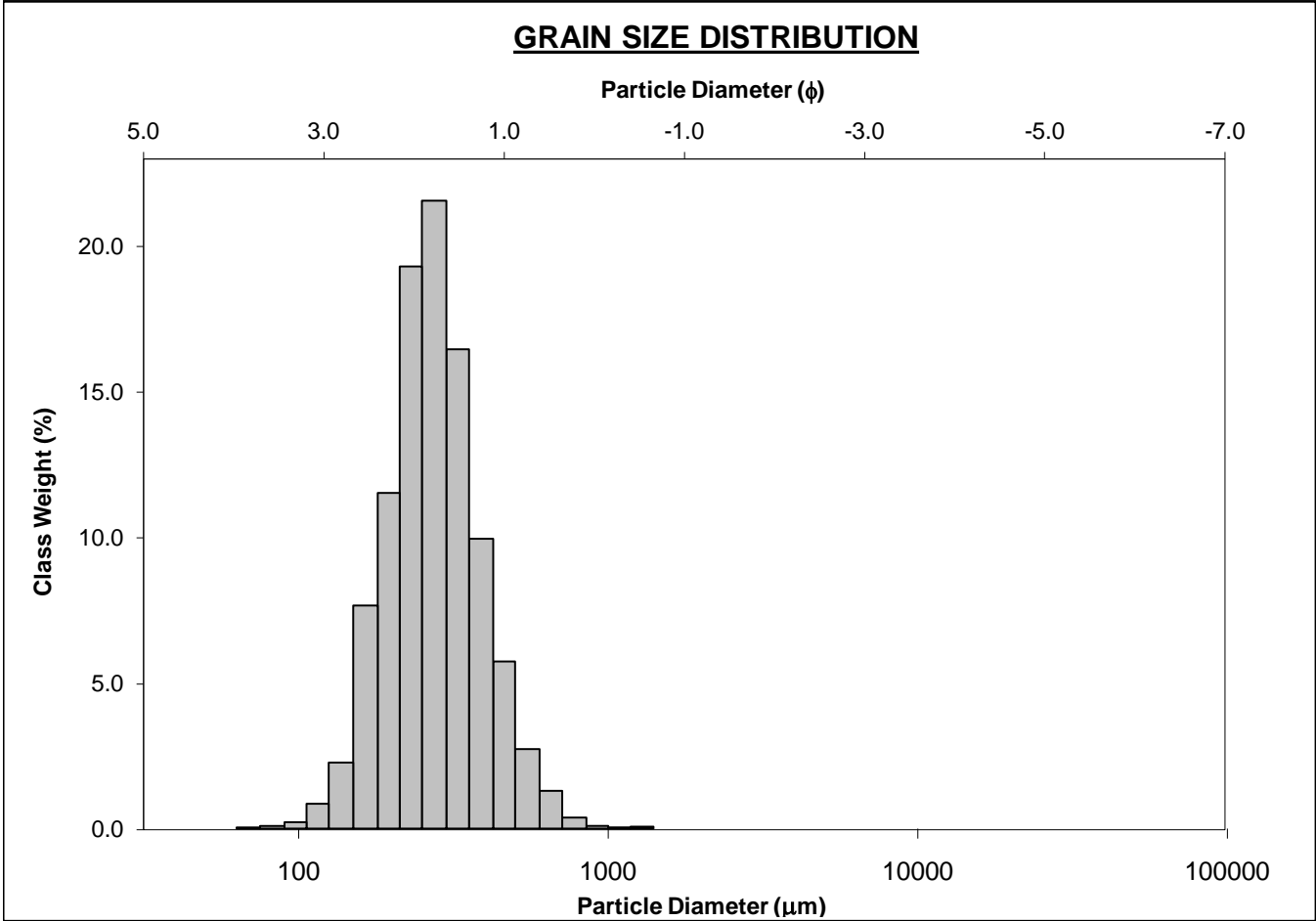
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-240cm			ANALYST & DATE: Chris, 7/1/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.1%		COARSE SAND: 1.7%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 53.4%	
MODE 3:			MUD: 0.1%		FINE SAND: 42.6%	
D ₁₀ :	162.3	1.376			V FINE SAND: 2.0%	
MEDIAN or D ₅₀ :	260.7	1.940	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	385.3	2.623	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.374	1.907	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	223.0	1.247	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.552	1.387	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	114.3	0.634	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	272.5	255.5	1.968	254.8	1.973	Medium Sand
SORTING (σ):	105.6	1.420	0.506	1.388	0.473	Well Sorted
SKEWNESS (Sk):	4.499	-0.520	0.520	-0.103	0.103	Fine Skewed
KURTOSIS (K):	66.47	9.499	9.499	1.008	1.008	Mesokurtic



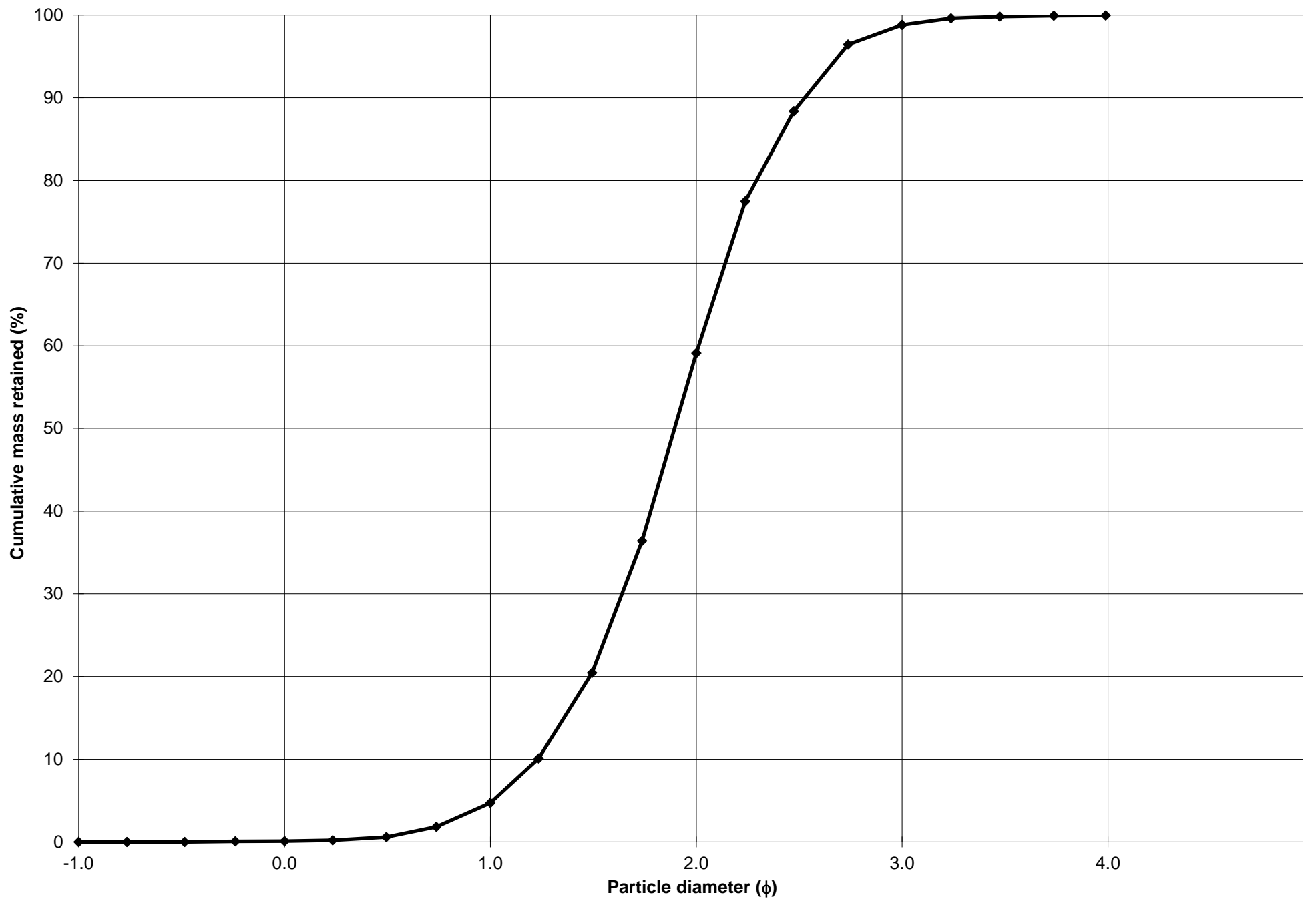
Frequency Distribution Histogram



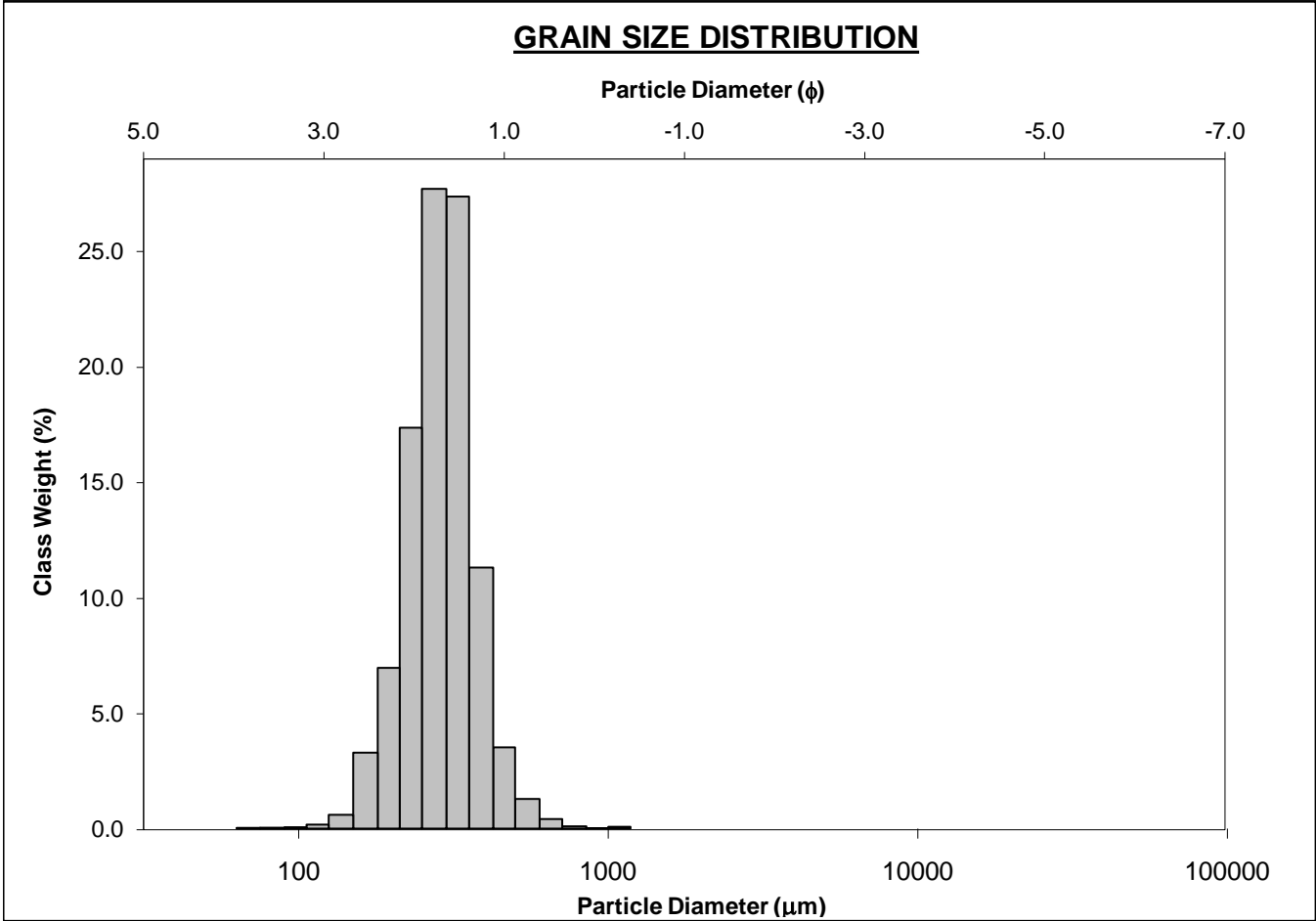
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-250cm			ANALYST & DATE: Chris, 7/1/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 4.6%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 54.4%	
MODE 3:			MUD: 0.0%		FINE SAND: 39.7%	
D ₁₀ :	173.4	1.230			V FINE SAND: 1.2%	
MEDIAN or D ₅₀ :	269.0	1.894	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	426.2	2.527	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.457	2.054	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	252.8	1.297	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.561	1.411	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	121.6	0.642	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	290.7	271.4	1.882	270.6	1.886	Medium Sand
SORTING (σ):	112.0	1.433	0.519	1.418	0.503	Moderately Well Sorted
SKEWNESS (Sk):	1.821	-0.211	0.211	0.039	-0.039	Symmetrical
KURTOSIS (K):	10.40	7.293	7.293	1.071	1.071	Mesokurtic



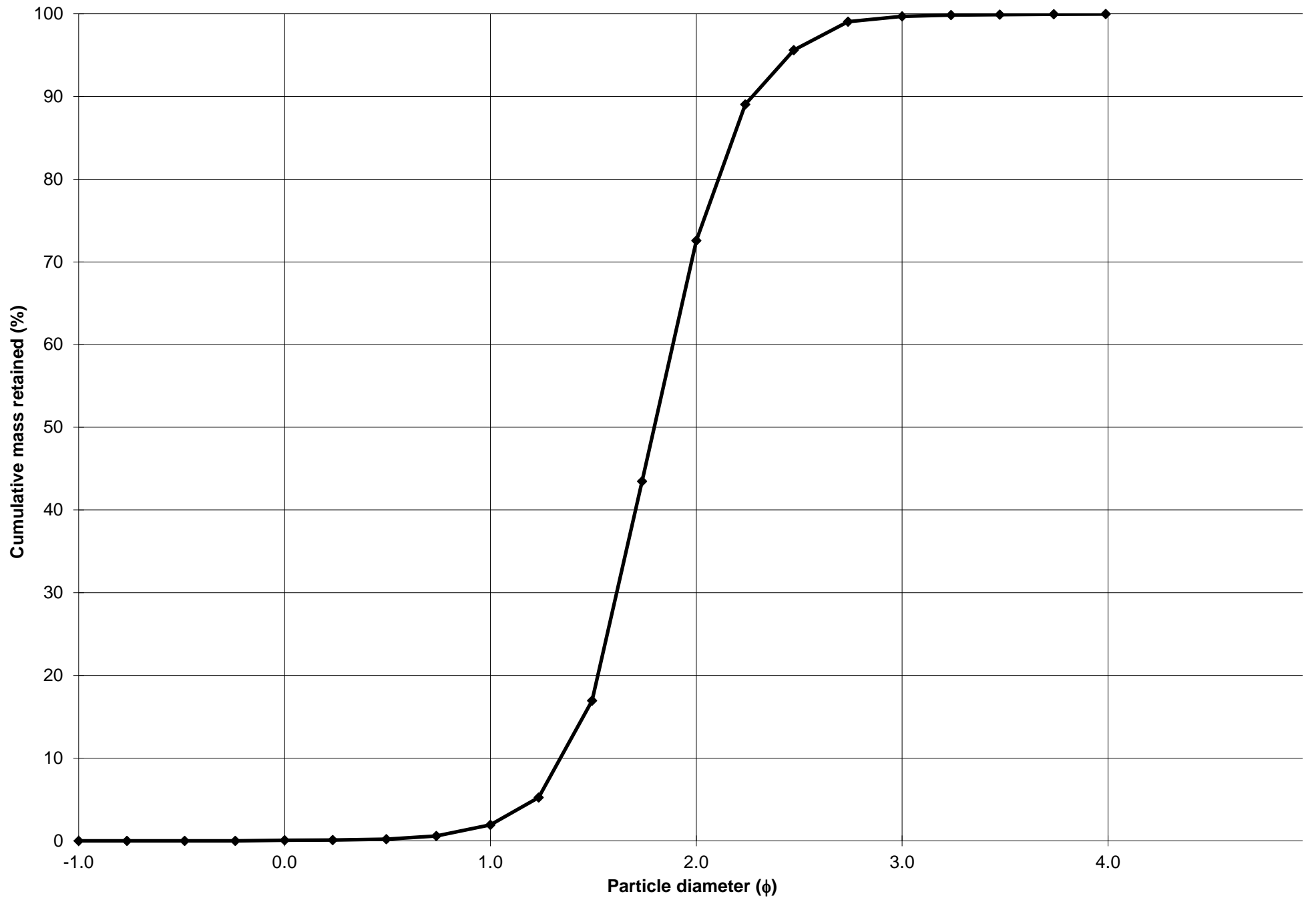
Cumulative Frequency Curve



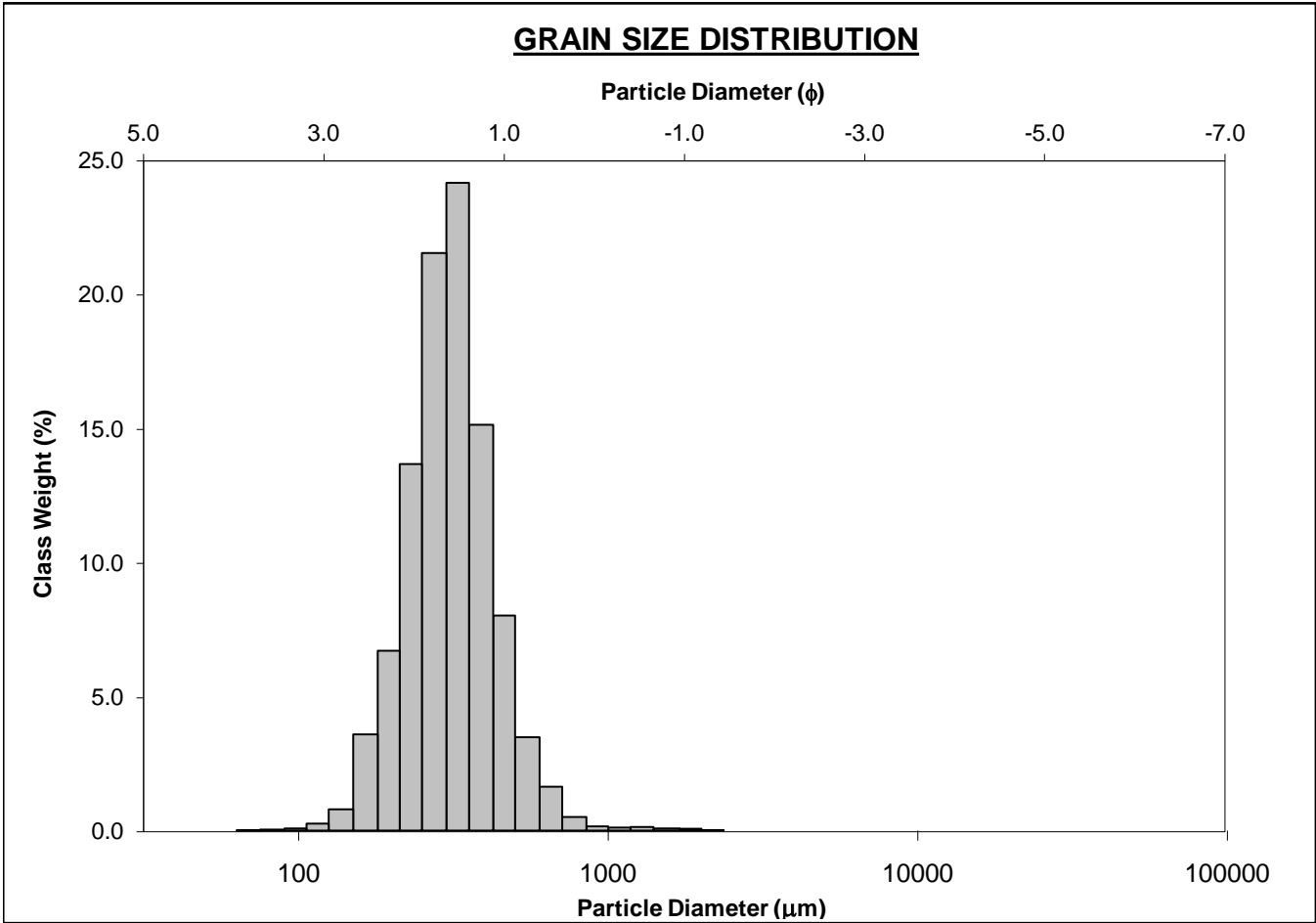
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-260cm			ANALYST & DATE: Chris, 7/1/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 1.9%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 70.6%			
MODE 3:			MUD: 0.0% FINE SAND: 27.1%			
D ₁₀ :	207.0	1.340	V FINE SAND: 0.3%			
MEDIAN or D ₅₀ :	288.0	1.796	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	395.0	2.272	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.908	1.696	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	188.0	0.932	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.383	1.298	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	93.34	0.467	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	297.4	285.9	1.806	284.9	1.811	Medium Sand
SORTING (σ):	82.05	1.311	0.390	1.283	0.360	Well Sorted
SKEWNESS (Sk):	1.673	-0.758	0.758	-0.065	0.065	Symmetrical
KURTOSIS (K):	12.36	13.69	13.69	1.082	1.082	Mesokurtic



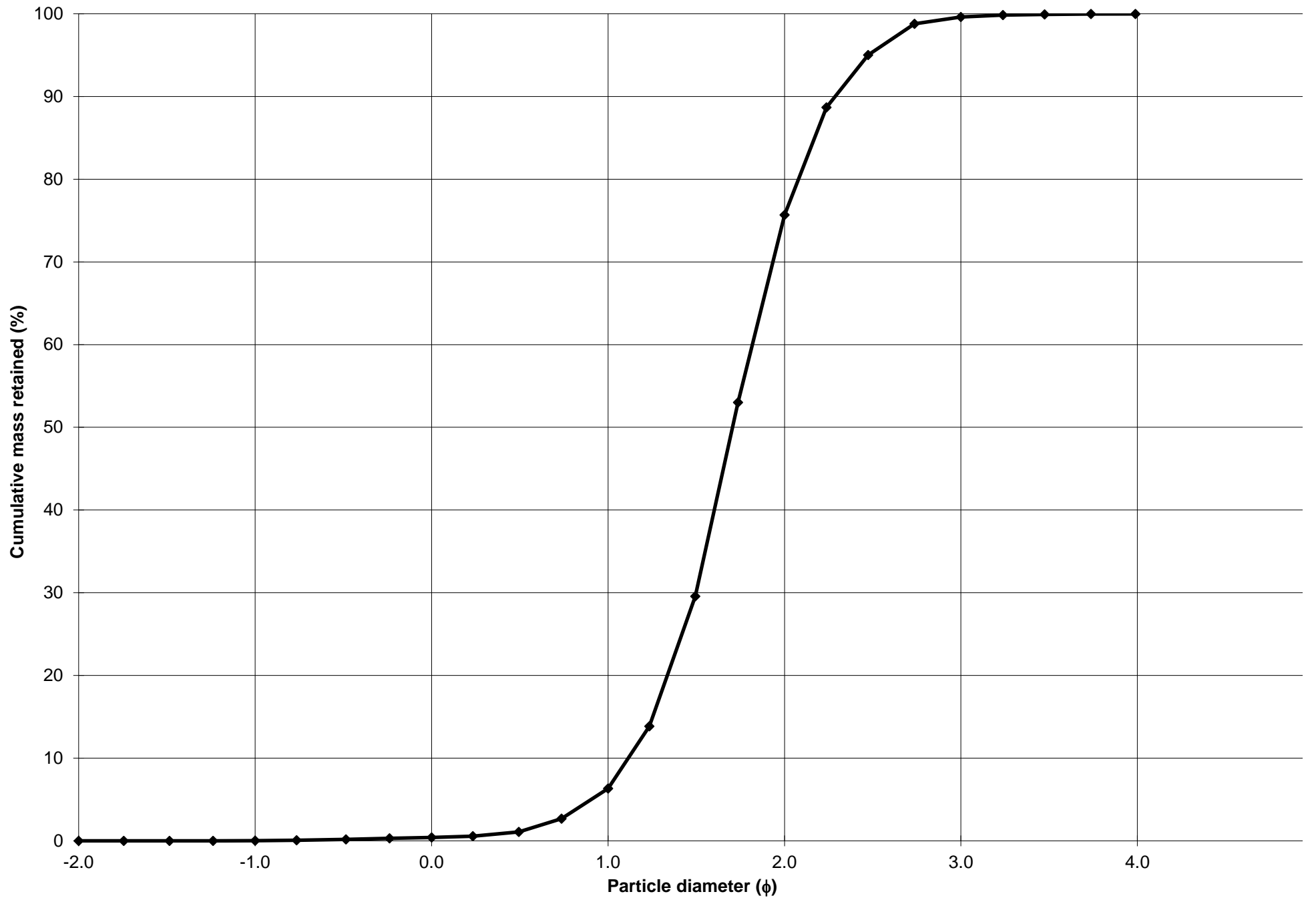
Cumulative Frequency Curve



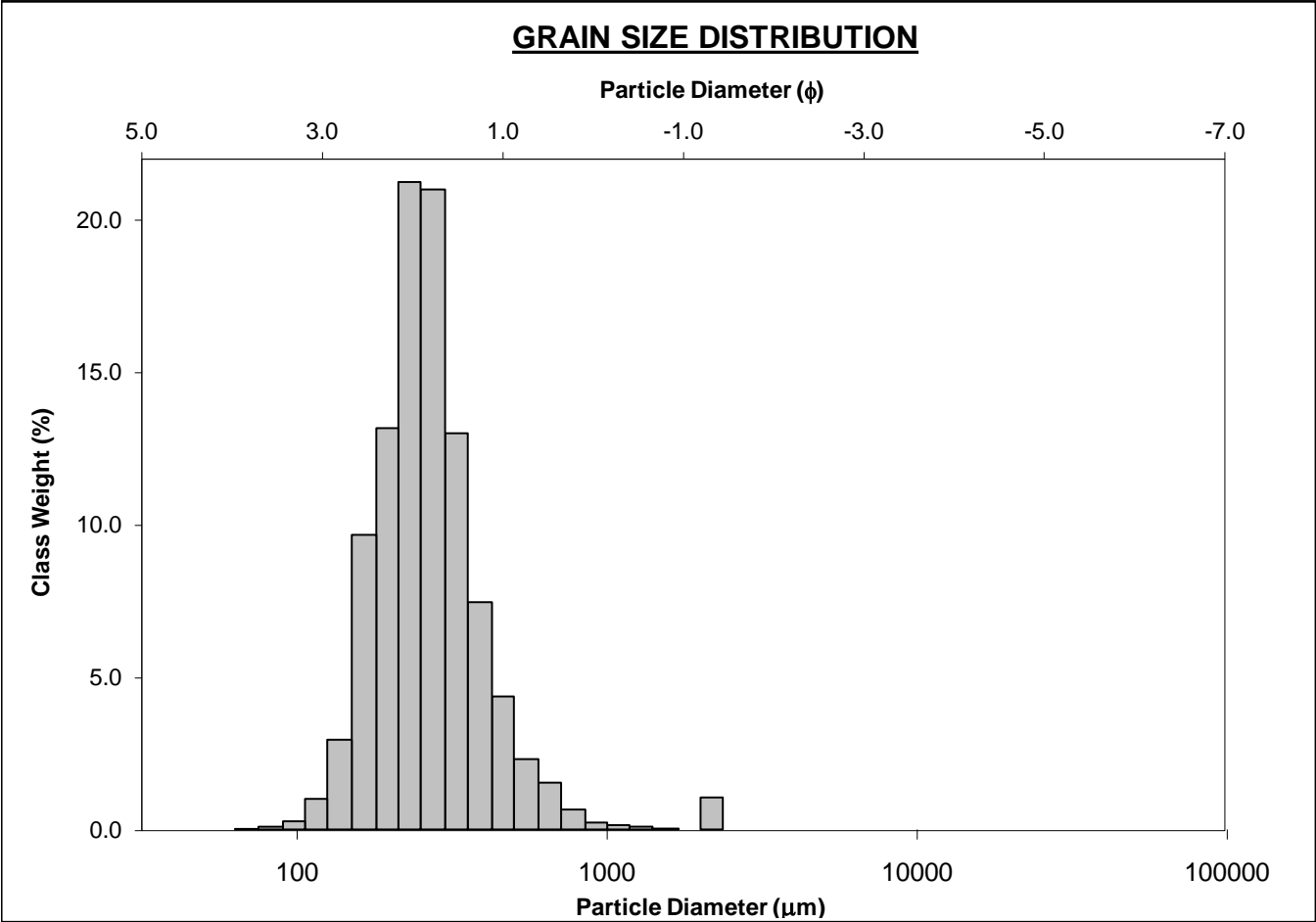
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-270cm			ANALYST & DATE: Chris, 7/1/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 5.9%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 69.3%	
MODE 3:			MUD: 0.0%		FINE SAND: 23.9%	
D ₁₀ :	204.9	1.114			V FINE SAND: 0.4%	
MEDIAN or D ₅₀ :	306.6	1.706	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	461.9	2.287	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.255	2.053	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	257.0	1.173	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.488	1.404	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	122.7	0.573	V COARSE SAND: 0.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	327.2	307.3	1.702	305.8	1.709	Medium Sand
SORTING (σ):	129.7	1.399	0.484	1.374	0.458	Well Sorted
SKEWNESS (Sk):	3.733	0.142	-0.142	0.004	-0.004	Symmetrical
KURTOSIS (K):	34.86	7.250	7.250	1.122	1.122	Leptokurtic



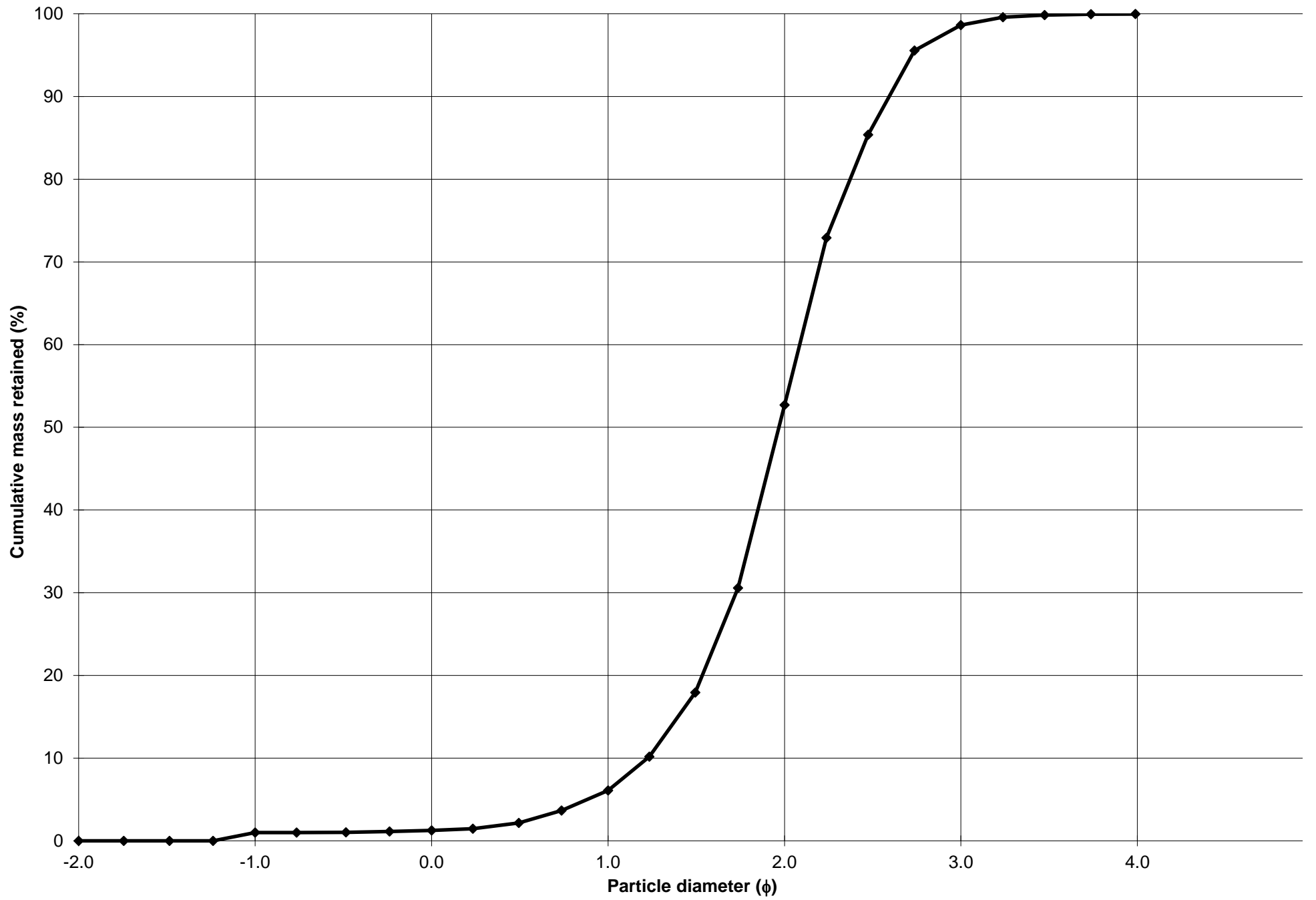
Cumulative Frequency Curve



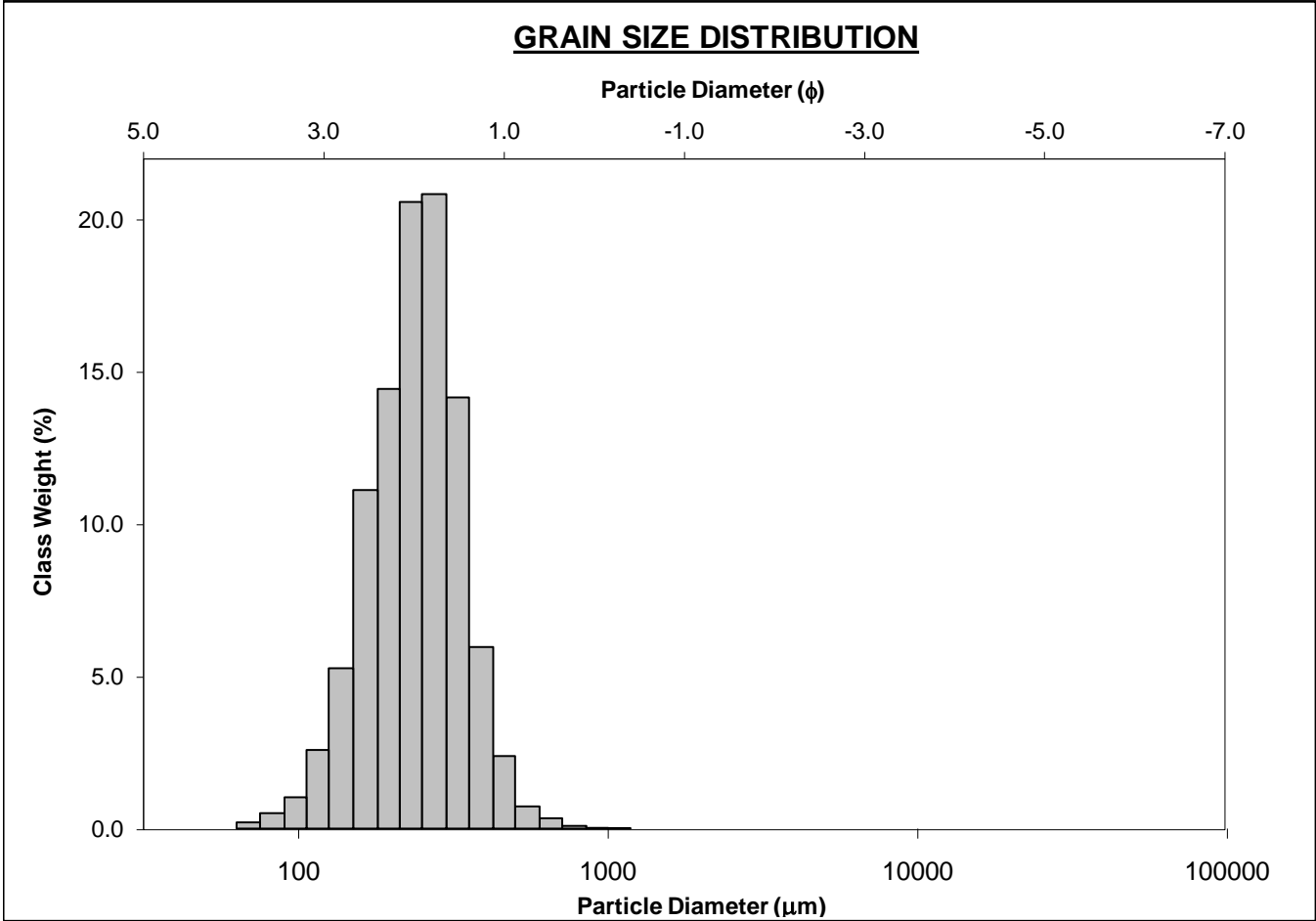
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-280cm			ANALYST & DATE: Chris, 7/1/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 1.0%		COARSE SAND: 4.8%	
MODE 2:			SAND: 99.0%		MEDIUM SAND: 46.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 46.0%	
D ₁₀ :	165.7	1.224			V FINE SAND: 1.3%	
MEDIAN or D ₅₀ :	255.6	1.968	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	428.0	2.594	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.584	2.119	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	262.4	1.370	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.566	1.397	V FINE GRAVEL: 1.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	116.8	0.647	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	300.5	265.9	1.911	259.1	1.949	Medium Sand
SORTING (σ):	225.8	1.535	0.618	1.447	0.533	Moderately Well Sorted
SKEWNESS (Sk):	6.141	1.240	-1.240	0.119	-0.119	Coarse Skewed
KURTOSIS (K):	49.48	9.476	9.476	1.165	1.165	Leptokurtic



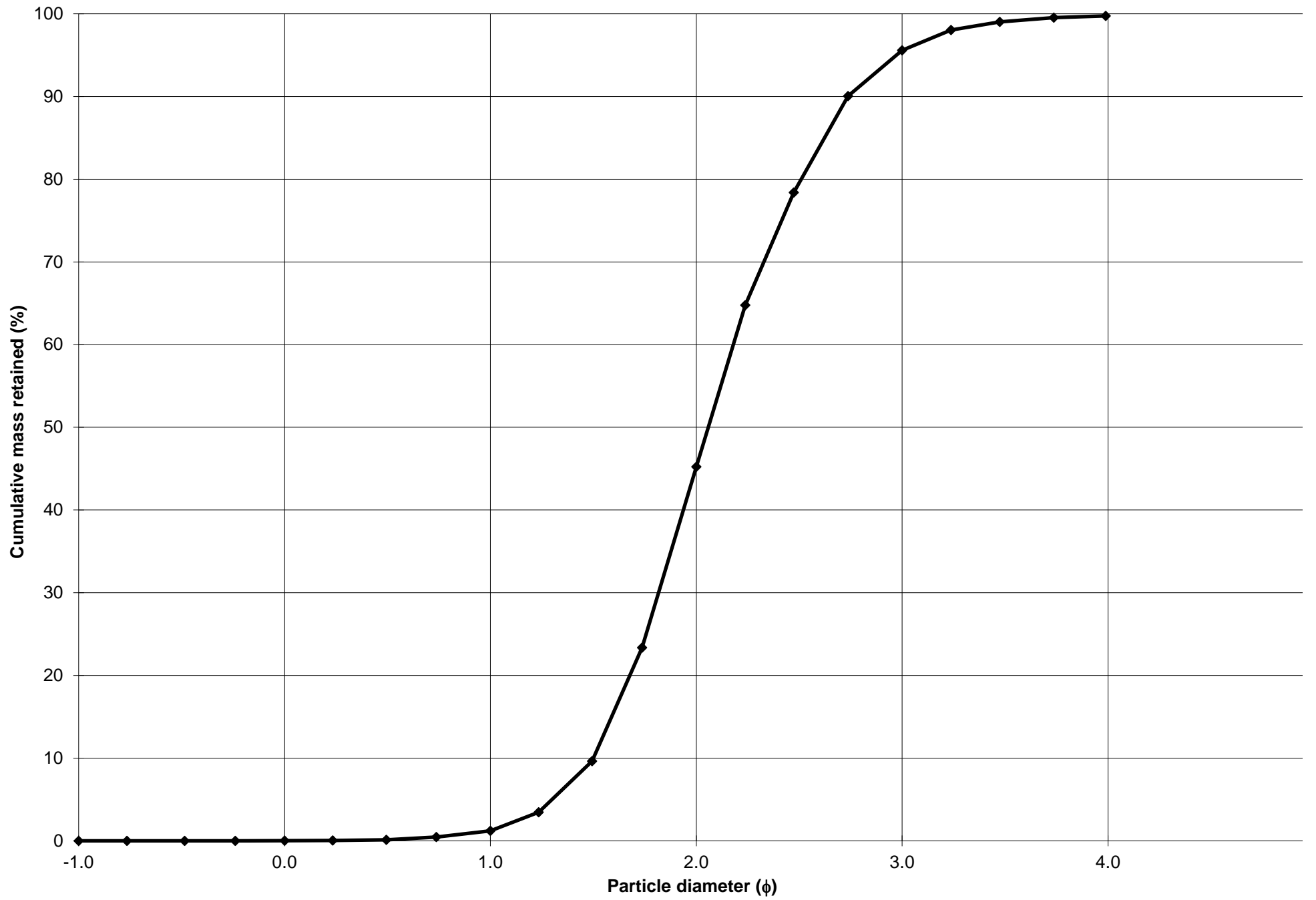
Cumulative Frequency Curve



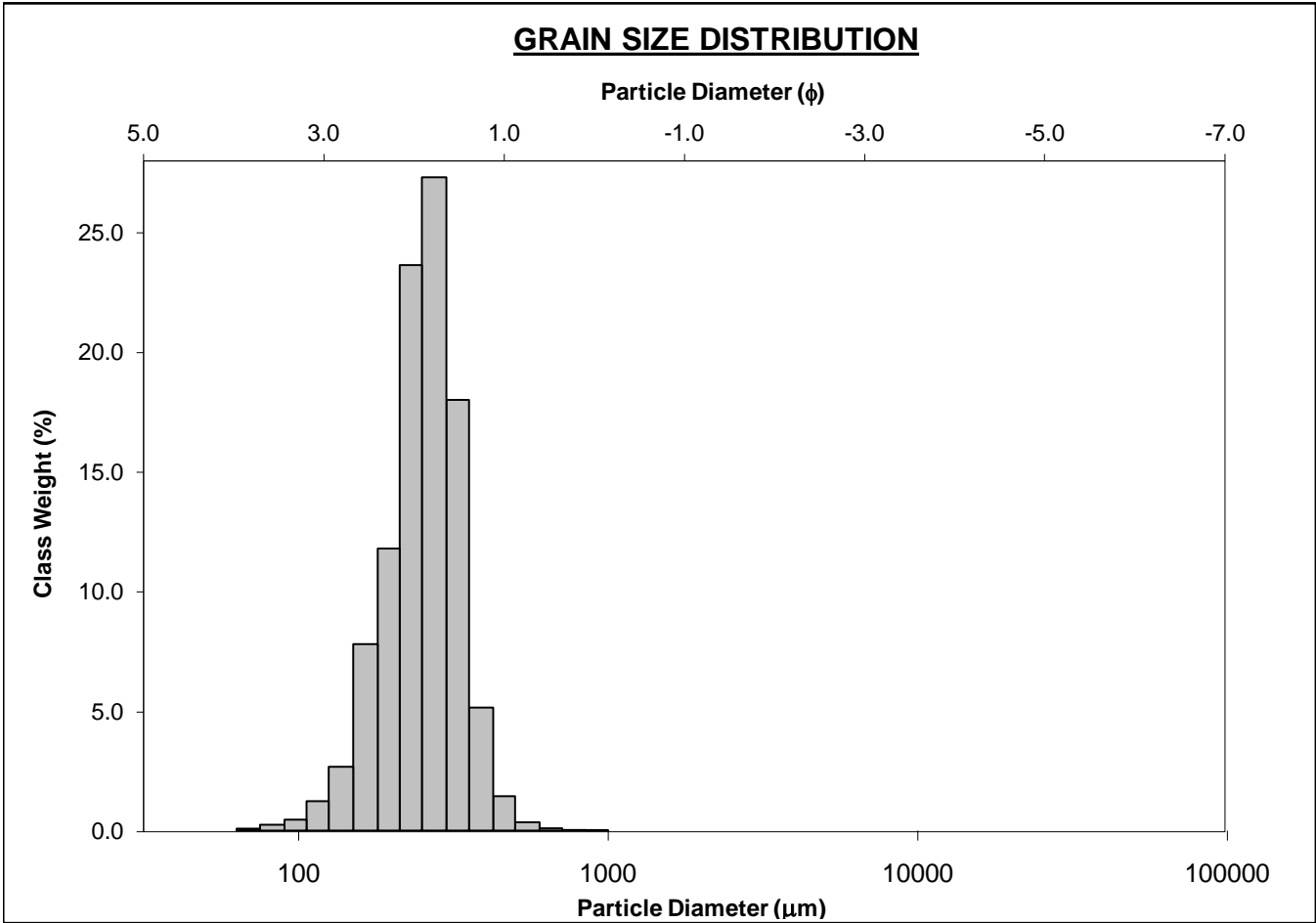
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-290cm			ANALYST & DATE: Chris, 7/1/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.2%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 44.0%	
MODE 3:			MUD: 0.3%		FINE SAND: 50.4%	
D ₁₀ :	150.1	1.501			V FINE SAND: 4.2%	
MEDIAN or D ₅₀ :	240.1	2.058	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	353.4	2.736	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.354	1.823	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	203.2	1.235	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.578	1.375	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	108.4	0.658	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	250.1	233.2	2.100	235.1	2.088	Fine Sand
SORTING (σ):	88.73	1.475	0.561	1.416	0.502	Moderately Well Sorted
SKEWNESS (Sk):	1.184	-1.823	1.823	-0.093	0.093	Symmetrical
KURTOSIS (K):	7.288	17.18	17.18	1.041	1.041	Mesokurtic



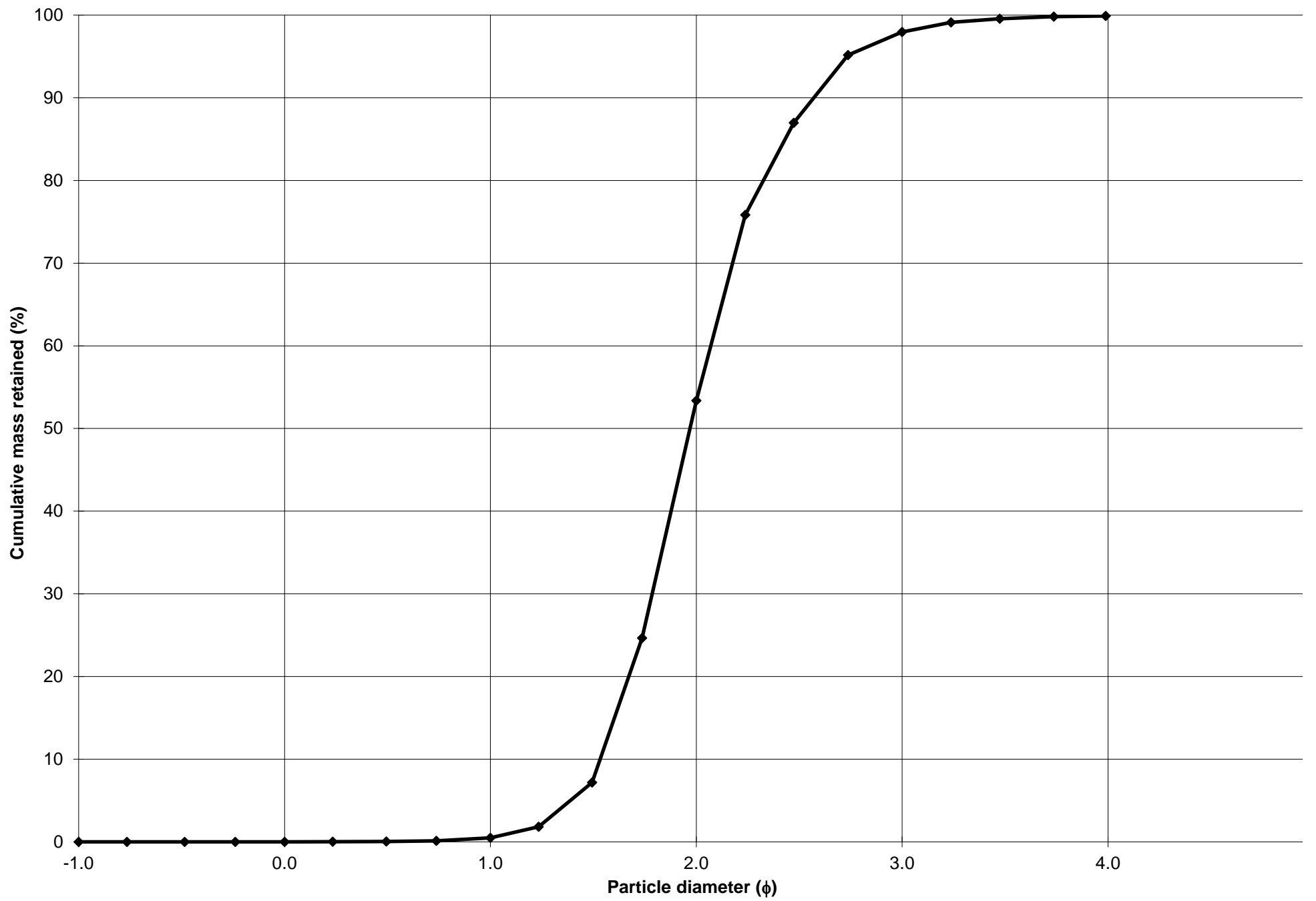
Cumulative Frequency Curve



SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-297cm			ANALYST & DATE: Chris, 7/1/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 0.5%			
MODE 2:			SAND: 99.9% MEDIUM SAND: 52.9%			
MODE 3:			MUD: 0.1% FINE SAND: 44.6%			
D ₁₀ :	168.2	1.533	V FINE SAND: 1.9%			
MEDIAN or D ₅₀ :	255.4	1.969	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	345.5	2.571	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.053	1.677	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	177.2	1.038	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.403	1.281	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	86.03	0.489	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	259.3	247.7	2.013	250.2	1.999	Medium Sand
SORTING (σ):	72.18	1.360	0.443	1.321	0.402	Well Sorted
SKEWNESS (Sk):	0.711	-1.874	1.874	-0.124	0.124	Fine Skewed
KURTOSIS (K):	5.922	19.66	19.66	1.127	1.127	Leptokurtic



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **SI-15-04-410-420cm**

ANALYST & DATE: Chris, 10/22/15

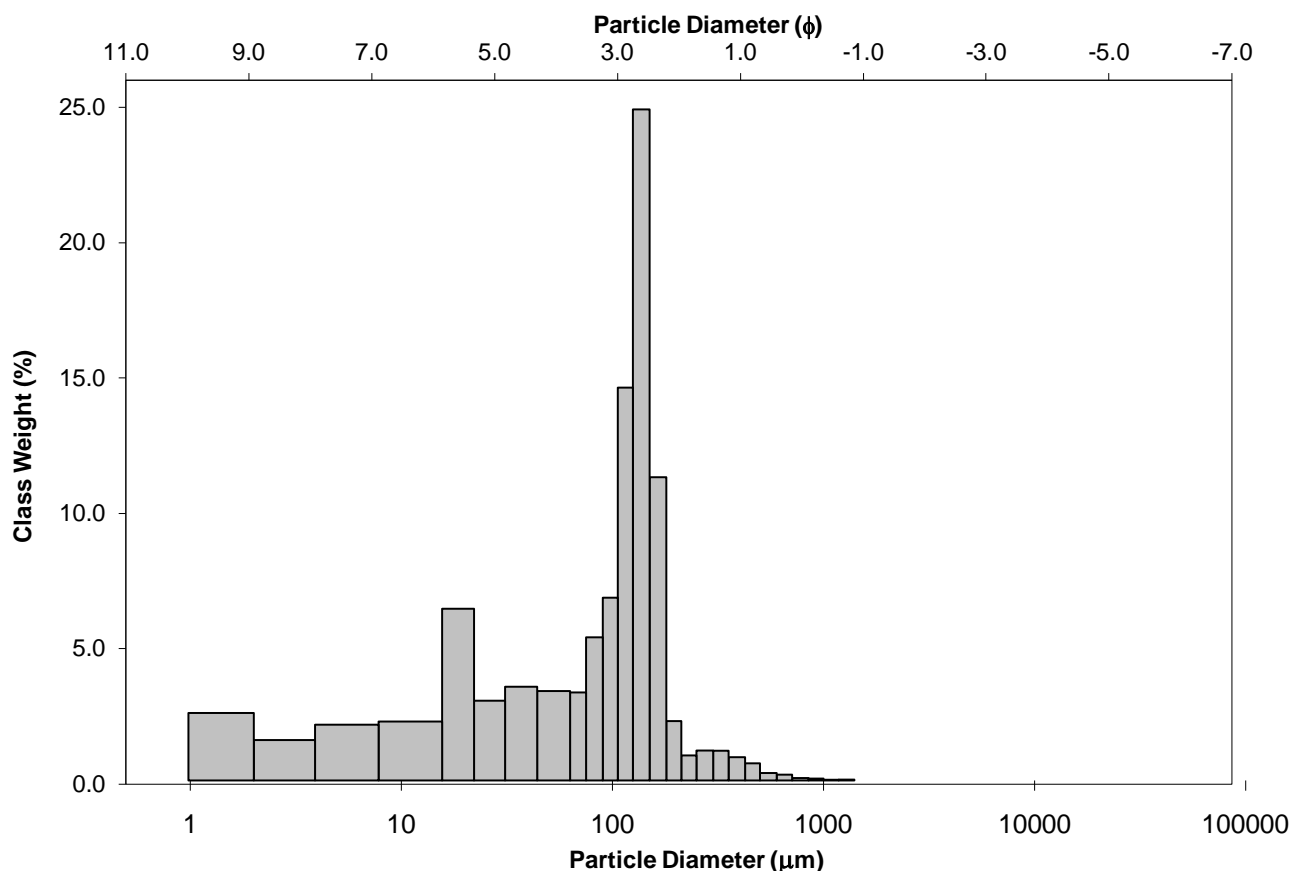
SAMPLE TYPE: Bimodal, Very Poorly Sorted

TEXTURAL GROUP: Sandy Mud

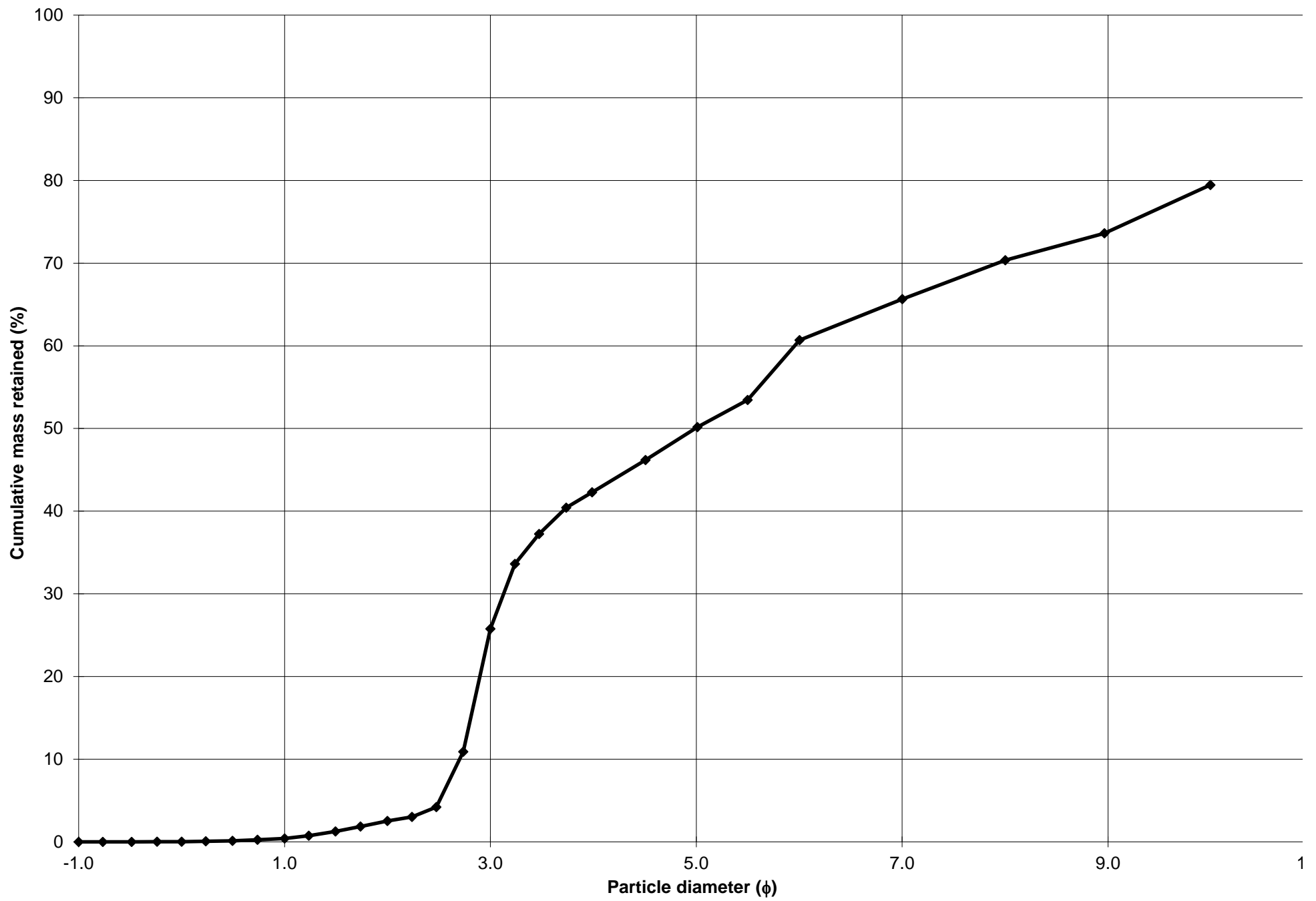
SEDIMENT NAME: Fine Sandy Mud

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%	COARSE SAND: 0.4%		
MODE 2:	18.85	5.751	SAND: 42.4%	MEDIUM SAND: 2.1%		
MODE 3:			MUD: 57.6%	FINE SAND: 23.2%		
D_{10} :	1.992	2.701		V FINE SAND: 16.6%		
MEDIAN or D_{50} :	31.44	4.991	V COARSE GRAVEL: 0.0%	V COARSE SILT: 7.7%		
D_{90} :	153.8	8.971	COARSE GRAVEL: 0.0%	COARSE SILT: 10.6%		
(D_{90} / D_{10}) :	77.18	3.321	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 5.0%		
$(D_{90} - D_{10})$:	151.8	6.270	FINE GRAVEL: 0.0%	FINE SILT: 4.7%		
(D_{75} / D_{25}) :	74.67	3.084	V FINE GRAVEL: 0.0%	V FINE SILT: 3.5%		
$(D_{75} - D_{25})$:	124.5	6.222	V COARSE SAND: 0.0%	CLAY: 26.2%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	68.73	18.82	5.732	18.06	5.791	Coarse Silt
SORTING (σ):	85.54	7.649	2.935	6.012	2.588	Very Poorly Sorted
SKEWNESS (Sk):	3.031	-0.362	0.362	-0.263	0.263	Fine Skewed
KURTOSIS (K):	24.48	1.565	1.565	0.394	0.394	Very Platykurtic

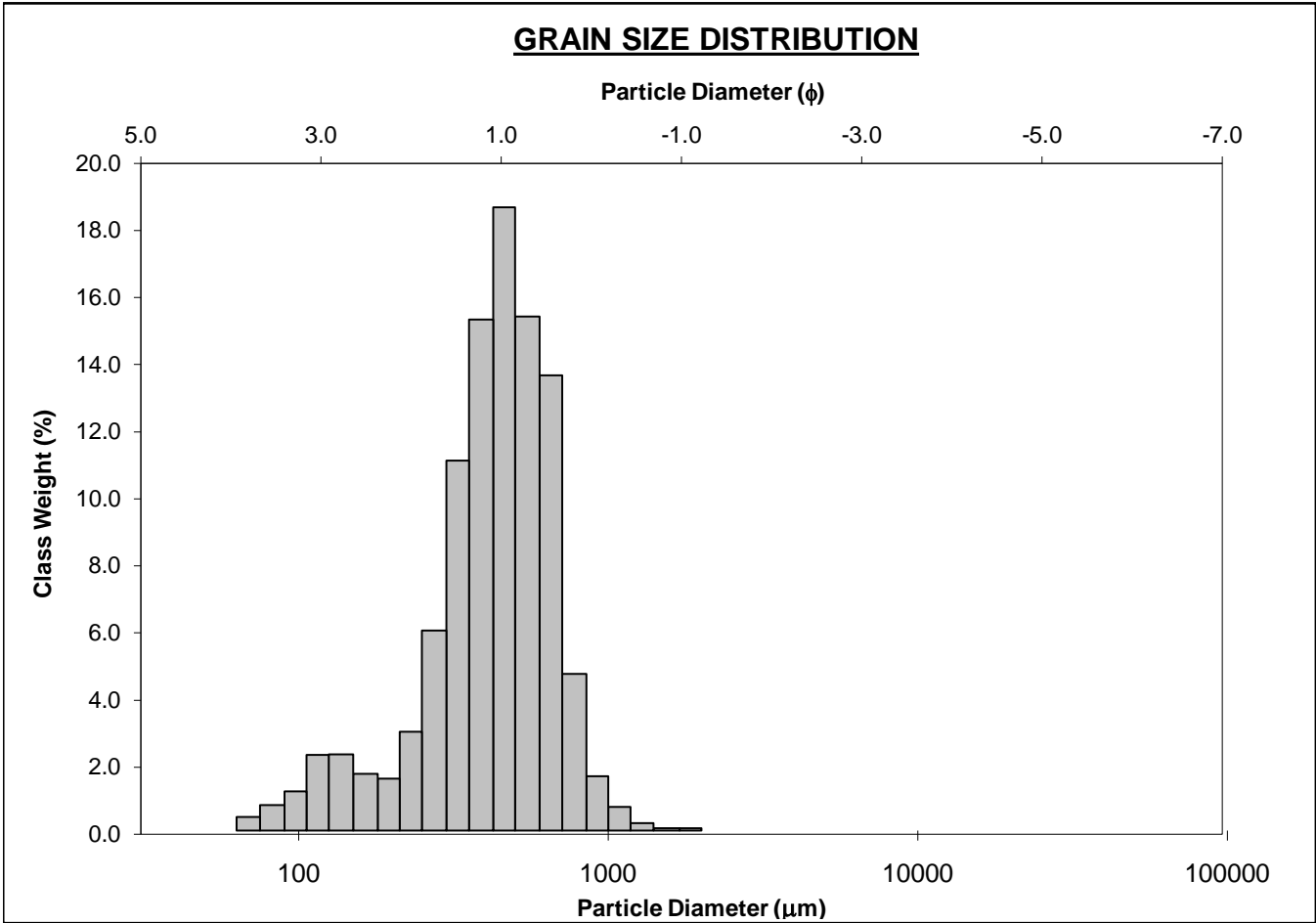
GRAIN SIZE DISTRIBUTION



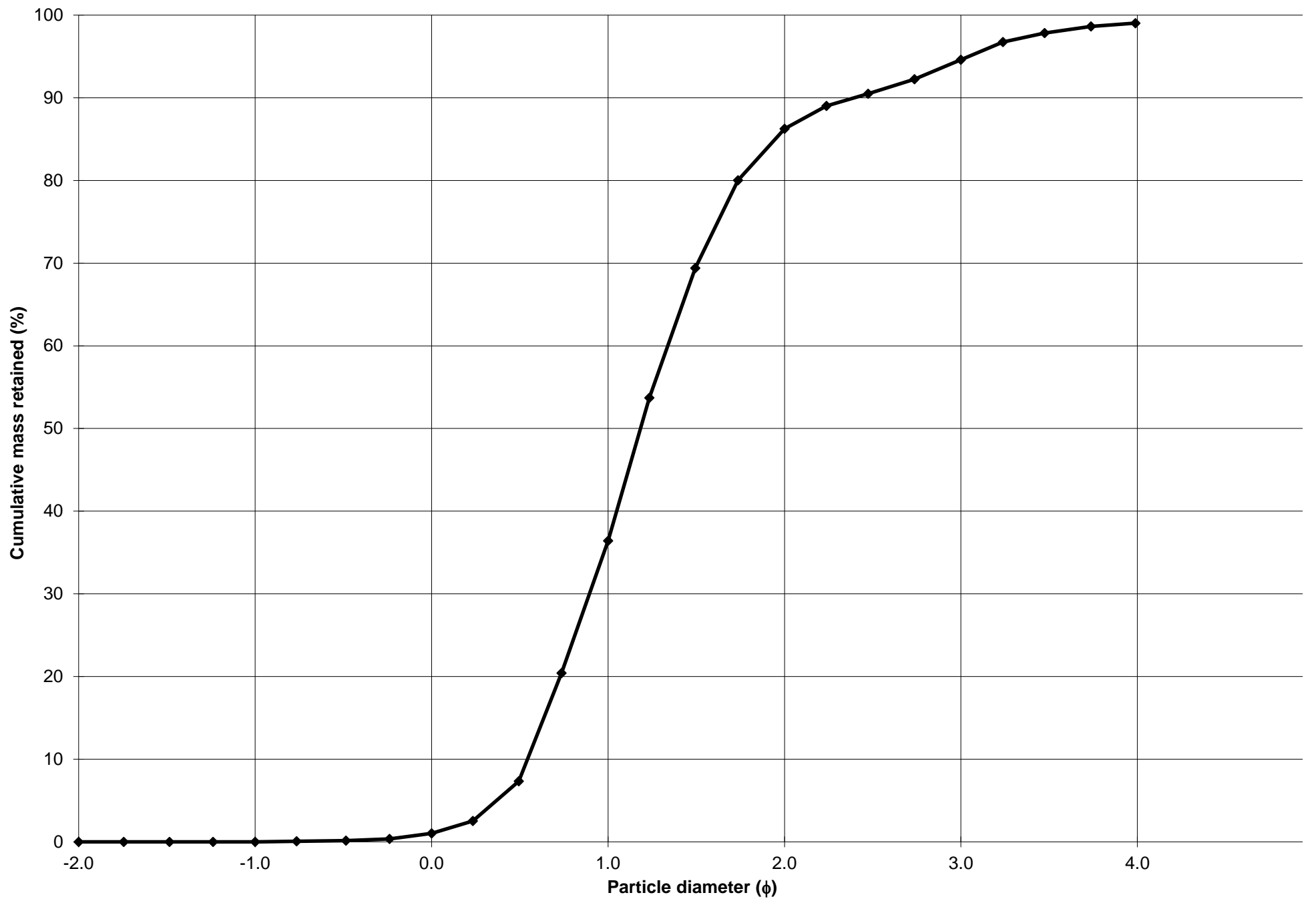
Cumulative Frequency Curve



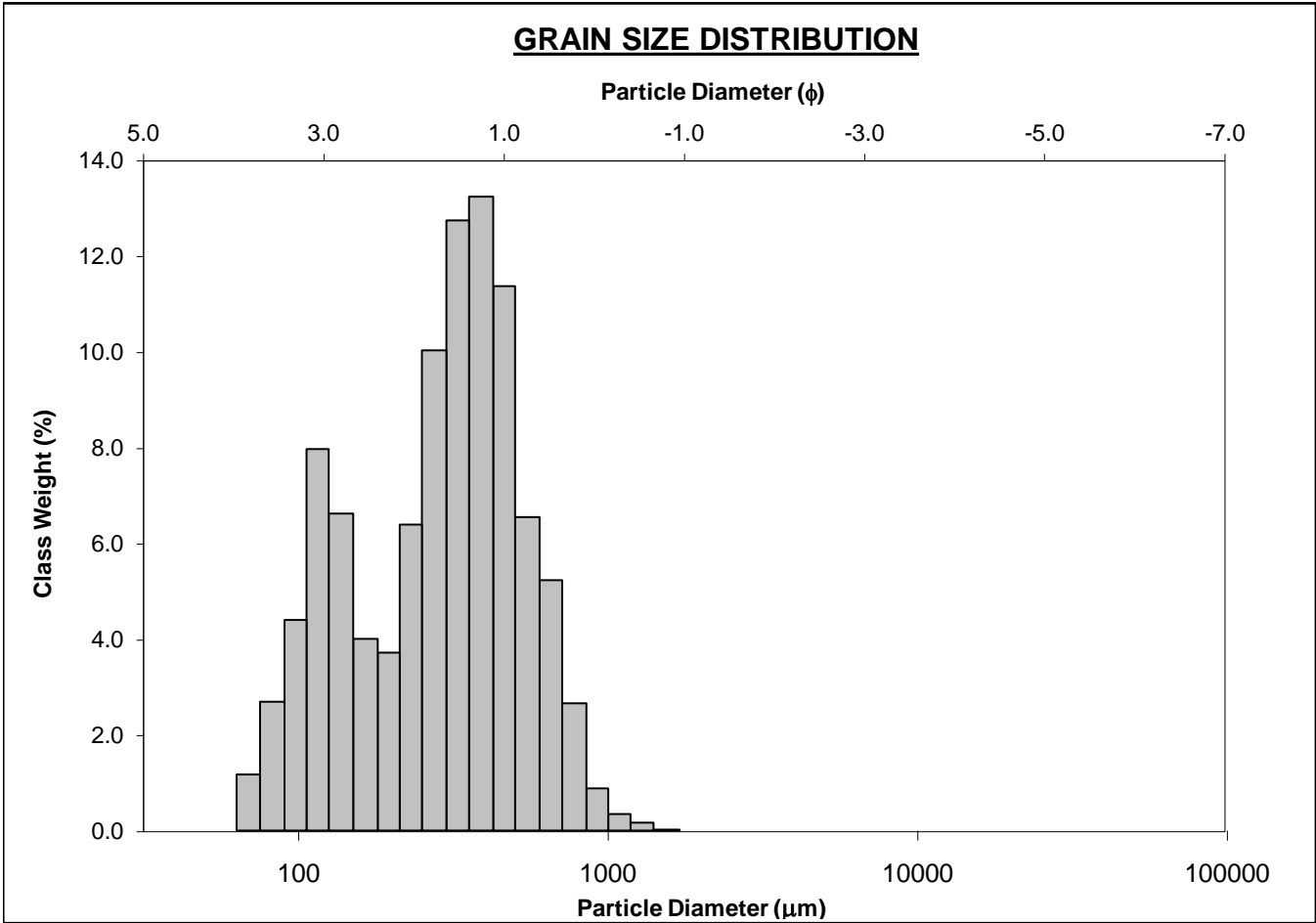
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-440cm			ANALYST & DATE: Chris, 7/1/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	462.5	1.117	GRAVEL: 0.0%		COARSE SAND: 35.4%	
MODE 2:			SAND: 99.0%		MEDIUM SAND: 49.8%	
MODE 3:			MUD: 1.0%		FINE SAND: 8.4%	
D ₁₀ :	189.9	0.543			V FINE SAND: 4.4%	
MEDIAN or D ₅₀ :	440.0	1.184	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	686.2	2.397	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	3.613	4.411	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	496.2	1.853	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.753	1.997	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	244.7	0.810	V COARSE SAND: 1.0%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	450.9	391.4	1.353	421.0	1.248	Medium Sand
SORTING (σ):	198.6	1.885	0.915	1.645	0.718	Moderately Sorted
SKEWNESS (Sk):	0.713	-2.691	2.691	-0.271	0.271	Fine Skewed
KURTOSIS (K):	5.747	15.66	15.66	1.354	1.354	Leptokurtic



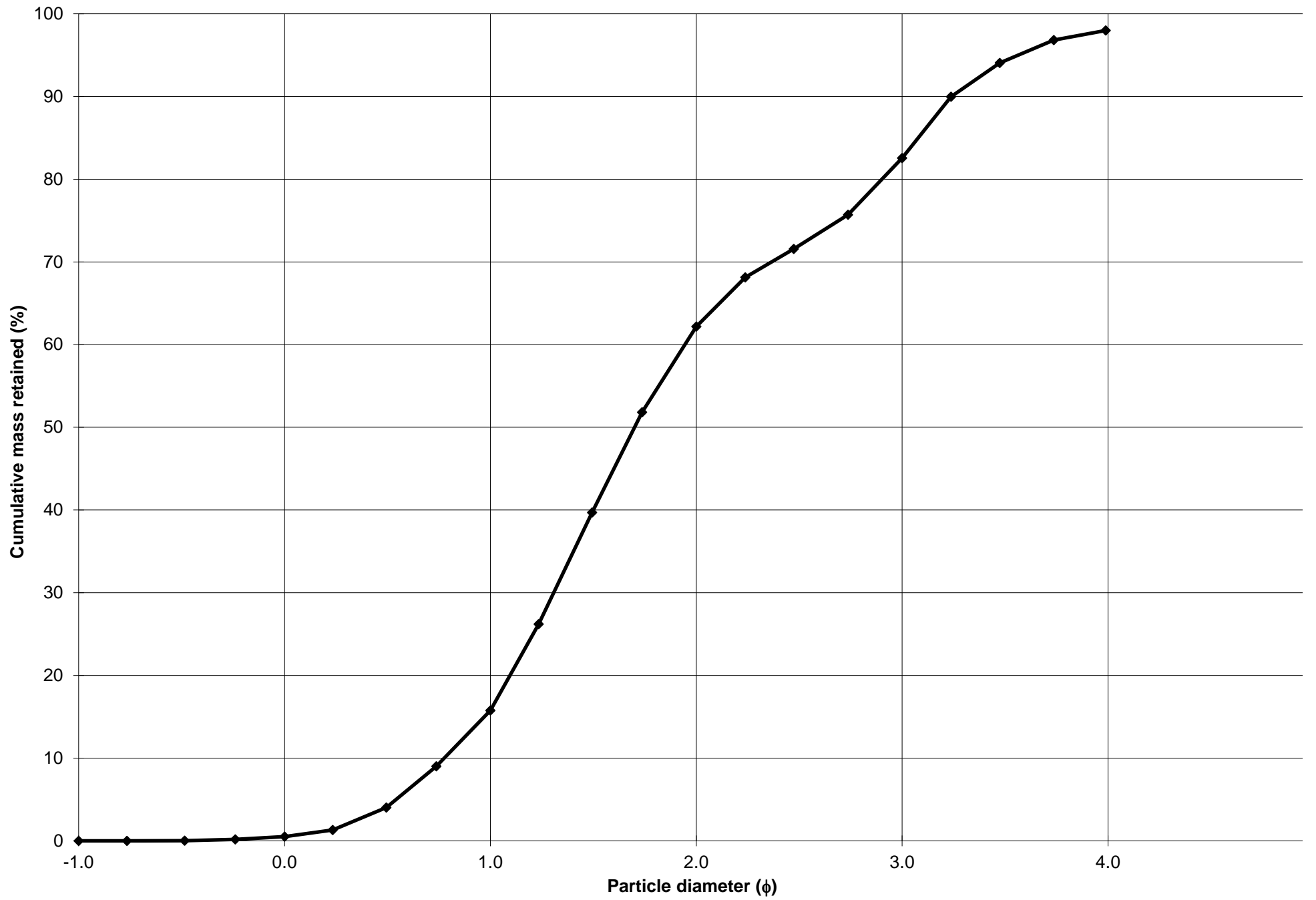
Cumulative Frequency Curve



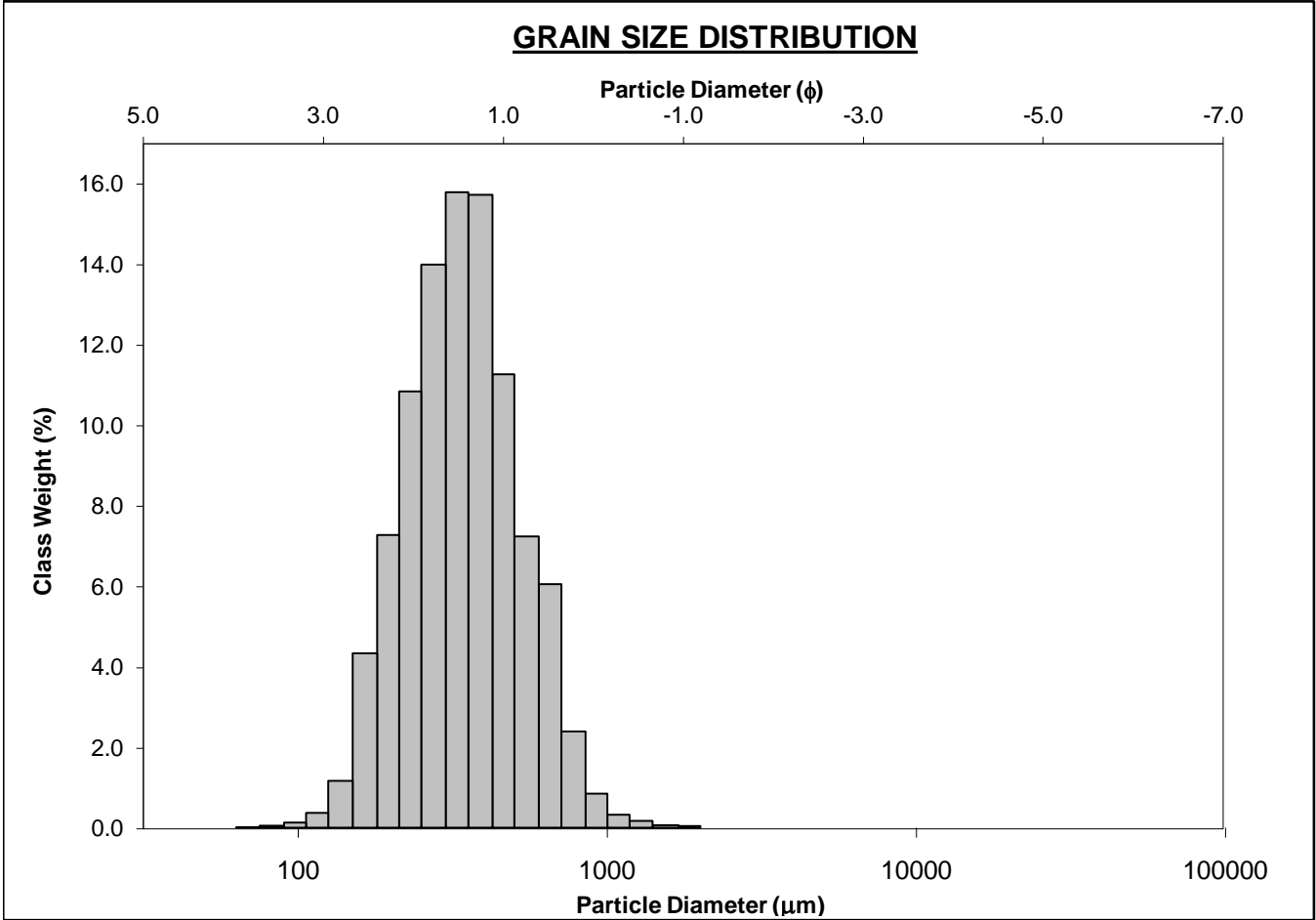
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-04-450cm			ANALYST & DATE: Chris, 7/1/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.0%		COARSE SAND: 15.3%	
MODE 2:	115.5	3.119	SAND: 98.0%		MEDIUM SAND: 46.4%	
MODE 3:			MUD: 2.0%		FINE SAND: 20.4%	
D ₁₀ :	105.9	0.776			V FINE SAND: 15.4%	
MEDIAN or D ₅₀ :	307.7	1.700	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.3%	
D ₉₀ :	584.1	3.239	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D ₉₀ / D ₁₀):	5.516	4.175	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
(D ₉₀ - D ₁₀):	478.2	2.464	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D ₇₅ / D ₂₅):	2.798	2.230	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
(D ₇₅ - D ₂₅):	278.3	1.484	V COARSE SAND: 0.5%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	326.5	258.0	1.955	264.7	1.918	Medium Sand
SORTING (σ):	194.7	2.216	1.148	1.957	0.968	Moderately Sorted
SKEWNESS (Sk):	0.985	-1.704	1.704	-0.276	0.276	Fine Skewed
KURTOSIS (K):	4.609	8.329	8.329	0.834	0.834	Platykurtic



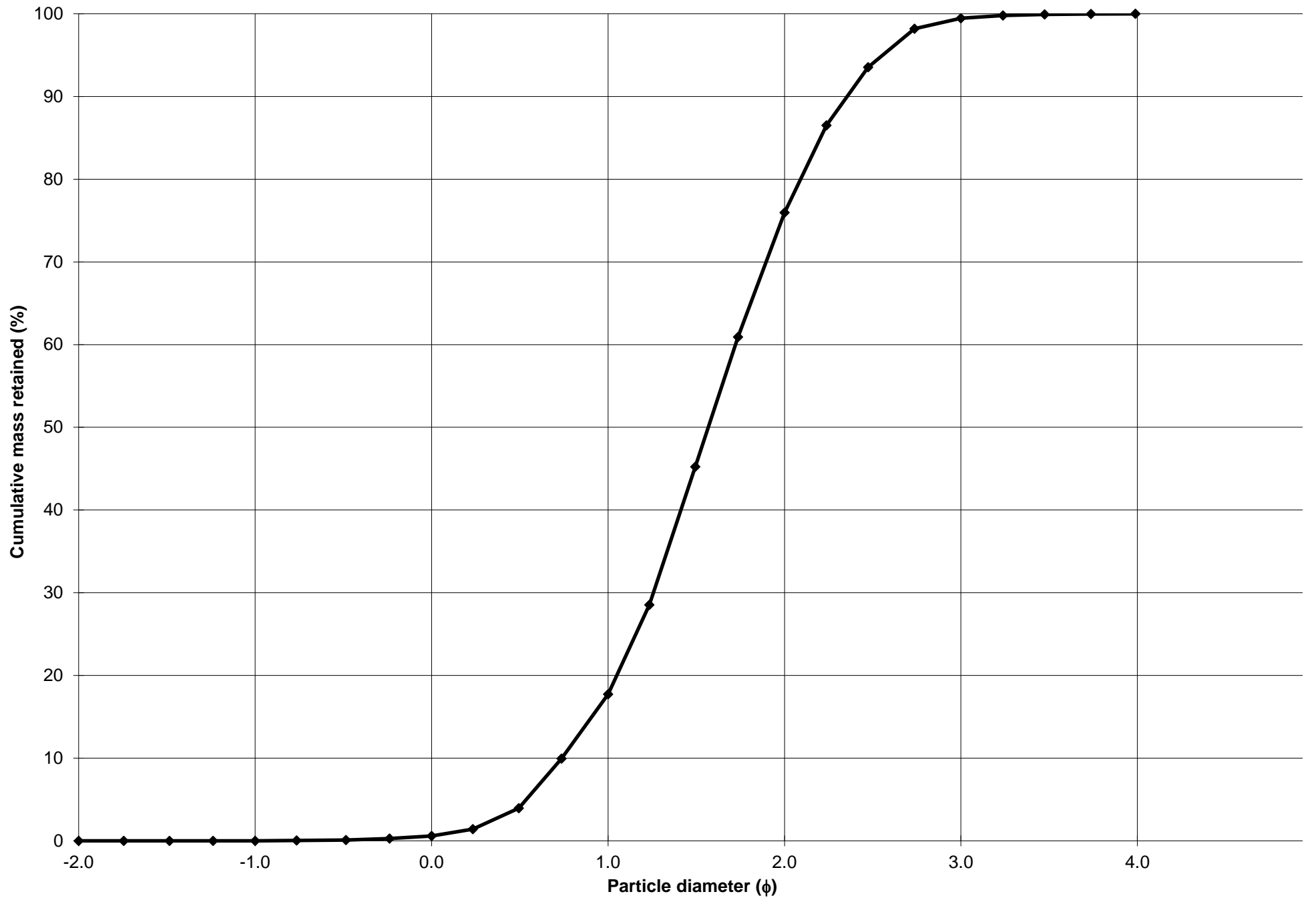
Cumulative Frequency Curve



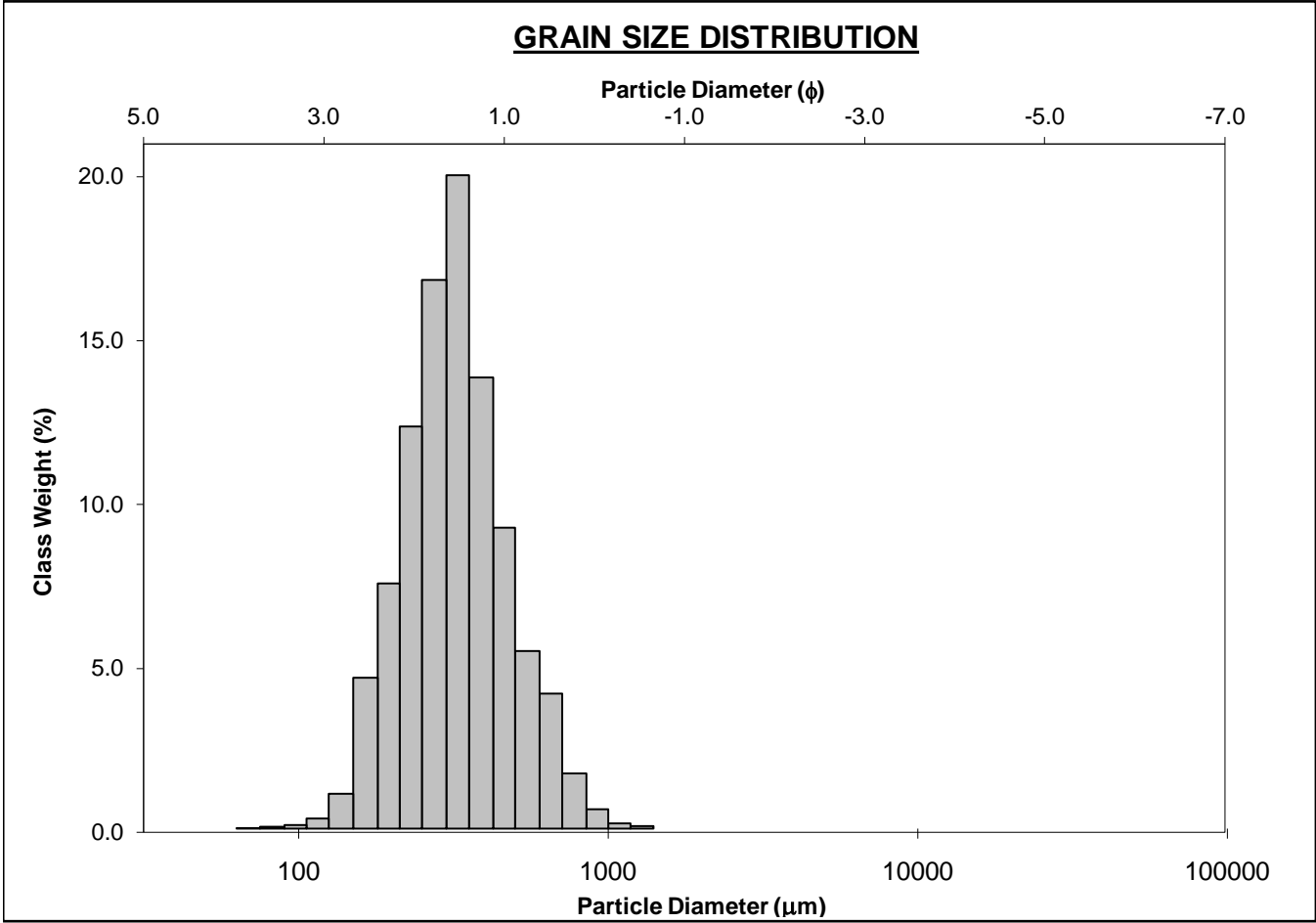
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-0cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 17.1%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 58.2%	
MODE 3:			MUD: 0.0%		FINE SAND: 23.5%	
D ₁₀ :	195.4	0.739			V FINE SAND: 0.5%	
MEDIAN or D ₅₀ :	337.3	1.568	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	599.3	2.355	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.066	3.189	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	403.9	1.617	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.772	1.713	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	195.3	0.825	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	372.8	339.0	1.561	338.3	1.563	Medium Sand
SORTING (σ):	169.9	1.529	0.612	1.533	0.616	Moderately Well Sorted
SKEWNESS (Sk):	1.687	0.065	-0.065	0.016	-0.016	Symmetrical
KURTOSIS (K):	8.920	3.484	3.484	1.003	1.003	Mesokurtic



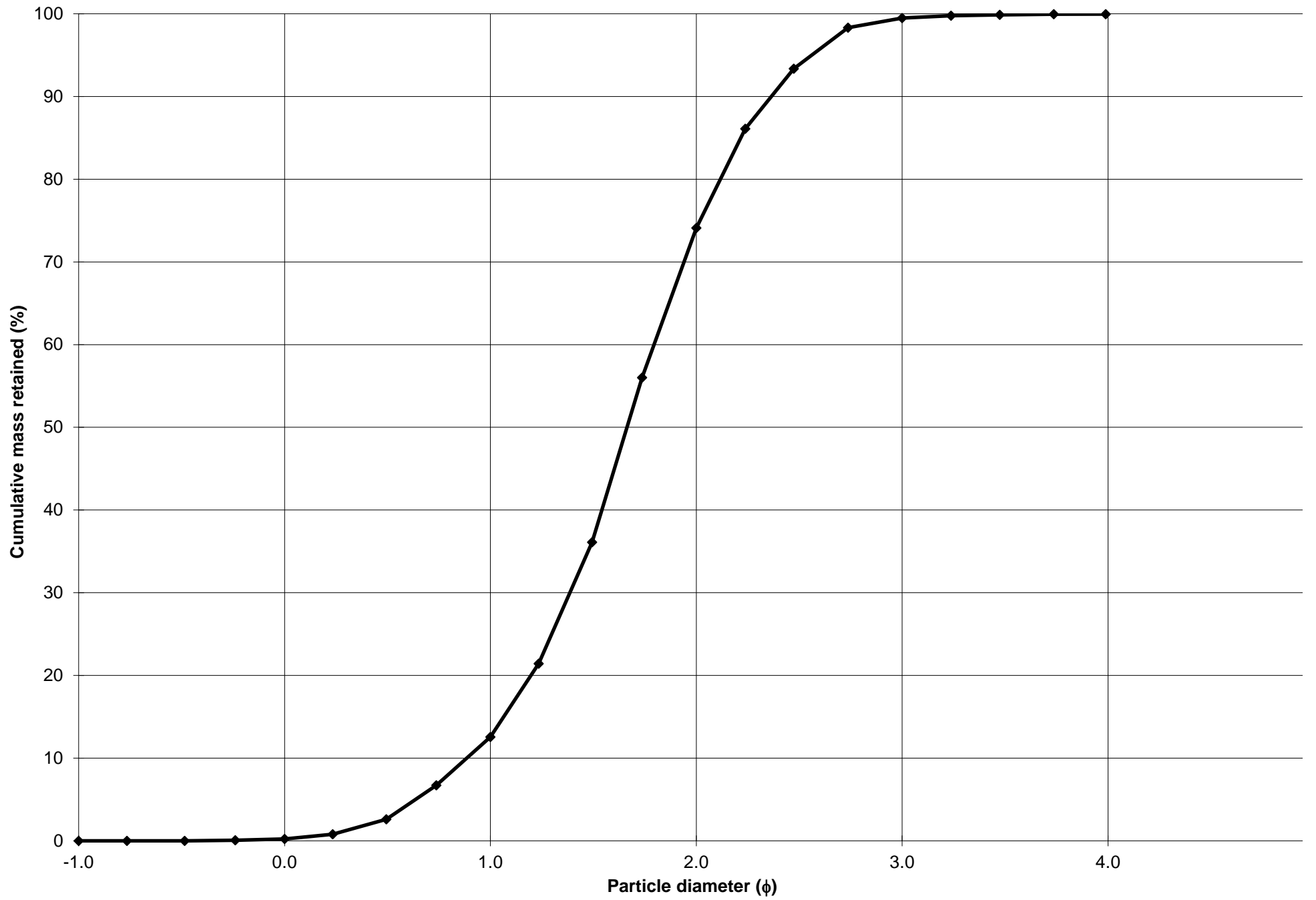
Cumulative Frequency Curve



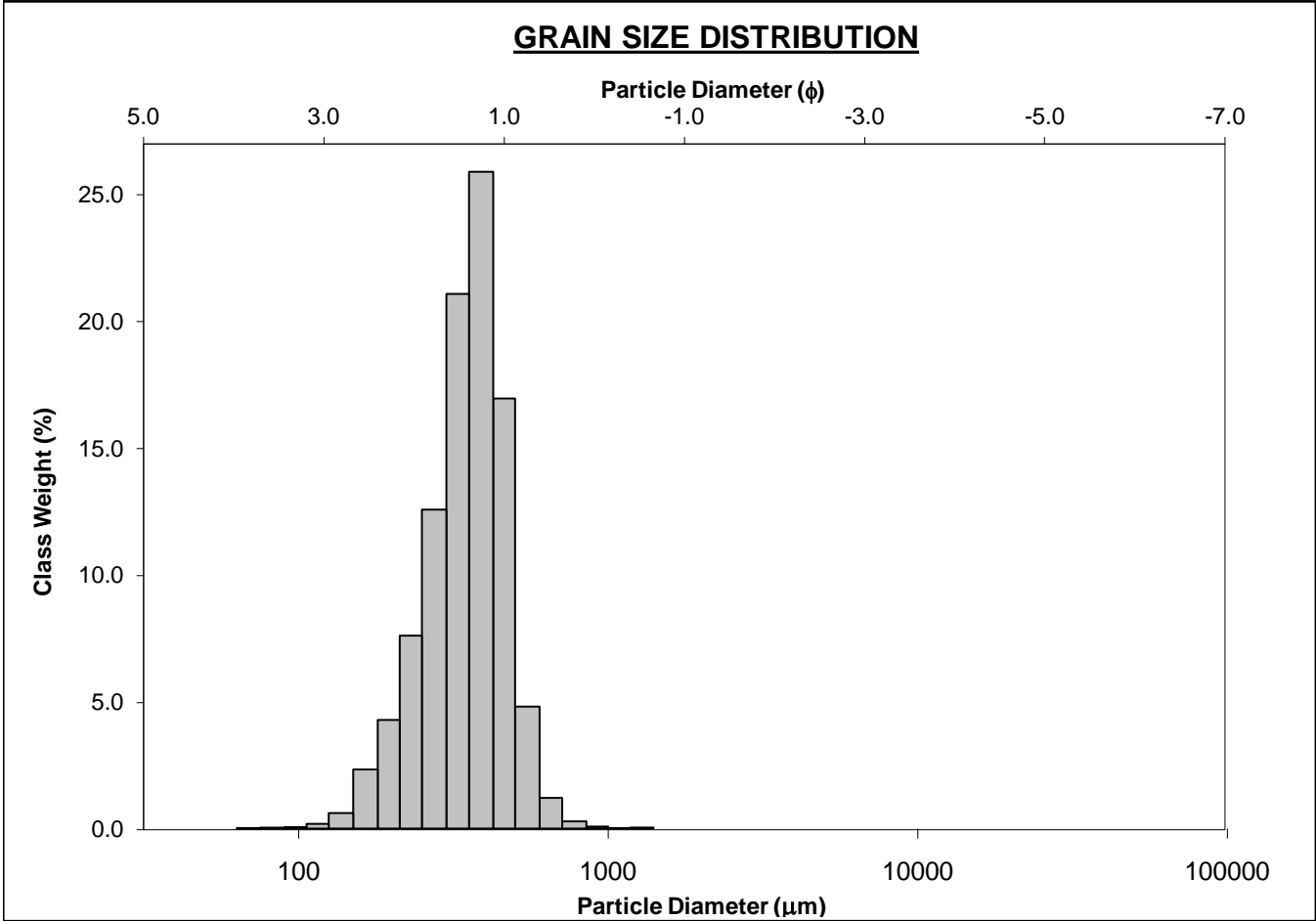
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-10cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 12.3%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 61.5%	
MODE 3:			MUD: 0.0%		FINE SAND: 25.4%	
D ₁₀ :	194.1	0.885			V FINE SAND: 0.5%	
MEDIAN or D ₅₀ :	315.6	1.664	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	541.6	2.365	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.790	2.673	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	347.5	1.480	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.647	1.555	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	159.8	0.720	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	346.5	319.1	1.648	318.6	1.650	Medium Sand
SORTING (σ):	146.1	1.485	0.571	1.483	0.568	Moderately Well Sorted
SKEWNESS (Sk):	1.517	-0.122	0.122	0.052	-0.052	Symmetrical
KURTOSIS (K):	6.619	5.949	5.949	1.096	1.096	Mesokurtic



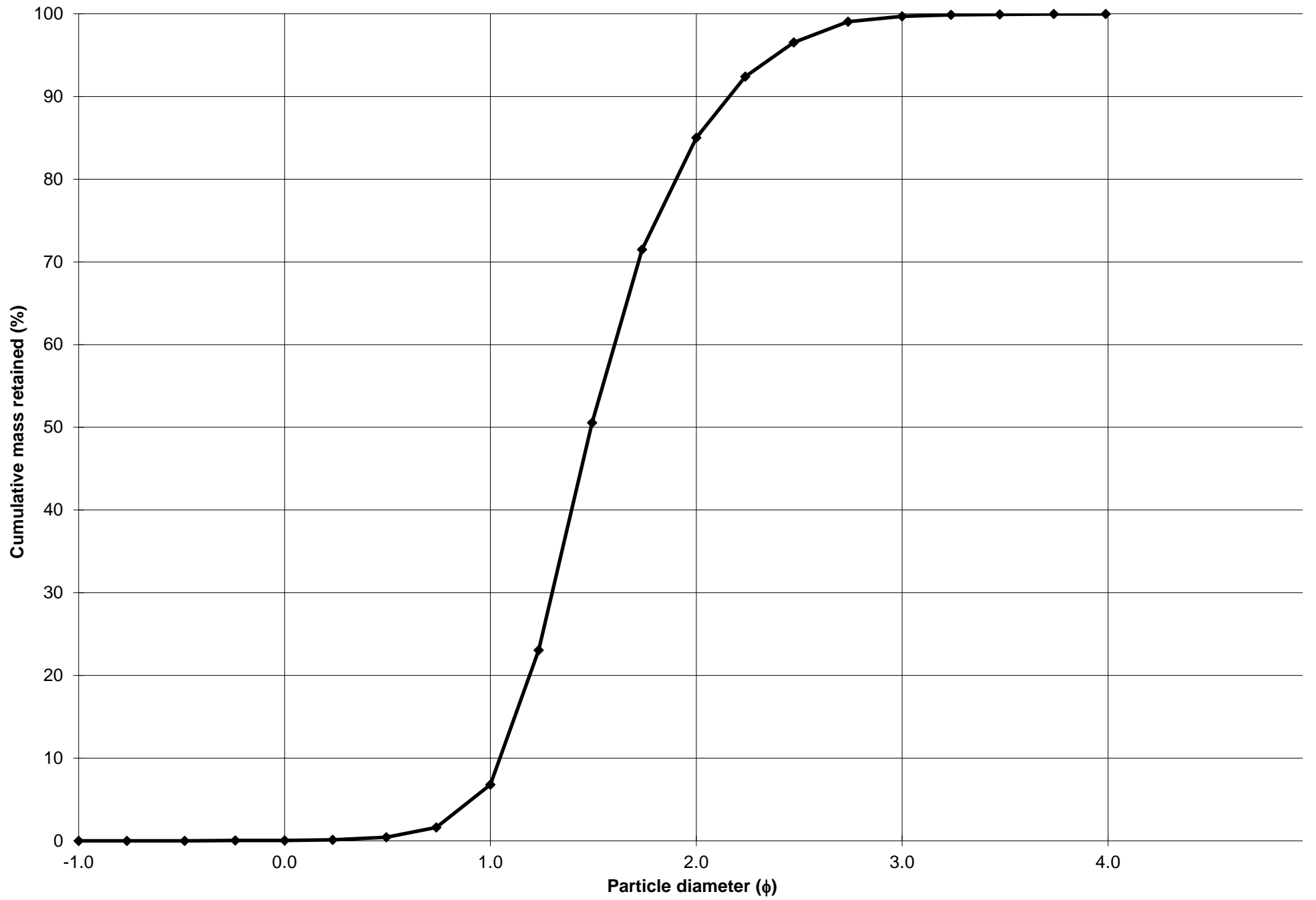
Cumulative Frequency Curve



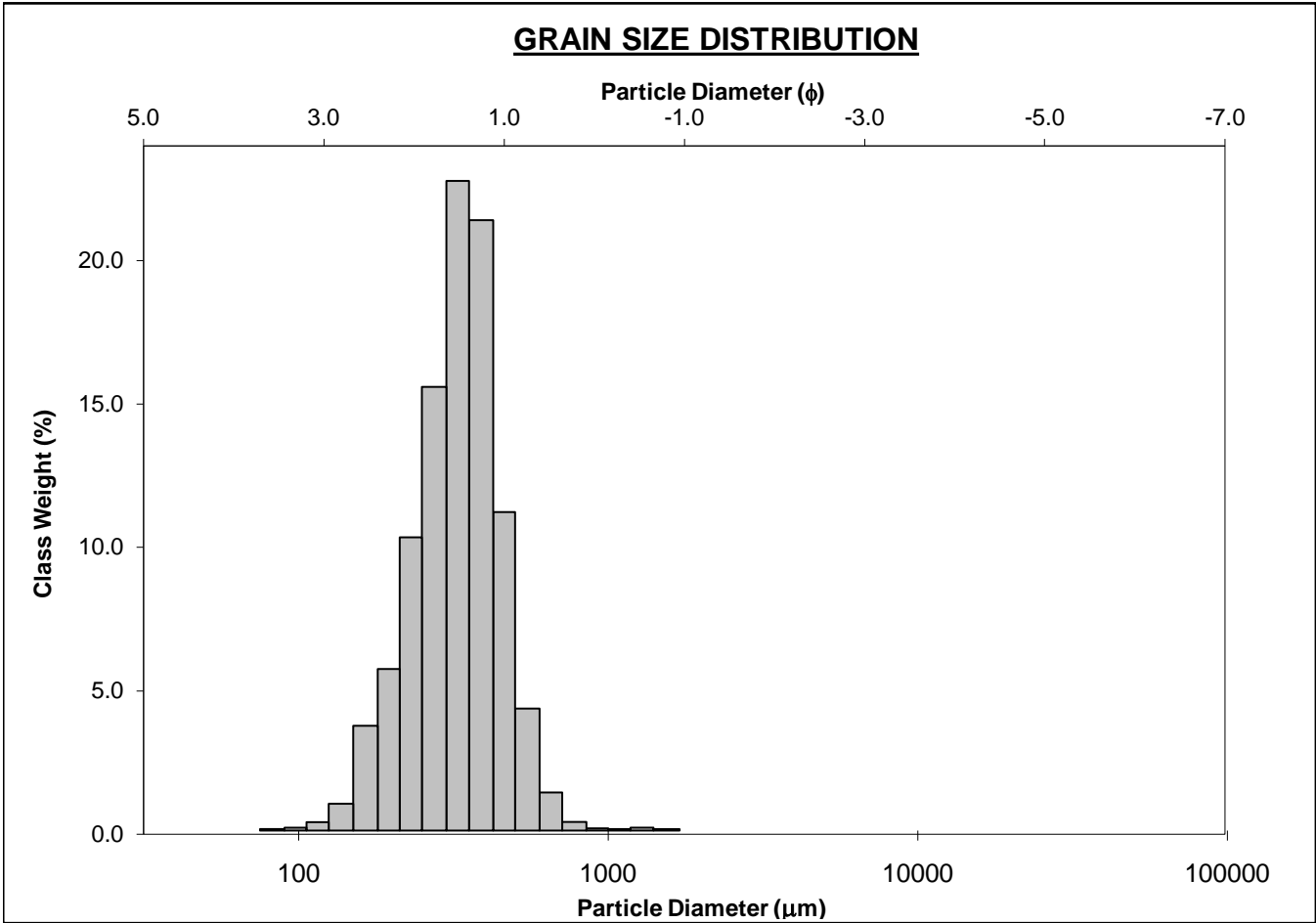
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-10cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.0%		COARSE SAND: 6.7%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 78.2%	
MODE 3:			MUD: 0.0%		FINE SAND: 14.7%	
D_{10} :	223.6	1.046			V FINE SAND: 0.3%	
MEDIAN or D_{50} :	356.3	1.489	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	484.3	2.161	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.165	2.066	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	260.6	1.115	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.467	1.441	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	133.5	0.553	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	358.7	341.6	1.550	345.3	1.534	Medium Sand
SORTING (σ):	105.3	1.365	0.449	1.353	0.436	Well Sorted
SKEWNESS (Sk):	0.758	-0.885	0.885	-0.187	0.187	Fine Skewed
KURTOSIS (K):	6.661	7.972	7.972	1.096	1.096	Mesokurtic



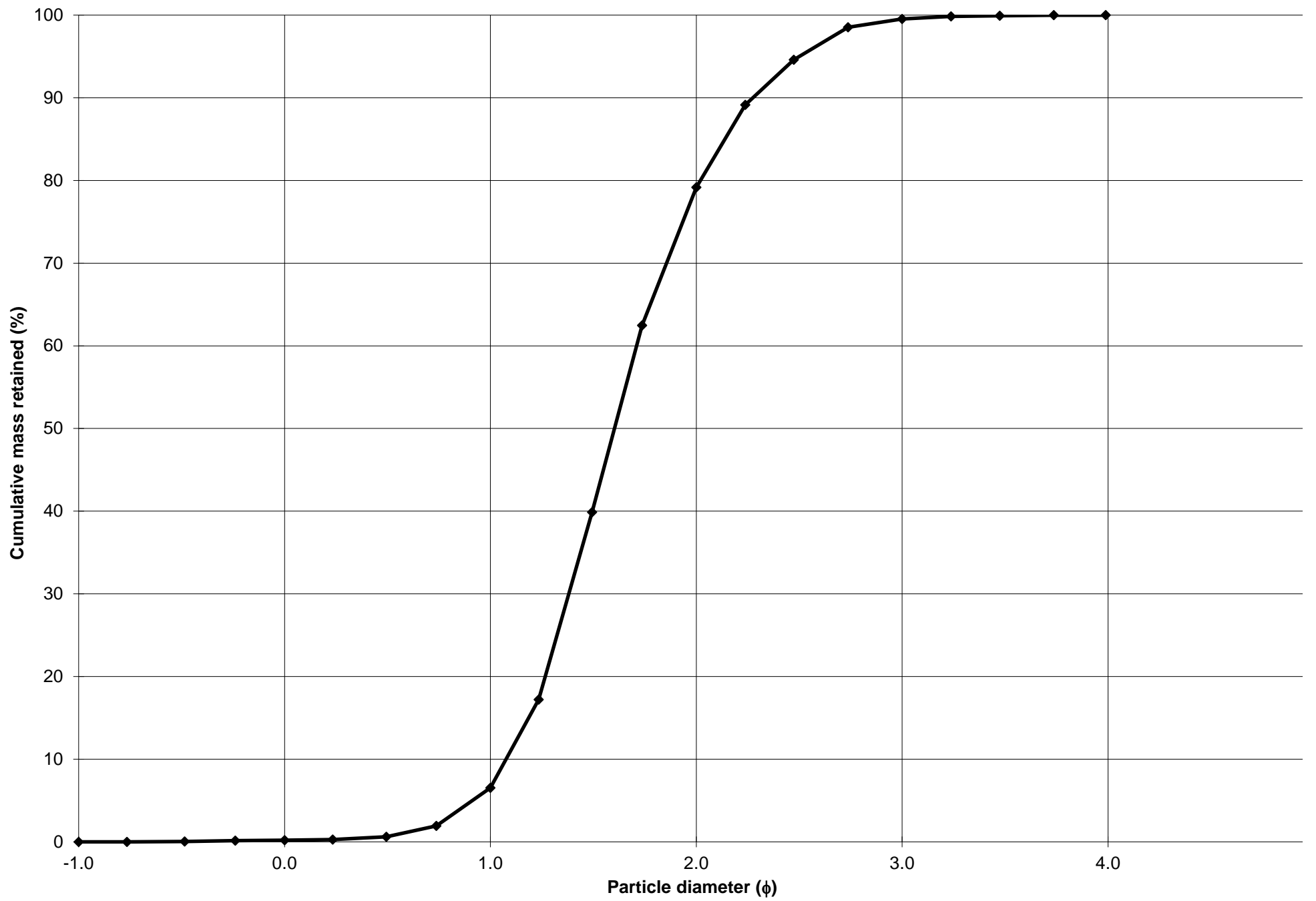
Cumulative Frequency Curve



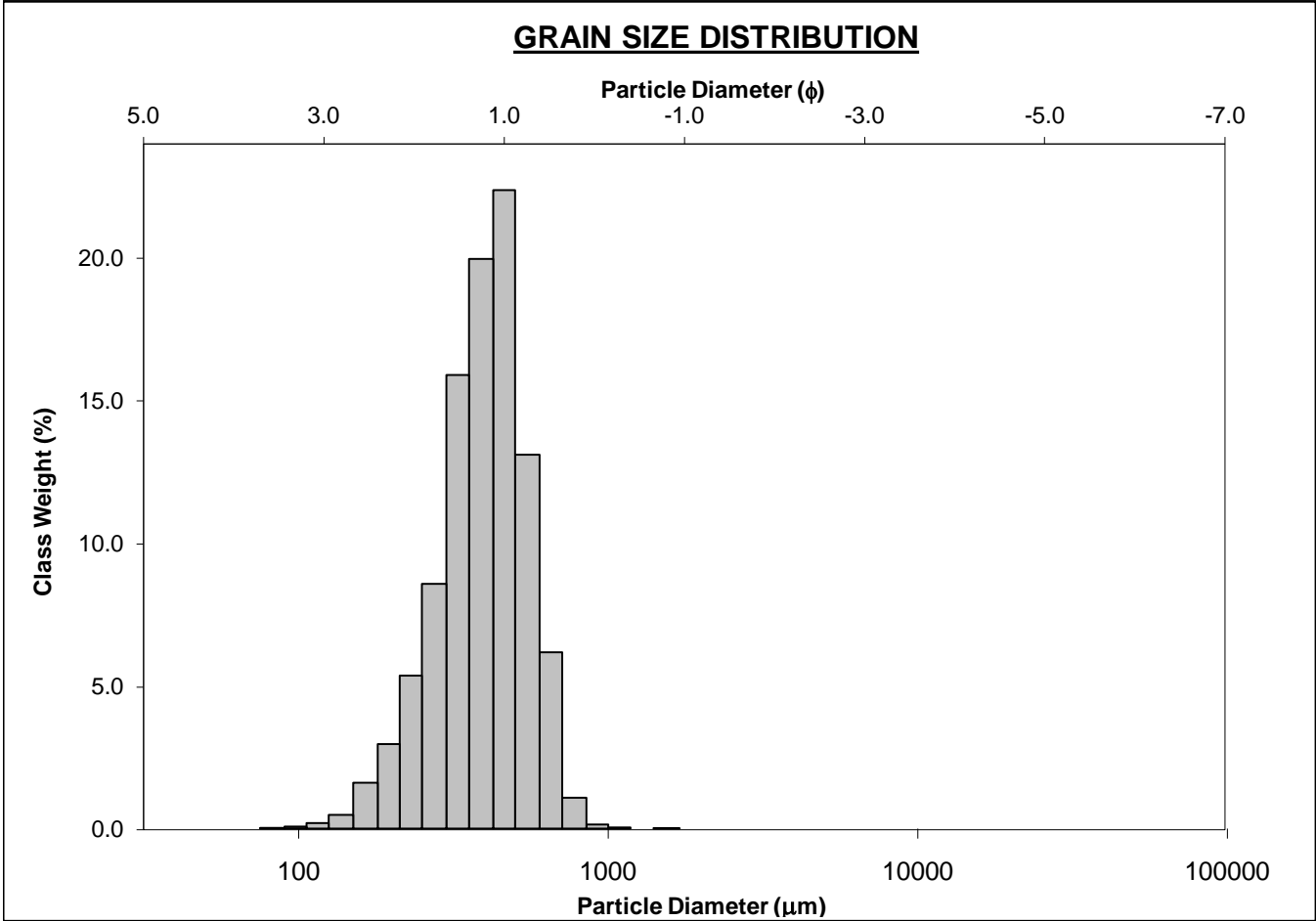
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-30cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0% COARSE SAND: 6.3%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 72.6%			
MODE 3:			MUD: 0.0% FINE SAND: 20.4%			
D ₁₀ :	206.6	1.076	V FINE SAND: 0.4%			
MEDIAN or D ₅₀ :	329.2	1.603	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	474.2	2.275	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.296	2.114	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	267.7	1.199	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.527	1.461	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	137.9	0.611	V COARSE SAND: 0.2% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	339.7	320.7	1.641	320.4	1.642	Medium Sand
SORTING (σ):	115.7	1.394	0.479	1.383	0.468	Well Sorted
SKEWNESS (Sk):	1.889	-0.367	0.367	-0.130	0.130	Fine Skewed
KURTOSIS (K):	15.63	5.526	5.526	1.066	1.066	Mesokurtic



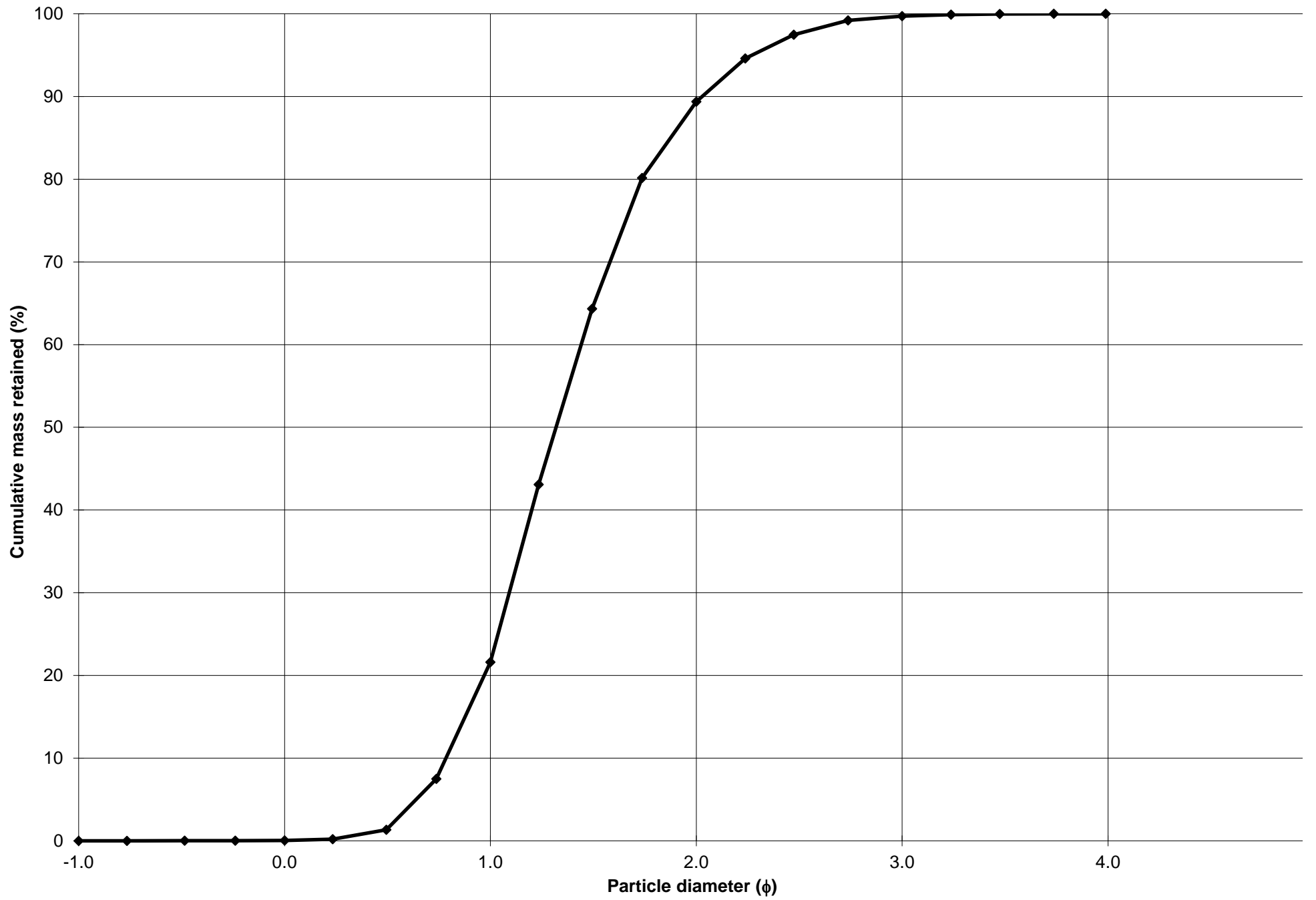
Cumulative Frequency Curve



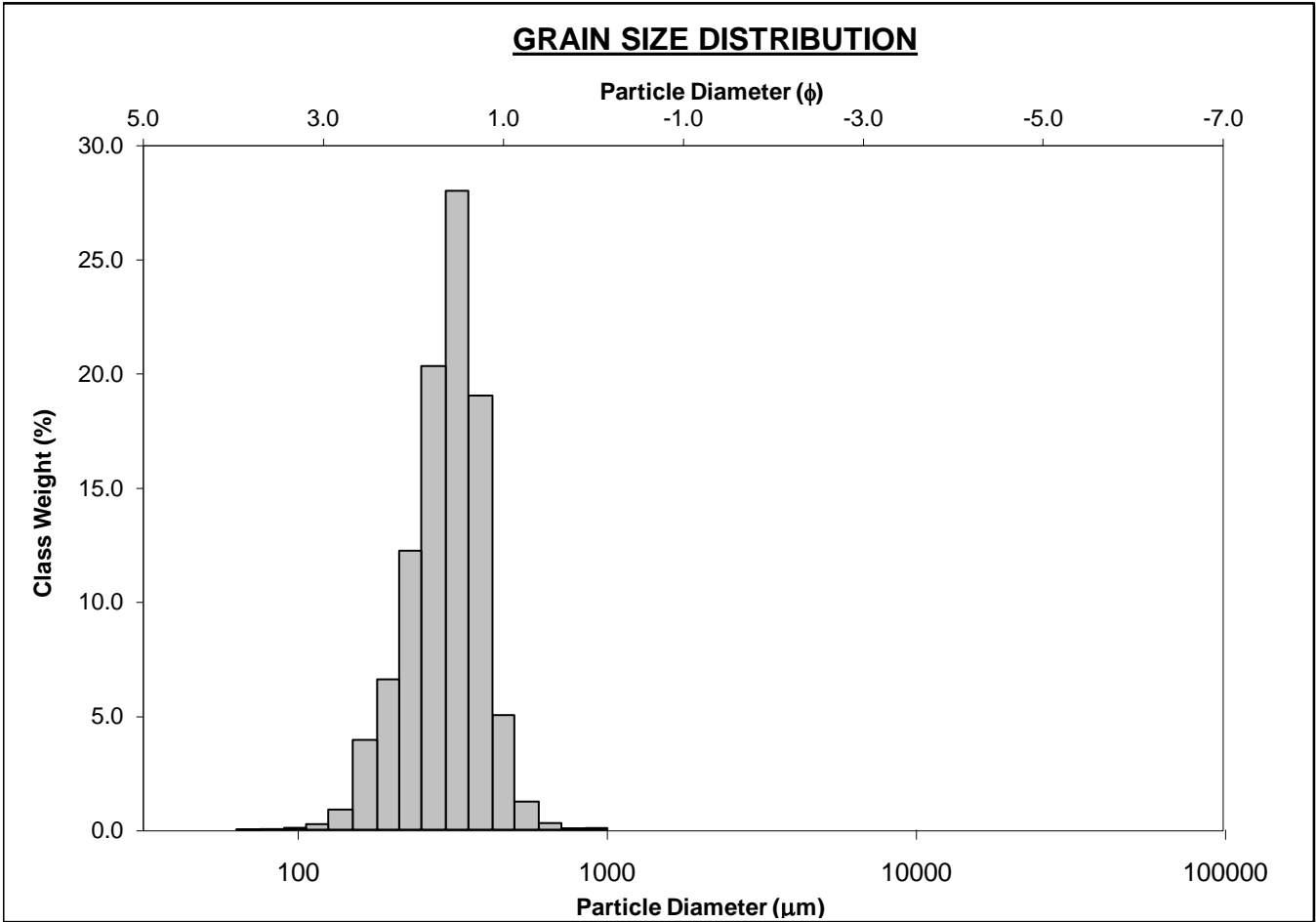
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-40cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	462.5	1.117	GRAVEL: 0.0%		COARSE SAND: 21.5%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 67.8%	
MODE 3:			MUD: 0.0%		FINE SAND: 10.3%	
D ₁₀ :	245.1	0.784			V FINE SAND: 0.3%	
MEDIAN or D ₅₀ :	400.8	1.319	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	580.8	2.028	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.370	2.588	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	335.7	1.245	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.538	1.599	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	170.5	0.621	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	409.7	386.8	1.370	391.3	1.354	Medium Sand
SORTING (σ):	130.0	1.404	0.490	1.400	0.485	Well Sorted
SKEWNESS (Sk):	0.518	-0.698	0.698	-0.138	0.138	Fine Skewed
KURTOSIS (K):	4.300	4.976	4.976	1.077	1.077	Mesokurtic



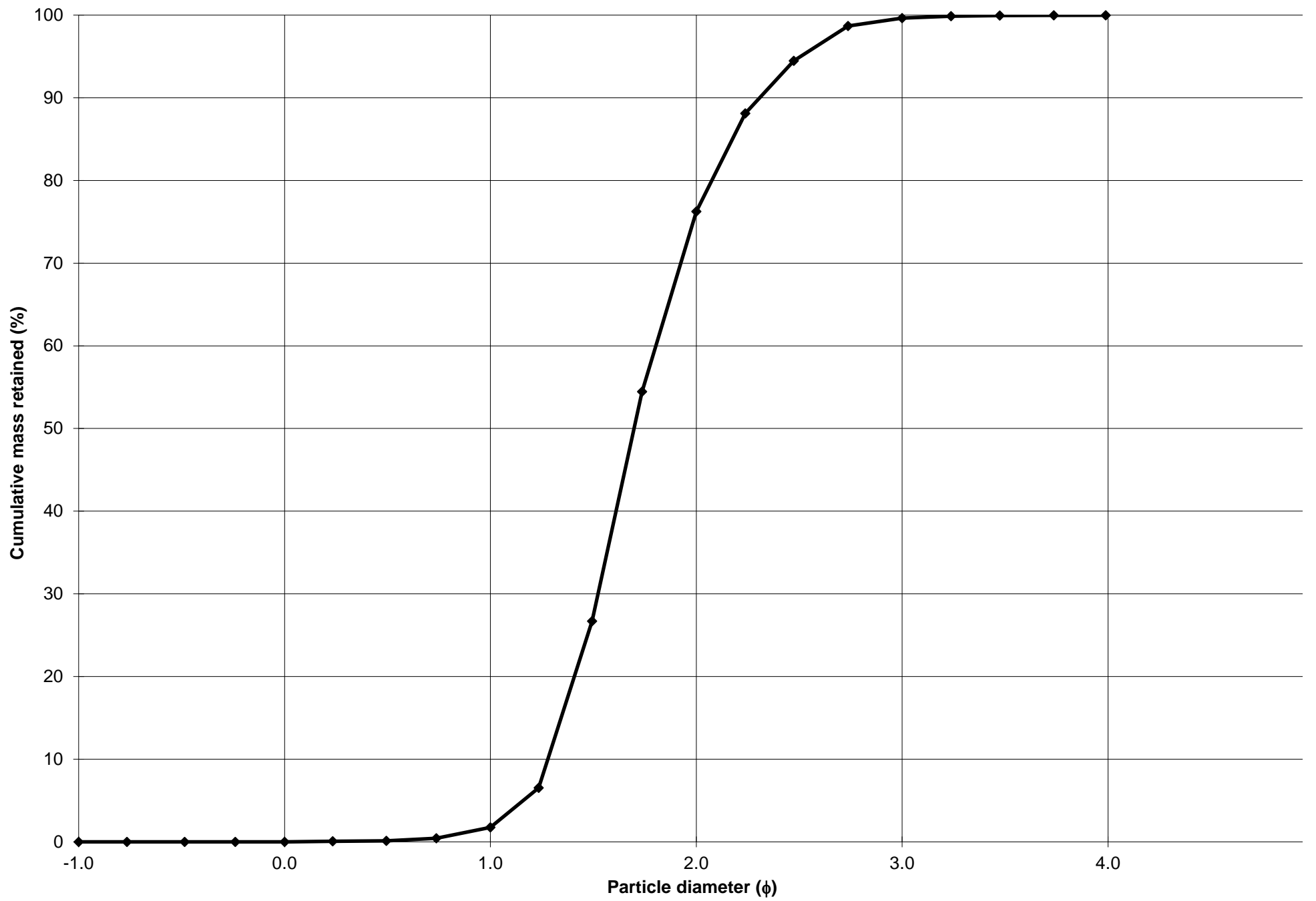
Cumulative Frequency Curve



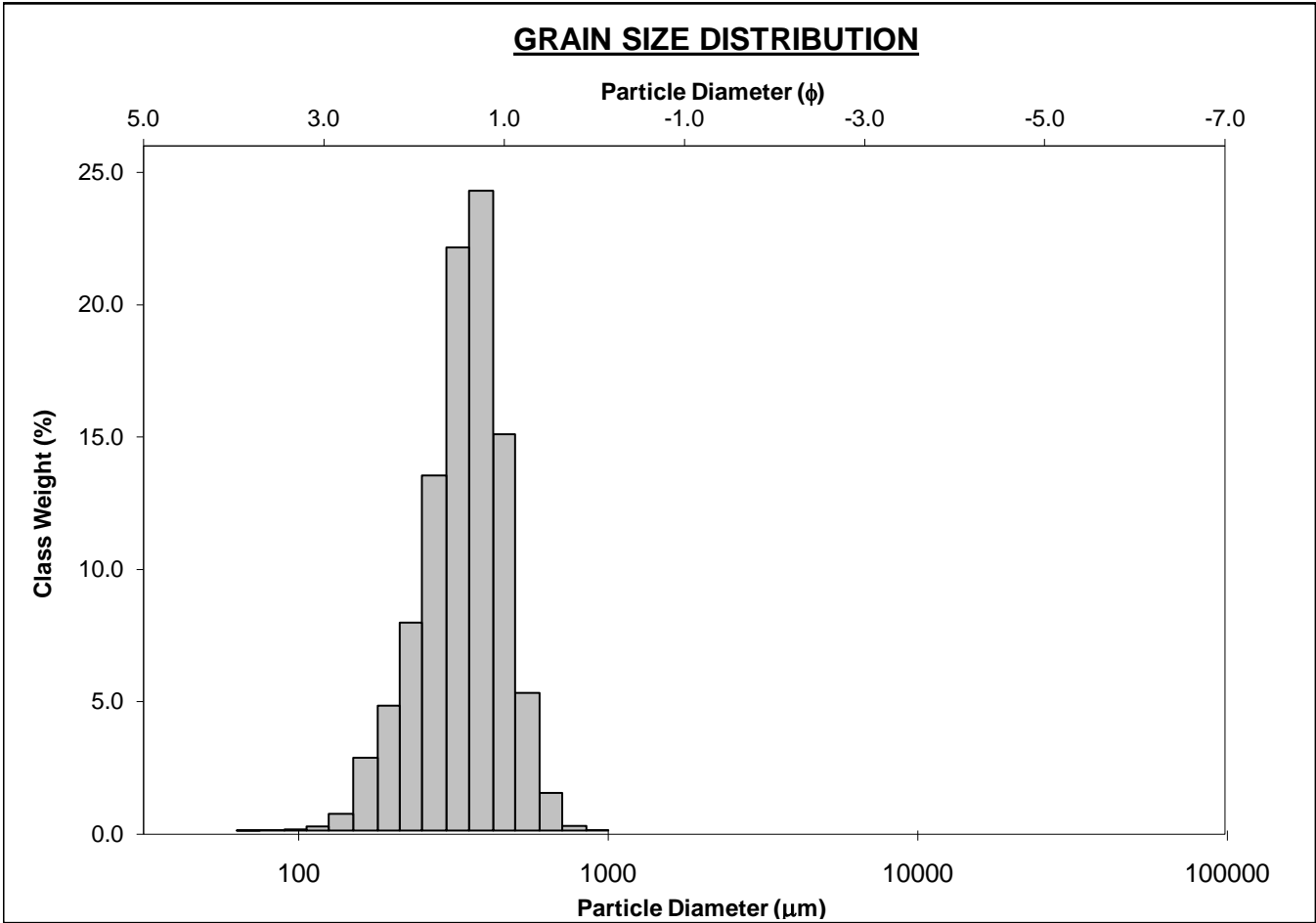
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-50cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 1.7%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 74.5%	
MODE 3:			MUD: 0.0%		FINE SAND: 23.4%	
D ₁₀ :	202.0	1.279			V FINE SAND: 0.4%	
MEDIAN or D ₅₀ :	308.2	1.698	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	412.1	2.308	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.040	1.804	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	210.1	1.029	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.427	1.348	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	107.8	0.513	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	310.4	297.6	1.748	300.1	1.737	Medium Sand
SORTING (σ):	84.60	1.329	0.410	1.323	0.404	Well Sorted
SKEWNESS (Sk):	0.699	-0.733	0.733	-0.172	0.172	Fine Skewed
KURTOSIS (K):	5.829	7.235	7.235	1.078	1.078	Mesokurtic



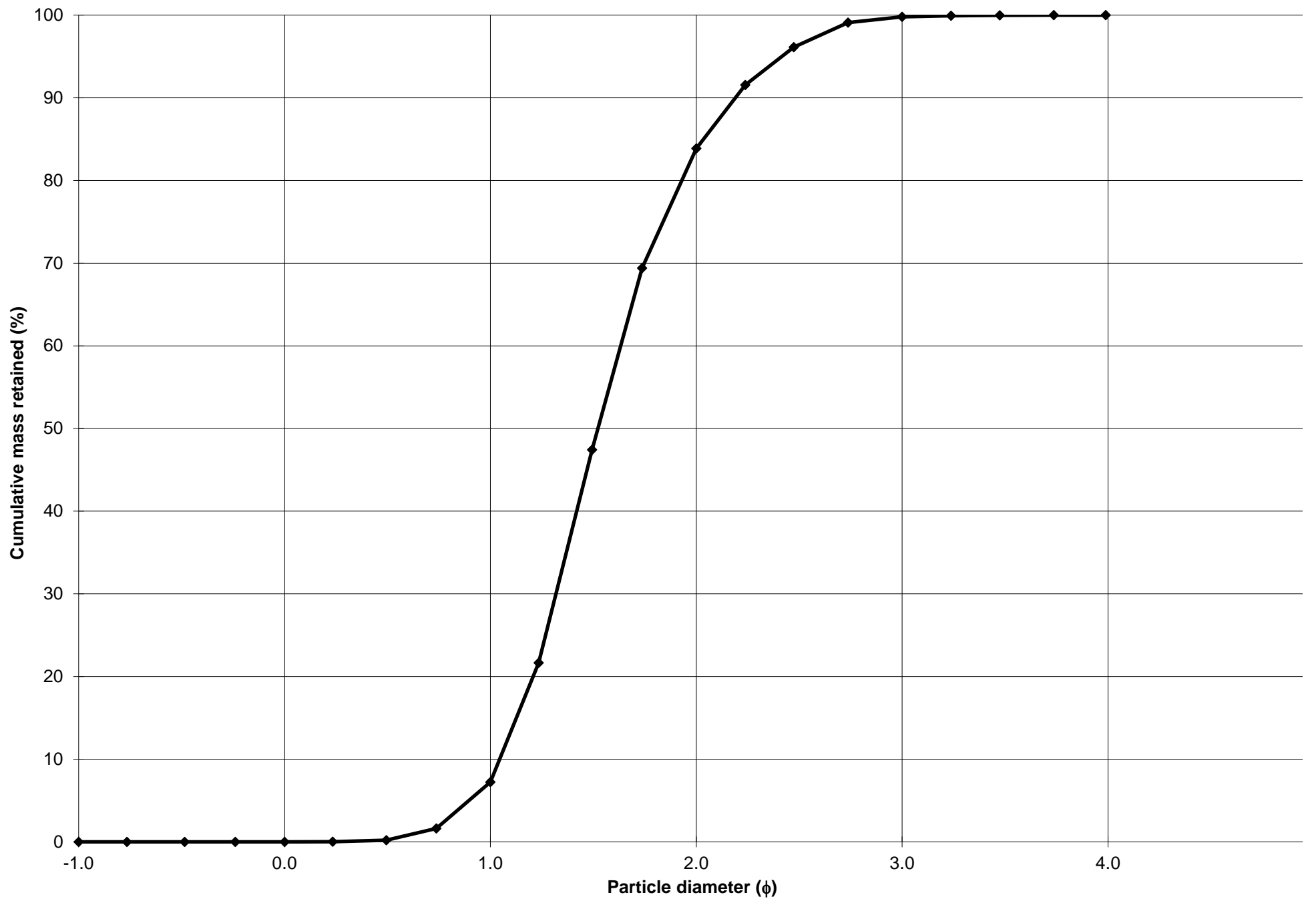
Cumulative Frequency Curve



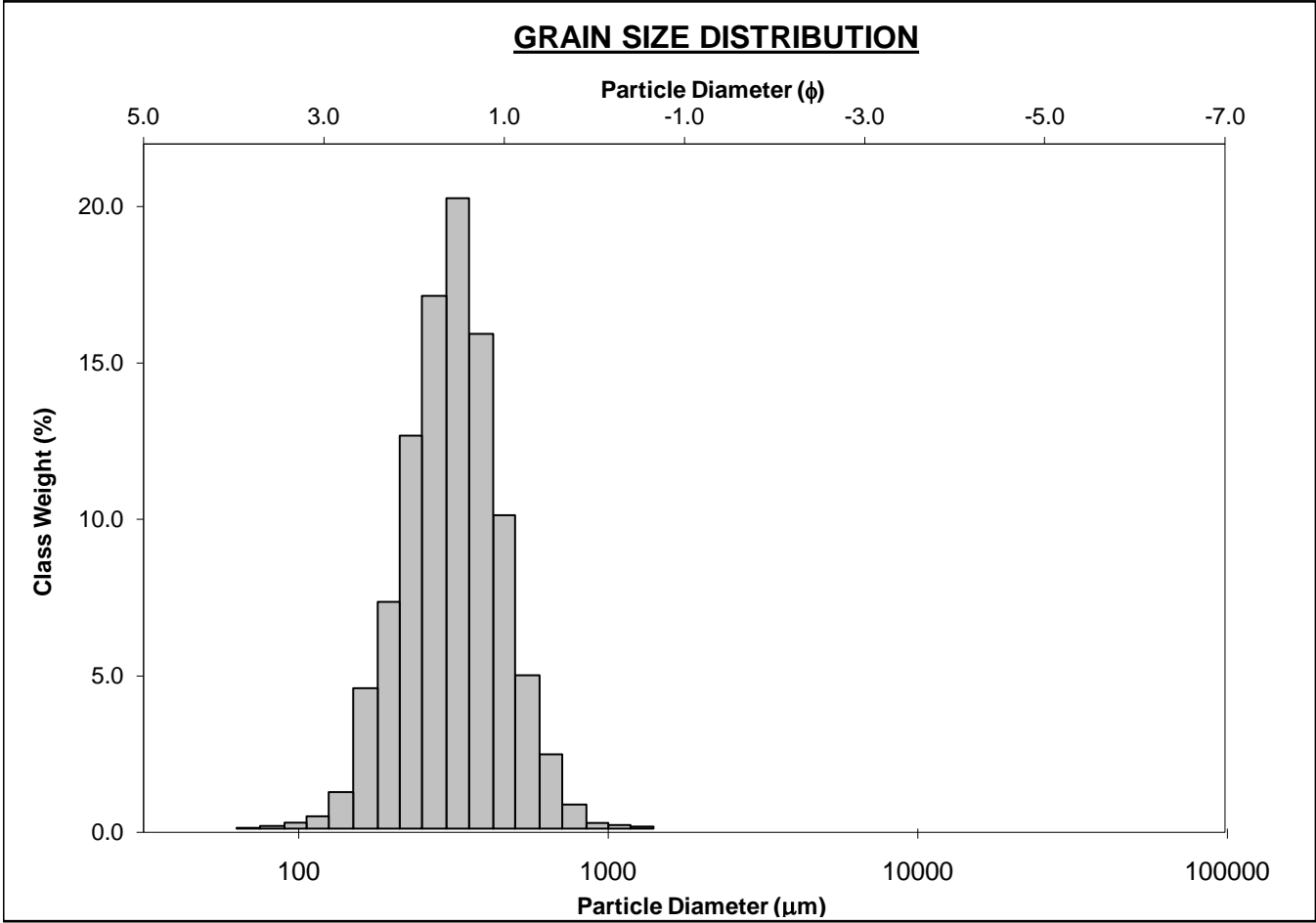
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-60cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.0%		COARSE SAND: 7.2%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 76.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 15.9%	
D ₁₀ :	219.2	1.045			V FINE SAND: 0.2%	
MEDIAN or D ₅₀ :	348.1	1.523	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	484.7	2.190	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.211	2.096	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	265.5	1.145	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.485	1.450	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	135.6	0.571	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	353.5	336.6	1.571	340.0	1.556	Medium Sand
SORTING (σ):	103.7	1.363	0.446	1.362	0.446	Well Sorted
SKEWNESS (Sk):	0.446	-0.569	0.569	-0.146	0.146	Fine Skewed
KURTOSIS (K):	3.586	4.116	4.116	1.092	1.092	Mesokurtic



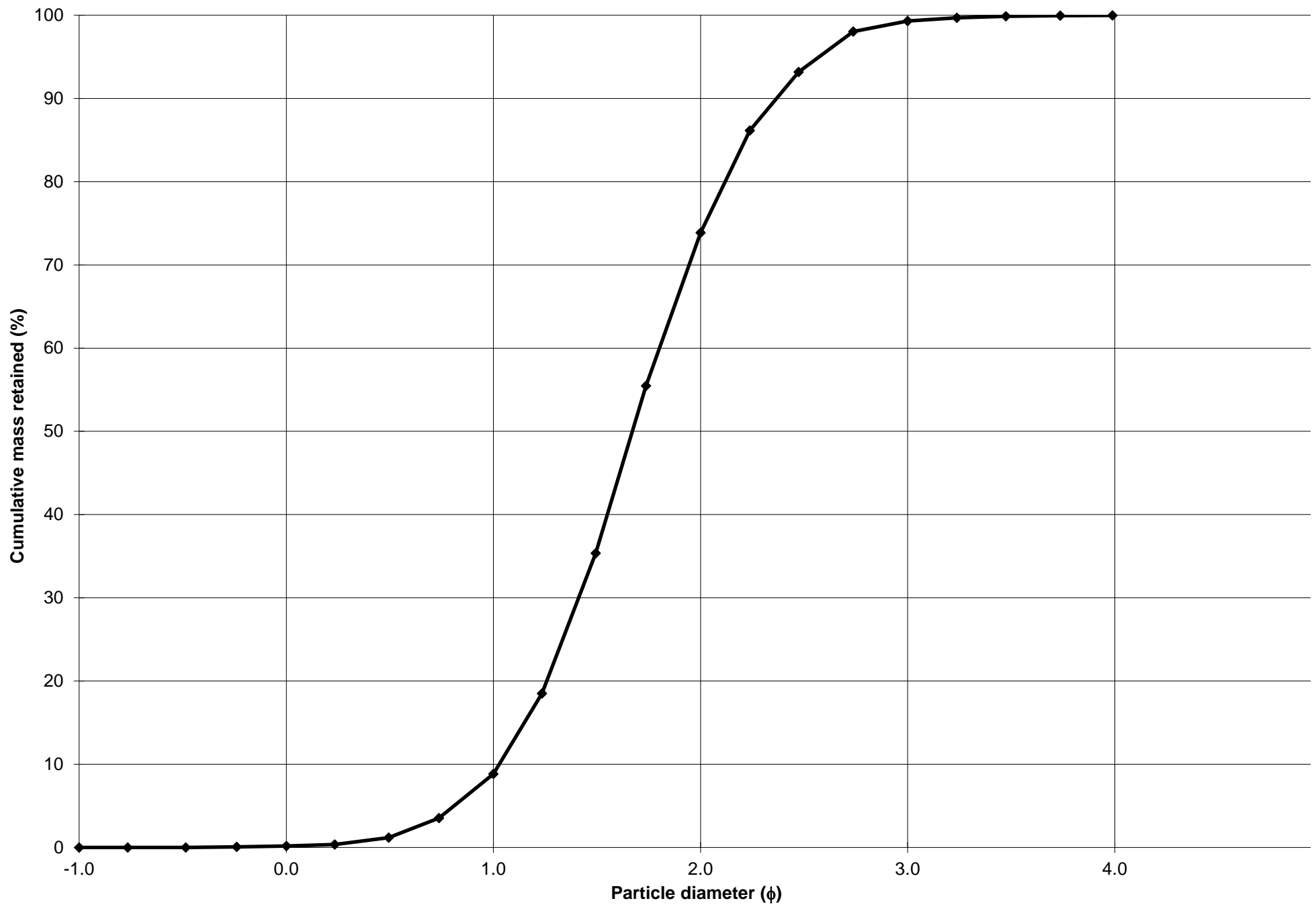
Cumulative Frequency Curve



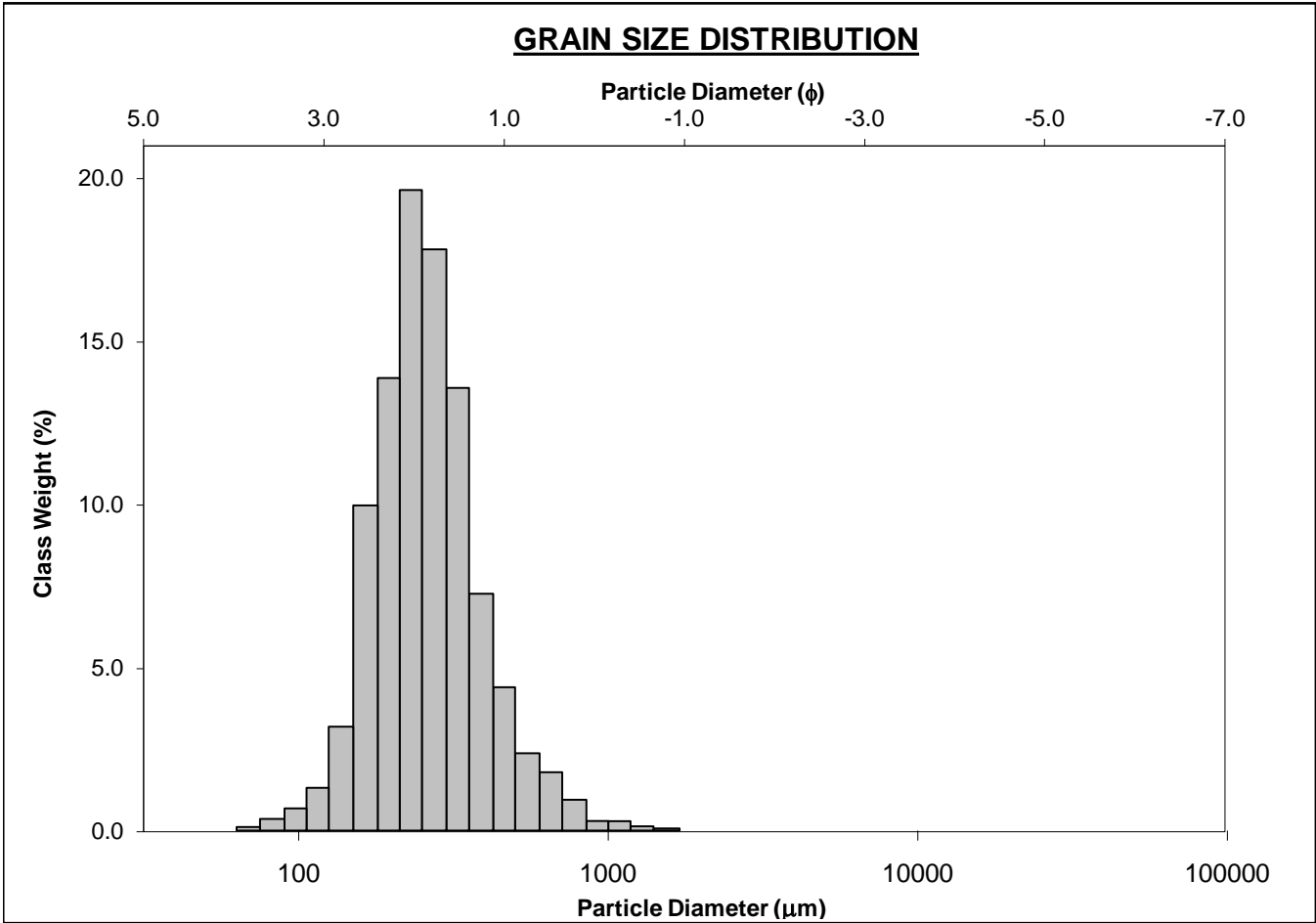
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-70cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 8.7%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 65.0%	
MODE 3:			MUD: 0.0%		FINE SAND: 25.4%	
D ₁₀ :	193.8	1.028			V FINE SAND: 0.7%	
MEDIAN or D ₅₀ :	314.1	1.671	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	490.3	2.367	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.530	2.302	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	296.5	1.339	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.610	1.515	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	150.2	0.687	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	334.2	311.6	1.682	312.0	1.680	Medium Sand
SORTING (σ):	126.8	1.443	0.529	1.437	0.523	Moderately Well Sorted
SKEWNESS (Sk):	1.433	-0.230	0.230	-0.025	0.025	Symmetrical
KURTOSIS (K):	7.646	5.305	5.305	1.052	1.052	Mesokurtic



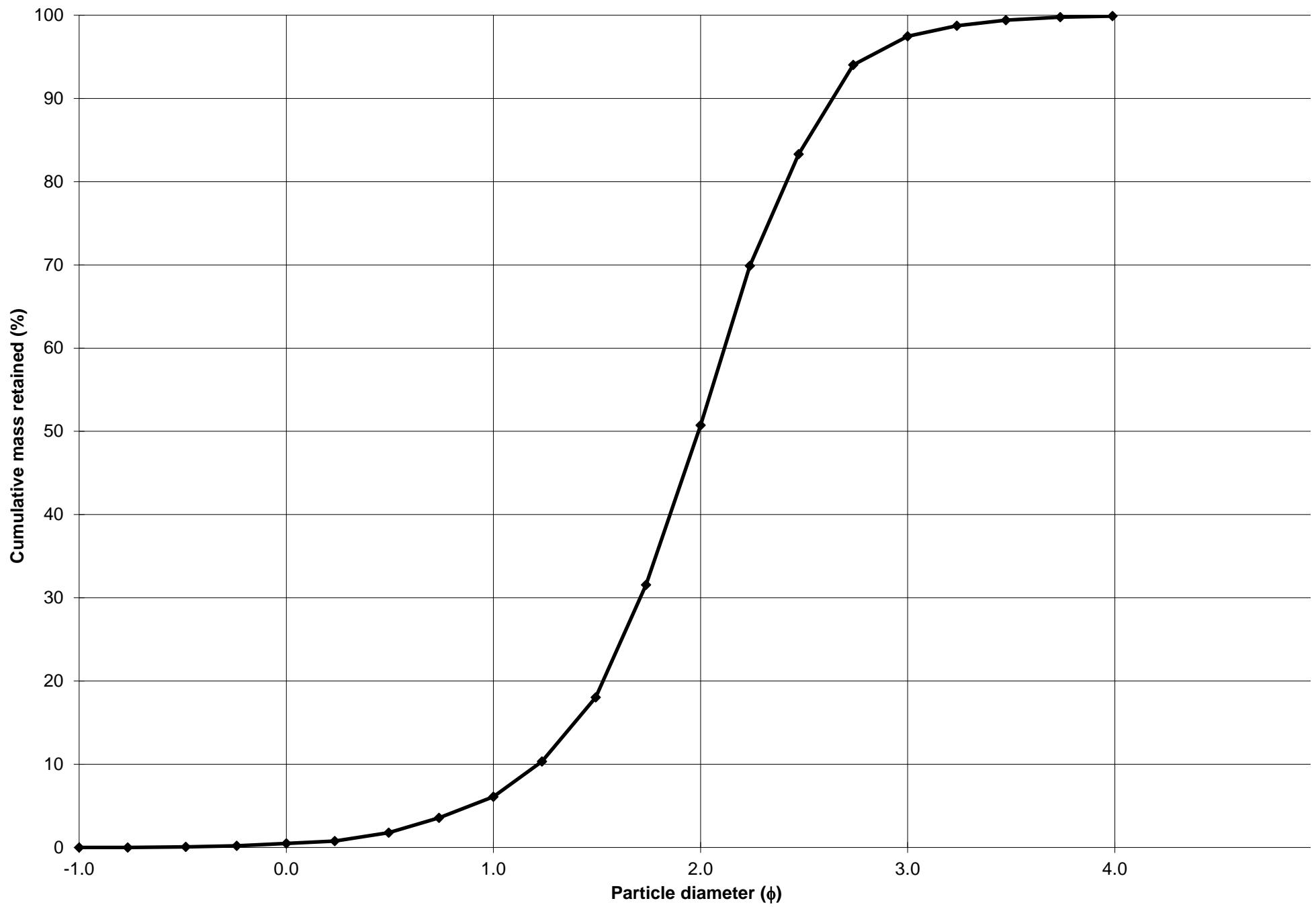
Cumulative Frequency Curve



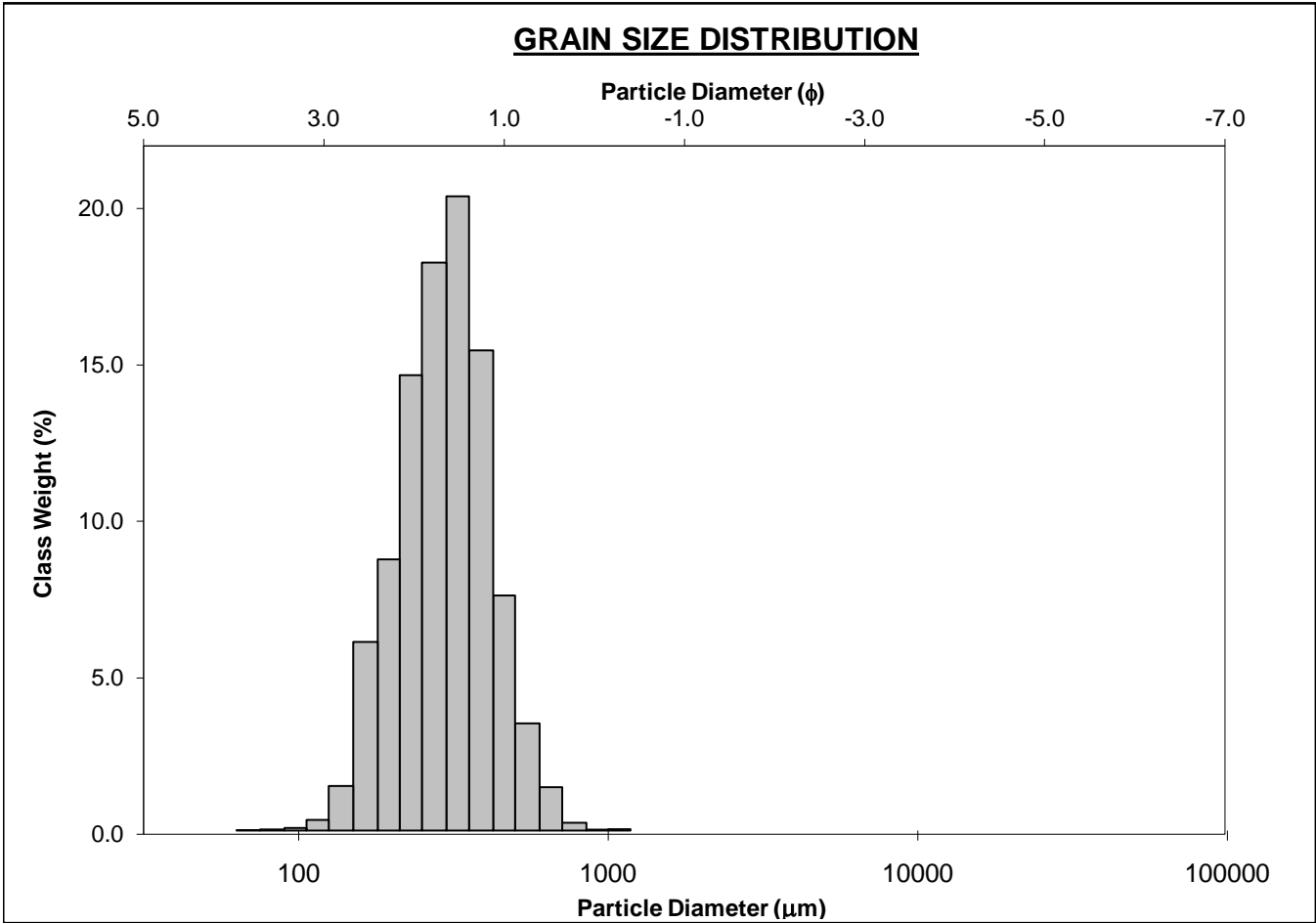
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-80cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 5.6%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 44.6%	
MODE 3:			MUD: 0.1%		FINE SAND: 46.7%	
D ₁₀ :	160.6	1.216			V FINE SAND: 2.4%	
MEDIAN or D ₅₀ :	251.8	1.990	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	430.4	2.638	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.679	2.169	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	269.8	1.422	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.635	1.438	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	126.4	0.709	V COARSE SAND: 0.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	284.2	258.4	1.952	255.5	1.969	Medium Sand
SORTING (σ):	139.4	1.522	0.606	1.472	0.558	Moderately Well Sorted
SKEWNESS (Sk):	2.752	-0.160	0.160	0.103	-0.103	Coarse Skewed
KURTOSIS (K):	16.26	8.730	8.730	1.113	1.113	Leptokurtic



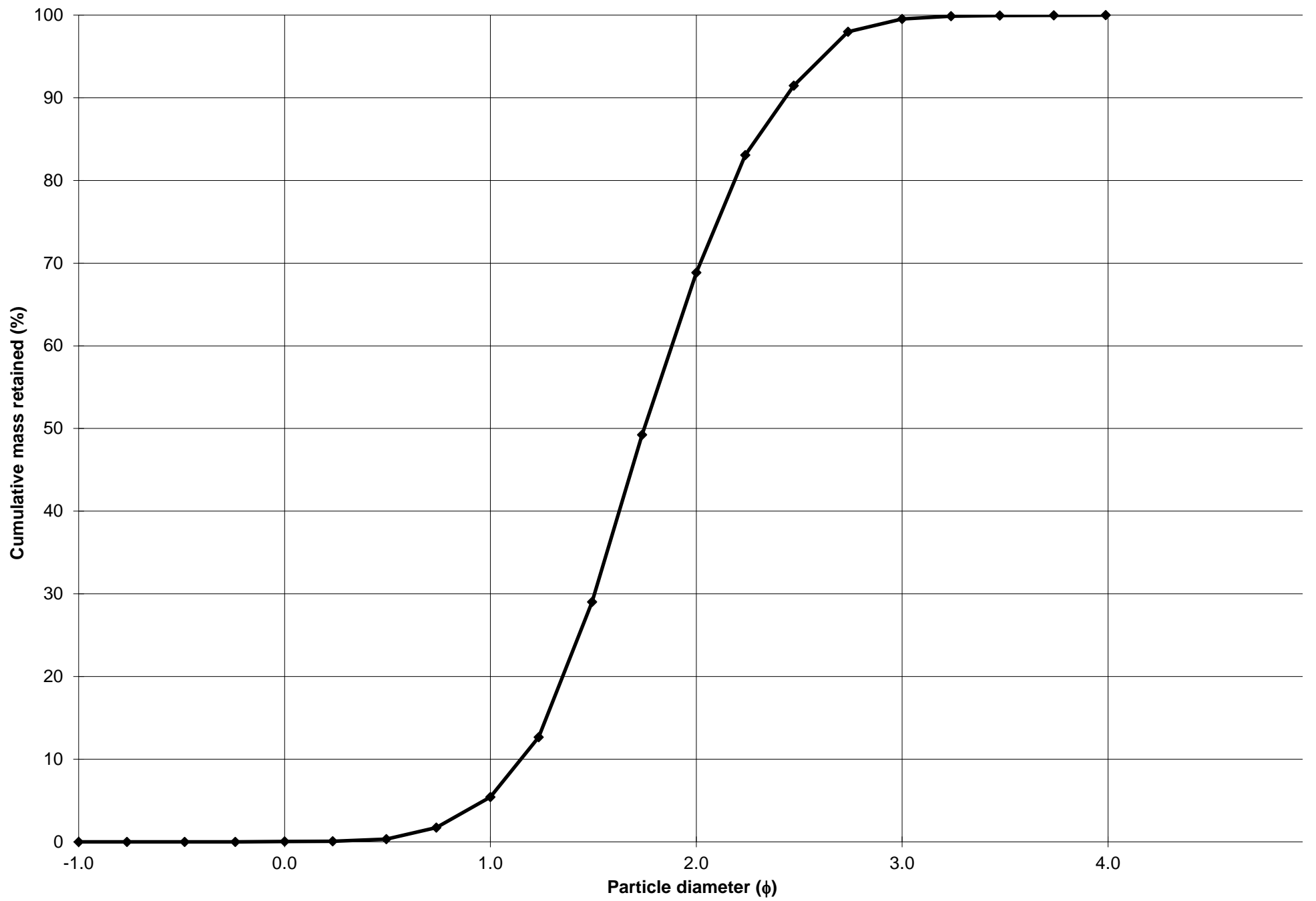
Cumulative Frequency Curve



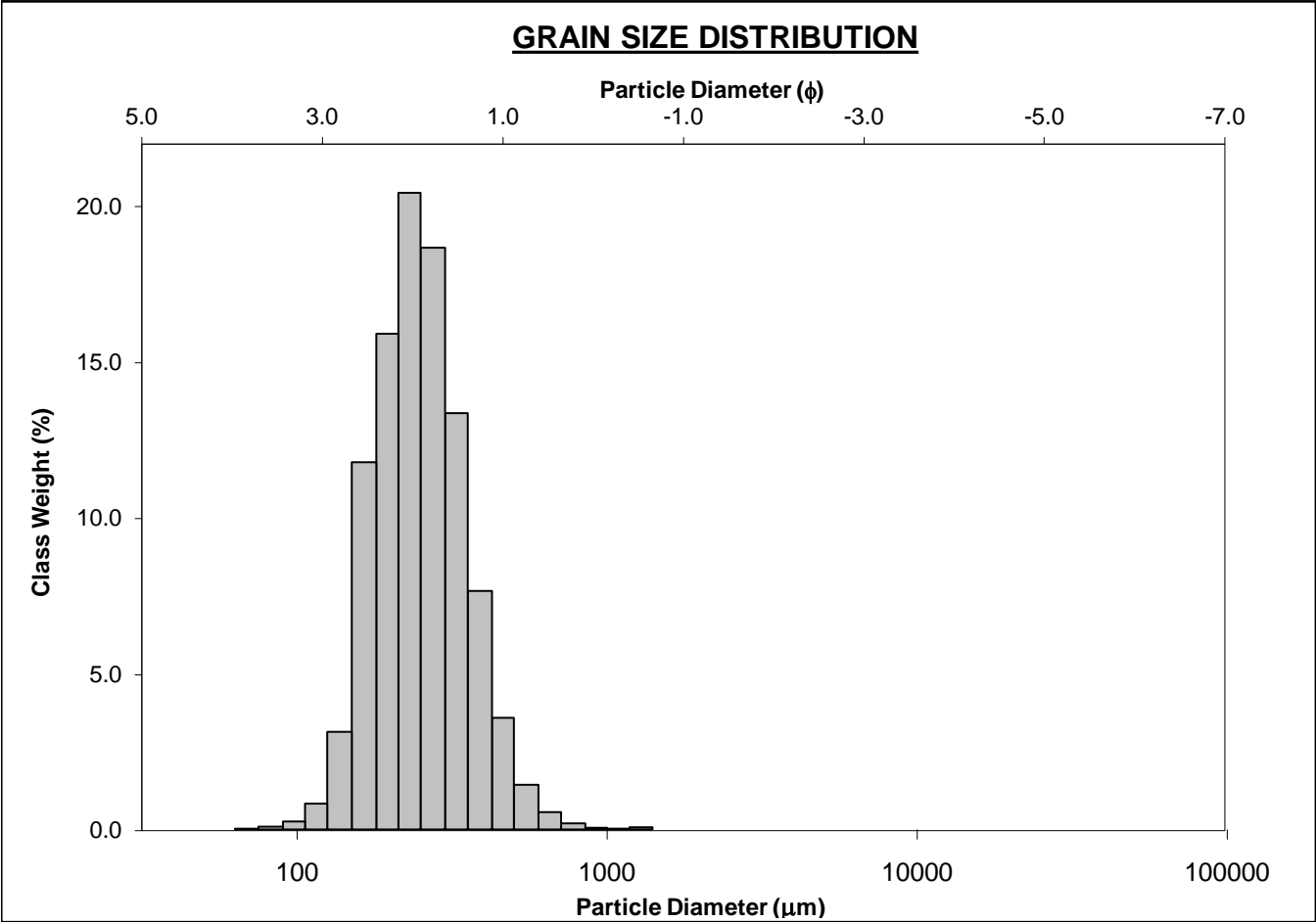
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-90cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 5.4%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 63.4%	
MODE 3:			MUD: 0.0%		FINE SAND: 30.7%	
D ₁₀ :	185.3	1.148			V FINE SAND: 0.5%	
MEDIAN or D ₅₀ :	297.9	1.747	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	451.1	2.432	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.435	2.118	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	265.9	1.284	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.594	1.470	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	138.2	0.672	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	312.4	293.8	1.767	294.0	1.766	Medium Sand
SORTING (σ):	108.4	1.405	0.491	1.408	0.493	Well Sorted
SKEWNESS (Sk):	1.070	-0.059	0.059	-0.057	0.057	Symmetrical
KURTOSIS (K):	5.429	3.003	3.003	1.003	1.003	Mesokurtic



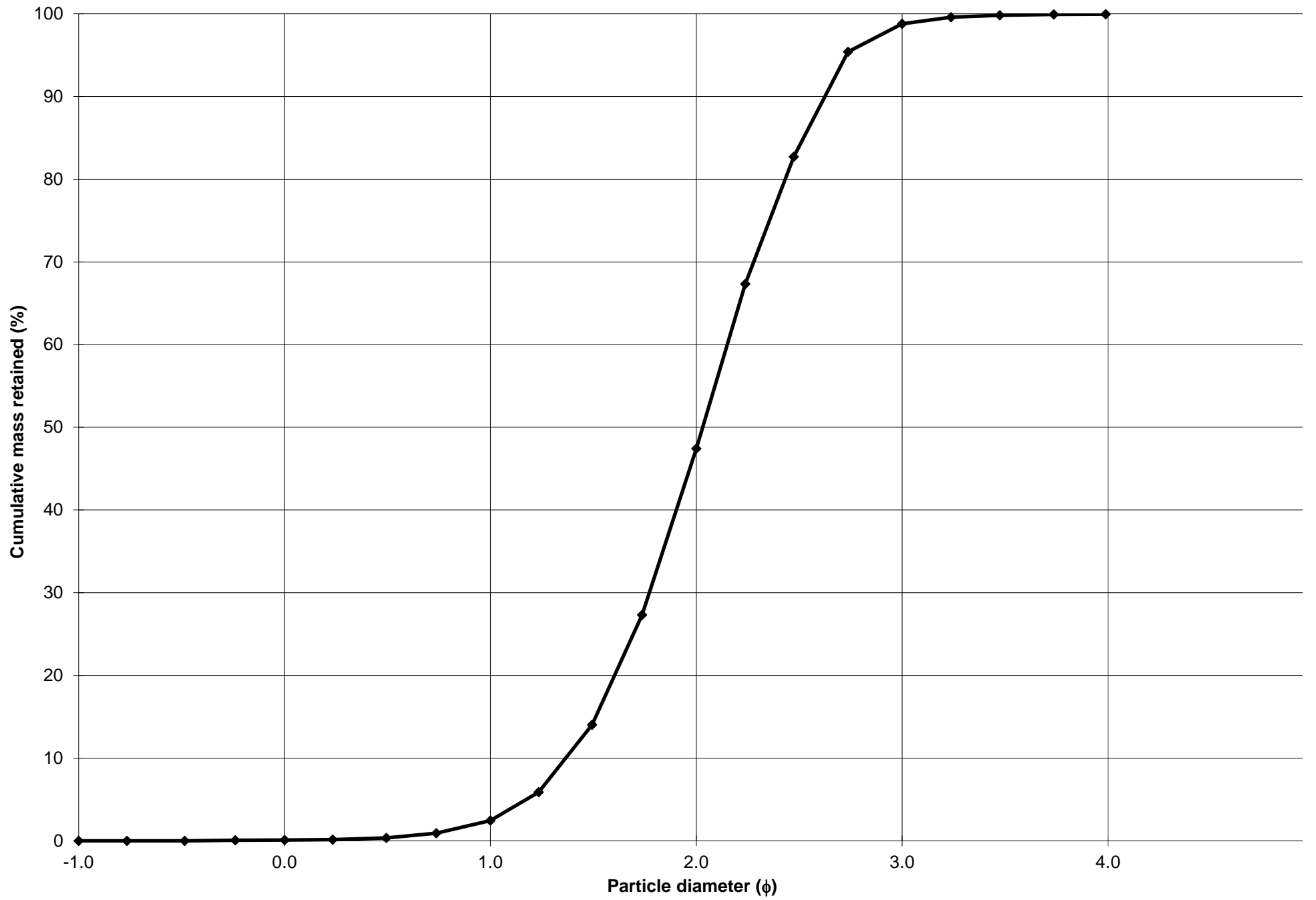
Cumulative Frequency Curve



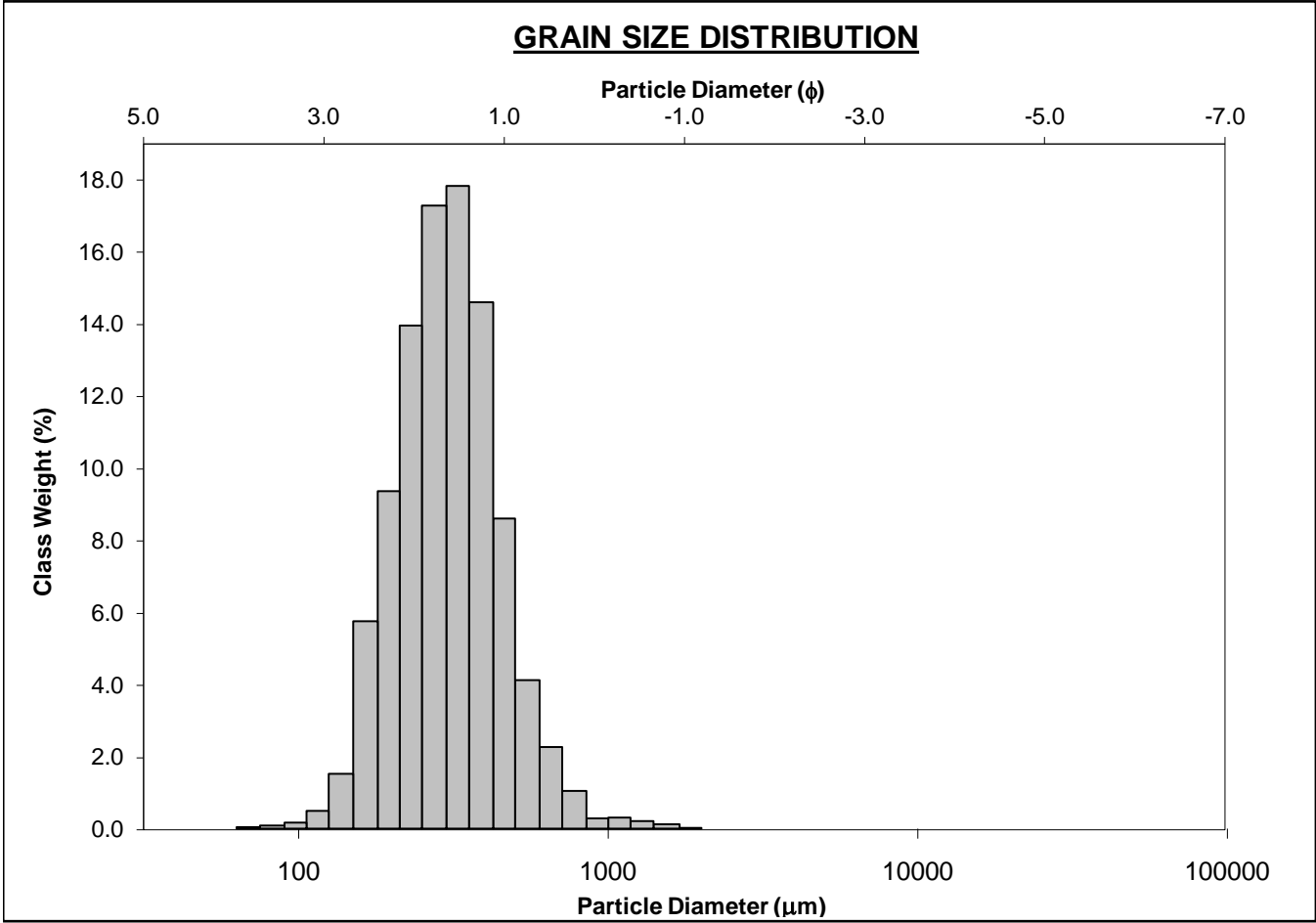
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-100cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 2.4%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 45.0%	
MODE 3:			MUD: 0.0%		FINE SAND: 51.3%	
D ₁₀ :	162.1	1.365			V FINE SAND: 1.2%	
MEDIAN or D ₅₀ :	244.7	2.031	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	388.1	2.625	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.394	1.923	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	226.0	1.260	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.581	1.390	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	113.6	0.661	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	264.9	248.3	2.010	246.5	2.020	Fine Sand
SORTING (σ):	100.3	1.414	0.499	1.393	0.478	Well Sorted
SKEWNESS (Sk):	2.173	-0.128	0.128	0.067	-0.067	Symmetrical
KURTOSIS (K):	14.80	7.783	7.783	0.964	0.964	Mesokurtic



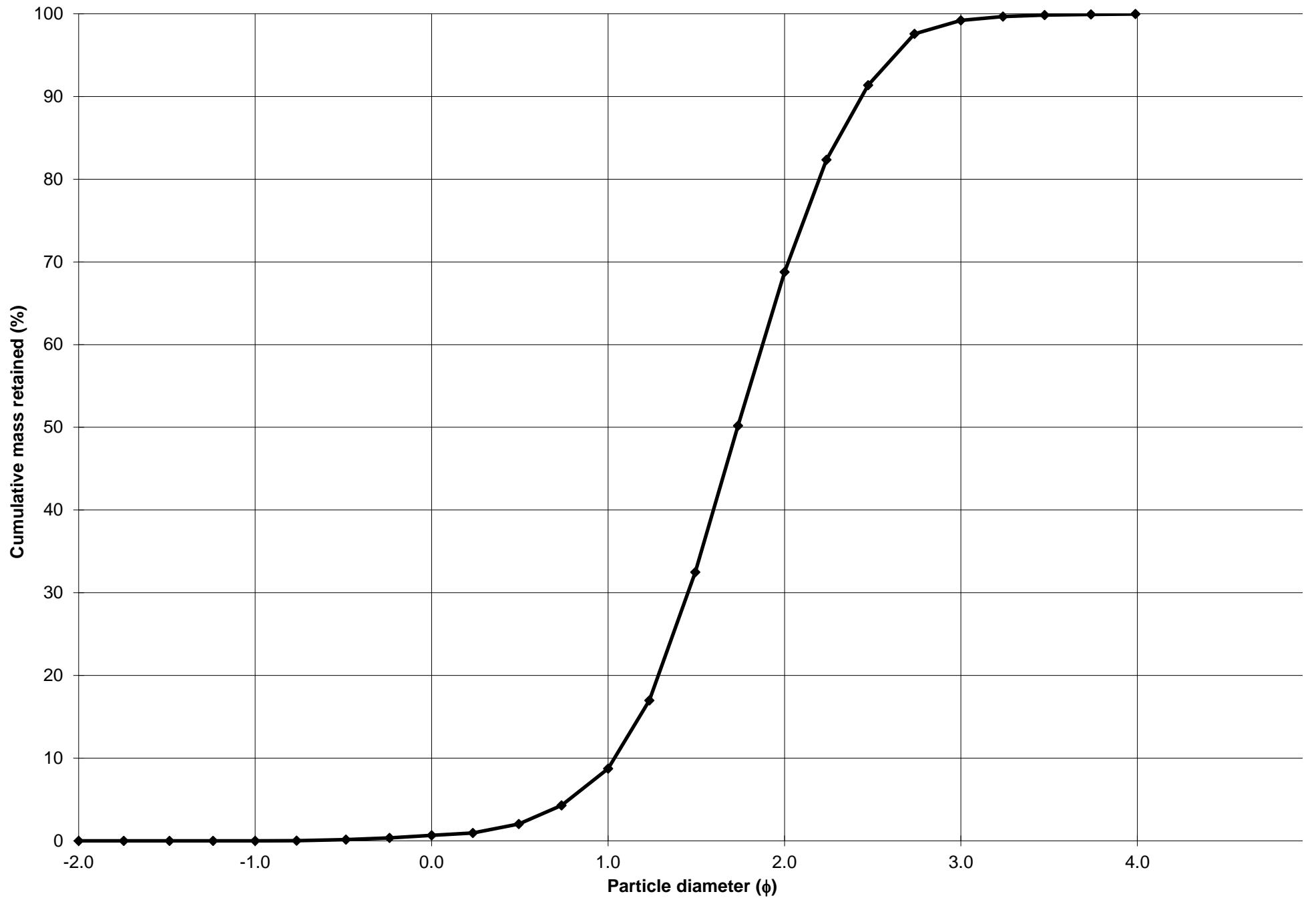
Cumulative Frequency Curve



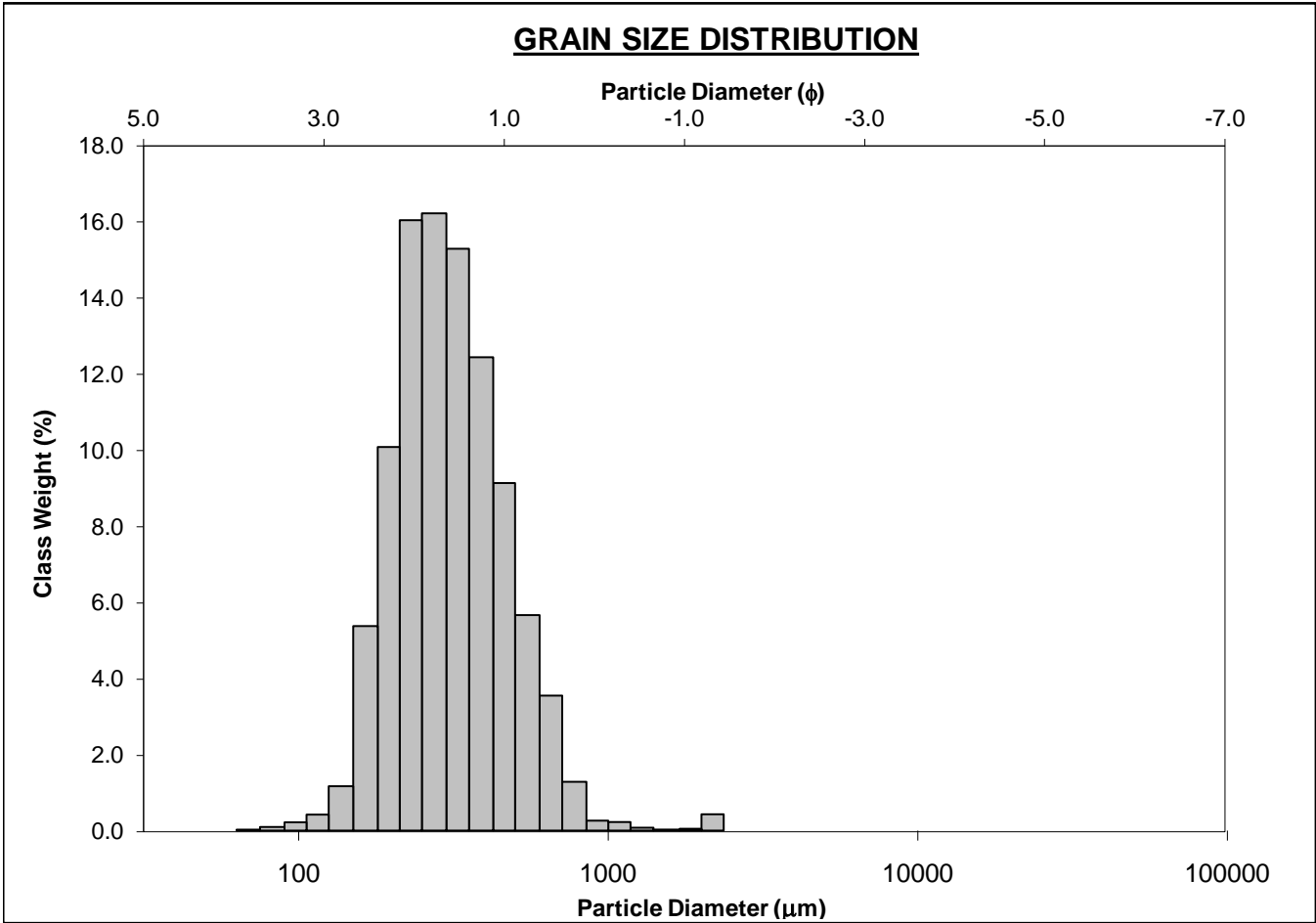
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-110cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 8.1%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 60.0%	
MODE 3:			MUD: 0.0%		FINE SAND: 30.4%	
D ₁₀ :	184.5	1.036			V FINE SAND: 0.8%	
MEDIAN or D ₅₀ :	300.5	1.735	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	487.6	2.438	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.642	2.353	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	303.1	1.402	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.671	1.541	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	155.4	0.740	V COARSE SAND: 0.7%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	328.8	302.0	1.727	299.2	1.741	Medium Sand
SORTING (σ):	148.7	1.486	0.571	1.463	0.549	Moderately Well Sorted
SKEWNESS (Sk):	2.618	0.065	-0.065	0.008	-0.008	Symmetrical
KURTOSIS (K):	16.79	5.848	5.848	1.024	1.024	Mesokurtic



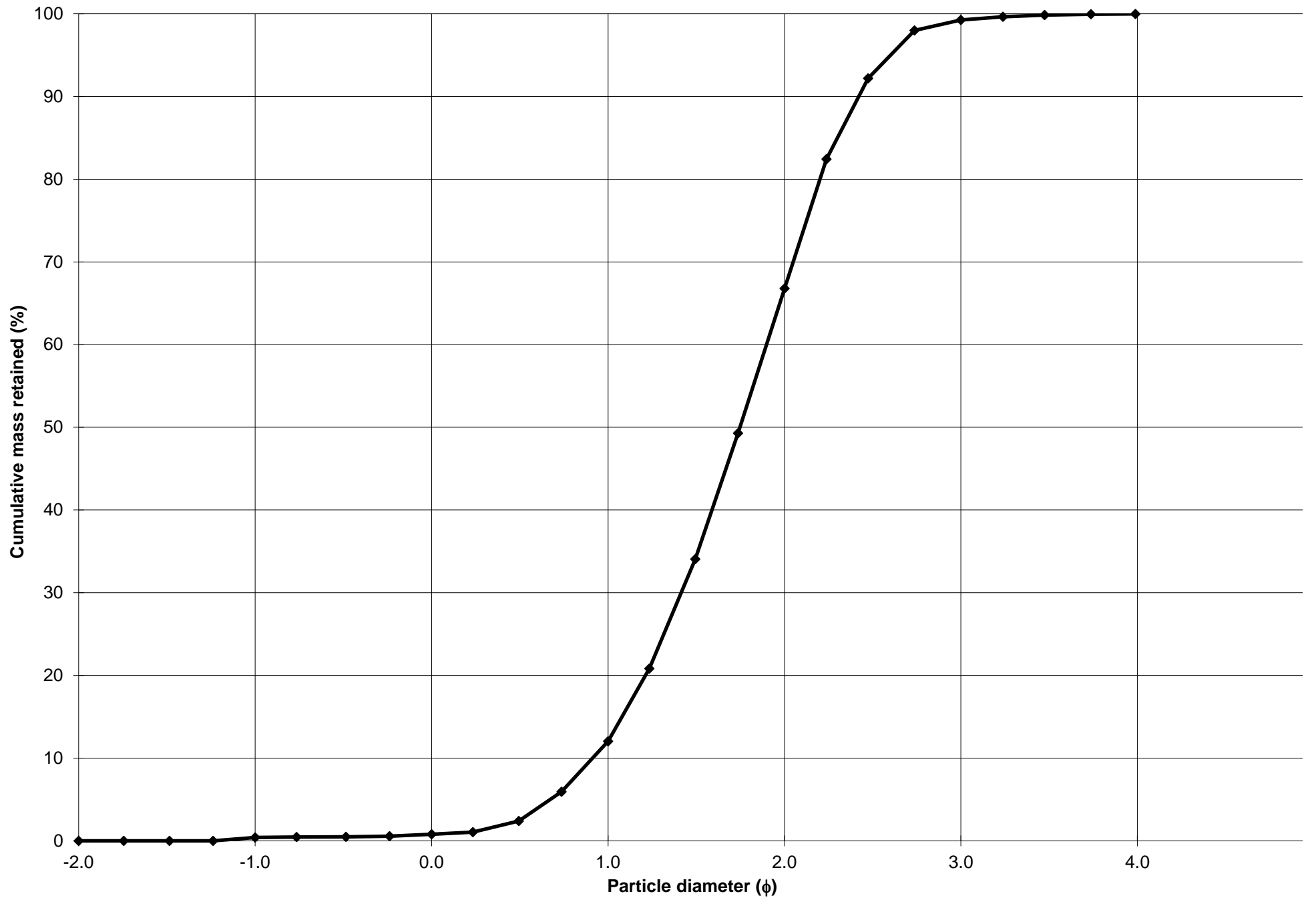
Cumulative Frequency Curve



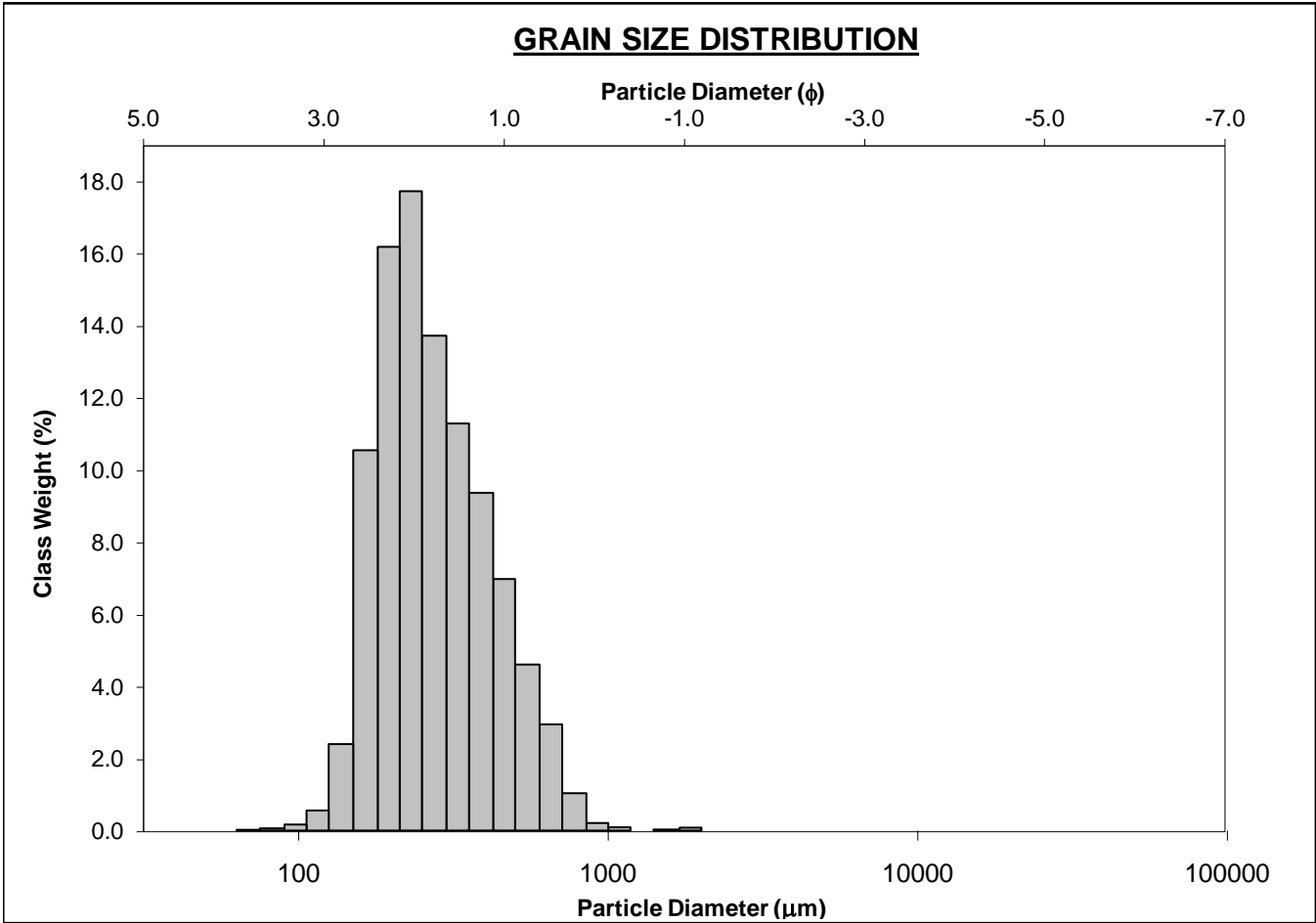
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-120cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.4%		COARSE SAND: 11.3%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 54.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 32.5%	
D ₁₀ :	186.7	0.912			V FINE SAND: 0.7%	
MEDIAN or D ₅₀ :	297.8	1.748	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	531.5	2.421	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.846	2.655	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	344.8	1.509	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.751	1.614	V FINE GRAVEL: 0.4%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	172.3	0.809	V COARSE SAND: 0.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	341.1	307.8	1.700	305.7	1.710	Medium Sand
SORTING (σ):	190.6	1.525	0.609	1.500	0.585	Moderately Well Sorted
SKEWNESS (Sk):	4.644	0.504	-0.504	0.106	-0.106	Coarse Skewed
KURTOSIS (K):	40.72	5.363	5.363	0.978	0.978	Mesokurtic



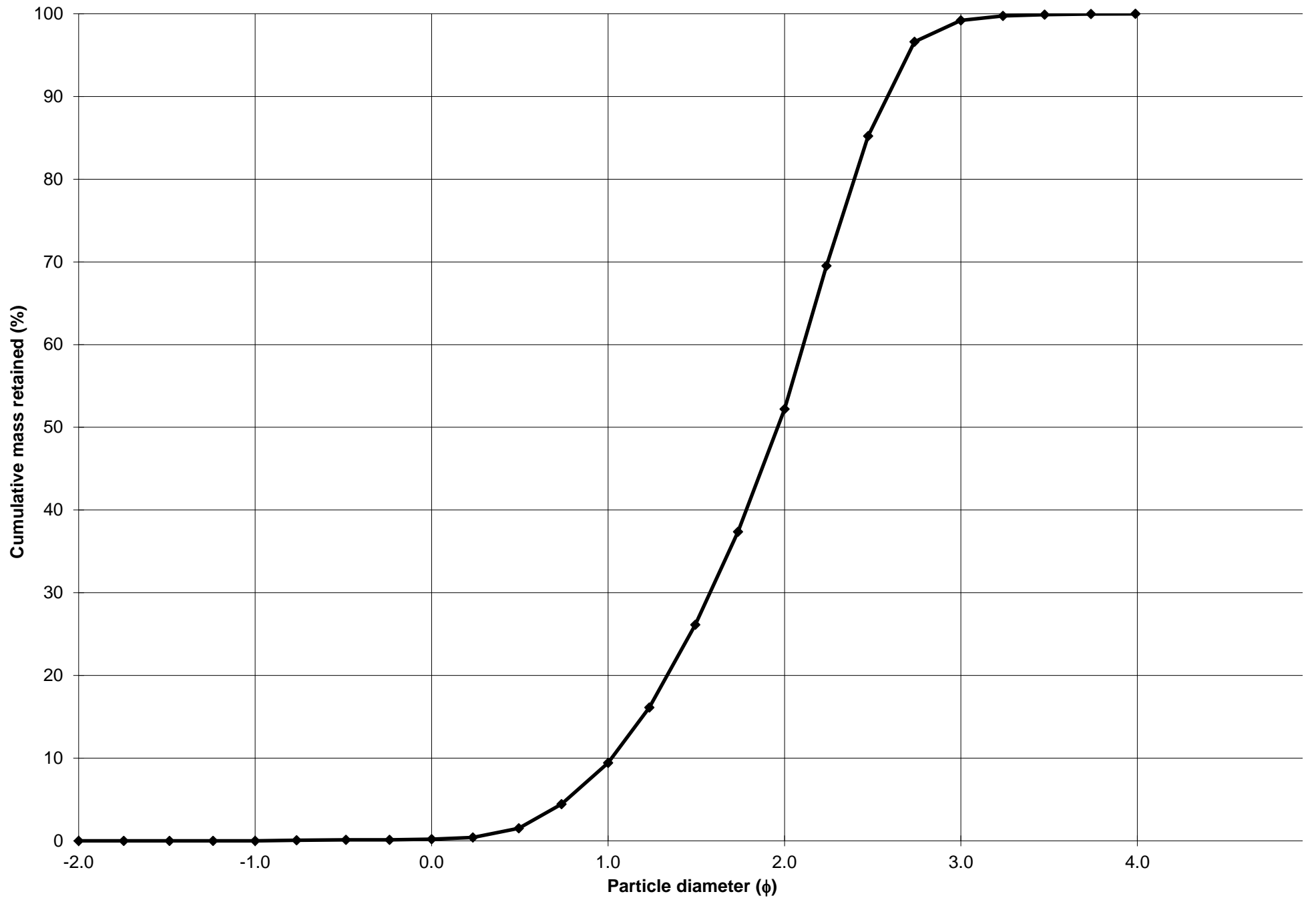
Cumulative Frequency Curve



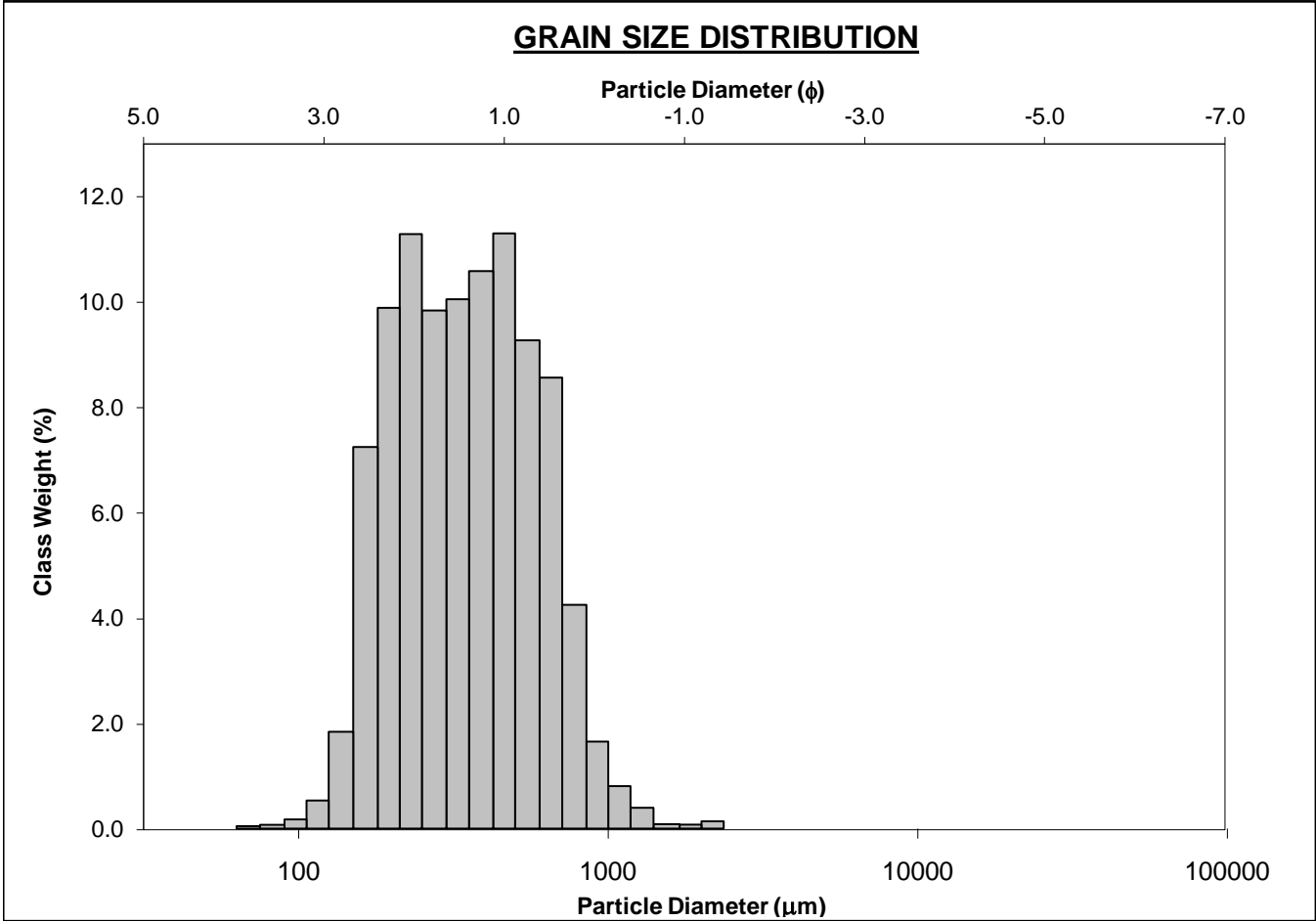
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-130cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 9.2%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 42.8%	
MODE 3:			MUD: 0.0%		FINE SAND: 47.0%	
D ₁₀ :	166.7	1.020			V FINE SAND: 0.8%	
MEDIAN or D ₅₀ :	256.9	1.961	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	493.0	2.585	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.957	2.533	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	326.3	1.564	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.809	1.584	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	162.0	0.855	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	301.6	273.8	1.869	271.3	1.882	Medium Sand
SORTING (σ):	146.5	1.518	0.602	1.515	0.599	Moderately Well Sorted
SKEWNESS (Sk):	2.354	0.454	-0.454	0.214	-0.214	Coarse Skewed
KURTOSIS (K):	15.97	3.609	3.609	0.927	0.927	Mesokurtic



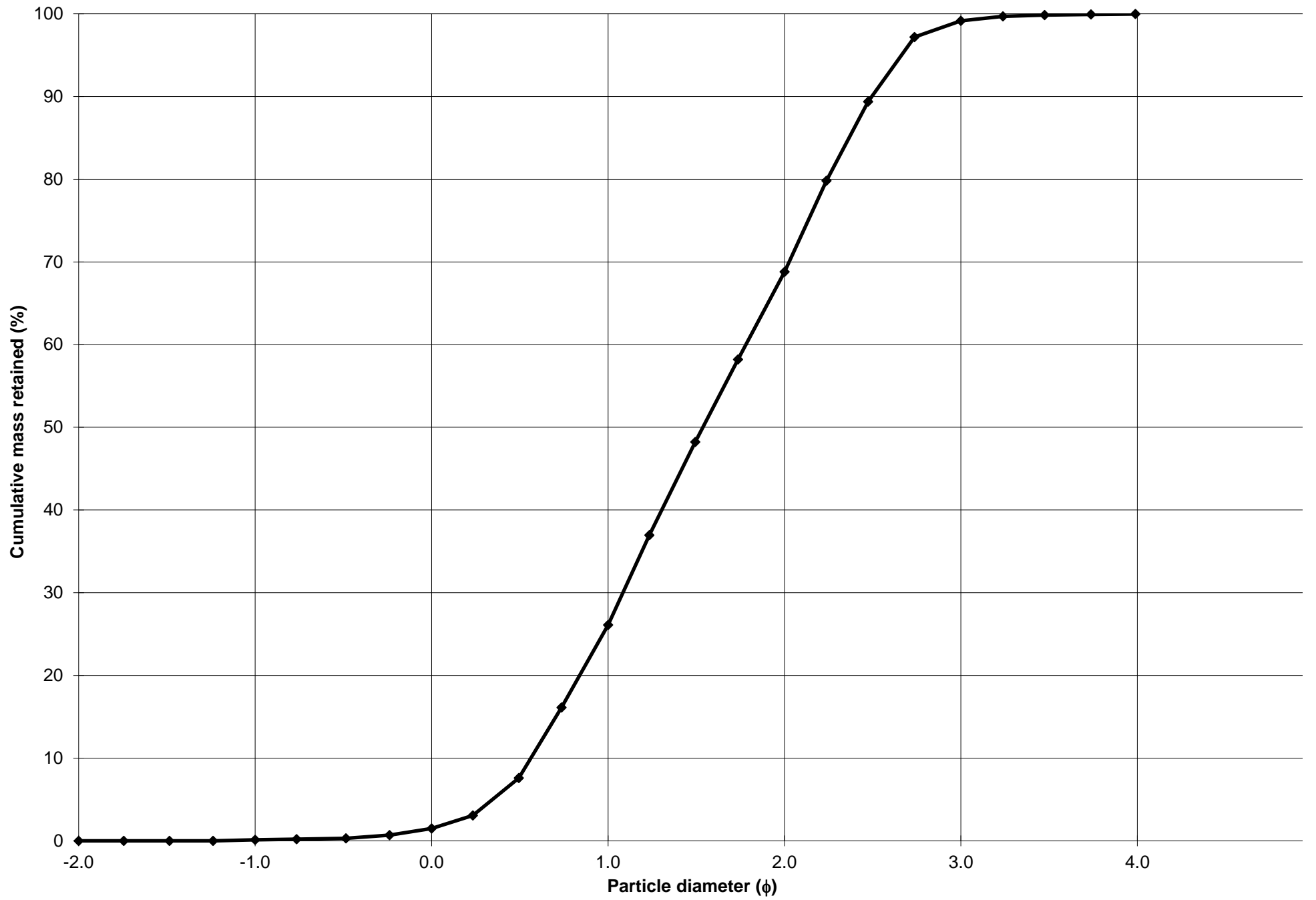
Cumulative Frequency Curve



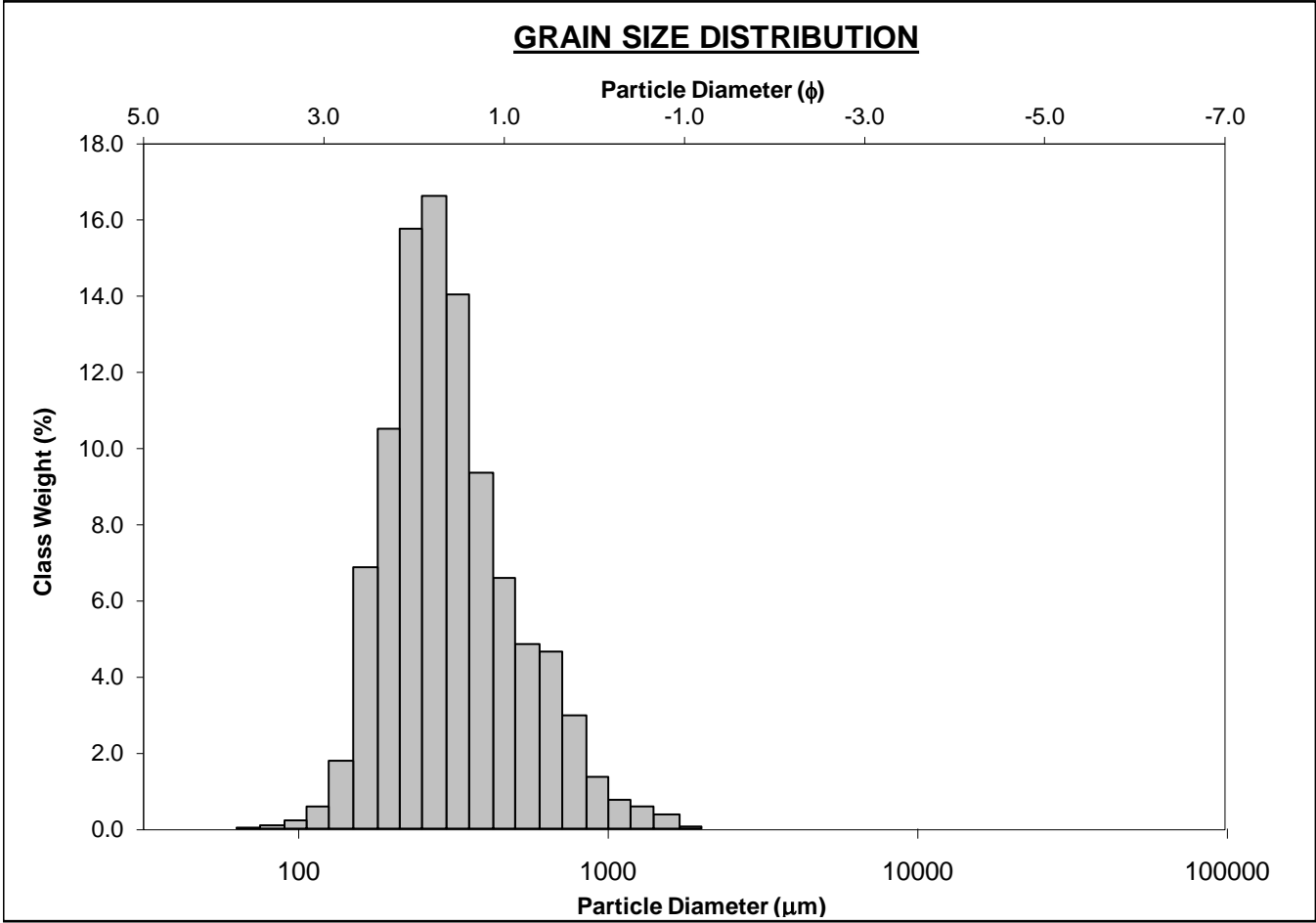
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-140cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	462.5	1.117	GRAVEL: 0.1%		COARSE SAND: 24.6%	
MODE 2:	231.0	2.119	SAND: 99.8%		MEDIUM SAND: 42.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 30.3%	
D ₁₀ :	177.4	0.563			V FINE SAND: 0.8%	
MEDIAN or D ₅₀ :	344.5	1.537	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	677.0	2.495	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.817	4.434	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	499.7	1.932	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.239	2.198	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	282.3	1.163	V COARSE SAND: 1.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	396.8	345.4	1.534	344.5	1.538	Medium Sand
SORTING (σ):	220.9	1.679	0.747	1.686	0.753	Moderately Sorted
SKEWNESS (Sk):	1.902	0.038	-0.038	0.014	-0.014	Symmetrical
KURTOSIS (K):	10.99	3.250	3.250	0.817	0.817	Platykurtic



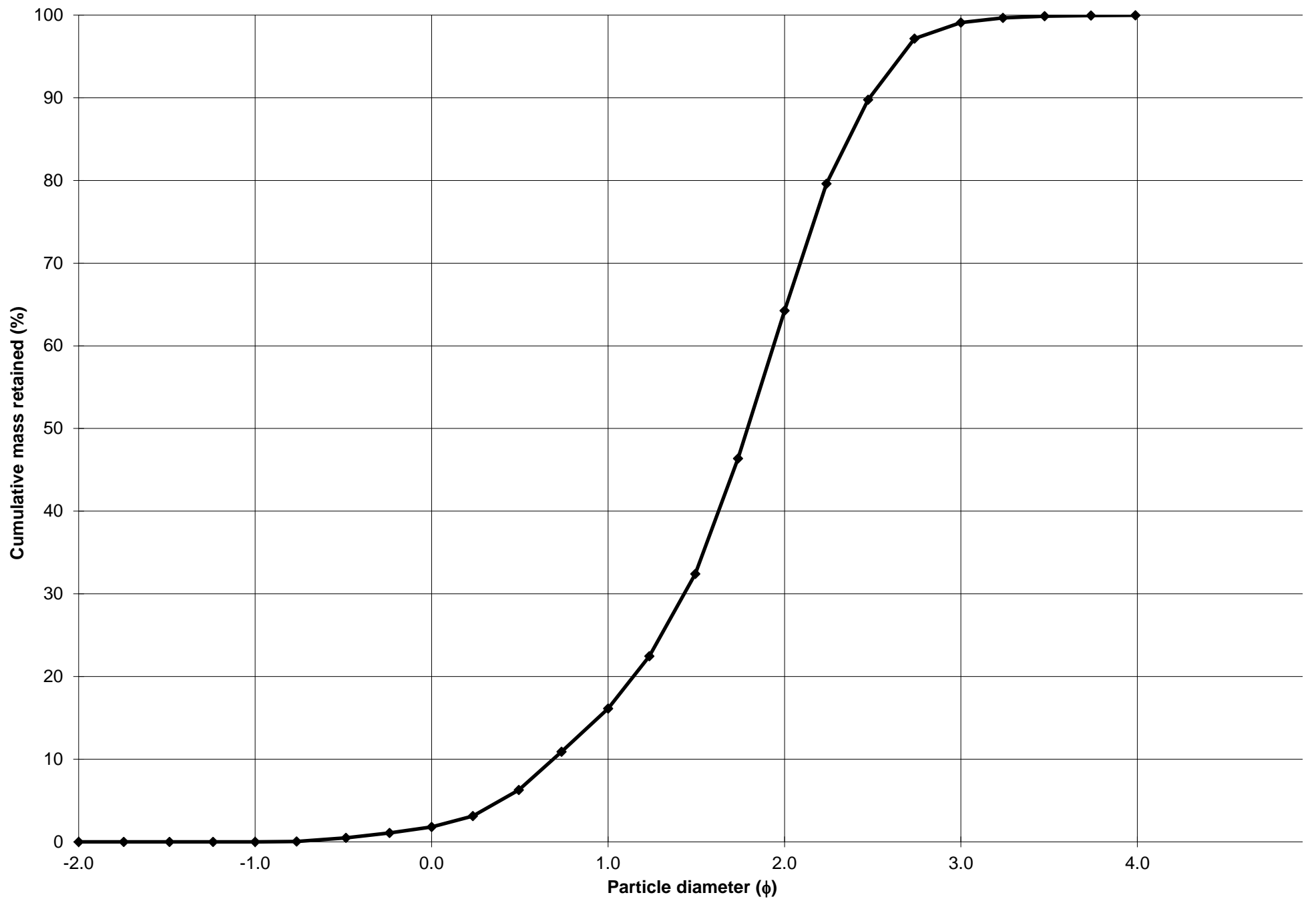
Cumulative Frequency Curve



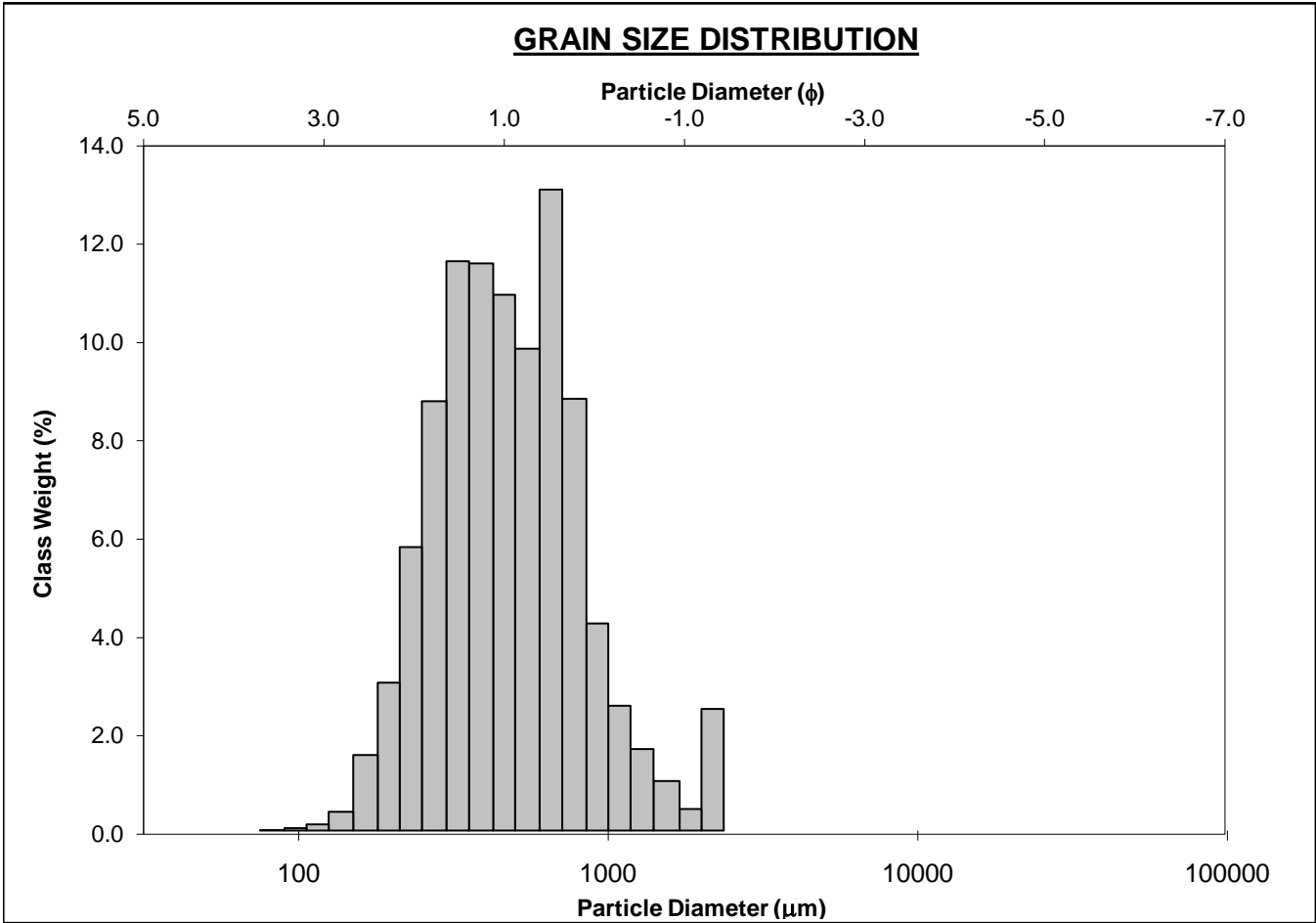
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-150cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 14.3%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 48.1%	
MODE 3:			MUD: 0.0%		FINE SAND: 34.8%	
D ₁₀ :	179.0	0.689			V FINE SAND: 0.9%	
MEDIAN or D ₅₀ :	289.1	1.791	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	620.1	2.482	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.465	3.600	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	441.1	1.793	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.822	1.665	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	183.1	0.865	V COARSE SAND: 1.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	353.2	310.0	1.690	306.1	1.708	Medium Sand
SORTING (σ):	209.1	1.616	0.692	1.603	0.681	Moderately Well Sorted
SKEWNESS (Sk):	2.404	0.572	-0.572	0.209	-0.209	Coarse Skewed
KURTOSIS (K):	11.17	3.989	3.989	1.075	1.075	Mesokurtic



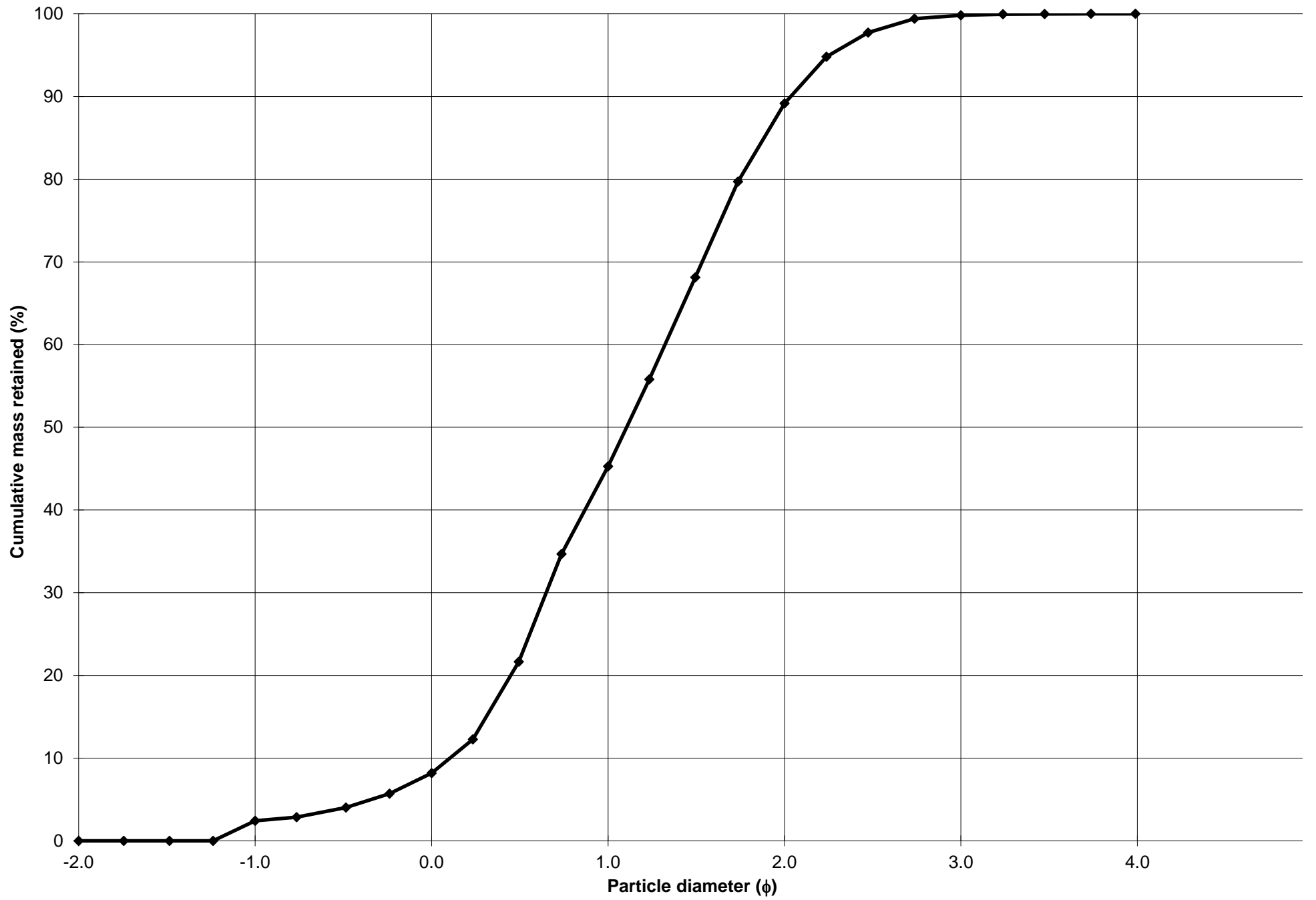
Cumulative Frequency Curve



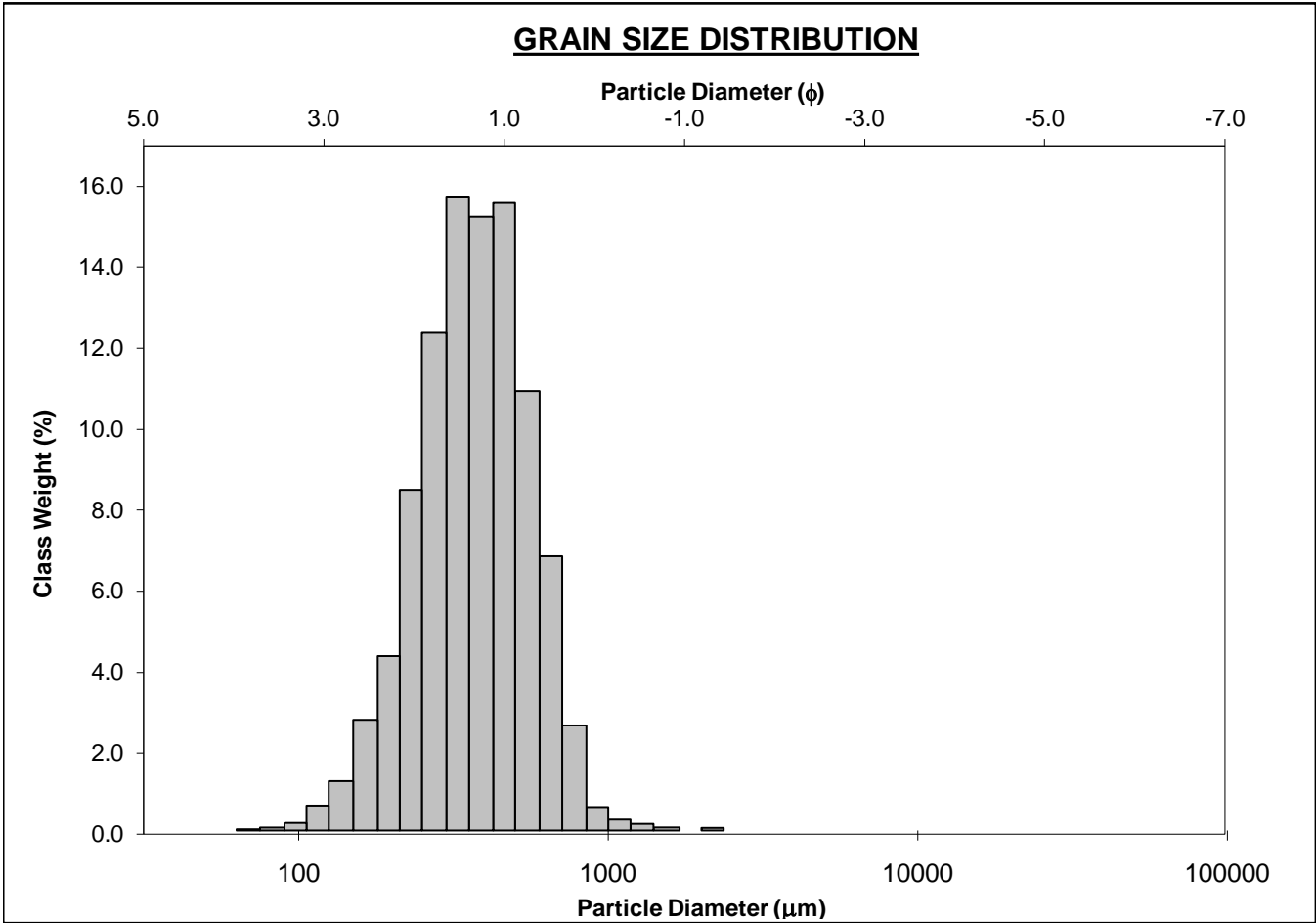
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-160cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	655.0	0.616	GRAVEL: 2.4%	COARSE SAND: 37.1%		
MODE 2:	327.5	1.616	SAND: 97.6%	MEDIUM SAND: 43.9%		
MODE 3:	2180.0	-1.119	MUD: 0.0%	FINE SAND: 10.6%		
D ₁₀ :	244.0	0.104		V FINE SAND: 0.2%		
MEDIAN or D ₅₀ :	464.9	1.105	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	930.4	2.035	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	3.813	19.55	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	686.4	1.931	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	2.116	2.943	V FINE GRAVEL: 2.4%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	358.6	1.081	V COARSE SAND: 5.8%	CLAY: 0.0%		
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	565.2	478.5	1.063	466.6	1.100	Medium Sand
SORTING (σ):	376.2	1.733	0.793	1.708	0.773	Moderately Sorted
SKEWNESS (Sk):	2.359	0.387	-0.387	0.063	-0.063	Symmetrical
KURTOSIS (K):	9.897	3.350	3.350	0.983	0.983	Mesokurtic



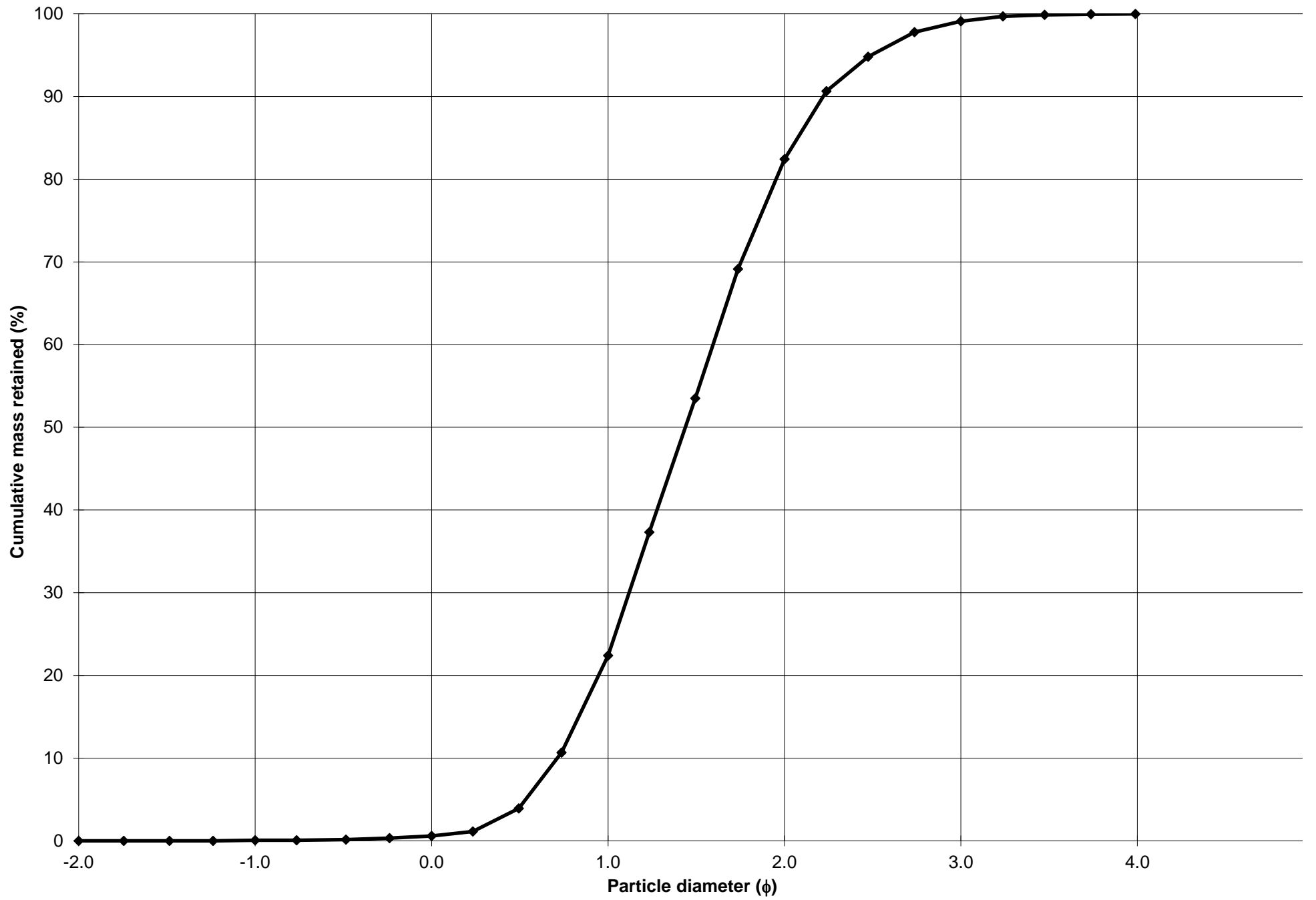
Cumulative Frequency Curve



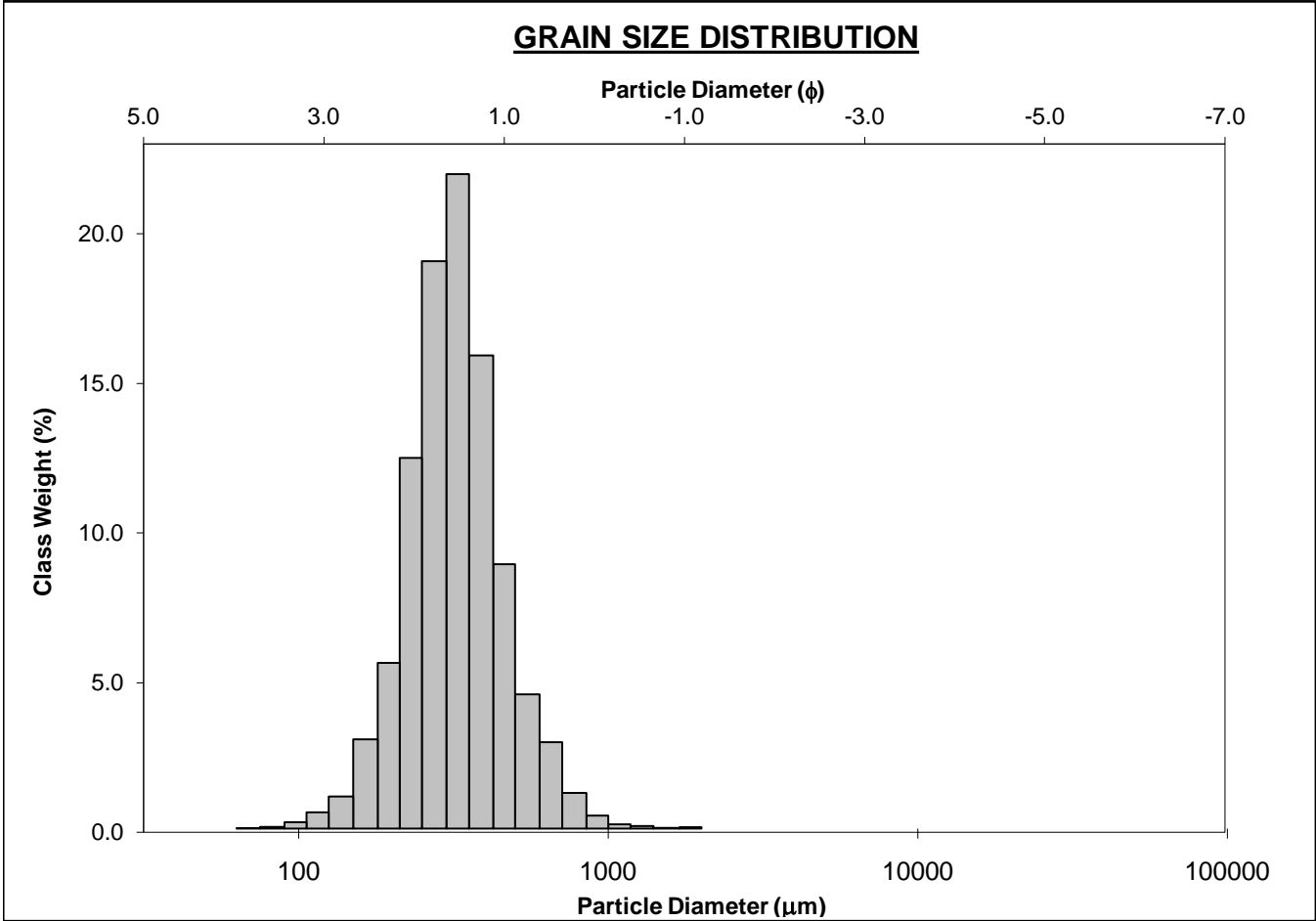
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-170cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.1%		COARSE SAND: 21.8%	
MODE 2:	462.5	1.117	SAND: 99.9%		MEDIUM SAND: 60.0%	
MODE 3:			MUD: 0.0%		FINE SAND: 16.7%	
D ₁₀ :	214.7	0.713			V FINE SAND: 0.9%	
MEDIAN or D ₅₀ :	369.1	1.438	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	610.1	2.220	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.841	3.113	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	395.4	1.507	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.756	1.780	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	209.3	0.812	V COARSE SAND: 0.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	398.0	364.1	1.458	366.8	1.447	Medium Sand
SORTING (σ):	171.0	1.520	0.604	1.509	0.594	Moderately Well Sorted
SKEWNESS (Sk):	1.816	-0.297	0.297	-0.049	0.049	Symmetrical
KURTOSIS (K):	13.29	4.369	4.369	0.987	0.987	Mesokurtic



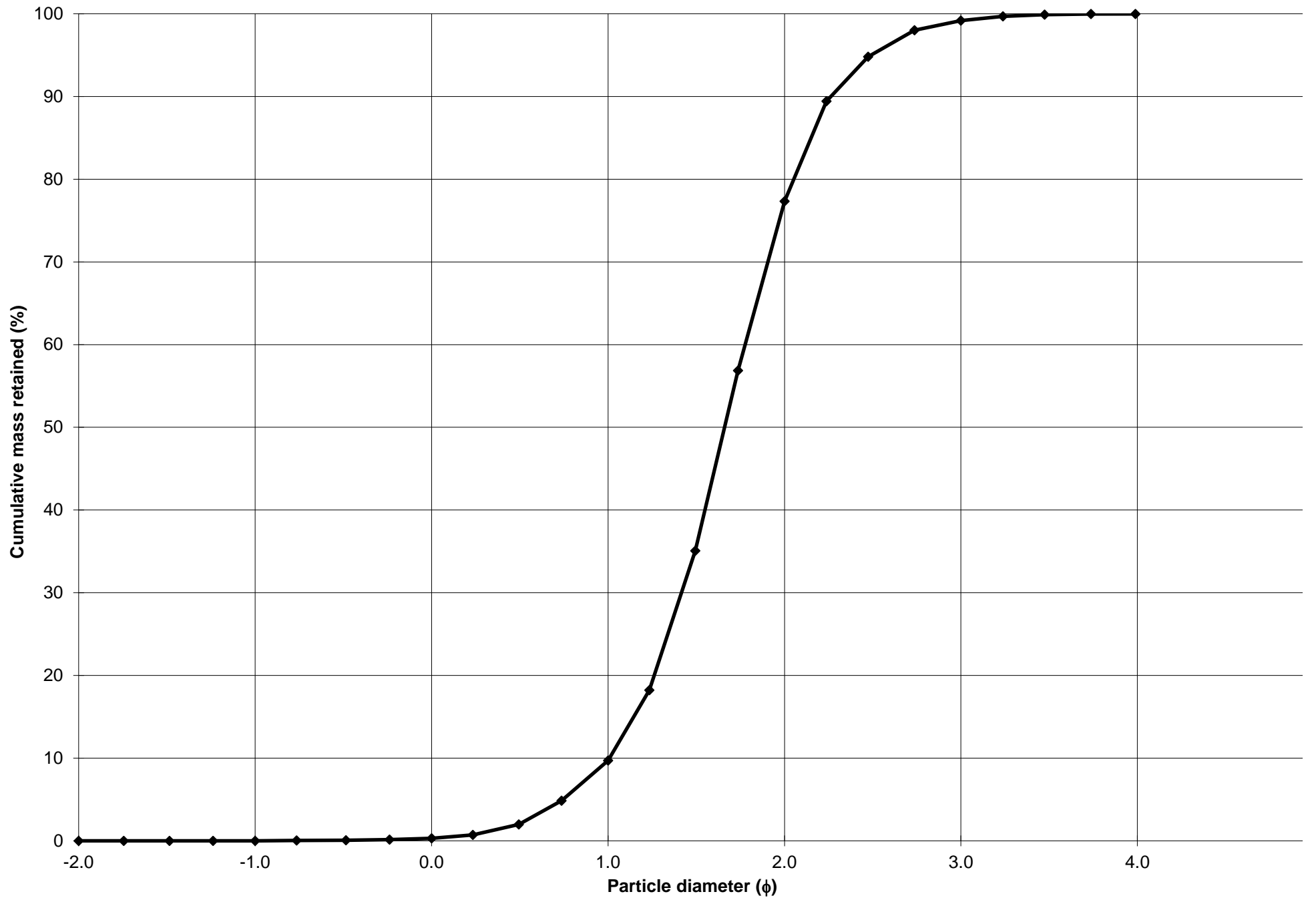
Cumulative Frequency Curve



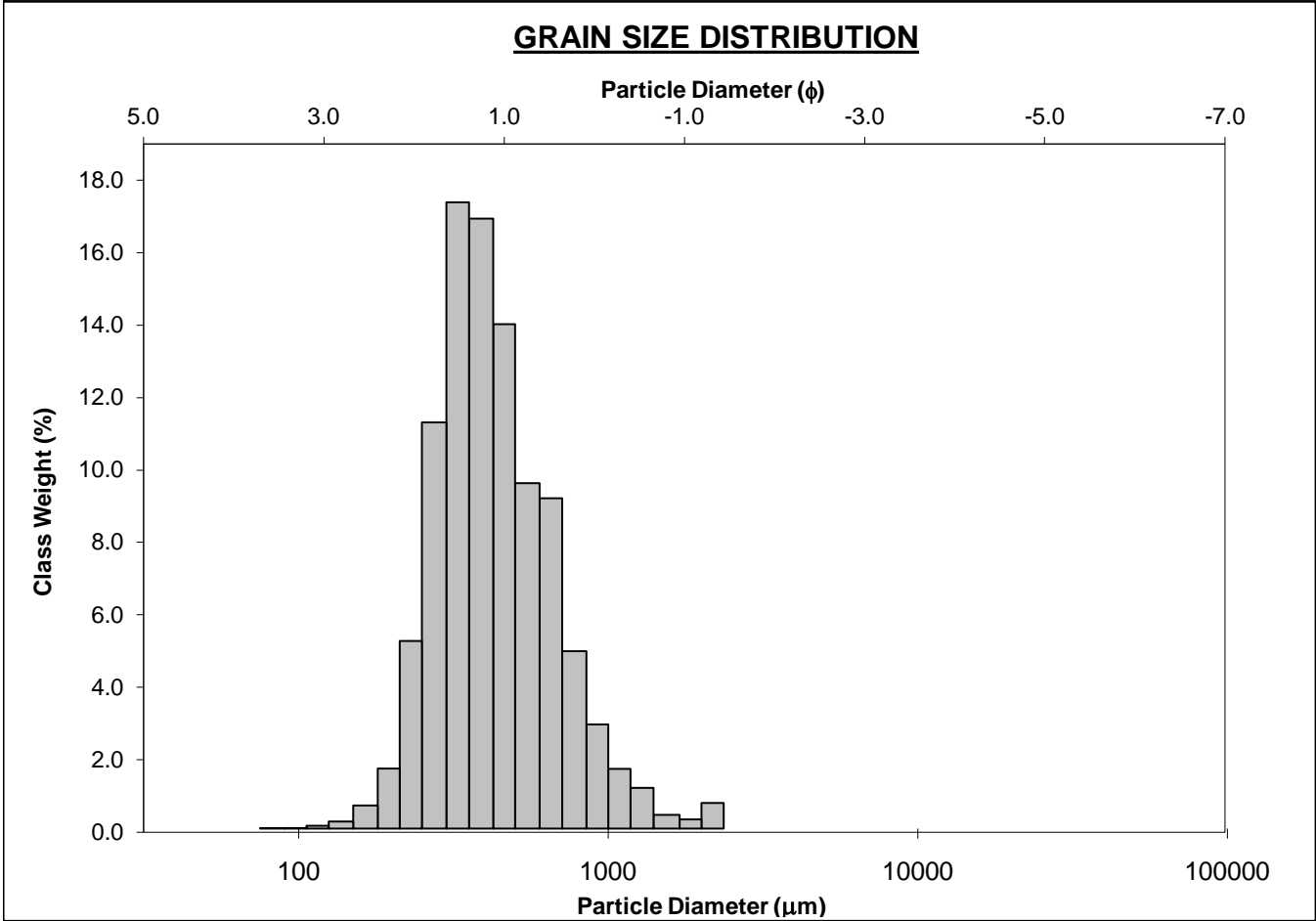
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-180cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 9.4%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 67.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 21.8%	
D ₁₀ :	208.3	1.008			V FINE SAND: 0.8%	
MEDIAN or D ₅₀ :	316.3	1.661	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	497.2	2.263	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.387	2.245	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	288.9	1.255	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.549	1.471	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	140.0	0.631	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	342.1	318.5	1.651	317.5	1.655	Medium Sand
SORTING (σ):	137.5	1.440	0.526	1.418	0.504	Moderately Well Sorted
SKEWNESS (Sk):	2.276	-0.033	0.033	0.033	-0.033	Symmetrical
KURTOSIS (K):	15.33	5.866	5.866	1.134	1.134	Leptokurtic



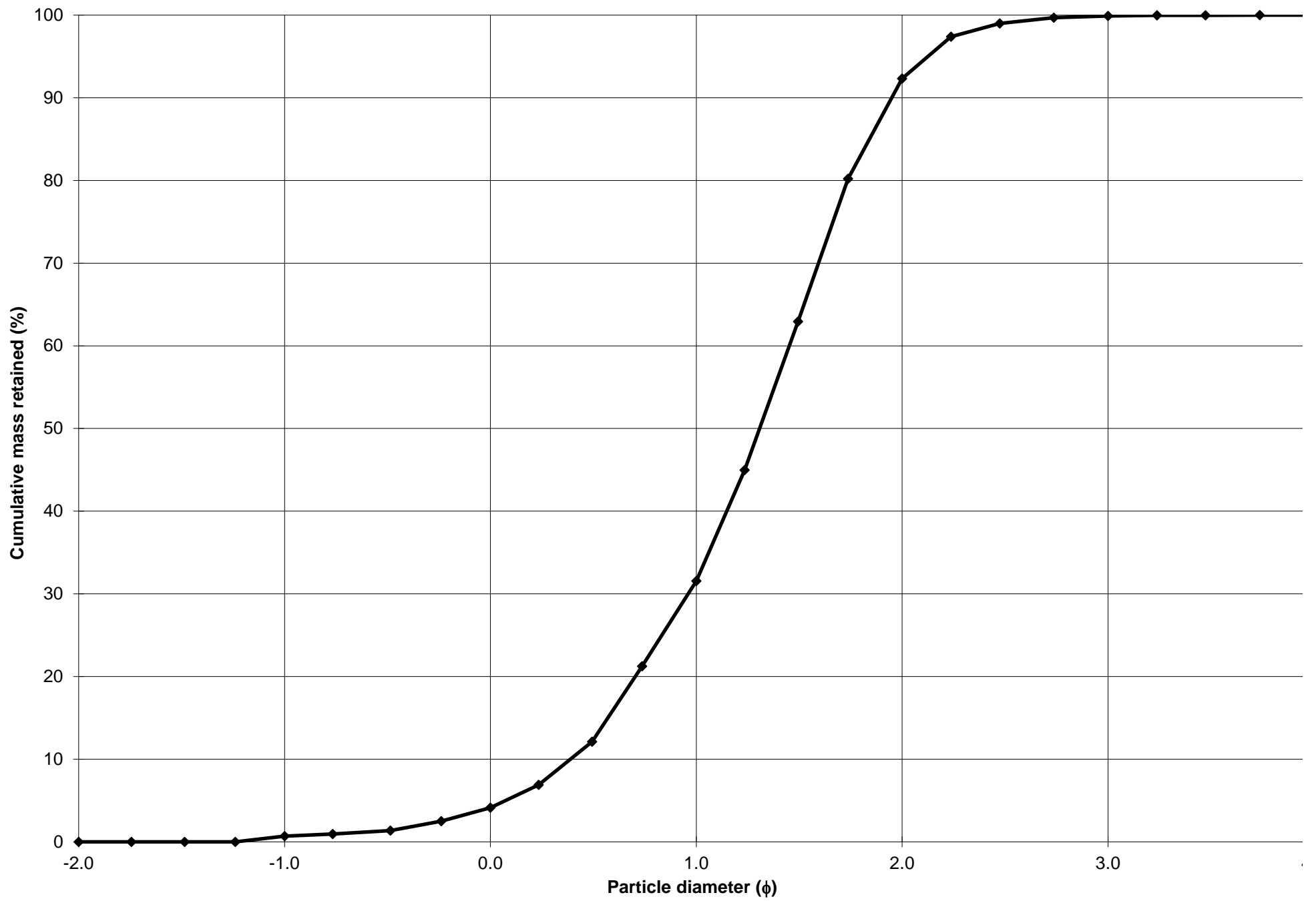
Cumulative Frequency Curve



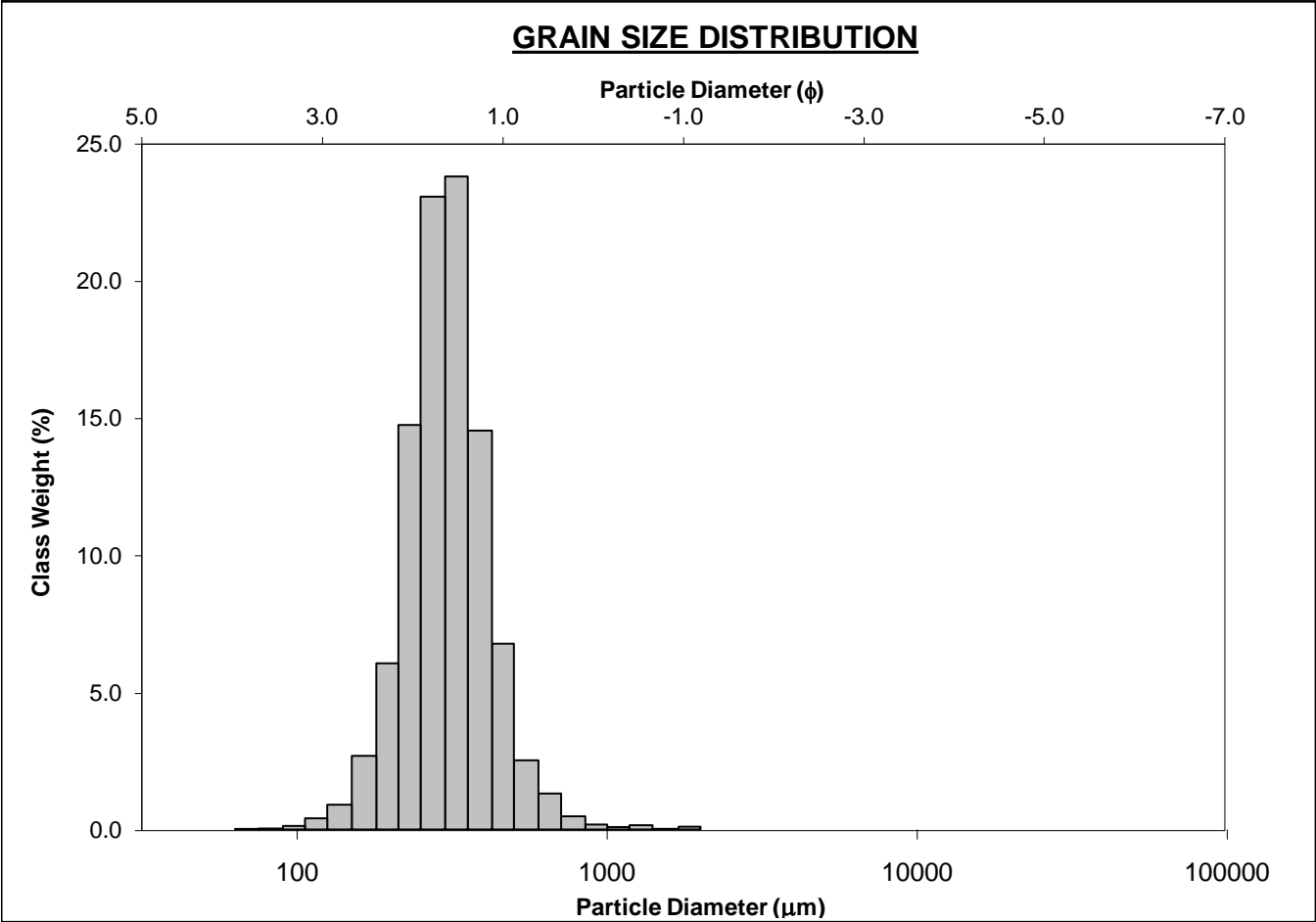
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-190cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.7%		COARSE SAND: 27.4%	
MODE 2:			SAND: 99.3%		MEDIUM SAND: 60.8%	
MODE 3:			MUD: 0.0%		FINE SAND: 7.6%	
D ₁₀ :	258.9	0.388			V FINE SAND: 0.1%	
MEDIAN or D ₅₀ :	404.1	1.307	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	764.0	1.950	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.951	5.020	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	505.1	1.561	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.779	1.997	V FINE GRAVEL: 0.7%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	245.7	0.831	V COARSE SAND: 3.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	479.9	428.6	1.222	423.0	1.241	Medium Sand
SORTING (σ):	269.7	1.556	0.638	1.533	0.616	Moderately Well Sorted
SKEWNESS (Sk):	2.883	0.690	-0.690	0.182	-0.182	Coarse Skewed
KURTOSIS (K):	15.46	3.970	3.970	1.012	1.012	Mesokurtic



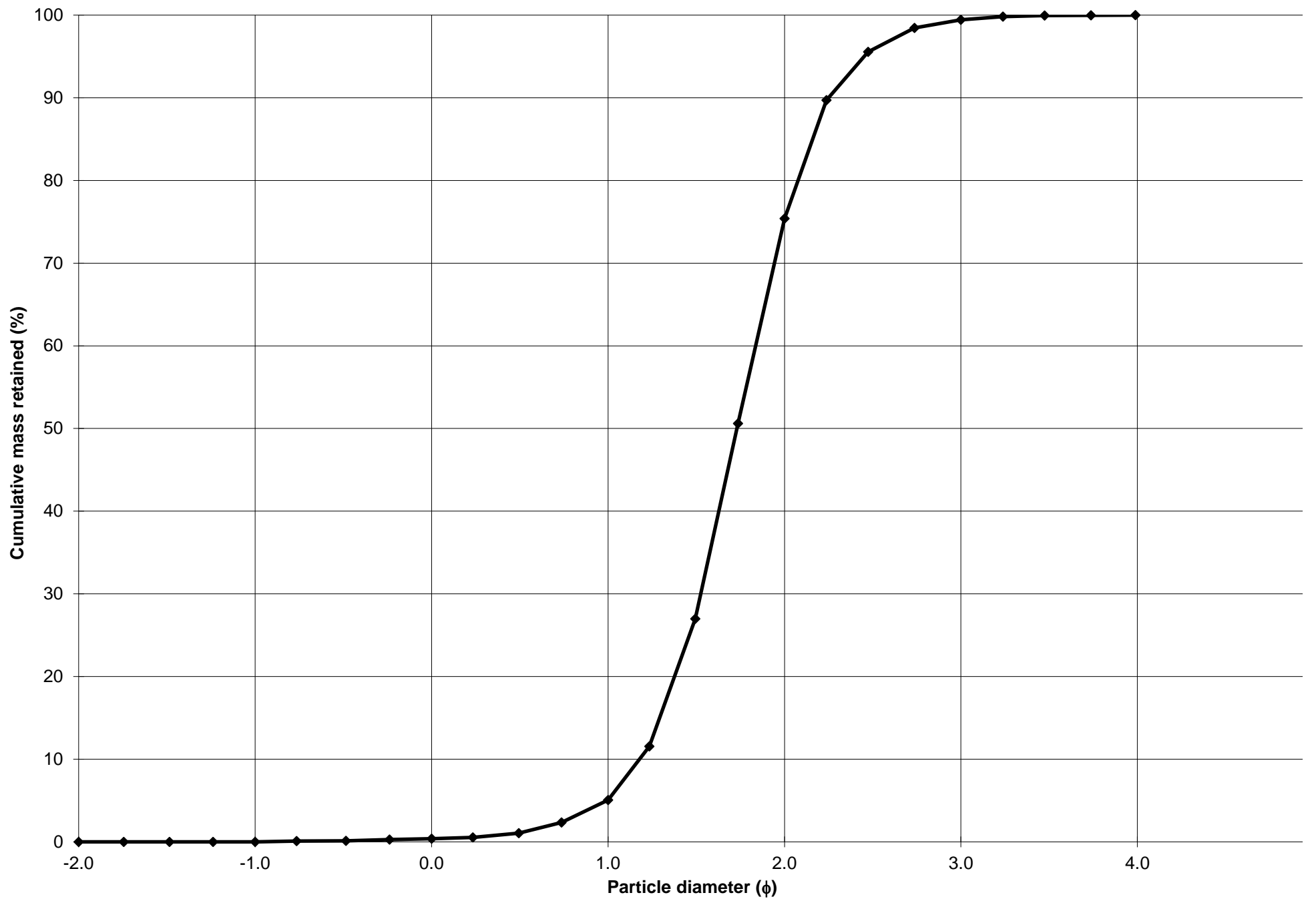
Cumulative Frequency Curve



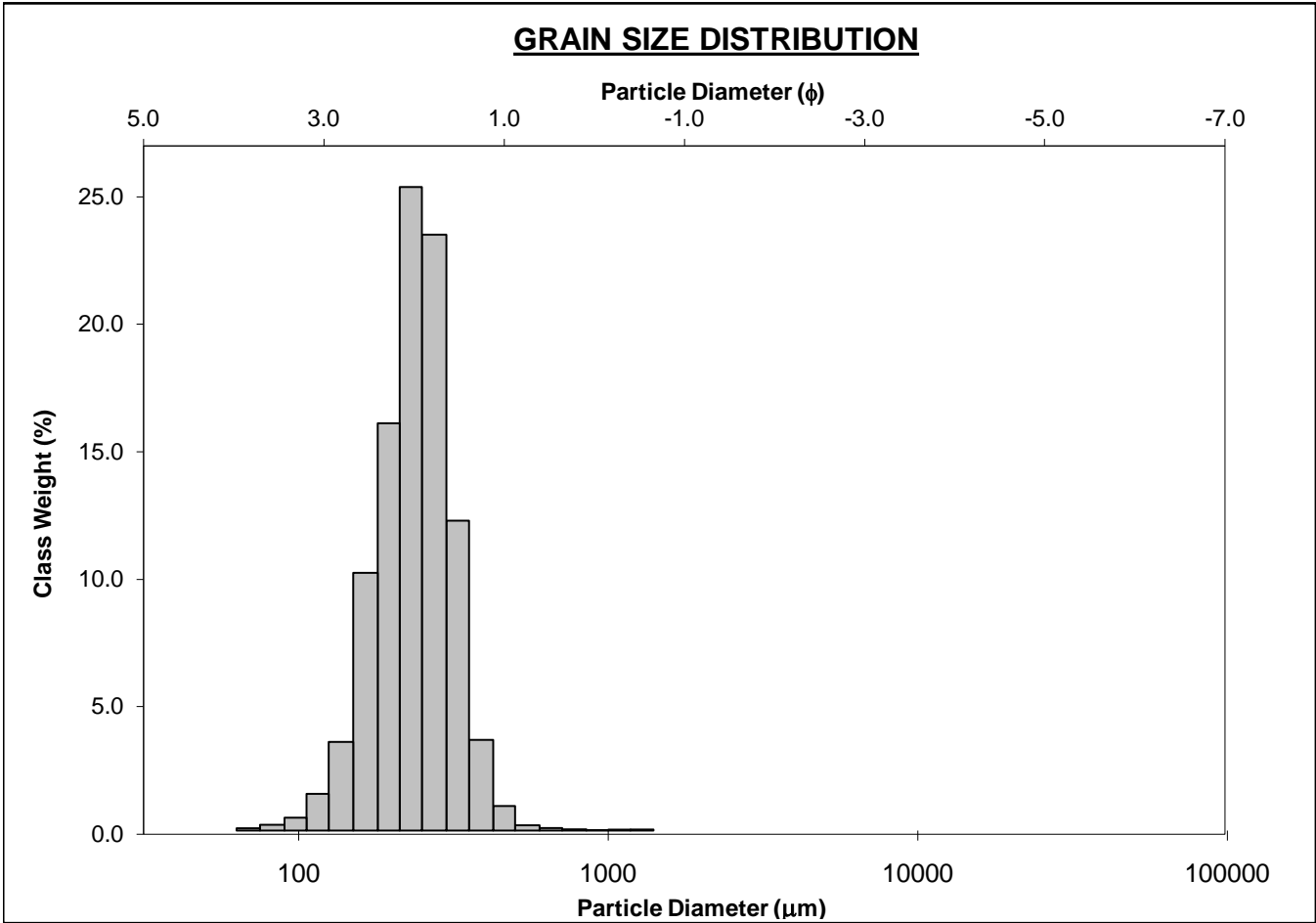
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-200cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%	COARSE SAND: 4.7%		
MODE 2:			SAND: 100.0%	MEDIUM SAND: 70.3%		
MODE 3:			MUD: 0.0%	FINE SAND: 24.0%		
D ₁₀ :	210.4	1.178		V FINE SAND: 0.6%		
MEDIAN or D ₅₀ :	301.3	1.731	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	441.8	2.249	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.100	1.909	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	231.5	1.071	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.449	1.366	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	112.6	0.535	V COARSE SAND: 0.4%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	321.2	303.0	1.723	301.9	1.728	Medium Sand
SORTING (σ):	123.3	1.378	0.462	1.346	0.429	Well Sorted
SKEWNESS (Sk):	3.875	0.374	-0.374	0.011	-0.011	Symmetrical
KURTOSIS (K):	36.49	5.426	5.426	1.116	1.116	Leptokurtic



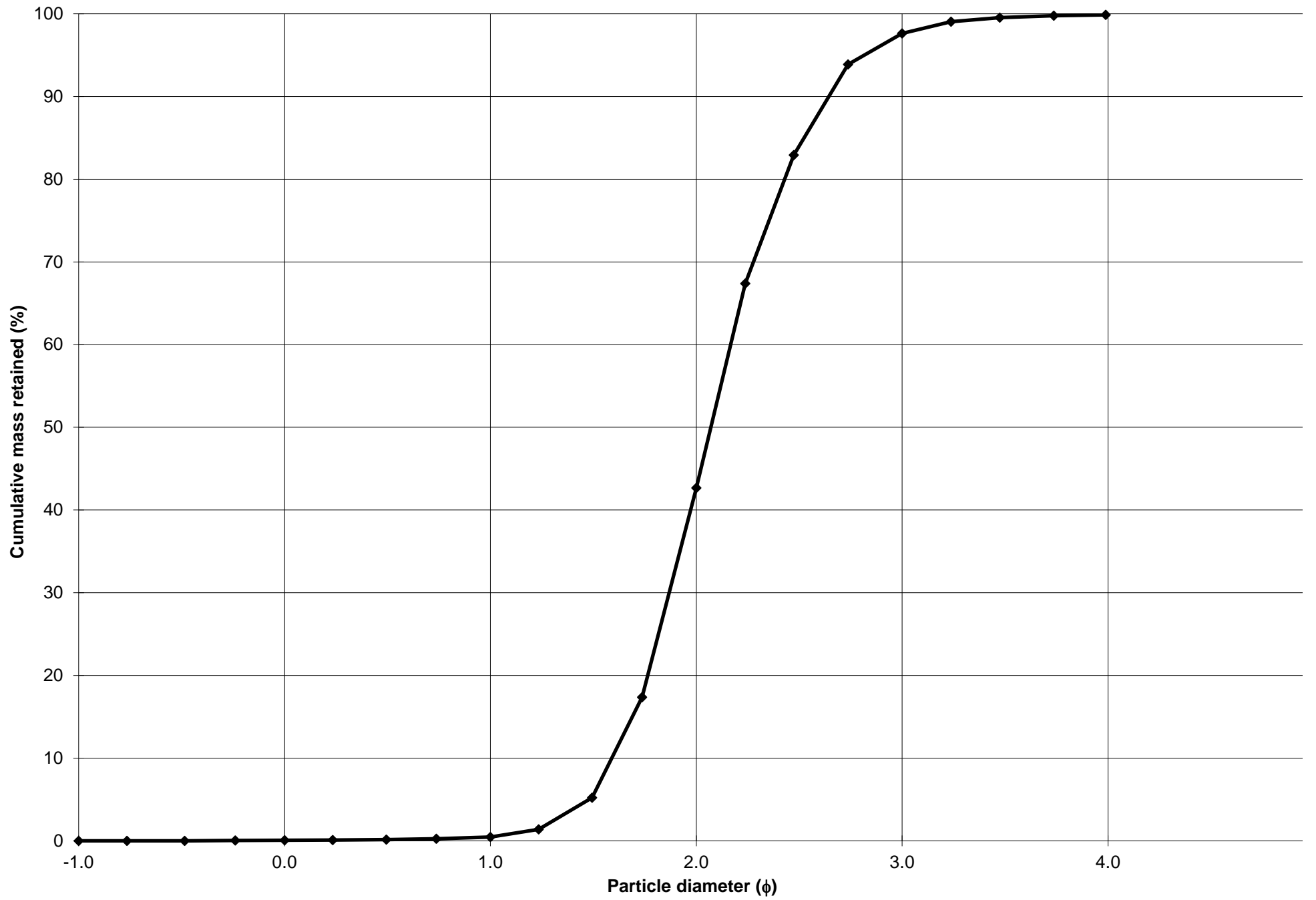
Cumulative Frequency Curve



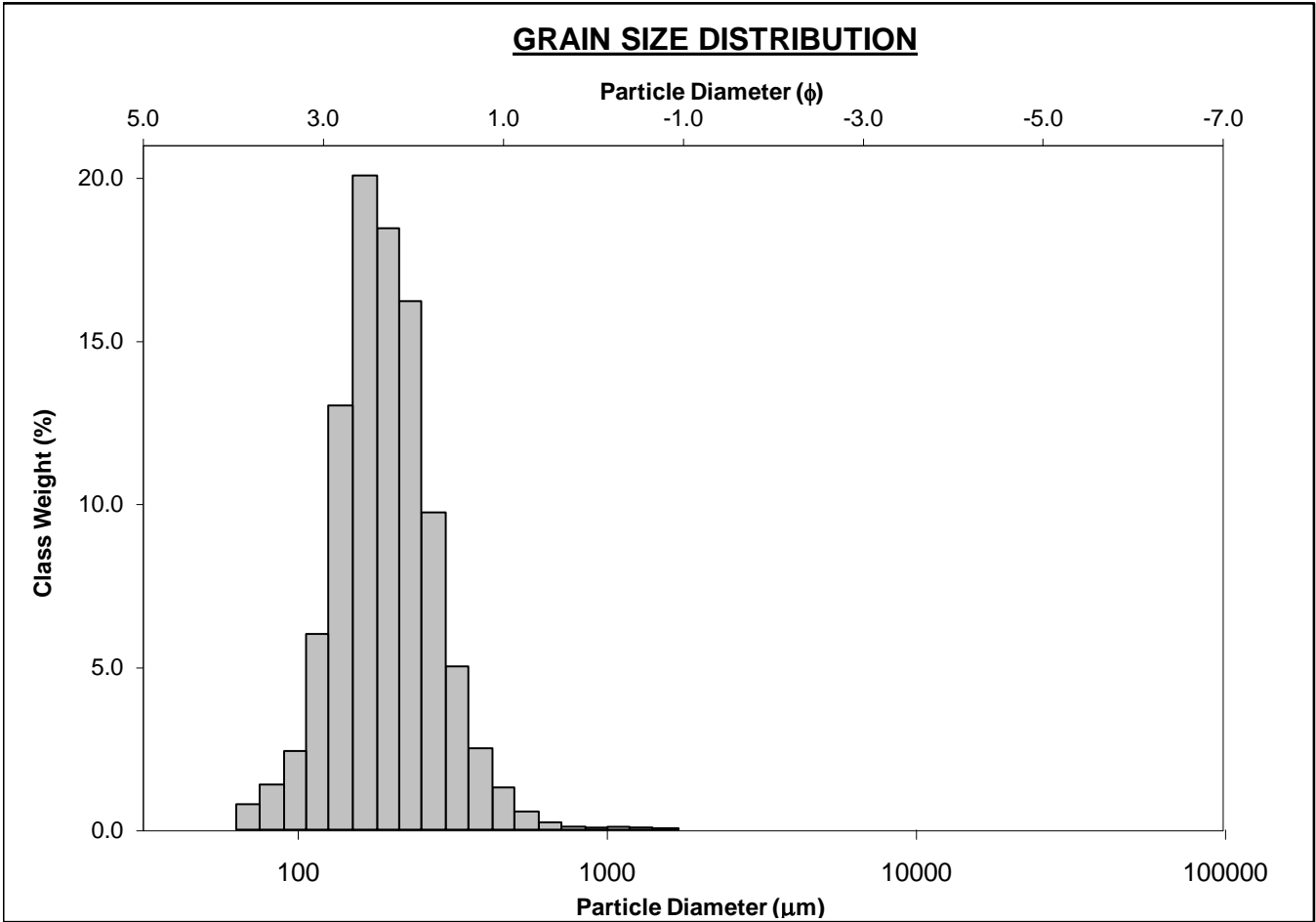
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-210cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.4%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 42.2%	
MODE 3:			MUD: 0.1%		FINE SAND: 55.0%	
D ₁₀ :	160.0	1.590			V FINE SAND: 2.2%	
MEDIAN or D ₅₀ :	238.1	2.071	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	332.2	2.644	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.077	1.663	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	172.2	1.054	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.451	1.296	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	88.27	0.537	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	245.1	233.4	2.099	234.3	2.093	Fine Sand
SORTING (σ):	75.25	1.370	0.454	1.319	0.400	Well Sorted
SKEWNESS (Sk):	2.458	-1.740	1.740	-0.102	0.102	Fine Skewed
KURTOSIS (K):	27.24	20.86	20.86	1.019	1.019	Mesokurtic



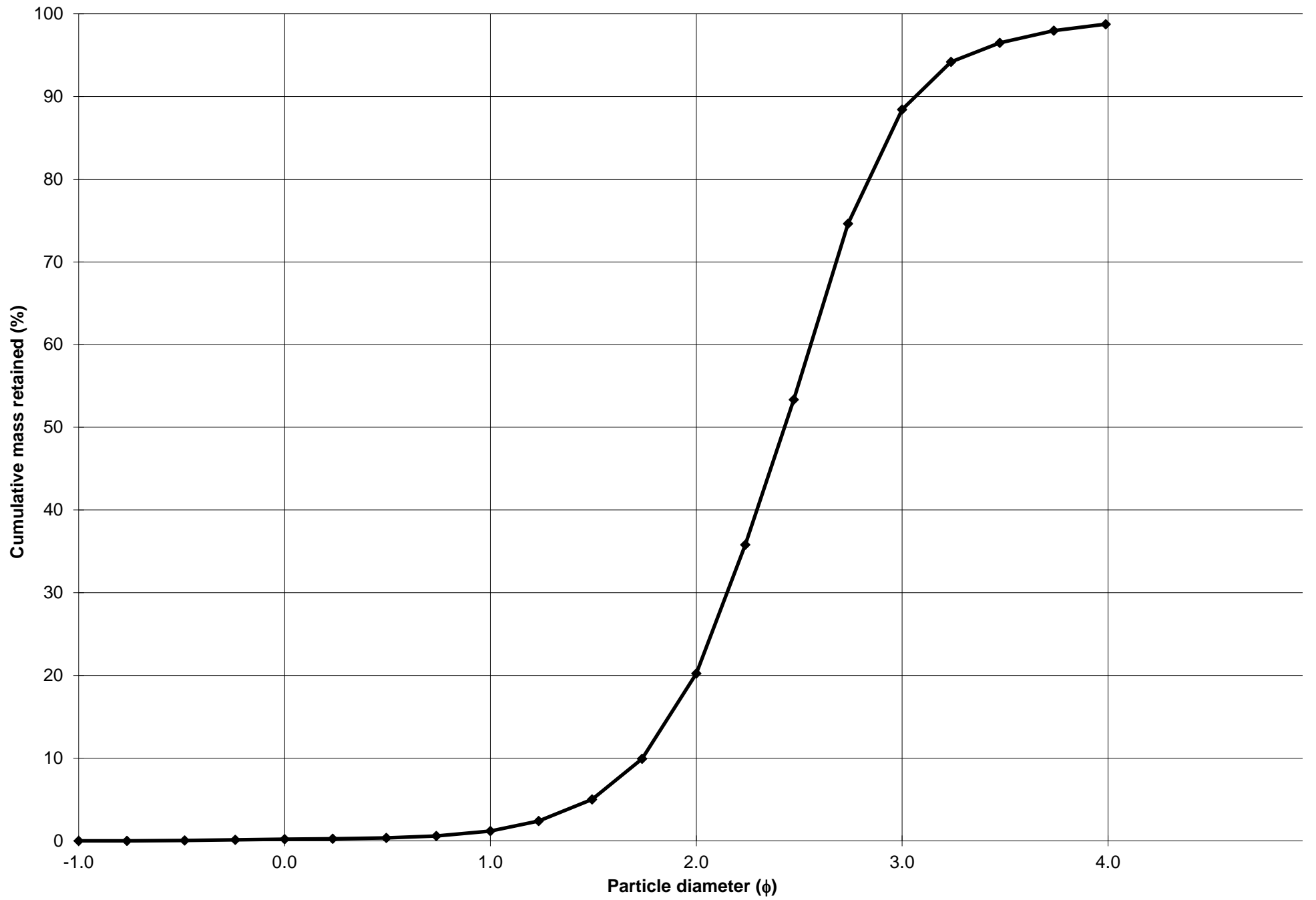
Cumulative Frequency Curve



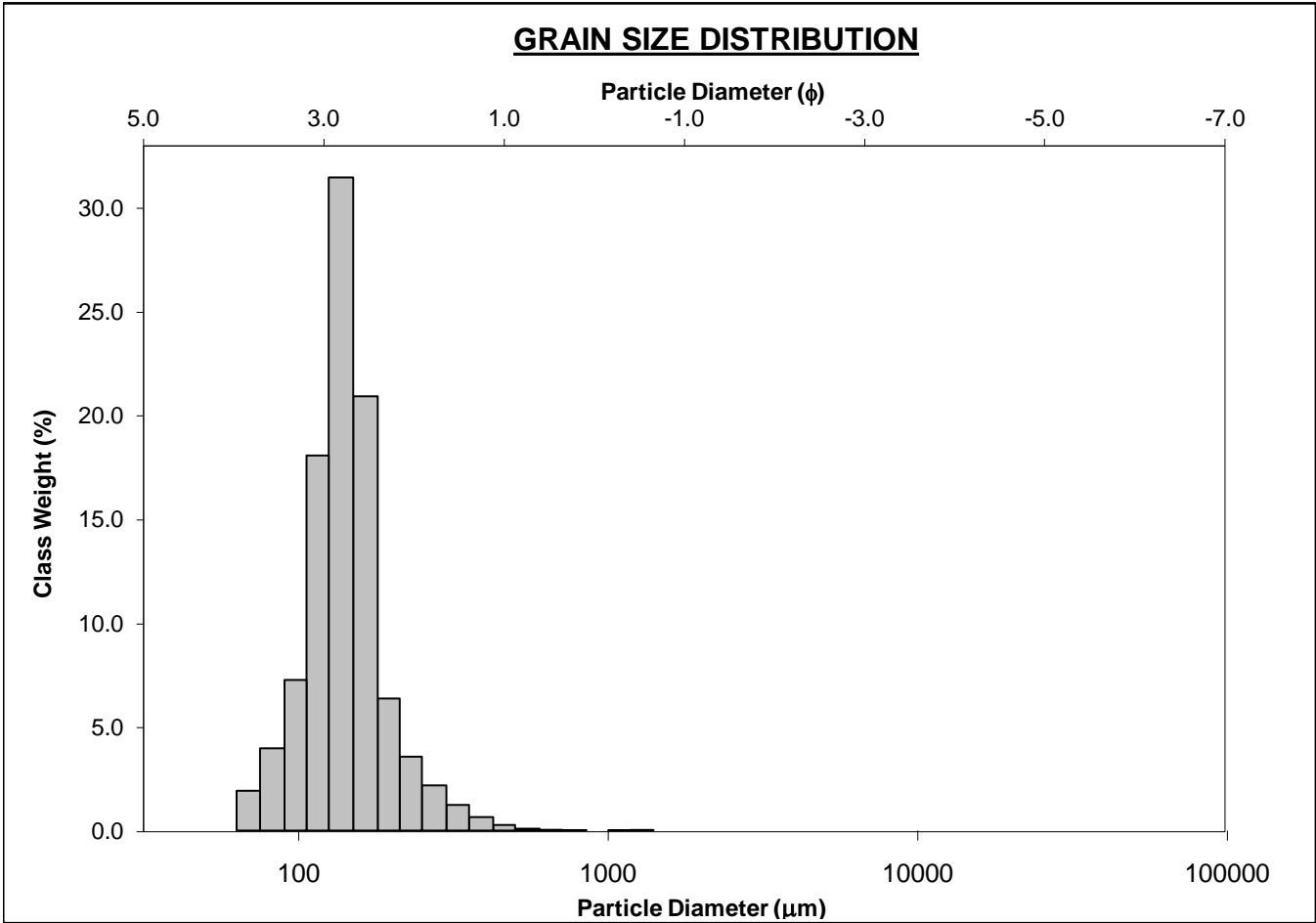
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-220cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 1.0%	
MODE 2:			SAND: 98.7%		MEDIUM SAND: 19.1%	
MODE 3:			MUD: 1.3%		FINE SAND: 68.2%	
D ₁₀ :	119.5	1.739			V FINE SAND: 10.3%	
MEDIAN or D ₅₀ :	185.7	2.429	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	299.5	3.065	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	2.507	1.762	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	180.0	1.326	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.592	1.324	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	88.42	0.671	V COARSE SAND: 0.2%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	204.4	183.1	2.449	187.9	2.412	Fine Sand
SORTING (σ):	98.12	1.675	0.744	1.447	0.533	Moderately Well Sorted
SKEWNESS (Sk):	3.993	-2.559	2.559	0.036	-0.036	Symmetrical
KURTOSIS (K):	39.12	18.82	18.82	1.116	1.116	Leptokurtic



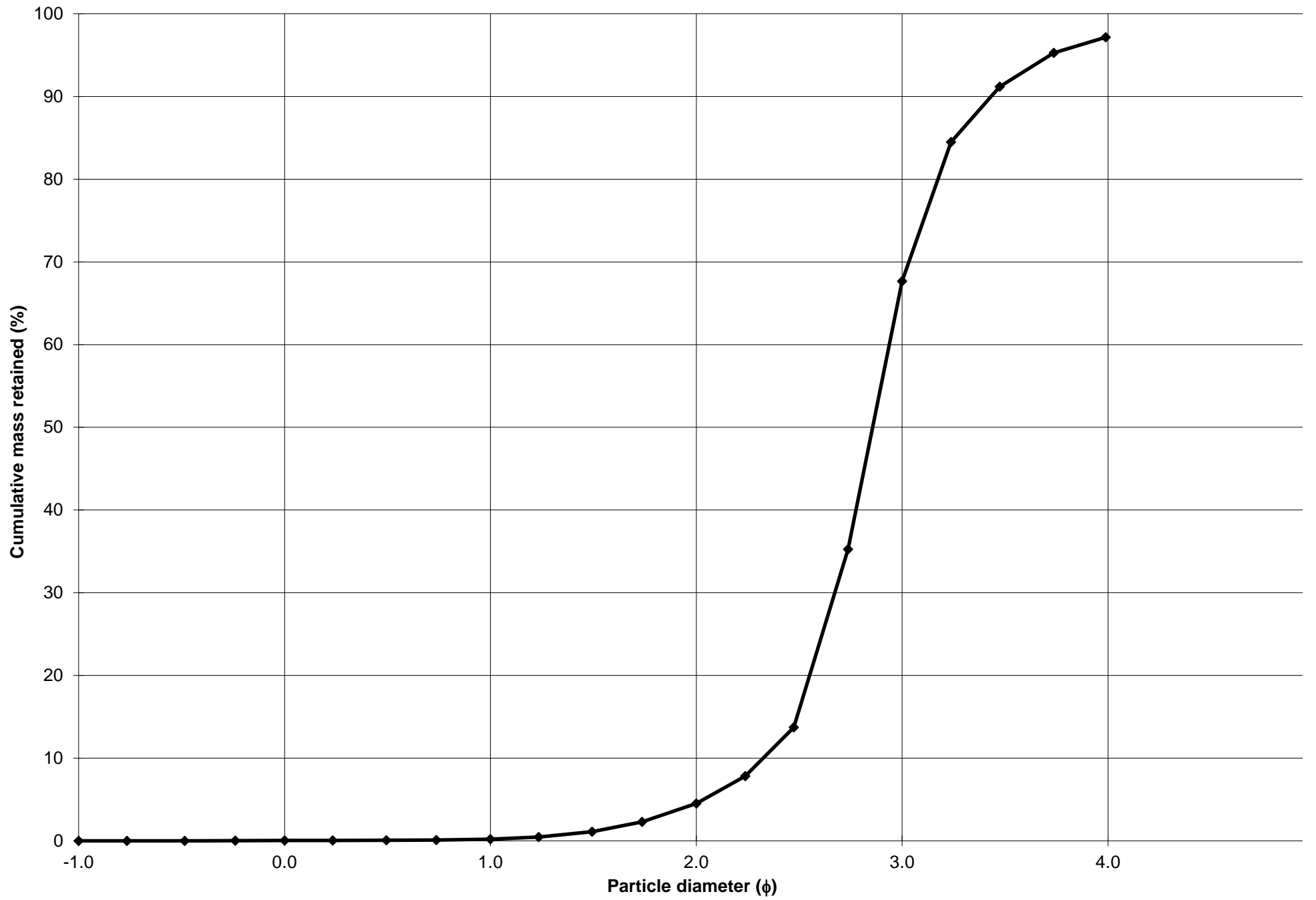
Cumulative Frequency Curve



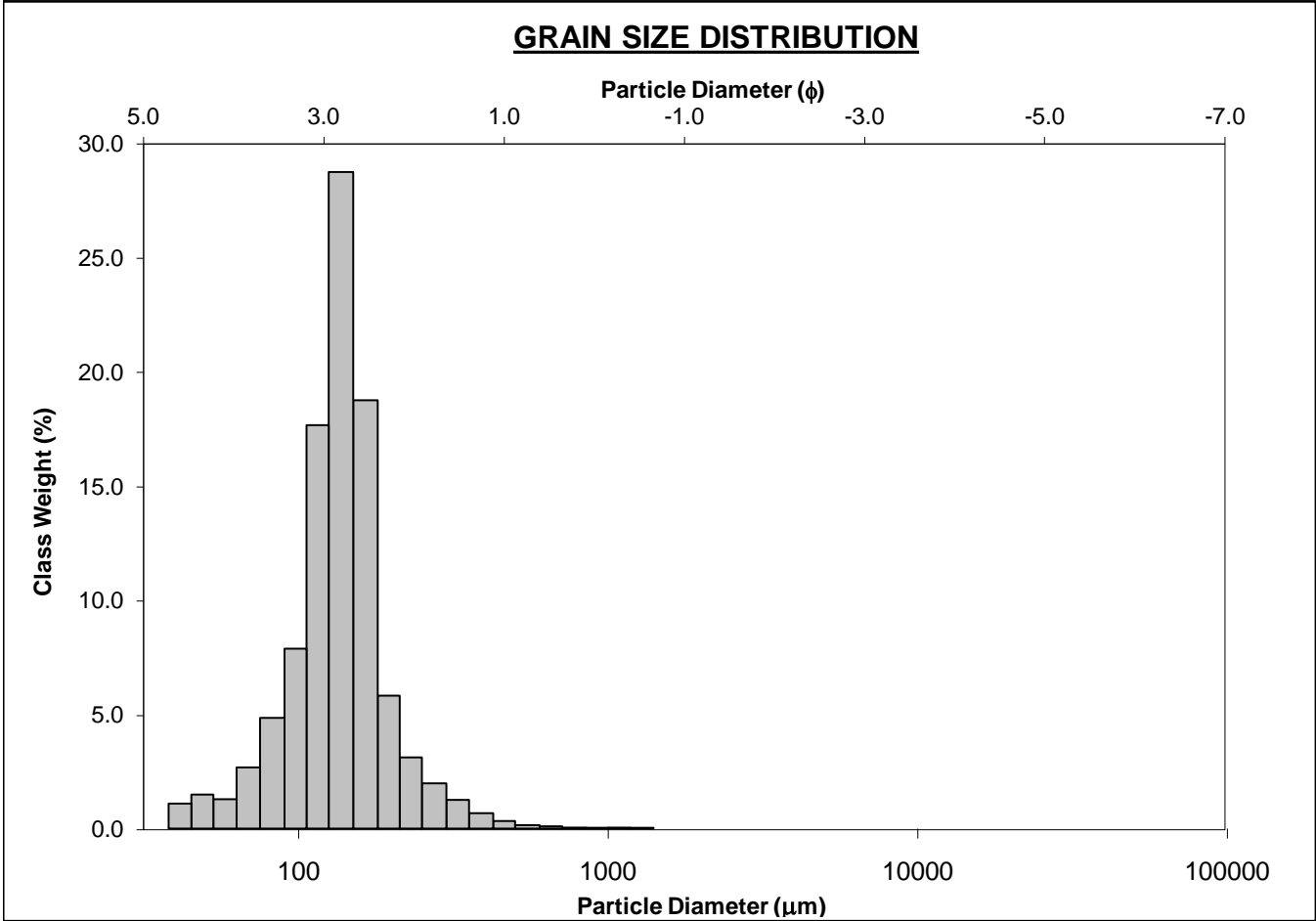
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-230cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.2%			
MODE 2:			SAND: 97.2% MEDIUM SAND: 4.3%			
MODE 3:			MUD: 2.8% FINE SAND: 63.1%			
D ₁₀ :	92.65	2.325	V FINE SAND: 29.5%			
MEDIAN or D ₅₀ :	138.1	2.857	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.5%			
D ₉₀ :	199.6	3.432	COARSE GRAVEL: 0.0% COARSE SILT: 0.5%			
(D ₉₀ / D ₁₀):	2.155	1.476	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.5%			
(D ₉₀ - D ₁₀):	107.0	1.107	FINE GRAVEL: 0.0% FINE SILT: 0.5%			
(D ₇₅ / D ₂₅):	1.406	1.188	V FINE GRAVEL: 0.0% V FINE SILT: 0.5%			
(D ₇₅ - D ₂₅):	47.28	0.492	V COARSE SAND: 0.0% CLAY: 0.5%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	146.1	130.2	2.942	137.4	2.863	Fine Sand
SORTING (σ):	61.07	1.764	0.818	1.354	0.438	Well Sorted
SKEWNESS (Sk):	4.420	-3.205	3.205	-0.025	0.025	Symmetrical
KURTOSIS (K):	58.10	17.69	17.69	1.404	1.404	Leptokurtic



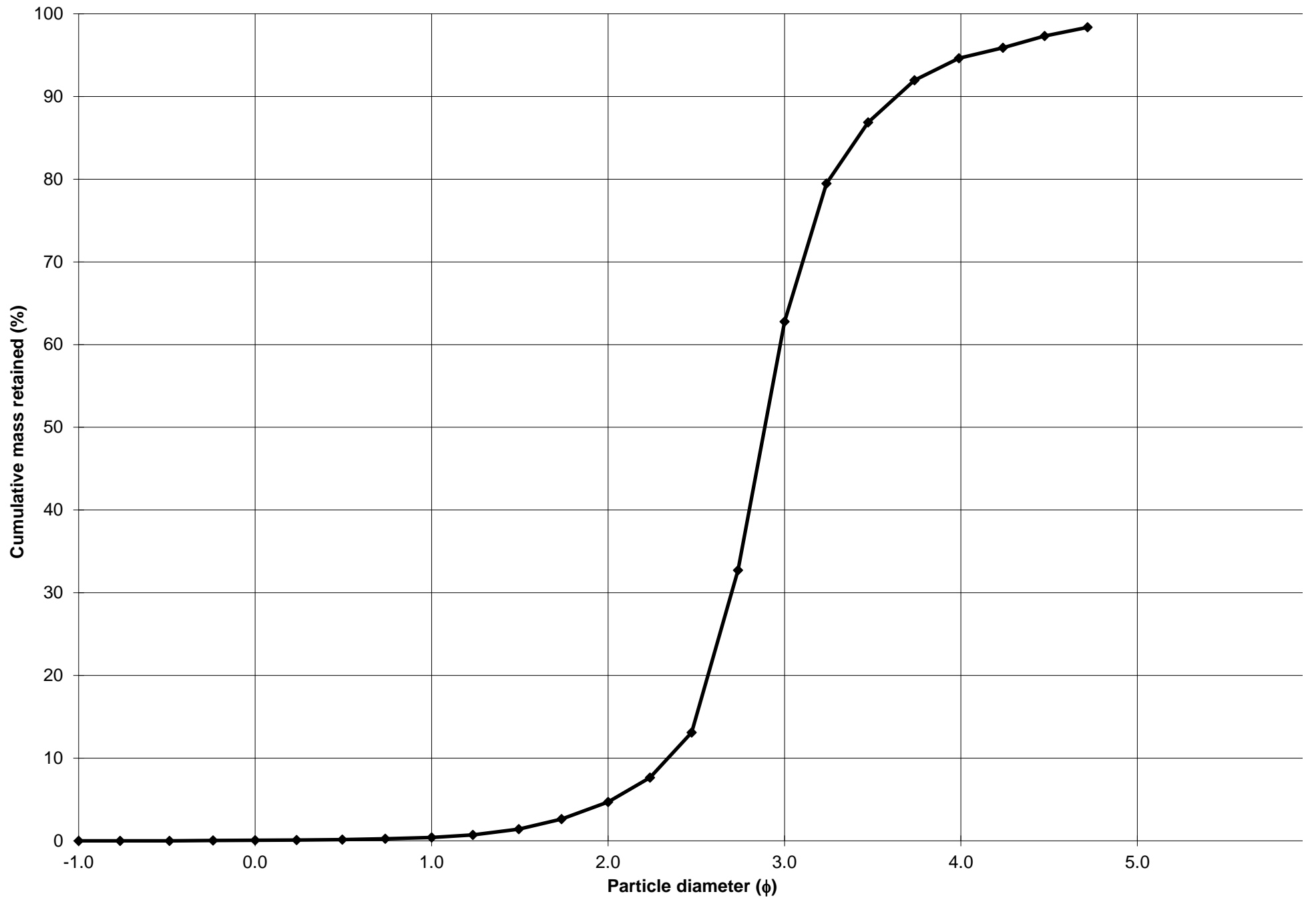
Cumulative Frequency Curve



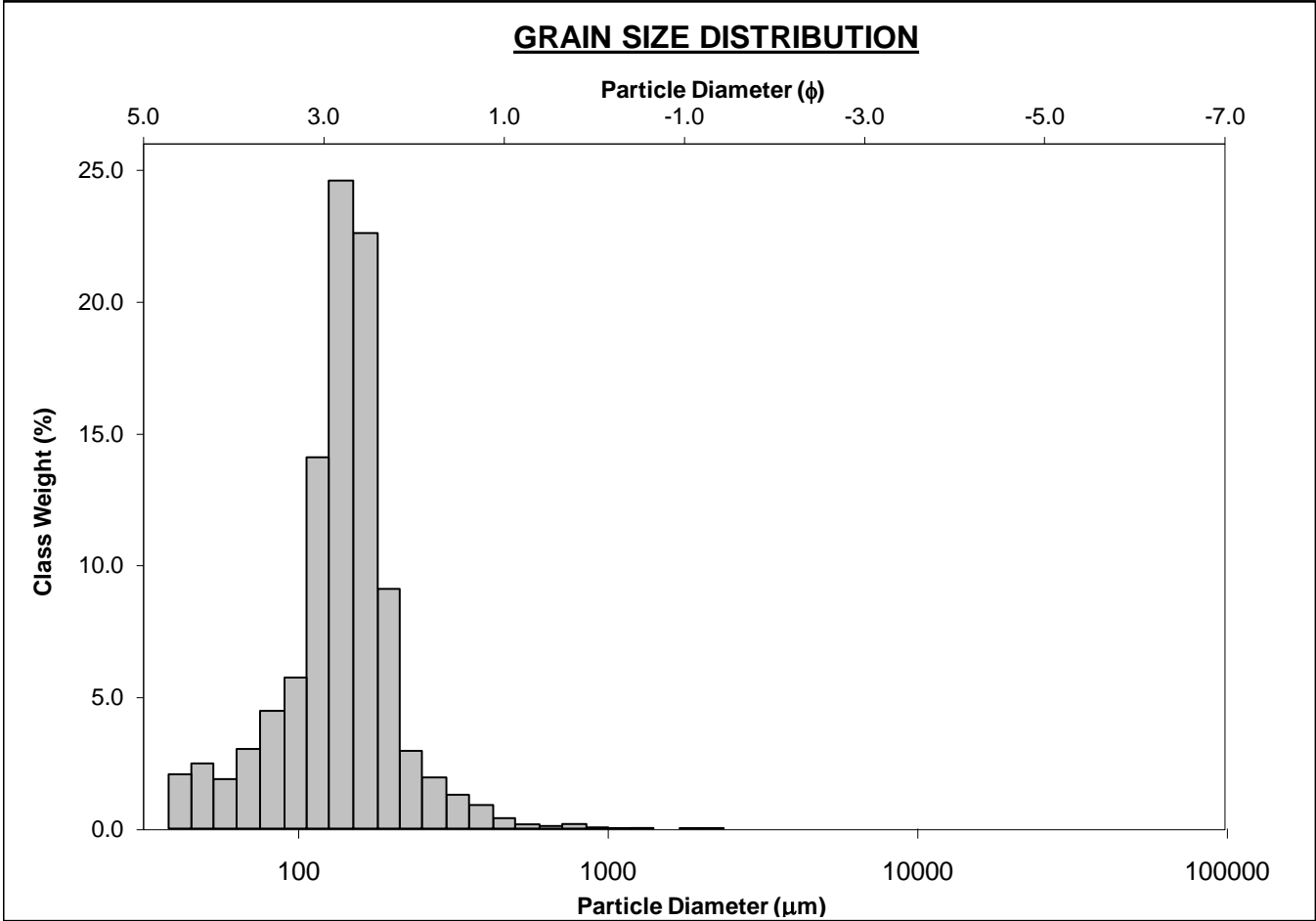
SIEVING ERROR: 1.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-240cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 0.3%	
MODE 2:			SAND: 94.7%		MEDIUM SAND: 4.3%	
MODE 3:			MUD: 5.3%		FINE SAND: 58.1%	
D ₁₀ :	80.45	2.340			V FINE SAND: 31.9%	
MEDIAN or D ₅₀ :	135.1	2.888	V COARSE GRAVEL: 0.0%		V COARSE SILT: 3.8%	
D ₉₀ :	197.5	3.636	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D ₉₀ / D ₁₀):	2.455	1.554	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
(D ₉₀ - D ₁₀):	117.1	1.296	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D ₇₅ / D ₂₅):	1.454	1.205	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
(D ₇₅ - D ₂₅):	50.35	0.540	V COARSE SAND: 0.1%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	142.8	127.1	2.976	131.4	2.928	Fine Sand
SORTING (σ):	69.83	1.723	0.785	1.440	0.526	Moderately Well Sorted
SKEWNESS (Sk):	4.763	-2.687	2.687	-0.144	0.144	Fine Skewed
KURTOSIS (K):	54.59	17.34	17.34	1.544	1.544	Very Leptokurtic



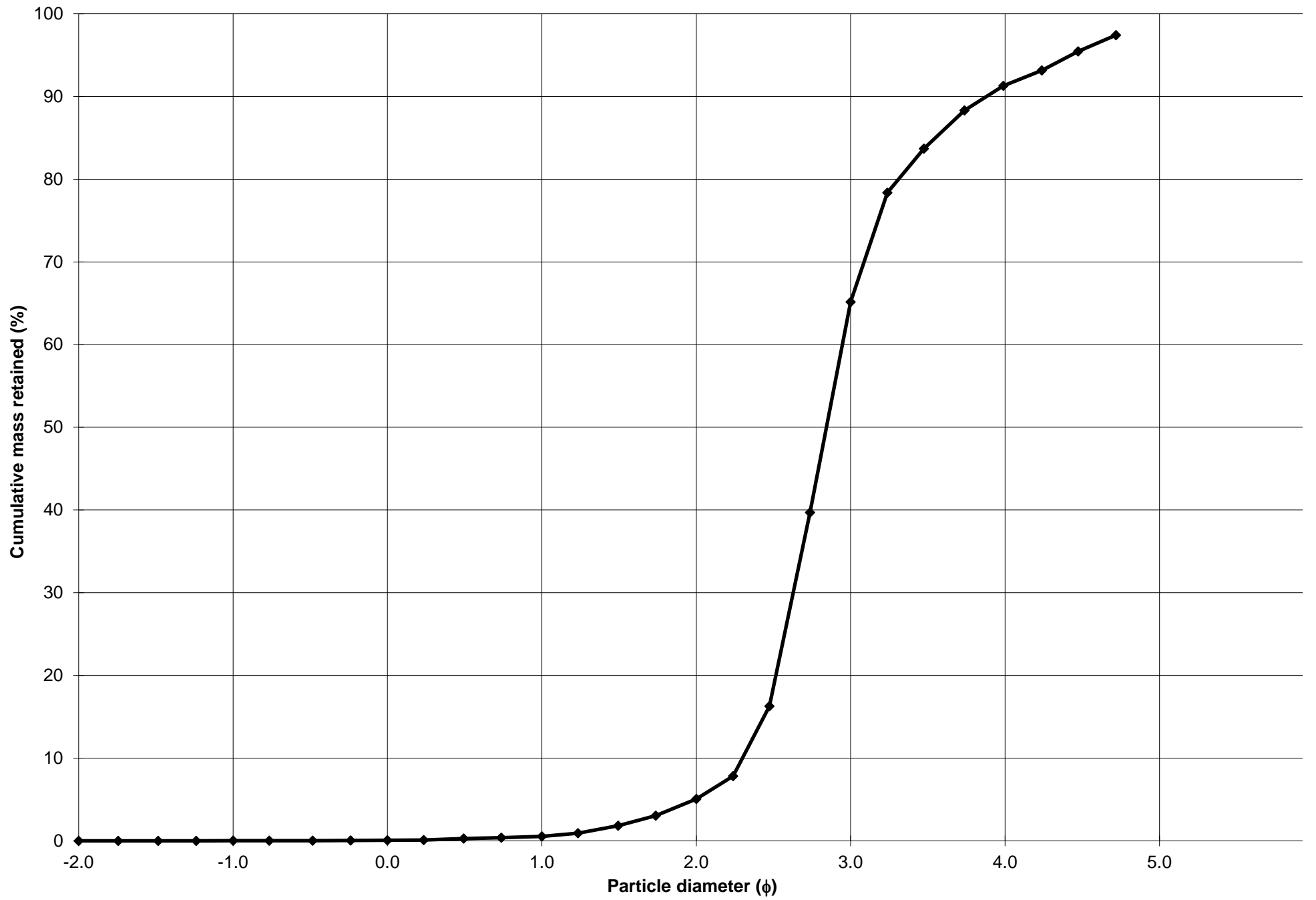
Cumulative Frequency Curve



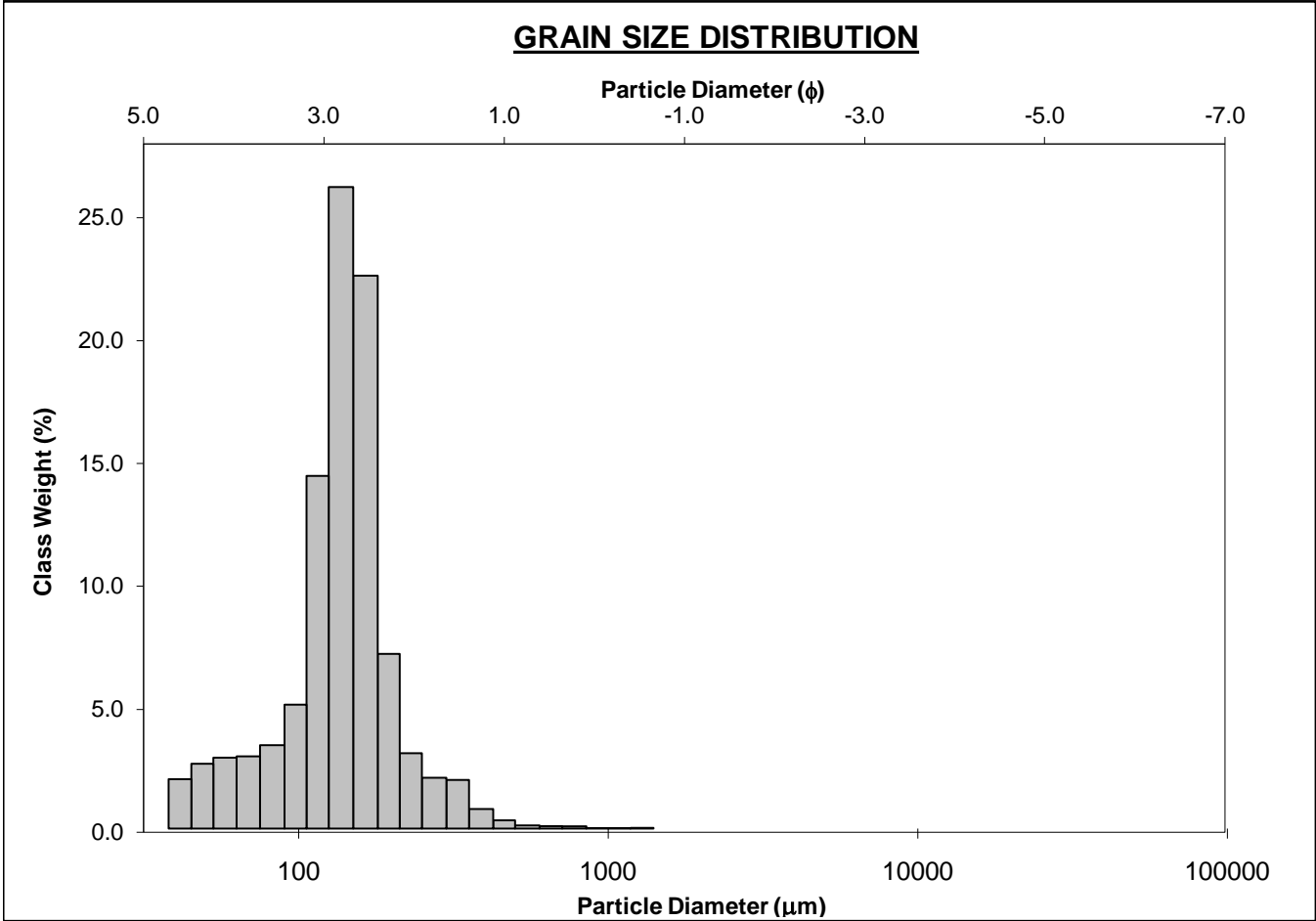
SIEVING ERROR: 2.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-250cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.5%			
MODE 2:			SAND: 91.4% MEDIUM SAND: 4.5%			
MODE 3:			MUD: 8.6% FINE SAND: 60.1%			
D ₁₀ :	67.96	2.299	V FINE SAND: 26.2%			
MEDIAN or D ₅₀ :	139.3	2.843	V COARSE GRAVEL: 0.0% V COARSE SILT: 6.2%			
D ₉₀ :	203.3	3.879	COARSE GRAVEL: 0.0% COARSE SILT: 0.5%			
(D ₉₀ / D ₁₀):	2.991	1.688	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.5%			
(D ₉₀ - D ₁₀):	135.3	1.581	FINE GRAVEL: 0.0% FINE SILT: 0.5%			
(D ₇₅ / D ₂₅):	1.522	1.235	V FINE GRAVEL: 0.0% V FINE SILT: 0.5%			
(D ₇₅ - D ₂₅):	57.65	0.606	V COARSE SAND: 0.1% CLAY: 0.5%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	145.6	124.7	3.004	130.9	2.934	Fine Sand
SORTING (σ):	82.22	1.913	0.936	1.543	0.626	Moderately Well Sorted
SKEWNESS (Sk):	6.622	-2.485	2.485	-0.283	0.283	Fine Skewed
KURTOSIS (K):	112.5	13.14	13.14	1.650	1.650	Very Leptokurtic



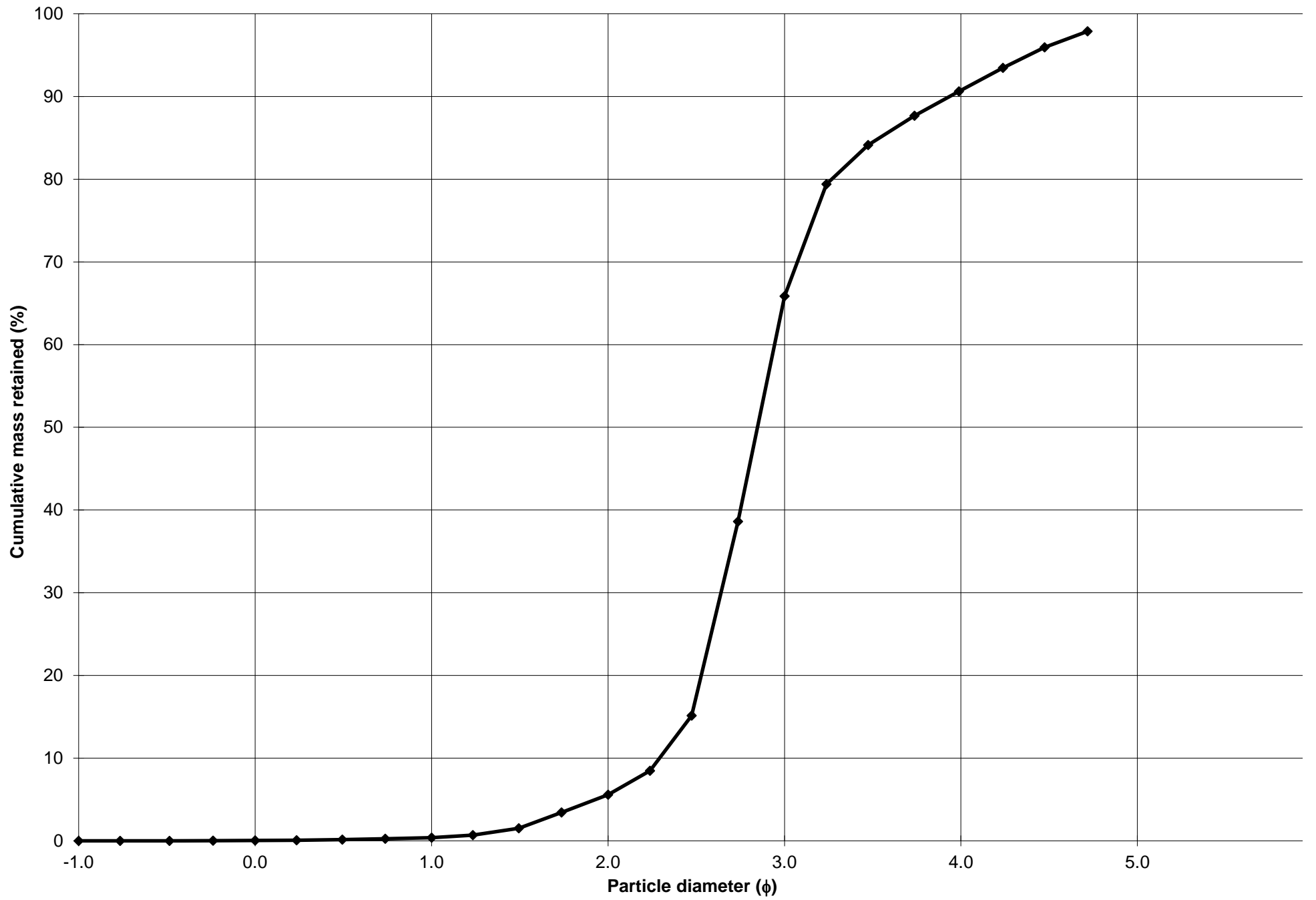
Cumulative Frequency Curve



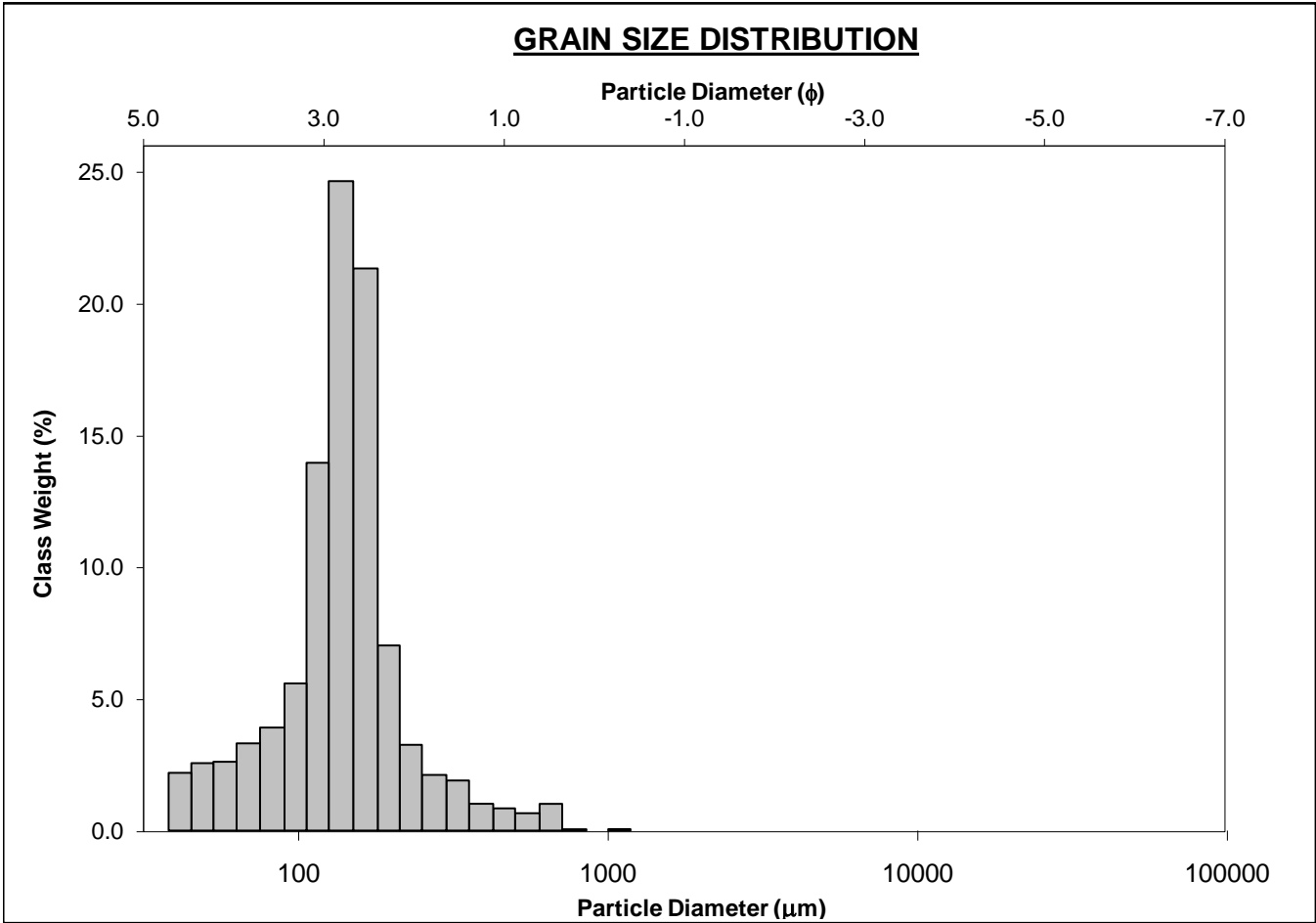
SIEVING ERROR: 2.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-260cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.3%			
MODE 2:			SAND: 90.7% MEDIUM SAND: 5.2%			
MODE 3:			MUD: 9.3% FINE SAND: 60.3%			
D ₁₀ :	65.32	2.292	V FINE SAND: 24.9%			
MEDIAN or D ₅₀ :	139.0	2.847	V COARSE GRAVEL: 0.0% V COARSE SILT: 7.3%			
D ₉₀ :	204.2	3.936	COARSE GRAVEL: 0.0% COARSE SILT: 0.4%			
(D ₉₀ / D ₁₀):	3.126	1.717	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.4%			
(D ₉₀ - D ₁₀):	138.9	1.644	FINE GRAVEL: 0.0% FINE SILT: 0.4%			
(D ₇₅ / D ₂₅):	1.491	1.223	V FINE GRAVEL: 0.0% V FINE SILT: 0.4%			
(D ₇₅ - D ₂₅):	54.88	0.576	V COARSE SAND: 0.0% CLAY: 0.4%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	144.9	125.7	2.992	131.0	2.933	Fine Sand
SORTING (σ):	72.69	1.851	0.888	1.535	0.618	Moderately Well Sorted
SKEWNESS (Sk):	3.586	-2.470	2.470	-0.257	0.257	Fine Skewed
KURTOSIS (K):	37.00	13.49	13.49	1.747	1.747	Very Leptokurtic



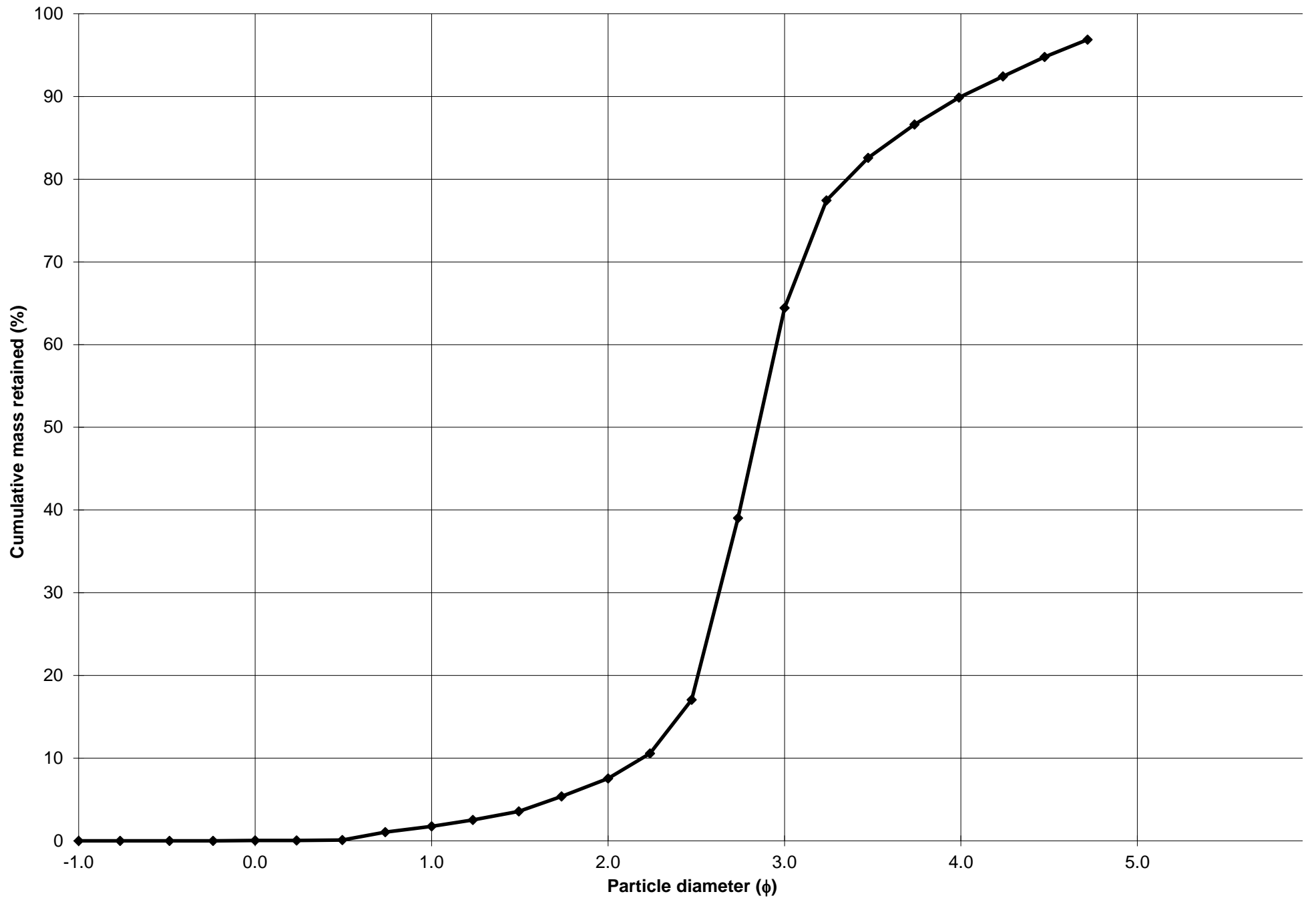
Cumulative Frequency Curve



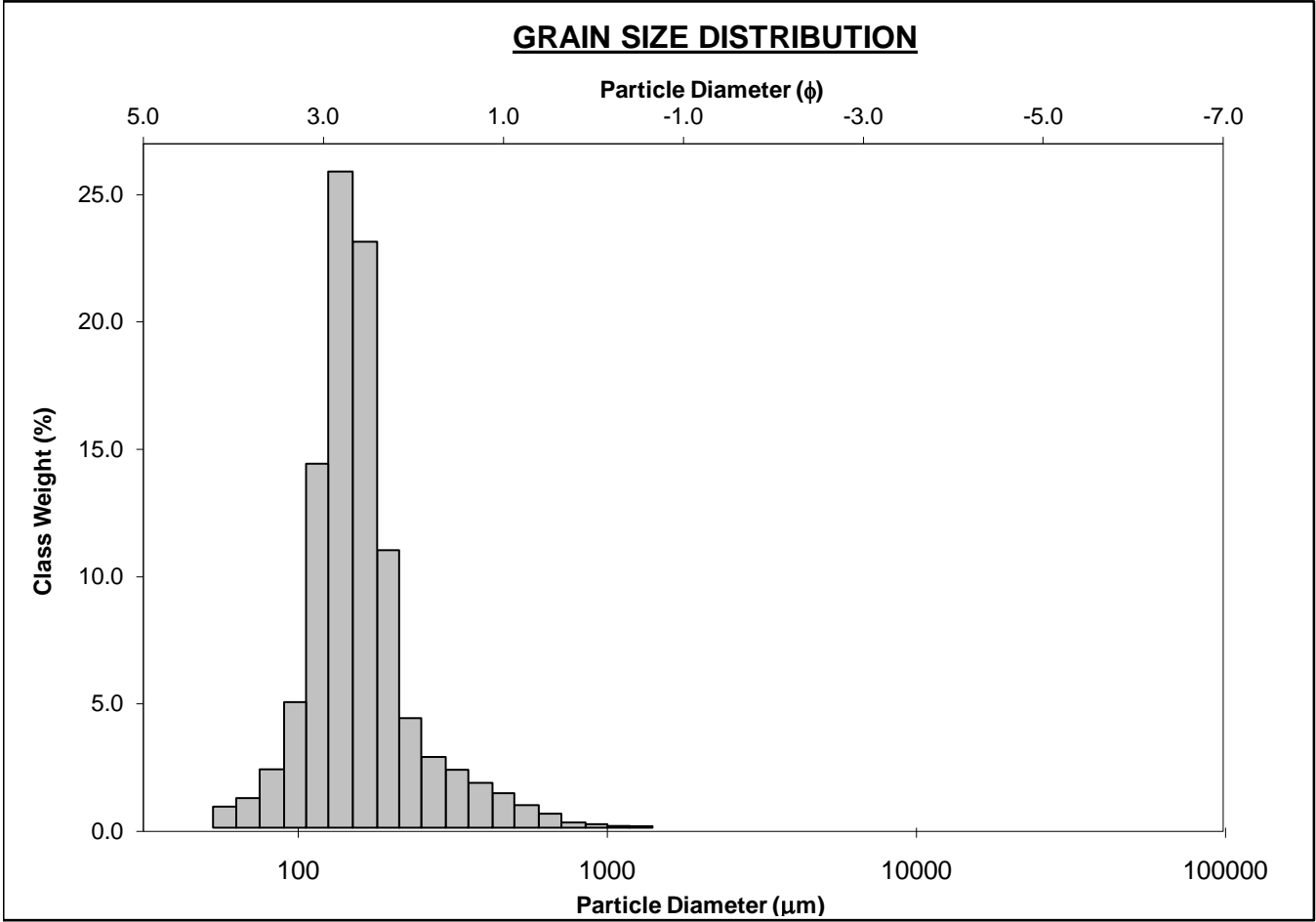
SIEVING ERROR: 1.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-270cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Muddy Sand			
SEDIMENT NAME: Very Coarse Silty Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 1.7%	
MODE 2:			SAND: 90.0%		MEDIUM SAND: 5.8%	
MODE 3:			MUD: 10.0%		FINE SAND: 56.9%	
D_{10} :	62.46	2.193			V FINE SAND: 25.6%	
MEDIAN or D_{50} :	138.6	2.851	V COARSE GRAVEL: 0.0%		V COARSE SILT: 7.1%	
D_{90} :	218.6	4.001	COARSE GRAVEL: 0.0%		COARSE SILT: 0.6%	
(D_{90} / D_{10}) :	3.500	1.824	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.6%	
$(D_{90} - D_{10})$:	156.2	1.808	FINE GRAVEL: 0.0%		FINE SILT: 0.6%	
(D_{75} / D_{25}) :	1.542	1.243	V FINE GRAVEL: 0.0%		V FINE SILT: 0.6%	
$(D_{75} - D_{25})$:	59.22	0.625	V COARSE SAND: 0.1%		CLAY: 0.6%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	151.2	124.5	3.006	129.3	2.951	Fine Sand
SORTING (σ):	93.83	2.048	1.034	1.634	0.708	Moderately Sorted
SKEWNESS (Sk):	3.094	-2.104	2.104	-0.219	0.219	Fine Skewed
KURTOSIS (K):	18.27	10.77	10.77	1.844	1.844	Very Leptokurtic



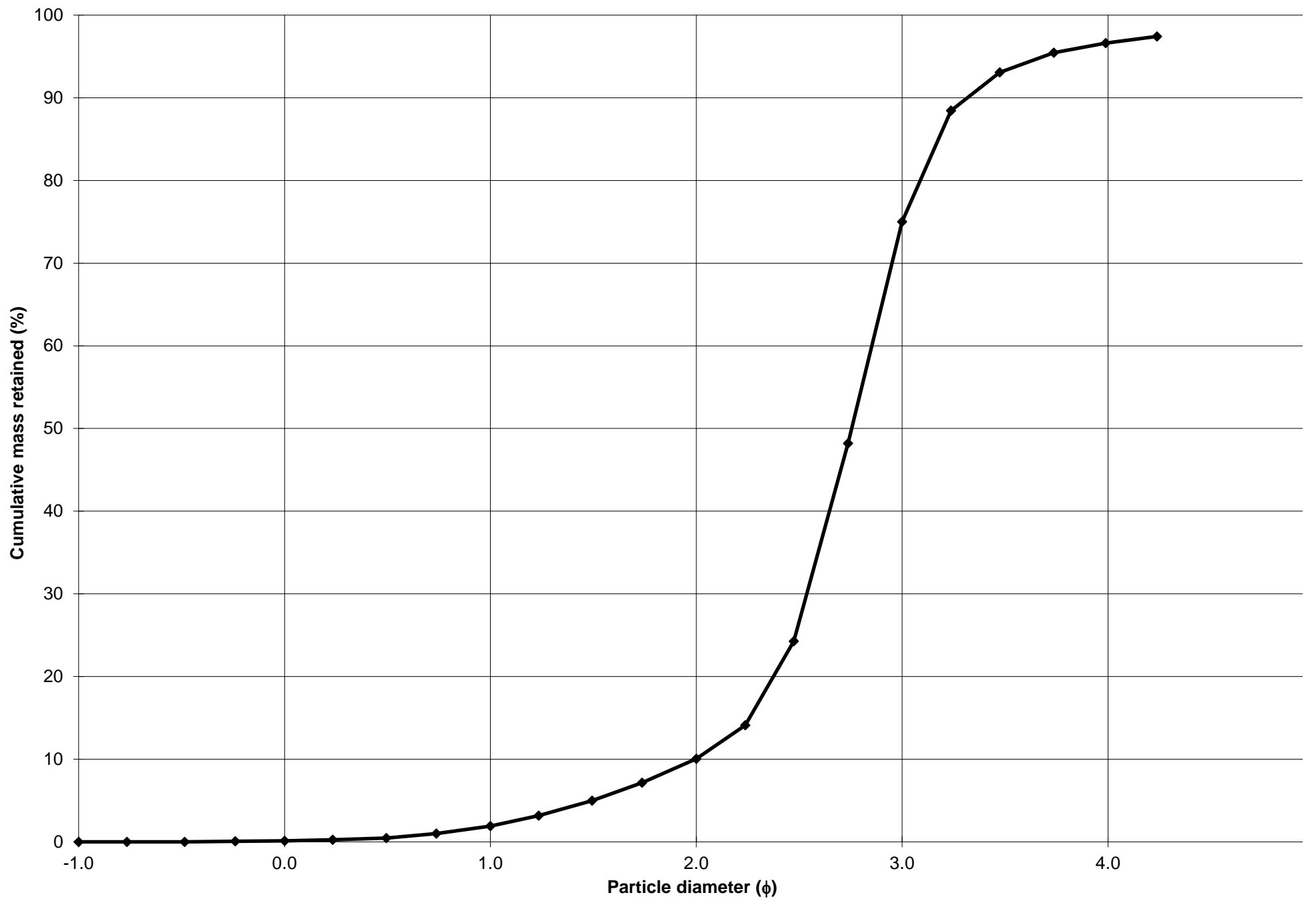
Cumulative Frequency Curve



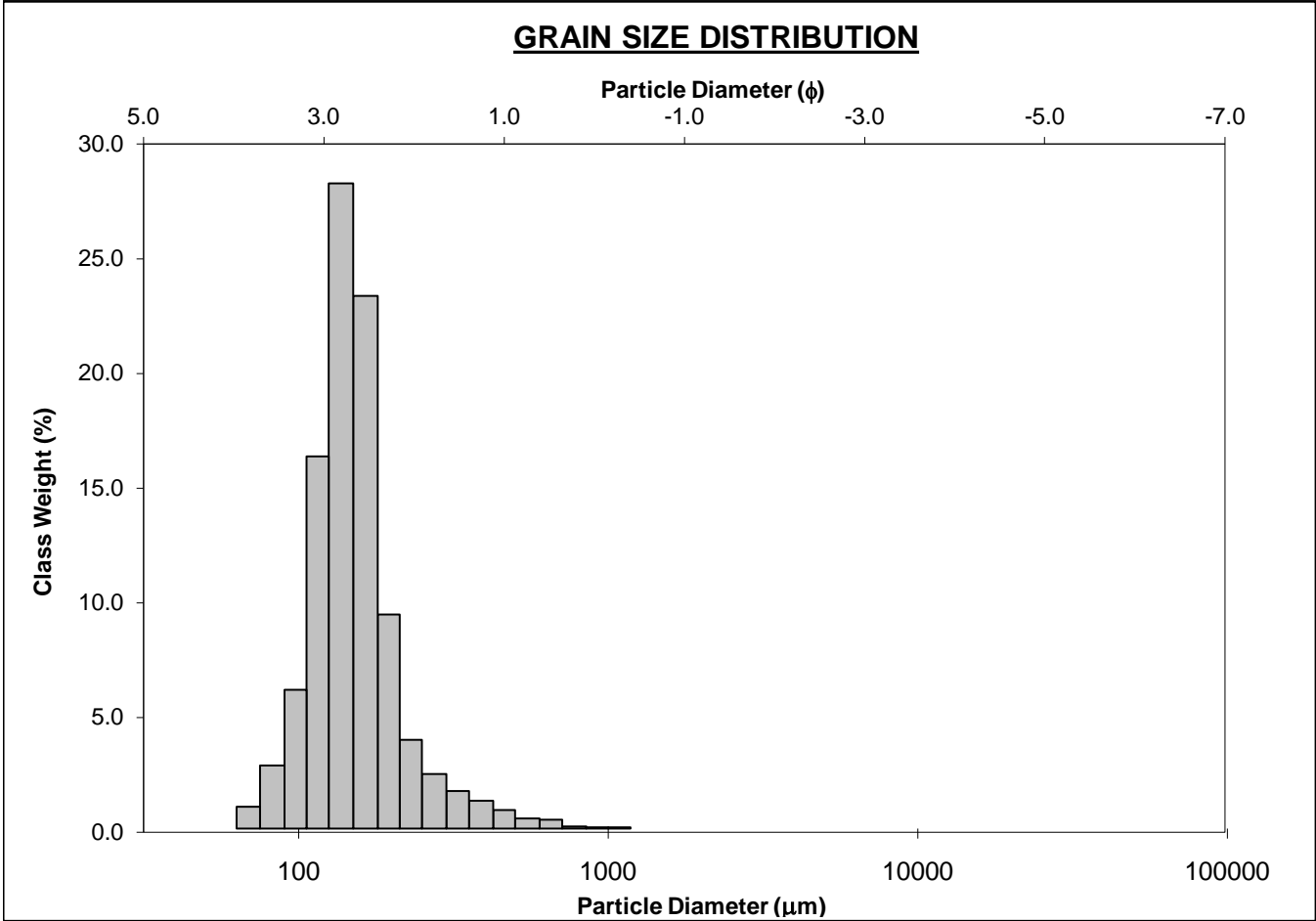
SIEVING ERROR: 1.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-280cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 1.8%	
MODE 2:			SAND: 96.6%		MEDIUM SAND: 8.1%	
MODE 3:			MUD: 3.4%		FINE SAND: 65.0%	
D ₁₀ :	100.3	1.995			V FINE SAND: 21.6%	
MEDIAN or D ₅₀ :	148.2	2.755	V COARSE GRAVEL: 0.0%		V COARSE SILT: 1.1%	
D ₉₀ :	250.9	3.317	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D ₉₀ / D ₁₀):	2.500	1.663	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
(D ₉₀ - D ₁₀):	150.5	1.322	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D ₇₅ / D ₂₅):	1.432	1.209	V FINE GRAVEL: 0.0%		V FINE SILT: 0.4%	
(D ₇₅ - D ₂₅):	54.00	0.518	V COARSE SAND: 0.1%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	170.4	145.6	2.779	150.5	2.732	Fine Sand
SORTING (σ):	101.3	1.874	0.906	1.465	0.551	Moderately Well Sorted
SKEWNESS (Sk):	3.780	-2.385	2.385	0.113	-0.113	Coarse Skewed
KURTOSIS (K):	26.04	14.69	14.69	1.734	1.734	Very Leptokurtic



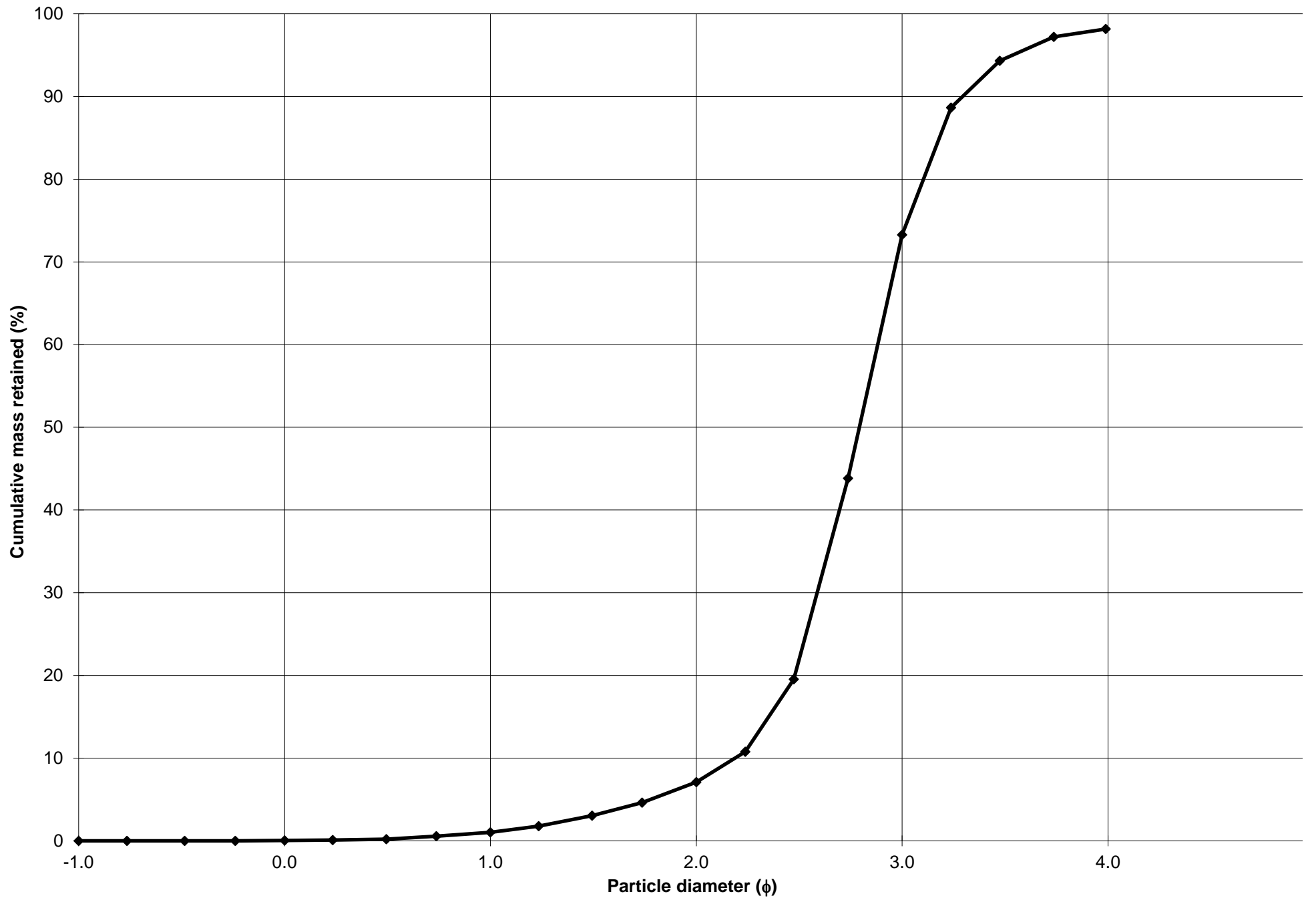
Cumulative Frequency Curve



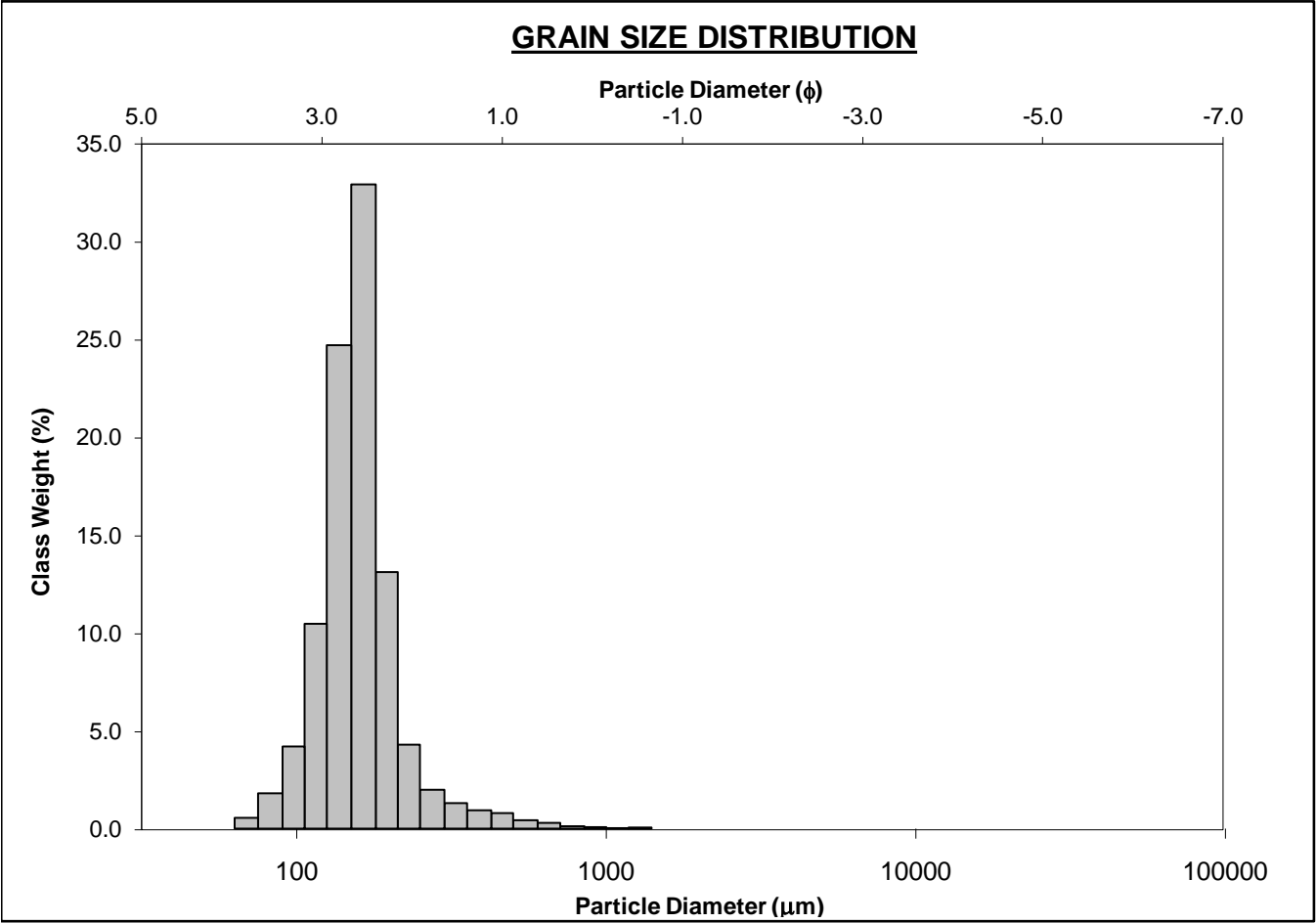
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-290cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 1.0%			
MODE 2:			SAND: 98.2% MEDIUM SAND: 6.1%			
MODE 3:			MUD: 1.8% FINE SAND: 66.2%			
D ₁₀ :	101.9	2.188	V FINE SAND: 24.9%			
MEDIAN or D ₅₀ :	144.4	2.792	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.3%			
D ₉₀ :	219.5	3.294	COARSE GRAVEL: 0.0% COARSE SILT: 0.3%			
(D ₉₀ / D ₁₀):	2.153	1.506	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.3%			
(D ₉₀ - D ₁₀):	117.6	1.107	FINE GRAVEL: 0.0% FINE SILT: 0.3%			
(D ₇₅ / D ₂₅):	1.408	1.195	V FINE GRAVEL: 0.0% V FINE SILT: 0.3%			
(D ₇₅ - D ₂₅):	50.06	0.494	V COARSE SAND: 0.1% CLAY: 0.3%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	160.3	143.0	2.805	145.7	2.779	Fine Sand
SORTING (σ):	79.89	1.689	0.756	1.379	0.463	Well Sorted
SKEWNESS (Sk):	3.904	-2.647	2.647	0.102	-0.102	Coarse Skewed
KURTOSIS (K):	28.30	18.78	18.78	1.460	1.460	Leptokurtic



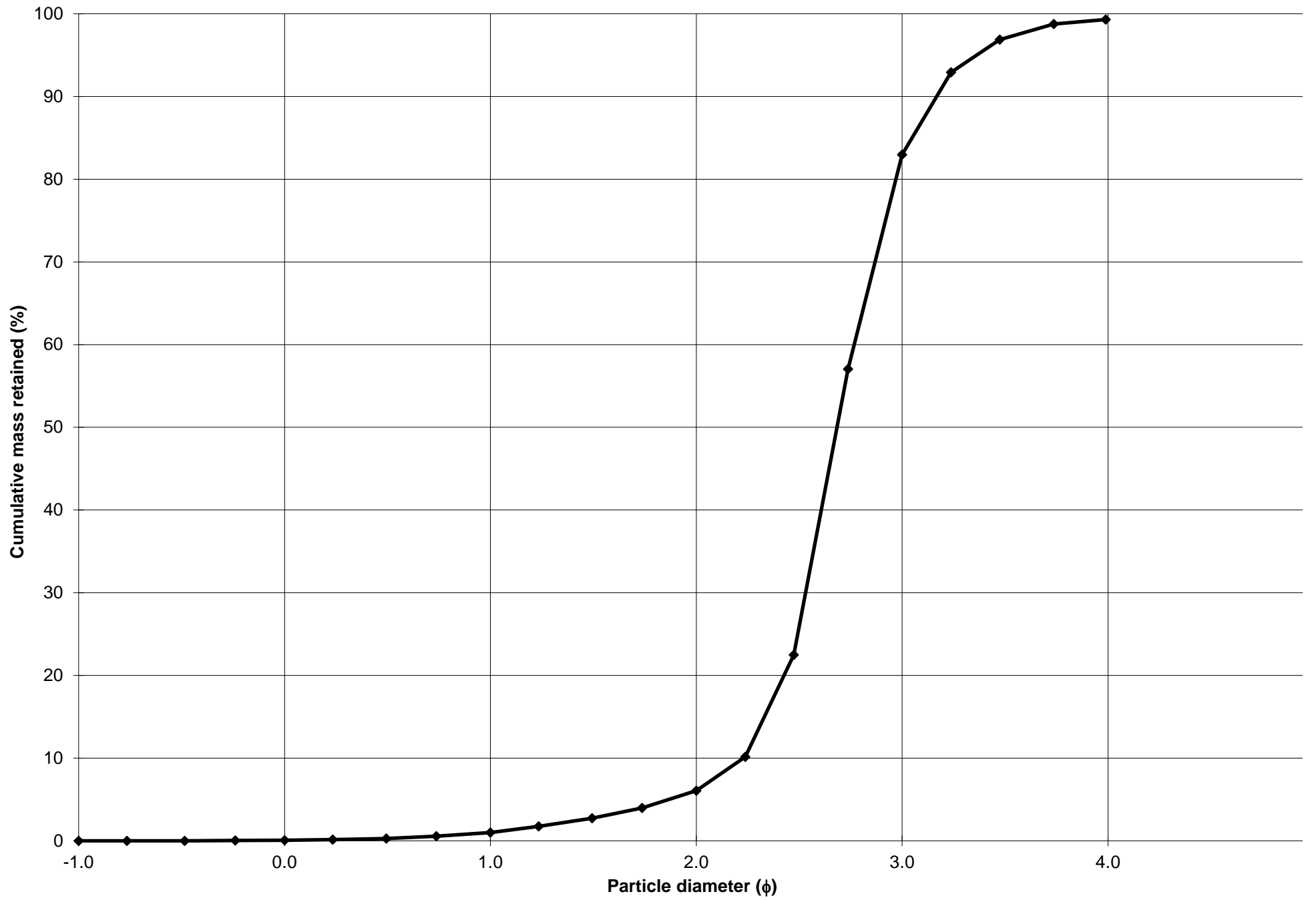
Cumulative Frequency Curve



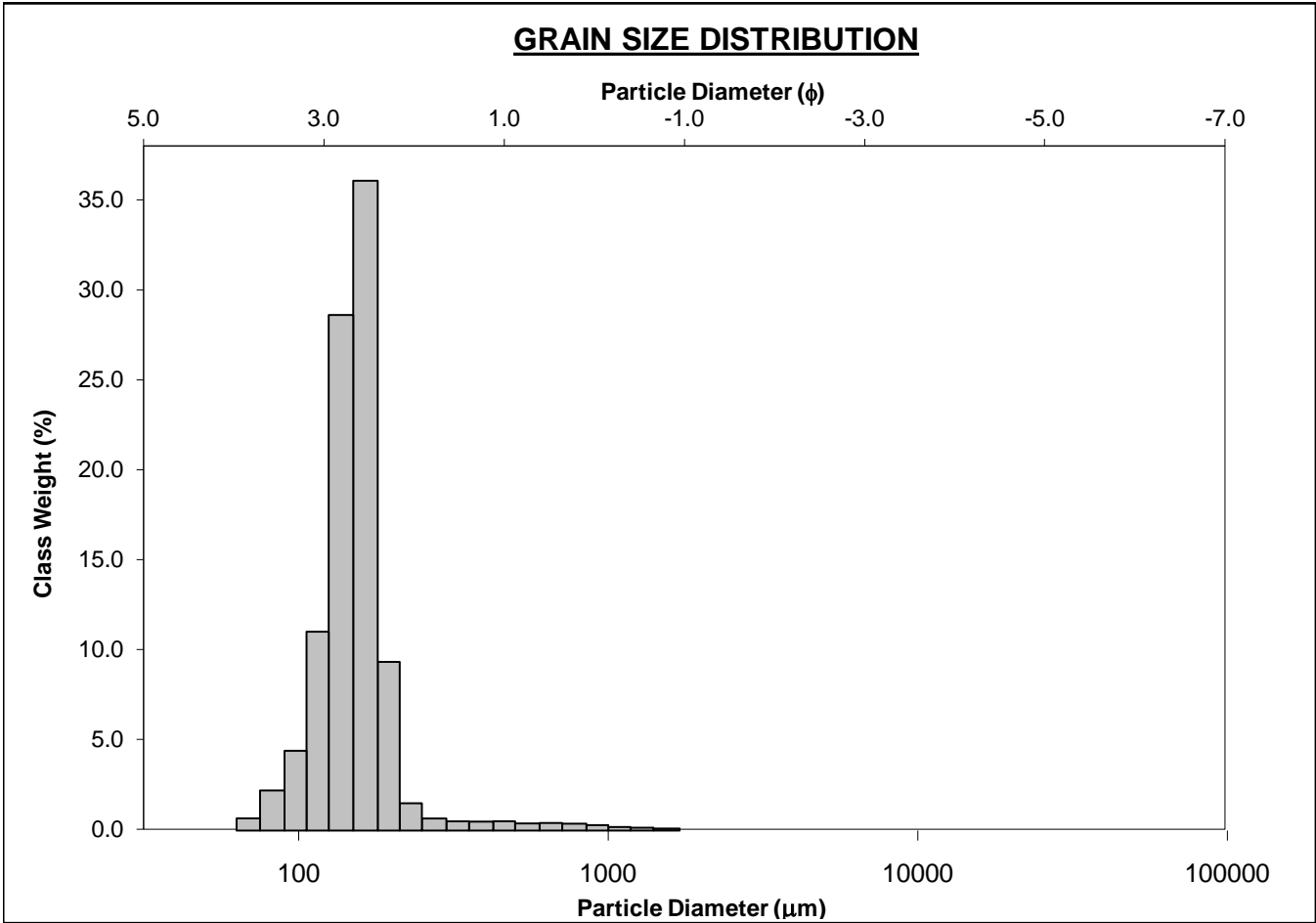
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-300cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.9%	
MODE 2:			SAND: 99.3%		MEDIUM SAND: 5.1%	
MODE 3:			MUD: 0.7%		FINE SAND: 76.9%	
D ₁₀ :	111.2	2.230			V FINE SAND: 16.3%	
MEDIAN or D ₅₀ :	155.7	2.683	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	213.2	3.168	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	1.917	1.421	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	102.0	0.939	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.344	1.171	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	45.42	0.426	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	167.8	155.1	2.689	155.4	2.686	Fine Sand
SORTING (σ):	77.97	1.494	0.579	1.316	0.396	Well Sorted
SKEWNESS (Sk):	5.192	-2.094	2.094	0.041	-0.041	Symmetrical
KURTOSIS (K):	49.00	24.54	24.54	1.441	1.441	Leptokurtic



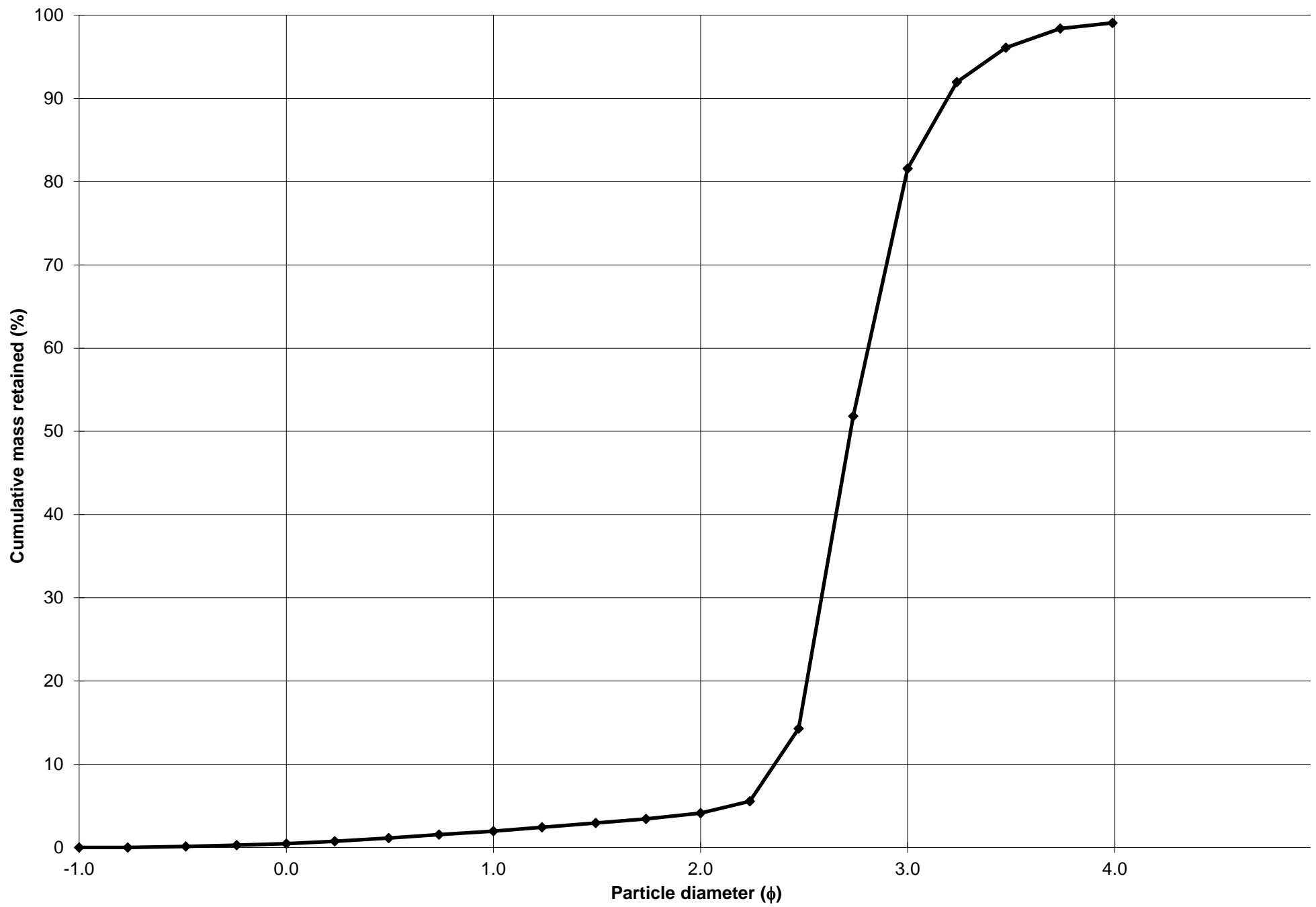
Cumulative Frequency Curve



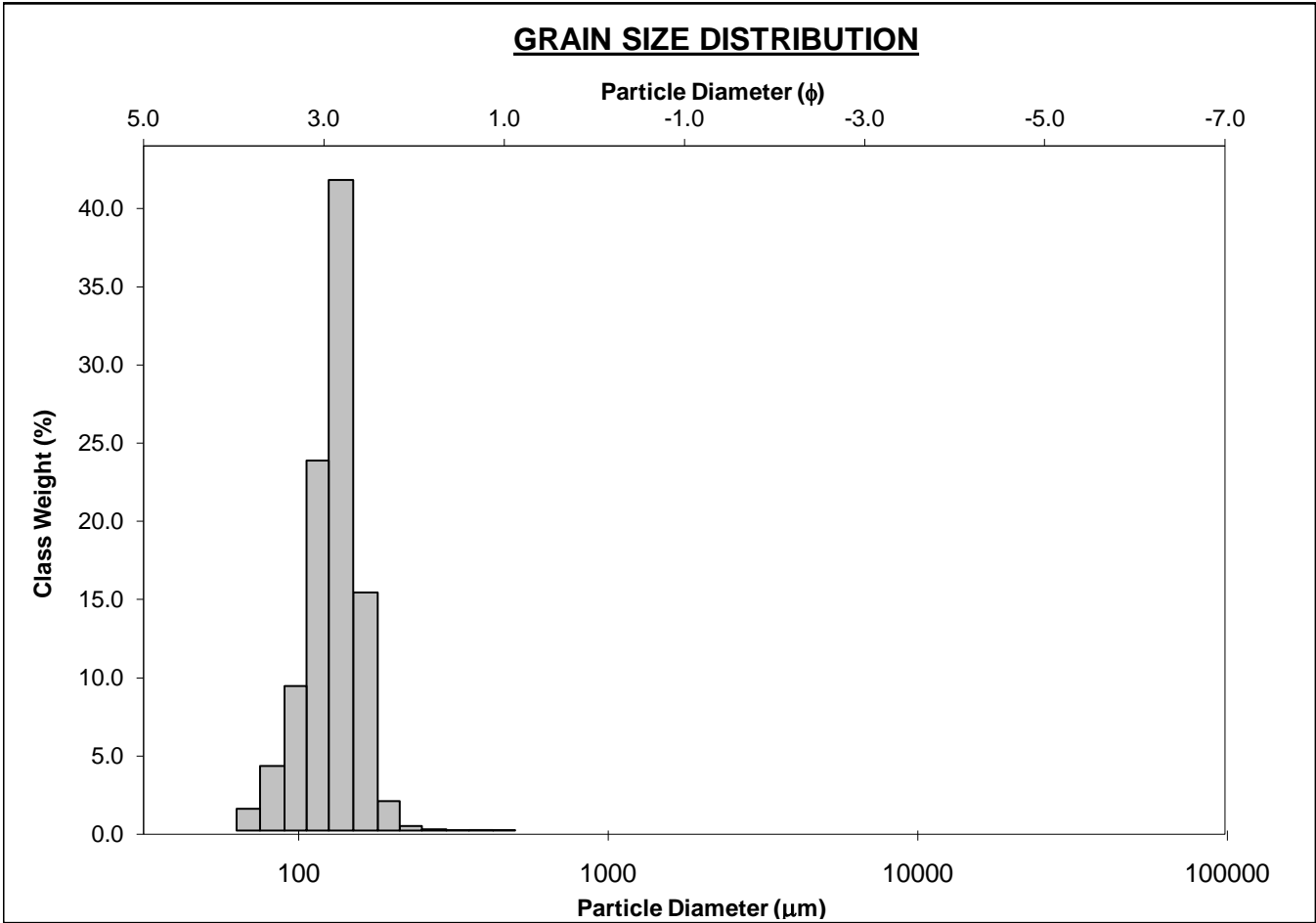
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-310cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 1.5%			
MODE 2:			SAND: 99.1% MEDIUM SAND: 2.2%			
MODE 3:			MUD: 0.9% FINE SAND: 77.4%			
D ₁₀ :	109.3	2.358	V FINE SAND: 17.5%			
MEDIAN or D ₅₀ :	151.3	2.724	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.2%			
D ₉₀ :	195.1	3.193	COARSE GRAVEL: 0.0% COARSE SILT: 0.2%			
(D ₉₀ / D ₁₀):	1.784	1.354	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.2%			
(D ₉₀ - D ₁₀):	85.73	0.835	FINE GRAVEL: 0.0% FINE SILT: 0.2%			
(D ₇₅ / D ₂₅):	1.313	1.154	V FINE GRAVEL: 0.0% V FINE SILT: 0.2%			
(D ₇₅ - D ₂₅):	40.74	0.393	V COARSE SAND: 0.5% CLAY: 0.2%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	166.2	149.4	2.743	148.1	2.755	Fine Sand
SORTING (σ):	112.8	1.555	0.637	1.261	0.334	Very Well Sorted
SKEWNESS (Sk):	6.935	-1.491	1.491	-0.124	0.124	Fine Skewed
KURTOSIS (K):	63.43	23.92	23.92	1.321	1.321	Leptokurtic



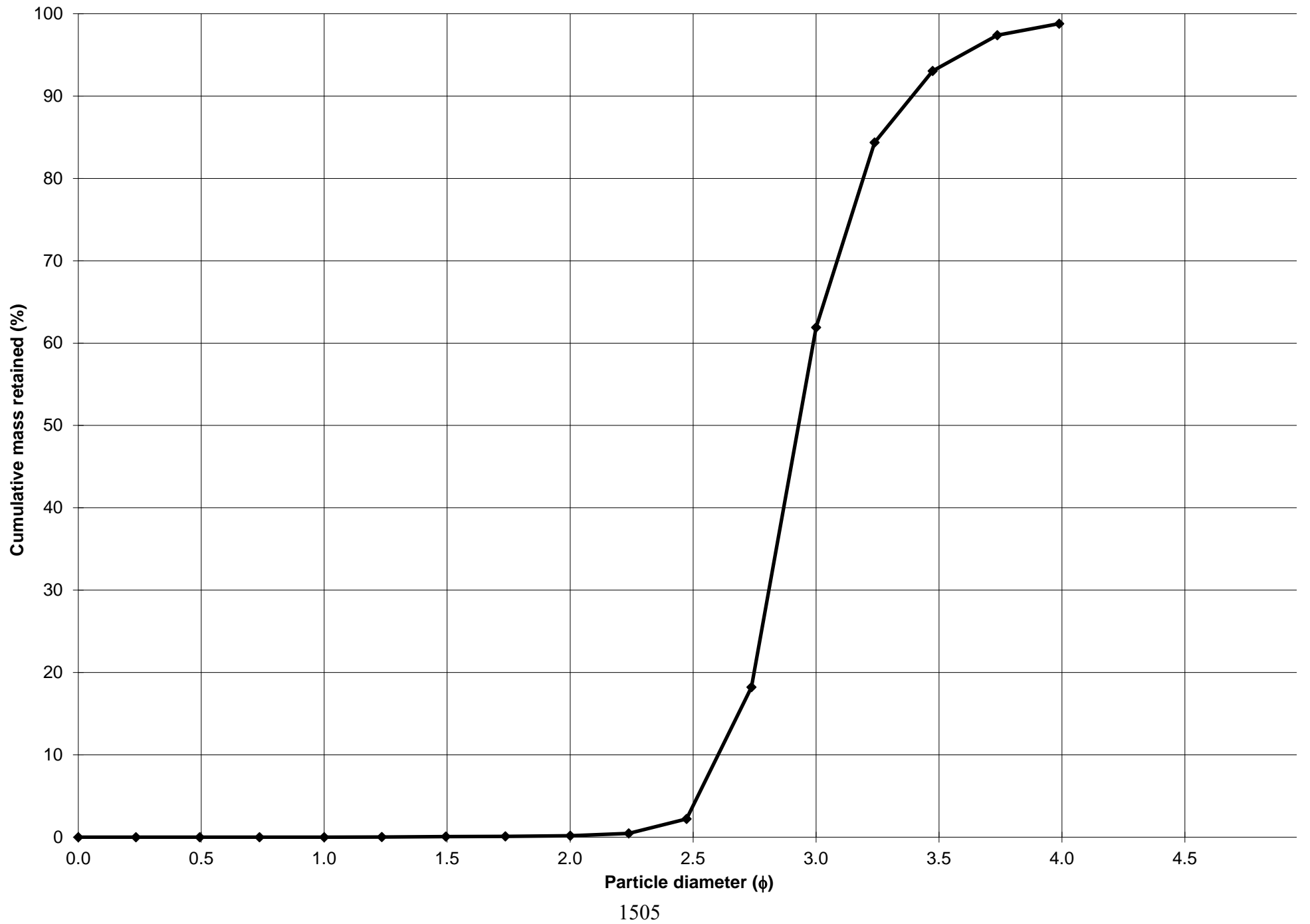
Cumulative Frequency Curve



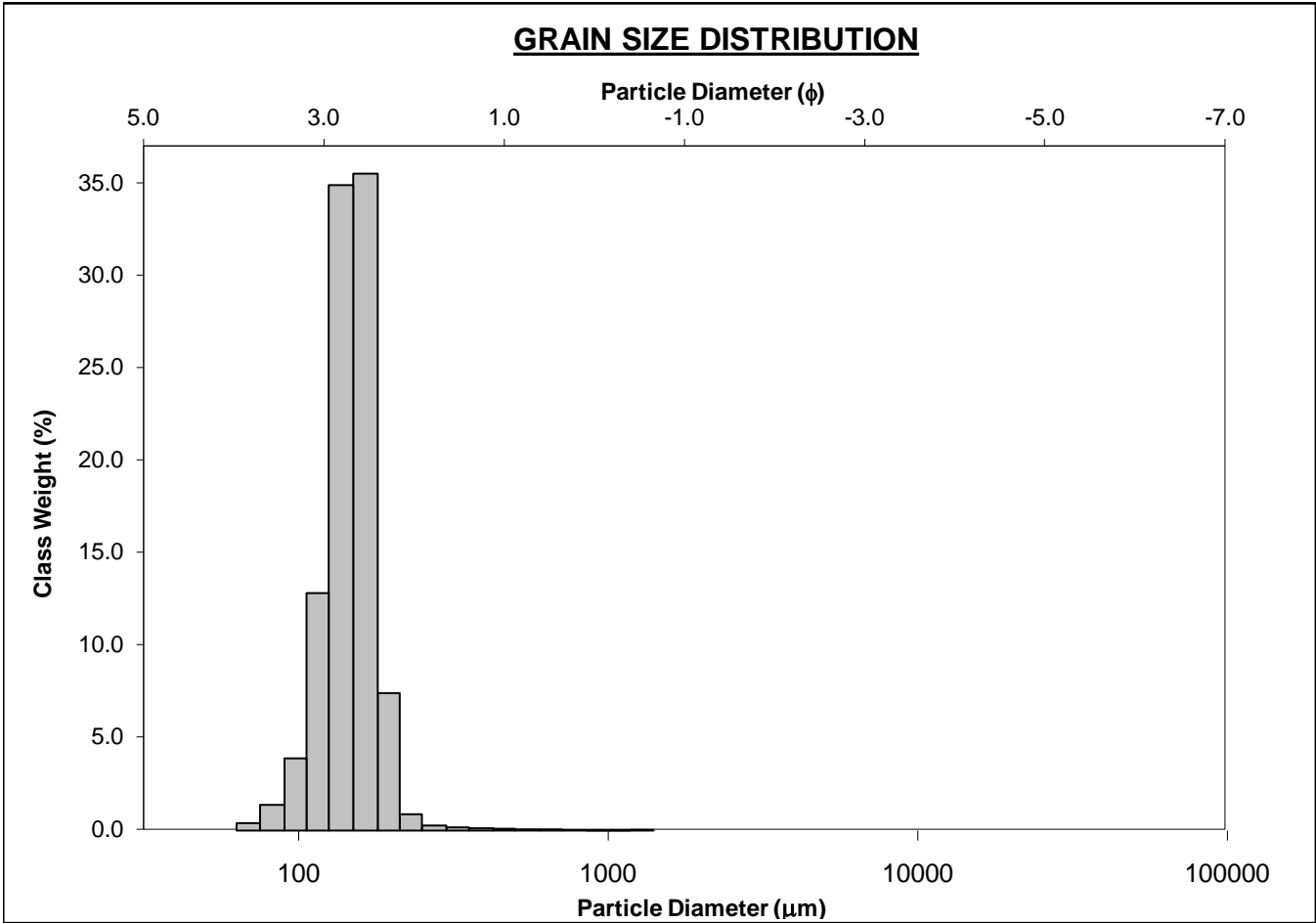
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-320cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 0.0%	
MODE 2:			SAND: 98.8%		MEDIUM SAND: 0.2%	
MODE 3:			MUD: 1.2%		FINE SAND: 61.7%	
D_{10} :	95.32	2.602			V FINE SAND: 36.9%	
MEDIAN or D_{50} :	131.4	2.928	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D_{90} :	164.7	3.391	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D_{90} / D_{10}) :	1.728	1.303	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
$(D_{90} - D_{10})$:	69.41	0.789	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D_{75} / D_{25}) :	1.284	1.130	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
$(D_{75} - D_{25})$:	32.28	0.361	V COARSE SAND: 0.0%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	130.5	124.4	3.007	129.0	2.954	Fine Sand
SORTING (σ):	28.50	1.442	0.528	1.228	0.296	Very Well Sorted
SKEWNESS (Sk):	0.535	-5.190	5.190	-0.192	0.192	Fine Skewed
KURTOSIS (K):	12.69	39.72	39.72	1.217	1.217	Leptokurtic



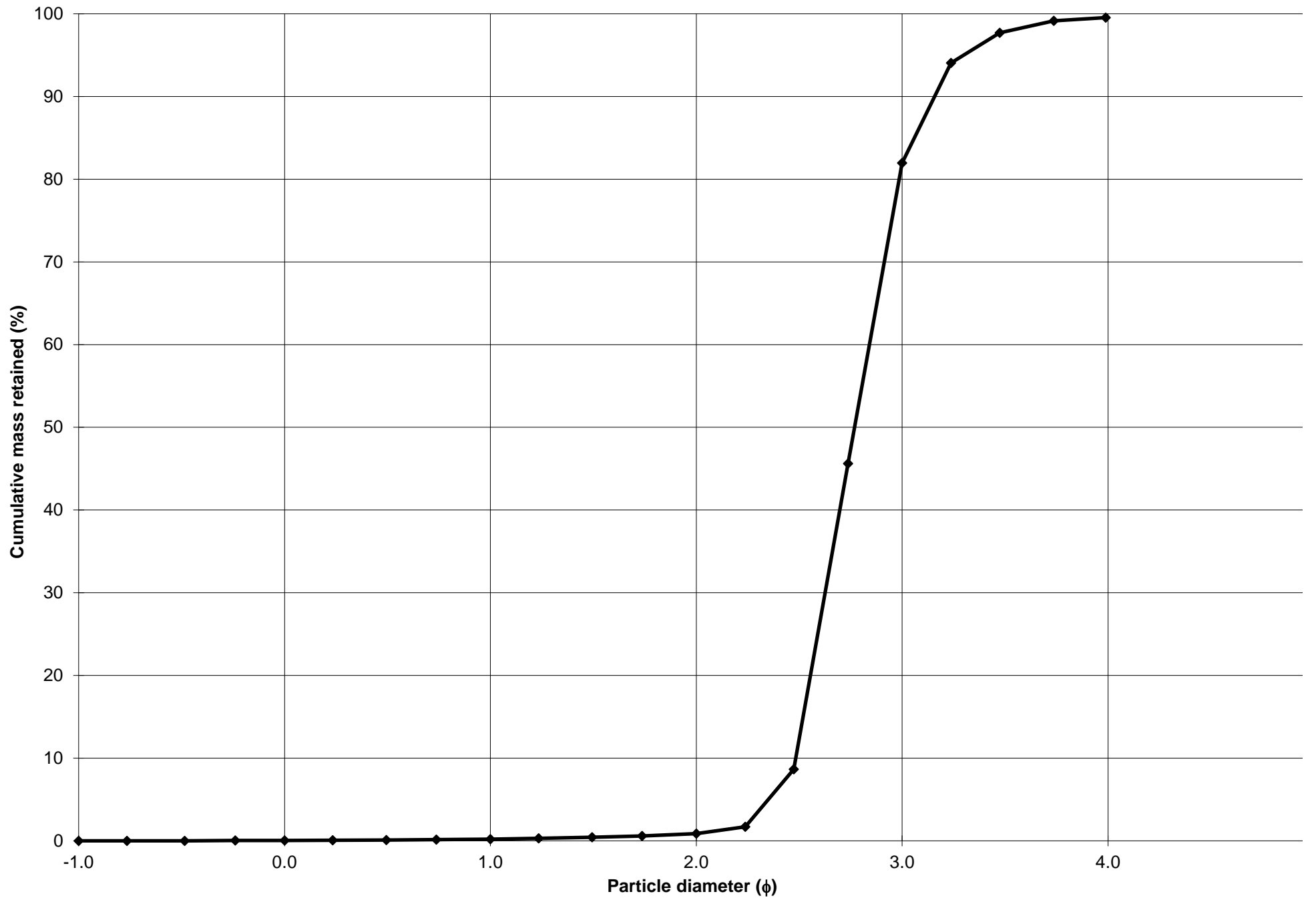
Cumulative Frequency Curve



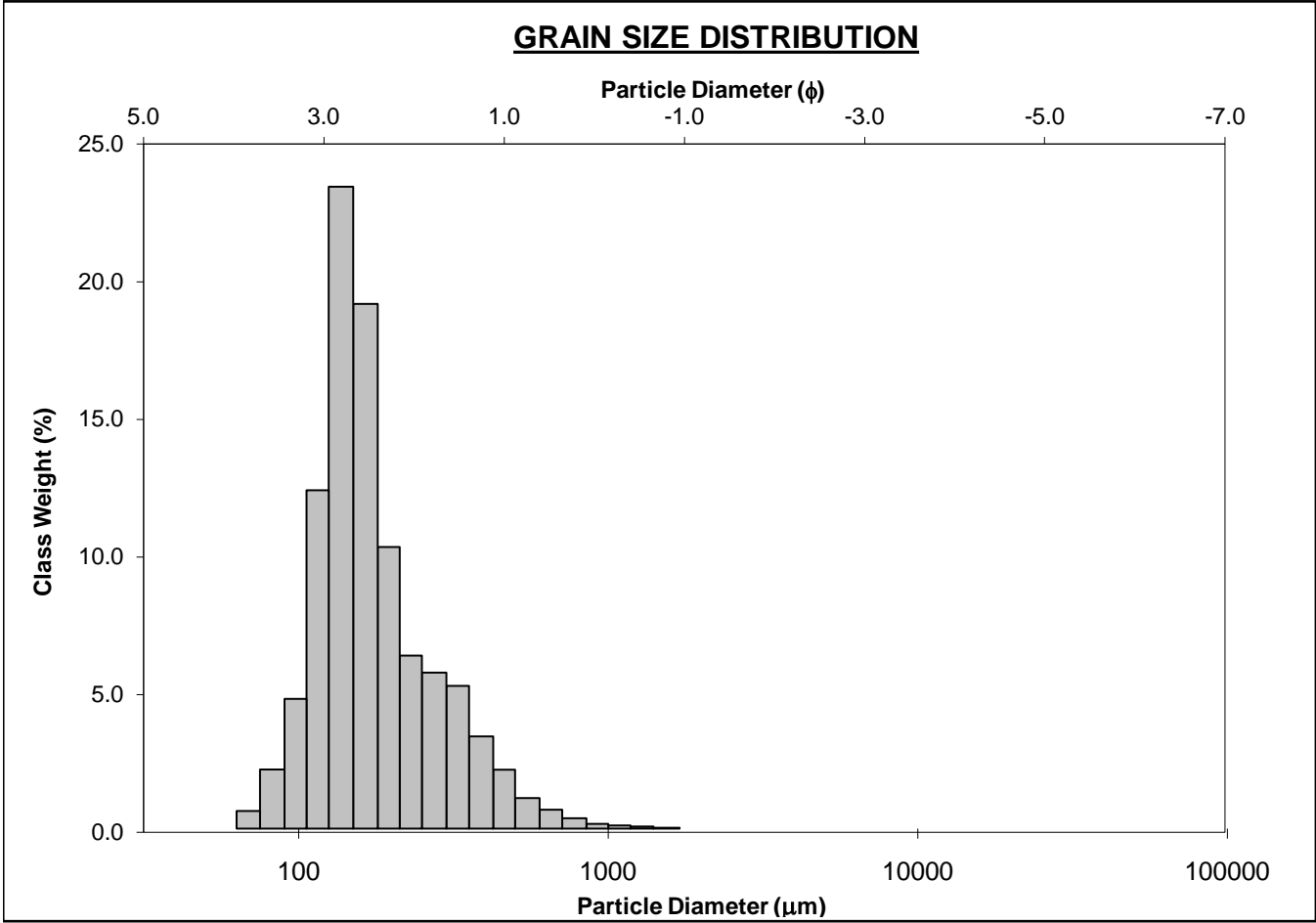
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-330cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.2%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 0.7%	
MODE 3:			MUD: 0.5%		FINE SAND: 81.1%	
D ₁₀ :	112.0	2.484			V FINE SAND: 17.6%	
MEDIAN or D ₅₀ :	146.7	2.769	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	178.8	3.158	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	1.596	1.272	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	66.79	0.675	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.283	1.139	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	36.62	0.359	V COARSE SAND: 0.0%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	149.5	143.8	2.798	145.8	2.778	Fine Sand
SORTING (σ):	44.73	1.335	0.417	1.208	0.272	Very Well Sorted
SKEWNESS (Sk):	10.39	-4.255	4.255	-0.087	0.087	Symmetrical
KURTOSIS (K):	218.4	51.29	51.29	1.083	1.083	Mesokurtic



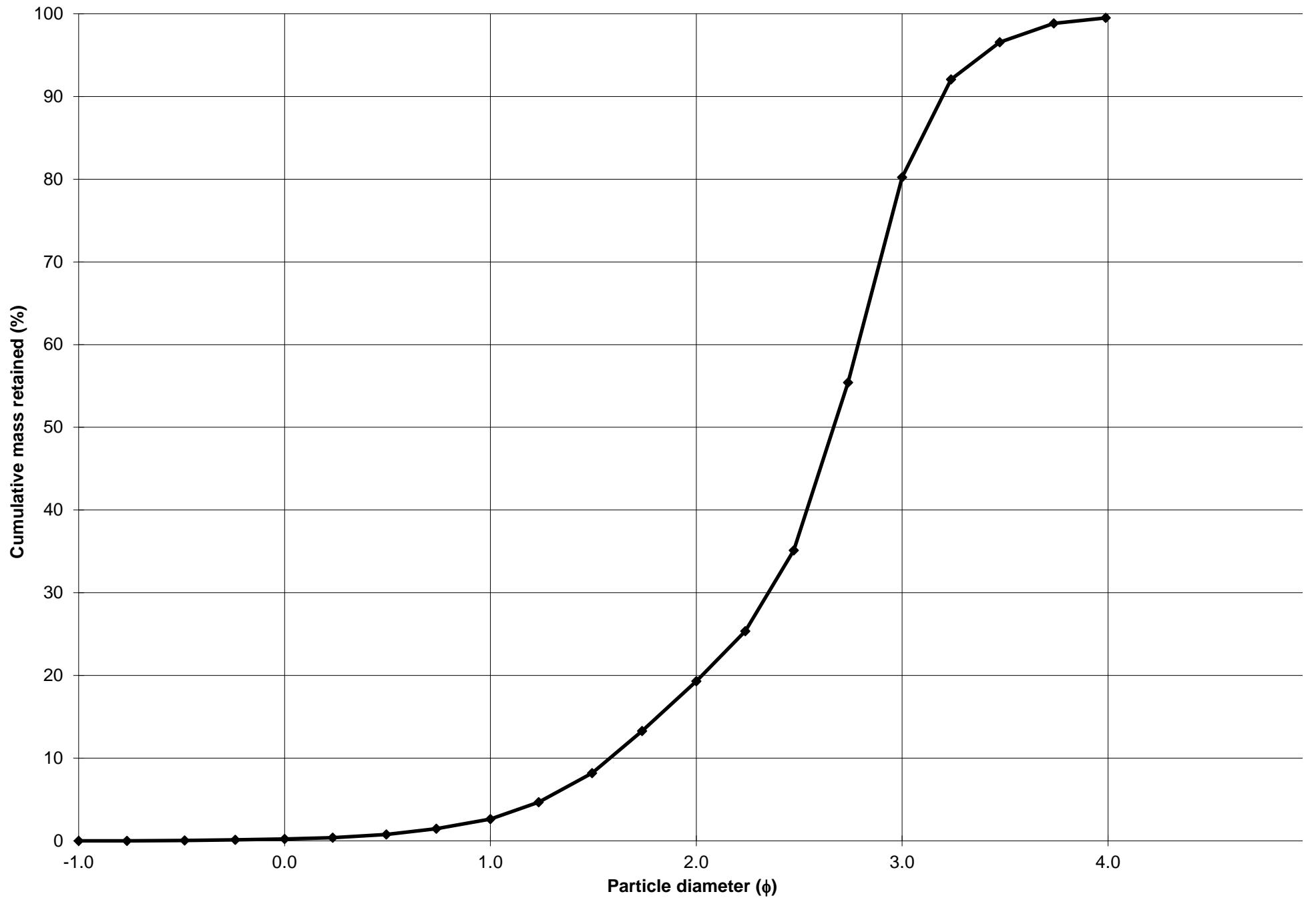
Cumulative Frequency Curve



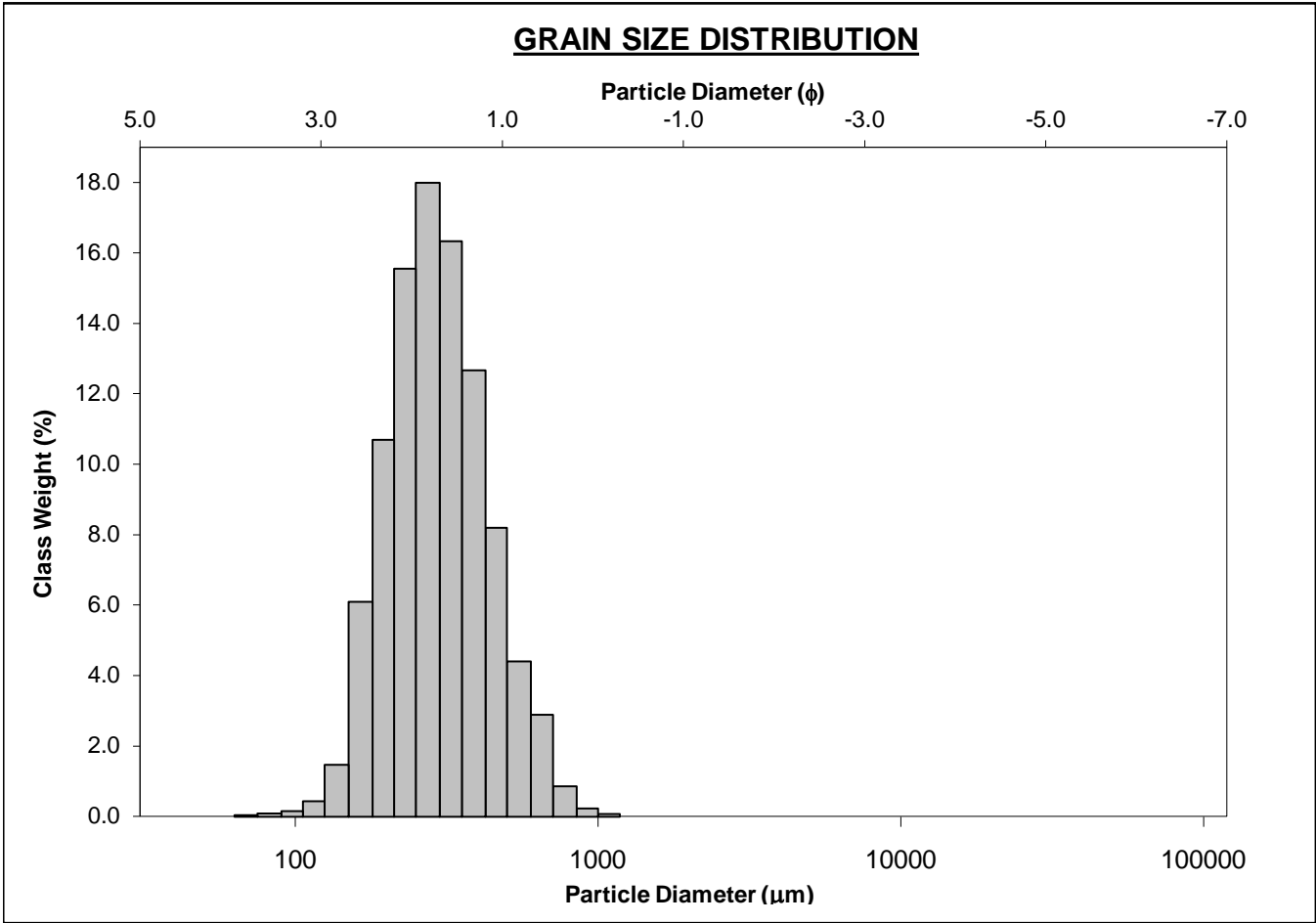
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-05-338cm			ANALYST & DATE: Chris, 6/24/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 2.4%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 16.7%	
MODE 3:			MUD: 0.5%		FINE SAND: 60.9%	
D ₁₀ :	109.1	1.581			V FINE SAND: 19.3%	
MEDIAN or D ₅₀ :	157.5	2.667	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	334.3	3.196	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.065	2.022	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	225.2	1.616	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.648	1.324	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	84.18	0.721	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	195.9	171.7	2.542	172.8	2.533	Fine Sand
SORTING (σ):	120.1	1.642	0.716	1.546	0.628	Moderately Well Sorted
SKEWNESS (Sk):	3.354	-0.383	0.383	0.325	-0.325	Very Coarse Skewed
KURTOSIS (K):	21.94	10.40	10.40	1.213	1.213	Leptokurtic



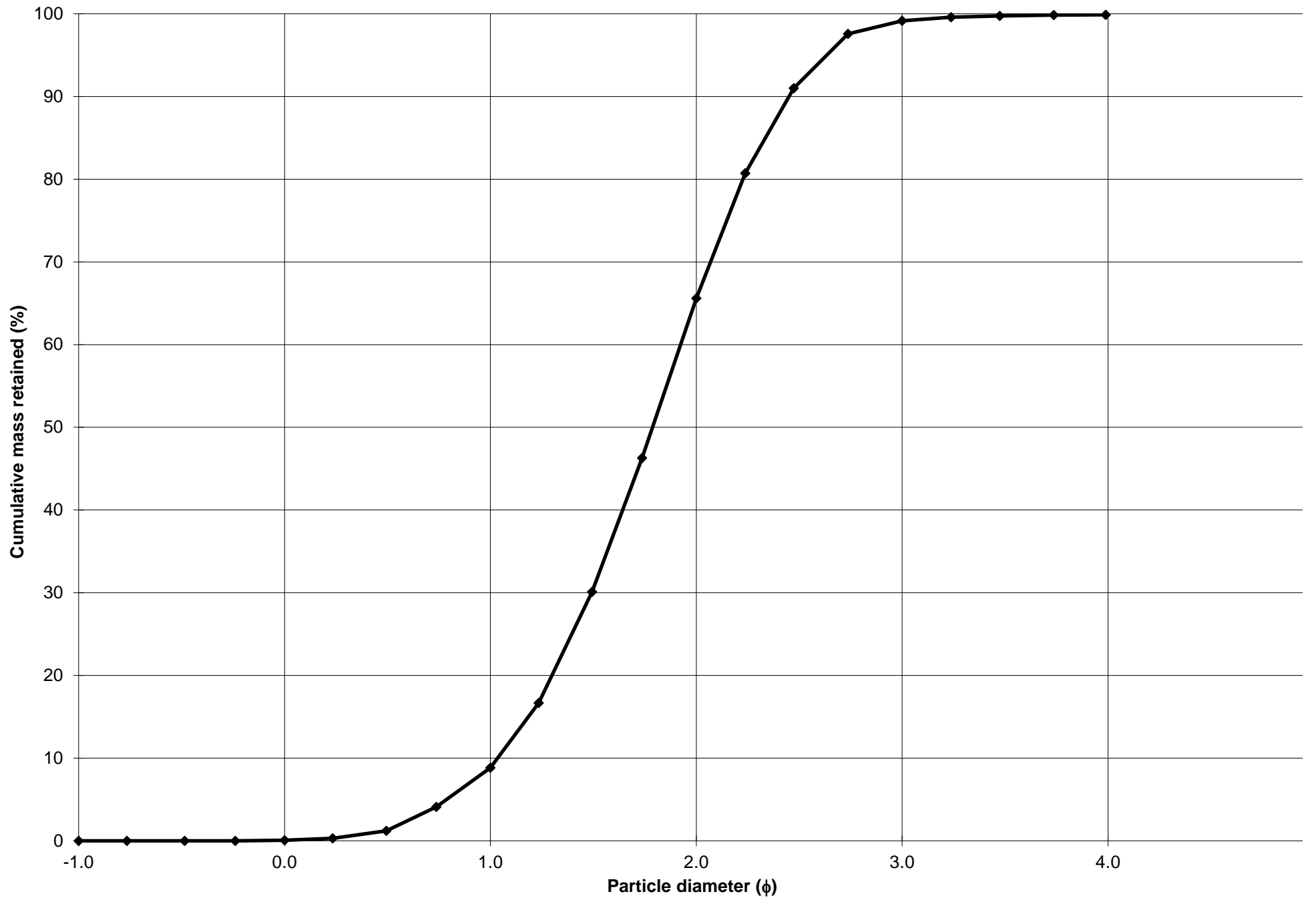
Cumulative Frequency Curve



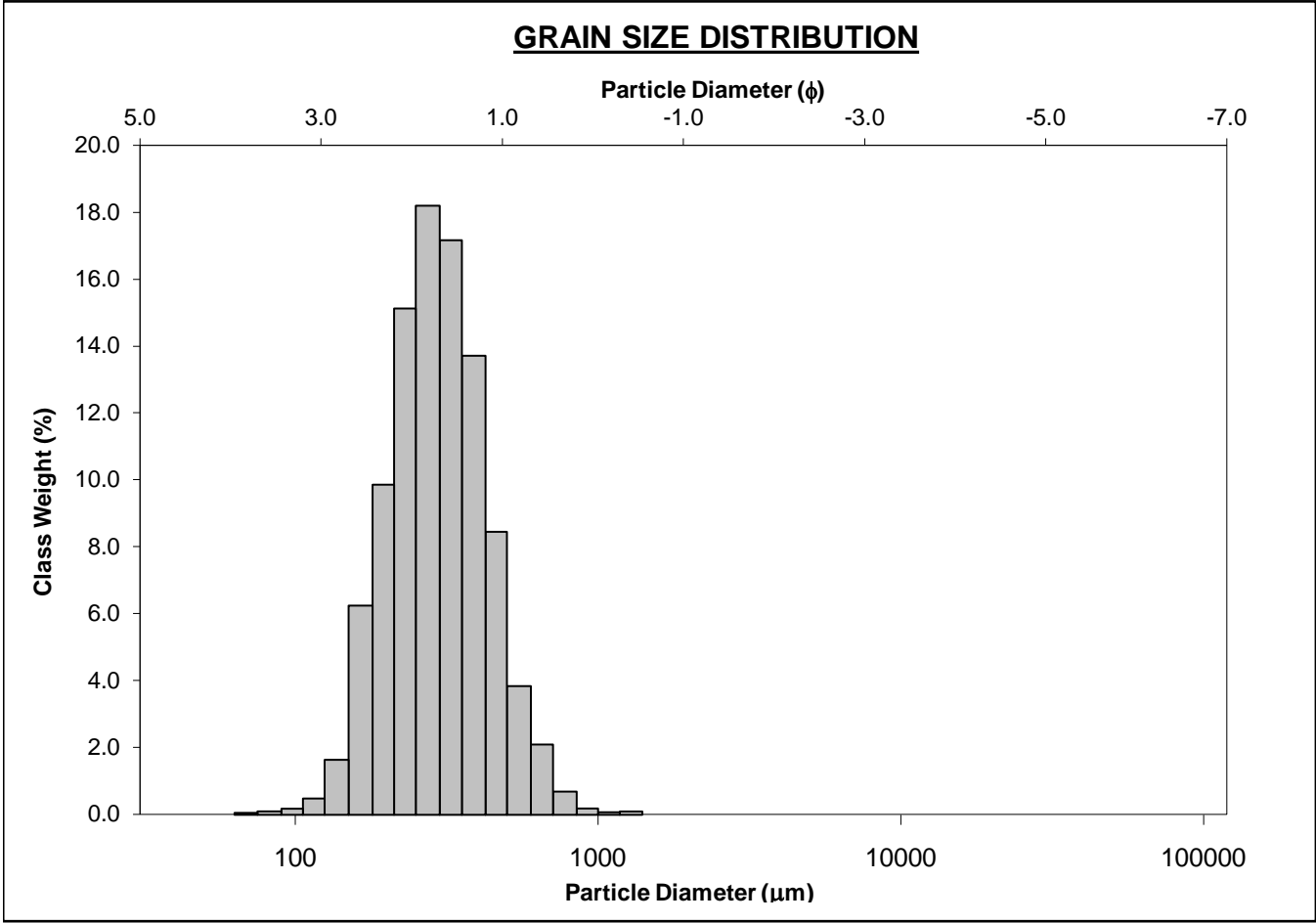
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-06-20cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 8.7%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 56.8%	
MODE 3:			MUD: 0.1%		FINE SAND: 33.5%	
D ₁₀ :	182.9	1.035			V FINE SAND: 0.7%	
MEDIAN or D ₅₀ :	289.7	1.787	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	488.0	2.451	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.668	2.368	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	305.1	1.416	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.685	1.539	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	154.5	0.752	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	318.6	293.8	1.767	292.9	1.772	Medium Sand
SORTING (σ):	130.1	1.492	0.577	1.469	0.554	Moderately Well Sorted
SKEWNESS (Sk):	1.354	-0.704	0.704	0.063	-0.063	Symmetrical
KURTOSIS (K):	5.747	10.49	10.49	1.006	1.006	Mesokurtic



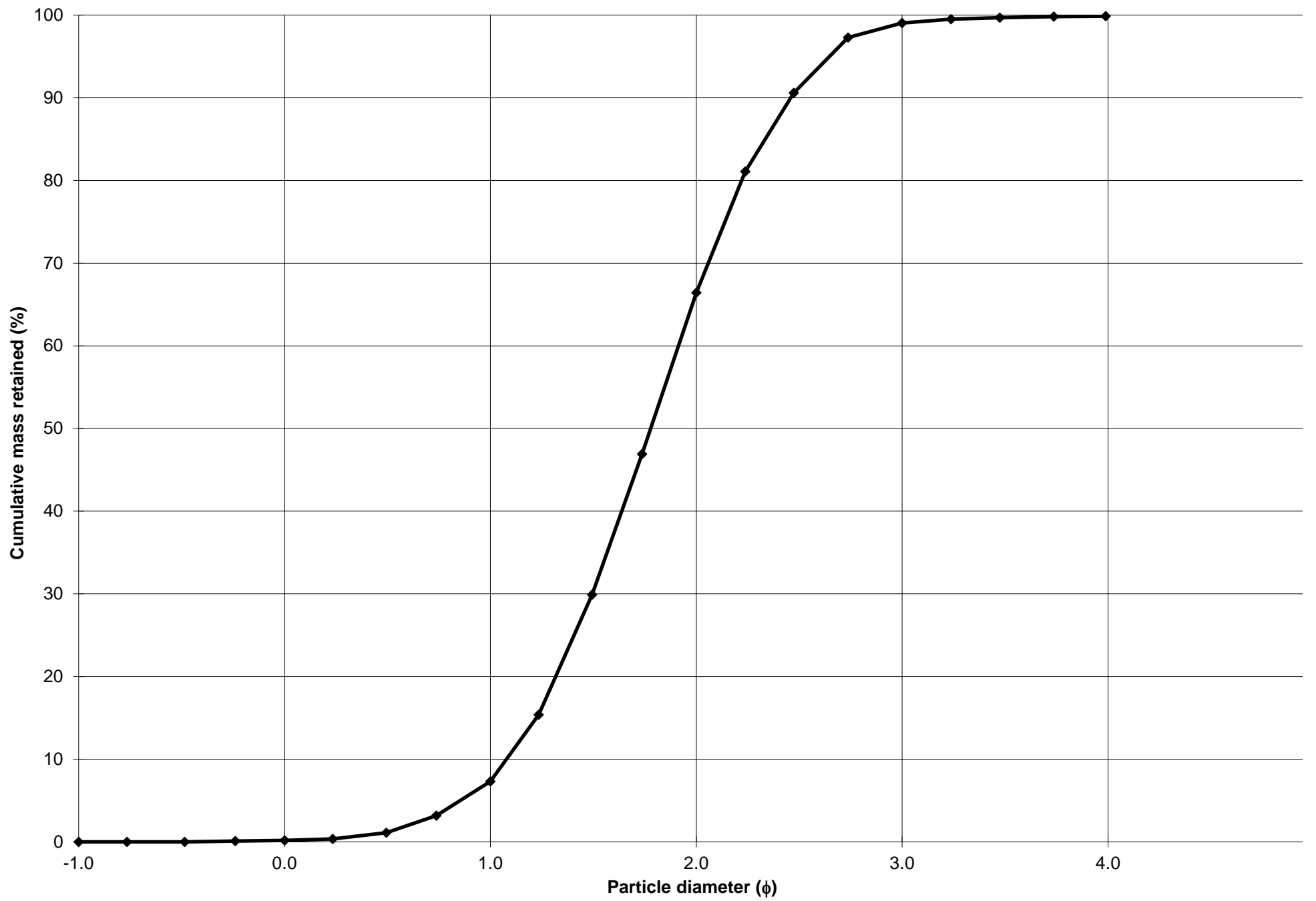
Cumulative Frequency Curve



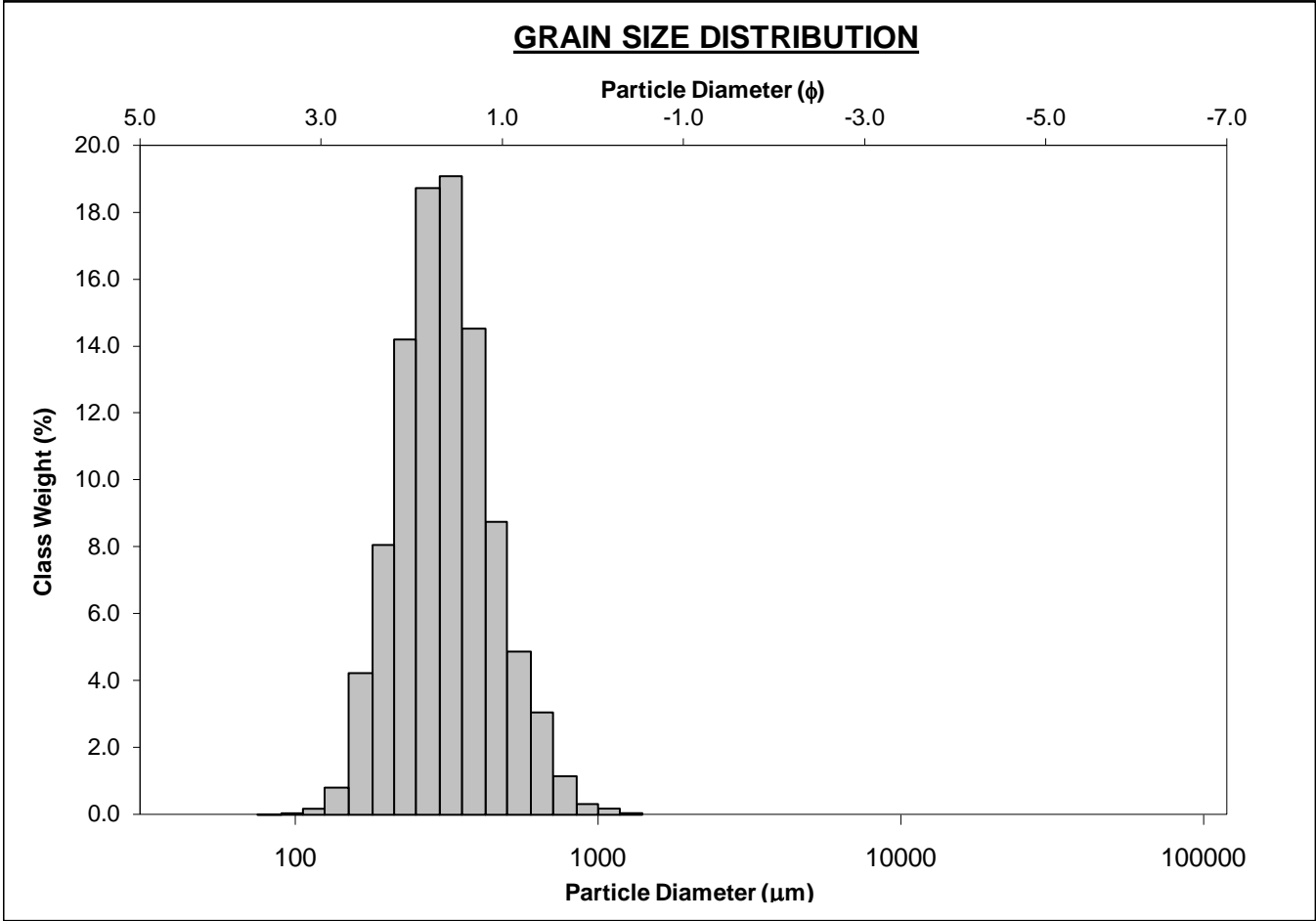
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-06-30cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 7.1%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 59.1%	
MODE 3:			MUD: 0.1%		FINE SAND: 32.6%	
D ₁₀ :	181.8	1.078			V FINE SAND: 0.8%	
MEDIAN or D ₅₀ :	291.4	1.779	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	473.6	2.459	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.605	2.281	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	291.7	1.381	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.662	1.521	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	150.2	0.733	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	316.1	292.3	1.775	291.6	1.778	Medium Sand
SORTING (σ):	127.2	1.485	0.571	1.452	0.538	Moderately Well Sorted
SKEWNESS (Sk):	1.634	-0.874	0.874	0.017	-0.017	Symmetrical
KURTOSIS (K):	8.827	11.77	11.77	1.003	1.003	Mesokurtic



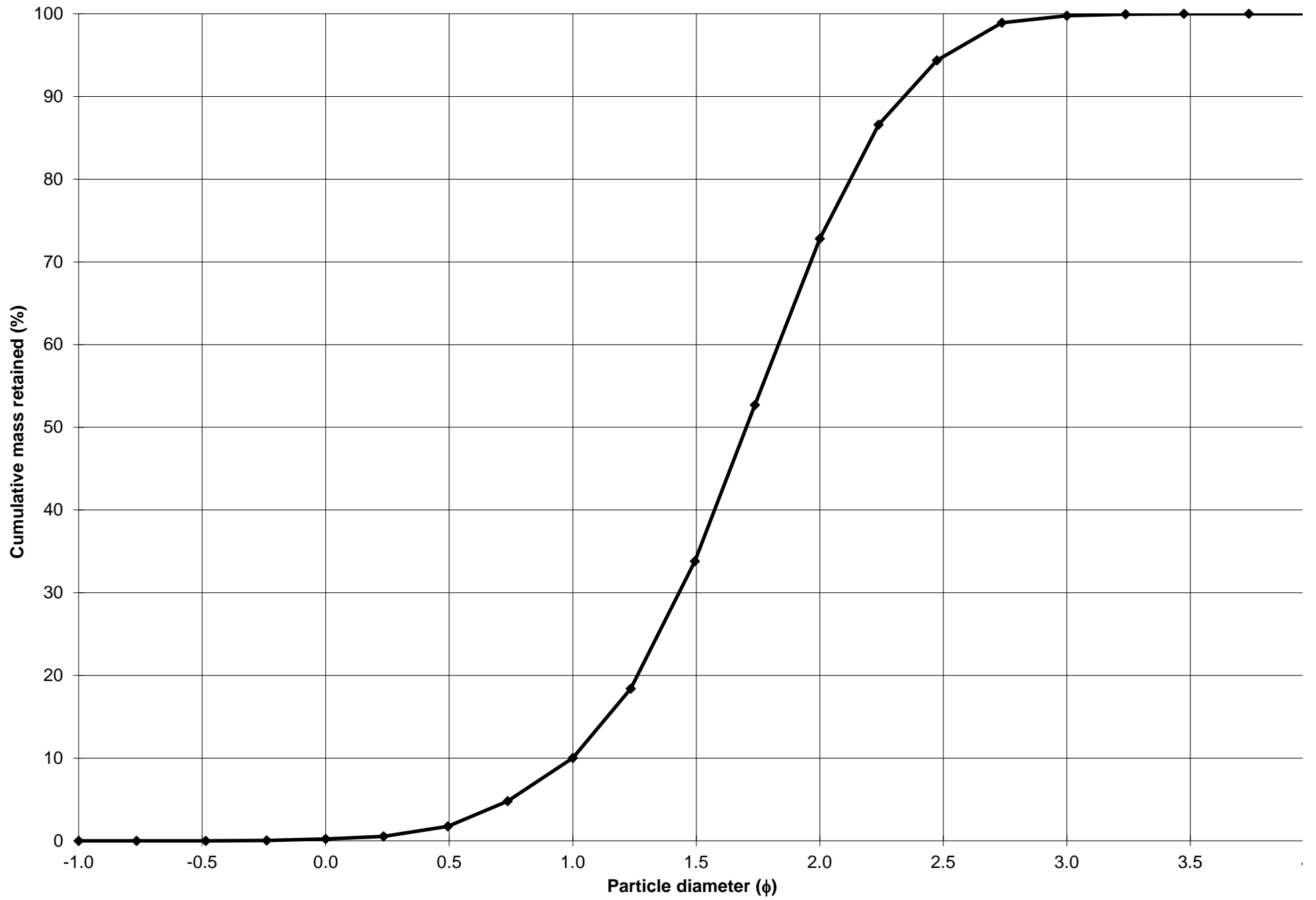
Cumulative Frequency Curve



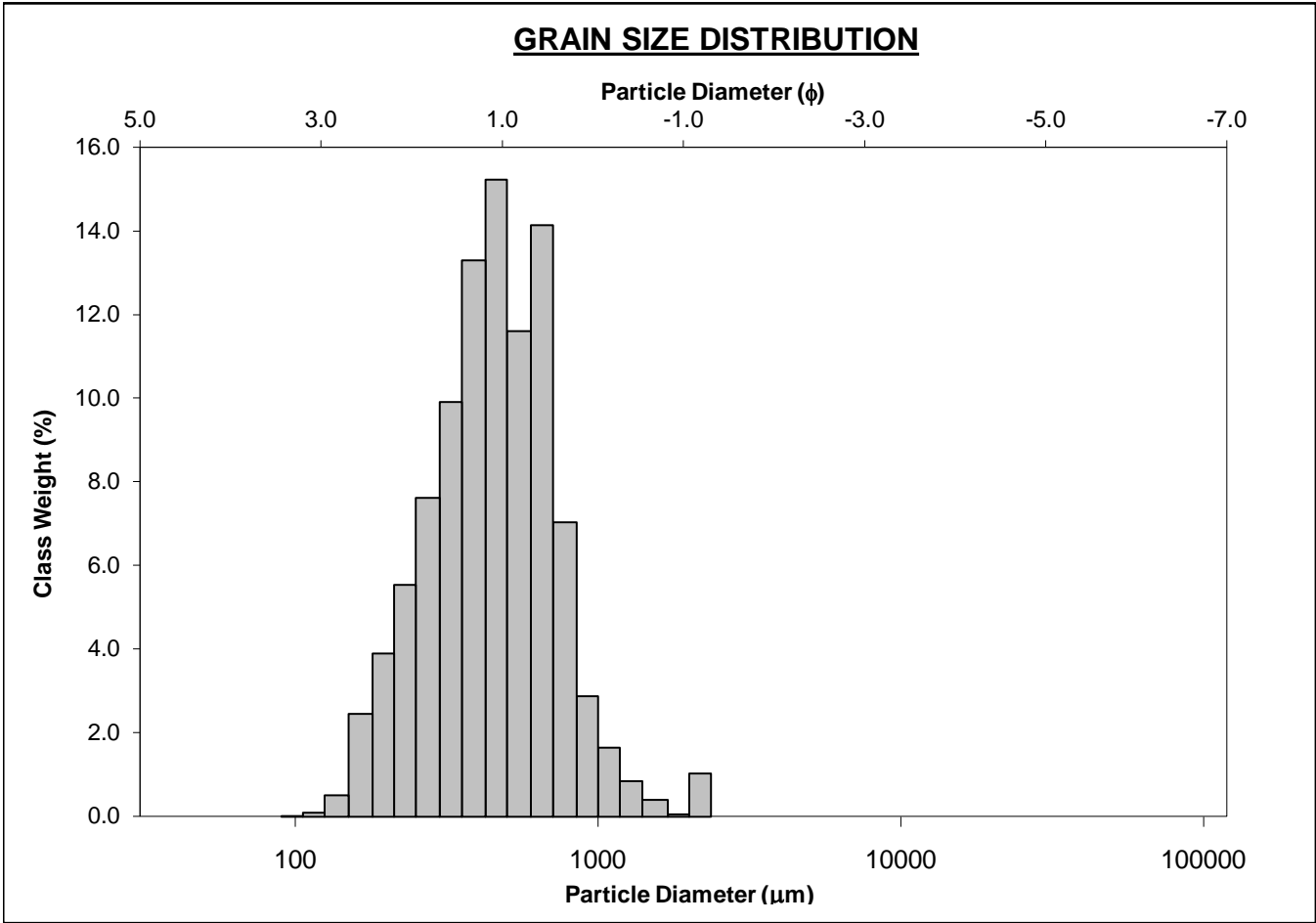
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-06-40cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0% COARSE SAND: 9.8%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 62.8%			
MODE 3:			MUD: 0.0% FINE SAND: 27.0%			
D ₁₀ :	197.3	0.999	V FINE SAND: 0.2%			
MEDIAN or D ₅₀ :	307.3	1.702	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	500.4	2.341	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.536	2.344	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	303.1	1.343	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.616	1.514	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	149.9	0.692	V COARSE SAND: 0.2% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	335.6	312.3	1.679	310.5	1.688	Medium Sand
SORTING (σ):	133.5	1.437	0.523	1.438	0.524	Moderately Well Sorted
SKEWNESS (Sk):	1.629	0.296	-0.296	0.063	-0.063	Symmetrical
KURTOSIS (K):	7.556	3.179	3.179	1.044	1.044	Mesokurtic



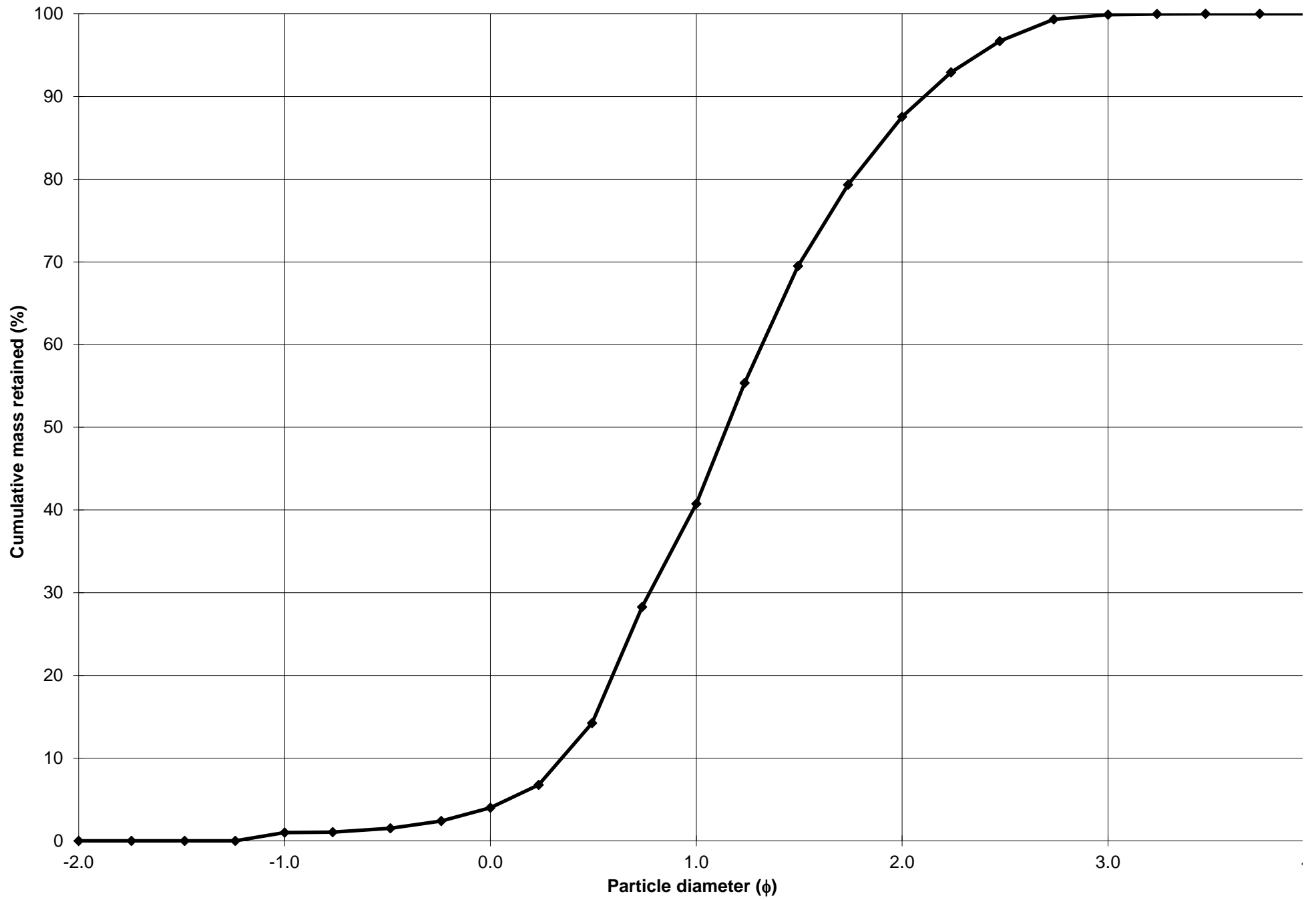
Cumulative Frequency Curve



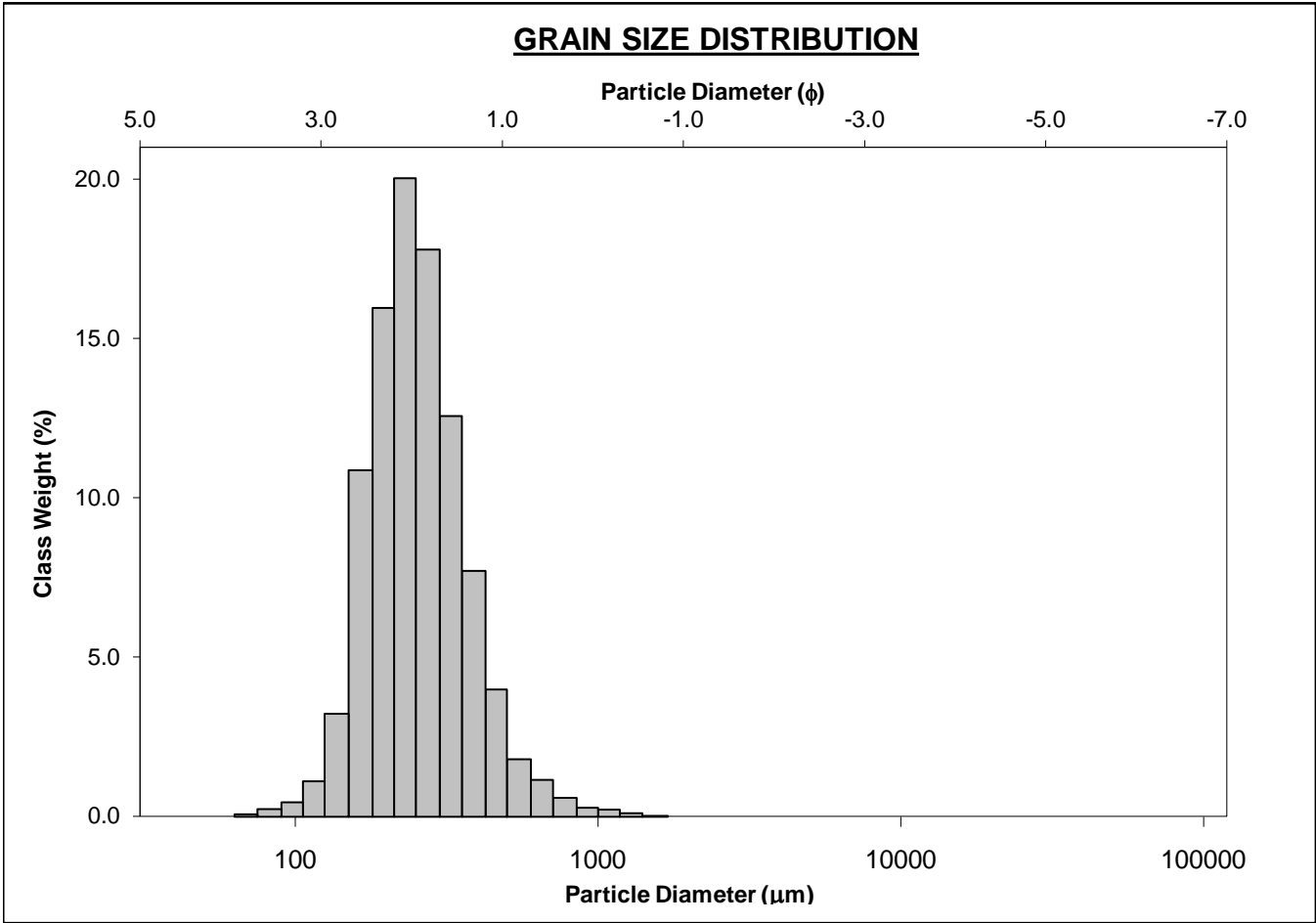
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-06-50cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	462.5	1.117	GRAVEL: 1.0%		COARSE SAND: 36.8%	
MODE 2:	655.0	0.616	SAND: 99.0%		MEDIUM SAND: 46.8%	
MODE 3:			MUD: 0.0%		FINE SAND: 12.4%	
D_{10} :	231.8	0.347			V FINE SAND: 0.1%	
MEDIAN or D_{50} :	451.2	1.148	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	786.3	2.109	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	3.392	6.080	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	554.5	1.762	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.932	2.396	V FINE GRAVEL: 1.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	301.0	0.950	V COARSE SAND: 3.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	505.9	446.0	1.165	439.4	1.187	Medium Sand
SORTING (σ):	283.5	1.627	0.702	1.609	0.686	Moderately Well Sorted
SKEWNESS (Sk):	2.634	0.141	-0.141	-0.076	0.076	Symmetrical
KURTOSIS (K):	14.66	3.396	3.396	0.985	0.985	Mesokurtic



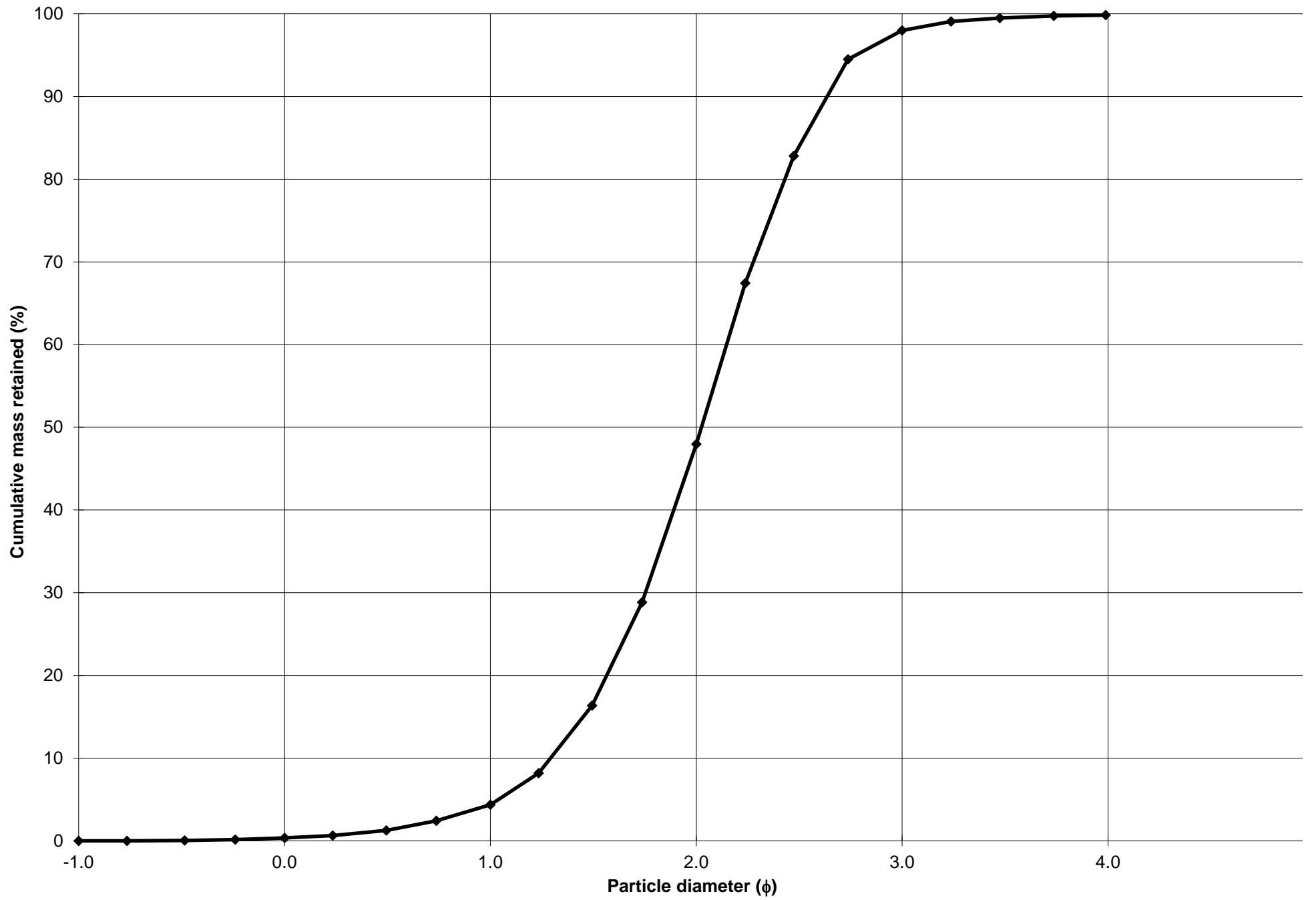
Cumulative Frequency Curve



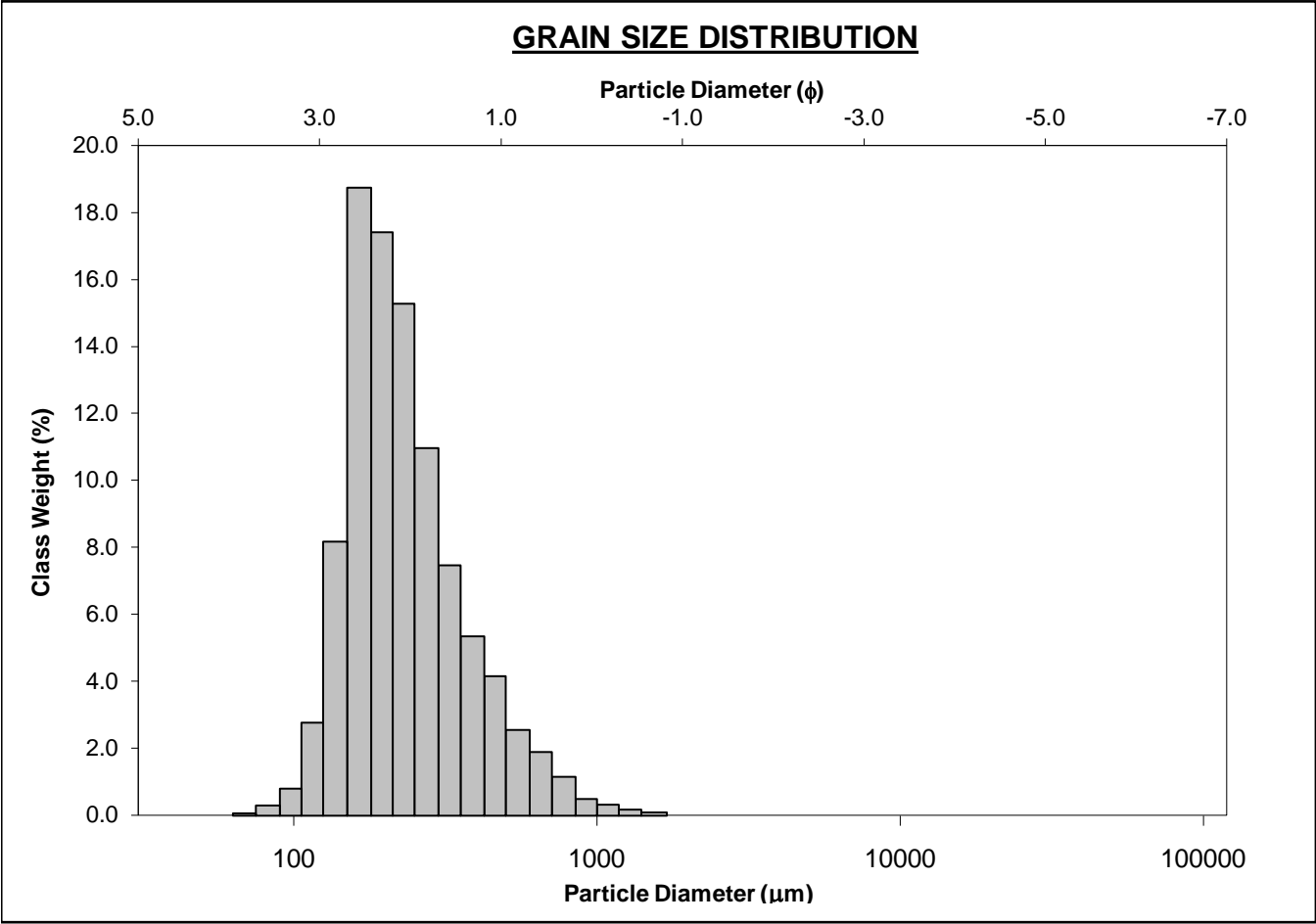
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-06-60cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 4.0%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 43.6%	
MODE 3:			MUD: 0.2%		FINE SAND: 50.0%	
D ₁₀ :	160.9	1.292			V FINE SAND: 1.9%	
MEDIAN or D ₅₀ :	245.7	2.025	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	408.3	2.636	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.538	2.040	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	247.4	1.343	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.615	1.416	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	120.3	0.692	V COARSE SAND: 0.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	274.2	251.7	1.990	249.5	2.003	Fine Sand
SORTING (σ):	125.9	1.498	0.583	1.431	0.517	Moderately Well Sorted
SKEWNESS (Sk):	2.816	-0.572	0.572	0.101	-0.101	Coarse Skewed
KURTOSIS (K):	17.60	12.29	12.29	1.028	1.028	Mesokurtic



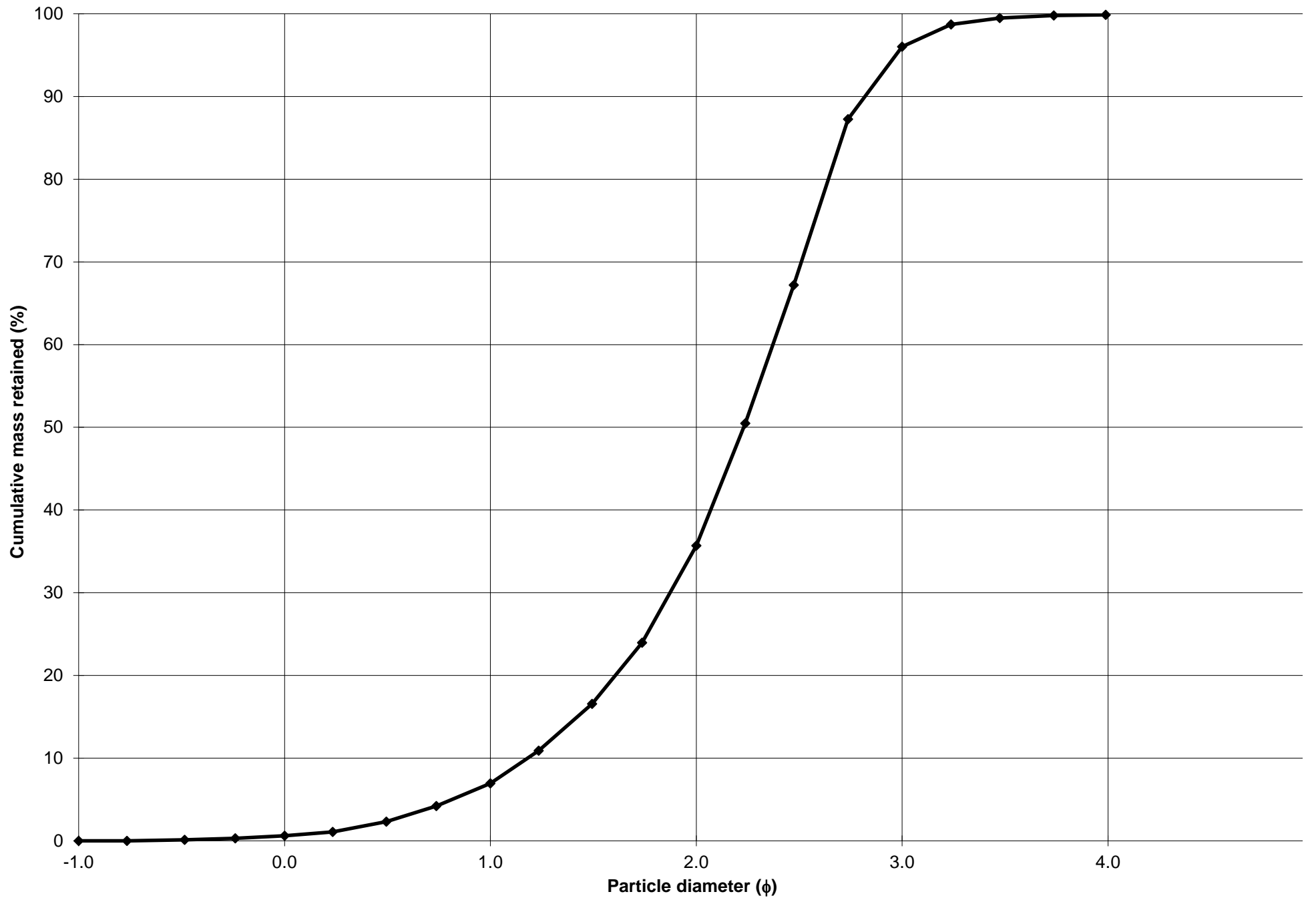
Cumulative Frequency Curve



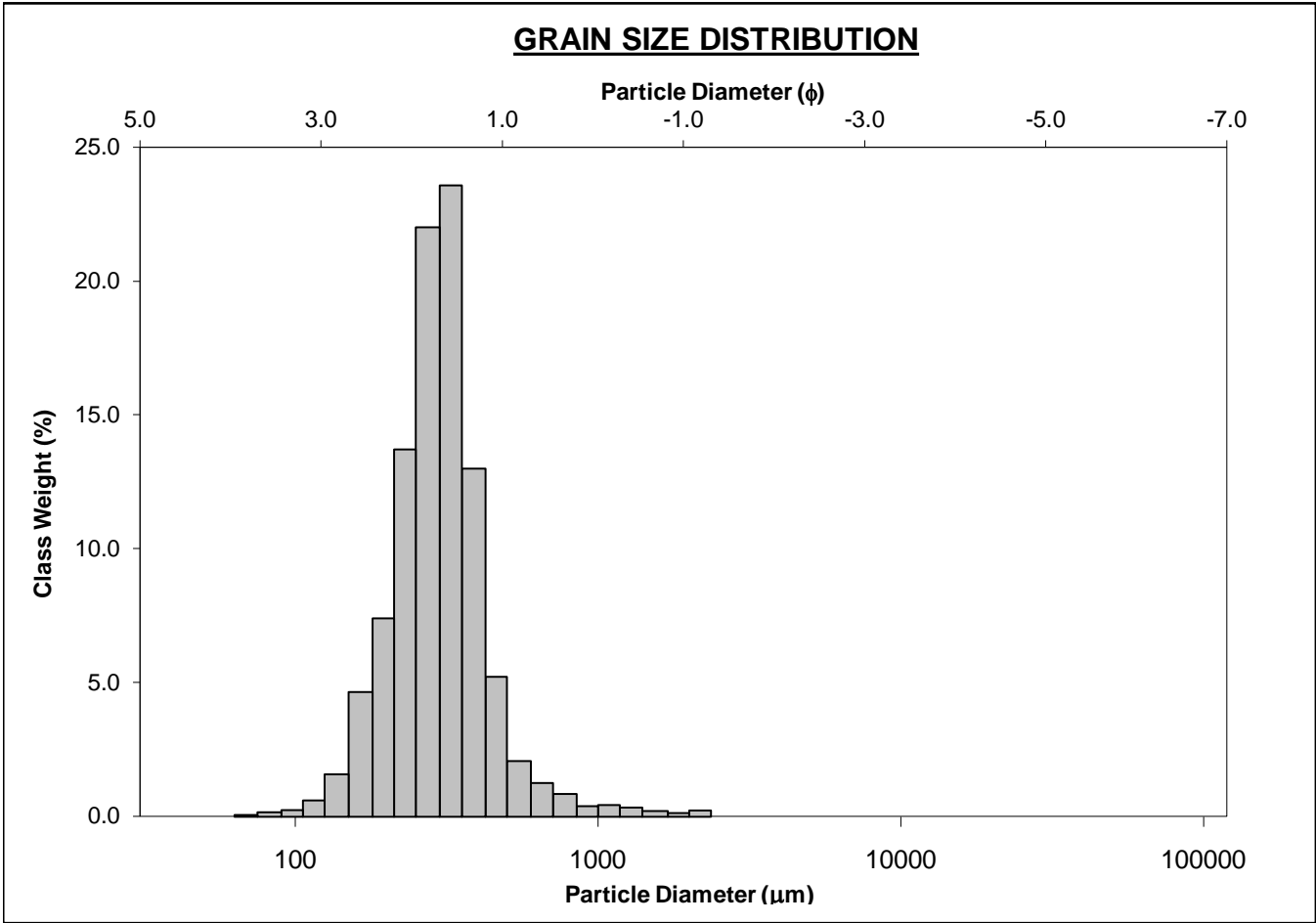
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-06-70cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 6.3%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 28.8%	
MODE 3:			MUD: 0.1%		FINE SAND: 60.3%	
D ₁₀ :	141.7	1.181			V FINE SAND: 3.9%	
MEDIAN or D ₅₀ :	213.1	2.230	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	441.1	2.819	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.113	2.387	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	299.4	1.638	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.760	1.463	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	127.4	0.816	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	262.1	231.2	2.113	228.3	2.131	Fine Sand
SORTING (σ):	156.5	1.600	0.678	1.551	0.633	Moderately Well Sorted
SKEWNESS (Sk):	2.858	0.366	-0.366	0.278	-0.278	Coarse Skewed
KURTOSIS (K):	15.32	6.801	6.801	1.083	1.083	Mesokurtic



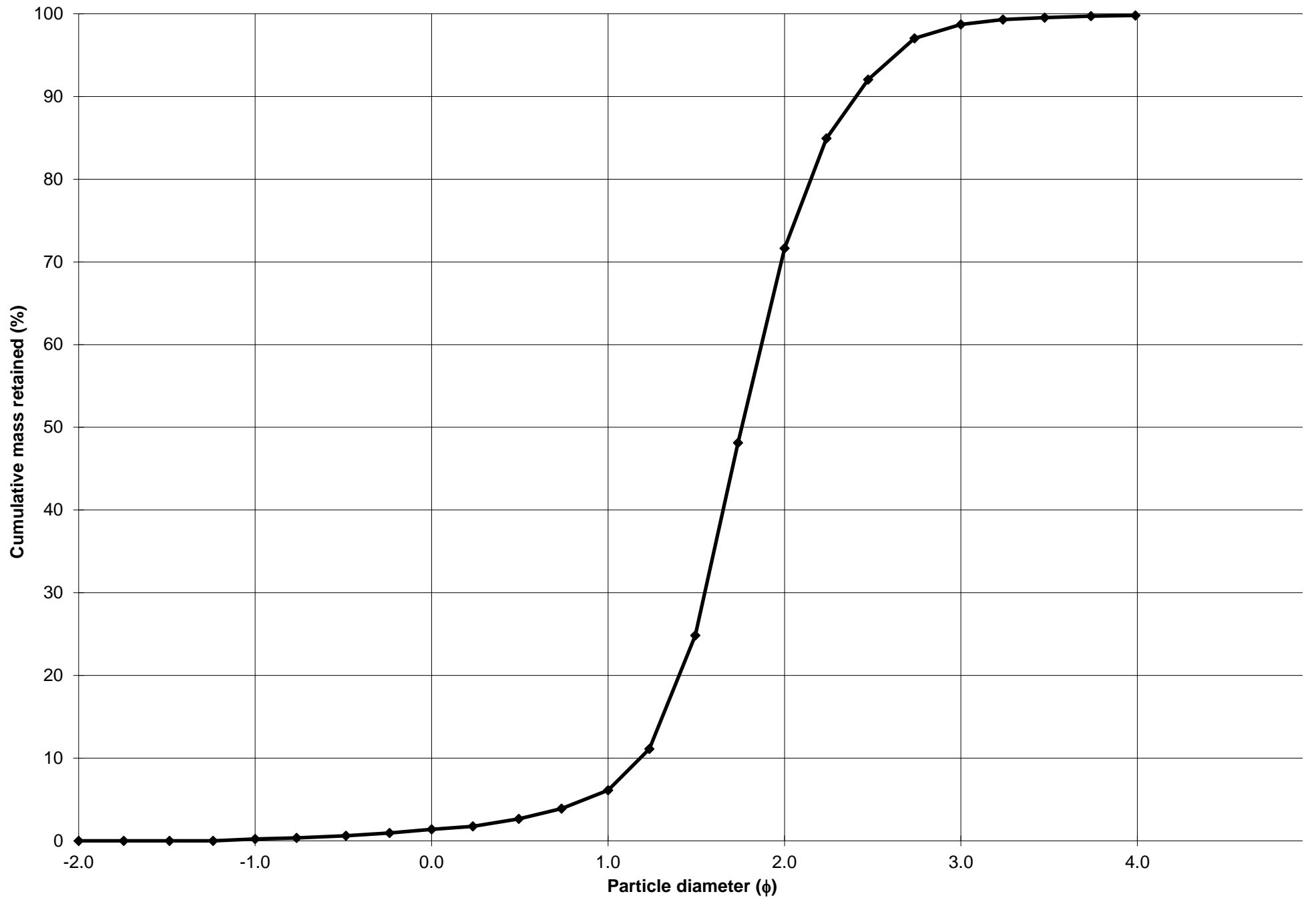
Cumulative Frequency Curve



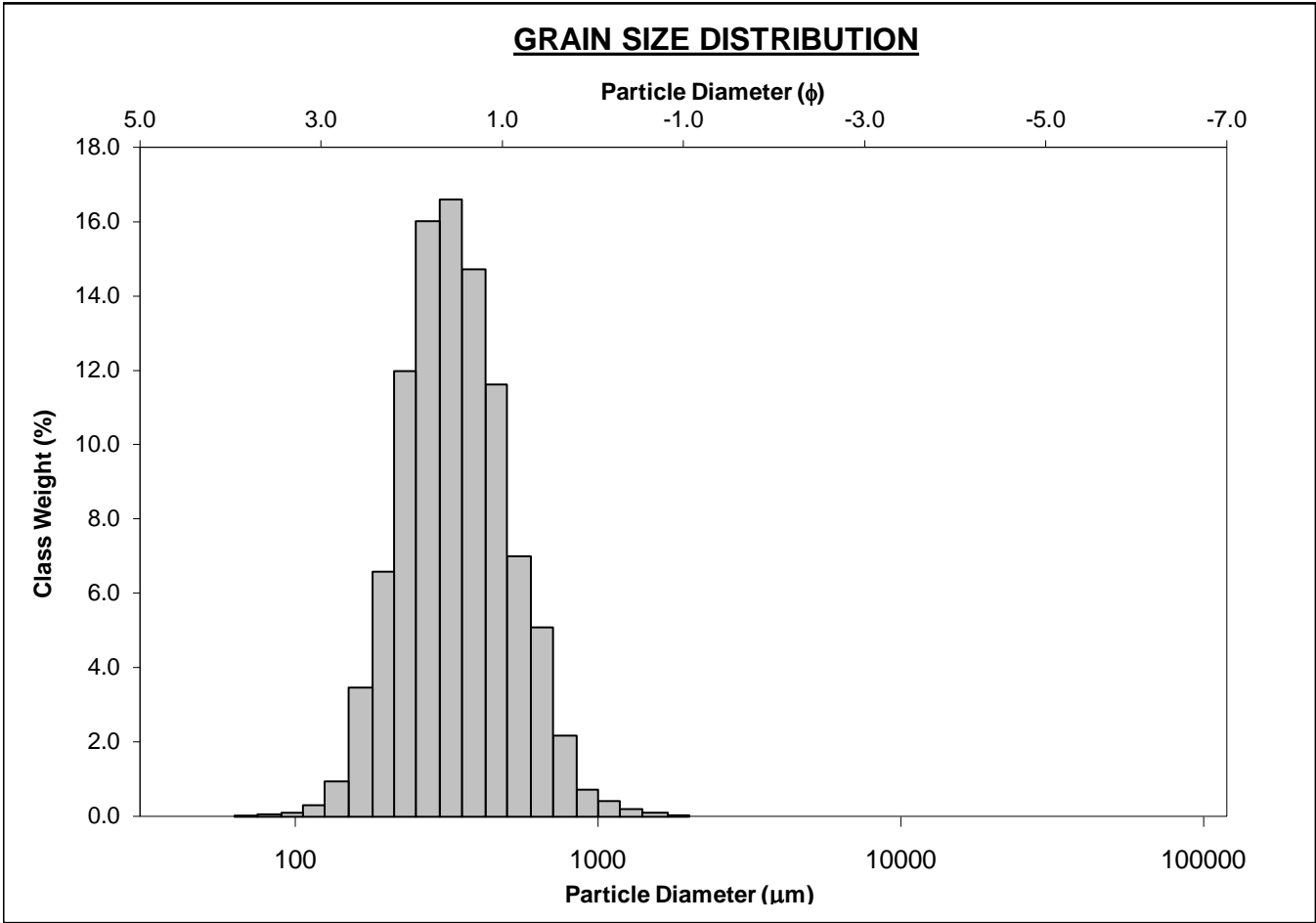
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-06-80cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.2%		COARSE SAND: 4.7%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 65.5%	
MODE 3:			MUD: 0.2%		FINE SAND: 27.1%	
D ₁₀ :	188.6	1.182			V FINE SAND: 1.1%	
MEDIAN or D ₅₀ :	295.7	1.758	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	440.7	2.406	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.336	2.035	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	252.0	1.224	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.478	1.377	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	114.8	0.564	V COARSE SAND: 1.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	325.1	295.3	1.760	293.5	1.769	Medium Sand
SORTING (σ):	182.0	1.520	0.604	1.405	0.491	Well Sorted
SKEWNESS (Sk):	5.076	-0.616	0.616	-0.013	0.013	Symmetrical
KURTOSIS (K):	41.47	16.42	16.42	1.281	1.281	Leptokurtic



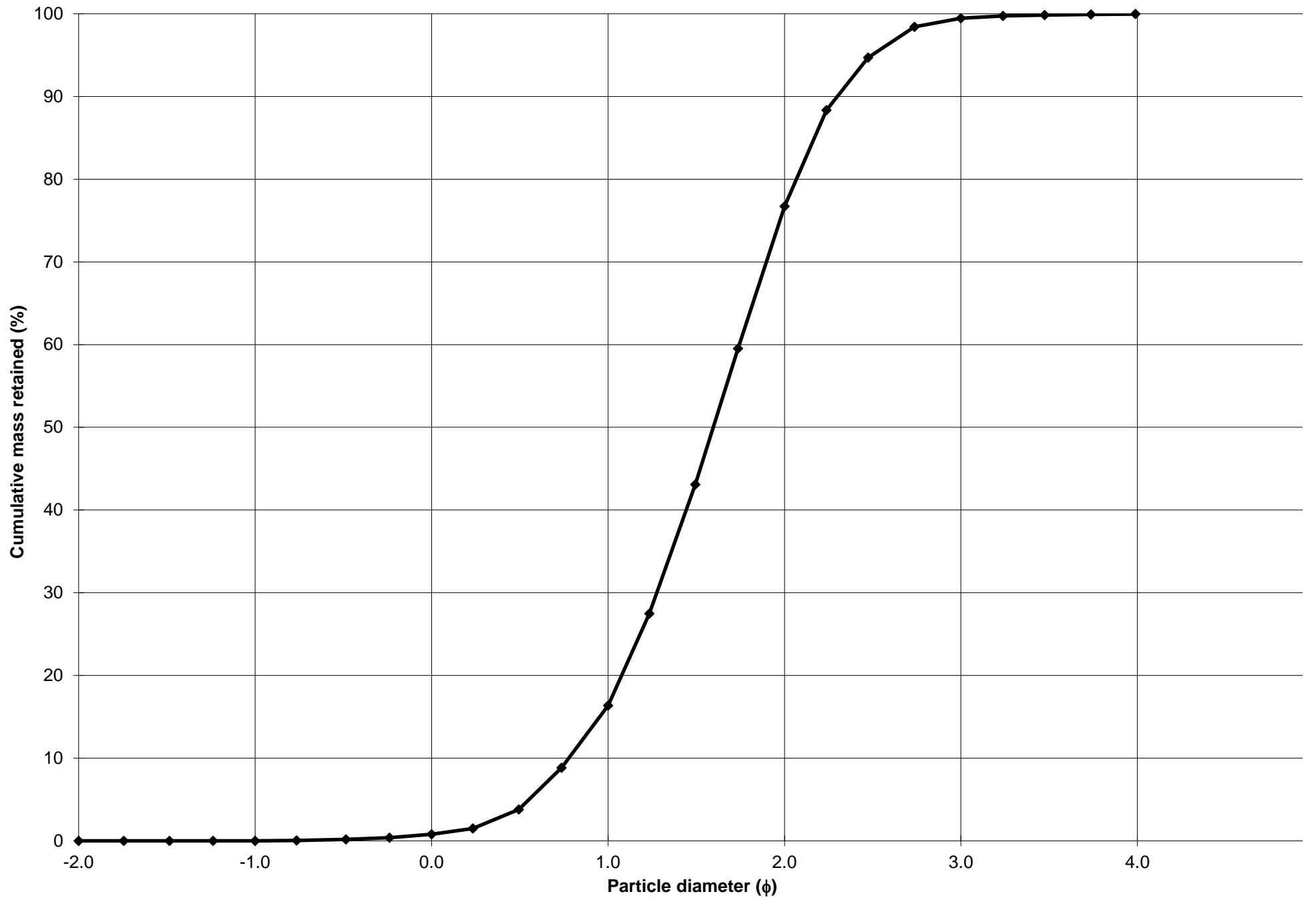
Cumulative Frequency Curve



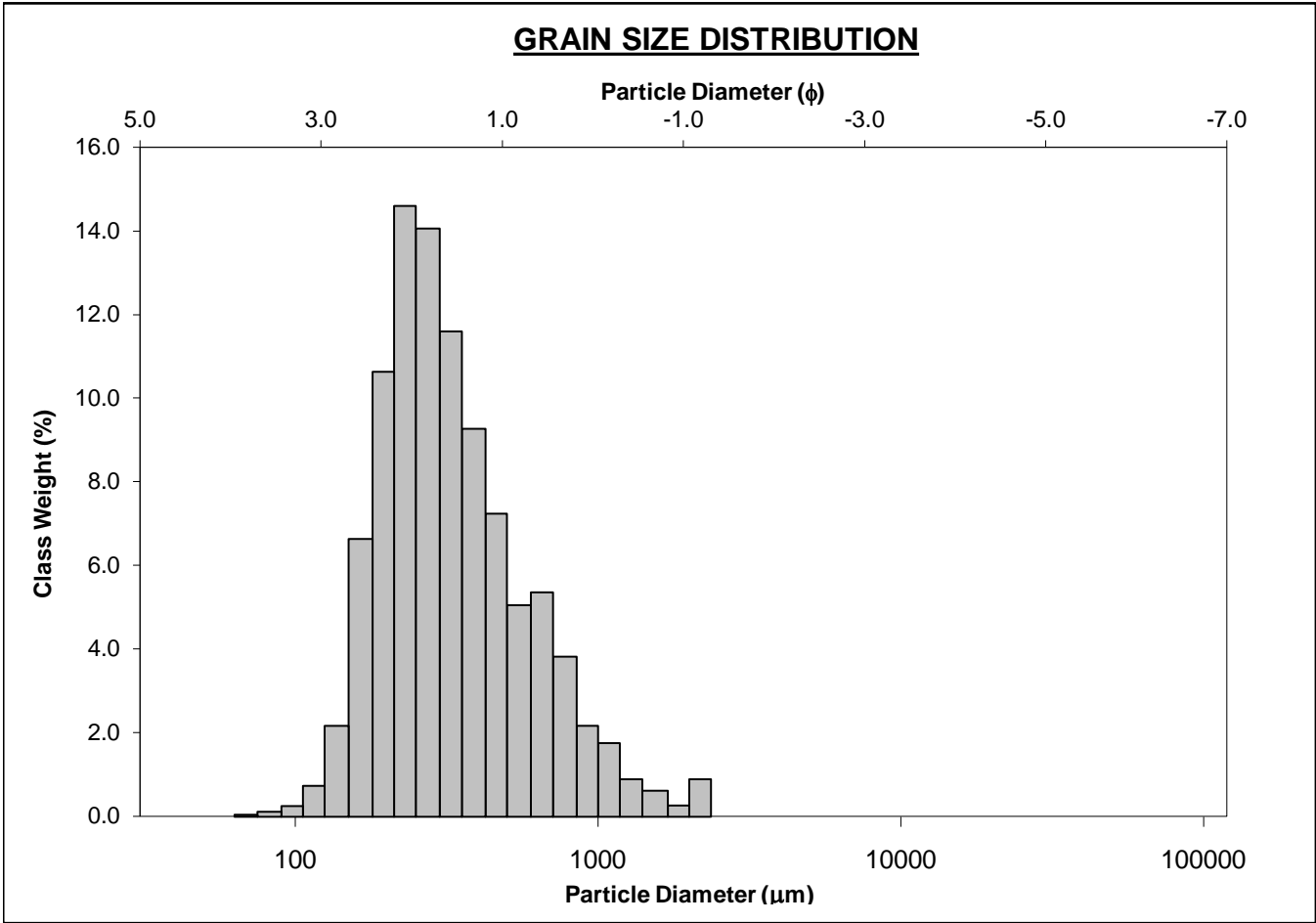
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-06-90cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 15.6%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 60.4%	
MODE 3:			MUD: 0.0%		FINE SAND: 22.7%	
D ₁₀ :	203.2	0.777			V FINE SAND: 0.5%	
MEDIAN or D ₅₀ :	330.7	1.596	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	583.4	2.299	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.871	2.957	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	380.2	1.522	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.731	1.670	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	186.1	0.792	V COARSE SAND: 0.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	369.6	337.0	1.569	335.1	1.578	Medium Sand
SORTING (σ):	169.2	1.518	0.602	1.500	0.585	Moderately Well Sorted
SKEWNESS (Sk):	1.989	-0.048	0.048	0.062	-0.062	Symmetrical
KURTOSIS (K):	10.85	5.644	5.644	1.006	1.006	Mesokurtic



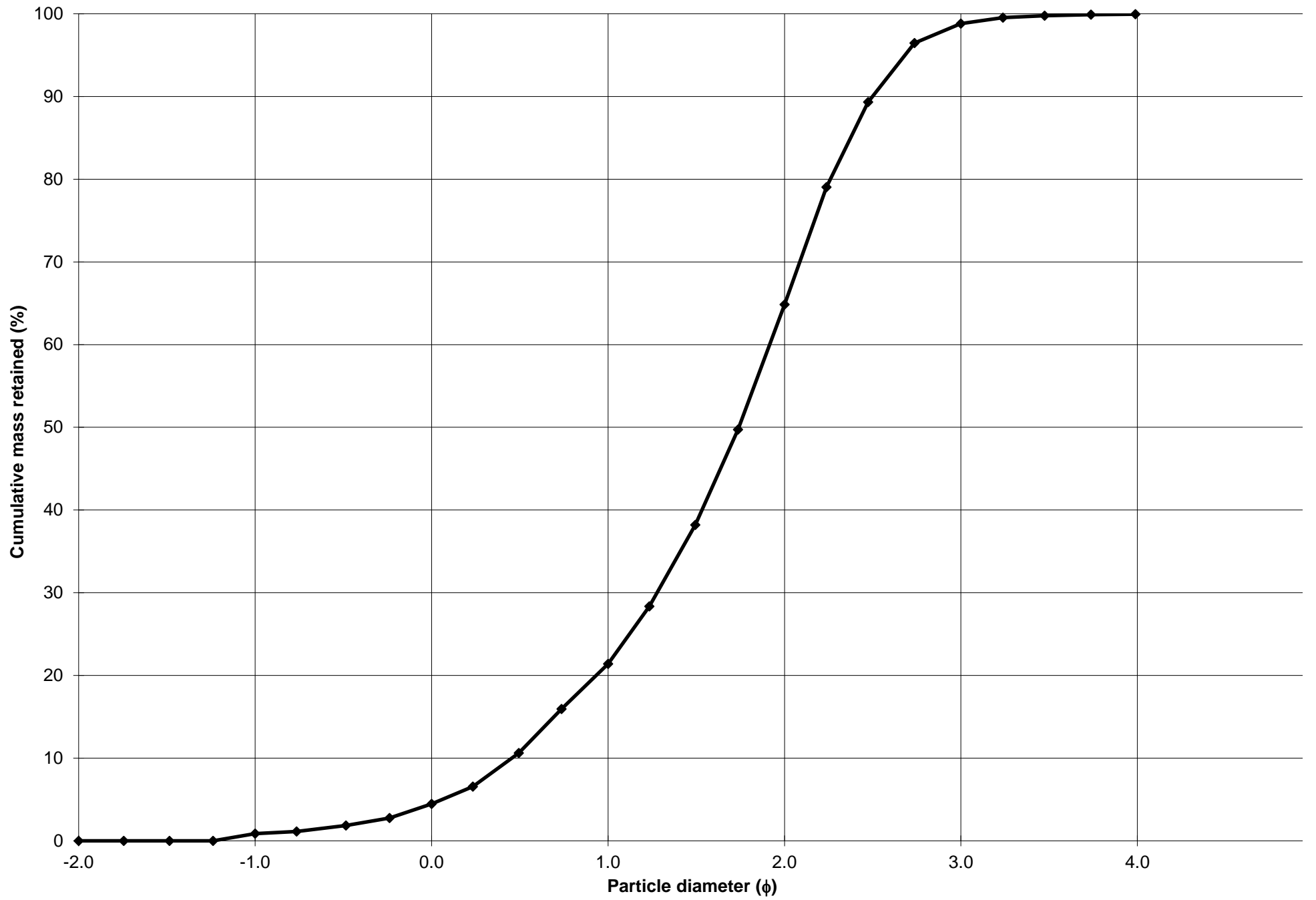
Cumulative Frequency Curve



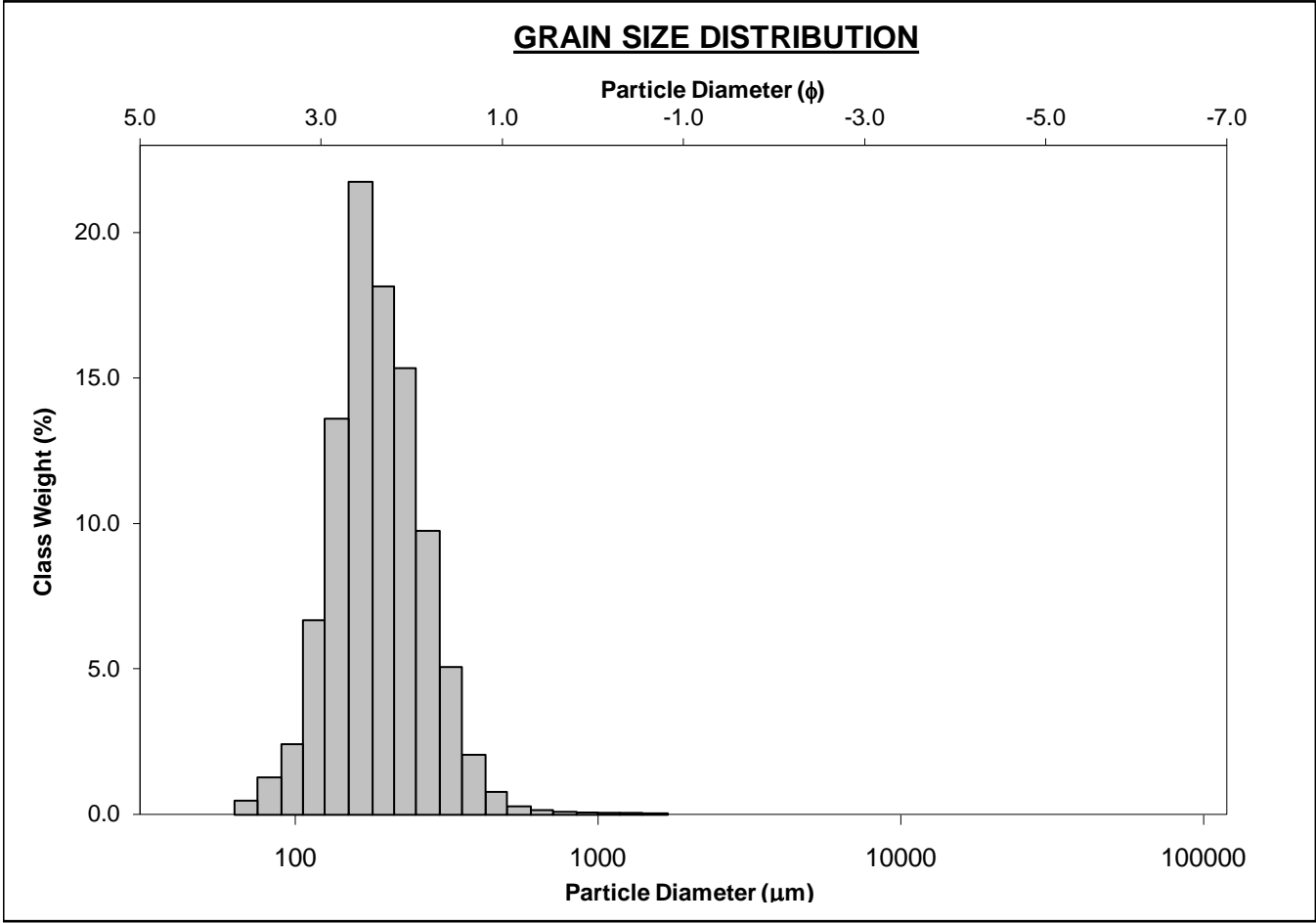
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-06-100cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.9%		COARSE SAND: 16.9%	
MODE 2:	655.0	0.616	SAND: 99.1%		MEDIUM SAND: 43.4%	
MODE 3:			MUD: 0.1%		FINE SAND: 34.0%	
D ₁₀ :	176.9	0.454			V FINE SAND: 1.1%	
MEDIAN or D ₅₀ :	299.0	1.742	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	729.9	2.499	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.126	5.502	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	553.0	2.045	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.068	1.935	V FINE GRAVEL: 0.9%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	237.4	1.048	V COARSE SAND: 3.6%		CLAY: 0.0%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	400.3	331.4	1.593	327.4	1.611	Medium Sand
SORTING (σ):	304.2	1.769	0.823	1.742	0.801	Moderately Sorted
SKEWNESS (Sk):	2.946	0.613	-0.613	0.263	-0.263	Coarse Skewed
KURTOSIS (K):	14.59	4.360	4.360	1.026	1.026	Mesokurtic



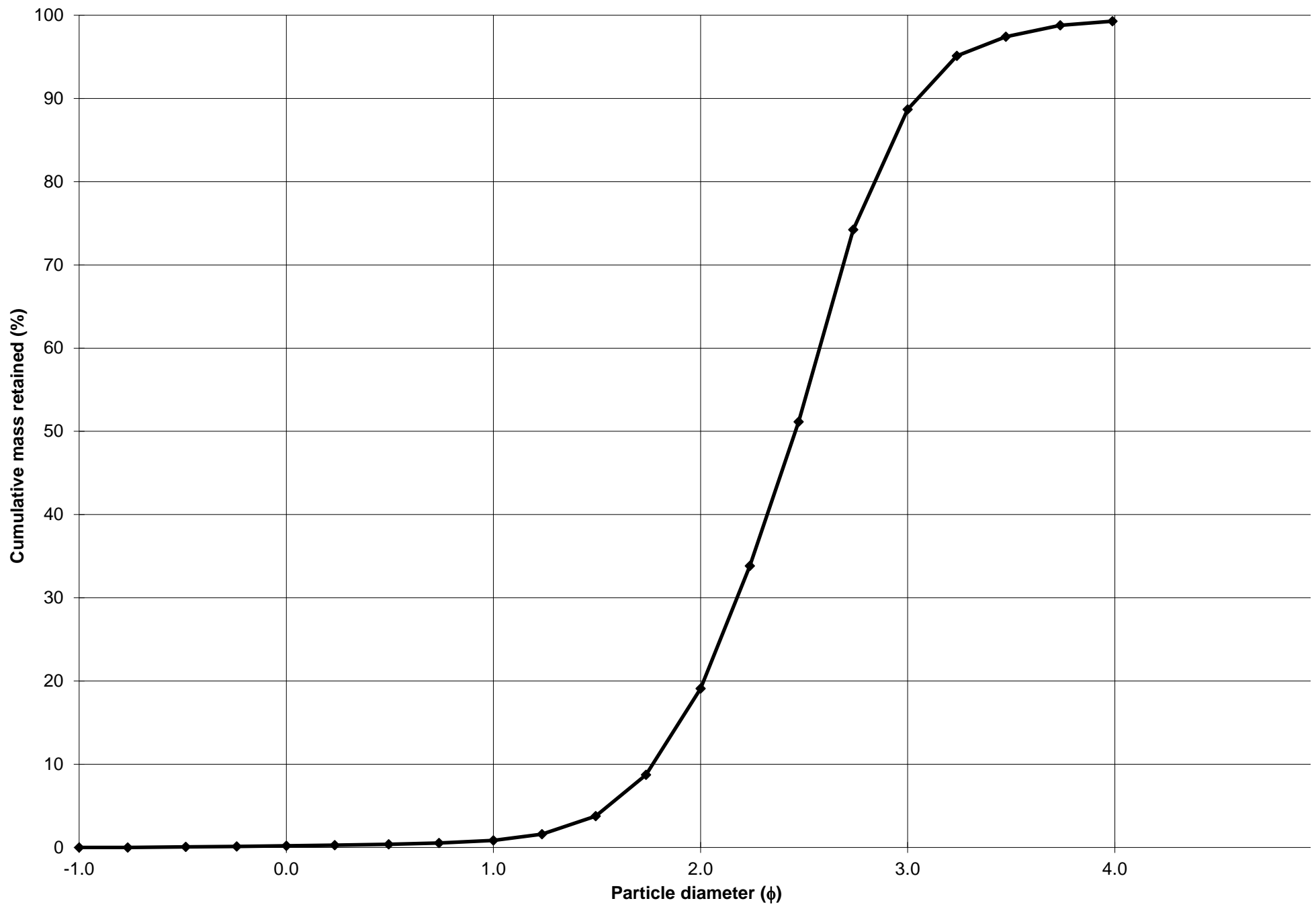
Cumulative Frequency Curve



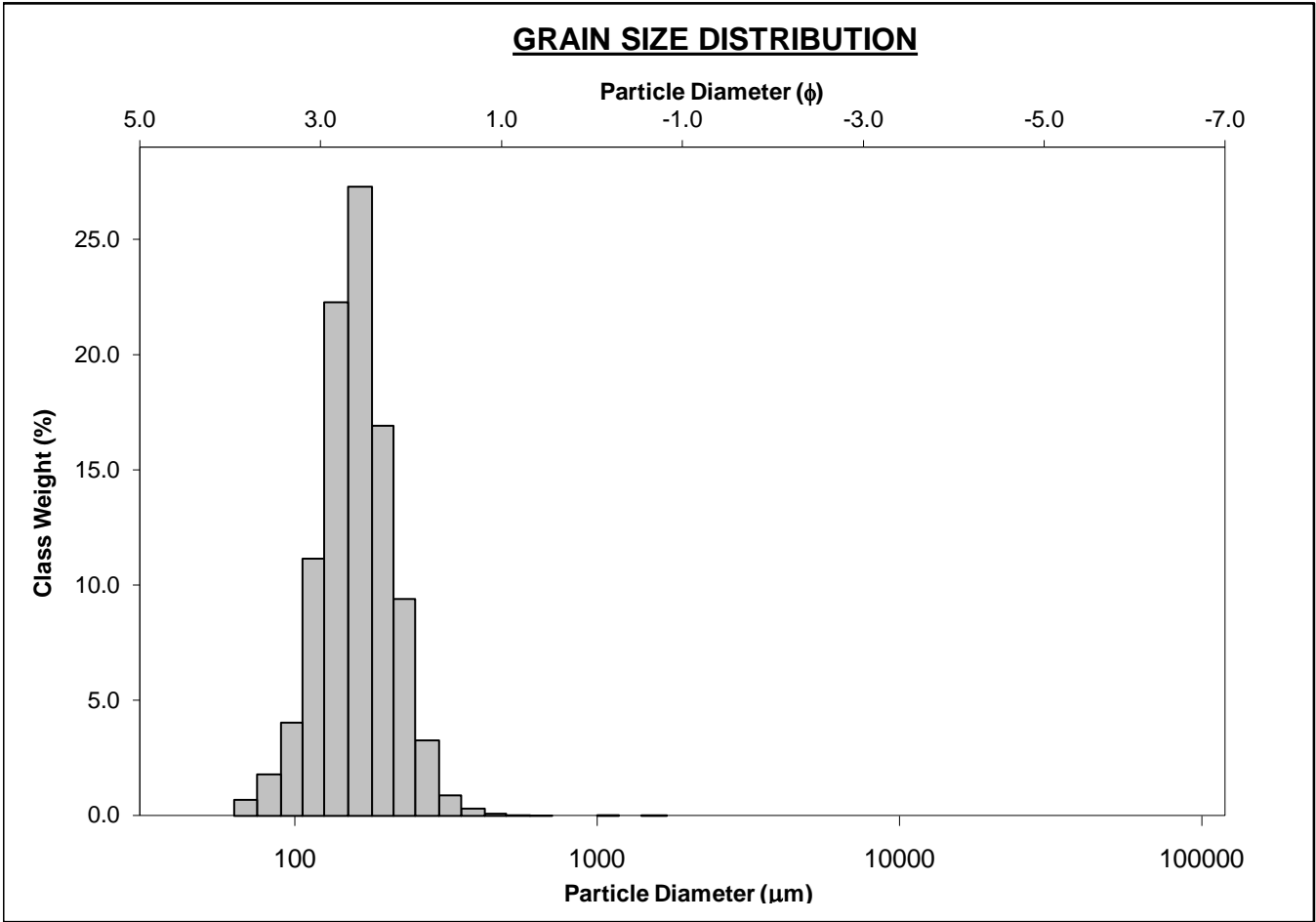
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-06-110cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.7%	
MODE 2:			SAND: 99.3%		MEDIUM SAND: 18.2%	
MODE 3:			MUD: 0.7%		FINE SAND: 69.6%	
D ₁₀ :	120.8	1.769			V FINE SAND: 10.6%	
MEDIAN or D ₅₀ :	181.9	2.458	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	293.4	3.049	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.428	1.723	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	172.6	1.280	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.575	1.313	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	85.47	0.656	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	200.8	183.2	2.448	185.4	2.432	Fine Sand
SORTING (σ):	93.41	1.566	0.647	1.417	0.503	Moderately Well Sorted
SKEWNESS (Sk):	4.670	-2.126	2.126	0.079	-0.079	Symmetrical
KURTOSIS (K):	50.56	19.66	19.66	1.050	1.050	Mesokurtic



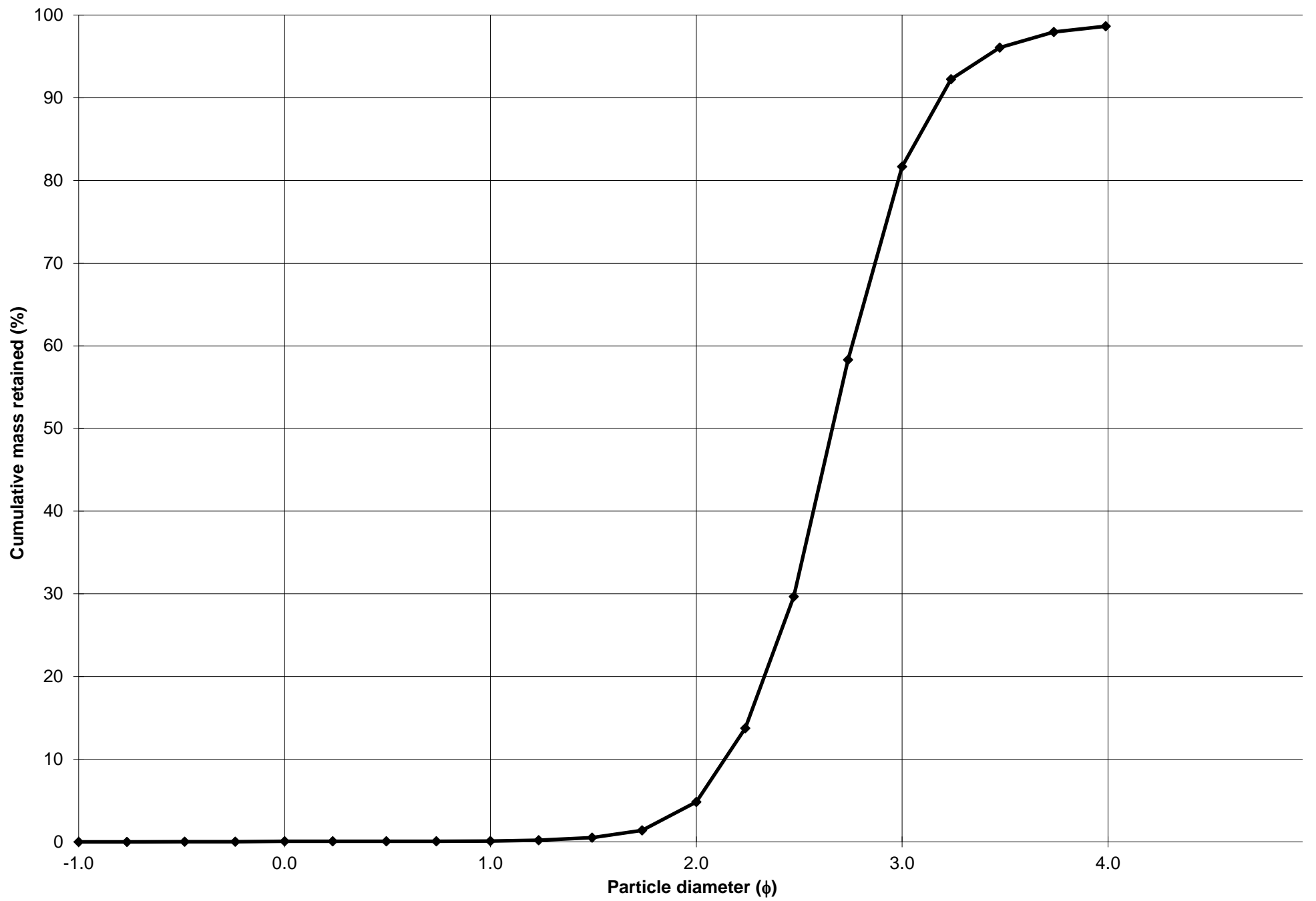
Cumulative Frequency Curve



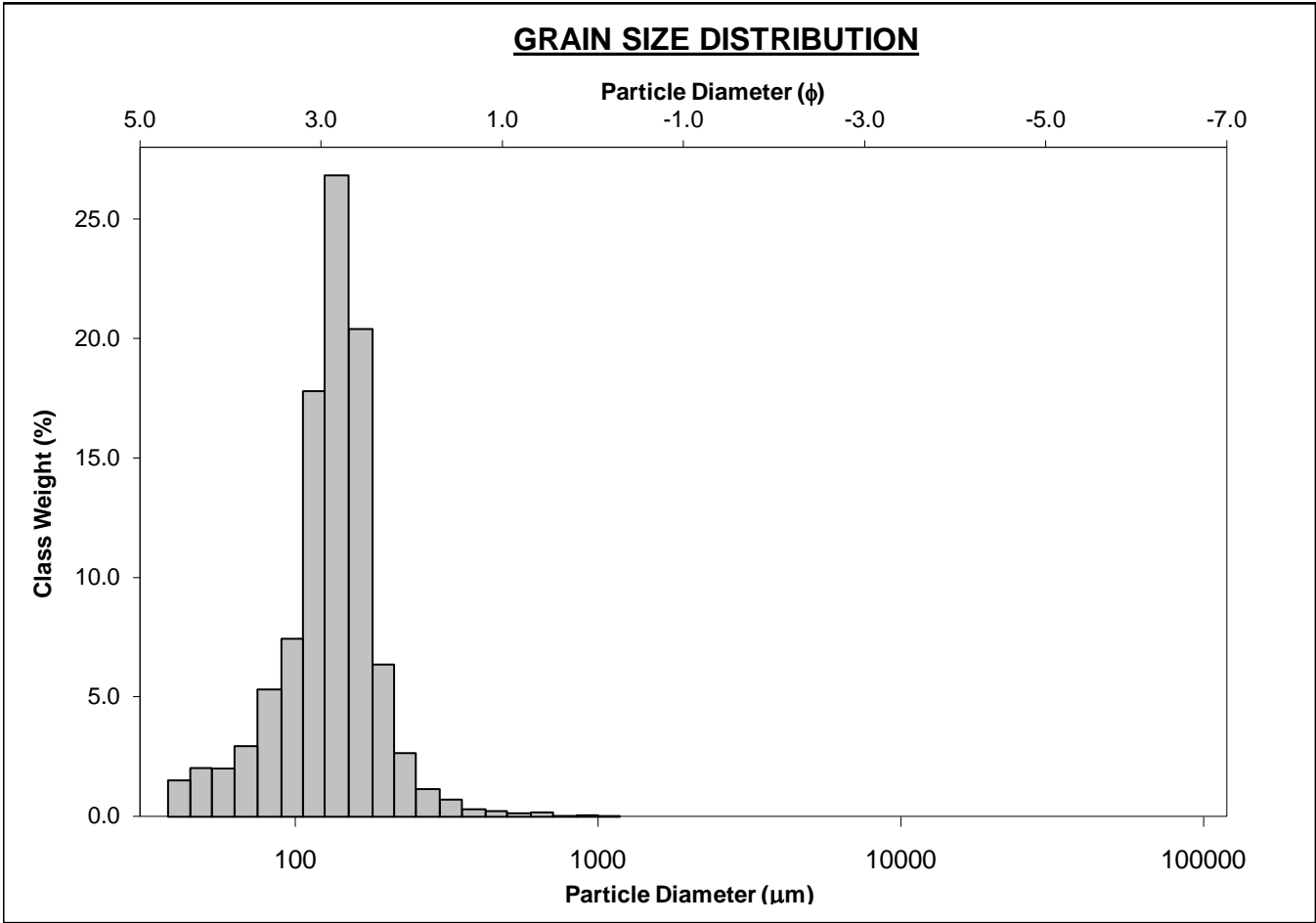
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-06-120cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.0%	
MODE 2:			SAND: 98.7%		MEDIUM SAND: 4.7%	
MODE 3:			MUD: 1.3%		FINE SAND: 76.9%	
D ₁₀ :	109.8	2.138			V FINE SAND: 17.0%	
MEDIAN or D ₅₀ :	158.1	2.661	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	227.2	3.187	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	2.069	1.491	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	117.4	1.049	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.434	1.216	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	57.18	0.520	V COARSE SAND: 0.1%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	164.7	152.7	2.712	158.1	2.661	Fine Sand
SORTING (σ):	58.08	1.563	0.645	1.327	0.408	Well Sorted
SKEWNESS (Sk):	5.922	-3.768	3.768	-0.034	0.034	Symmetrical
KURTOSIS (K):	119.9	27.14	27.14	1.105	1.105	Mesokurtic



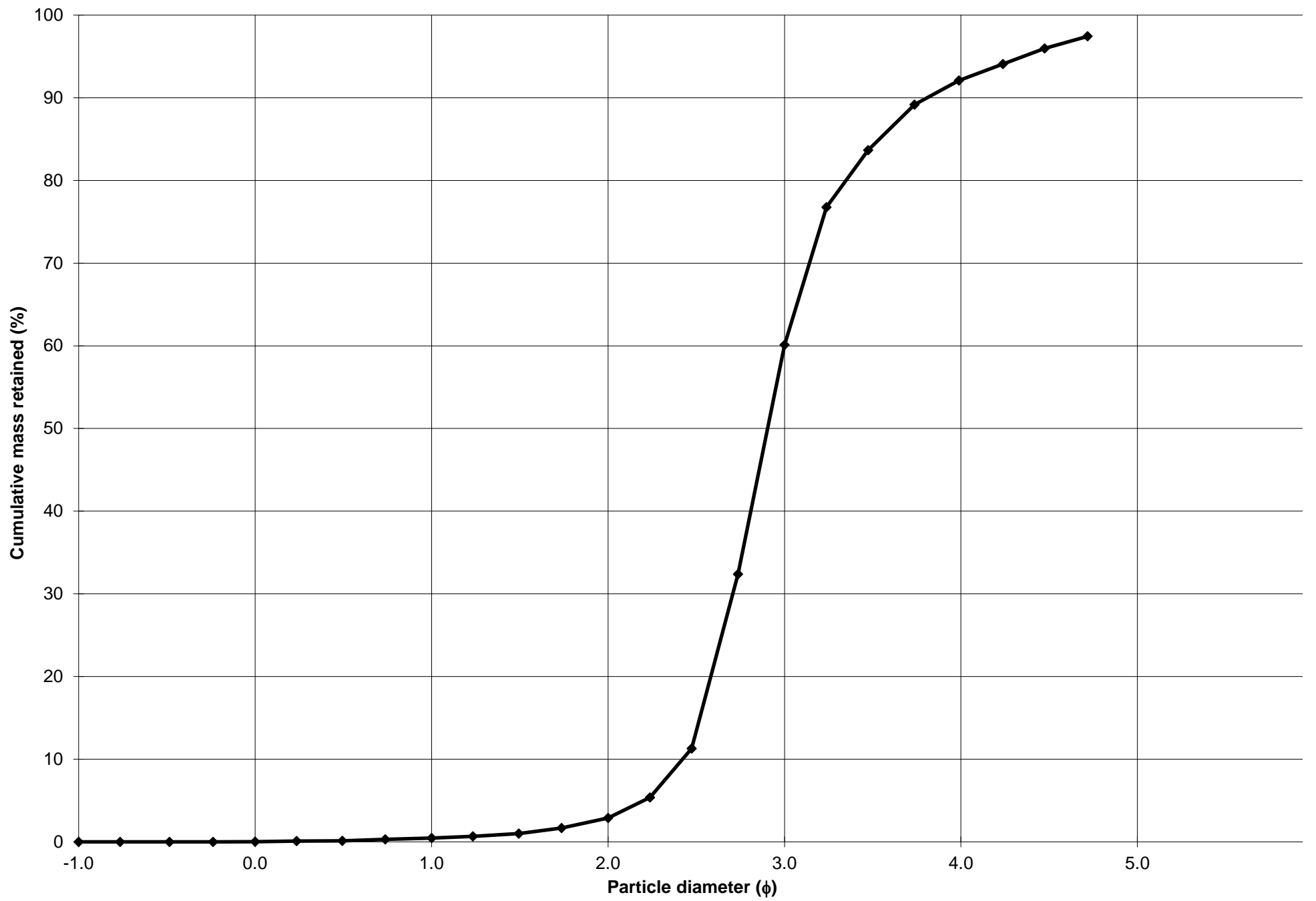
Cumulative Frequency Curve



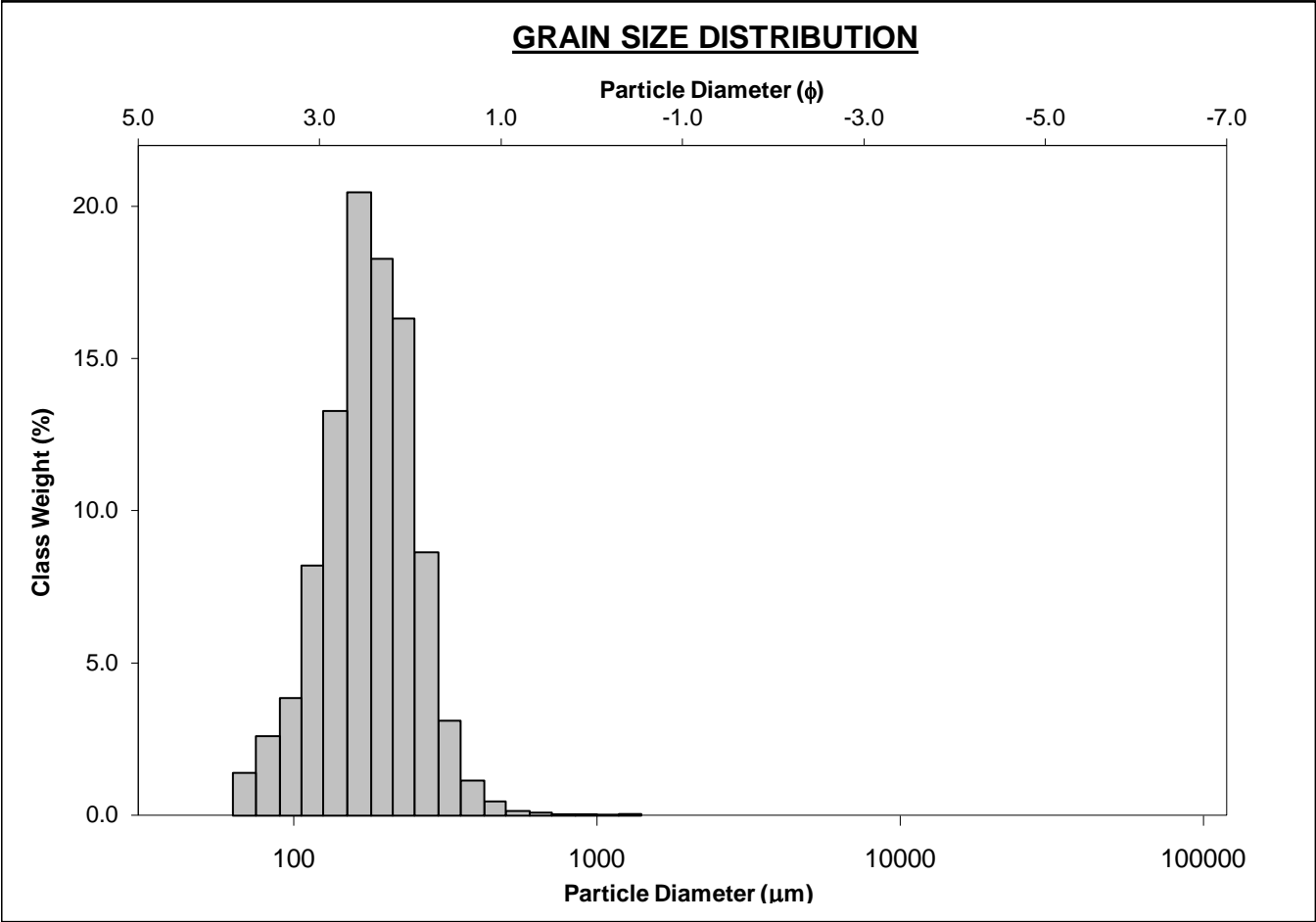
SIEVING ERROR: 1.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-06-130cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 0.4%	
MODE 2:			SAND: 92.2%		MEDIUM SAND: 2.4%	
MODE 3:			MUD: 7.8%		FINE SAND: 57.2%	
D ₁₀ :	71.40	2.423			V FINE SAND: 32.1%	
MEDIAN or D ₅₀ :	133.6	2.904	V COARSE GRAVEL: 0.0%		V COARSE SILT: 5.4%	
D ₉₀ :	186.5	3.808	COARSE GRAVEL: 0.0%		COARSE SILT: 0.5%	
(D ₉₀ / D ₁₀):	2.612	1.572	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.5%	
(D ₉₀ - D ₁₀):	115.1	1.385	FINE GRAVEL: 0.0%		FINE SILT: 0.5%	
(D ₇₅ / D ₂₅):	1.482	1.215	V FINE GRAVEL: 0.0%		V FINE SILT: 0.5%	
(D ₇₅ - D ₂₅):	52.01	0.568	V COARSE SAND: 0.0%		CLAY: 0.5%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	137.0	119.7	3.063	127.1	2.976	Fine Sand
SORTING (σ):	65.24	1.850	0.887	1.479	0.565	Moderately Well Sorted
SKEWNESS (Sk):	4.073	-2.818	2.818	-0.286	0.286	Fine Skewed
KURTOSIS (K):	42.11	14.96	14.96	1.552	1.552	Very Leptokurtic



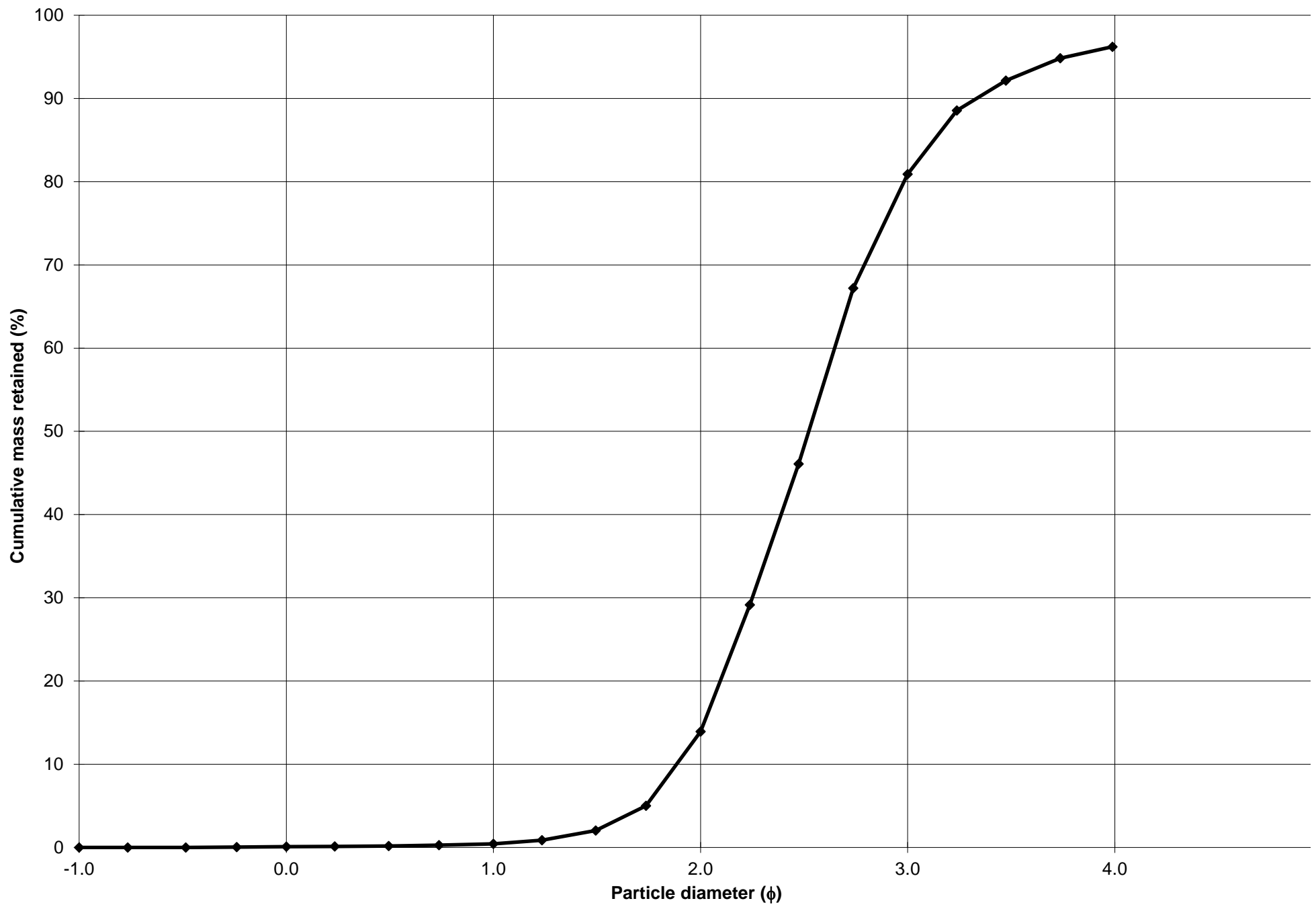
Cumulative Frequency Curve



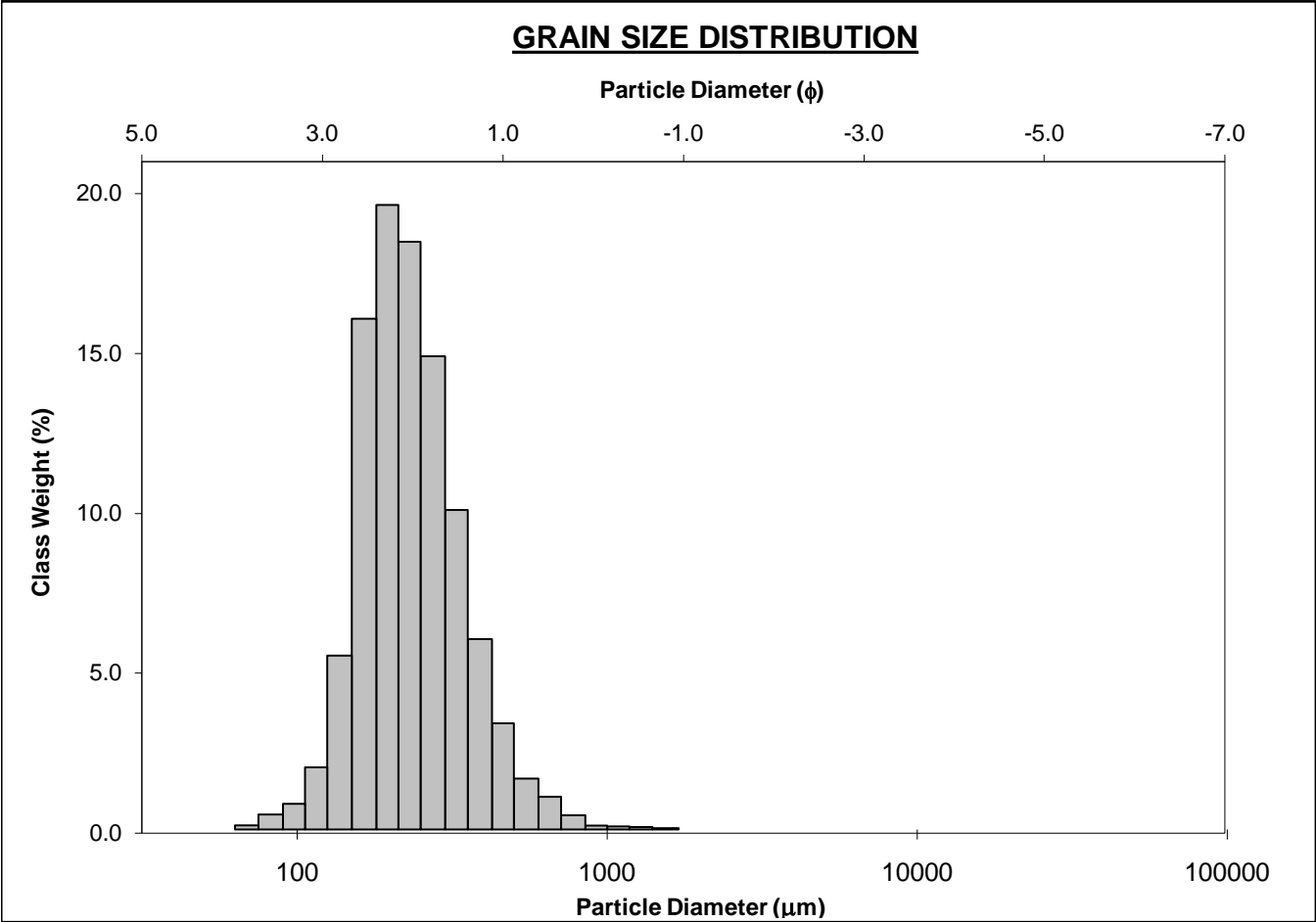
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-06-140cm			ANALYST & DATE: Chris, 9/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.3%	
MODE 2:			SAND: 96.2%		MEDIUM SAND: 13.5%	
MODE 3:			MUD: 3.8%		FINE SAND: 67.0%	
D ₁₀ :	99.22	1.884			V FINE SAND: 15.3%	
MEDIAN or D ₅₀ :	174.0	2.523	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.6%	
D ₉₀ :	270.9	3.333	COARSE GRAVEL: 0.0%		COARSE SILT: 0.6%	
(D ₉₀ / D ₁₀):	2.730	1.769	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.6%	
(D ₉₀ - D ₁₀):	171.7	1.449	FINE GRAVEL: 0.0%		FINE SILT: 0.6%	
(D ₇₅ / D ₂₅):	1.640	1.328	V FINE GRAVEL: 0.0%		V FINE SILT: 0.6%	
(D ₇₅ - D ₂₅):	86.55	0.714	V COARSE SAND: 0.1%		CLAY: 0.6%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	182.9	156.4	2.677	170.7	2.551	Fine Sand
SORTING (σ):	81.33	1.997	0.998	1.489	0.574	Moderately Well Sorted
SKEWNESS (Sk):	2.884	-2.921	2.921	-0.152	0.152	Fine Skewed
KURTOSIS (K):	31.47	13.62	13.62	1.167	1.167	Leptokurtic



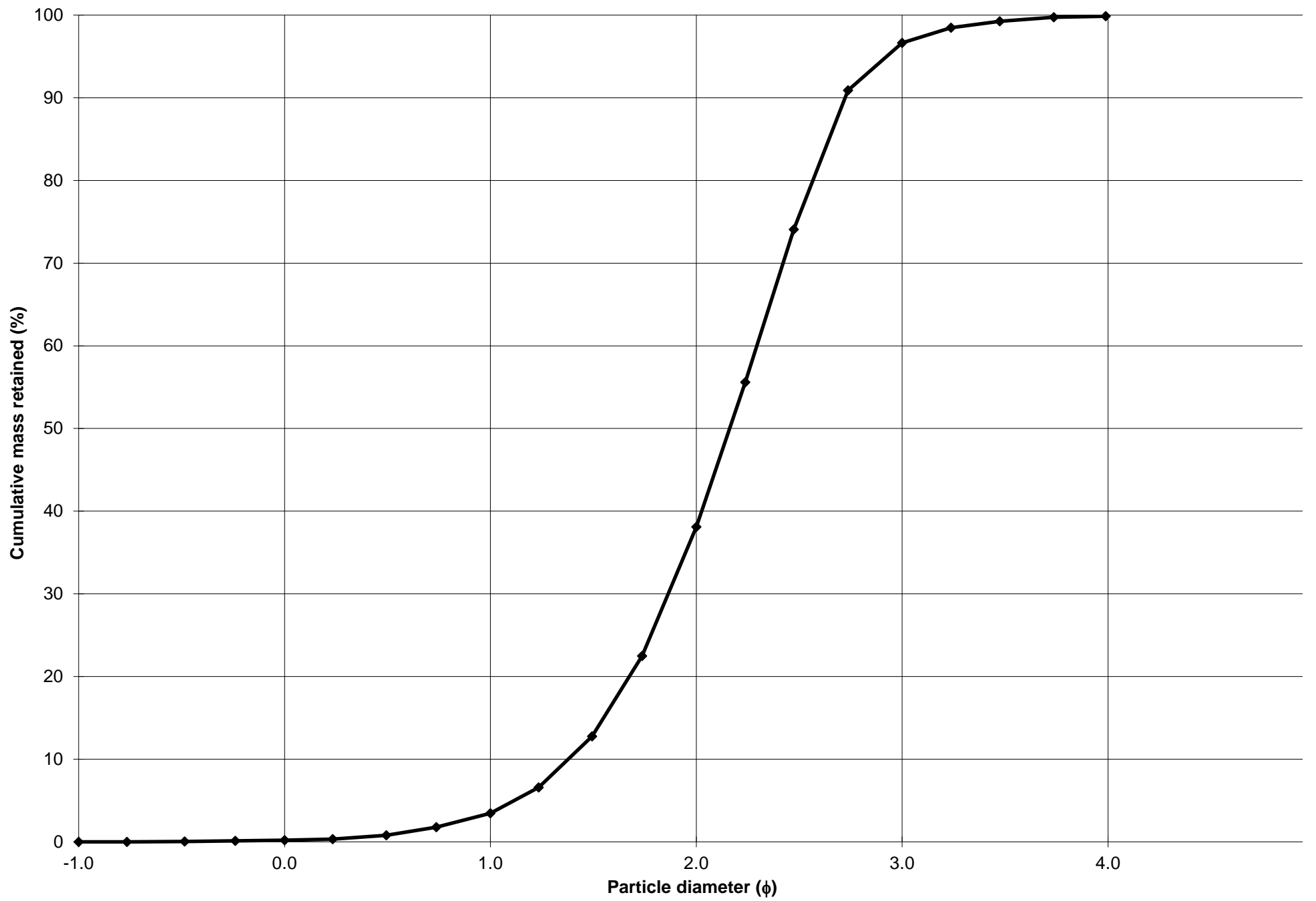
Cumulative Frequency Curve



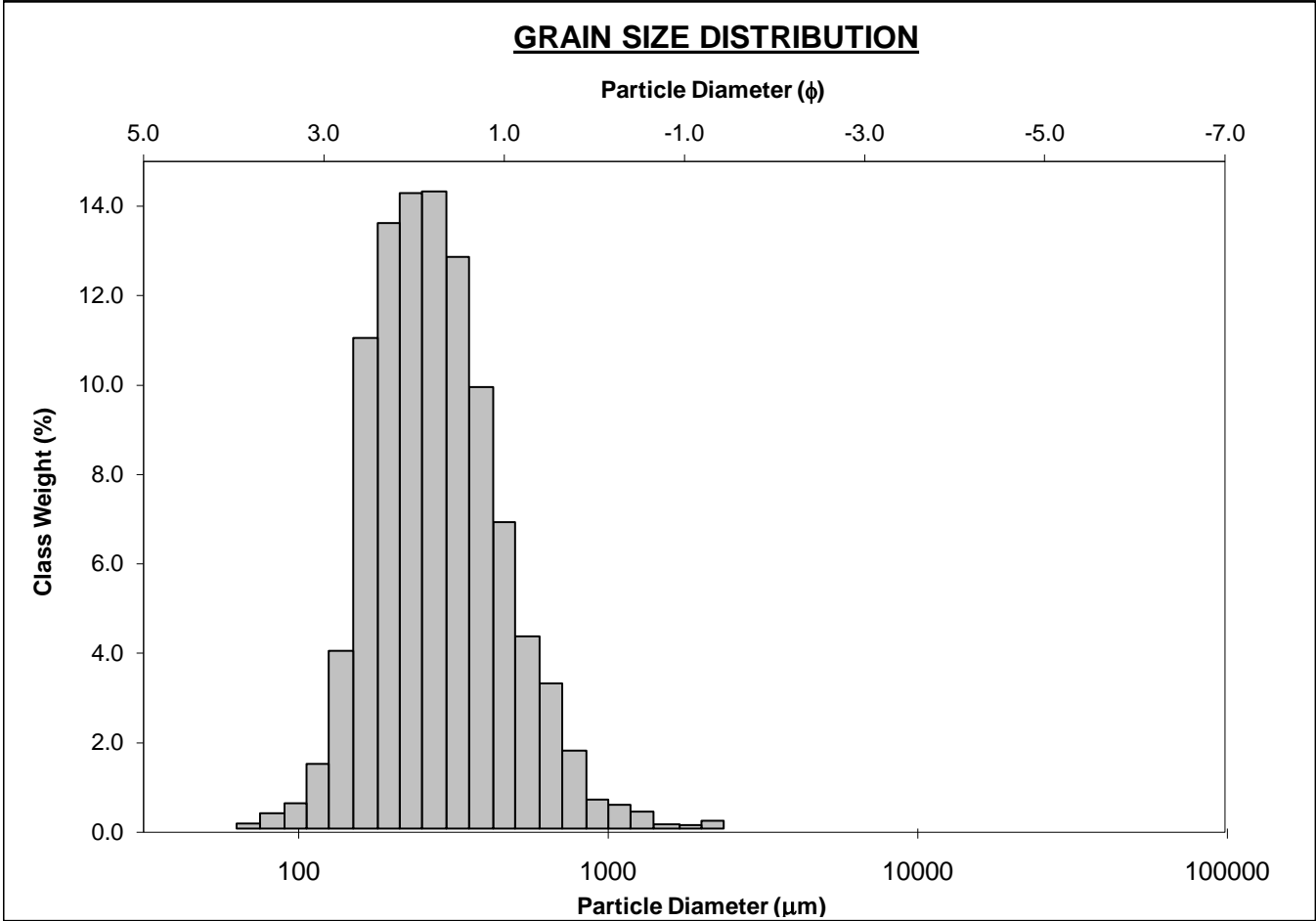
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 3.2%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 34.6%	
MODE 3:			MUD: 0.1%		FINE SAND: 58.5%	
D_{10} :	151.5	1.378			V FINE SAND: 3.2%	
MEDIAN or D_{50} :	223.5	2.162	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	384.8	2.723	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.540	1.976	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	233.3	1.345	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.635	1.399	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	113.1	0.709	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	252.1	231.0	2.114	229.7	2.122	Fine Sand
SORTING (σ):	117.4	1.499	0.584	1.452	0.538	Moderately Well Sorted
SKEWNESS (Sk):	2.868	-0.303	0.303	0.135	-0.135	Coarse Skewed
KURTOSIS (K):	19.65	10.00	10.00	1.046	1.046	Mesokurtic



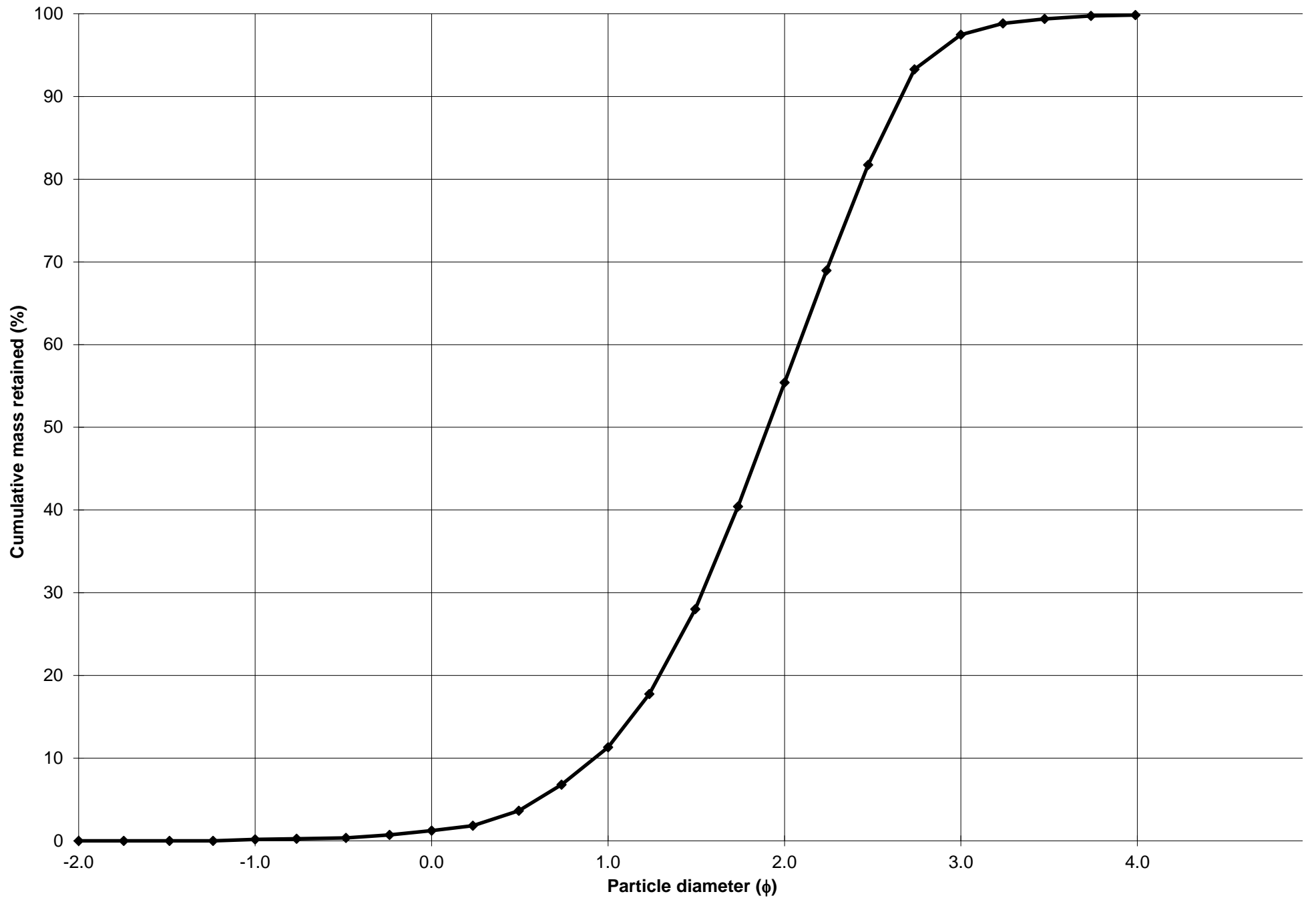
Cumulative Frequency Curve



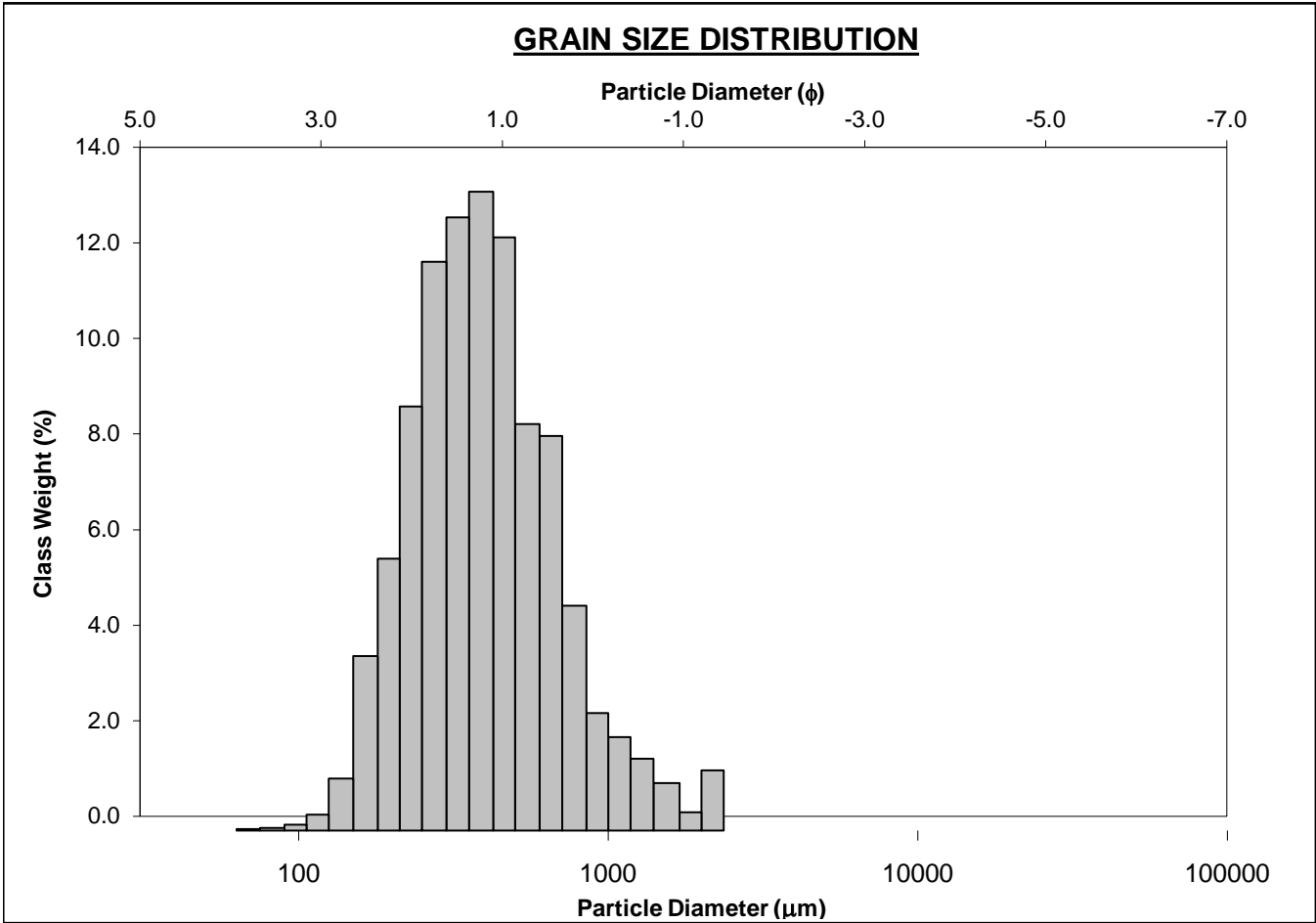
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.2%		COARSE SAND: 10.1%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 44.1%	
MODE 3:			MUD: 0.2%		FINE SAND: 42.0%	
D ₁₀ :	158.0	0.923			V FINE SAND: 2.4%	
MEDIAN or D ₅₀ :	267.0	1.905	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	527.4	2.662	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.339	2.885	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	369.5	1.739	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.908	1.657	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	178.0	0.932	V COARSE SAND: 1.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	317.6	277.2	1.851	274.1	1.867	Medium Sand
SORTING (σ):	195.4	1.651	0.723	1.601	0.679	Moderately Well Sorted
SKEWNESS (Sk):	3.367	-0.026	0.026	0.123	-0.123	Coarse Skewed
KURTOSIS (K):	23.44	7.115	7.115	0.988	0.988	Mesokurtic



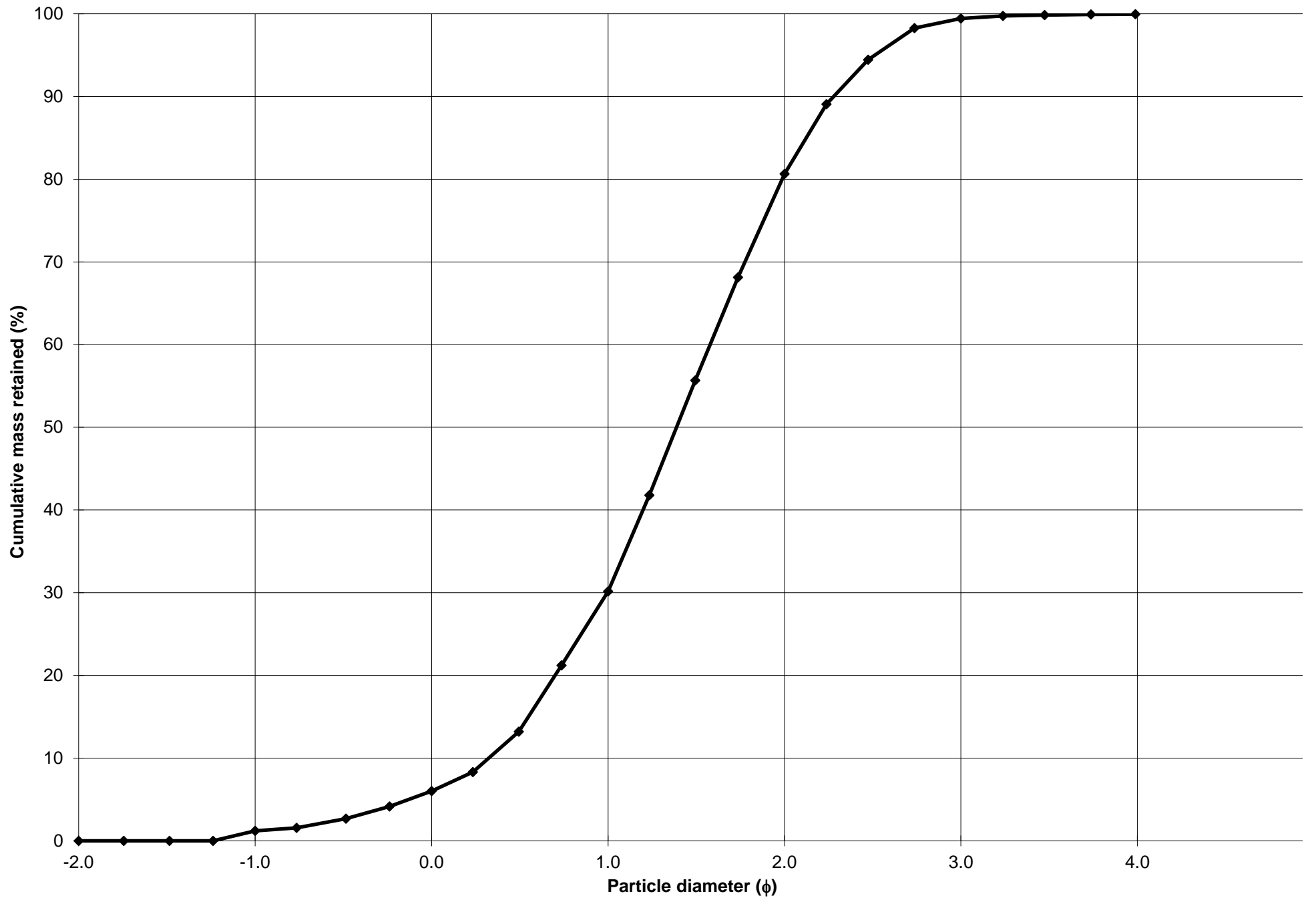
Cumulative Frequency Curve



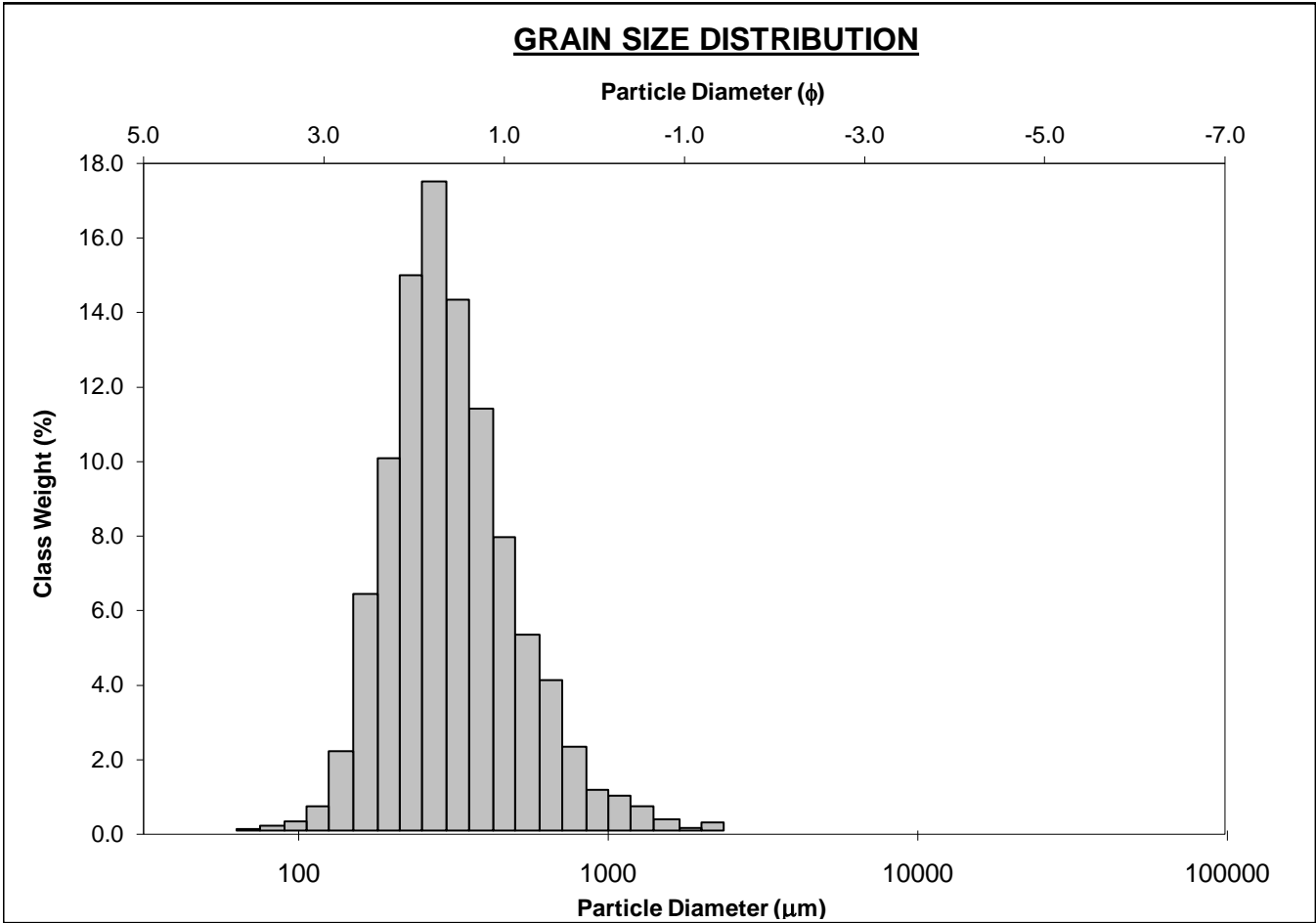
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-30cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 1.2%	COARSE SAND: 24.1%		
MODE 2:			SAND: 98.7%	MEDIUM SAND: 50.5%		
MODE 3:			MUD: 0.1%	FINE SAND: 18.8%		
D ₁₀ :	206.1	0.323		V FINE SAND: 0.5%		
MEDIAN or D ₅₀ :	382.1	1.388	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	799.1	2.279	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	3.877	7.044	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	593.0	1.955	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	2.047	2.219	V FINE GRAVEL: 1.2%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	284.1	1.033	V COARSE SAND: 4.8%	CLAY: 0.0%		
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	472.2	397.9	1.329	391.3	1.354	Medium Sand
SORTING (σ):	327.9	1.741	0.800	1.716	0.779	Moderately Sorted
SKEWNESS (Sk):	2.672	0.335	-0.335	0.108	-0.108	Coarse Skewed
KURTOSIS (K):	12.32	4.619	4.619	1.048	1.048	Mesokurtic



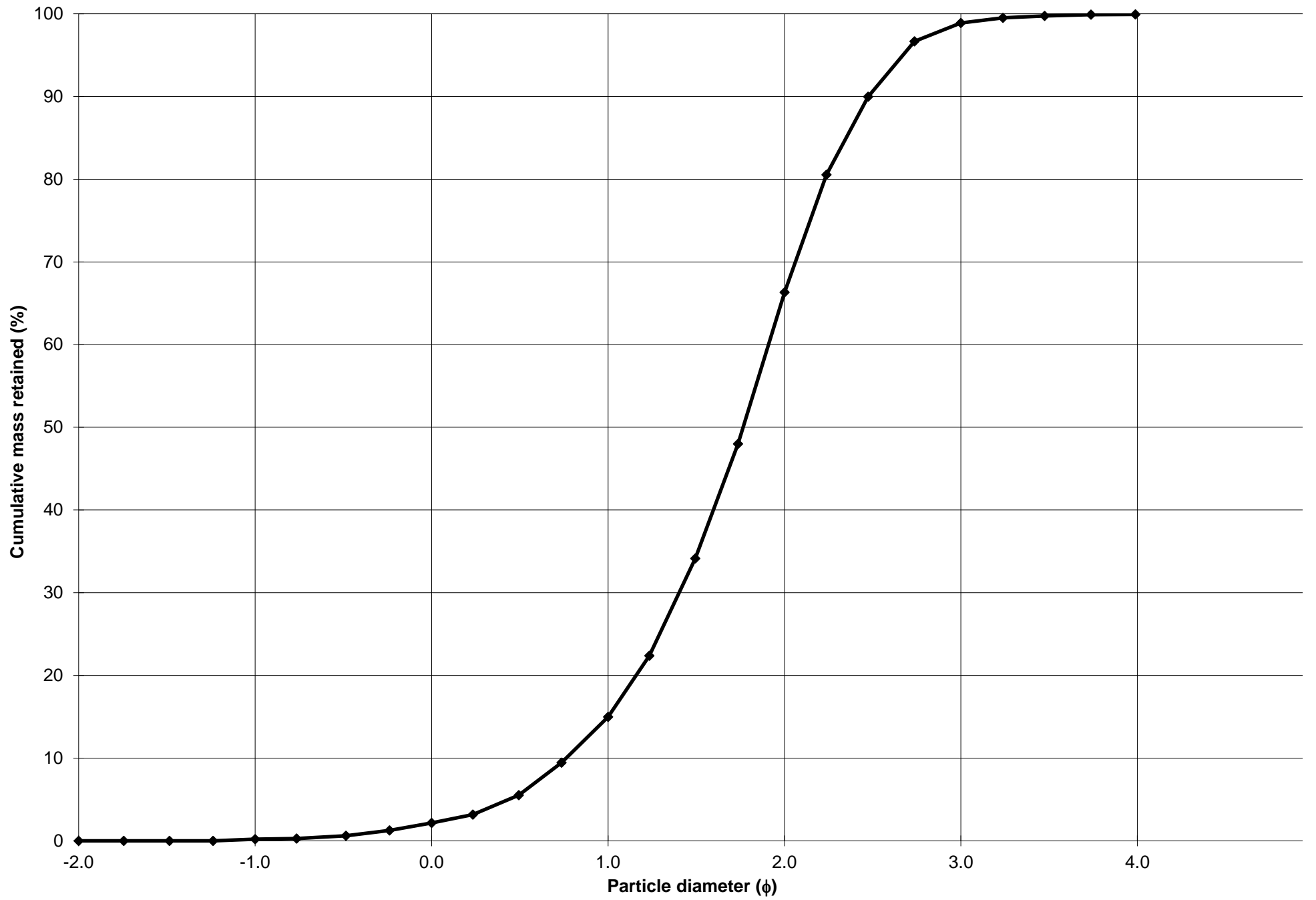
Cumulative Frequency Curve



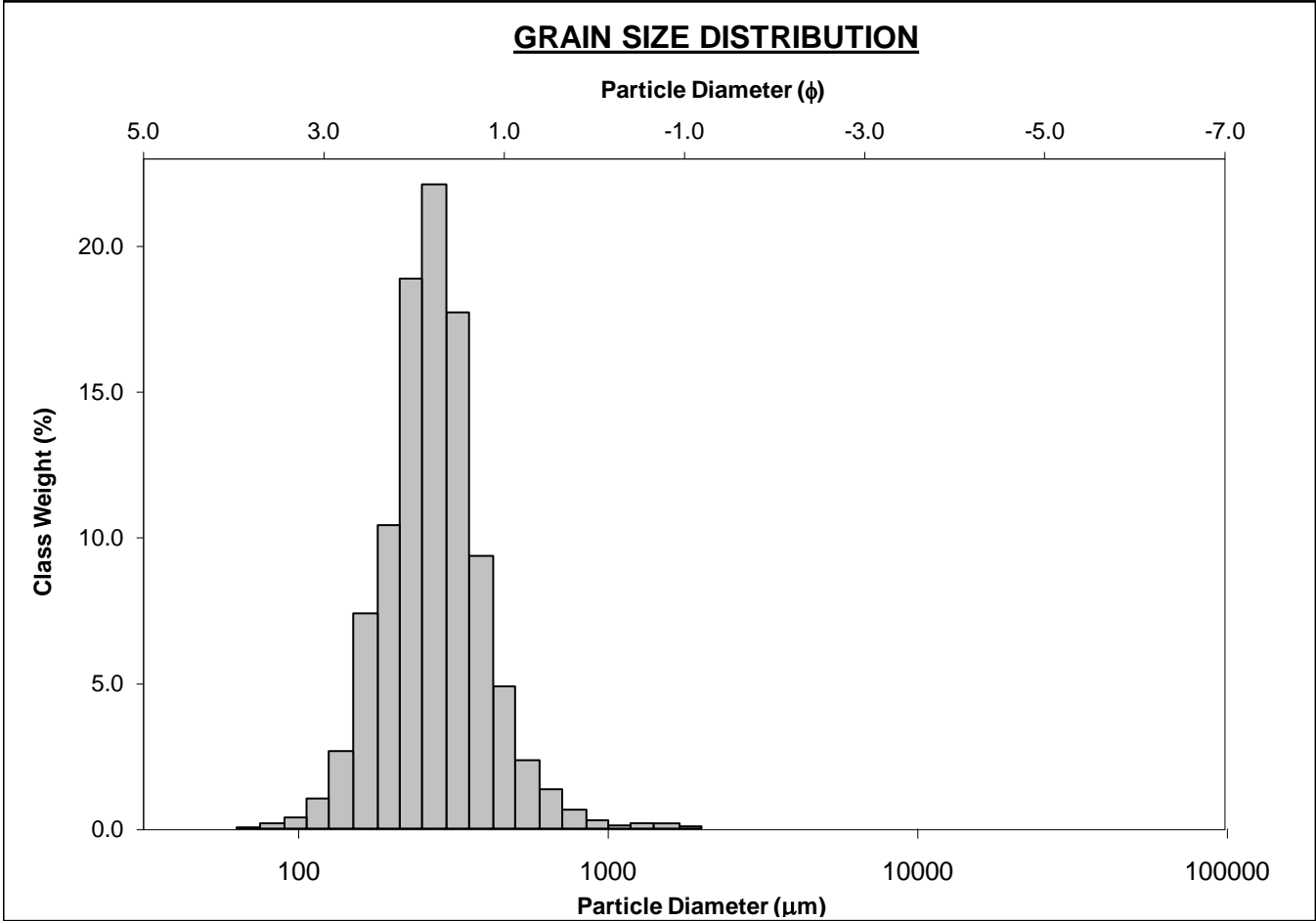
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-40cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.2%		COARSE SAND: 12.8%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 51.4%	
MODE 3:			MUD: 0.1%		FINE SAND: 32.6%	
D ₁₀ :	179.8	0.763			V FINE SAND: 1.0%	
MEDIAN or D ₅₀ :	294.1	1.766	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	589.1	2.475	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.276	3.242	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	409.3	1.712	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.806	1.660	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	182.2	0.853	V COARSE SAND: 1.9%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	355.4	311.3	1.684	306.2	1.708	Medium Sand
SORTING (σ):	219.0	1.624	0.700	1.582	0.662	Moderately Well Sorted
SKEWNESS (Sk):	3.149	0.330	-0.330	0.162	-0.162	Coarse Skewed
KURTOSIS (K):	18.85	6.003	6.003	1.074	1.074	Mesokurtic



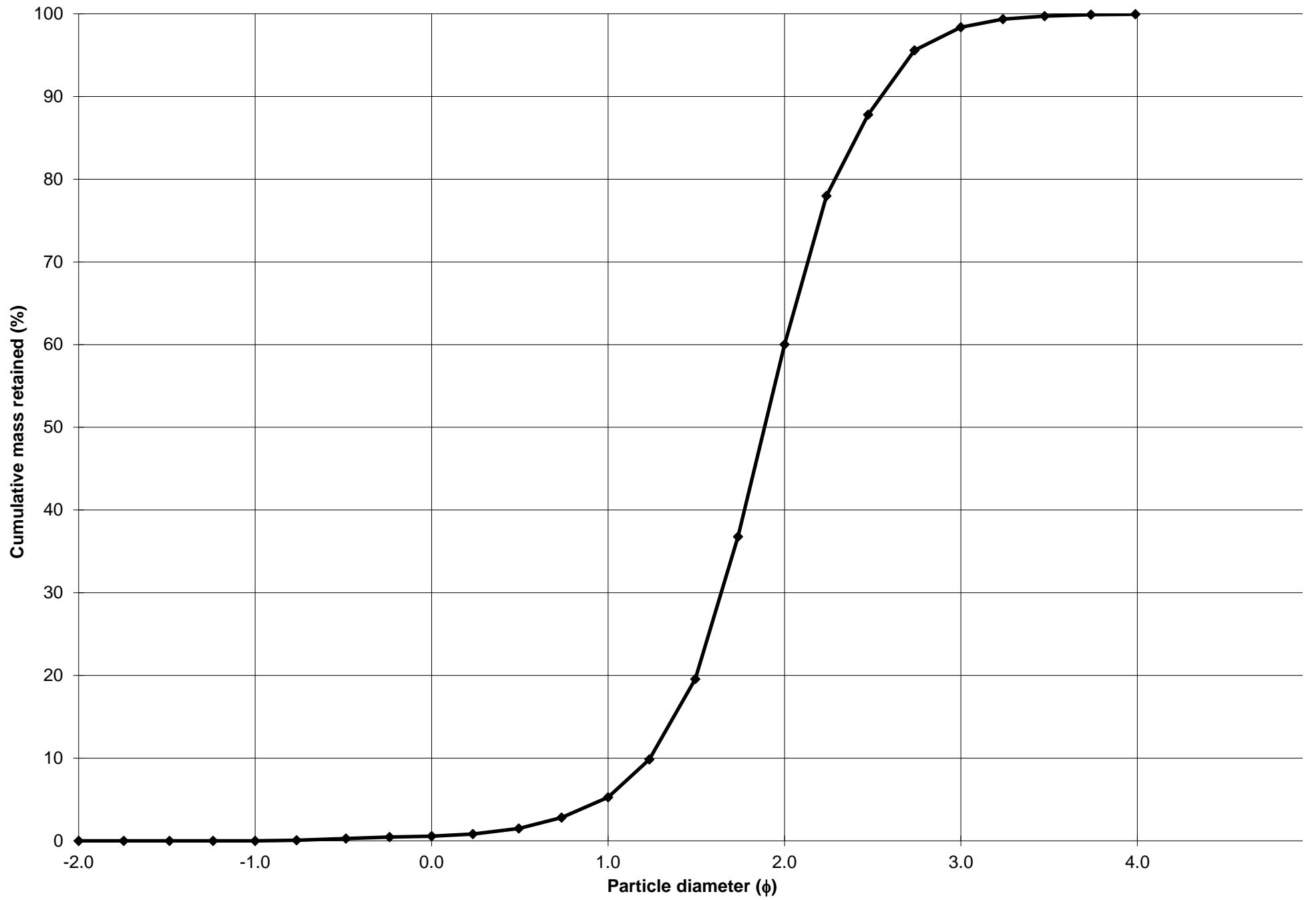
Cumulative Frequency Curve



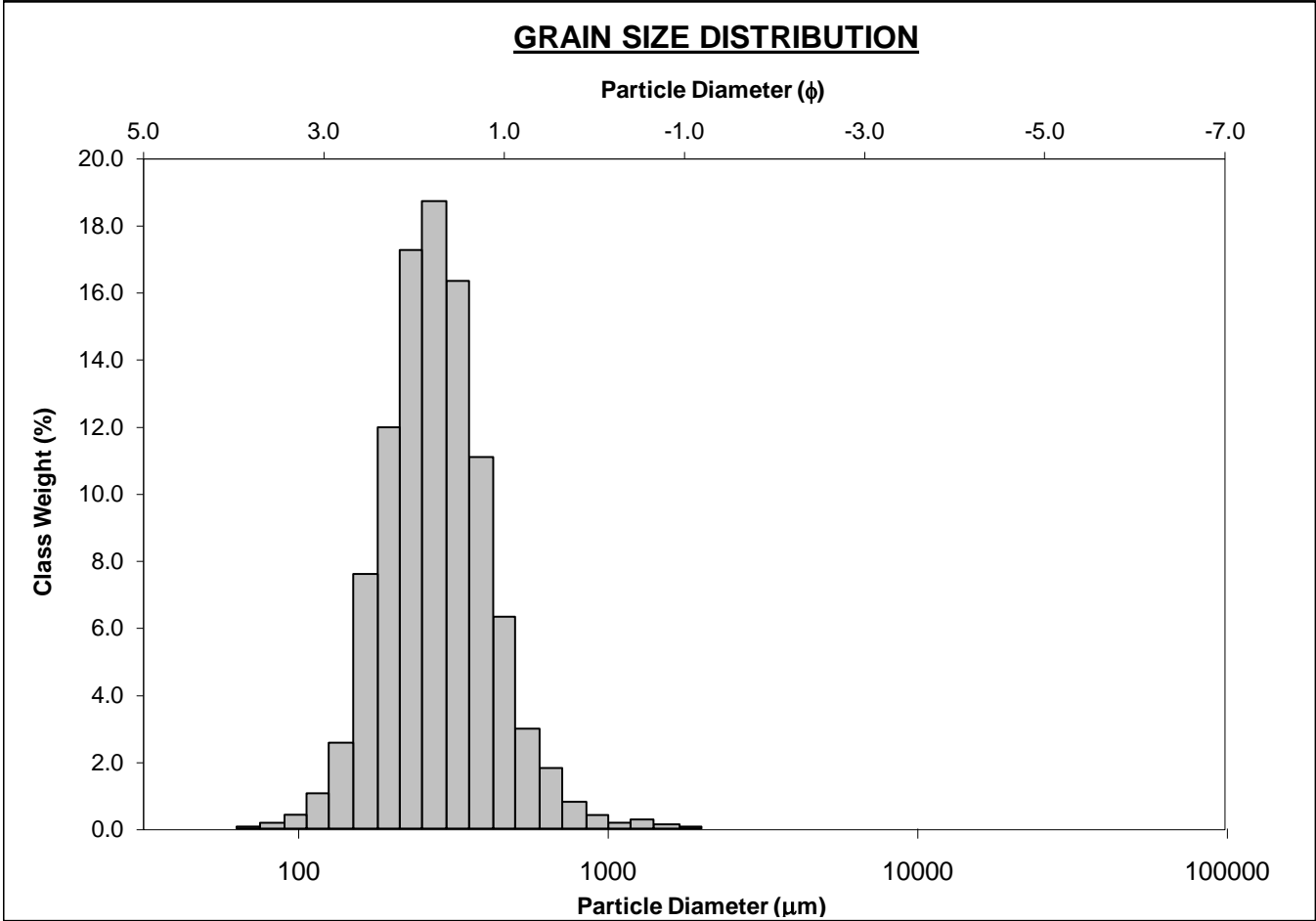
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-50cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 4.7%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 54.7%	
MODE 3:			MUD: 0.1%		FINE SAND: 38.3%	
D ₁₀ :	171.0	1.238			V FINE SAND: 1.6%	
MEDIAN or D ₅₀ :	270.4	1.887	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	423.8	2.548	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.479	2.058	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	252.9	1.310	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.545	1.400	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	118.7	0.628	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	296.2	272.6	1.875	269.9	1.889	Medium Sand
SORTING (σ):	141.5	1.472	0.558	1.425	0.511	Moderately Well Sorted
SKEWNESS (Sk):	3.921	0.053	-0.053	0.020	-0.020	Symmetrical
KURTOSIS (K):	31.29	8.565	8.565	1.141	1.141	Leptokurtic



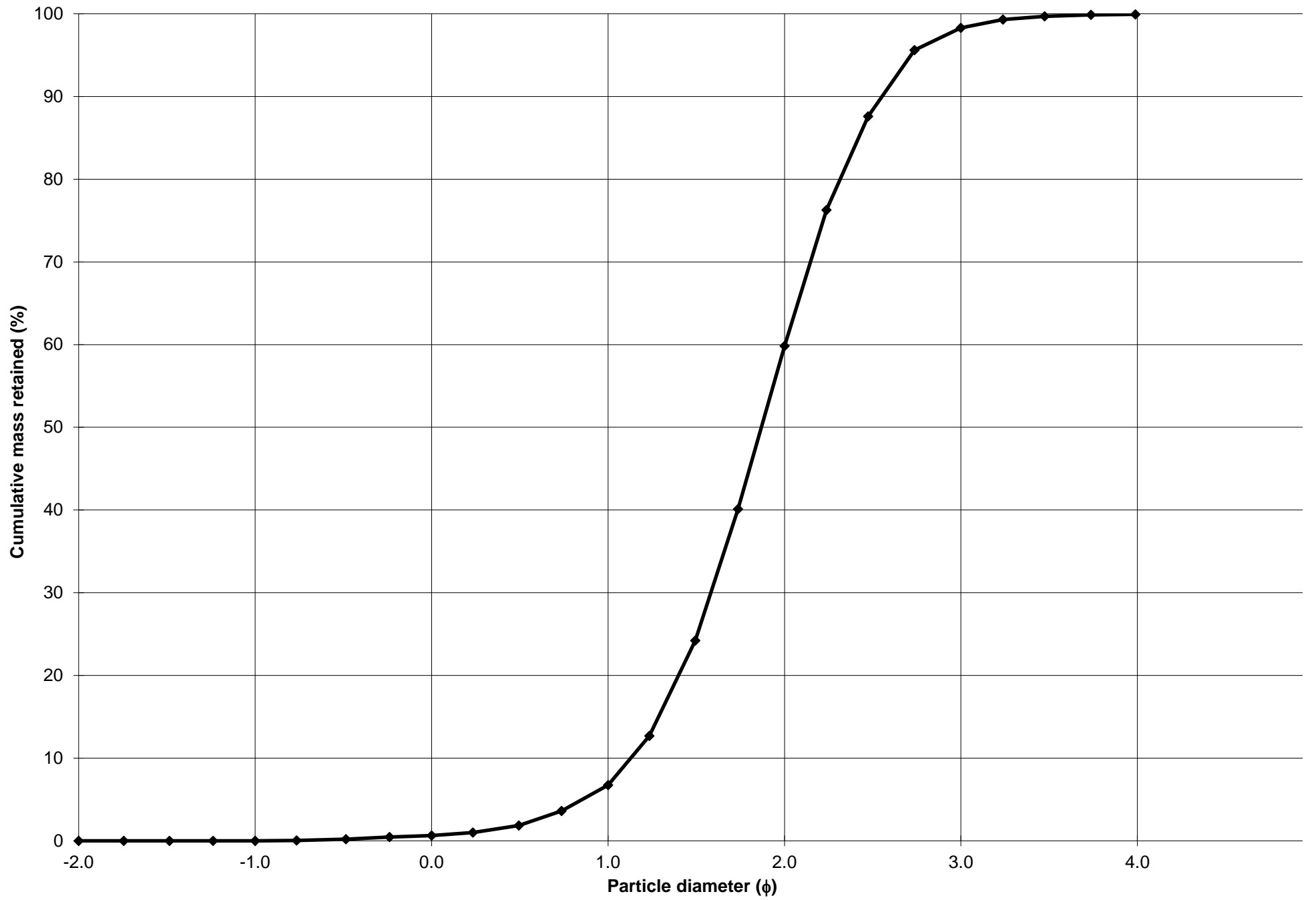
Cumulative Frequency Curve



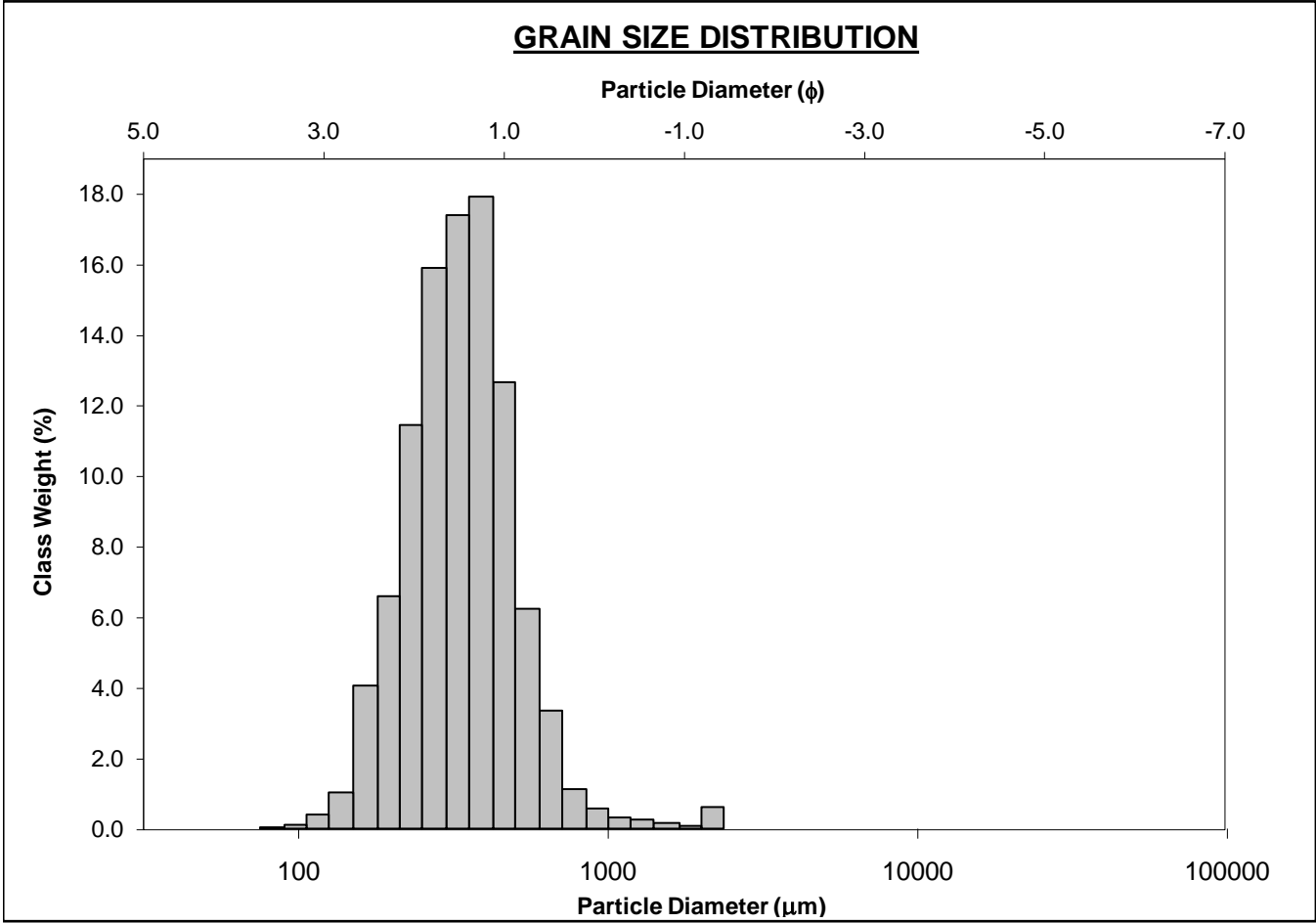
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-60cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 6.1%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 53.1%	
MODE 3:			MUD: 0.1%		FINE SAND: 38.5%	
D ₁₀ :	170.4	1.129			V FINE SAND: 1.6%	
MEDIAN or D ₅₀ :	273.8	1.869	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	457.3	2.553	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.684	2.262	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	286.9	1.424	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.639	1.474	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	137.3	0.713	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	304.9	278.0	1.847	275.7	1.859	Medium Sand
SORTING (σ):	149.6	1.509	0.593	1.469	0.555	Moderately Well Sorted
SKEWNESS (Sk):	3.222	0.004	-0.004	0.058	-0.058	Symmetrical
KURTOSIS (K):	22.49	7.582	7.582	1.071	1.071	Mesokurtic



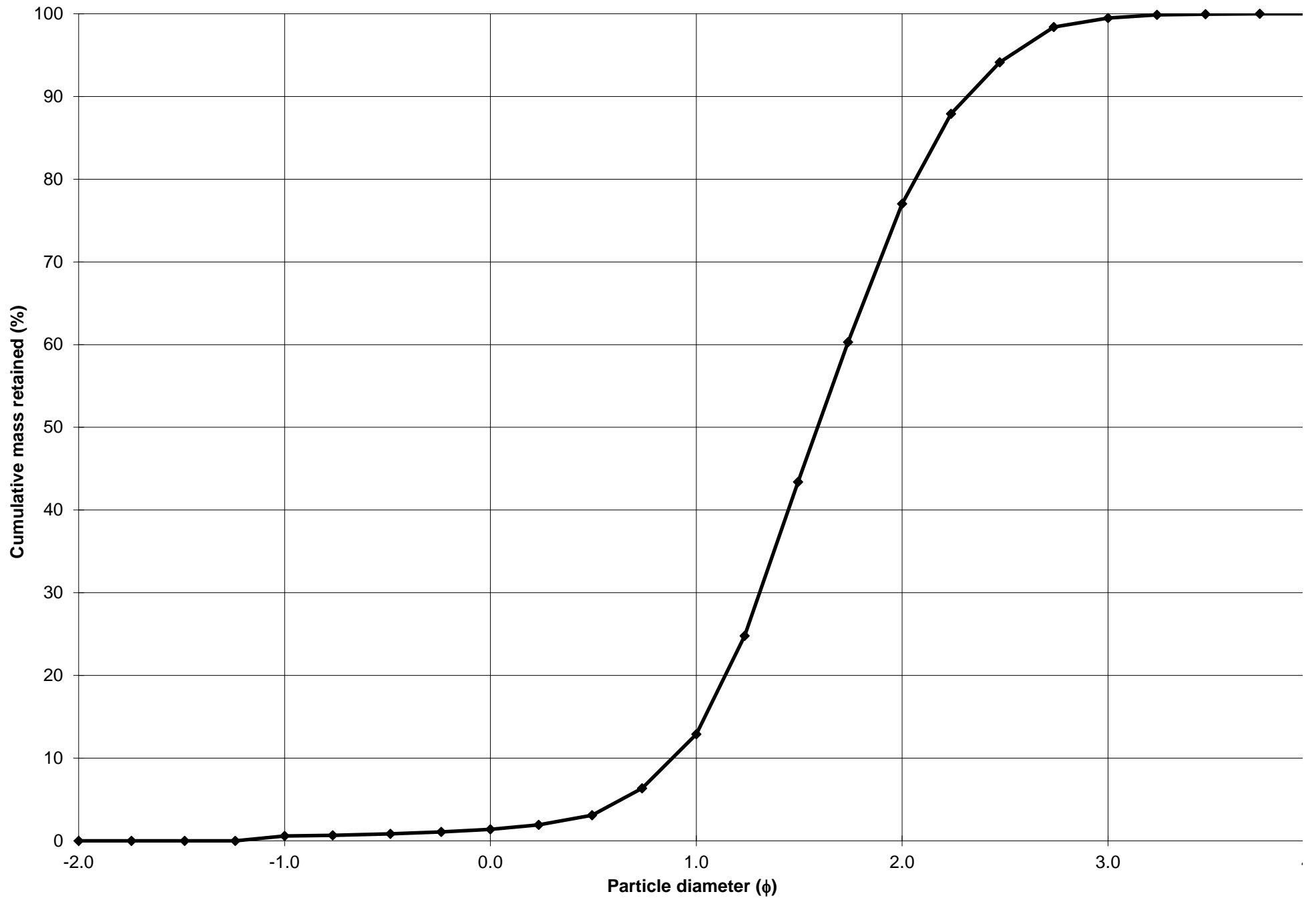
Cumulative Frequency Curve



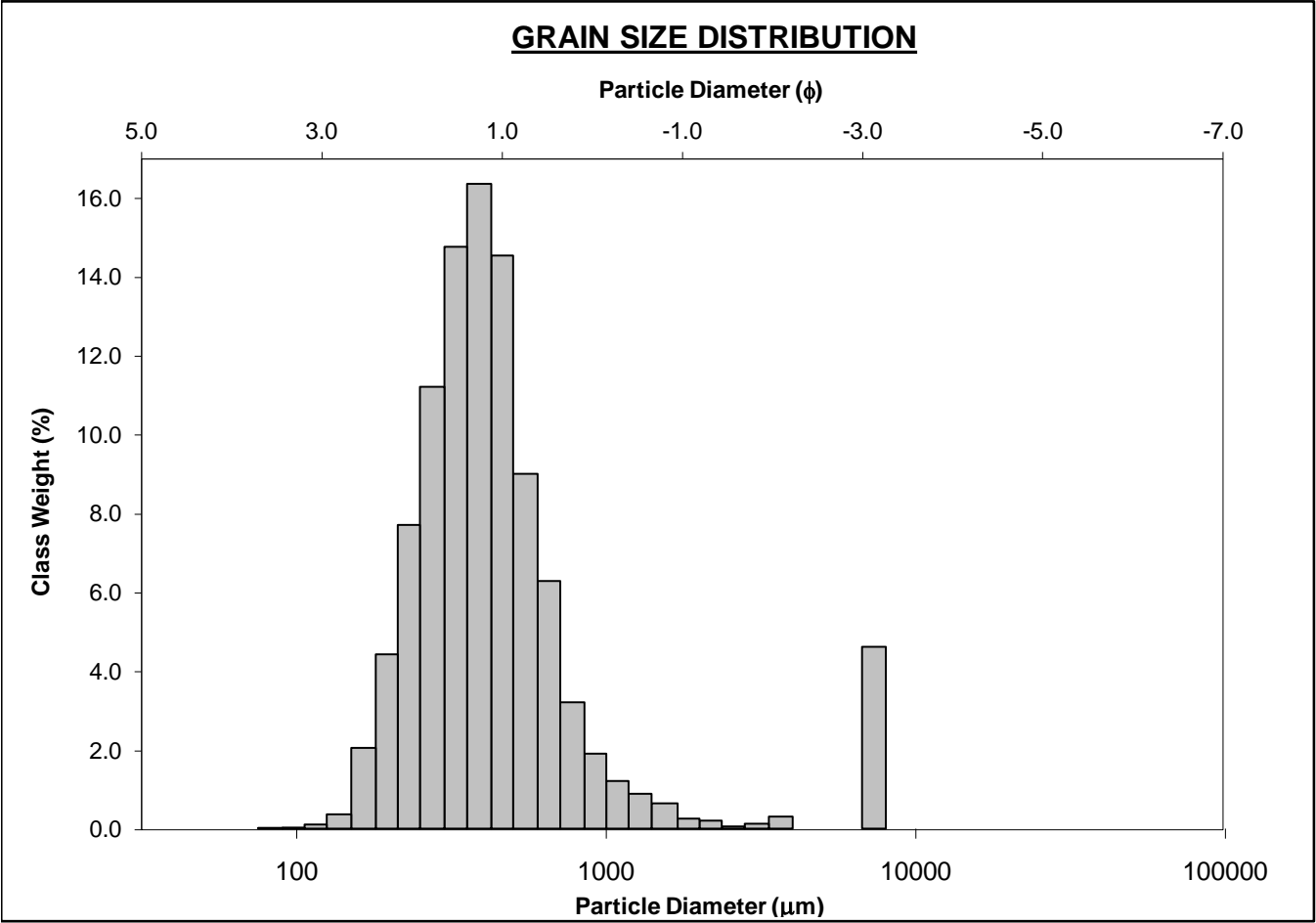
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-70cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.6%		COARSE SAND: 11.5%	
MODE 2:			SAND: 99.4%		MEDIUM SAND: 64.1%	
MODE 3:			MUD: 0.0%		FINE SAND: 22.5%	
D_{10} :	200.7	0.884			V FINE SAND: 0.5%	
MEDIAN or D_{50} :	332.4	1.589	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	542.0	2.317	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.701	2.622	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	341.3	1.434	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.659	1.590	V FINE GRAVEL: 0.6%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	168.5	0.731	V COARSE SAND: 0.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	370.1	334.3	1.581	329.7	1.601	Medium Sand
SORTING (σ):	212.0	1.516	0.600	1.474	0.559	Moderately Well Sorted
SKEWNESS (Sk):	4.682	0.654	-0.654	-0.013	0.013	Symmetrical
KURTOSIS (K):	36.47	5.321	5.321	1.060	1.060	Mesokurtic



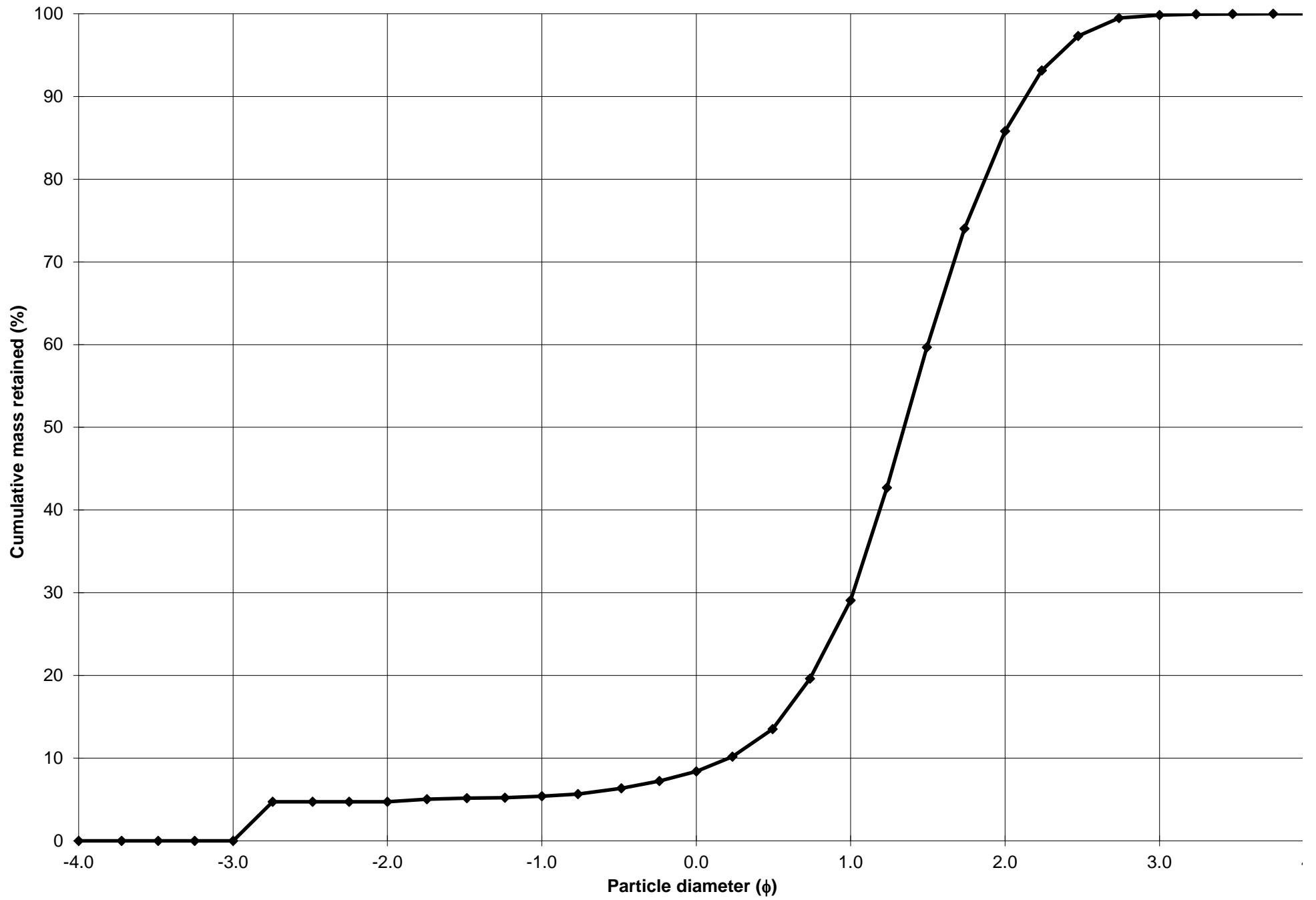
Cumulative Frequency Curve



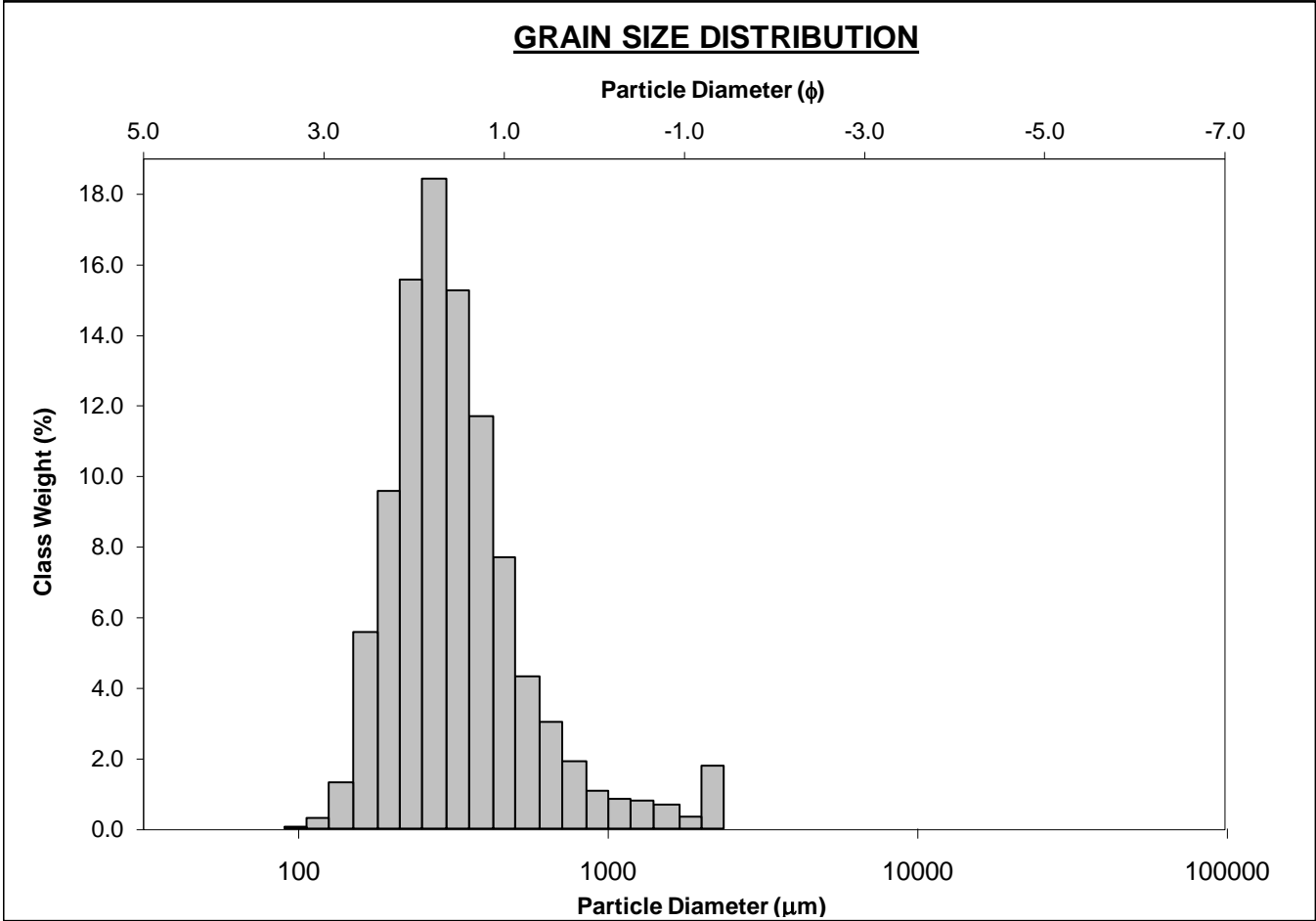
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-80cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Gravelly Sand			
SEDIMENT NAME: Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 5.4%		COARSE SAND: 20.7%	
MODE 2:	7350.0	-2.872	SAND: 94.6%		MEDIUM SAND: 56.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 14.0%	
D ₁₀ :	227.5	0.212			V FINE SAND: 0.1%	
MEDIAN or D ₅₀ :	393.4	1.346	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	863.4	2.136	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.794	10.08	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	635.9	1.924	FINE GRAVEL: 4.7%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.830	1.983	V FINE GRAVEL: 0.7%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	245.2	0.872	V COARSE SAND: 3.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	779.8	454.4	1.138	406.2	1.300	Medium Sand
SORTING (σ):	1496.0	2.166	1.115	1.952	0.965	Moderately Sorted
SKEWNESS (Sk):	4.009	2.188	-2.188	0.309	-0.309	Very Coarse Skewed
KURTOSIS (K):	17.62	8.534	8.534	1.933	1.933	Very Leptokurtic



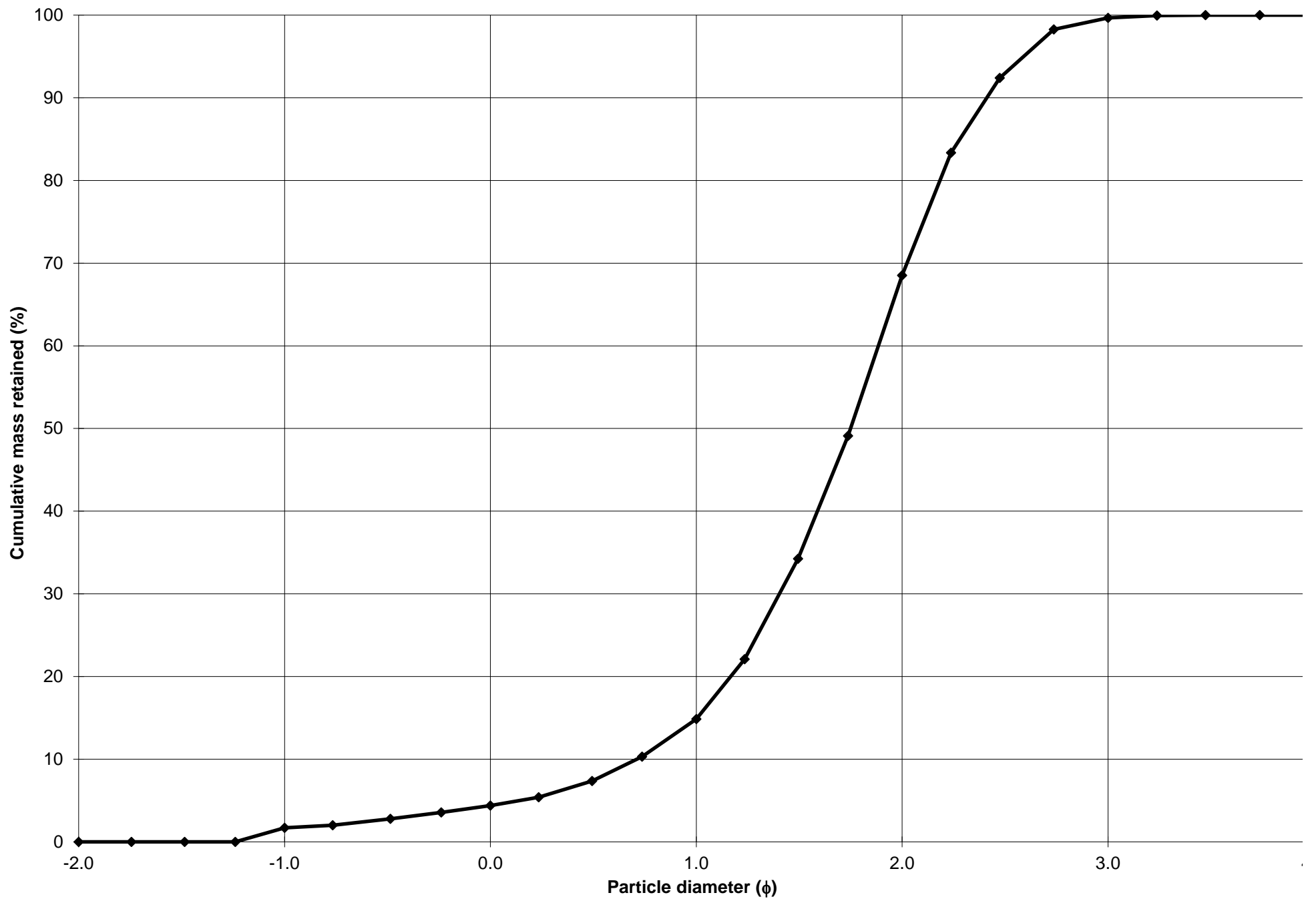
Cumulative Frequency Curve



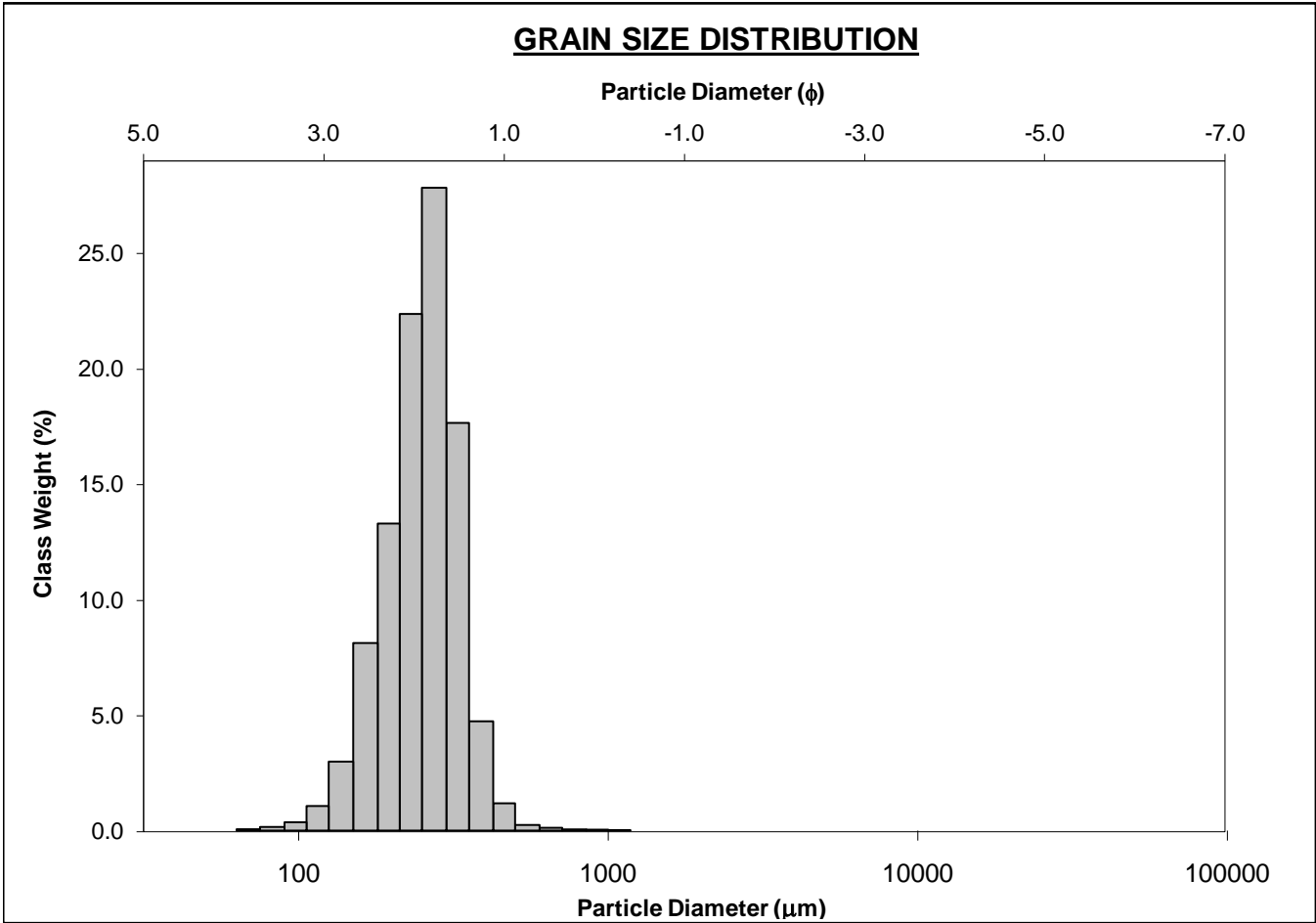
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-90cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 1.7%		COARSE SAND: 10.5%	
MODE 2:			SAND: 98.3%		MEDIUM SAND: 53.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 31.1%	
D ₁₀ :	188.0	0.711			V FINE SAND: 0.3%	
MEDIAN or D ₅₀ :	297.5	1.749	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	610.9	2.411	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.249	3.391	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	422.9	1.700	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.750	1.623	V FINE GRAVEL: 1.7%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	174.5	0.807	V COARSE SAND: 2.7%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	389.8	326.3	1.616	312.0	1.680	Medium Sand
SORTING (σ):	325.4	1.681	0.749	1.596	0.675	Moderately Well Sorted
SKEWNESS (Sk):	3.745	1.340	-1.340	0.241	-0.241	Coarse Skewed
KURTOSIS (K):	18.94	5.576	5.576	1.241	1.241	Leptokurtic



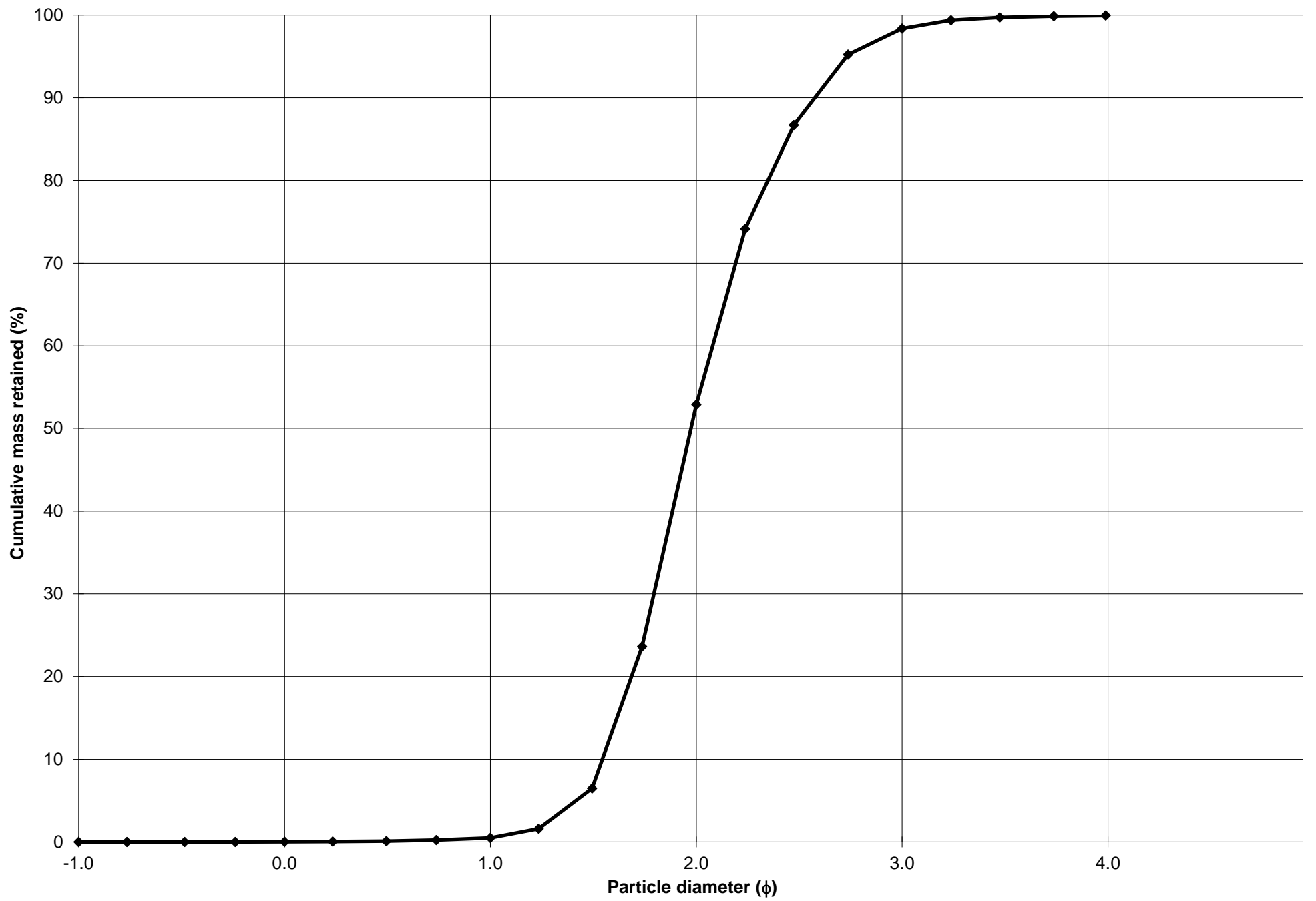
Cumulative Frequency Curve



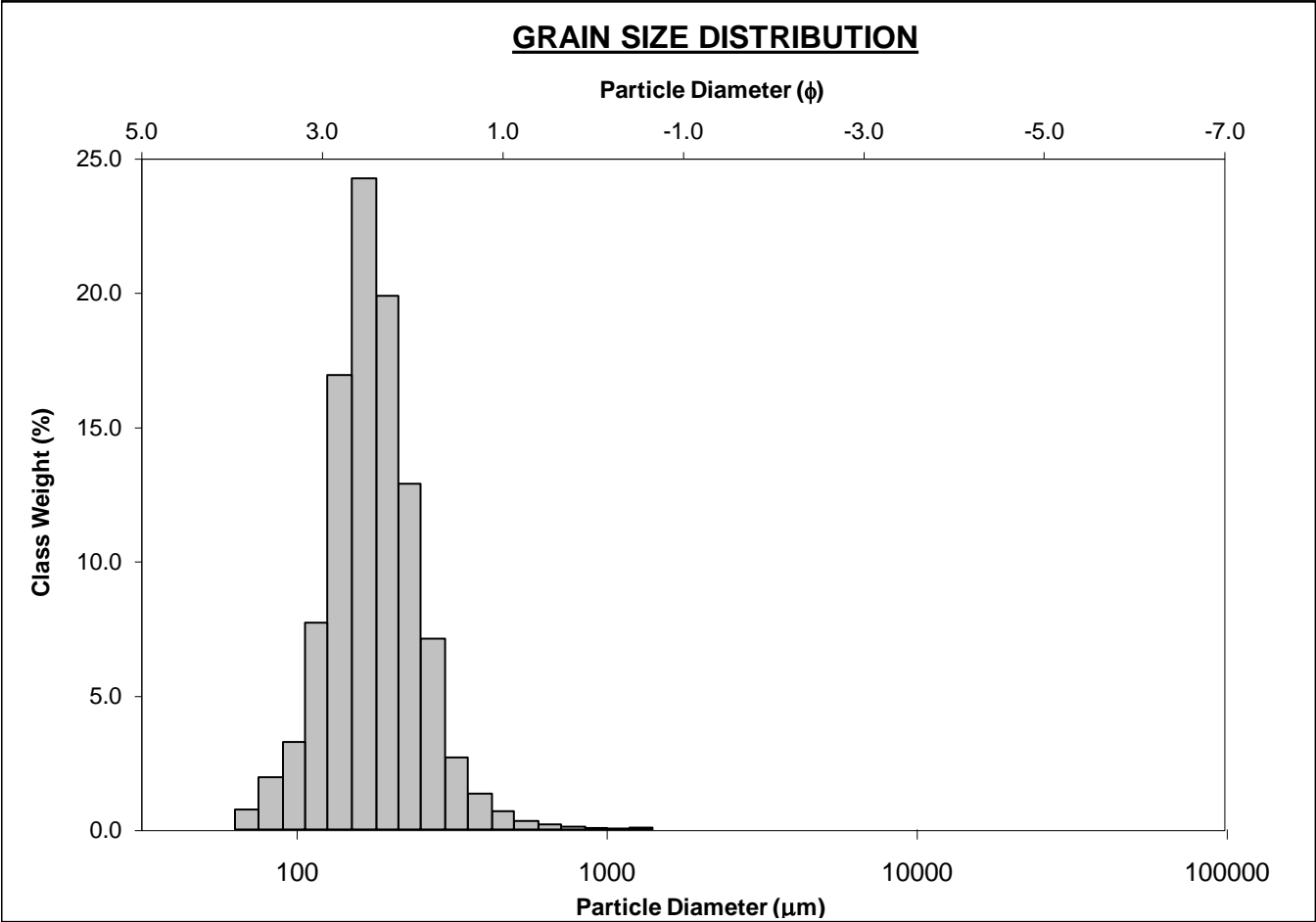
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-100cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 0.5%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 52.4%	
MODE 3:			MUD: 0.1%		FINE SAND: 45.5%	
D ₁₀ :	167.7	1.544			V FINE SAND: 1.6%	
MEDIAN or D ₅₀ :	254.5	1.974	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	343.0	2.576	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.045	1.669	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	175.3	1.032	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.419	1.288	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	87.79	0.505	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	257.7	246.6	2.020	248.5	2.009	Fine Sand
SORTING (σ):	72.67	1.344	0.427	1.318	0.398	Well Sorted
SKEWNESS (Sk):	1.211	-1.330	1.330	-0.140	0.140	Fine Skewed
KURTOSIS (K):	10.81	15.15	15.15	1.068	1.068	Mesokurtic



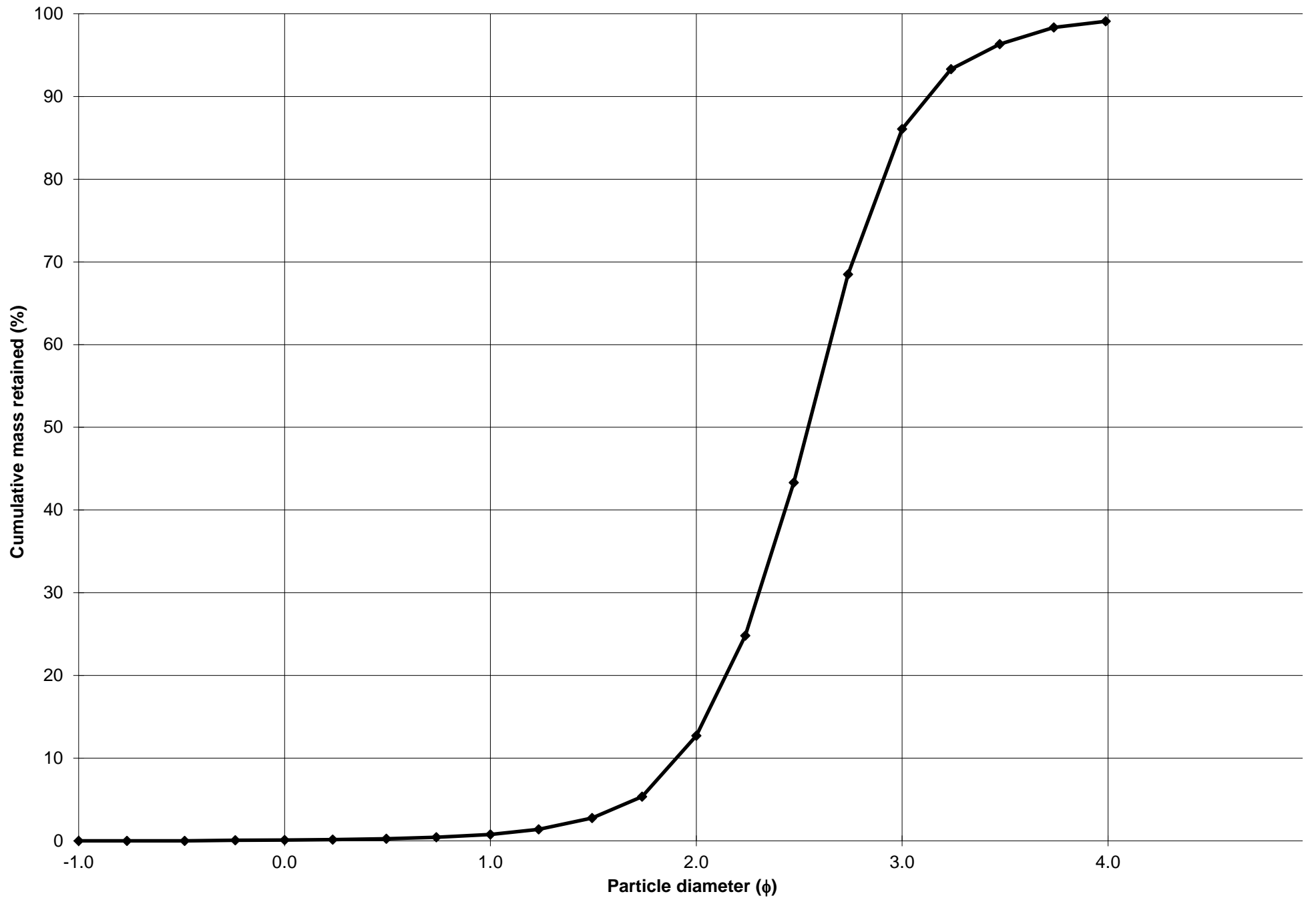
Cumulative Frequency Curve



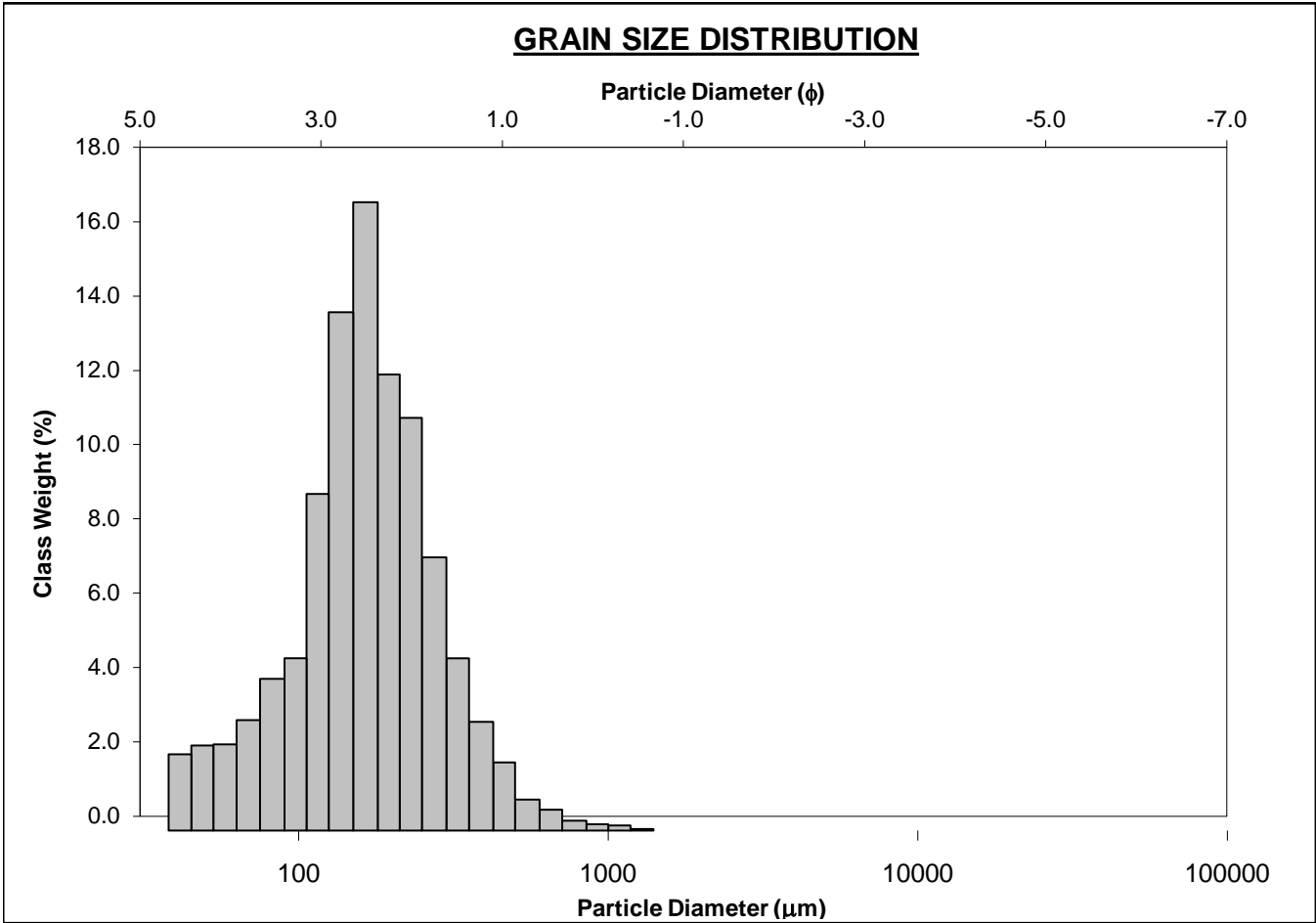
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-110cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.7%			
MODE 2:			SAND: 99.1% MEDIUM SAND: 11.9%			
MODE 3:			MUD: 0.9% FINE SAND: 73.3%			
D ₁₀ :	114.3	1.903	V FINE SAND: 13.0%			
MEDIAN or D ₅₀ :	171.5	2.544	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.2%			
D ₉₀ :	267.4	3.130	COARSE GRAVEL: 0.0% COARSE SILT: 0.2%			
(D ₉₀ / D ₁₀):	2.340	1.644	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.2%			
(D ₉₀ - D ₁₀):	153.1	1.226	FINE GRAVEL: 0.0% FINE SILT: 0.2%			
(D ₇₅ / D ₂₅):	1.509	1.265	V FINE GRAVEL: 0.0% V FINE SILT: 0.2%			
(D ₇₅ - D ₂₅):	71.43	0.594	V COARSE SAND: 0.1% CLAY: 0.2%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	186.2	170.3	2.554	173.6	2.526	Fine Sand
SORTING (σ):	81.66	1.574	0.654	1.393	0.479	Well Sorted
SKEWNESS (Sk):	4.023	-2.516	2.516	0.033	-0.033	Symmetrical
KURTOSIS (K):	39.54	21.14	21.14	1.149	1.149	Leptokurtic



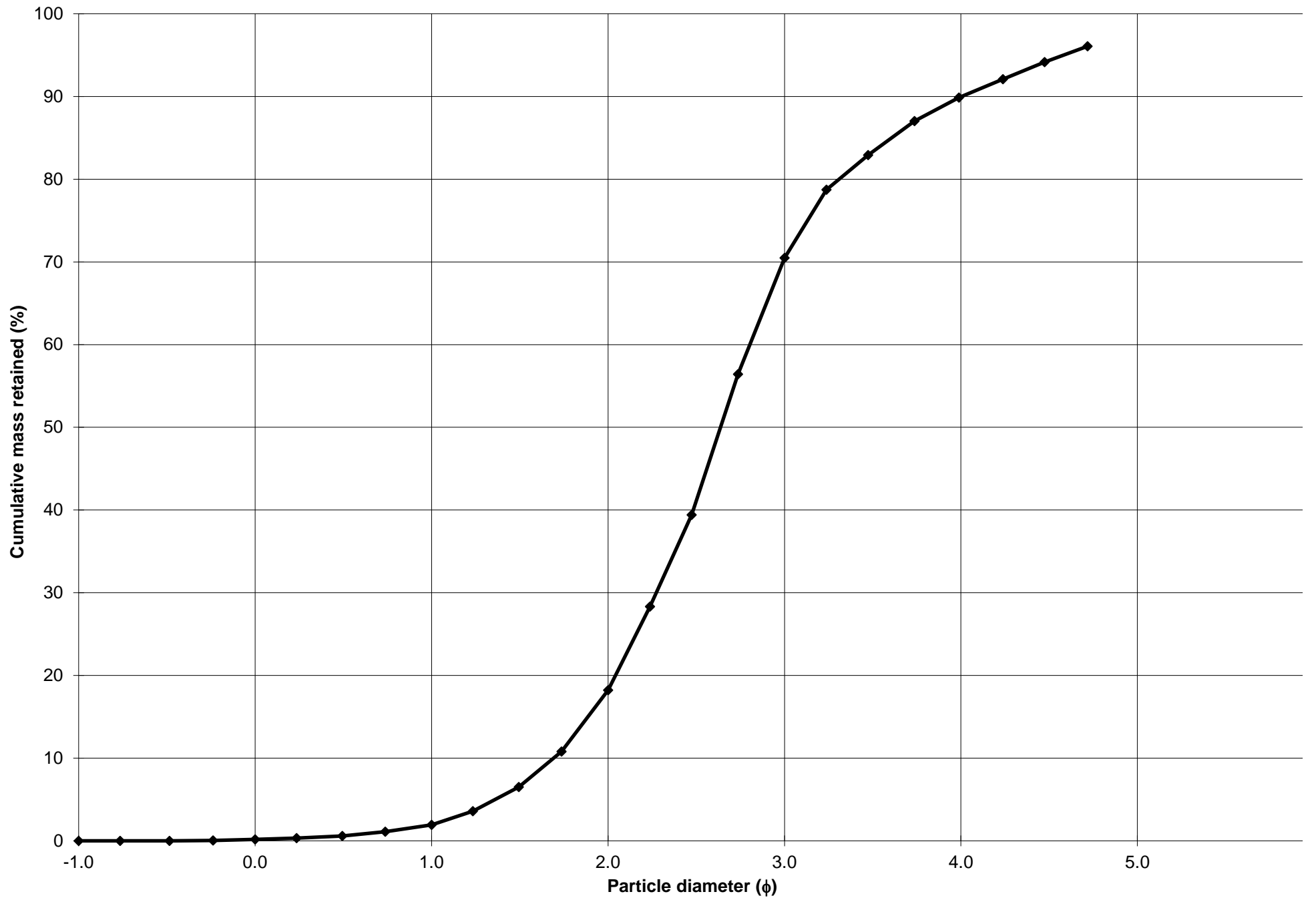
Cumulative Frequency Curve



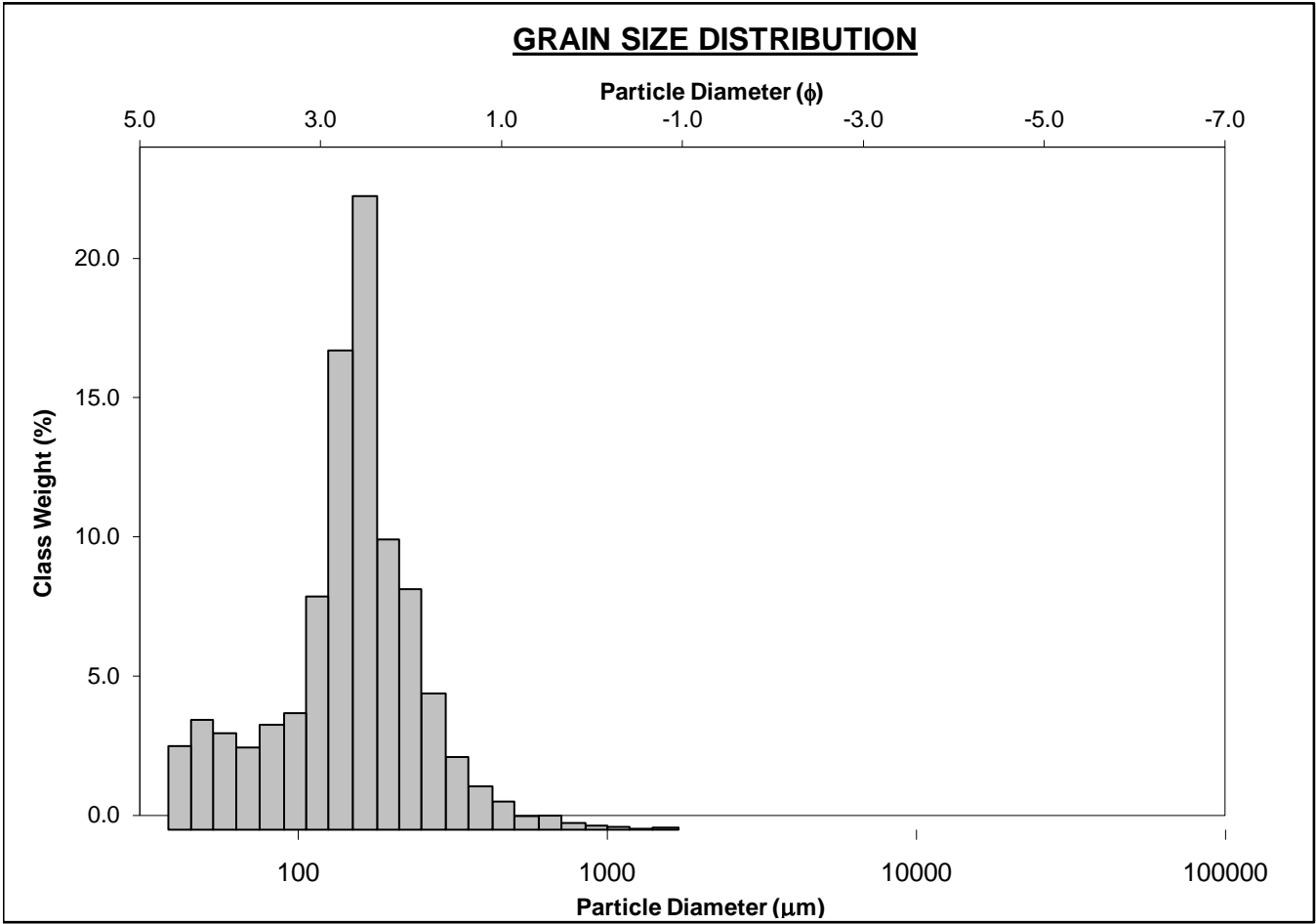
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-120cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Muddy Sand			
SEDIMENT NAME: Very Coarse Silty Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 1.8%	
MODE 2:			SAND: 90.0%		MEDIUM SAND: 16.3%	
MODE 3:			MUD: 10.0%		FINE SAND: 52.3%	
D ₁₀ :	62.40	1.692			V FINE SAND: 19.5%	
MEDIAN or D ₅₀ :	160.7	2.638	V COARSE GRAVEL: 0.0%		V COARSE SILT: 6.3%	
D ₉₀ :	309.6	4.002	COARSE GRAVEL: 0.0%		COARSE SILT: 0.7%	
(D ₉₀ / D ₁₀):	4.962	2.366	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.7%	
(D ₉₀ - D ₁₀):	247.2	2.311	FINE GRAVEL: 0.0%		FINE SILT: 0.7%	
(D ₇₅ / D ₂₅):	1.960	1.449	V FINE GRAVEL: 0.0%		V FINE SILT: 0.7%	
(D ₇₅ - D ₂₅):	109.6	0.971	V COARSE SAND: 0.2%		CLAY: 0.7%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	182.1	142.2	2.814	153.8	2.701	Fine Sand
SORTING (σ):	117.7	2.304	1.204	1.858	0.894	Moderately Sorted
SKEWNESS (Sk):	2.455	-1.946	1.946	-0.162	0.162	Fine Skewed
KURTOSIS (K):	15.13	8.637	8.637	1.360	1.360	Leptokurtic



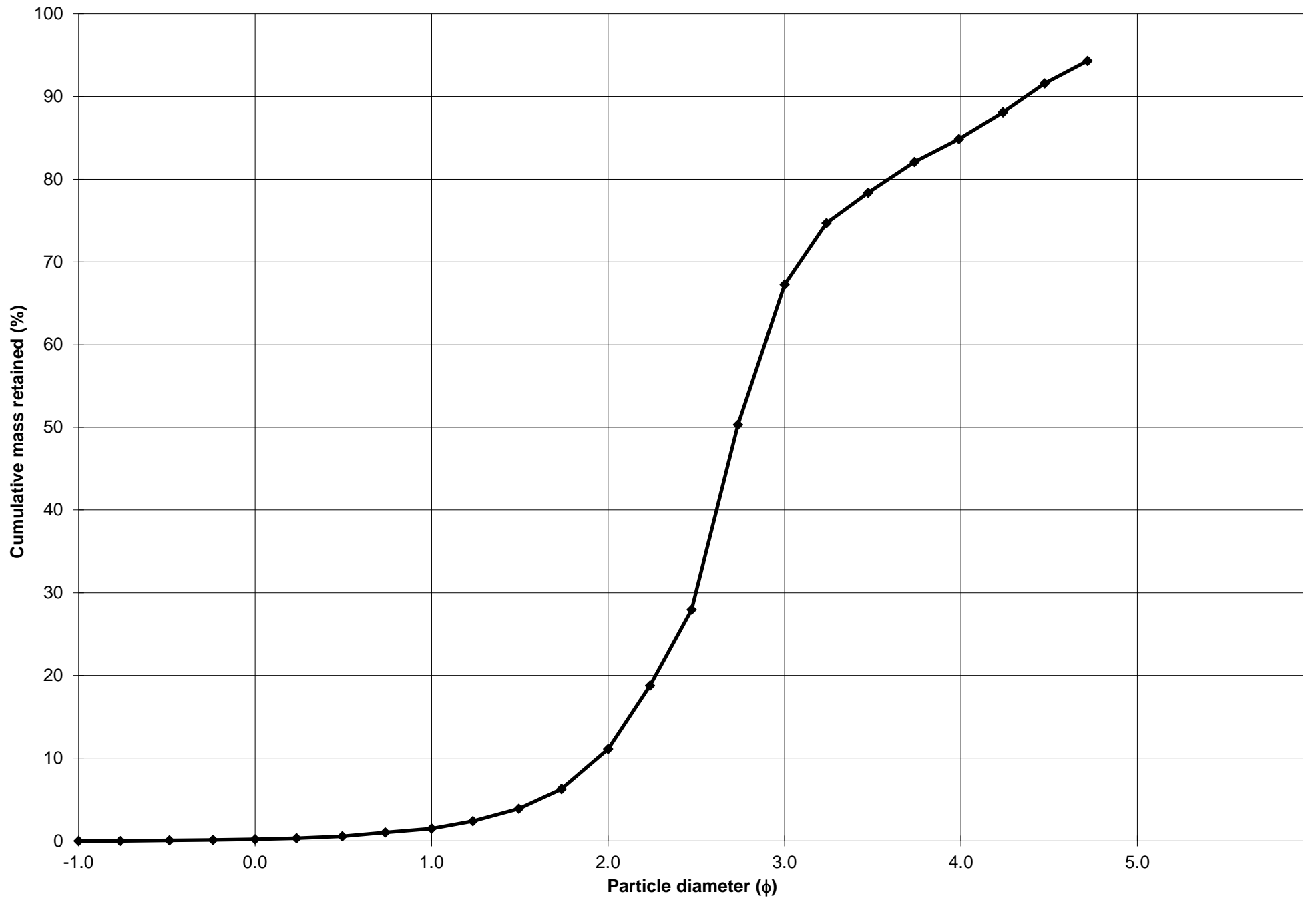
Cumulative Frequency Curve



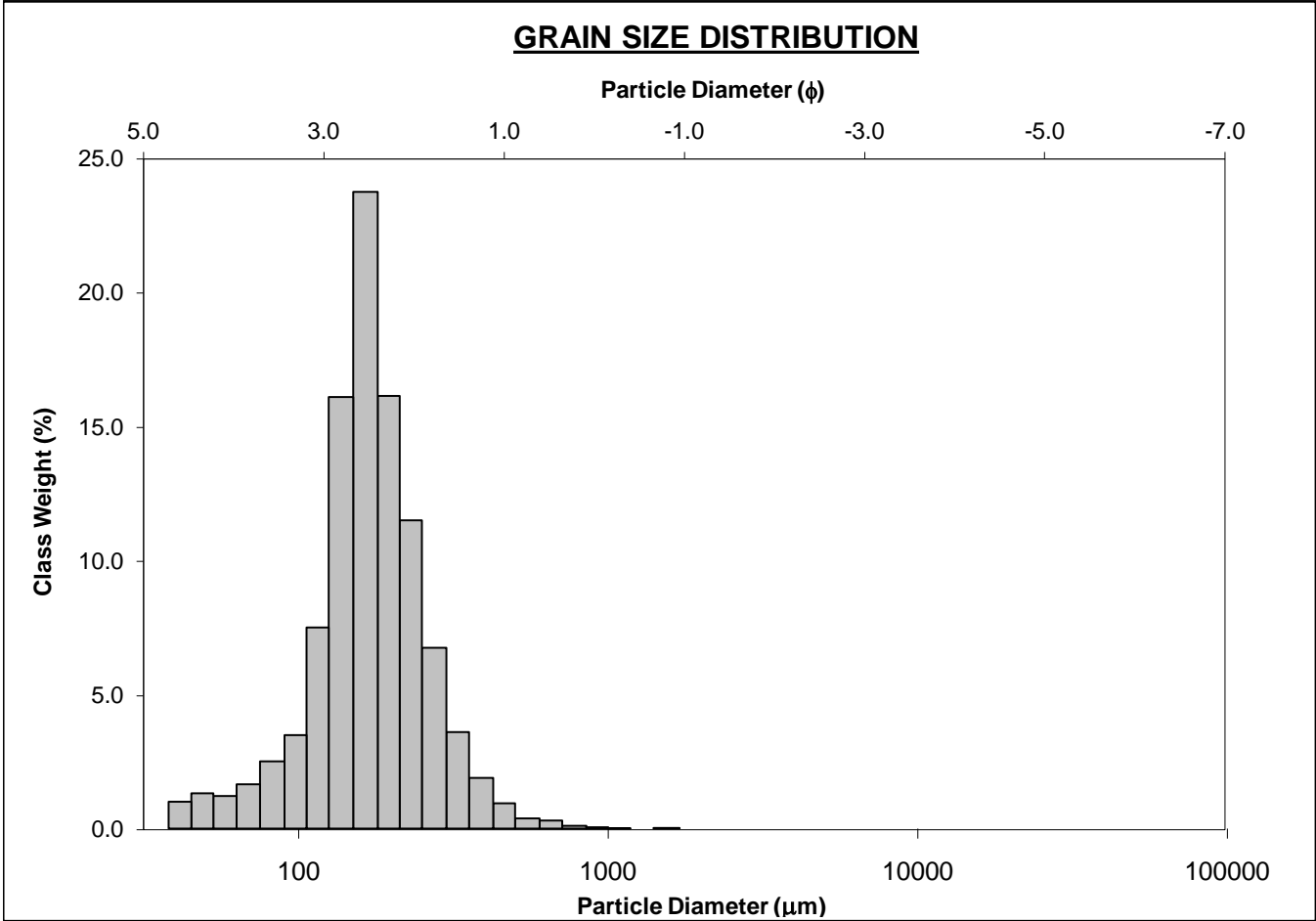
SIEVING ERROR: 1.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-130cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Muddy Sand			
SEDIMENT NAME: Very Coarse Silty Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 1.3%	
MODE 2:	49.00	4.356	SAND: 85.0%		MEDIUM SAND: 9.6%	
MODE 3:			MUD: 15.0%		FINE SAND: 56.2%	
D_{10} :	48.43	1.941			V FINE SAND: 17.8%	
MEDIAN or D_{50} :	150.4	2.733	V COARSE GRAVEL: 0.0%		V COARSE SILT: 9.6%	
D_{90} :	260.4	4.368	COARSE GRAVEL: 0.0%		COARSE SILT: 1.1%	
(D_{90} / D_{10}) :	5.378	2.250	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 1.1%	
$(D_{90} - D_{10})$:	212.0	2.427	FINE GRAVEL: 0.0%		FINE SILT: 1.1%	
(D_{75} / D_{25}) :	1.815	1.359	V FINE GRAVEL: 0.0%		V FINE SILT: 1.1%	
$(D_{75} - D_{25})$:	85.20	0.860	V COARSE SAND: 0.2%		CLAY: 1.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	161.2	121.6	3.040	131.0	2.932	Fine Sand
SORTING (σ):	113.0	2.474	1.307	1.962	0.972	Moderately Sorted
SKEWNESS (Sk):	3.863	-1.873	1.873	-0.349	0.349	Very Fine Skewed
KURTOSIS (K):	33.85	7.352	7.352	1.674	1.674	Very Leptokurtic



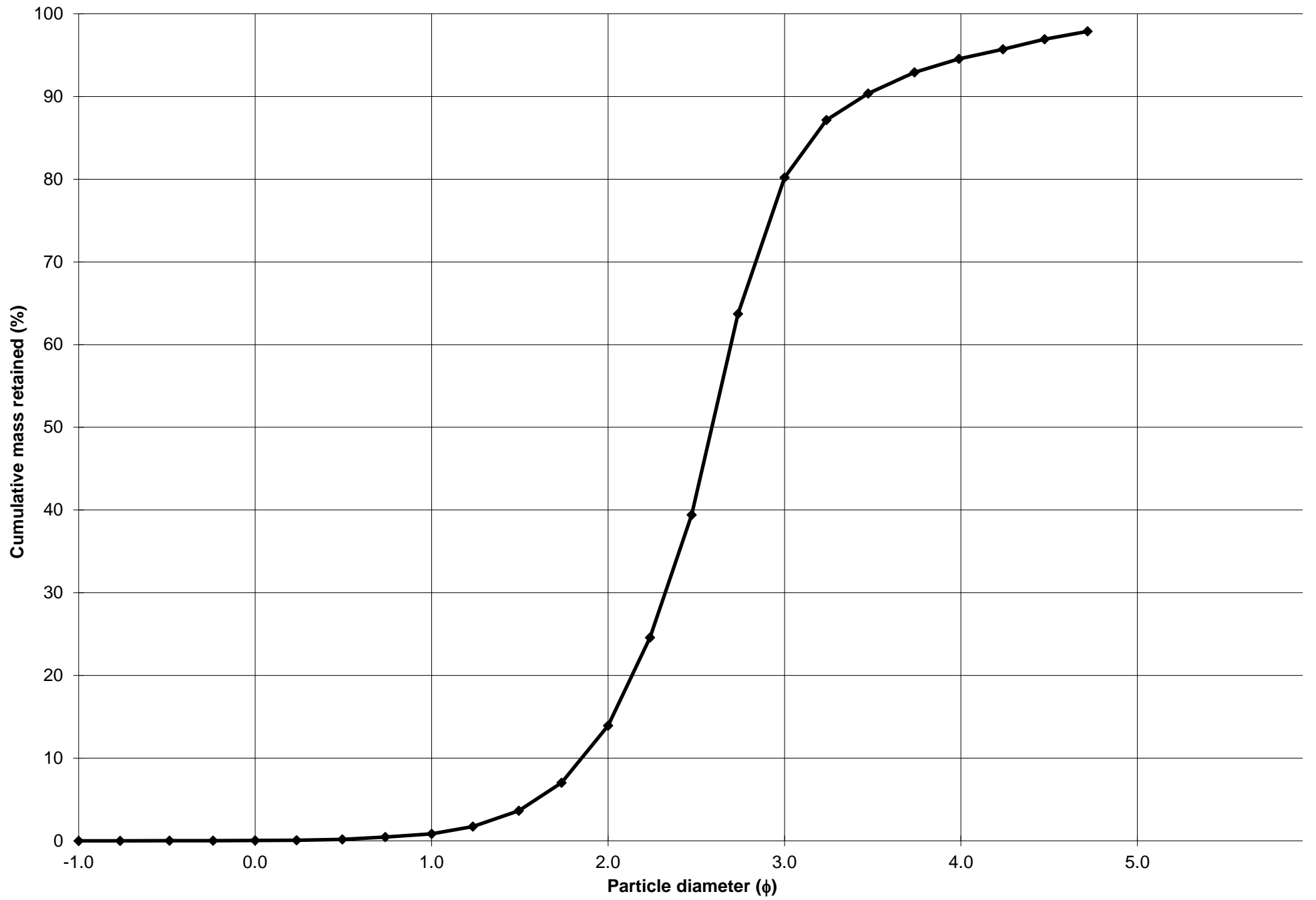
Cumulative Frequency Curve



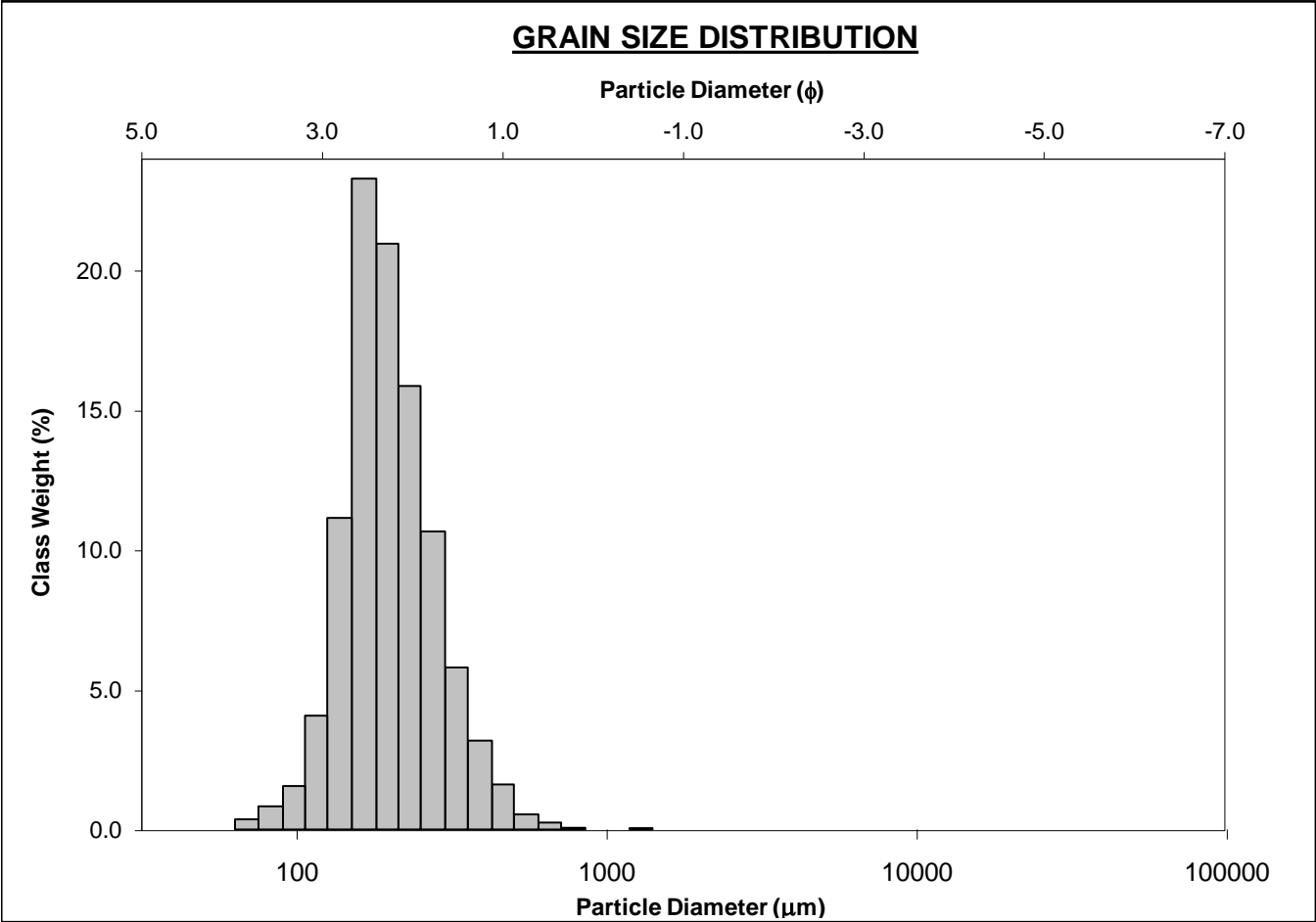
SIEVING ERROR: 1.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-140cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.8%	
MODE 2:			SAND: 94.6%		MEDIUM SAND: 13.1%	
MODE 3:			MUD: 5.4%		FINE SAND: 66.3%	
D ₁₀ :	91.62	1.850			V FINE SAND: 14.4%	
MEDIAN or D ₅₀ :	166.3	2.589	V COARSE GRAVEL: 0.0%		V COARSE SILT: 3.4%	
D ₉₀ :	277.4	3.448	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D ₉₀ / D ₁₀):	3.027	1.864	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
(D ₉₀ - D ₁₀):	185.7	1.598	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D ₇₅ / D ₂₅):	1.594	1.300	V FINE GRAVEL: 0.0%		V FINE SILT: 0.4%	
(D ₇₅ - D ₂₅):	78.61	0.672	V COARSE SAND: 0.0%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	180.2	155.3	2.687	166.3	2.588	Fine Sand
SORTING (σ):	89.25	1.904	0.929	1.568	0.649	Moderately Well Sorted
SKEWNESS (Sk):	2.697	-2.654	2.654	-0.100	0.100	Fine Skewed
KURTOSIS (K):	24.89	14.57	14.57	1.521	1.521	Very Leptokurtic



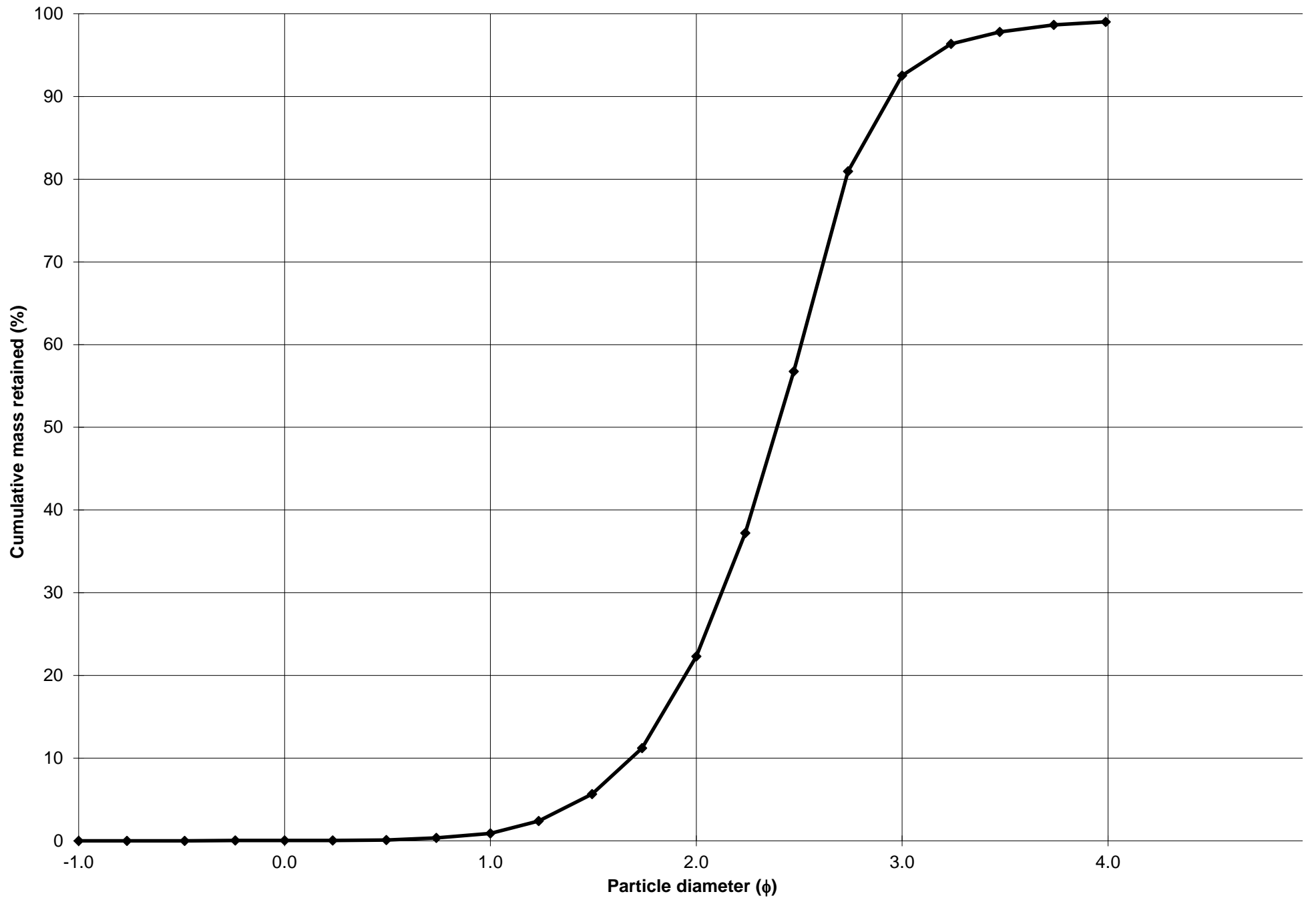
Cumulative Frequency Curve



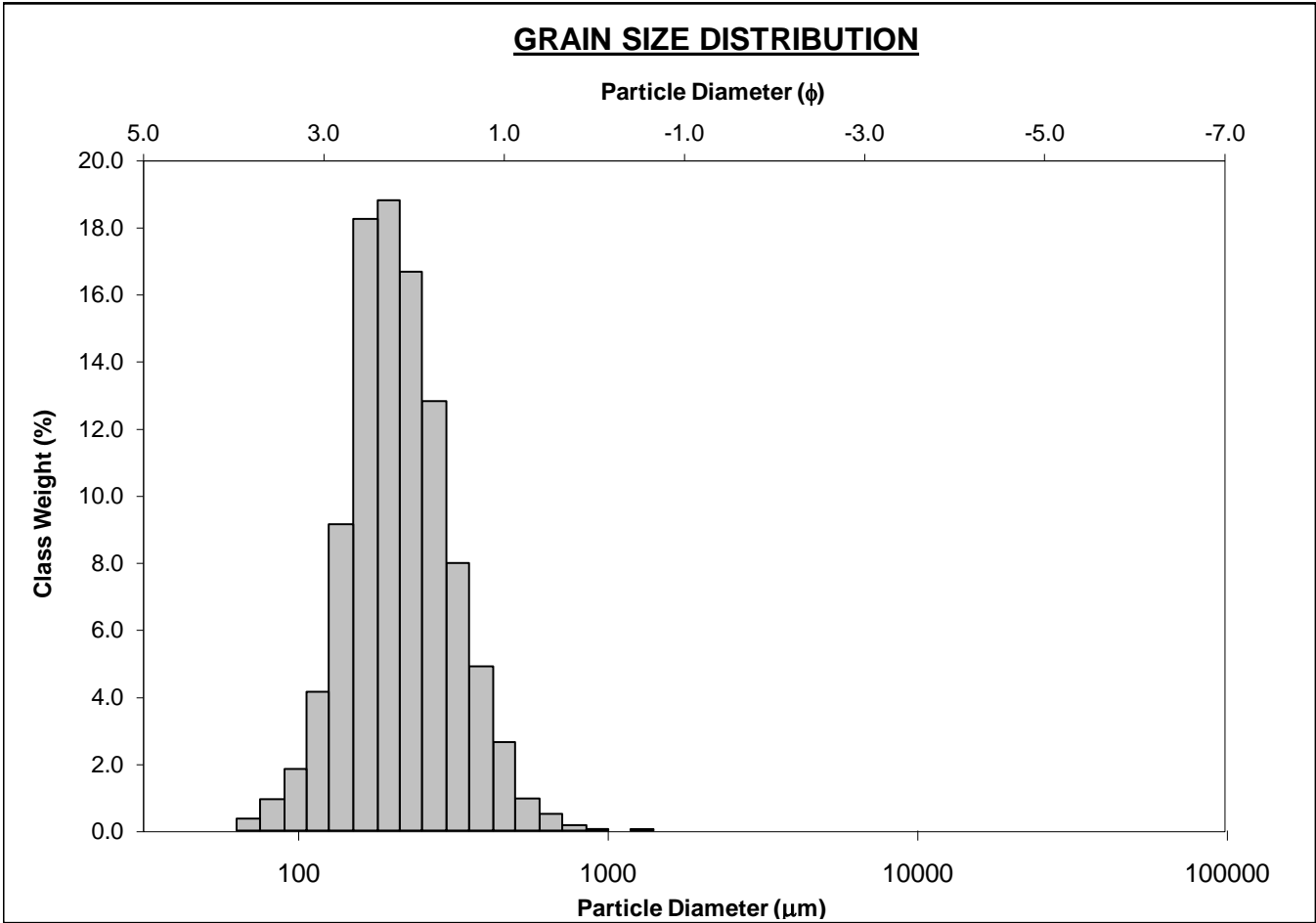
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-150cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.9%			
MODE 2:			SAND: 99.0% MEDIUM SAND: 21.4%			
MODE 3:			MUD: 1.0% FINE SAND: 70.2%			
D ₁₀ :	130.1	1.684	V FINE SAND: 6.5%			
MEDIAN or D ₅₀ :	190.5	2.392	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.2%			
D ₉₀ :	311.3	2.943	COARSE GRAVEL: 0.0% COARSE SILT: 0.2%			
(D ₉₀ / D ₁₀):	2.393	1.748	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.2%			
(D ₉₀ - D ₁₀):	181.2	1.259	FINE GRAVEL: 0.0% FINE SILT: 0.2%			
(D ₇₅ / D ₂₅):	1.547	1.308	V FINE GRAVEL: 0.0% V FINE SILT: 0.2%			
(D ₇₅ - D ₂₅):	85.77	0.629	V COARSE SAND: 0.0% CLAY: 0.2%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	209.7	191.5	2.384	196.2	2.350	Fine Sand
SORTING (σ):	85.81	1.599	0.677	1.413	0.498	Well Sorted
SKEWNESS (Sk):	2.372	-2.804	2.804	0.122	-0.122	Coarse Skewed
KURTOSIS (K):	18.66	22.17	22.17	1.115	1.115	Leptokurtic



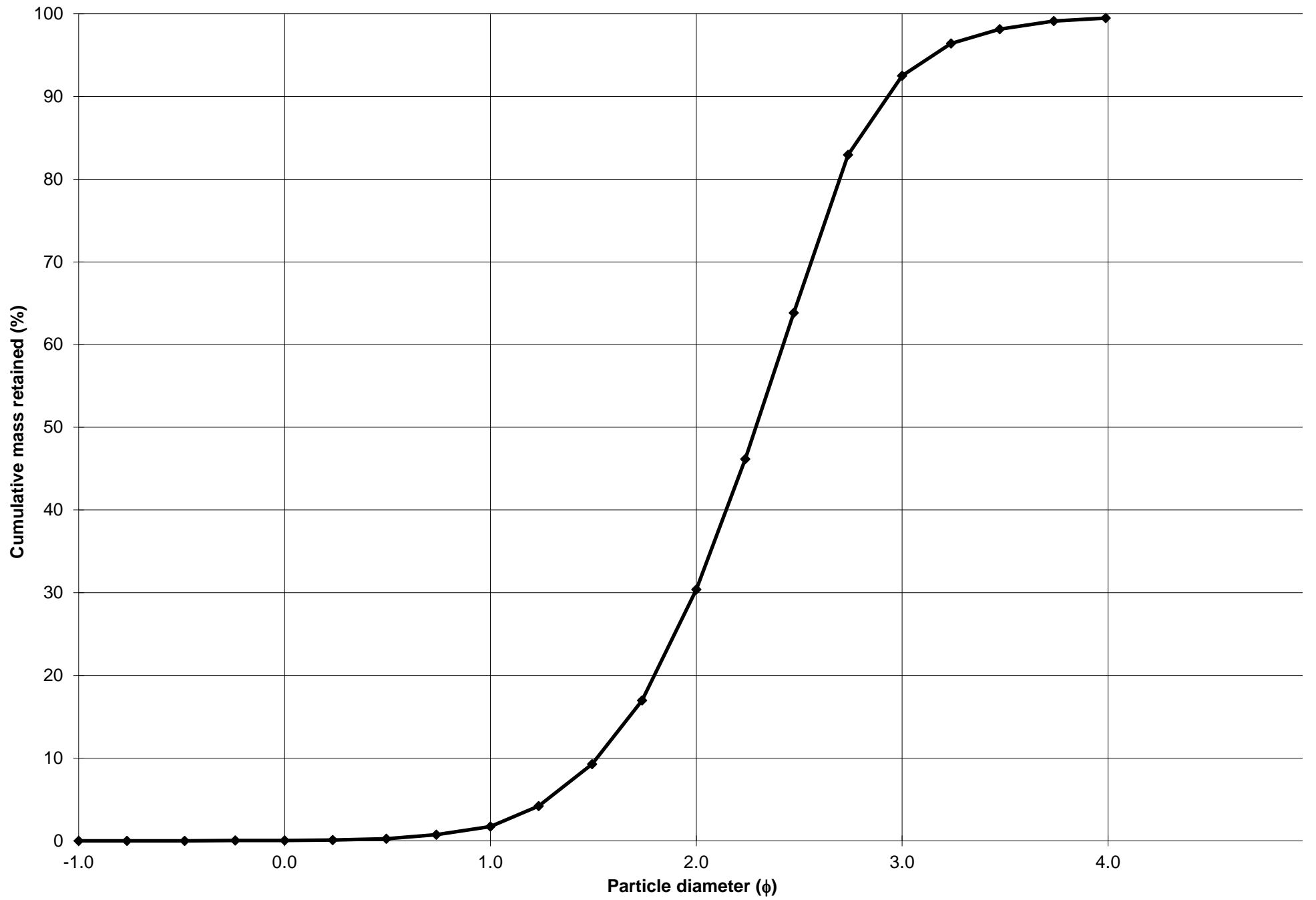
Cumulative Frequency Curve



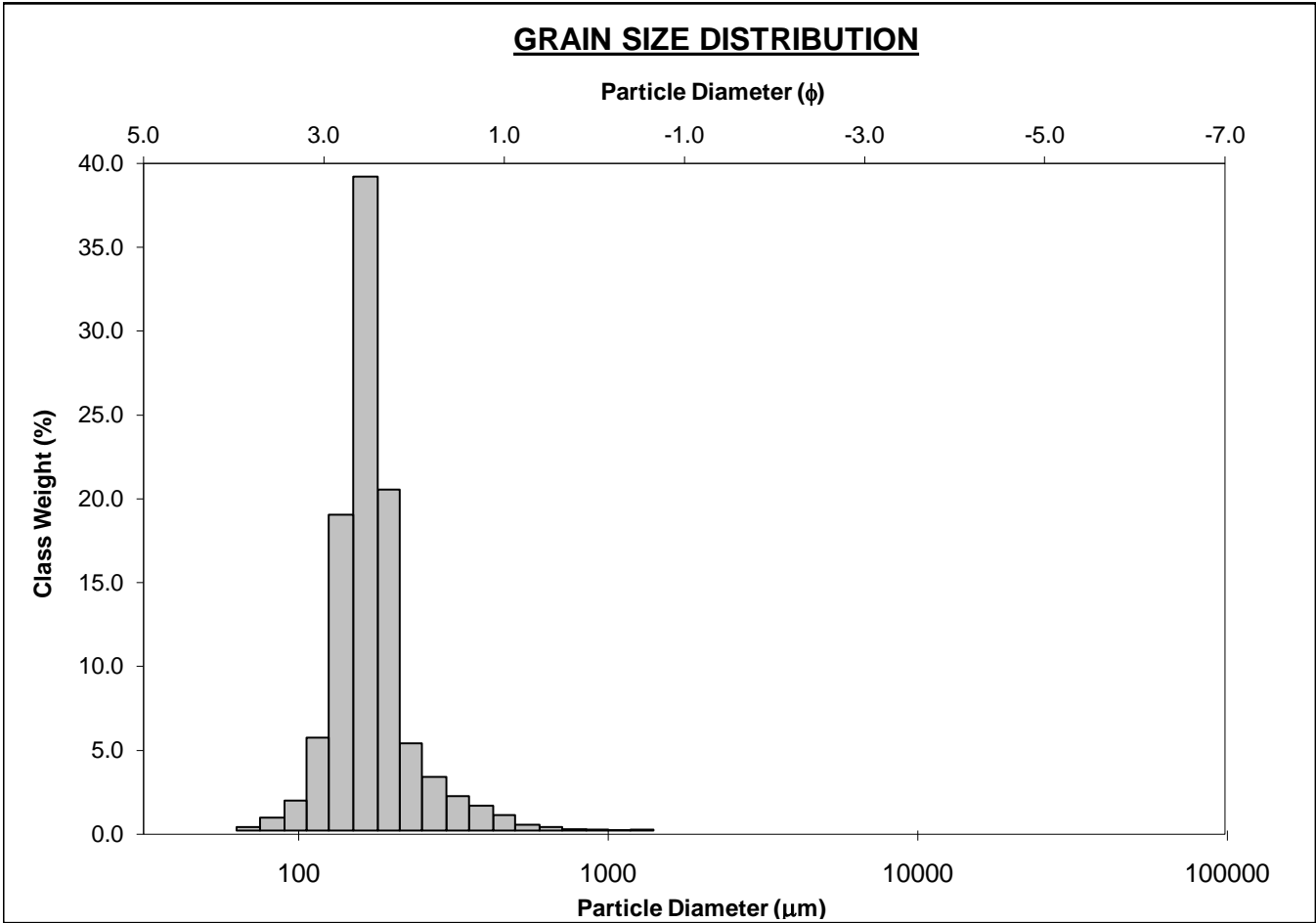
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-160cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 1.7%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 28.6%	
MODE 3:			MUD: 0.5%		FINE SAND: 62.1%	
D_{10} :	131.1	1.517			V FINE SAND: 7.0%	
MEDIAN or D_{50} :	204.6	2.289	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D_{90} :	349.3	2.931	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D_{90} / D_{10}) :	2.665	1.932	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
$(D_{90} - D_{10})$:	218.2	1.414	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D_{75} / D_{25}) :	1.663	1.387	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
$(D_{75} - D_{25})$:	107.2	0.733	V COARSE SAND: 0.0%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	227.4	207.0	2.272	209.7	2.254	Fine Sand
SORTING (σ):	99.39	1.571	0.652	1.463	0.549	Moderately Well Sorted
SKEWNESS (Sk):	2.033	-1.725	1.725	0.090	-0.090	Symmetrical
KURTOSIS (K):	12.65	16.19	16.19	1.049	1.049	Mesokurtic



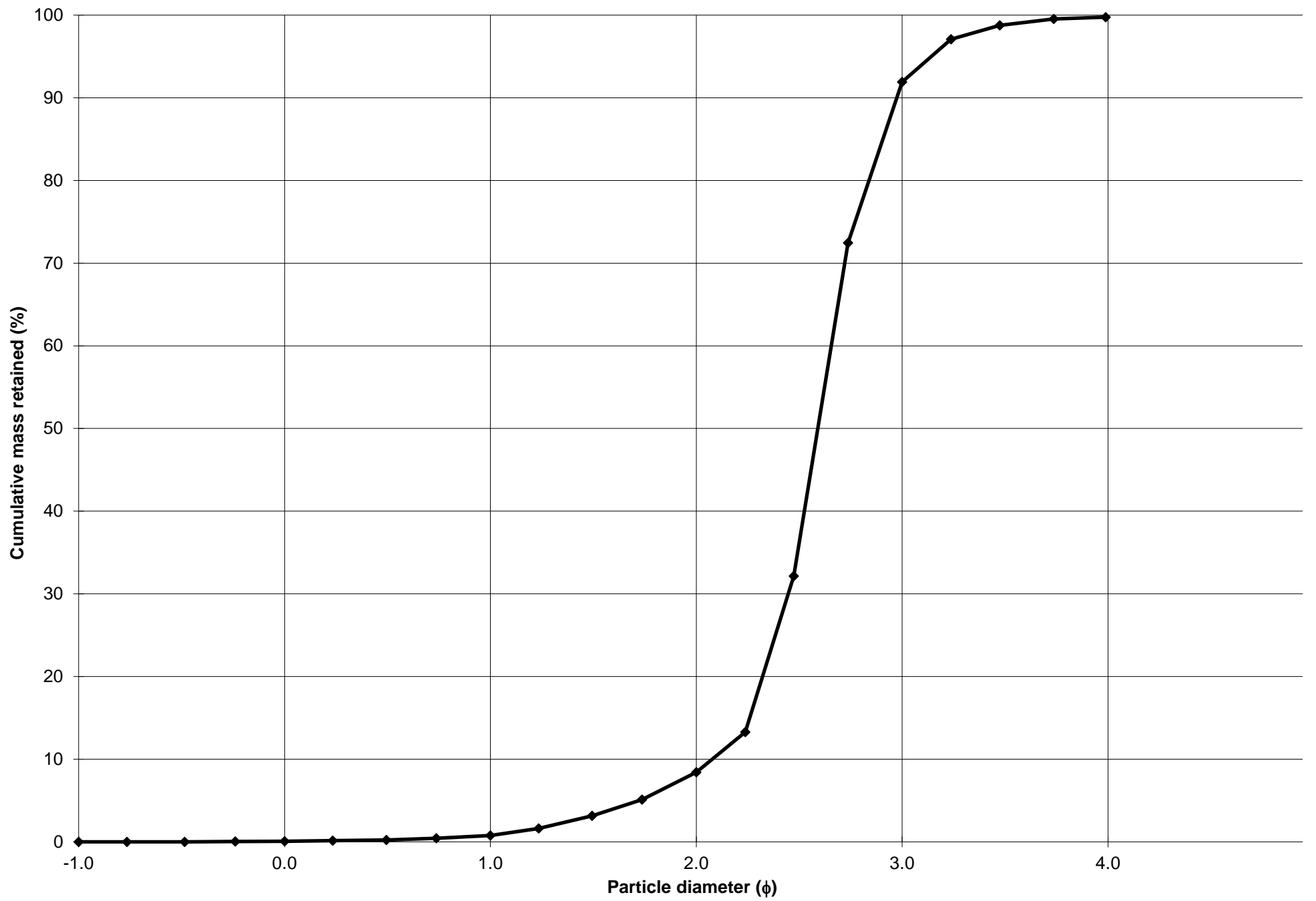
Cumulative Frequency Curve



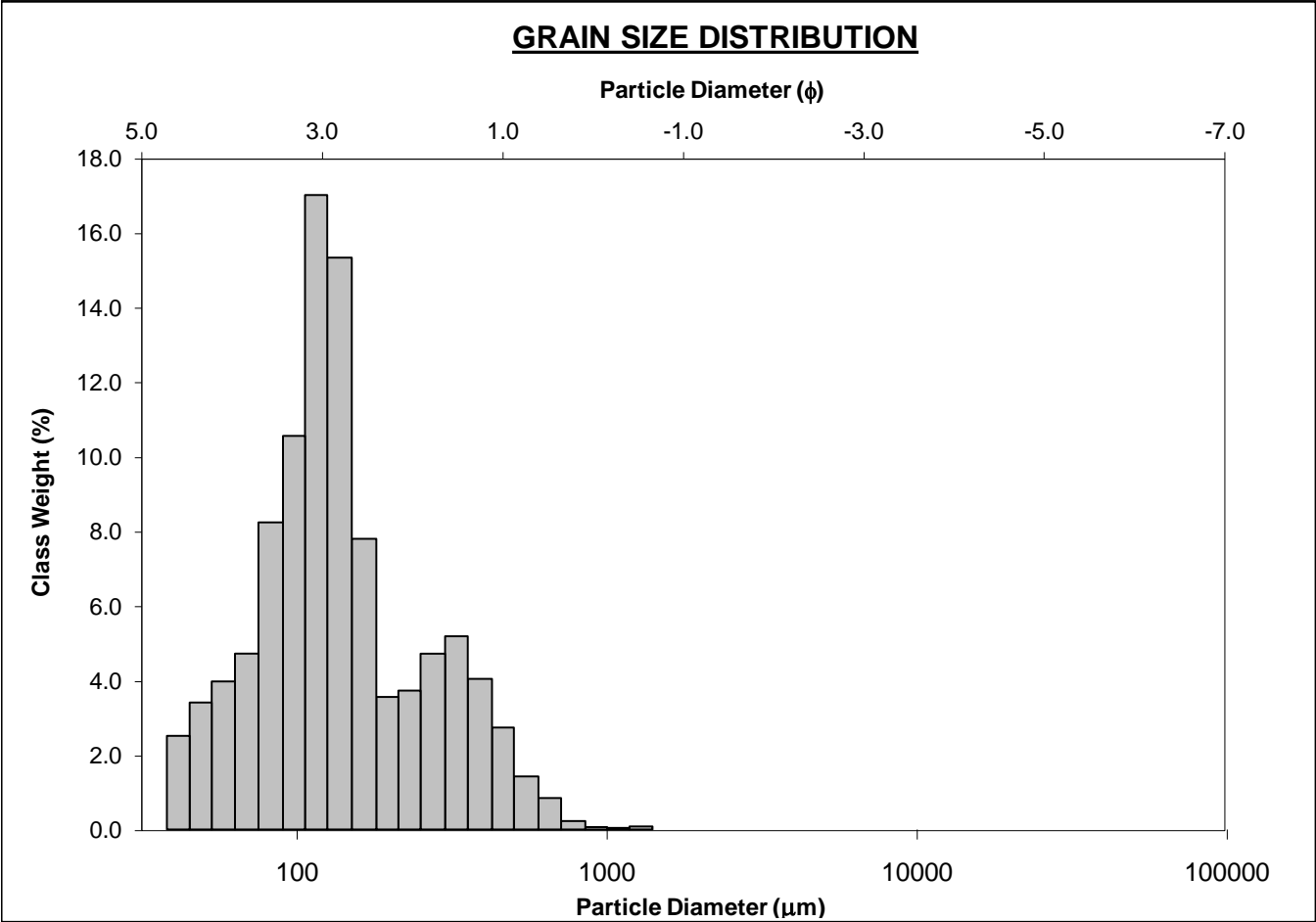
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-170cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.7%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 7.6%	
MODE 3:			MUD: 0.2%		FINE SAND: 83.5%	
D ₁₀ :	127.3	2.078			V FINE SAND: 7.8%	
MEDIAN or D ₅₀ :	166.0	2.591	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	236.9	2.974	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	1.861	1.431	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	109.6	0.896	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.308	1.162	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	45.04	0.387	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	180.8	170.1	2.555	166.6	2.585	Fine Sand
SORTING (σ):	74.93	1.393	0.478	1.292	0.370	Well Sorted
SKEWNESS (Sk):	5.024	-0.934	0.934	0.124	-0.124	Coarse Skewed
KURTOSIS (K):	49.30	23.49	23.49	1.502	1.502	Very Leptokurtic



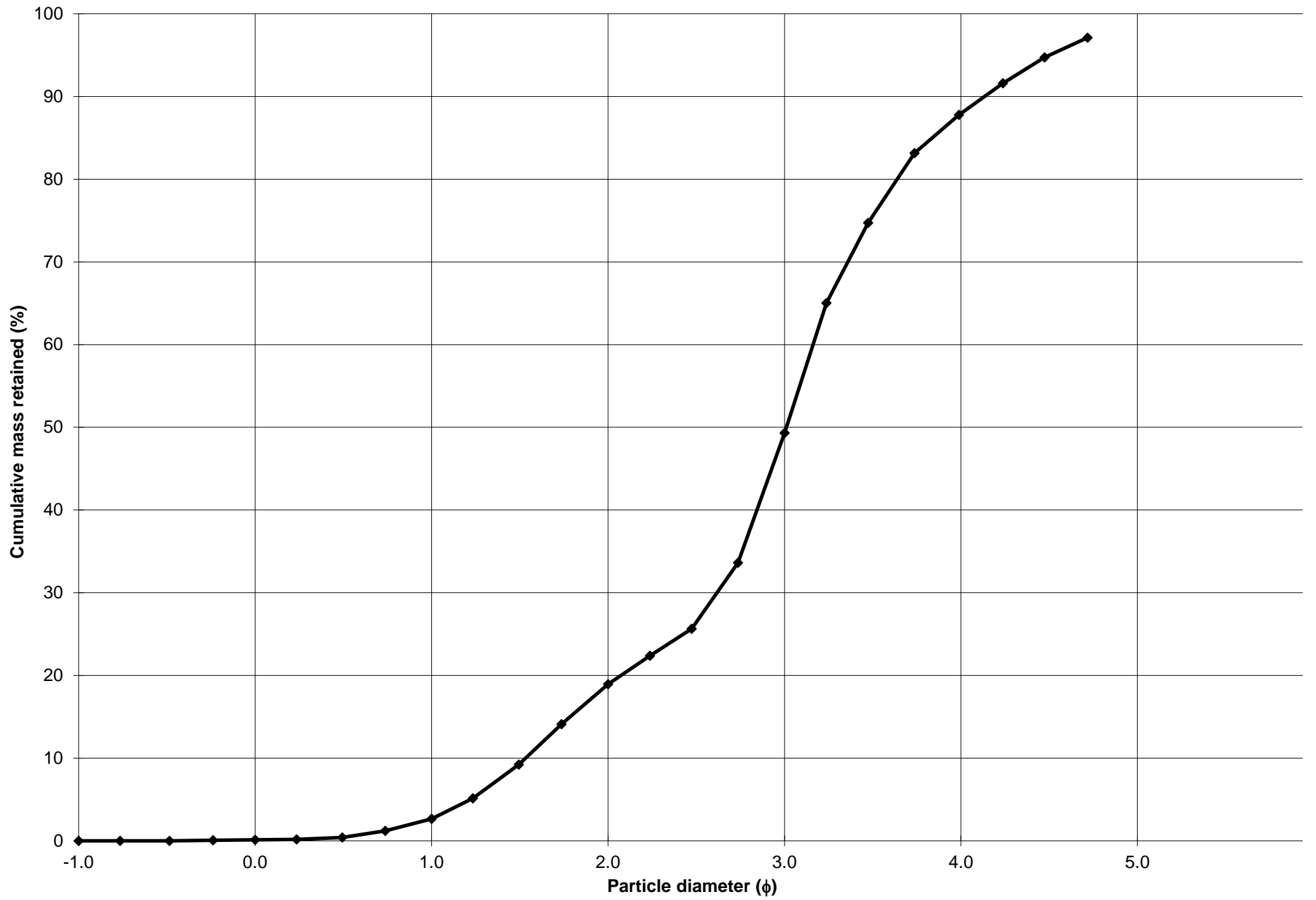
Cumulative Frequency Curve



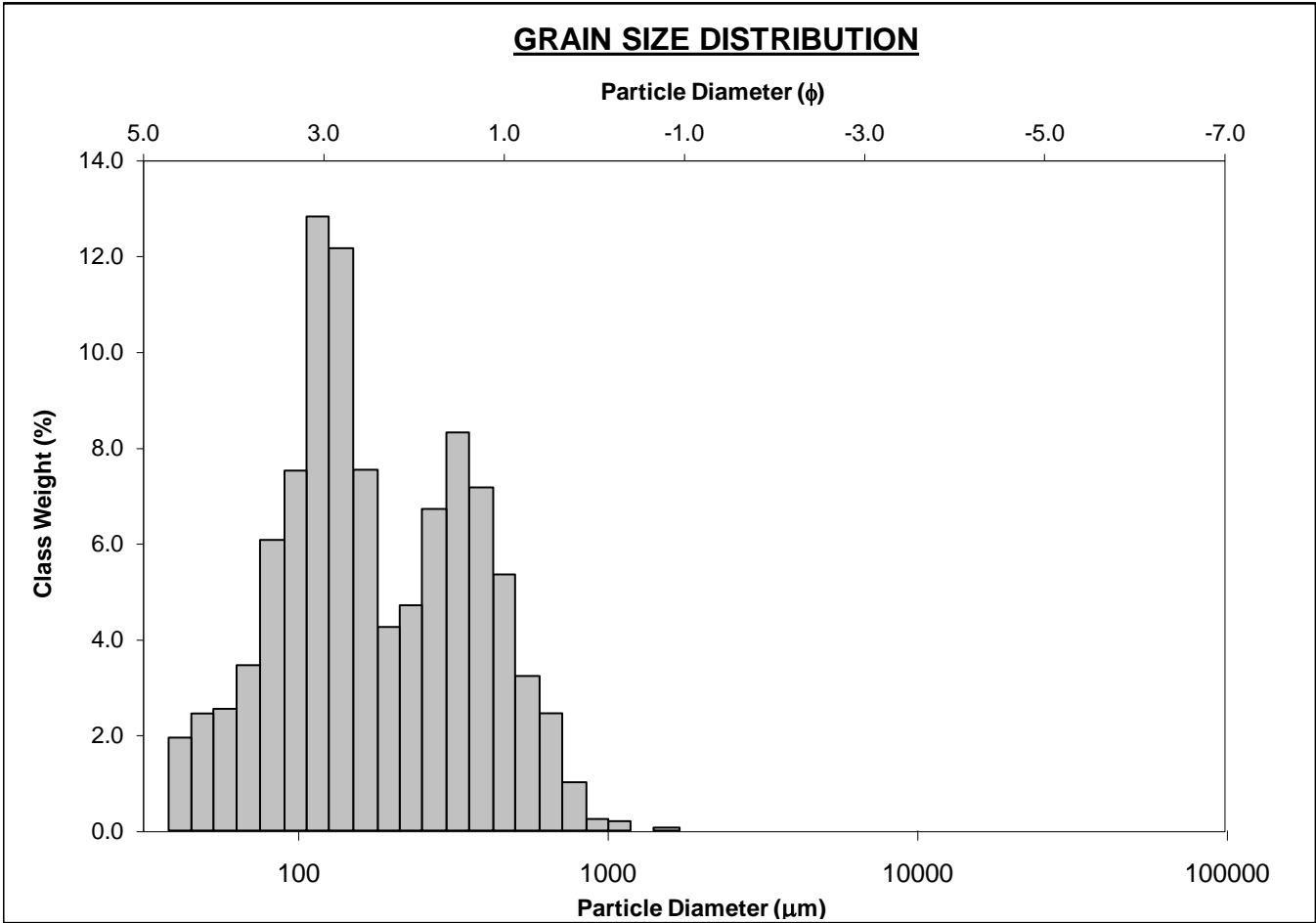
SIEVING ERROR: 2.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-180cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Muddy Sand			
SEDIMENT NAME: Very Coarse Silty Very Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	115.5	3.119	GRAVEL: 0.0%		COARSE SAND: 2.5%	
MODE 2:	327.5	1.616	SAND: 87.9%		MEDIUM SAND: 16.3%	
MODE 3:			MUD: 12.1%		FINE SAND: 30.4%	
D_{10} :	56.97	1.533			V FINE SAND: 38.6%	
MEDIAN or D_{50} :	124.1	3.011	V COARSE GRAVEL: 0.0%		V COARSE SILT: 9.3%	
D_{90} :	345.7	4.134	COARSE GRAVEL: 0.0%		COARSE SILT: 0.5%	
(D_{90} / D_{10}) :	6.067	2.697	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.5%	
$(D_{90} - D_{10})$:	288.7	2.601	FINE GRAVEL: 0.0%		FINE SILT: 0.5%	
(D_{75} / D_{25}) :	2.078	1.435	V FINE GRAVEL: 0.0%		V FINE SILT: 0.5%	
$(D_{75} - D_{25})$:	96.46	1.055	V COARSE SAND: 0.1%		CLAY: 0.5%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	165.9	125.7	2.992	136.0	2.878	Fine Sand
SORTING (σ):	129.2	2.235	1.160	1.977	0.983	Moderately Sorted
SKEWNESS (Sk):	2.305	-1.135	1.135	0.148	-0.148	Coarse Skewed
KURTOSIS (K):	11.50	6.929	6.929	1.274	1.274	Leptokurtic



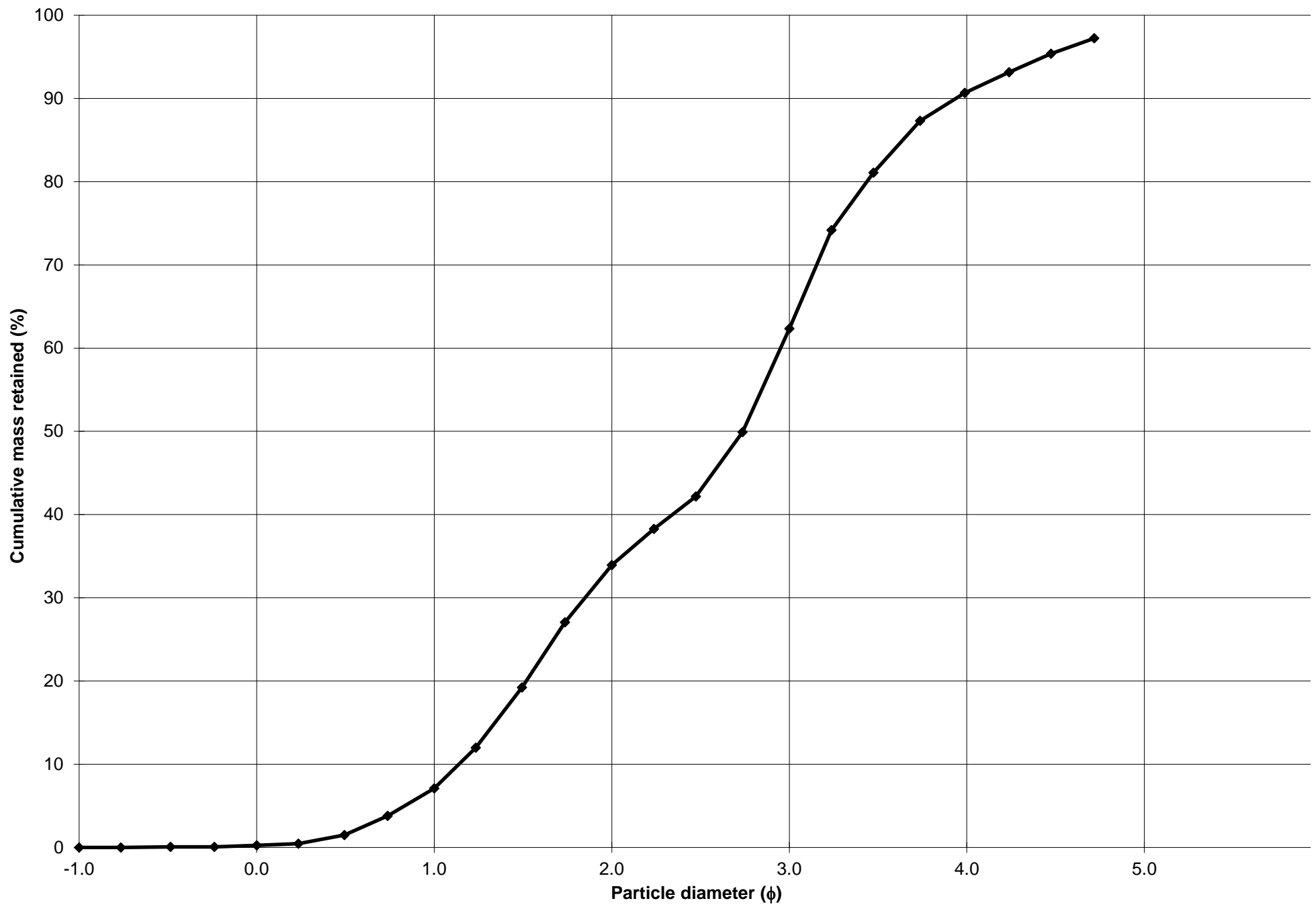
Cumulative Frequency Curve



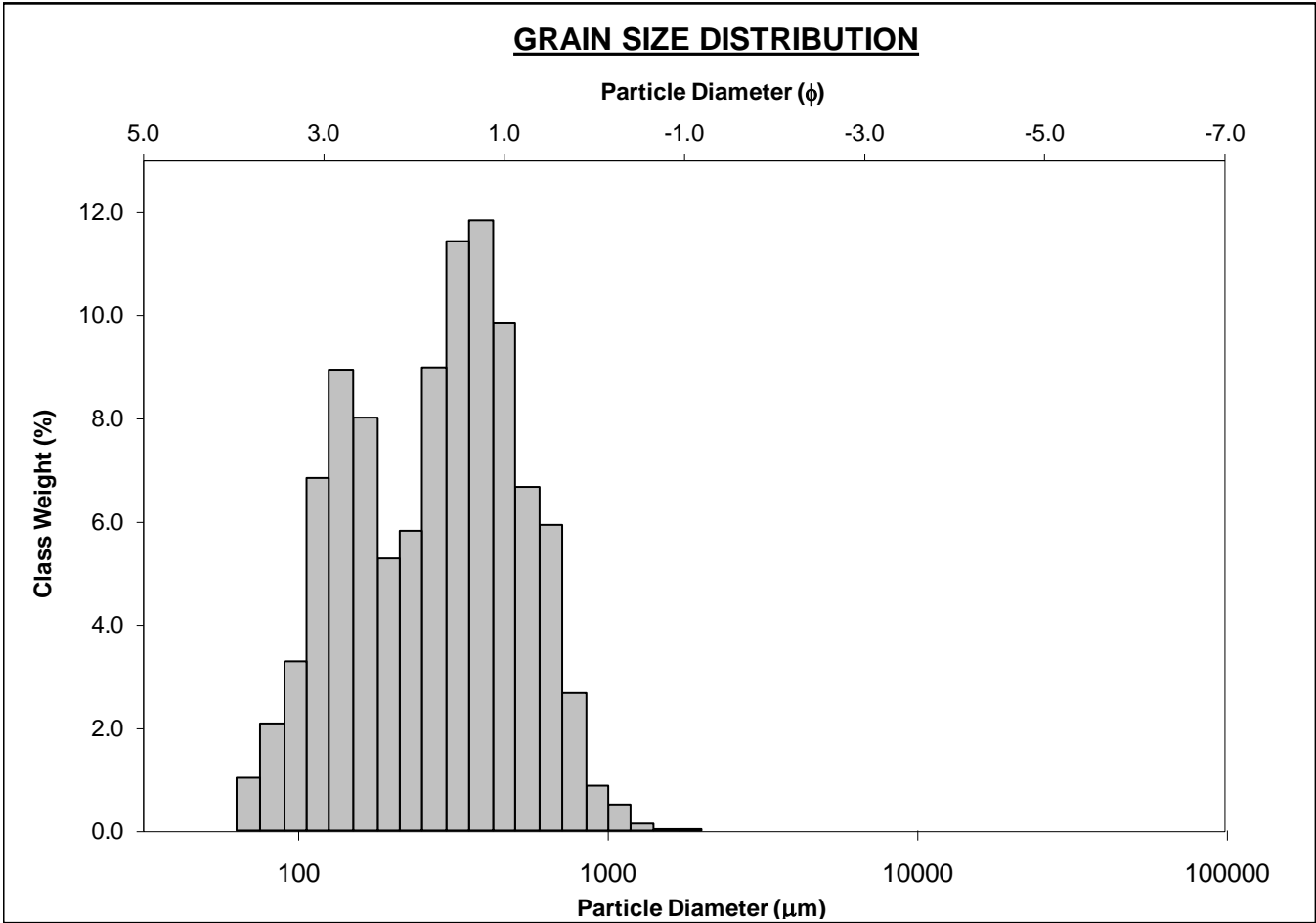
SIEVING ERROR: 2.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-190cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Bimodal, Poorly Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Poorly Sorted Very Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	115.5	3.119	GRAVEL: 0.0%		COARSE SAND: 6.9%	
MODE 2:	327.5	1.616	SAND: 90.8%		MEDIUM SAND: 26.8%	
MODE 3:			MUD: 9.2%		FINE SAND: 28.4%	
D_{10} :	65.23	1.139			V FINE SAND: 28.5%	
MEDIAN or D_{50} :	149.8	2.739	V COARSE GRAVEL: 0.0%		V COARSE SILT: 6.6%	
D_{90} :	454.0	3.938	COARSE GRAVEL: 0.0%		COARSE SILT: 0.5%	
(D_{90} / D_{10}) :	6.960	3.457	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.5%	
$(D_{90} - D_{10})$:	388.8	2.799	FINE GRAVEL: 0.0%		FINE SILT: 0.5%	
(D_{75} / D_{25}) :	3.016	1.952	V FINE GRAVEL: 0.0%		V FINE SILT: 0.5%	
$(D_{75} - D_{25})$:	209.6	1.593	V COARSE SAND: 0.3%		CLAY: 0.5%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	221.0	160.4	2.640	168.2	2.572	Fine Sand
SORTING (σ):	171.2	2.430	1.281	2.144	1.100	Poorly Sorted
SKEWNESS (Sk):	1.669	-1.126	1.126	0.143	-0.143	Coarse Skewed
KURTOSIS (K):	7.379	6.063	6.063	0.927	0.927	Mesokurtic



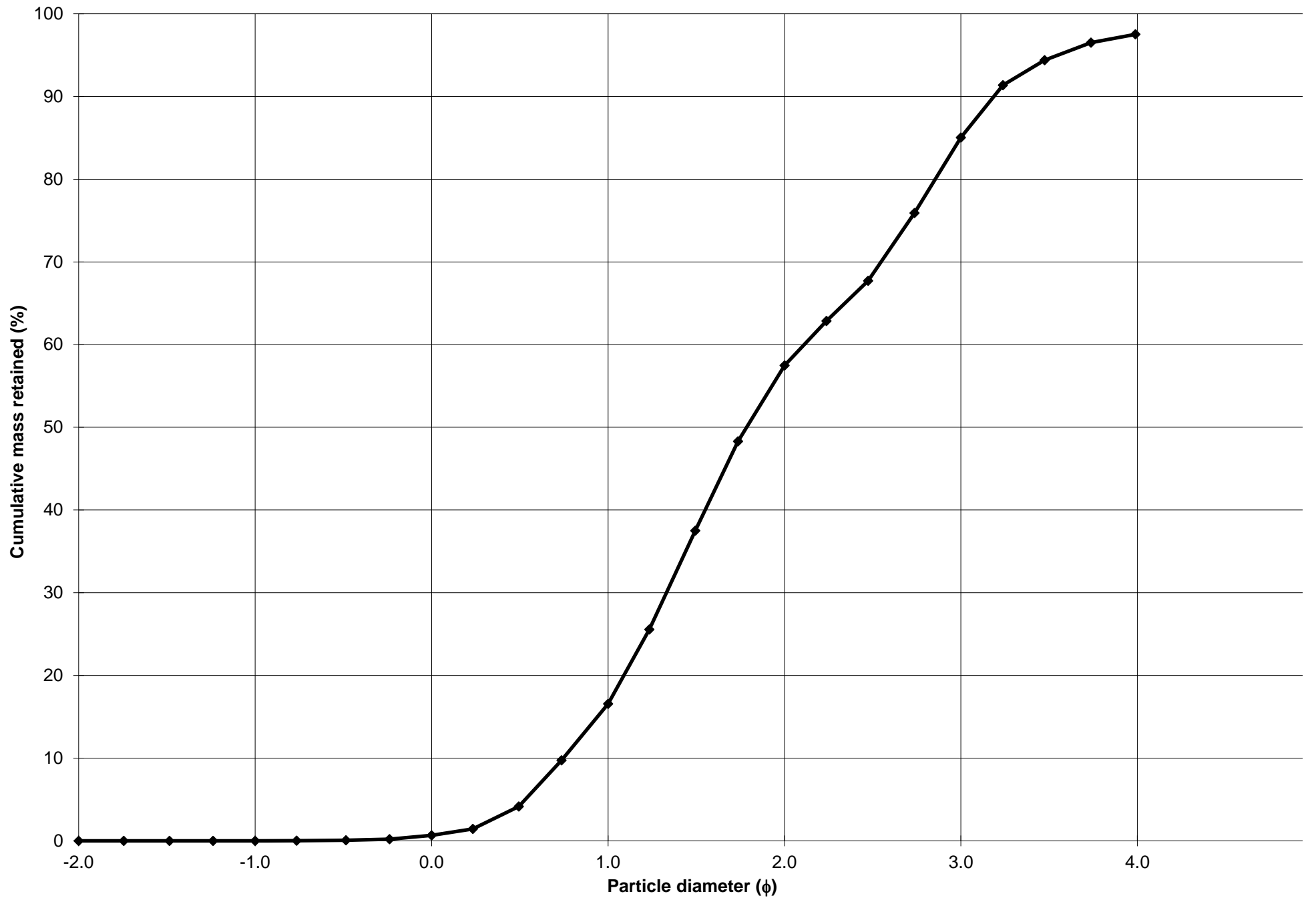
Cumulative Frequency Curve



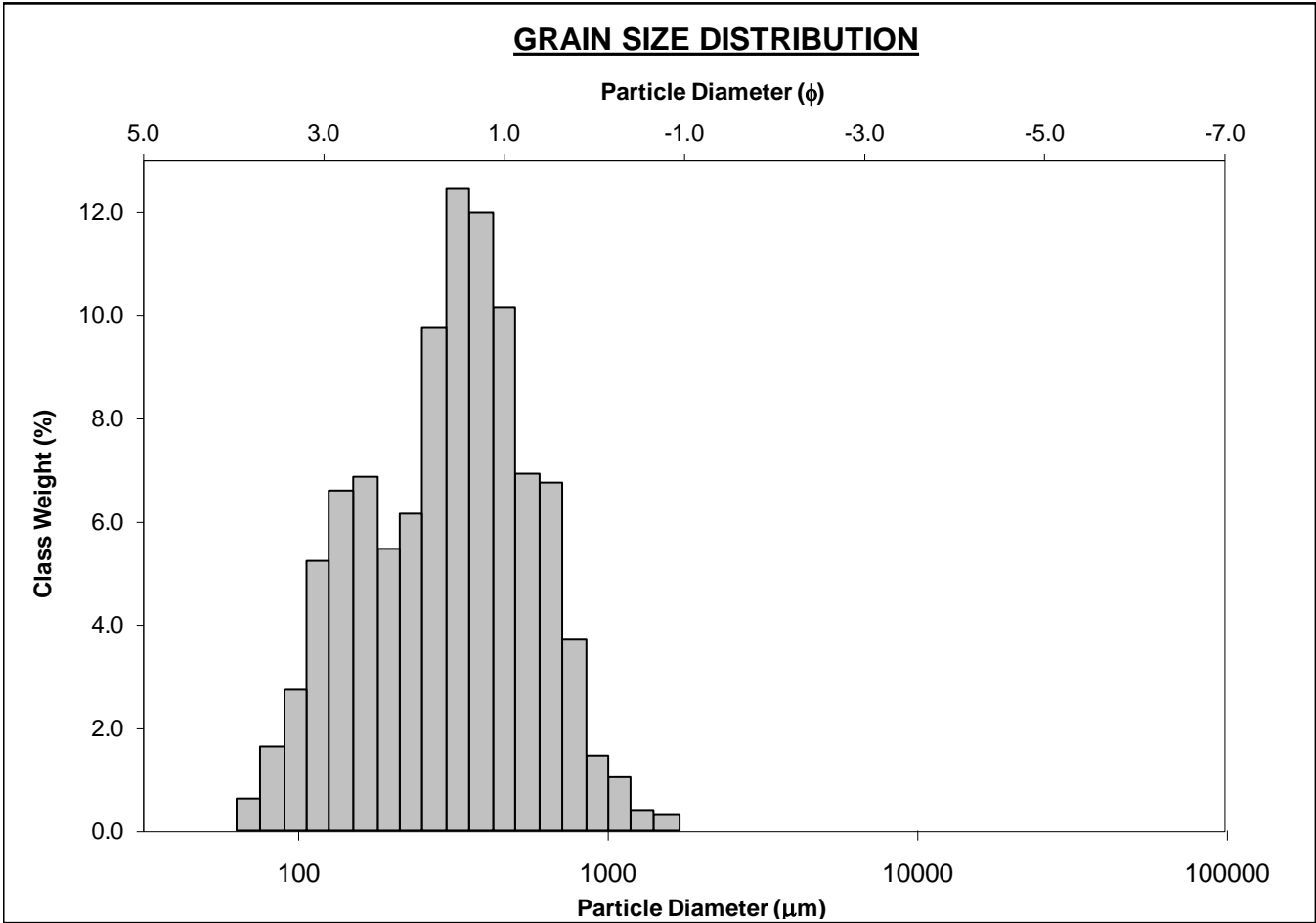
SIEVING ERROR: 1.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-200cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.0%		COARSE SAND: 15.9%	
MODE 2:	137.5	2.868	SAND: 97.5%		MEDIUM SAND: 40.9%	
MODE 3:			MUD: 2.5%		FINE SAND: 27.6%	
D ₁₀ :	109.9	0.747			V FINE SAND: 12.5%	
MEDIAN or D ₅₀ :	290.0	1.786	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.4%	
D ₉₀ :	595.9	3.186	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D ₉₀ / D ₁₀):	5.425	4.267	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
(D ₉₀ - D ₁₀):	486.1	2.440	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D ₇₅ / D ₂₅):	2.805	2.219	V FINE GRAVEL: 0.0%		V FINE SILT: 0.4%	
(D ₇₅ - D ₂₅):	276.2	1.488	V COARSE SAND: 0.7%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	320.6	249.3	2.004	265.8	1.911	Medium Sand
SORTING (σ):	201.1	2.281	1.189	1.939	0.955	Moderately Sorted
SKEWNESS (Sk):	1.172	-1.717	1.717	-0.179	0.179	Fine Skewed
KURTOSIS (K):	5.397	8.408	8.408	0.832	0.832	Platykurtic



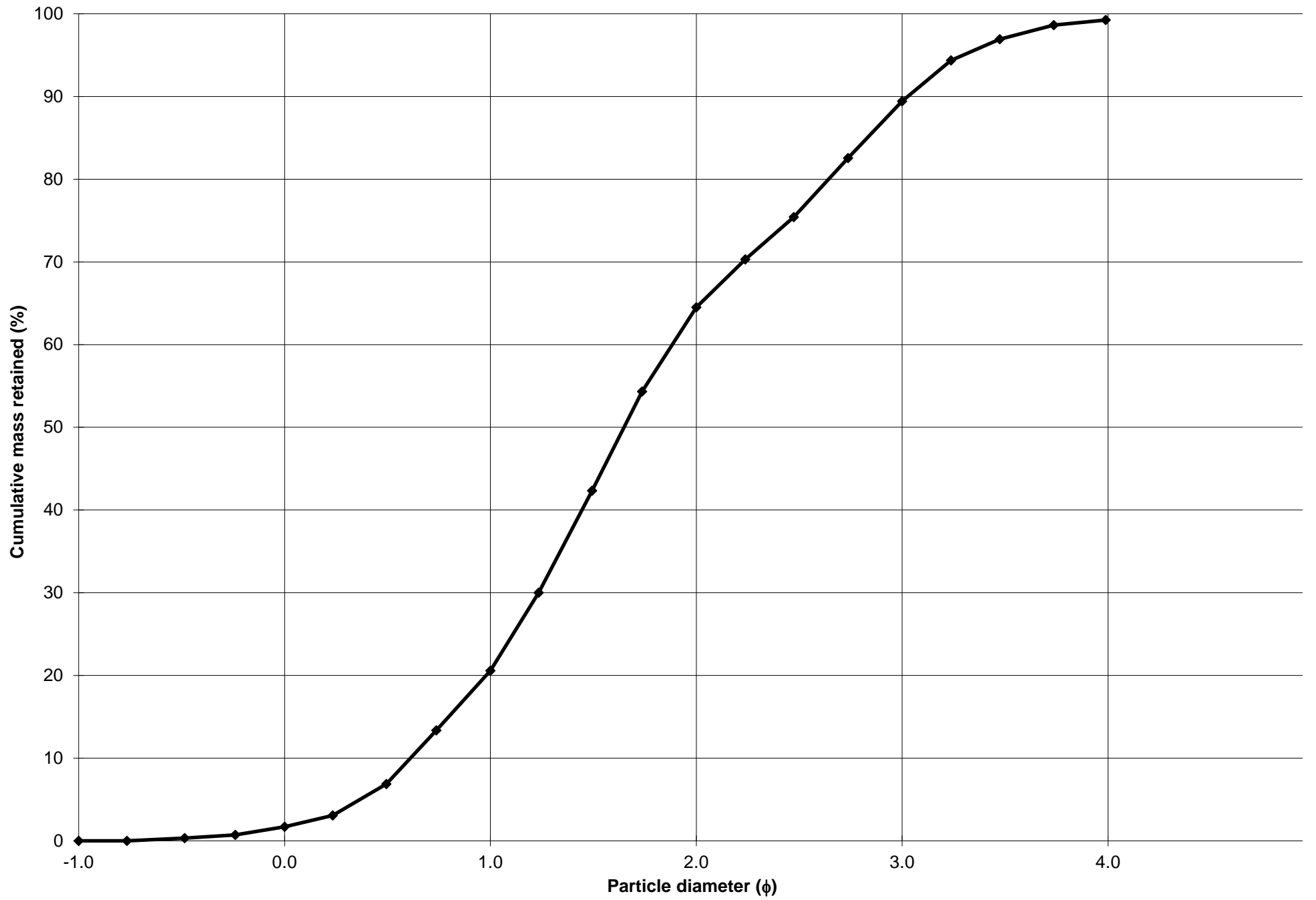
Cumulative Frequency Curve



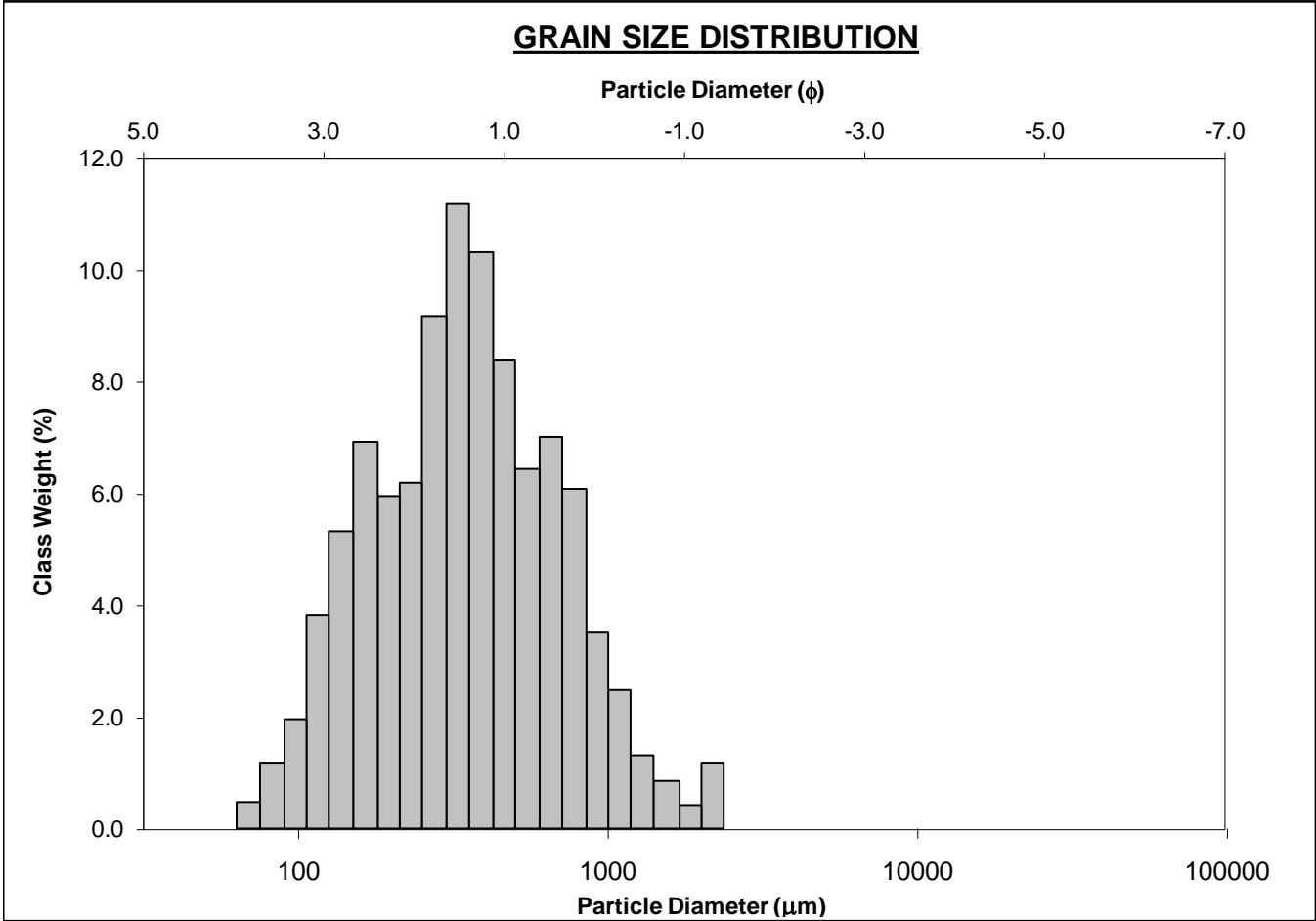
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-210cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 18.9%	
MODE 2:	165.0	2.605	SAND: 99.2%		MEDIUM SAND: 43.9%	
MODE 3:			MUD: 0.8%		FINE SAND: 24.9%	
D ₁₀ :	122.7	0.611			V FINE SAND: 9.8%	
MEDIAN or D ₅₀ :	318.8	1.649	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	654.6	3.027	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	5.337	4.952	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	532.0	2.416	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	2.540	2.212	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	280.9	1.345	V COARSE SAND: 1.7%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	359.2	292.1	1.775	295.6	1.758	Medium Sand
SORTING (σ):	224.5	1.997	0.998	1.910	0.934	Moderately Sorted
SKEWNESS (Sk):	1.464	-1.096	1.096	-0.146	0.146	Fine Skewed
KURTOSIS (K):	6.490	7.198	7.198	0.893	0.893	Platykurtic



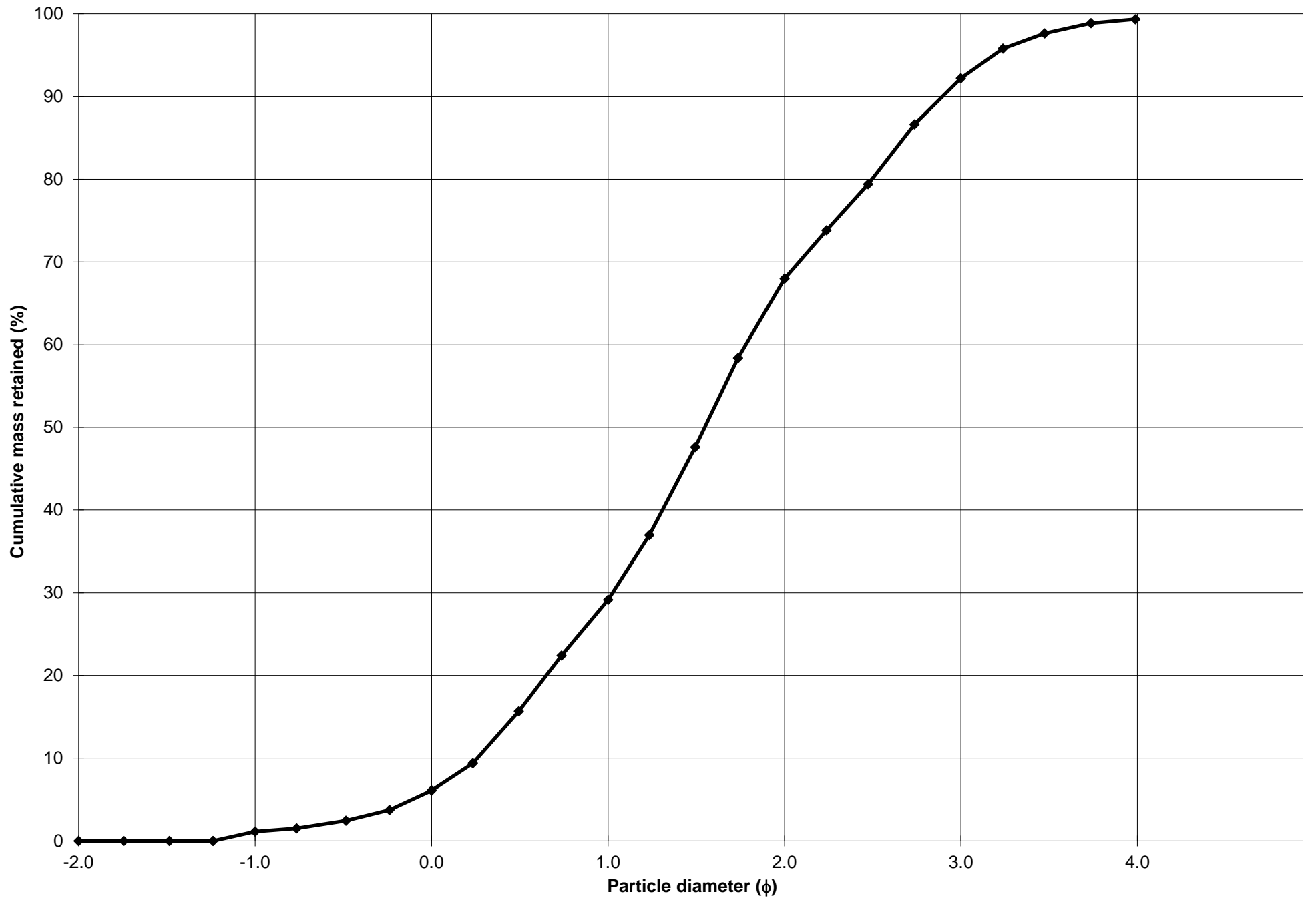
Cumulative Frequency Curve



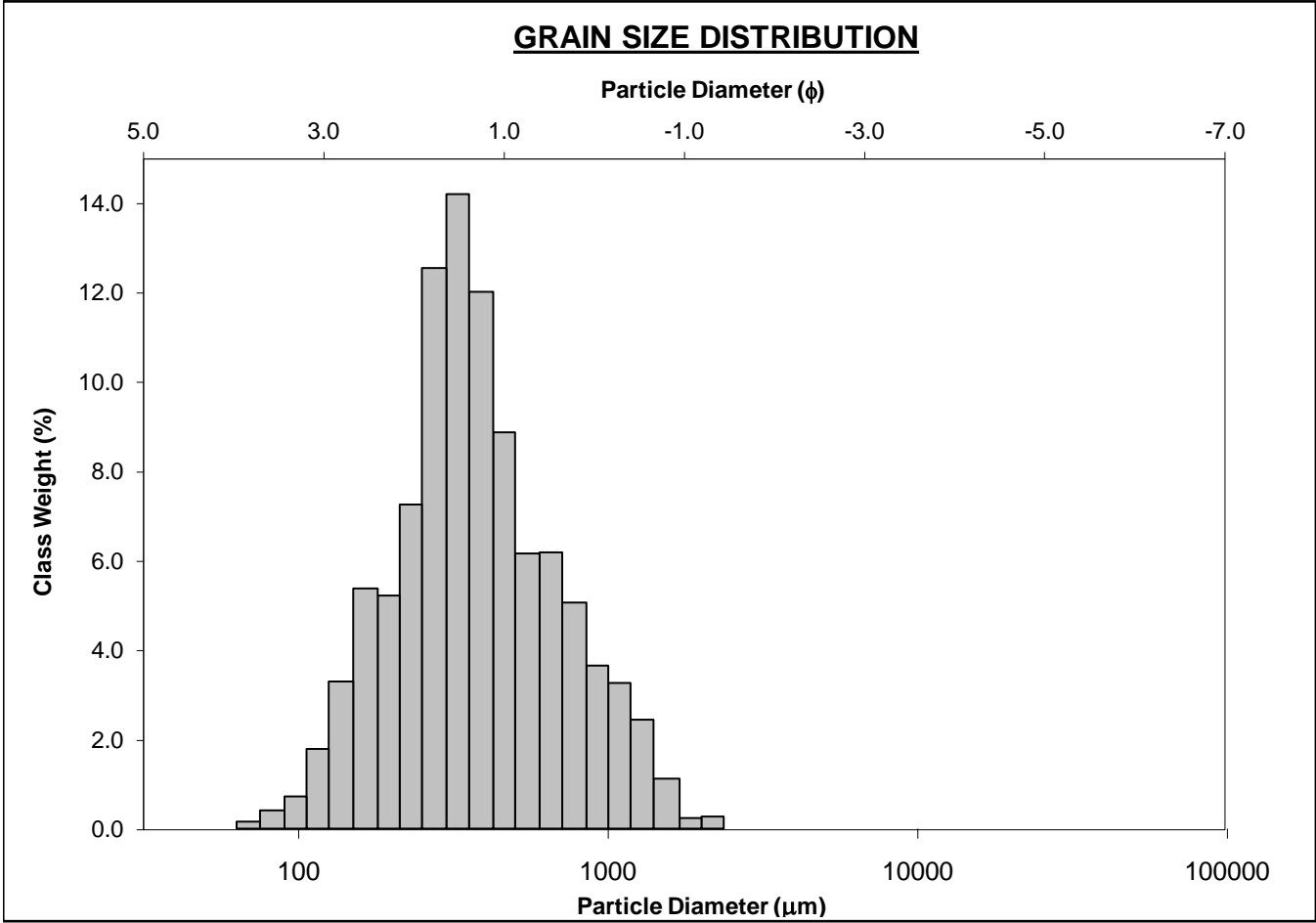
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-220cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Trimodal, Poorly Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 1.1%	COARSE SAND: 23.0%		
MODE 2:	655.0	0.616	SAND: 98.2%	MEDIUM SAND: 38.8%		
MODE 3:	165.0	2.605	MUD: 0.7%	FINE SAND: 24.2%		
D_{10} :	134.3	0.260		V FINE SAND: 7.2%		
MEDIAN or D_{50} :	341.9	1.548	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.1%		
D_{90} :	835.0	2.897	COARSE GRAVEL: 0.0%	COARSE SILT: 0.1%		
(D_{90} / D_{10}) :	6.218	11.13	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.1%		
$(D_{90} - D_{10})$:	700.7	2.636	FINE GRAVEL: 0.0%	FINE SILT: 0.1%		
(D_{75} / D_{25}) :	2.732	2.730	V FINE GRAVEL: 1.1%	V FINE SILT: 0.1%		
$(D_{75} - D_{25})$:	354.6	1.450	V COARSE SAND: 5.0%	CLAY: 0.1%		
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	440.0	336.9	1.570	337.9	1.565	Medium Sand
SORTING (σ):	348.6	2.129	1.090	2.047	1.033	Poorly Sorted
SKEWNESS (Sk):	2.268	-0.628	0.628	-0.009	0.009	Symmetrical
KURTOSIS (K):	10.07	5.942	5.942	0.932	0.932	Mesokurtic



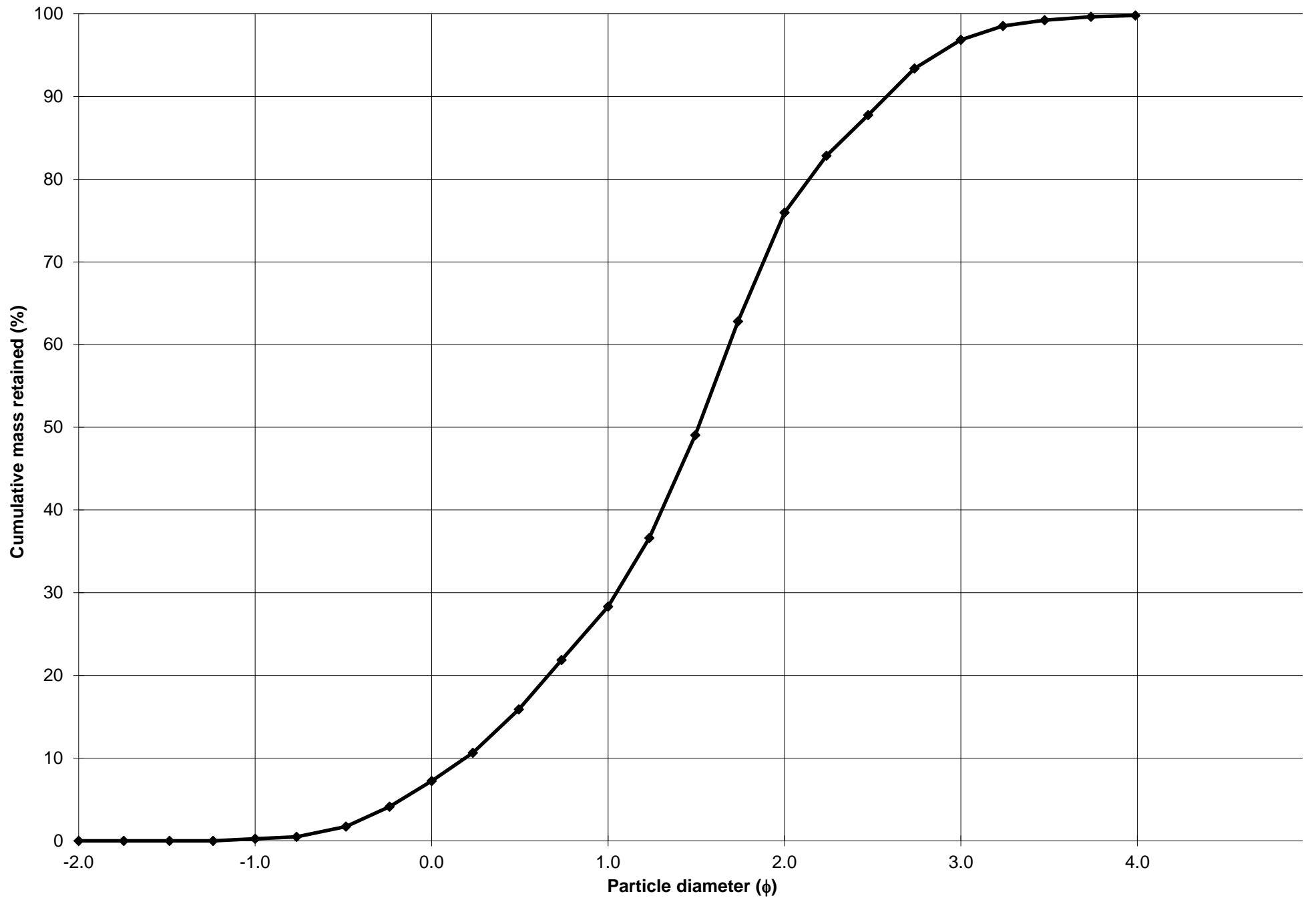
Cumulative Frequency Curve



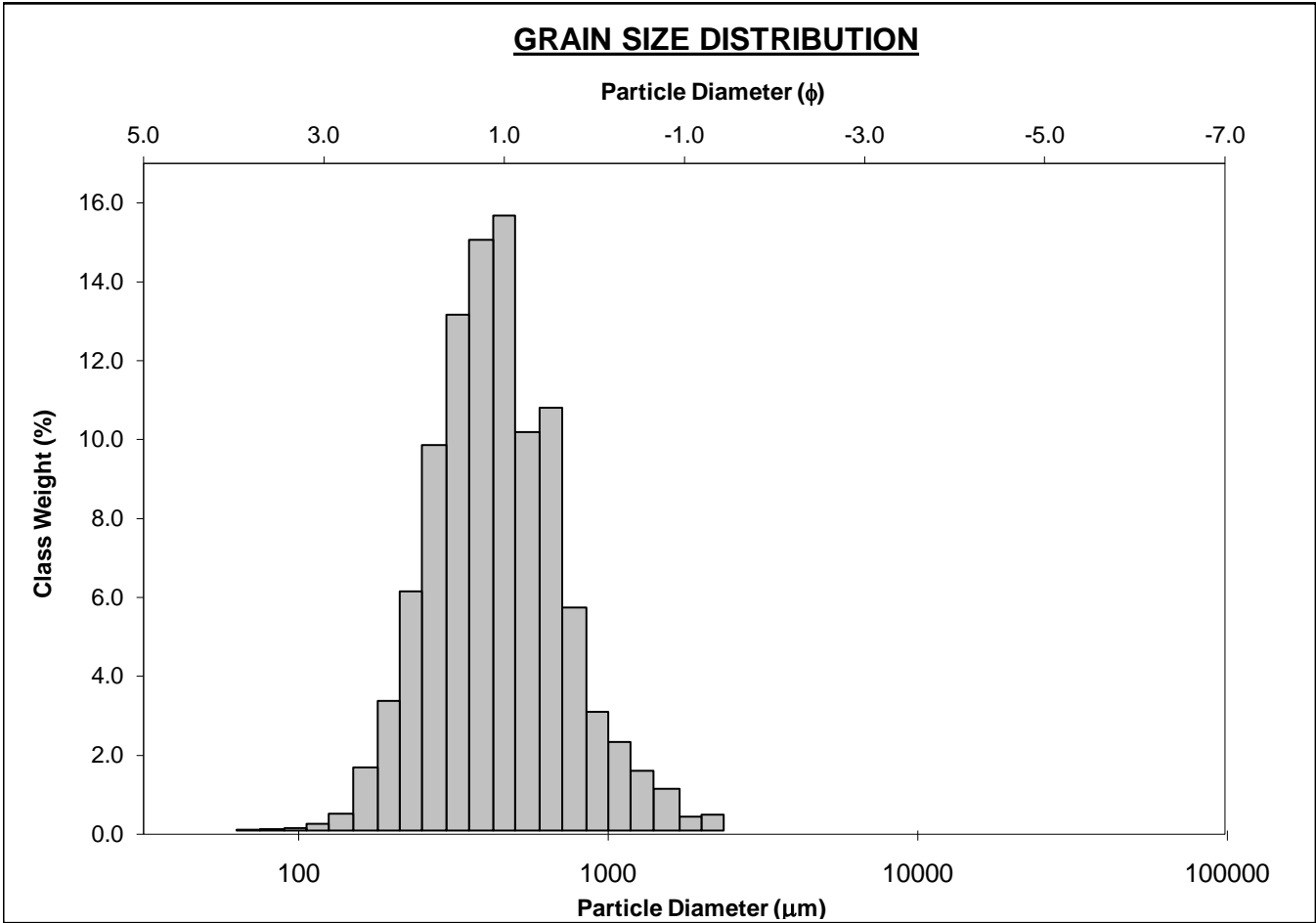
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-230cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.3%		COARSE SAND: 21.1%	
MODE 2:	655.0	0.616	SAND: 99.5%		MEDIUM SAND: 47.6%	
MODE 3:	165.0	2.605	MUD: 0.2%		FINE SAND: 20.9%	
D_{10} :	167.4	0.190			V FINE SAND: 3.0%	
MEDIAN or D_{50} :	350.9	1.511	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	876.3	2.579	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	5.235	13.54	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	708.9	2.388	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	2.168	2.291	V FINE GRAVEL: 0.3%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	295.8	1.116	V COARSE SAND: 7.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	451.8	368.6	1.440	370.0	1.434	Medium Sand
SORTING (σ):	313.4	1.887	0.916	1.876	0.908	Moderately Sorted
SKEWNESS (Sk):	1.875	-0.215	0.215	0.119	-0.119	Coarse Skewed
KURTOSIS (K):	7.334	5.155	5.155	1.113	1.113	Leptokurtic



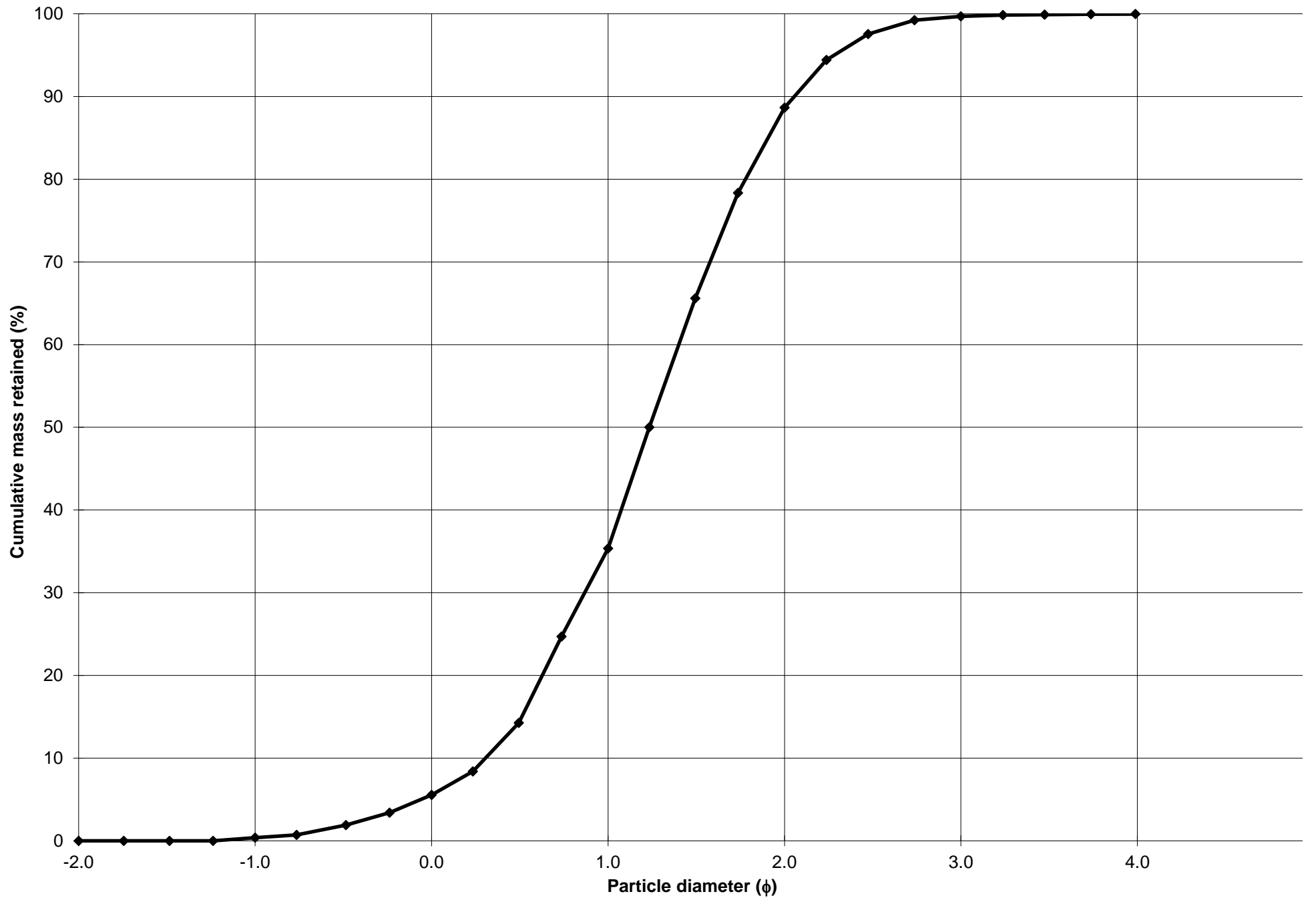
Cumulative Frequency Curve



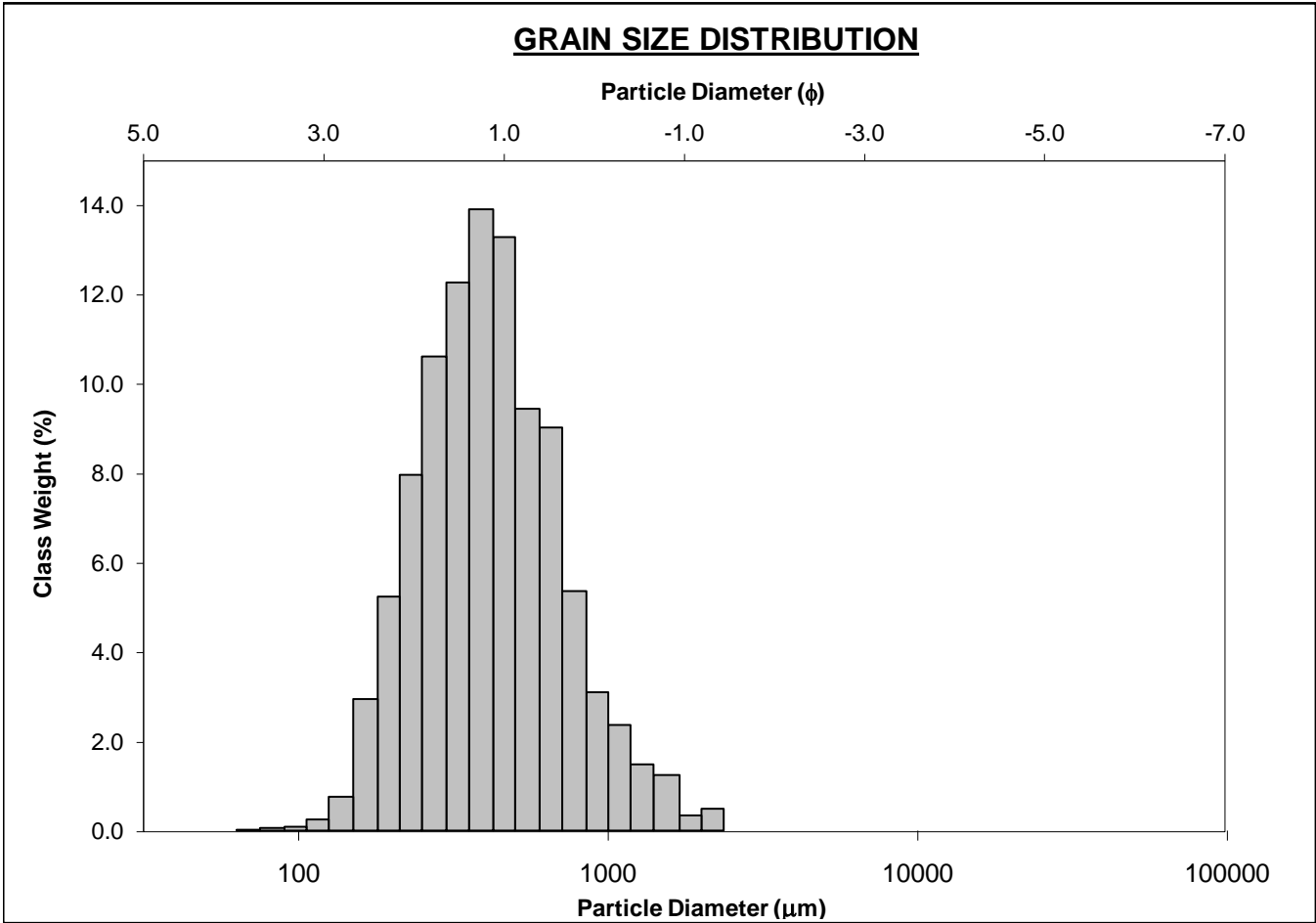
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-240cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	462.5	1.117	GRAVEL: 0.4%		COARSE SAND: 29.8%	
MODE 2:	655.0	0.616	SAND: 99.6%		MEDIUM SAND: 53.3%	
MODE 3:			MUD: 0.0%		FINE SAND: 11.0%	
D_{10} :	240.5	0.306			V FINE SAND: 0.3%	
MEDIAN or D_{50} :	425.1	1.234	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	809.0	2.056	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	3.363	6.724	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	568.5	1.750	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.904	2.248	V FINE GRAVEL: 0.4%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	283.5	0.929	V COARSE SAND: 5.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	496.6	435.8	1.198	430.3	1.217	Medium Sand
SORTING (σ):	283.8	1.637	0.711	1.615	0.692	Moderately Well Sorted
SKEWNESS (Sk):	2.258	0.131	-0.131	0.073	-0.073	Symmetrical
KURTOSIS (K):	10.49	4.898	4.898	1.033	1.033	Mesokurtic



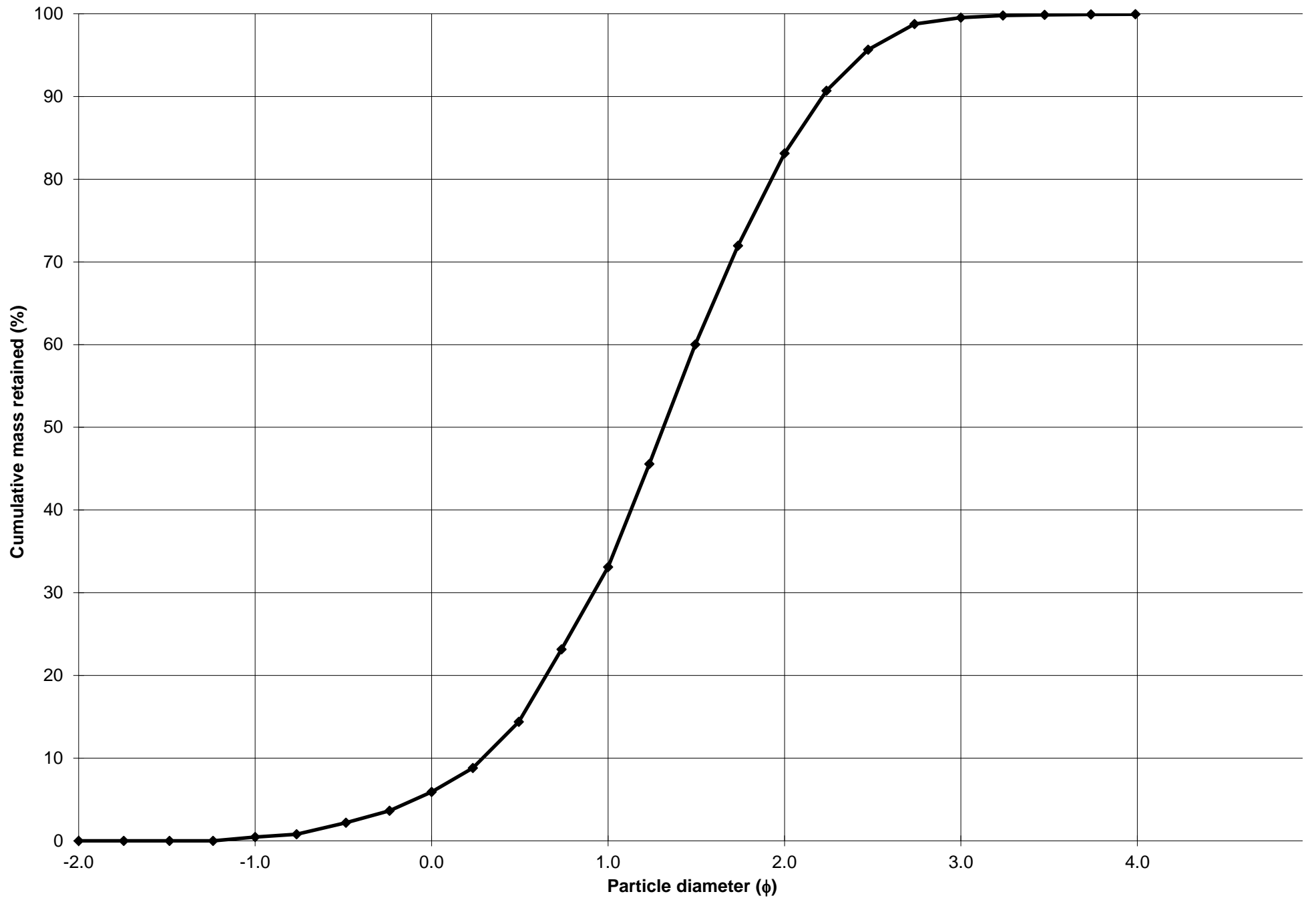
Cumulative Frequency Curve



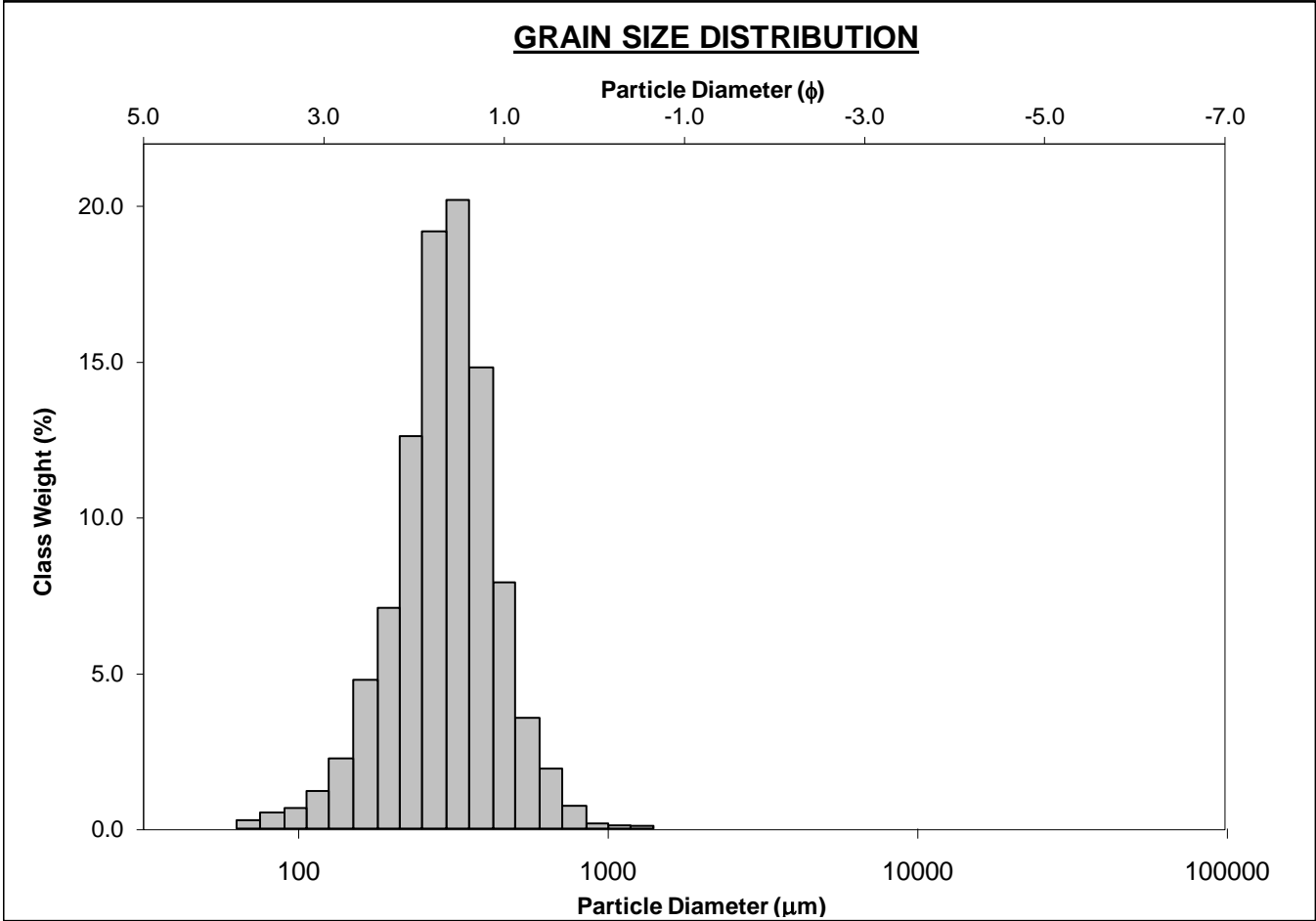
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-7-250cm			ANALYST & DATE: Chris, 8/1/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.5%	COARSE SAND: 27.2%		
MODE 2:			SAND: 99.5%	MEDIUM SAND: 50.0%		
MODE 3:			MUD: 0.1%	FINE SAND: 16.4%		
D ₁₀ :	215.3	0.290		V FINE SAND: 0.4%		
MEDIAN or D ₅₀ :	402.2	1.314	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	817.9	2.216	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	3.800	7.641	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	602.7	1.926	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	2.032	2.302	V FINE GRAVEL: 0.5%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	294.6	1.023	V COARSE SAND: 5.4%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	481.3	413.2	1.275	407.9	1.294	Medium Sand
SORTING (σ):	299.0	1.706	0.771	1.690	0.757	Moderately Sorted
SKEWNESS (Sk):	2.242	0.125	-0.125	0.076	-0.076	Symmetrical
KURTOSIS (K):	10.08	4.662	4.662	1.017	1.017	Mesokurtic



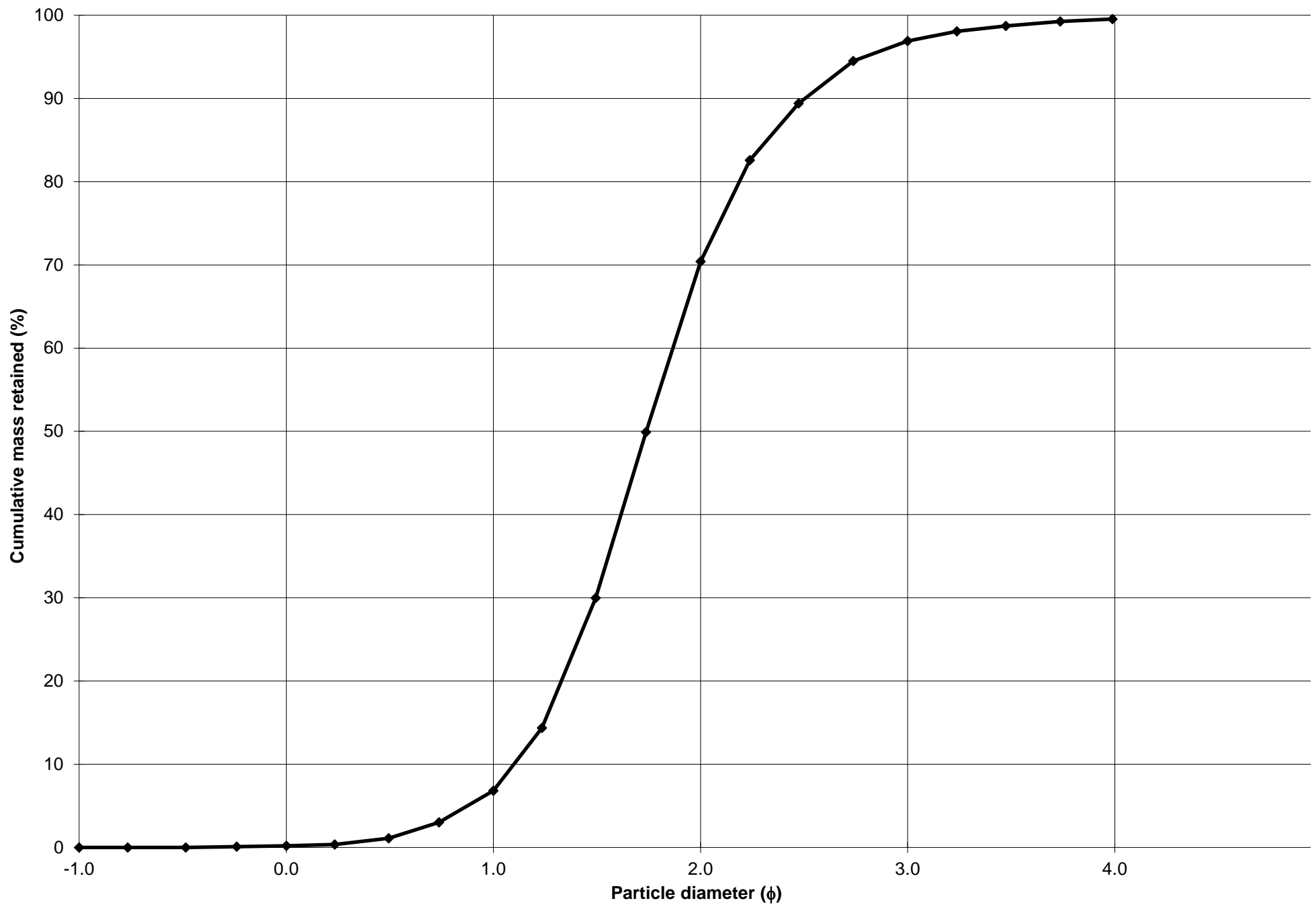
Cumulative Frequency Curve



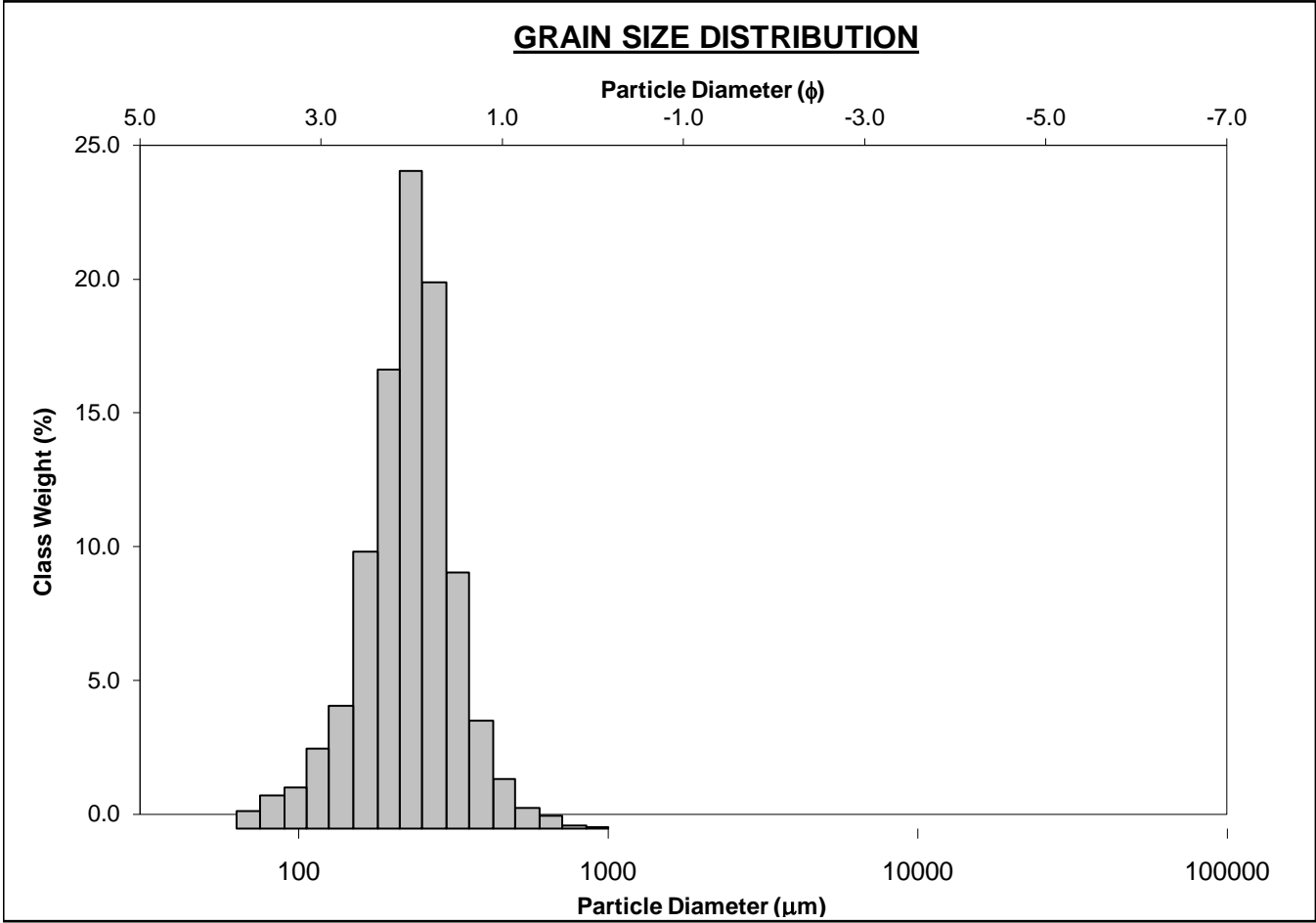
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-10cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 6.6%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 63.6%	
MODE 3:			MUD: 0.5%		FINE SAND: 26.5%	
D ₁₀ :	176.1	1.099			V FINE SAND: 2.6%	
MEDIAN or D ₅₀ :	299.7	1.738	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	466.8	2.505	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.651	2.280	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	290.7	1.406	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.600	1.481	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	141.0	0.678	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	316.5	289.0	1.791	294.8	1.762	Medium Sand
SORTING (σ):	127.3	1.588	0.667	1.461	0.547	Moderately Well Sorted
SKEWNESS (Sk):	1.461	-2.342	2.342	-0.085	0.085	Symmetrical
KURTOSIS (K):	8.715	19.26	19.26	1.159	1.159	Leptokurtic



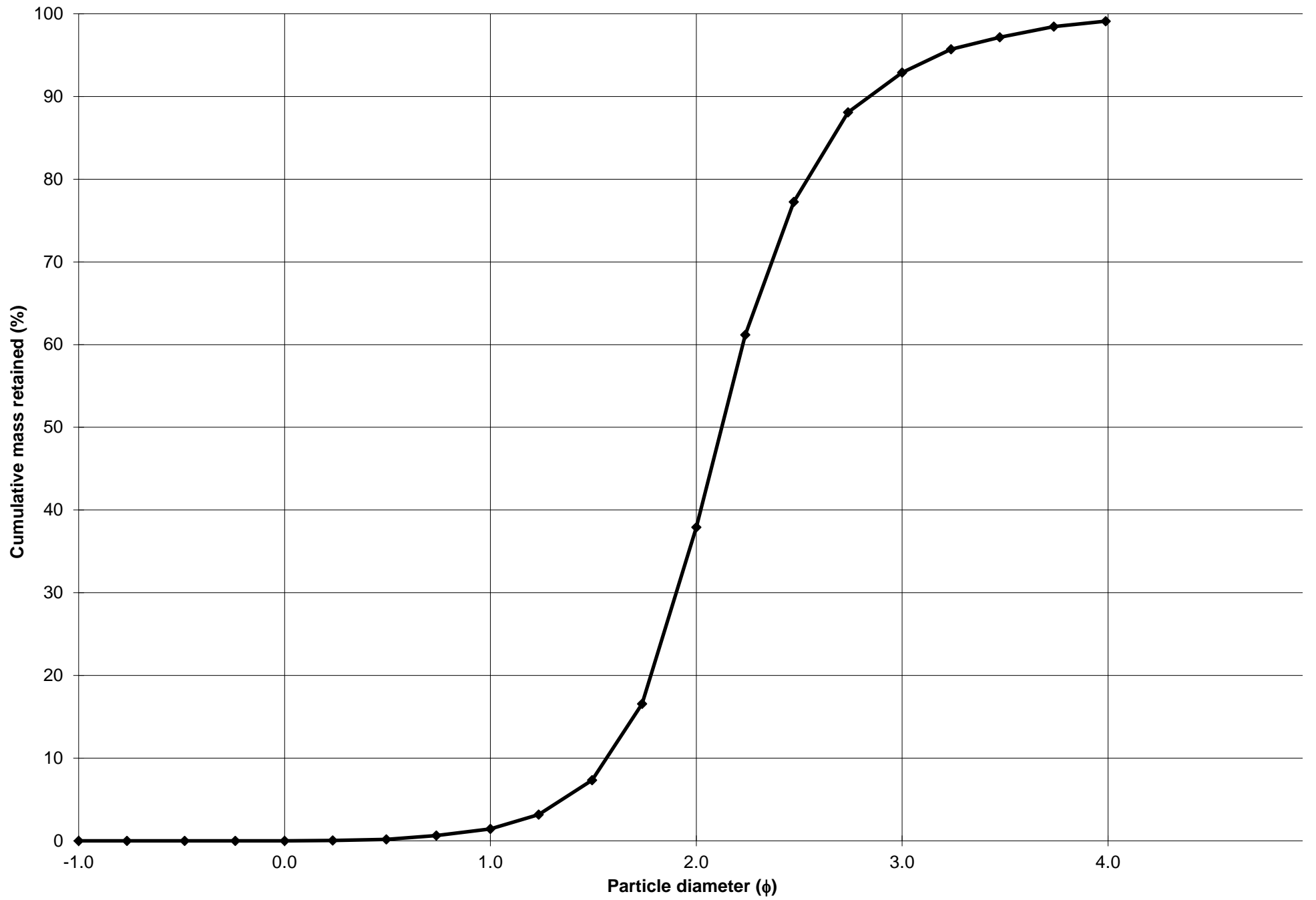
Cumulative Frequency Curve



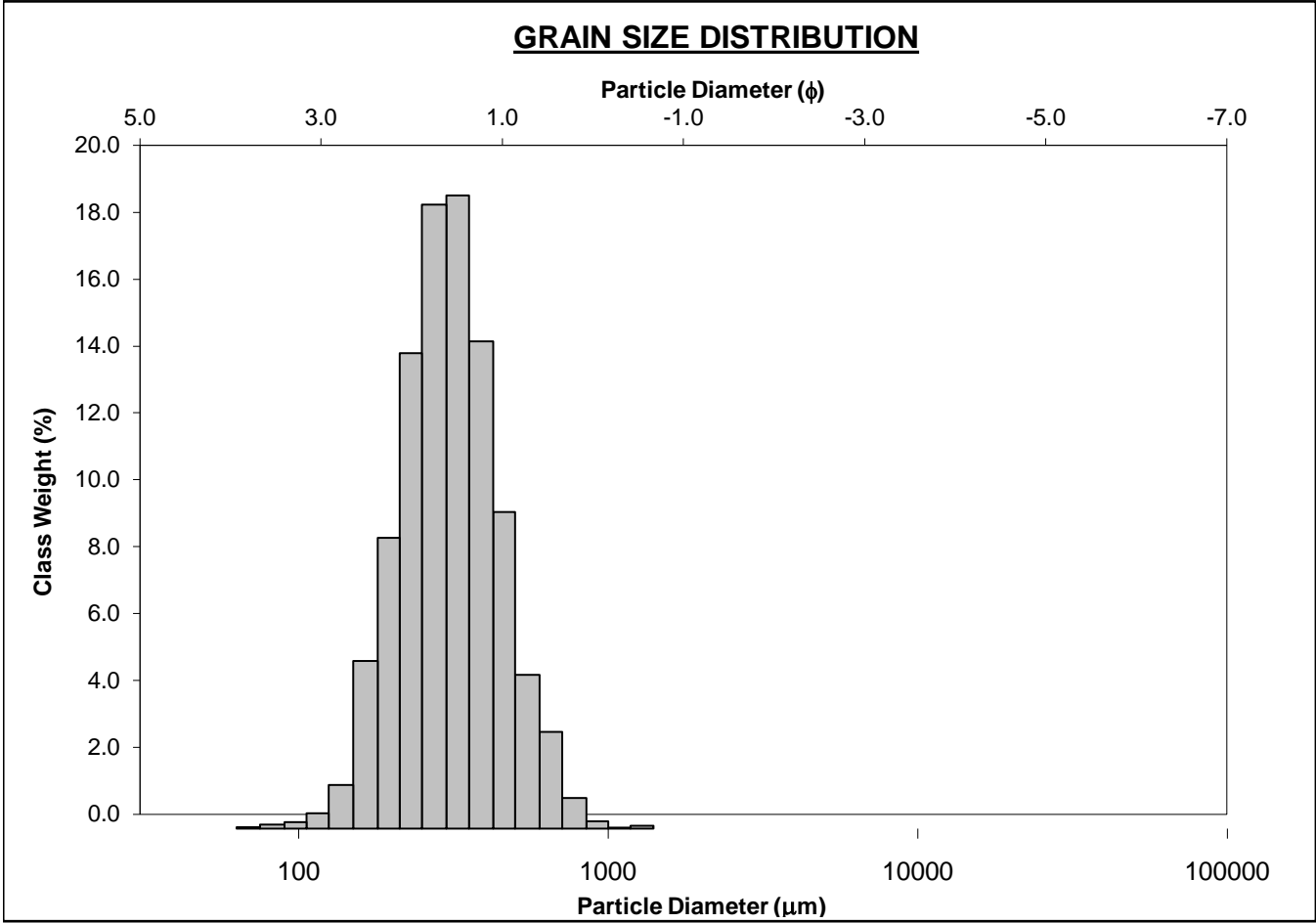
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-20cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 1.4%	
MODE 2:			SAND: 99.1%		MEDIUM SAND: 36.5%	
MODE 3:			MUD: 0.9%		FINE SAND: 55.0%	
D ₁₀ :	139.5	1.564			V FINE SAND: 6.2%	
MEDIAN or D ₅₀ :	229.5	2.124	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	338.2	2.842	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.425	1.817	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	198.7	1.278	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.516	1.326	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	94.99	0.600	V COARSE SAND: 0.0%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	238.3	218.1	2.197	223.6	2.161	Fine Sand
SORTING (σ):	89.45	1.611	0.688	1.420	0.506	Moderately Well Sorted
SKEWNESS (Sk):	1.400	-3.065	3.065	-0.138	0.138	Fine Skewed
KURTOSIS (K):	8.719	22.41	22.41	1.250	1.250	Leptokurtic



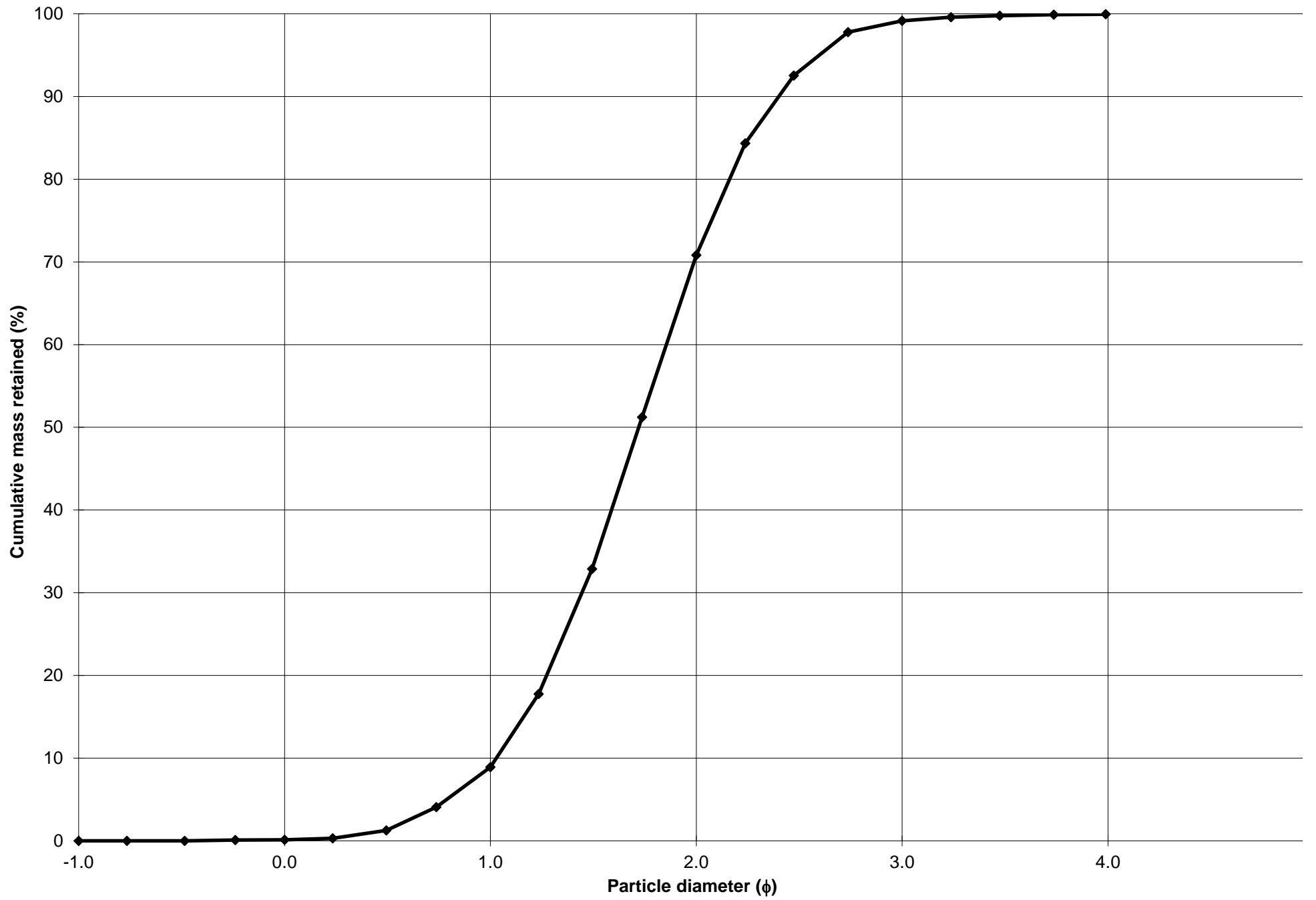
Cumulative Frequency Curve



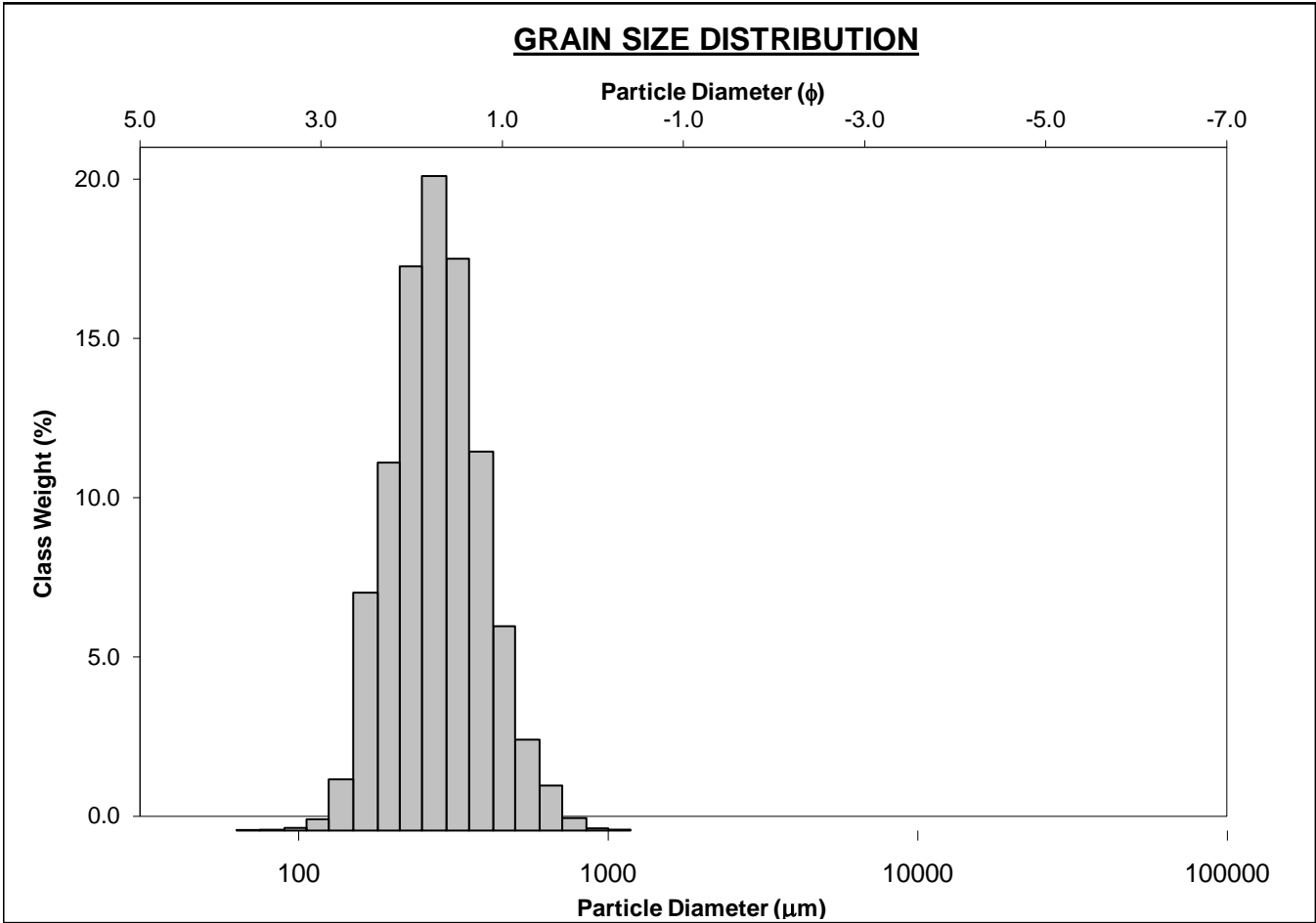
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-30cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 8.8%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 61.9%	
MODE 3:			MUD: 0.1%		FINE SAND: 28.3%	
D ₁₀ :	189.3	1.029			V FINE SAND: 0.8%	
MEDIAN or D ₅₀ :	303.4	1.721	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	490.0	2.401	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.589	2.333	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	300.7	1.372	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.641	1.526	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	152.3	0.715	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	328.2	304.4	1.716	304.9	1.714	Medium Sand
SORTING (σ):	129.5	1.465	0.551	1.449	0.535	Moderately Well Sorted
SKEWNESS (Sk):	1.460	-0.424	0.424	0.026	-0.026	Symmetrical
KURTOSIS (K):	7.321	7.701	7.701	1.038	1.038	Mesokurtic



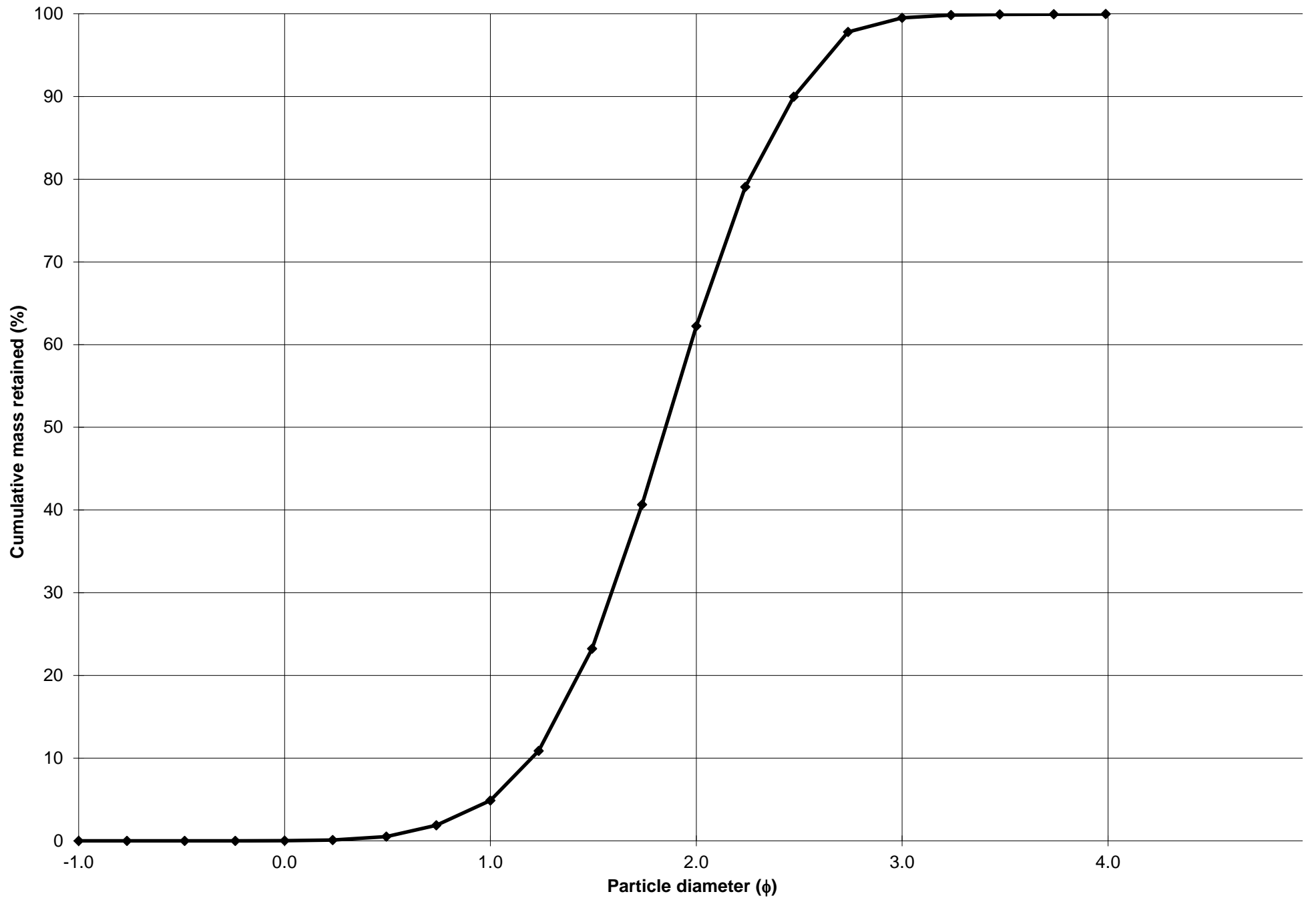
Cumulative Frequency Curve



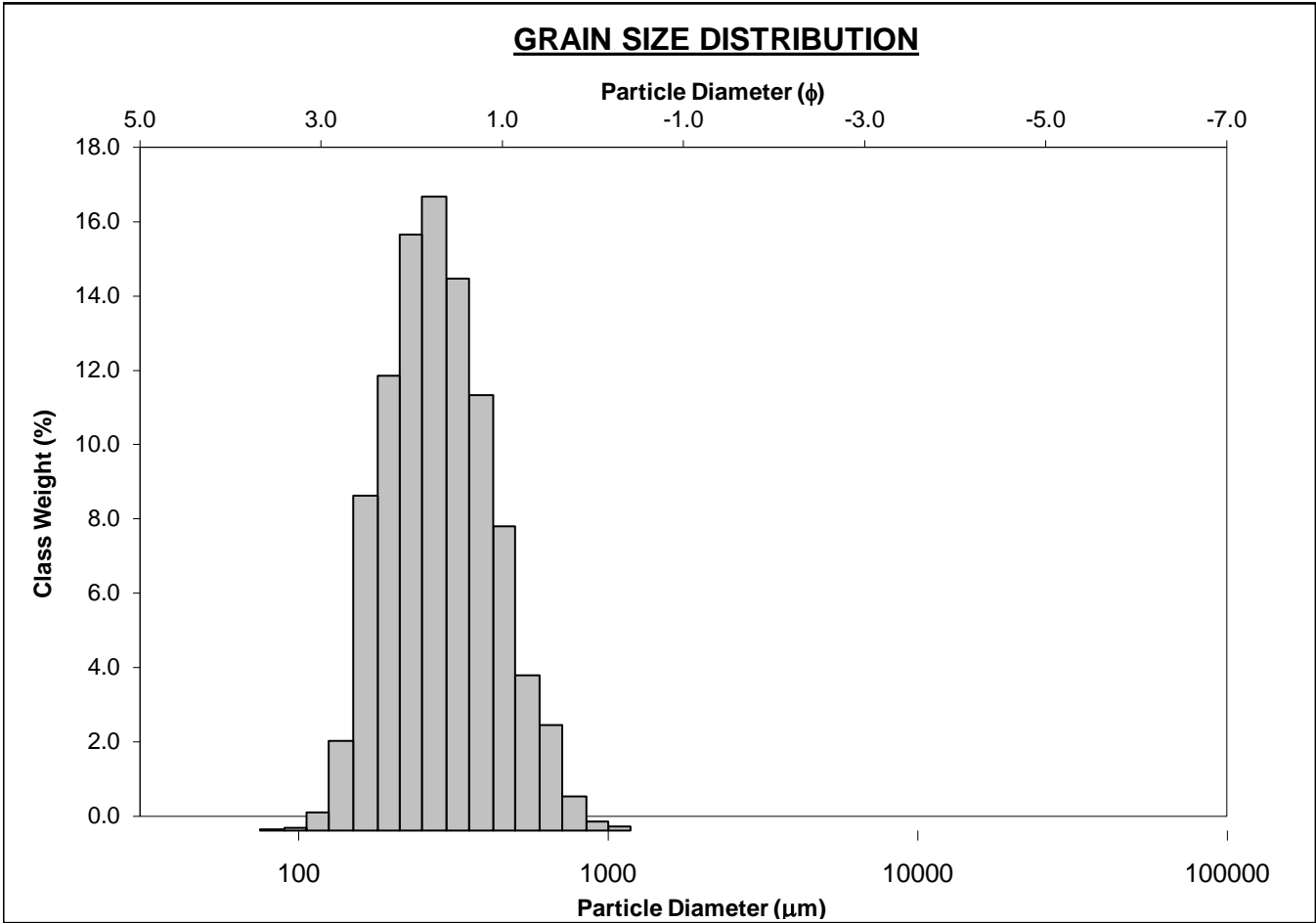
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-40cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 4.8%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 57.4%			
MODE 3:			MUD: 0.0% FINE SAND: 37.3%			
D ₁₀ :	179.9	1.200	V FINE SAND: 0.5%			
MEDIAN or D ₅₀ :	277.2	1.851	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	435.3	2.475	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.420	2.062	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	255.4	1.275	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.582	1.435	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	128.3	0.661	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	298.0	279.3	1.840	278.2	1.846	Medium Sand
SORTING (σ):	109.0	1.417	0.503	1.413	0.499	Well Sorted
SKEWNESS (Sk):	1.368	-0.164	0.164	0.024	-0.024	Symmetrical
KURTOSIS (K):	6.296	6.497	6.497	1.015	1.015	Mesokurtic



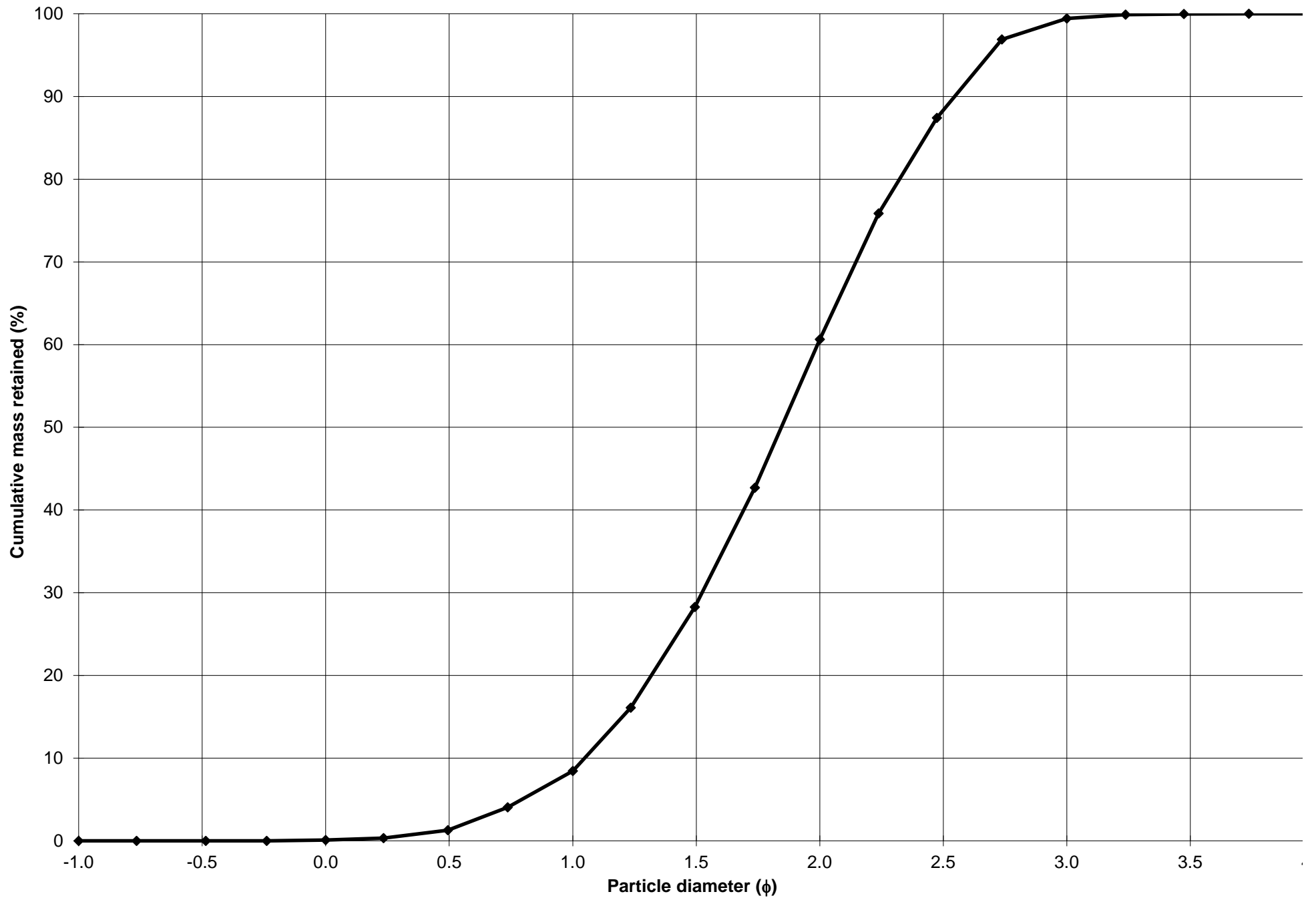
Cumulative Frequency Curve



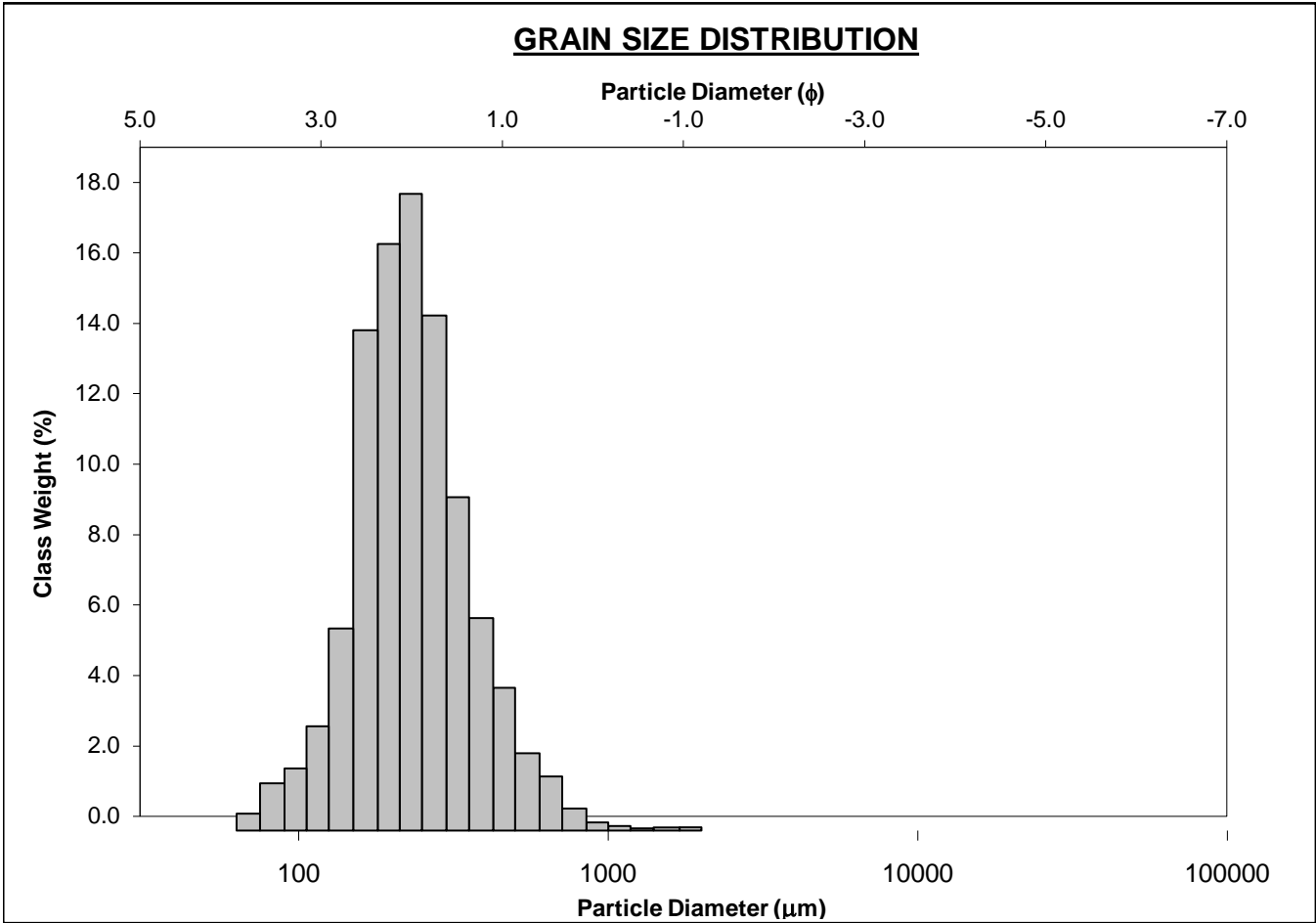
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-50cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 8.3%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 52.2%	
MODE 3:			MUD: 0.0%		FINE SAND: 38.8%	
D ₁₀ :	171.3	1.048			V FINE SAND: 0.6%	
MEDIAN or D ₅₀ :	278.5	1.844	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	483.7	2.546	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.824	2.429	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	312.4	1.498	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.741	1.562	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	158.6	0.800	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	310.0	284.9	1.811	281.9	1.826	Medium Sand
SORTING (σ):	132.9	1.483	0.569	1.494	0.580	Moderately Well Sorted
SKEWNESS (Sk):	1.437	0.291	-0.291	0.078	-0.078	Symmetrical
KURTOSIS (K):	5.964	2.778	2.778	0.968	0.968	Mesokurtic



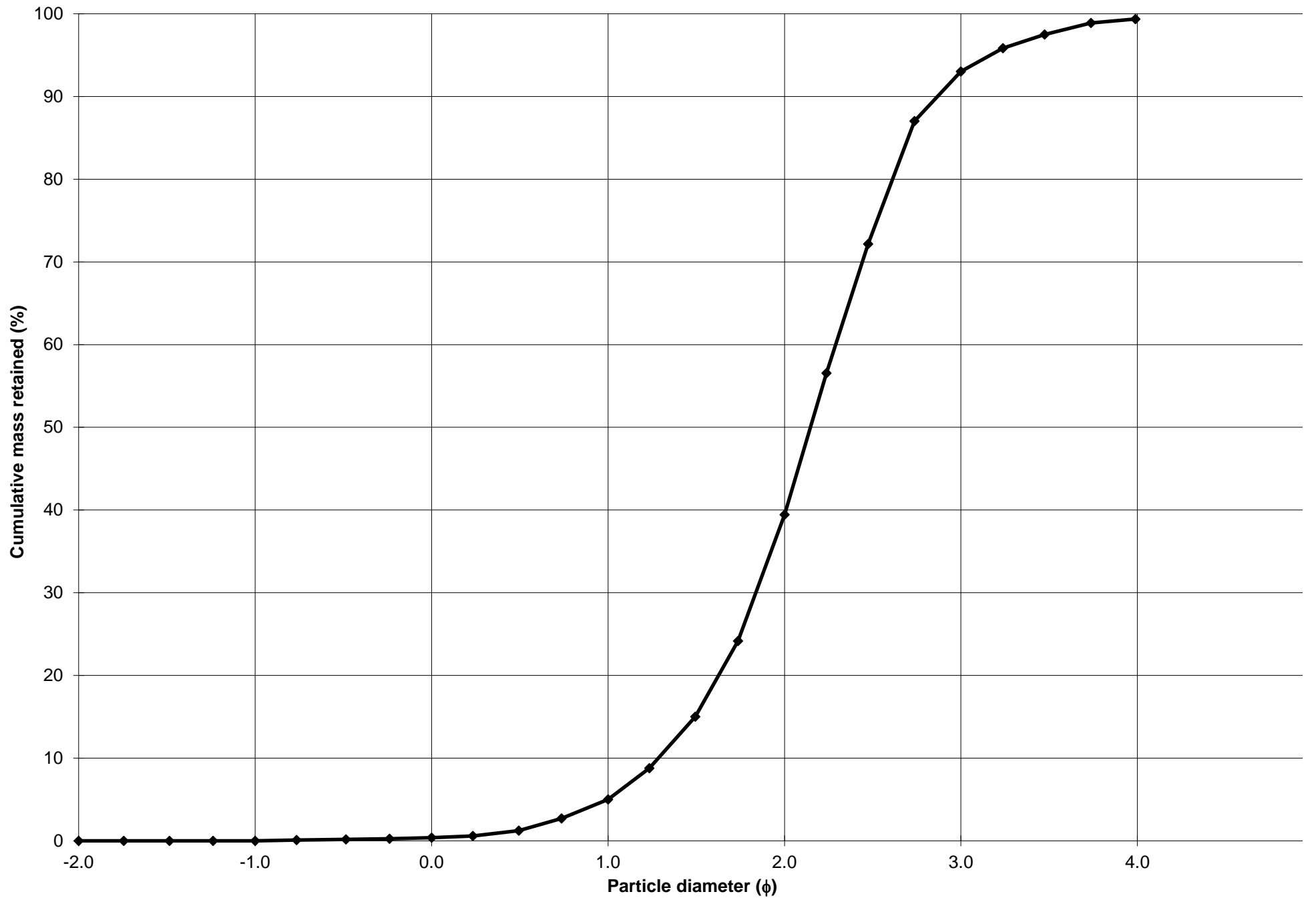
Cumulative Frequency Curve



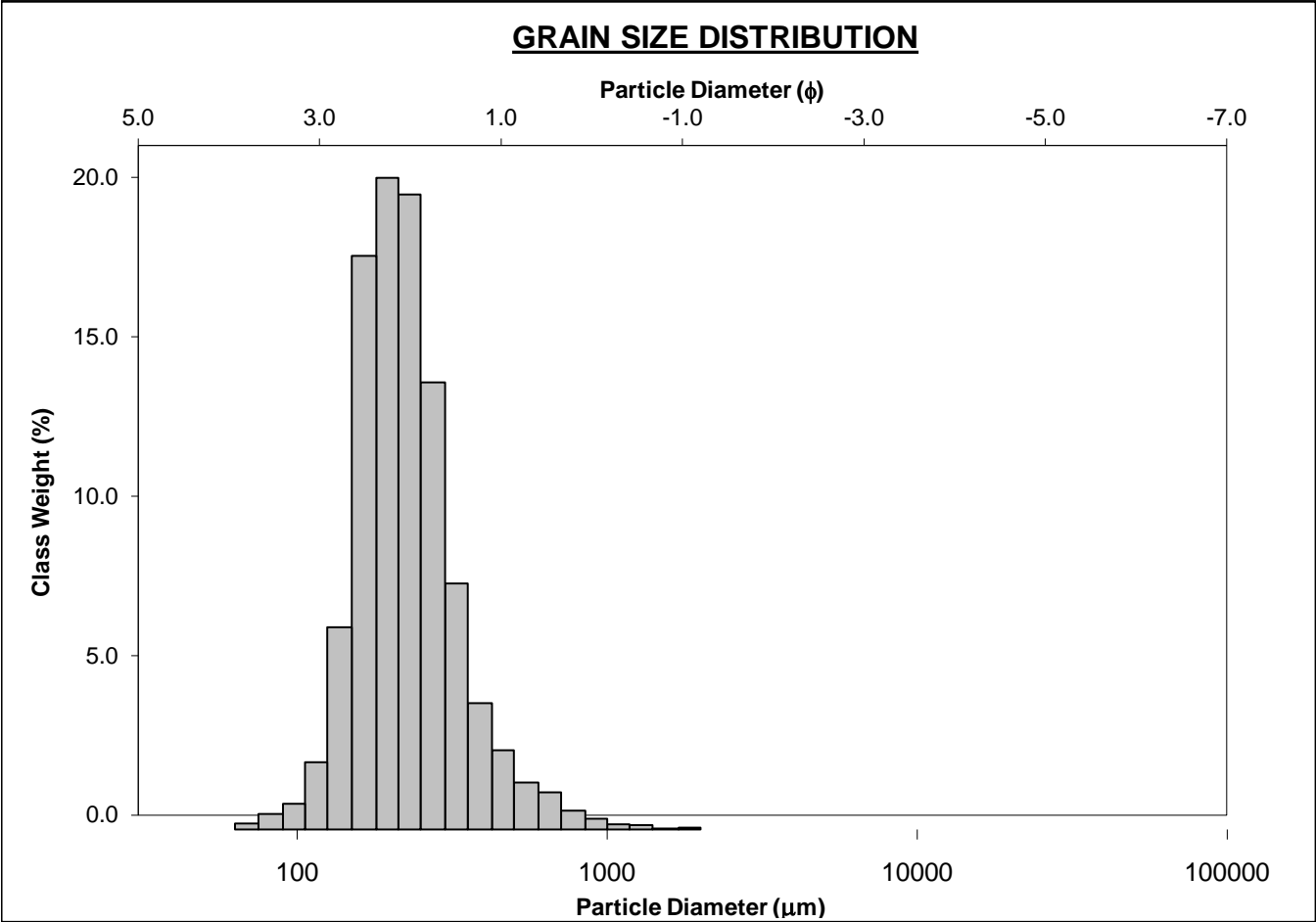
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-60cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 4.6%	
MODE 2:			SAND: 99.4%		MEDIUM SAND: 34.4%	
MODE 3:			MUD: 0.6%		FINE SAND: 53.6%	
D ₁₀ :	137.0	1.285			V FINE SAND: 6.3%	
MEDIAN or D ₅₀ :	225.8	2.147	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	410.4	2.867	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.994	2.231	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	273.3	1.582	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.708	1.441	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	123.1	0.772	V COARSE SAND: 0.4%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	257.8	227.4	2.136	230.6	2.117	Fine Sand
SORTING (σ):	142.5	1.677	0.746	1.536	0.619	Moderately Well Sorted
SKEWNESS (Sk):	3.442	-1.417	1.417	0.068	-0.068	Symmetrical
KURTOSIS (K):	27.14	13.64	13.64	1.151	1.151	Leptokurtic



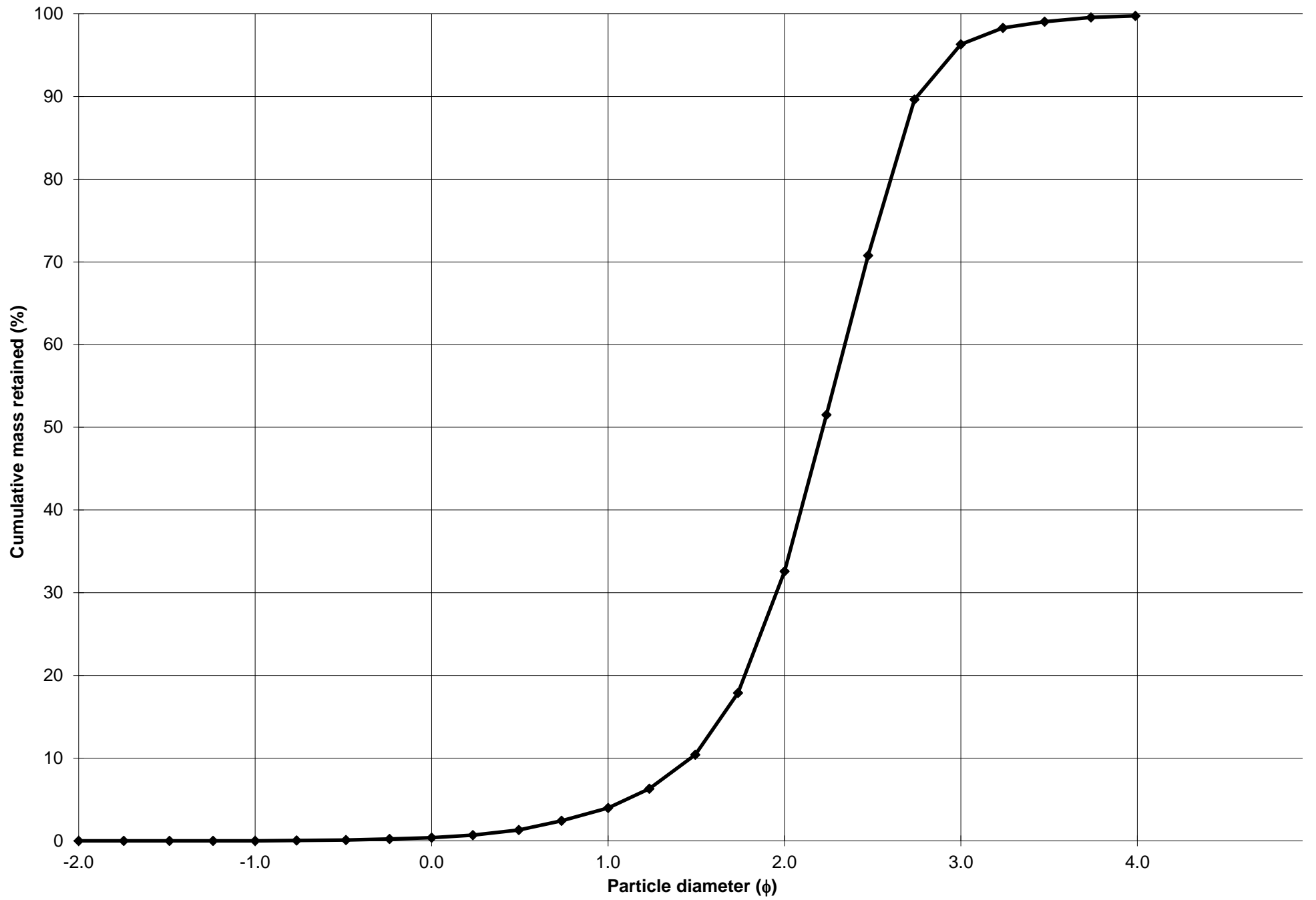
Cumulative Frequency Curve



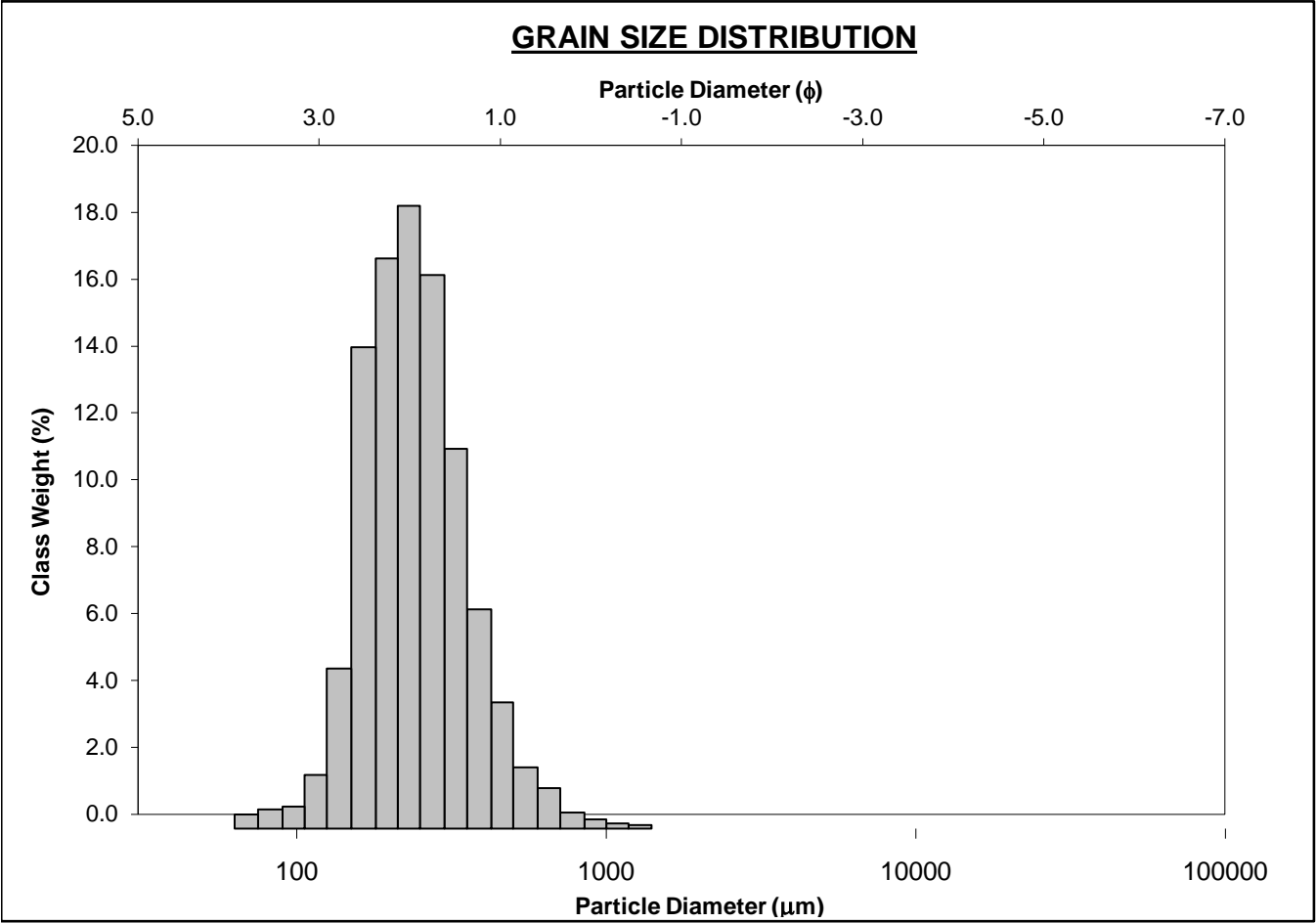
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-70cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 3.6%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 28.6%	
MODE 3:			MUD: 0.2%		FINE SAND: 63.7%	
D ₁₀ :	148.5	1.468			V FINE SAND: 3.5%	
MEDIAN or D ₅₀ :	214.8	2.219	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	361.4	2.751	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.433	1.874	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	212.9	1.283	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.590	1.359	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	101.9	0.669	V COARSE SAND: 0.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	245.6	222.6	2.167	220.0	2.184	Fine Sand
SORTING (σ):	130.2	1.531	0.615	1.439	0.525	Moderately Well Sorted
SKEWNESS (Sk):	3.909	-0.463	0.463	0.157	-0.157	Coarse Skewed
KURTOSIS (K):	30.08	13.24	13.24	1.131	1.131	Leptokurtic



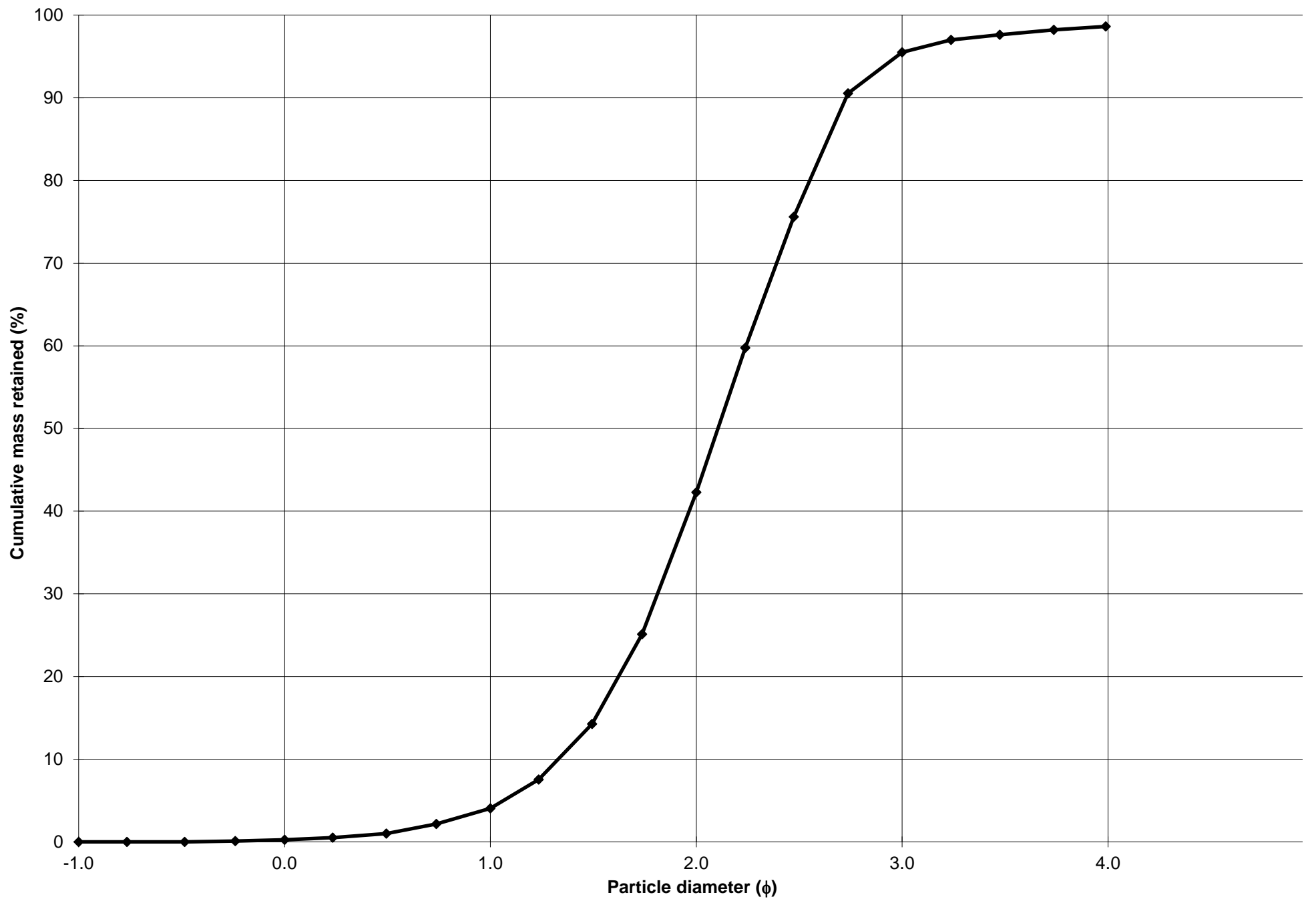
Cumulative Frequency Curve



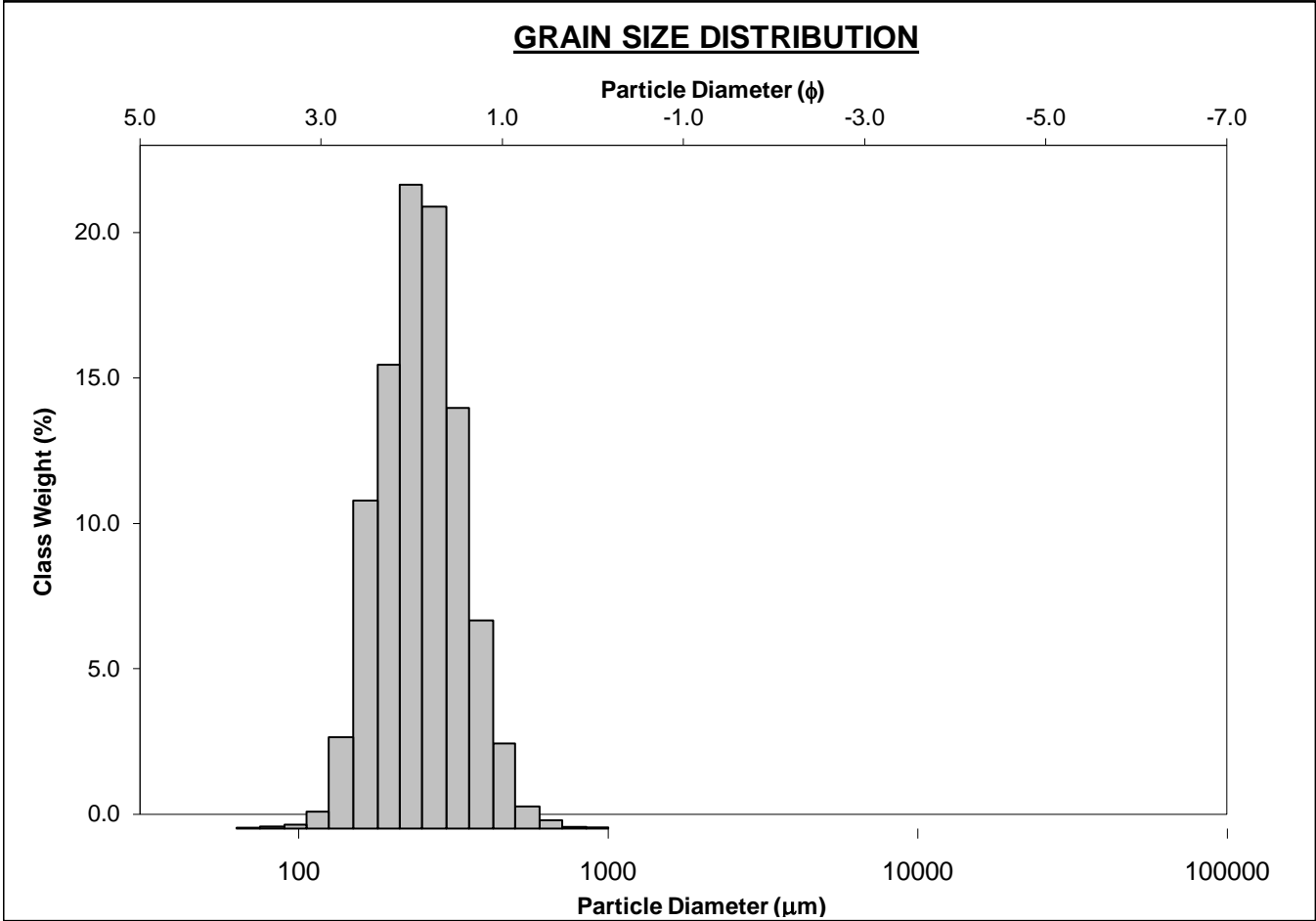
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-80cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 3.8%	
MODE 2:			SAND: 98.6%		MEDIUM SAND: 38.2%	
MODE 3:			MUD: 1.4%		FINE SAND: 53.2%	
D ₁₀ :	151.0	1.330			V FINE SAND: 3.1%	
MEDIAN or D ₅₀ :	232.4	2.105	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	397.9	2.728	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	2.635	2.051	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	246.9	1.398	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.659	1.421	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	119.4	0.731	V COARSE SAND: 0.2%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	258.7	228.8	2.128	235.4	2.087	Fine Sand
SORTING (σ):	124.4	1.752	0.809	1.476	0.562	Moderately Well Sorted
SKEWNESS (Sk):	2.363	-2.726	2.726	0.071	-0.071	Symmetrical
KURTOSIS (K):	13.85	19.02	19.02	1.071	1.071	Mesokurtic



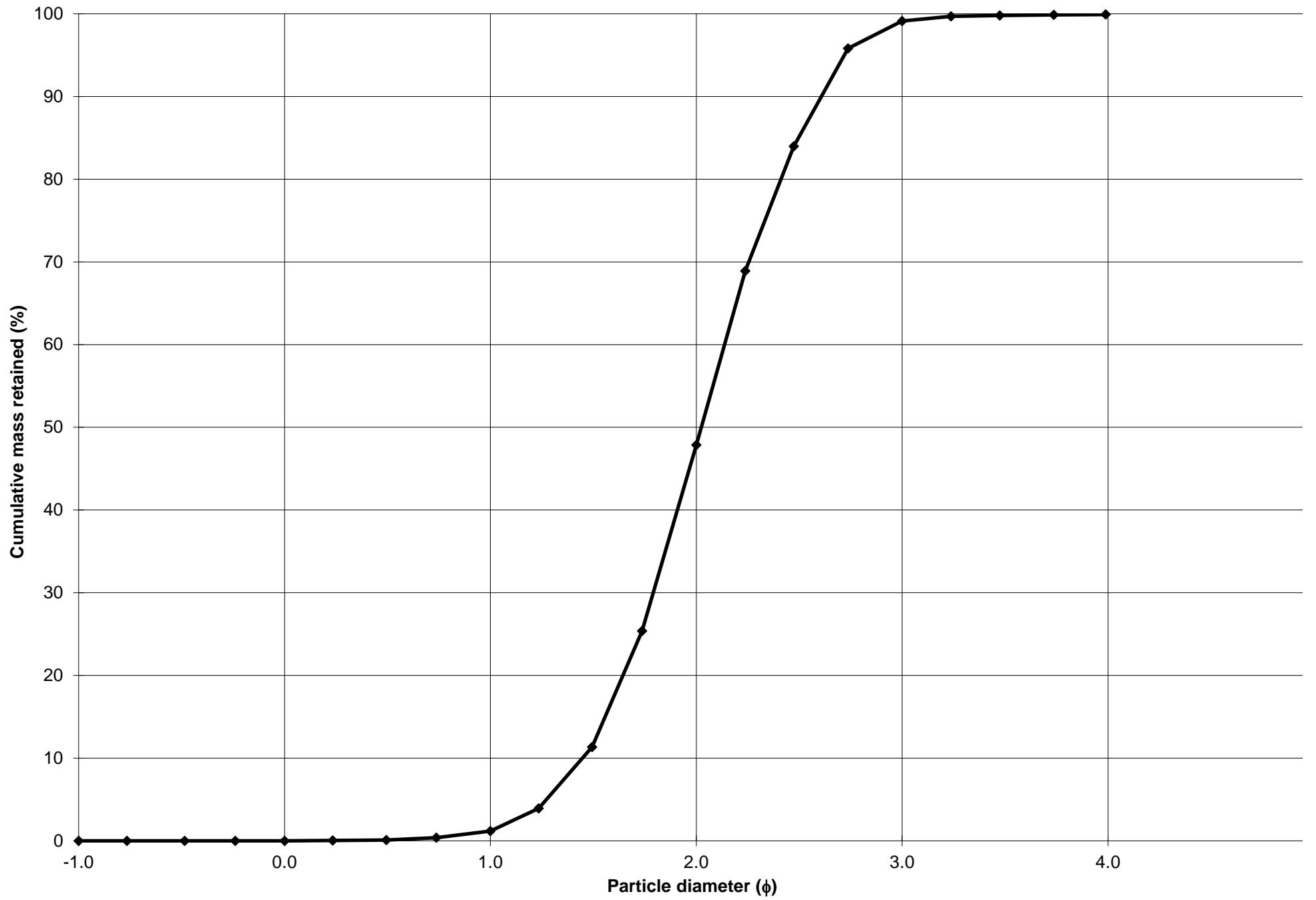
Cumulative Frequency Curve



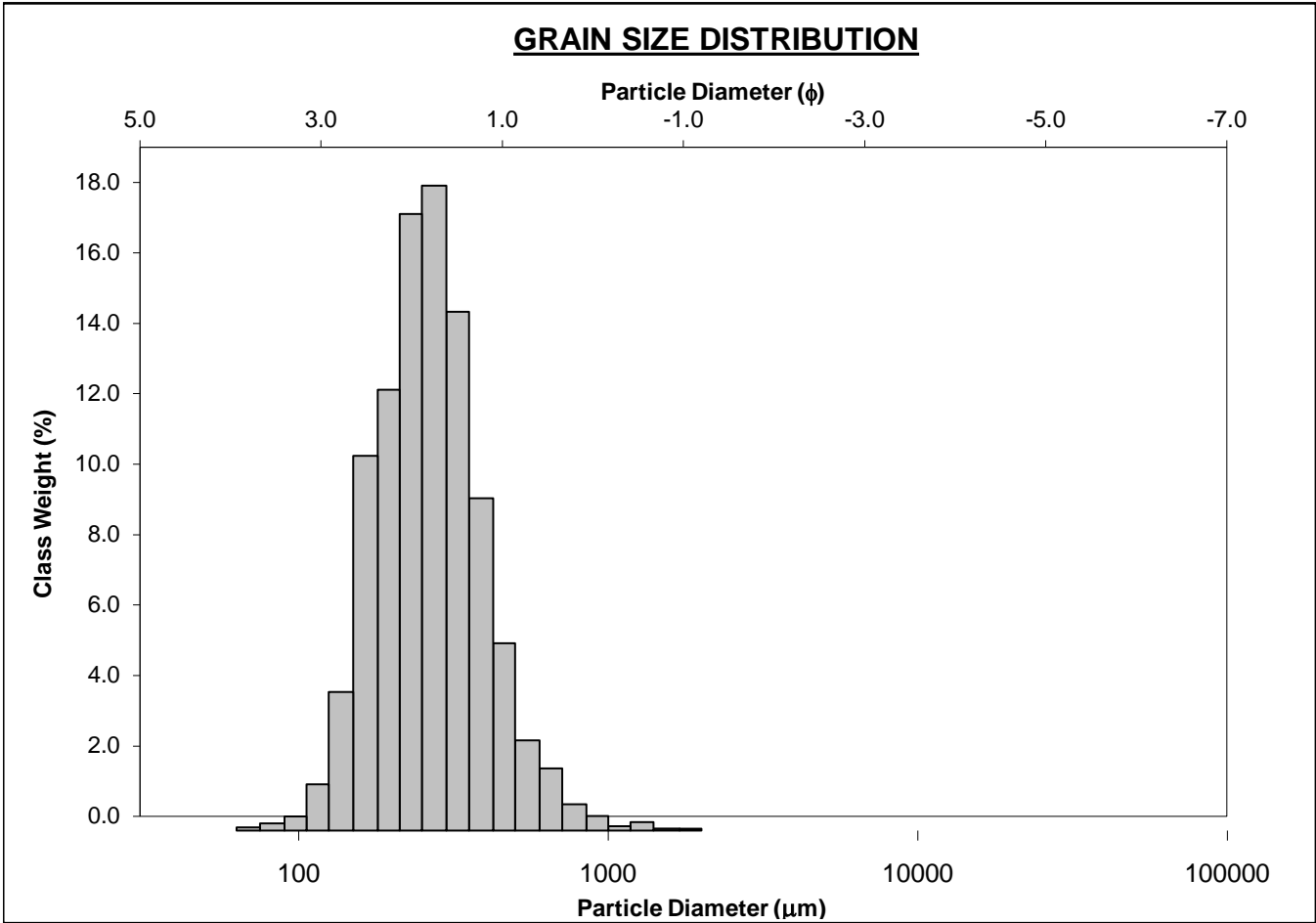
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-90cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 1.2%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 46.7%	
MODE 3:			MUD: 0.1%		FINE SAND: 51.3%	
D ₁₀ :	164.0	1.447			V FINE SAND: 0.8%	
MEDIAN or D ₅₀ :	245.9	2.024	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	366.7	2.608	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.236	1.802	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	202.7	1.161	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.519	1.348	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	103.0	0.603	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	259.6	245.9	2.024	245.8	2.024	Fine Sand
SORTING (σ):	84.20	1.383	0.468	1.361	0.444	Well Sorted
SKEWNESS (Sk):	1.268	-0.944	0.944	0.019	-0.019	Symmetrical
KURTOSIS (K):	6.740	14.00	14.00	0.983	0.983	Mesokurtic



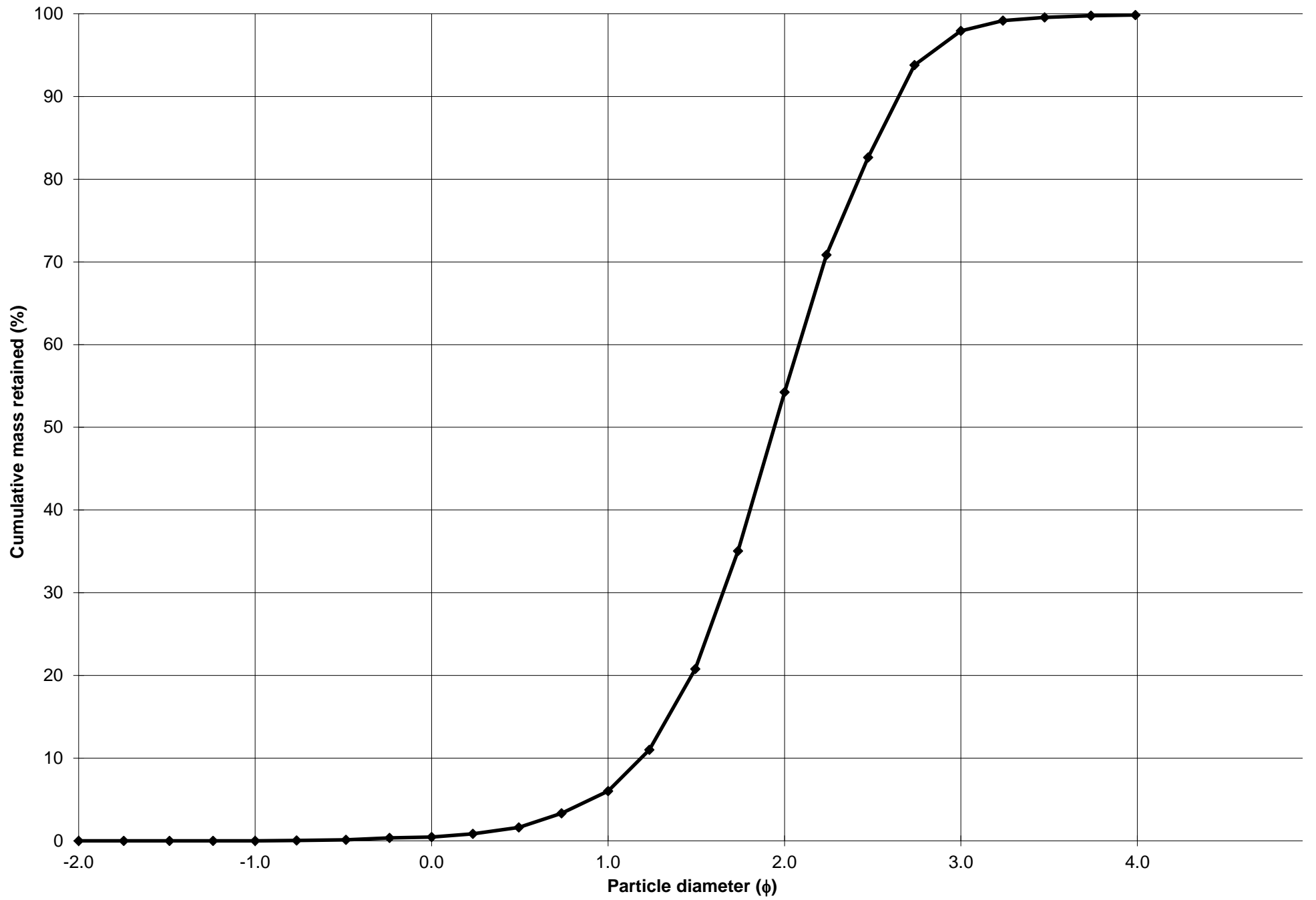
Cumulative Frequency Curve



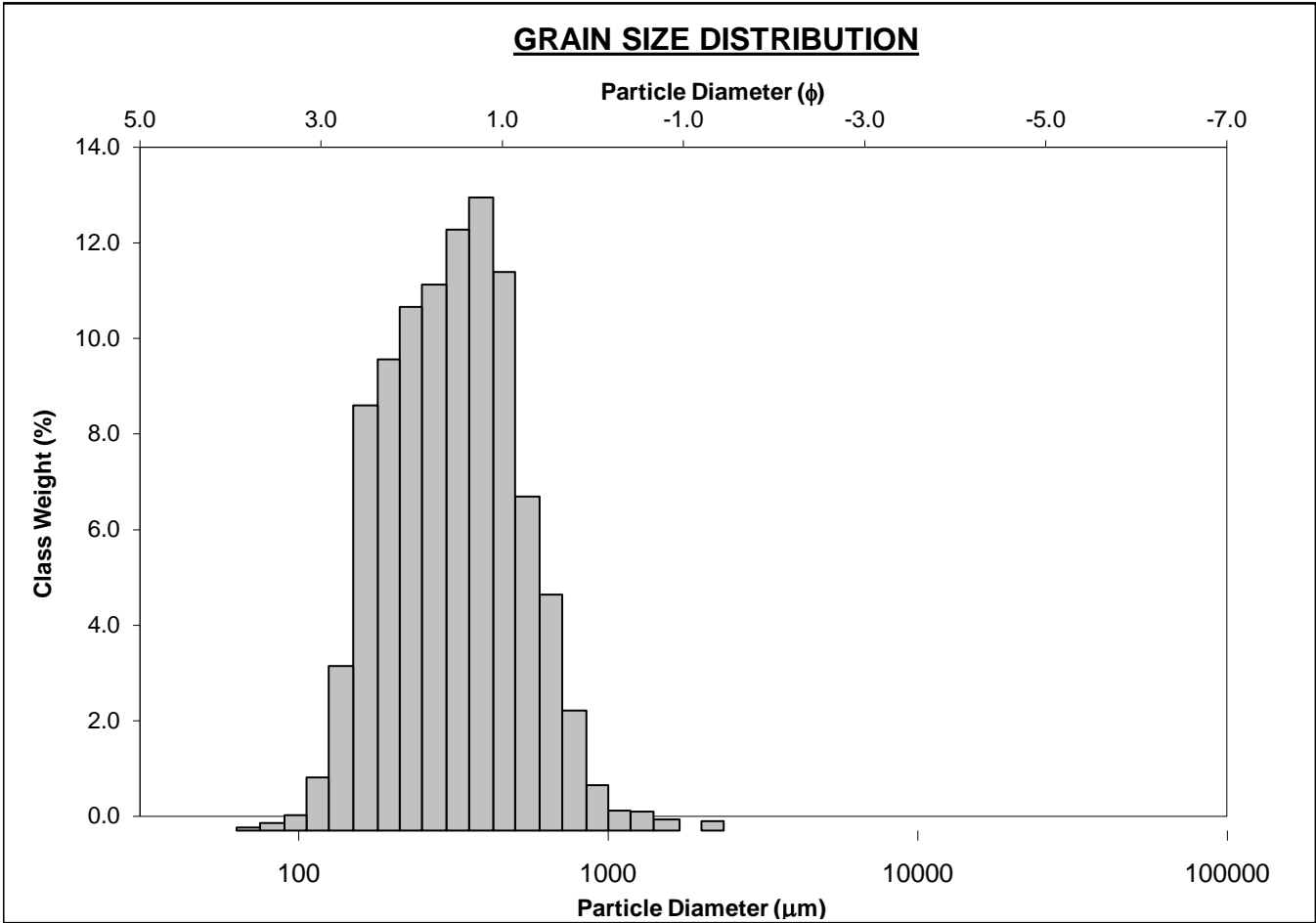
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-100cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 5.6%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 48.2%	
MODE 3:			MUD: 0.1%		FINE SAND: 43.7%	
D ₁₀ :	159.6	1.187			V FINE SAND: 1.9%	
MEDIAN or D ₅₀ :	260.3	1.942	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	439.1	2.647	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.751	2.230	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	279.5	1.460	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.687	1.482	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	137.6	0.755	V COARSE SAND: 0.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	290.1	263.3	1.925	260.9	1.938	Medium Sand
SORTING (σ):	143.6	1.535	0.618	1.489	0.575	Moderately Well Sorted
SKEWNESS (Sk):	3.054	-0.375	0.375	0.049	-0.049	Symmetrical
KURTOSIS (K):	21.27	9.837	9.837	1.039	1.039	Mesokurtic



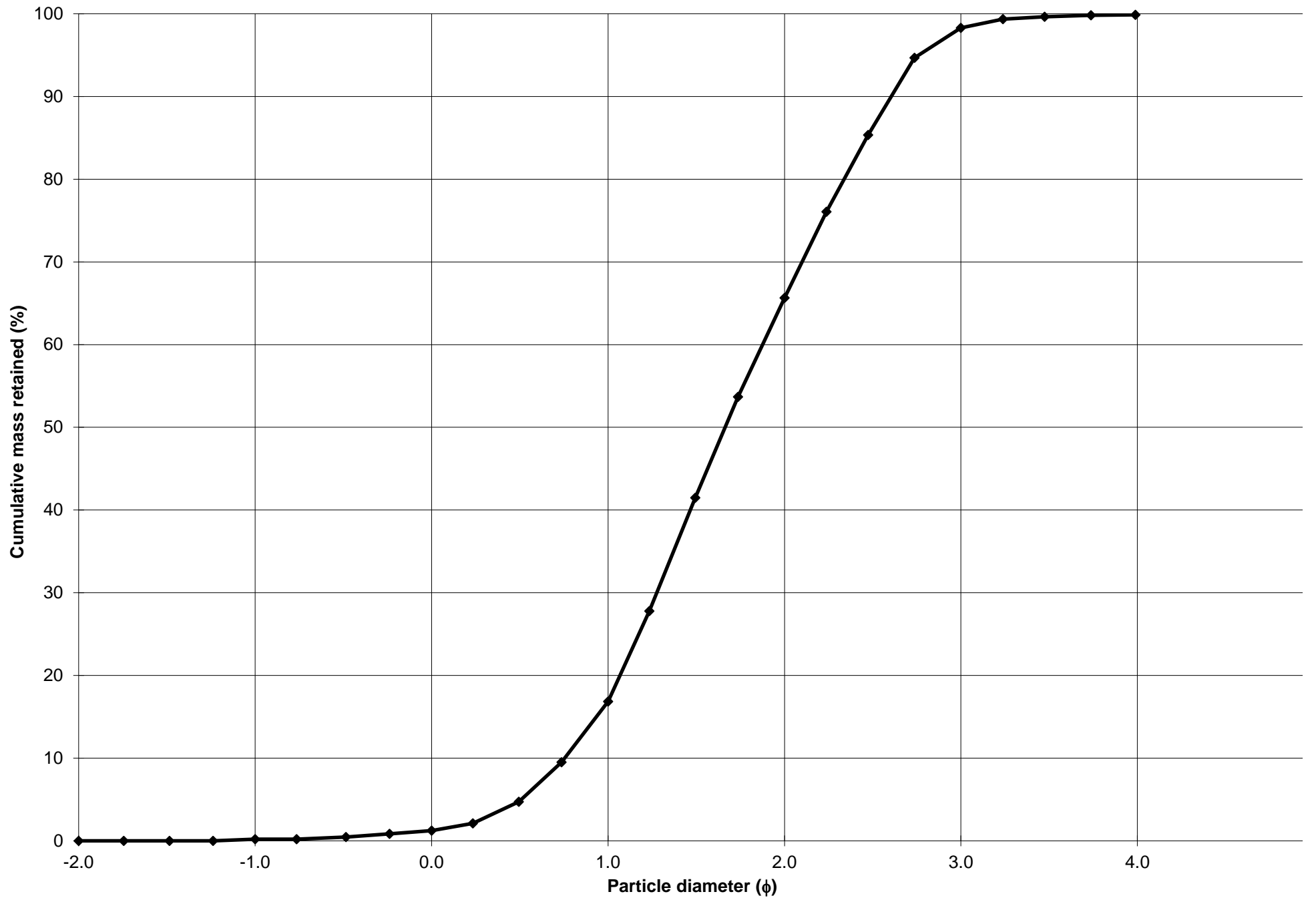
Cumulative Frequency Curve



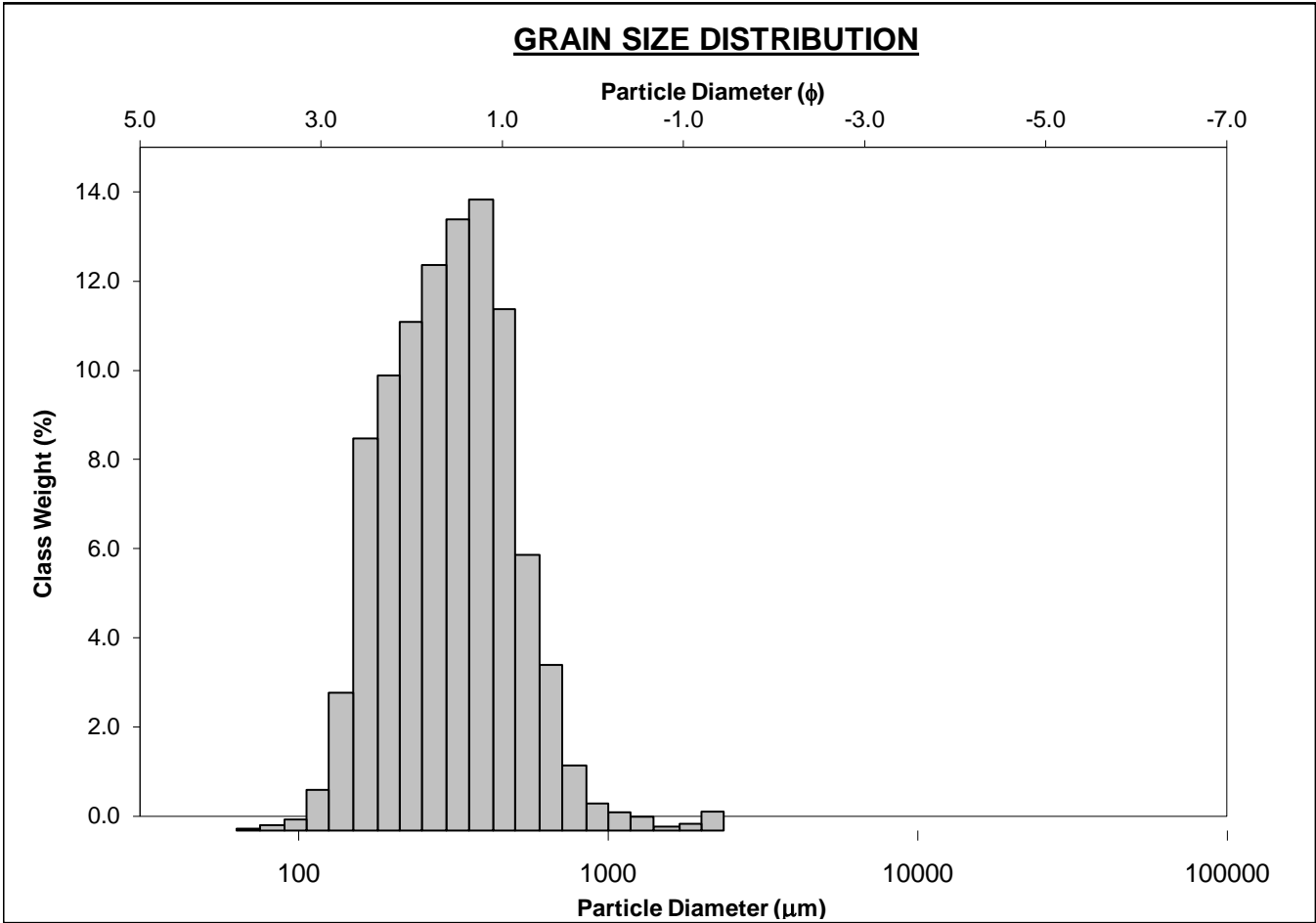
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-110cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.2%		COARSE SAND: 15.6%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 48.8%	
MODE 3:			MUD: 0.1%		FINE SAND: 32.6%	
D ₁₀ :	164.3	0.755			V FINE SAND: 1.6%	
MEDIAN or D ₅₀ :	315.6	1.664	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	592.7	2.605	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.607	3.452	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	428.4	1.851	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.054	1.884	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	227.3	1.039	V COARSE SAND: 1.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	358.9	313.4	1.674	309.7	1.691	Medium Sand
SORTING (σ):	206.4	1.670	0.740	1.634	0.709	Moderately Sorted
SKEWNESS (Sk):	2.706	-0.217	0.217	-0.015	0.015	Symmetrical
KURTOSIS (K):	17.93	5.959	5.959	0.889	0.889	Platykurtic



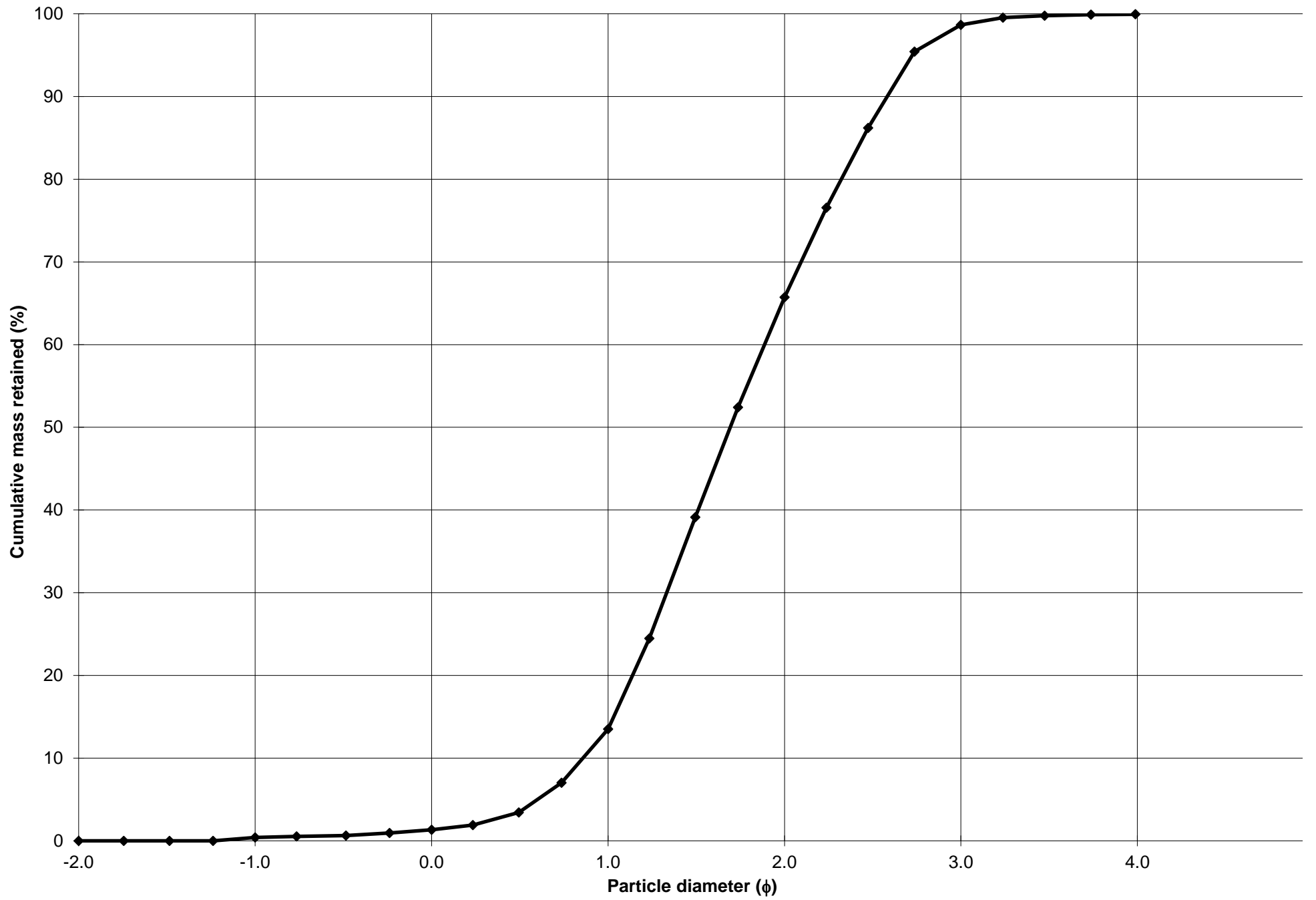
Cumulative Frequency Curve



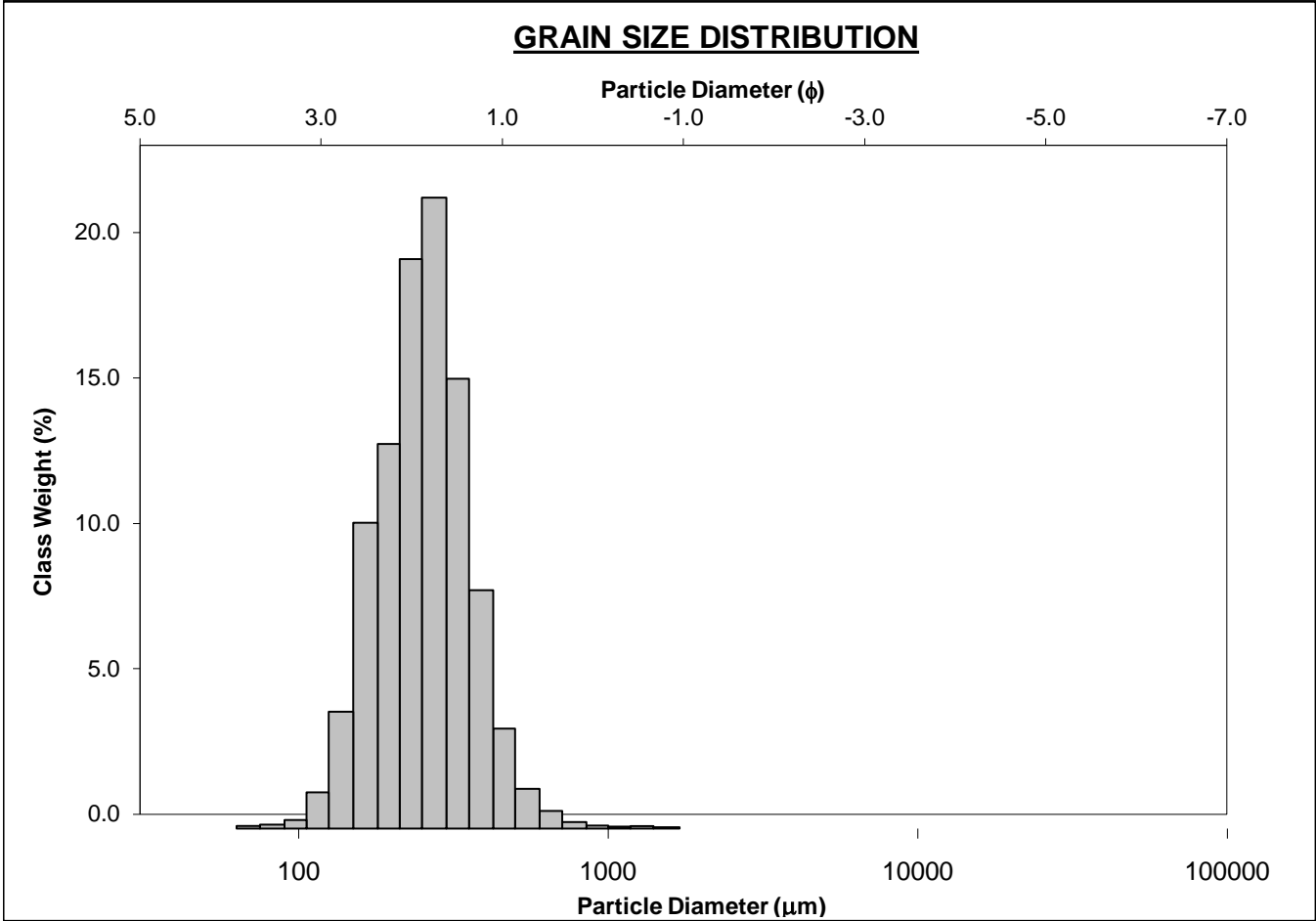
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-120cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.4%		COARSE SAND: 12.2%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 52.2%	
MODE 3:			MUD: 0.1%		FINE SAND: 32.9%	
D ₁₀ :	166.9	0.858			V FINE SAND: 1.3%	
MEDIAN or D ₅₀ :	309.3	1.693	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	551.9	2.583	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.306	3.012	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	385.0	1.725	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.945	1.771	V FINE GRAVEL: 0.4%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	205.1	0.959	V COARSE SAND: 0.9%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	350.5	308.2	1.698	303.1	1.722	Medium Sand
SORTING (σ):	212.9	1.623	0.699	1.584	0.664	Moderately Well Sorted
SKEWNESS (Sk):	3.903	0.131	-0.131	-0.018	0.018	Symmetrical
KURTOSIS (K):	29.20	5.653	5.653	0.908	0.908	Mesokurtic



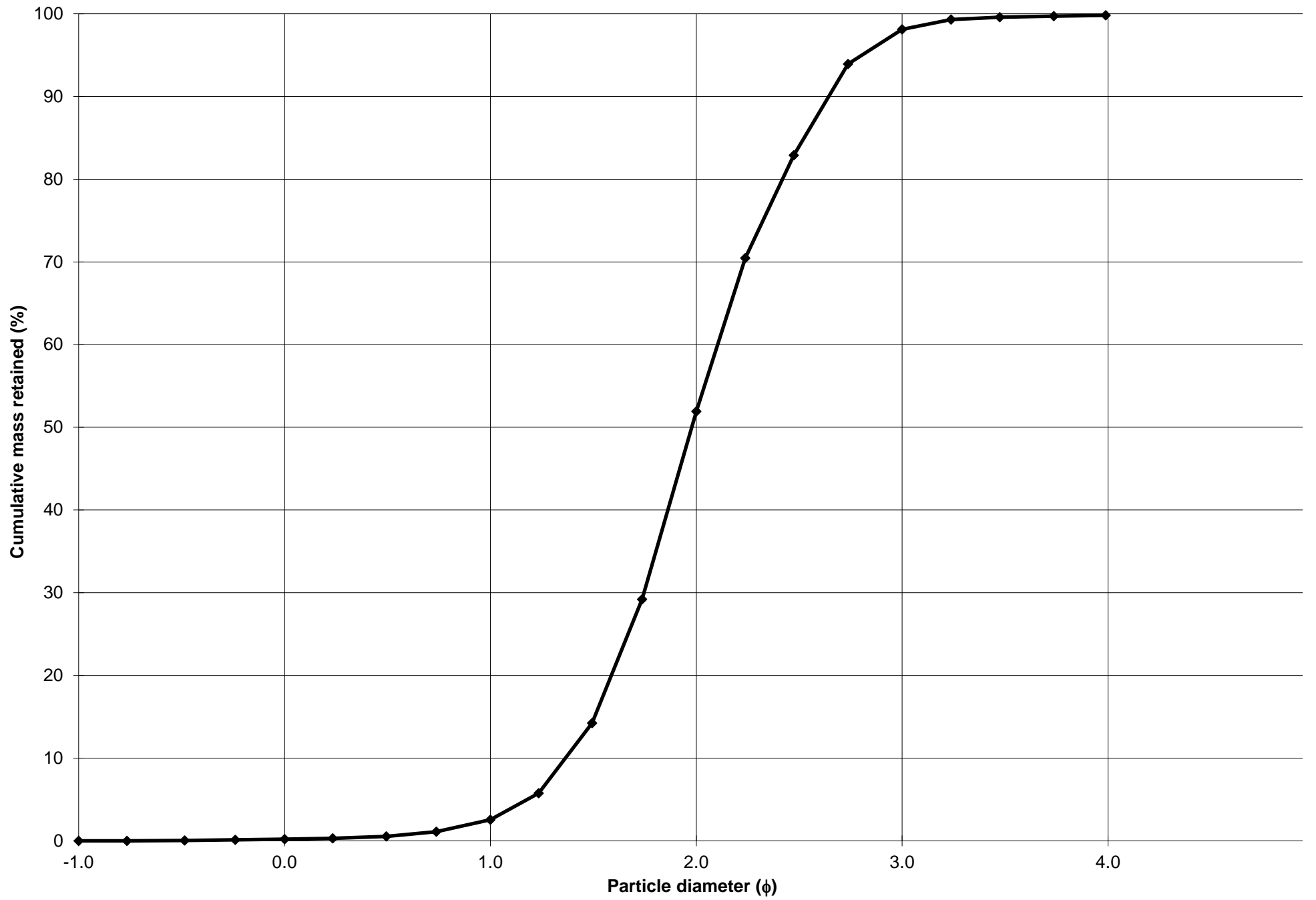
Cumulative Frequency Curve



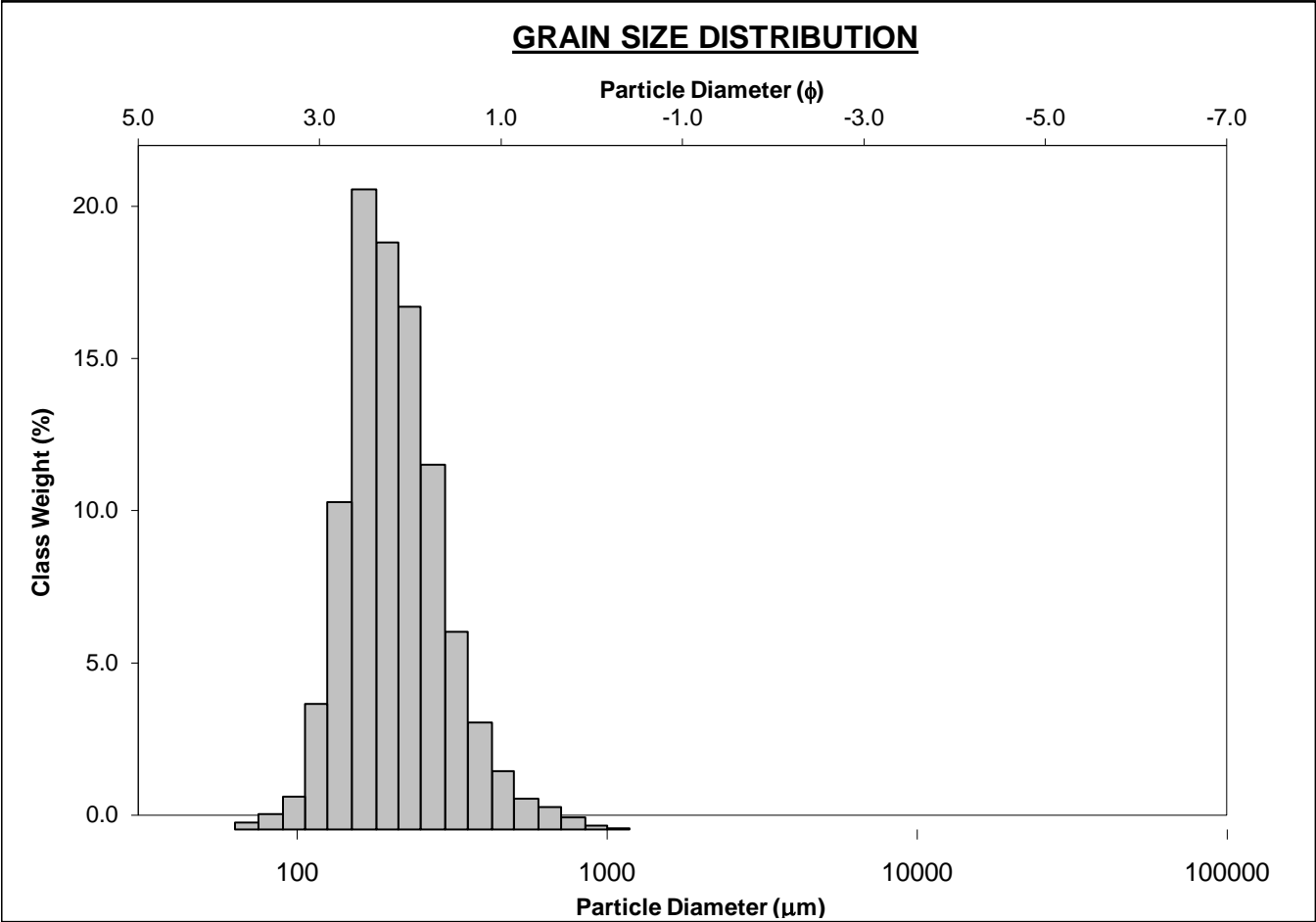
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-130cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 2.3%			
MODE 2:			SAND: 99.8% MEDIUM SAND: 49.4%			
MODE 3:			MUD: 0.2% FINE SAND: 46.2%			
D ₁₀ :	160.0	1.364	V FINE SAND: 1.7%			
MEDIAN or D ₅₀ :	253.9	1.978	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	388.4	2.643	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.427	1.937	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	228.3	1.279	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.575	1.392	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	114.8	0.655	V COARSE SAND: 0.2% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	269.4	250.8	1.996	250.0	2.000	Fine Sand
SORTING (σ):	107.4	1.461	0.547	1.405	0.491	Well Sorted
SKEWNESS (Sk):	2.896	-1.206	1.206	-0.043	0.043	Symmetrical
KURTOSIS (K):	24.43	15.95	15.95	1.017	1.017	Mesokurtic



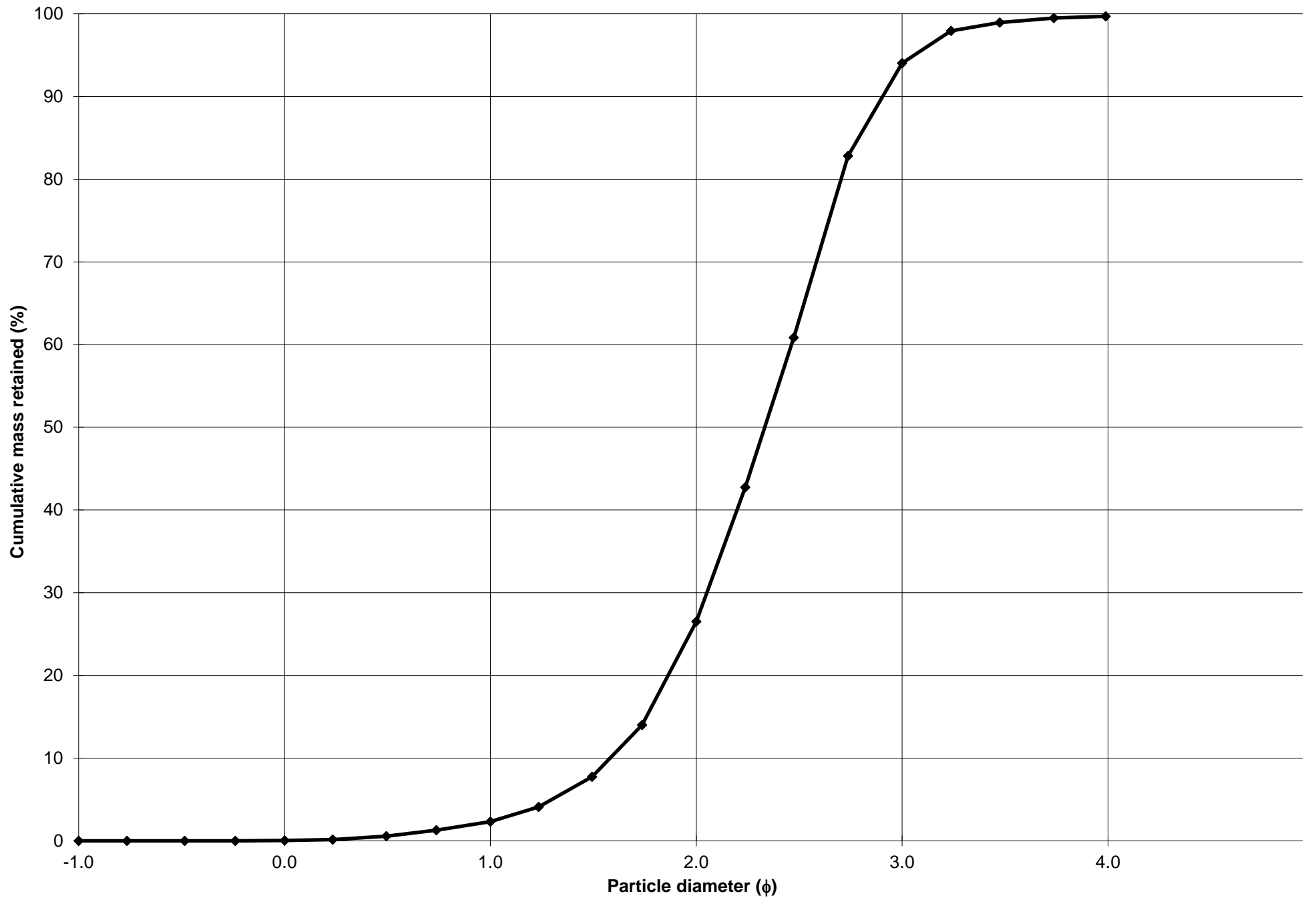
Cumulative Frequency Curve



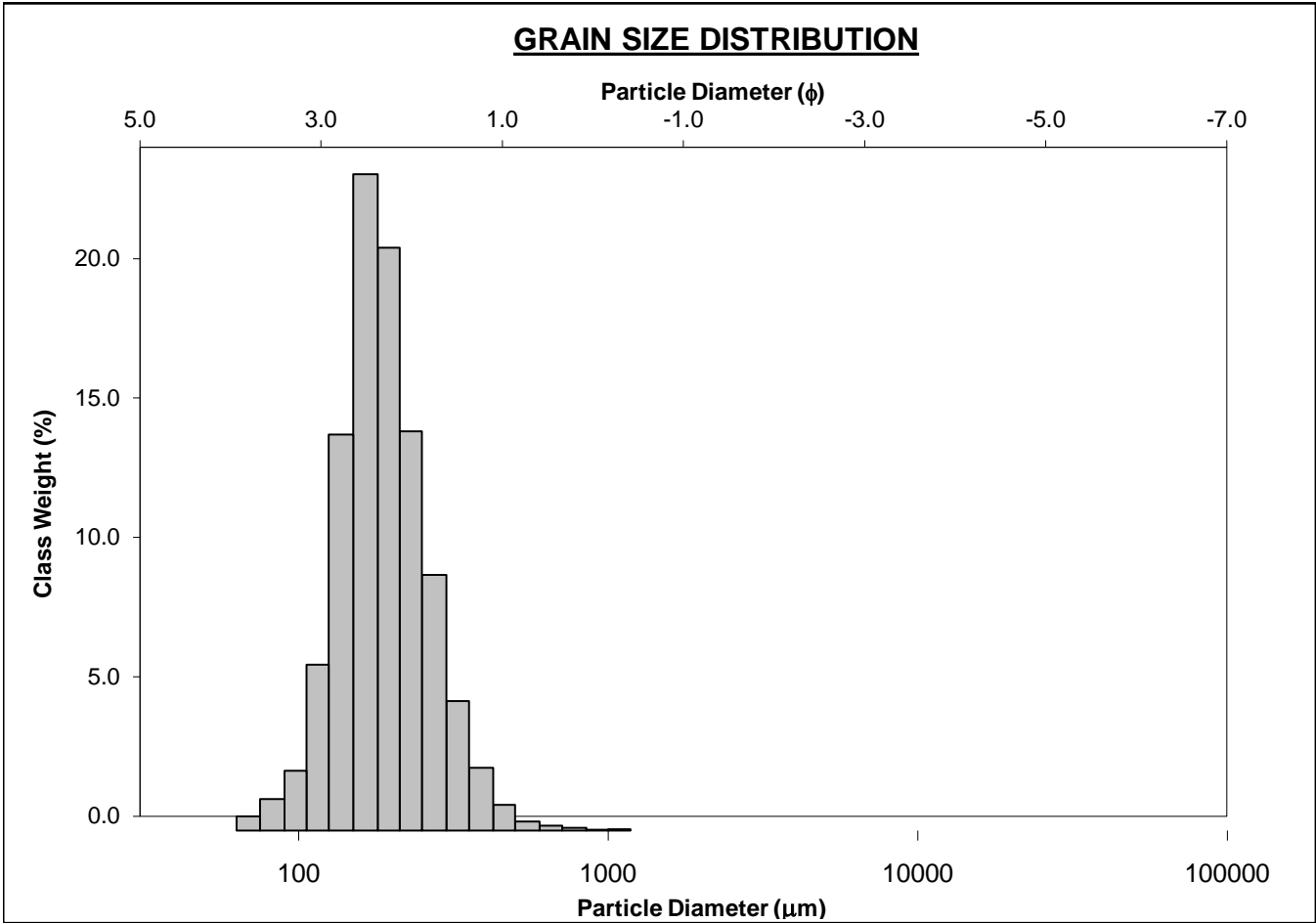
SIEVING ERROR: 1.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-140cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 2.3%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 24.2%	
MODE 3:			MUD: 0.3%		FINE SAND: 67.5%	
D ₁₀ :	133.5	1.582			V FINE SAND: 5.7%	
MEDIAN or D ₅₀ :	198.5	2.333	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	334.1	2.906	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.503	1.837	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	200.6	1.324	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.597	1.343	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	95.57	0.676	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	223.3	204.7	2.288	204.2	2.292	Fine Sand
SORTING (σ):	101.1	1.511	0.596	1.427	0.513	Moderately Well Sorted
SKEWNESS (Sk):	2.481	-0.952	0.952	0.149	-0.149	Coarse Skewed
KURTOSIS (K):	13.14	14.44	14.44	1.068	1.068	Mesokurtic



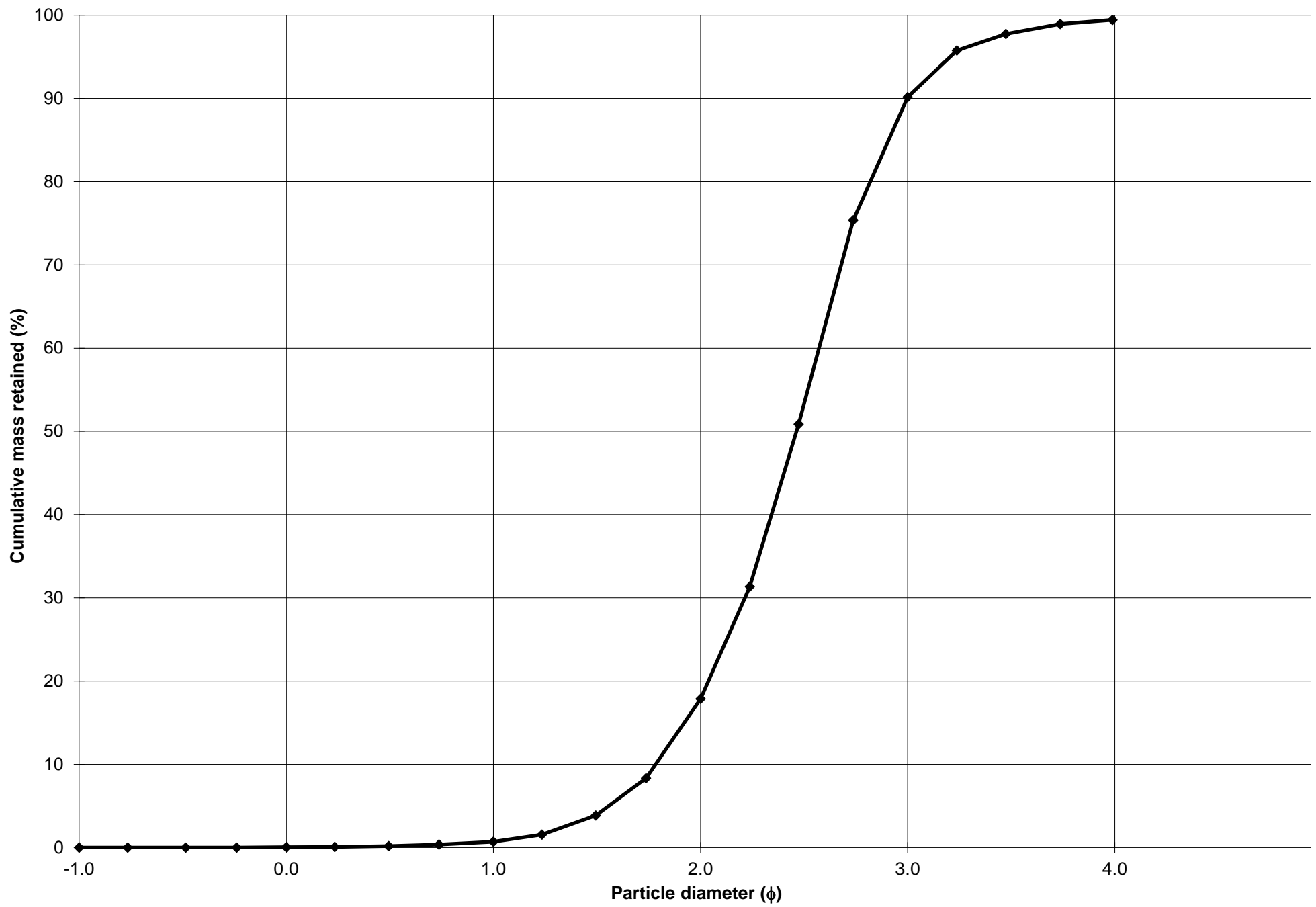
Cumulative Frequency Curve



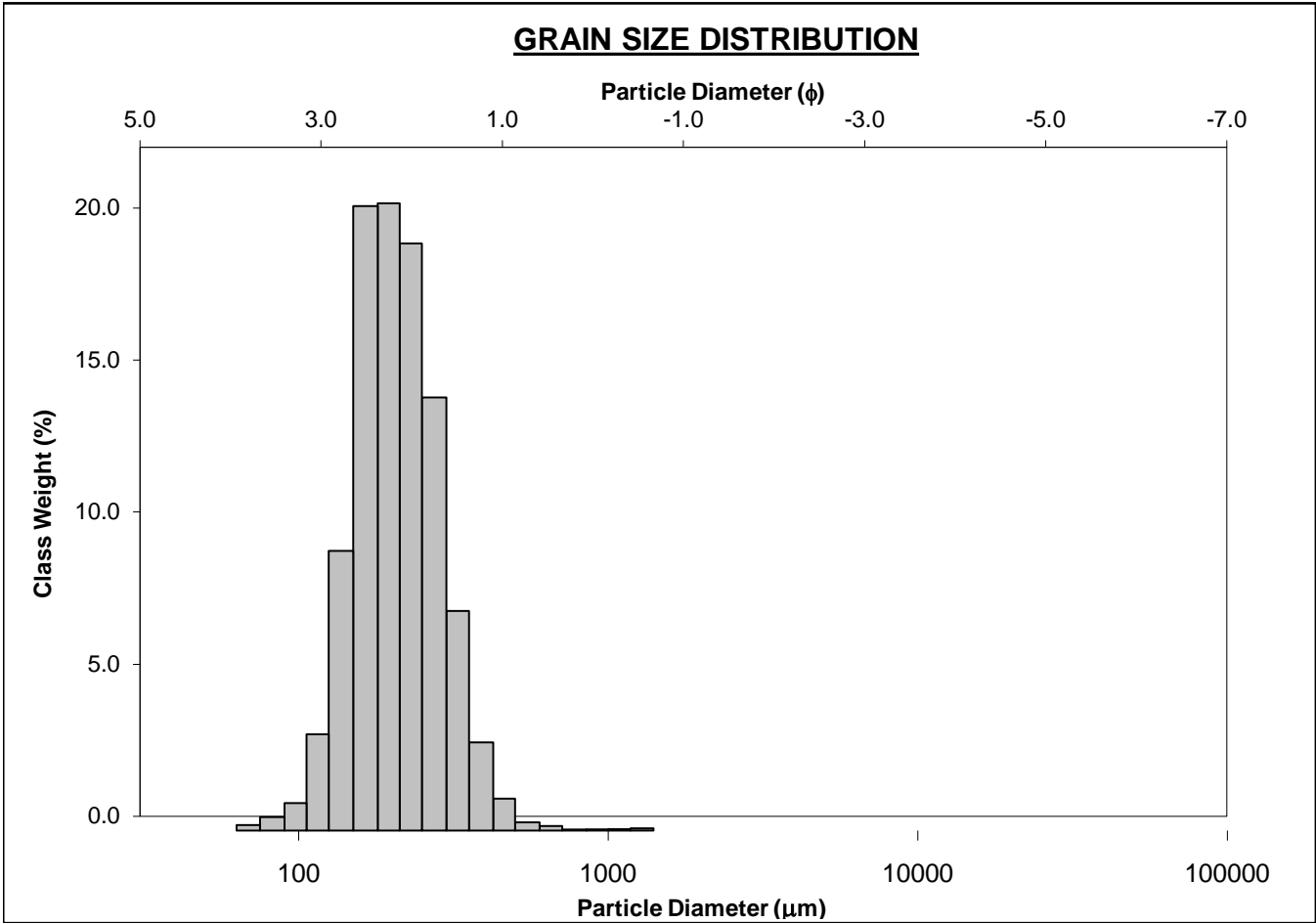
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-150cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.6%			
MODE 2:			SAND: 99.4% MEDIUM SAND: 17.2%			
MODE 3:			MUD: 0.6% FINE SAND: 72.3%			
D ₁₀ :	125.2	1.783	V FINE SAND: 9.3%			
MEDIAN or D ₅₀ :	181.3	2.463	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%			
D ₉₀ :	290.5	2.997	COARSE GRAVEL: 0.0% COARSE SILT: 0.1%			
(D ₉₀ / D ₁₀):	2.320	1.681	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%			
(D ₉₀ - D ₁₀):	165.2	1.214	FINE GRAVEL: 0.0% FINE SILT: 0.1%			
(D ₇₅ / D ₂₅):	1.523	1.285	V FINE GRAVEL: 0.0% V FINE SILT: 0.1%			
(D ₇₅ - D ₂₅):	78.67	0.607	V COARSE SAND: 0.0% CLAY: 0.1%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	198.4	183.4	2.447	185.0	2.434	Fine Sand
SORTING (σ):	79.50	1.516	0.601	1.400	0.485	Well Sorted
SKEWNESS (Sk):	2.482	-2.138	2.138	0.096	-0.096	Symmetrical
KURTOSIS (K):	17.71	20.42	20.42	1.114	1.114	Leptokurtic



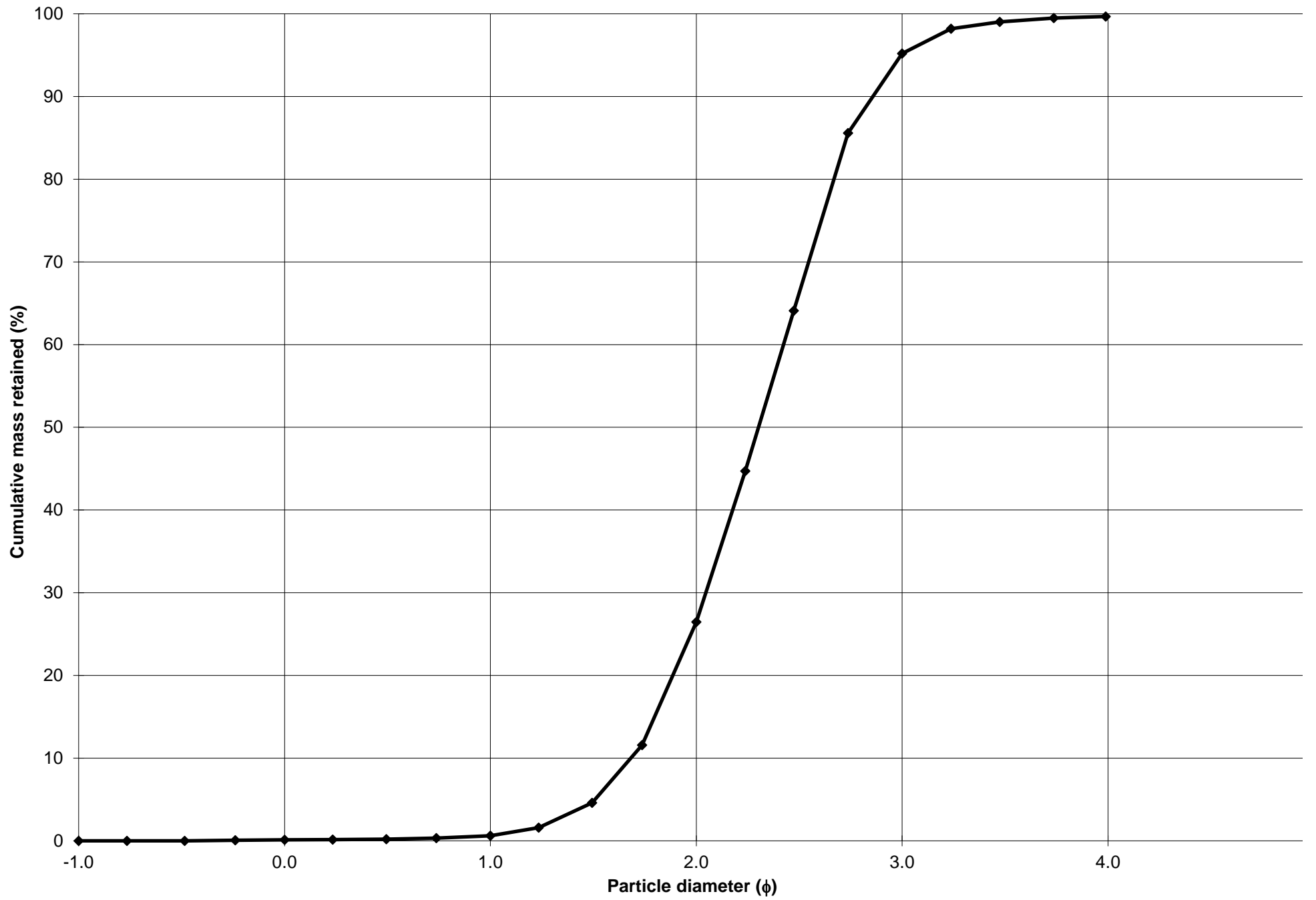
Cumulative Frequency Curve



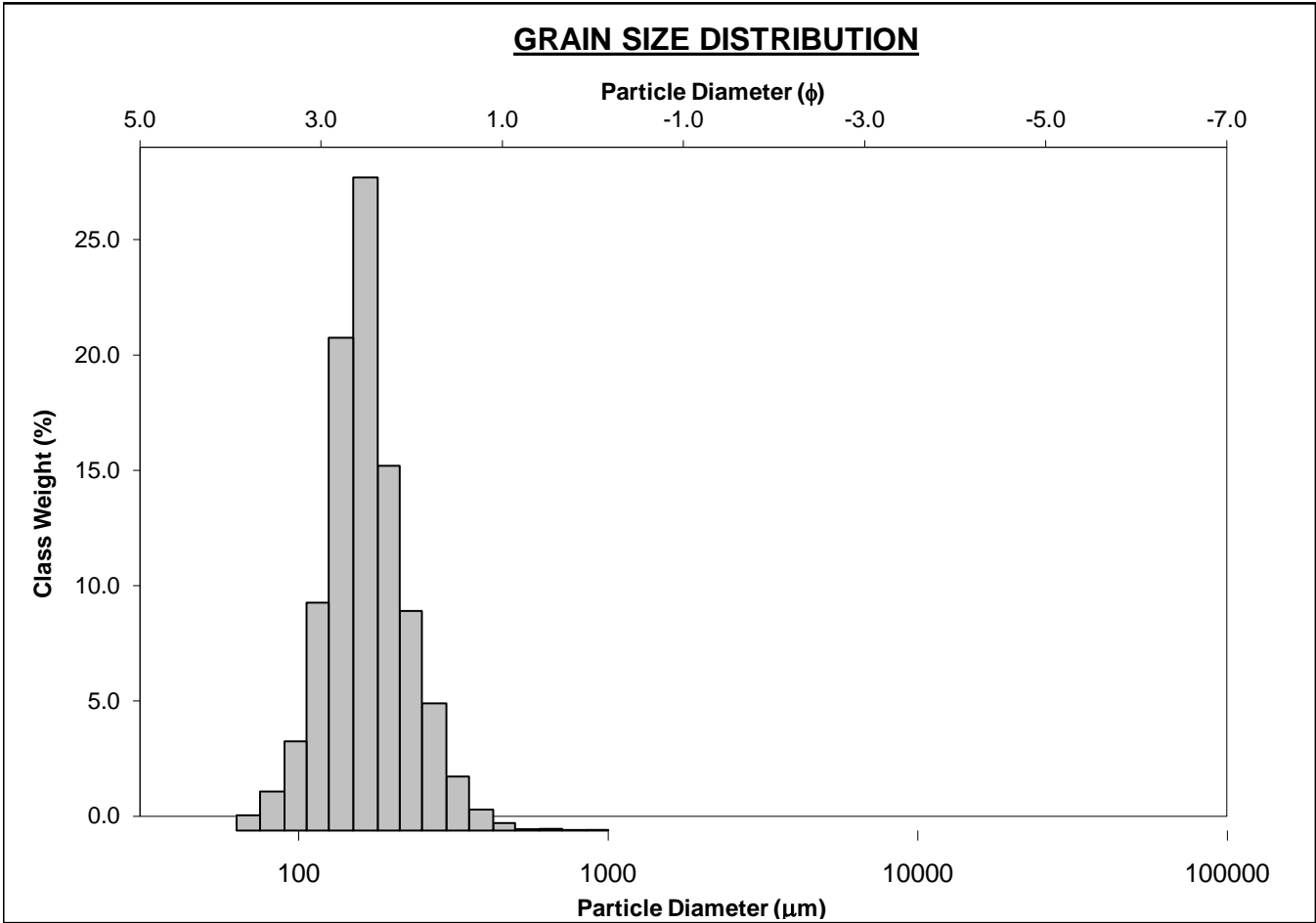
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-160cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 0.5%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 25.8%	
MODE 3:			MUD: 0.3%		FINE SAND: 68.7%	
D ₁₀ :	137.9	1.683			V FINE SAND: 4.5%	
MEDIAN or D ₅₀ :	202.8	2.302	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	311.5	2.858	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.259	1.699	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	173.6	1.176	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.551	1.321	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	90.44	0.633	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	218.3	204.0	2.293	206.1	2.278	Fine Sand
SORTING (σ):	82.86	1.455	0.541	1.367	0.451	Well Sorted
SKEWNESS (Sk):	3.232	-1.855	1.855	0.074	-0.074	Symmetrical
KURTOSIS (K):	32.06	21.09	21.09	0.962	0.962	Mesokurtic



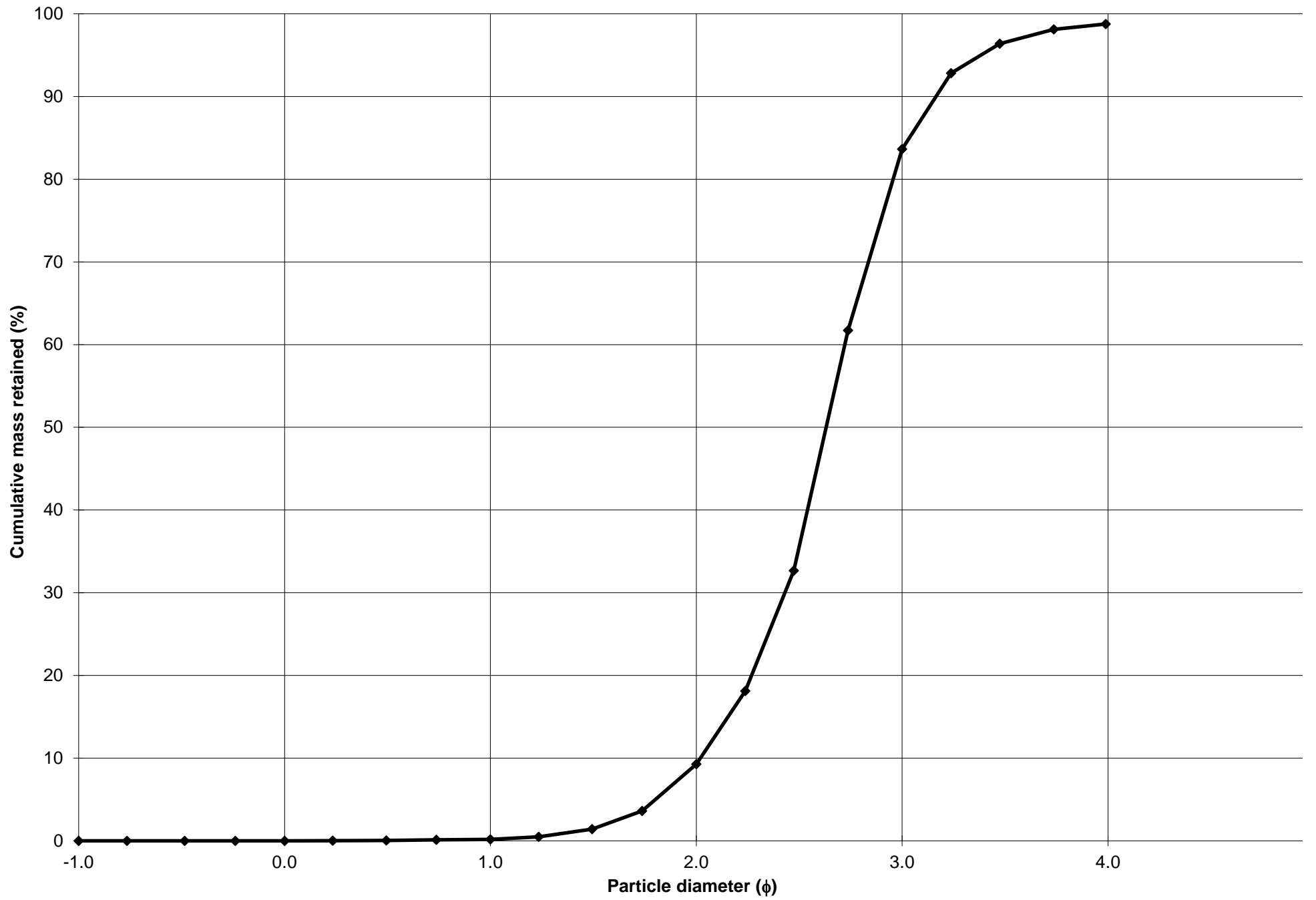
Cumulative Frequency Curve



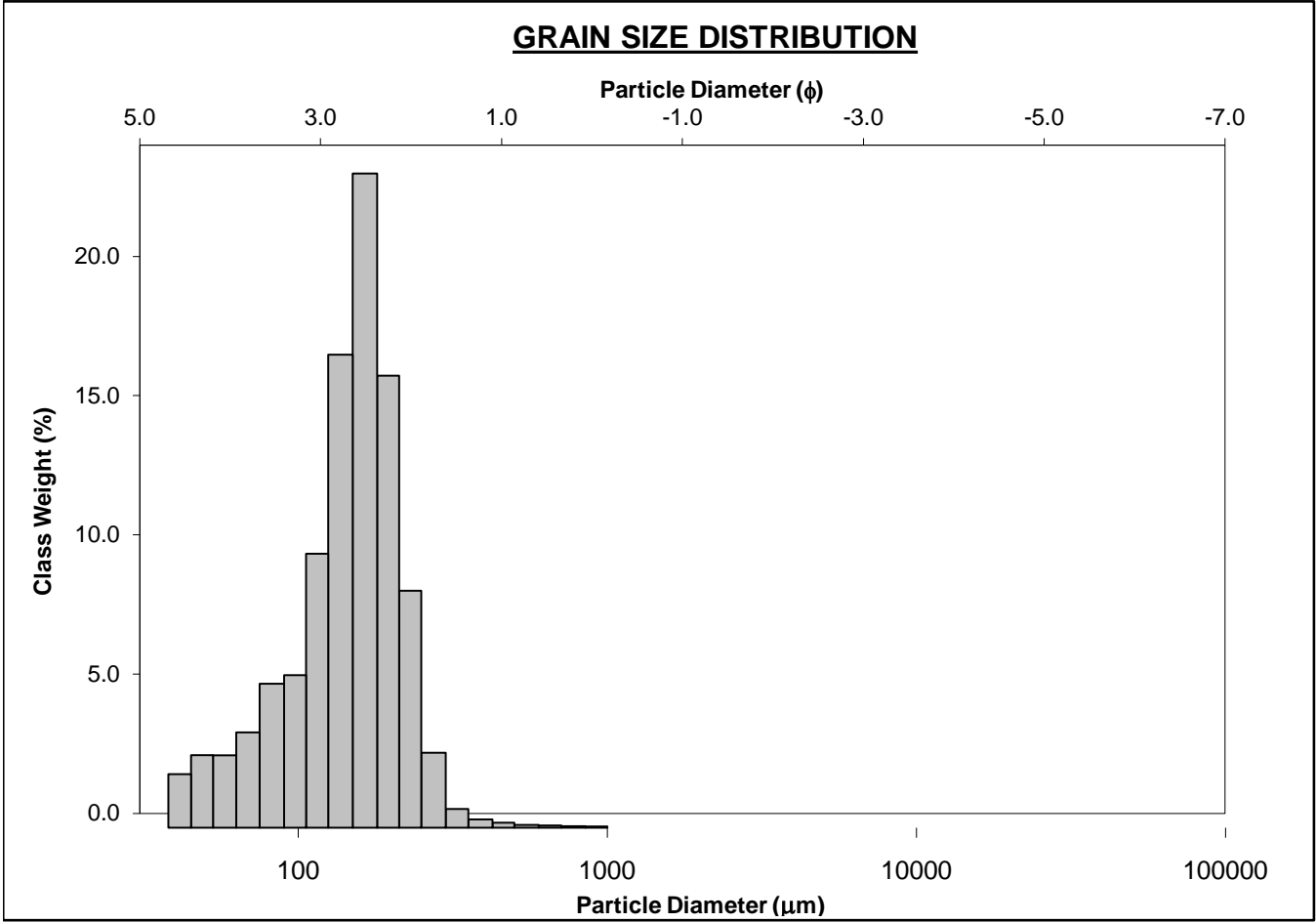
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-170cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.2%			
MODE 2:			SAND: 98.8% MEDIUM SAND: 9.1%			
MODE 3:			MUD: 1.2% FINE SAND: 74.4%			
D ₁₀ :	111.5	2.019	V FINE SAND: 15.1%			
MEDIAN or D ₅₀ :	161.5	2.631	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.2%			
D ₉₀ :	246.7	3.165	COARSE GRAVEL: 0.0% COARSE SILT: 0.2%			
(D ₉₀ / D ₁₀):	2.212	1.567	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.2%			
(D ₉₀ - D ₁₀):	135.2	1.145	FINE GRAVEL: 0.0% FINE SILT: 0.2%			
(D ₇₅ / D ₂₅):	1.461	1.233	V FINE GRAVEL: 0.0% V FINE SILT: 0.2%			
(D ₇₅ - D ₂₅):	61.89	0.547	V COARSE SAND: 0.0% CLAY: 0.2%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	172.4	158.9	2.654	164.1	2.607	Fine Sand
SORTING (σ):	62.68	1.579	0.659	1.363	0.447	Well Sorted
SKEWNESS (Sk):	2.108	-3.305	3.305	0.068	-0.068	Symmetrical
KURTOSIS (K):	15.67	24.26	24.26	1.186	1.186	Leptokurtic



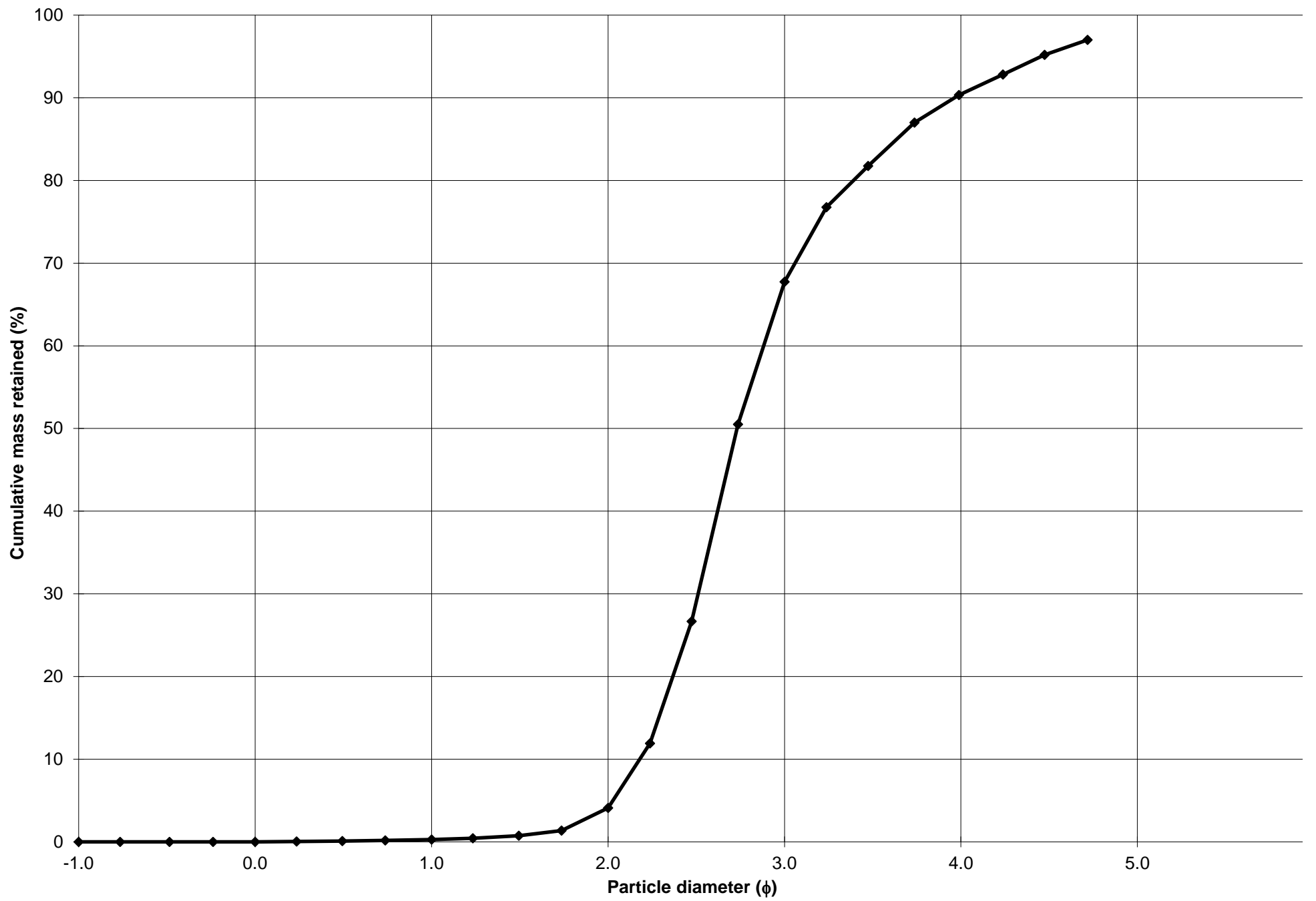
Cumulative Frequency Curve



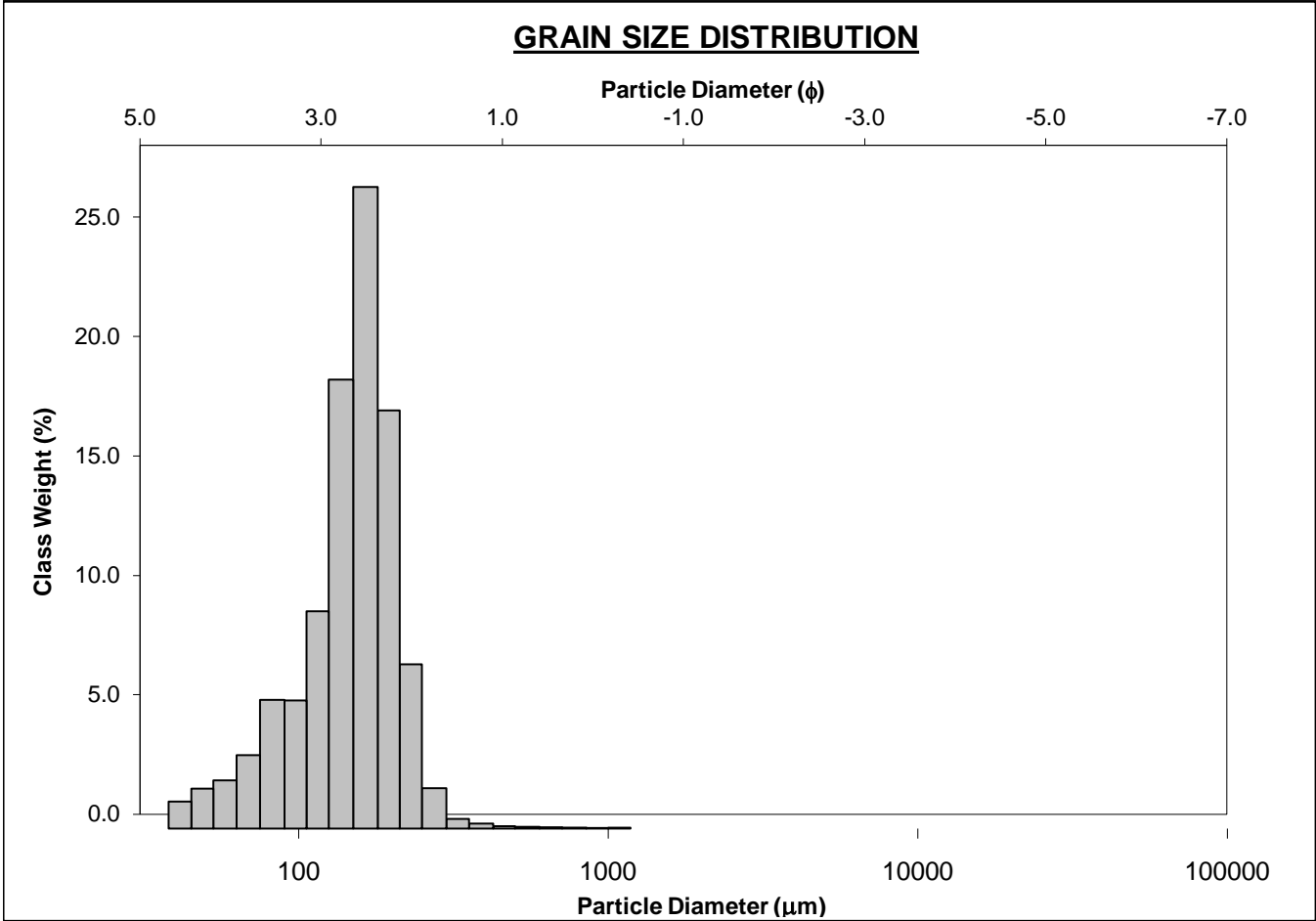
SIEVING ERROR: 1.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-180cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.3%	
MODE 2:			SAND: 90.4%		MEDIUM SAND: 3.8%	
MODE 3:			MUD: 9.6%		FINE SAND: 63.7%	
D ₁₀ :	64.08	2.180			V FINE SAND: 22.7%	
MEDIAN or D ₅₀ :	150.6	2.731	V COARSE GRAVEL: 0.0%		V COARSE SILT: 6.7%	
D ₉₀ :	220.7	3.964	COARSE GRAVEL: 0.0%		COARSE SILT: 0.6%	
(D ₉₀ / D ₁₀):	3.444	1.818	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.6%	
(D ₉₀ - D ₁₀):	156.6	1.784	FINE GRAVEL: 0.0%		FINE SILT: 0.6%	
(D ₇₅ / D ₂₅):	1.675	1.304	V FINE GRAVEL: 0.0%		V FINE SILT: 0.6%	
(D ₇₅ - D ₂₅):	73.89	0.744	V COARSE SAND: 0.0%		CLAY: 0.6%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	149.2	127.3	2.974	136.4	2.874	Fine Sand
SORTING (σ):	67.44	1.986	0.990	1.612	0.688	Moderately Well Sorted
SKEWNESS (Sk):	1.806	-2.614	2.614	-0.376	0.376	Very Fine Skewed
KURTOSIS (K):	17.84	12.12	12.12	1.337	1.337	Leptokurtic



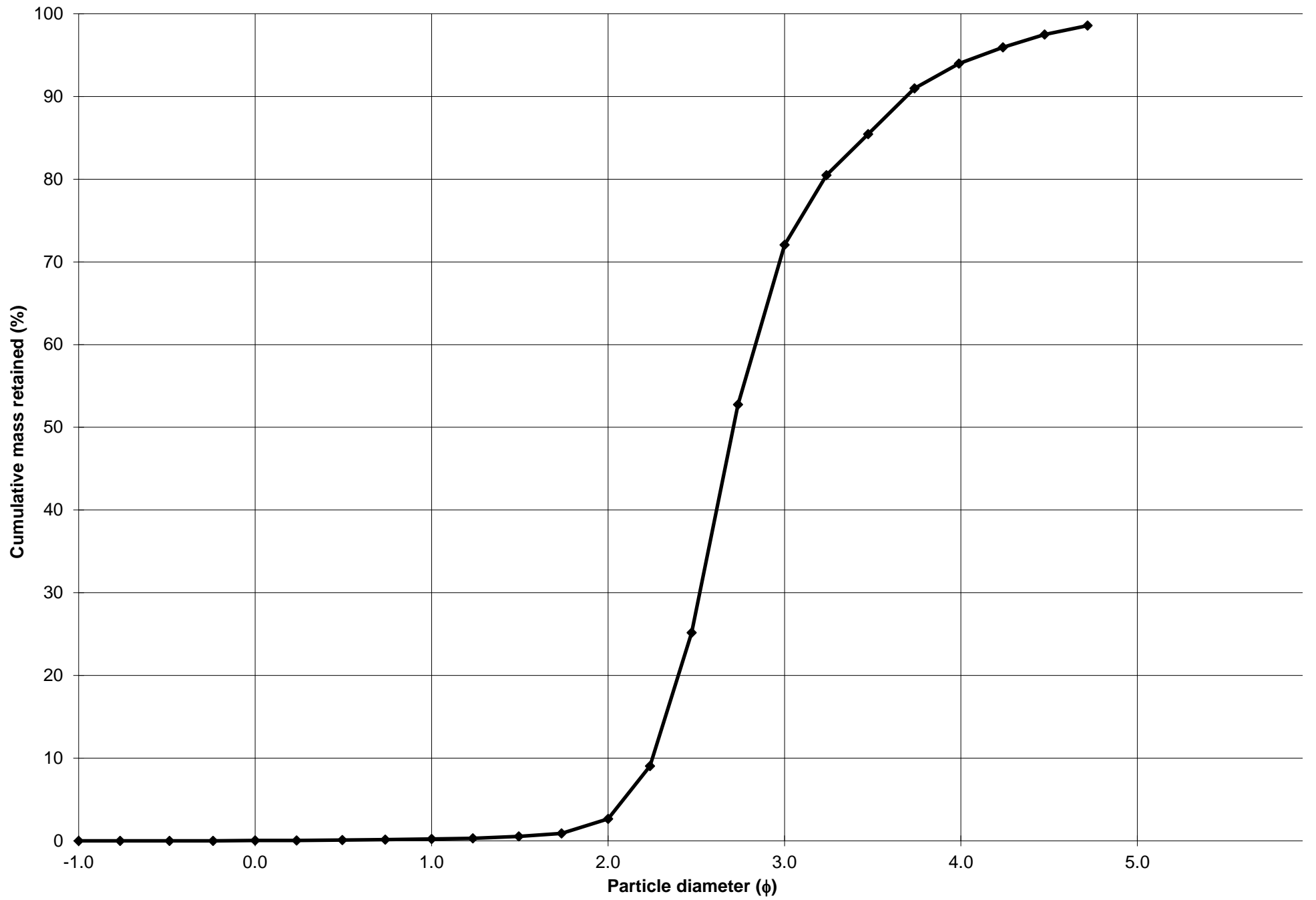
Cumulative Frequency Curve



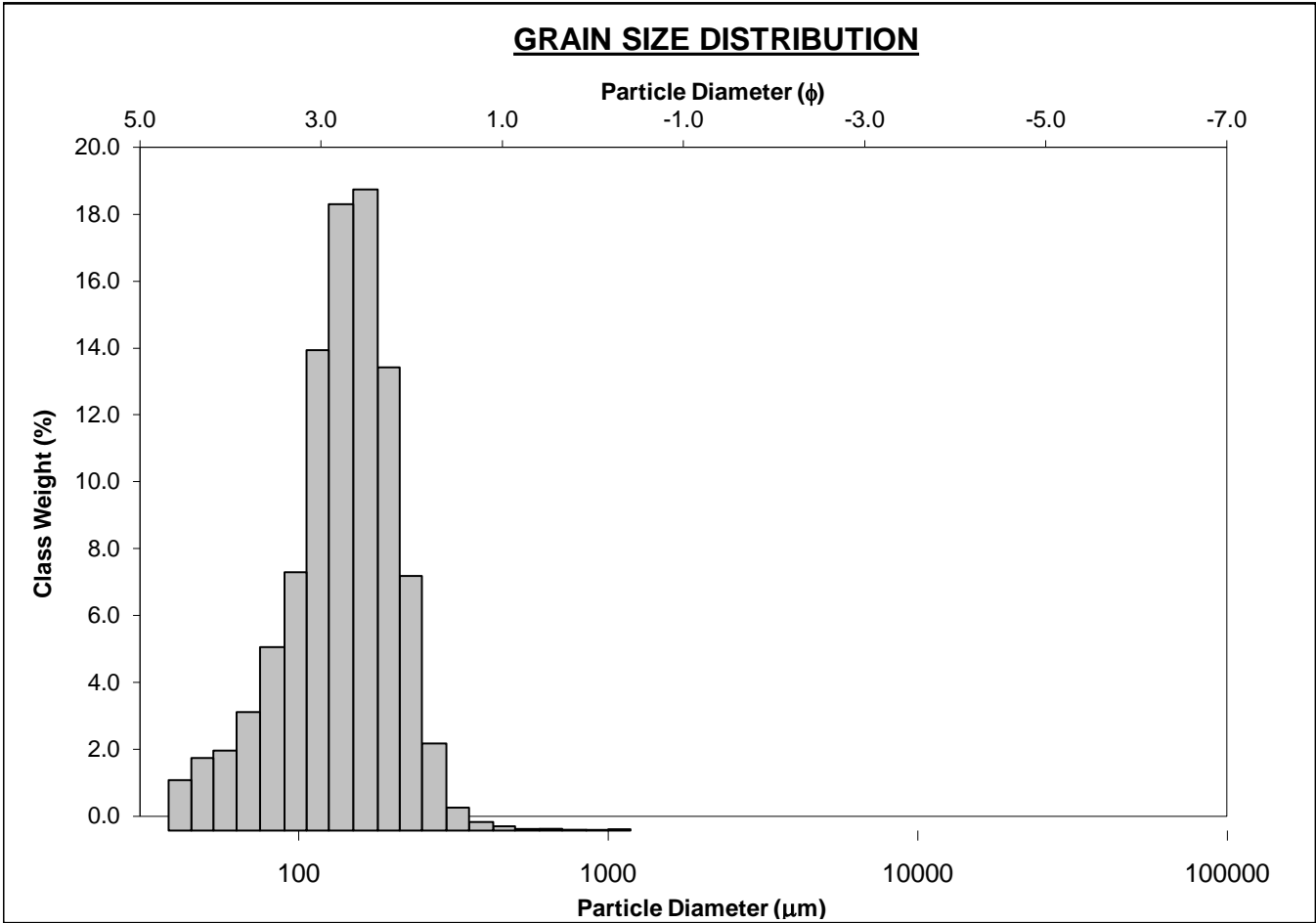
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-190cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.2%	
MODE 2:	82.50	3.605	SAND: 94.1%		MEDIUM SAND: 2.4%	
MODE 3:			MUD: 5.9%		FINE SAND: 69.4%	
D_{10} :	77.43	2.252			V FINE SAND: 22.0%	
MEDIAN or D_{50} :	152.7	2.711	V COARSE GRAVEL: 0.0%		V COARSE SILT: 4.6%	
D_{90} :	209.9	3.691	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D_{90} / D_{10}) :	2.711	1.639	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
$(D_{90} - D_{10})$:	132.5	1.439	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D_{75} / D_{25}) :	1.528	1.247	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
$(D_{75} - D_{25})$:	62.30	0.612	V COARSE SAND: 0.0%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	151.2	135.9	2.879	141.7	2.819	Fine Sand
SORTING (σ):	60.70	1.713	0.777	1.489	0.574	Moderately Well Sorted
SKEWNESS (Sk):	2.842	-2.895	2.895	-0.345	0.345	Very Fine Skewed
KURTOSIS (K):	37.02	17.00	17.00	1.360	1.360	Leptokurtic



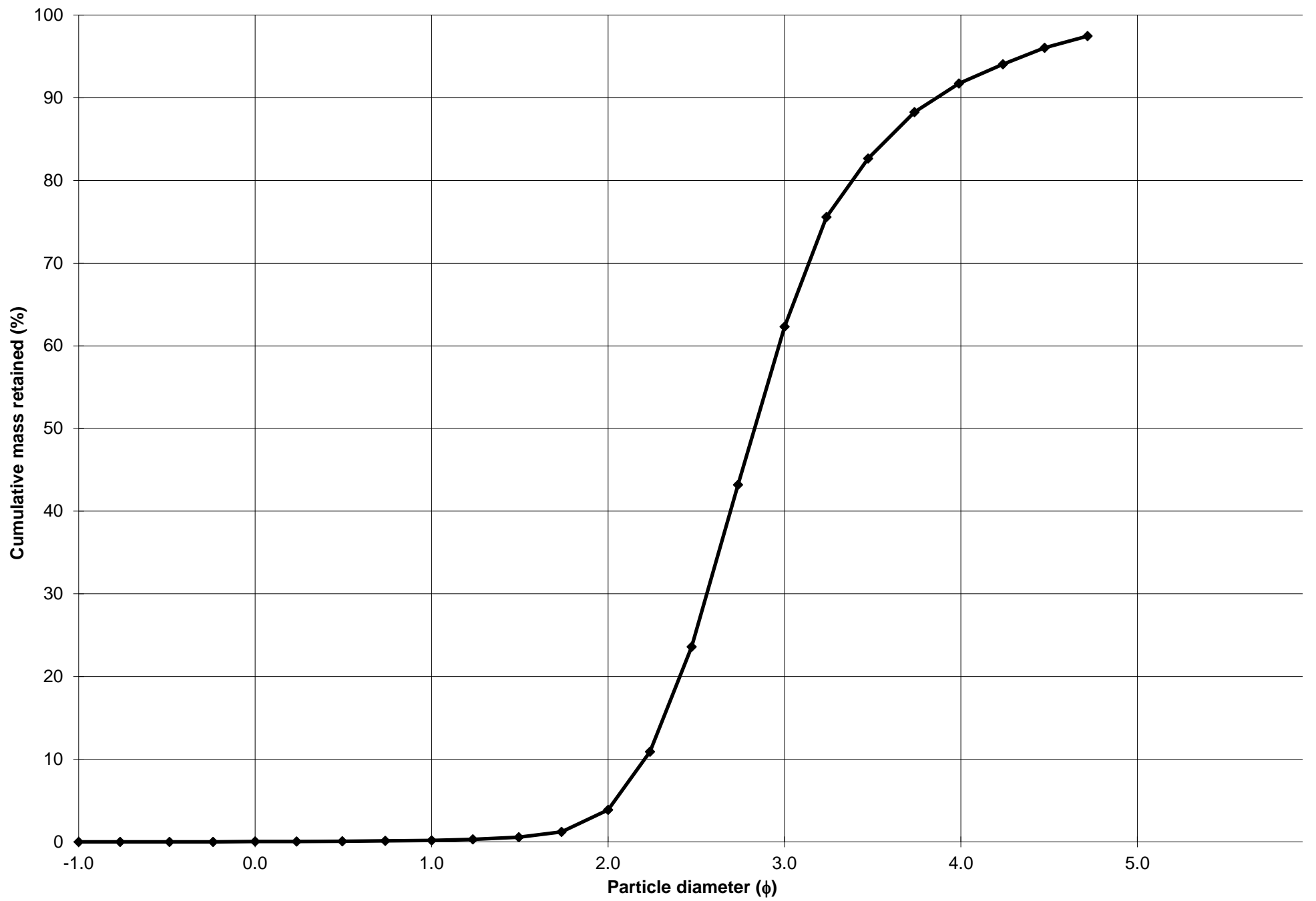
Cumulative Frequency Curve



SIEVING ERROR: 2.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-200cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.1%	
MODE 2:			SAND: 91.8%		MEDIUM SAND: 3.7%	
MODE 3:			MUD: 8.2%		FINE SAND: 58.4%	
D_{10} :	68.73	2.208			V FINE SAND: 29.5%	
MEDIAN or D_{50} :	140.6	2.831	V COARSE GRAVEL: 0.0%		V COARSE SILT: 5.8%	
D_{90} :	216.5	3.863	COARSE GRAVEL: 0.0%		COARSE SILT: 0.5%	
(D_{90} / D_{10}) :	3.150	1.750	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.5%	
$(D_{90} - D_{10})$:	147.8	1.655	FINE GRAVEL: 0.0%		FINE SILT: 0.5%	
(D_{75} / D_{25}) :	1.664	1.295	V FINE GRAVEL: 0.0%		V FINE SILT: 0.5%	
$(D_{75} - D_{25})$:	70.89	0.735	V COARSE SAND: 0.0%		CLAY: 0.5%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	144.8	125.5	2.995	134.0	2.900	Fine Sand
SORTING (σ):	65.04	1.896	0.923	1.571	0.651	Moderately Well Sorted
SKEWNESS (Sk):	2.403	-2.663	2.663	-0.244	0.244	Fine Skewed
KURTOSIS (K):	28.18	13.36	13.36	1.290	1.290	Leptokurtic



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **SI-15-08-210cm**

ANALYST & DATE: Chris, 11/9/15

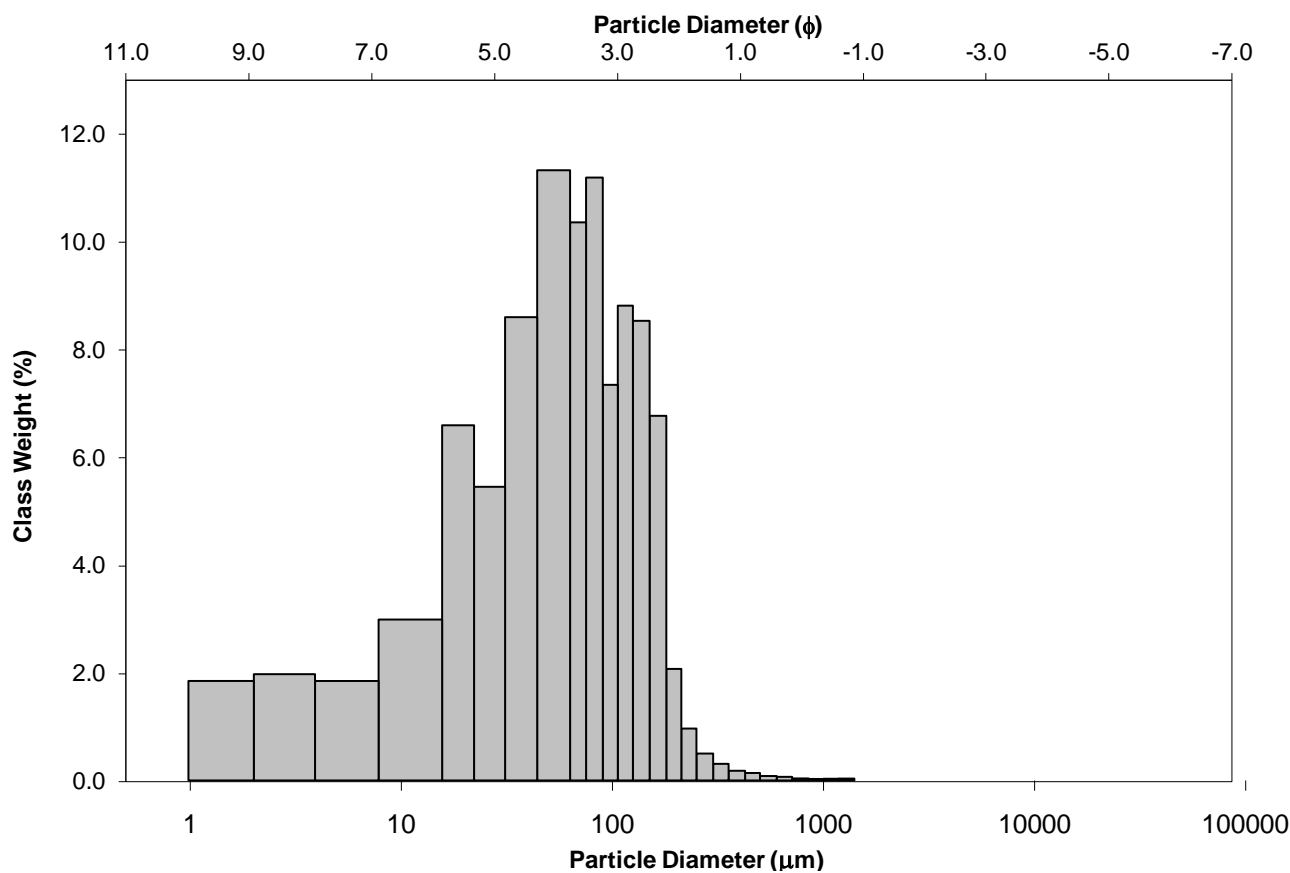
SAMPLE TYPE: Polymodal, Very Poorly Sorted

TEXTURAL GROUP: Sandy Mud

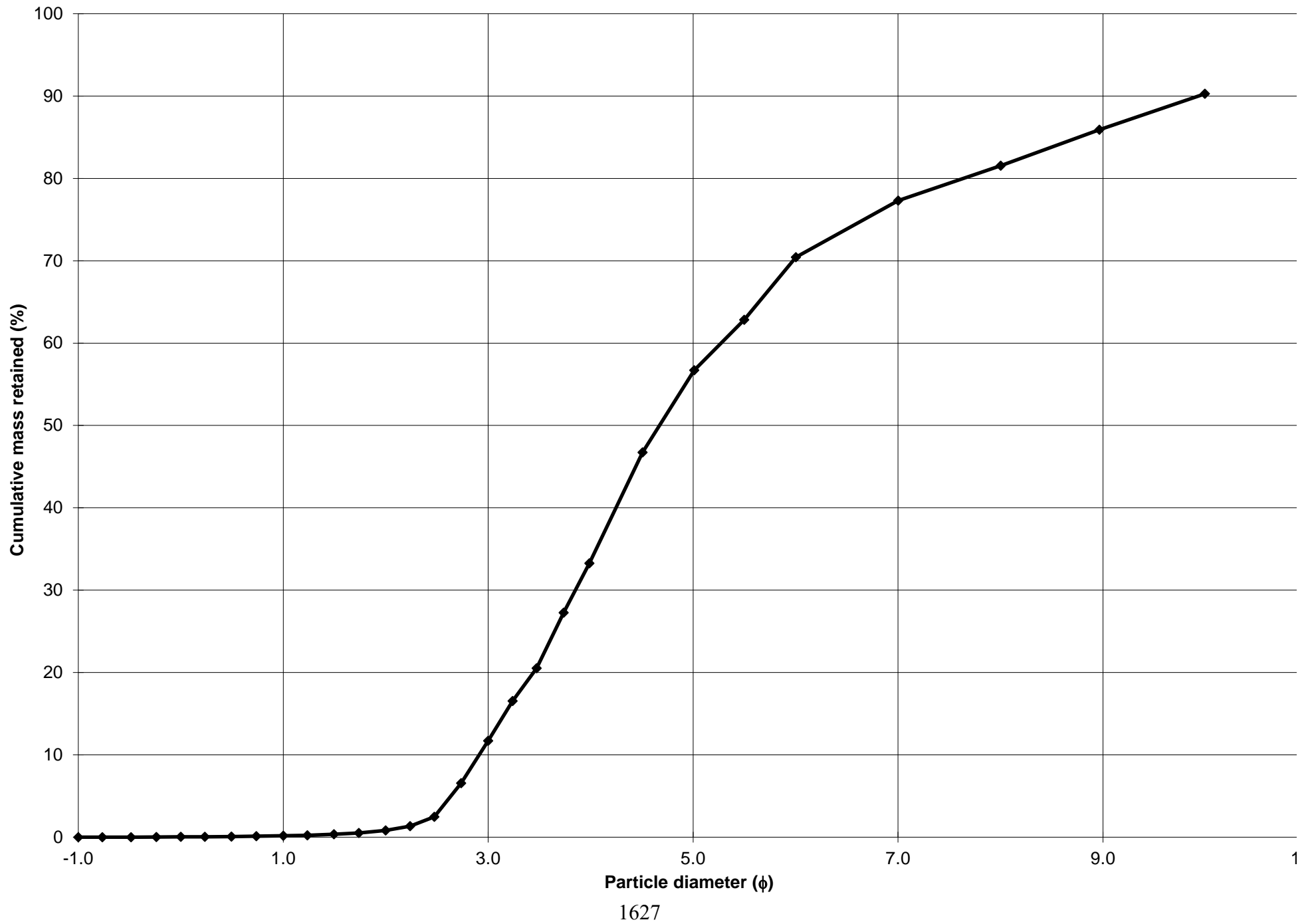
SEDIMENT NAME: Very Fine Sandy Very Coarse Silt

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	53.50	4.247	GRAVEL: 0.0%	COARSE SAND: 0.1%		
MODE 2:	82.50	3.605	SAND: 33.6%	MEDIUM SAND: 0.7%		
MODE 3:	115.5	3.119	MUD: 66.4%	FINE SAND: 10.9%		
D_{10} :	1.024	2.913		V FINE SAND: 21.8%		
MEDIAN or D_{50} :	39.23	4.672	V COARSE GRAVEL: 0.0%	V COARSE SILT: 22.9%		
D_{90} :	132.8	9.931	COARSE GRAVEL: 0.0%	COARSE SILT: 13.9%		
(D_{90} / D_{10}) :	129.7	3.410	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 6.9%		
$(D_{90} - D_{10})$:	131.8	7.019	FINE GRAVEL: 0.0%	FINE SILT: 4.2%		
(D_{75} / D_{25}) :	8.107	1.828	V FINE GRAVEL: 0.0%	V FINE SILT: 4.5%		
$(D_{75} - D_{25})$:	69.90	3.019	V COARSE SAND: 0.0%	CLAY: 14.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	55.21	23.85	5.390	22.46	5.477	Coarse Silt
SORTING (σ):	63.10	5.022	2.328	4.929	2.301	Very Poorly Sorted
SKEWNESS (Sk):	4.638	-0.777	0.777	-0.408	0.408	Very Fine Skewed
KURTOSIS (K):	60.66	2.475	2.475	0.867	0.867	Platykurtic

GRAIN SIZE DISTRIBUTION



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **SI-15-08-240cm**

ANALYST & DATE: Chris, 11/9/15

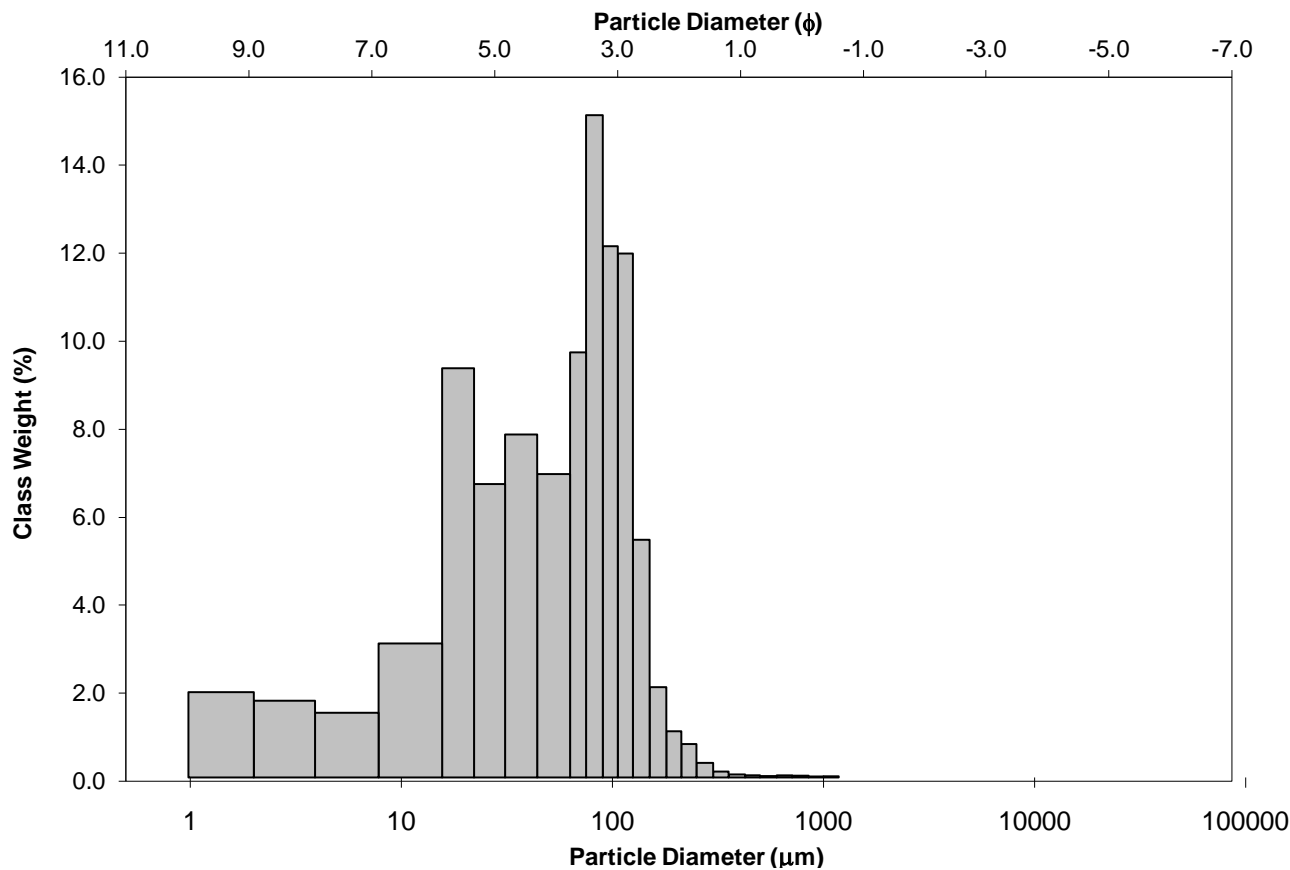
SAMPLE TYPE: Trimodal, Very Poorly Sorted

TEXTURAL GROUP: Sandy Mud

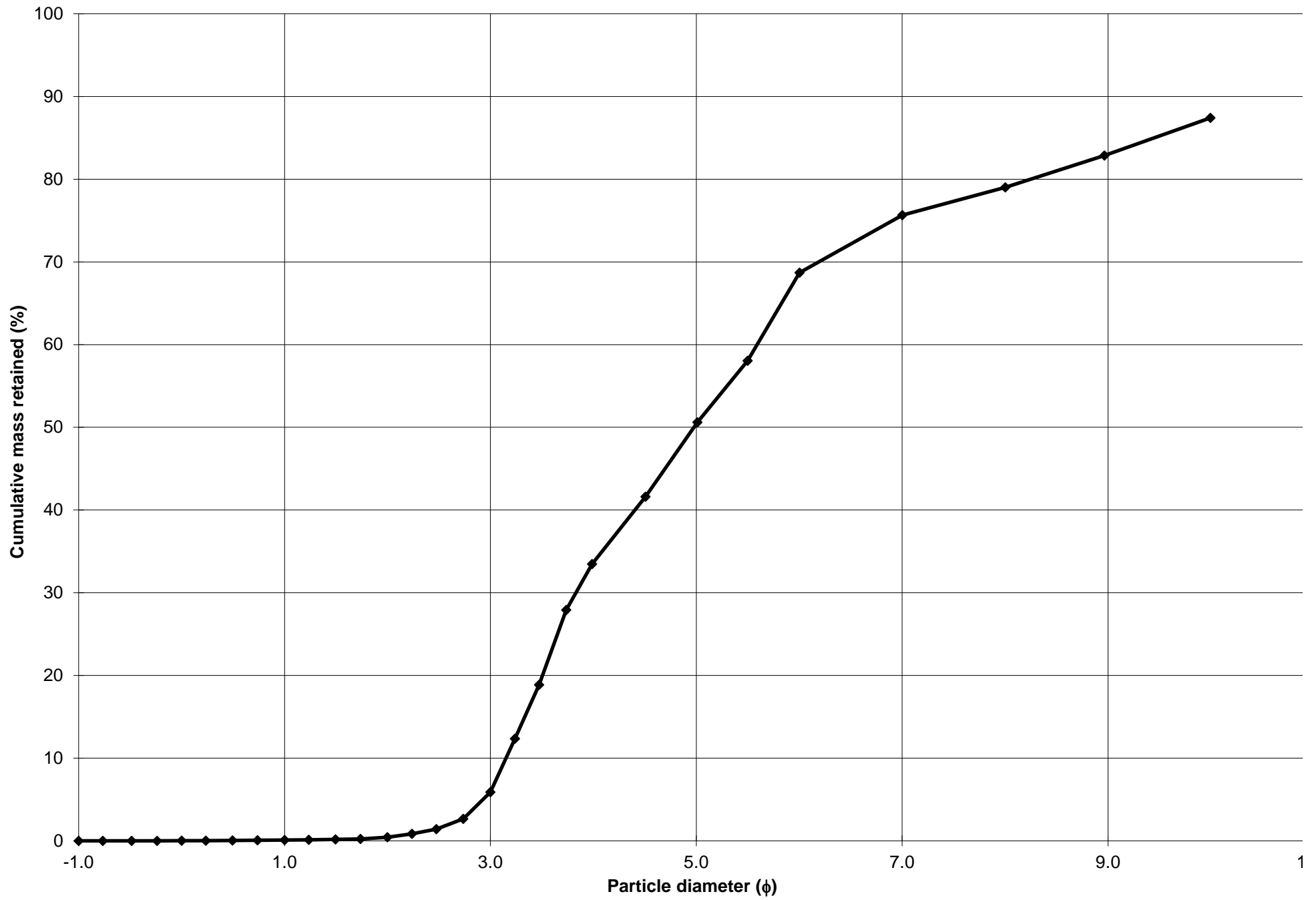
SEDIMENT NAME: Very Fine Sandy Coarse Silt

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	82.50	3.605	GRAVEL: 0.0%	COARSE SAND: 0.1%		
MODE 2:	18.85	5.751	SAND: 33.6%	MEDIUM SAND: 0.3%		
MODE 3:	37.50	4.759	MUD: 66.4%	FINE SAND: 5.5%		
D_{10} :	1.302	3.151		V FINE SAND: 27.7%		
MEDIAN or D_{50} :	31.74	4.978	V COARSE GRAVEL: 0.0%	V COARSE SILT: 16.8%		
D_{90} :	112.6	9.585	COARSE GRAVEL: 0.0%	COARSE SILT: 18.3%		
(D_{90} / D_{10}) :	86.43	3.042	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 7.0%		
$(D_{90} - D_{10})$:	111.3	6.434	FINE GRAVEL: 0.0%	FINE SILT: 3.4%		
(D_{75} / D_{25}) :	9.546	1.891	V FINE GRAVEL: 0.0%	V FINE SILT: 4.0%		
$(D_{75} - D_{25})$:	71.20	3.255	V COARSE SAND: 0.0%	CLAY: 17.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	48.53	20.44	5.613	17.25	5.857	Coarse Silt
SORTING (σ):	52.91	5.183	2.374	5.106	2.352	Very Poorly Sorted
SKEWNESS (Sk):	3.913	-0.723	0.723	-0.376	0.376	Very Fine Skewed
KURTOSIS (K):	50.32	2.266	2.266	0.738	0.738	Platykurtic

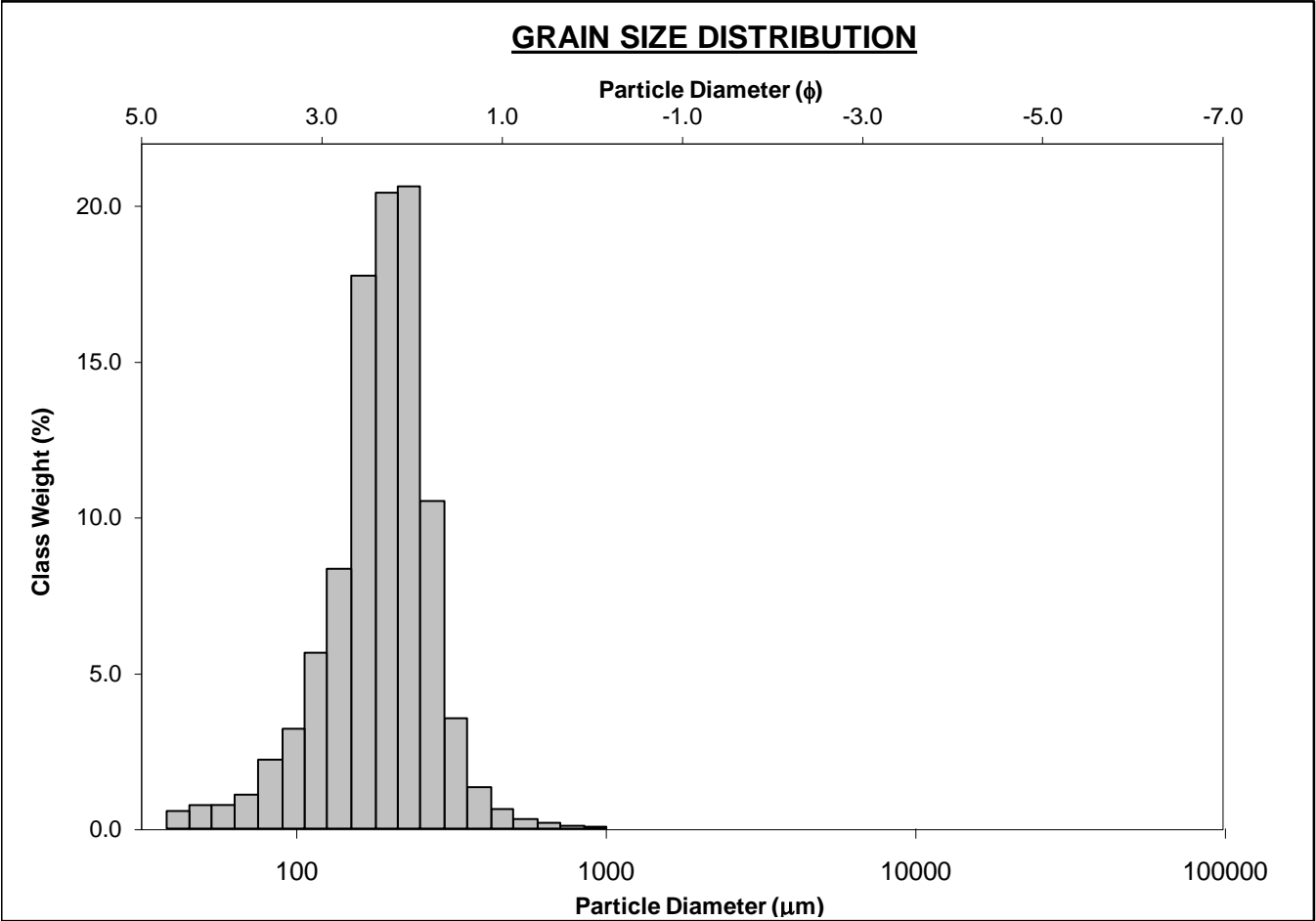
GRAIN SIZE DISTRIBUTION



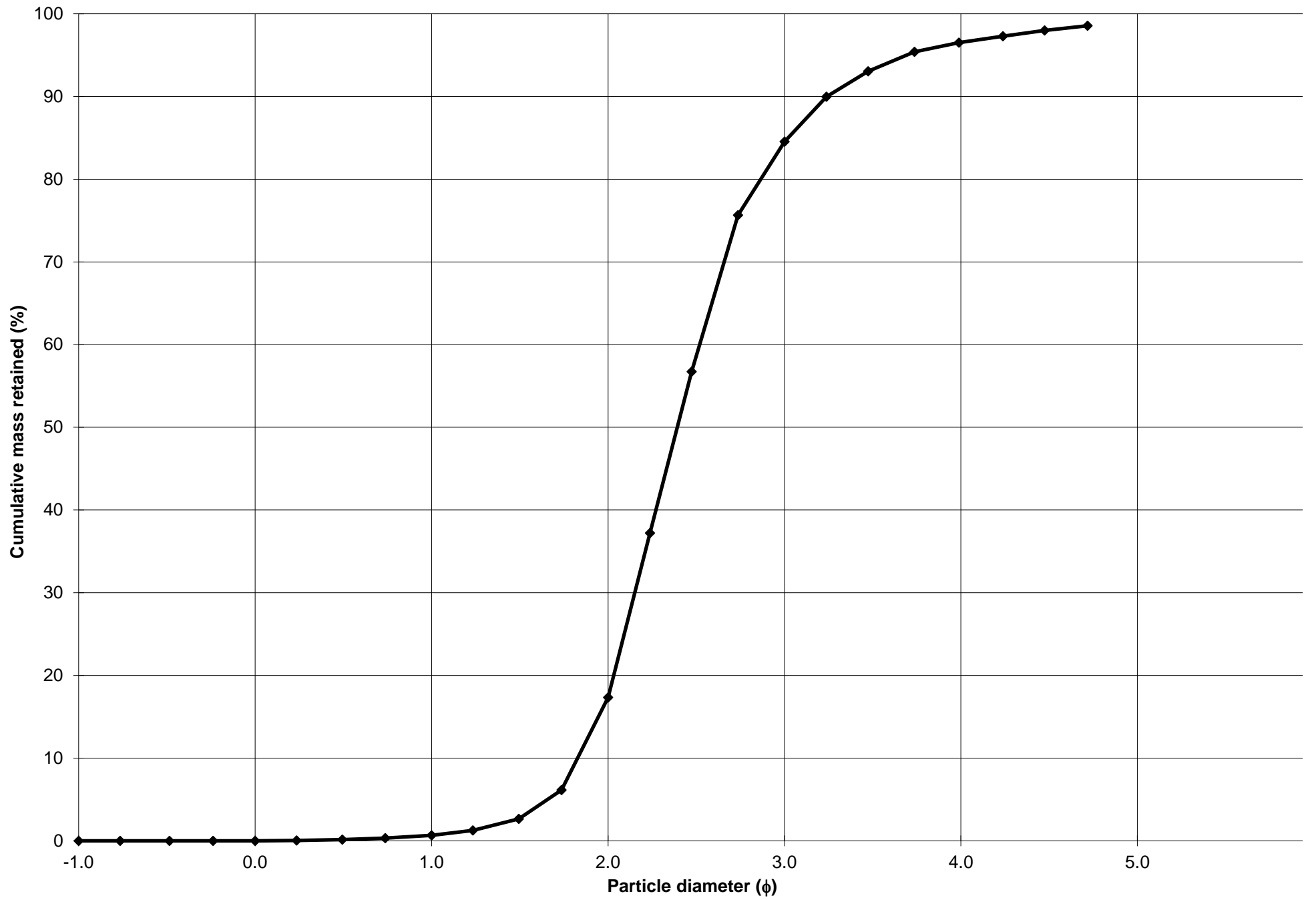
Cumulative Frequency Curve



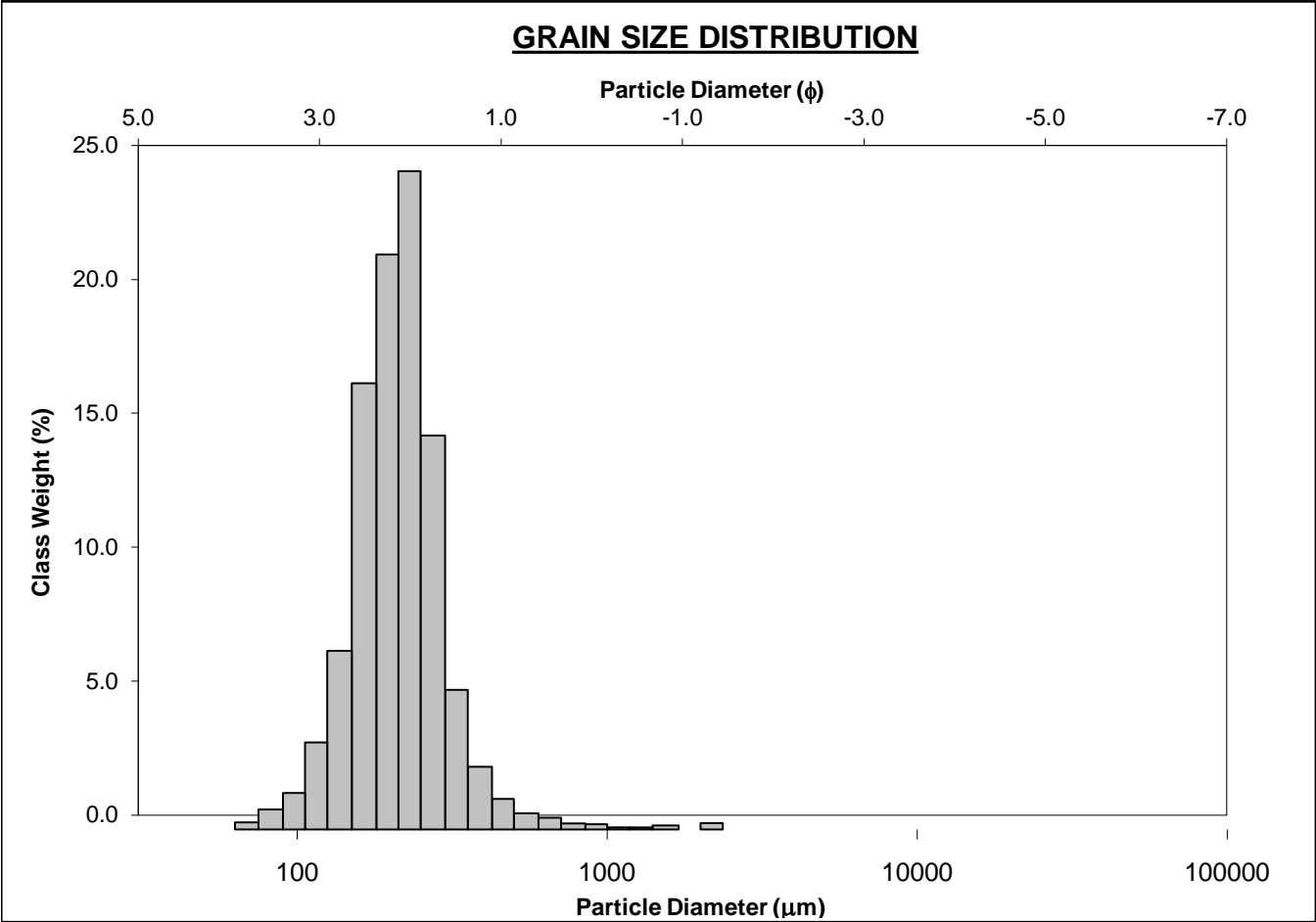
SIEVING ERROR: 2.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-300cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.7%	
MODE 2:			SAND: 96.5%		MEDIUM SAND: 16.7%	
MODE 3:			MUD: 3.5%		FINE SAND: 67.2%	
D ₁₀ :	105.9	1.828			V FINE SAND: 12.0%	
MEDIAN or D ₅₀ :	190.5	2.393	V COARSE GRAVEL: 0.0%		V COARSE SILT: 2.1%	
D ₉₀ :	281.7	3.240	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D ₉₀ / D ₁₀):	2.661	1.773	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
(D ₉₀ - D ₁₀):	175.8	1.412	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D ₇₅ / D ₂₅):	1.554	1.304	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
(D ₇₅ - D ₂₅):	83.67	0.636	V COARSE SAND: 0.0%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	195.6	174.4	2.520	183.2	2.448	Fine Sand
SORTING (σ):	80.04	1.767	0.821	1.476	0.562	Moderately Well Sorted
SKEWNESS (Sk):	1.582	-3.076	3.076	-0.221	0.221	Fine Skewed
KURTOSIS (K):	12.26	18.58	18.58	1.311	1.311	Leptokurtic



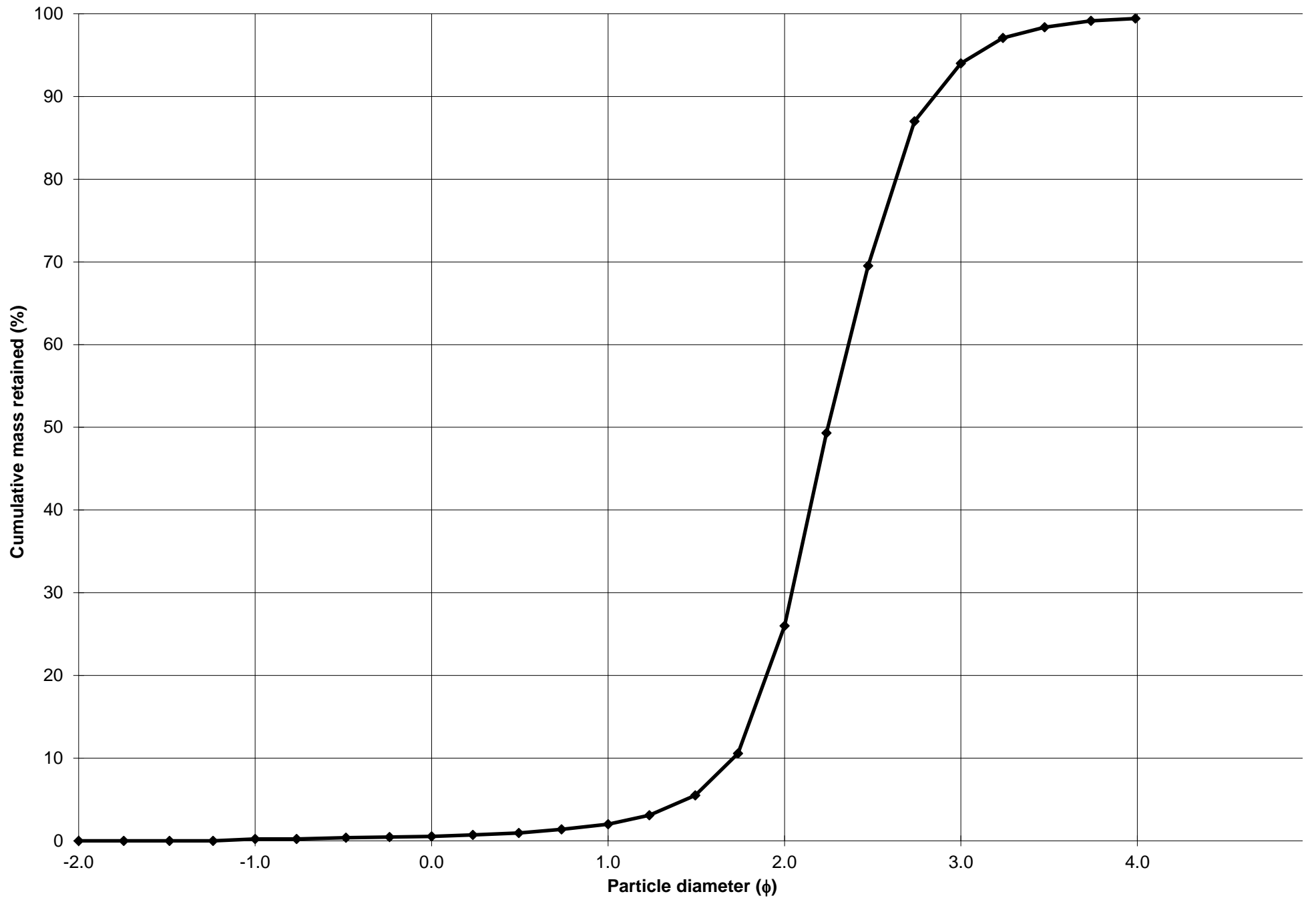
Cumulative Frequency Curve



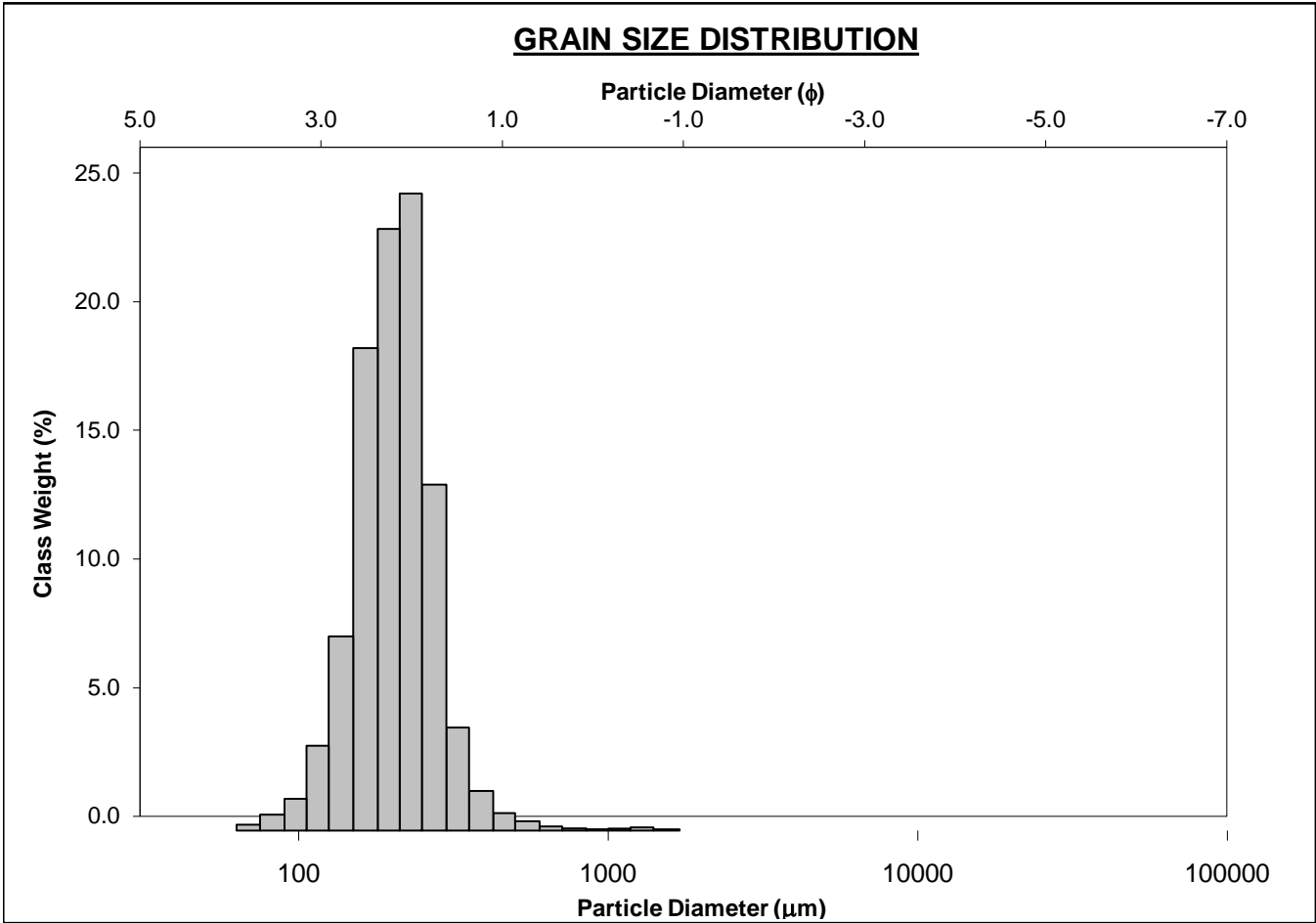
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-310cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.2%		COARSE SAND: 1.5%	
MODE 2:			SAND: 99.2%		MEDIUM SAND: 24.0%	
MODE 3:			MUD: 0.6%		FINE SAND: 68.0%	
D ₁₀ :	138.8	1.710			V FINE SAND: 5.4%	
MEDIAN or D ₅₀ :	210.8	2.246	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	305.6	2.849	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.203	1.666	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	166.9	1.139	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.488	1.289	V FINE GRAVEL: 0.2%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	82.93	0.573	V COARSE SAND: 0.3%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	230.2	208.1	2.265	209.4	2.256	Fine Sand
SORTING (σ):	143.2	1.558	0.639	1.379	0.463	Well Sorted
SKEWNESS (Sk):	7.974	-1.594	1.594	-0.025	0.025	Symmetrical
KURTOSIS (K):	94.68	21.59	21.59	1.170	1.170	Leptokurtic



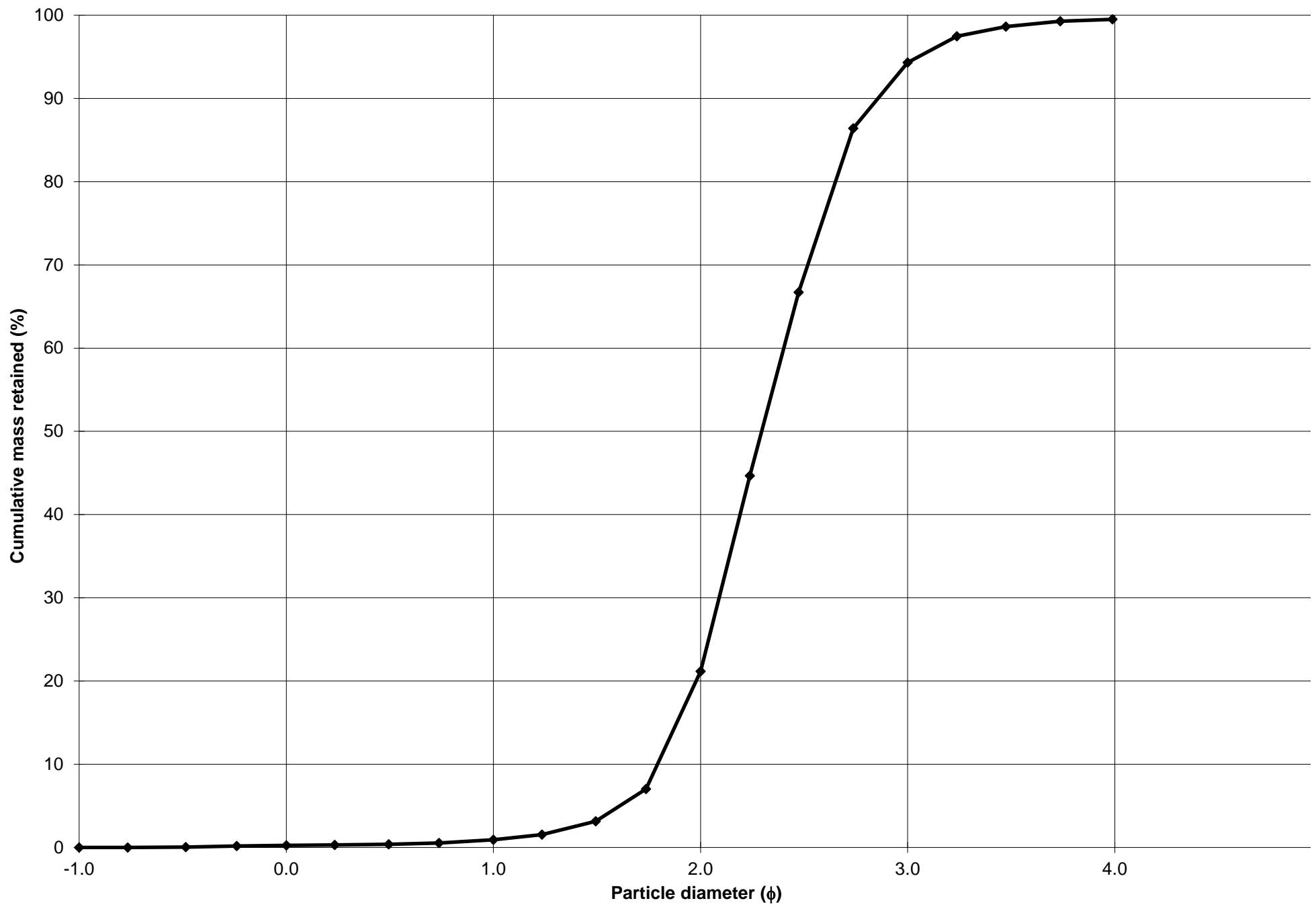
Cumulative Frequency Curve



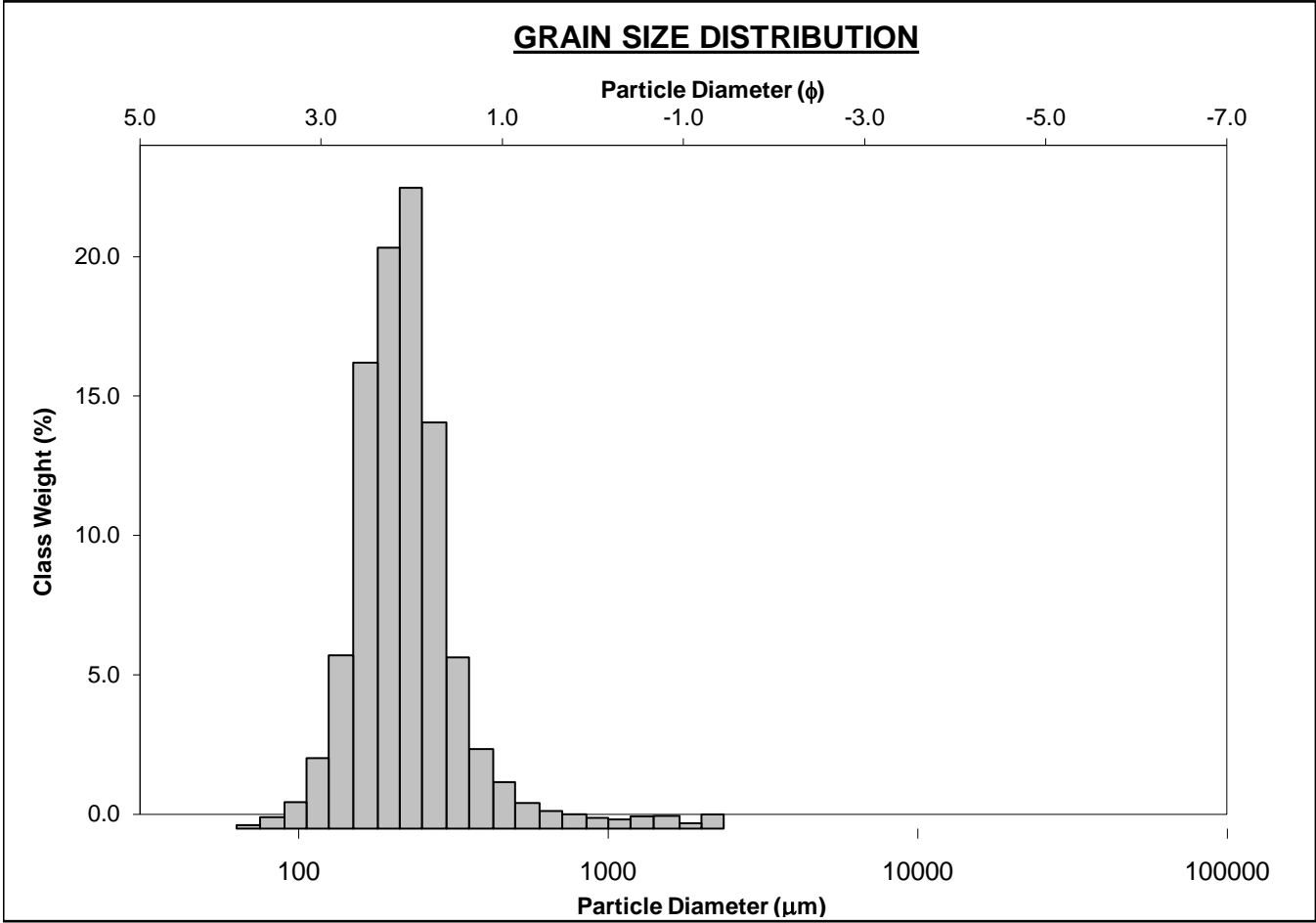
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-320cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.7%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 20.2%	
MODE 3:			MUD: 0.5%		FINE SAND: 73.2%	
D ₁₀ :	138.1	1.792			V FINE SAND: 5.2%	
MEDIAN or D ₅₀ :	203.8	2.295	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	288.7	2.856	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.091	1.594	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	150.6	1.064	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.460	1.268	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	76.65	0.546	V COARSE SAND: 0.3%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	214.7	200.1	2.321	202.9	2.301	Fine Sand
SORTING (σ):	89.28	1.476	0.562	1.337	0.419	Well Sorted
SKEWNESS (Sk):	5.637	-2.518	2.518	-0.036	0.036	Symmetrical
KURTOSIS (K):	65.56	26.90	26.90	1.082	1.082	Mesokurtic



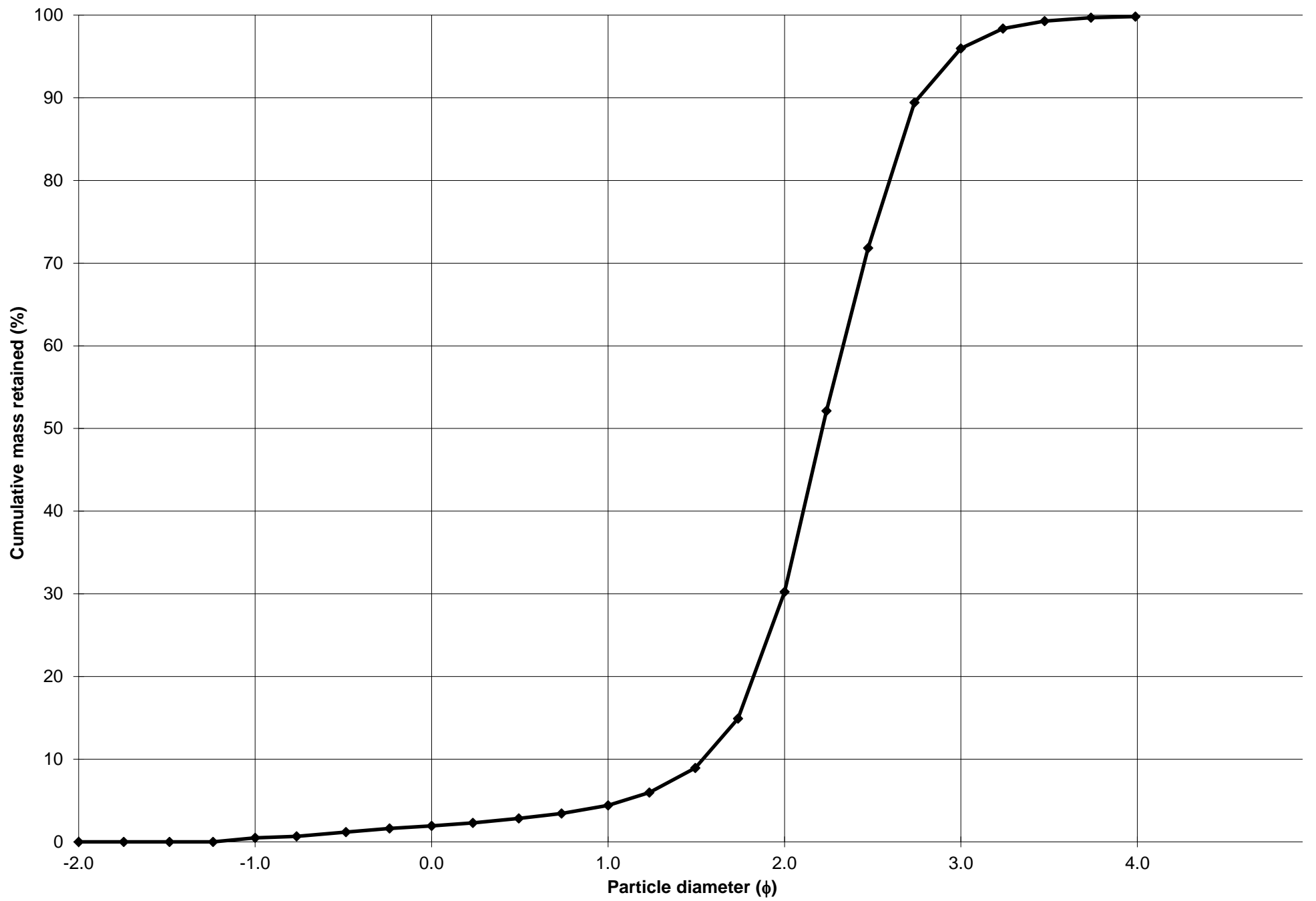
Cumulative Frequency Curve



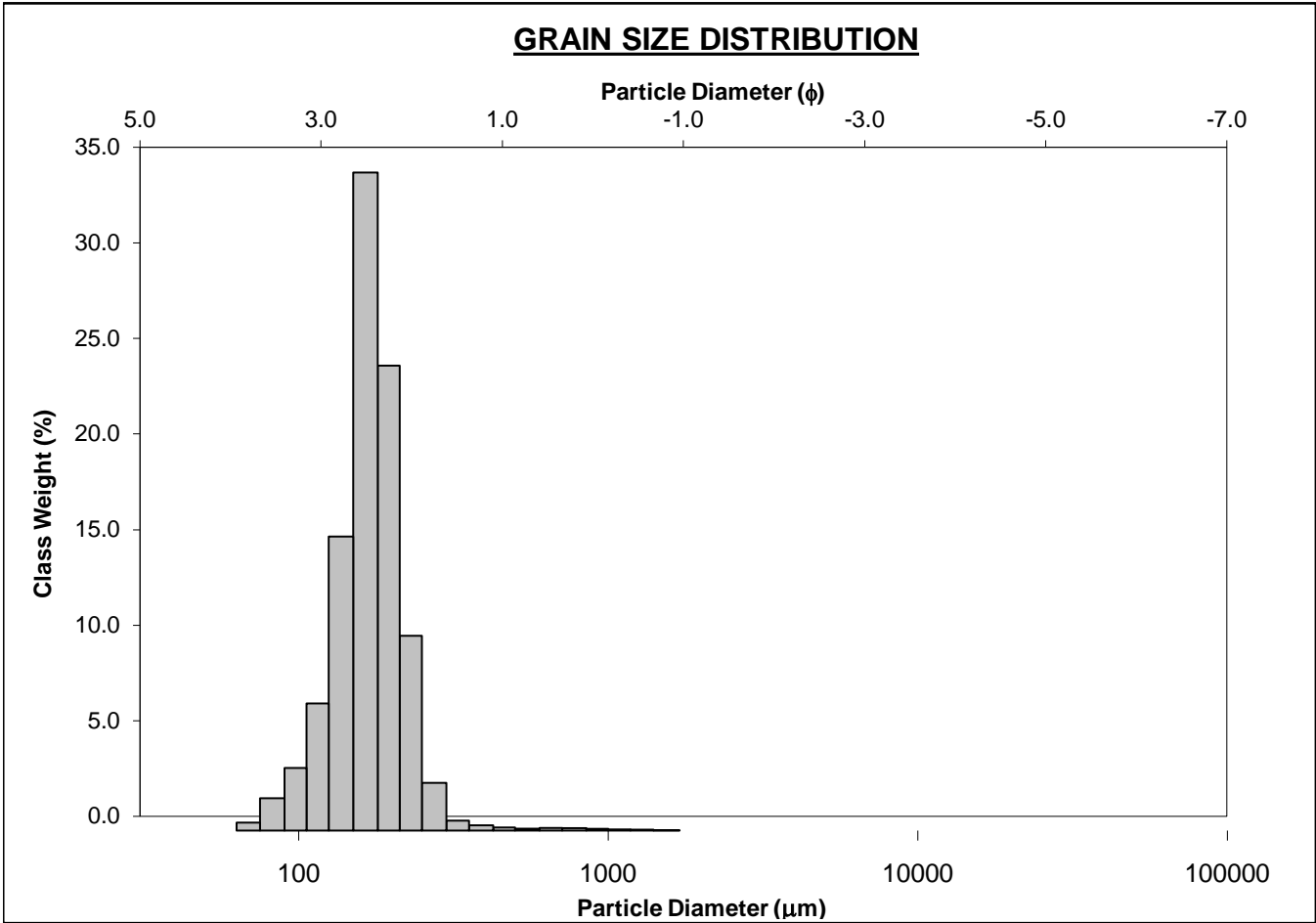
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-330cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.5%		COARSE SAND: 2.5%	
MODE 2:			SAND: 99.3%		MEDIUM SAND: 25.8%	
MODE 3:			MUD: 0.2%		FINE SAND: 65.7%	
D_{10} :	147.6	1.537			V FINE SAND: 3.9%	
MEDIAN or D_{50} :	215.4	2.215	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	344.5	2.760	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.334	1.795	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	196.9	1.223	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.528	1.320	V FINE GRAVEL: 0.5%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	91.92	0.611	V COARSE SAND: 1.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	259.7	224.5	2.155	216.3	2.209	Fine Sand
SORTING (σ):	220.6	1.589	0.668	1.423	0.509	Moderately Well Sorted
SKEWNESS (Sk):	5.730	0.984	-0.984	0.111	-0.111	Coarse Skewed
KURTOSIS (K):	42.18	12.74	12.74	1.255	1.255	Leptokurtic



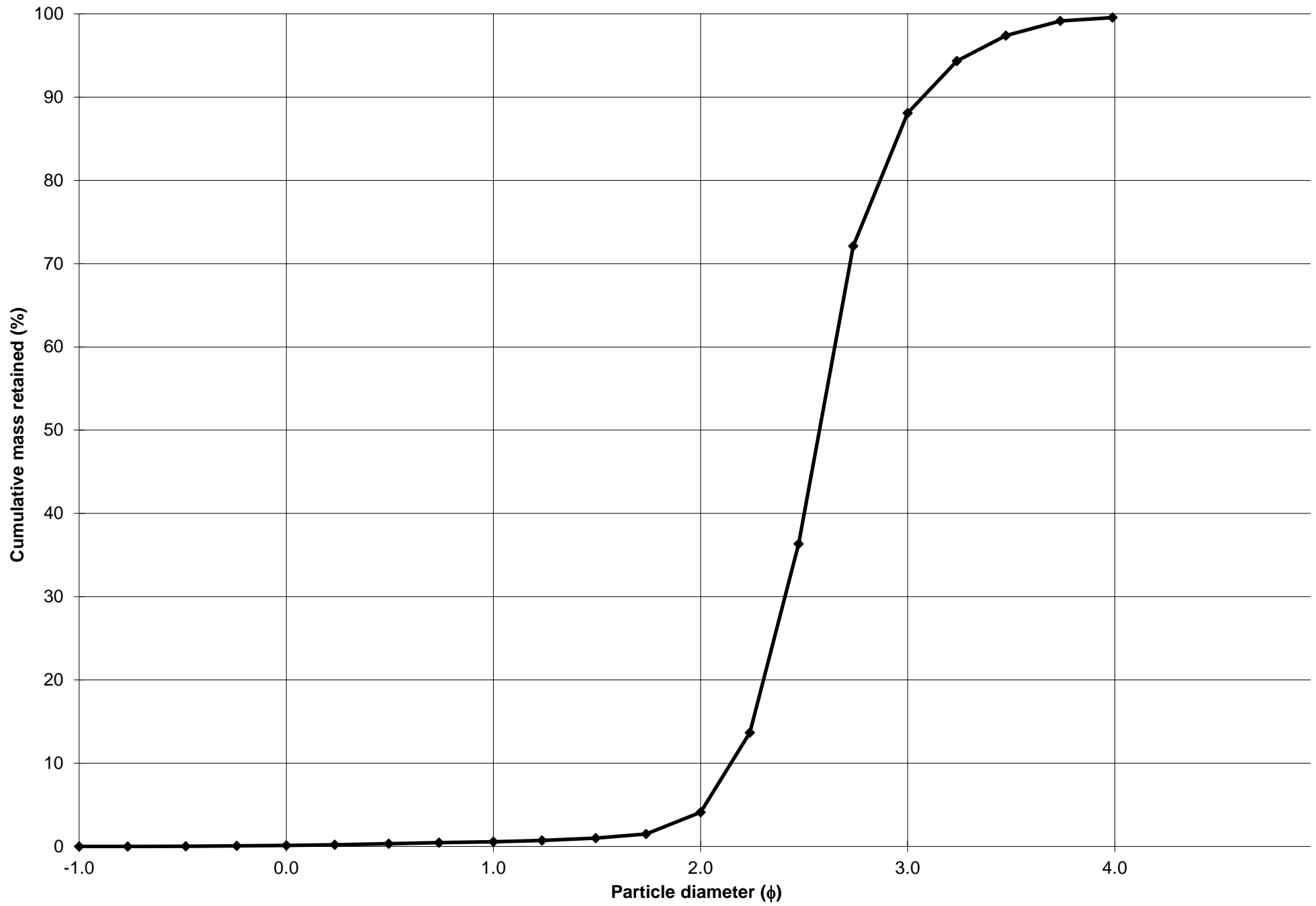
Cumulative Frequency Curve



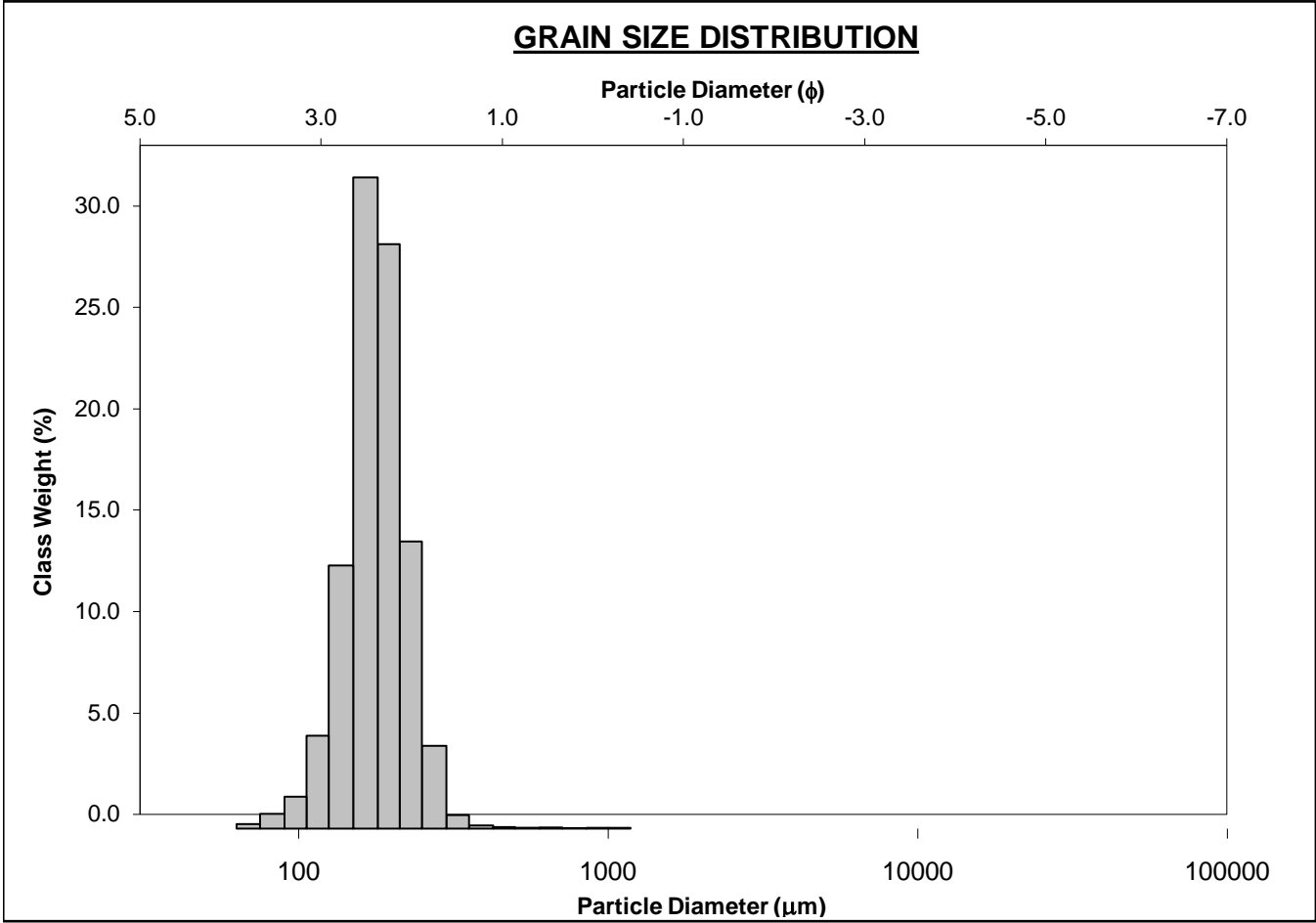
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-340cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.5%			
MODE 2:			SAND: 99.5% MEDIUM SAND: 3.5%			
MODE 3:			MUD: 0.5% FINE SAND: 84.0%			
D ₁₀ :	118.8	2.147	V FINE SAND: 11.5%			
MEDIAN or D ₅₀ :	167.9	2.574	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%			
D ₉₀ :	225.8	3.073	COARSE GRAVEL: 0.0% COARSE SILT: 0.1%			
(D ₉₀ / D ₁₀):	1.900	1.432	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%			
(D ₉₀ - D ₁₀):	107.0	0.926	FINE GRAVEL: 0.0% FINE SILT: 0.1%			
(D ₇₅ / D ₂₅):	1.346	1.182	V FINE GRAVEL: 0.0% V FINE SILT: 0.1%			
(D ₇₅ - D ₂₅):	50.23	0.429	V COARSE SAND: 0.1% CLAY: 0.1%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	174.9	165.0	2.599	166.1	2.590	Fine Sand
SORTING (σ):	69.26	1.414	0.499	1.283	0.360	Well Sorted
SKEWNESS (Sk):	7.459	-2.586	2.586	-0.099	0.099	Symmetrical
KURTOSIS (K):	102.4	31.17	31.17	1.211	1.211	Leptokurtic



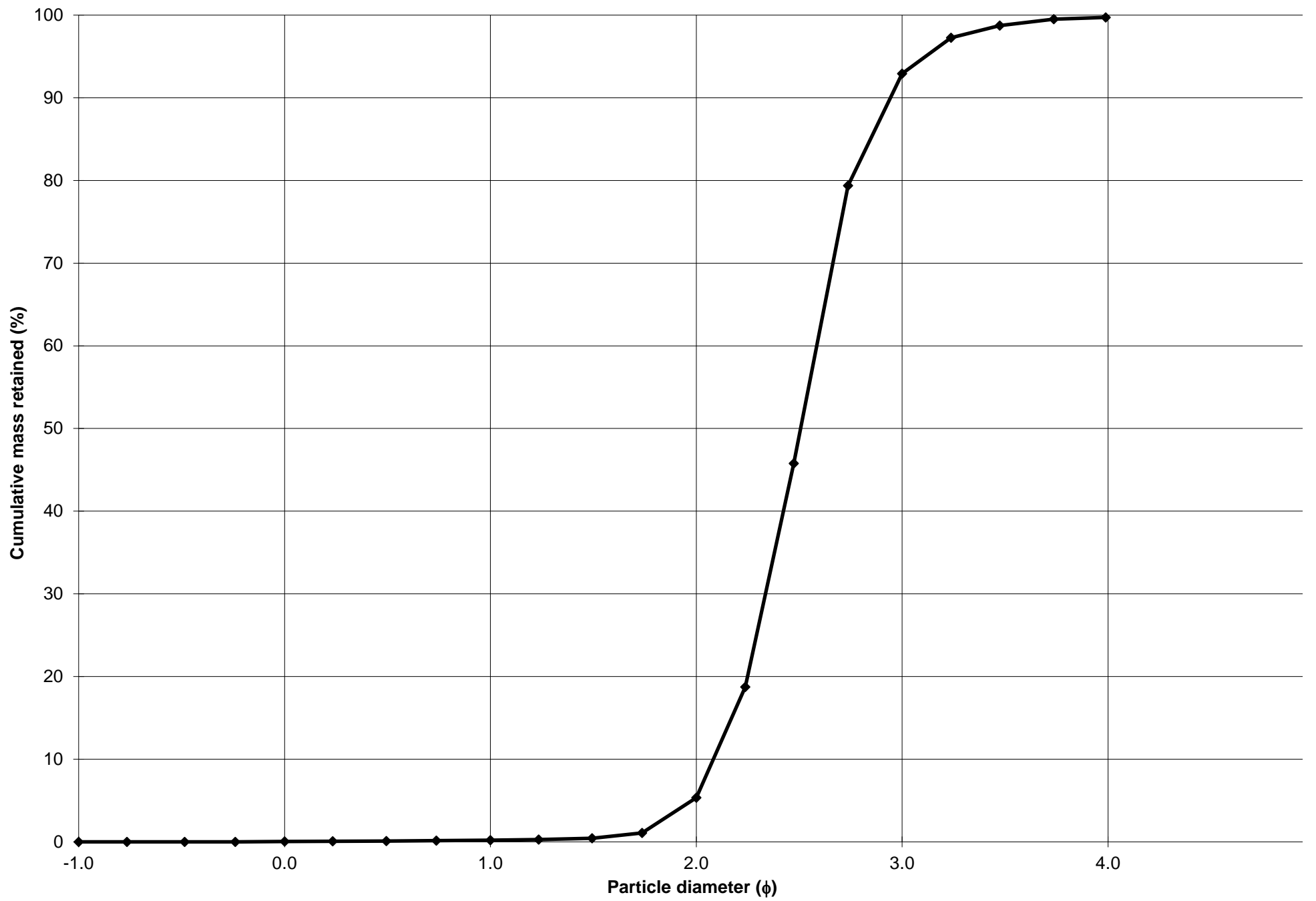
Cumulative Frequency Curve



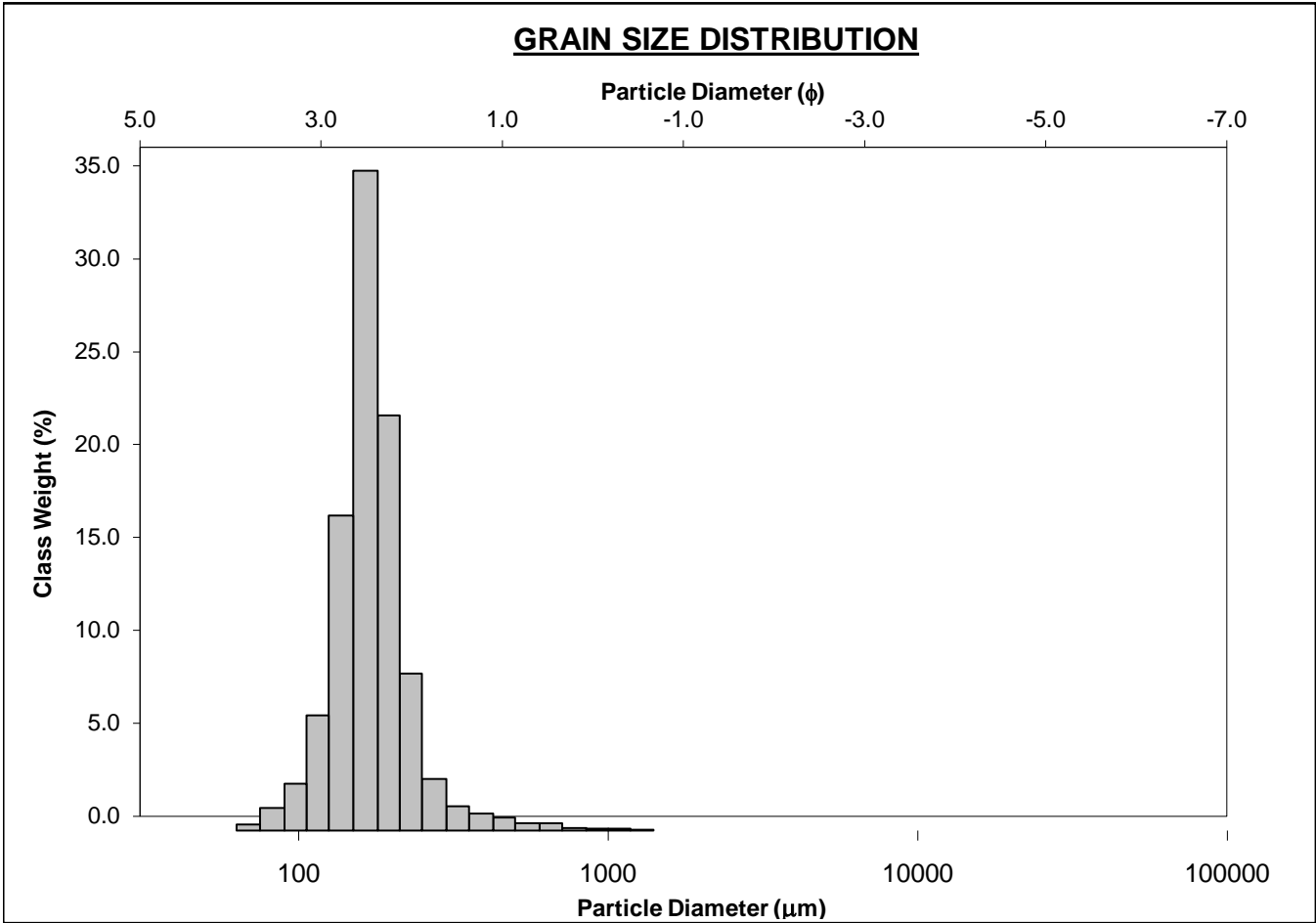
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-08-350cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.2%			
MODE 2:			SAND: 99.7% MEDIUM SAND: 5.1%			
MODE 3:			MUD: 0.3% FINE SAND: 87.6%			
D ₁₀ :	130.0	2.083	V FINE SAND: 6.8%			
MEDIAN or D ₅₀ :	175.9	2.507	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	236.1	2.943	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.816	1.413	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	106.0	0.860	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.329	1.179	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	50.52	0.410	V COARSE SAND: 0.0% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	181.7	174.4	2.519	175.8	2.508	Fine Sand
SORTING (σ):	51.02	1.340	0.422	1.258	0.331	Very Well Sorted
SKEWNESS (Sk):	4.515	-3.156	3.156	-0.036	0.036	Symmetrical
KURTOSIS (K):	65.16	38.22	38.22	1.134	1.134	Leptokurtic



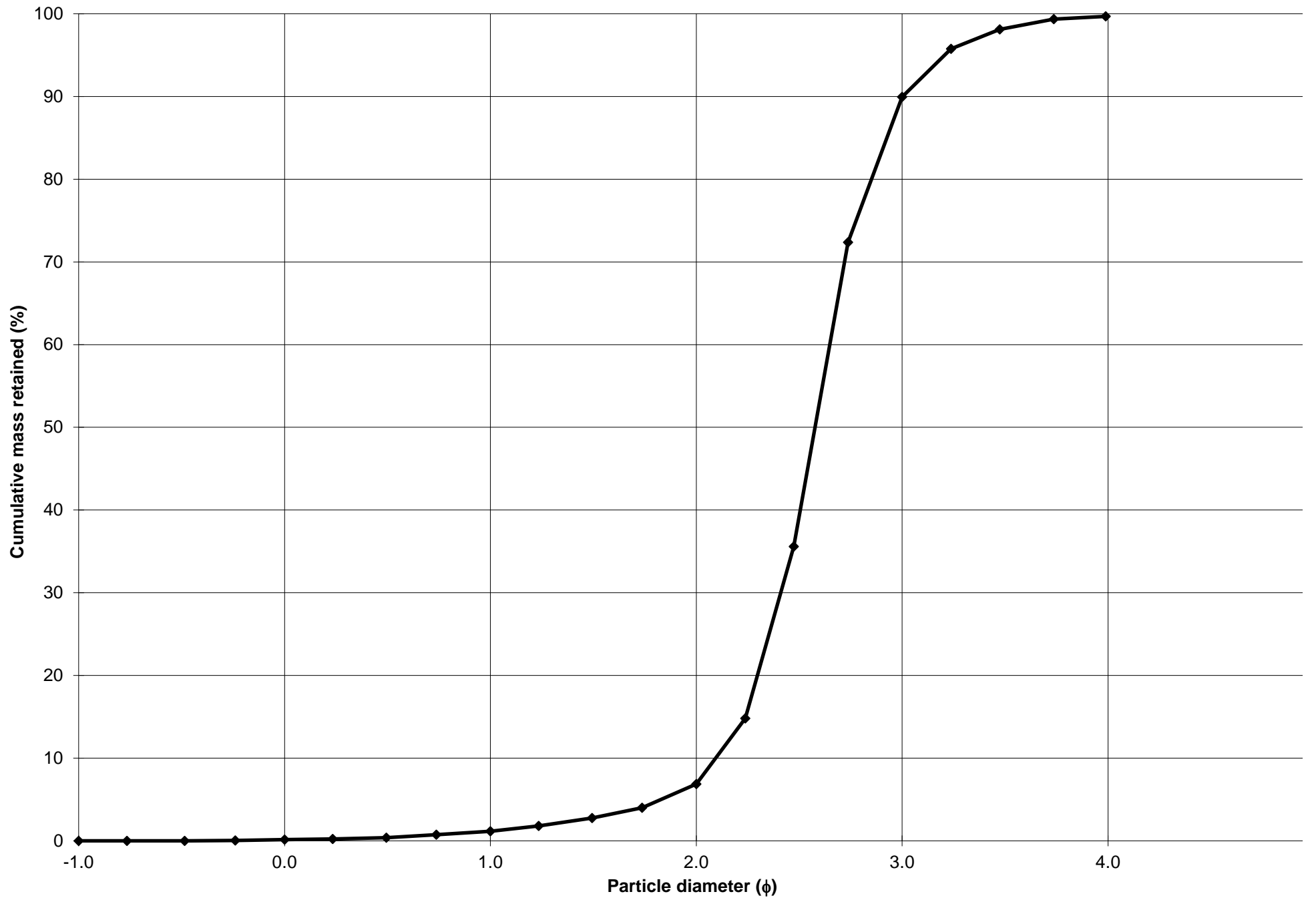
Cumulative Frequency Curve



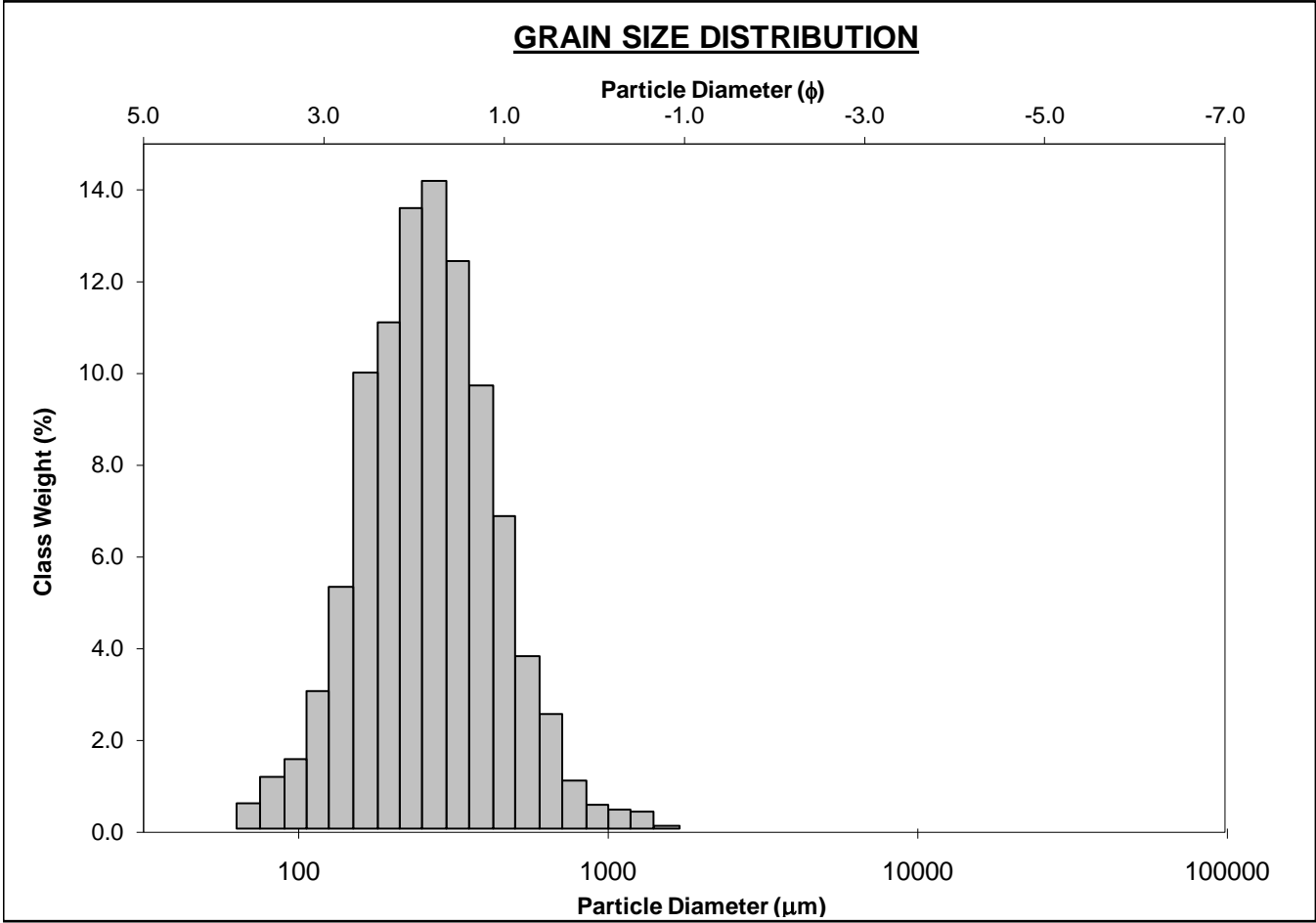
SIEVING ERROR: 0.7%		<u>SAMPLE STATISTICS</u>				
SAMPLE IDENTITY: SI-15-08-360cm			ANALYST & DATE: Chris, 10/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 1.0%			
MODE 2:			SAND: 99.7% MEDIUM SAND: 5.7%			
MODE 3:			MUD: 0.3% FINE SAND: 83.1%			
D ₁₀ :	124.8	2.094	V FINE SAND: 9.7%			
MEDIAN or D ₅₀ :	167.6	2.577	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%			
D ₉₀ :	234.3	3.002	COARSE GRAVEL: 0.0% COARSE SILT: 0.1%			
(D ₉₀ / D ₁₀):	1.877	1.434	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%			
(D ₉₀ - D ₁₀):	109.5	0.908	FINE GRAVEL: 0.0% FINE SILT: 0.1%			
(D ₇₅ / D ₂₅):	1.340	1.179	V FINE GRAVEL: 0.0% V FINE SILT: 0.1%			
(D ₇₅ - D ₂₅):	49.66	0.422	V COARSE SAND: 0.1% CLAY: 0.1%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	181.3	169.5	2.560	167.3	2.580	Fine Sand
SORTING (σ):	80.83	1.421	0.507	1.296	0.374	Well Sorted
SKEWNESS (Sk):	5.397	-1.178	1.178	0.037	-0.037	Symmetrical
KURTOSIS (K):	49.91	23.70	23.70	1.337	1.337	Leptokurtic



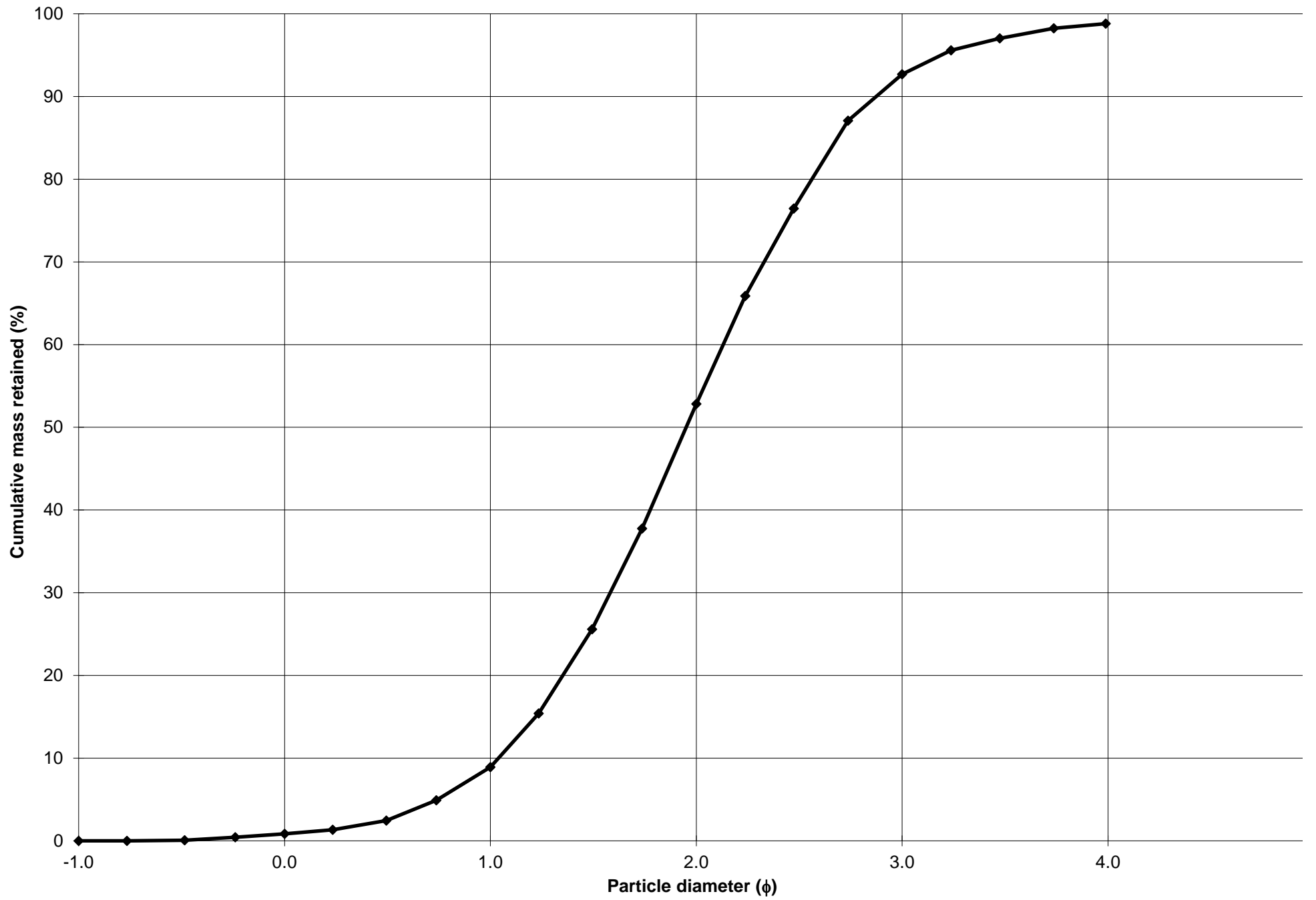
Cumulative Frequency Curve



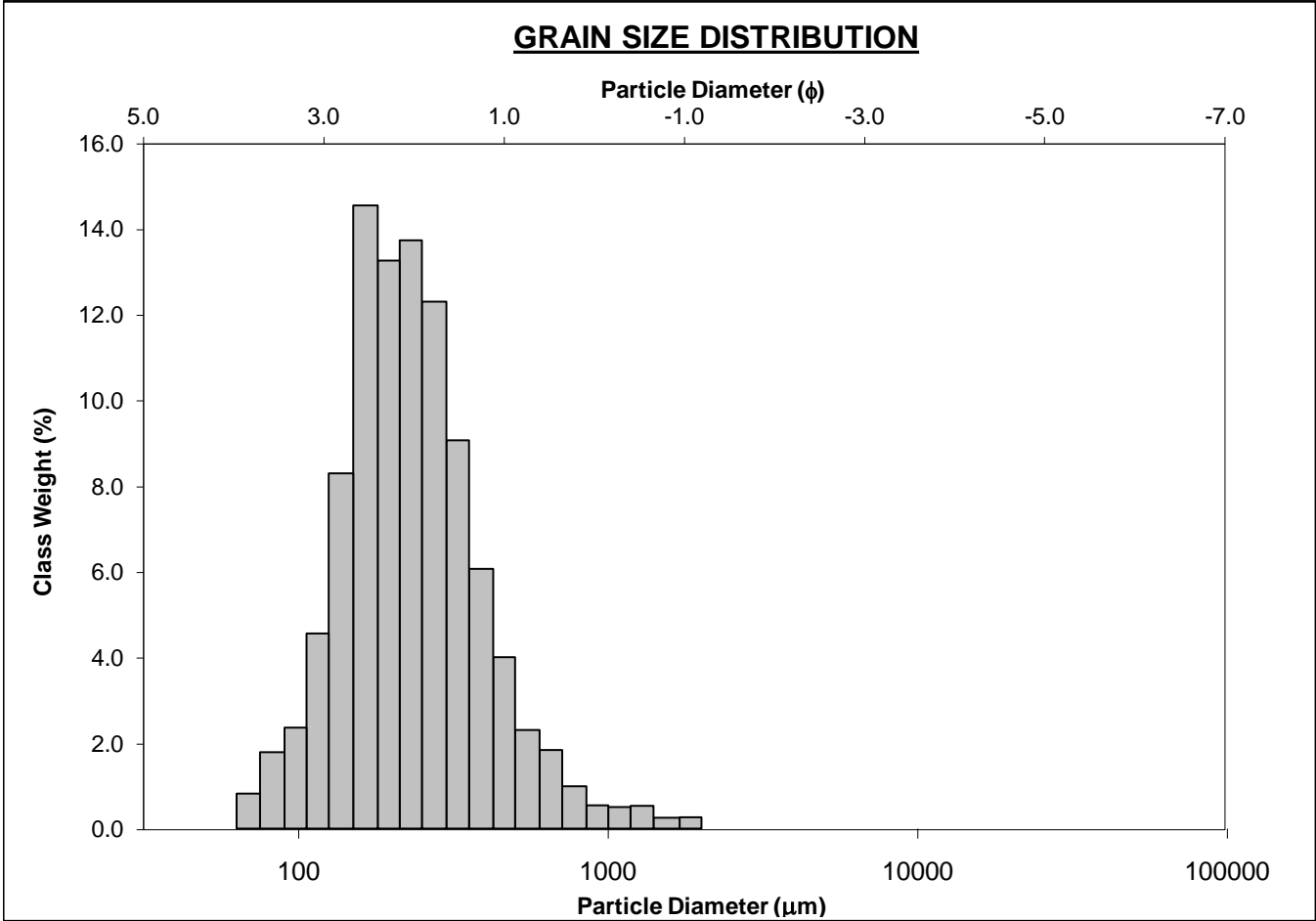
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-09-30cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 8.1%	
MODE 2:			SAND: 98.8%		MEDIUM SAND: 43.9%	
MODE 3:			MUD: 1.2%		FINE SAND: 39.9%	
D ₁₀ :	136.4	1.039			V FINE SAND: 6.1%	
MEDIAN or D ₅₀ :	258.7	1.951	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	486.5	2.874	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	3.567	2.765	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	350.1	1.835	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.948	1.650	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	174.5	0.962	V COARSE SAND: 0.8%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	295.3	251.2	1.993	258.1	1.954	Medium Sand
SORTING (σ):	168.8	1.866	0.900	1.651	0.723	Moderately Sorted
SKEWNESS (Sk):	2.173	-1.856	1.856	-0.010	0.010	Symmetrical
KURTOSIS (K):	11.34	12.74	12.74	1.042	1.042	Mesokurtic



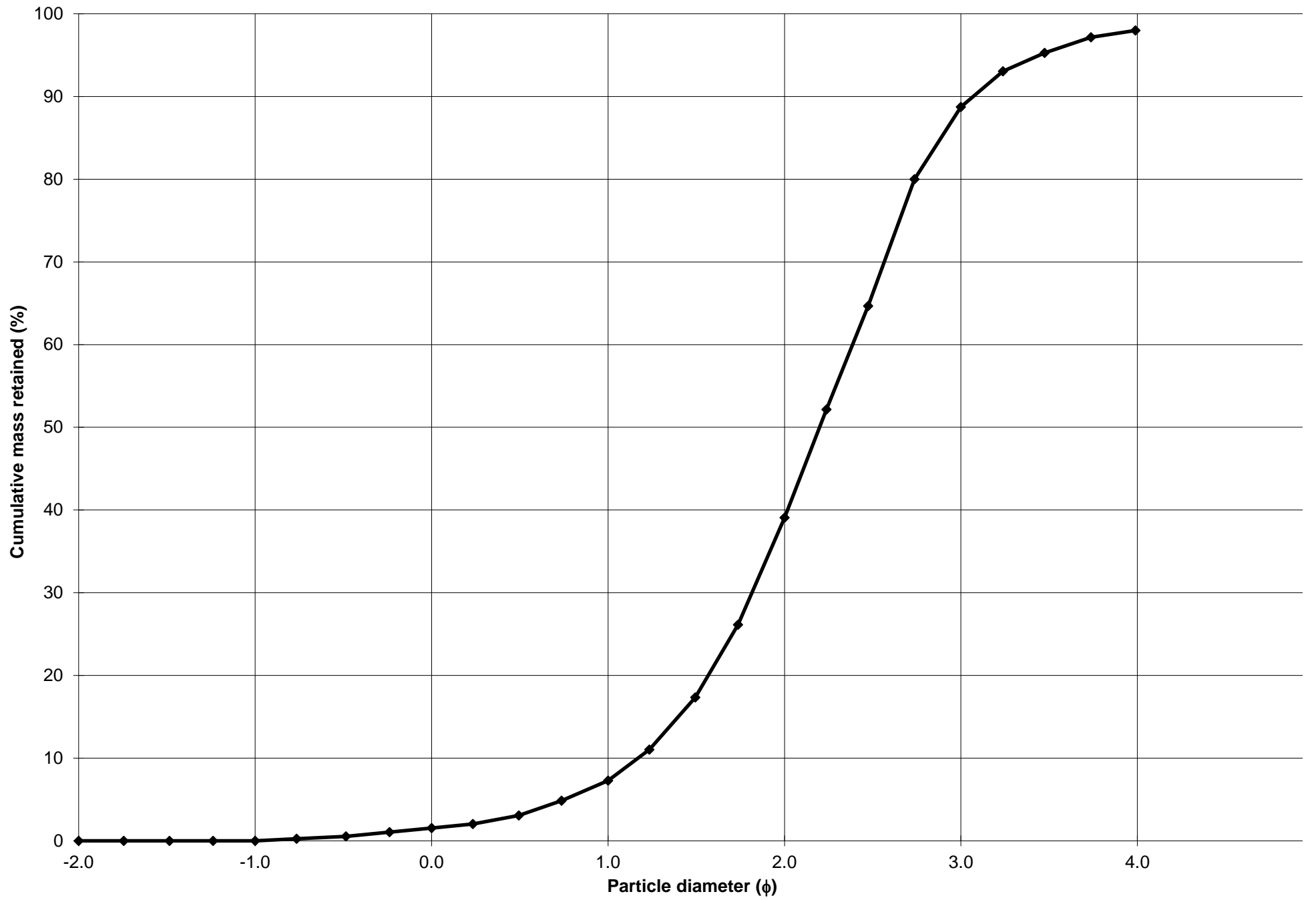
Cumulative Frequency Curve



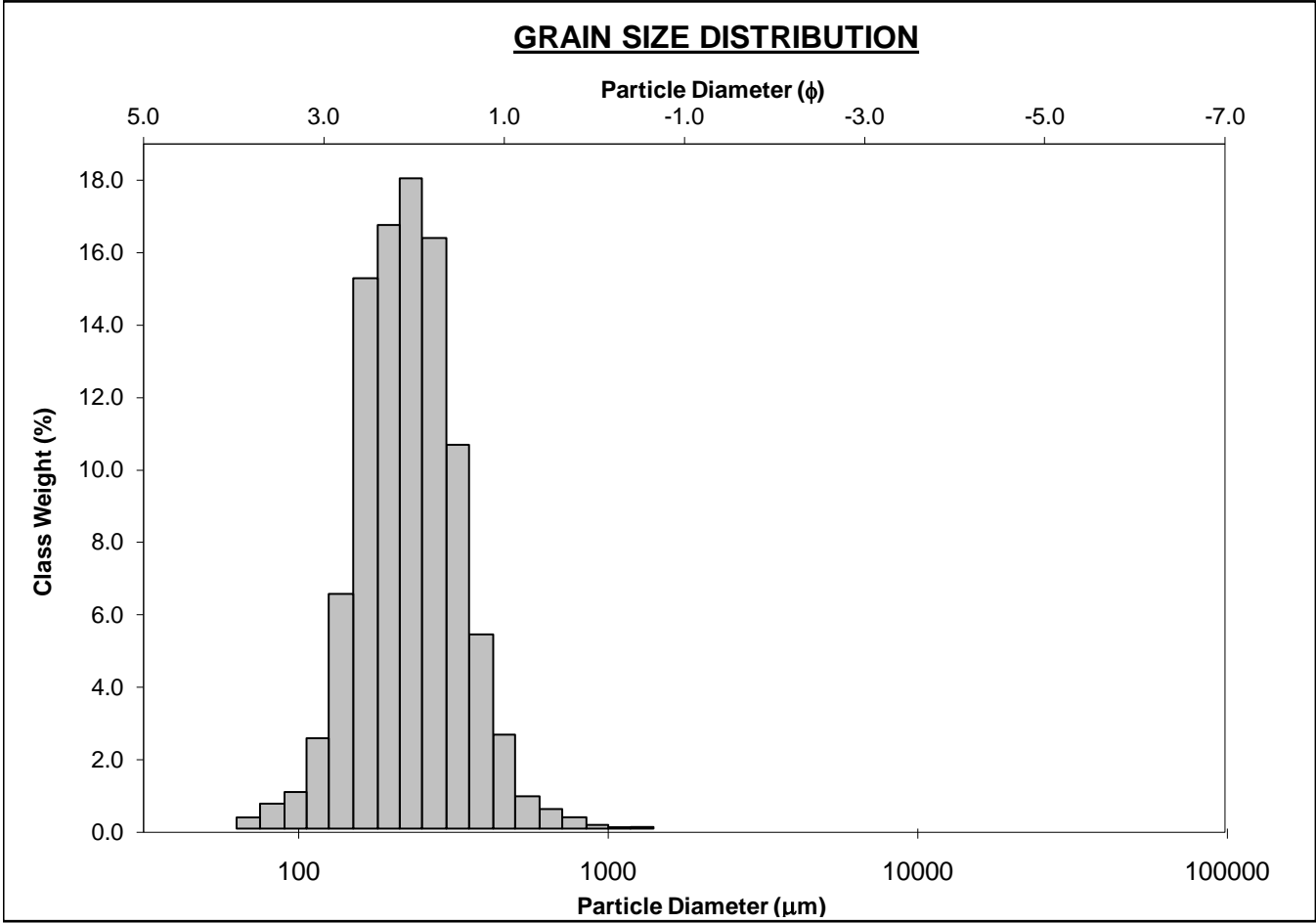
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-09-40cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 5.7%	
MODE 2:	231.0	2.119	SAND: 98.0%		MEDIUM SAND: 31.8%	
MODE 3:			MUD: 2.0%		FINE SAND: 49.6%	
D_{10} :	119.1	1.170			V FINE SAND: 9.3%	
MEDIAN or D_{50} :	217.8	2.199	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.3%	
D_{90} :	444.3	3.070	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D_{90} / D_{10}) :	3.732	2.624	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
$(D_{90} - D_{10})$:	325.3	1.900	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D_{75} / D_{25}) :	1.926	1.554	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
$(D_{75} - D_{25})$:	147.4	0.946	V COARSE SAND: 1.5%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	267.0	215.5	2.214	222.9	2.165	Fine Sand
SORTING (σ):	198.5	2.029	1.021	1.696	0.762	Moderately Sorted
SKEWNESS (Sk):	3.556	-1.646	1.646	0.072	-0.072	Symmetrical
KURTOSIS (K):	21.65	11.13	11.13	1.166	1.166	Leptokurtic



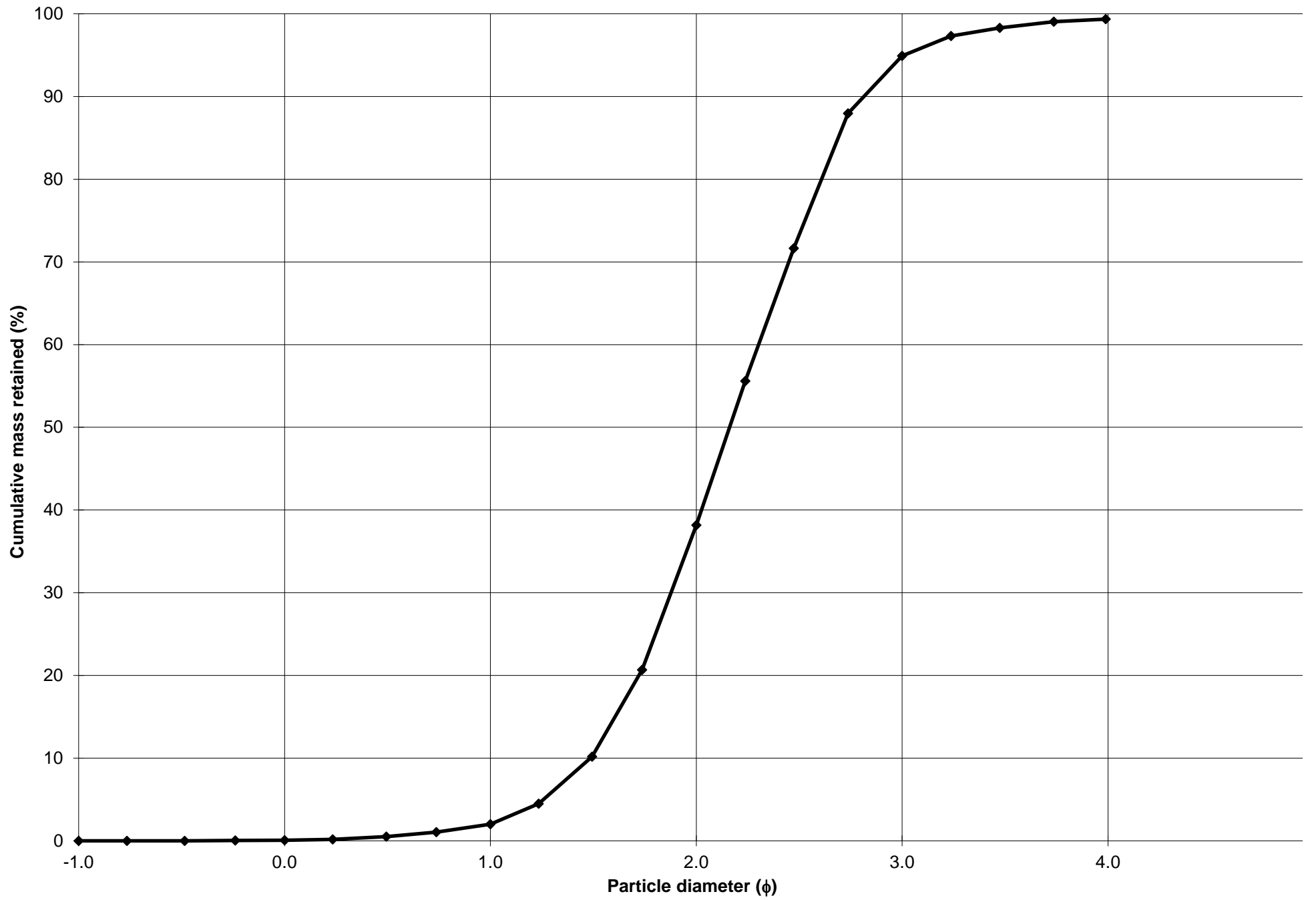
Cumulative Frequency Curve



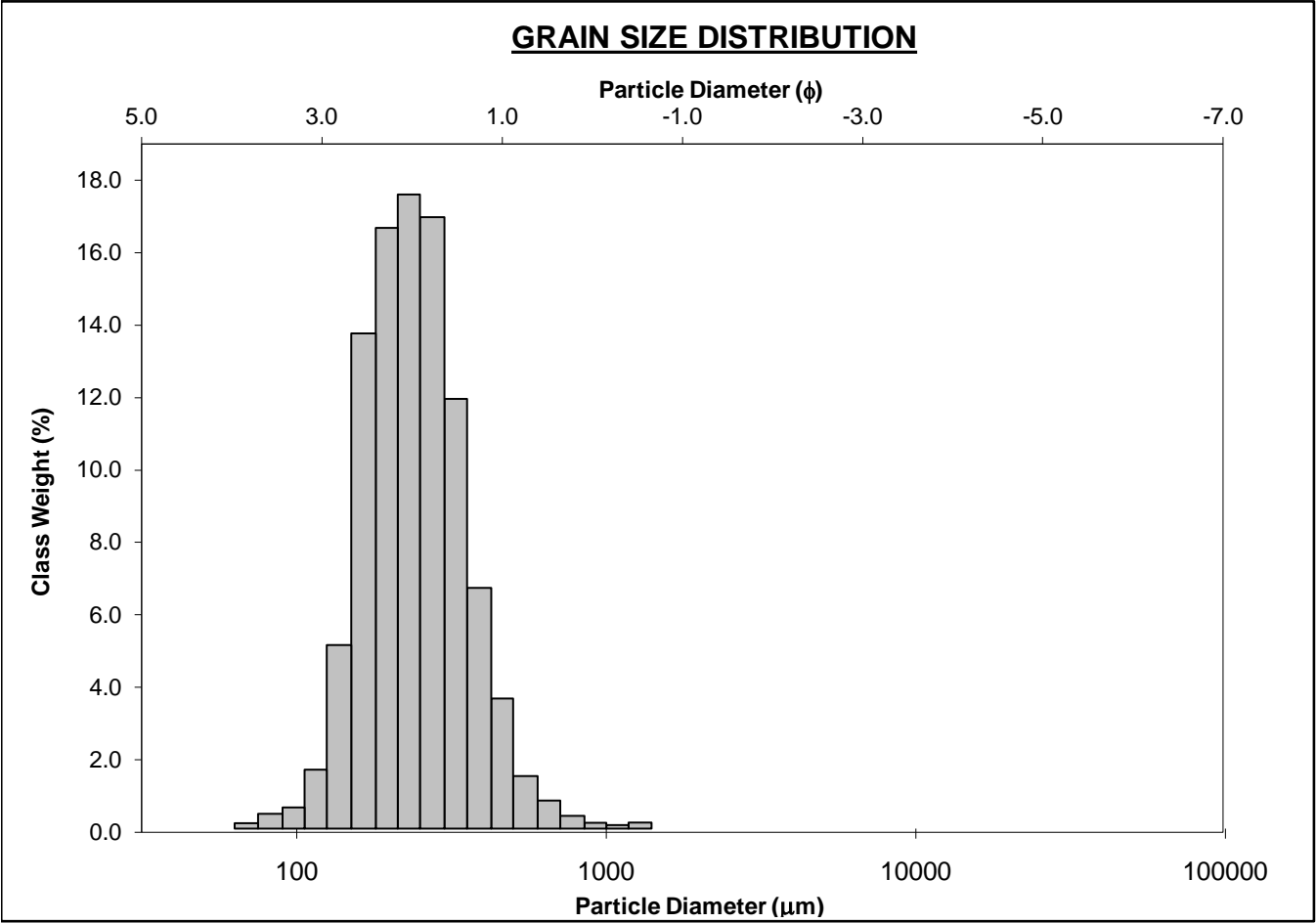
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-09-50cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 1.9%	
MODE 2:			SAND: 99.4%		MEDIUM SAND: 36.2%	
MODE 3:			MUD: 0.6%		FINE SAND: 56.7%	
D ₁₀ :	142.1	1.486			V FINE SAND: 4.5%	
MEDIAN or D ₅₀ :	223.5	2.162	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	356.9	2.815	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.511	1.894	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	214.7	1.328	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.654	1.403	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	113.4	0.726	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	242.4	220.9	2.179	224.6	2.155	Fine Sand
SORTING (σ):	103.3	1.586	0.666	1.440	0.526	Moderately Well Sorted
SKEWNESS (Sk):	2.174	-2.260	2.260	0.026	-0.026	Symmetrical
KURTOSIS (K):	14.14	19.43	19.43	0.989	0.989	Mesokurtic



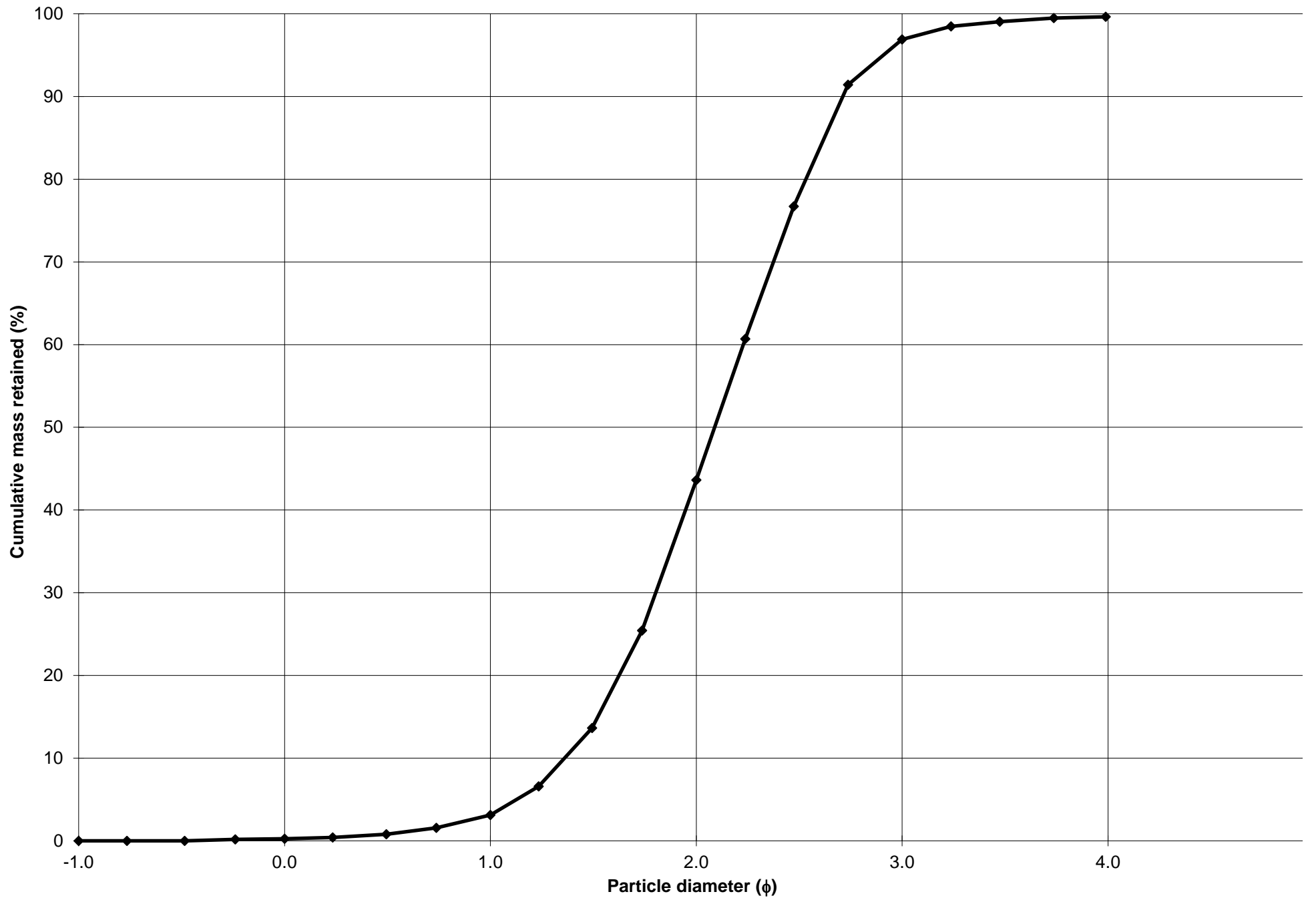
Cumulative Frequency Curve



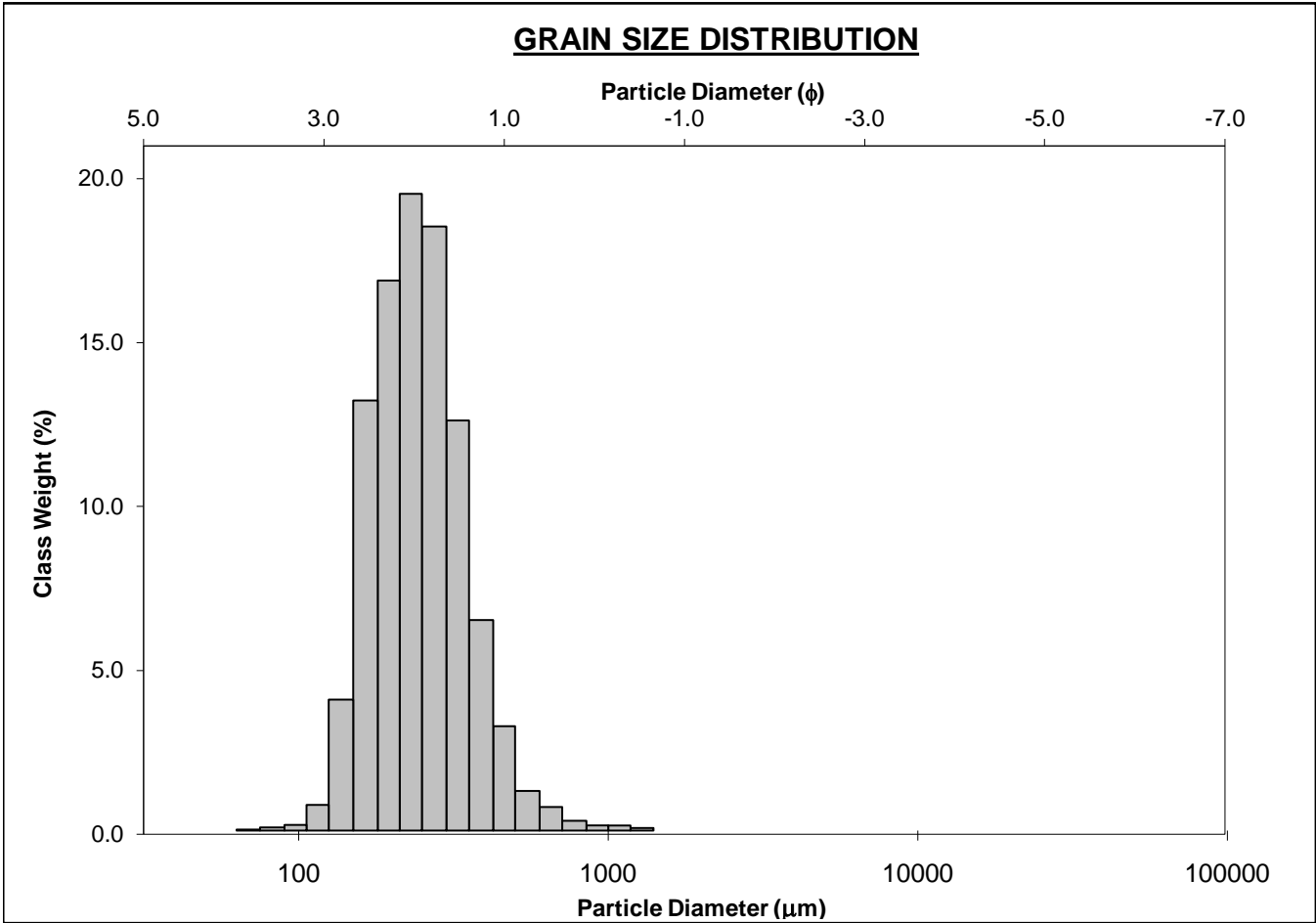
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-09-60cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 2.9%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 40.5%	
MODE 3:			MUD: 0.4%		FINE SAND: 53.3%	
D ₁₀ :	152.7	1.360			V FINE SAND: 2.7%	
MEDIAN or D ₅₀ :	235.0	2.089	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	389.5	2.711	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.551	1.993	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	236.8	1.351	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.648	1.417	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	118.7	0.721	V COARSE SAND: 0.3%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	258.9	236.6	2.080	236.7	2.079	Fine Sand
SORTING (σ):	116.9	1.542	0.624	1.449	0.535	Moderately Well Sorted
SKEWNESS (Sk):	2.709	-1.453	1.453	0.054	-0.054	Symmetrical
KURTOSIS (K):	18.12	16.49	16.49	1.013	1.013	Mesokurtic



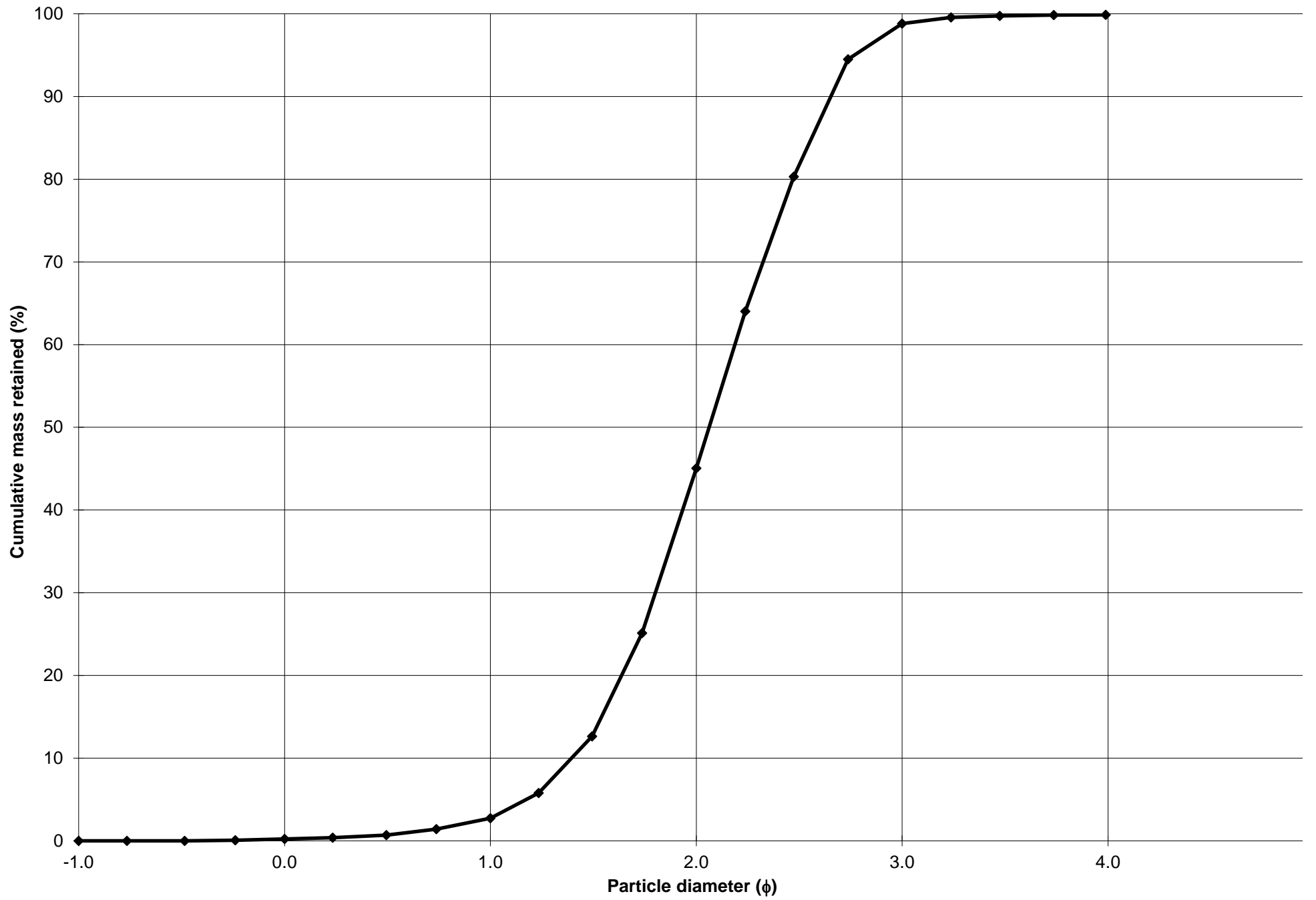
Cumulative Frequency Curve



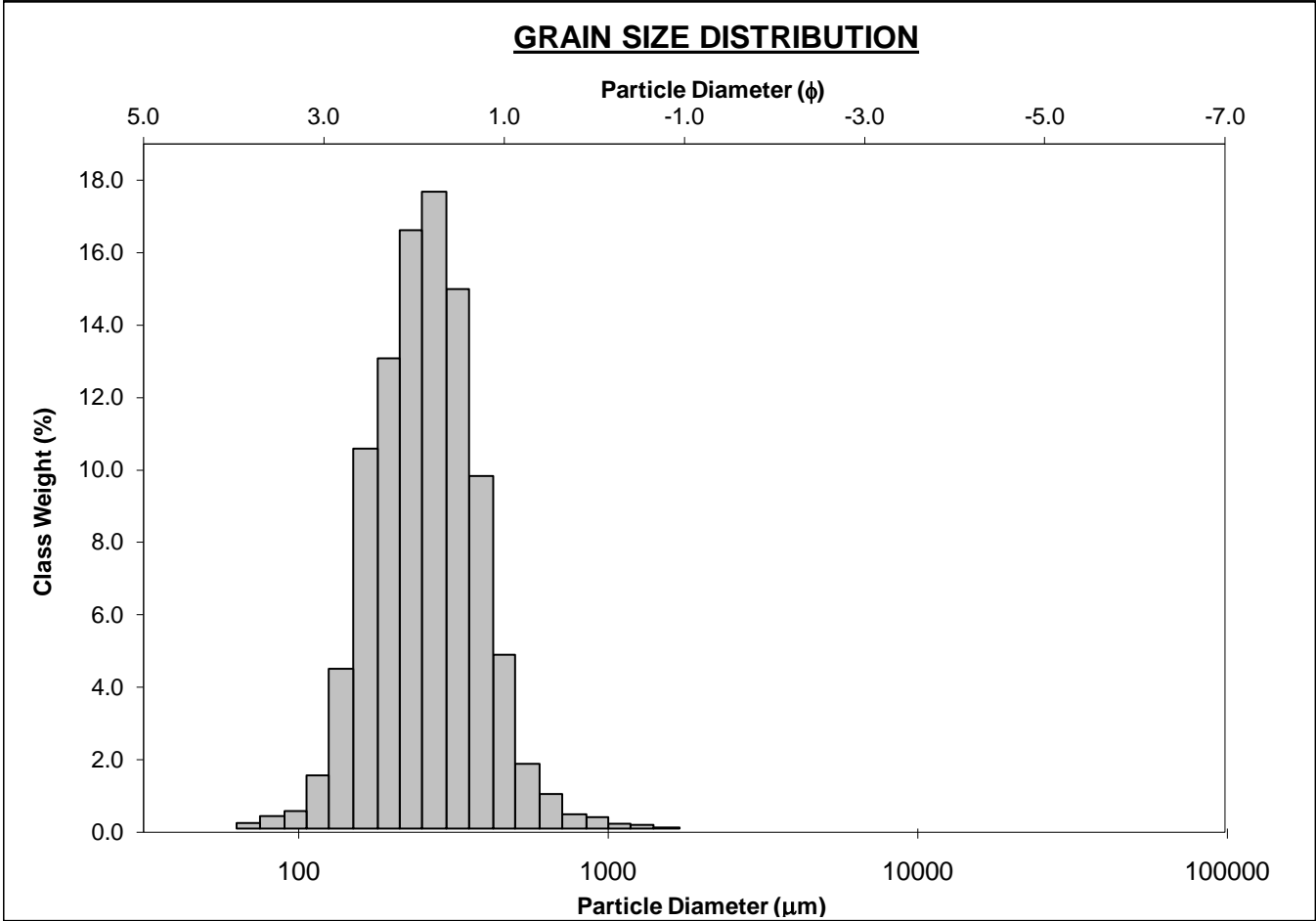
SIEVING ERROR: 1.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-09-70cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 2.5%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 42.3%	
MODE 3:			MUD: 0.1%		FINE SAND: 53.8%	
D ₁₀ :	158.9	1.394			V FINE SAND: 1.1%	
MEDIAN or D ₅₀ :	239.5	2.062	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	380.5	2.654	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.395	1.904	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	221.6	1.260	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.583	1.382	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	110.7	0.662	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	261.3	243.1	2.041	240.7	2.055	Fine Sand
SORTING (σ):	108.3	1.446	0.532	1.402	0.487	Well Sorted
SKEWNESS (Sk):	2.744	-0.528	0.528	0.068	-0.068	Symmetrical
KURTOSIS (K):	18.16	12.81	12.81	0.986	0.986	Mesokurtic



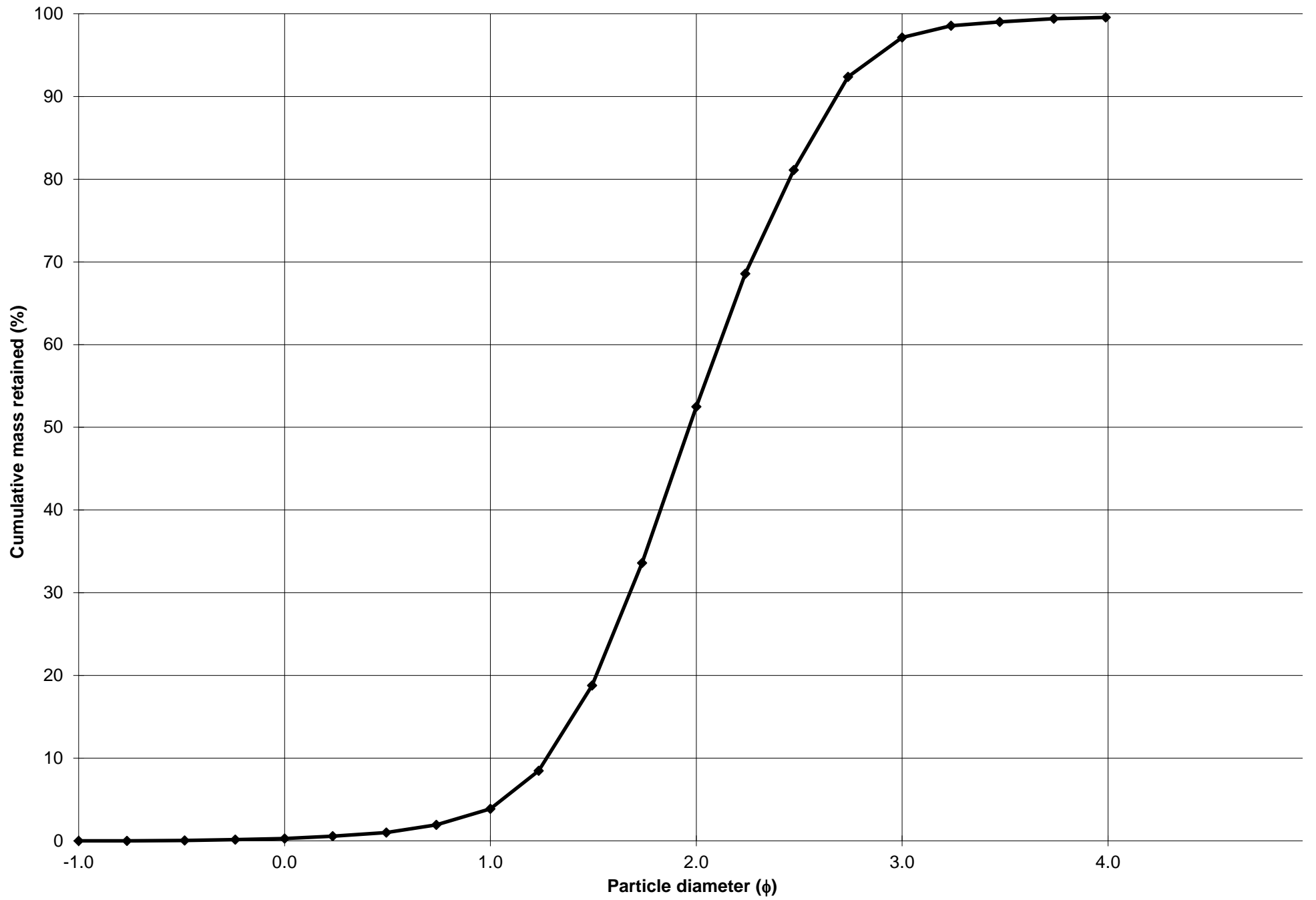
Cumulative Frequency Curve



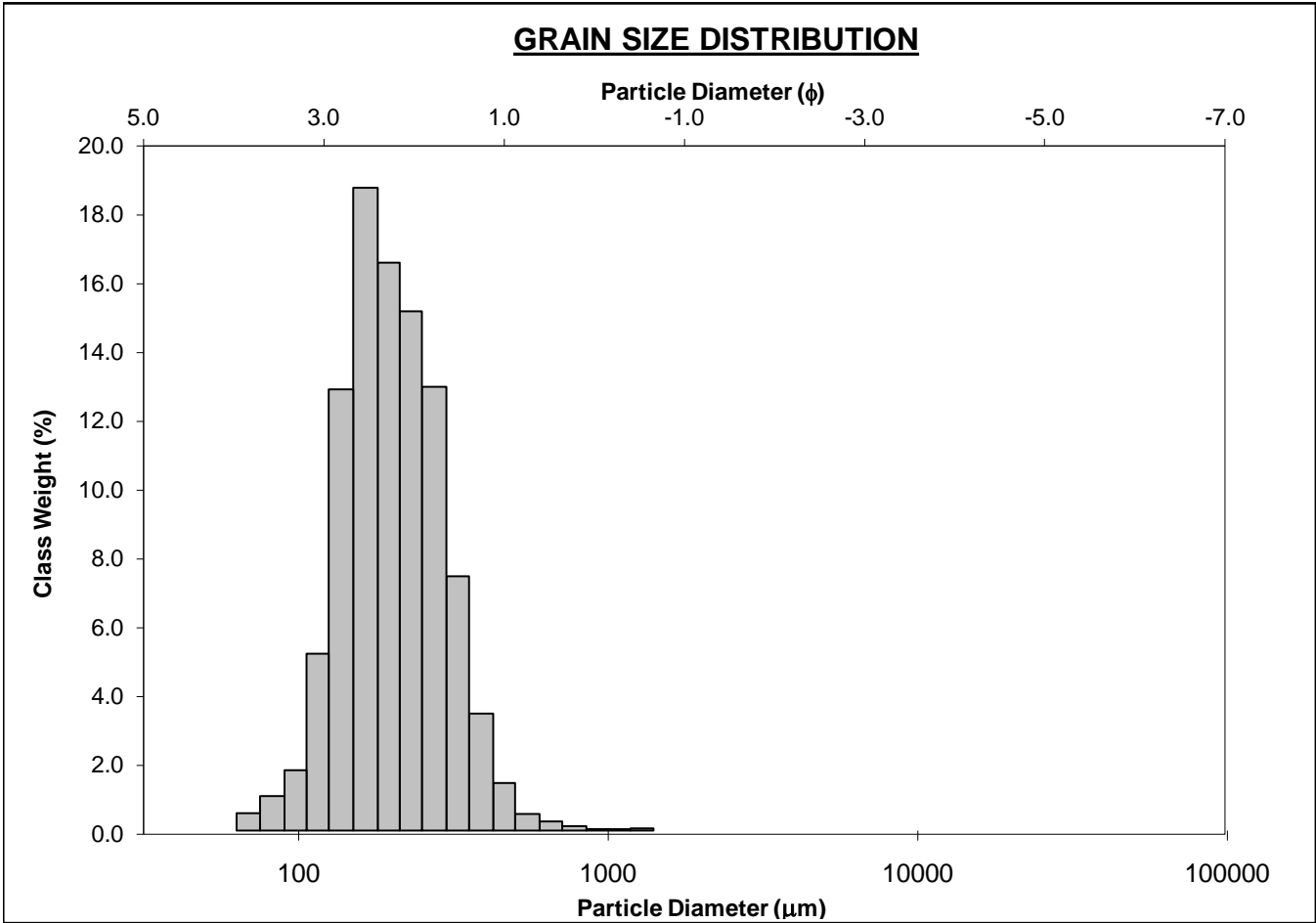
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-09-80cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 3.6%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 48.6%	
MODE 3:			MUD: 0.4%		FINE SAND: 44.6%	
D ₁₀ :	155.9	1.273			V FINE SAND: 2.4%	
MEDIAN or D ₅₀ :	256.1	1.965	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	413.8	2.681	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.654	2.106	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	257.9	1.408	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.697	1.478	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	135.9	0.763	V COARSE SAND: 0.3%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	277.7	252.6	1.985	254.0	1.977	Medium Sand
SORTING (σ):	124.0	1.575	0.655	1.470	0.556	Moderately Well Sorted
SKEWNESS (Sk):	2.417	-1.790	1.790	-0.018	0.018	Symmetrical
KURTOSIS (K):	16.08	17.30	17.30	0.980	0.980	Mesokurtic



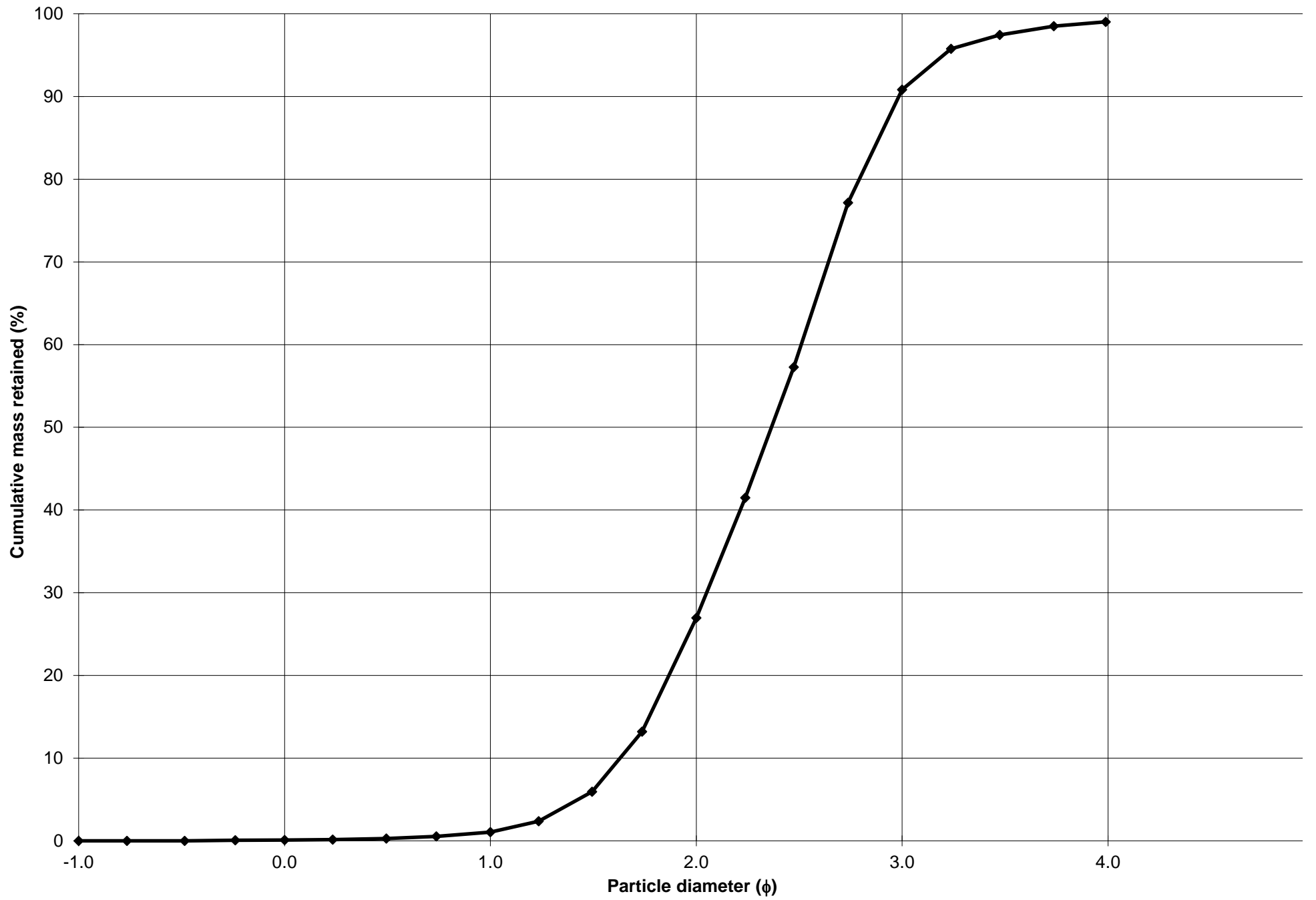
Cumulative Frequency Curve



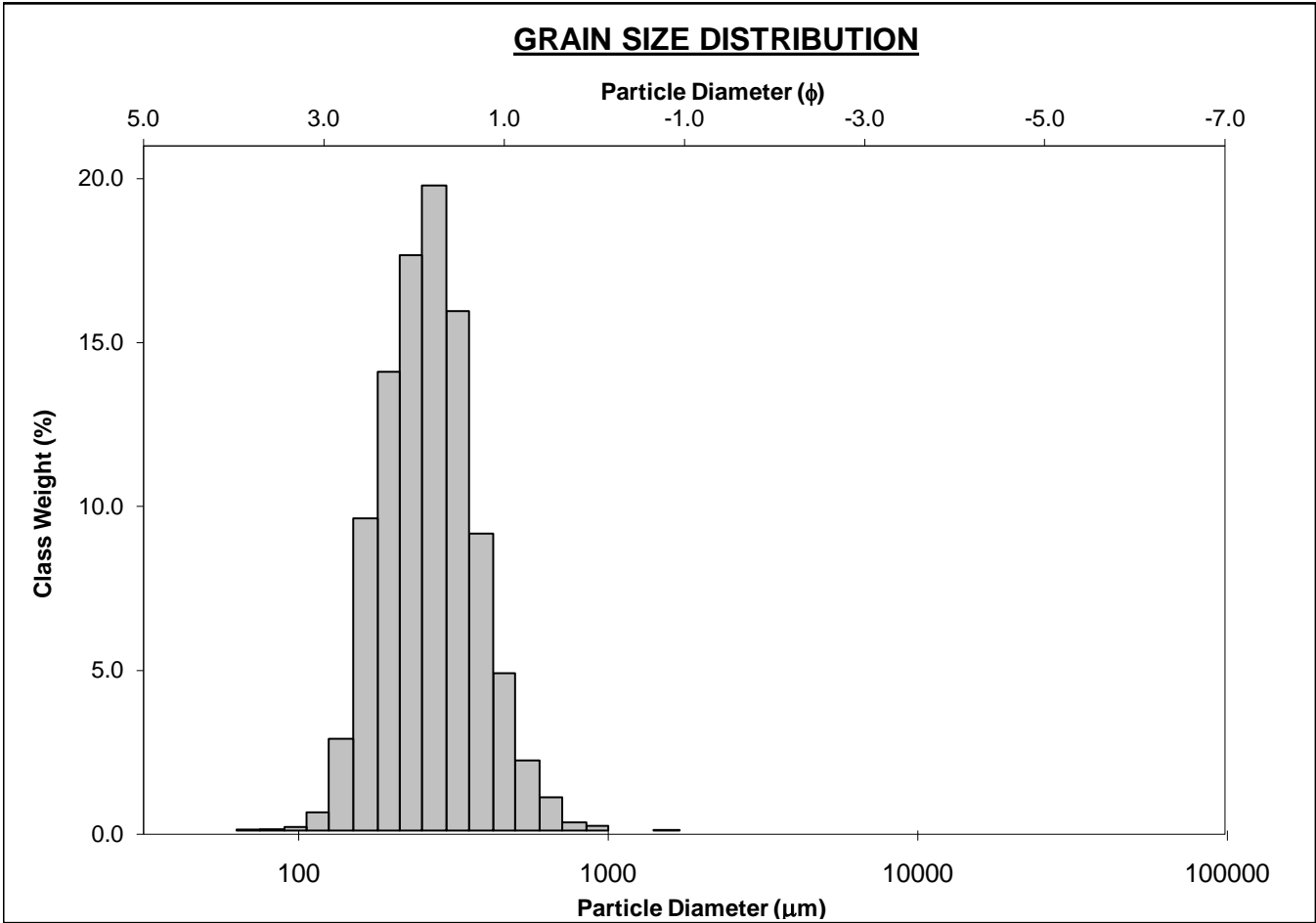
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-09-90cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.9%	
MODE 2:			SAND: 99.0%		MEDIUM SAND: 25.9%	
MODE 3:			MUD: 1.0%		FINE SAND: 63.9%	
D ₁₀ :	126.4	1.630			V FINE SAND: 8.2%	
MEDIAN or D ₅₀ :	194.1	2.365	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	323.1	2.984	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	2.557	1.831	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	196.8	1.354	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.677	1.380	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	103.5	0.746	V COARSE SAND: 0.1%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	213.8	193.3	2.371	197.3	2.341	Fine Sand
SORTING (σ):	93.87	1.633	0.708	1.452	0.539	Moderately Well Sorted
SKEWNESS (Sk):	2.588	-2.469	2.469	0.062	-0.062	Symmetrical
KURTOSIS (K):	20.79	19.01	19.01	0.976	0.976	Mesokurtic



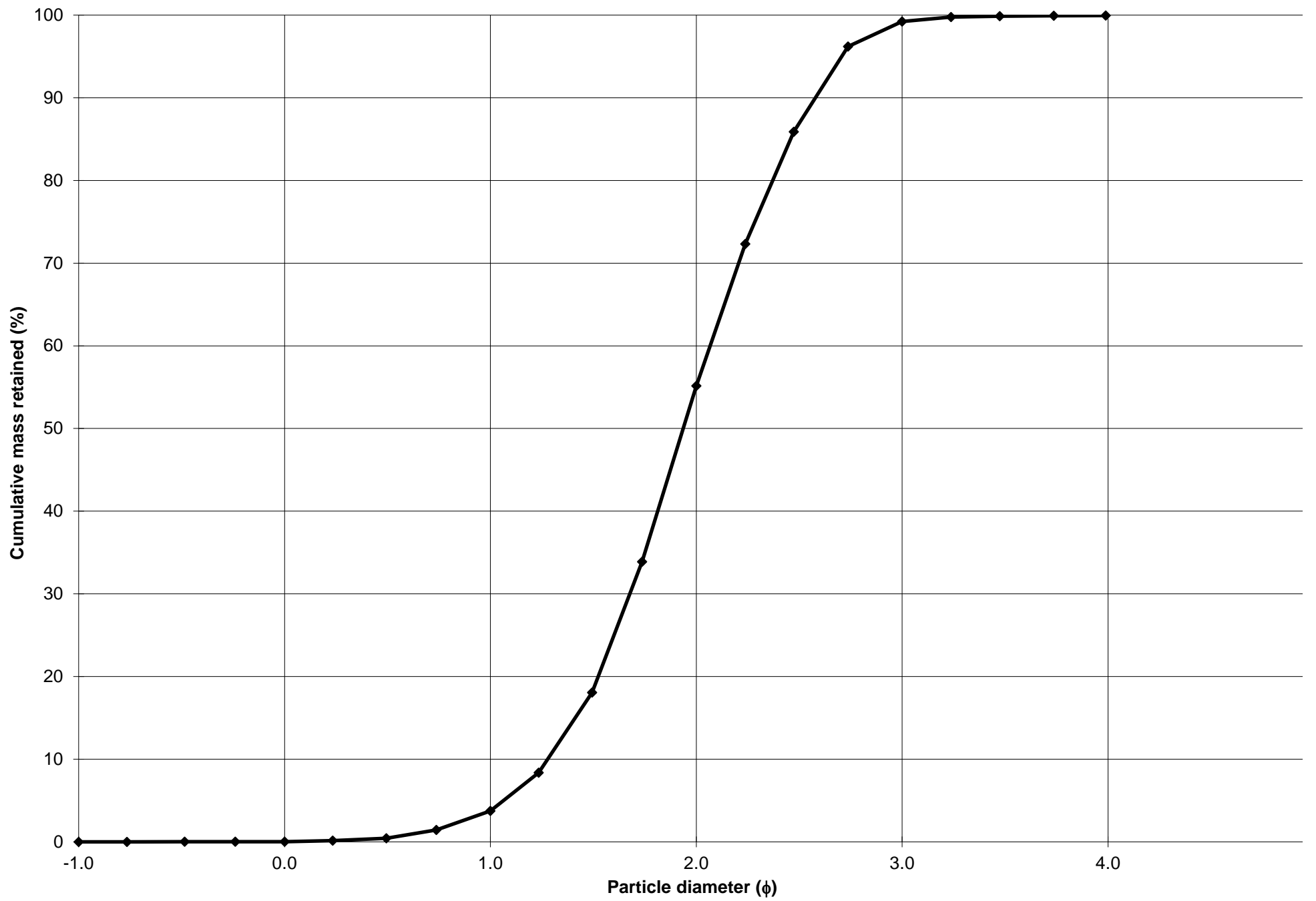
Cumulative Frequency Curve



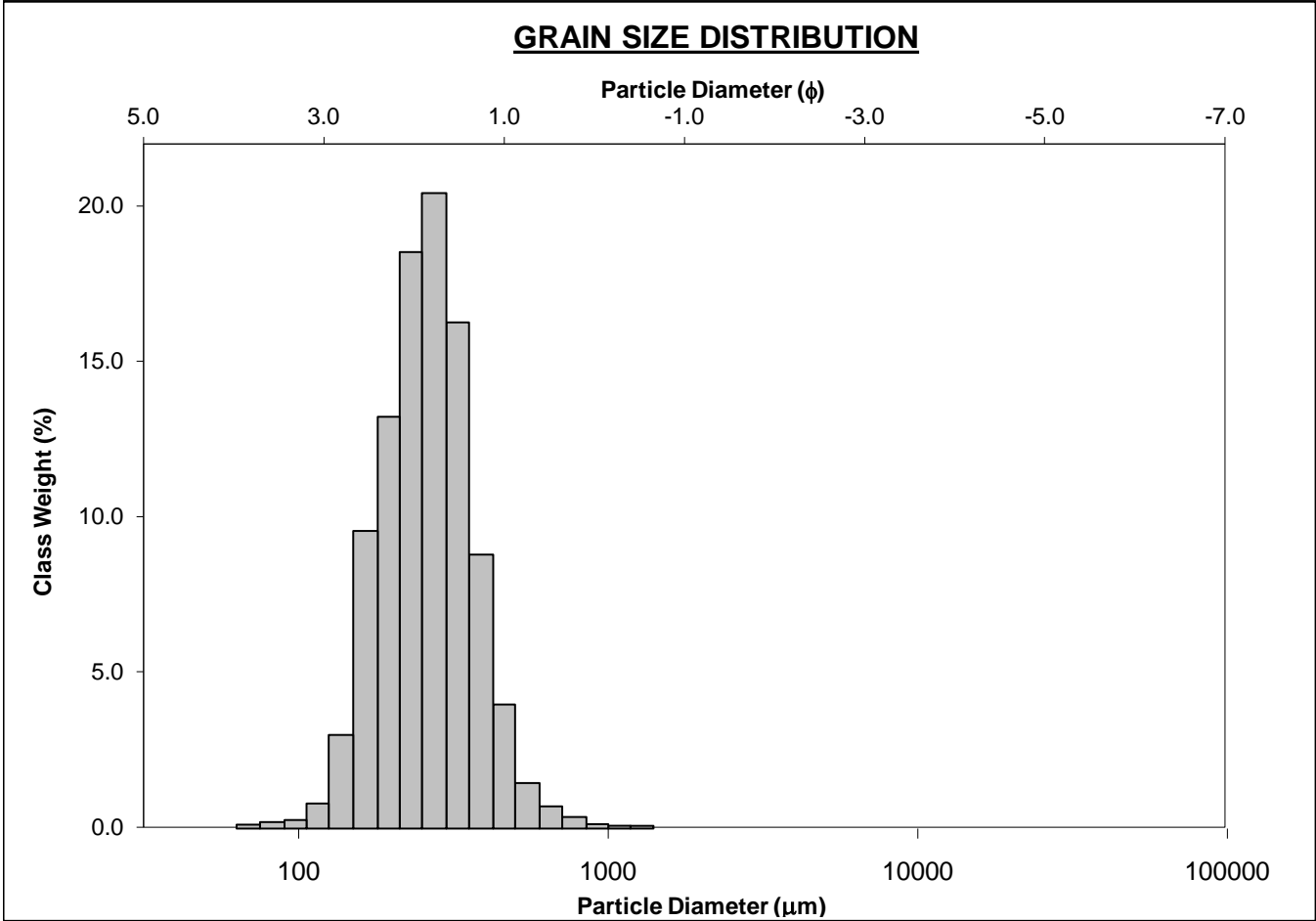
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-09-100cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 3.7%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 51.4%	
MODE 3:			MUD: 0.1%		FINE SAND: 44.1%	
D_{10} :	167.4	1.278			V FINE SAND: 0.7%	
MEDIAN or D_{50} :	261.3	1.936	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	412.4	2.579	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.464	2.018	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	245.0	1.301	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.606	1.427	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	124.4	0.684	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	280.7	262.4	1.930	260.8	1.939	Medium Sand
SORTING (σ):	106.6	1.428	0.514	1.414	0.499	Well Sorted
SKEWNESS (Sk):	1.769	-0.251	0.251	0.028	-0.028	Symmetrical
KURTOSIS (K):	10.77	7.938	7.938	0.985	0.985	Mesokurtic



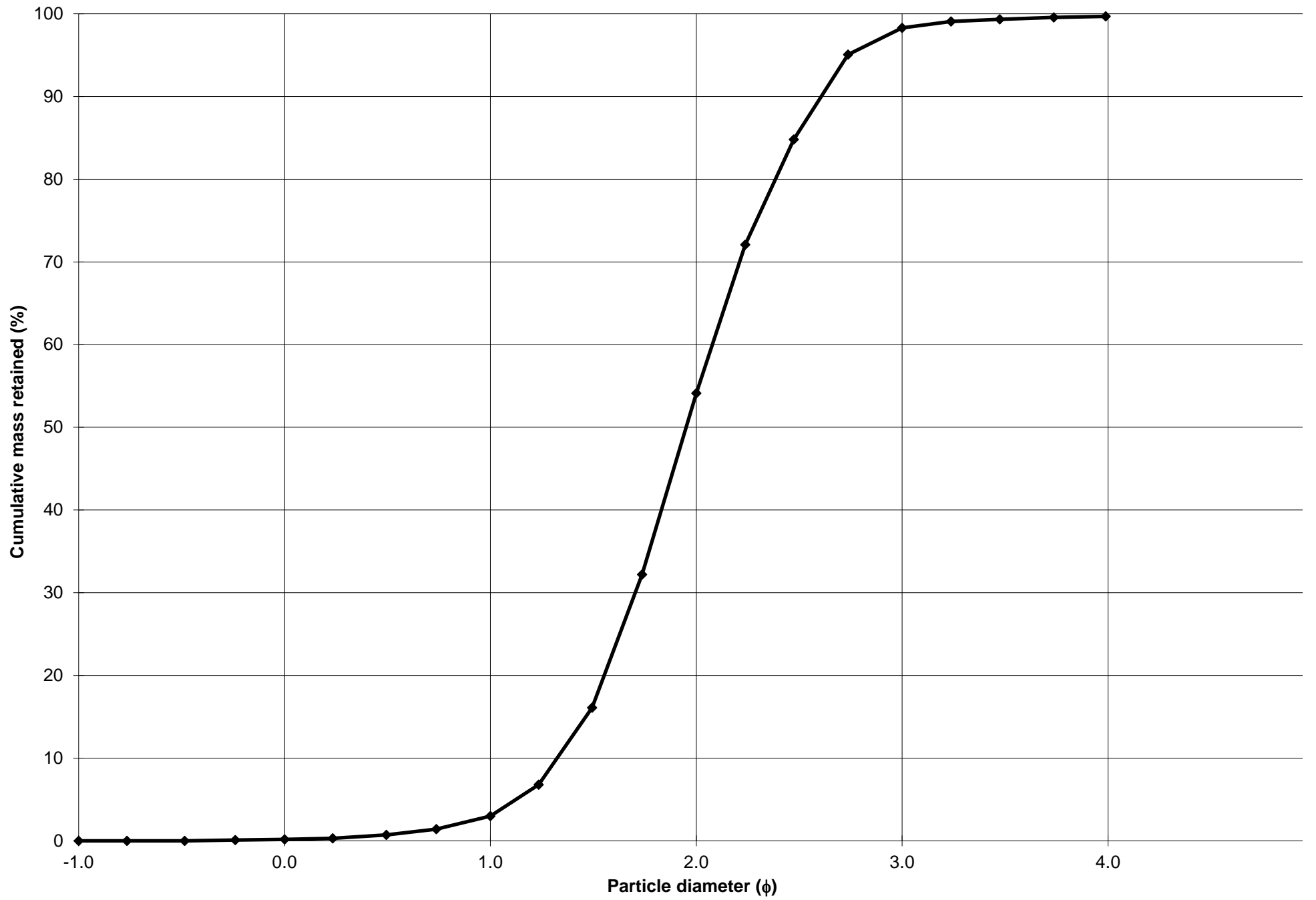
Cumulative Frequency Curve



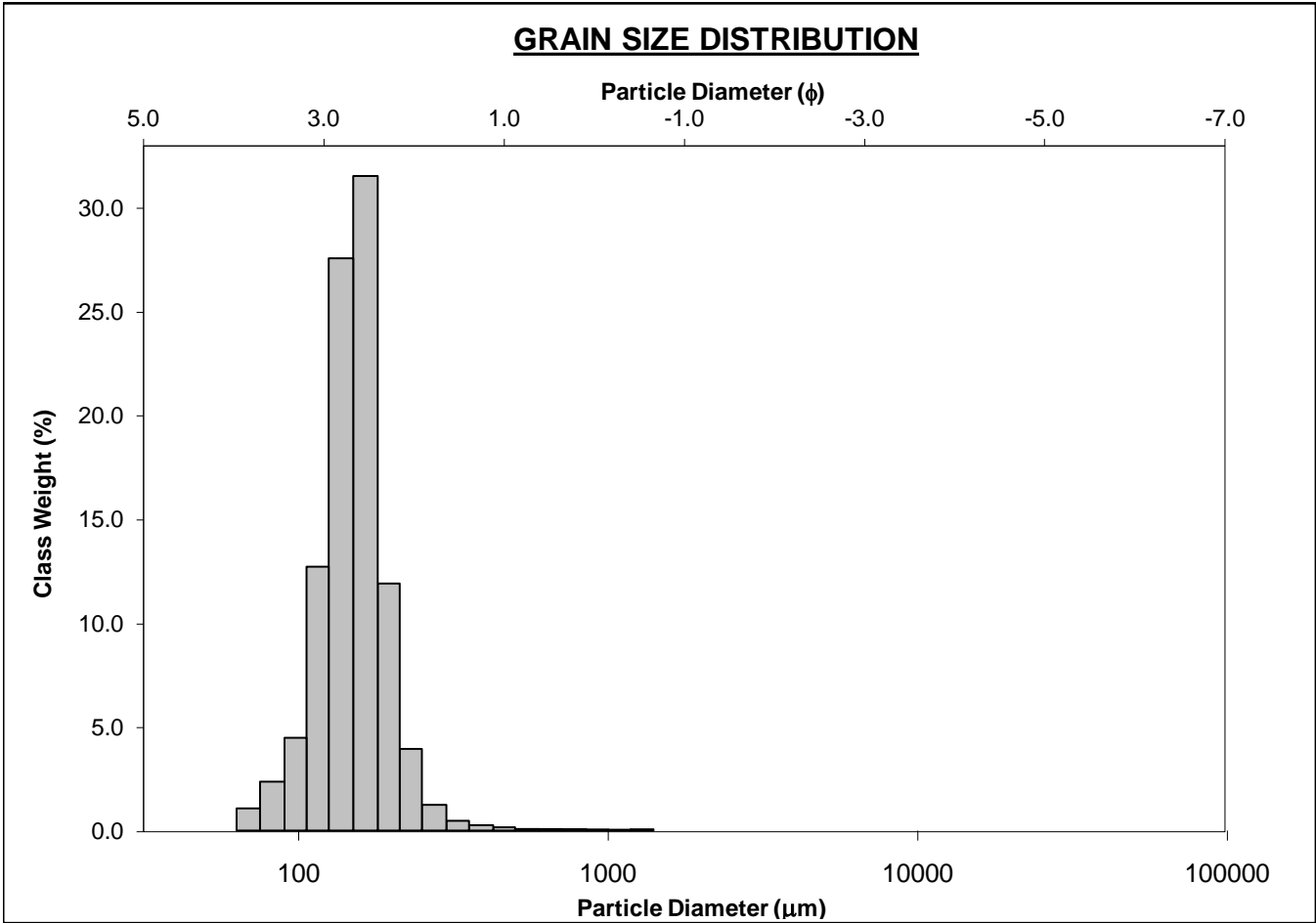
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-09-110cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 2.8%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 51.1%	
MODE 3:			MUD: 0.3%		FINE SAND: 44.2%	
D ₁₀ :	164.1	1.324			V FINE SAND: 1.4%	
MEDIAN or D ₅₀ :	258.7	1.951	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	399.5	2.607	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.434	1.969	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	235.3	1.283	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.584	1.408	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	119.3	0.664	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	275.9	255.8	1.967	255.8	1.967	Medium Sand
SORTING (σ):	109.1	1.494	0.579	1.401	0.486	Well Sorted
SKEWNESS (Sk):	2.283	-1.857	1.857	-0.012	0.012	Symmetrical
KURTOSIS (K):	15.35	20.12	20.12	0.995	0.995	Mesokurtic



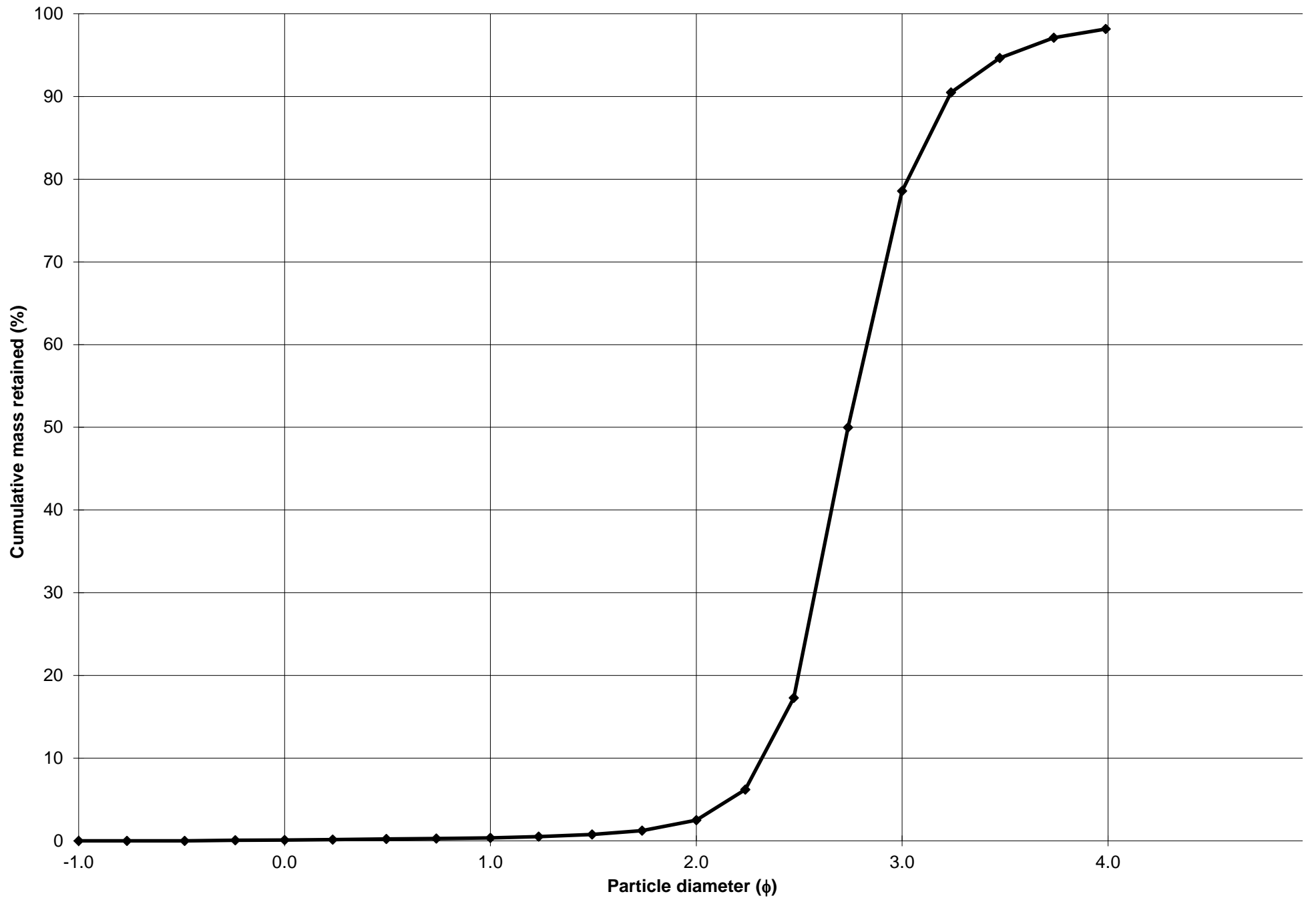
Cumulative Frequency Curve



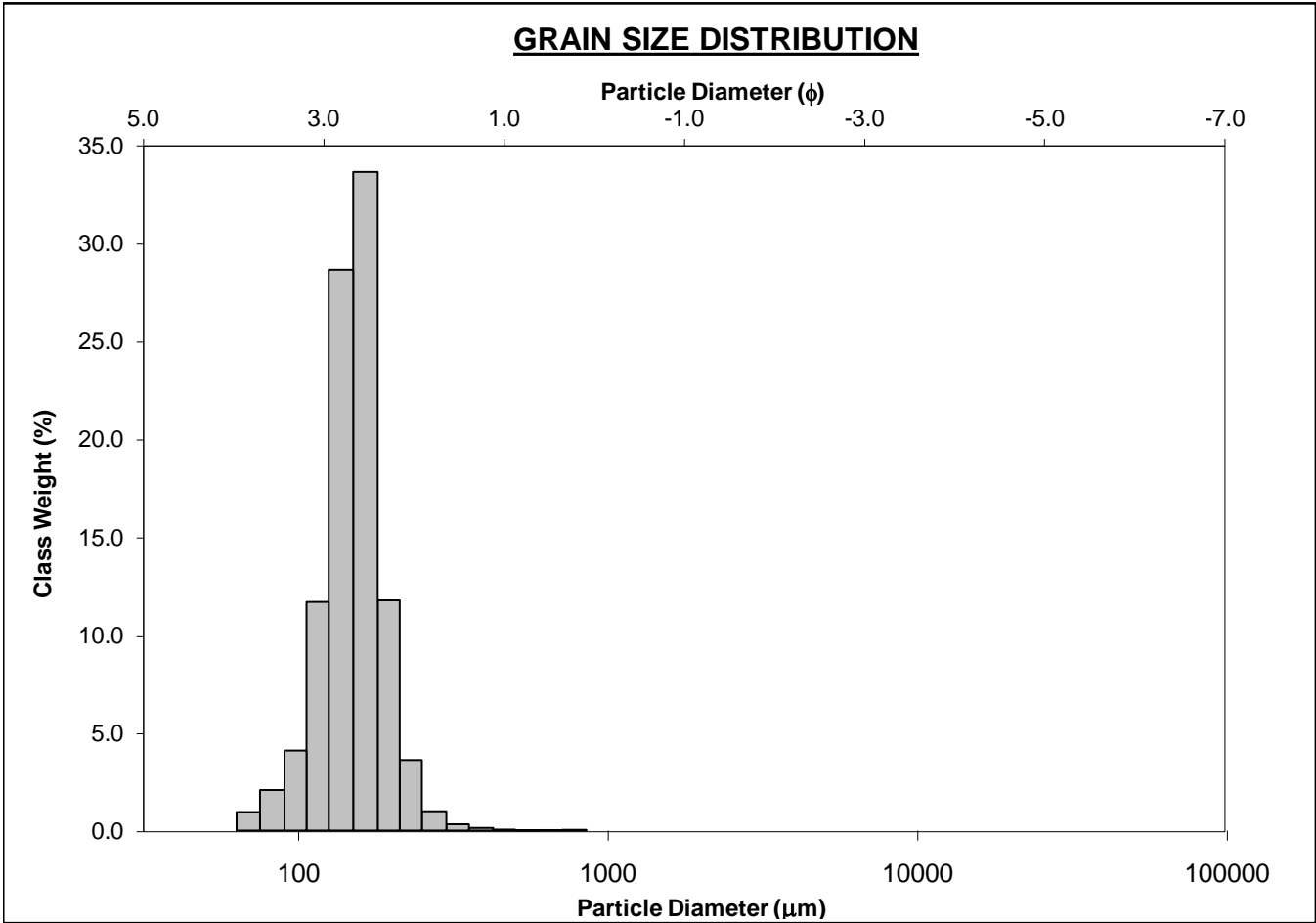
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-09-120cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.3%			
MODE 2:			SAND: 98.2% MEDIUM SAND: 2.1%			
MODE 3:			MUD: 1.8% FINE SAND: 76.1%			
D ₁₀ :	106.7	2.319	V FINE SAND: 19.6%			
MEDIAN or D ₅₀ :	150.0	2.737	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.3%			
D ₉₀ :	200.4	3.228	COARSE GRAVEL: 0.0% COARSE SILT: 0.3%			
(D ₉₀ / D ₁₀):	1.878	1.392	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.3%			
(D ₉₀ - D ₁₀):	93.71	0.909	FINE GRAVEL: 0.0% FINE SILT: 0.3%			
(D ₇₅ / D ₂₅):	1.348	1.170	V FINE GRAVEL: 0.0% V FINE SILT: 0.3%			
(D ₇₅ - D ₂₅):	44.54	0.431	V COARSE SAND: 0.1% CLAY: 0.3%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	154.5	141.8	2.818	147.2	2.764	Fine Sand
SORTING (σ):	62.34	1.616	0.693	1.292	0.370	Well Sorted
SKEWNESS (Sk):	7.403	-3.773	3.773	-0.134	0.134	Fine Skewed
KURTOSIS (K):	109.6	25.46	25.46	1.284	1.284	Leptokurtic



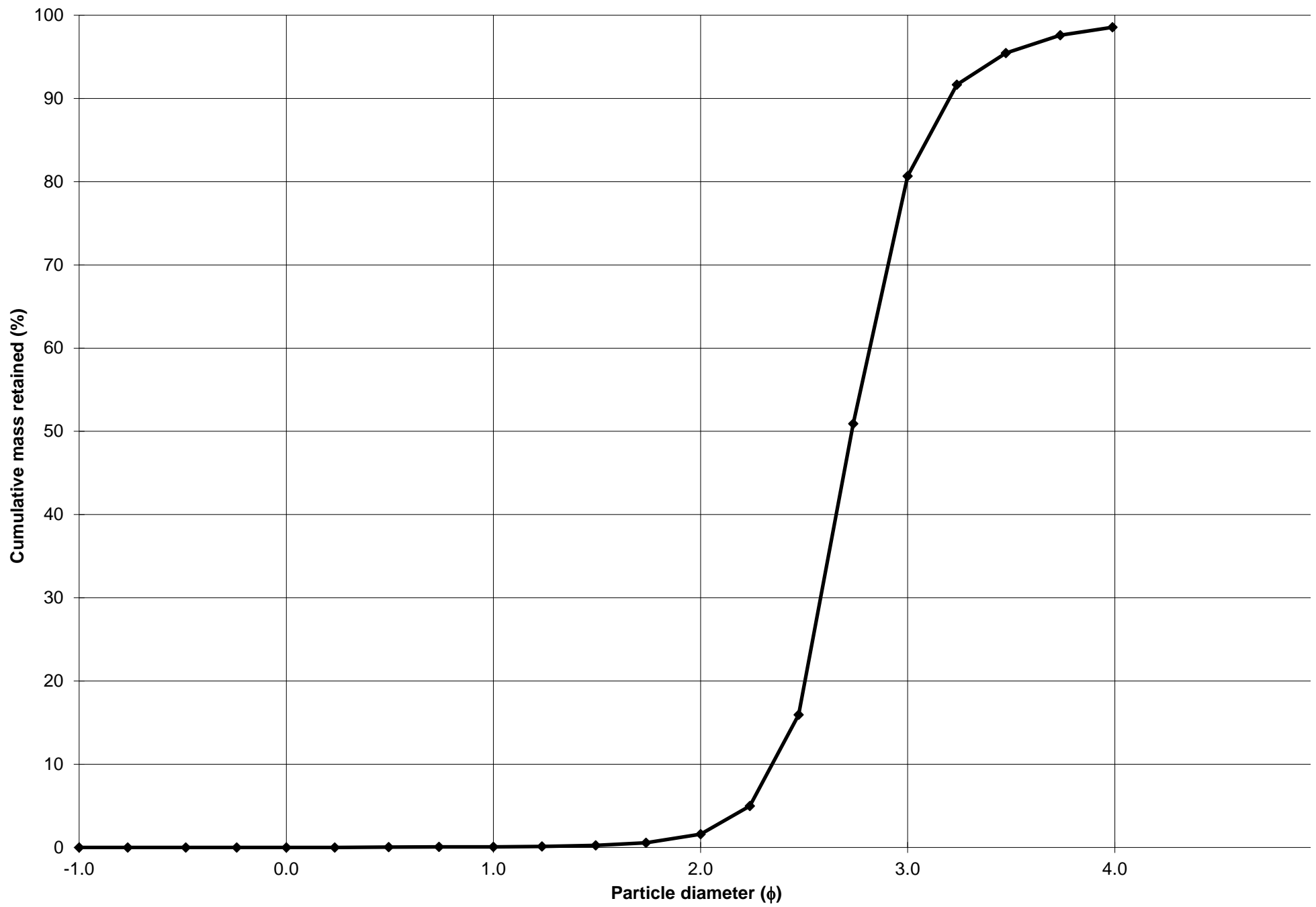
Cumulative Frequency Curve



SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-09-130cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Very Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Very Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.1%	
MODE 2:			SAND: 98.6%		MEDIUM SAND: 1.5%	
MODE 3:			MUD: 1.4%		FINE SAND: 79.1%	
D ₁₀ :	108.7	2.346			V FINE SAND: 17.9%	
MEDIAN or D ₅₀ :	150.7	2.730	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	196.7	3.202	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	1.811	1.365	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	88.06	0.856	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.327	1.160	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	42.28	0.408	V COARSE SAND: 0.0%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	152.4	142.9	2.807	147.7	2.759	Fine Sand
SORTING (σ):	42.33	1.530	0.613	1.259	0.332	Very Well Sorted
SKEWNESS (Sk):	2.363	-4.523	4.523	-0.165	0.165	Fine Skewed
KURTOSIS (K):	30.93	32.10	32.10	1.213	1.213	Leptokurtic



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **SI-15-09-140cm**

ANALYST & DATE: Chris, 11/9/15

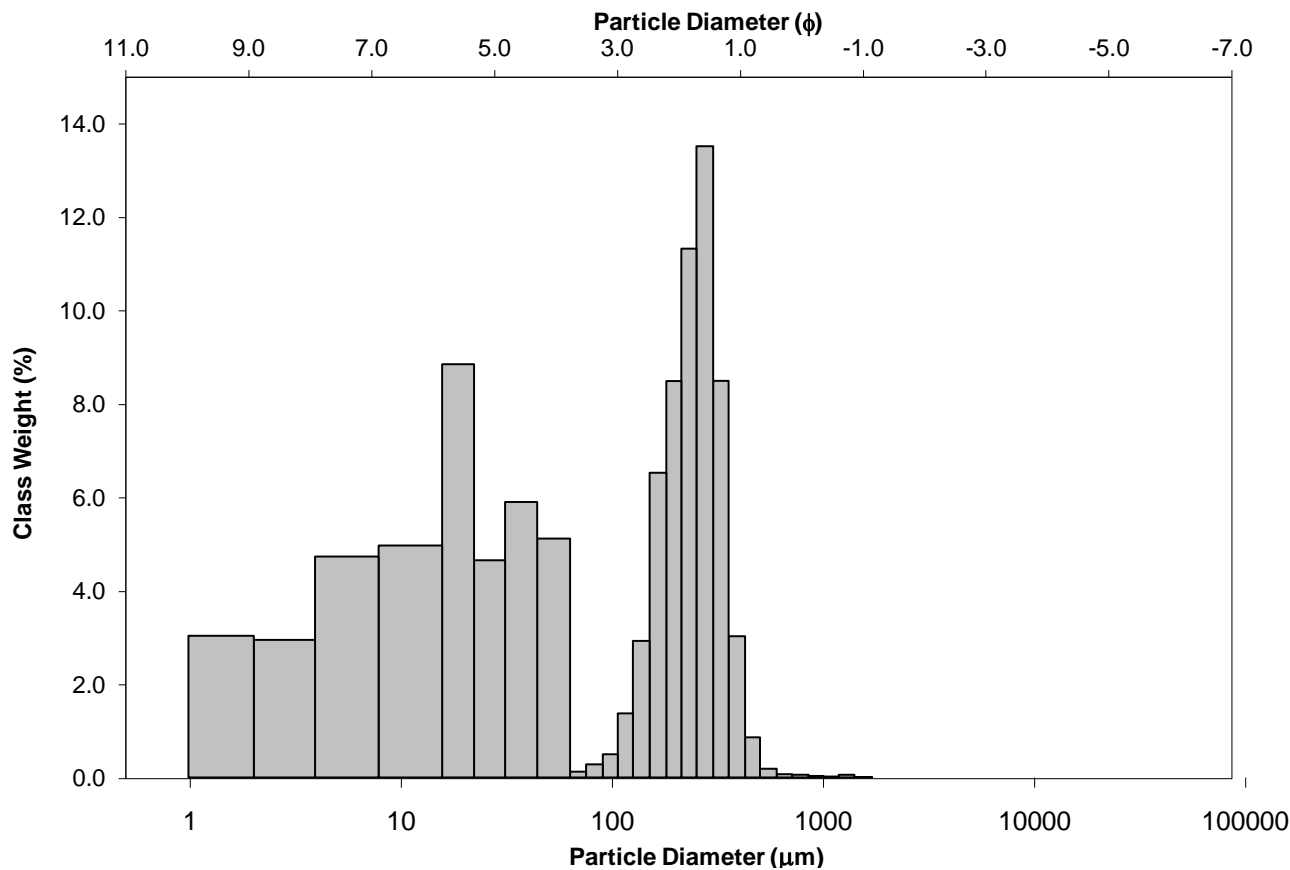
SAMPLE TYPE: Polymodal, Very Poorly Sorted

TEXTURAL GROUP: Sandy Mud

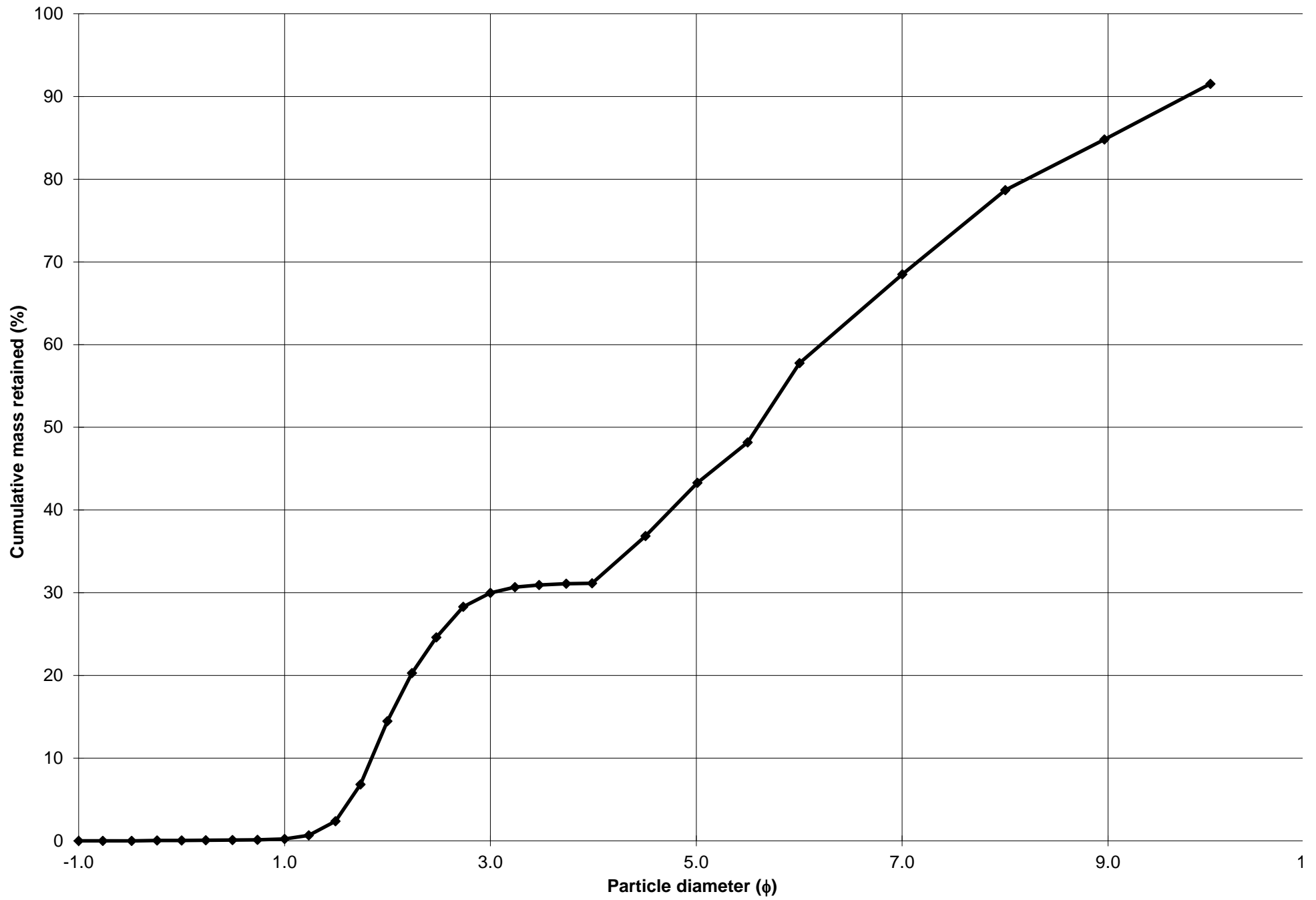
SEDIMENT NAME: Fine Sandy Coarse Silt

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%	COARSE SAND: 0.2%		
MODE 2:	18.85	5.751	SAND: 31.3%	MEDIUM SAND: 14.2%		
MODE 3:	37.50	4.759	MUD: 68.7%	FINE SAND: 15.5%		
D_{10} :	1.153	1.846		V FINE SAND: 1.3%		
MEDIAN or D_{50} :	20.69	5.595	V COARSE GRAVEL: 0.0%	V COARSE SILT: 11.9%		
D_{90} :	278.1	9.760	COARSE GRAVEL: 0.0%	COARSE SILT: 14.6%		
(D_{90} / D_{10}) :	241.2	5.286	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 10.7%		
$(D_{90} - D_{10})$:	277.0	7.914	FINE GRAVEL: 0.0%	FINE SILT: 10.2%		
(D_{75} / D_{25}) :	35.25	3.054	V FINE GRAVEL: 0.0%	V FINE SILT: 6.4%		
$(D_{75} - D_{25})$:	171.6	5.140	V COARSE SAND: 0.0%	CLAY: 15.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	88.39	22.49	5.474	22.11	5.499	Coarse Silt
SORTING (σ):	120.0	6.814	2.769	7.144	2.837	Very Poorly Sorted
SKEWNESS (Sk):	1.700	-0.088	0.088	0.046	-0.046	Symmetrical
KURTOSIS (K):	8.571	1.797	1.797	0.601	0.601	Very Platykurtic

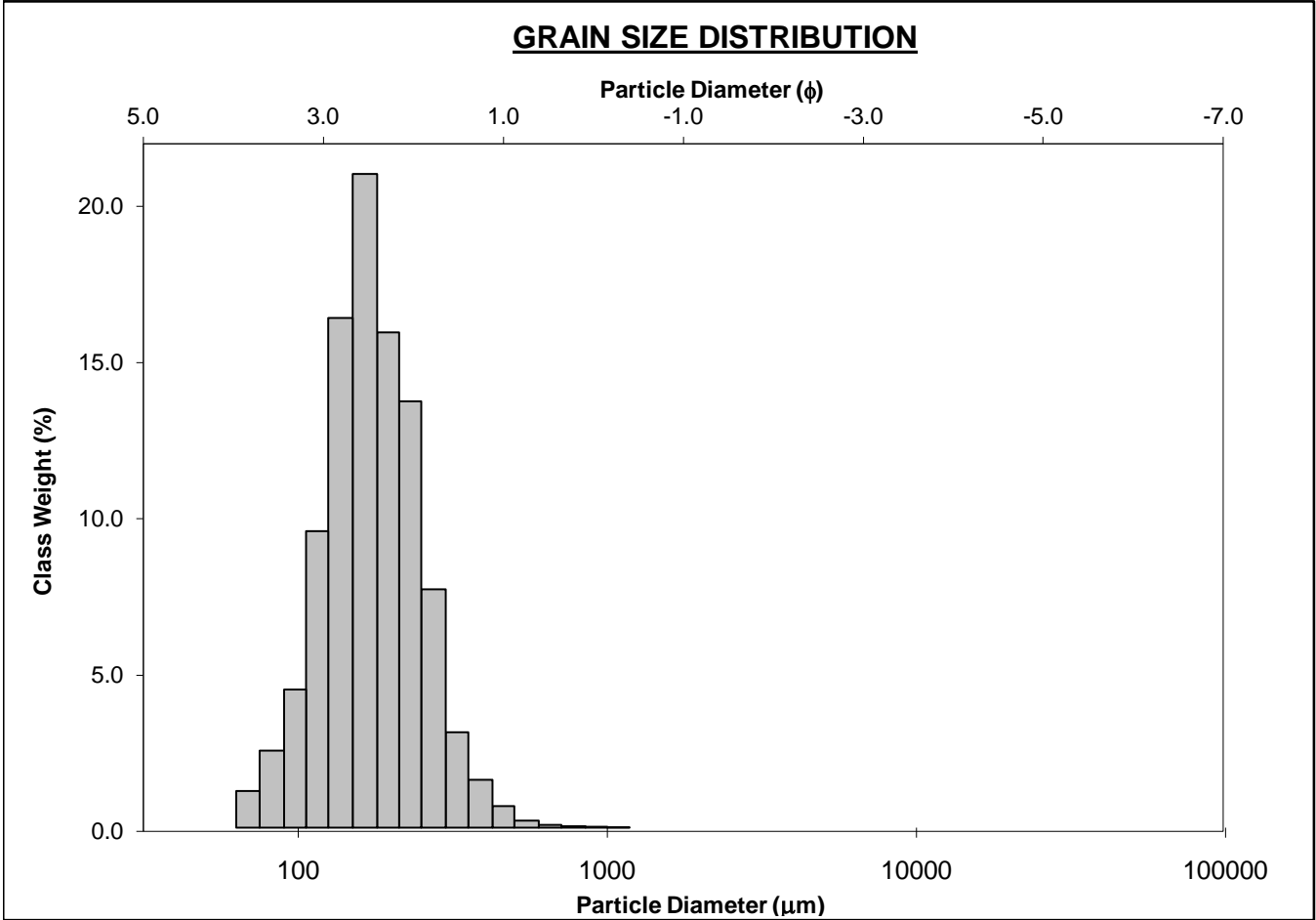
GRAIN SIZE DISTRIBUTION



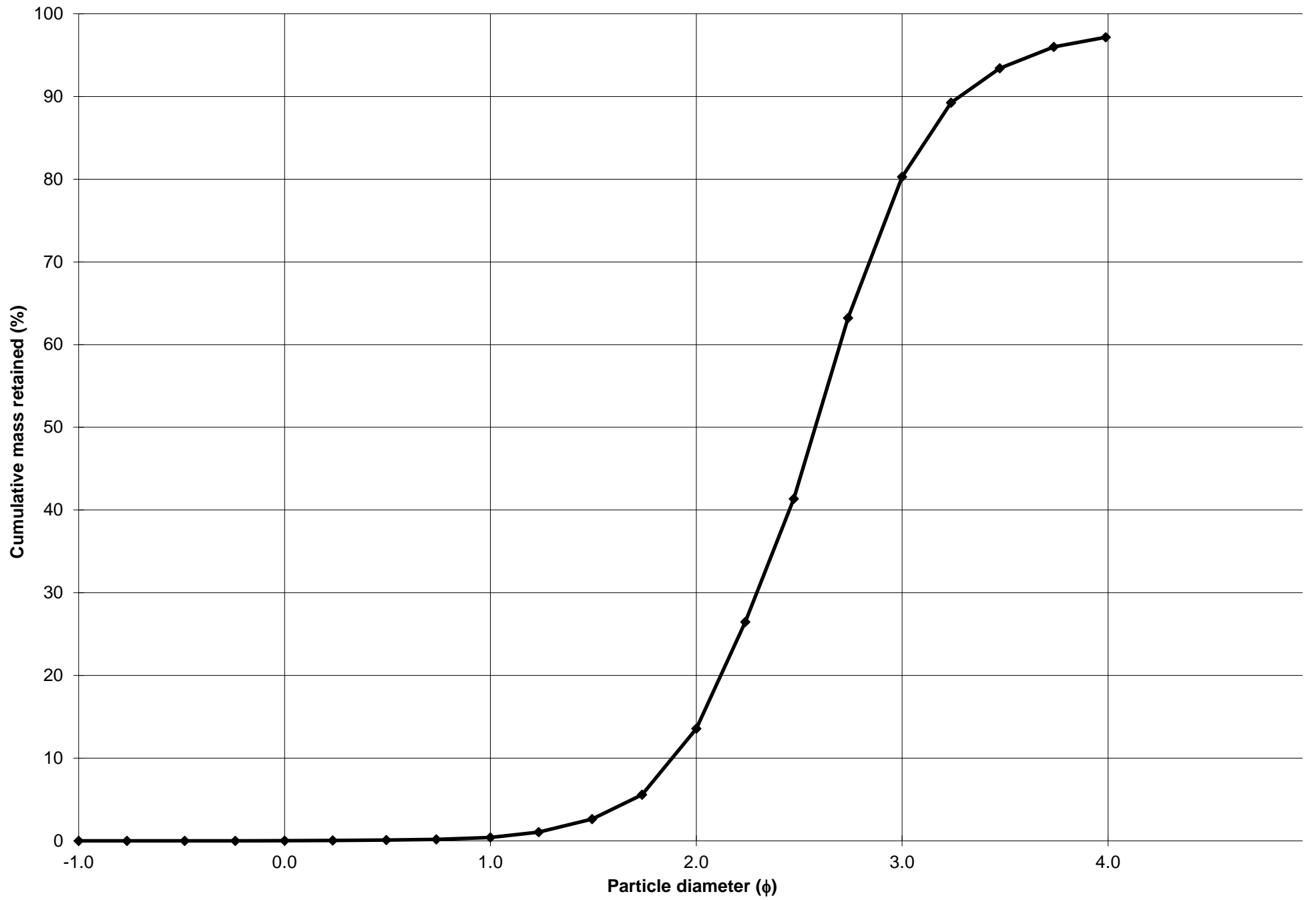
Cumulative Frequency Curve



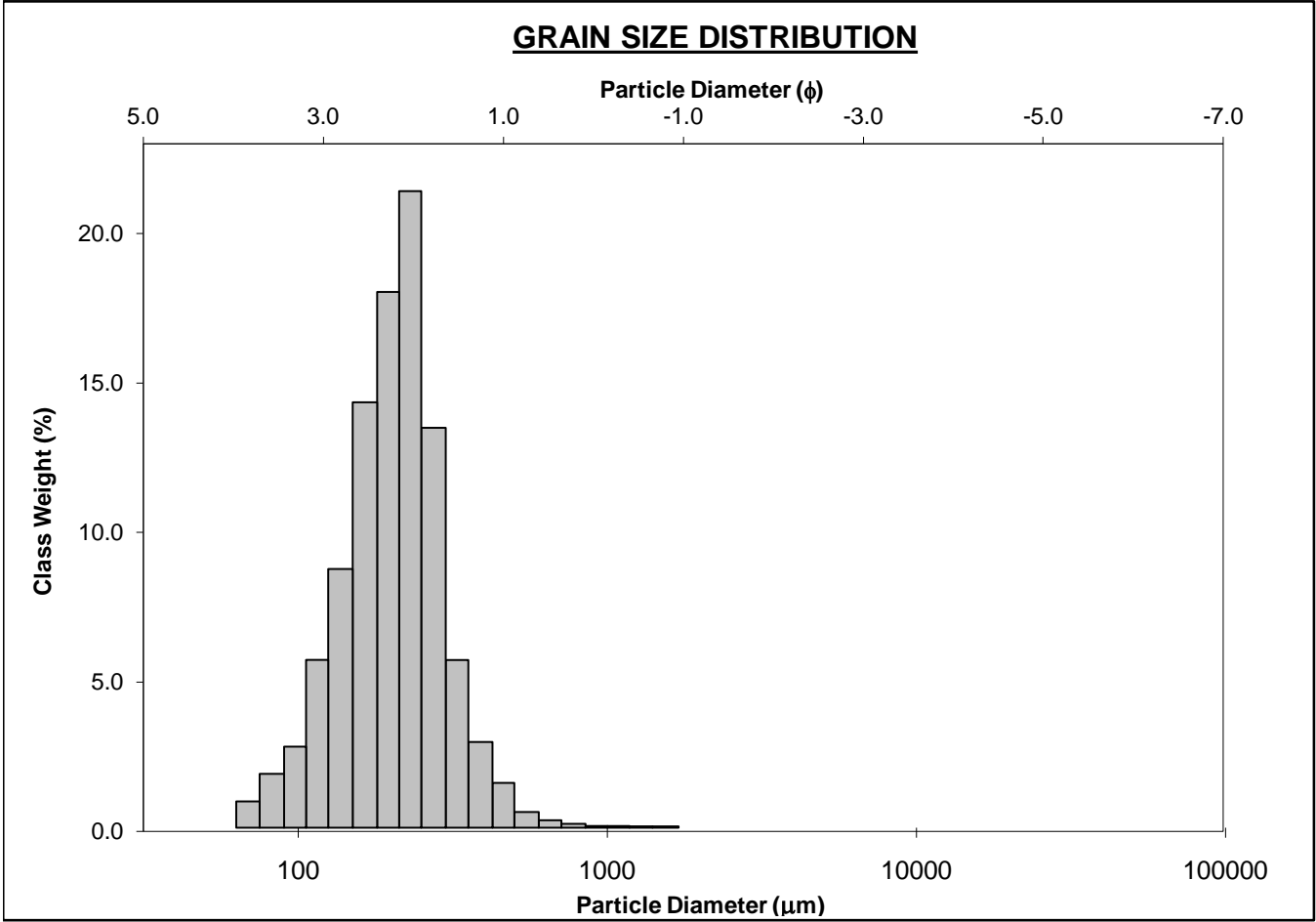
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-09-290cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.4%	
MODE 2:			SAND: 97.2%		MEDIUM SAND: 13.2%	
MODE 3:			MUD: 2.8%		FINE SAND: 66.7%	
D ₁₀ :	102.9	1.883			V FINE SAND: 16.9%	
MEDIAN or D ₅₀ :	167.5	2.578	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.5%	
D ₉₀ :	271.2	3.280	COARSE GRAVEL: 0.0%		COARSE SILT: 0.5%	
(D ₉₀ / D ₁₀):	2.635	1.742	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.5%	
(D ₉₀ - D ₁₀):	168.2	1.398	FINE GRAVEL: 0.0%		FINE SILT: 0.5%	
(D ₇₅ / D ₂₅):	1.633	1.320	V FINE GRAVEL: 0.0%		V FINE SILT: 0.5%	
(D ₇₅ - D ₂₅):	83.74	0.708	V COARSE SAND: 0.0%		CLAY: 0.5%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	180.1	157.4	2.668	168.0	2.574	Fine Sand
SORTING (σ):	76.79	1.868	0.901	1.473	0.558	Moderately Well Sorted
SKEWNESS (Sk):	1.732	-2.964	2.964	-0.038	0.038	Symmetrical
KURTOSIS (K):	12.11	15.52	15.52	1.128	1.128	Leptokurtic



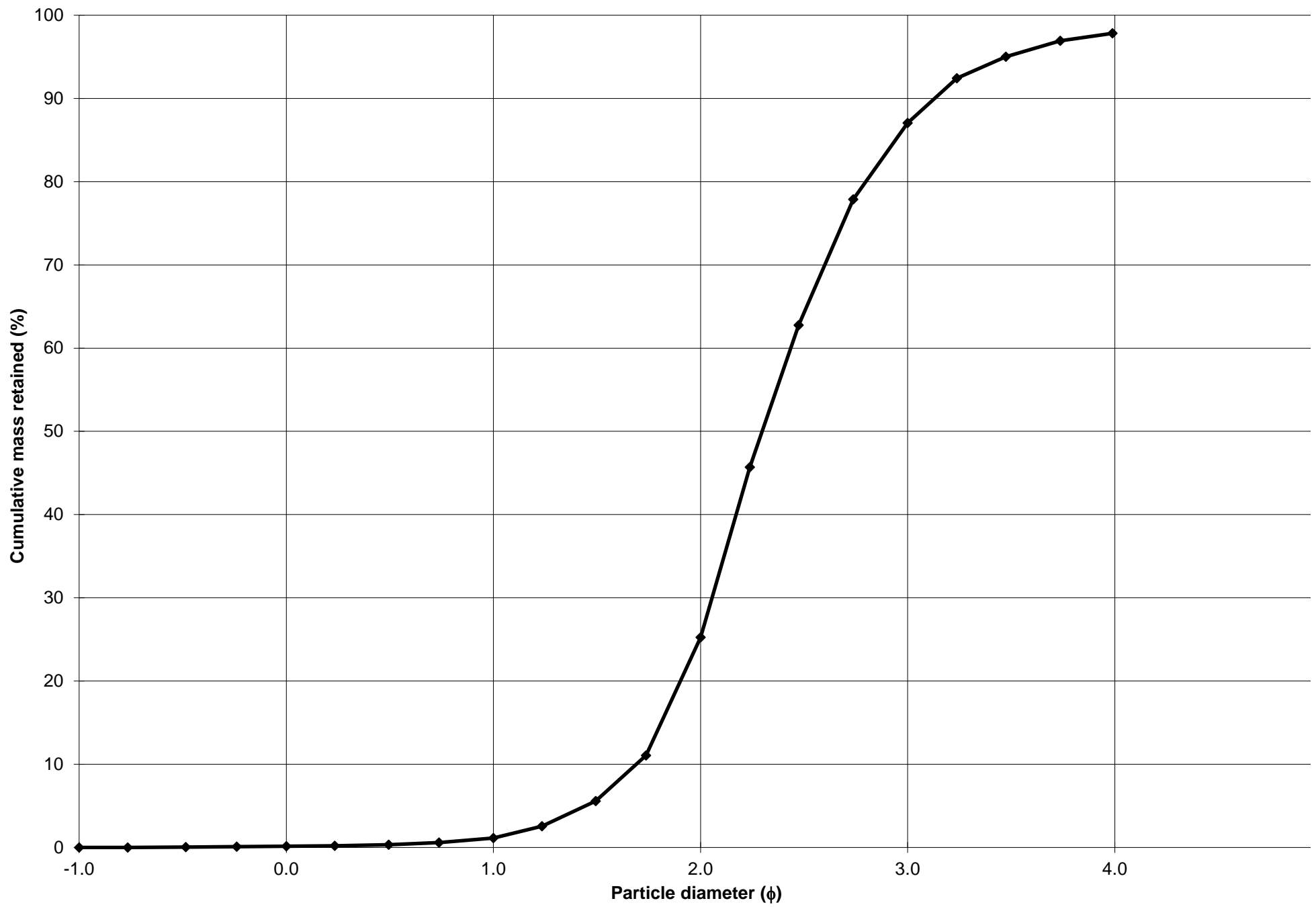
Cumulative Frequency Curve



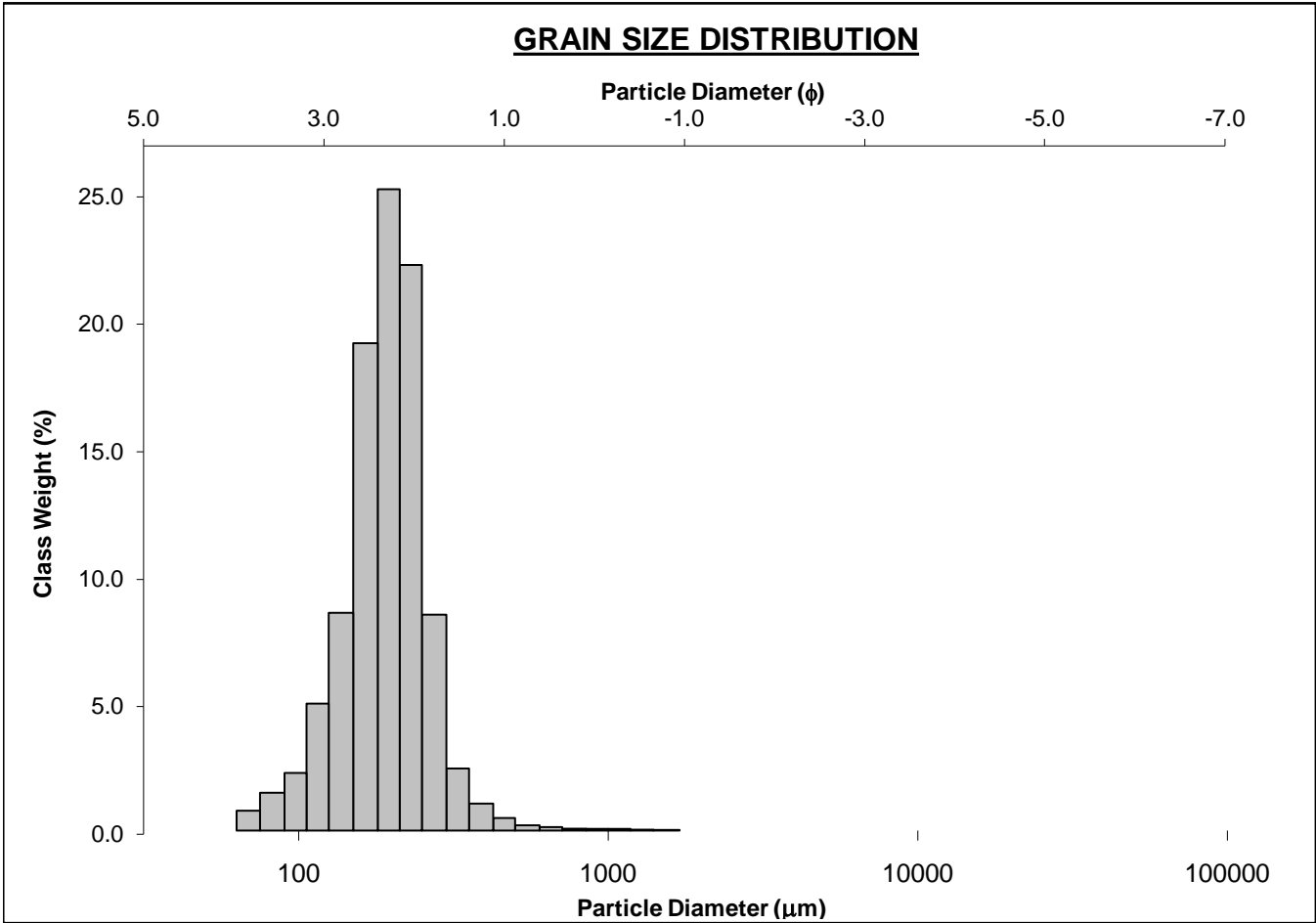
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-09-300cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 1.0%	
MODE 2:			SAND: 97.8%		MEDIUM SAND: 24.1%	
MODE 3:			MUD: 2.2%		FINE SAND: 61.8%	
D ₁₀ :	114.2	1.690			V FINE SAND: 10.8%	
MEDIAN or D ₅₀ :	203.4	2.297	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.4%	
D ₉₀ :	309.9	3.130	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D ₉₀ / D ₁₀):	2.714	1.852	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
(D ₉₀ - D ₁₀):	195.7	1.440	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D ₇₅ / D ₂₅):	1.615	1.347	V FINE GRAVEL: 0.0%		V FINE SILT: 0.4%	
(D ₇₅ - D ₂₅):	95.55	0.692	V COARSE SAND: 0.1%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	213.3	186.9	2.420	196.7	2.346	Fine Sand
SORTING (σ):	99.07	1.838	0.878	1.493	0.578	Moderately Well Sorted
SKEWNESS (Sk):	3.232	-2.927	2.927	-0.147	0.147	Fine Skewed
KURTOSIS (K):	32.26	16.75	16.75	1.201	1.201	Leptokurtic



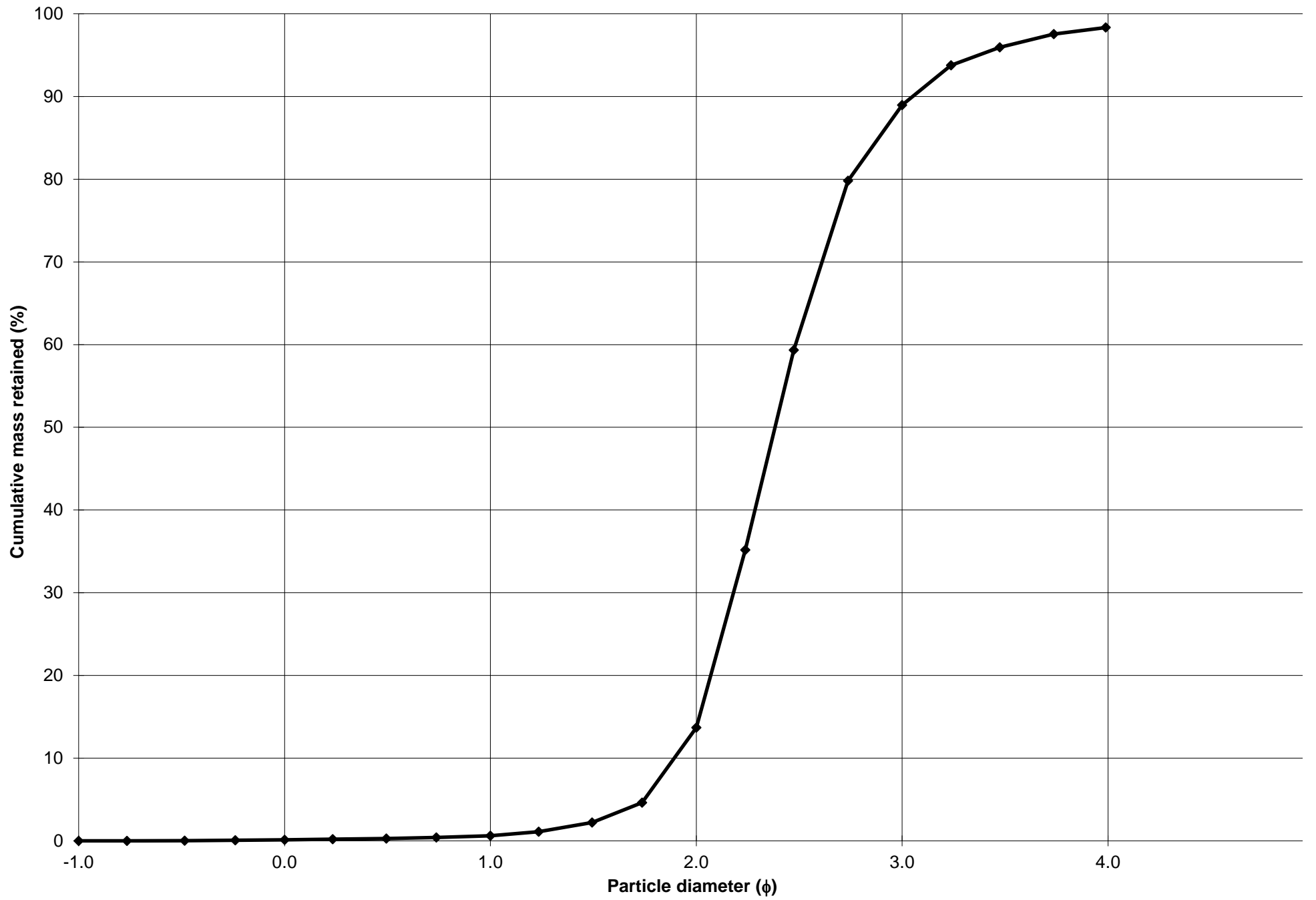
Cumulative Frequency Curve



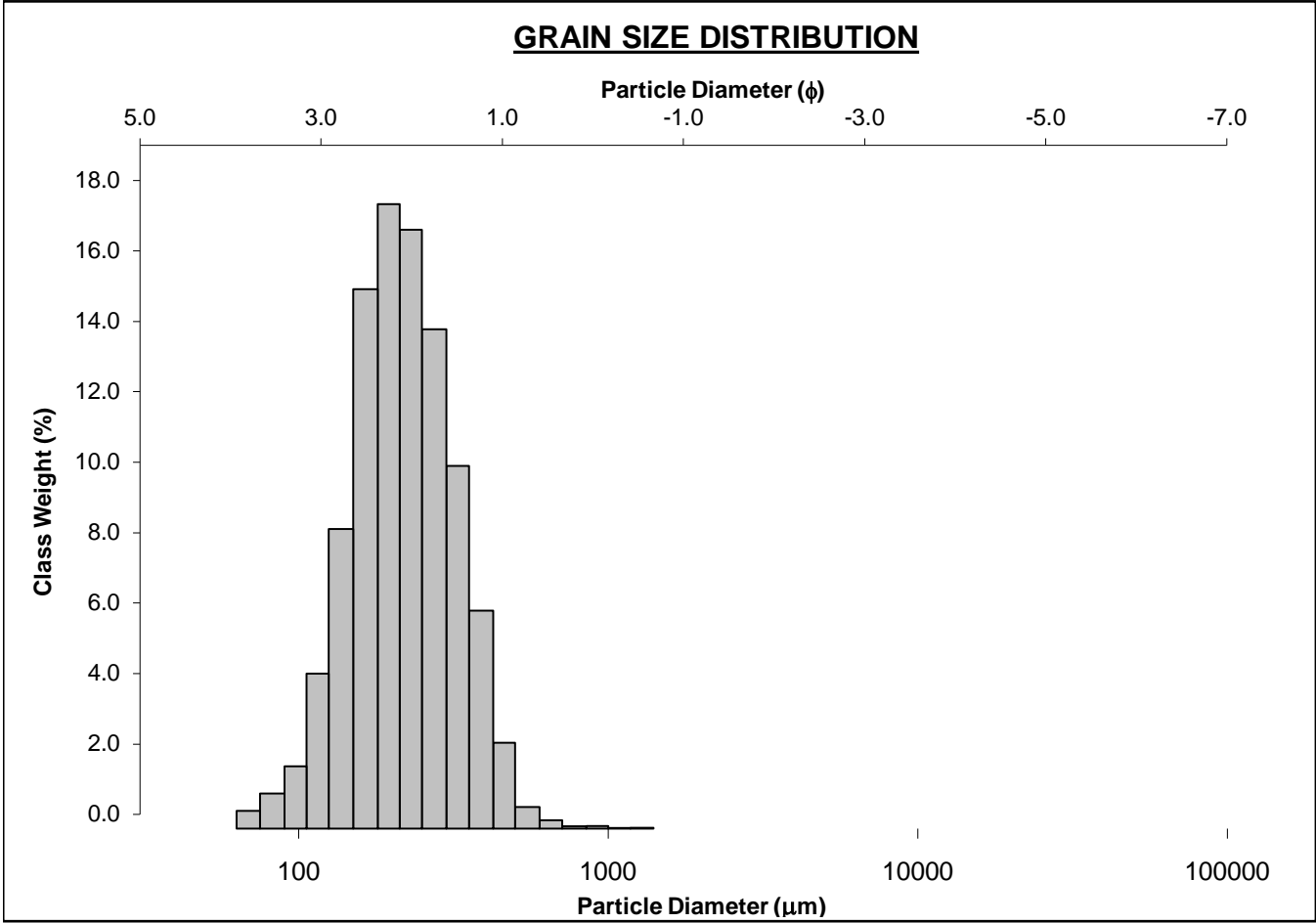
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-09-310cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 0.5%	
MODE 2:			SAND: 98.3%		MEDIUM SAND: 13.1%	
MODE 3:			MUD: 1.7%		FINE SAND: 75.3%	
D_{10} :	120.6	1.893			V FINE SAND: 9.4%	
MEDIAN or D_{50} :	191.7	2.383	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.3%	
D_{90} :	269.2	3.052	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D_{90} / D_{10}) :	2.232	1.612	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
$(D_{90} - D_{10})$:	148.6	1.159	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D_{75} / D_{25}) :	1.464	1.259	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
$(D_{75} - D_{25})$:	72.64	0.550	V COARSE SAND: 0.1%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	197.7	179.3	2.480	186.6	2.422	Fine Sand
SORTING (σ):	80.25	1.681	0.750	1.370	0.454	Well Sorted
SKEWNESS (Sk):	4.505	-3.498	3.498	-0.180	0.180	Fine Skewed
KURTOSIS (K):	55.48	22.82	22.82	1.210	1.210	Leptokurtic



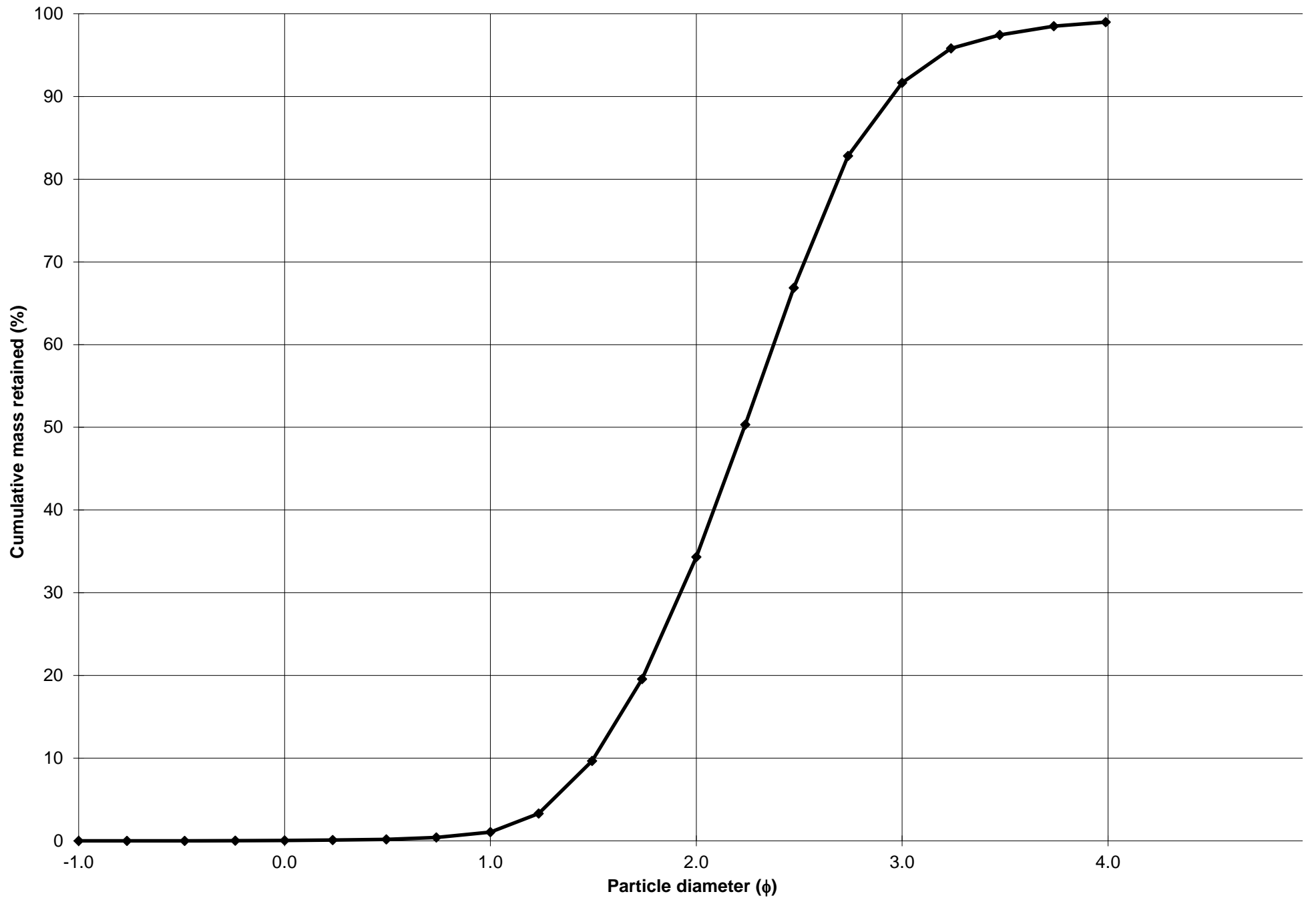
Cumulative Frequency Curve



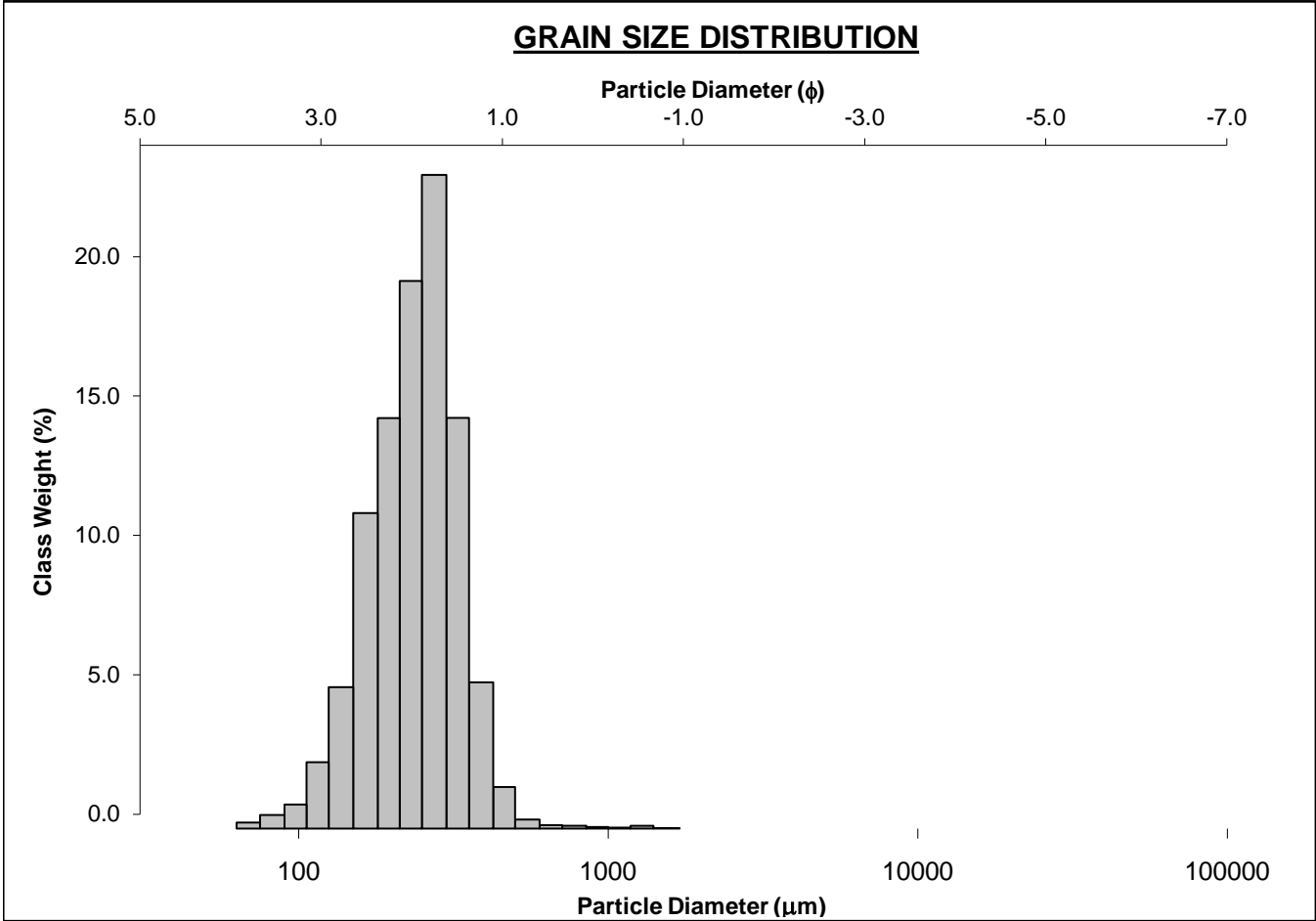
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-09-320cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 1.0%	
MODE 2:			SAND: 99.0%		MEDIUM SAND: 33.3%	
MODE 3:			MUD: 1.0%		FINE SAND: 57.4%	
D ₁₀ :	129.3	1.502			V FINE SAND: 7.3%	
MEDIAN or D ₅₀ :	212.7	2.233	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	353.0	2.951	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	2.729	1.964	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	223.6	1.448	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.710	1.422	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	116.5	0.774	V COARSE SAND: 0.0%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	230.7	208.1	2.265	214.9	2.218	Fine Sand
SORTING (σ):	96.32	1.661	0.732	1.481	0.567	Moderately Well Sorted
SKEWNESS (Sk):	1.550	-2.609	2.609	0.012	-0.012	Symmetrical
KURTOSIS (K):	10.50	18.67	18.67	1.000	1.000	Mesokurtic



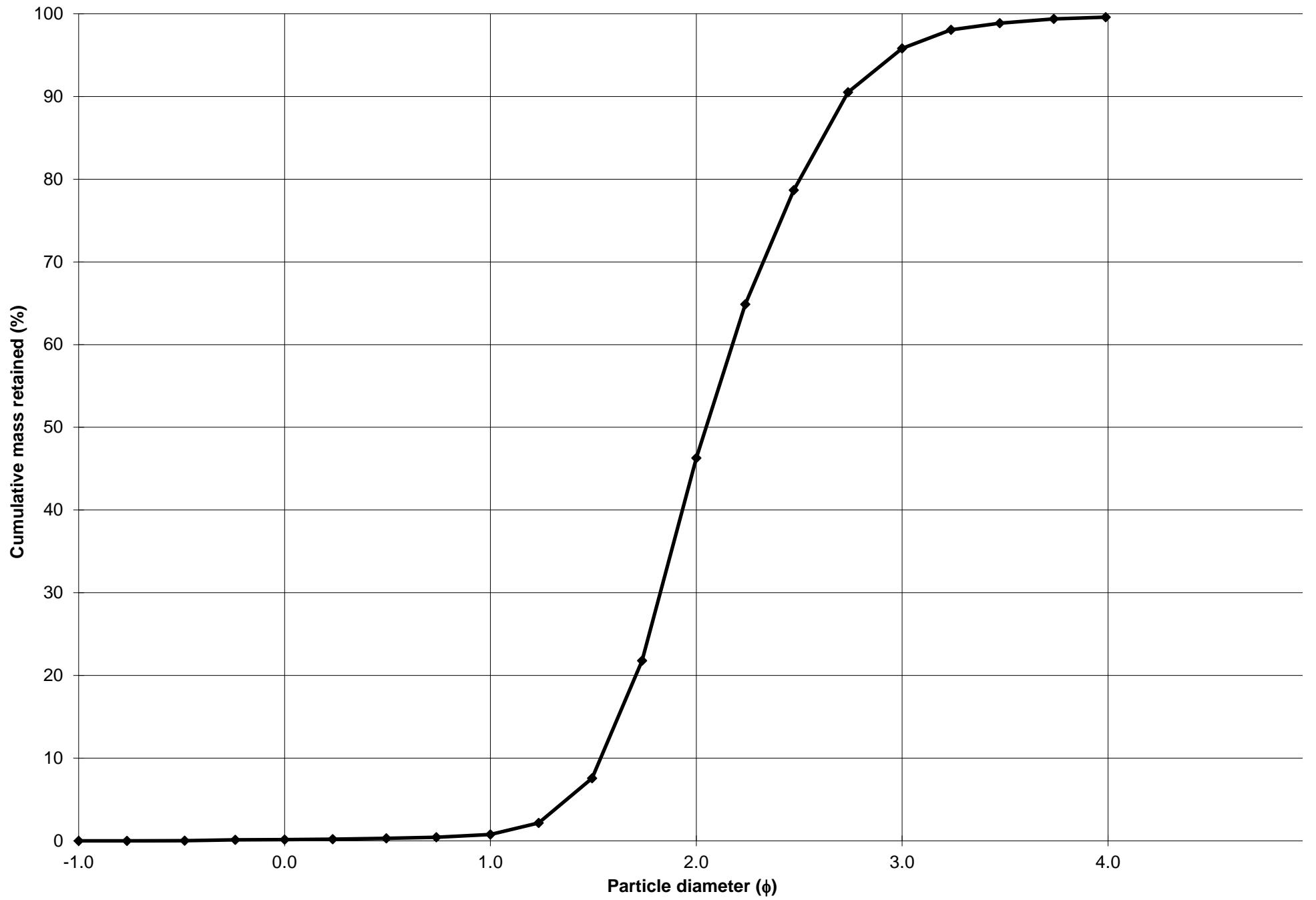
Cumulative Frequency Curve



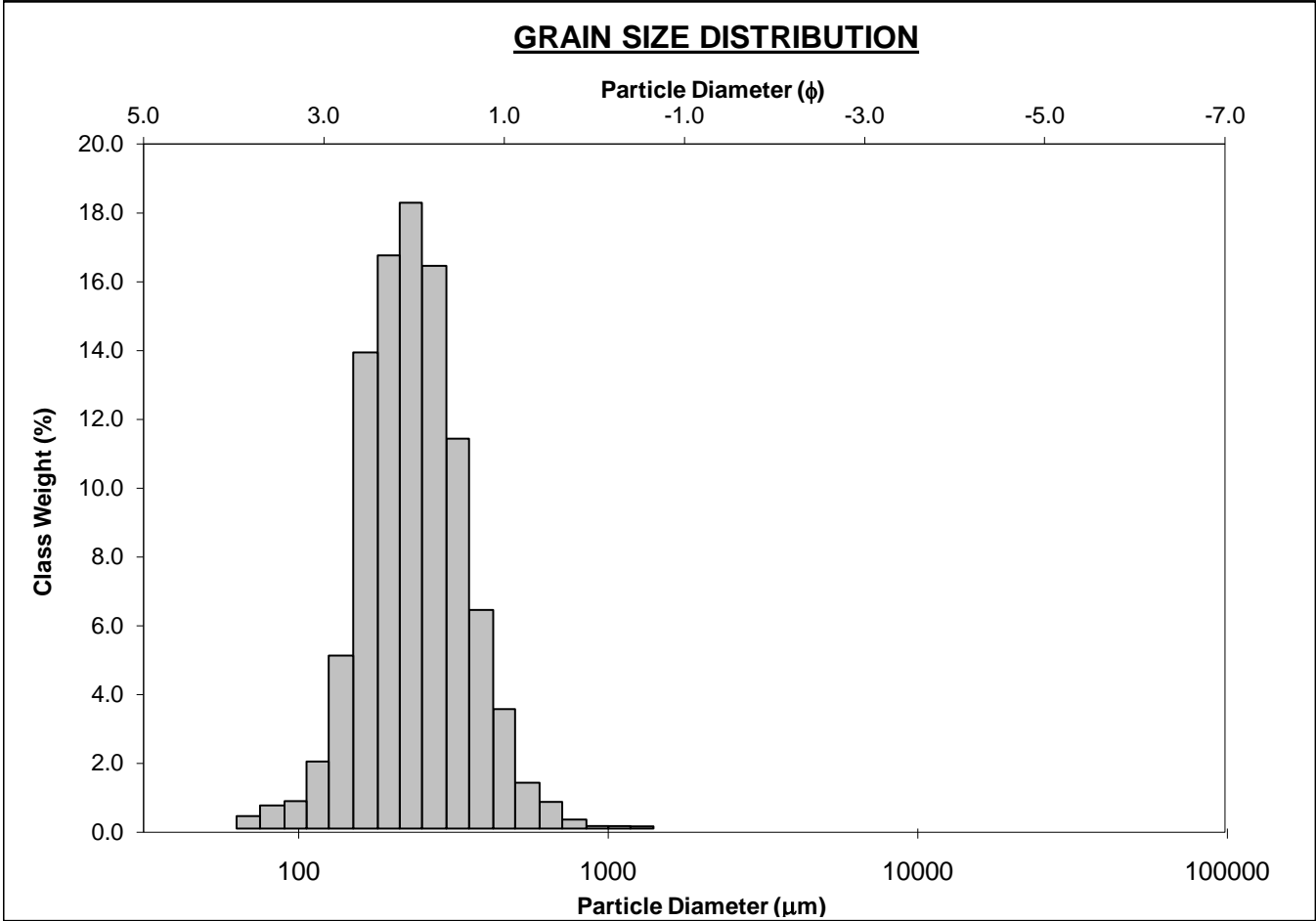
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-09-330cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 0.6%			
MODE 2:			SAND: 99.6% MEDIUM SAND: 45.5%			
MODE 3:			MUD: 0.4% FINE SAND: 49.5%			
D ₁₀ :	151.2	1.536	V FINE SAND: 3.8%			
MEDIAN or D ₅₀ :	241.9	2.047	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%			
D ₉₀ :	344.9	2.726	COARSE GRAVEL: 0.0% COARSE SILT: 0.1%			
(D ₉₀ / D ₁₀):	2.282	1.775	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%			
(D ₉₀ - D ₁₀):	193.7	1.190	FINE GRAVEL: 0.0% FINE SILT: 0.1%			
(D ₇₅ / D ₂₅):	1.558	1.361	V FINE GRAVEL: 0.0% V FINE SILT: 0.1%			
(D ₇₅ - D ₂₅):	104.9	0.640	V COARSE SAND: 0.2% CLAY: 0.1%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	248.2	231.2	2.113	234.4	2.093	Fine Sand
SORTING (σ):	91.31	1.493	0.578	1.394	0.479	Well Sorted
SKEWNESS (Sk):	2.984	-2.503	2.503	-0.145	0.145	Fine Skewed
KURTOSIS (K):	32.06	23.02	23.02	1.018	1.018	Mesokurtic



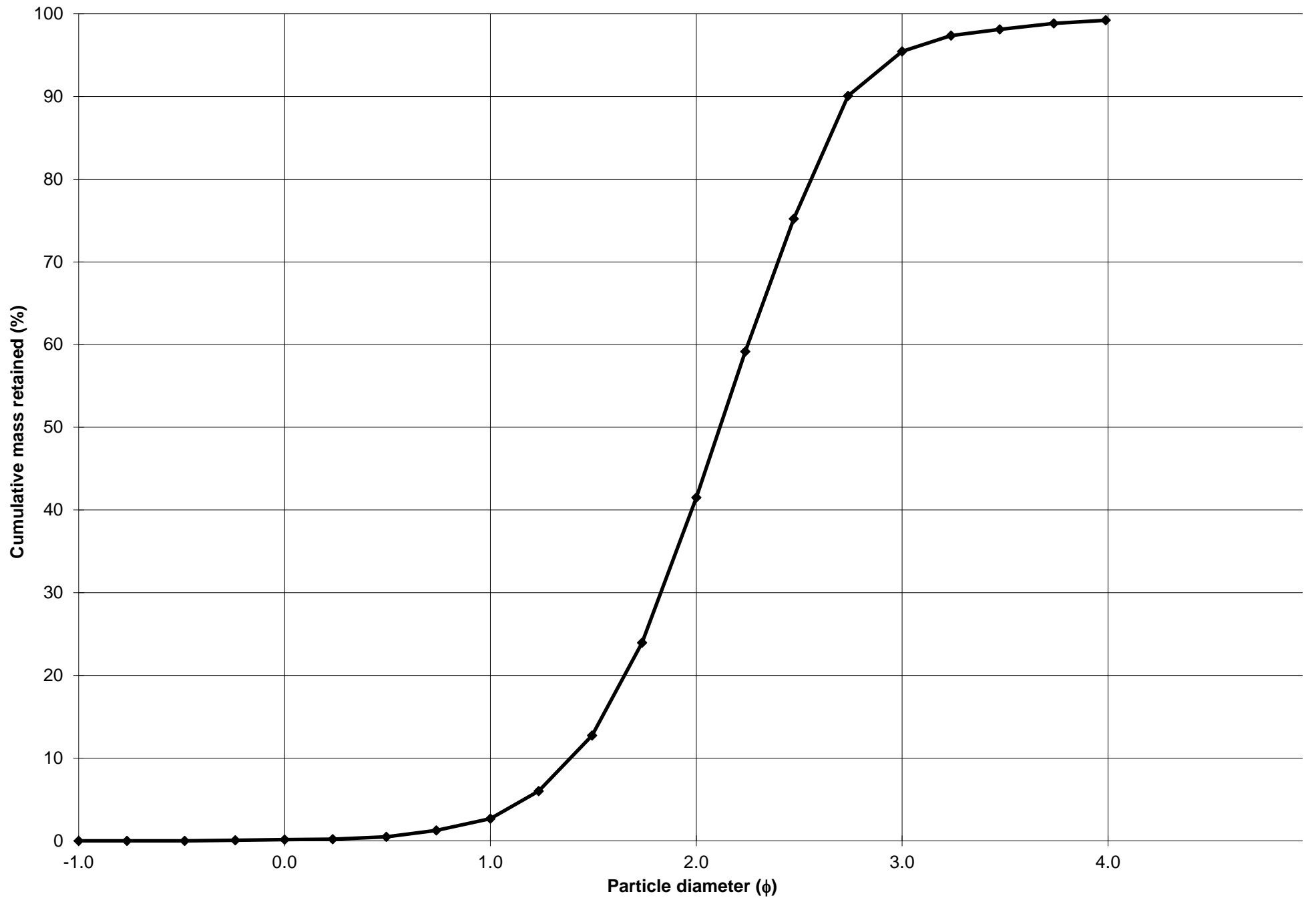
Cumulative Frequency Curve



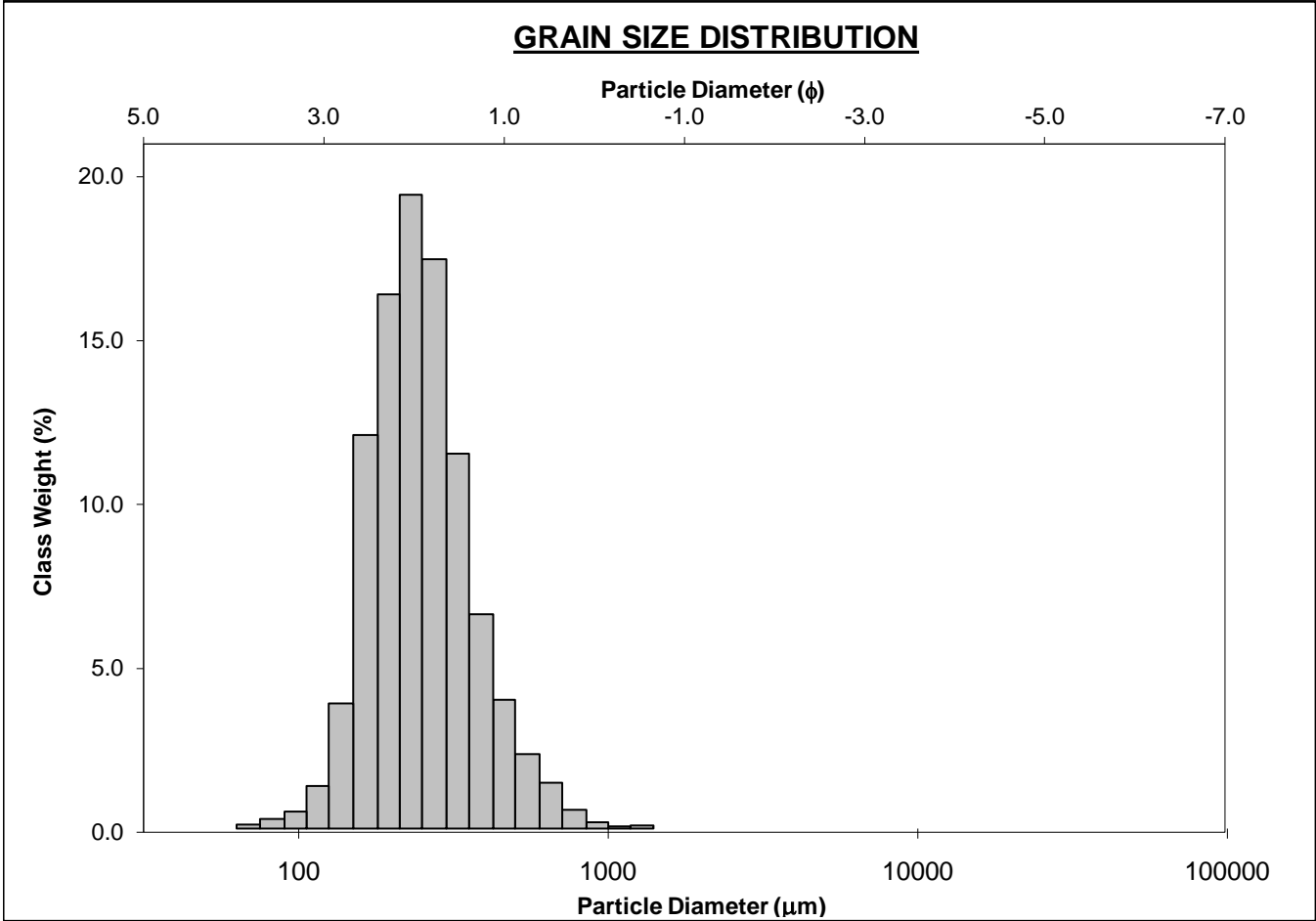
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-20cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 2.5%	
MODE 2:			SAND: 99.2%		MEDIUM SAND: 38.8%	
MODE 3:			MUD: 0.8%		FINE SAND: 53.9%	
D ₁₀ :	150.1	1.389			V FINE SAND: 3.8%	
MEDIAN or D ₅₀ :	231.0	2.114	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	381.9	2.736	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.544	1.970	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	231.8	1.347	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.645	1.410	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	116.4	0.718	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	252.2	228.4	2.130	232.8	2.103	Fine Sand
SORTING (σ):	109.4	1.624	0.699	1.455	0.541	Moderately Well Sorted
SKEWNESS (Sk):	2.107	-2.461	2.461	0.040	-0.040	Symmetrical
KURTOSIS (K):	13.51	19.88	19.88	1.035	1.035	Mesokurtic



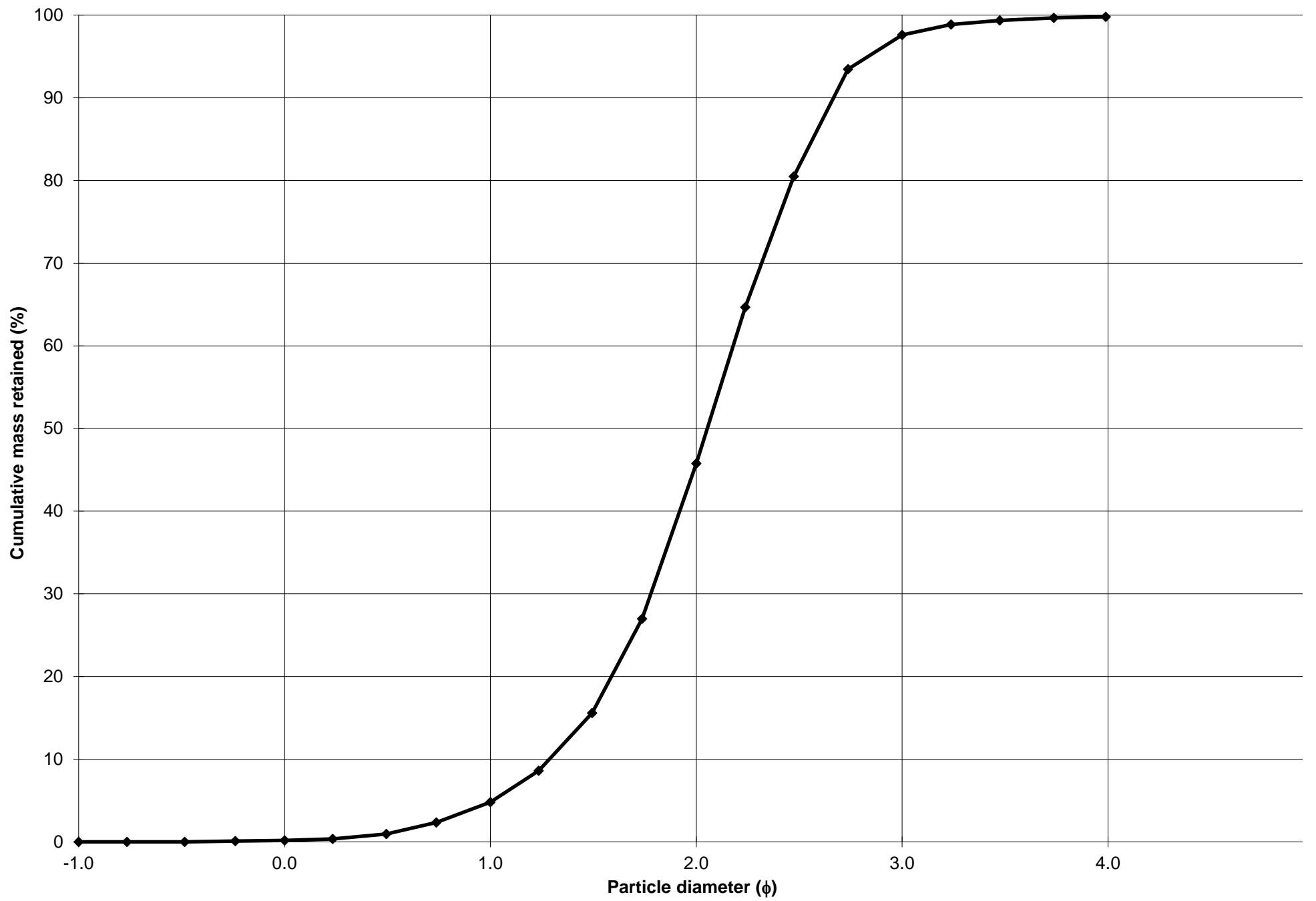
Cumulative Frequency Curve



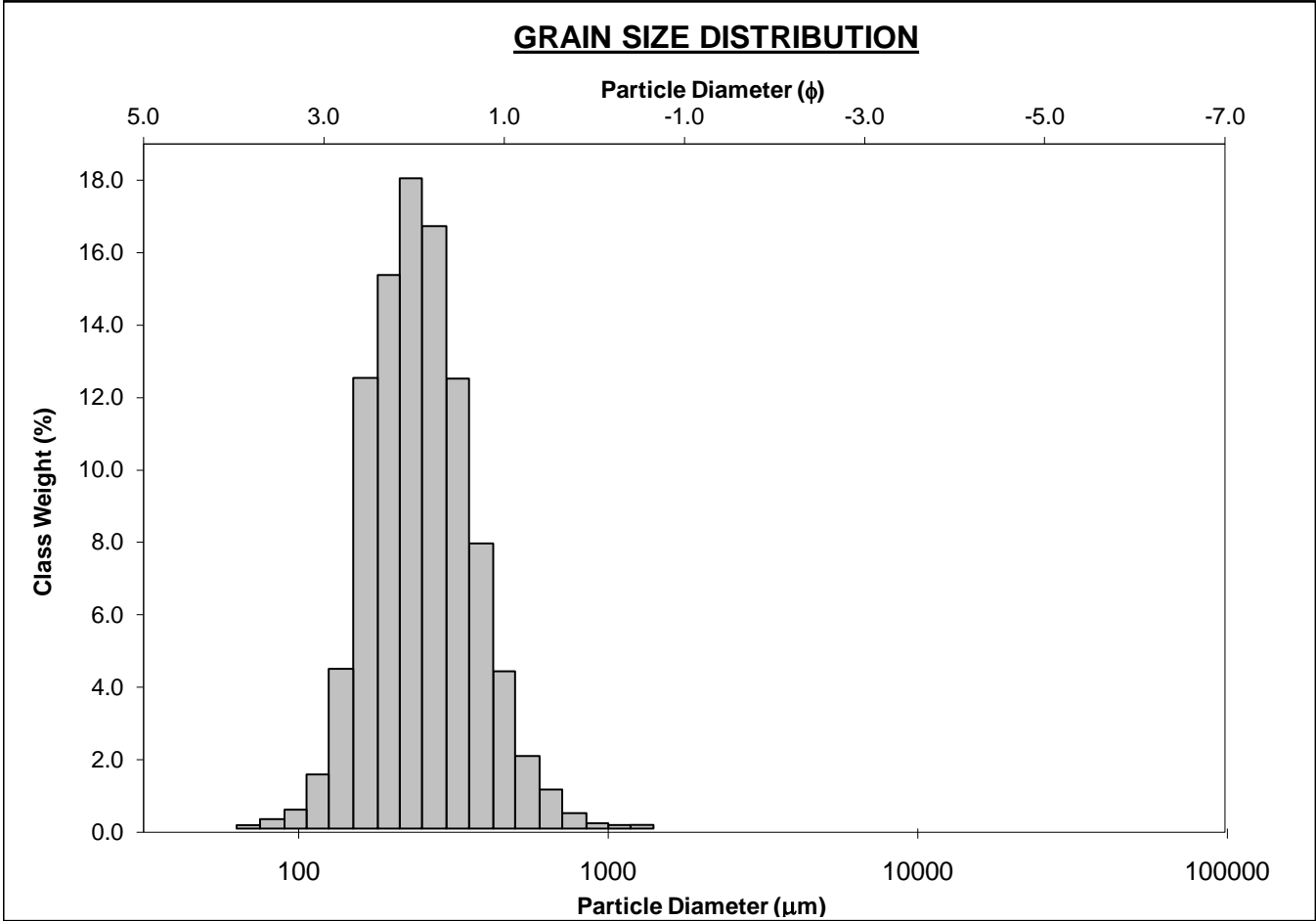
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-30cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 4.6%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 41.0%	
MODE 3:			MUD: 0.2%		FINE SAND: 51.8%	
D_{10} :	157.5	1.287			V FINE SAND: 2.2%	
MEDIAN or D_{50} :	240.9	2.053	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	409.9	2.667	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.603	2.073	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	252.4	1.380	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.622	1.412	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	118.4	0.697	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	268.9	246.4	2.021	244.2	2.034	Fine Sand
SORTING (σ):	121.0	1.512	0.596	1.451	0.537	Moderately Well Sorted
SKEWNESS (Sk):	2.288	-0.743	0.743	0.099	-0.099	Symmetrical
KURTOSIS (K):	12.55	12.45	12.45	1.071	1.071	Mesokurtic



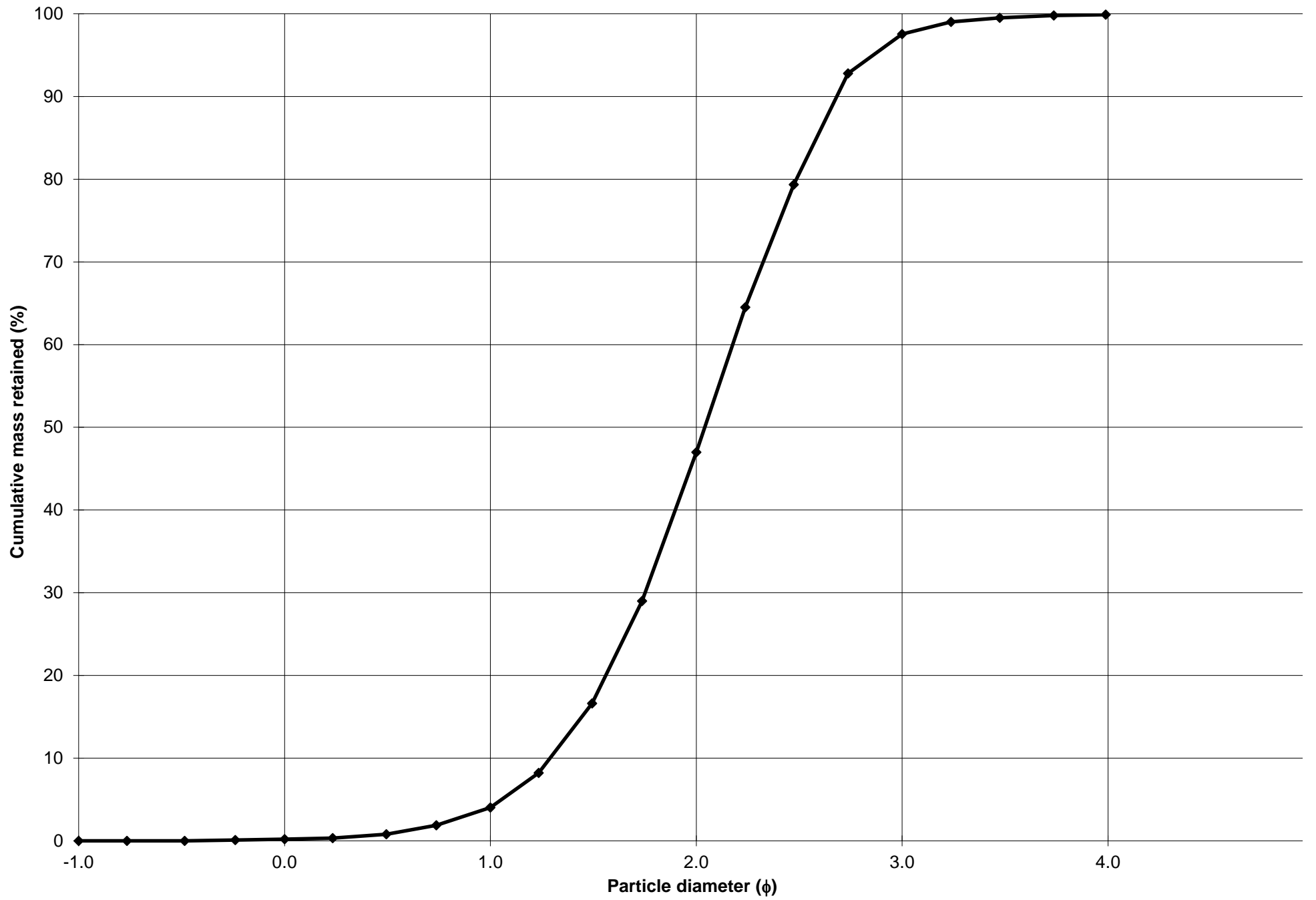
Cumulative Frequency Curve



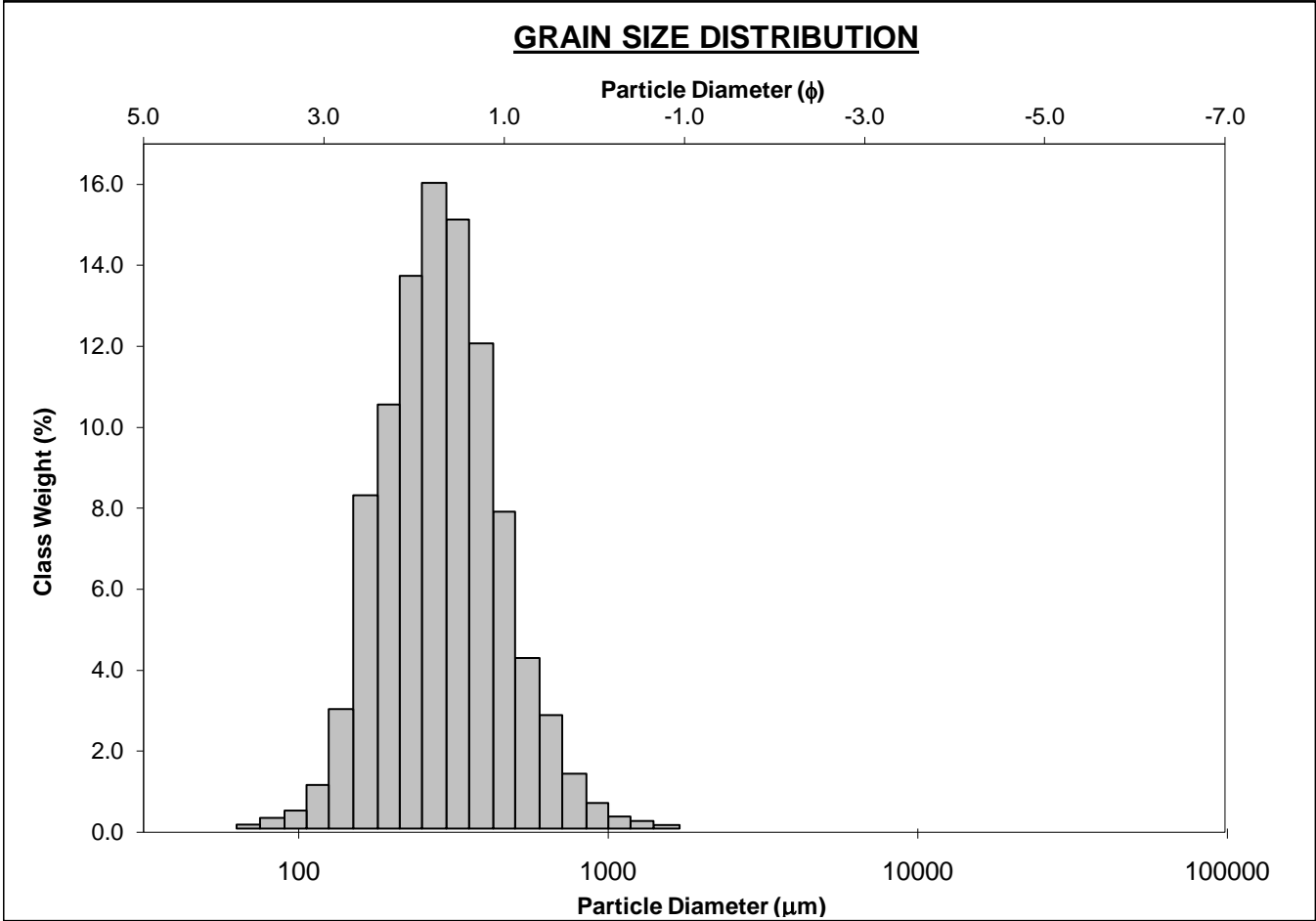
SIEVING ERROR: 0.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-40cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 3.8%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 42.9%	
MODE 3:			MUD: 0.1%		FINE SAND: 50.6%	
D ₁₀ :	155.8	1.290			V FINE SAND: 2.3%	
MEDIAN or D ₅₀ :	243.0	2.041	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	409.1	2.683	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.626	2.080	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	253.3	1.393	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.678	1.450	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	127.9	0.746	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	269.1	247.3	2.016	245.3	2.027	Fine Sand
SORTING (σ):	118.6	1.494	0.579	1.460	0.546	Moderately Well Sorted
SKEWNESS (Sk):	2.252	-0.356	0.356	0.066	-0.066	Symmetrical
KURTOSIS (K):	13.29	8.987	8.987	0.991	0.991	Mesokurtic



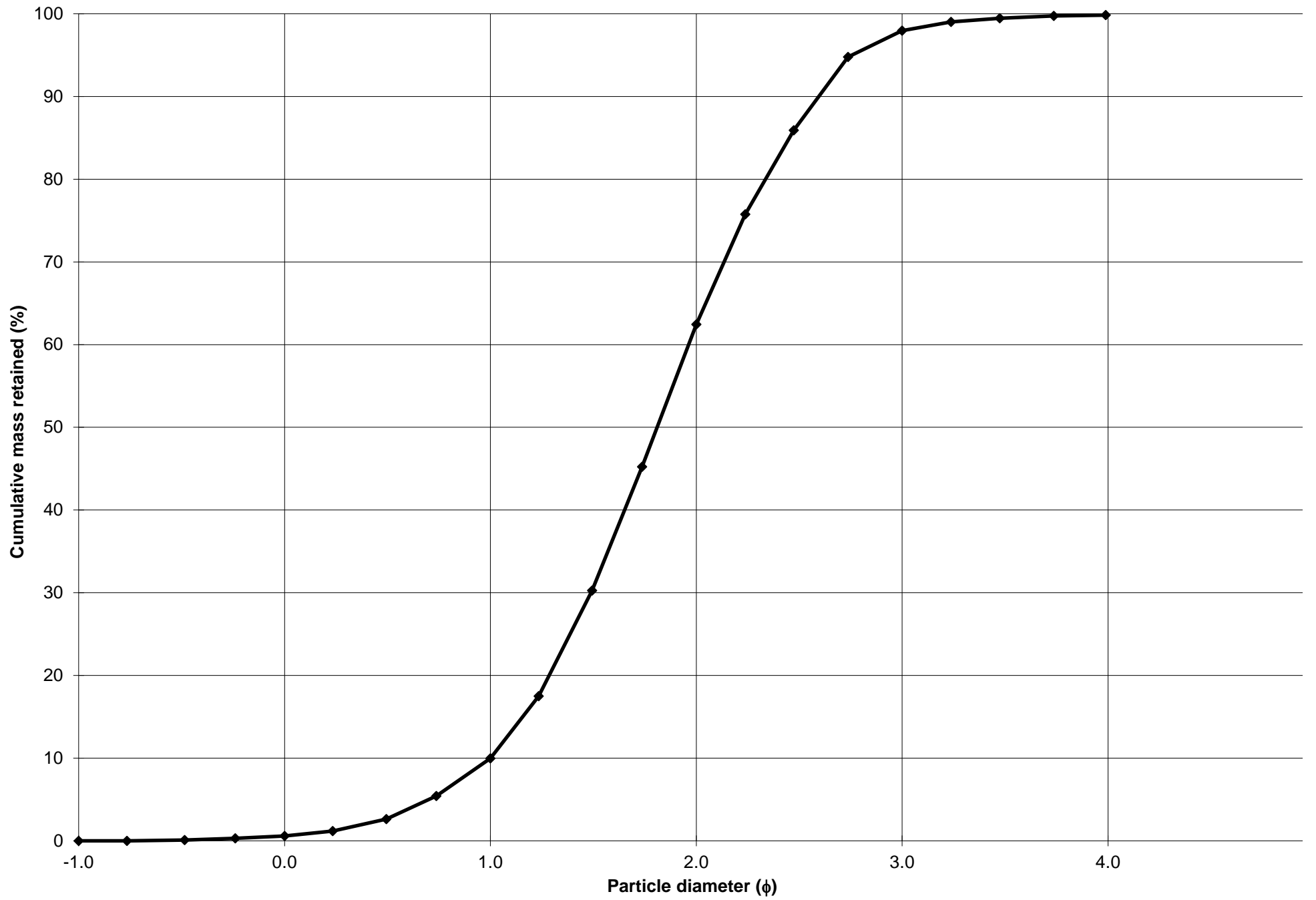
Cumulative Frequency Curve



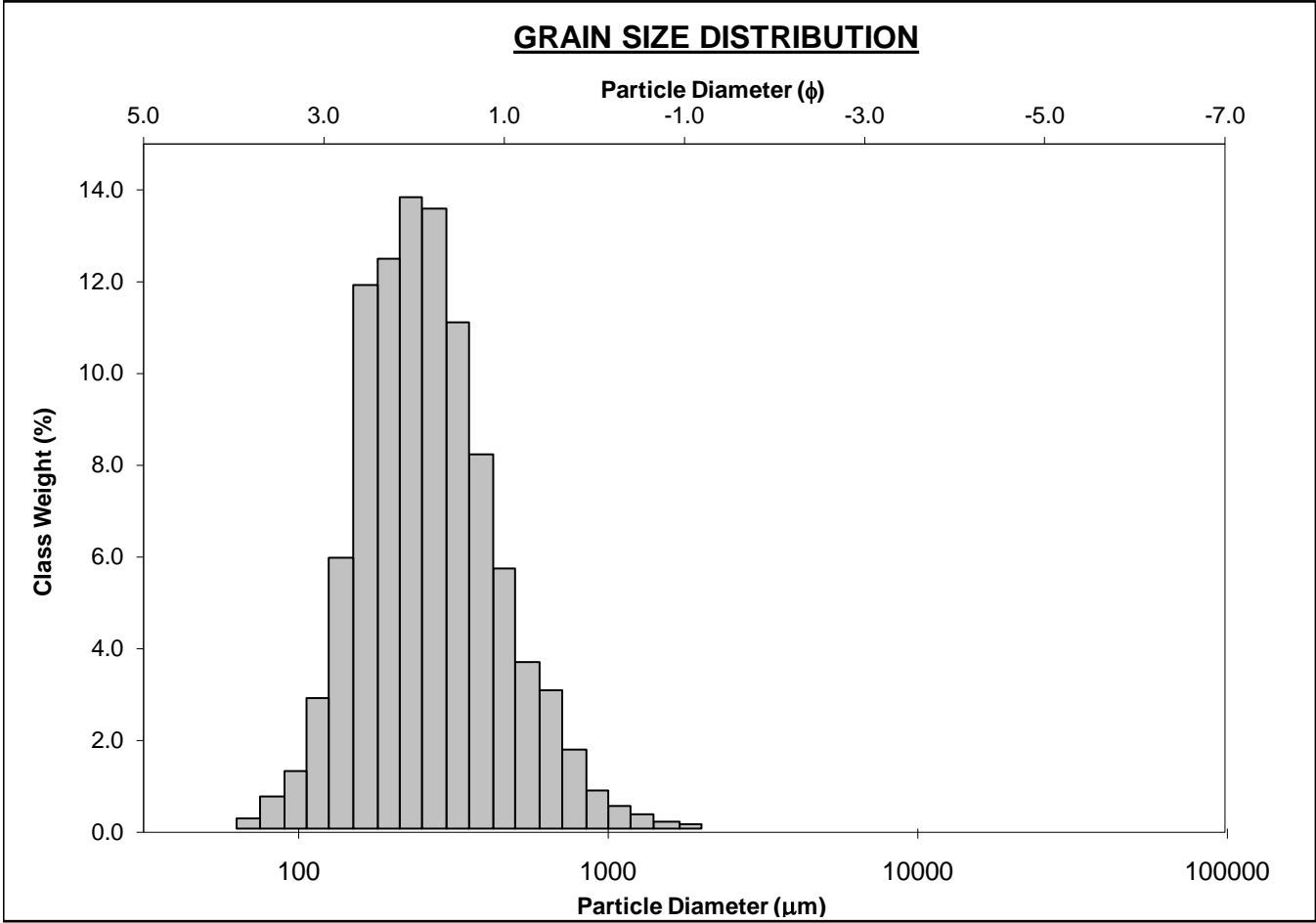
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-50cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 9.4%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 52.5%	
MODE 3:			MUD: 0.2%		FINE SAND: 35.5%	
D ₁₀ :	165.5	1.001			V FINE SAND: 1.9%	
MEDIAN or D ₅₀ :	285.2	1.810	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	499.7	2.595	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.020	2.593	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	334.2	1.594	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.786	1.603	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	168.3	0.837	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	320.0	287.3	1.799	285.4	1.809	Medium Sand
SORTING (σ):	158.7	1.585	0.665	1.539	0.622	Moderately Well Sorted
SKEWNESS (Sk):	2.127	-0.545	0.545	0.041	-0.041	Symmetrical
KURTOSIS (K):	11.30	8.862	8.862	1.006	1.006	Mesokurtic



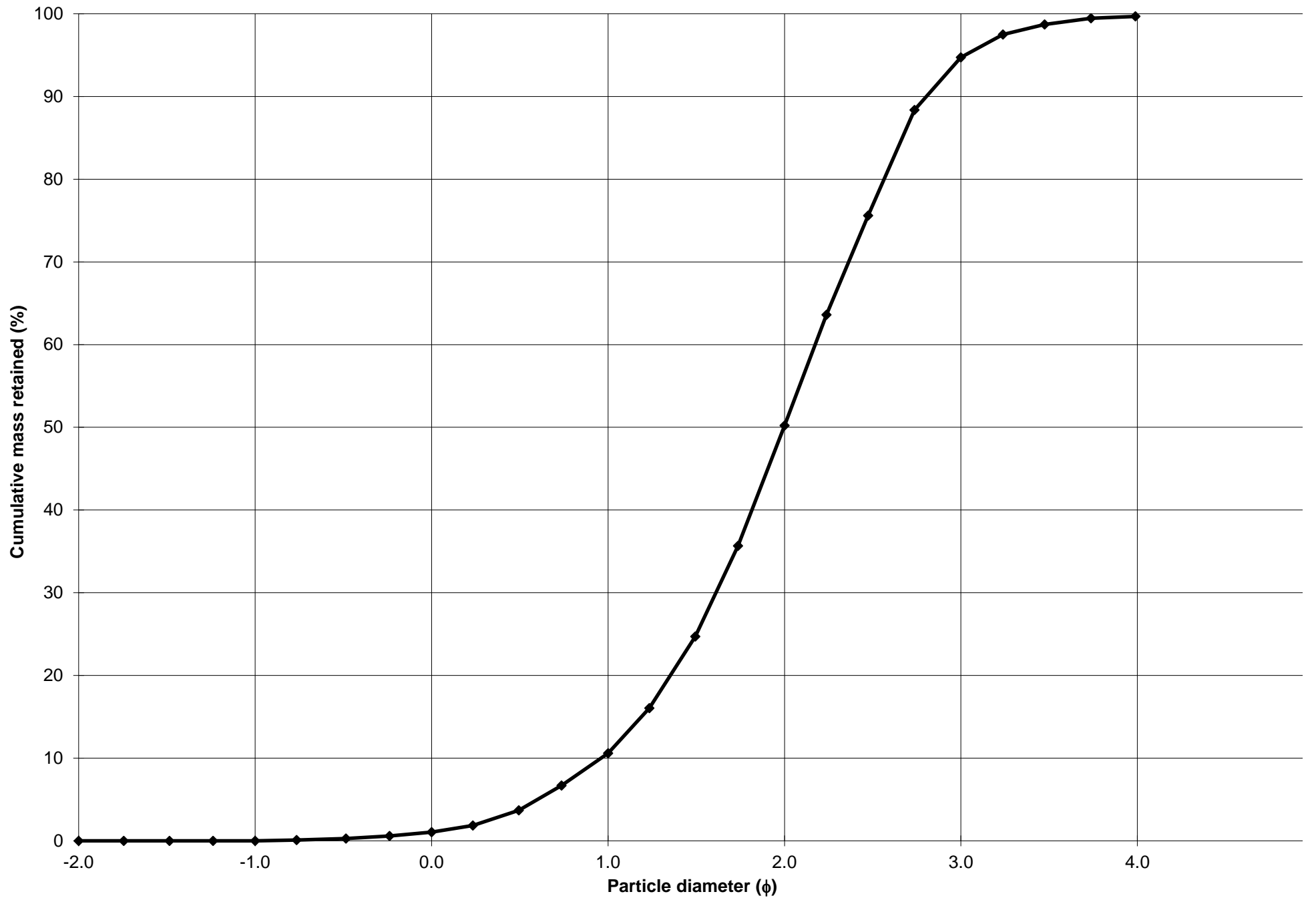
Cumulative Frequency Curve



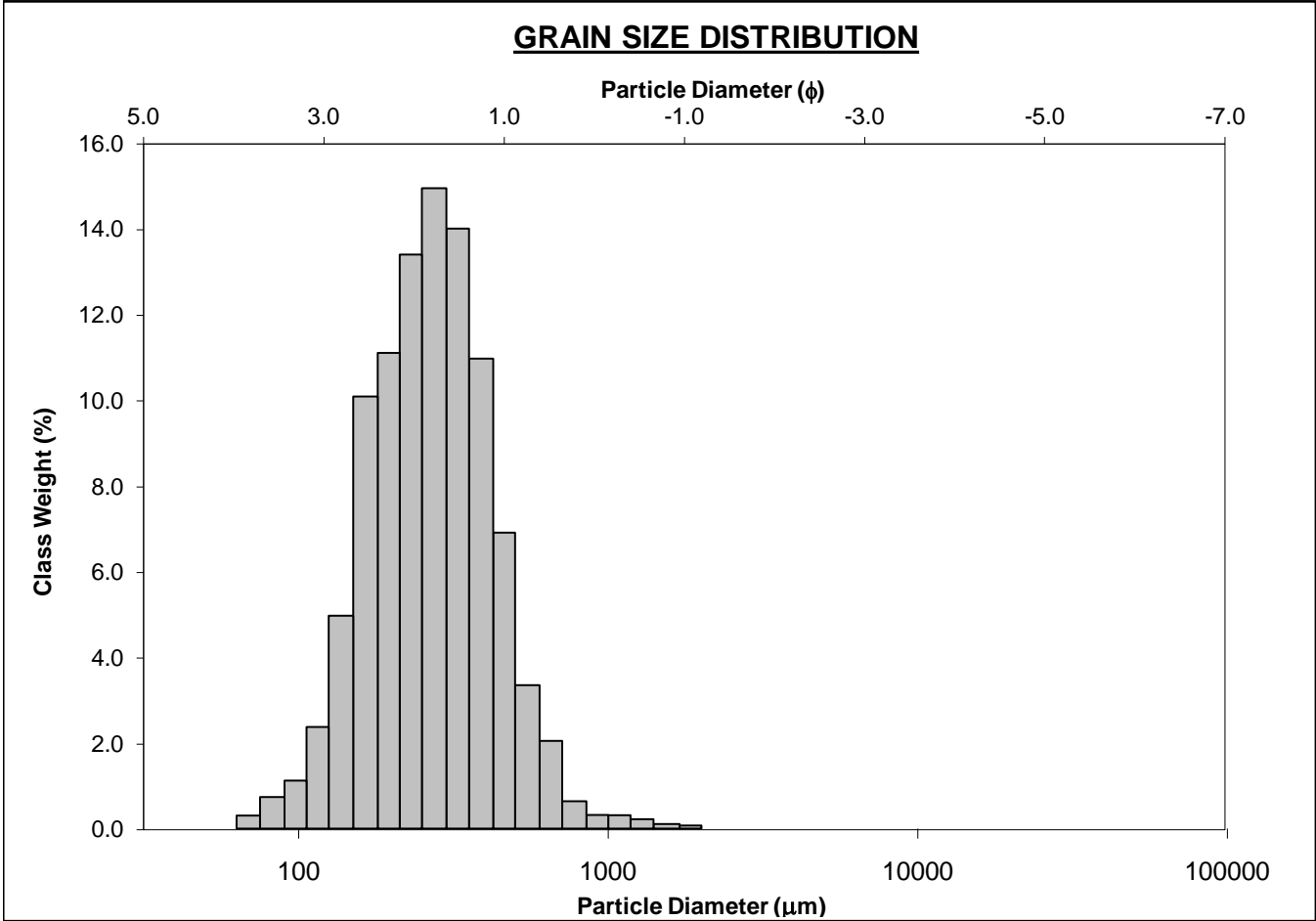
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-60cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 9.5%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 39.6%	
MODE 3:			MUD: 0.3%		FINE SAND: 44.5%	
D ₁₀ :	143.1	0.960			V FINE SAND: 5.0%	
MEDIAN or D ₅₀ :	250.7	1.996	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	514.1	2.805	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.592	2.922	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	371.0	1.845	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.947	1.641	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	171.9	0.961	V COARSE SAND: 1.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	300.9	258.7	1.951	257.3	1.959	Medium Sand
SORTING (σ):	187.0	1.721	0.783	1.648	0.721	Moderately Sorted
SKEWNESS (Sk):	2.628	-0.426	0.426	0.116	-0.116	Coarse Skewed
KURTOSIS (K):	14.29	8.088	8.088	1.034	1.034	Mesokurtic



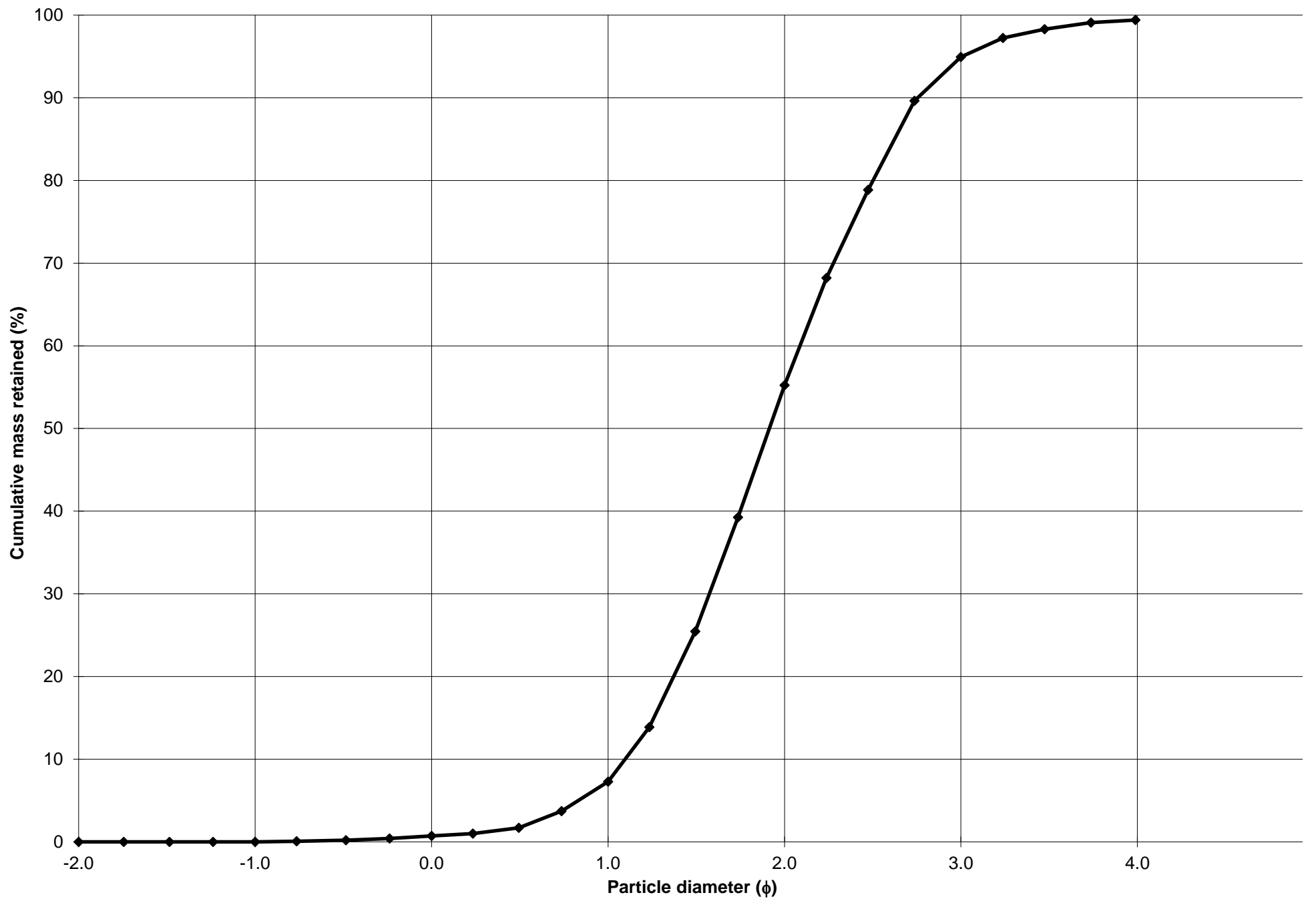
Cumulative Frequency Curve



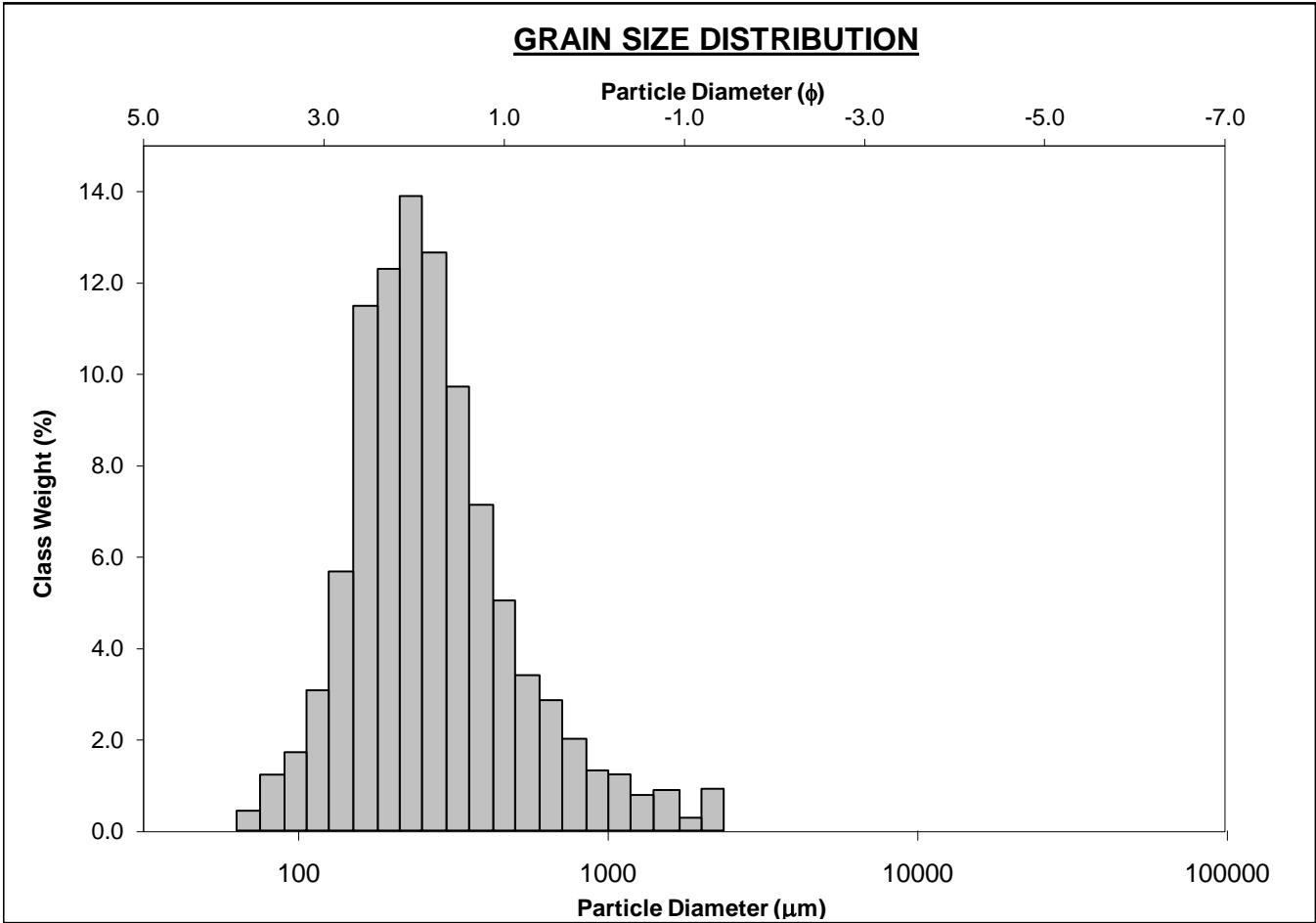
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-70cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 6.6%	
MODE 2:			SAND: 99.4%		MEDIUM SAND: 48.0%	
MODE 3:			MUD: 0.6%		FINE SAND: 39.7%	
D ₁₀ :	148.1	1.097			V FINE SAND: 4.5%	
MEDIAN or D ₅₀ :	265.4	1.914	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	467.6	2.755	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.157	2.512	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	319.5	1.659	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.872	1.609	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	166.5	0.904	V COARSE SAND: 0.7%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	295.7	259.6	1.945	262.1	1.932	Medium Sand
SORTING (σ):	158.9	1.707	0.771	1.579	0.659	Moderately Well Sorted
SKEWNESS (Sk):	2.749	-1.489	1.489	-0.023	0.023	Symmetrical
KURTOSIS (K):	18.62	12.94	12.94	0.985	0.985	Mesokurtic



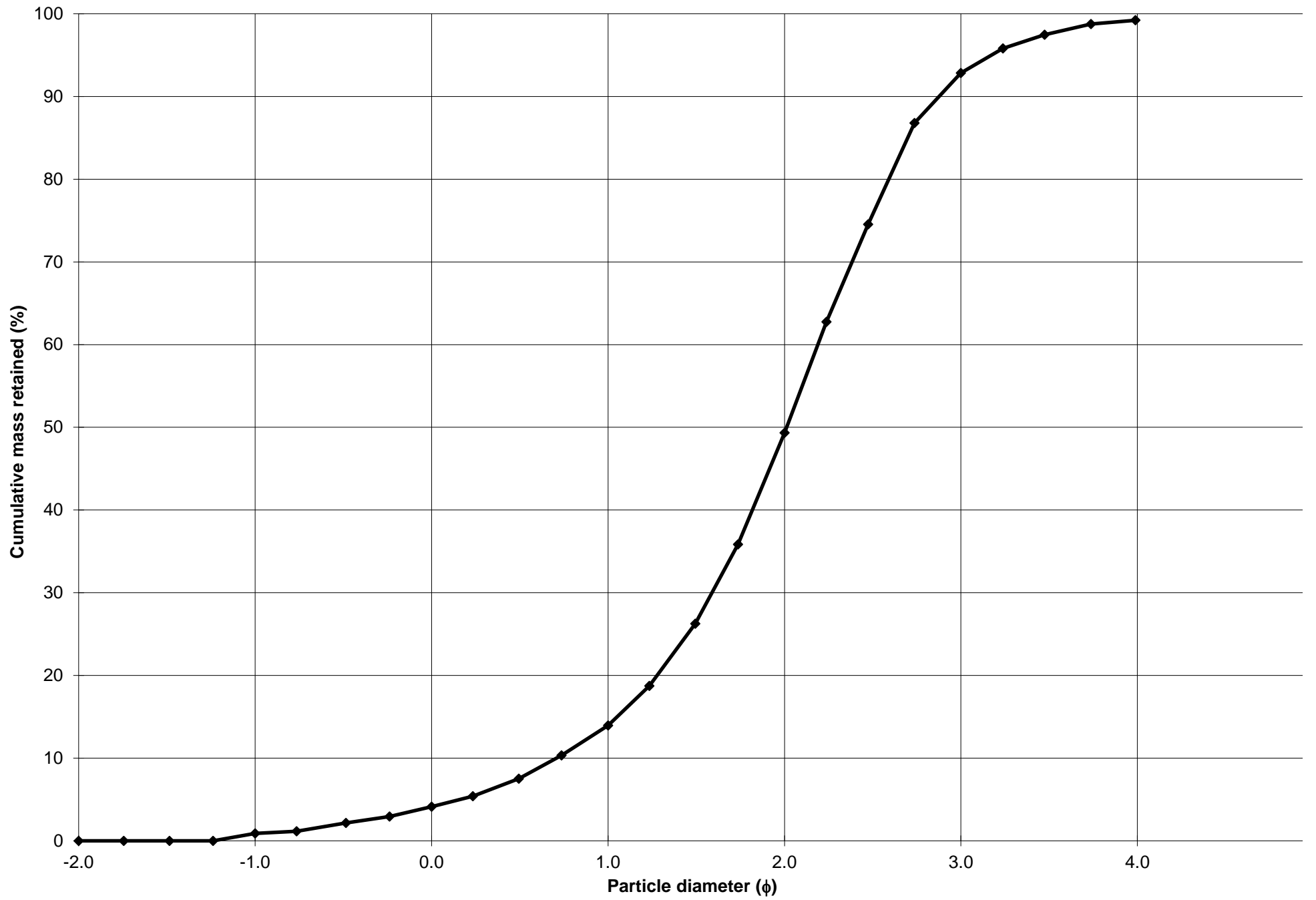
Cumulative Frequency Curve



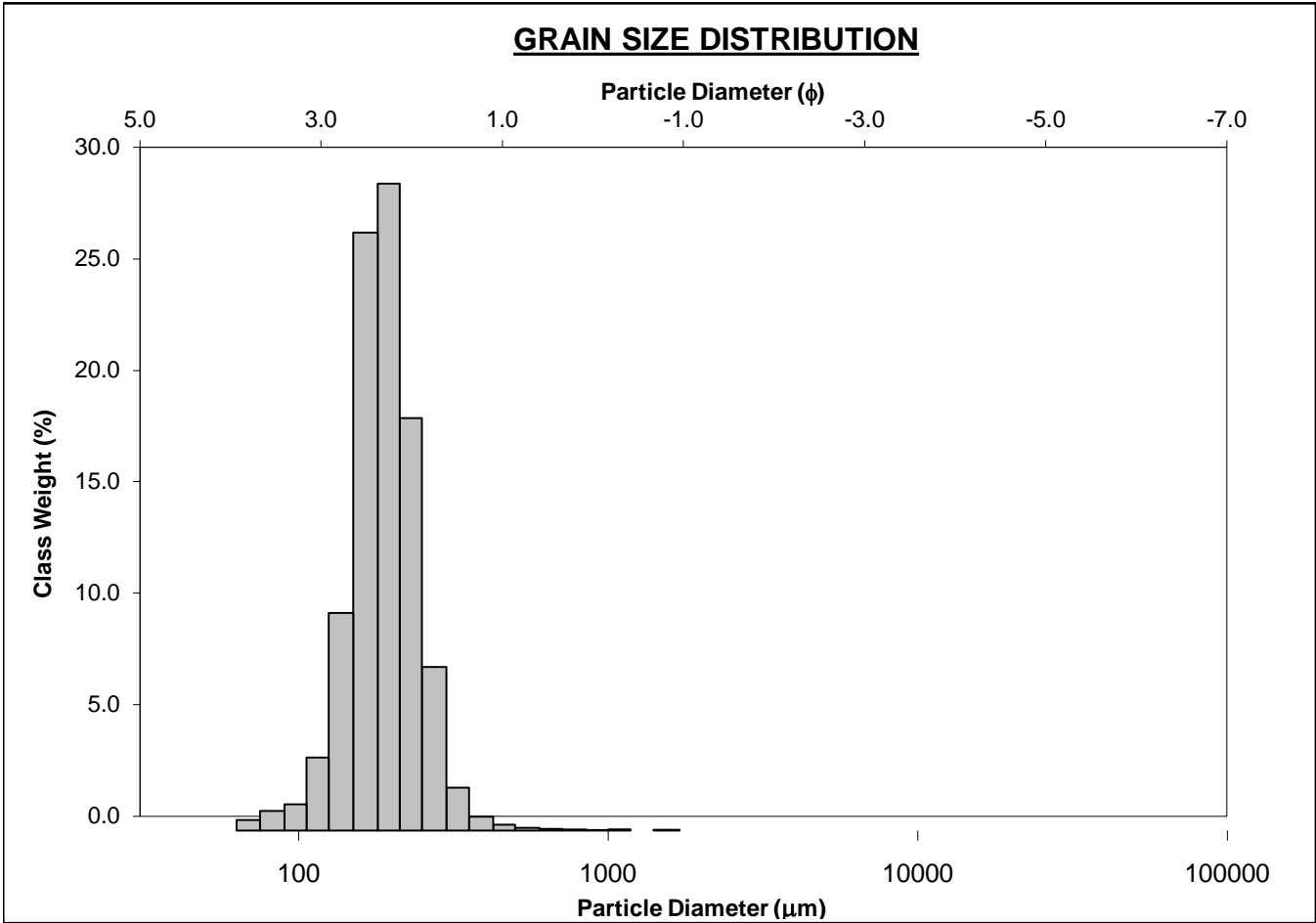
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-80cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.9%		COARSE SAND: 9.8%	
MODE 2:			SAND: 98.3%		MEDIUM SAND: 35.4%	
MODE 3:			MUD: 0.8%		FINE SAND: 43.5%	
D_{10} :	136.2	0.709			V FINE SAND: 6.4%	
MEDIAN or D_{50} :	248.0	2.012	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D_{90} :	611.6	2.876	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D_{90} / D_{10}) :	4.490	4.055	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
$(D_{90} - D_{10})$:	475.4	2.167	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D_{75} / D_{25}) :	2.047	1.712	V FINE GRAVEL: 0.9%		V FINE SILT: 0.1%	
$(D_{75} - D_{25})$:	187.1	1.033	V COARSE SAND: 3.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	338.8	264.2	1.920	262.5	1.930	Medium Sand
SORTING (σ):	305.9	1.982	0.987	1.803	0.850	Moderately Sorted
SKEWNESS (Sk):	3.394	-0.373	0.373	0.193	-0.193	Coarse Skewed
KURTOSIS (K):	17.24	8.181	8.181	1.194	1.194	Leptokurtic



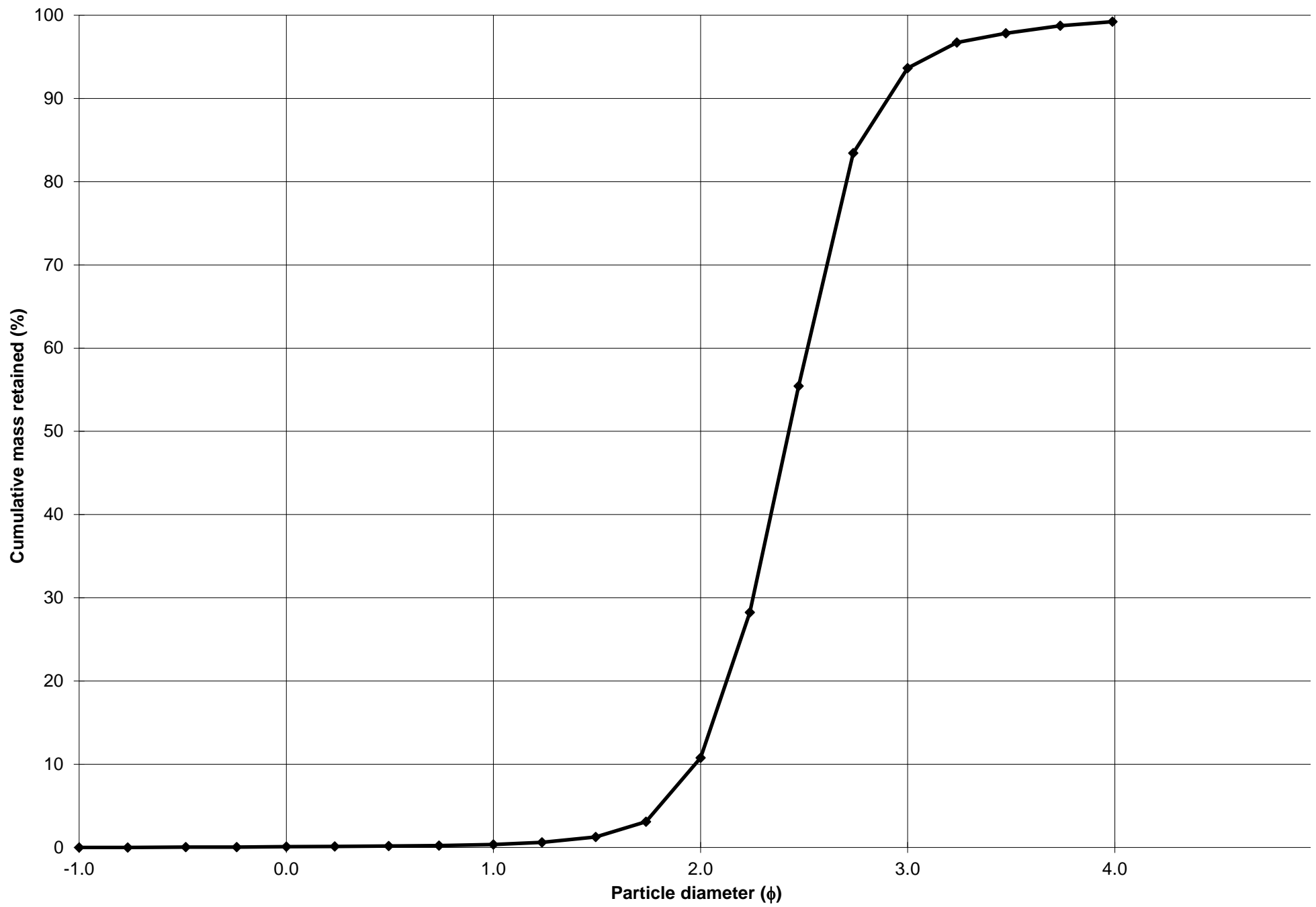
Cumulative Frequency Curve



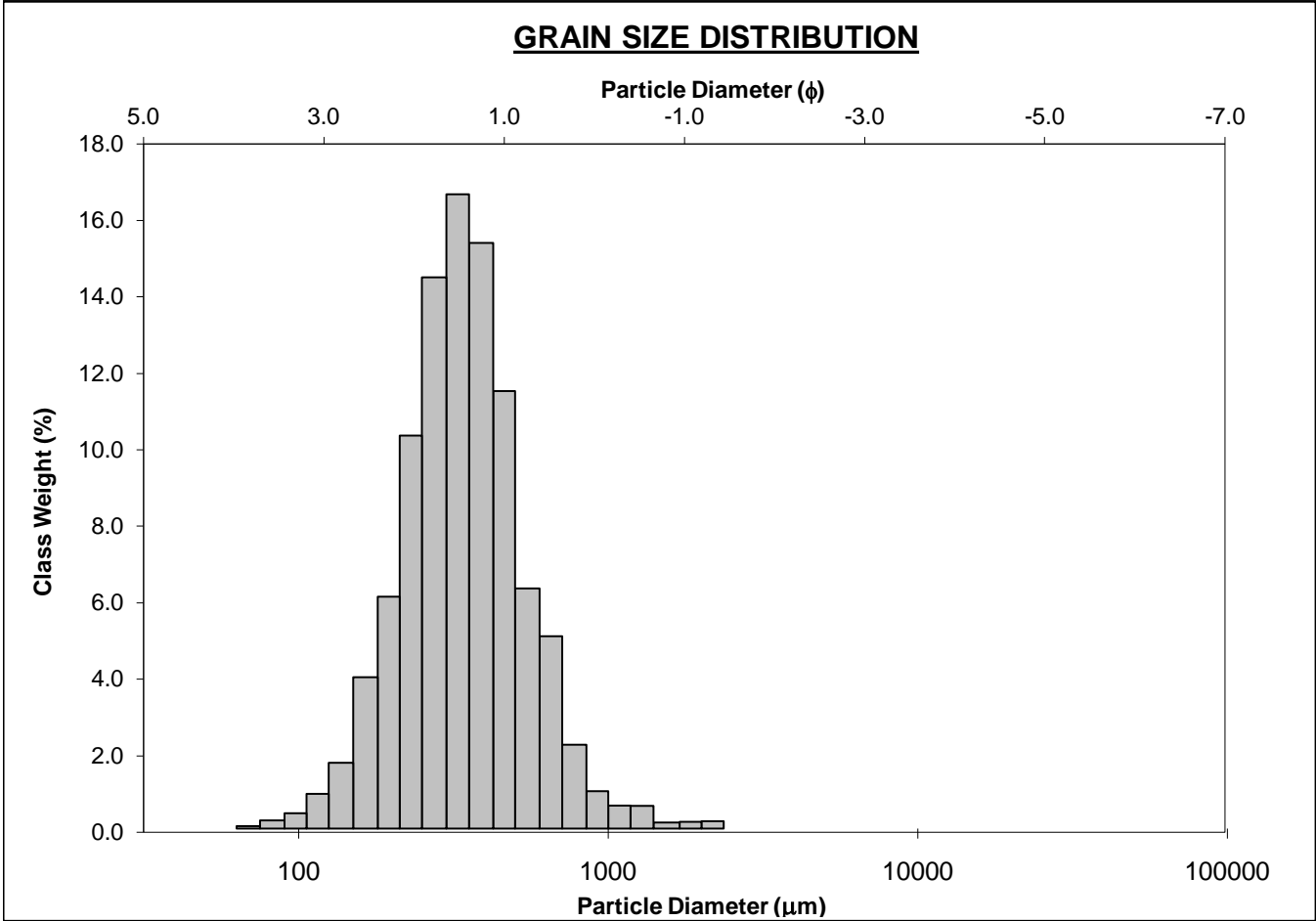
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-90cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 0.3%			
MODE 2:			SAND: 99.2% MEDIUM SAND: 10.4%			
MODE 3:			MUD: 0.8% FINE SAND: 82.9%			
D ₁₀ :	133.4	1.974	V FINE SAND: 5.6%			
MEDIAN or D ₅₀ :	186.0	2.427	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%			
D ₉₀ :	254.6	2.906	COARSE GRAVEL: 0.0% COARSE SILT: 0.1%			
(D ₉₀ / D ₁₀):	1.909	1.473	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%			
(D ₉₀ - D ₁₀):	121.2	0.933	FINE GRAVEL: 0.0% FINE SILT: 0.1%			
(D ₇₅ / D ₂₅):	1.379	1.211	V FINE GRAVEL: 0.0% V FINE SILT: 0.1%			
(D ₇₅ - D ₂₅):	60.10	0.464	V COARSE SAND: 0.1% CLAY: 0.1%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	193.6	181.9	2.459	187.3	2.417	Fine Sand
SORTING (σ):	66.86	1.479	0.564	1.290	0.368	Well Sorted
SKEWNESS (Sk):	5.822	-3.860	3.860	0.002	-0.002	Symmetrical
KURTOSIS (K):	93.28	34.29	34.29	1.151	1.151	Leptokurtic



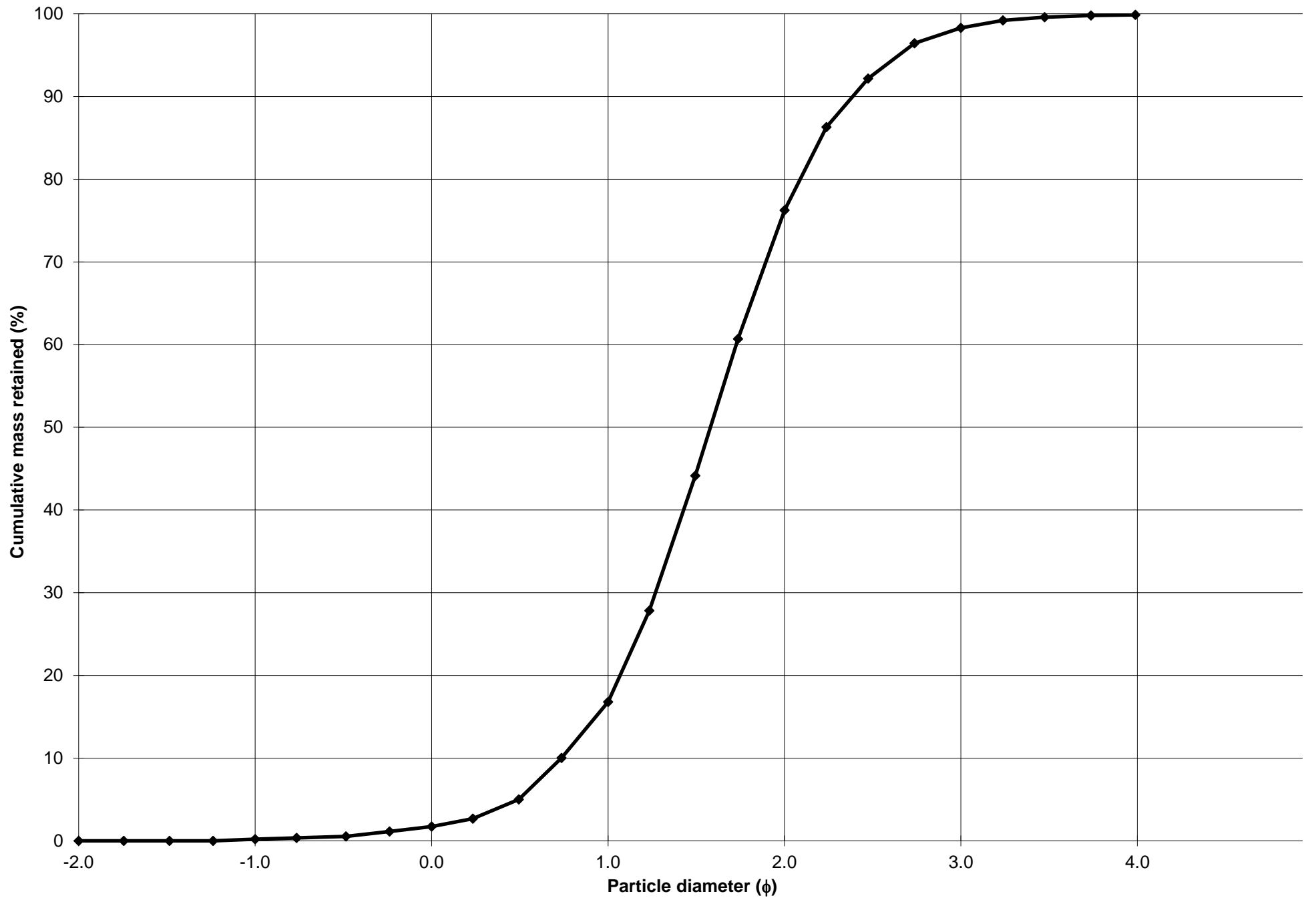
Cumulative Frequency Curve



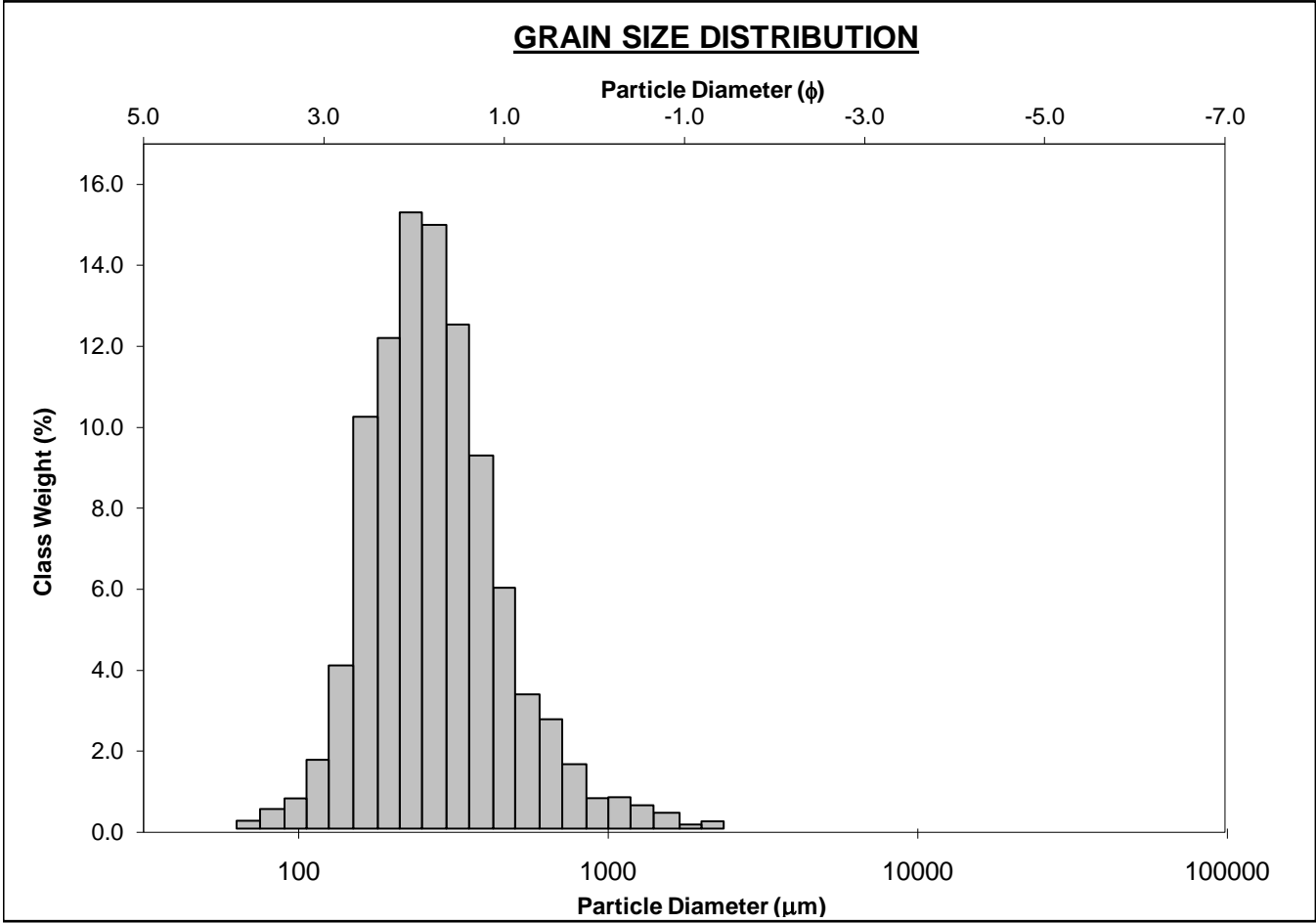
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-100cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.2%		COARSE SAND: 15.1%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 59.4%	
MODE 3:			MUD: 0.1%		FINE SAND: 22.0%	
D ₁₀ :	191.2	0.736			V FINE SAND: 1.6%	
MEDIAN or D ₅₀ :	334.5	1.580	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	600.5	2.387	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.141	3.244	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	409.3	1.651	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.746	1.685	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	189.4	0.804	V COARSE SAND: 1.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	378.9	336.4	1.572	335.1	1.577	Medium Sand
SORTING (σ):	209.9	1.614	0.690	1.548	0.630	Moderately Well Sorted
SKEWNESS (Sk):	3.086	-0.363	0.363	0.008	-0.008	Symmetrical
KURTOSIS (K):	20.09	8.259	8.259	1.098	1.098	Mesokurtic



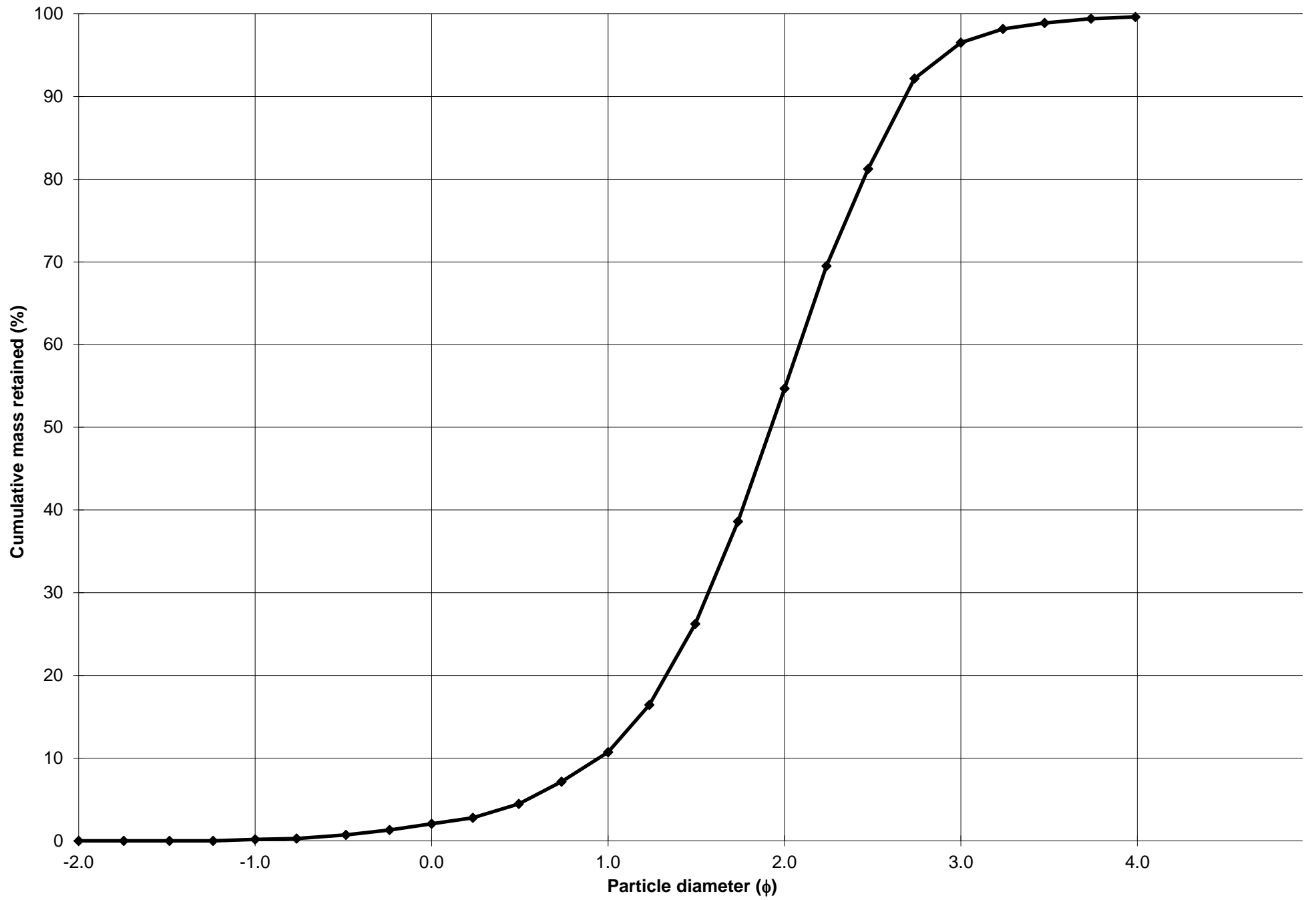
Cumulative Frequency Curve



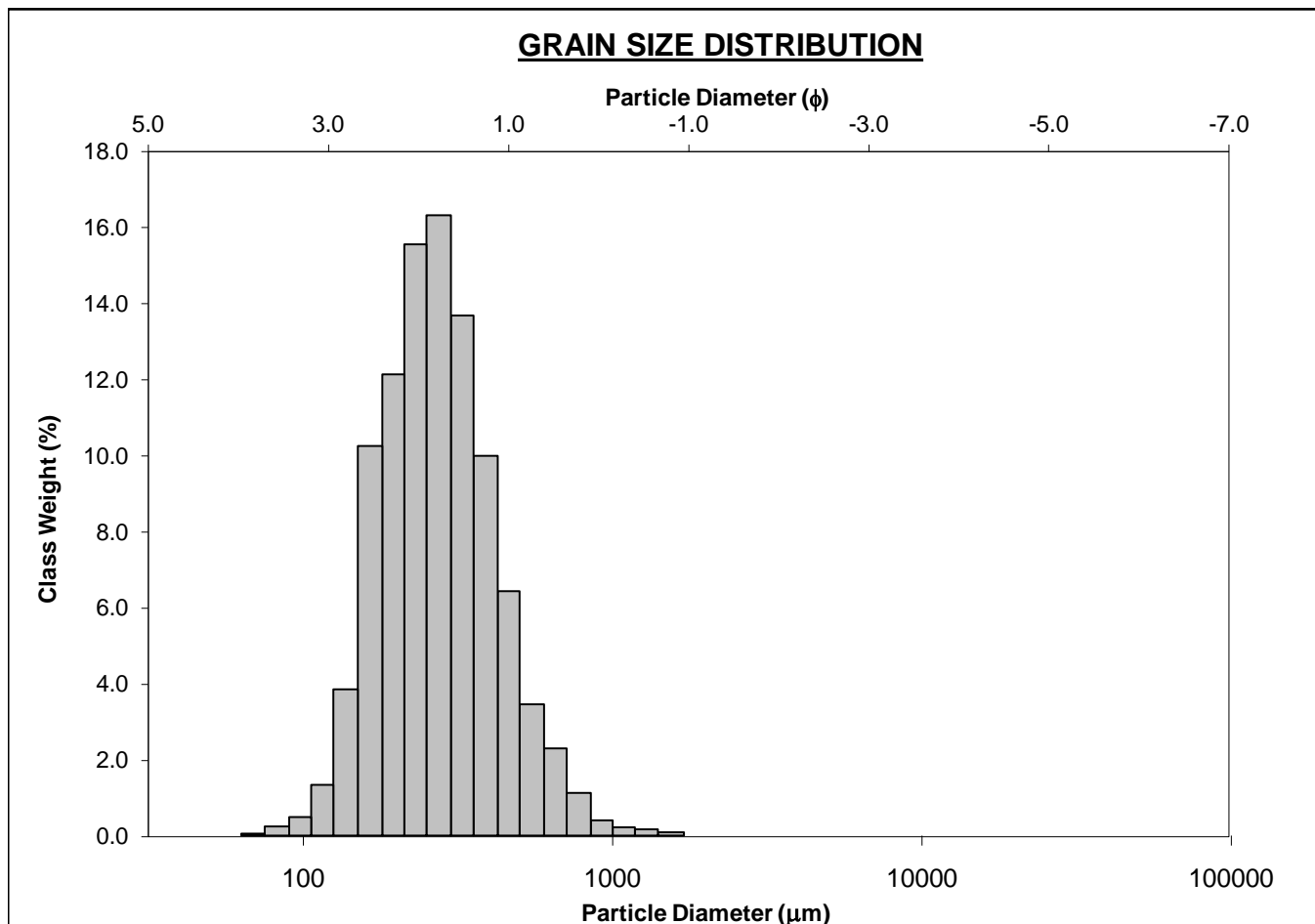
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-110cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.2%		COARSE SAND: 8.7%	
MODE 2:			SAND: 99.4%		MEDIUM SAND: 44.0%	
MODE 3:			MUD: 0.4%		FINE SAND: 41.8%	
D ₁₀ :	155.5	0.946			V FINE SAND: 3.1%	
MEDIAN or D ₅₀ :	263.7	1.923	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	519.0	2.685	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.337	2.838	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	363.5	1.739	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.850	1.607	V FINE GRAVEL: 0.2%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	166.8	0.887	V COARSE SAND: 1.9%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	319.4	273.1	1.873	269.2	1.893	Medium Sand
SORTING (σ):	216.9	1.725	0.787	1.613	0.690	Moderately Well Sorted
SKEWNESS (Sk):	3.475	-0.461	0.461	0.118	-0.118	Coarse Skewed
KURTOSIS (K):	21.22	9.872	9.872	1.093	1.093	Mesokurtic



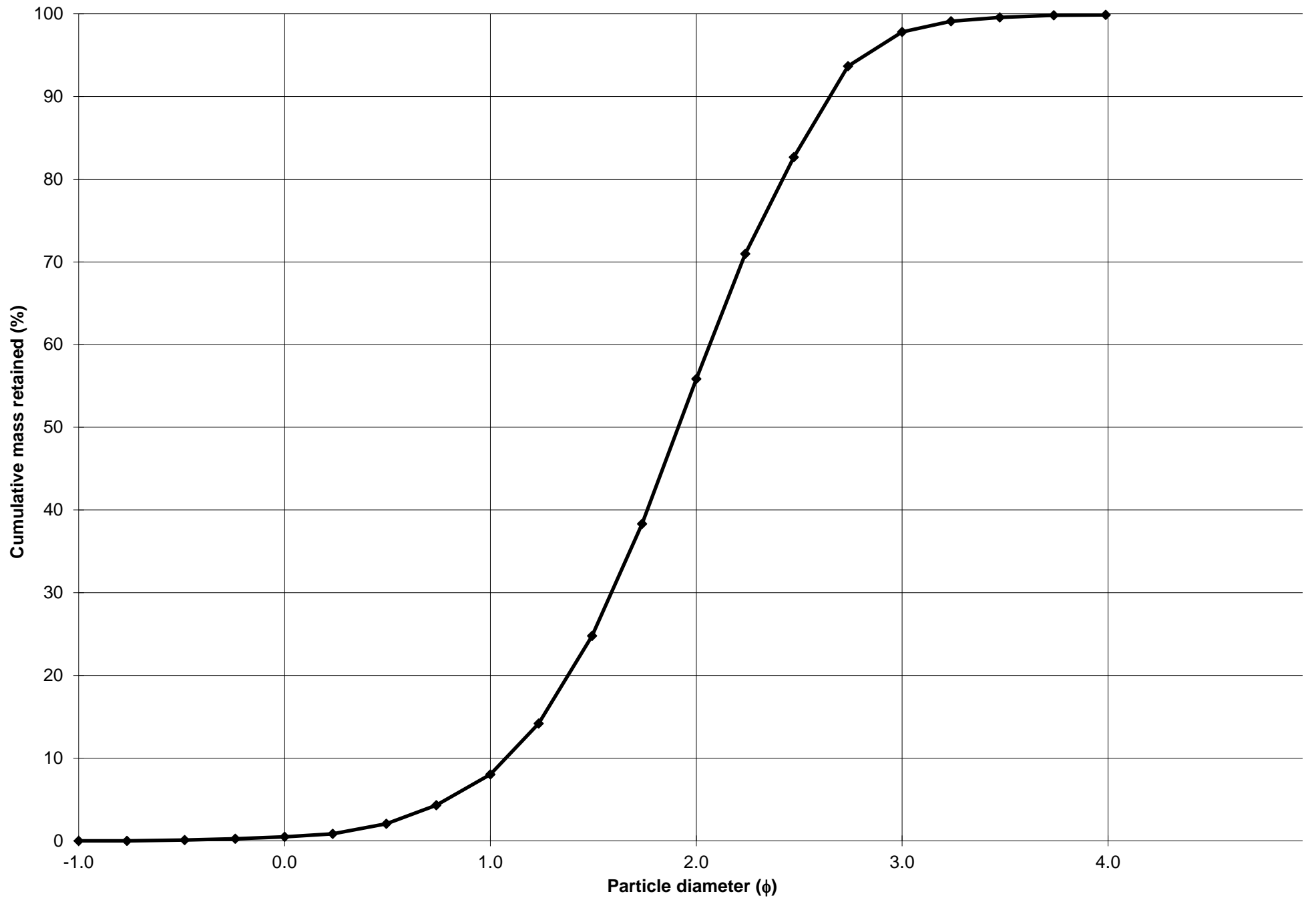
Cumulative Frequency Curve



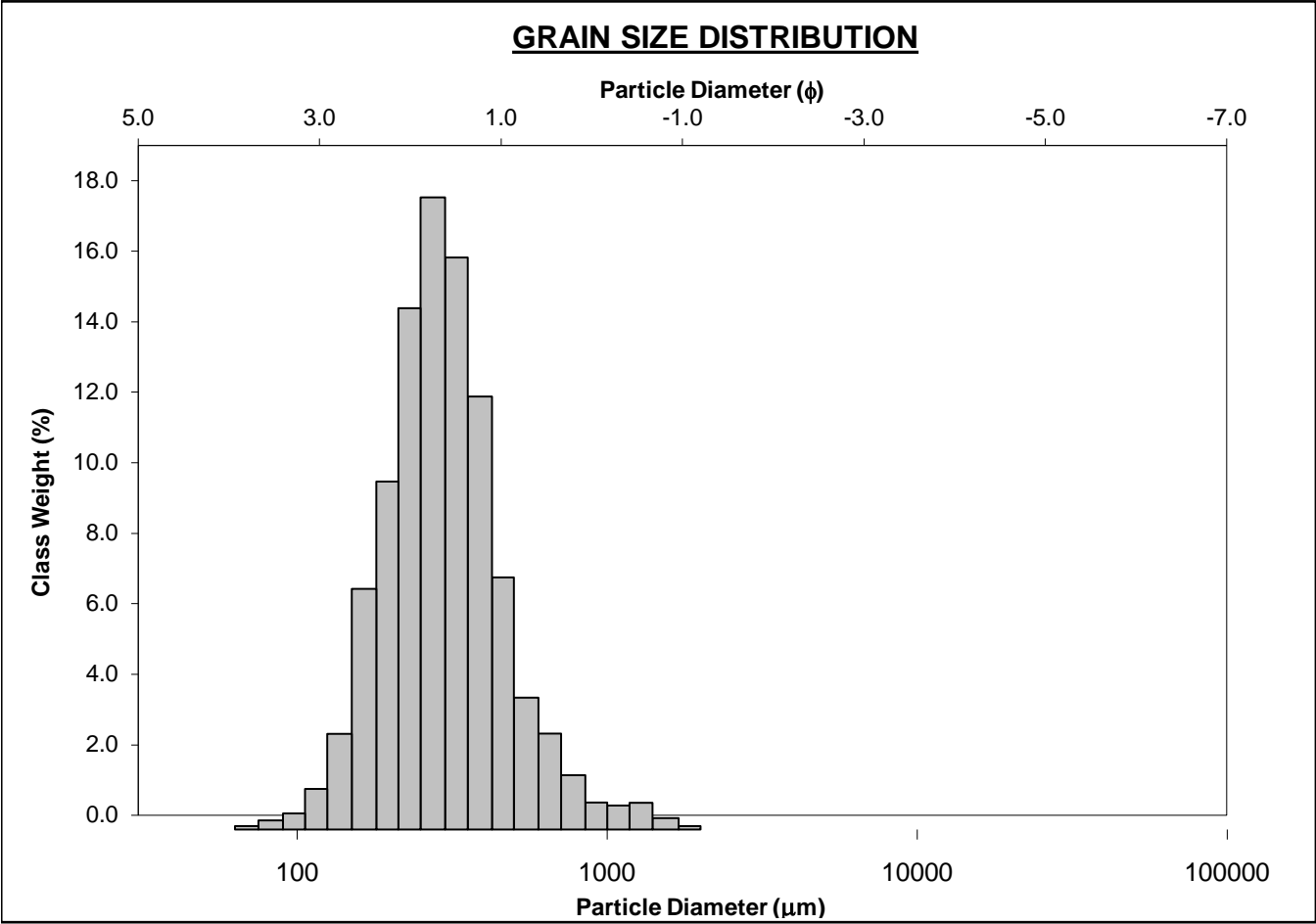
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-120cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 7.6%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 47.8%	
MODE 3:			MUD: 0.1%		FINE SAND: 41.9%	
D ₁₀ :	159.4	1.075			V FINE SAND: 2.1%	
MEDIAN or D ₅₀ :	265.7	1.912	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	474.7	2.649	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.978	2.465	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	315.3	1.574	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.767	1.548	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	153.6	0.821	V COARSE SAND: 0.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	300.3	270.4	1.887	268.1	1.899	Medium Sand
SORTING (σ):	150.2	1.565	0.646	1.532	0.615	Moderately Well Sorted
SKEWNESS (Sk):	2.343	-0.296	0.296	0.069	-0.069	Symmetrical
KURTOSIS (K):	13.19	8.036	8.036	1.017	1.017	Mesokurtic



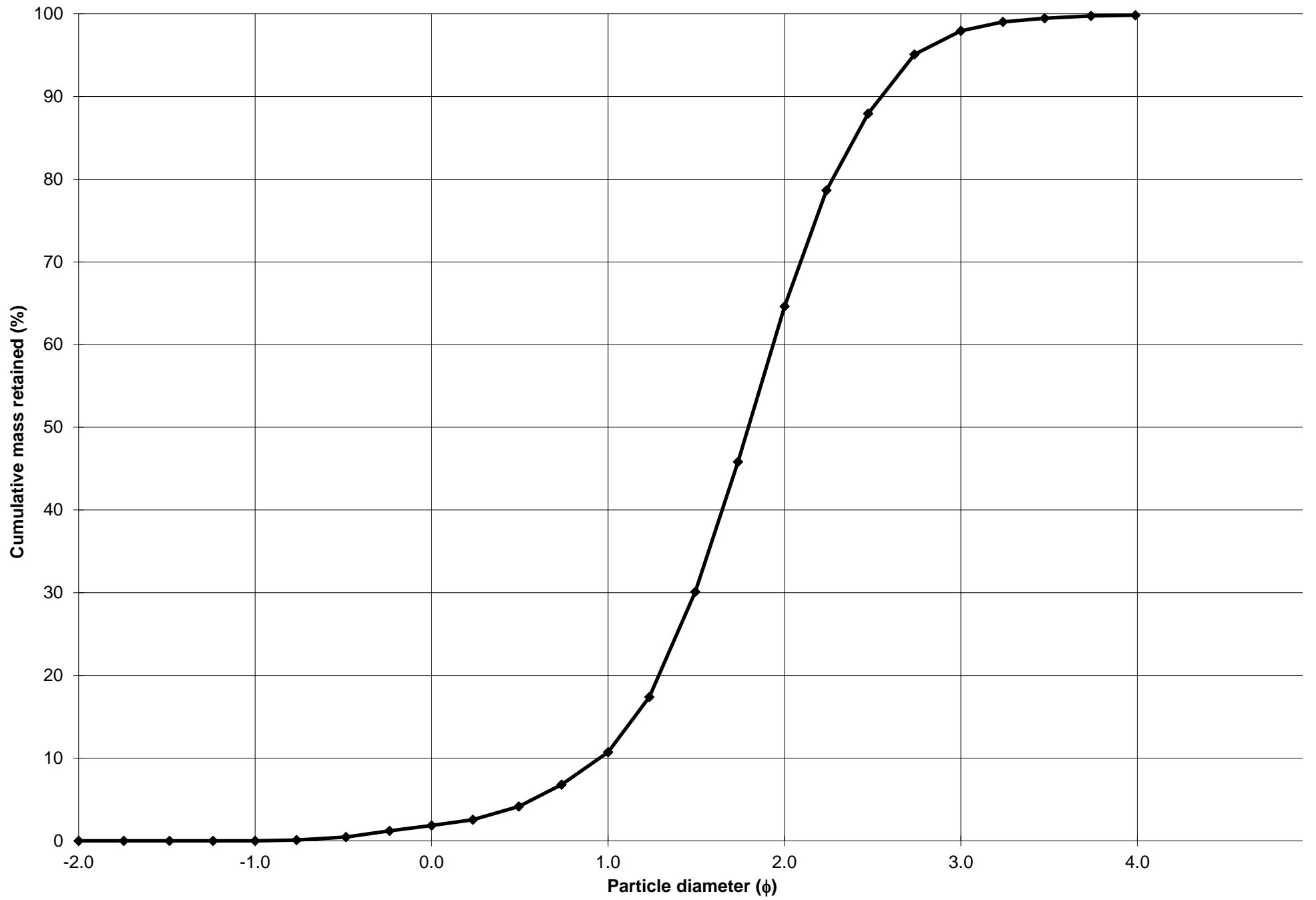
Cumulative Frequency Curve



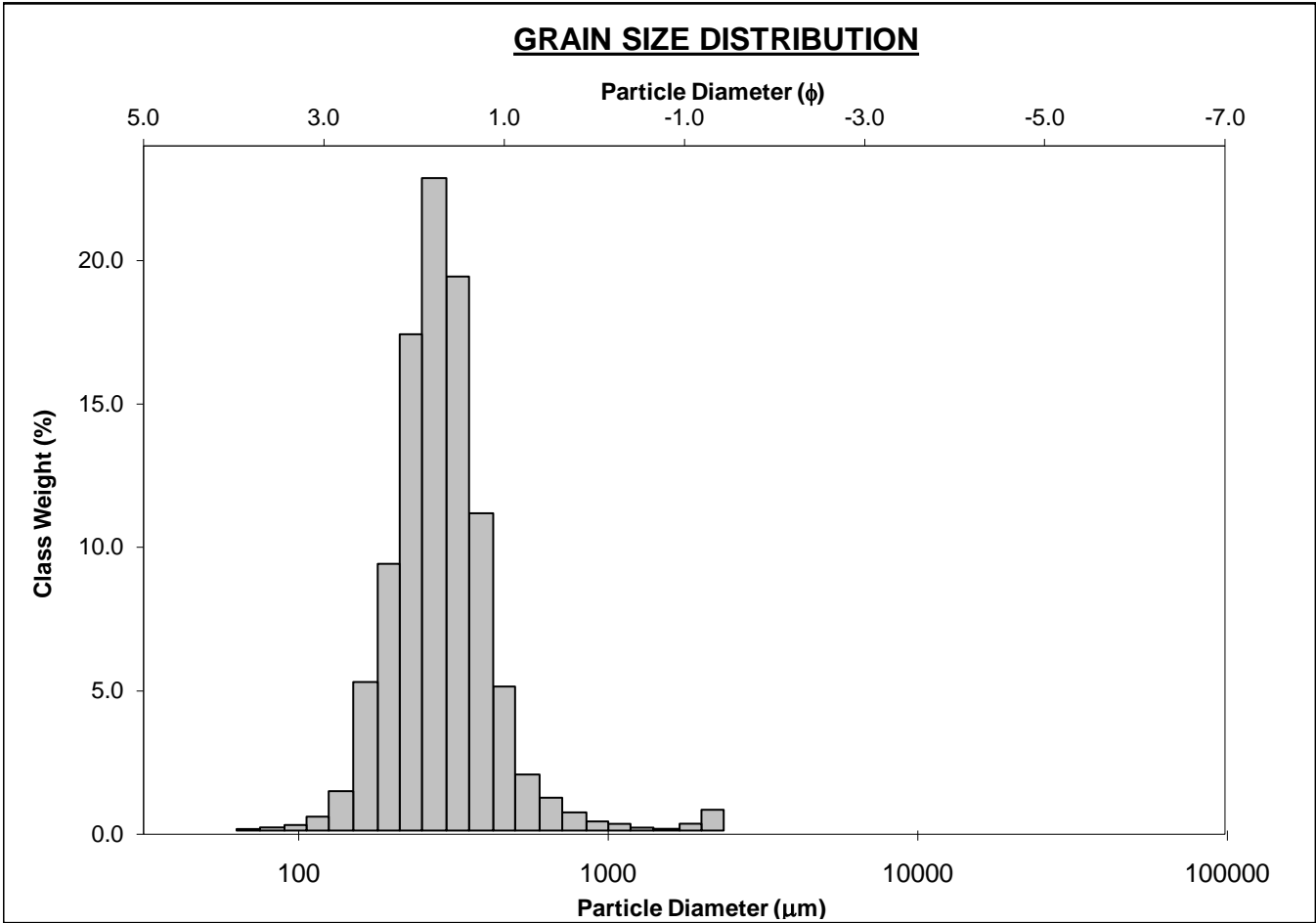
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-130cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 8.9%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 53.9%	
MODE 3:			MUD: 0.2%		FINE SAND: 33.3%	
D ₁₀ :	170.8	0.952			V FINE SAND: 1.9%	
MEDIAN or D ₅₀ :	288.1	1.795	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	516.8	2.550	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.026	2.678	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	346.0	1.598	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.725	1.566	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	160.3	0.786	V COARSE SAND: 1.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	333.8	294.9	1.762	290.2	1.785	Medium Sand
SORTING (σ):	194.6	1.618	0.694	1.542	0.625	Moderately Well Sorted
SKEWNESS (Sk):	2.988	-0.229	0.229	0.079	-0.079	Symmetrical
KURTOSIS (K):	16.13	9.046	9.046	1.127	1.127	Leptokurtic



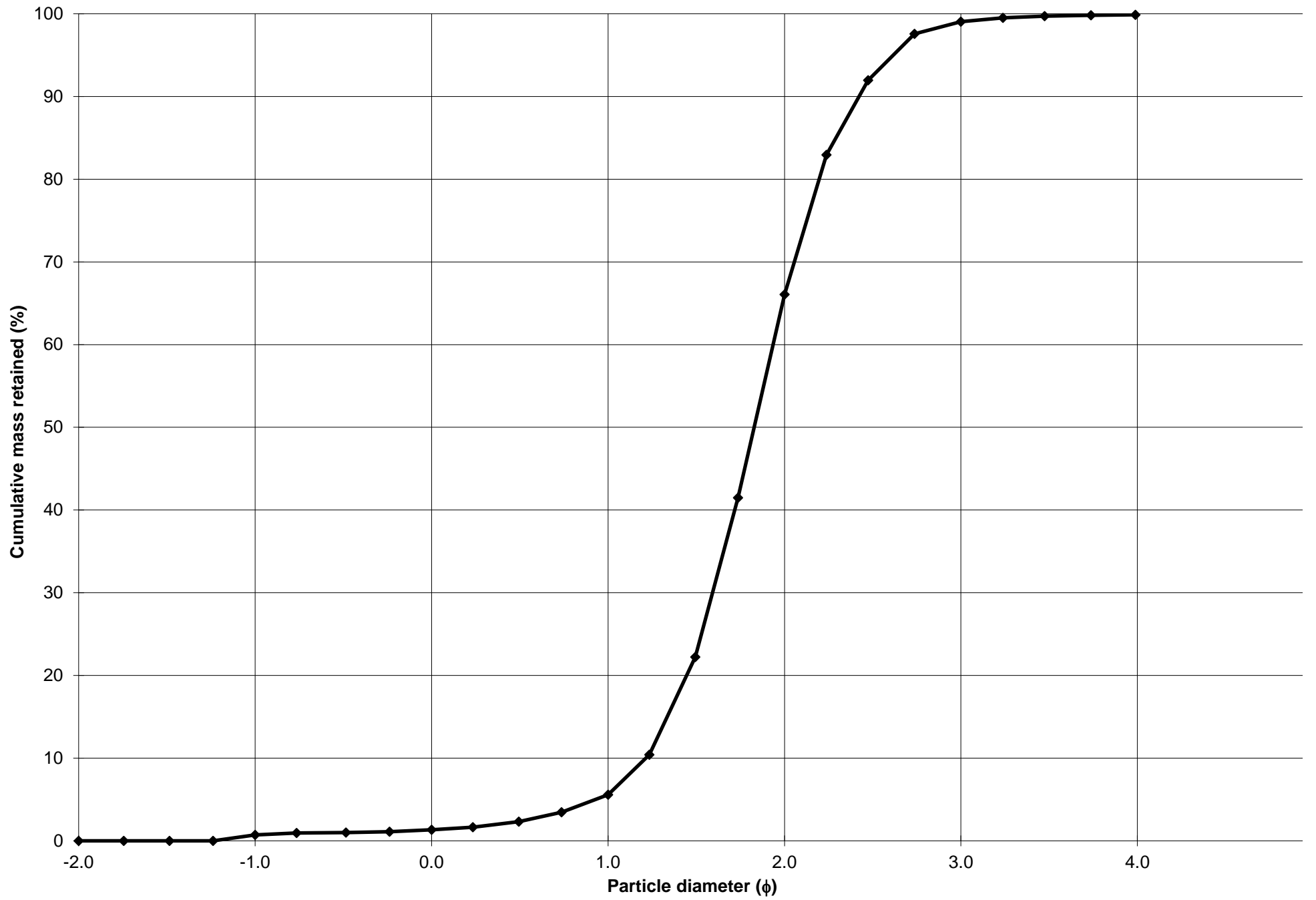
Cumulative Frequency Curve



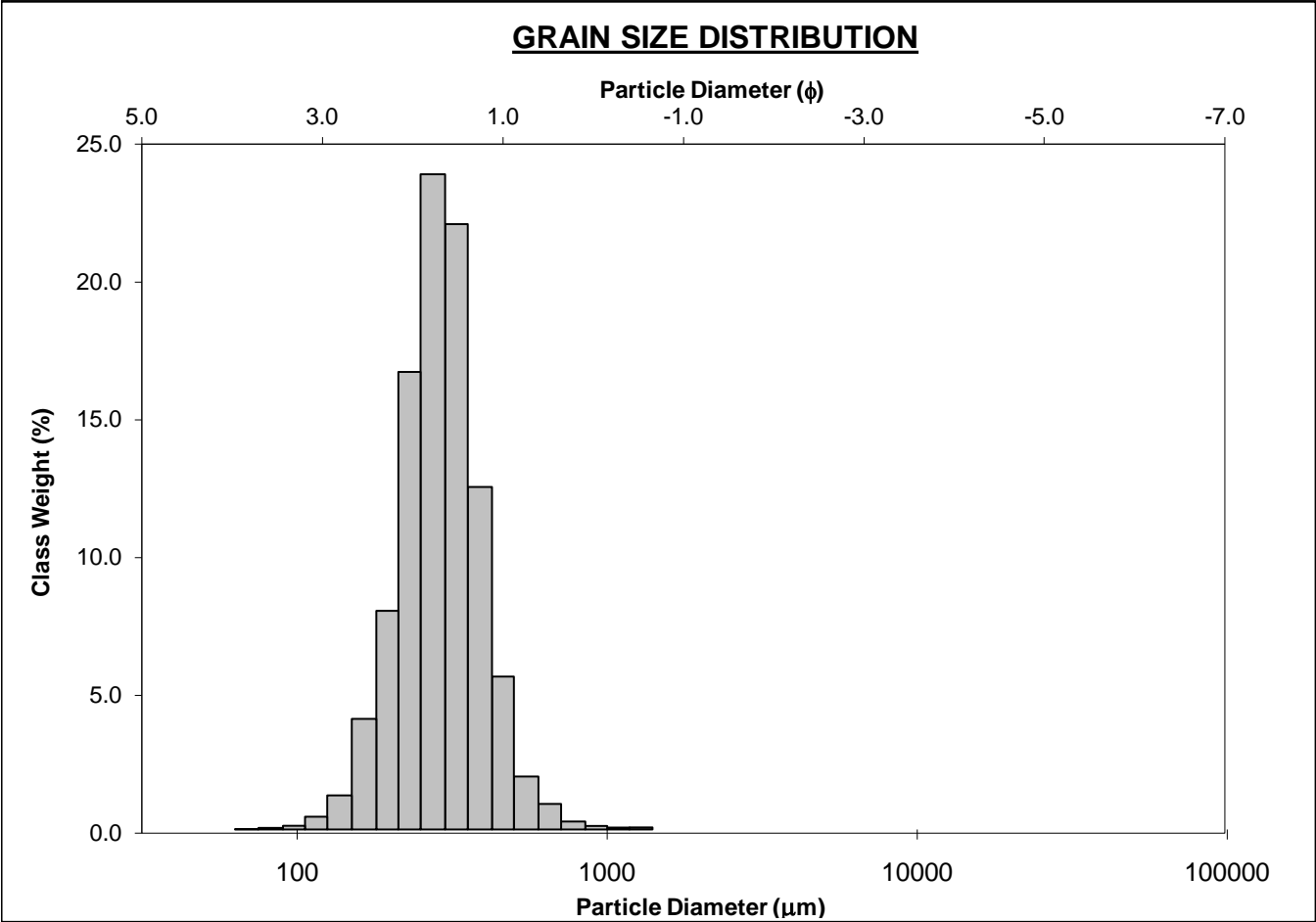
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-140cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.7%		COARSE SAND: 4.2%	
MODE 2:			SAND: 99.2%		MEDIUM SAND: 60.5%	
MODE 3:			MUD: 0.1%		FINE SAND: 33.0%	
D ₁₀ :	186.5	1.214			V FINE SAND: 0.8%	
MEDIAN or D ₅₀ :	281.6	1.828	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	431.0	2.422	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.310	1.995	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	244.4	1.208	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.512	1.390	V FINE GRAVEL: 0.7%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	117.4	0.597	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	319.8	287.8	1.797	283.8	1.817	Medium Sand
SORTING (σ):	213.2	1.510	0.595	1.398	0.483	Well Sorted
SKEWNESS (Sk):	6.067	0.418	-0.418	0.052	-0.052	Symmetrical
KURTOSIS (K):	49.43	14.27	14.27	1.160	1.160	Leptokurtic



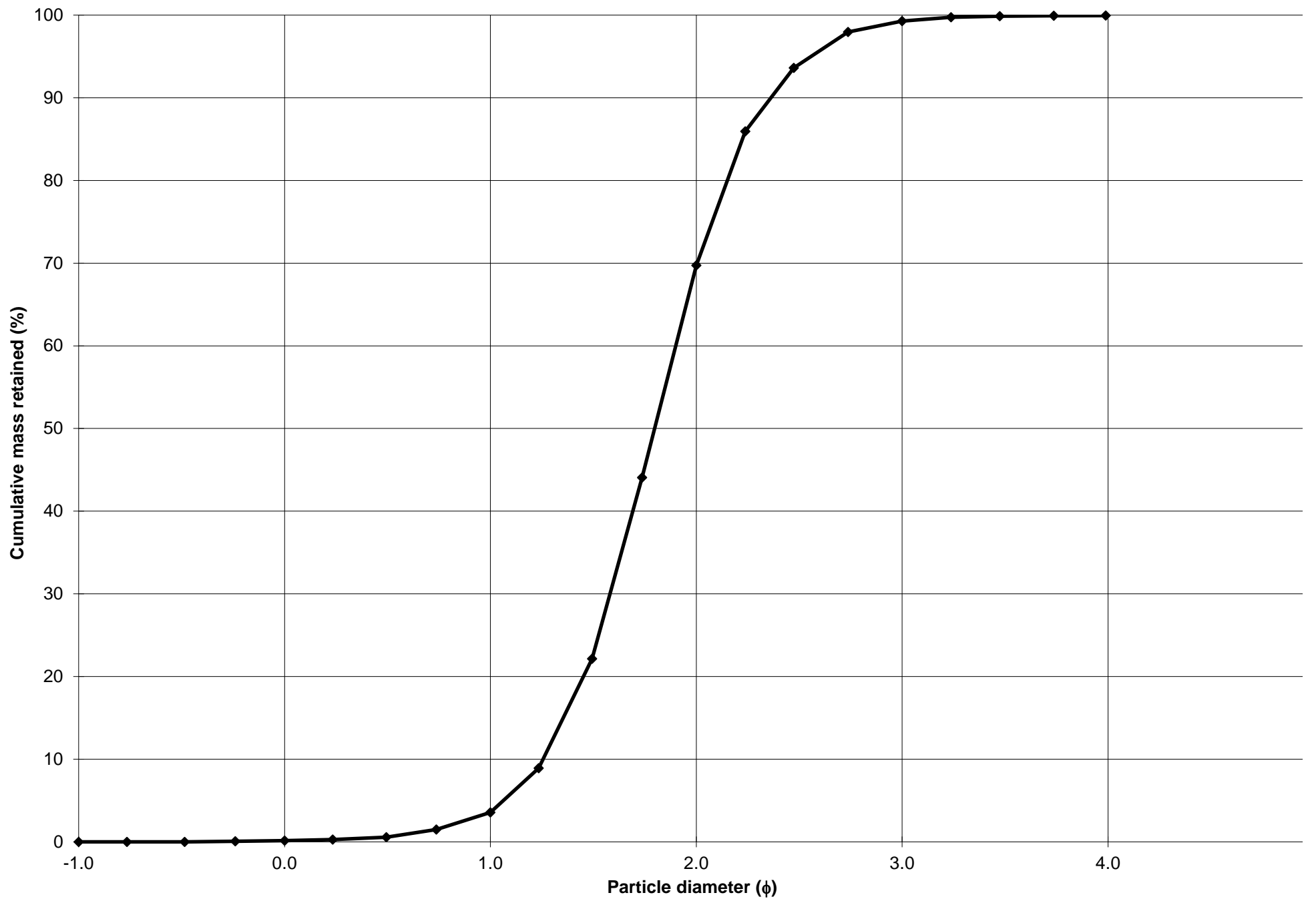
Cumulative Frequency Curve



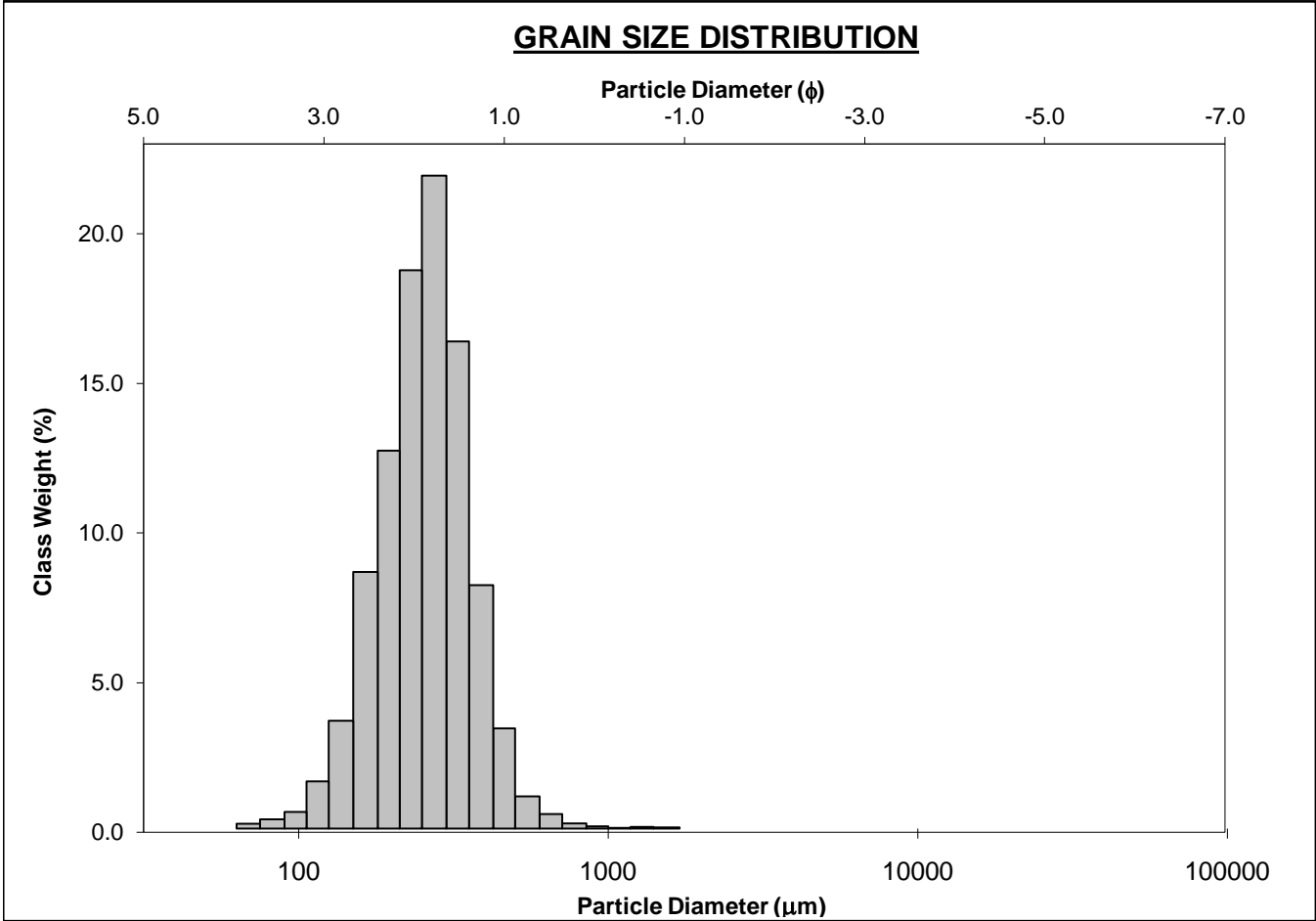
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-150cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%	COARSE SAND: 3.4%		
MODE 2:			SAND: 99.9%	MEDIUM SAND: 66.1%		
MODE 3:			MUD: 0.1%	FINE SAND: 29.6%		
D ₁₀ :	194.4	1.256		V FINE SAND: 0.7%		
MEDIAN or D ₅₀ :	287.6	1.798	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	418.8	2.363	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.154	1.882	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	224.4	1.107	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.466	1.362	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	110.4	0.552	V COARSE SAND: 0.1%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	303.6	287.3	1.799	288.4	1.794	Medium Sand
SORTING (σ):	103.2	1.384	0.468	1.352	0.436	Well Sorted
SKEWNESS (Sk):	2.091	-0.734	0.734	-0.001	0.001	Symmetrical
KURTOSIS (K):	14.39	12.94	12.94	1.111	1.111	Leptokurtic



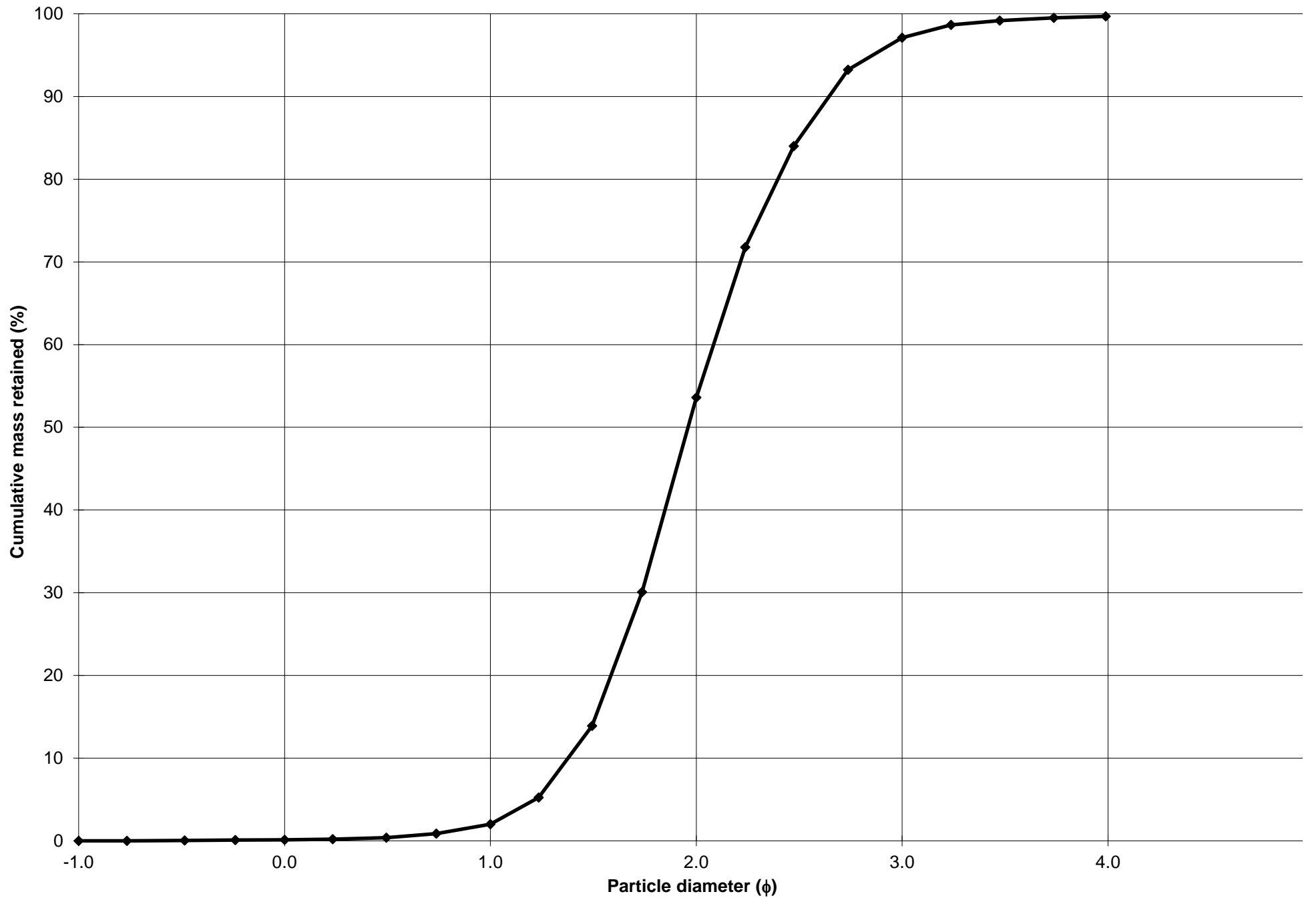
Cumulative Frequency Curve



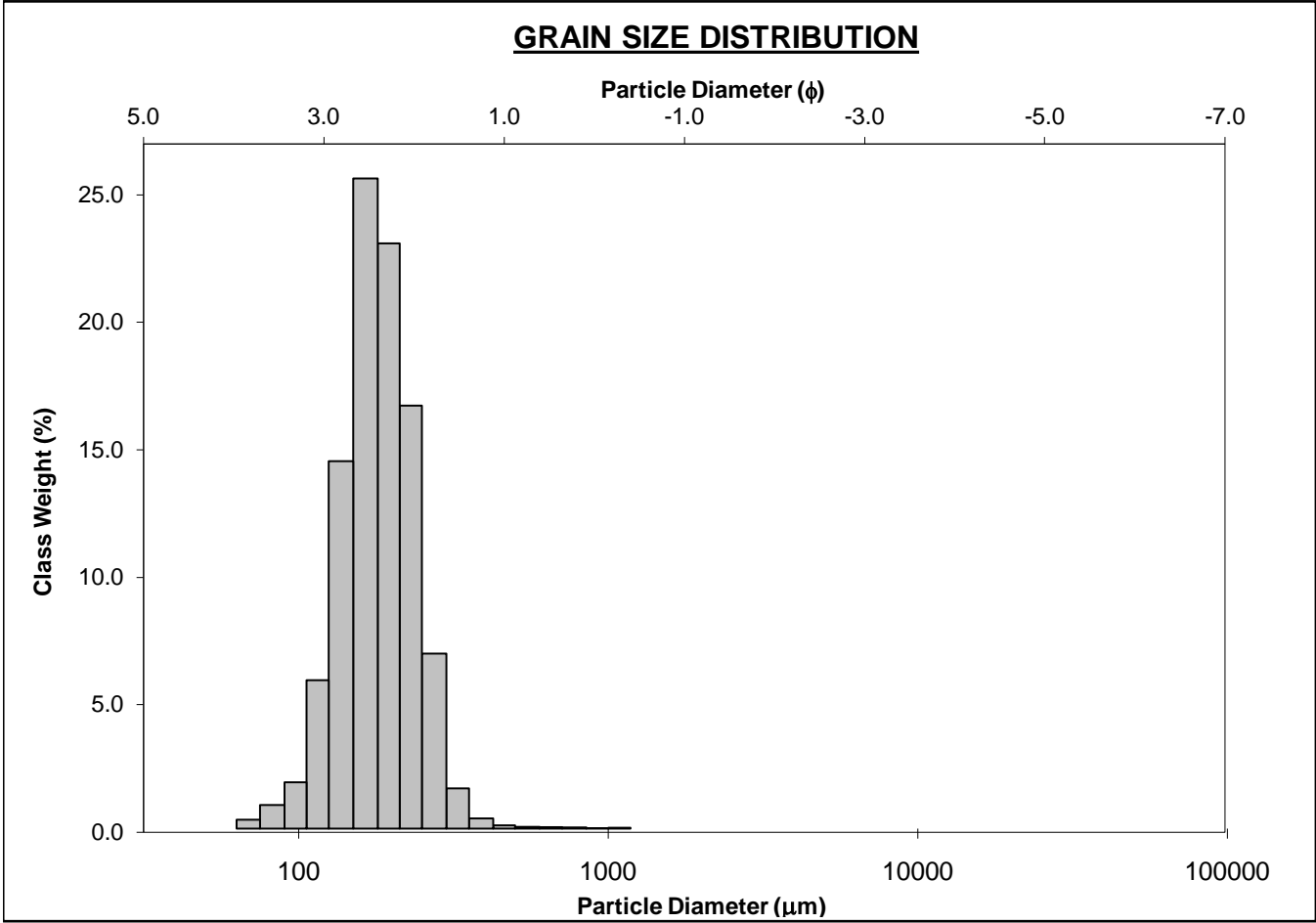
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-160cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.9%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 51.6%	
MODE 3:			MUD: 0.3%		FINE SAND: 43.5%	
D ₁₀ :	159.9	1.377			V FINE SAND: 2.6%	
MEDIAN or D ₅₀ :	257.1	1.960	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	384.9	2.645	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.408	1.920	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	225.0	1.268	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.558	1.385	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	113.2	0.639	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	268.9	250.0	2.000	252.3	1.987	Medium Sand
SORTING (σ):	101.9	1.489	0.575	1.400	0.486	Well Sorted
SKEWNESS (Sk):	2.499	-2.062	2.062	-0.090	0.090	Symmetrical
KURTOSIS (K):	22.84	20.42	20.42	1.051	1.051	Mesokurtic



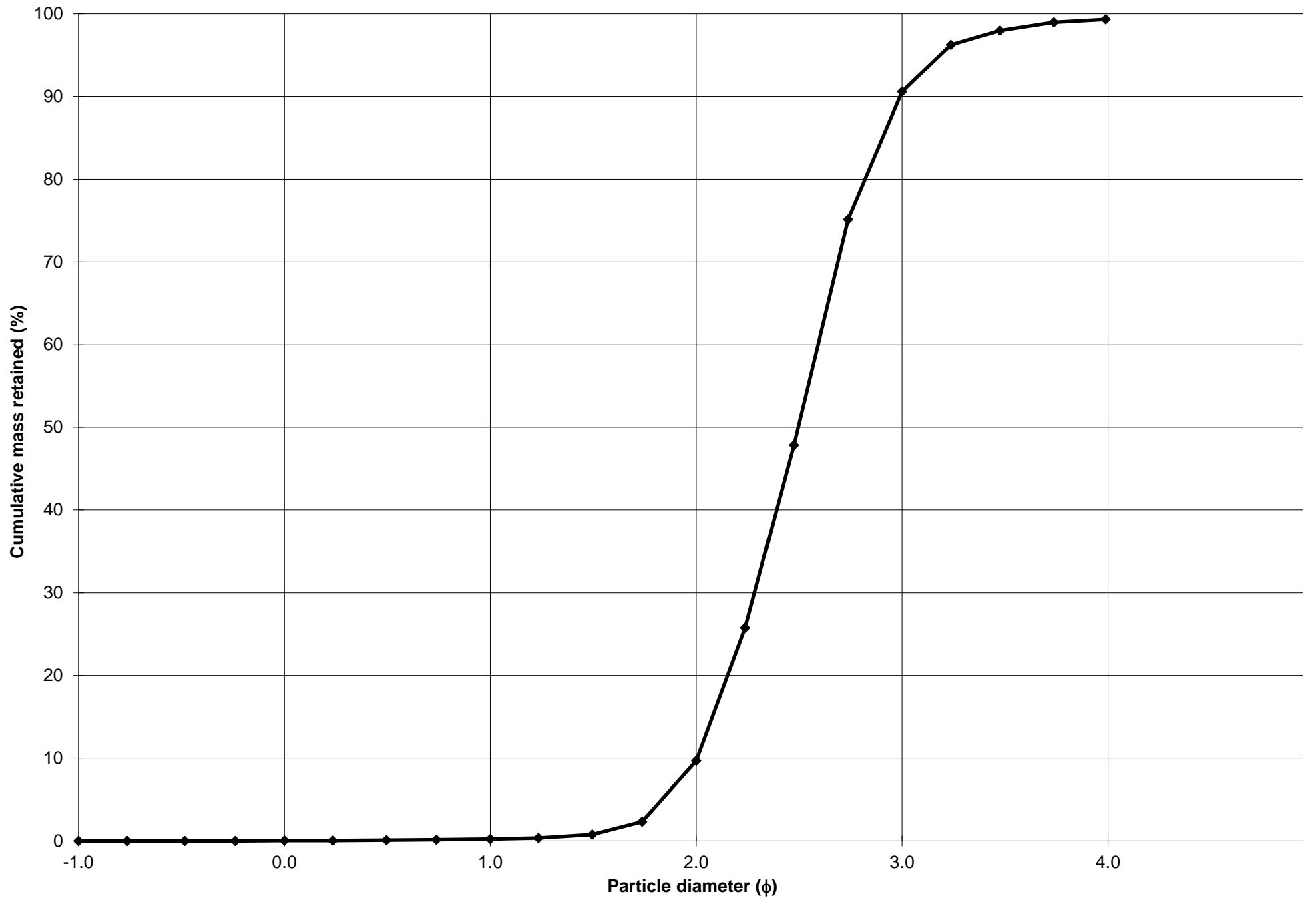
Cumulative Frequency Curve



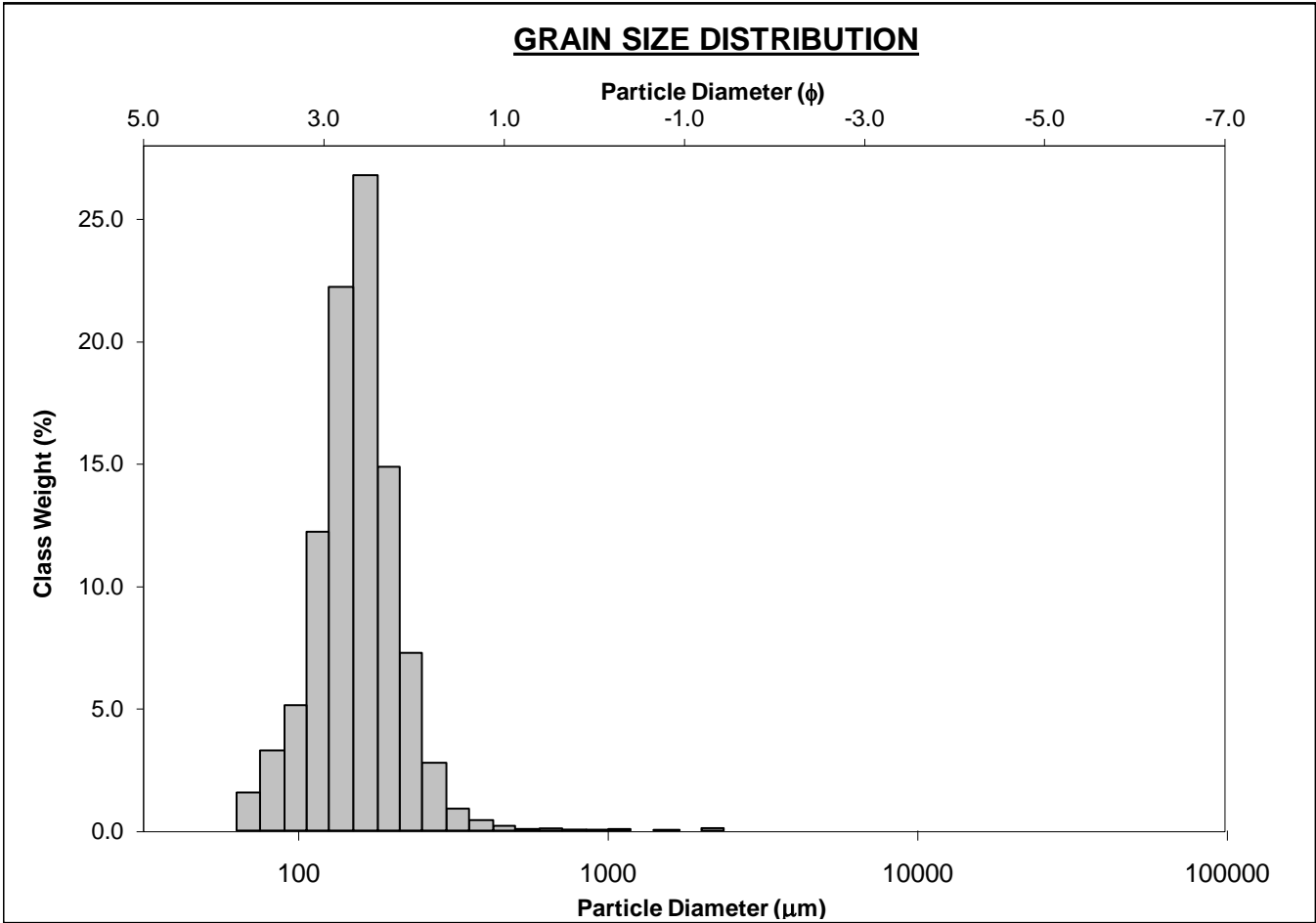
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-170cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.2%	
MODE 2:			SAND: 99.3%		MEDIUM SAND: 9.5%	
MODE 3:			MUD: 0.7%		FINE SAND: 80.9%	
D ₁₀ :	125.9	2.005			V FINE SAND: 8.7%	
MEDIAN or D ₅₀ :	177.4	2.495	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	249.2	2.990	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	1.980	1.492	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	123.3	0.985	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.423	1.229	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	63.51	0.509	V COARSE SAND: 0.0%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	185.4	174.6	2.518	177.8	2.492	Fine Sand
SORTING (σ):	58.95	1.463	0.549	1.323	0.404	Well Sorted
SKEWNESS (Sk):	2.866	-3.570	3.570	-0.005	0.005	Symmetrical
KURTOSIS (K):	33.36	31.61	31.61	1.090	1.090	Mesokurtic



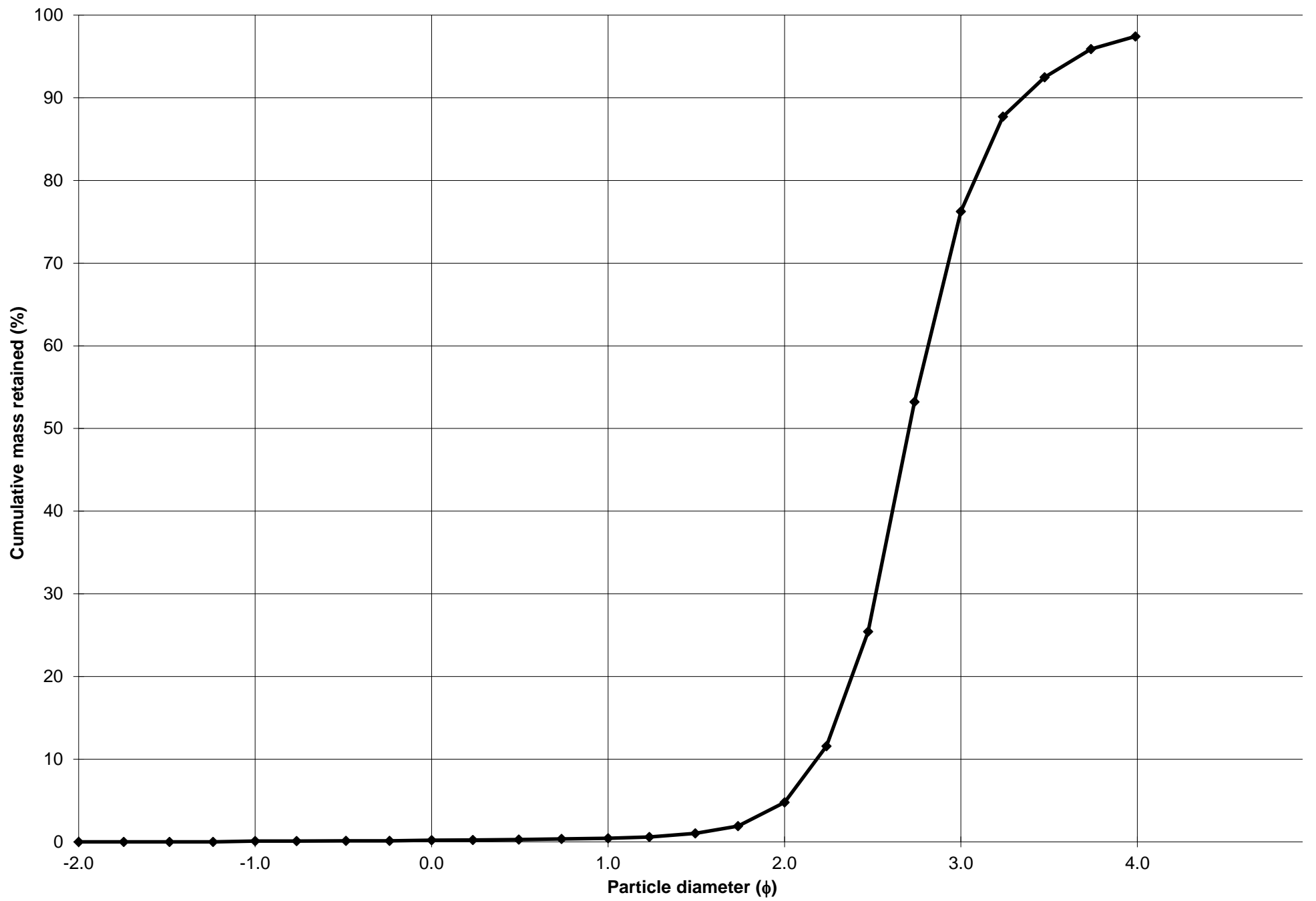
Cumulative Frequency Curve



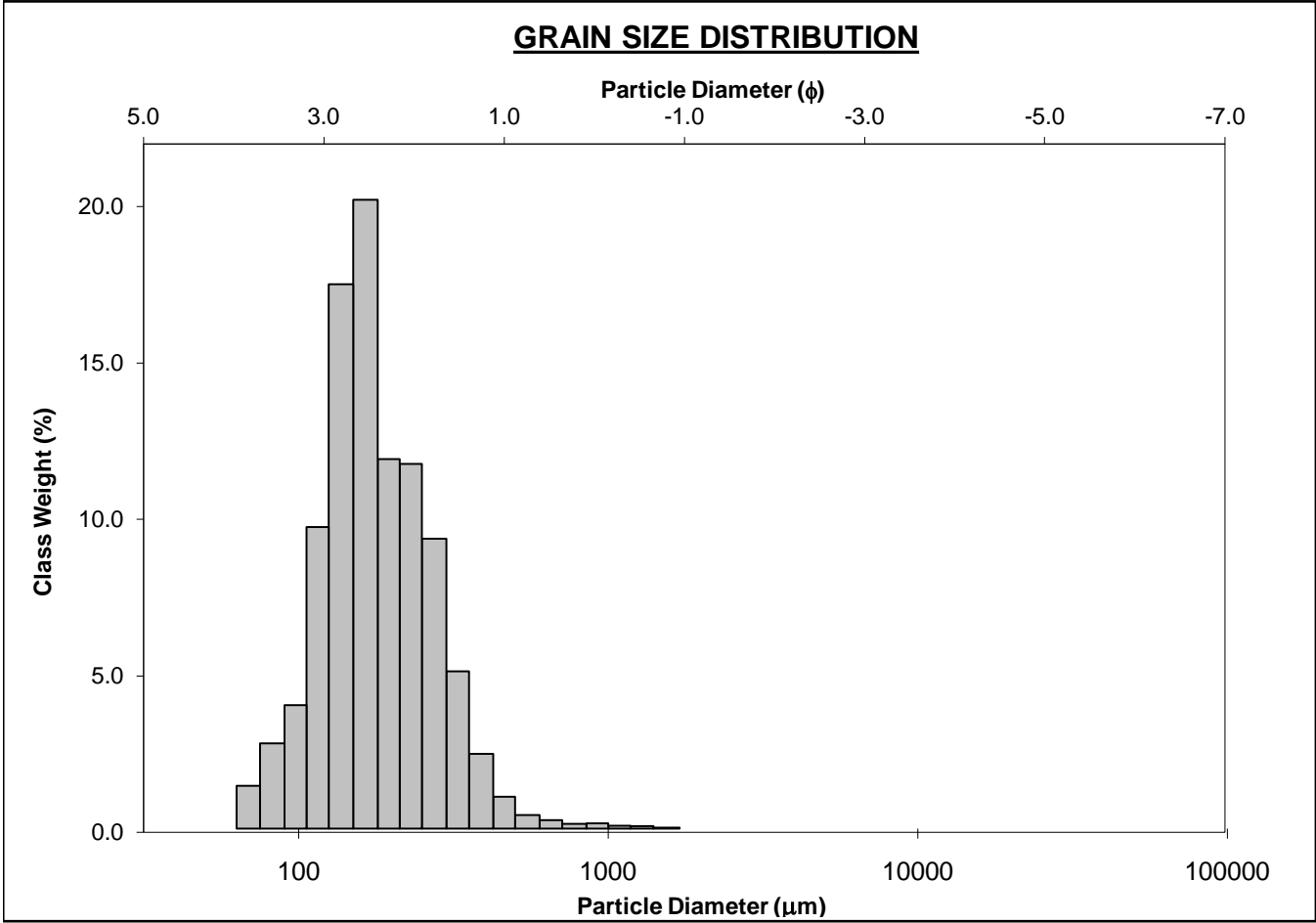
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-180cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.1%		COARSE SAND: 0.2%	
MODE 2:			SAND: 97.3%		MEDIUM SAND: 4.4%	
MODE 3:			MUD: 2.6%		FINE SAND: 71.5%	
D ₁₀ :	98.00	2.183			V FINE SAND: 21.2%	
MEDIAN or D ₅₀ :	153.2	2.707	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.4%	
D ₉₀ :	220.3	3.351	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D ₉₀ / D ₁₀):	2.248	1.535	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
(D ₉₀ - D ₁₀):	122.3	1.168	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D ₇₅ / D ₂₅):	1.433	1.210	V FINE GRAVEL: 0.1%		V FINE SILT: 0.4%	
(D ₇₅ - D ₂₅):	54.66	0.519	V COARSE SAND: 0.1%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	161.1	142.5	2.811	151.1	2.727	Fine Sand
SORTING (σ):	92.42	1.768	0.822	1.379	0.464	Well Sorted
SKEWNESS (Sk):	12.25	-3.096	3.096	-0.115	0.115	Fine Skewed
KURTOSIS (K):	242.7	18.41	18.41	1.312	1.312	Leptokurtic



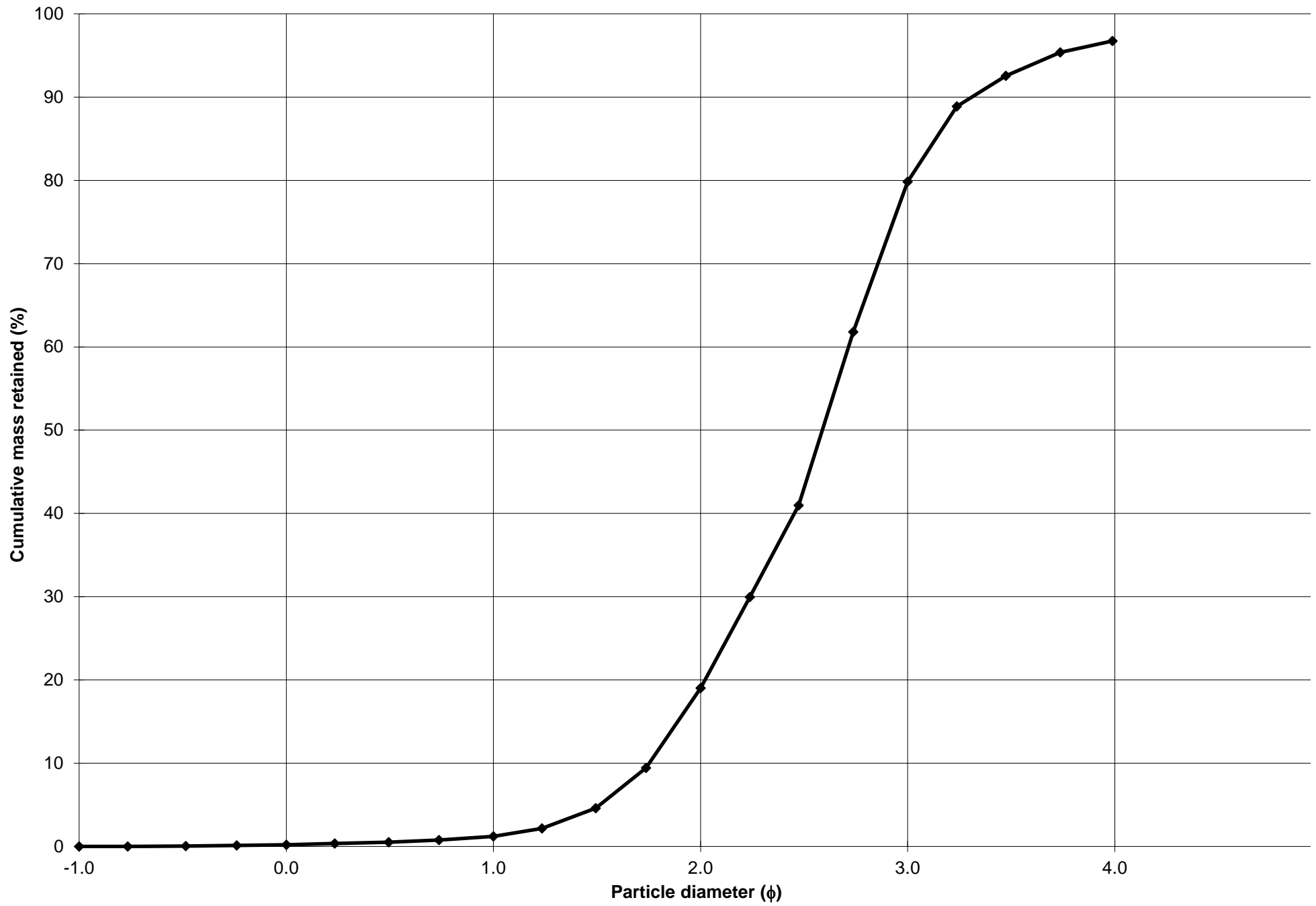
Cumulative Frequency Curve



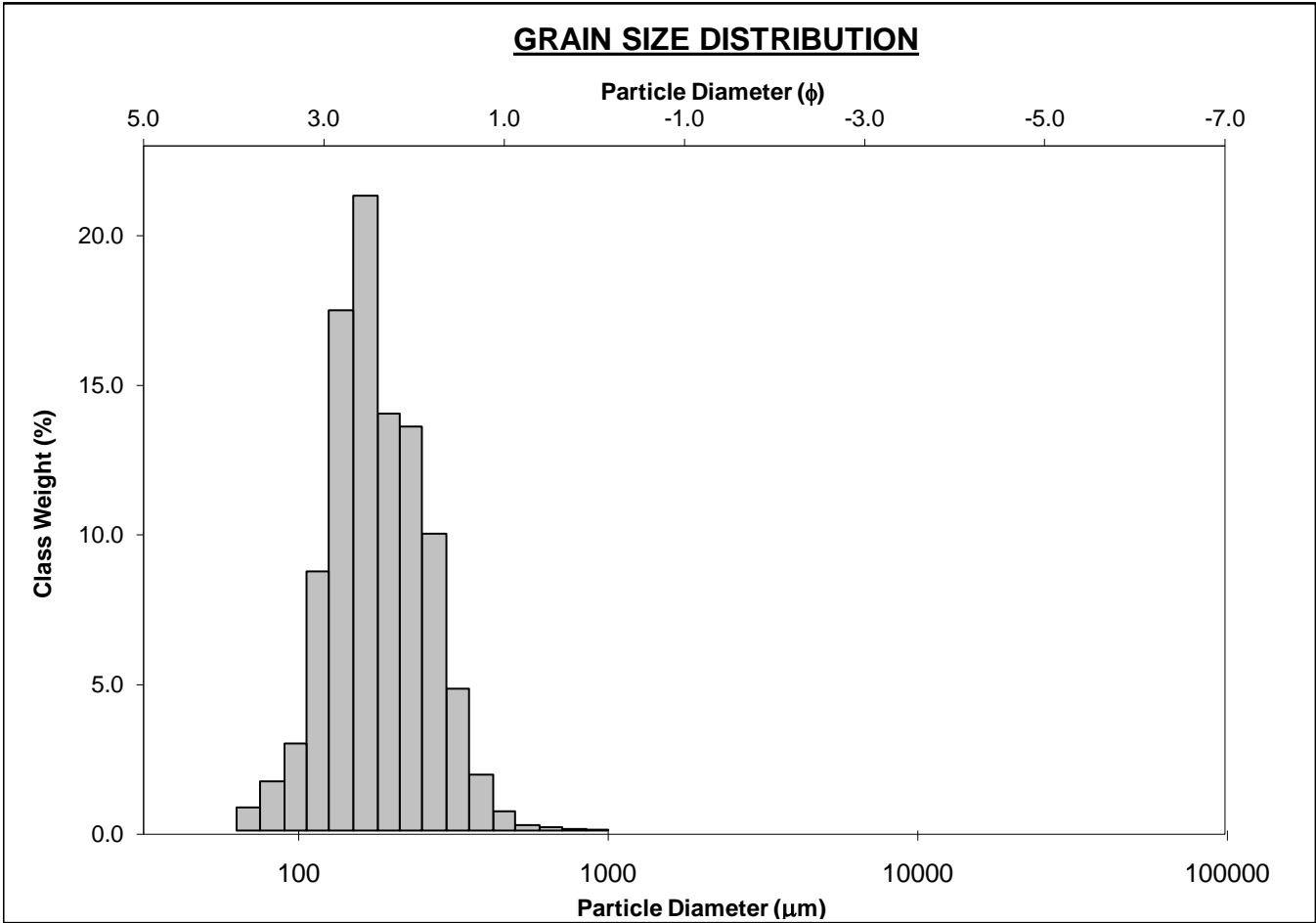
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-190cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 1.0%	
MODE 2:			SAND: 96.7%		MEDIUM SAND: 17.8%	
MODE 3:			MUD: 3.3%		FINE SAND: 60.8%	
D ₁₀ :	100.9	1.753			V FINE SAND: 16.9%	
MEDIAN or D ₅₀ :	166.3	2.588	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.5%	
D ₉₀ :	296.7	3.309	COARSE GRAVEL: 0.0%		COARSE SILT: 0.5%	
(D ₉₀ / D ₁₀):	2.942	1.888	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.5%	
(D ₉₀ - D ₁₀):	195.8	1.557	FINE GRAVEL: 0.0%		FINE SILT: 0.5%	
(D ₇₅ / D ₂₅):	1.740	1.375	V FINE GRAVEL: 0.0%		V FINE SILT: 0.5%	
(D ₇₅ - D ₂₅):	97.20	0.799	V COARSE SAND: 0.2%		CLAY: 0.5%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	189.7	159.8	2.646	172.2	2.538	Fine Sand
SORTING (σ):	105.1	1.987	0.991	1.547	0.629	Moderately Well Sorted
SKEWNESS (Sk):	3.653	-2.479	2.479	0.054	-0.054	Symmetrical
KURTOSIS (K):	31.75	12.75	12.75	1.121	1.121	Leptokurtic



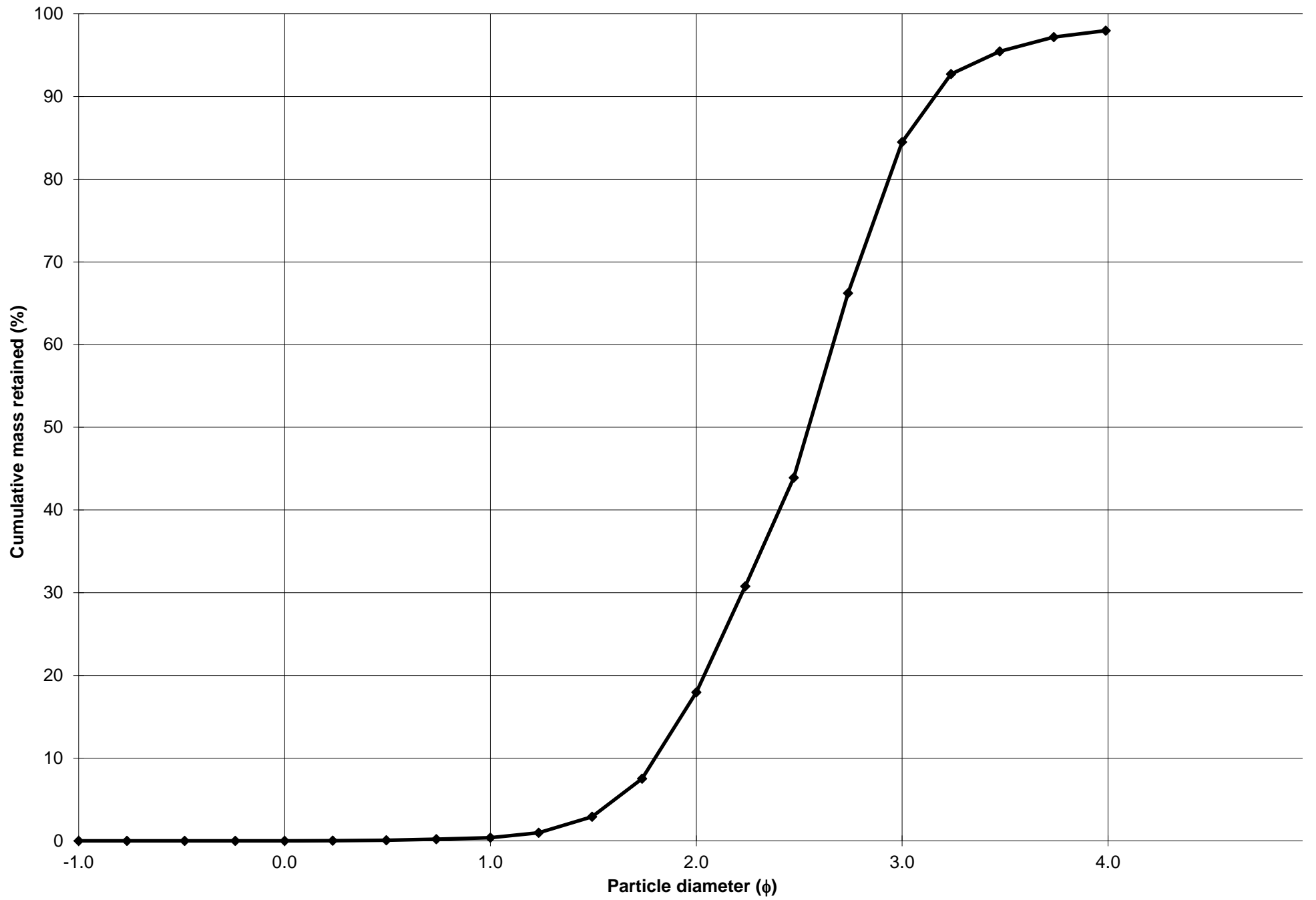
Cumulative Frequency Curve



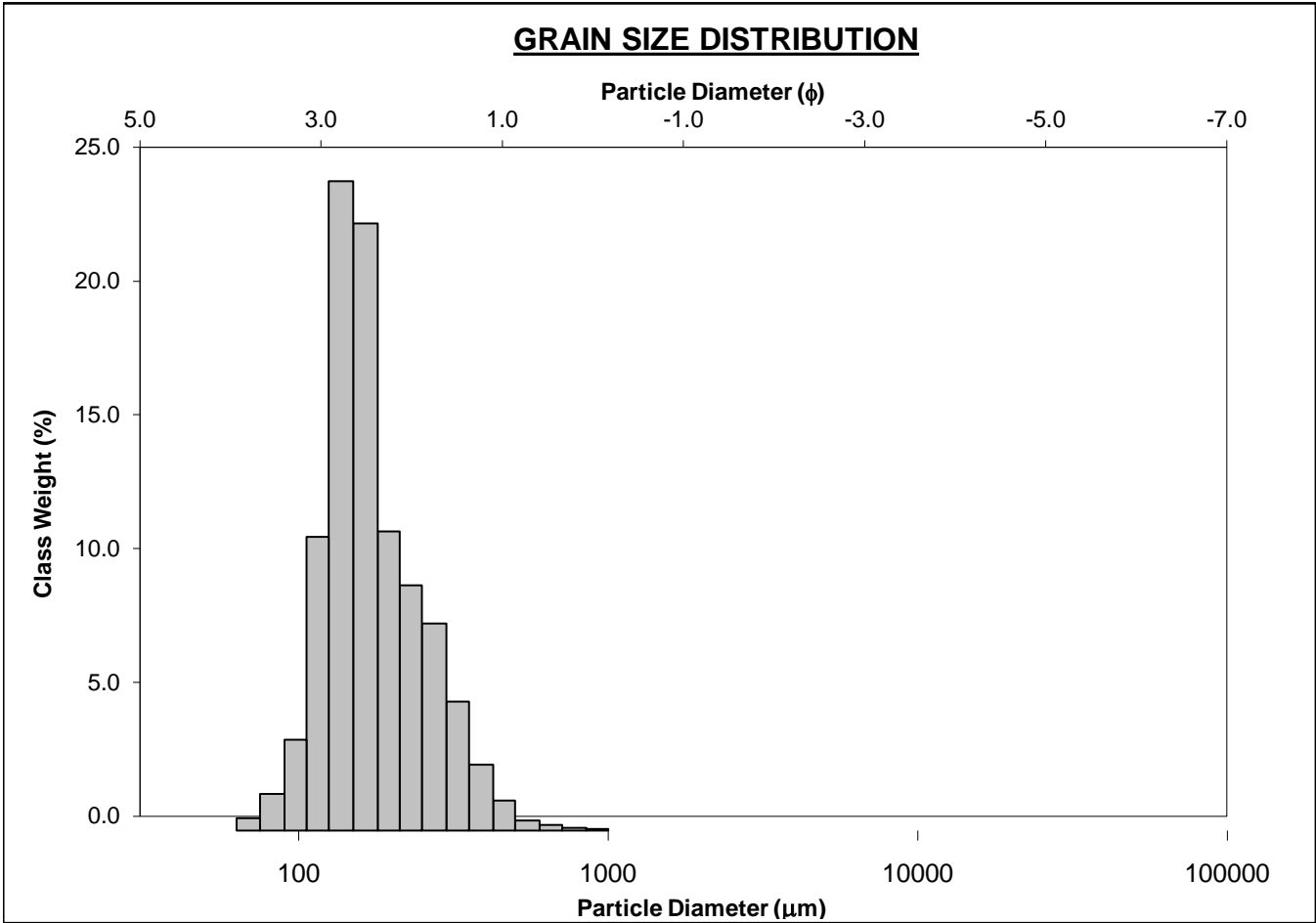
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-200cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.4%	
MODE 2:			SAND: 98.0%		MEDIUM SAND: 17.6%	
MODE 3:			MUD: 2.0%		FINE SAND: 66.5%	
D ₁₀ :	111.9	1.799			V FINE SAND: 13.5%	
MEDIAN or D ₅₀ :	171.3	2.546	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.3%	
D ₉₀ :	287.3	3.159	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D ₉₀ / D ₁₀):	2.567	1.756	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
(D ₉₀ - D ₁₀):	175.4	1.360	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D ₇₅ / D ₂₅):	1.662	1.344	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
(D ₇₅ - D ₂₅):	90.94	0.733	V COARSE SAND: 0.0%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	188.6	167.8	2.575	177.2	2.497	Fine Sand
SORTING (σ):	77.75	1.763	0.818	1.452	0.538	Moderately Well Sorted
SKEWNESS (Sk):	1.521	-3.022	3.022	0.085	-0.085	Symmetrical
KURTOSIS (K):	9.391	17.94	17.94	1.024	1.024	Mesokurtic



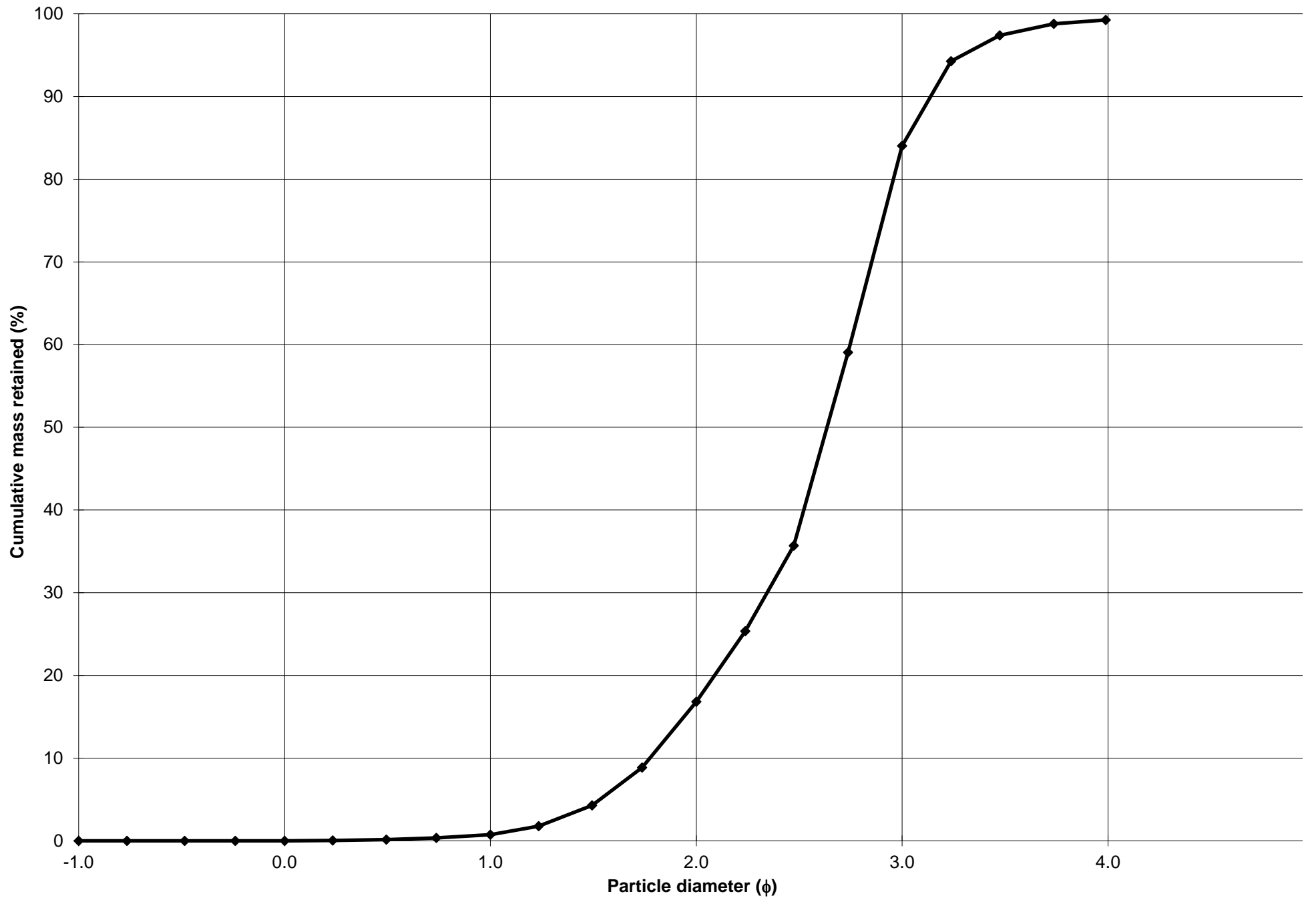
Cumulative Frequency Curve



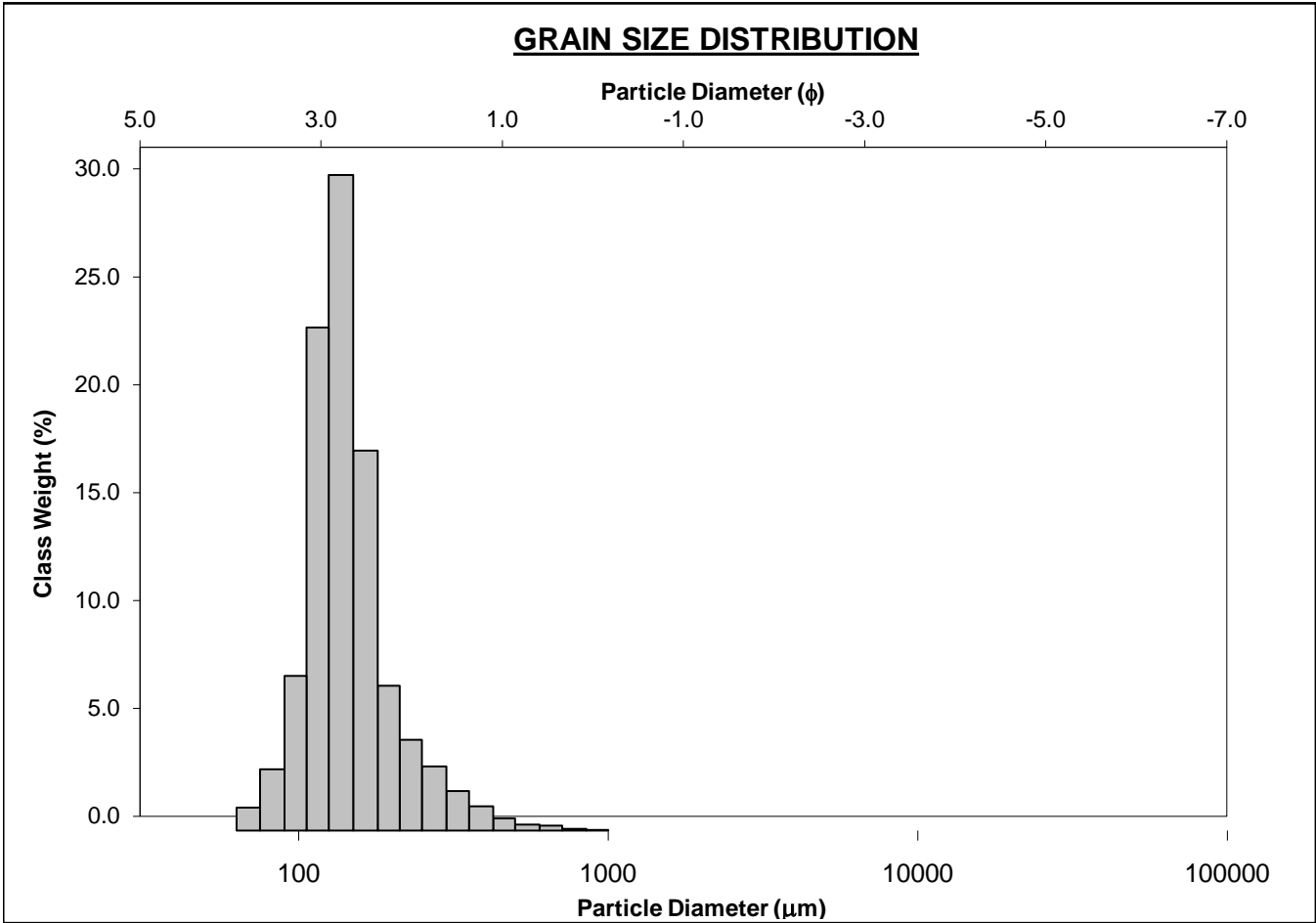
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-210cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 0.7%	
MODE 2:			SAND: 99.3%		MEDIUM SAND: 16.1%	
MODE 3:			MUD: 0.7%		FINE SAND: 67.2%	
D ₁₀ :	113.5	1.775			V FINE SAND: 15.2%	
MEDIAN or D ₅₀ :	161.0	2.635	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	292.3	3.139	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.574	1.769	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	178.7	1.364	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.599	1.304	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	79.95	0.677	V COARSE SAND: 0.0%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	185.6	168.7	2.568	172.4	2.536	Fine Sand
SORTING (σ):	83.74	1.575	0.656	1.438	0.524	Moderately Well Sorted
SKEWNESS (Sk):	2.260	-1.805	1.805	0.271	-0.271	Coarse Skewed
KURTOSIS (K):	12.21	17.22	17.22	1.067	1.067	Mesokurtic



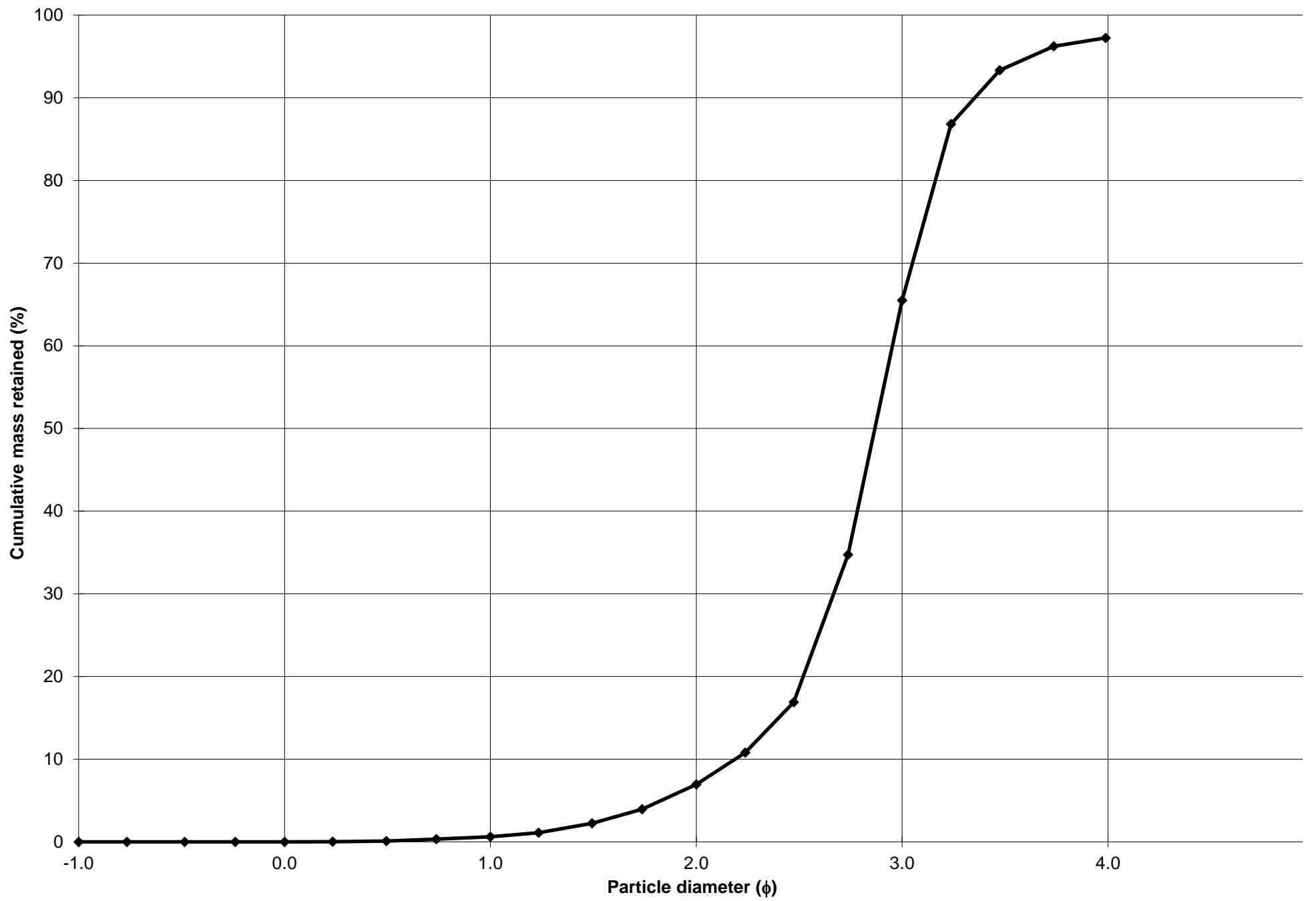
Cumulative Frequency Curve



SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-220cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.6%			
MODE 2:			SAND: 97.3% MEDIUM SAND: 6.4%			
MODE 3:			MUD: 2.7% FINE SAND: 58.5%			
D ₁₀ :	97.88	2.188	V FINE SAND: 31.8%			
MEDIAN or D ₅₀ :	137.0	2.868	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.5%			
D ₉₀ :	219.4	3.353	COARSE GRAVEL: 0.0% COARSE SILT: 0.5%			
(D ₉₀ / D ₁₀):	2.242	1.532	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.5%			
(D ₉₀ - D ₁₀):	121.6	1.165	FINE GRAVEL: 0.0% FINE SILT: 0.5%			
(D ₇₅ / D ₂₅):	1.427	1.198	V FINE GRAVEL: 0.0% V FINE SILT: 0.5%			
(D ₇₅ - D ₂₅):	49.55	0.513	V COARSE SAND: 0.0% CLAY: 0.5%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	152.0	133.9	2.901	139.9	2.838	Fine Sand
SORTING (σ):	71.45	1.786	0.836	1.379	0.464	Well Sorted
SKEWNESS (Sk):	3.191	-2.865	2.865	0.136	-0.136	Coarse Skewed
KURTOSIS (K):	20.86	16.60	16.60	1.436	1.436	Leptokurtic



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **SI-15-10-290cm**

ANALYST & DATE: Chris, 11/9/15

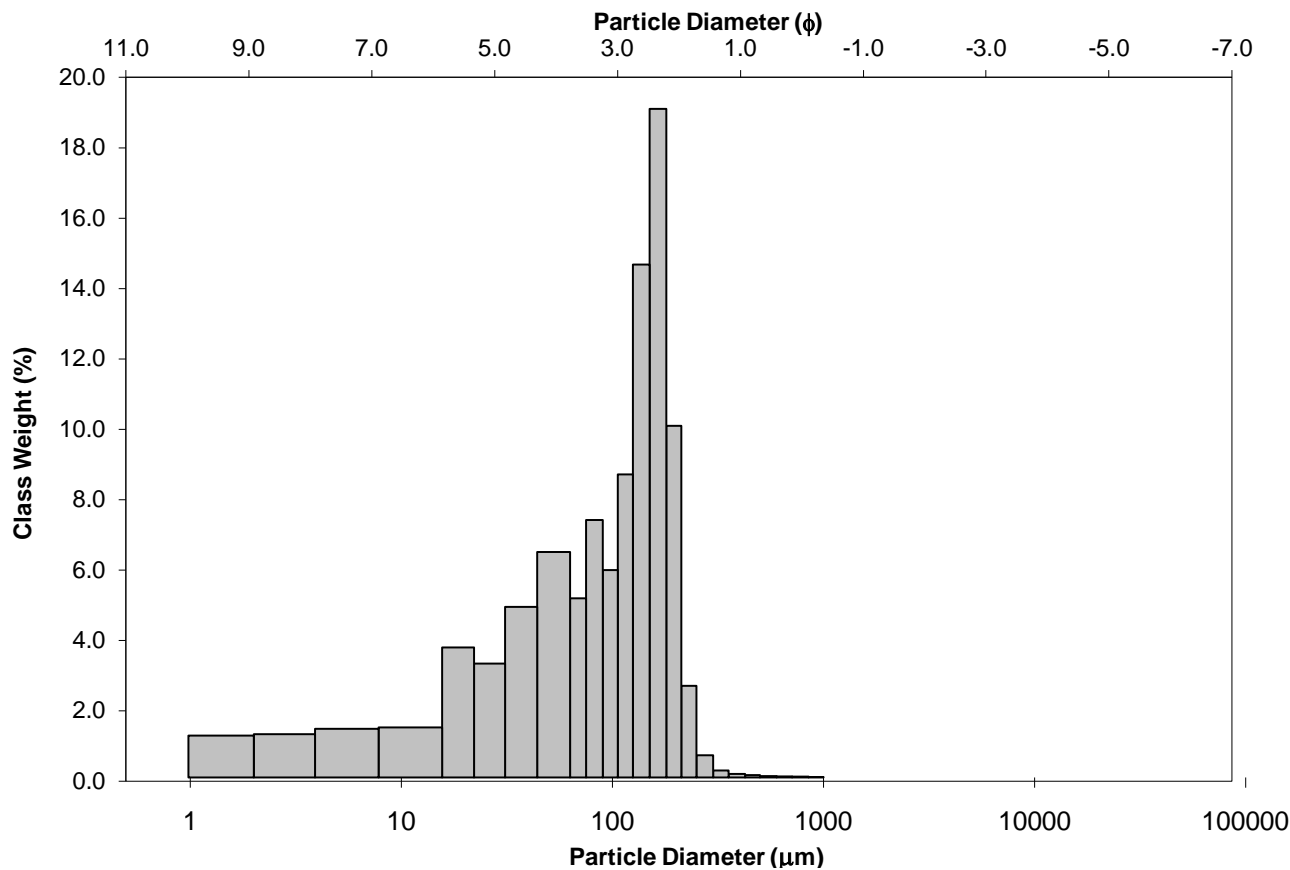
SAMPLE TYPE: Polymodal, Very Poorly Sorted

TEXTURAL GROUP: Muddy Sand

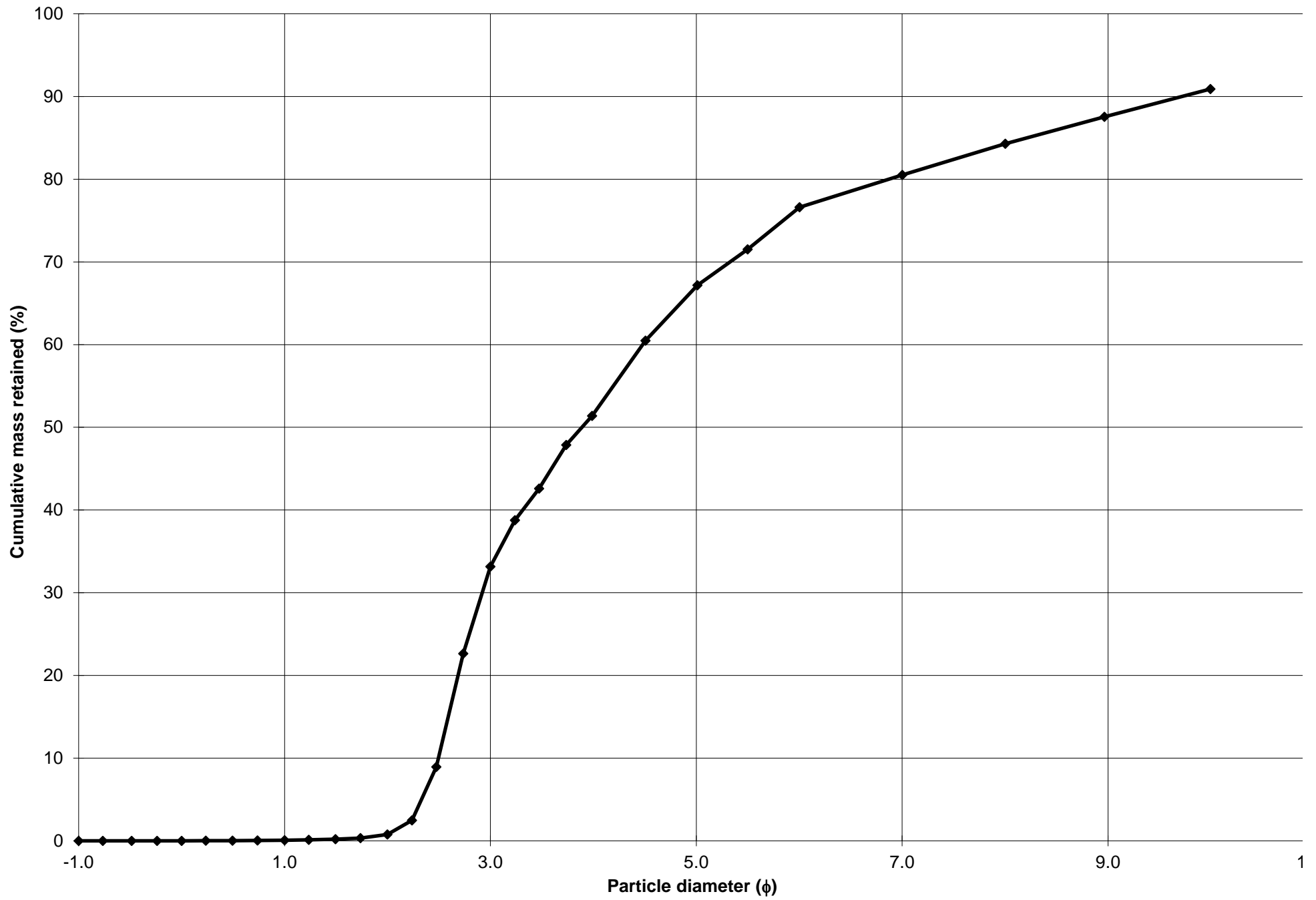
SEDIMENT NAME: Very Coarse Silty Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%	COARSE SAND: 0.1%		
MODE 2:	82.50	3.605	SAND: 51.6%	MEDIUM SAND: 0.7%		
MODE 3:	53.50	4.247	MUD: 48.4%	FINE SAND: 32.4%		
D_{10} :	1.187	2.494		V FINE SAND: 18.4%		
MEDIAN or D_{50} :	67.45	3.890	V COARSE GRAVEL: 0.0%	V COARSE SILT: 15.5%		
D_{90} :	177.5	9.718	COARSE GRAVEL: 0.0%	COARSE SILT: 9.6%		
(D_{90} / D_{10}) :	149.5	3.896	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 3.9%		
$(D_{90} - D_{10})$:	176.3	7.224	FINE GRAVEL: 0.0%	FINE SILT: 3.8%		
(D_{75} / D_{25}) :	8.269	2.090	V FINE GRAVEL: 0.0%	V FINE SILT: 3.4%		
$(D_{75} - D_{25})$:	126.6	3.048	V COARSE SAND: 0.0%	CLAY: 12.3%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	83.73	37.01	4.756	35.70	4.808	Very Coarse Silt
SORTING (σ):	72.01	5.532	2.468	5.112	2.354	Very Poorly Sorted
SKEWNESS (Sk):	0.955	-1.023	1.023	-0.528	0.528	Very Fine Skewed
KURTOSIS (K):	6.720	2.777	2.777	0.910	0.910	Mesokurtic

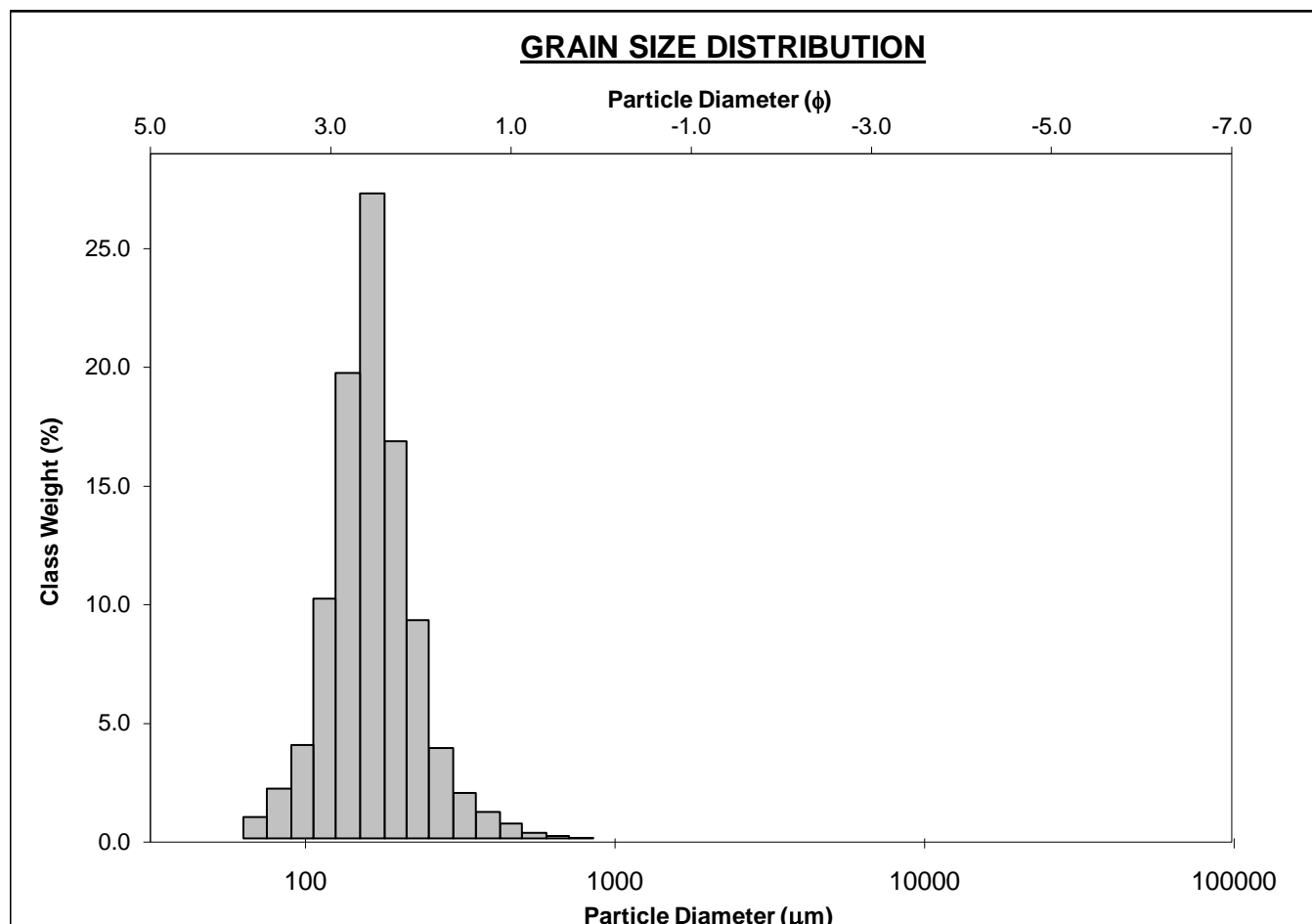
GRAIN SIZE DISTRIBUTION



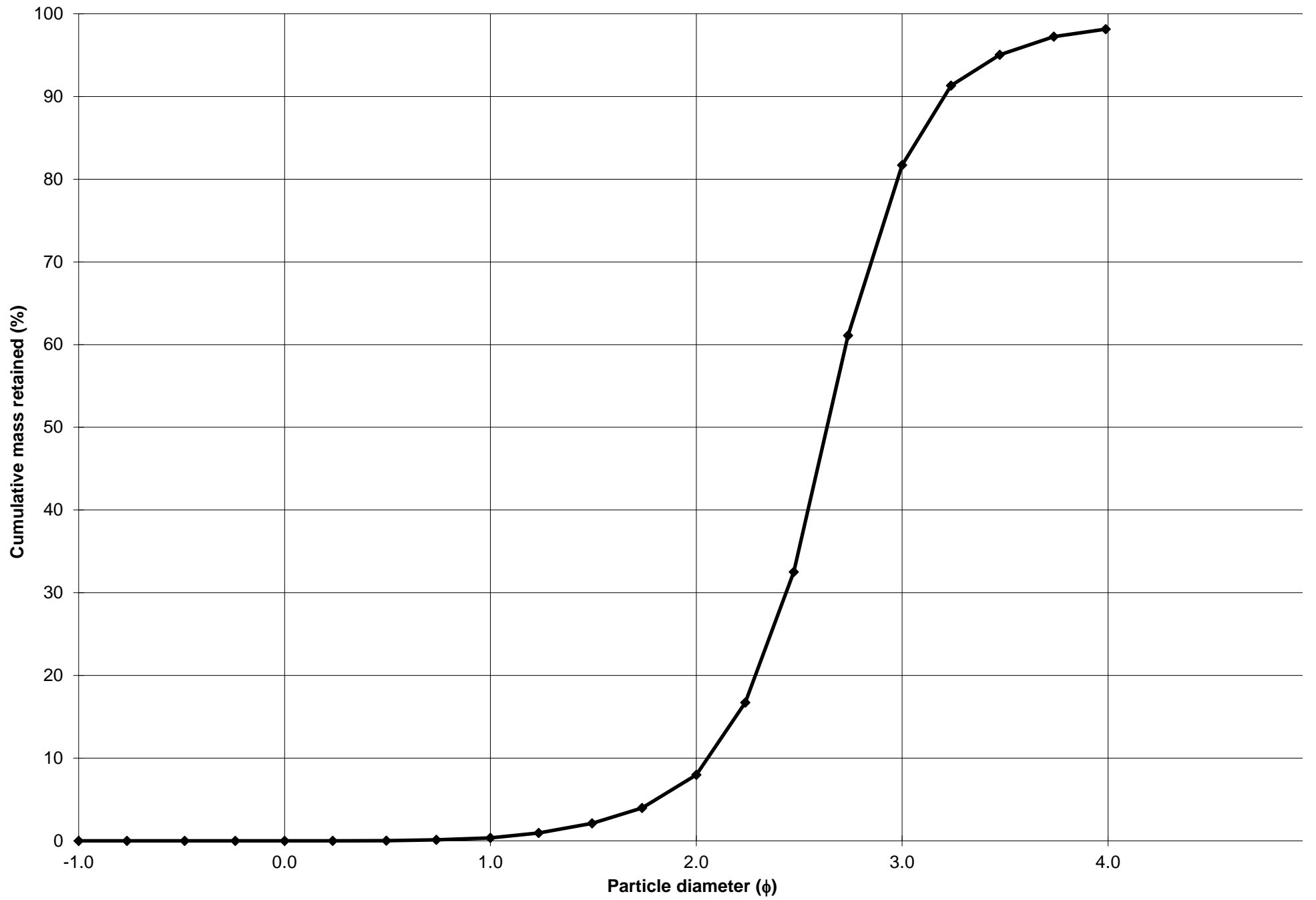
Cumulative Frequency Curve



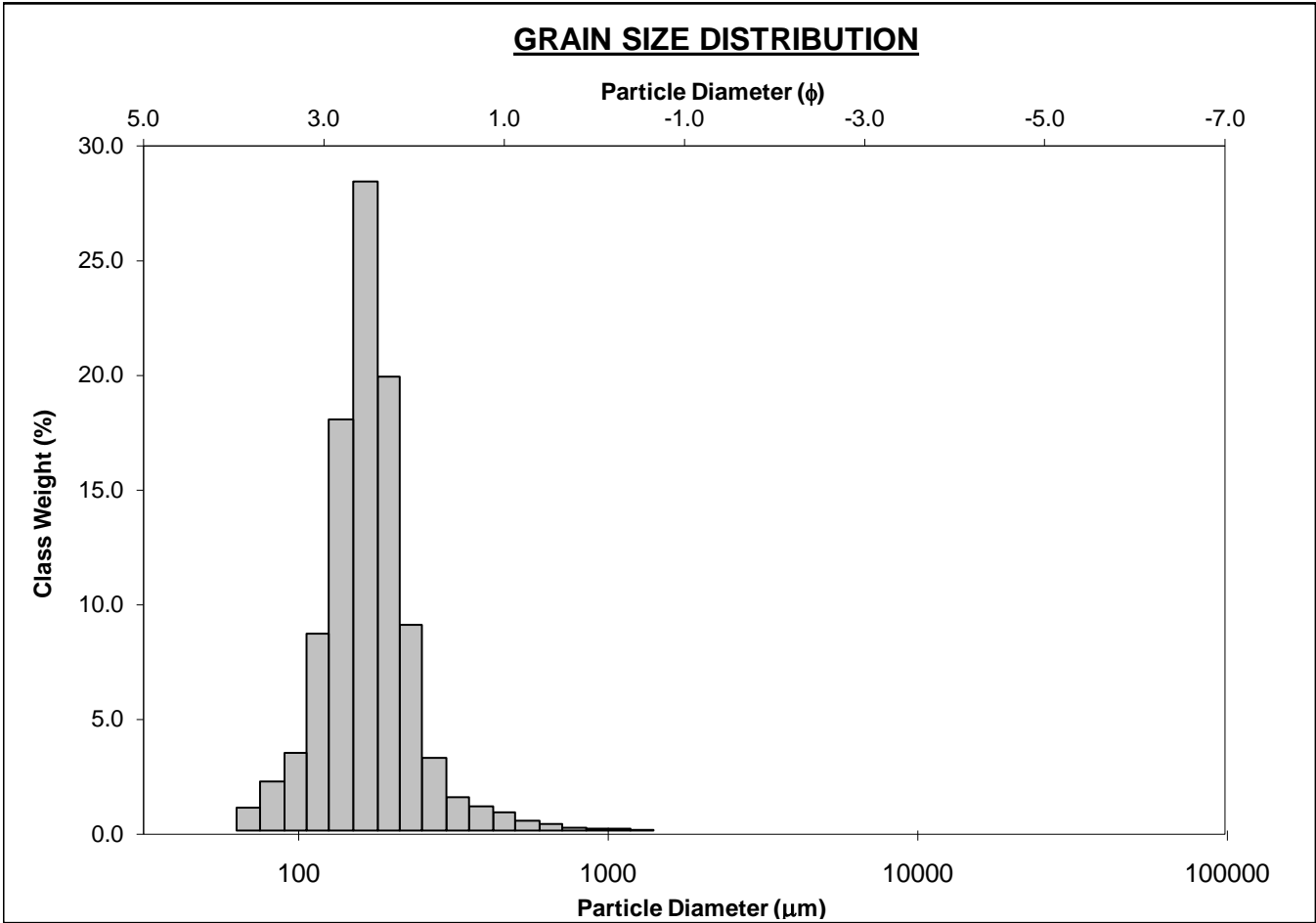
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-360cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.4%			
MODE 2:			SAND: 98.1% MEDIUM SAND: 7.6%			
MODE 3:			MUD: 1.9% FINE SAND: 73.7%			
D ₁₀ :	108.4	2.055	V FINE SAND: 16.4%			
MEDIAN or D ₅₀ :	161.0	2.635	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.3%			
D ₉₀ :	240.6	3.205	COARSE GRAVEL: 0.0% COARSE SILT: 0.3%			
(D ₉₀ / D ₁₀):	2.219	1.560	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.3%			
(D ₉₀ - D ₁₀):	132.2	1.150	FINE GRAVEL: 0.0% FINE SILT: 0.3%			
(D ₇₅ / D ₂₅):	1.467	1.234	V FINE GRAVEL: 0.0% V FINE SILT: 0.3%			
(D ₇₅ - D ₂₅):	61.93	0.553	V COARSE SAND: 0.0% CLAY: 0.3%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	170.9	154.7	2.692	160.8	2.637	Fine Sand
SORTING (σ):	66.22	1.681	0.749	1.378	0.462	Well Sorted
SKEWNESS (Sk):	2.024	-3.297	3.297	-0.005	0.005	Symmetrical
KURTOSIS (K):	12.12	20.92	20.92	1.236	1.236	Leptokurtic



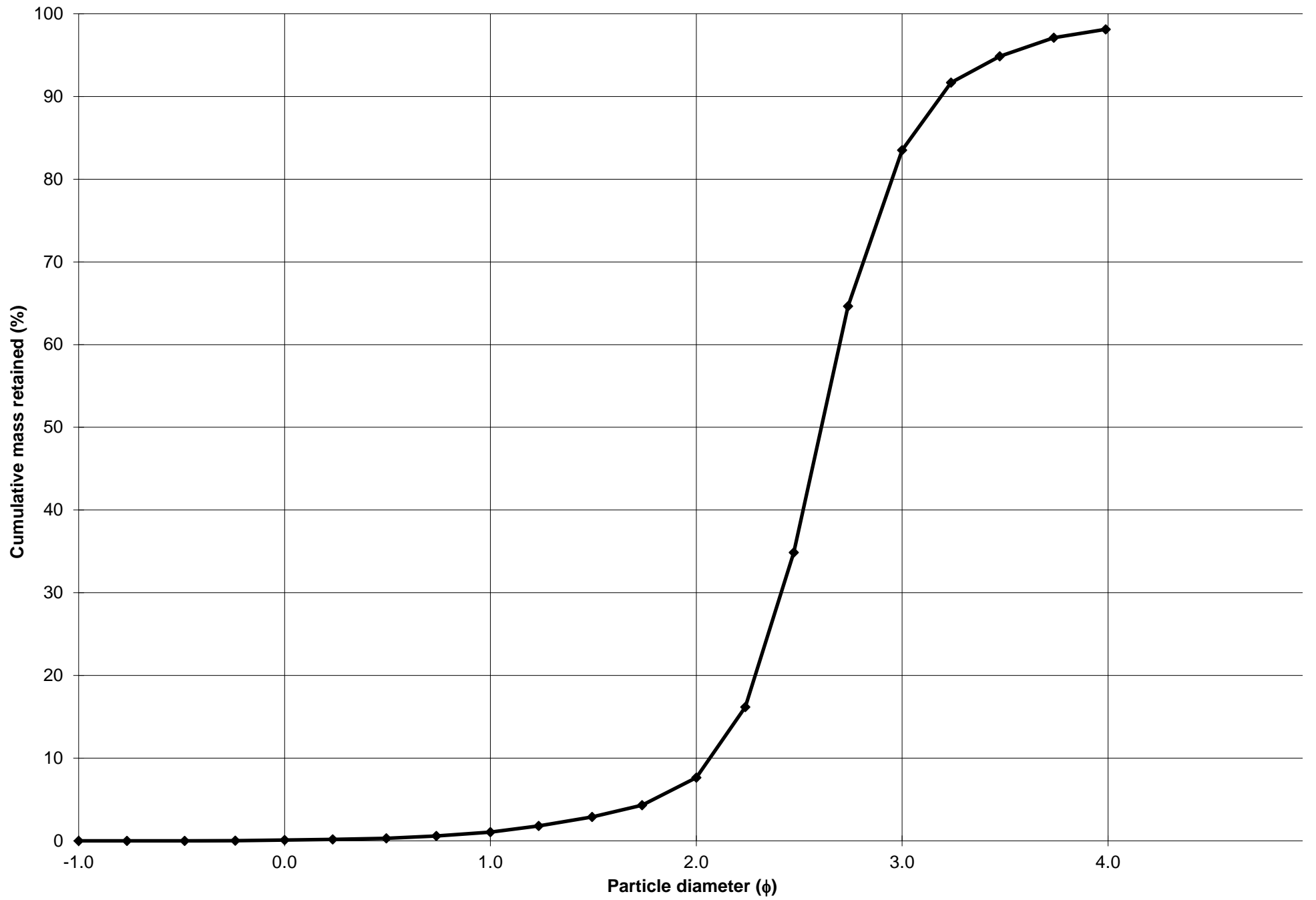
Cumulative Frequency Curve



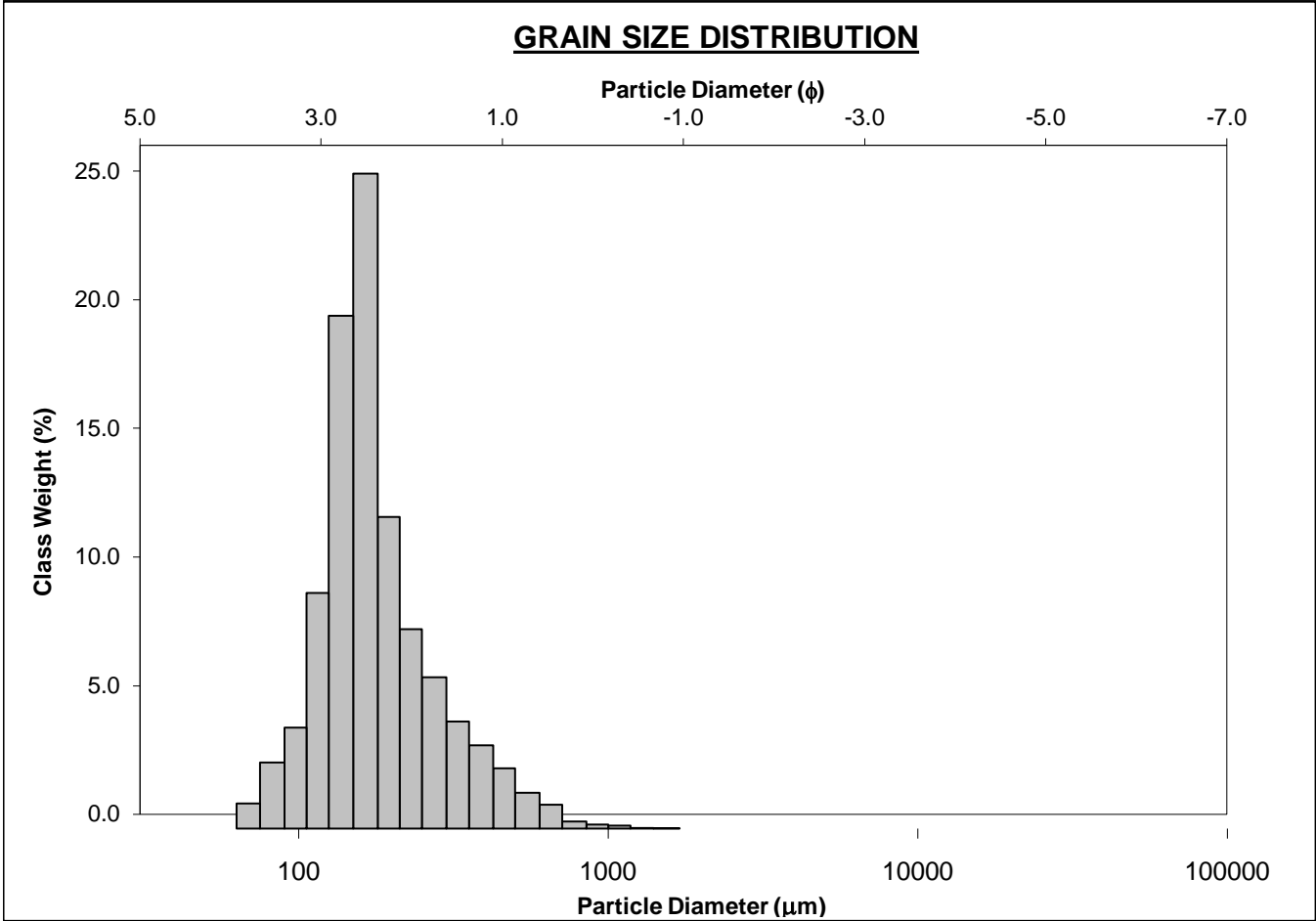
SIEVING ERROR: 1.2%		<u>SAMPLE STATISTICS</u>				
SAMPLE IDENTITY: SI-15-10-370cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0% COARSE SAND: 0.9%			
MODE 2:			SAND: 98.1% MEDIUM SAND: 6.6%			
MODE 3:			MUD: 1.9% FINE SAND: 75.9%			
D ₁₀ :	109.6	2.066	V FINE SAND: 14.6%			
MEDIAN or D ₅₀ :	164.1	2.608	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.3%			
D ₉₀ :	238.8	3.189	COARSE GRAVEL: 0.0% COARSE SILT: 0.3%			
(D ₉₀ / D ₁₀):	2.179	1.544	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.3%			
(D ₉₀ - D ₁₀):	129.2	1.123	FINE GRAVEL: 0.0% FINE SILT: 0.3%			
(D ₇₅ / D ₂₅):	1.446	1.226	V FINE GRAVEL: 0.0% V FINE SILT: 0.3%			
(D ₇₅ - D ₂₅):	60.53	0.532	V COARSE SAND: 0.1% CLAY: 0.3%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	175.9	157.6	2.666	162.8	2.618	Fine Sand
SORTING (σ):	82.53	1.704	0.769	1.369	0.453	Well Sorted
SKEWNESS (Sk):	4.285	-3.017	3.017	-0.040	0.040	Symmetrical
KURTOSIS (K):	37.66	20.04	20.04	1.308	1.308	Leptokurtic



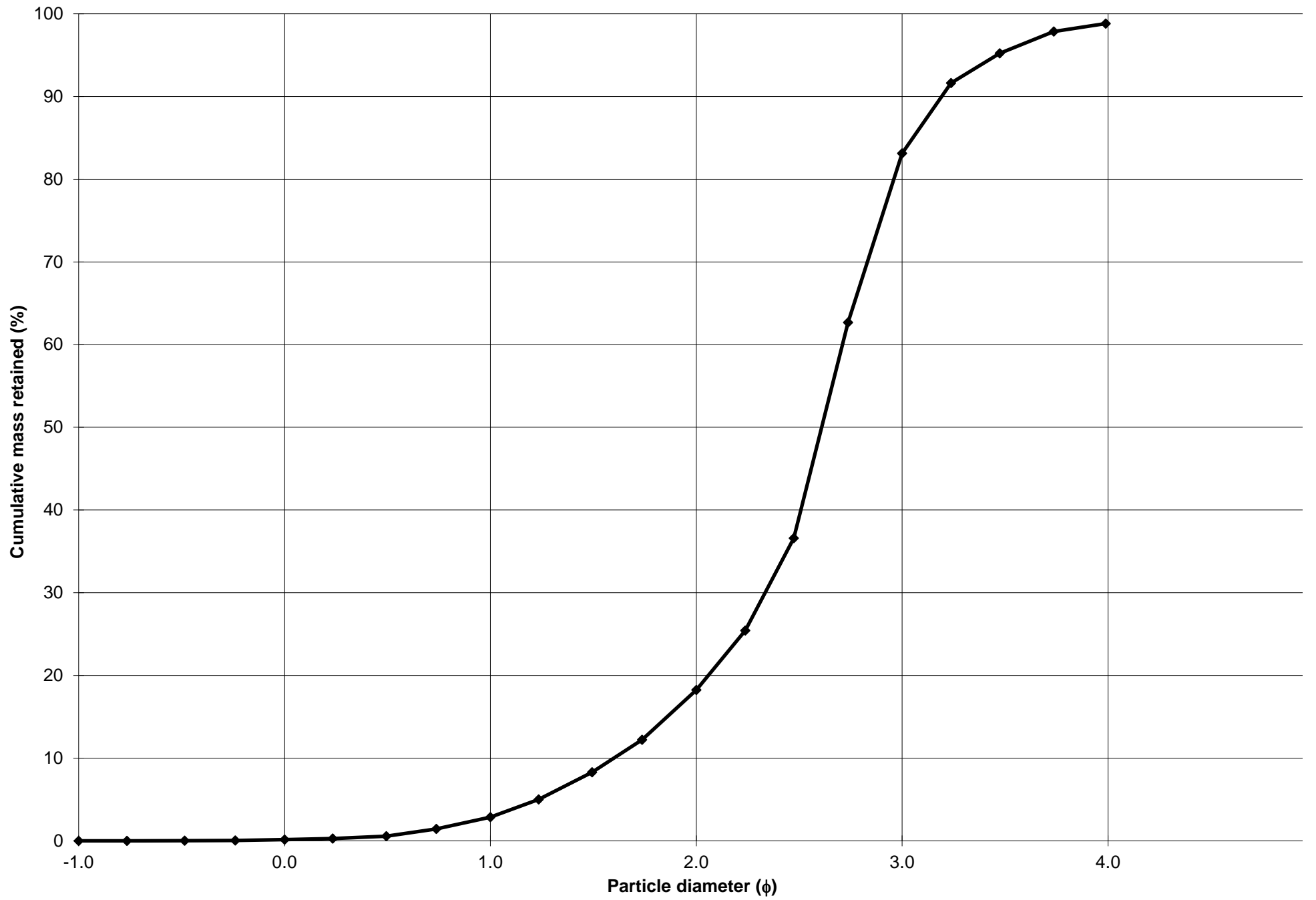
Cumulative Frequency Curve



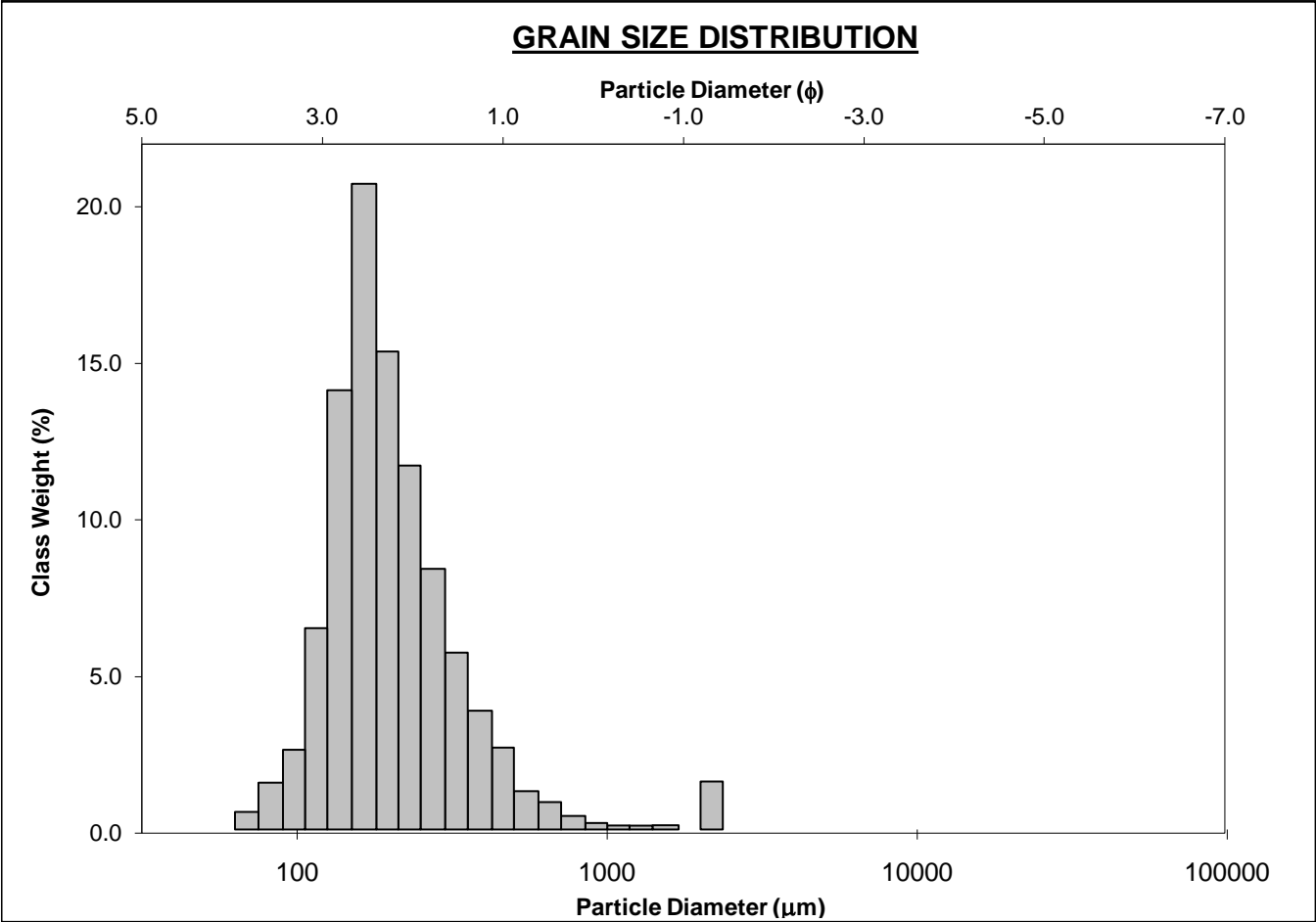
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-380cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 2.7%	
MODE 2:			SAND: 98.8%		MEDIUM SAND: 15.4%	
MODE 3:			MUD: 1.2%		FINE SAND: 64.9%	
D ₁₀ :	109.4	1.600			V FINE SAND: 15.7%	
MEDIAN or D ₅₀ :	163.9	2.609	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	329.9	3.193	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	3.016	1.996	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	220.5	1.593	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.593	1.302	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	79.75	0.672	V COARSE SAND: 0.1%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	197.1	171.3	2.545	175.3	2.512	Fine Sand
SORTING (σ):	115.2	1.732	0.792	1.535	0.618	Moderately Well Sorted
SKEWNESS (Sk):	2.926	-1.518	1.518	0.248	-0.248	Coarse Skewed
KURTOSIS (K):	16.94	13.58	13.58	1.357	1.357	Leptokurtic



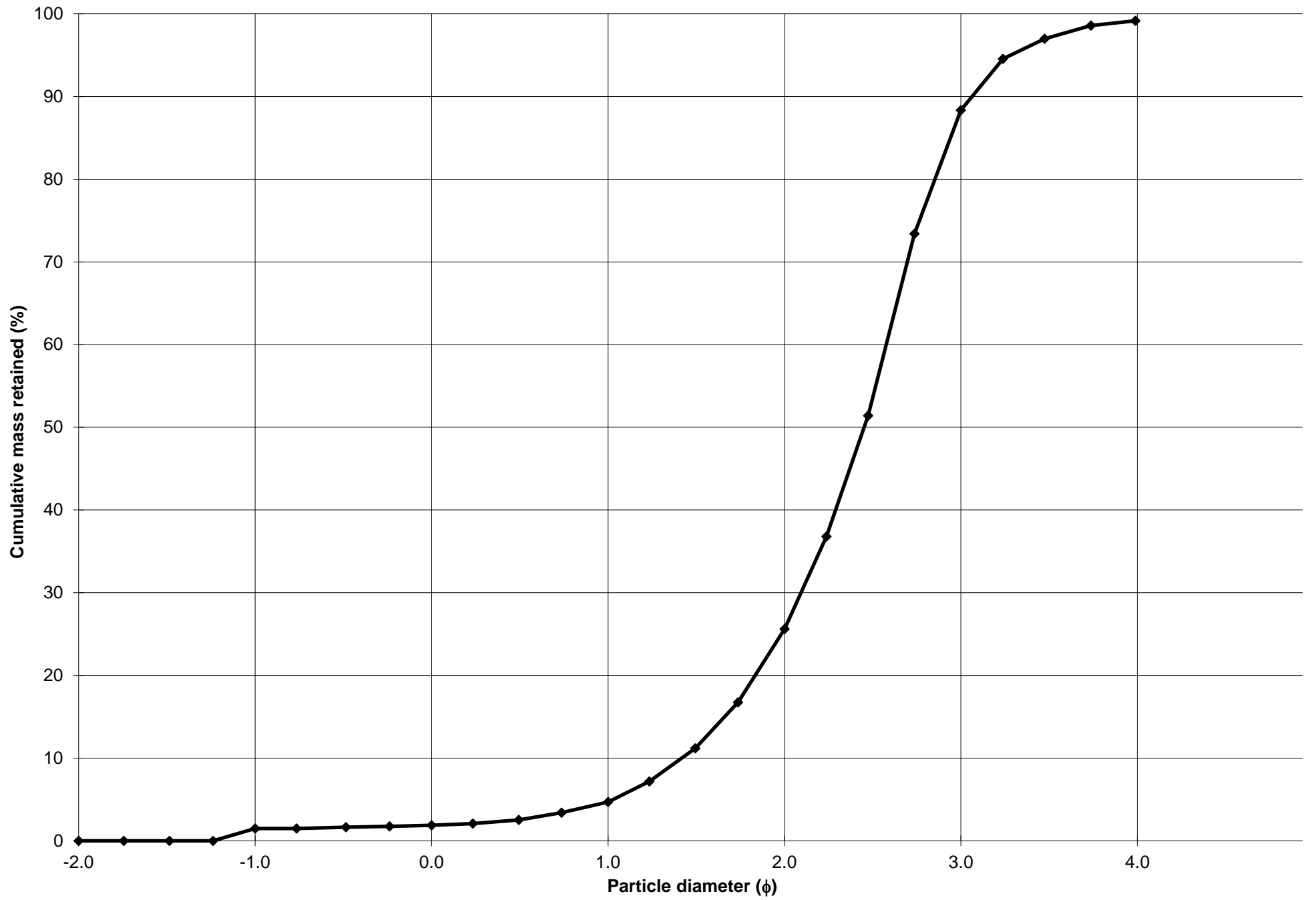
Cumulative Frequency Curve



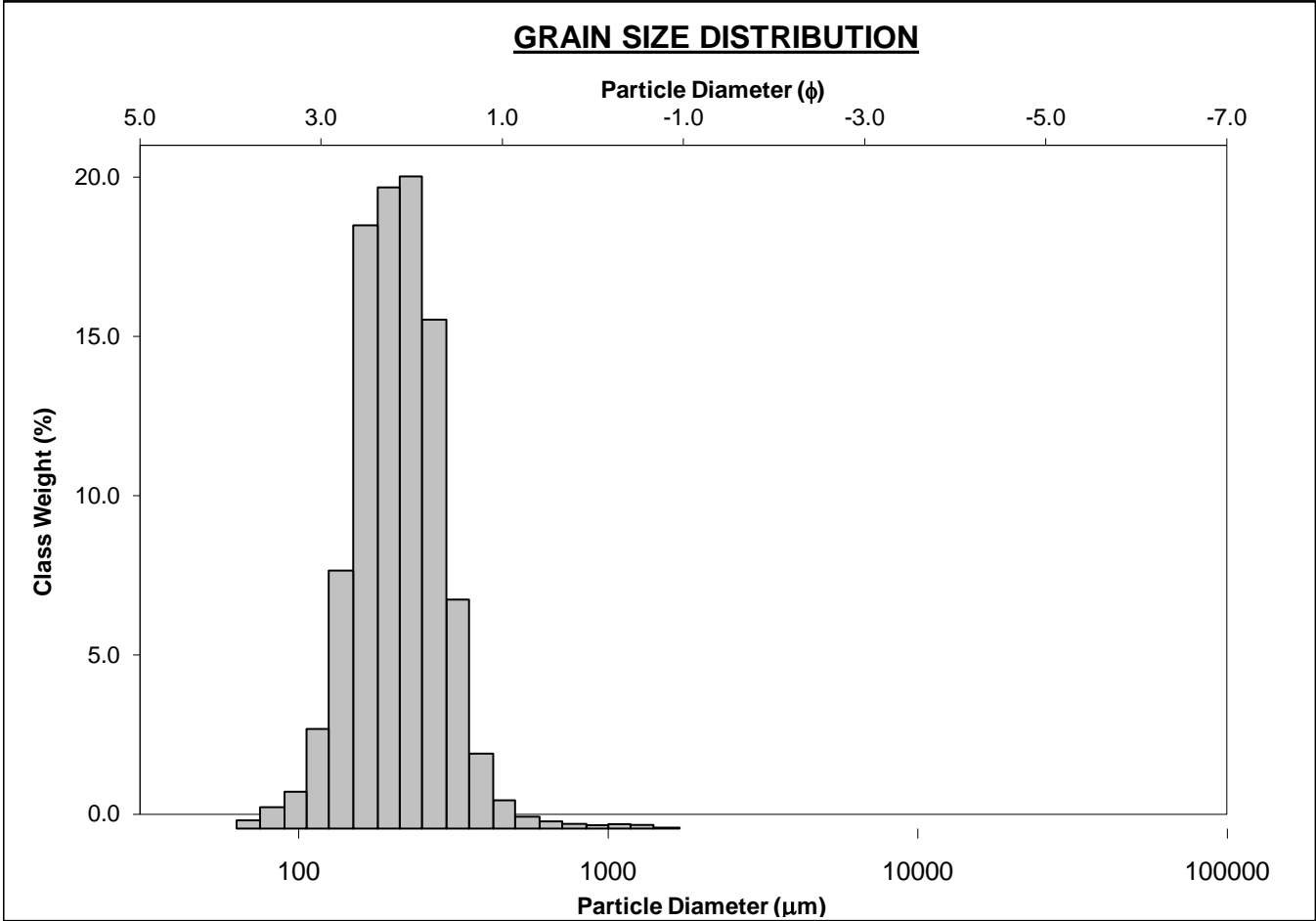
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-390cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 1.5%		COARSE SAND: 2.8%	
MODE 2:			SAND: 97.7%		MEDIUM SAND: 20.9%	
MODE 3:			MUD: 0.8%		FINE SAND: 62.7%	
D ₁₀ :	119.6	1.418			V FINE SAND: 10.8%	
MEDIAN or D ₅₀ :	182.9	2.451	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	374.3	3.063	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.128	2.161	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	254.6	1.645	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.721	1.395	V FINE GRAVEL: 1.5%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	106.0	0.783	V COARSE SAND: 0.4%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	248.3	198.2	2.335	194.8	2.360	Fine Sand
SORTING (σ):	271.5	1.830	0.872	1.565	0.646	Moderately Well Sorted
SKEWNESS (Sk):	5.705	-0.071	0.071	0.244	-0.244	Coarse Skewed
KURTOSIS (K):	39.40	11.81	11.81	1.179	1.179	Leptokurtic



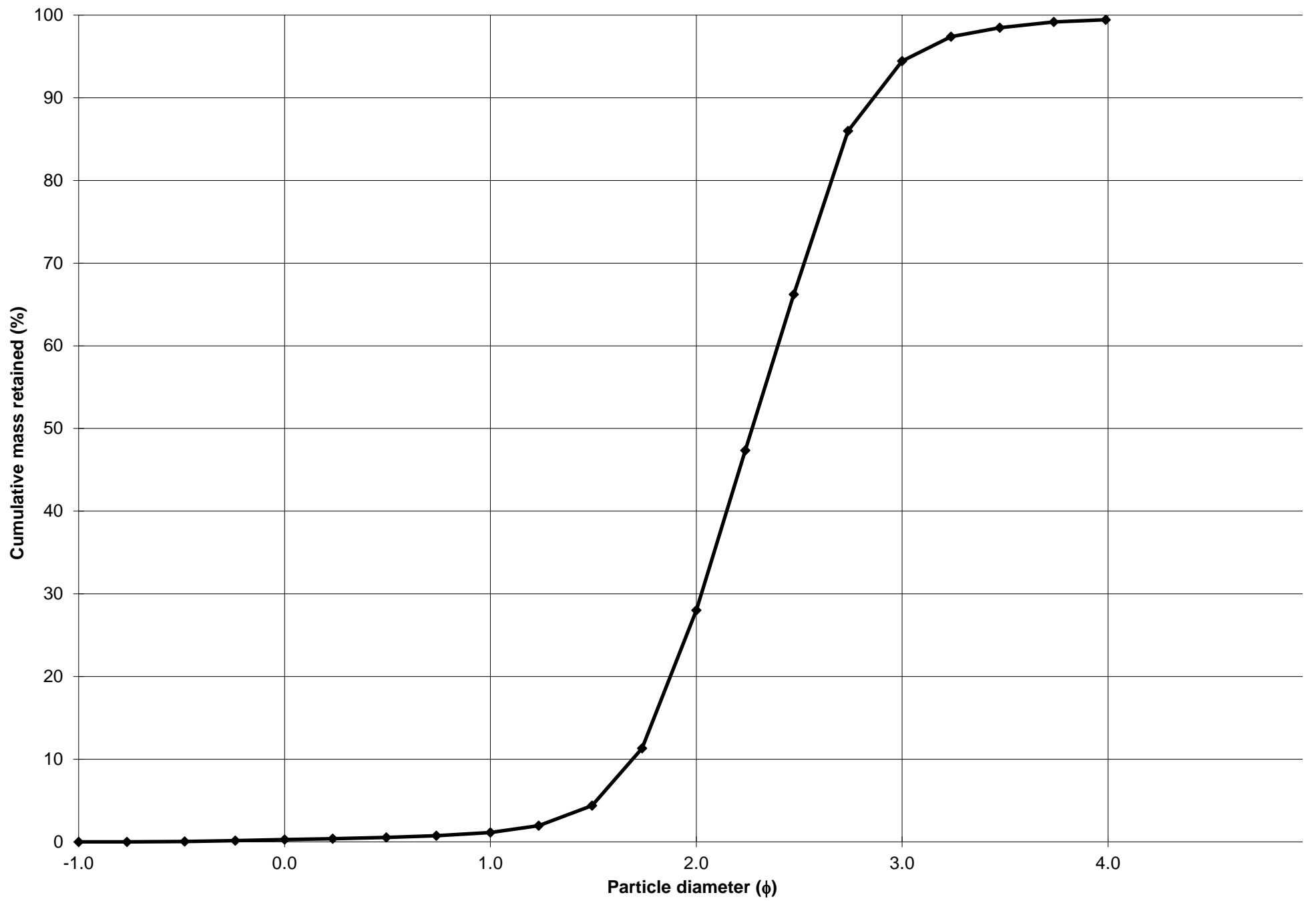
Cumulative Frequency Curve



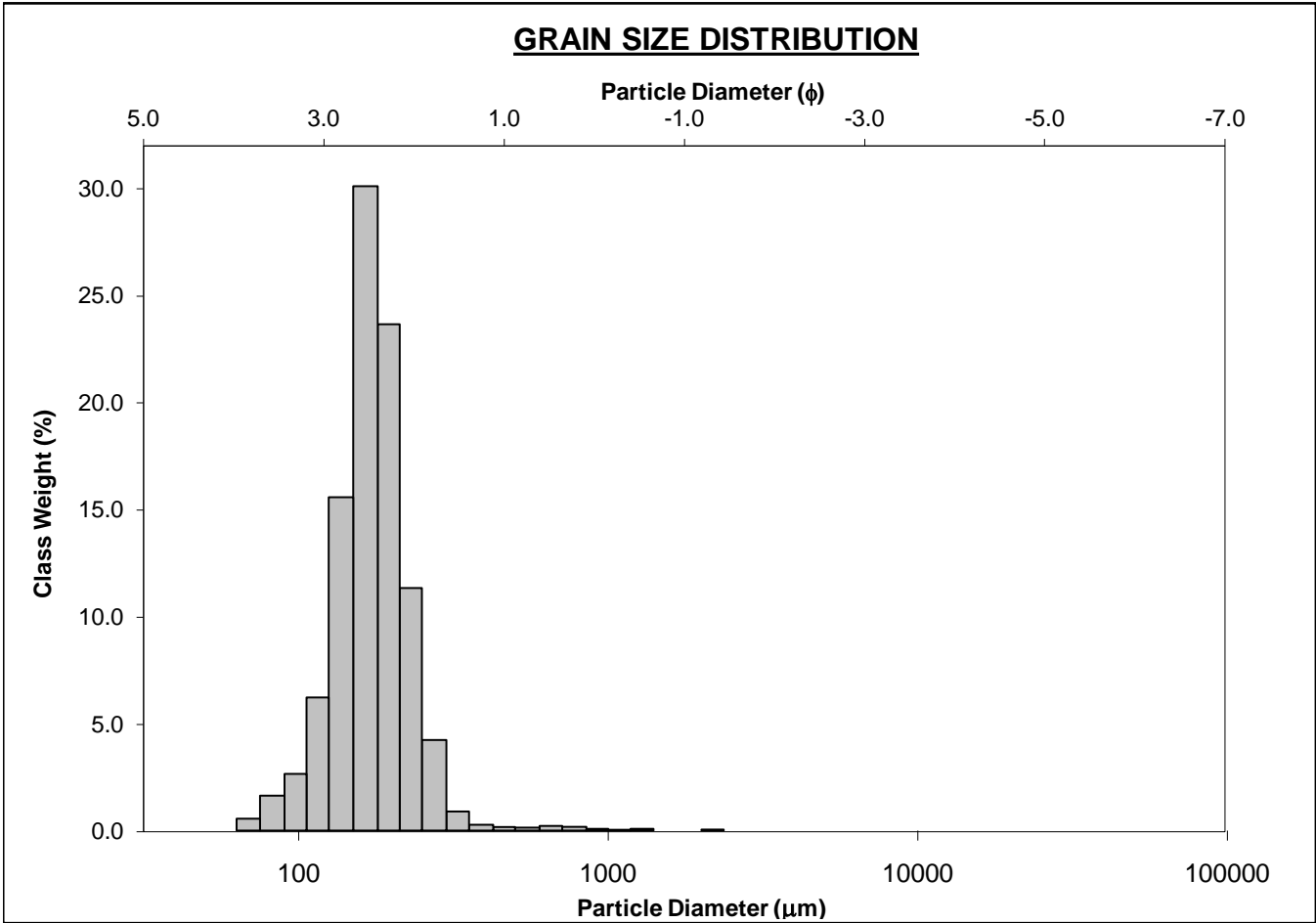
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-400cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 0.9%	
MODE 2:			SAND: 99.4%		MEDIUM SAND: 26.9%	
MODE 3:			MUD: 0.6%		FINE SAND: 66.4%	
D ₁₀ :	137.6	1.691			V FINE SAND: 5.0%	
MEDIAN or D ₅₀ :	207.2	2.271	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	309.8	2.862	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.252	1.693	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	172.2	1.171	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.556	1.327	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	92.36	0.638	V COARSE SAND: 0.3%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	222.3	205.1	2.286	208.2	2.264	Fine Sand
SORTING (σ):	96.67	1.521	0.605	1.372	0.457	Well Sorted
SKEWNESS (Sk):	4.478	-2.307	2.307	0.006	-0.006	Symmetrical
KURTOSIS (K):	43.83	23.07	23.07	0.982	0.982	Mesokurtic



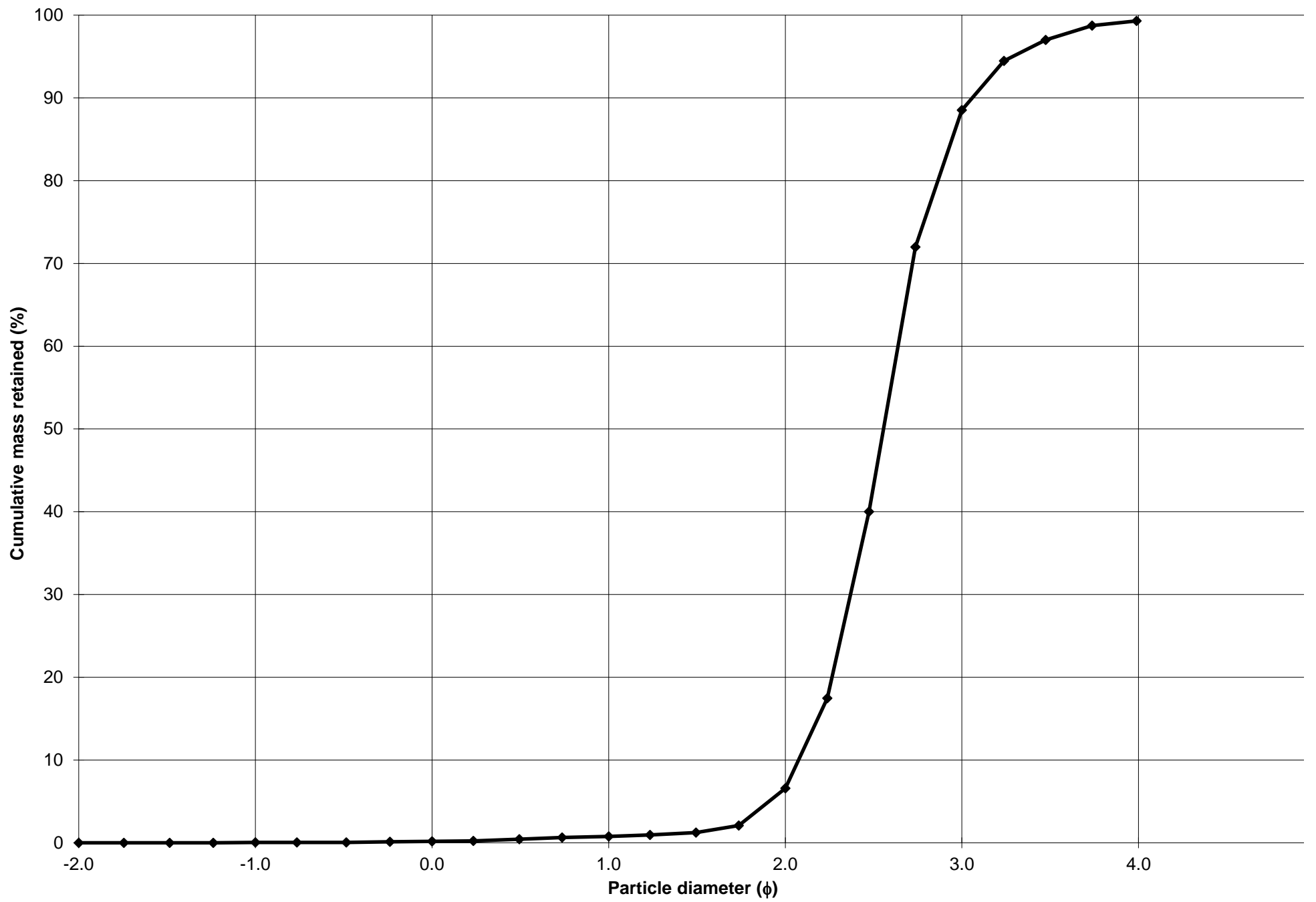
Cumulative Frequency Curve



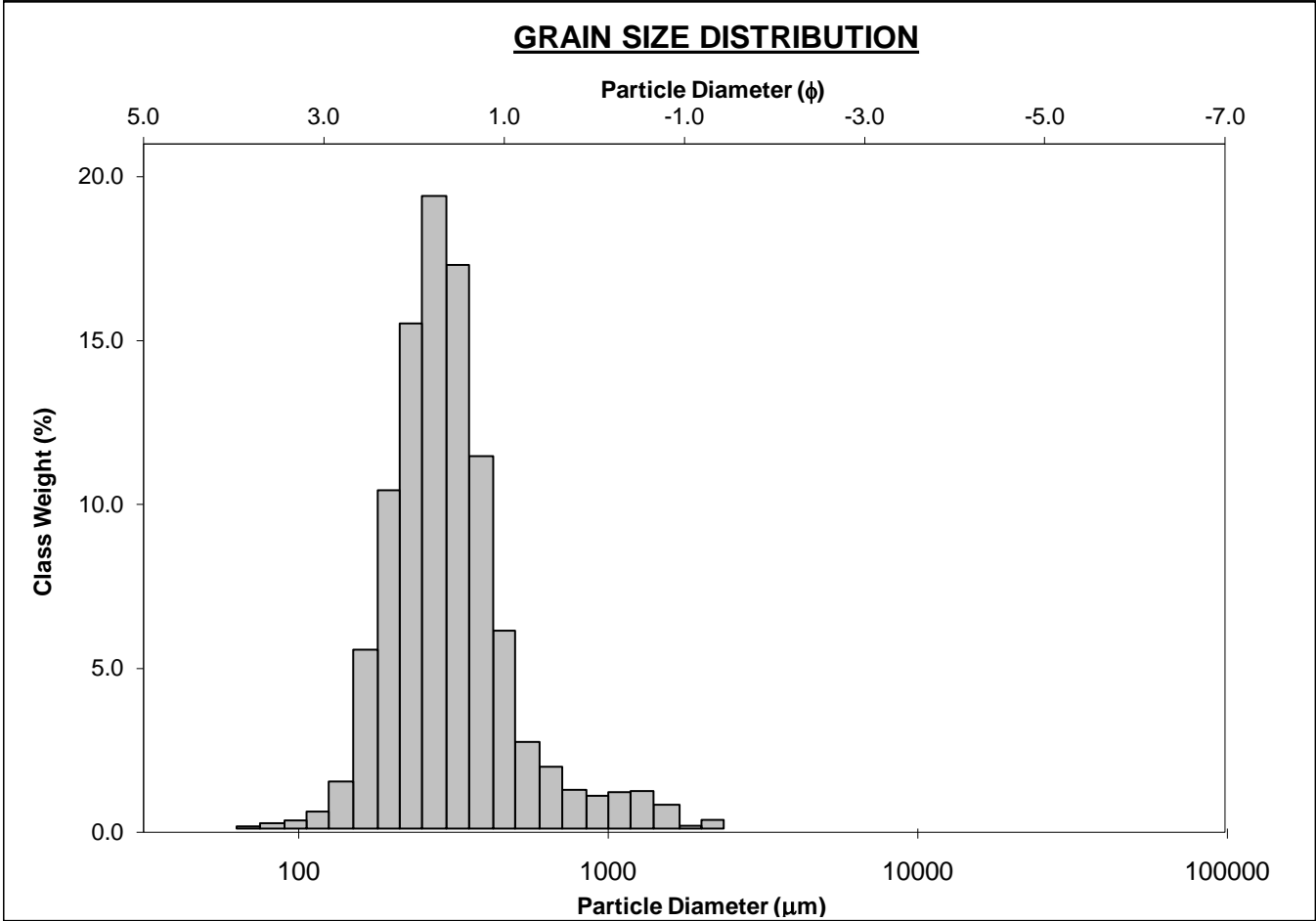
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-10-420cm			ANALYST & DATE: Chris, 8/30/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.6%	
MODE 2:			SAND: 99.3%		MEDIUM SAND: 5.8%	
MODE 3:			MUD: 0.7%		FINE SAND: 81.9%	
D ₁₀ :	120.0	2.075			V FINE SAND: 10.8%	
MEDIAN or D ₅₀ :	170.0	2.556	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	237.4	3.059	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	1.979	1.475	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	117.4	0.985	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.384	1.202	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	55.64	0.468	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	180.0	167.4	2.579	169.2	2.563	Fine Sand
SORTING (σ):	85.14	1.485	0.570	1.310	0.390	Well Sorted
SKEWNESS (Sk):	9.883	-2.728	2.728	-0.044	0.044	Symmetrical
KURTOSIS (K):	179.4	28.63	28.63	1.207	1.207	Leptokurtic



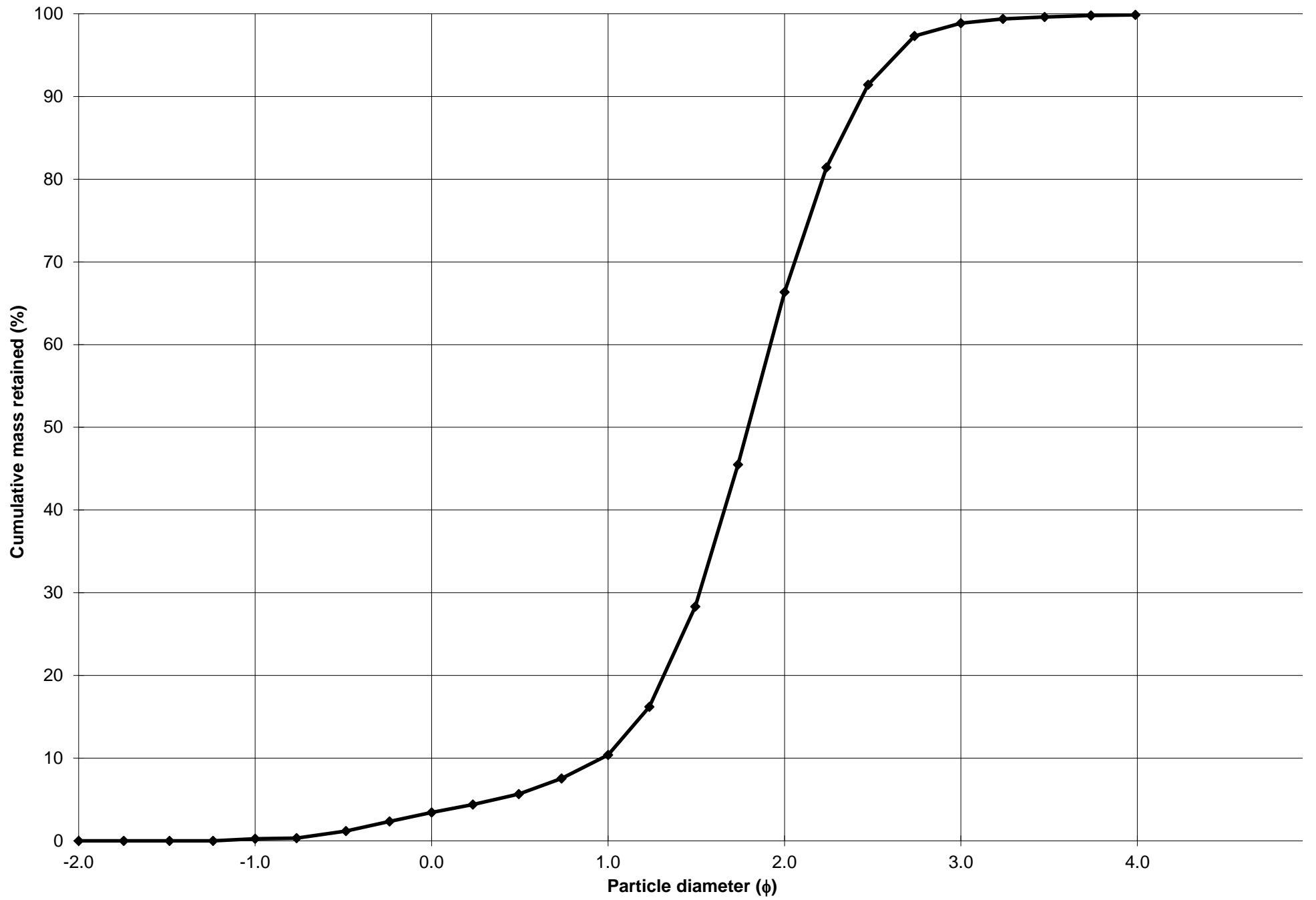
Cumulative Frequency Curve



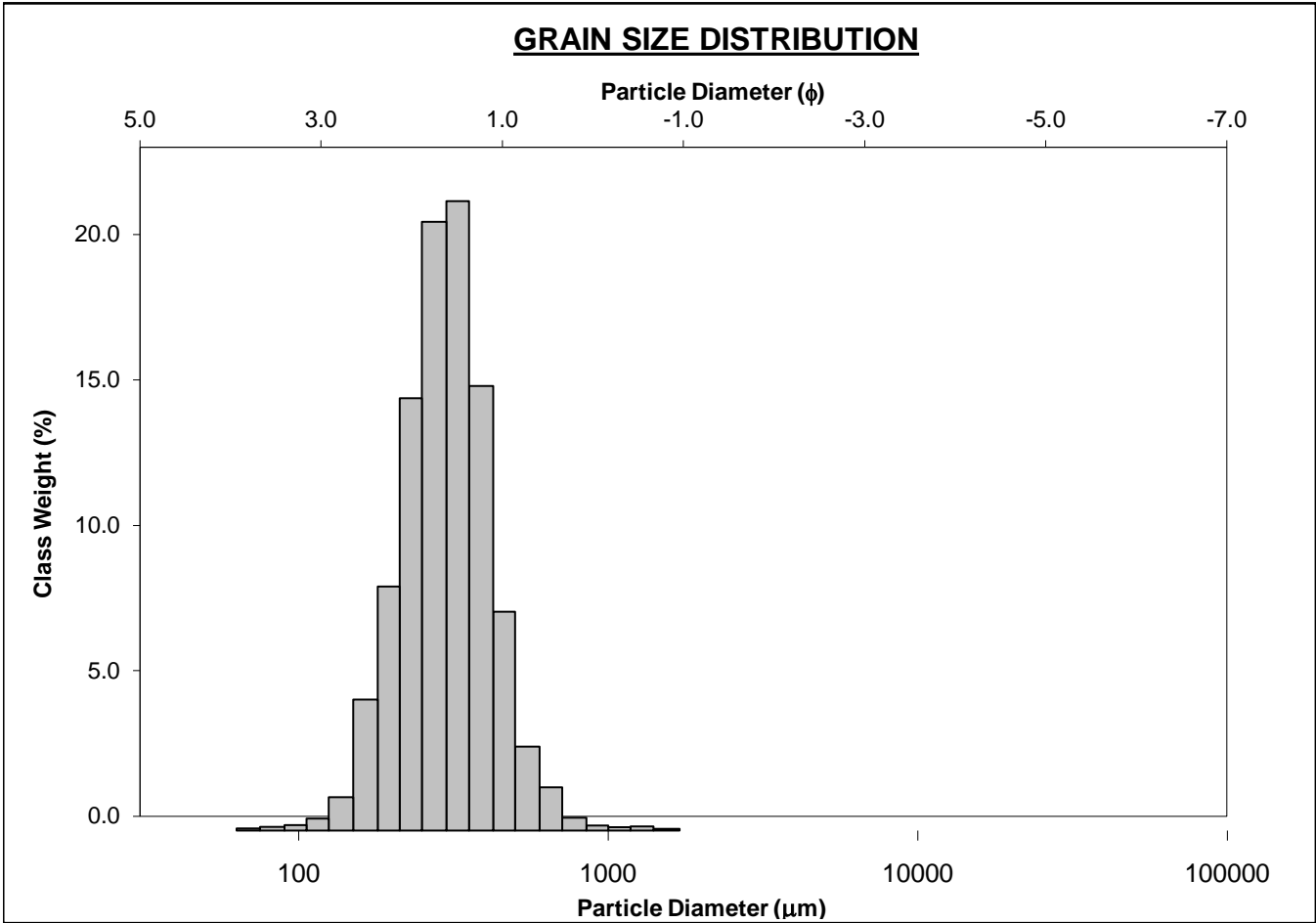
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-10cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.3%		COARSE SAND: 7.0%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 56.0%	
MODE 3:			MUD: 0.1%		FINE SAND: 32.5%	
D ₁₀ :	184.2	0.964			V FINE SAND: 1.0%	
MEDIAN or D ₅₀ :	288.4	1.794	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	512.6	2.440	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.783	2.532	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	328.4	1.476	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.640	1.502	V FINE GRAVEL: 0.3%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	145.6	0.714	V COARSE SAND: 3.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	348.9	303.4	1.721	292.6	1.773	Medium Sand
SORTING (σ):	239.6	1.623	0.699	1.529	0.613	Moderately Well Sorted
SKEWNESS (Sk):	3.612	0.436	-0.436	0.160	-0.160	Coarse Skewed
KURTOSIS (K):	19.78	9.012	9.012	1.305	1.305	Leptokurtic



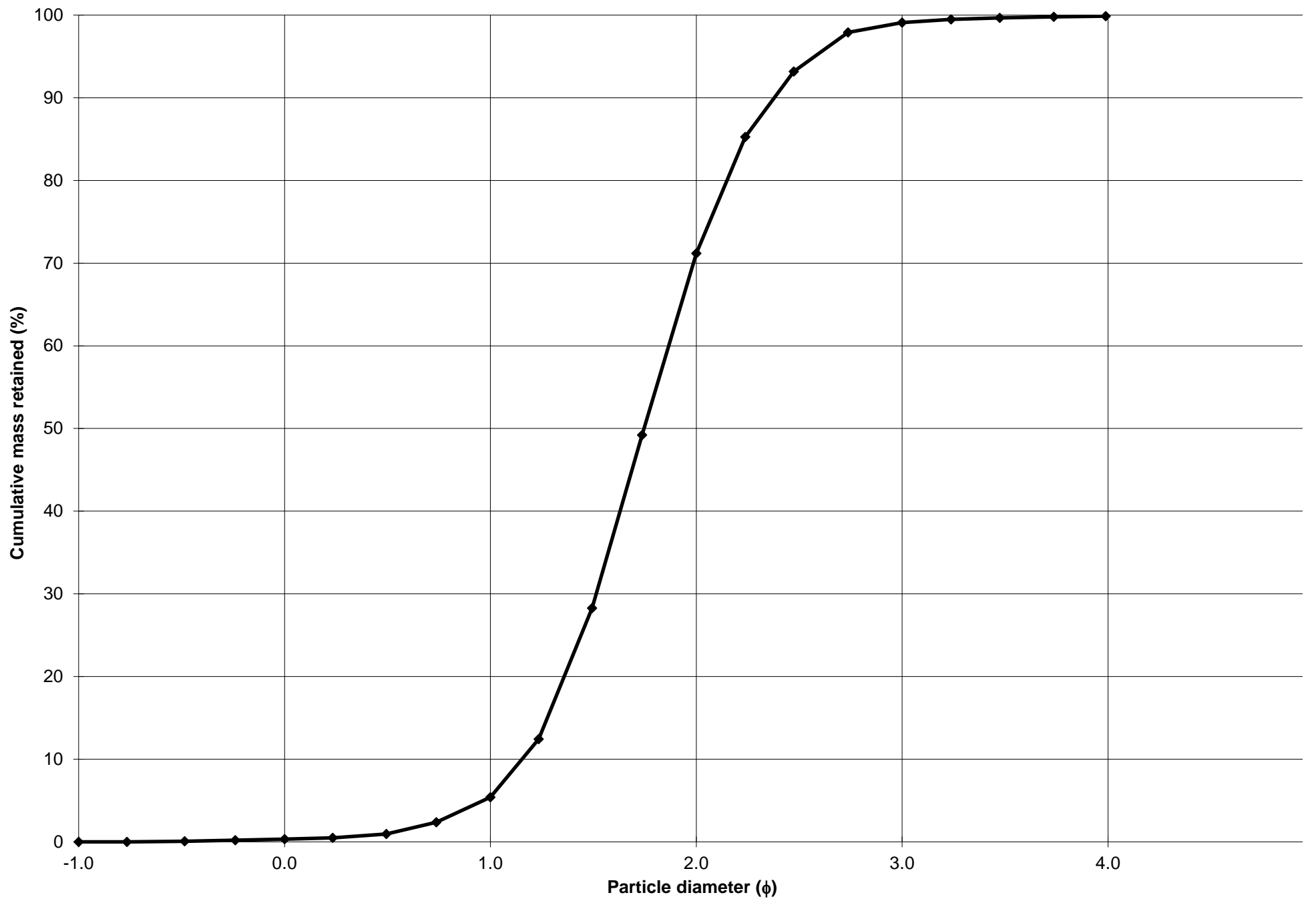
Cumulative Frequency Curve



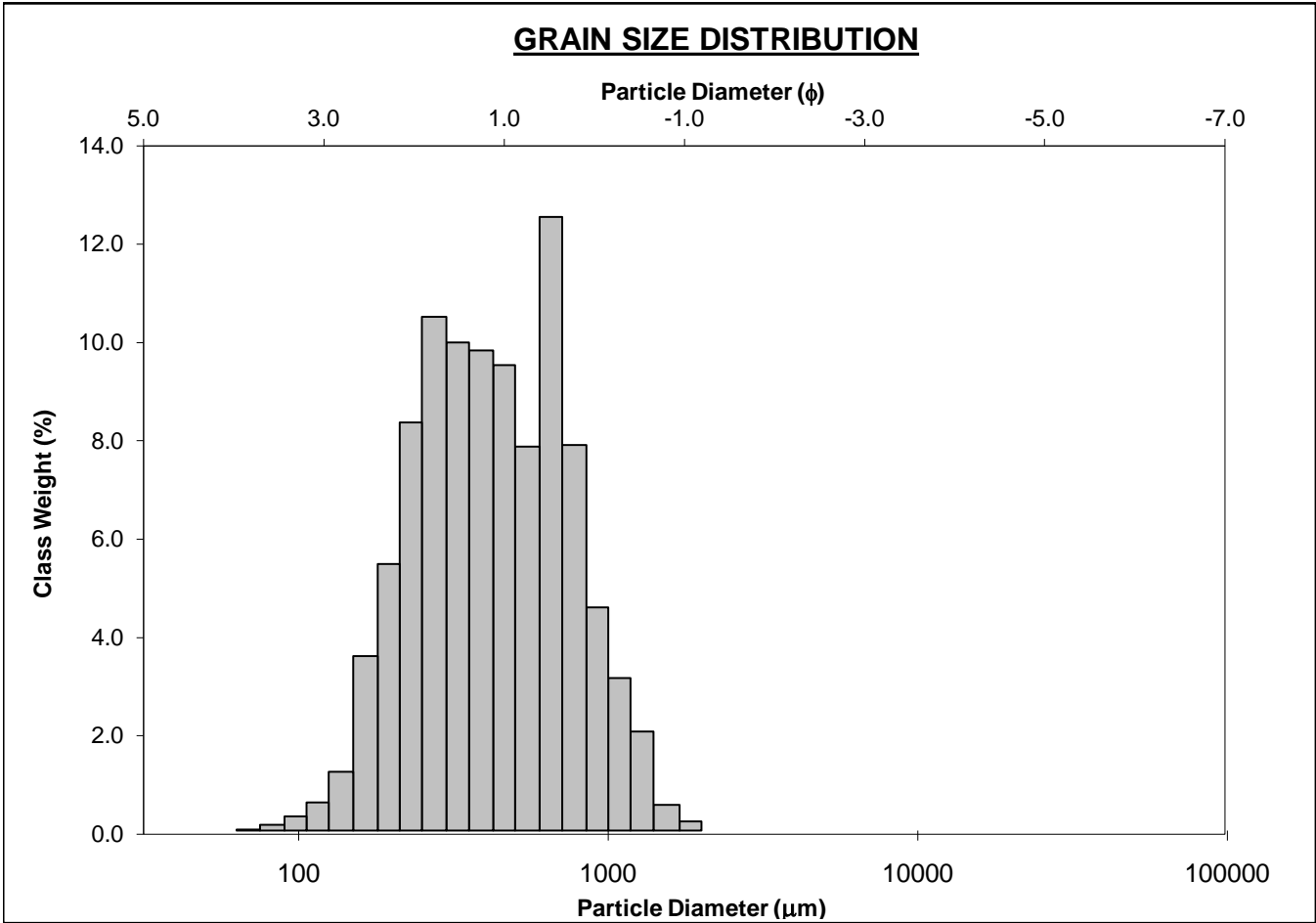
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-20cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 5.1%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 65.8%	
MODE 3:			MUD: 0.1%		FINE SAND: 27.9%	
D_{10} :	192.2	1.153			V FINE SAND: 0.8%	
MEDIAN or D_{50} :	298.1	1.746	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	449.6	2.379	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.339	2.063	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	257.4	1.226	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.541	1.433	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	129.4	0.624	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	316.8	296.0	1.756	296.9	1.752	Medium Sand
SORTING (σ):	121.5	1.443	0.529	1.390	0.475	Well Sorted
SKEWNESS (Sk):	2.514	-1.097	1.097	-0.024	0.024	Symmetrical
KURTOSIS (K):	18.49	15.42	15.42	1.058	1.058	Mesokurtic



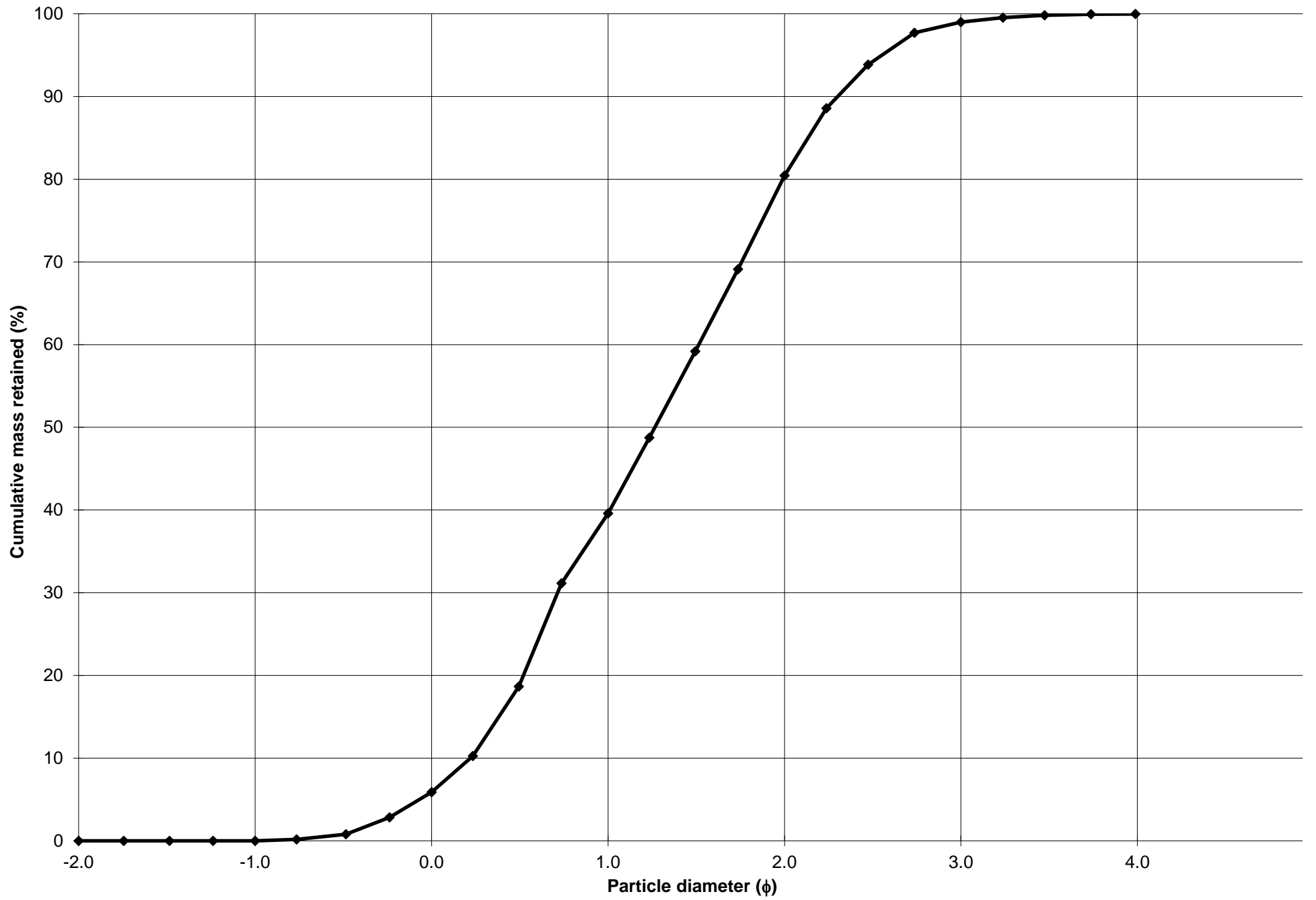
Cumulative Frequency Curve



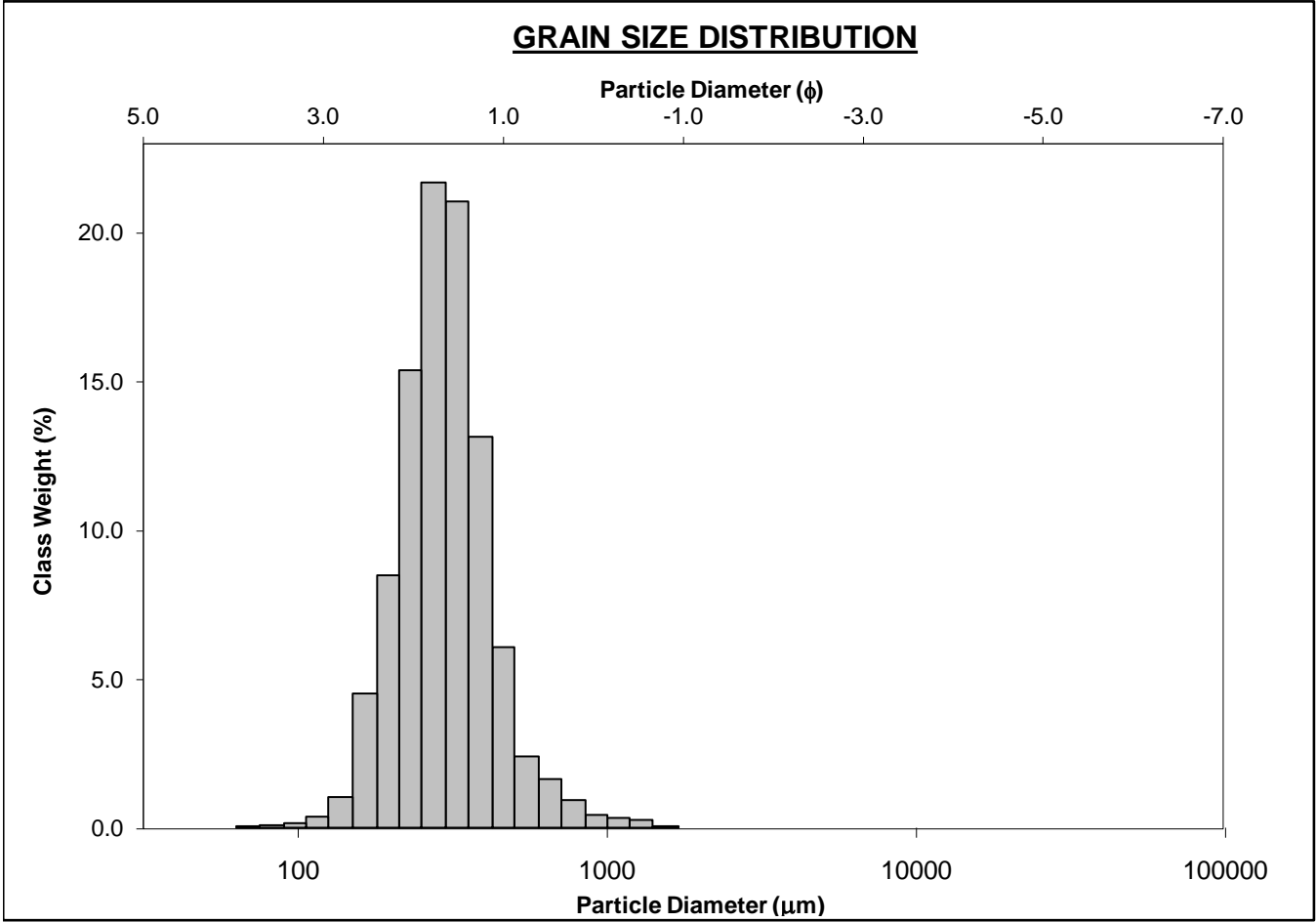
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-30cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	655.0	0.616	GRAVEL: 0.0%		COARSE SAND: 33.7%	
MODE 2:	275.0	1.868	SAND: 100.0%		MEDIUM SAND: 40.8%	
MODE 3:			MUD: 0.0%		FINE SAND: 18.5%	
D ₁₀ :	202.8	0.220			V FINE SAND: 1.0%	
MEDIAN or D ₅₀ :	415.9	1.266	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	858.4	2.302	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.232	10.45	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	655.6	2.081	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.388	3.034	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	378.9	1.256	V COARSE SAND: 5.9%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	491.6	419.2	1.254	417.4	1.261	Medium Sand
SORTING (σ):	281.8	1.759	0.815	1.766	0.820	Moderately Sorted
SKEWNESS (Sk):	1.240	-0.096	0.096	0.014	-0.014	Symmetrical
KURTOSIS (K):	4.777	3.008	3.008	0.855	0.855	Platykurtic



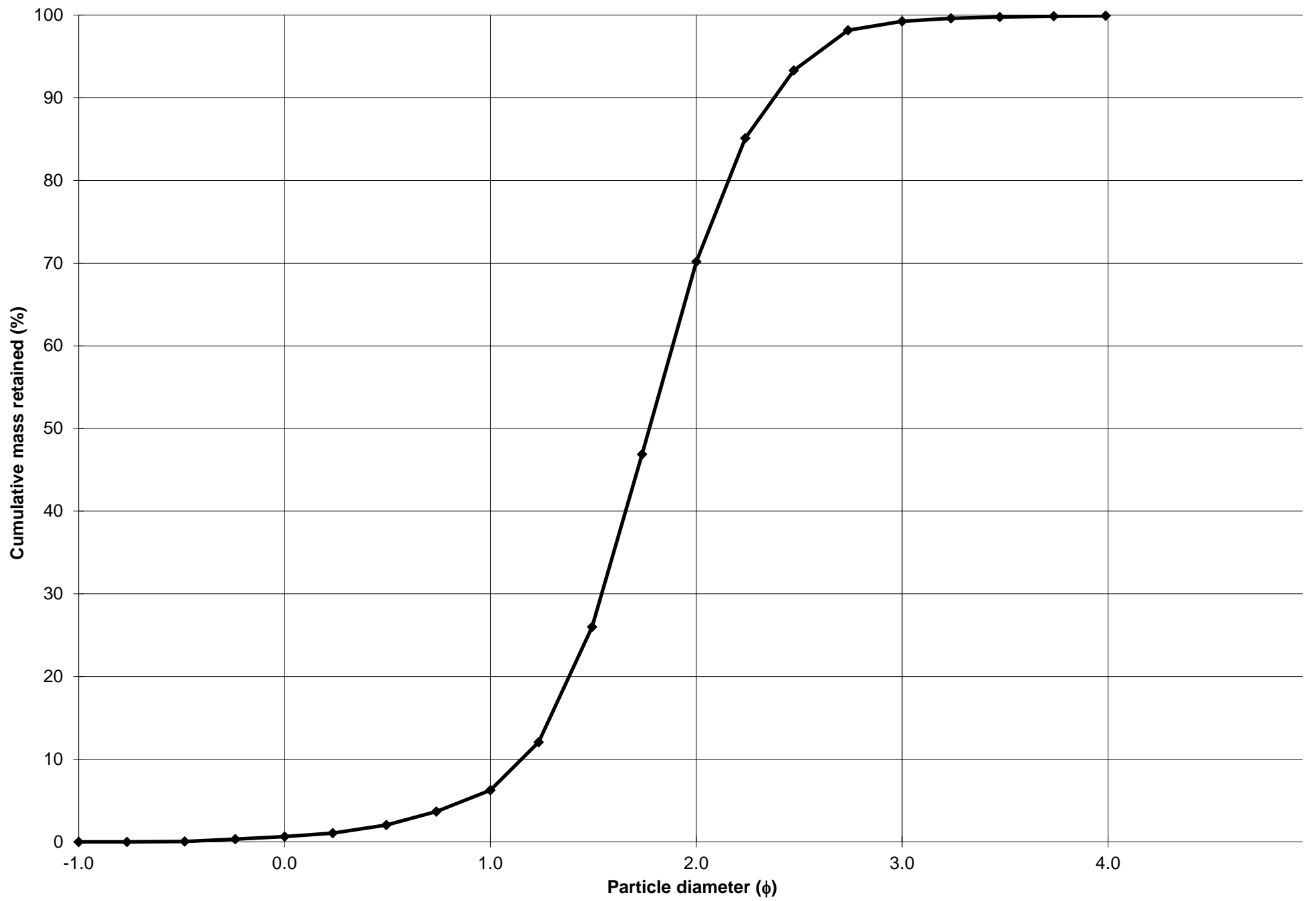
Cumulative Frequency Curve



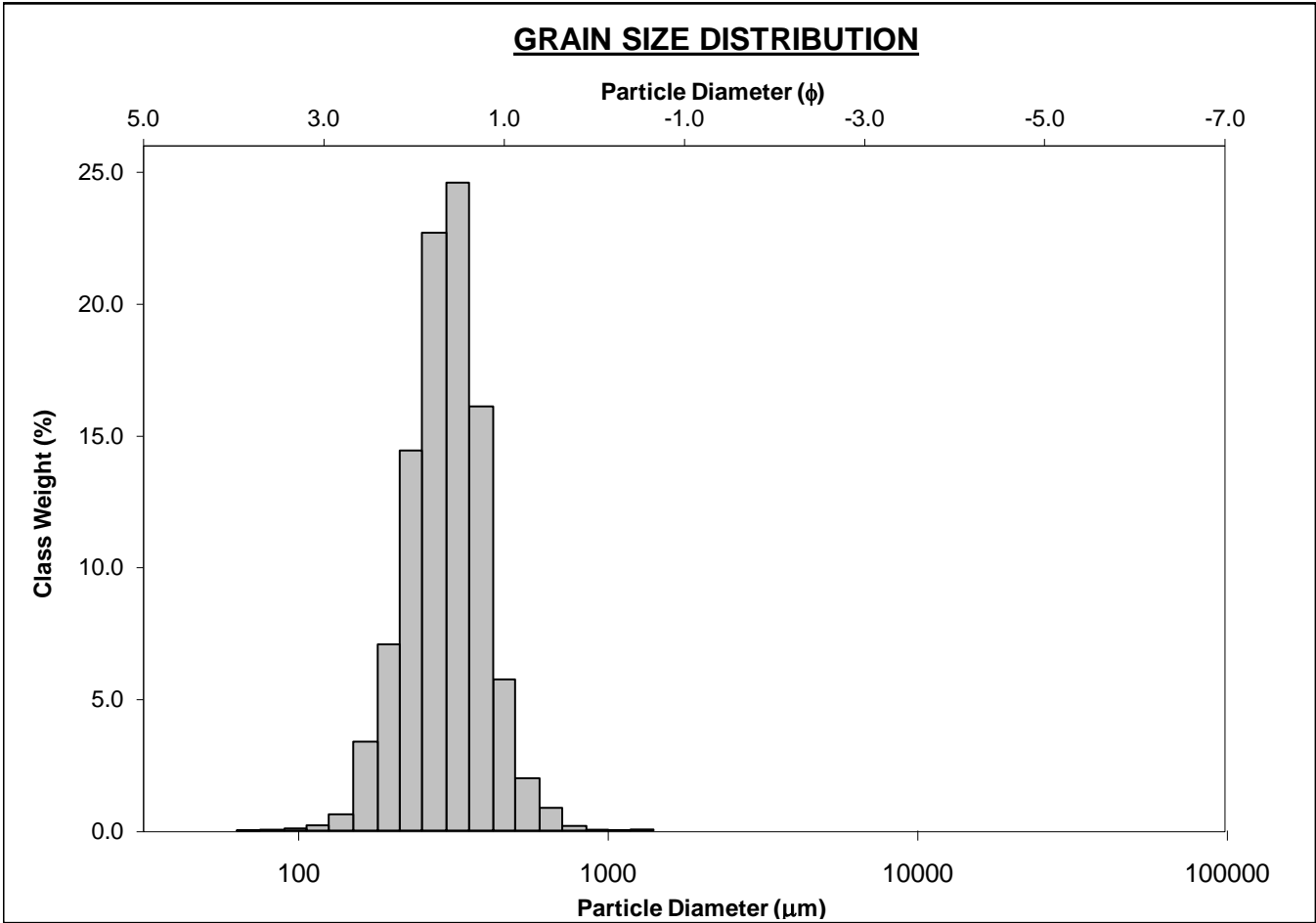
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-40cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 5.6%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 63.9%	
MODE 3:			MUD: 0.1%		FINE SAND: 29.1%	
D ₁₀ :	192.3	1.152			V FINE SAND: 0.7%	
MEDIAN or D ₅₀ :	292.8	1.772	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	450.1	2.379	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.341	2.065	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	257.8	1.227	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.517	1.407	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	122.5	0.601	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	318.6	295.7	1.758	293.9	1.767	Medium Sand
SORTING (σ):	136.9	1.451	0.537	1.399	0.484	Well Sorted
SKEWNESS (Sk):	2.894	-0.379	0.379	0.040	-0.040	Symmetrical
KURTOSIS (K):	17.71	12.14	12.14	1.154	1.154	Leptokurtic



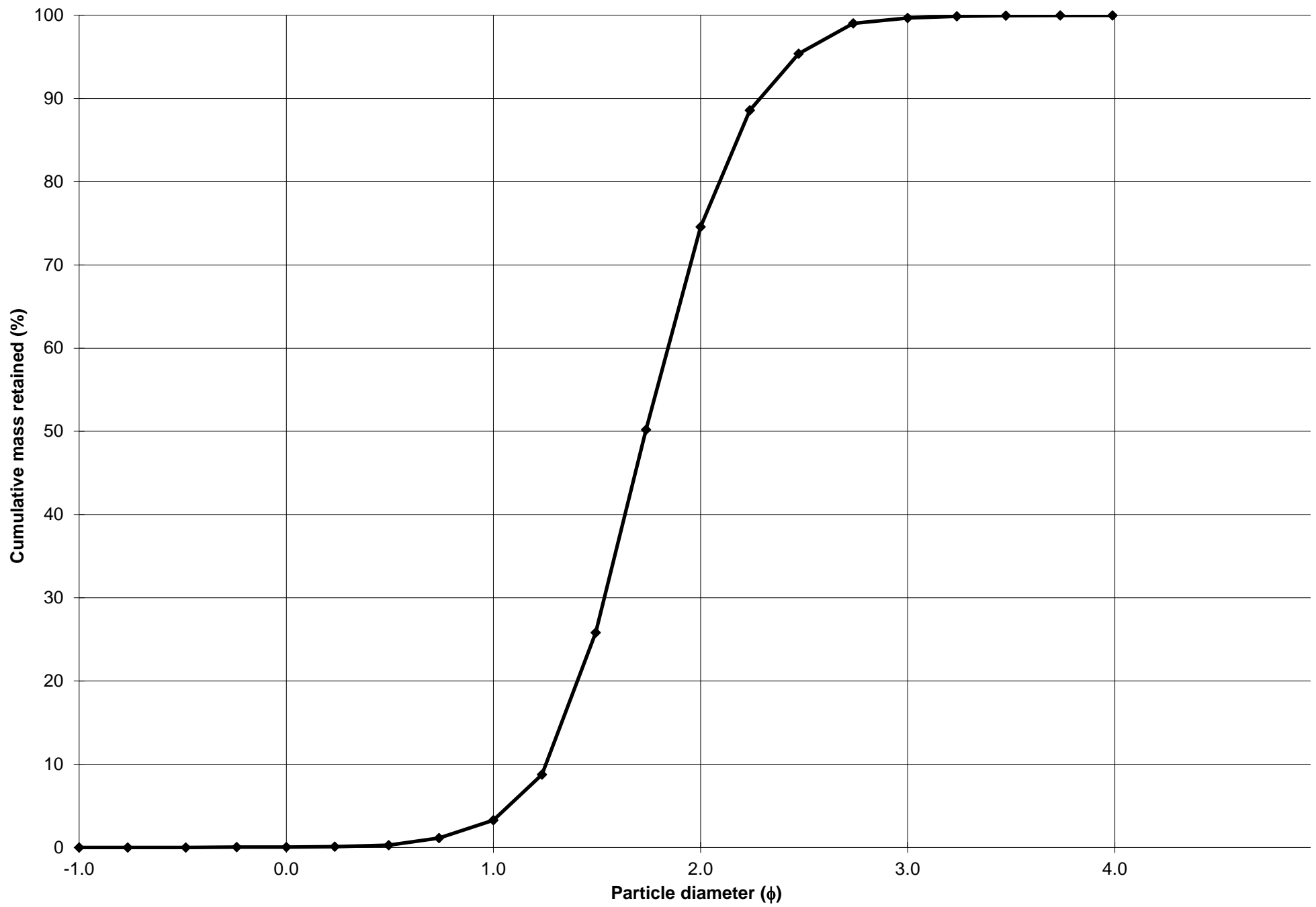
Cumulative Frequency Curve



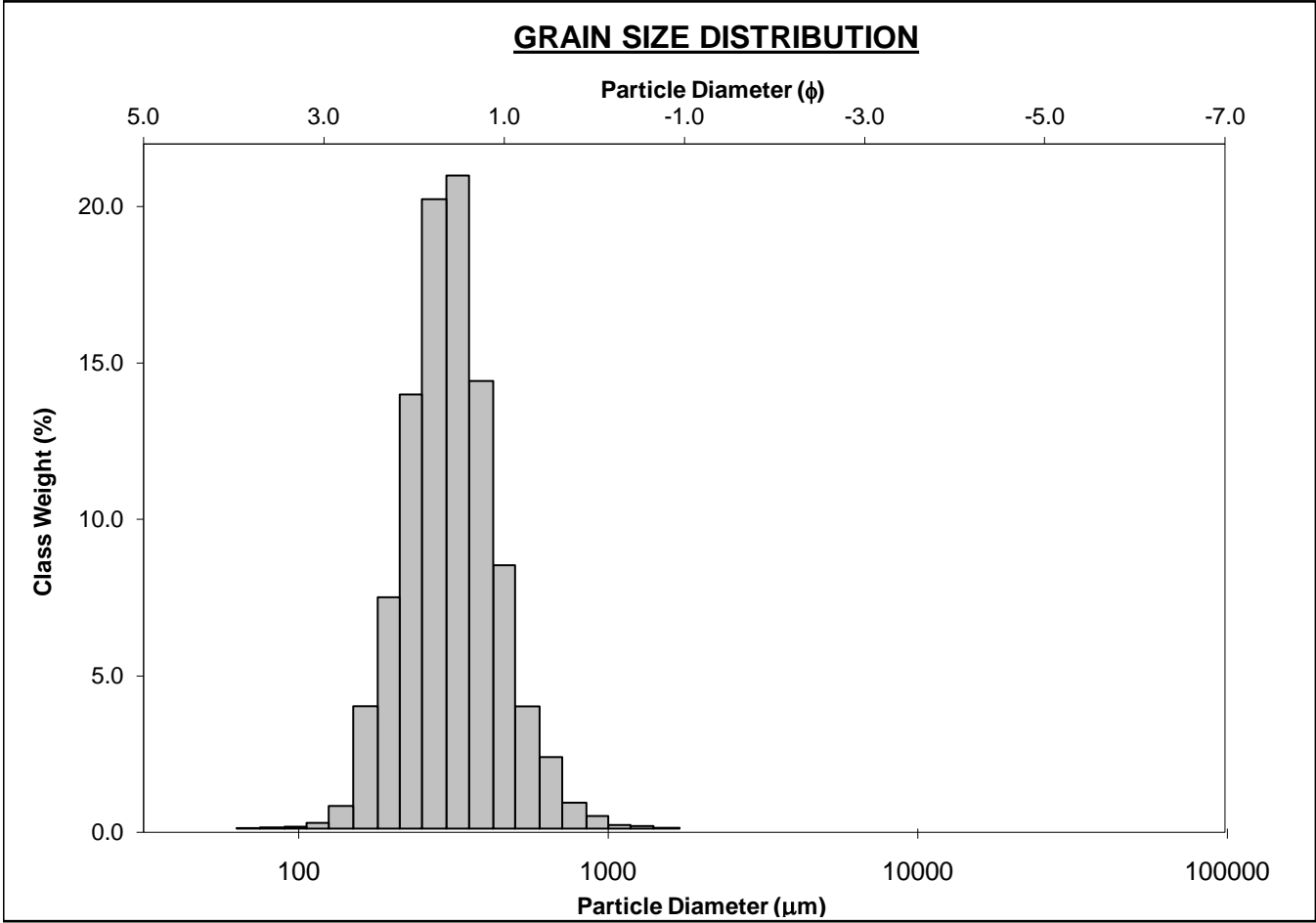
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-50cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0% COARSE SAND: 3.2%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 71.3%			
MODE 3:			MUD: 0.0% FINE SAND: 25.1%			
D ₁₀ :	204.9	1.253	V FINE SAND: 0.3%			
MEDIAN or D ₅₀ :	300.4	1.735	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	419.5	2.287	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.048	1.825	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	214.6	1.034	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.440	1.355	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	109.4	0.526	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	311.5	297.4	1.750	298.0	1.747	Medium Sand
SORTING (σ):	94.21	1.342	0.424	1.332	0.414	Well Sorted
SKEWNESS (Sk):	1.517	-0.336	0.336	-0.045	0.045	Symmetrical
KURTOSIS (K):	10.73	7.301	7.301	1.081	1.081	Mesokurtic



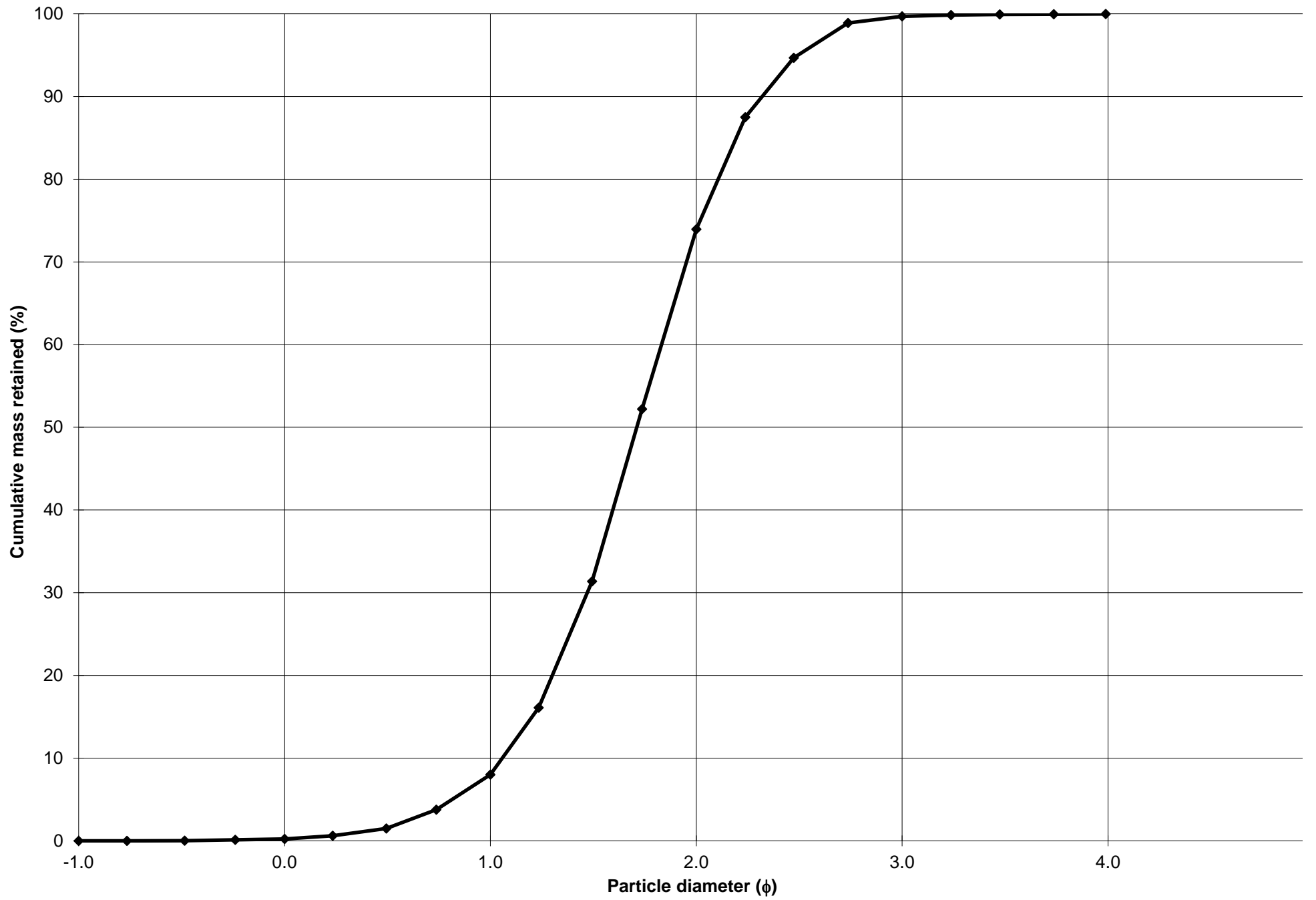
Cumulative Frequency Curve



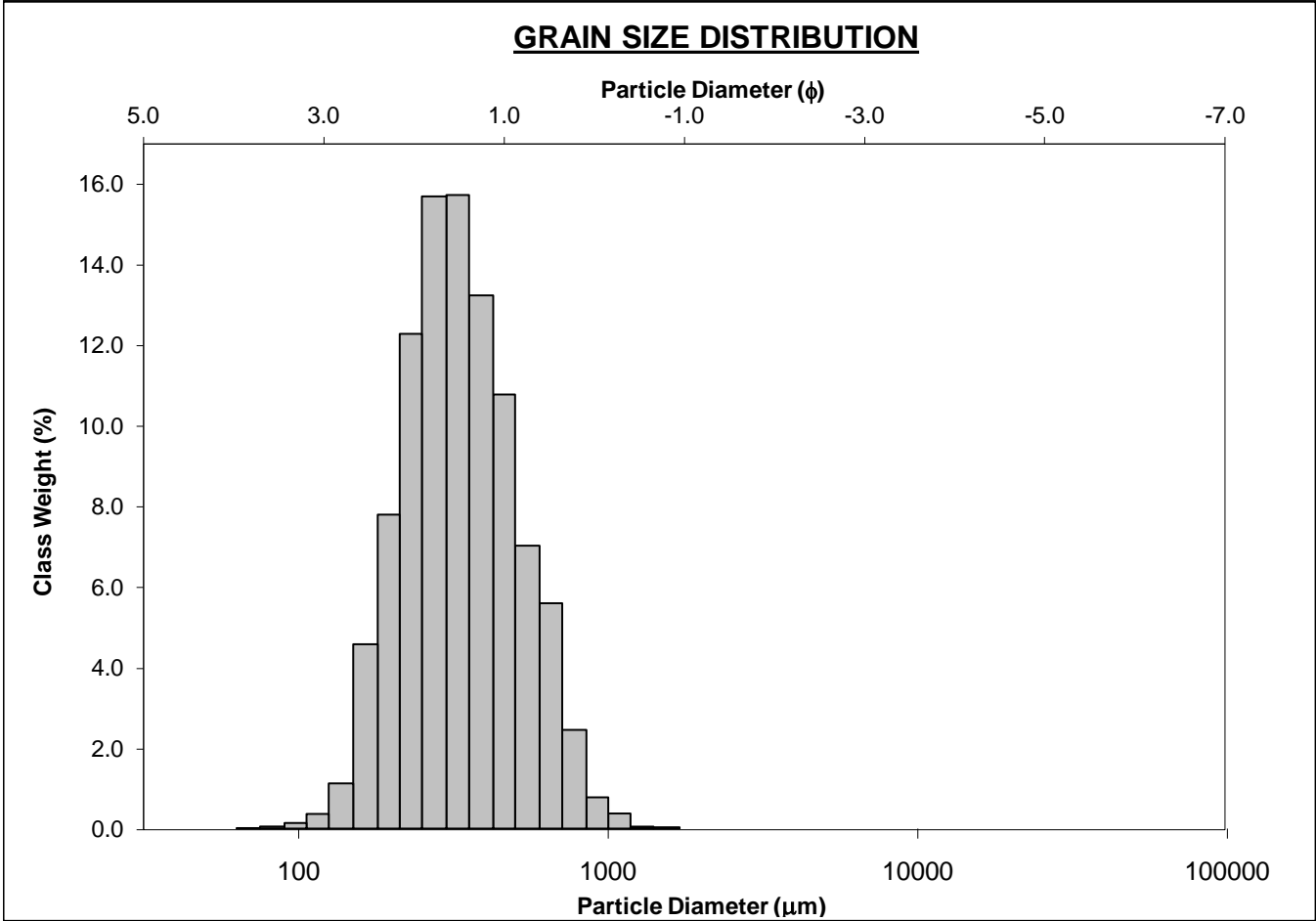
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-60cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 7.8%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 65.9%	
MODE 3:			MUD: 0.0%		FINE SAND: 25.7%	
D ₁₀ :	200.2	1.058			V FINE SAND: 0.3%	
MEDIAN or D ₅₀ :	305.4	1.711	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	480.4	2.320	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.399	2.193	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	280.1	1.262	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.551	1.457	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	135.9	0.633	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	330.2	308.7	1.696	306.4	1.706	Medium Sand
SORTING (σ):	127.9	1.421	0.507	1.406	0.491	Well Sorted
SKEWNESS (Sk):	2.019	0.024	-0.024	0.042	-0.042	Symmetrical
KURTOSIS (K):	11.47	6.372	6.372	1.089	1.089	Mesokurtic



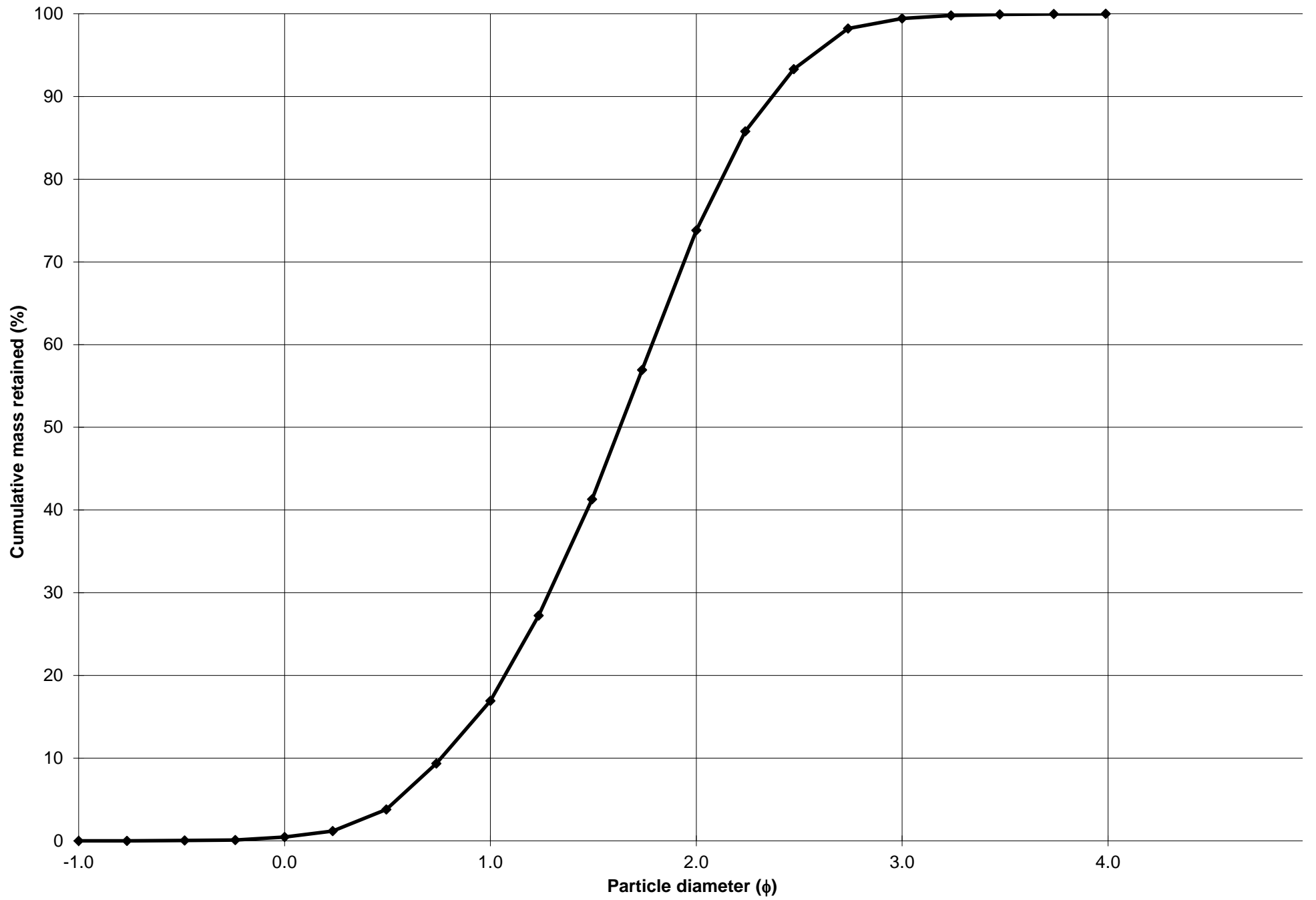
Cumulative Frequency Curve



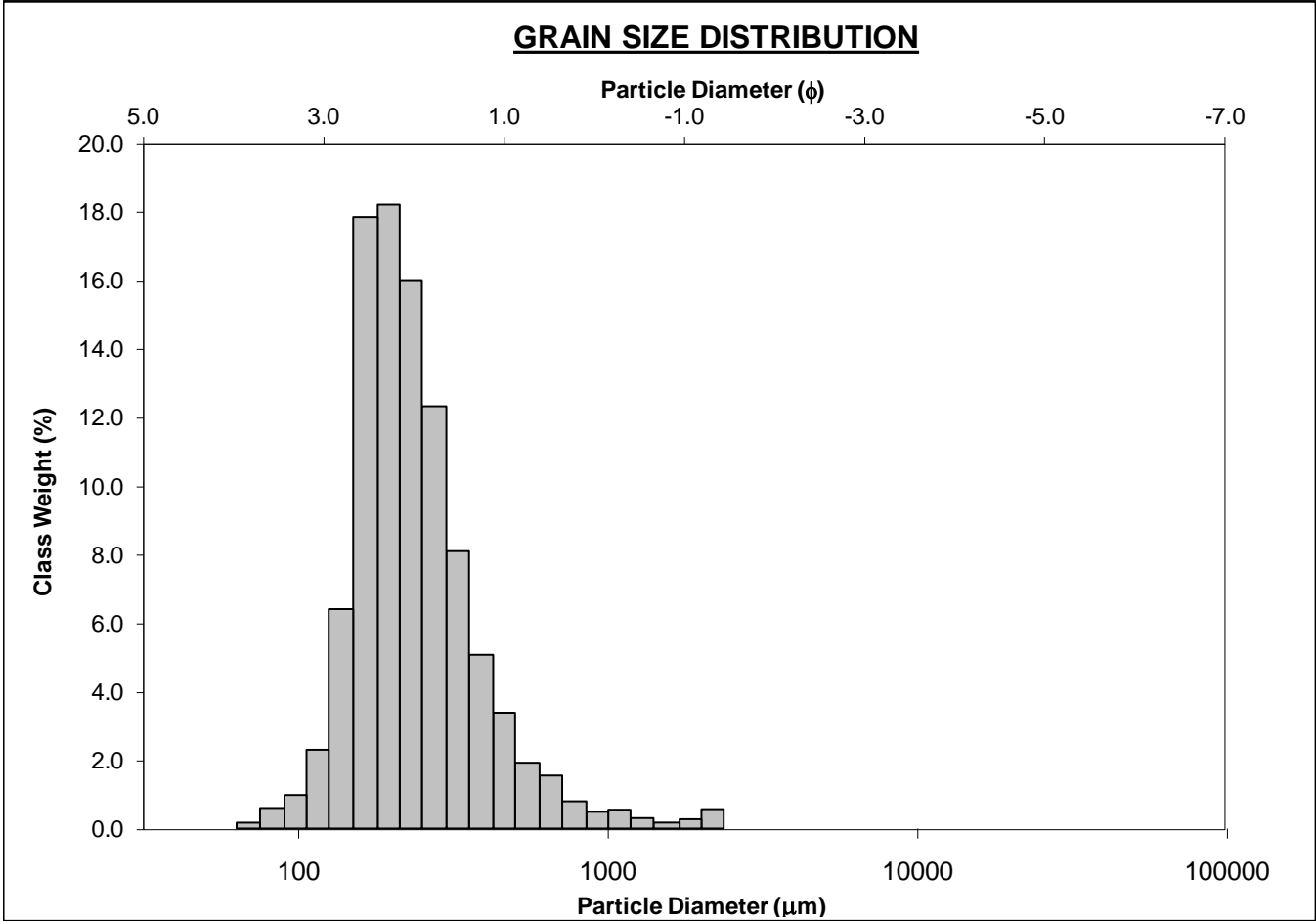
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-70cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 16.5%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 56.9%	
MODE 3:			MUD: 0.0%		FINE SAND: 25.6%	
D ₁₀ :	193.4	0.759			V FINE SAND: 0.6%	
MEDIAN or D ₅₀ :	323.3	1.629	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	590.7	2.370	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.055	3.121	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	397.3	1.611	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.790	1.710	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	194.3	0.840	V COARSE SAND: 0.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	363.3	330.6	1.597	329.9	1.600	Medium Sand
SORTING (σ):	163.9	1.526	0.610	1.531	0.614	Moderately Well Sorted
SKEWNESS (Sk):	1.409	0.091	-0.091	0.072	-0.072	Symmetrical
KURTOSIS (K):	6.062	3.518	3.518	0.985	0.985	Mesokurtic



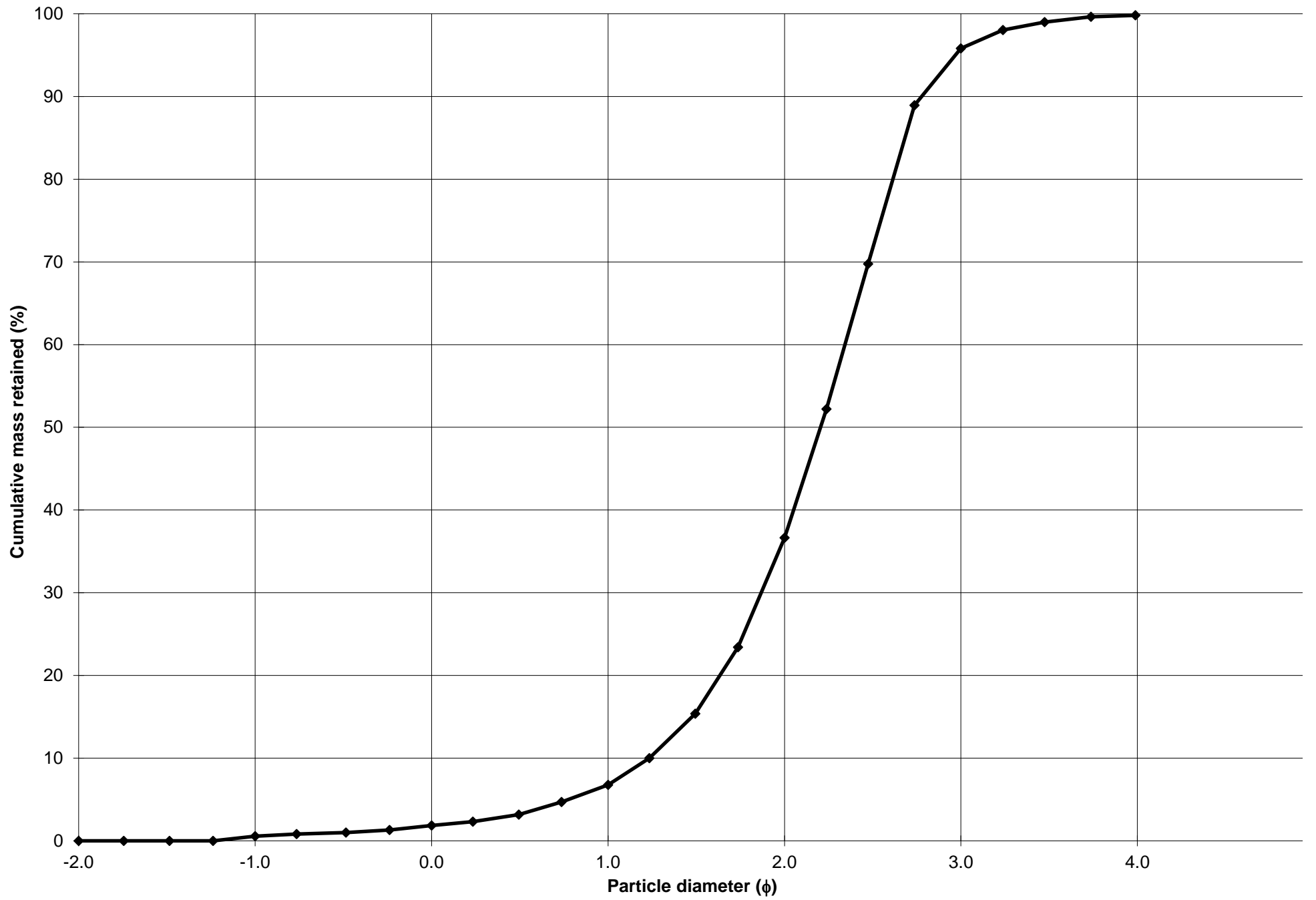
Cumulative Frequency Curve



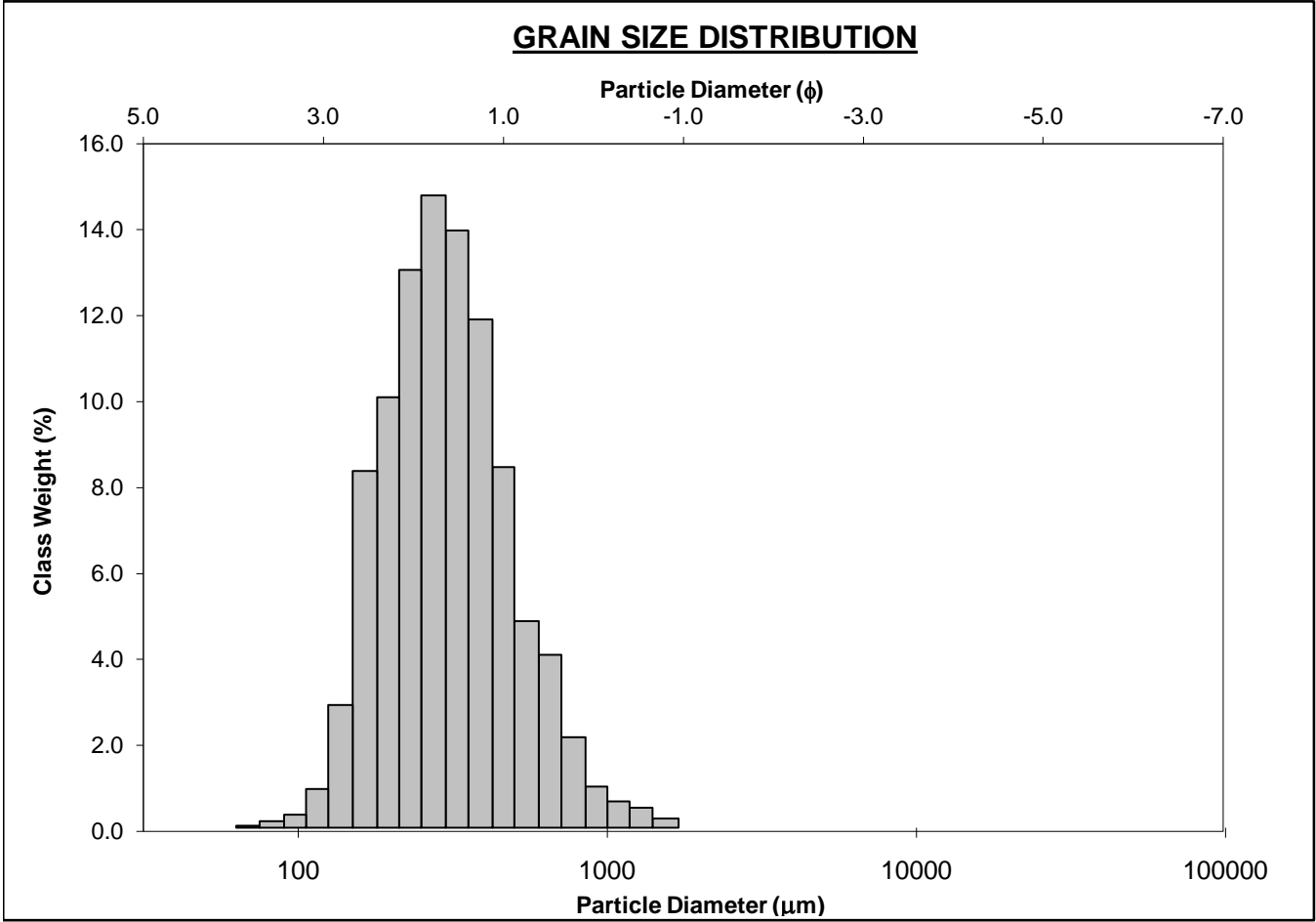
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-80cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.6%		COARSE SAND: 4.9%	
MODE 2:			SAND: 99.3%		MEDIUM SAND: 29.9%	
MODE 3:			MUD: 0.2%		FINE SAND: 59.2%	
D ₁₀ :	145.8	1.234			V FINE SAND: 4.0%	
MEDIAN or D ₅₀ :	217.0	2.204	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	425.1	2.778	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.915	2.251	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	279.3	1.544	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.714	1.440	V FINE GRAVEL: 0.6%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	122.3	0.777	V COARSE SAND: 1.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	276.4	234.7	2.091	228.7	2.129	Fine Sand
SORTING (σ):	229.7	1.665	0.735	1.539	0.622	Moderately Well Sorted
SKEWNESS (Sk):	5.081	0.649	-0.649	0.249	-0.249	Coarse Skewed
KURTOSIS (K):	36.39	9.234	9.234	1.157	1.157	Leptokurtic



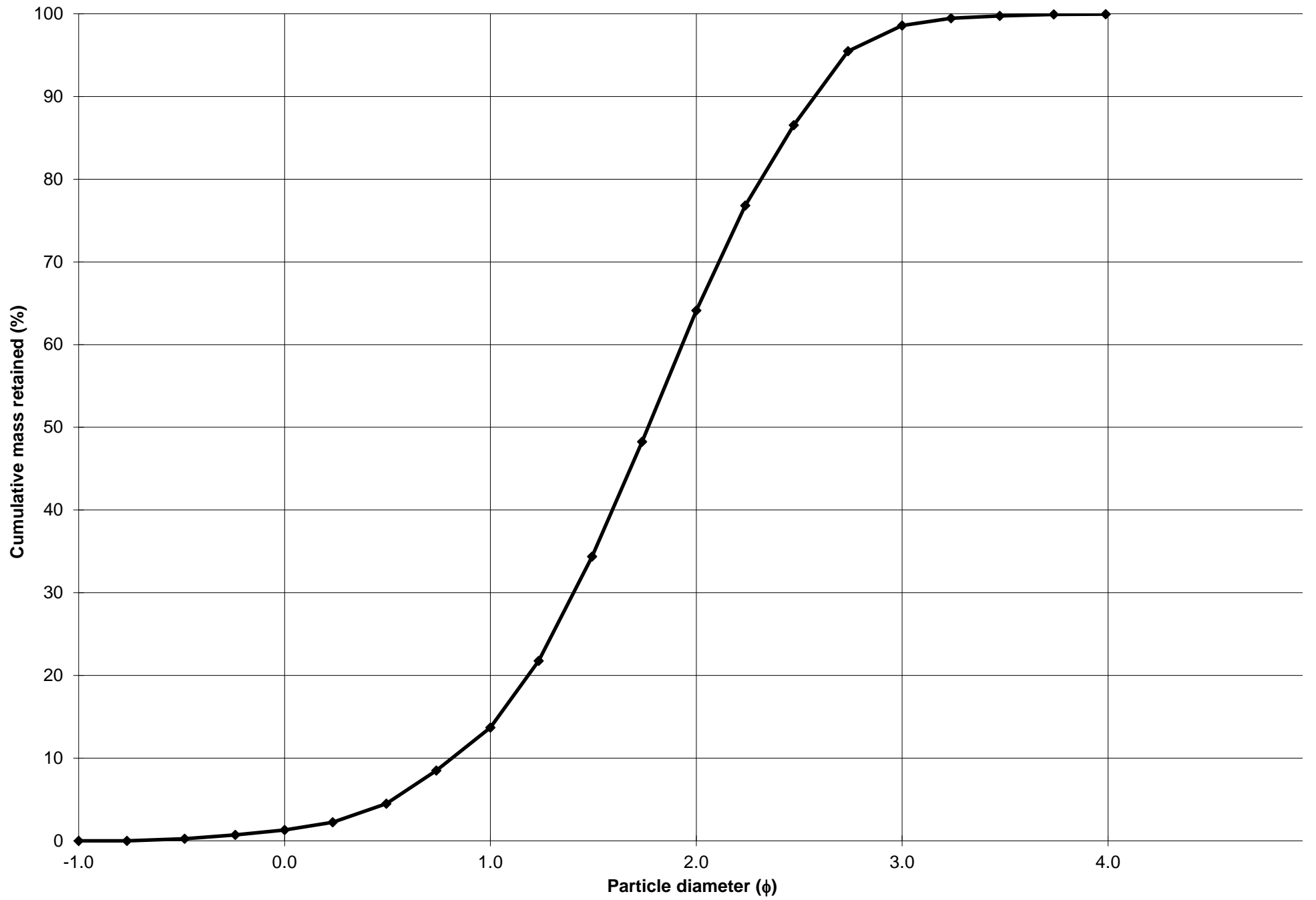
Cumulative Frequency Curve



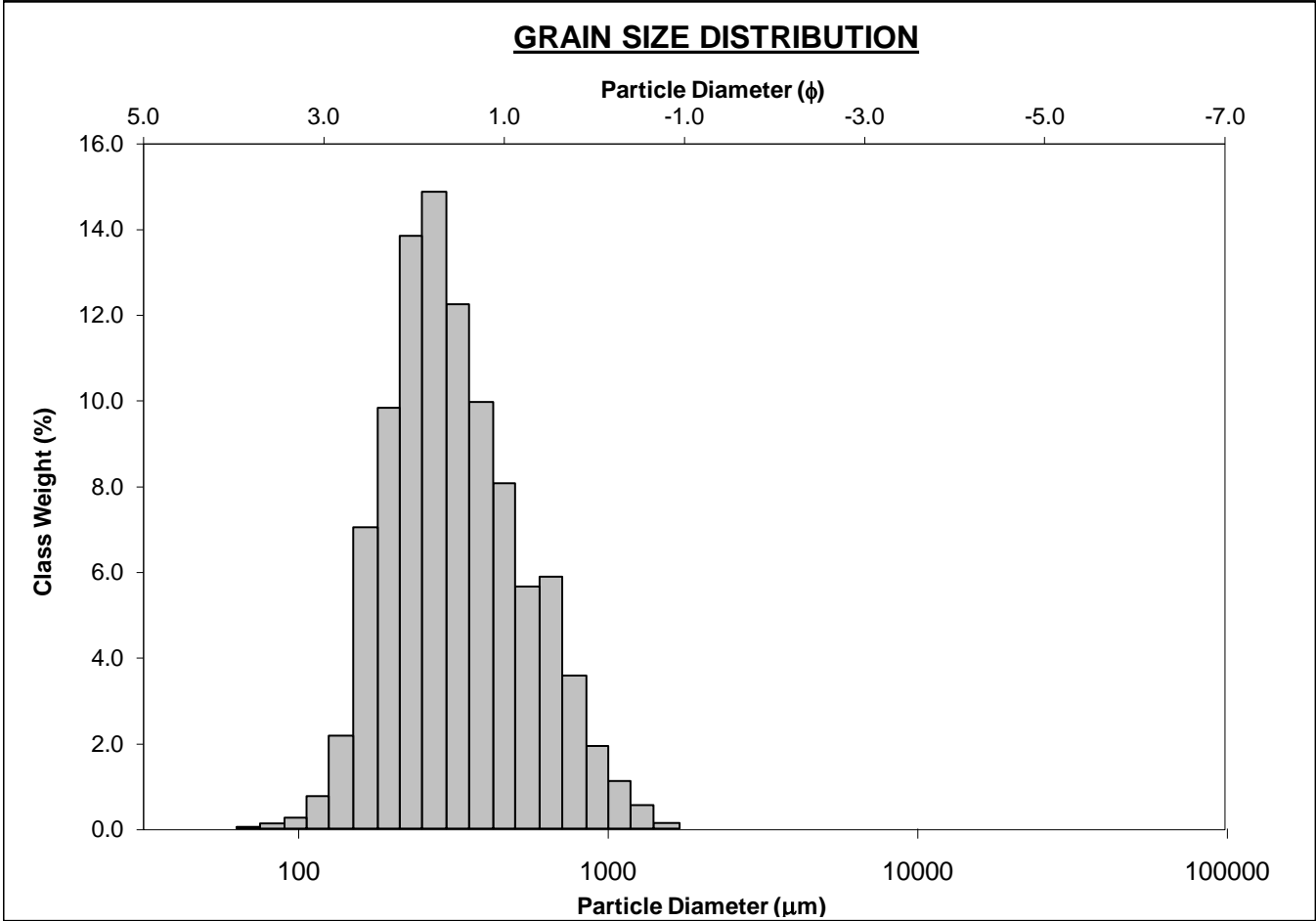
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-90cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 12.4%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 50.4%	
MODE 3:			MUD: 0.0%		FINE SAND: 34.4%	
D ₁₀ :	167.7	0.813			V FINE SAND: 1.4%	
MEDIAN or D ₅₀ :	294.0	1.766	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	569.1	2.576	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.394	3.168	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	401.4	1.763	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.870	1.694	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	188.8	0.903	V COARSE SAND: 1.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	341.8	302.3	1.726	297.6	1.749	Medium Sand
SORTING (σ):	188.5	1.609	0.686	1.590	0.669	Moderately Well Sorted
SKEWNESS (Sk):	2.233	0.210	-0.210	0.084	-0.084	Symmetrical
KURTOSIS (K):	10.74	4.507	4.507	0.997	0.997	Mesokurtic



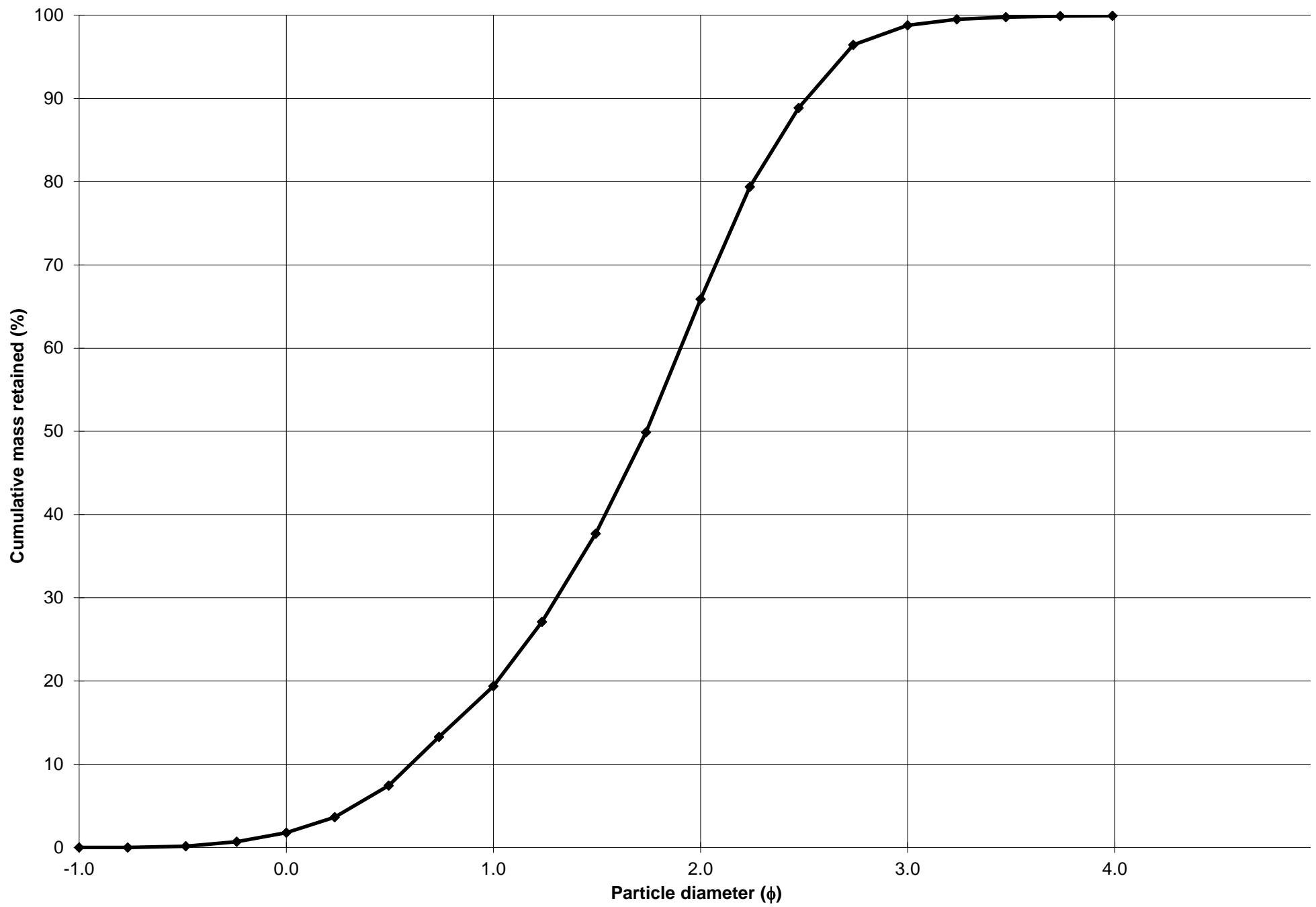
Cumulative Frequency Curve



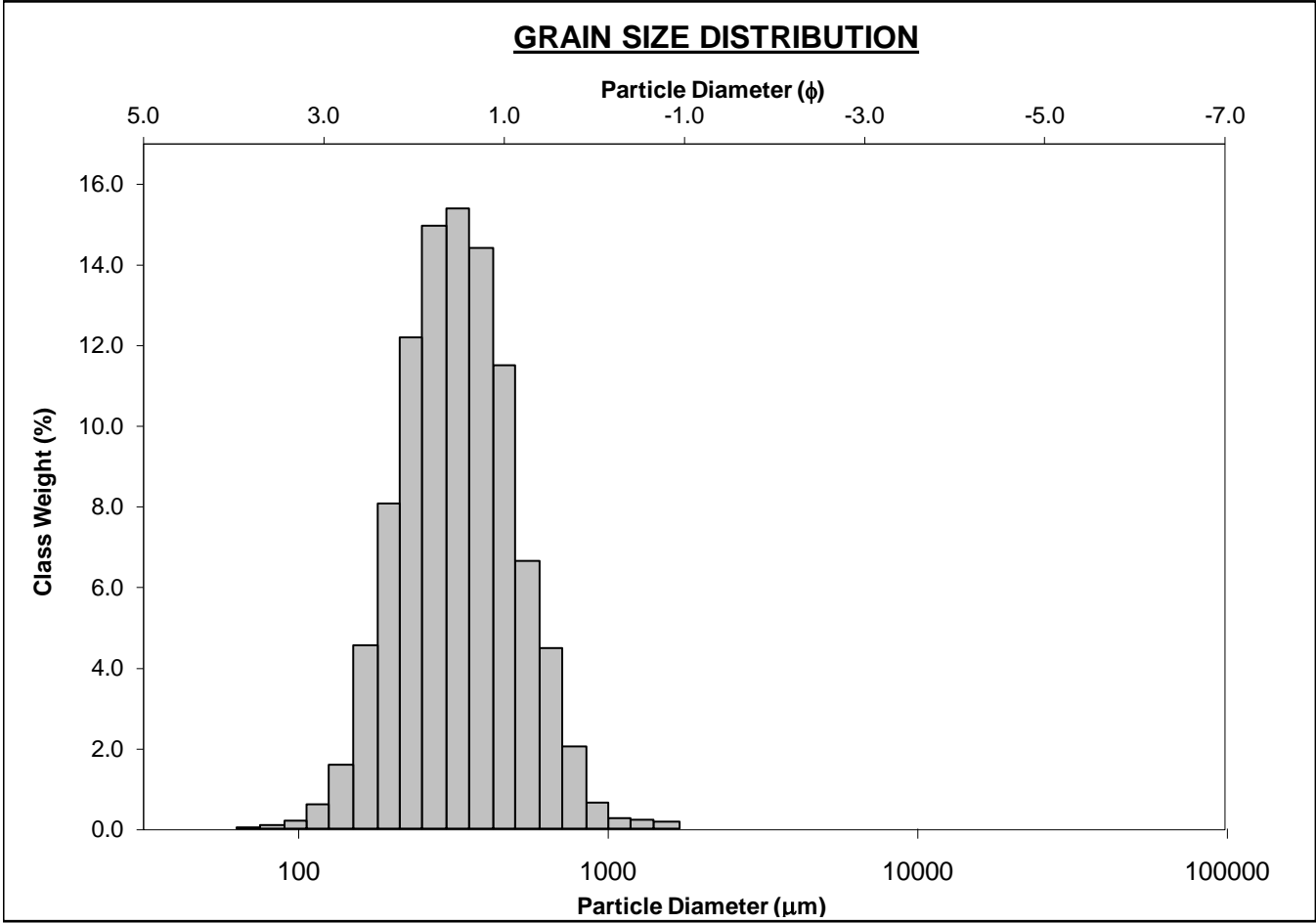
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-100cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 17.6%	
MODE 2:	655.0	0.616	SAND: 99.9%		MEDIUM SAND: 46.5%	
MODE 3:			MUD: 0.1%		FINE SAND: 32.9%	
D ₁₀ :	175.1	0.600			V FINE SAND: 1.2%	
MEDIAN or D ₅₀ :	299.6	1.739	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	659.6	2.513	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.766	4.186	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	484.4	1.913	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.987	1.846	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	220.7	0.990	V COARSE SAND: 1.8%		CLAY: 0.0%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	367.6	320.1	1.643	318.9	1.649	Medium Sand
SORTING (σ):	210.7	1.663	0.734	1.661	0.732	Moderately Sorted
SKEWNESS (Sk):	1.766	0.143	-0.143	0.189	-0.189	Coarse Skewed
KURTOSIS (K):	6.933	4.561	4.561	0.976	0.976	Mesokurtic



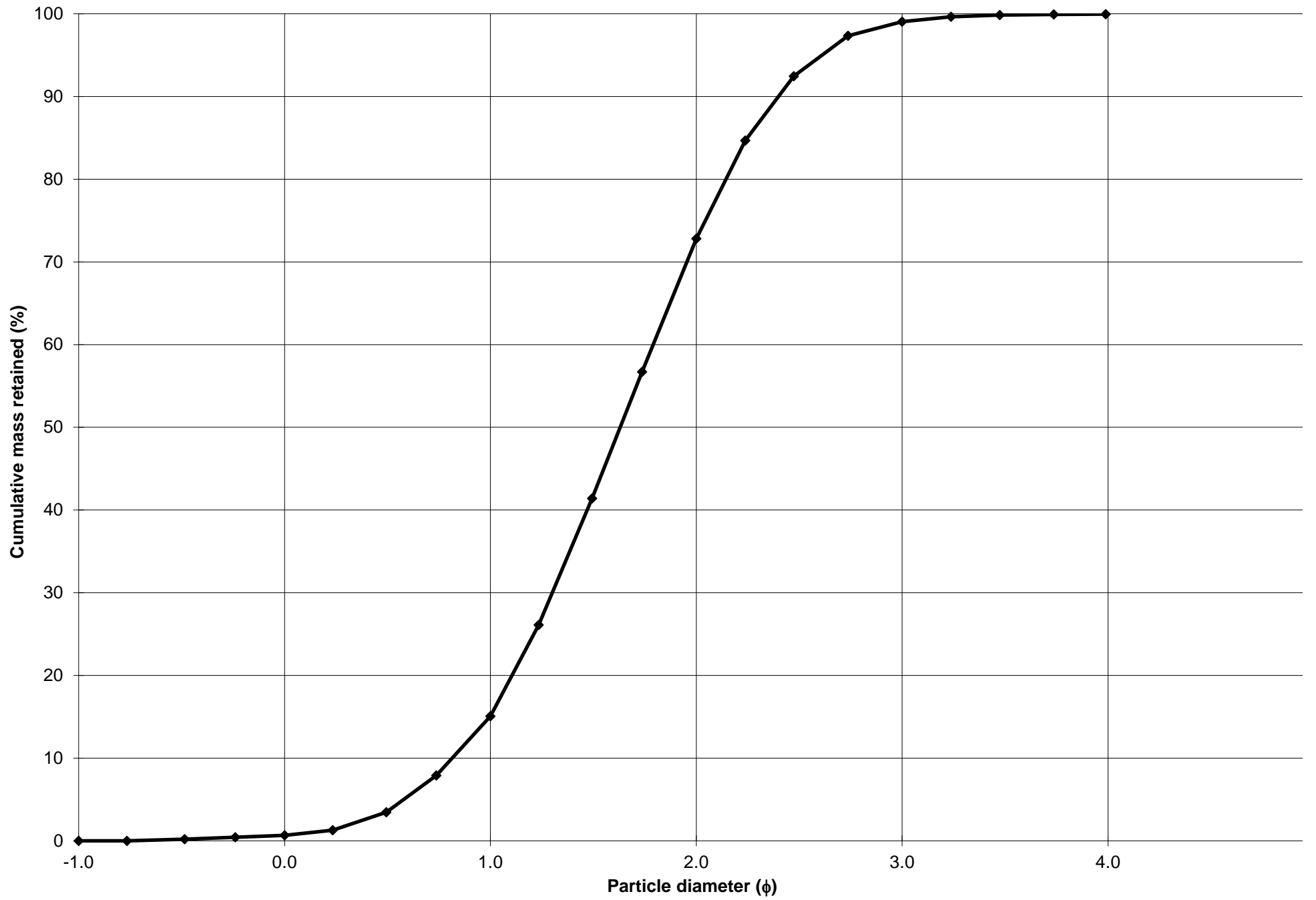
Cumulative Frequency Curve



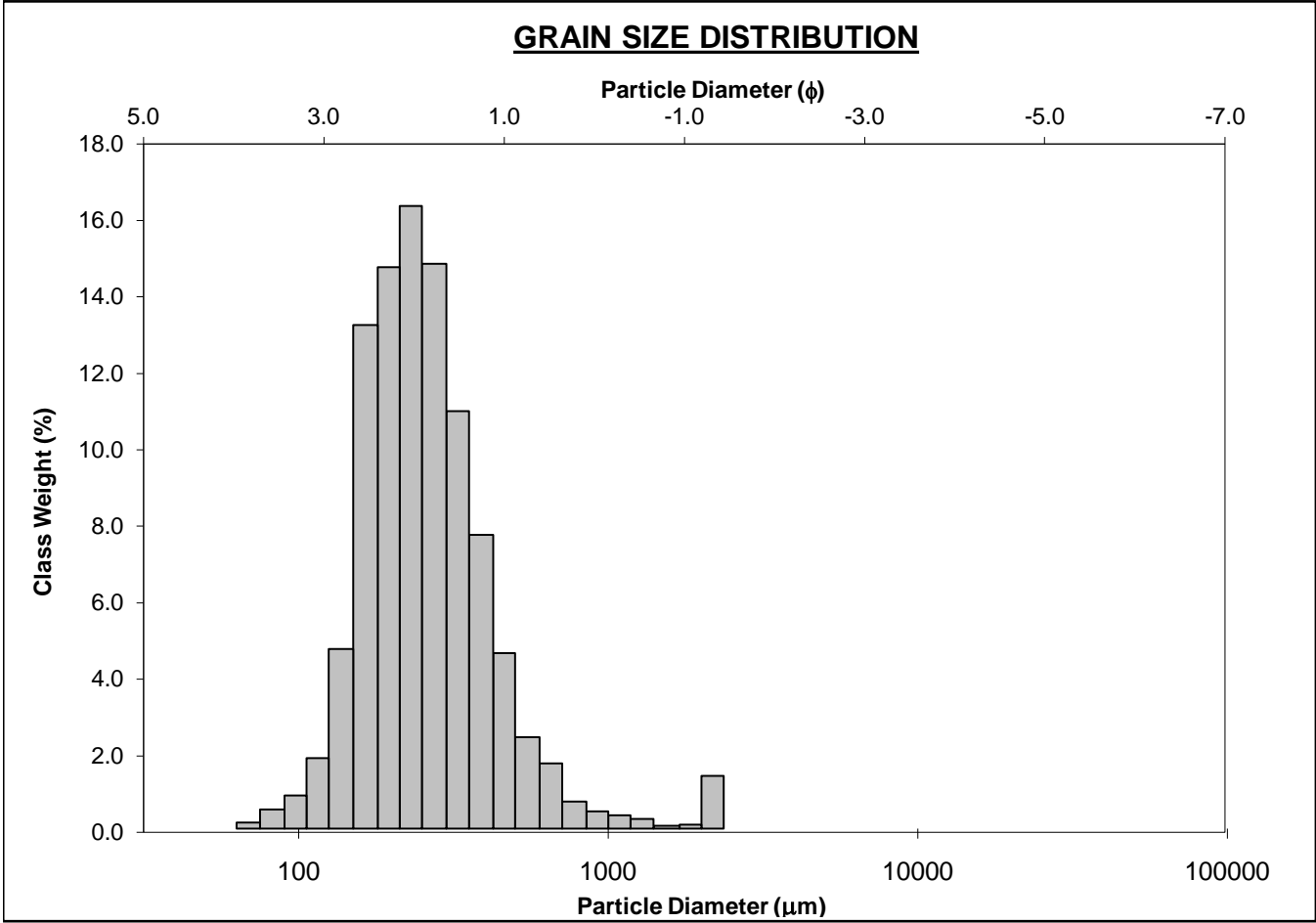
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-110cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 14.4%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 57.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 26.3%	
D ₁₀ :	189.5	0.814			V FINE SAND: 0.9%	
MEDIAN or D ₅₀ :	322.9	1.631	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	568.9	2.400	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.002	2.949	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	379.4	1.586	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.781	1.688	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	189.4	0.833	V COARSE SAND: 0.7%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	359.0	325.5	1.619	324.2	1.625	Medium Sand
SORTING (σ):	168.4	1.541	0.624	1.525	0.609	Moderately Well Sorted
SKEWNESS (Sk):	1.940	-0.092	0.092	0.025	-0.025	Symmetrical
KURTOSIS (K):	10.44	5.202	5.202	1.000	1.000	Mesokurtic



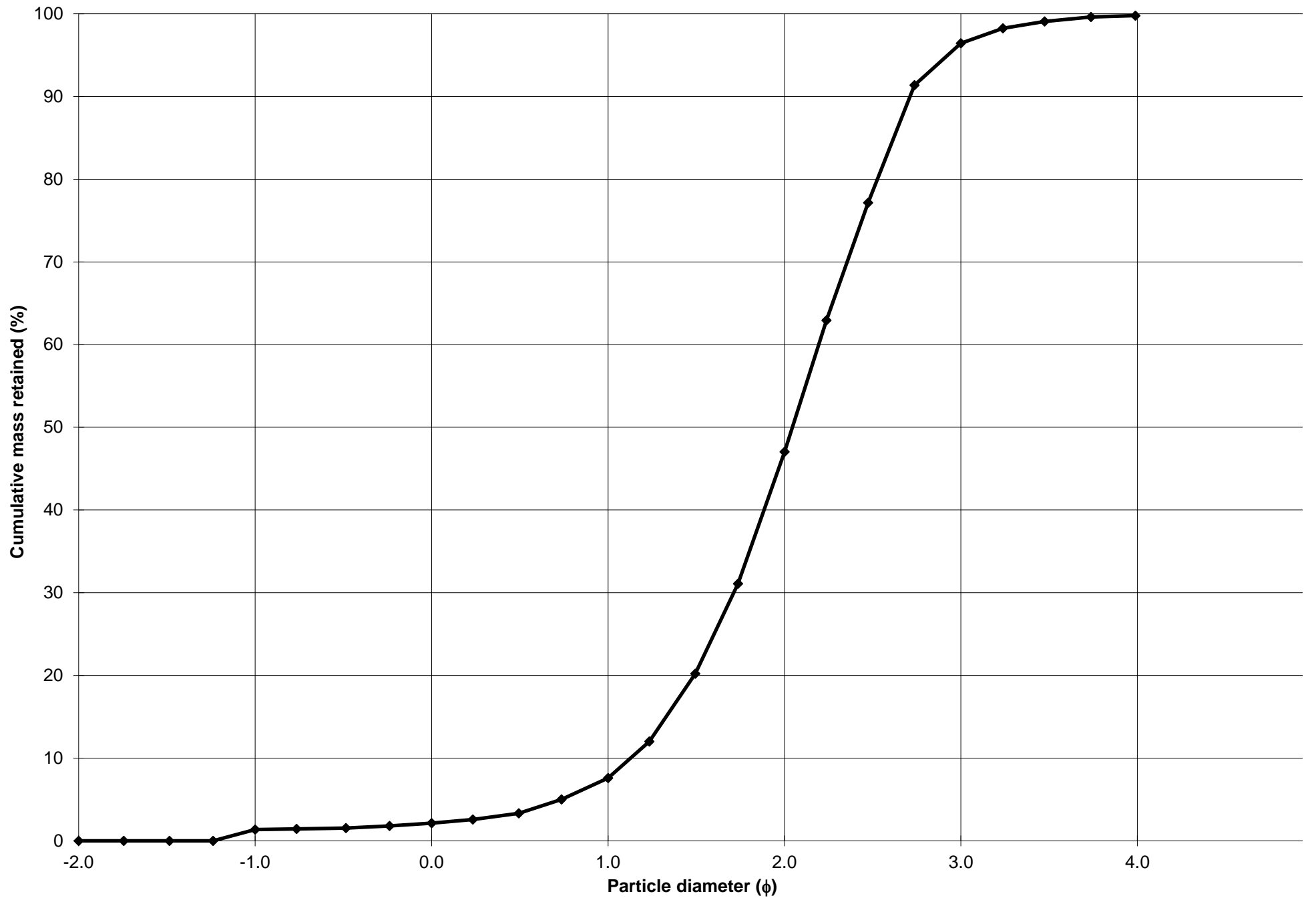
Cumulative Frequency Curve



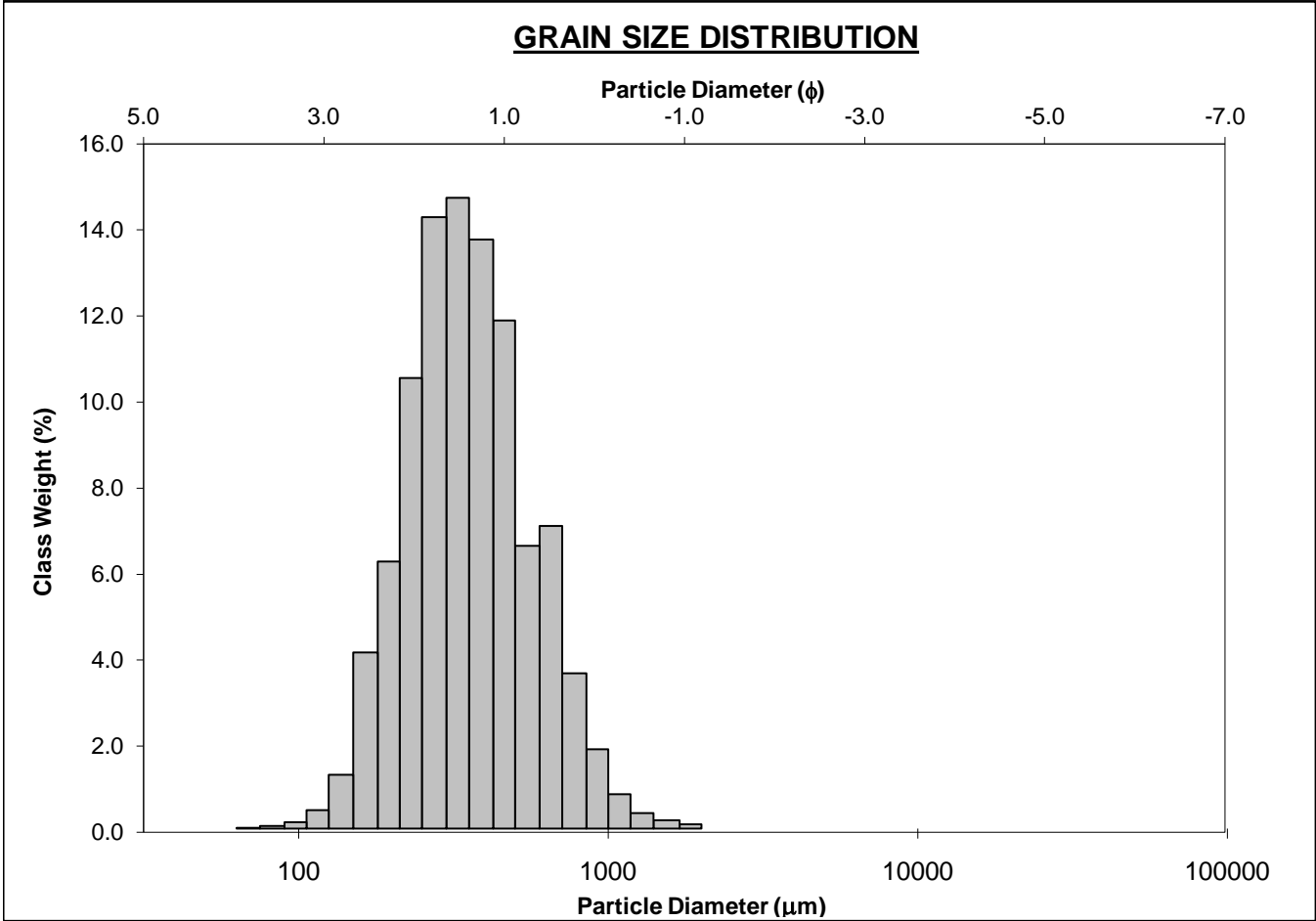
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-120cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 1.4%		COARSE SAND: 5.5%	
MODE 2:			SAND: 98.4%		MEDIUM SAND: 39.4%	
MODE 3:			MUD: 0.2%		FINE SAND: 49.4%	
D ₁₀ :	152.7	1.127			V FINE SAND: 3.3%	
MEDIAN or D ₅₀ :	242.4	2.044	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	457.8	2.712	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.999	2.406	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	305.1	1.584	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.786	1.523	V FINE GRAVEL: 1.4%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	145.1	0.837	V COARSE SAND: 0.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	305.3	255.9	1.966	249.7	2.002	Fine Sand
SORTING (σ):	270.1	1.699	0.765	1.561	0.642	Moderately Well Sorted
SKEWNESS (Sk):	5.093	0.523	-0.523	0.149	-0.149	Coarse Skewed
KURTOSIS (K):	33.79	9.624	9.624	1.073	1.073	Mesokurtic



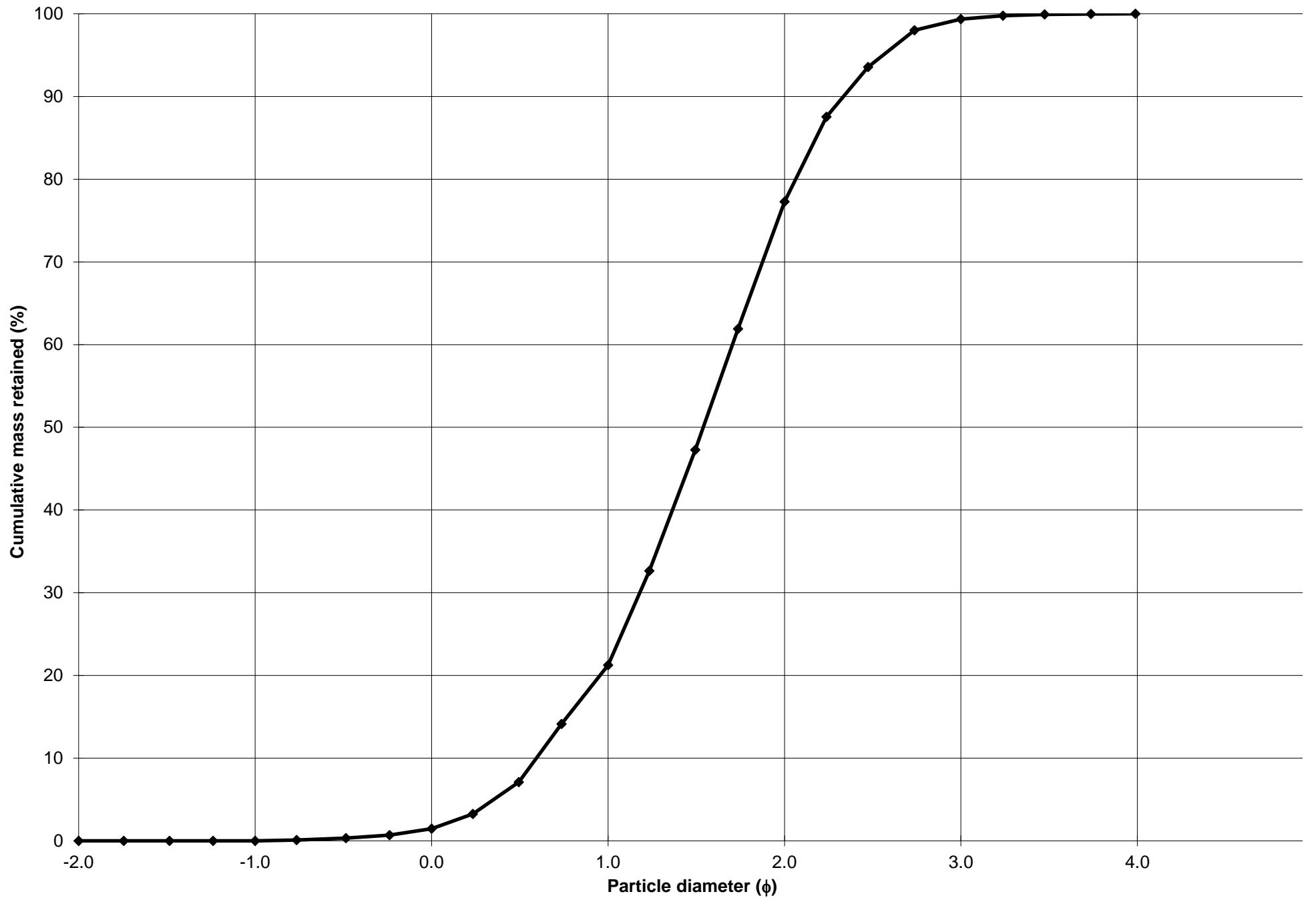
Cumulative Frequency Curve



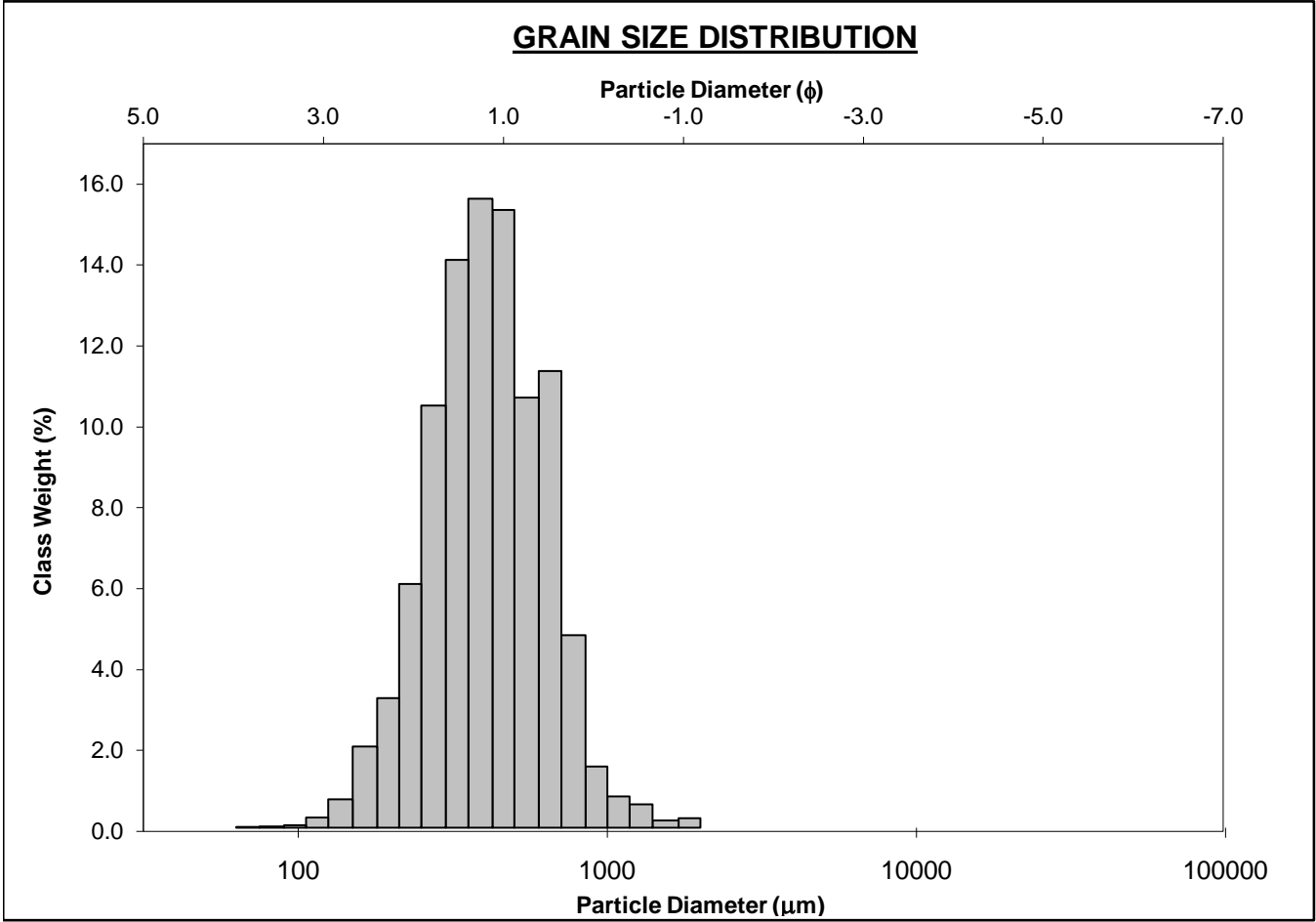
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-130cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 19.8%	
MODE 2:	655.0	0.616	SAND: 100.0%		MEDIUM SAND: 56.0%	
MODE 3:			MUD: 0.0%		FINE SAND: 22.1%	
D ₁₀ :	198.3	0.594			V FINE SAND: 0.6%	
MEDIAN or D ₅₀ :	344.0	1.540	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	662.4	2.334	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.340	3.928	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	464.1	1.740	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.845	1.820	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	217.0	0.883	V COARSE SAND: 1.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	395.5	353.1	1.502	353.4	1.500	Medium Sand
SORTING (σ):	203.0	1.584	0.664	1.593	0.672	Moderately Well Sorted
SKEWNESS (Sk):	1.886	0.241	-0.241	0.081	-0.081	Symmetrical
KURTOSIS (K):	9.089	3.031	3.031	1.023	1.023	Mesokurtic



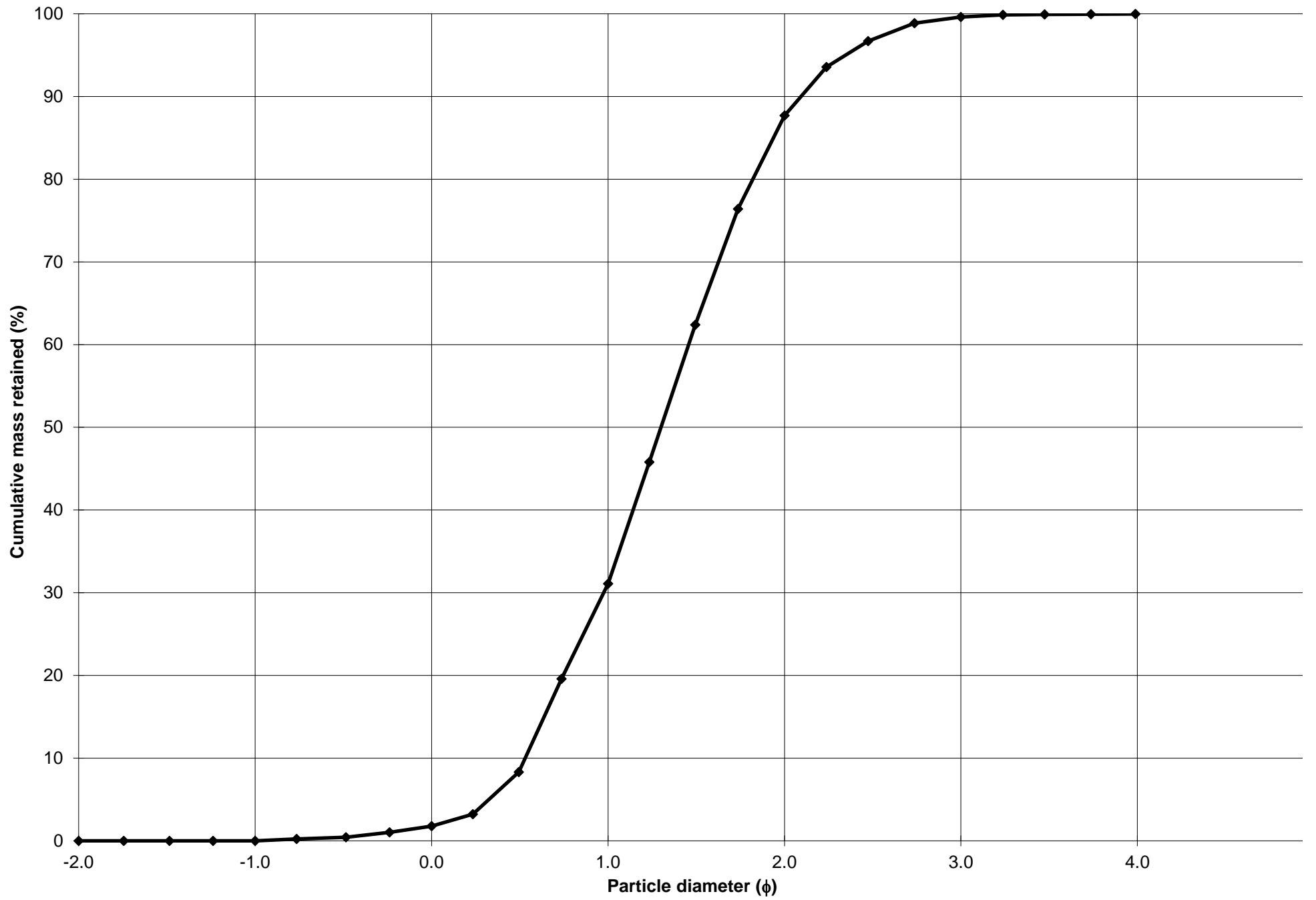
Cumulative Frequency Curve



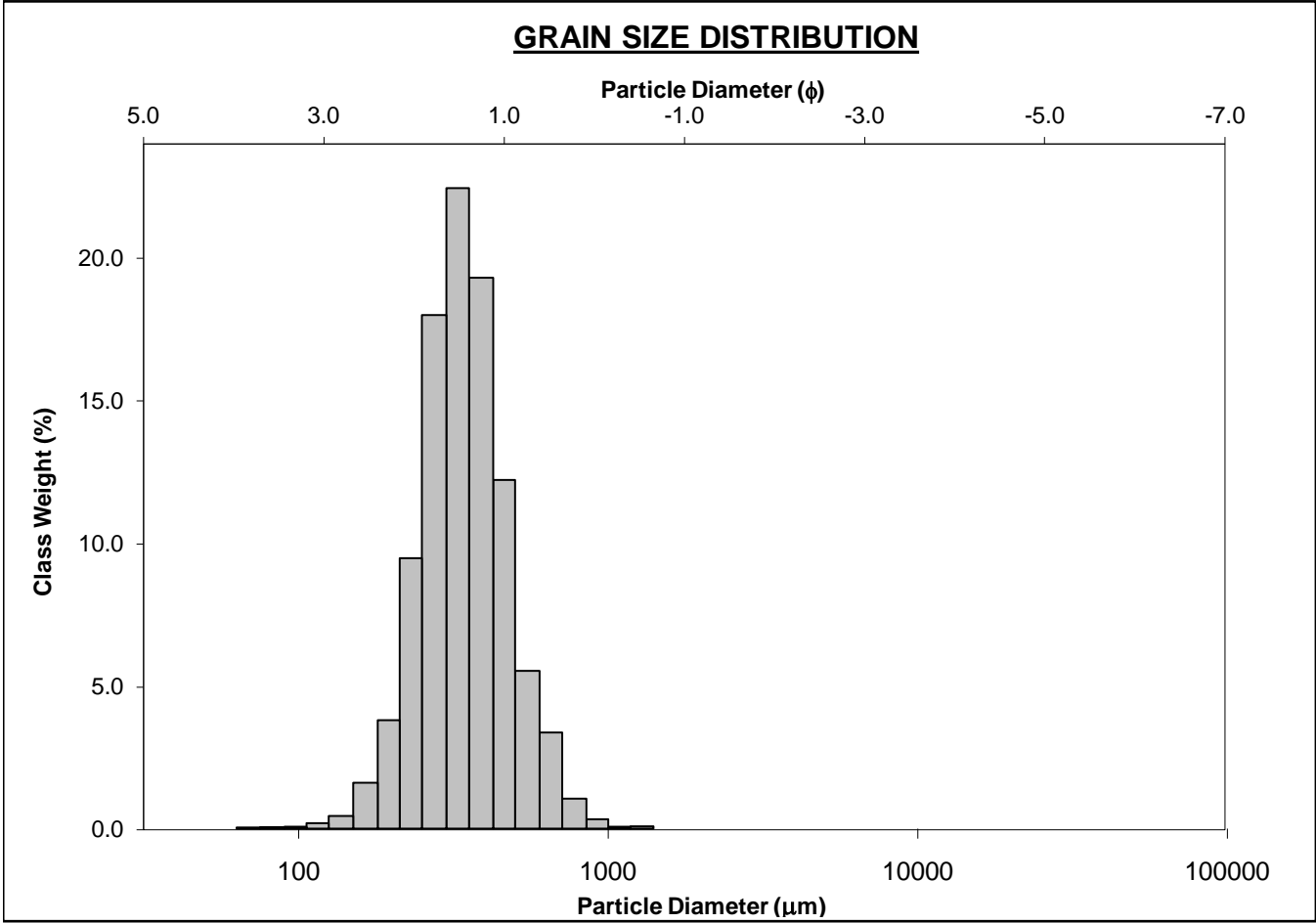
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-140cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.0%		COARSE SAND: 29.3%	
MODE 2:	655.0	0.616	SAND: 100.0%		MEDIUM SAND: 56.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 11.9%	
D ₁₀ :	234.3	0.530			V FINE SAND: 0.4%	
MEDIAN or D ₅₀ :	406.1	1.300	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	692.3	2.093	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.955	3.947	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	458.0	1.563	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.805	1.989	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	245.5	0.852	V COARSE SAND: 1.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	447.8	405.8	1.301	408.6	1.291	Medium Sand
SORTING (σ):	207.0	1.548	0.630	1.537	0.620	Moderately Well Sorted
SKEWNESS (Sk):	1.832	-0.193	0.193	-0.007	0.007	Symmetrical
KURTOSIS (K):	9.953	4.908	4.908	0.973	0.973	Mesokurtic



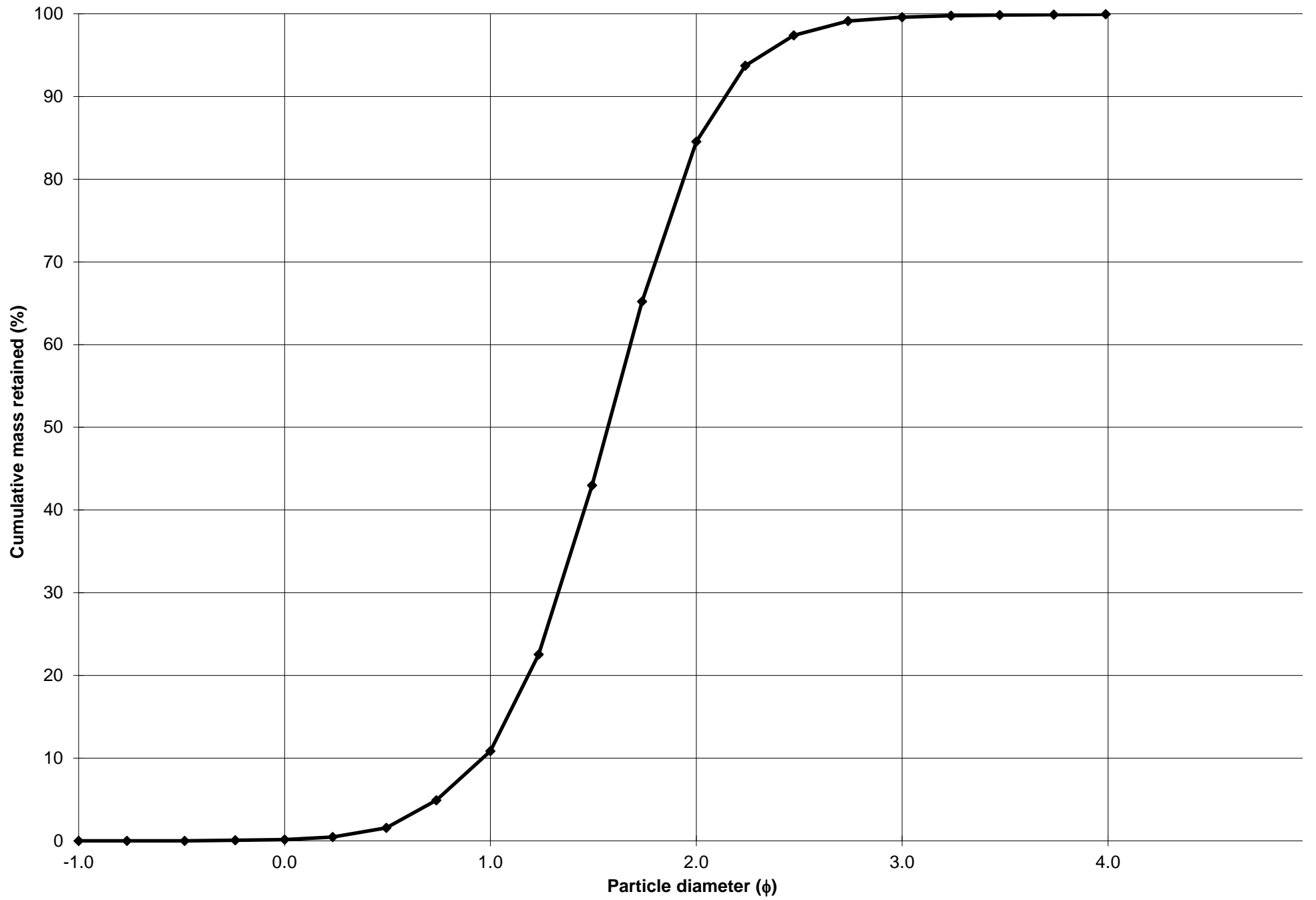
Cumulative Frequency Curve



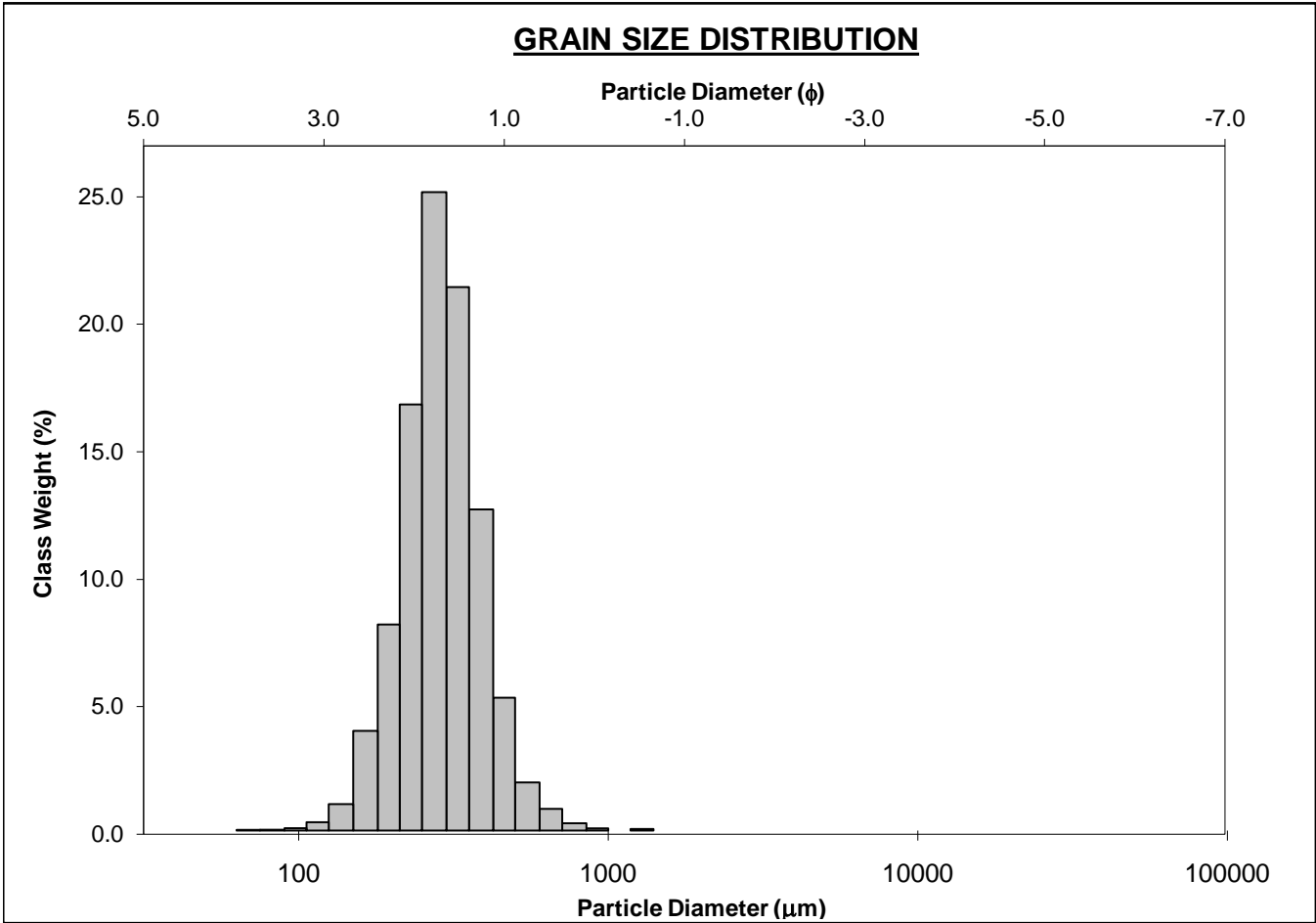
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-150cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 10.7%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 73.7%	
MODE 3:			MUD: 0.1%		FINE SAND: 15.1%	
D ₁₀ :	226.7	0.963			V FINE SAND: 0.3%	
MEDIAN or D ₅₀ :	336.6	1.571	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	513.1	2.141	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.264	2.224	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	286.4	1.179	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.520	1.477	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	142.3	0.604	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	359.9	338.8	1.562	340.2	1.556	Medium Sand
SORTING (σ):	125.7	1.409	0.494	1.377	0.462	Well Sorted
SKEWNESS (Sk):	1.482	-0.802	0.802	0.051	-0.051	Symmetrical
KURTOSIS (K):	7.687	12.71	12.71	1.071	1.071	Mesokurtic



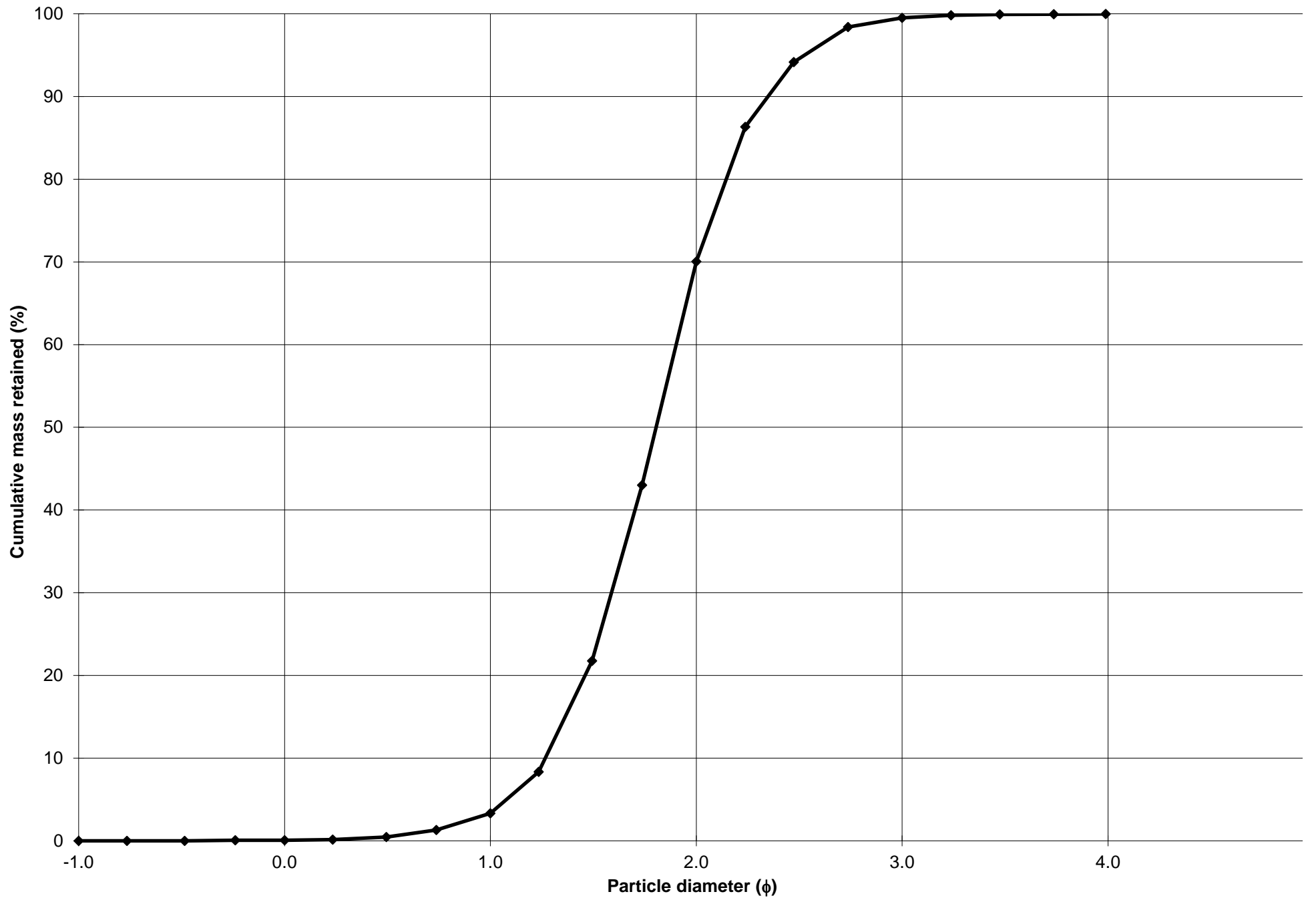
Cumulative Frequency Curve



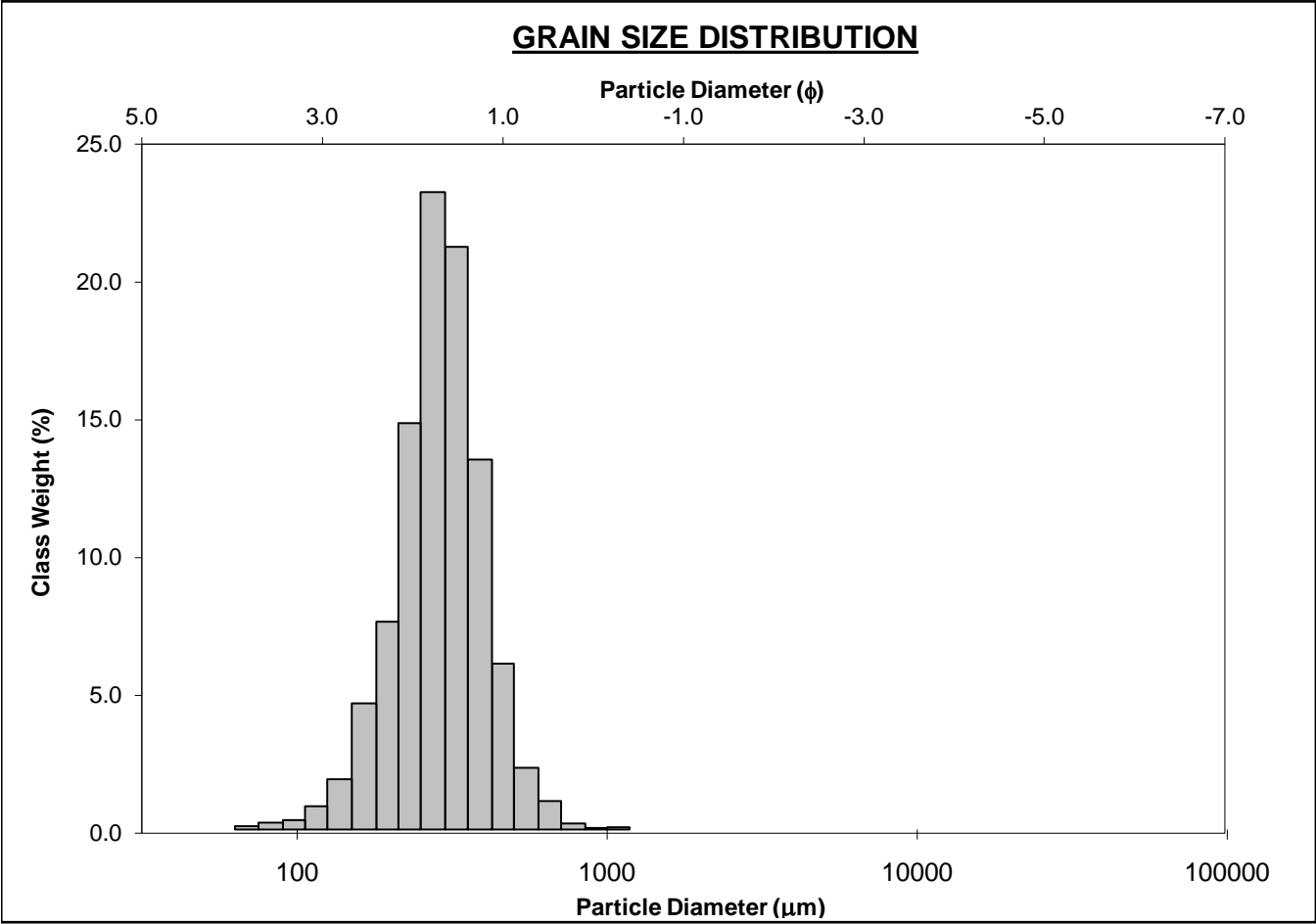
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-160cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 3.3%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 66.7%			
MODE 3:			MUD: 0.0% FINE SAND: 29.5%			
D ₁₀ :	196.4	1.266	V FINE SAND: 0.5%			
MEDIAN or D ₅₀ :	286.2	1.805	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	415.7	2.348	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.117	1.854	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	219.3	1.082	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.455	1.354	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	108.3	0.541	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	302.1	287.2	1.800	287.8	1.797	Medium Sand
SORTING (σ):	97.99	1.358	0.442	1.342	0.425	Well Sorted
SKEWNESS (Sk):	1.877	-0.241	0.241	0.017	-0.017	Symmetrical
KURTOSIS (K):	12.76	7.837	7.837	1.096	1.096	Mesokurtic



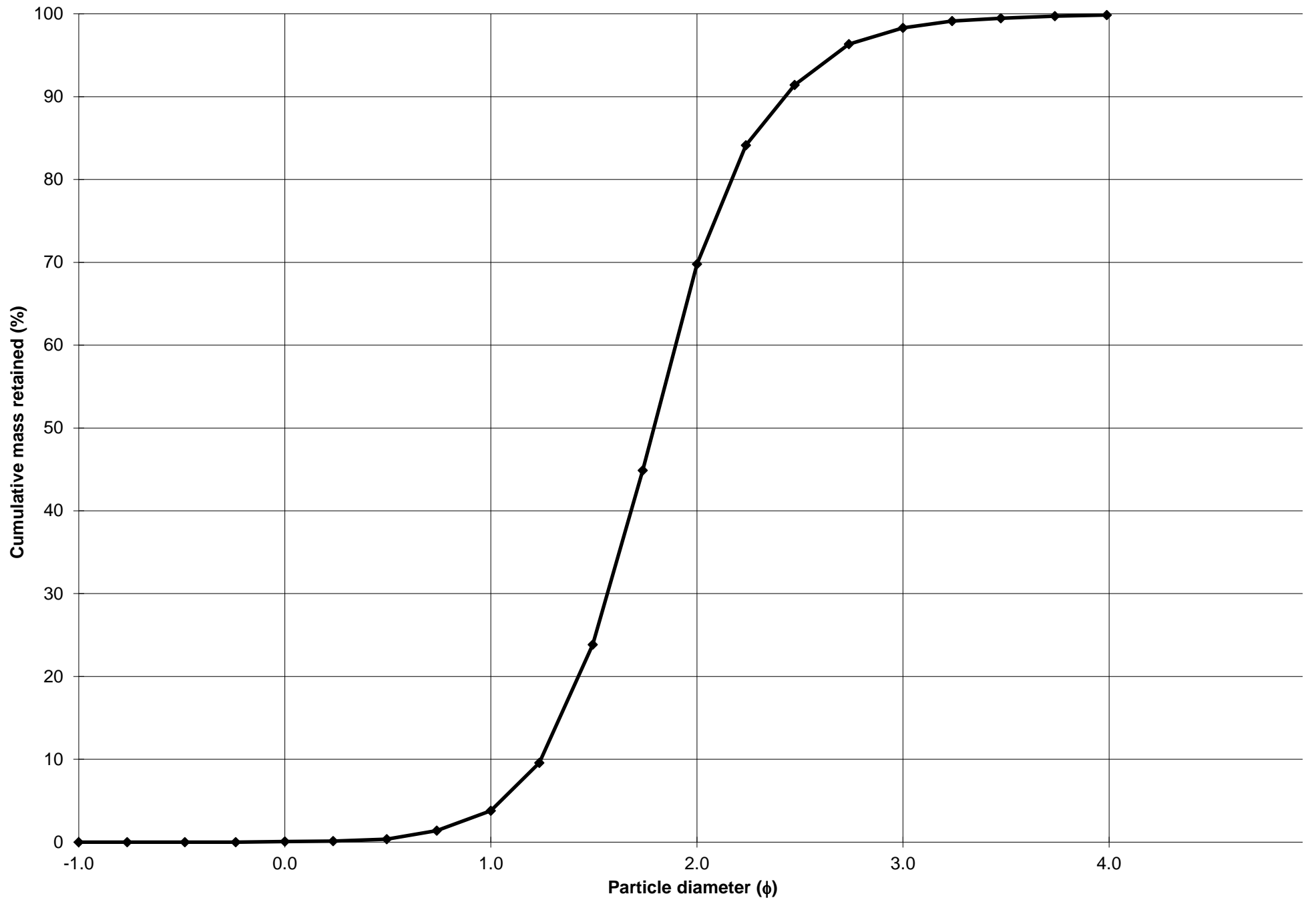
Cumulative Frequency Curve



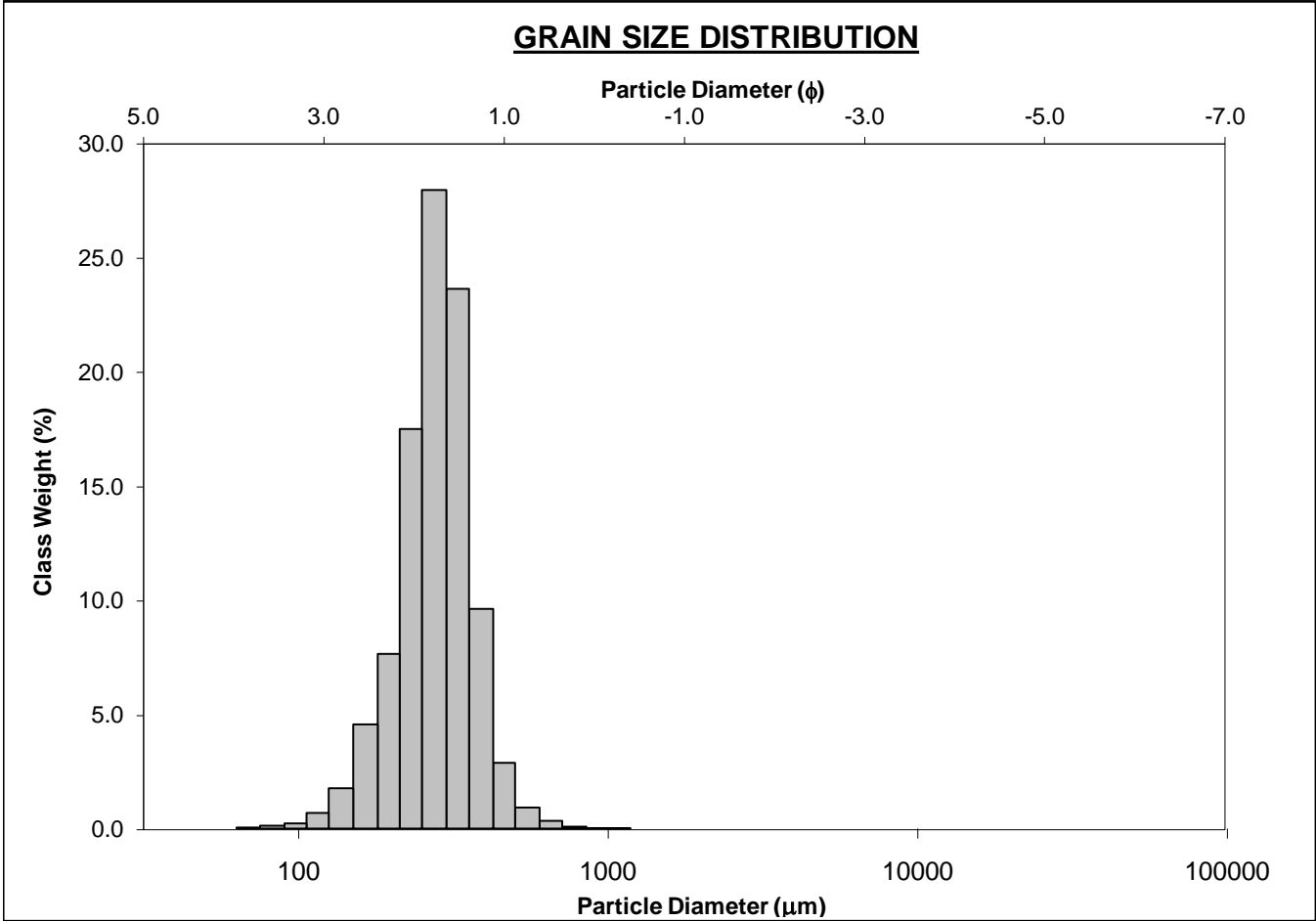
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-170cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 3.7%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 66.0%	
MODE 3:			MUD: 0.1%		FINE SAND: 28.5%	
D ₁₀ :	185.8	1.242			V FINE SAND: 1.5%	
MEDIAN or D ₅₀ :	288.9	1.791	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	422.8	2.428	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.275	1.955	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	236.9	1.186	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.494	1.384	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	116.3	0.579	V COARSE SAND: 0.1%		CLAY: 0.0%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	302.8	284.4	1.814	288.6	1.793	Medium Sand
SORTING (σ):	103.1	1.437	0.523	1.381	0.466	Well Sorted
SKEWNESS (Sk):	1.276	-1.615	1.615	-0.043	0.043	Symmetrical
KURTOSIS (K):	7.807	16.86	16.86	1.144	1.144	Leptokurtic



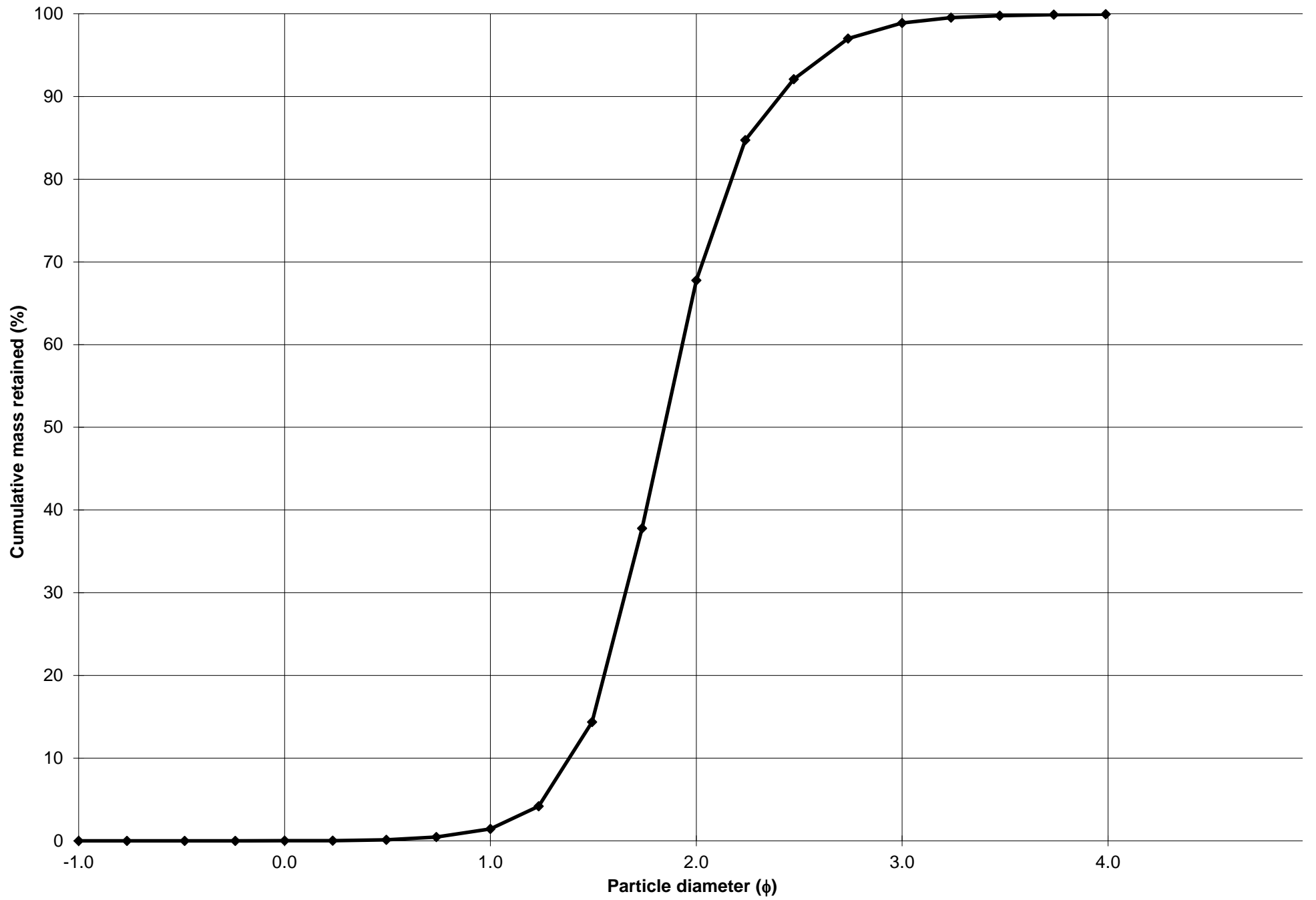
Cumulative Frequency Curve



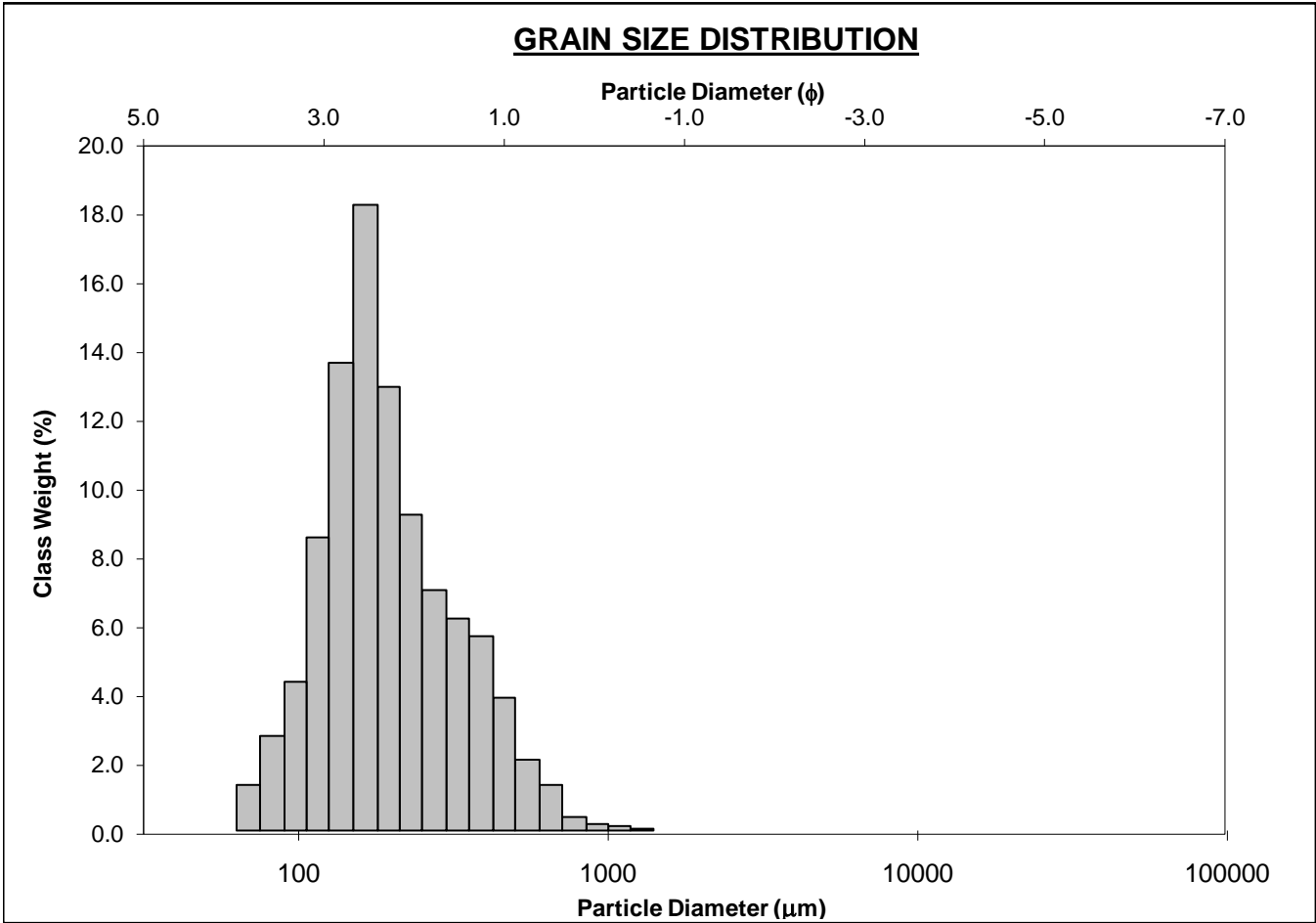
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-180cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 1.4%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 66.3%	
MODE 3:			MUD: 0.1%		FINE SAND: 31.1%	
D ₁₀ :	188.6	1.383			V FINE SAND: 1.1%	
MEDIAN or D ₅₀ :	278.5	1.844	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	383.5	2.407	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.034	1.741	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	195.0	1.024	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.411	1.310	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	95.85	0.497	V COARSE SAND: 0.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	285.6	273.2	1.872	275.3	1.861	Medium Sand
SORTING (σ):	80.82	1.345	0.428	1.308	0.387	Well Sorted
SKEWNESS (Sk):	1.043	-1.276	1.276	-0.107	0.107	Fine Skewed
KURTOSIS (K):	7.532	14.63	14.63	1.134	1.134	Leptokurtic



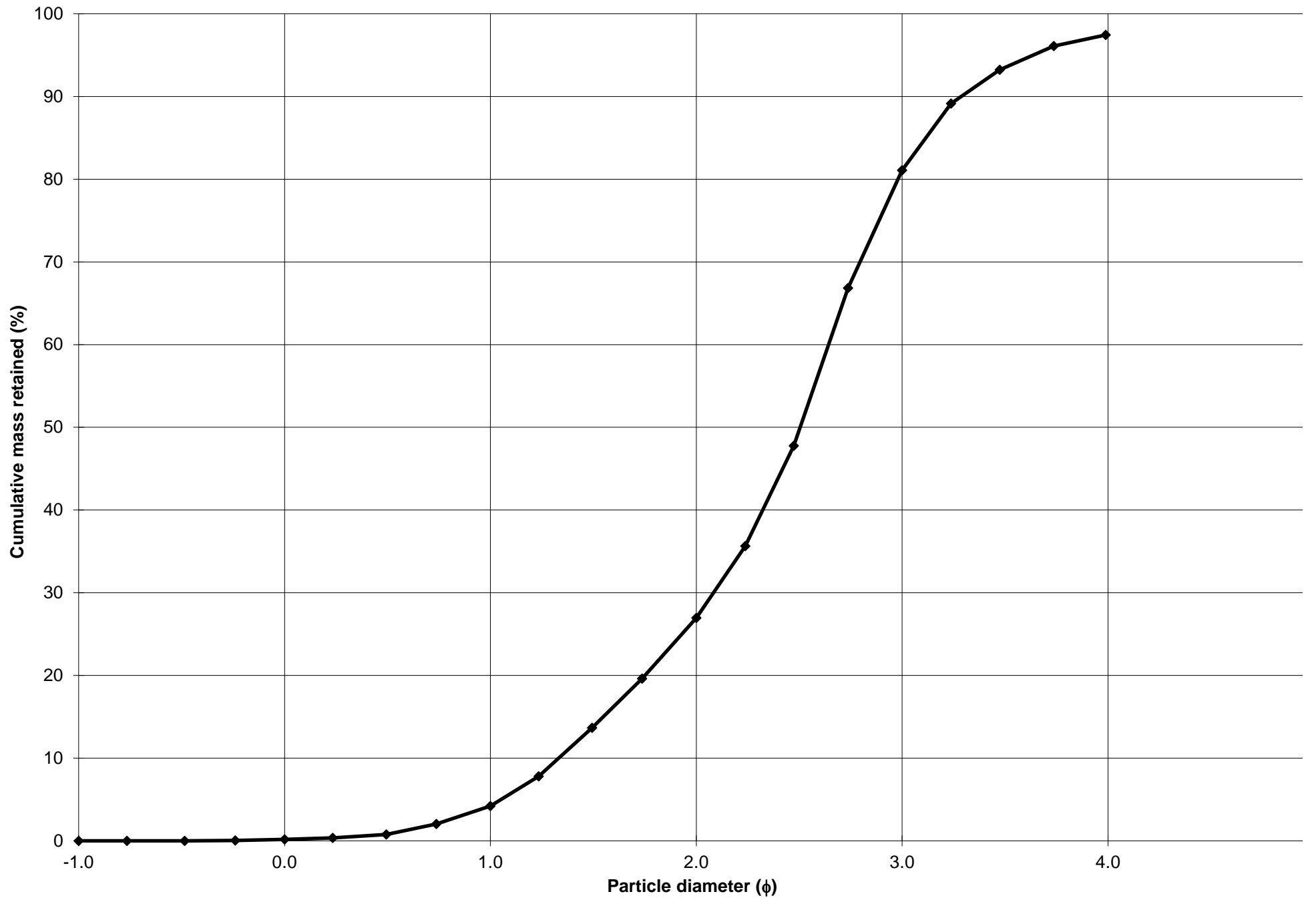
Cumulative Frequency Curve



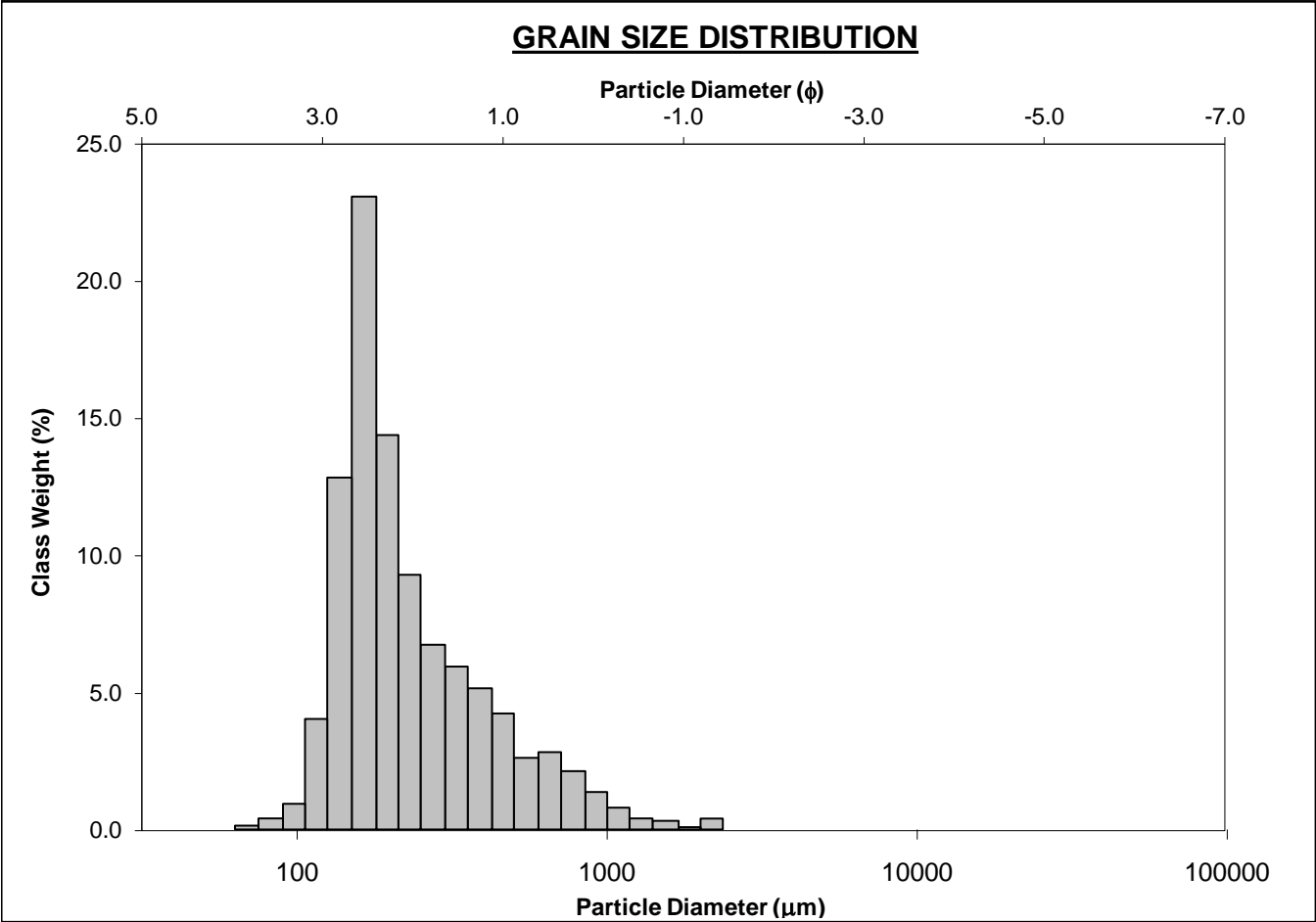
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-190cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 4.0%	
MODE 2:			SAND: 97.4%		MEDIUM SAND: 22.7%	
MODE 3:			MUD: 2.6%		FINE SAND: 54.1%	
D ₁₀ :	102.5	1.332			V FINE SAND: 16.4%	
MEDIAN or D ₅₀ :	176.2	2.505	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.4%	
D ₉₀ :	397.3	3.287	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D ₉₀ / D ₁₀):	3.878	2.468	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
(D ₉₀ - D ₁₀):	294.8	1.955	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D ₇₅ / D ₂₅):	1.942	1.496	V FINE GRAVEL: 0.0%		V FINE SILT: 0.4%	
(D ₇₅ - D ₂₅):	127.3	0.958	V COARSE SAND: 0.2%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	218.6	179.3	2.480	190.3	2.393	Fine Sand
SORTING (σ):	134.5	2.028	1.020	1.700	0.766	Moderately Sorted
SKEWNESS (Sk):	2.070	-1.880	1.880	0.174	-0.174	Coarse Skewed
KURTOSIS (K):	9.938	10.71	10.71	1.106	1.106	Mesokurtic



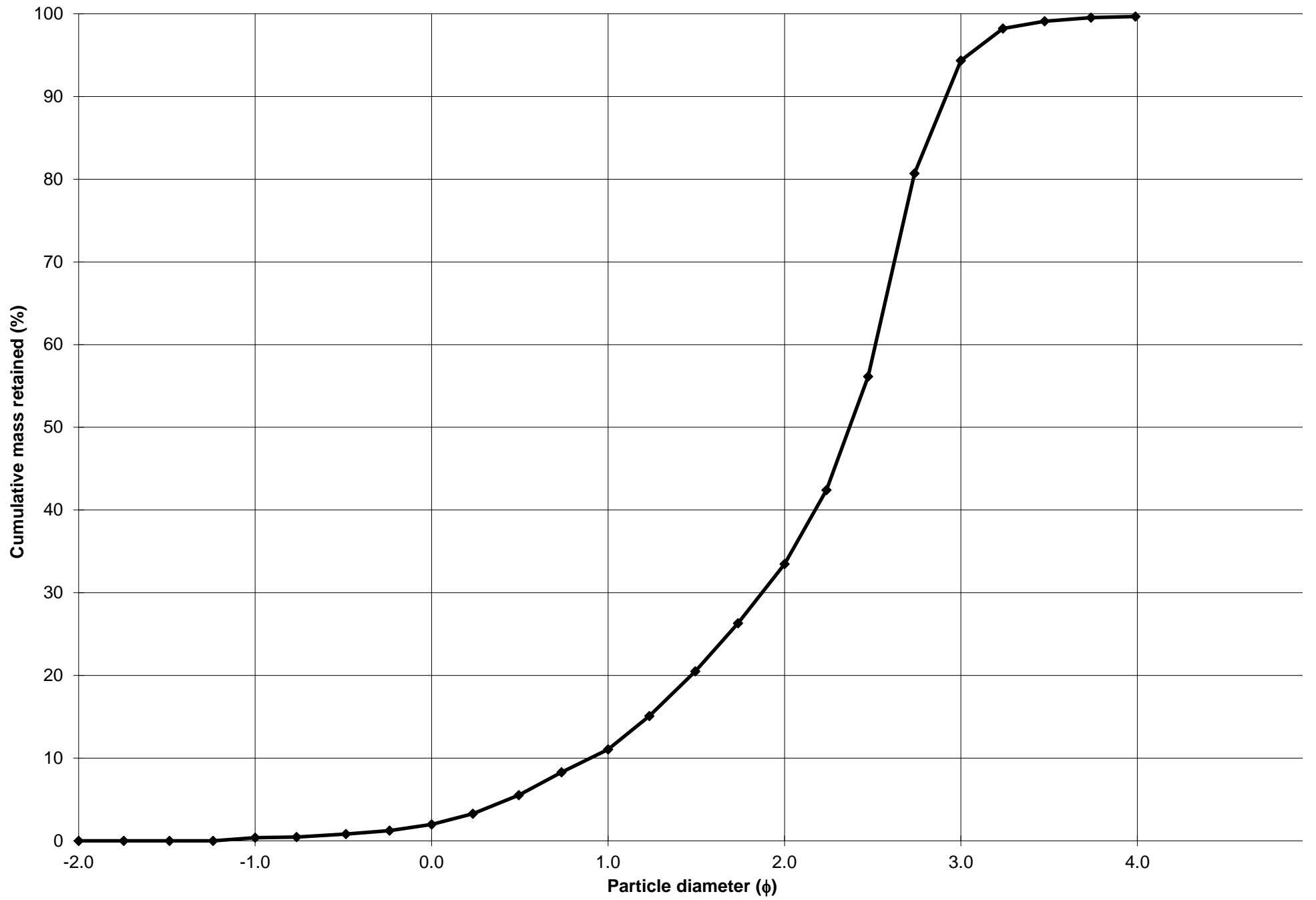
Cumulative Frequency Curve



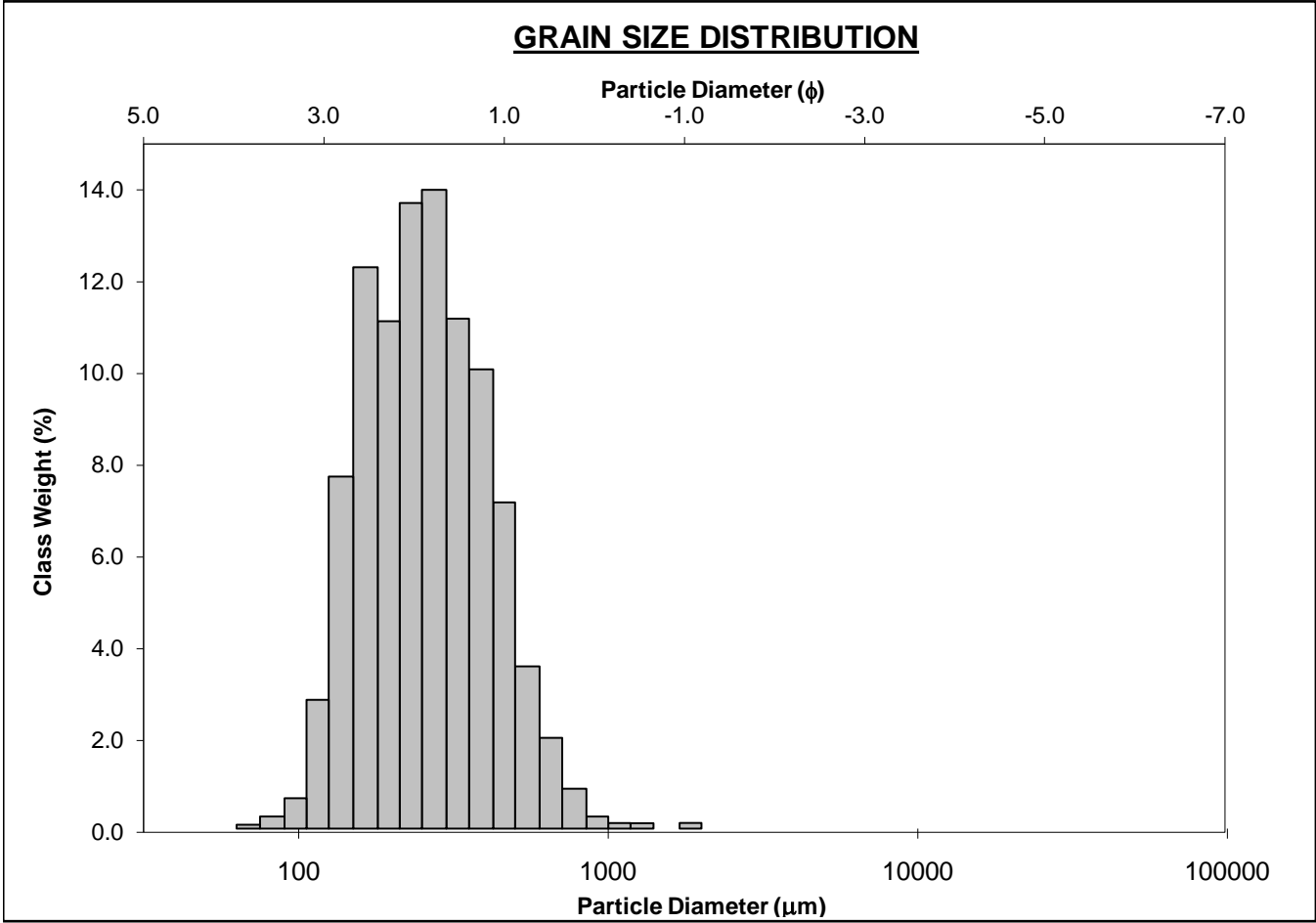
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-200cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.4%	COARSE SAND: 9.1%		
MODE 2:			SAND: 99.3%	MEDIUM SAND: 22.4%		
MODE 3:			MUD: 0.3%	FINE SAND: 60.9%		
D ₁₀ :	132.4	0.899		V FINE SAND: 5.3%		
MEDIAN or D ₅₀ :	193.7	2.368	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.1%		
D ₉₀ :	536.3	2.917	COARSE GRAVEL: 0.0%	COARSE SILT: 0.1%		
(D ₉₀ / D ₁₀):	4.049	3.244	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.1%		
(D ₉₀ - D ₁₀):	403.8	2.018	FINE GRAVEL: 0.0%	FINE SILT: 0.1%		
(D ₇₅ / D ₂₅):	1.991	1.591	V FINE GRAVEL: 0.4%	V FINE SILT: 0.1%		
(D ₇₅ - D ₂₅):	155.1	0.994	V COARSE SAND: 1.6%	CLAY: 0.1%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	282.9	229.0	2.126	225.4	2.149	Fine Sand
SORTING (σ):	242.3	1.817	0.861	1.712	0.776	Moderately Sorted
SKEWNESS (Sk):	3.646	0.450	-0.450	0.458	-0.458	Very Coarse Skewed
KURTOSIS (K):	21.94	6.820	6.820	1.075	1.075	Mesokurtic



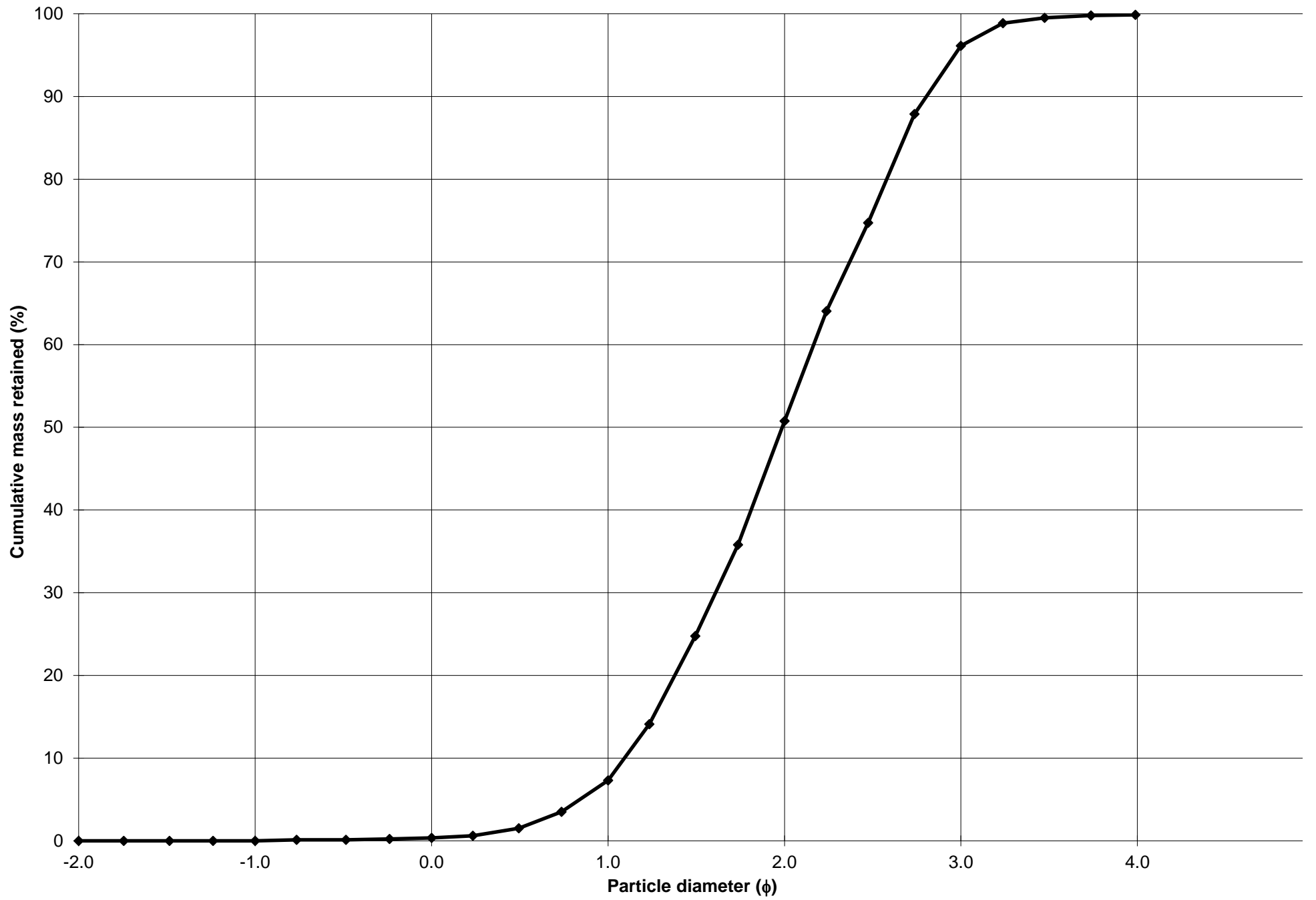
Cumulative Frequency Curve



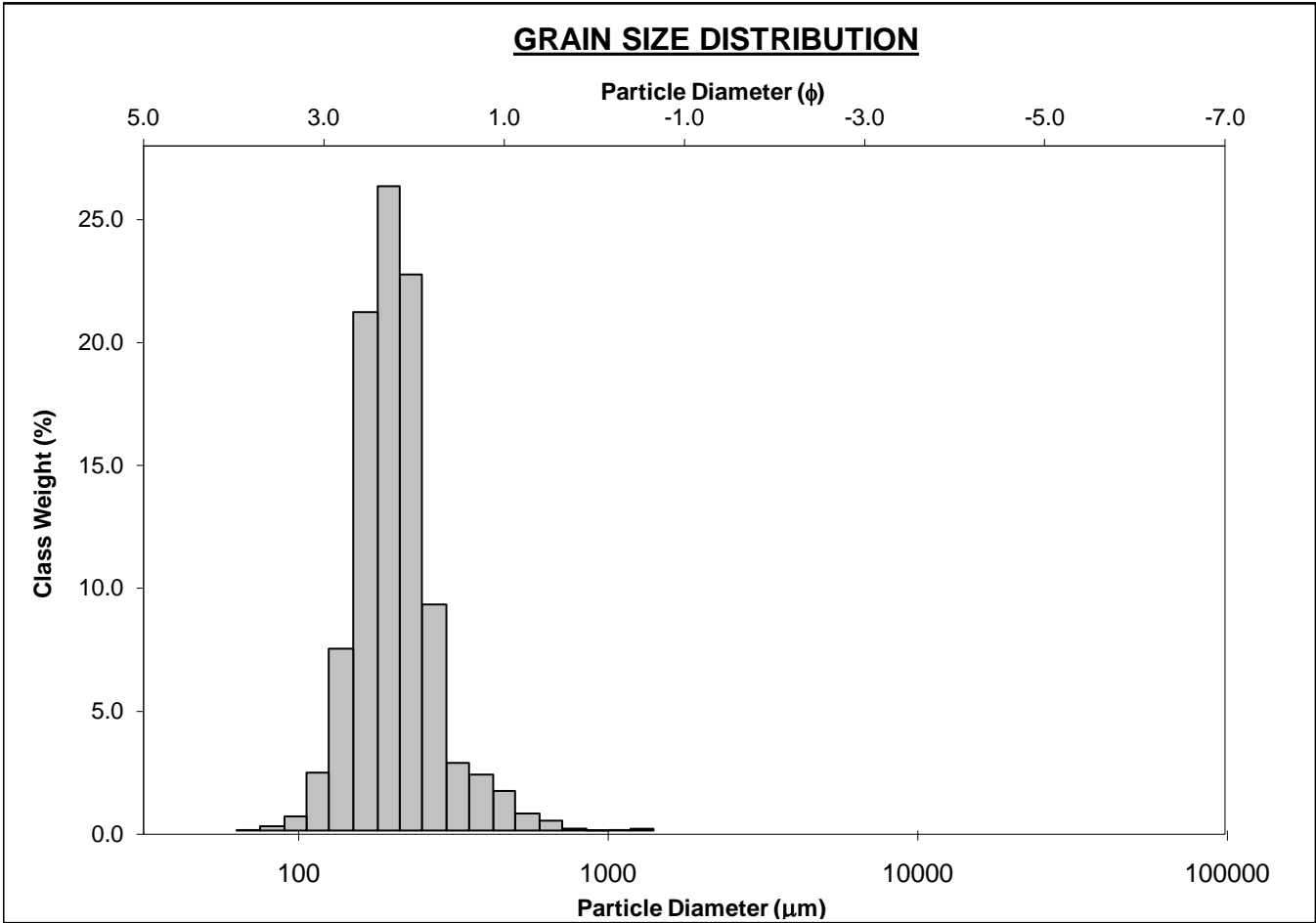
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-210cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 6.9%	
MODE 2:	165.0	2.605	SAND: 99.9%		MEDIUM SAND: 43.5%	
MODE 3:			MUD: 0.1%		FINE SAND: 45.4%	
D_{10} :	143.1	1.093			V FINE SAND: 3.7%	
MEDIAN or D_{50} :	252.4	1.986	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	468.8	2.805	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	3.276	2.566	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	325.7	1.712	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.973	1.654	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	174.4	0.980	V COARSE SAND: 0.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	287.4	255.6	1.968	254.3	1.975	Medium Sand
SORTING (σ):	152.4	1.608	0.685	1.587	0.666	Moderately Well Sorted
SKEWNESS (Sk):	2.648	-0.191	0.191	0.052	-0.052	Symmetrical
KURTOSIS (K):	19.37	6.292	6.292	0.888	0.888	Platykurtic



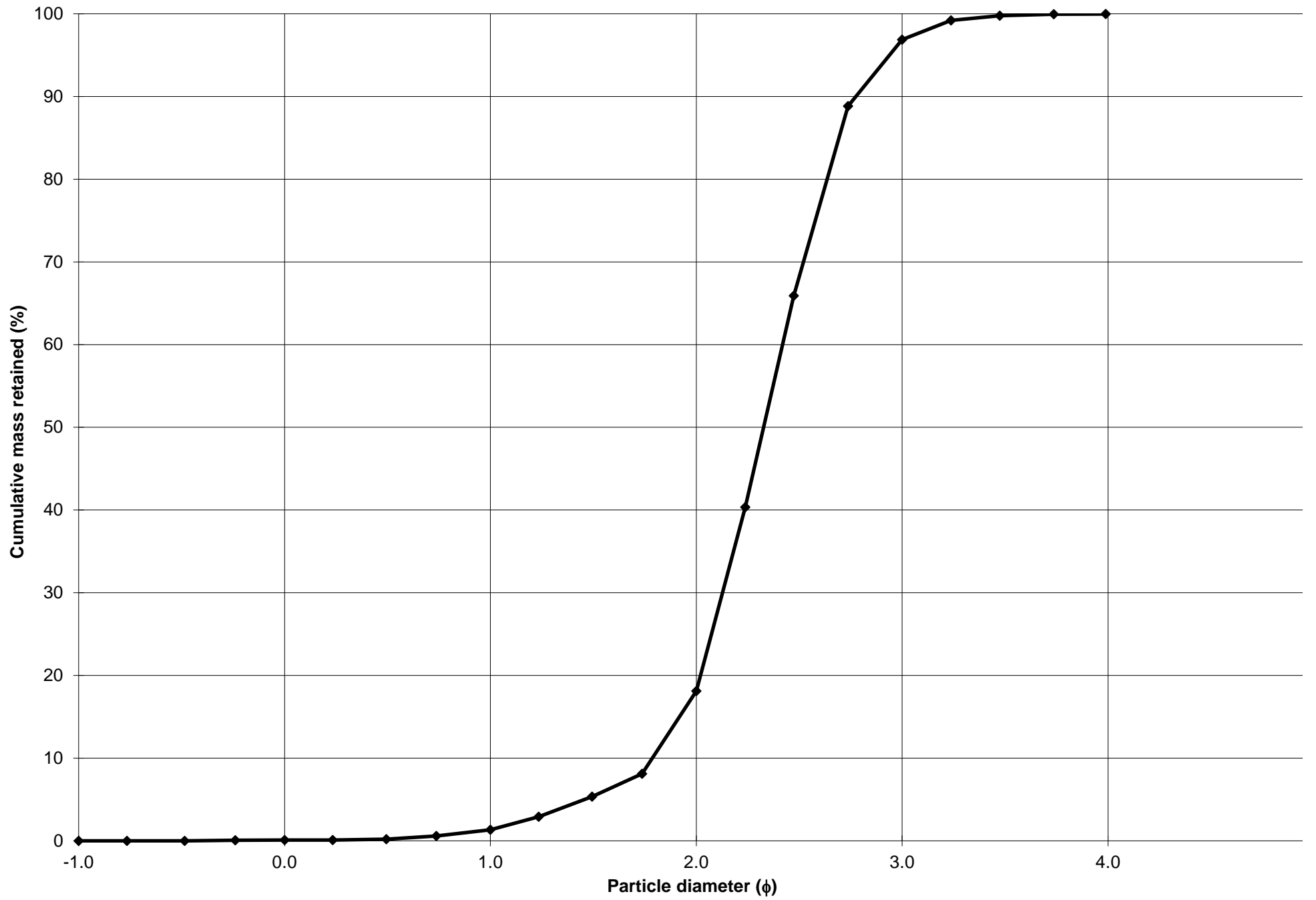
Cumulative Frequency Curve



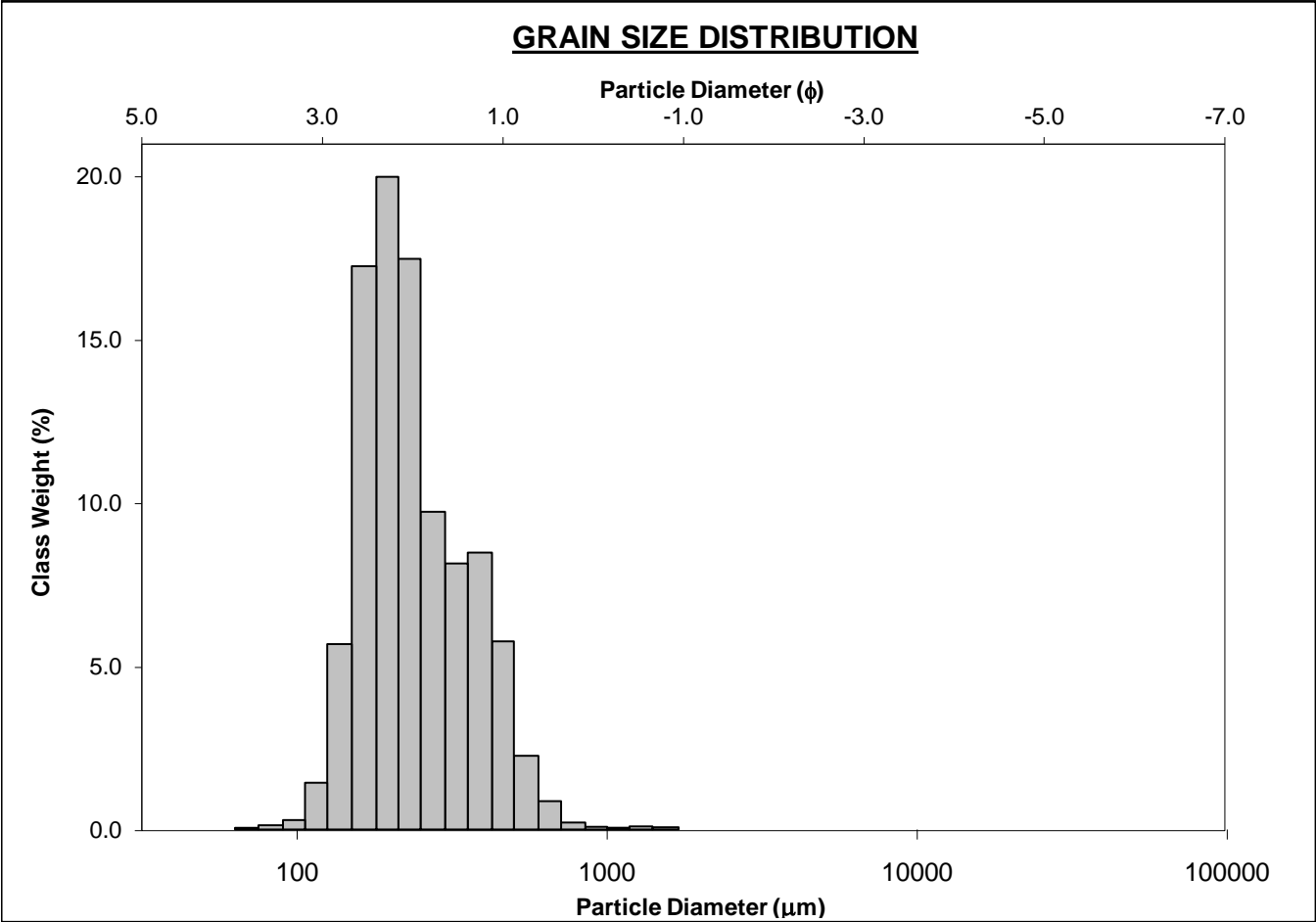
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-220cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0% COARSE SAND: 1.3%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 16.8%			
MODE 3:			MUD: 0.0% FINE SAND: 78.8%			
D ₁₀ :	146.1	1.787	V FINE SAND: 3.1%			
MEDIAN or D ₅₀ :	199.3	2.327	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	289.9	2.775	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	1.984	1.553	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	143.8	0.988	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.419	1.243	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	70.10	0.505	V COARSE SAND: 0.1% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	215.8	204.0	2.294	200.6	2.318	Fine Sand
SORTING (σ):	83.36	1.363	0.447	1.328	0.409	Well Sorted
SKEWNESS (Sk):	3.783	0.529	-0.529	0.106	-0.106	Coarse Skewed
KURTOSIS (K):	32.44	9.265	9.265	1.204	1.204	Leptokurtic



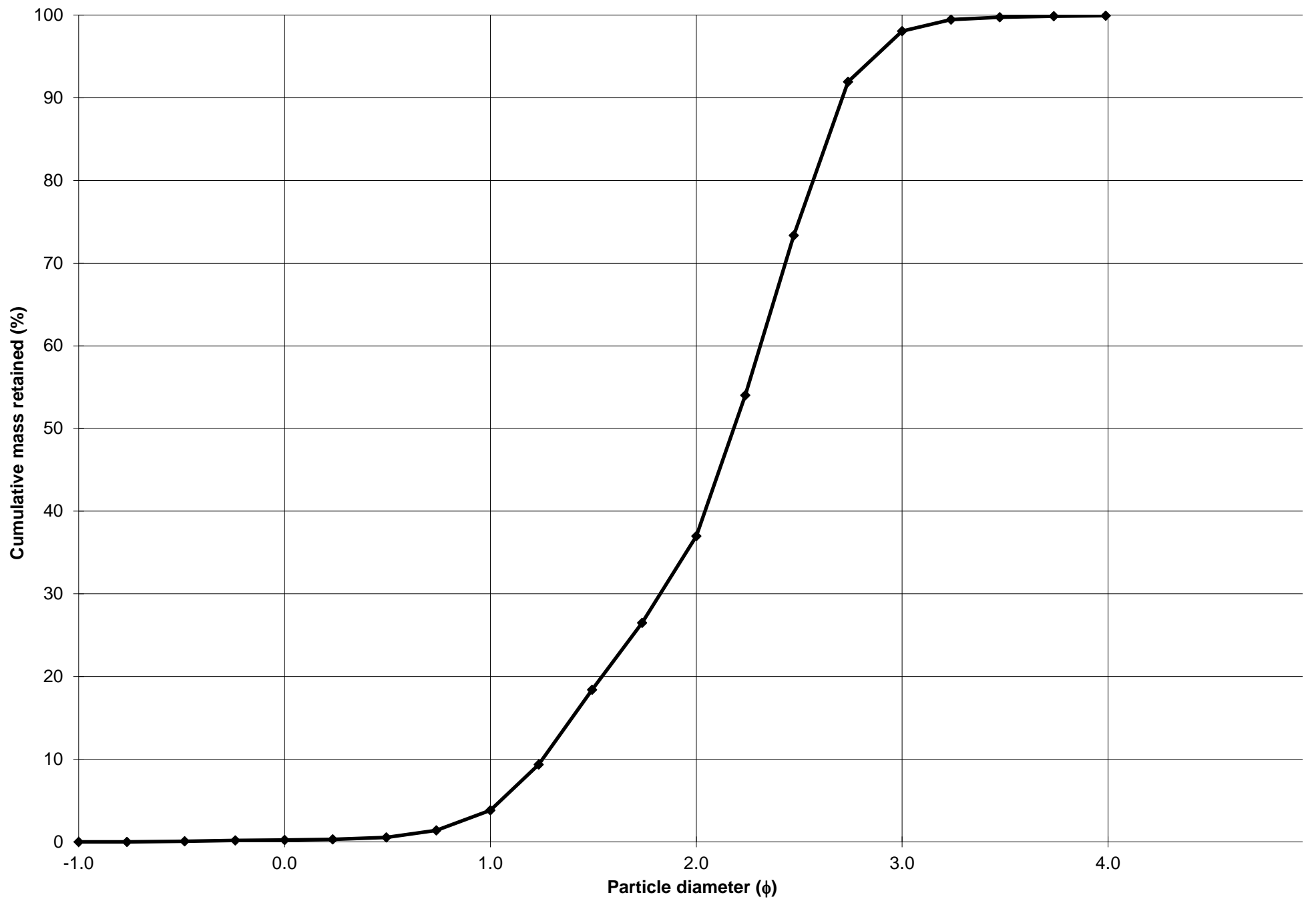
Cumulative Frequency Curve



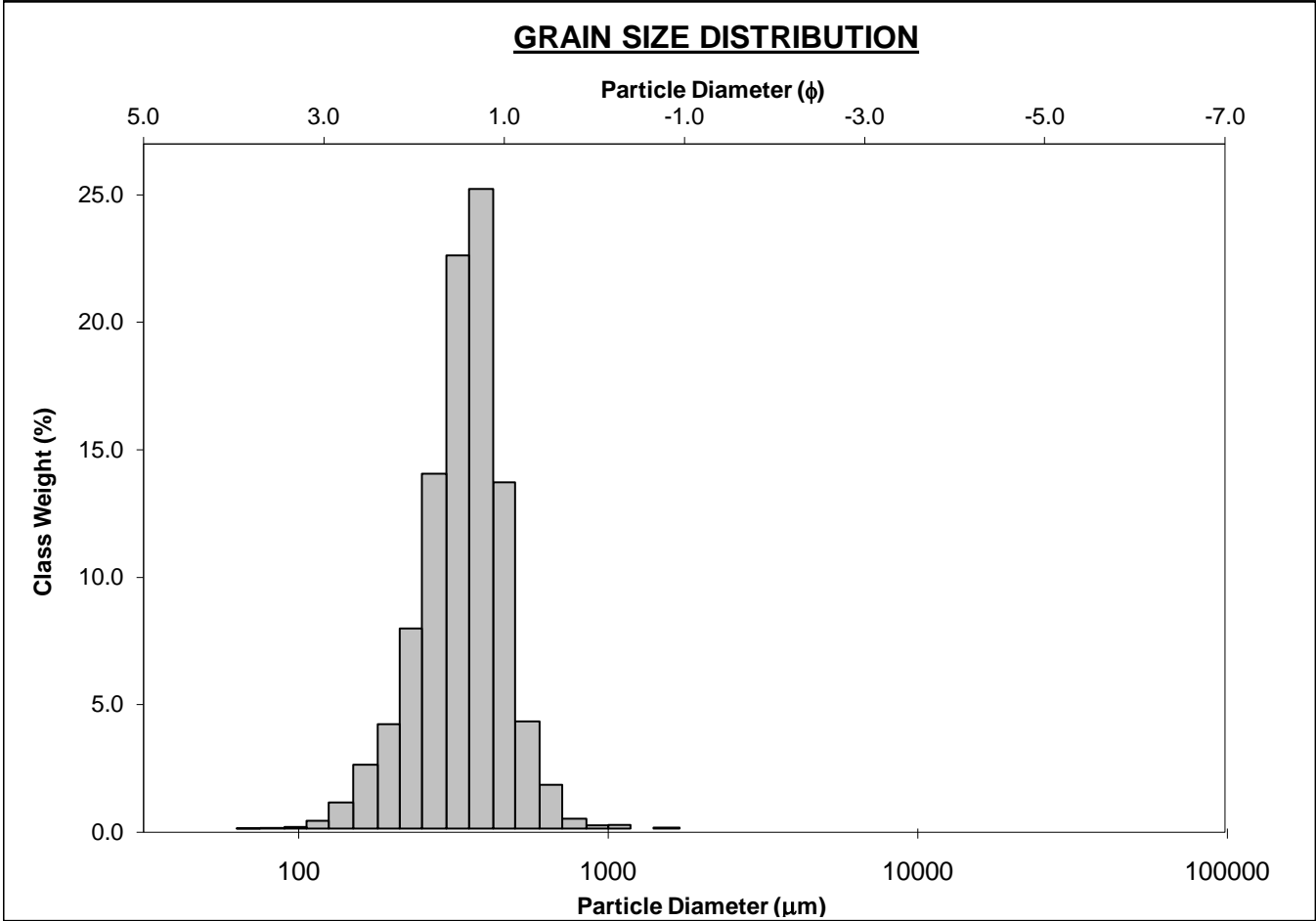
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-230cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 3.6%	
MODE 2:	390.0	1.364	SAND: 99.9%		MEDIUM SAND: 33.2%	
MODE 3:			MUD: 0.1%		FINE SAND: 61.1%	
D_{10} :	152.9	1.253			V FINE SAND: 1.9%	
MEDIAN or D_{50} :	220.4	2.182	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	419.6	2.709	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.745	2.163	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	266.7	1.457	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.747	1.476	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	132.3	0.805	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	259.1	236.6	2.080	237.0	2.077	Fine Sand
SORTING (σ):	123.4	1.501	0.586	1.490	0.575	Moderately Well Sorted
SKEWNESS (Sk):	2.678	0.203	-0.203	0.253	-0.253	Coarse Skewed
KURTOSIS (K):	18.93	6.525	6.525	0.926	0.926	Mesokurtic



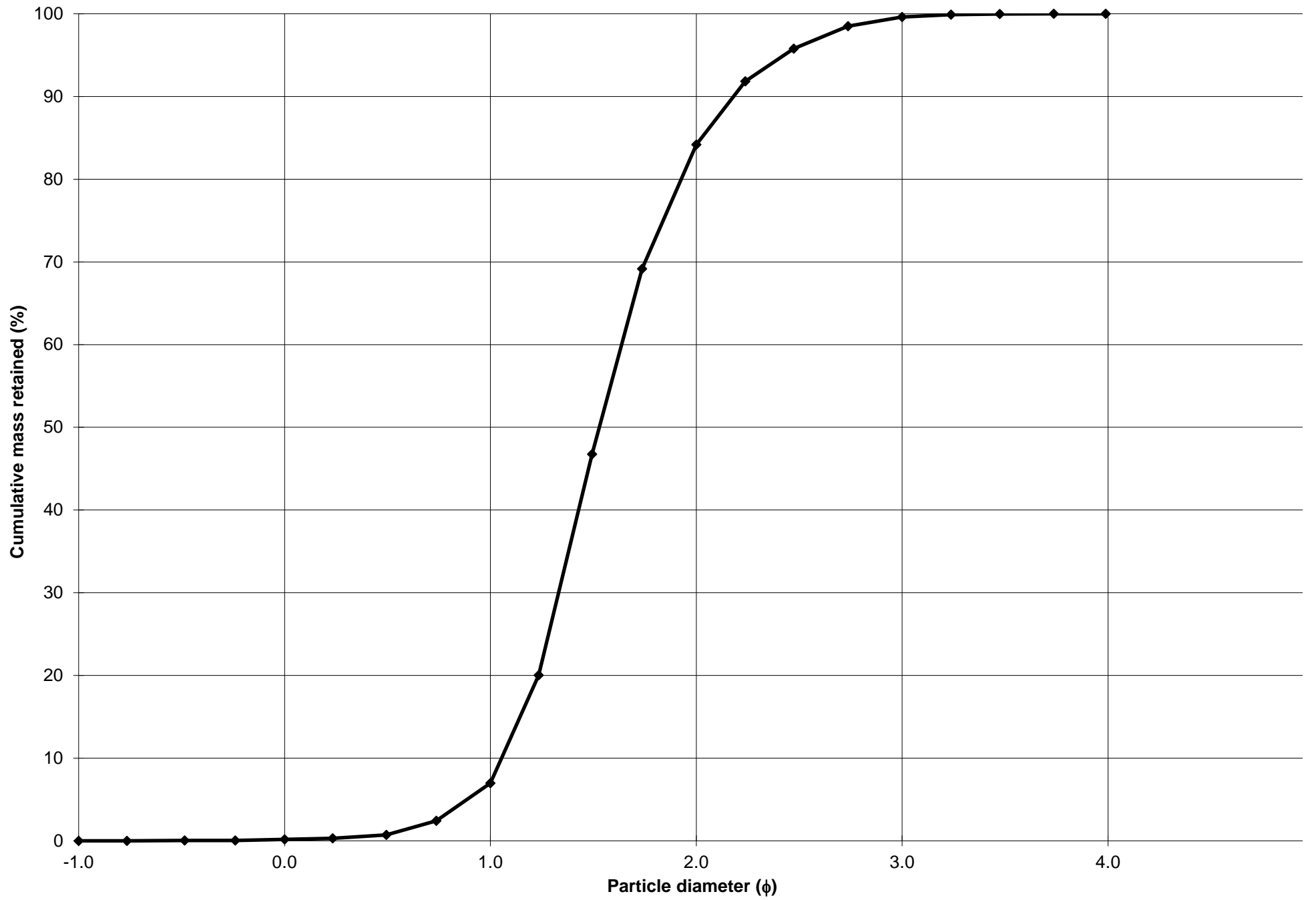
Cumulative Frequency Curve



SIEVING ERROR: 0.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-240cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.0% COARSE SAND: 6.8%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 77.2%			
MODE 3:			MUD: 0.0% FINE SAND: 15.4%			
D ₁₀ :	220.5	1.054	V FINE SAND: 0.4%			
MEDIAN or D ₅₀ :	346.4	1.529	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	481.5	2.181	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.183	2.068	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	261.0	1.127	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.471	1.434	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	131.6	0.557	V COARSE SAND: 0.2% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	353.9	335.7	1.575	338.5	1.563	Medium Sand
SORTING (σ):	112.6	1.374	0.459	1.359	0.442	Well Sorted
SKEWNESS (Sk):	1.485	-0.390	0.390	-0.143	0.143	Fine Skewed
KURTOSIS (K):	11.97	4.120	4.120	1.134	1.134	Leptokurtic



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **SI-15-11-250cm**

ANALYST & DATE: Chris, 11/9/15

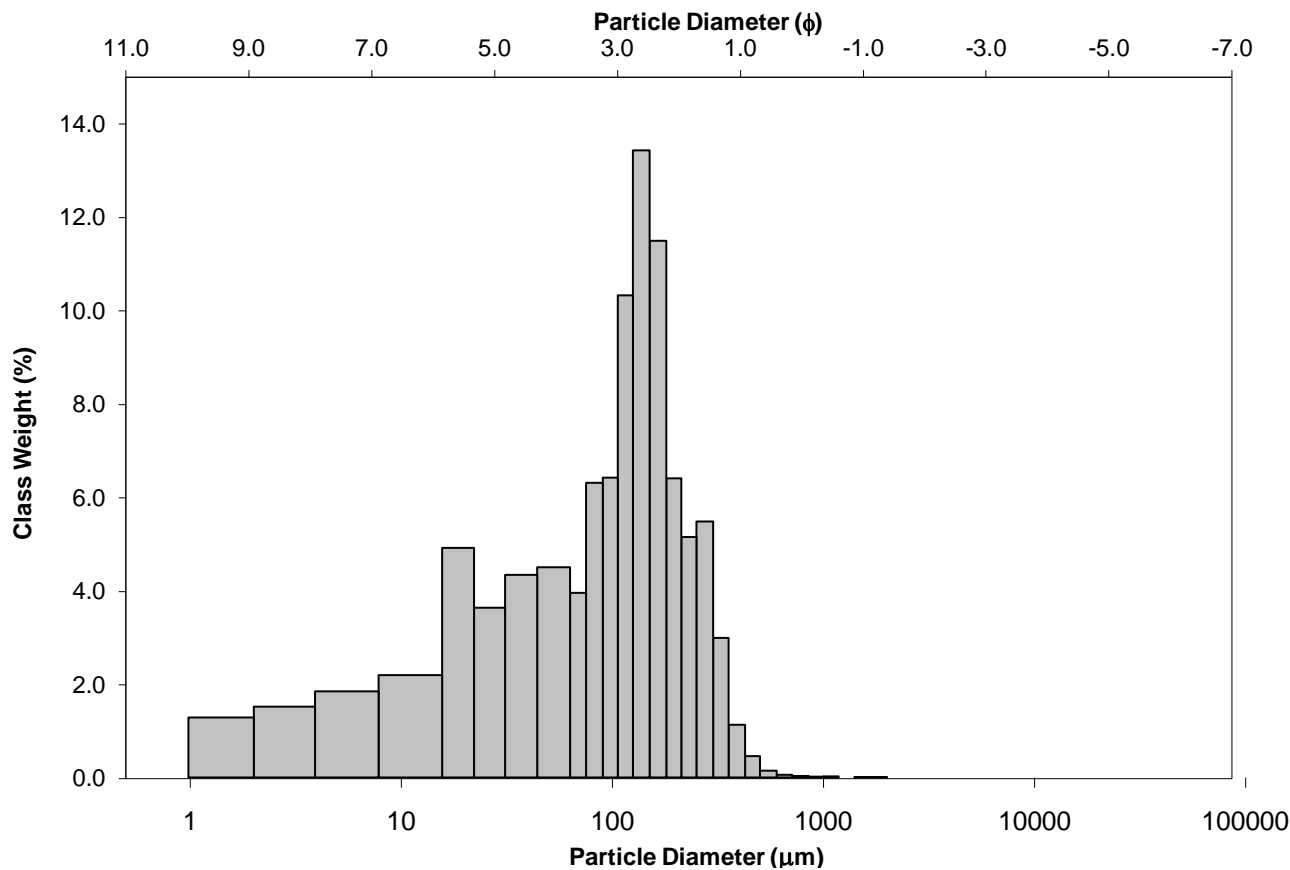
SAMPLE TYPE: Polymodal, Very Poorly Sorted

TEXTURAL GROUP: Sandy Mud

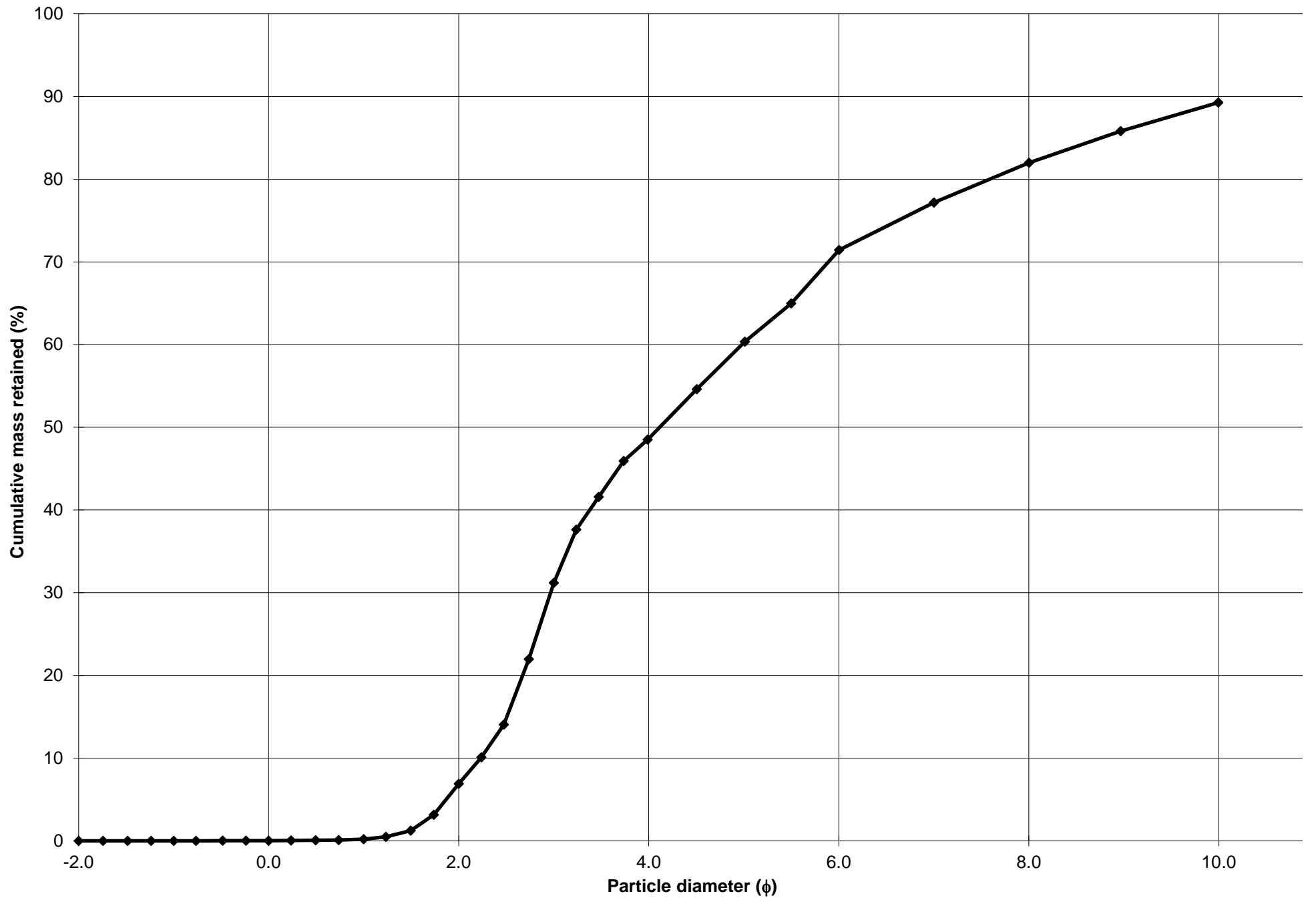
SEDIMENT NAME: Fine Sandy Very Coarse Silt

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%	COARSE SAND: 0.2%		
MODE 2:	275.0	1.868	SAND: 48.7%	MEDIUM SAND: 6.7%		
MODE 3:	18.85	5.751	MUD: 51.3%	FINE SAND: 24.3%		
D_{10} :	1.077	2.230		V FINE SAND: 17.5%		
MEDIAN or D_{50} :	57.73	4.114	V COARSE GRAVEL: 0.0%	V COARSE SILT: 11.6%		
D_{90} :	213.2	9.859	COARSE GRAVEL: 0.0%	COARSE SILT: 11.2%		
(D_{90} / D_{10}) :	197.9	4.421	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 5.7%		
$(D_{90} - D_{10})$:	212.1	7.629	FINE GRAVEL: 0.0%	FINE SILT: 4.8%		
(D_{75} / D_{25}) :	13.93	2.346	V FINE GRAVEL: 0.0%	V FINE SILT: 3.9%		
$(D_{75} - D_{25})$:	131.1	3.800	V COARSE SAND: 0.0%	CLAY: 14.1%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	88.90	32.50	4.943	30.10	5.054	Coarse Silt
SORTING (σ):	94.99	6.241	2.642	5.908	2.563	Very Poorly Sorted
SKEWNESS (Sk):	2.029	-0.728	0.728	-0.418	0.418	Very Fine Skewed
KURTOSIS (K):	16.81	2.268	2.268	0.762	0.762	Platykurtic

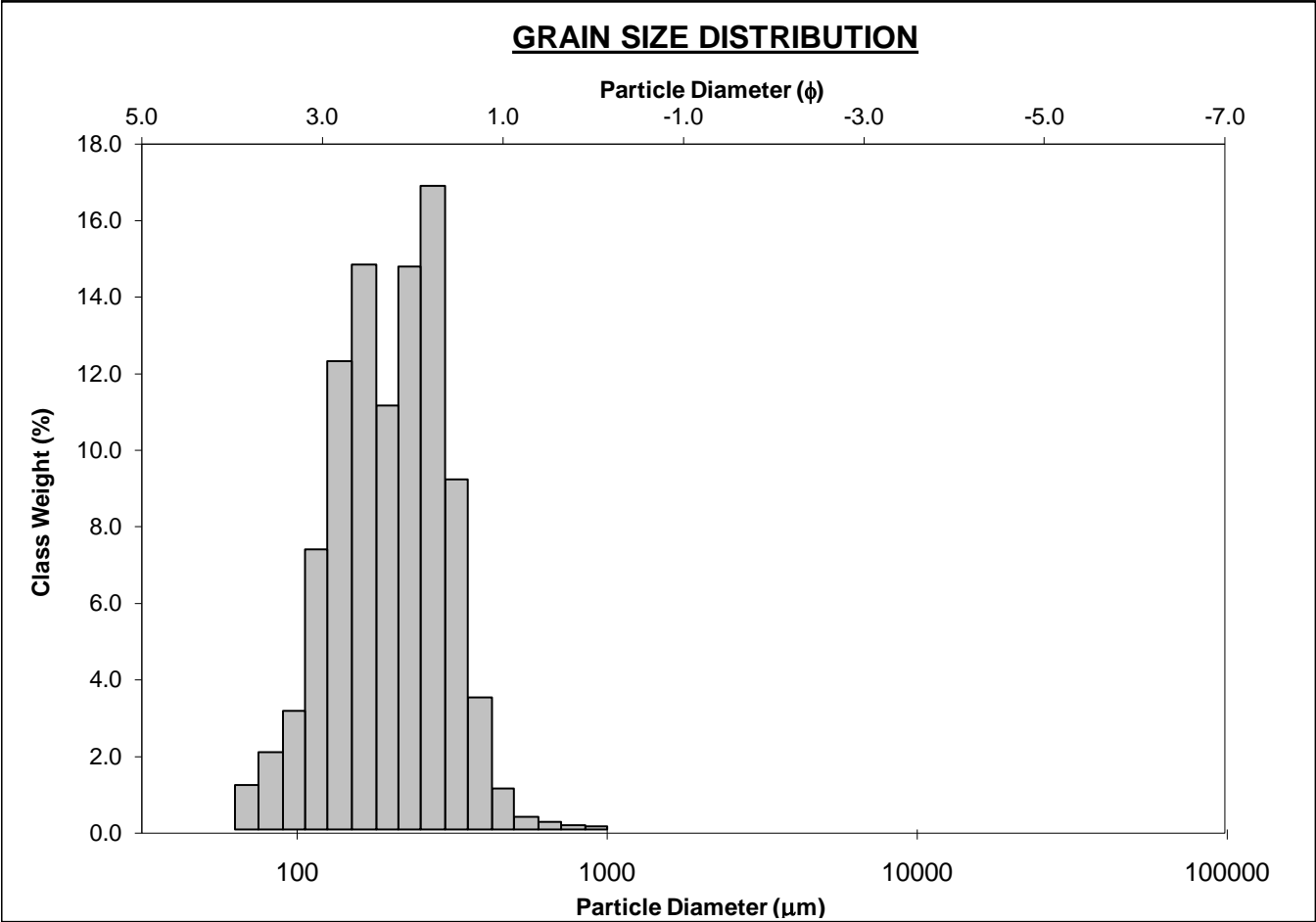
GRAIN SIZE DISTRIBUTION



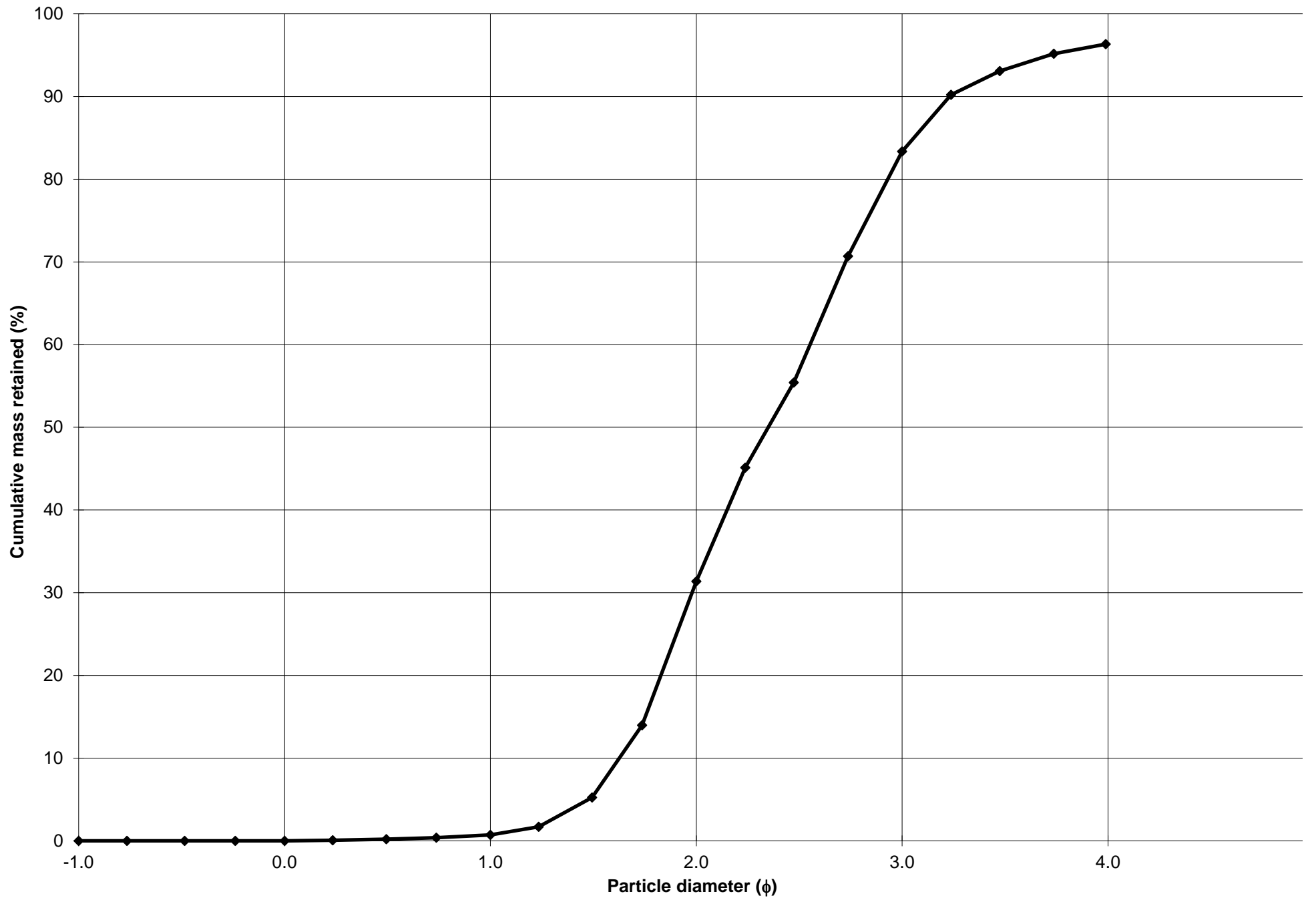
Cumulative Frequency Curve



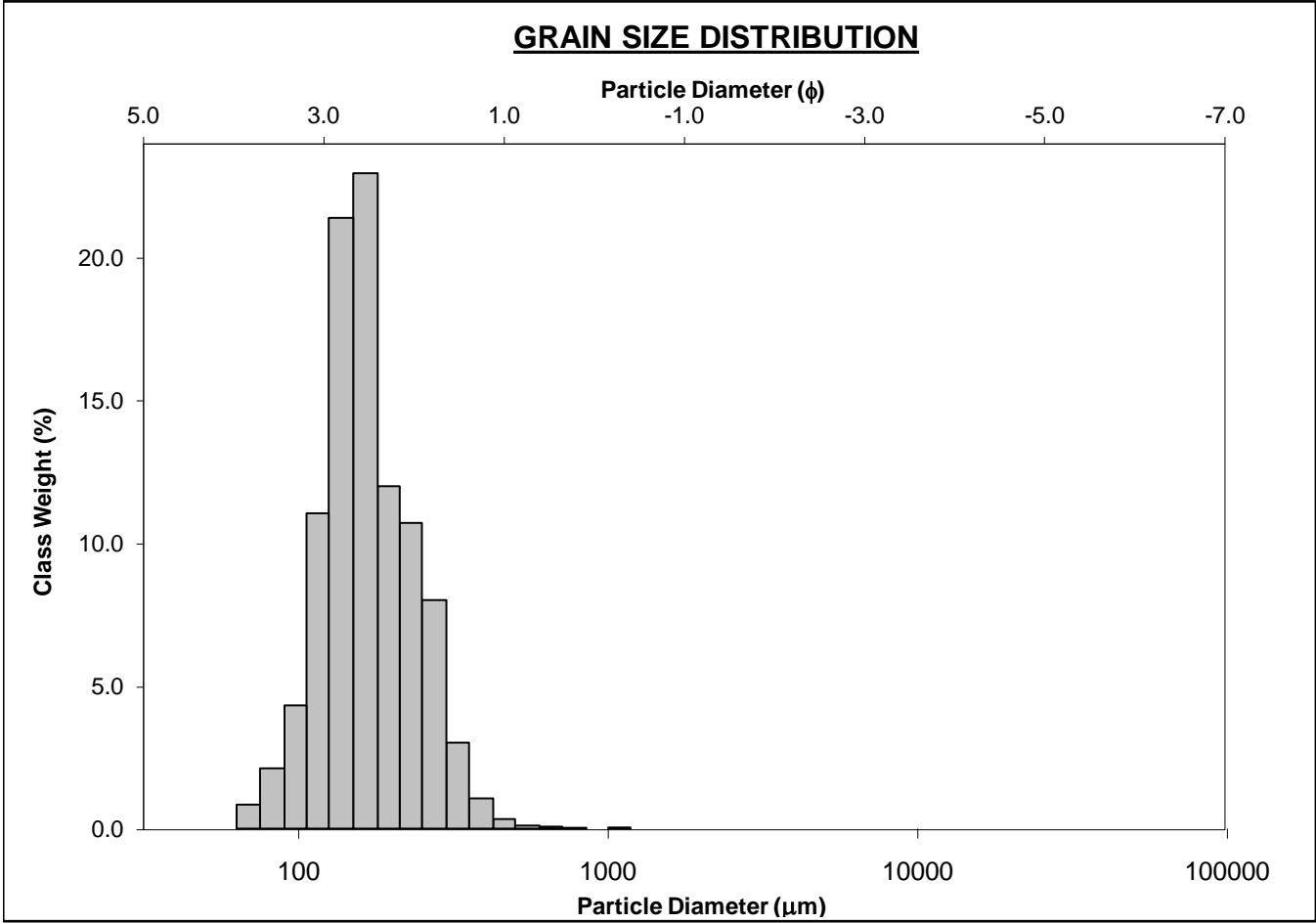
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-260cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 0.7%	
MODE 2:	165.0	2.605	SAND: 96.3%		MEDIUM SAND: 30.7%	
MODE 3:			MUD: 3.7%		FINE SAND: 52.0%	
D ₁₀ :	106.5	1.627			V FINE SAND: 13.0%	
MEDIAN or D ₅₀ :	196.2	2.349	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.6%	
D ₉₀ :	323.9	3.231	COARSE GRAVEL: 0.0%		COARSE SILT: 0.6%	
(D ₉₀ / D ₁₀):	3.040	1.986	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.6%	
(D ₉₀ - D ₁₀):	217.3	1.604	FINE GRAVEL: 0.0%		FINE SILT: 0.6%	
(D ₇₅ / D ₂₅):	1.896	1.485	V FINE GRAVEL: 0.0%		V FINE SILT: 0.6%	
(D ₇₅ - D ₂₅):	126.3	0.923	V COARSE SAND: 0.0%		CLAY: 0.6%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	208.5	175.3	2.512	192.1	2.380	Fine Sand
SORTING (σ):	94.88	2.072	1.051	1.572	0.653	Moderately Well Sorted
SKEWNESS (Sk):	1.104	-2.717	2.717	-0.146	0.146	Fine Skewed
KURTOSIS (K):	7.437	12.46	12.46	0.994	0.994	Mesokurtic



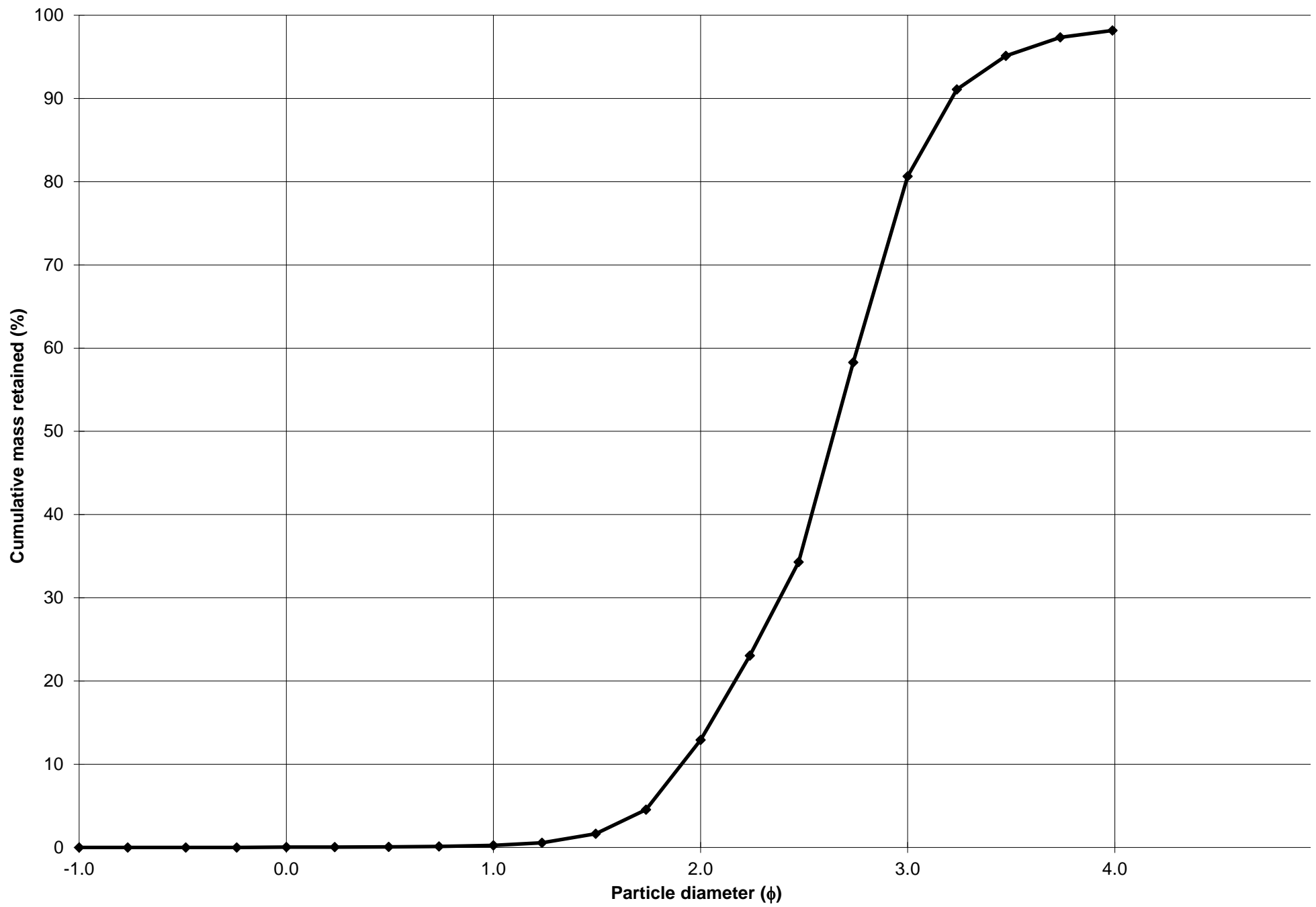
Cumulative Frequency Curve



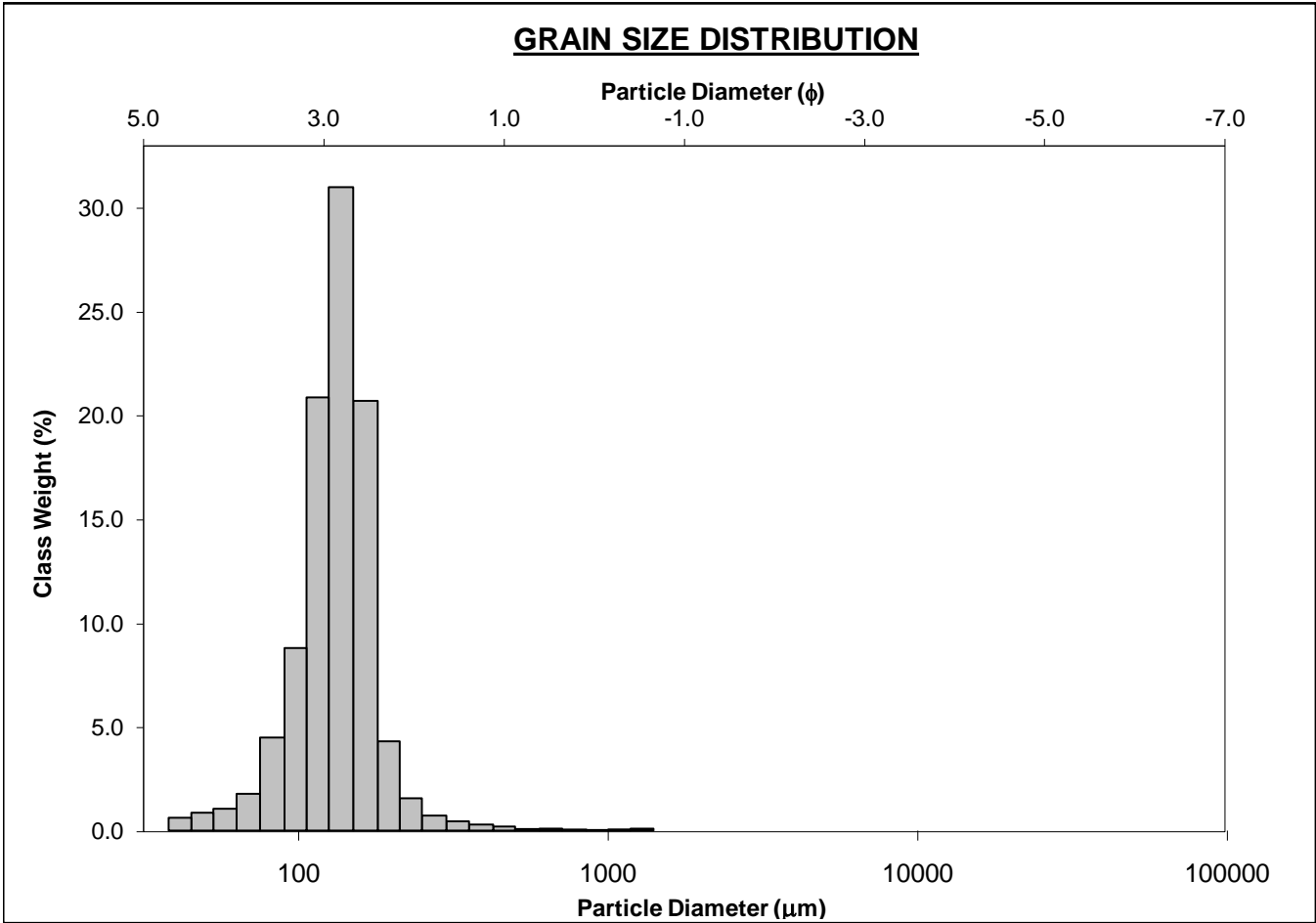
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-270cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 0.2%	
MODE 2:			SAND: 98.2%		MEDIUM SAND: 12.7%	
MODE 3:			MUD: 1.8%		FINE SAND: 67.7%	
D ₁₀ :	107.8	1.908			V FINE SAND: 17.5%	
MEDIAN or D ₅₀ :	159.7	2.646	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.3%	
D ₉₀ :	266.4	3.213	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D ₉₀ / D ₁₀):	2.471	1.684	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
(D ₉₀ - D ₁₀):	158.6	1.305	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D ₇₅ / D ₂₅):	1.574	1.287	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
(D ₇₅ - D ₂₅):	75.16	0.655	V COARSE SAND: 0.0%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	174.7	157.1	2.671	165.1	2.598	Fine Sand
SORTING (σ):	70.56	1.702	0.768	1.425	0.511	Moderately Well Sorted
SKEWNESS (Sk):	2.114	-3.055	3.055	0.093	-0.093	Symmetrical
KURTOSIS (K):	17.83	19.14	19.14	1.074	1.074	Mesokurtic



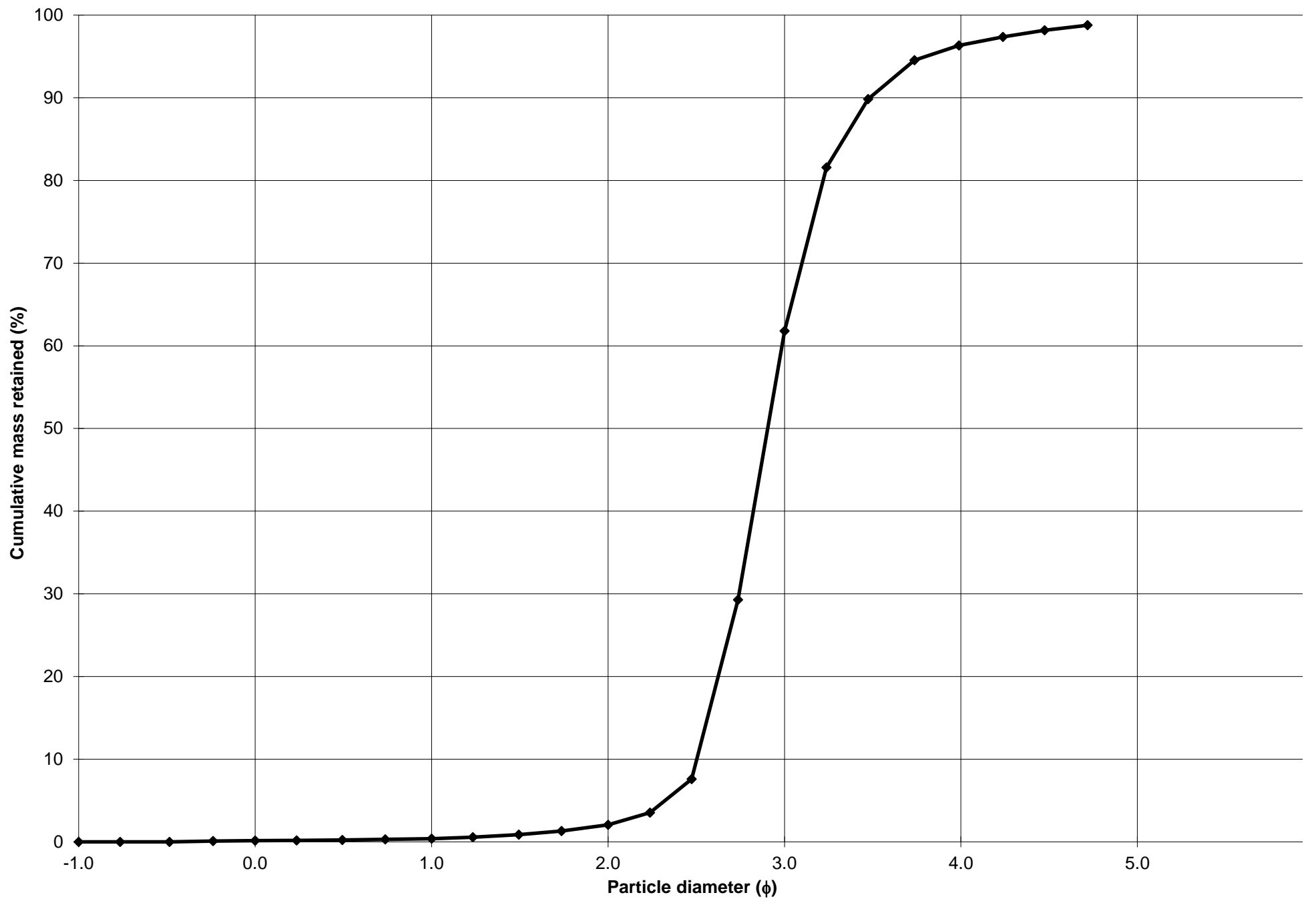
Cumulative Frequency Curve



SIEVING ERROR: 1.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-11-280cm			ANALYST & DATE: Chris, 10/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.2%			
MODE 2:			SAND: 96.4% MEDIUM SAND: 1.7%			
MODE 3:			MUD: 3.6% FINE SAND: 59.7%			
D ₁₀ :	89.46	2.503	V FINE SAND: 34.6%			
MEDIAN or D ₅₀ :	133.5	2.905	V COARSE GRAVEL: 0.0% V COARSE SILT: 2.5%			
D ₉₀ :	176.4	3.483	COARSE GRAVEL: 0.0% COARSE SILT: 0.2%			
(D ₉₀ / D ₁₀):	1.972	1.391	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.2%			
(D ₉₀ - D ₁₀):	86.92	0.979	FINE GRAVEL: 0.0% FINE SILT: 0.2%			
(D ₇₅ / D ₂₅):	1.389	1.176	V FINE GRAVEL: 0.0% V FINE SILT: 0.2%			
(D ₇₅ - D ₂₅):	43.53	0.474	V COARSE SAND: 0.1% CLAY: 0.2%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	138.3	126.6	2.981	131.3	2.929	Fine Sand
SORTING (σ):	66.05	1.592	0.671	1.326	0.407	Well Sorted
SKEWNESS (Sk):	8.380	-3.174	3.174	-0.157	0.157	Fine Skewed
KURTOSIS (K):	124.0	24.48	24.48	1.279	1.279	Leptokurtic



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **SI-15-11-310cm**

ANALYST & DATE: Chris, 11/9/15

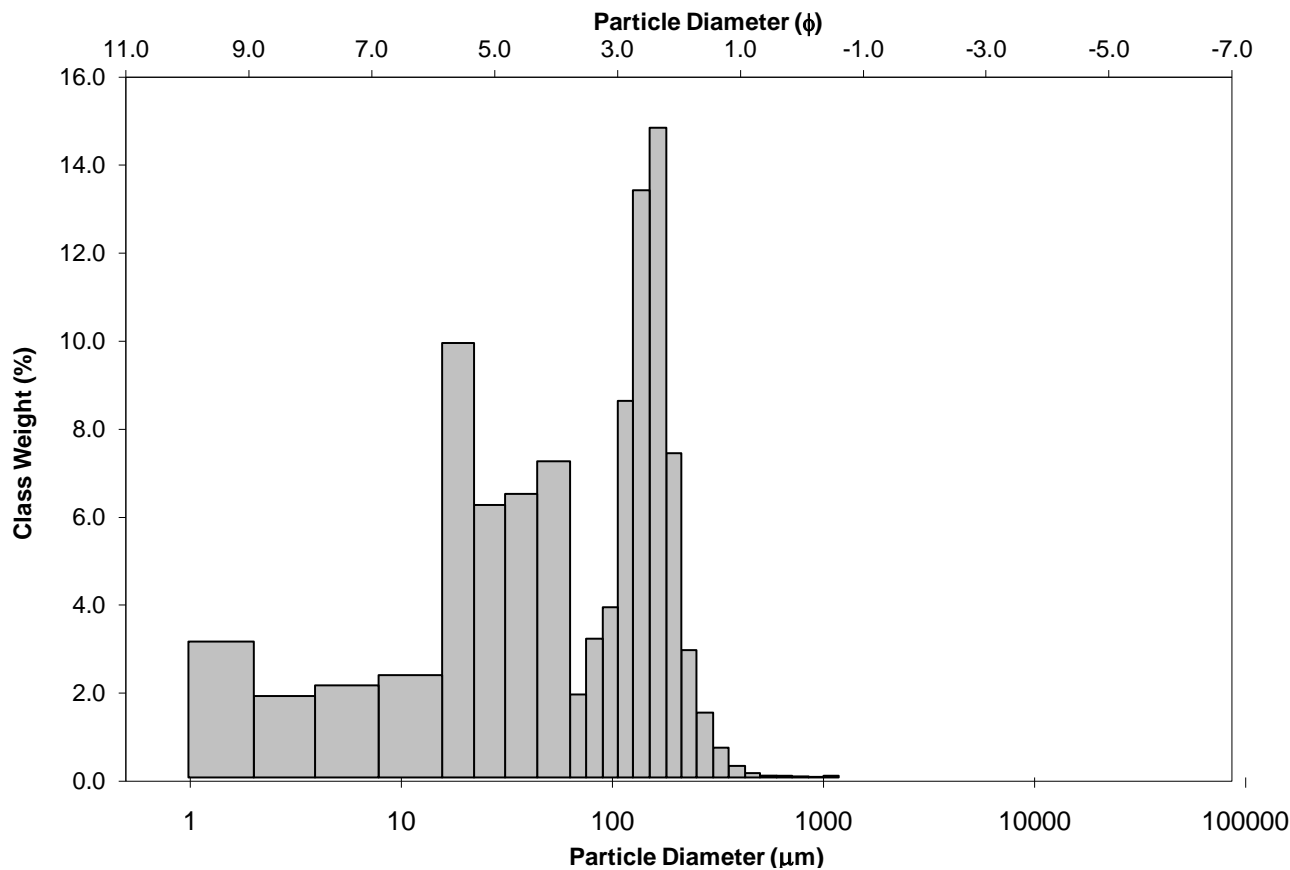
SAMPLE TYPE: Polymodal, Very Poorly Sorted

TEXTURAL GROUP: Sandy Mud

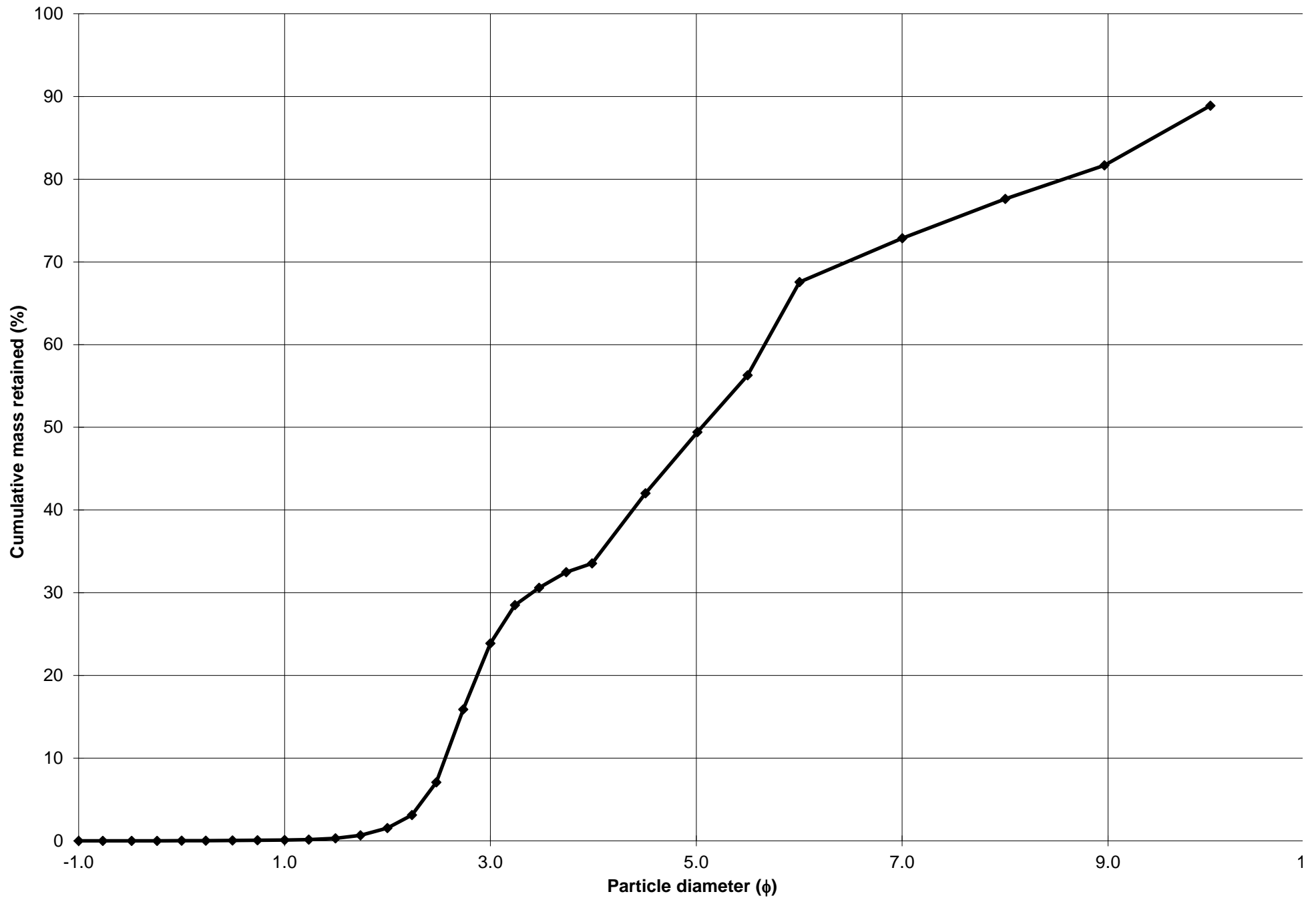
SEDIMENT NAME: Fine Sandy Coarse Silt

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%	COARSE SAND: 0.1%		
MODE 2:	18.85	5.751	SAND: 33.7%	MEDIUM SAND: 1.5%		
MODE 3:	53.50	4.247	MUD: 66.3%	FINE SAND: 22.3%		
D_{10} :	1.124	2.561		V FINE SAND: 9.9%		
MEDIAN or D_{50} :	30.12	5.053	V COARSE GRAVEL: 0.0%	V COARSE SILT: 15.5%		
D_{90} :	169.4	9.797	COARSE GRAVEL: 0.0%	COARSE SILT: 18.3%		
(D_{90} / D_{10}) :	150.7	3.825	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 5.3%		
$(D_{90} - D_{10})$:	168.3	7.235	FINE GRAVEL: 0.0%	FINE SILT: 4.8%		
(D_{75} / D_{25}) :	21.04	2.438	V FINE GRAVEL: 0.0%	V FINE SILT: 4.3%		
$(D_{75} - D_{25})$:	114.4	4.395	V COARSE SAND: 0.0%	CLAY: 18.1%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	64.26	22.15	5.496	19.28	5.697	Coarse Silt
SORTING (σ):	74.56	6.038	2.594	6.197	2.631	Very Poorly Sorted
SKEWNESS (Sk):	2.022	-0.499	0.499	-0.235	0.235	Fine Skewed
KURTOSIS (K):	14.77	1.983	1.983	0.611	0.611	Very Platykurtic

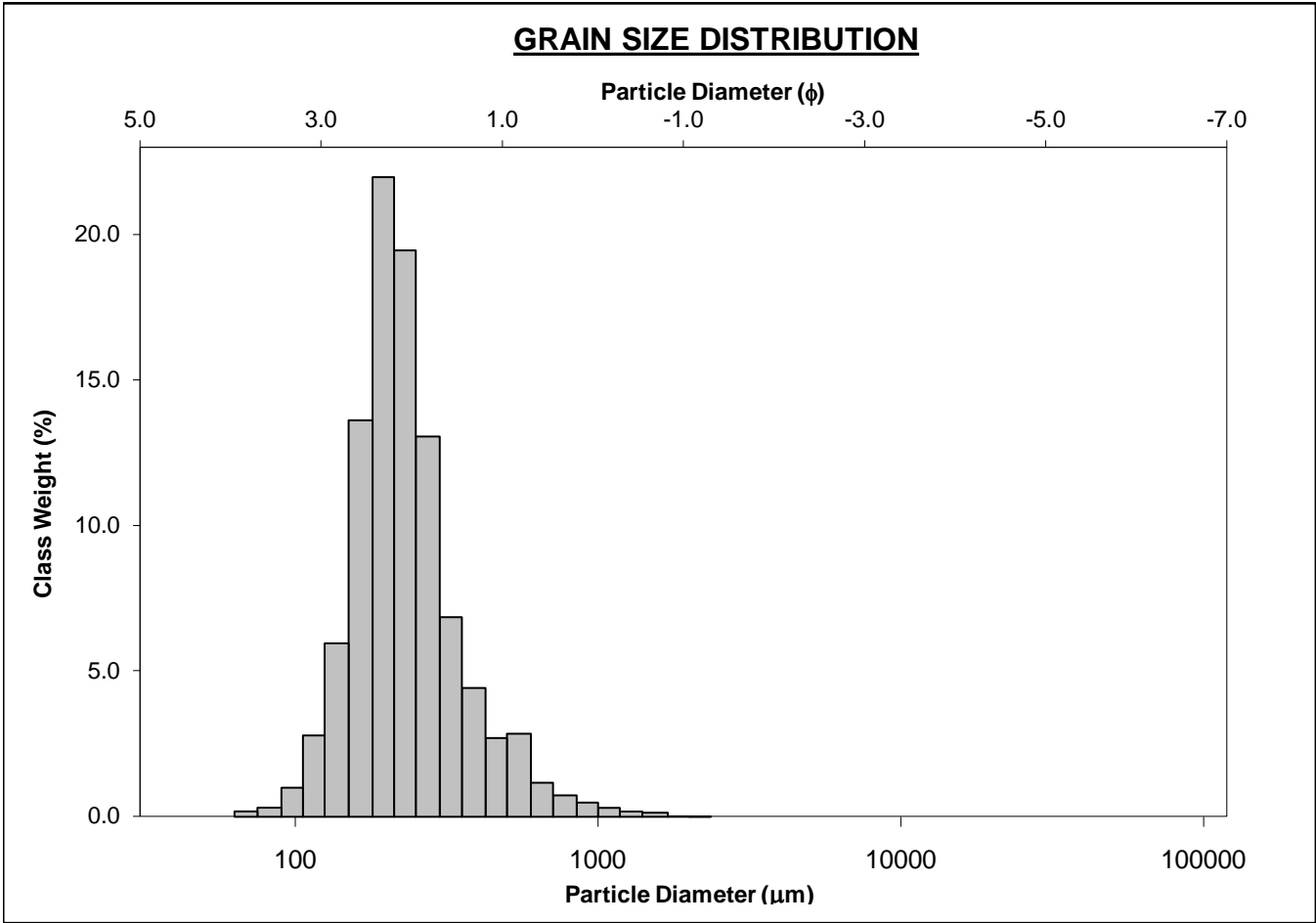
GRAIN SIZE DISTRIBUTION



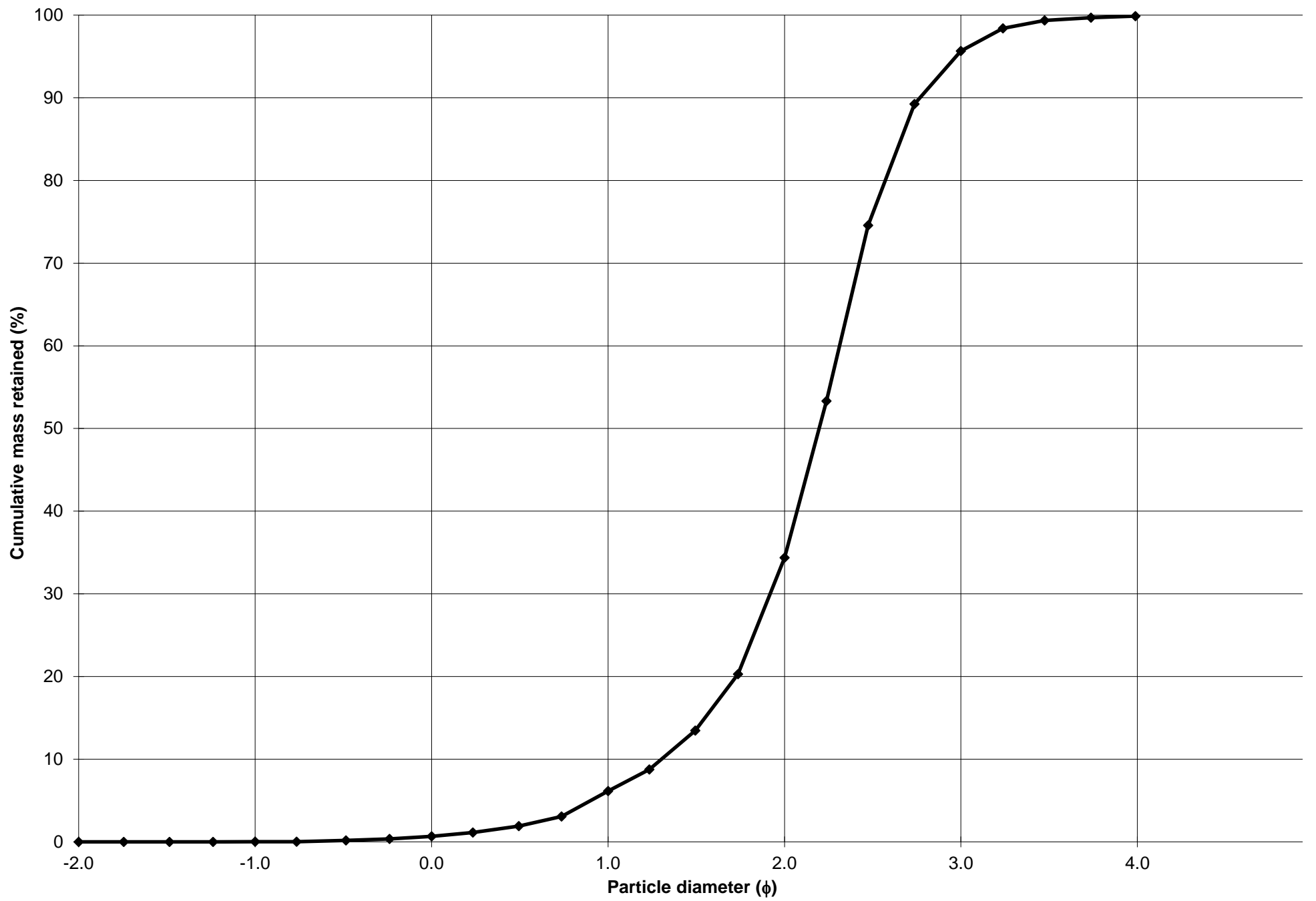
Cumulative Frequency Curve



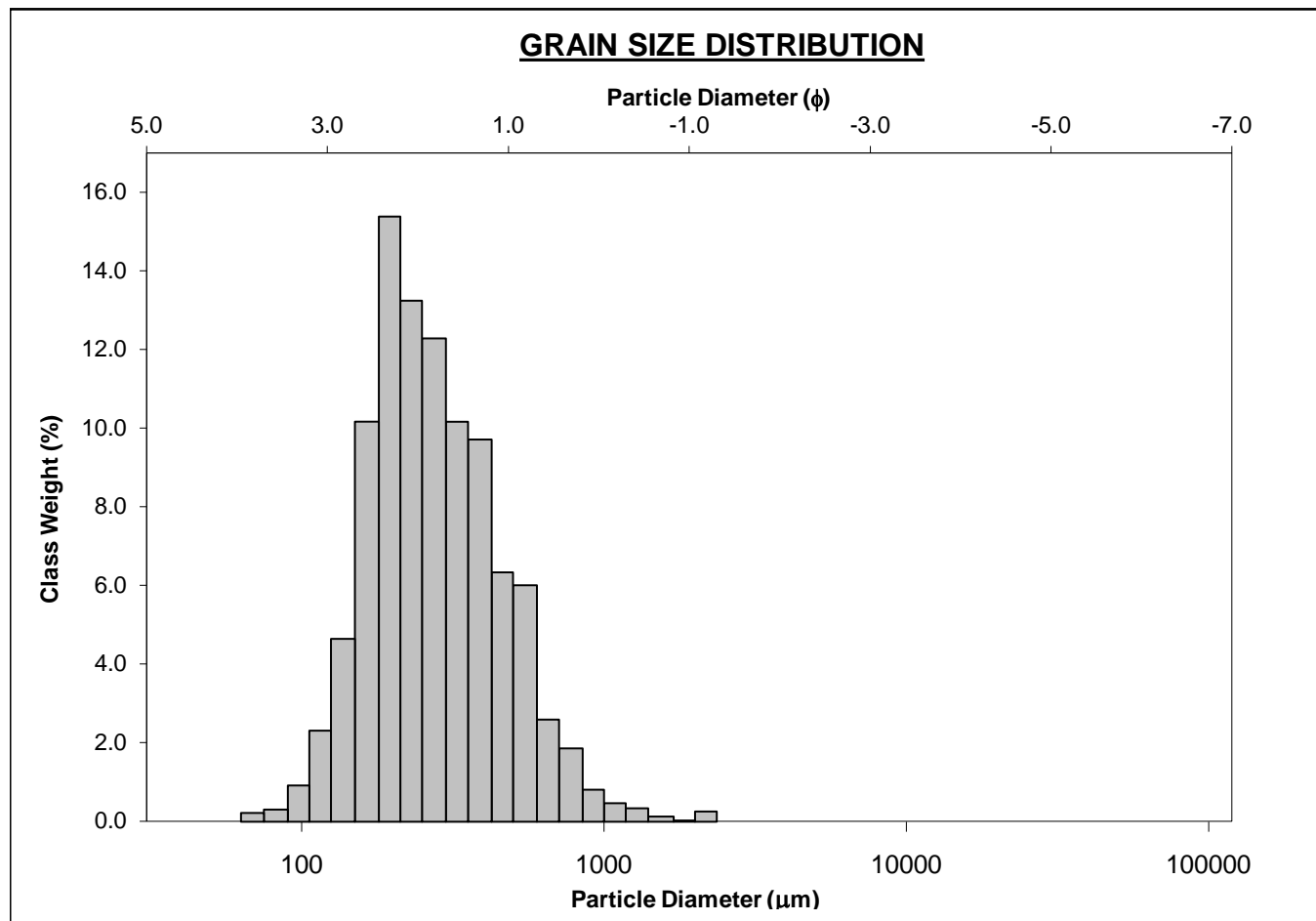
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-20cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 5.5%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 28.2%	
MODE 3:			MUD: 0.1%		FINE SAND: 61.3%	
D ₁₀ :	146.8	1.303			V FINE SAND: 4.2%	
MEDIAN or D ₅₀ :	218.2	2.196	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	405.2	2.768	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.760	2.124	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	258.4	1.465	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.576	1.360	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	103.2	0.657	V COARSE SAND: 0.7%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	258.0	230.8	2.115	226.7	2.141	Fine Sand
SORTING (σ):	150.0	1.552	0.634	1.493	0.578	Moderately Well Sorted
SKEWNESS (Sk):	3.624	0.332	-0.332	0.203	-0.203	Coarse Skewed
KURTOSIS (K):	23.87	8.391	8.391	1.293	1.293	Leptokurtic



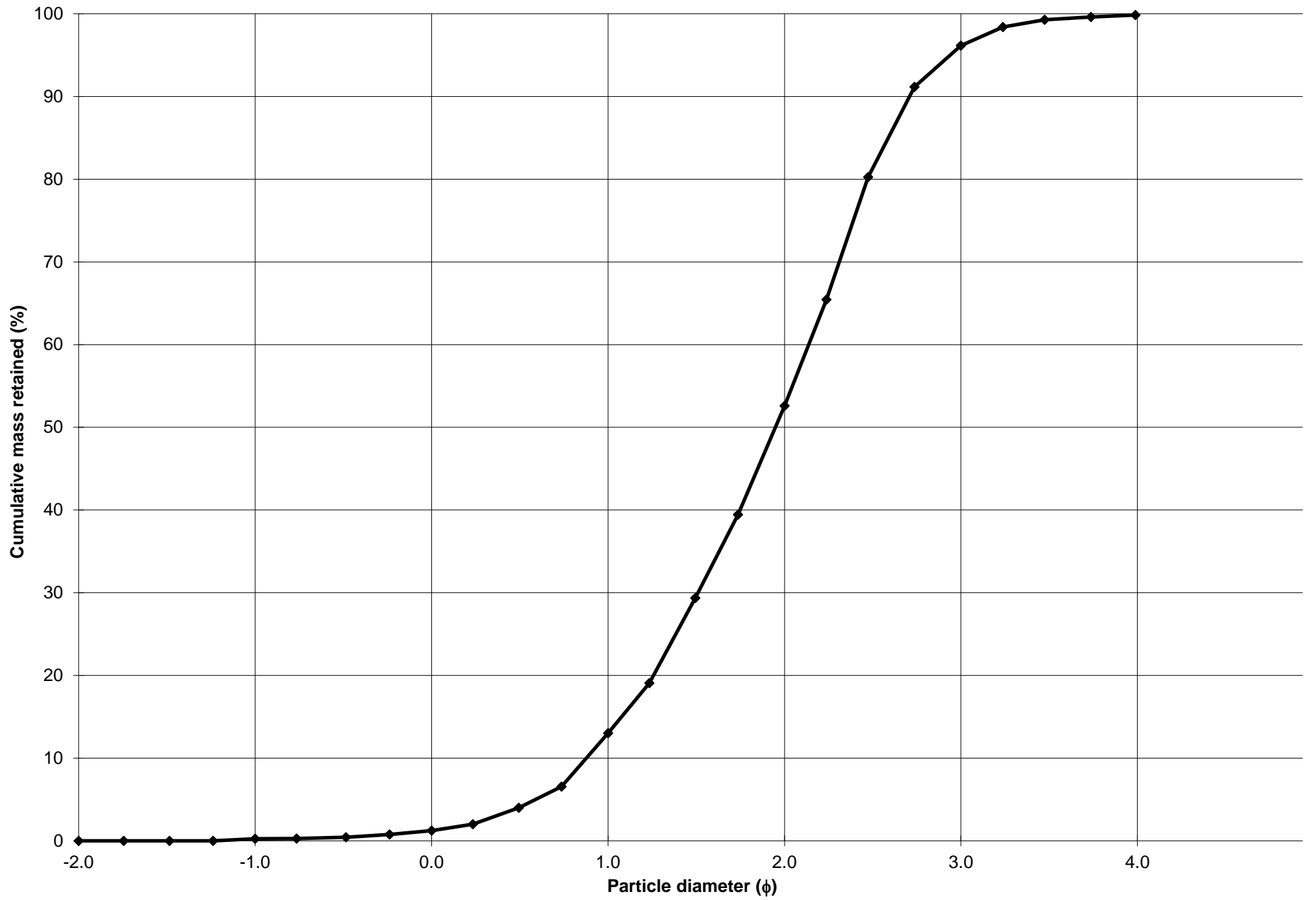
Cumulative Frequency Curve



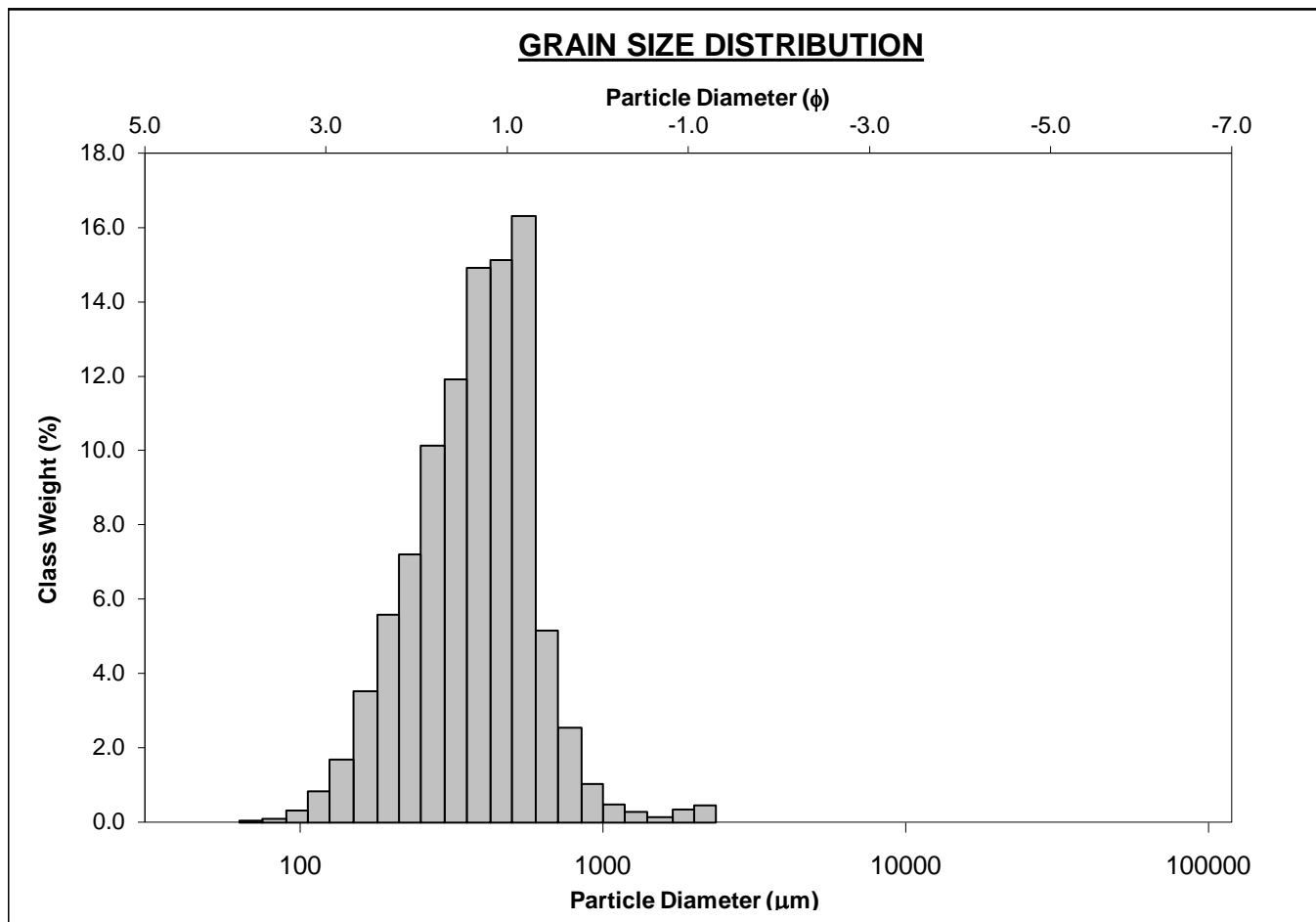
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-30cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.3%		COARSE SAND: 11.8%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 39.6%	
MODE 3:			MUD: 0.2%		FINE SAND: 43.5%	
D ₁₀ :	153.0	0.877			V FINE SAND: 3.7%	
MEDIAN or D ₅₀ :	259.2	1.948	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	544.4	2.709	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.559	3.088	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	391.5	1.832	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.008	1.727	V FINE GRAVEL: 0.3%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	192.3	1.006	V COARSE SAND: 1.0%		CLAY: 0.0%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	317.6	273.5	1.871	272.4	1.876	Medium Sand
SORTING (σ):	206.0	1.692	0.759	1.645	0.718	Moderately Sorted
SKEWNESS (Sk):	3.412	0.035	-0.035	0.153	-0.153	Coarse Skewed
KURTOSIS (K):	23.92	6.219	6.219	0.957	0.957	Mesokurtic



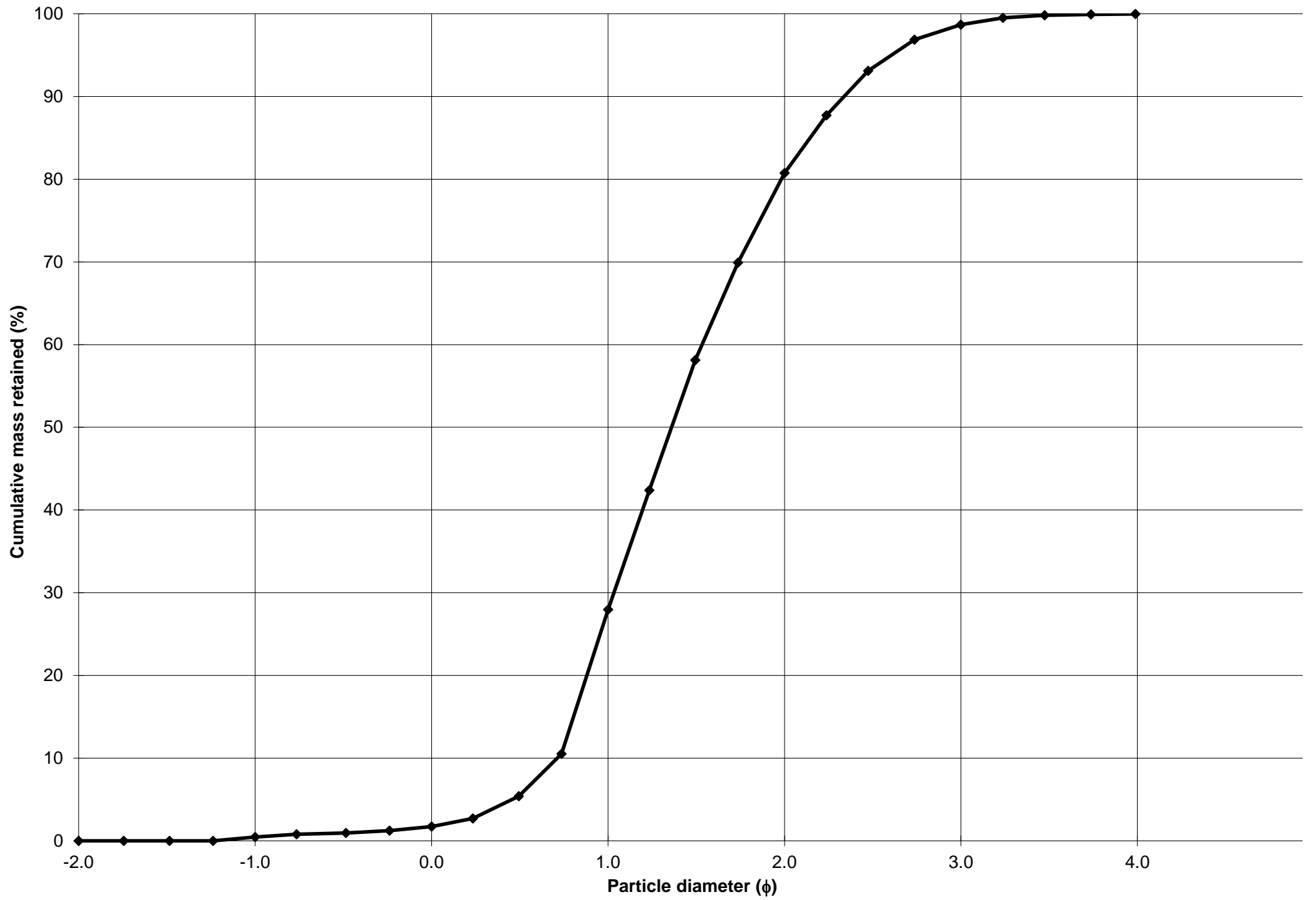
Cumulative Frequency Curve



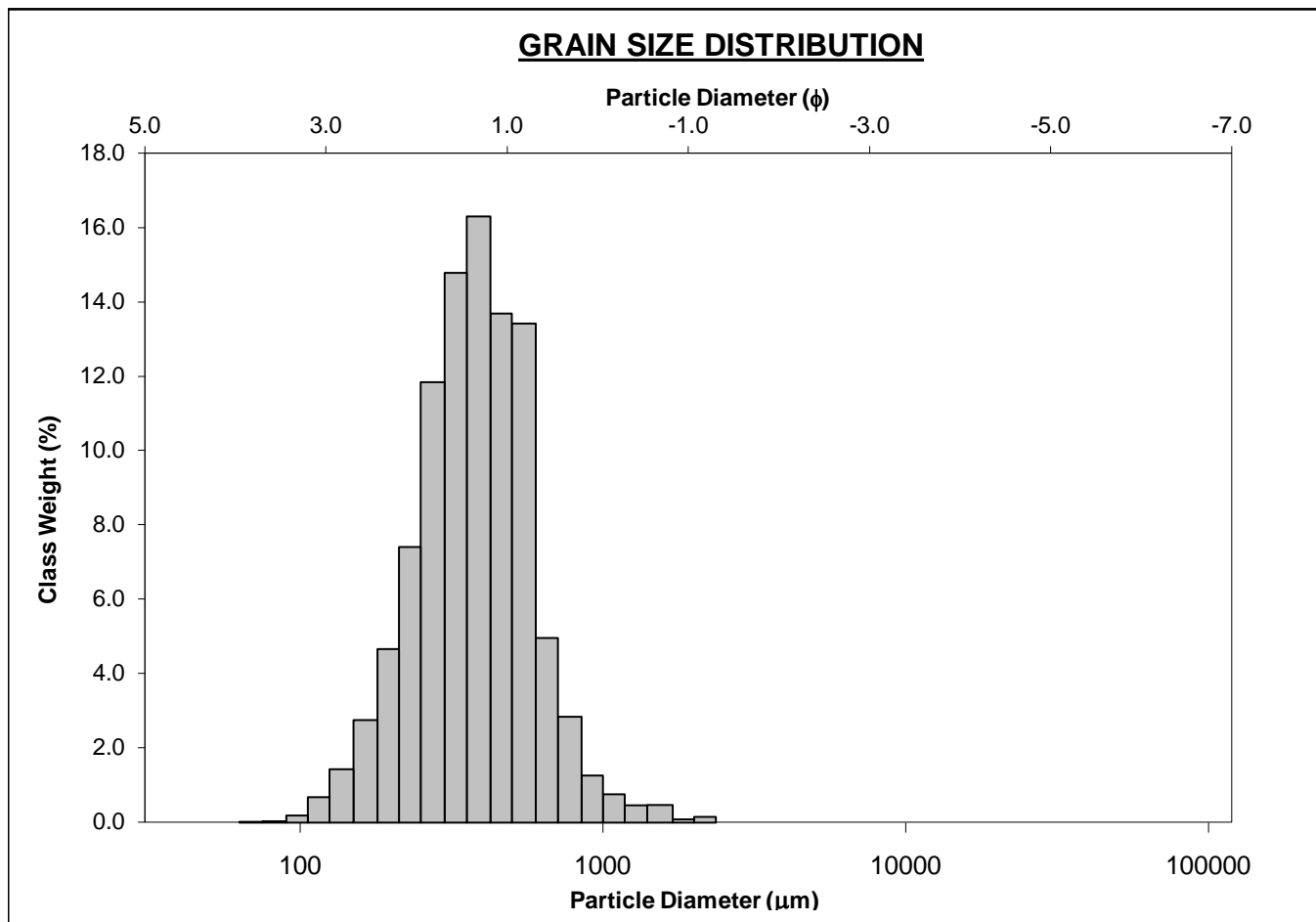
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-40cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 0.5%		COARSE SAND: 26.2%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 52.8%	
MODE 3:			MUD: 0.0%		FINE SAND: 17.9%	
D ₁₀ :	197.8	0.713			V FINE SAND: 1.3%	
MEDIAN or D ₅₀ :	389.6	1.360	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	610.1	2.338	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.085	3.280	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	412.3	1.625	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.873	1.947	V FINE GRAVEL: 0.5%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	240.3	0.905	V COARSE SAND: 1.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	420.4	373.6	1.421	371.1	1.430	Medium Sand
SORTING (σ):	230.6	1.609	0.686	1.568	0.649	Moderately Well Sorted
SKEWNESS (Sk):	3.322	-0.131	0.131	-0.161	0.161	Fine Skewed
KURTOSIS (K):	22.83	4.822	4.822	0.974	0.974	Mesokurtic



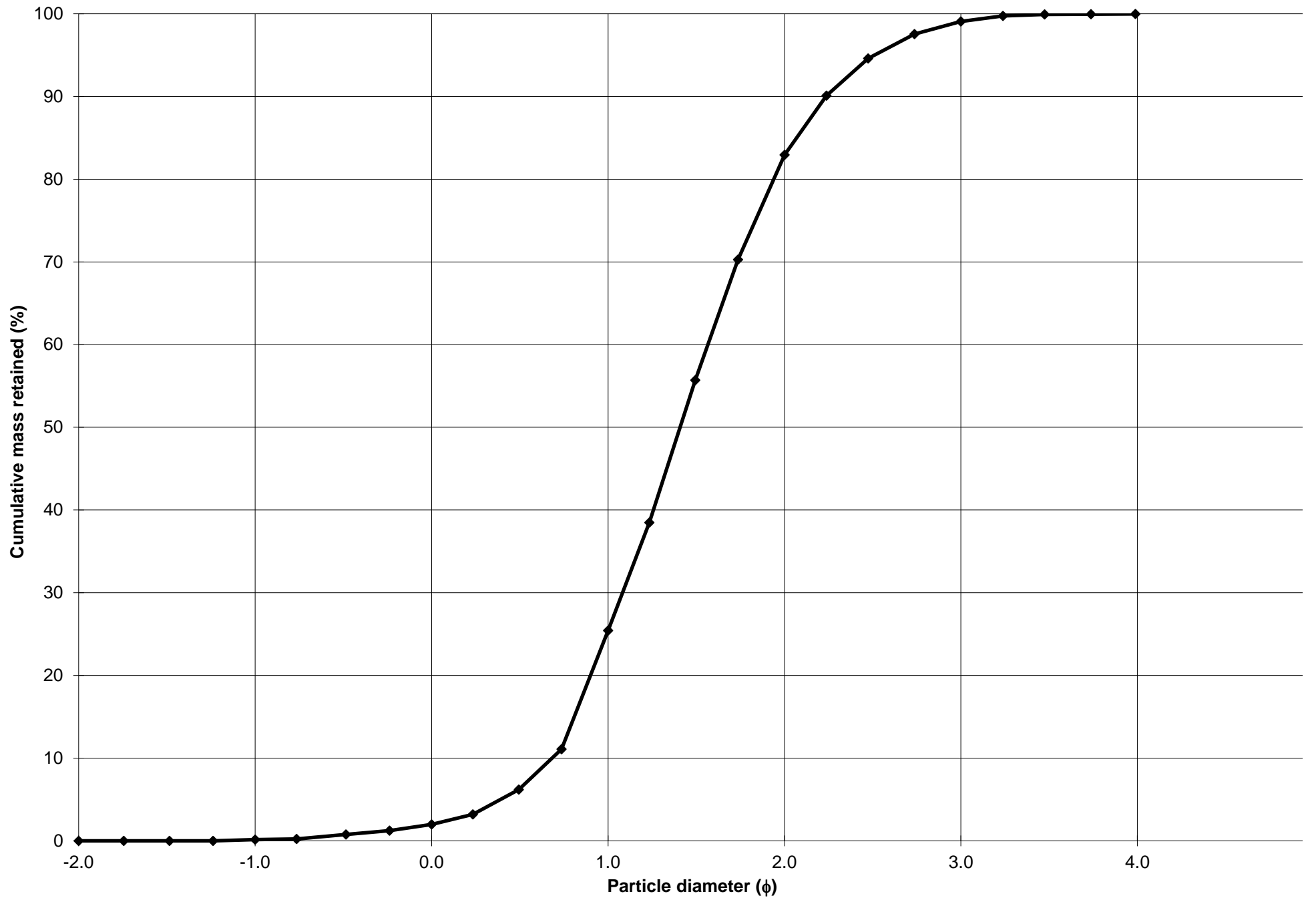
Cumulative Frequency Curve



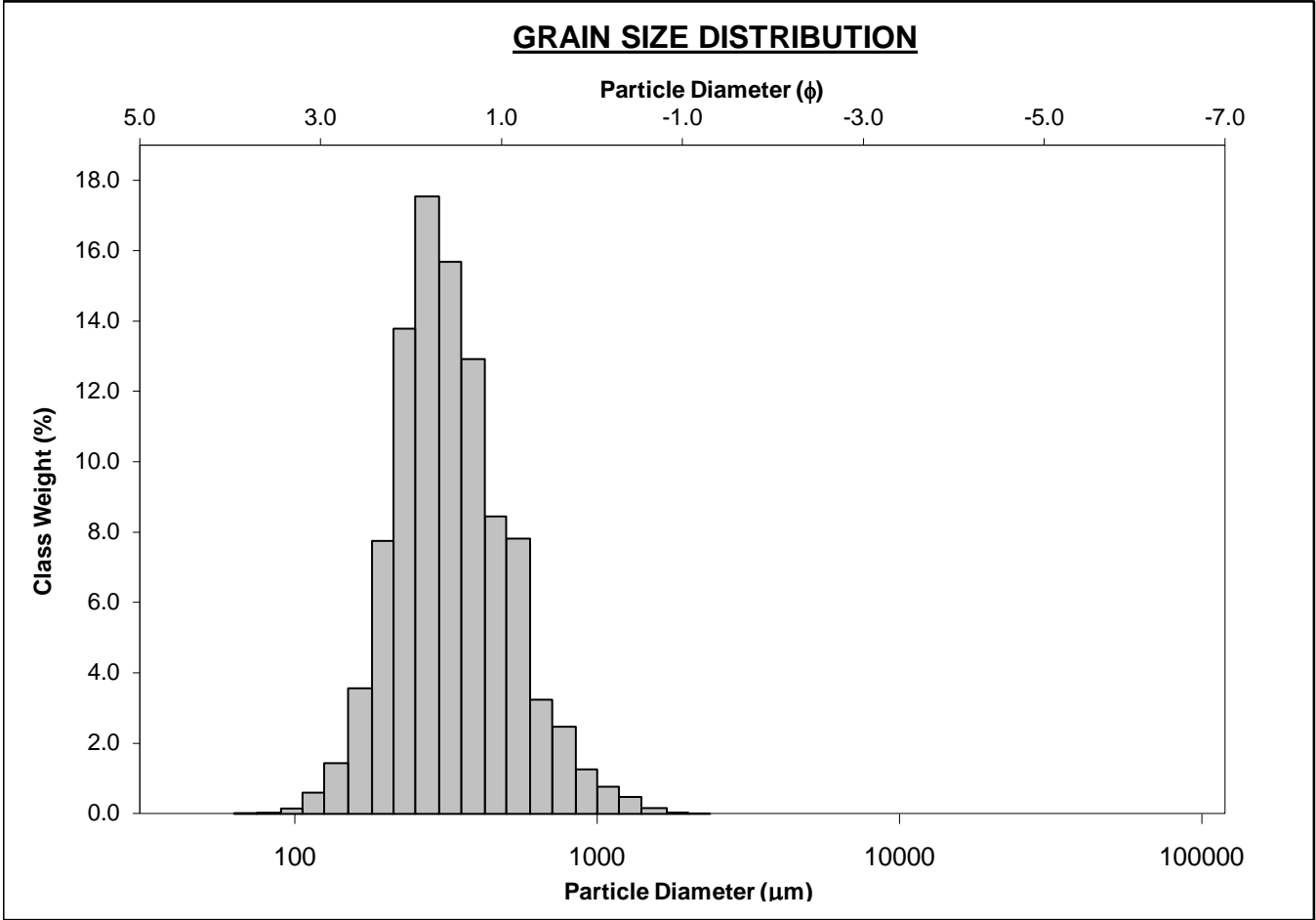
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-53cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.2%		COARSE SAND: 23.5%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 57.5%	
MODE 3:			MUD: 0.0%		FINE SAND: 16.1%	
D ₁₀ :	212.5	0.683			V FINE SAND: 0.9%	
MEDIAN or D ₅₀ :	376.8	1.408	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	623.0	2.234	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.931	3.272	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	410.4	1.551	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.794	1.850	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	222.5	0.843	V COARSE SAND: 1.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	416.2	373.6	1.420	372.8	1.423	Medium Sand
SORTING (σ):	213.0	1.572	0.653	1.540	0.623	Moderately Well Sorted
SKEWNESS (Sk):	2.643	-0.039	0.039	-0.039	0.039	Symmetrical
KURTOSIS (K):	16.19	4.803	4.803	1.030	1.030	Mesokurtic



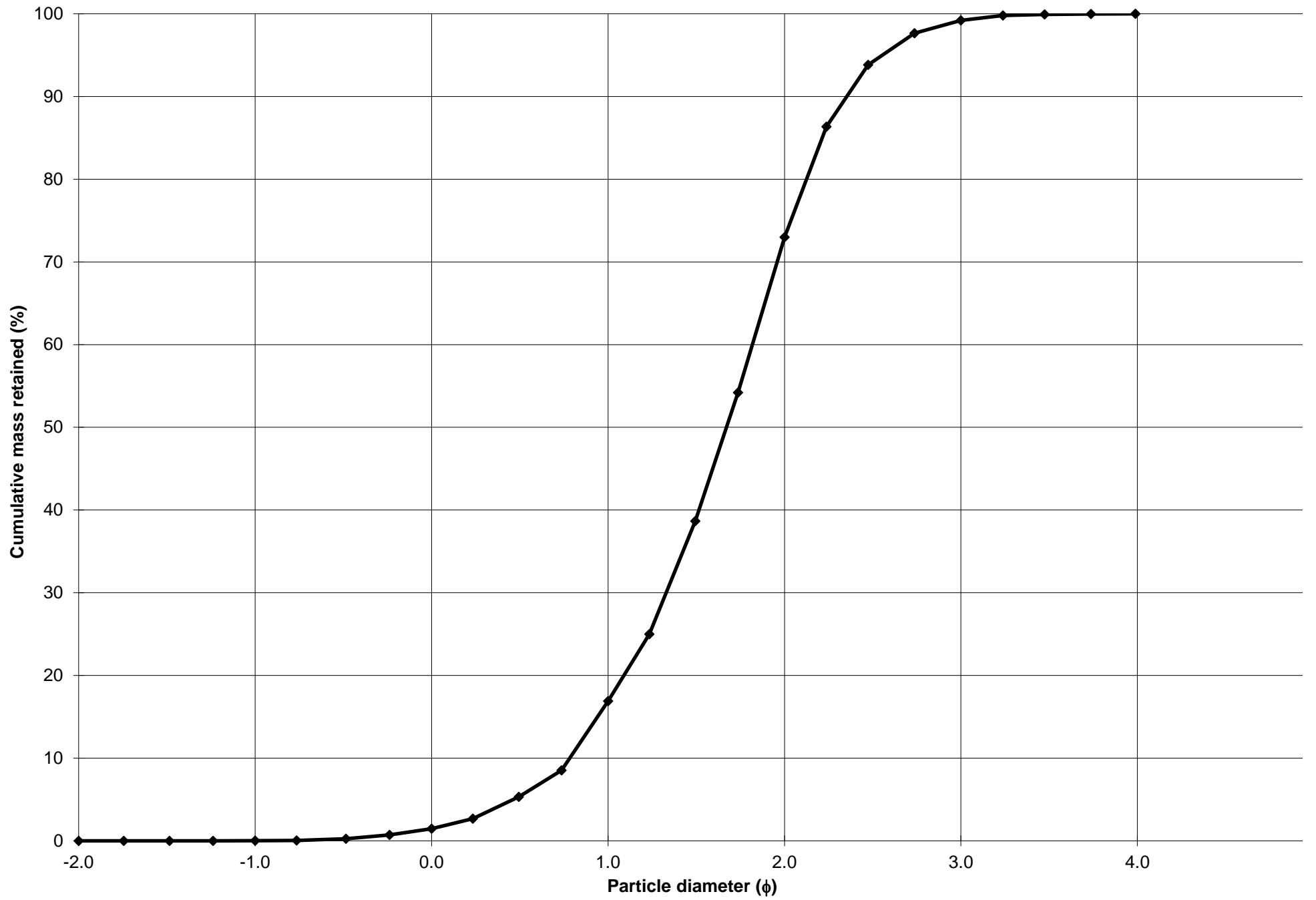
Cumulative Frequency Curve



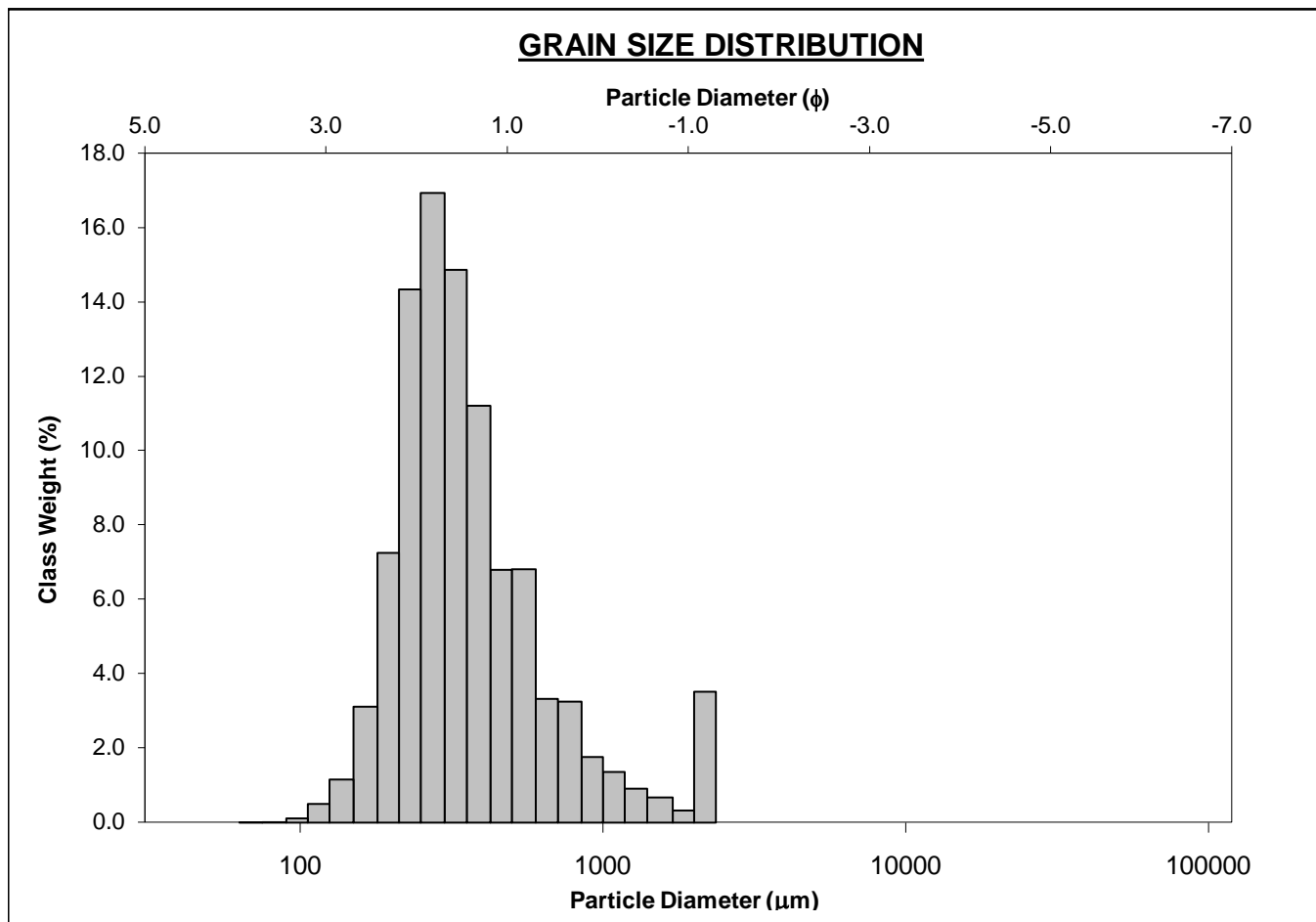
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-67cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0% COARSE SAND: 15.4%			
MODE 2:			SAND: 100.0% MEDIUM SAND: 56.1%			
MODE 3:			MUD: 0.0% FINE SAND: 26.2%			
D ₁₀ :	195.8	0.783	V FINE SAND: 0.8%			
MEDIAN or D ₅₀ :	313.9	1.671	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.0%			
D ₉₀ :	581.0	2.353	COARSE GRAVEL: 0.0% COARSE SILT: 0.0%			
(D ₉₀ / D ₁₀):	2.968	3.004	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.0%			
(D ₉₀ - D ₁₀):	385.2	1.569	FINE GRAVEL: 0.0% FINE SILT: 0.0%			
(D ₇₅ / D ₂₅):	1.742	1.649	V FINE GRAVEL: 0.0% V FINE SILT: 0.0%			
(D ₇₅ - D ₂₅):	181.0	0.801	V COARSE SAND: 1.5% CLAY: 0.0%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	365.3	328.2	1.607	326.9	1.613	Medium Sand
SORTING (σ):	189.5	1.551	0.633	1.540	0.623	Moderately Well Sorted
SKEWNESS (Sk):	2.323	0.433	-0.433	0.149	-0.149	Coarse Skewed
KURTOSIS (K):	11.79	3.727	3.727	1.070	1.070	Mesokurtic



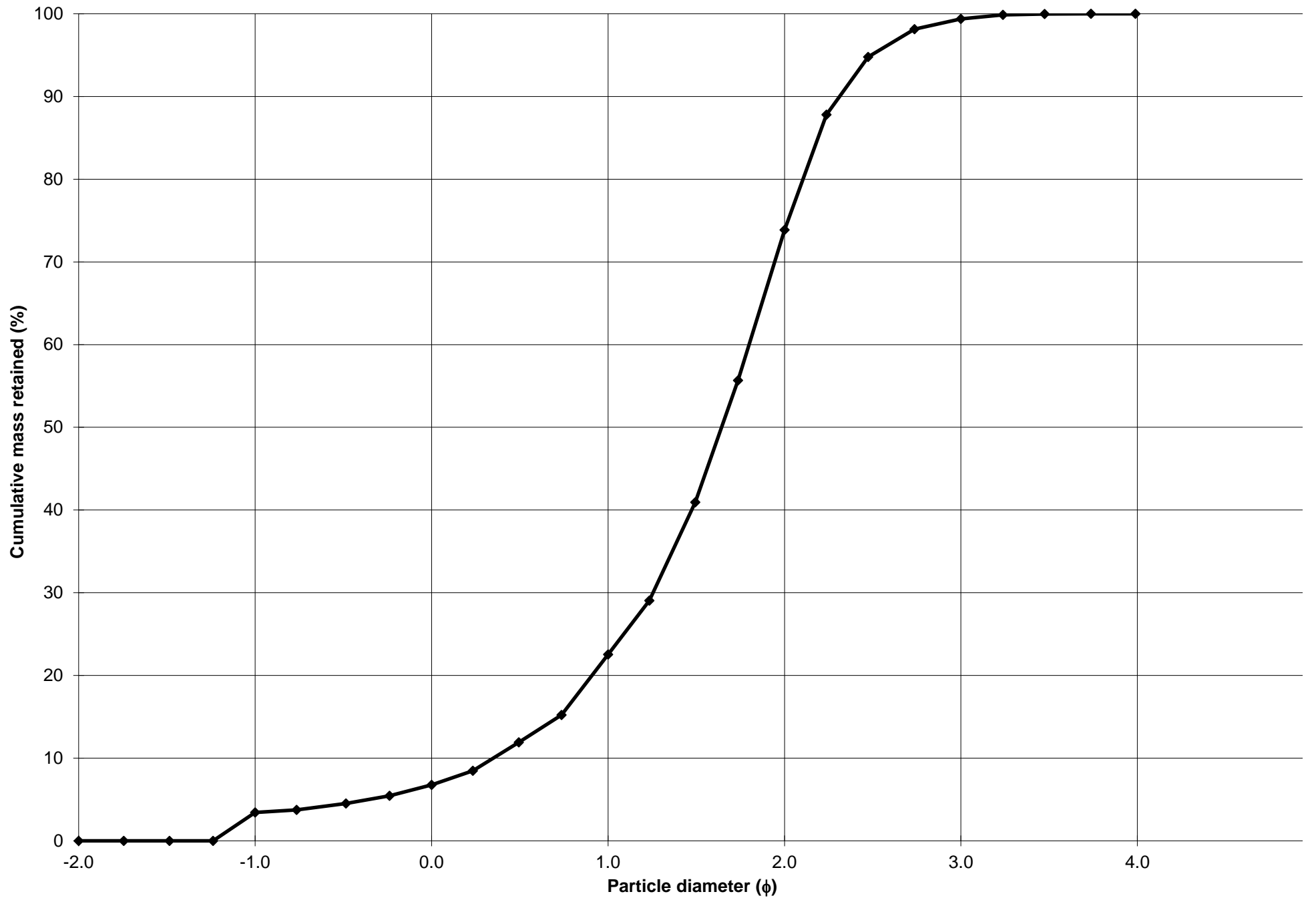
Cumulative Frequency Curve



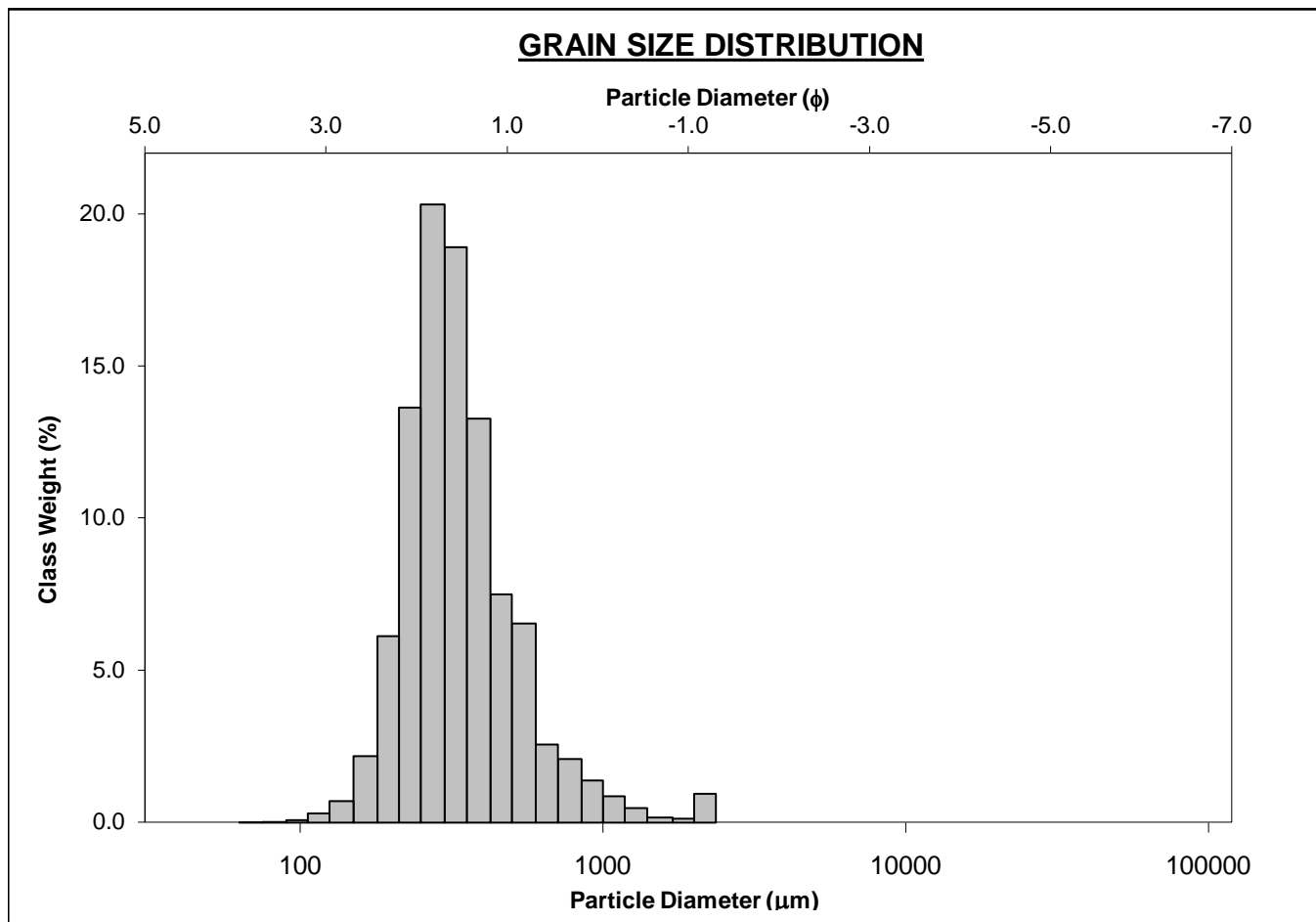
SIEVING ERROR: 2.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-80cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 3.4%		COARSE SAND: 15.8%	
MODE 2:	550.0	0.868	SAND: 96.6%		MEDIUM SAND: 51.3%	
MODE 3:	2180.0	-1.119	MUD: 0.0%		FINE SAND: 25.5%	
D ₁₀ :	201.3	0.350			V FINE SAND: 0.6%	
MEDIAN or D ₅₀ :	320.1	1.644	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	784.4	2.312	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.896	6.599	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	583.0	1.962	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.906	1.854	V FINE GRAVEL: 3.4%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	223.4	0.930	V COARSE SAND: 3.3%		CLAY: 0.0%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	452.0	362.7	1.463	346.9	1.527	Medium Sand
SORTING (σ):	404.9	1.794	0.843	1.721	0.783	Moderately Sorted
SKEWNESS (Sk):	3.054	1.199	-1.199	0.326	-0.326	Very Coarse Skewed
KURTOSIS (K):	12.60	4.606	4.606	1.254	1.254	Leptokurtic



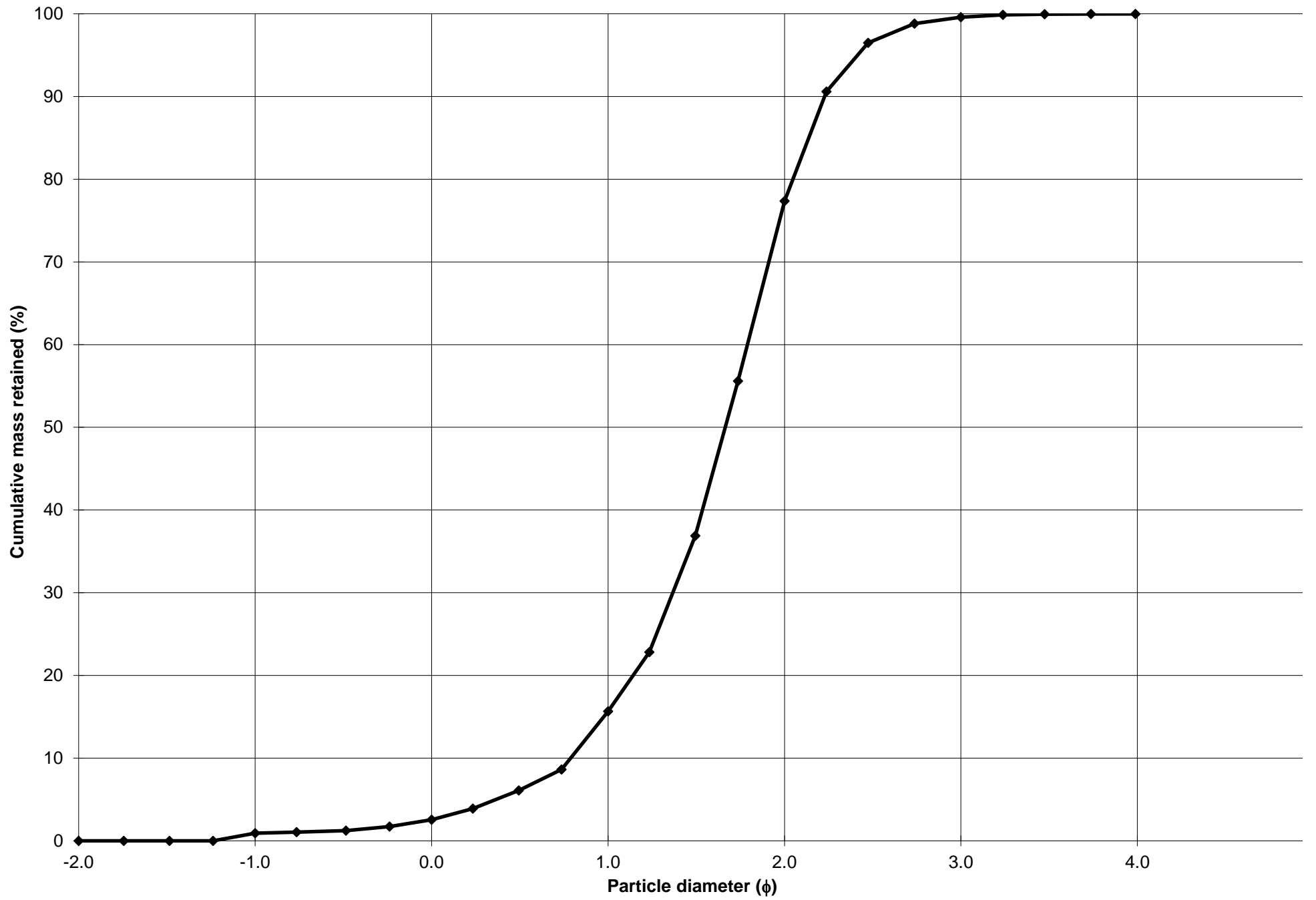
Cumulative Frequency Curve



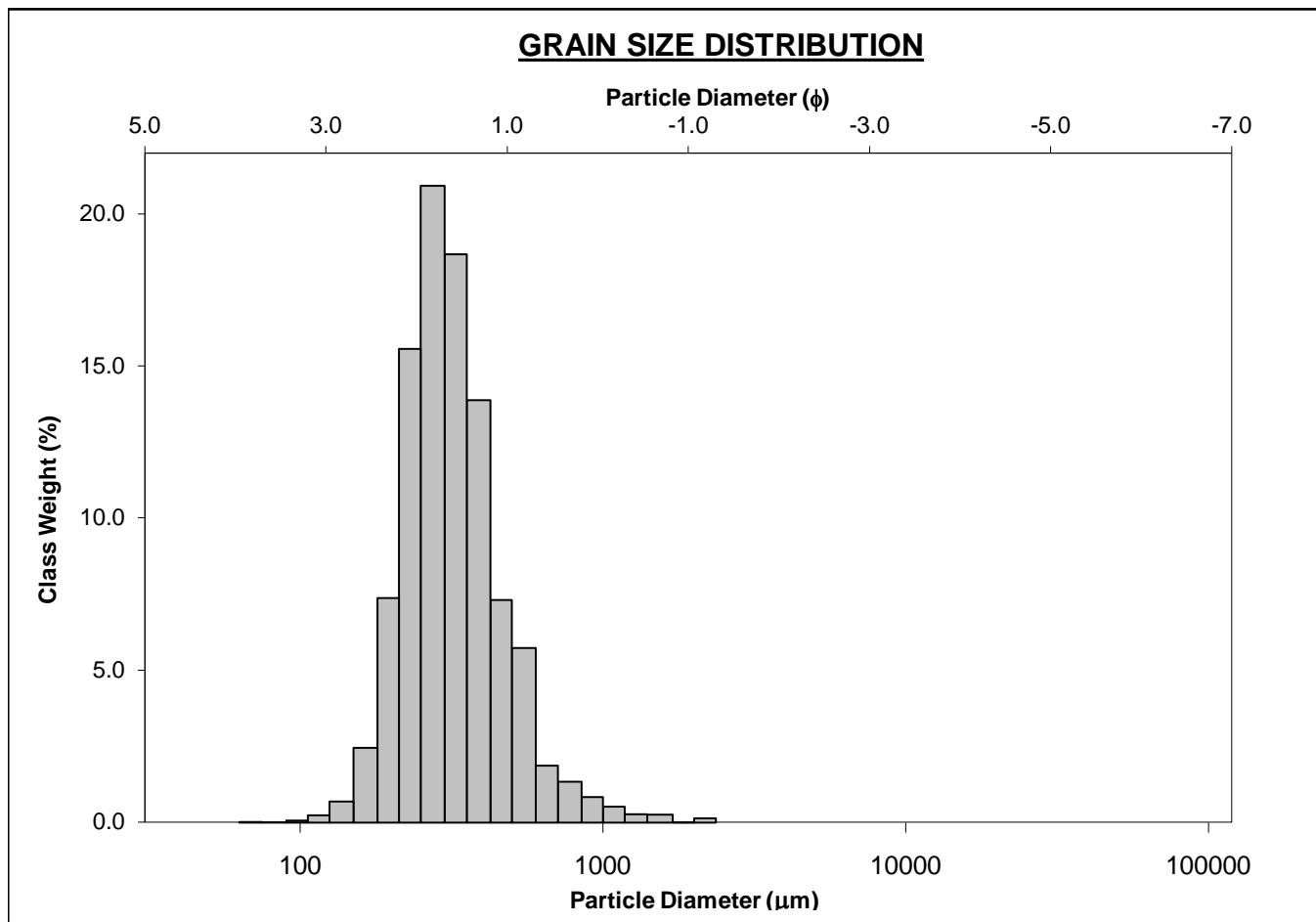
SIEVING ERROR: 2.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-95cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.9%		COARSE SAND: 13.1%	
MODE 2:			SAND: 99.1%		MEDIUM SAND: 61.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 22.2%	
D ₁₀ :	213.5	0.788			V FINE SAND: 0.4%	
MEDIAN or D ₅₀ :	315.5	1.665	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	579.1	2.227	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.712	2.827	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	365.6	1.439	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.621	1.547	V FINE GRAVEL: 0.9%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	158.3	0.697	V COARSE SAND: 1.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	382.1	337.3	1.568	330.2	1.598	Medium Sand
SORTING (σ):	255.0	1.562	0.643	1.503	0.588	Moderately Well Sorted
SKEWNESS (Sk):	4.220	1.050	-1.050	0.223	-0.223	Coarse Skewed
KURTOSIS (K):	26.78	6.515	6.515	1.206	1.206	Leptokurtic



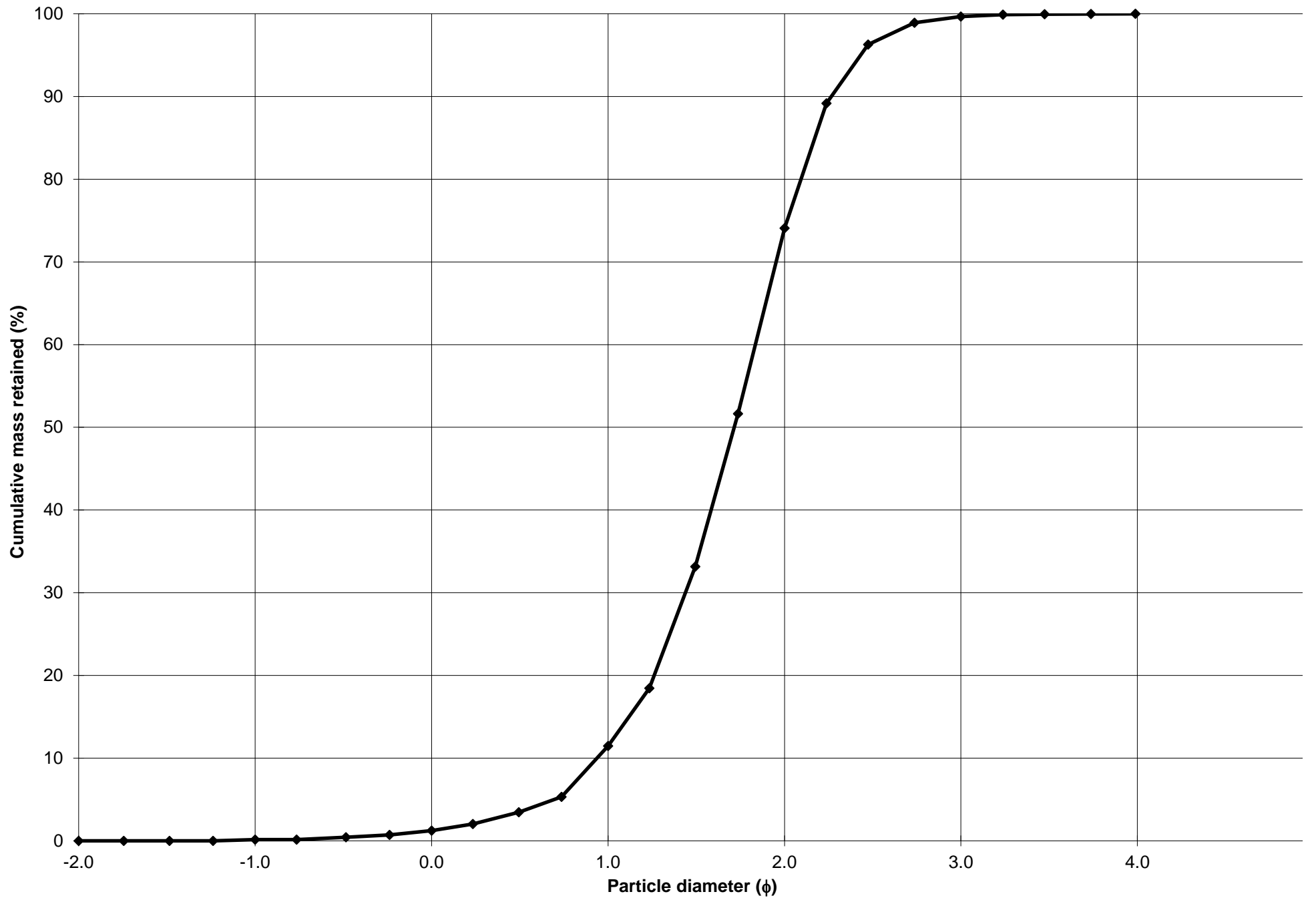
Cumulative Frequency Curve



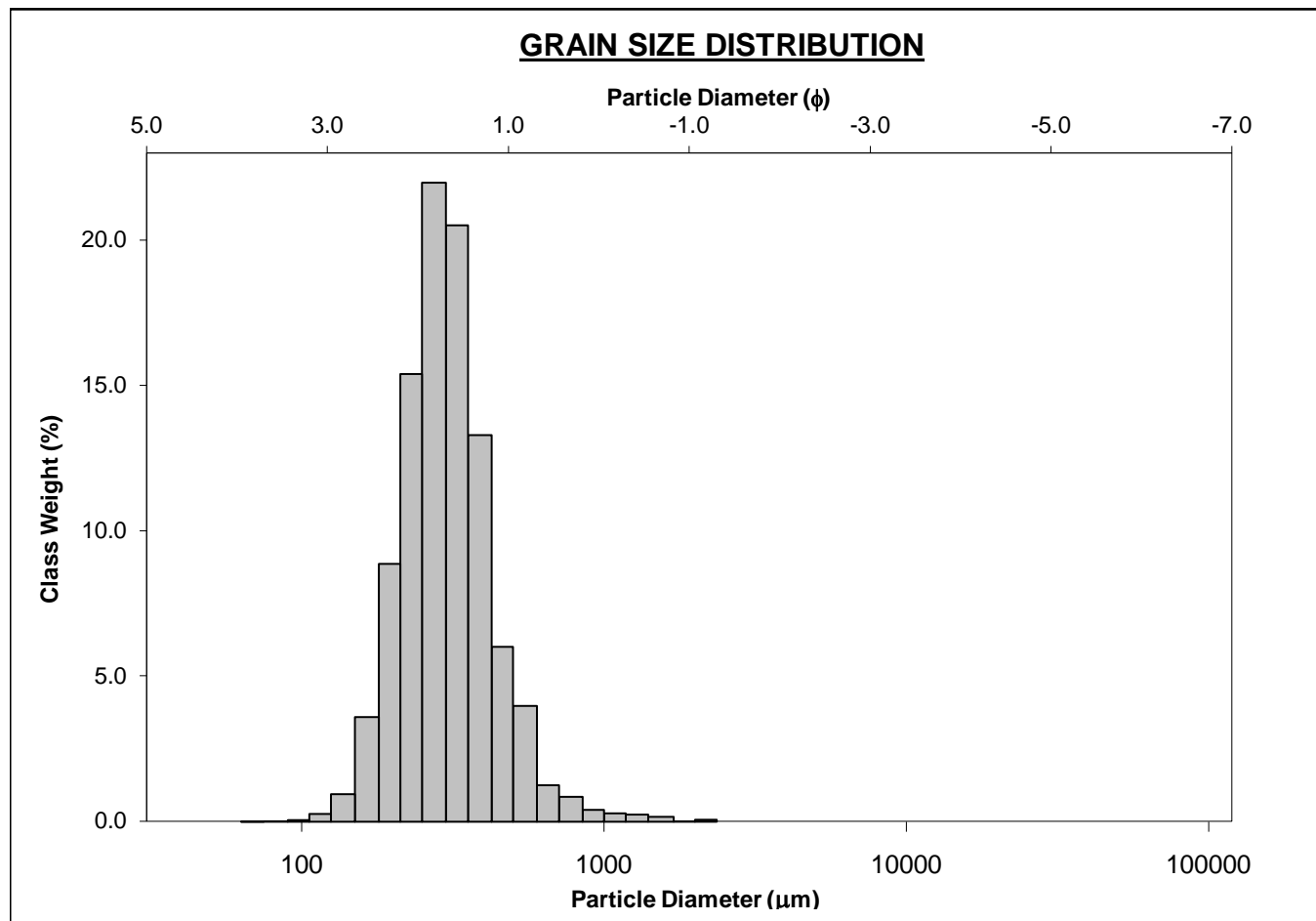
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-118cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.1%		COARSE SAND: 10.2%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 62.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 25.6%	
D ₁₀ :	208.0	0.937			V FINE SAND: 0.3%	
MEDIAN or D ₅₀ :	304.5	1.715	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	522.2	2.265	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.511	2.417	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	314.2	1.328	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.585	1.492	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	144.8	0.664	V COARSE SAND: 1.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	347.9	318.4	1.651	313.3	1.675	Medium Sand
SORTING (σ):	177.7	1.472	0.557	1.428	0.514	Moderately Well Sorted
SKEWNESS (Sk):	3.810	0.786	-0.786	0.148	-0.148	Coarse Skewed
KURTOSIS (K):	27.86	5.613	5.613	1.071	1.071	Mesokurtic



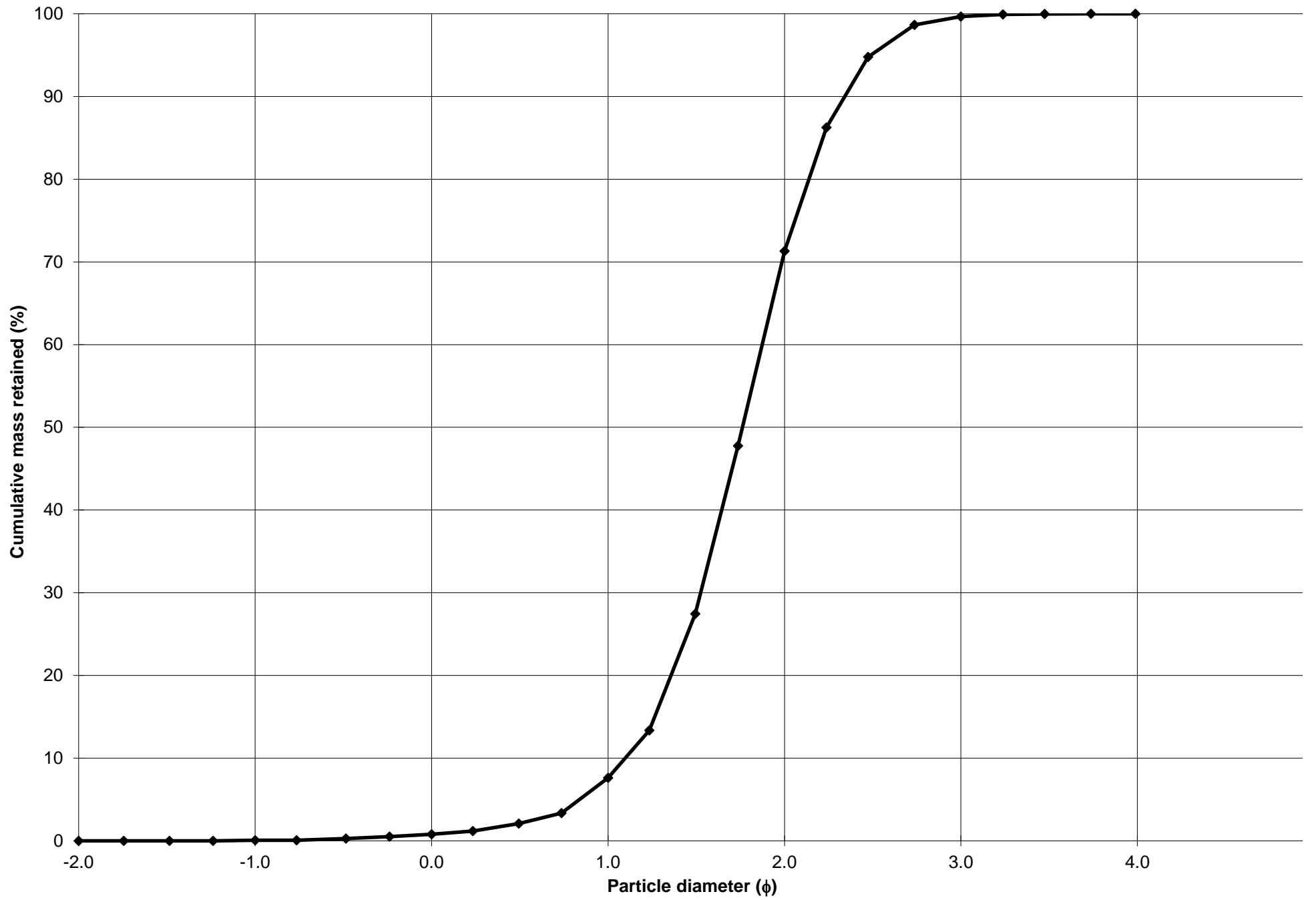
Cumulative Frequency Curve



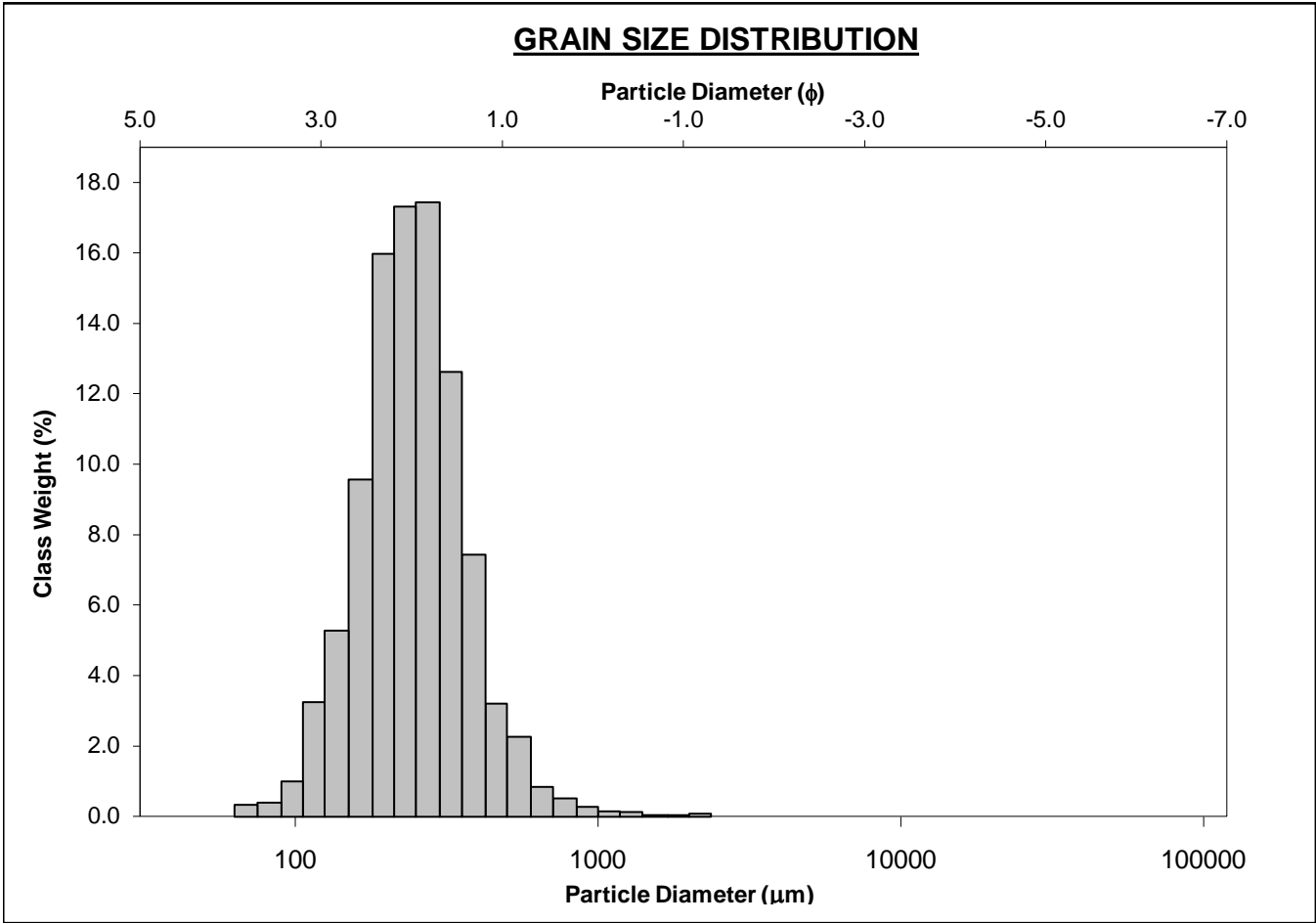
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-130cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.1%		COARSE SAND: 6.8%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 63.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 28.3%	
D ₁₀ :	197.3	1.097			V FINE SAND: 0.3%	
MEDIAN or D ₅₀ :	294.8	1.762	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	467.4	2.342	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.369	2.134	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	270.1	1.244	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.526	1.421	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	126.2	0.610	V COARSE SAND: 0.7%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	325.5	301.8	1.728	297.5	1.749	Medium Sand
SORTING (σ):	150.9	1.430	0.516	1.394	0.480	Well Sorted
SKEWNESS (Sk):	4.063	0.714	-0.714	0.081	-0.081	Symmetrical
KURTOSIS (K):	33.41	5.712	5.712	1.109	1.109	Mesokurtic



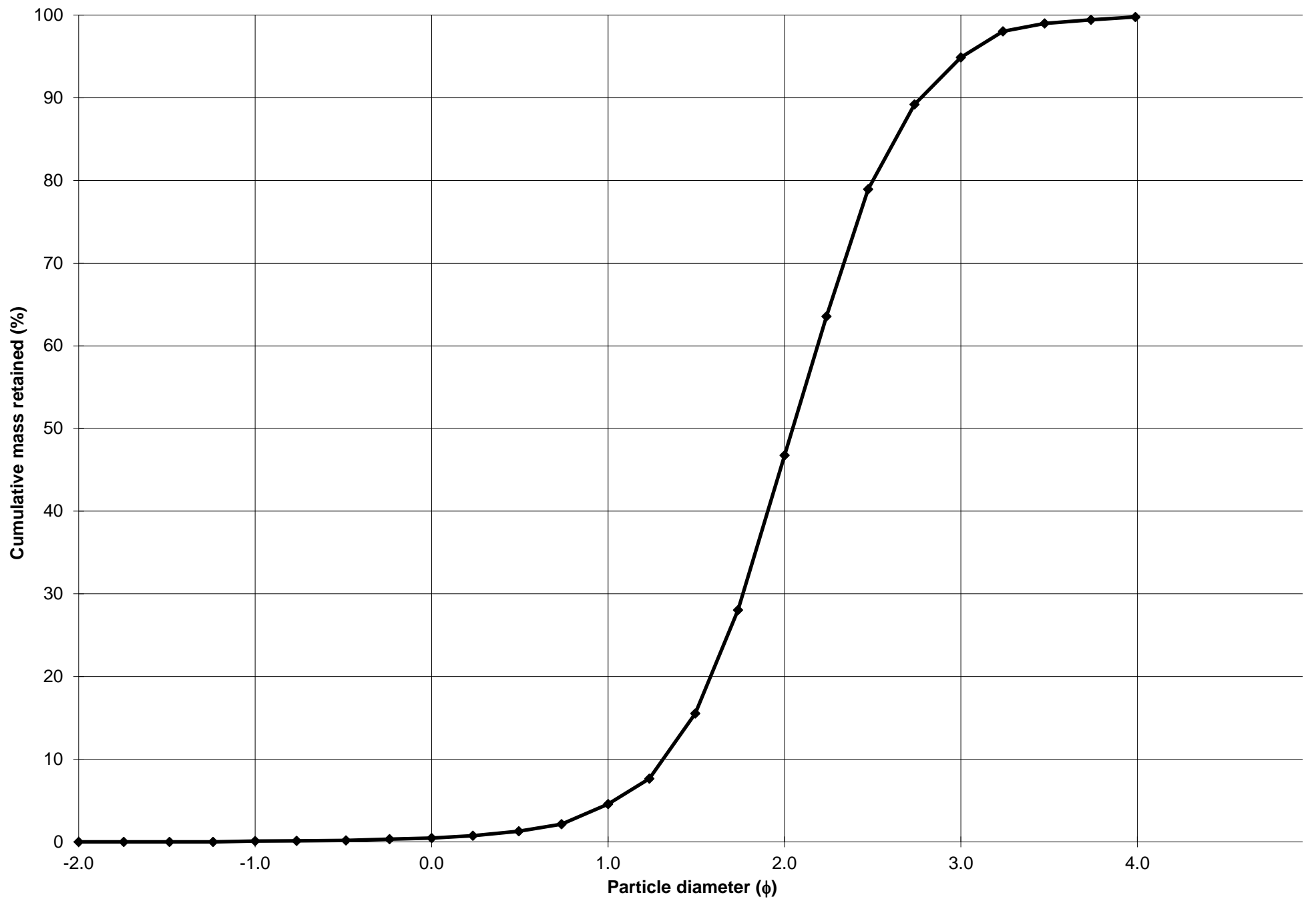
Cumulative Frequency Curve



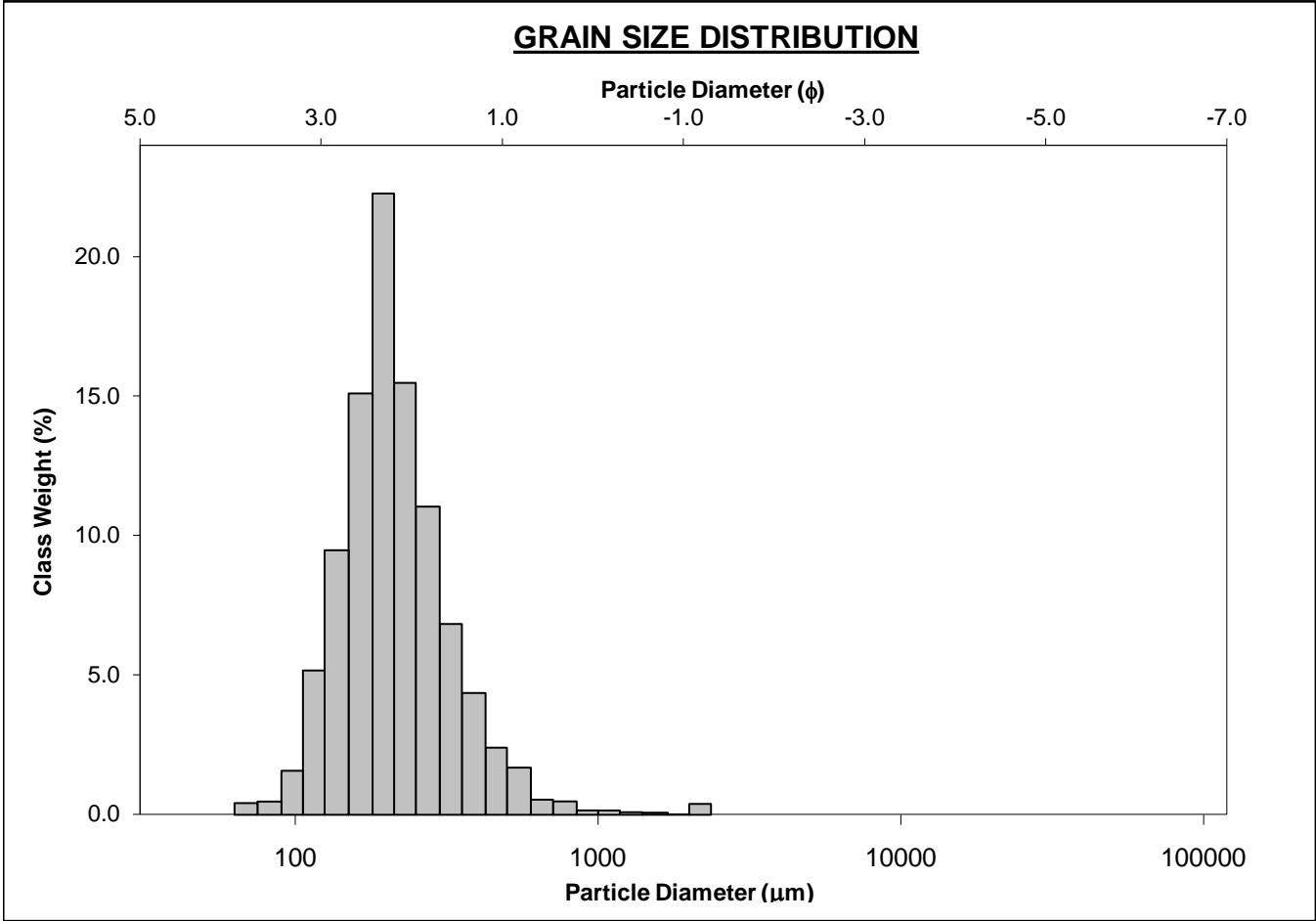
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-160cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.1%		COARSE SAND: 4.1%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 42.2%	
MODE 3:			MUD: 0.2%		FINE SAND: 48.1%	
D ₁₀ :	146.2	1.312			V FINE SAND: 4.9%	
MEDIAN or D ₅₀ :	242.1	2.046	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	402.7	2.774	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.754	2.114	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	256.5	1.462	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.665	1.438	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	124.8	0.735	V COARSE SAND: 0.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	269.0	242.5	2.044	241.3	2.051	Fine Sand
SORTING (σ):	143.8	1.563	0.645	1.489	0.575	Moderately Well Sorted
SKEWNESS (Sk):	4.540	-0.634	0.634	0.006	-0.006	Symmetrical
KURTOSIS (K):	44.80	11.22	11.22	1.102	1.102	Mesokurtic



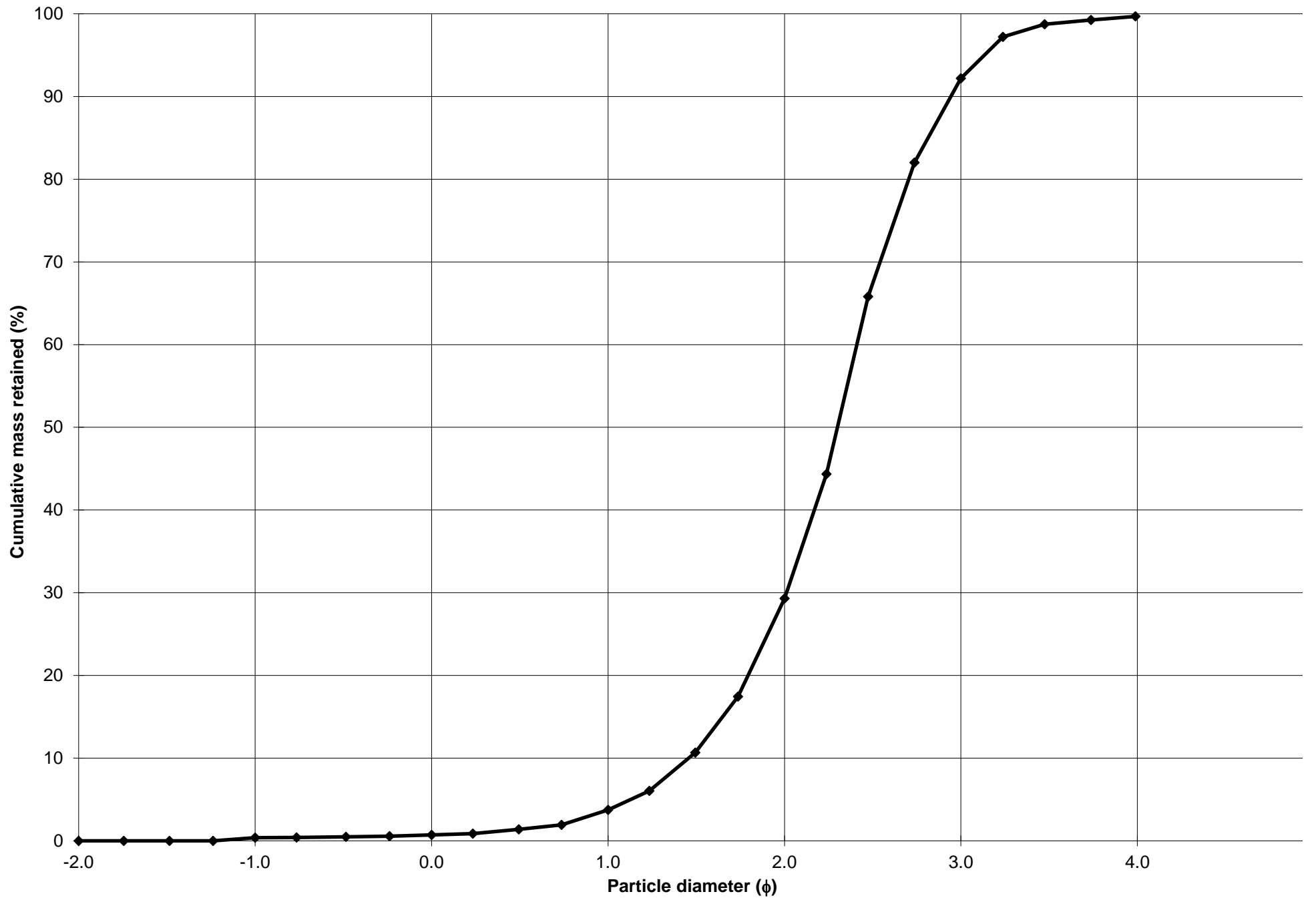
Cumulative Frequency Curve



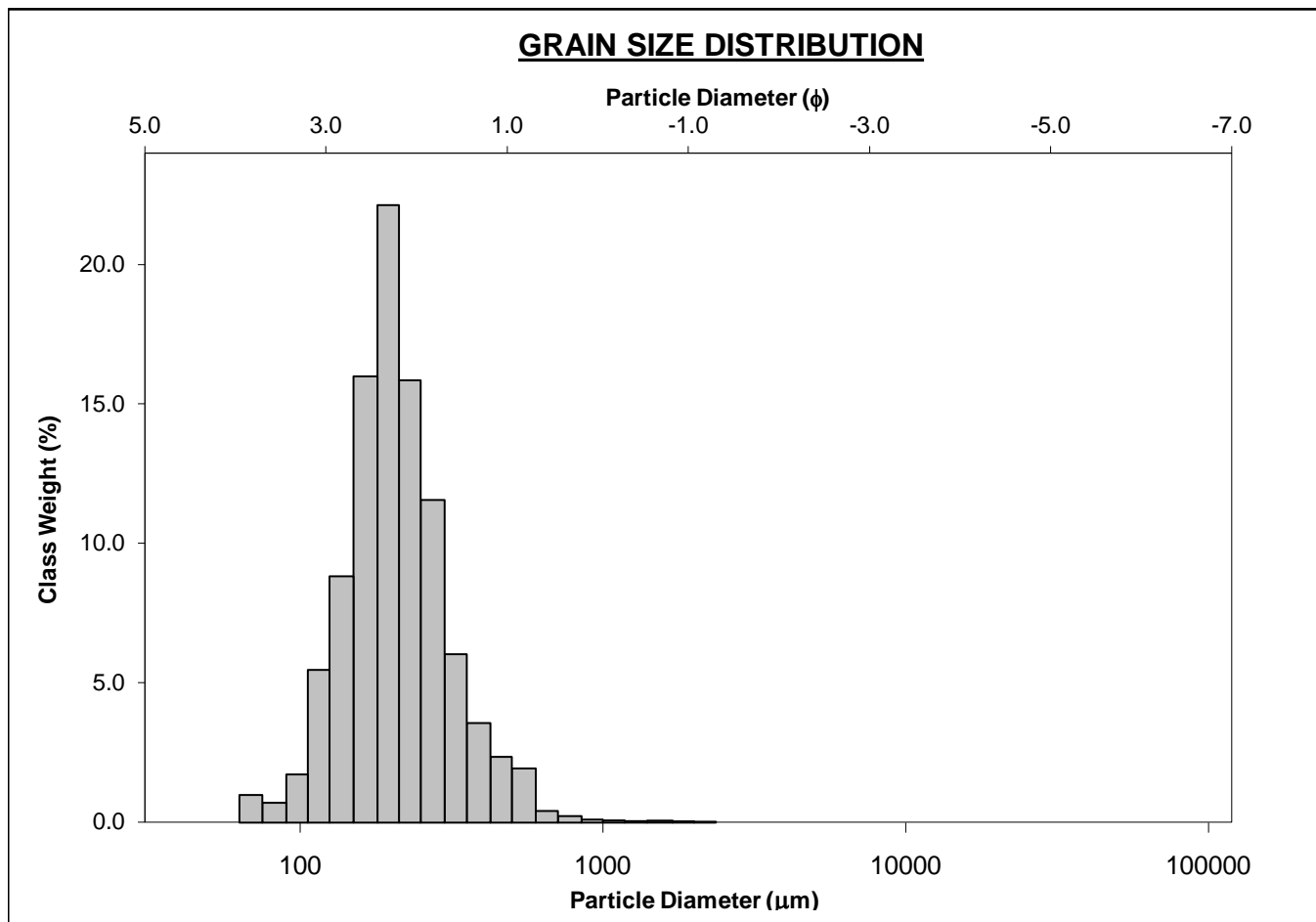
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-170cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.4%		COARSE SAND: 3.0%	
MODE 2:			SAND: 99.3%		MEDIUM SAND: 25.6%	
MODE 3:			MUD: 0.3%		FINE SAND: 62.9%	
D ₁₀ :	130.0	1.457			V FINE SAND: 7.5%	
MEDIAN or D ₅₀ :	203.0	2.300	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	364.4	2.943	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.803	2.021	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	234.3	1.487	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.646	1.377	V FINE GRAVEL: 0.4%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	104.8	0.719	V COARSE SAND: 0.3%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	240.8	211.8	2.239	209.1	2.258	Fine Sand
SORTING (σ):	172.8	1.604	0.682	1.494	0.580	Moderately Well Sorted
SKEWNESS (Sk):	6.682	-0.184	0.184	0.142	-0.142	Coarse Skewed
KURTOSIS (K):	67.68	12.43	12.43	1.143	1.143	Leptokurtic



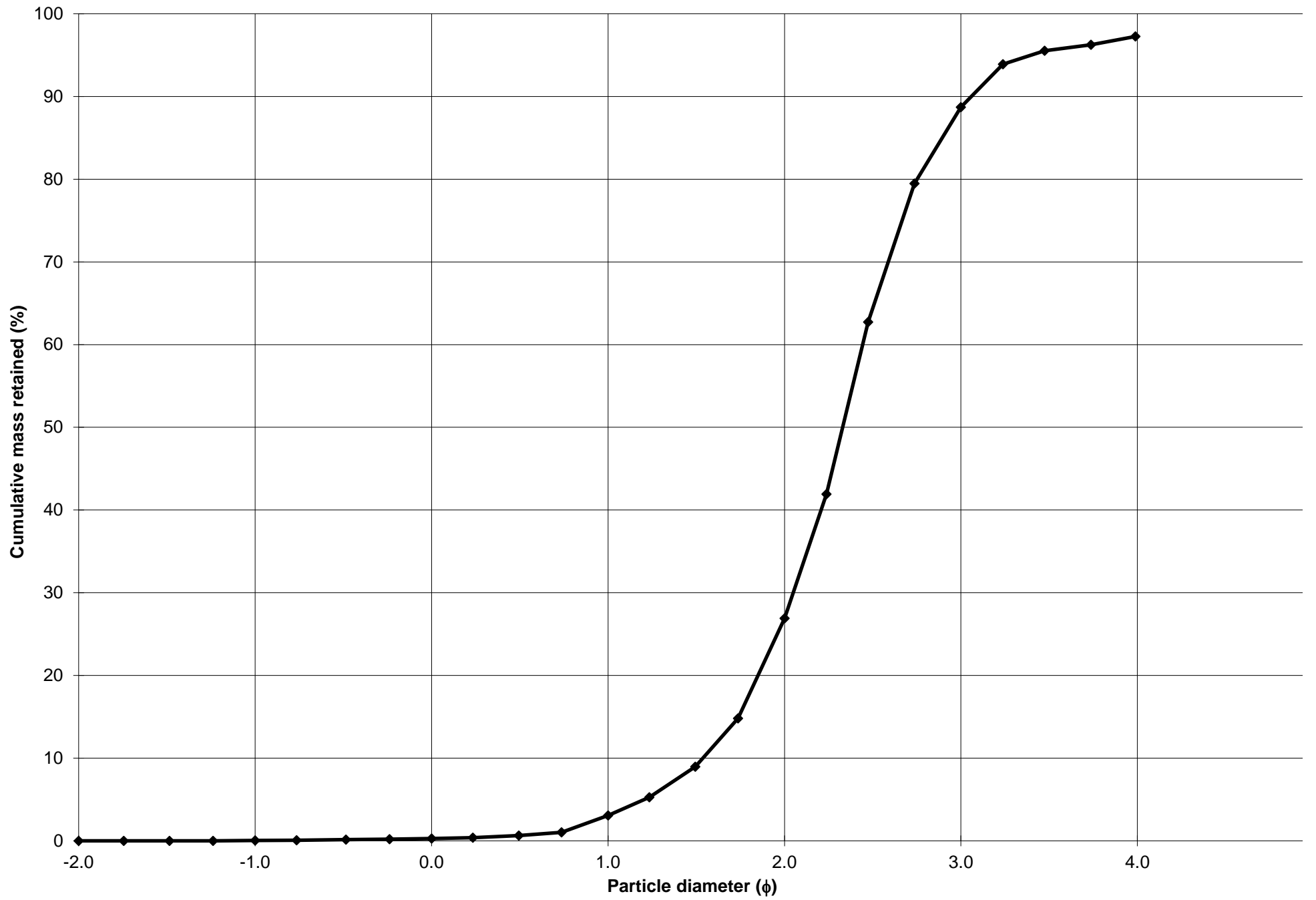
Cumulative Frequency Curve



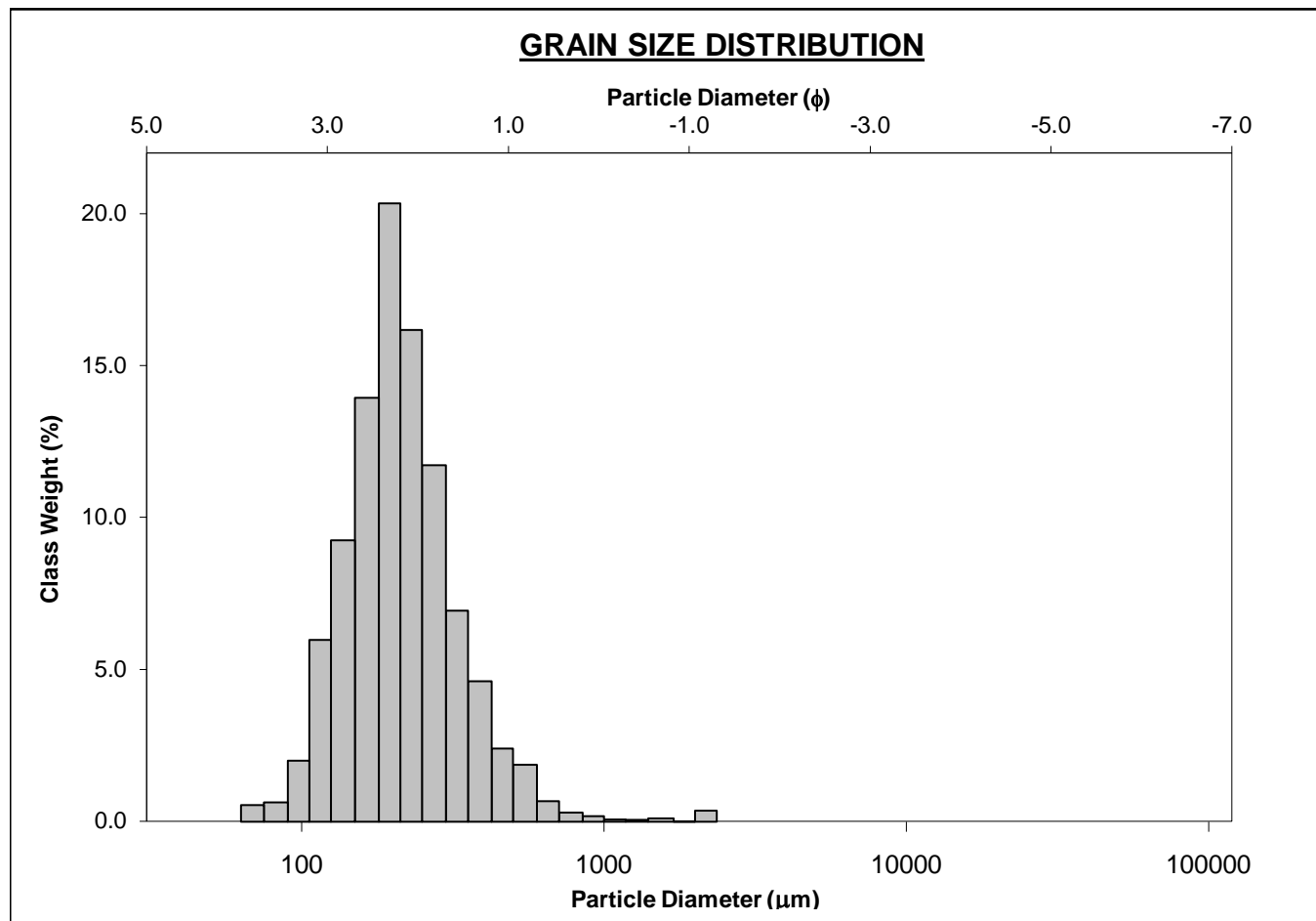
SIEVING ERROR: 1.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-181cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 2.8%	
MODE 2:			SAND: 97.2%		MEDIUM SAND: 23.8%	
MODE 3:			MUD: 2.7%		FINE SAND: 61.8%	
D ₁₀ :	120.0	1.537			V FINE SAND: 8.5%	
MEDIAN or D ₅₀ :	198.9	2.330	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.5%	
D ₉₀ :	344.5	3.059	COARSE GRAVEL: 0.0%		COARSE SILT: 0.5%	
(D ₉₀ / D ₁₀):	2.871	1.990	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.5%	
(D ₉₀ - D ₁₀):	224.5	1.522	FINE GRAVEL: 0.0%		FINE SILT: 0.5%	
(D ₇₅ / D ₂₅):	1.634	1.362	V FINE GRAVEL: 0.0%		V FINE SILT: 0.5%	
(D ₇₅ - D ₂₅):	99.81	0.708	V COARSE SAND: 0.3%		CLAY: 0.5%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	223.5	189.7	2.398	200.3	2.320	Fine Sand
SORTING (σ):	126.8	1.958	0.969	1.524	0.608	Moderately Well Sorted
SKEWNESS (Sk):	4.531	-2.651	2.651	0.026	-0.026	Symmetrical
KURTOSIS (K):	48.08	14.64	14.64	1.269	1.269	Leptokurtic



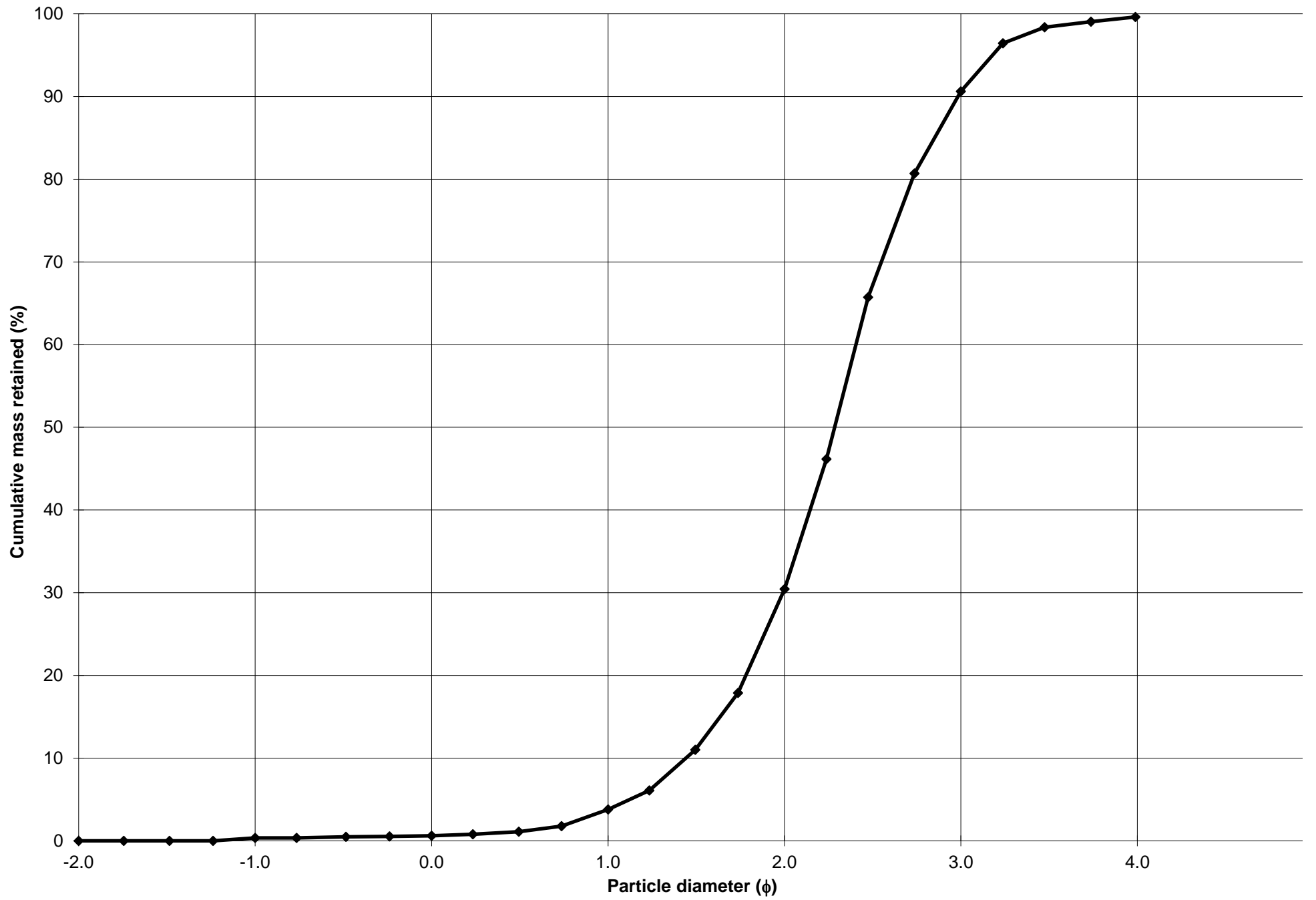
Cumulative Frequency Curve



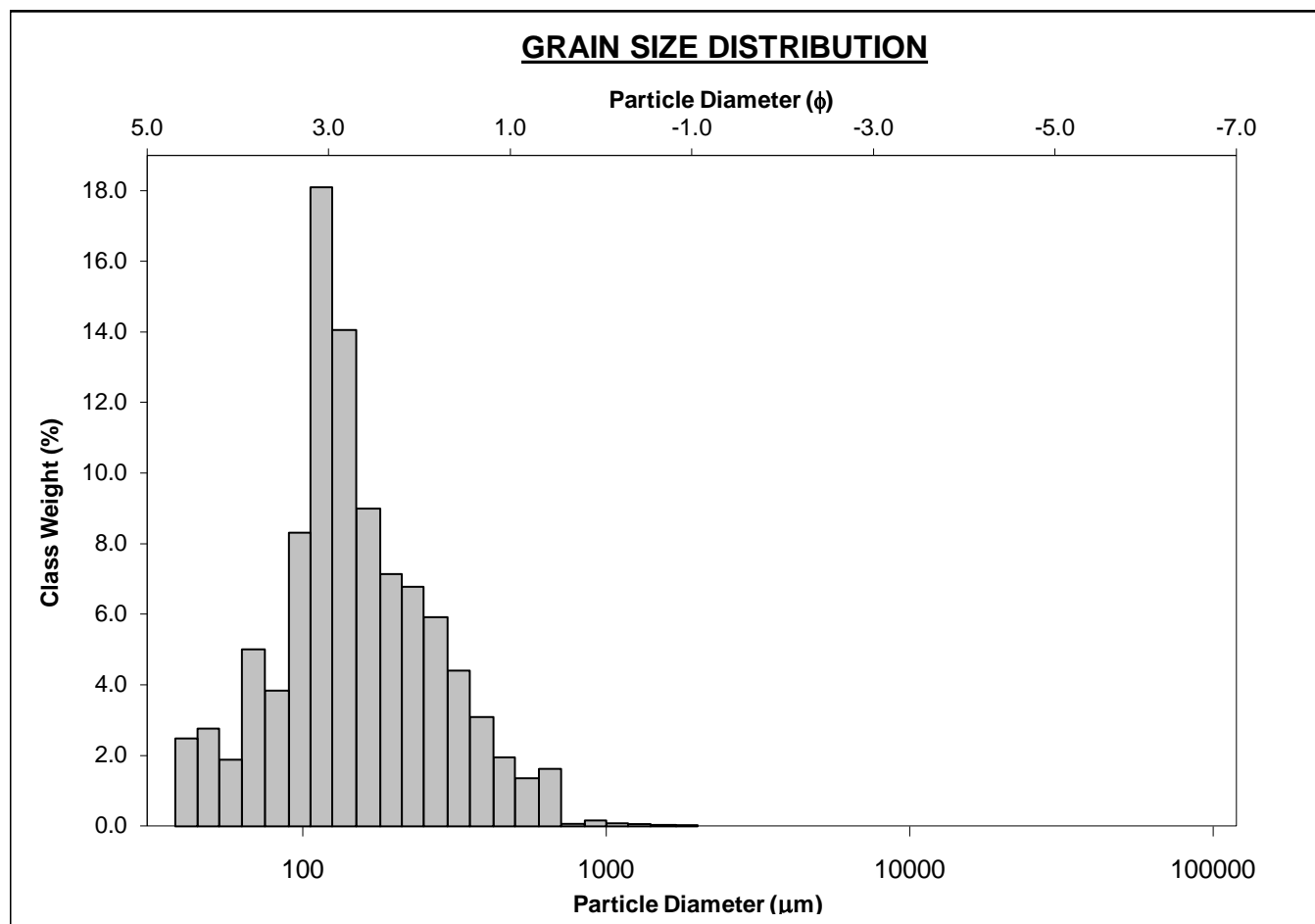
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-192cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.4%		COARSE SAND: 3.2%	
MODE 2:			SAND: 99.3%		MEDIUM SAND: 26.7%	
MODE 3:			MUD: 0.4%		FINE SAND: 60.2%	
D ₁₀ :	126.5	1.441			V FINE SAND: 9.0%	
MEDIAN or D ₅₀ :	205.3	2.284	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	368.2	2.983	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.912	2.070	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	241.8	1.542	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.683	1.398	V FINE GRAVEL: 0.4%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	109.8	0.751	V COARSE SAND: 0.3%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	240.5	211.0	2.245	208.8	2.260	Fine Sand
SORTING (σ):	169.4	1.627	0.702	1.516	0.600	Moderately Well Sorted
SKEWNESS (Sk):	6.637	-0.449	0.449	0.097	-0.097	Symmetrical
KURTOSIS (K):	68.74	12.29	12.29	1.123	1.123	Leptokurtic



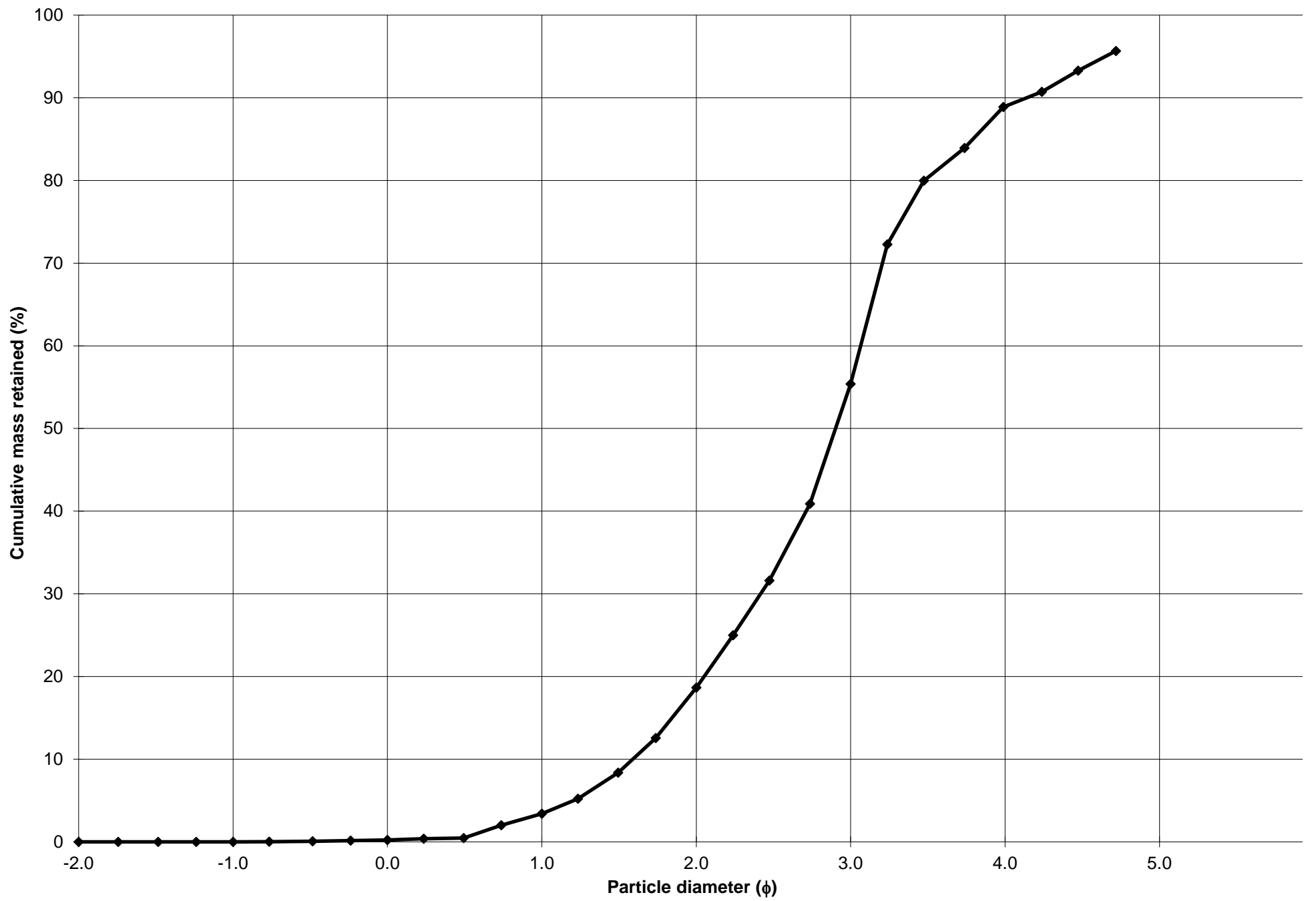
Cumulative Frequency Curve



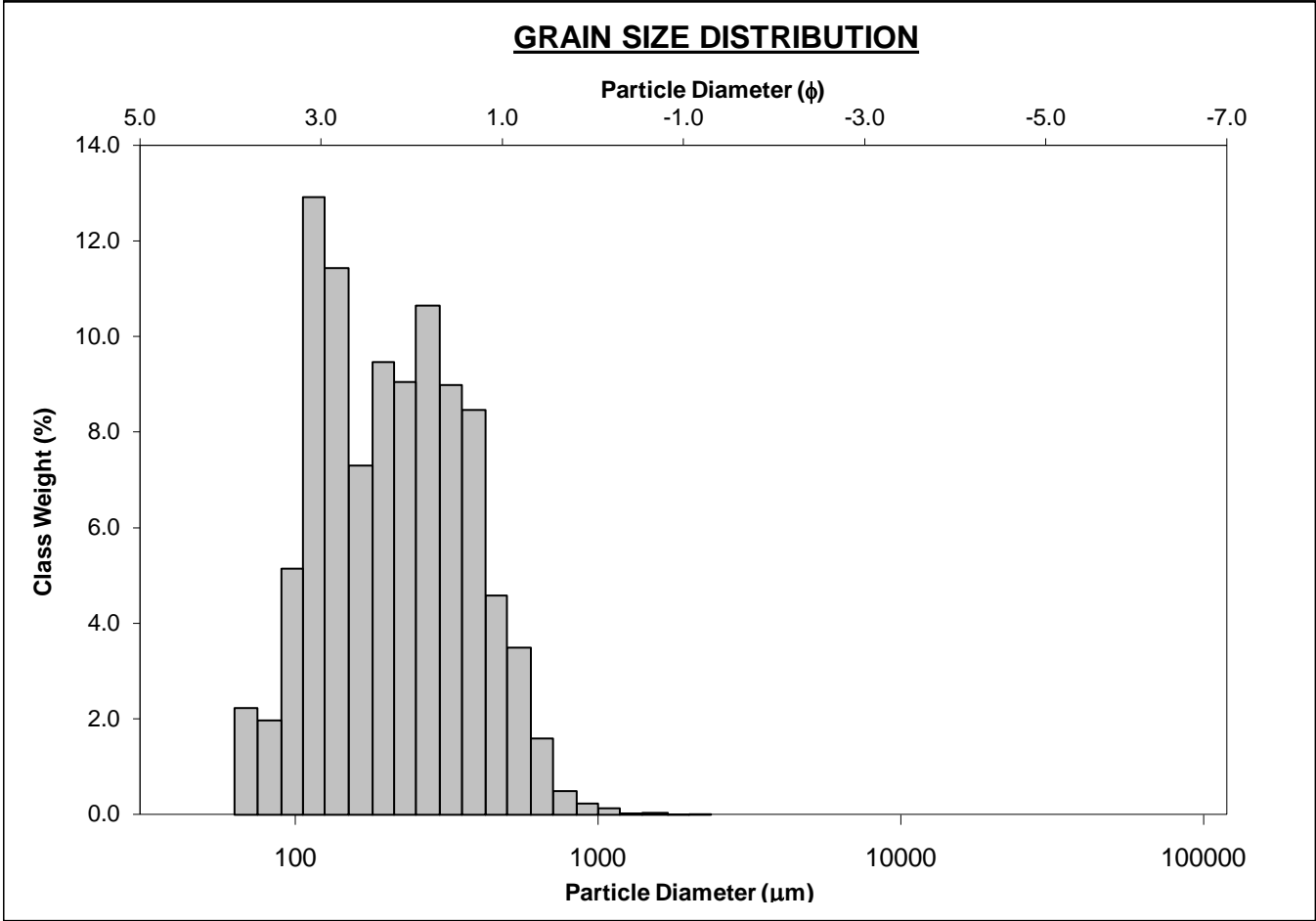
SIEVING ERROR: 3.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-206cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Muddy Sand			
SEDIMENT NAME: Very Coarse Silty Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	115.5	3.119	GRAVEL: 0.0%		COARSE SAND: 3.2%	
MODE 2:	69.00	3.863	SAND: 89.0%		MEDIUM SAND: 15.3%	
MODE 3:	49.00	4.356	MUD: 11.0%		FINE SAND: 36.7%	
D_{10} :	56.69	1.589			V FINE SAND: 33.6%	
MEDIAN or D_{50} :	133.8	2.902	V COARSE GRAVEL: 0.0%		V COARSE SILT: 6.9%	
D_{90} :	332.4	4.141	COARSE GRAVEL: 0.0%		COARSE SILT: 0.8%	
(D_{90} / D_{10}) :	5.863	2.606	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.8%	
$(D_{90} - D_{10})$:	275.7	2.552	FINE GRAVEL: 0.0%		FINE SILT: 0.8%	
(D_{75} / D_{25}) :	2.119	1.484	V FINE GRAVEL: 0.0%		V FINE SILT: 0.8%	
$(D_{75} - D_{25})$:	112.0	1.084	V COARSE SAND: 0.2%		CLAY: 0.8%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	174.8	129.5	2.949	139.4	2.843	Fine Sand
SORTING (σ):	137.7	2.411	1.269	1.980	0.985	Moderately Sorted
SKEWNESS (Sk):	3.046	-1.495	1.495	0.040	-0.040	Symmetrical
KURTOSIS (K):	21.27	7.146	7.146	1.302	1.302	Leptokurtic



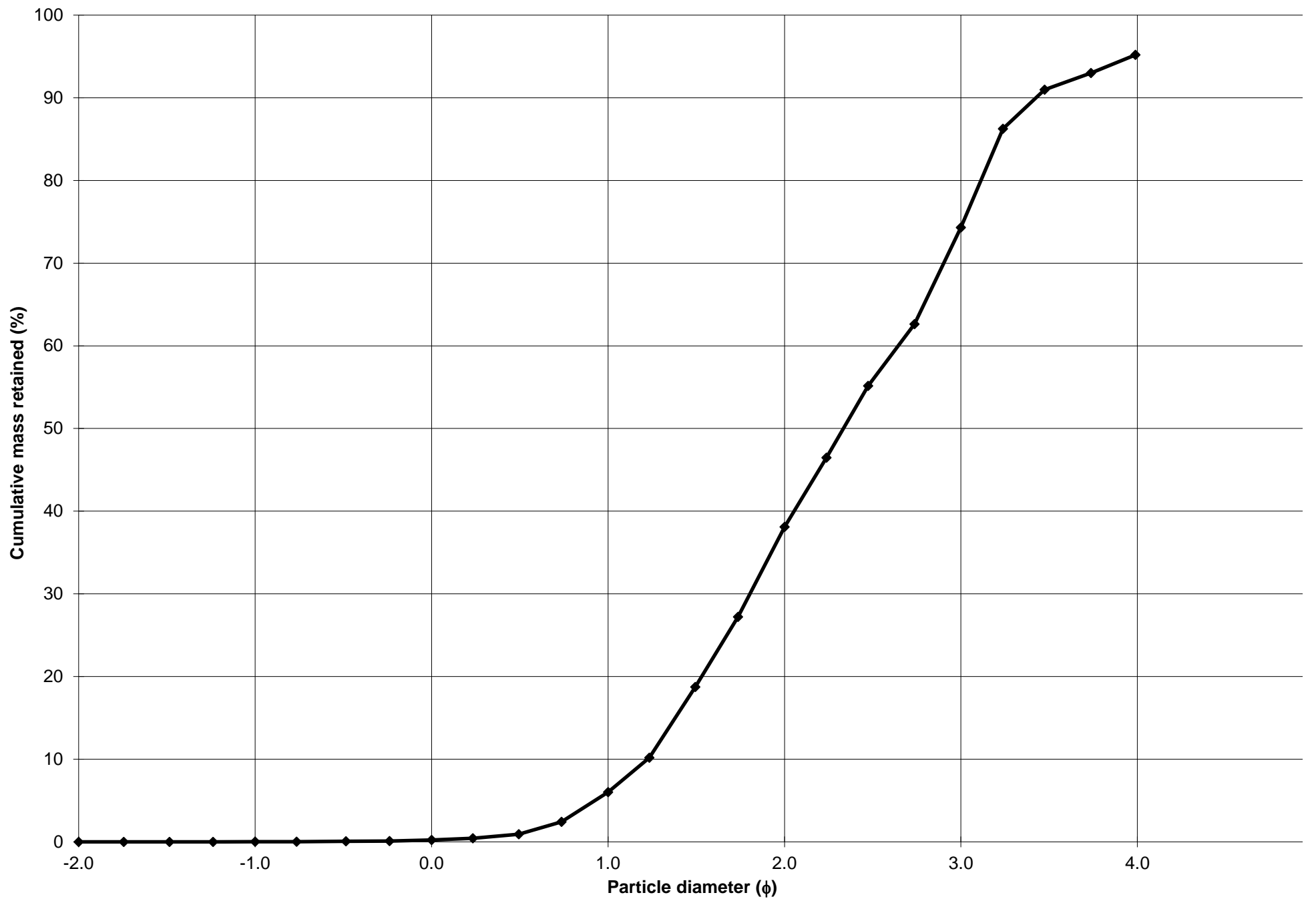
Cumulative Frequency Curve



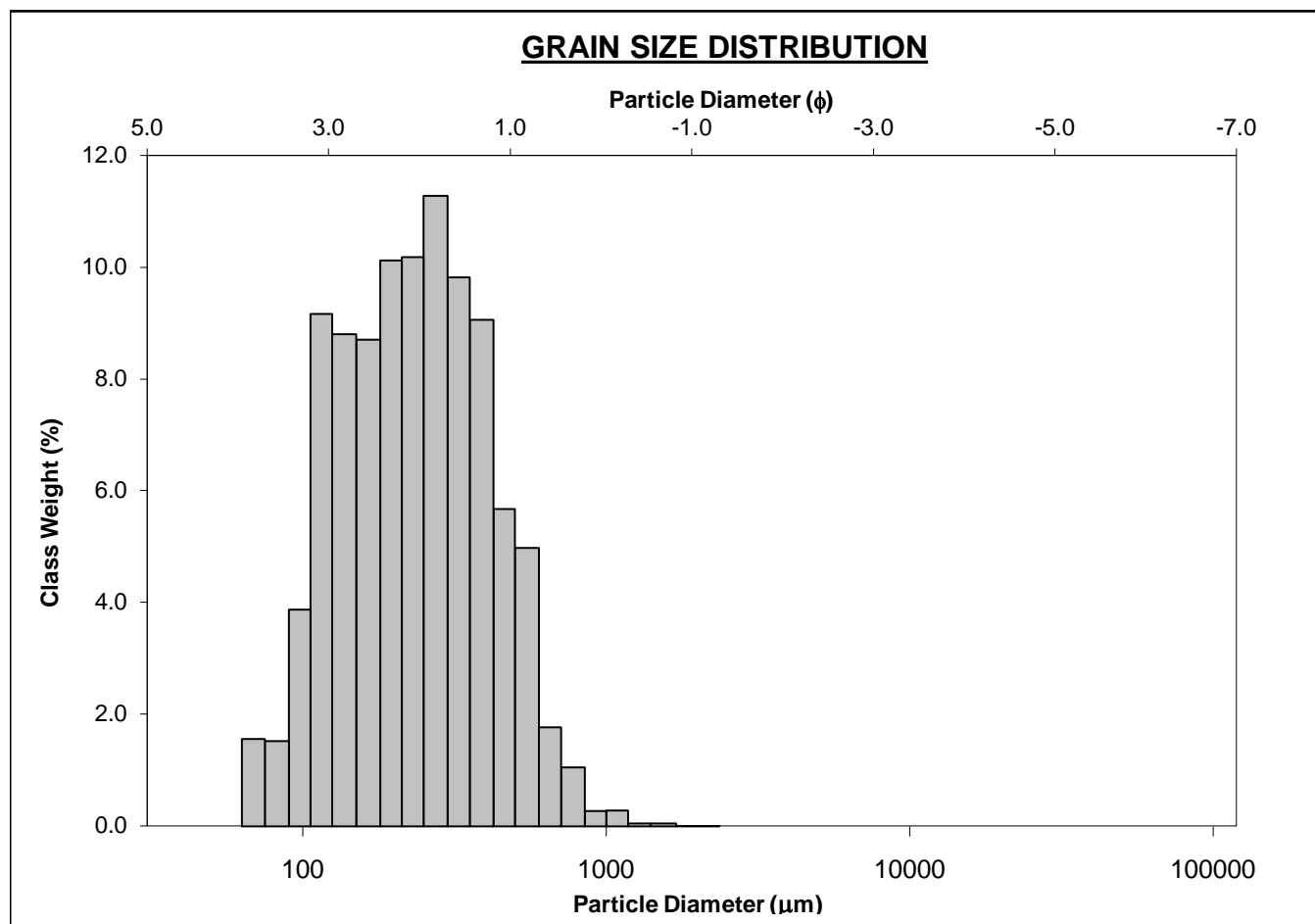
SIEVING ERROR: 1.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-221cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Polymodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	115.5	3.119	GRAVEL: 0.0%		COARSE SAND: 5.8%	
MODE 2:	275.0	1.868	SAND: 95.2%		MEDIUM SAND: 32.1%	
MODE 3:	196.0	2.356	MUD: 4.8%		FINE SAND: 36.2%	
D ₁₀ :	93.12	1.224			V FINE SAND: 20.9%	
MEDIAN or D ₅₀ :	198.4	2.334	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.8%	
D ₉₀ :	428.1	3.425	COARSE GRAVEL: 0.0%		COARSE SILT: 0.8%	
(D ₉₀ / D ₁₀):	4.598	2.798	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.8%	
(D ₉₀ - D ₁₀):	335.0	2.201	FINE GRAVEL: 0.0%		FINE SILT: 0.8%	
(D ₇₅ / D ₂₅):	2.532	1.801	V FINE GRAVEL: 0.0%		V FINE SILT: 0.8%	
(D ₇₅ - D ₂₅):	189.7	1.340	V COARSE SAND: 0.2%		CLAY: 0.8%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	236.4	179.0	2.482	201.3	2.313	Fine Sand
SORTING (σ):	153.7	2.436	1.284	1.874	0.906	Moderately Sorted
SKEWNESS (Sk):	1.829	-1.839	1.839	-0.019	0.019	Symmetrical
KURTOSIS (K):	11.32	7.792	7.792	0.930	0.930	Mesokurtic



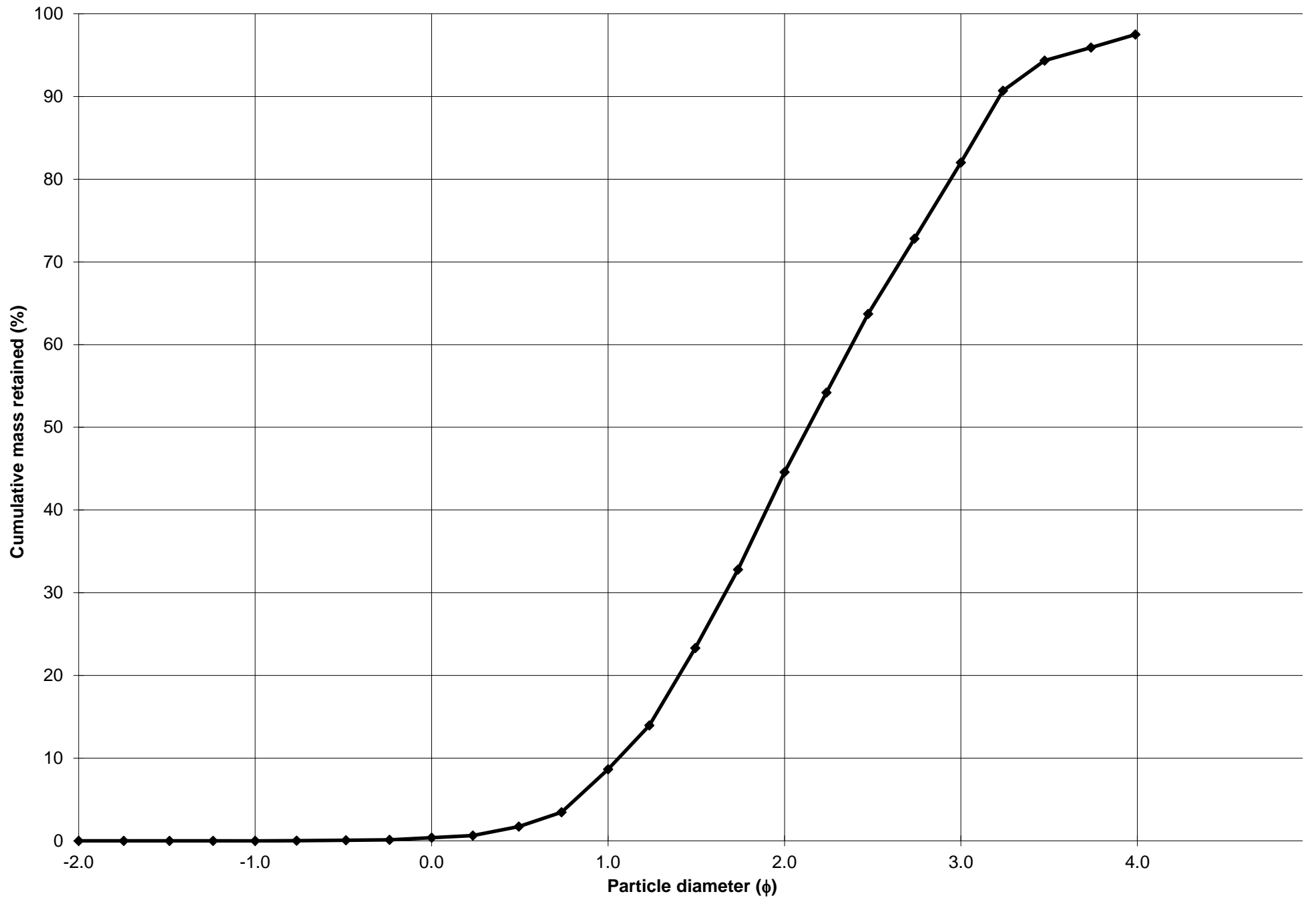
Cumulative Frequency Curve



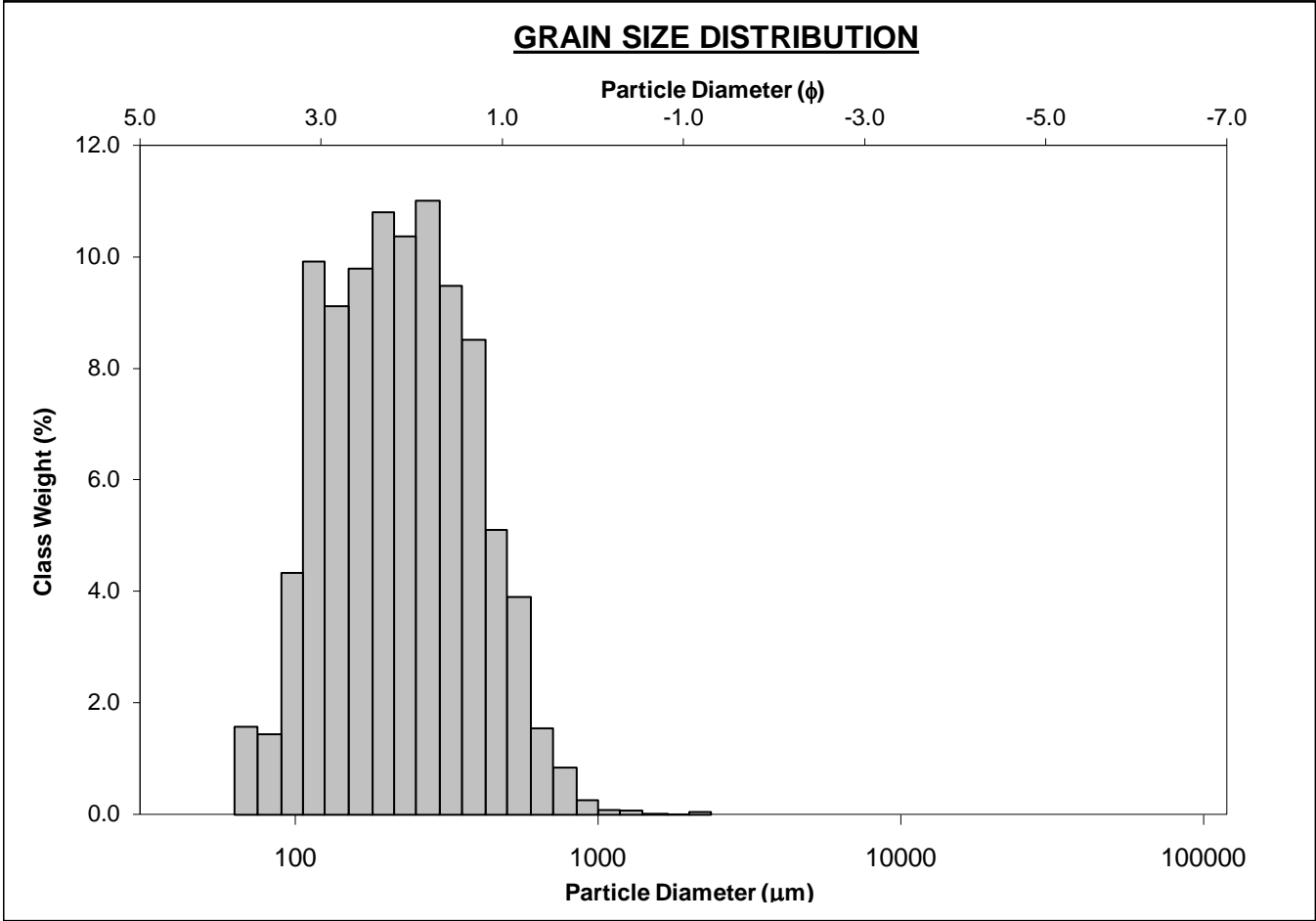
SIEVING ERROR: 19.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-232cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	φ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 8.3%	
MODE 2:	115.5	3.119	SAND: 97.5%		MEDIUM SAND: 35.9%	
MODE 3:			MUD: 2.5%		FINE SAND: 37.4%	
D ₁₀ :	107.4	1.060			V FINE SAND: 15.5%	
MEDIAN or D ₅₀ :	227.8	2.134	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.4%	
D ₉₀ :	479.8	3.219	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D ₉₀ / D ₁₀):	4.467	3.038	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
(D ₉₀ - D ₁₀):	372.4	2.159	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D ₇₅ / D ₂₅):	2.398	1.821	V FINE GRAVEL: 0.0%		V FINE SILT: 0.4%	
(D ₇₅ - D ₂₅):	200.8	1.262	V COARSE SAND: 0.4%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	φ	μm	φ	
MEAN (\bar{x}):	265.2	212.5	2.235	223.8	2.160	Fine Sand
SORTING (σ):	164.0	2.144	1.101	1.815	0.860	Moderately Sorted
SKEWNESS (Sk):	1.752	-1.822	1.822	-0.046	0.046	Symmetrical
KURTOSIS (K):	9.633	9.526	9.526	0.899	0.899	Platykurtic



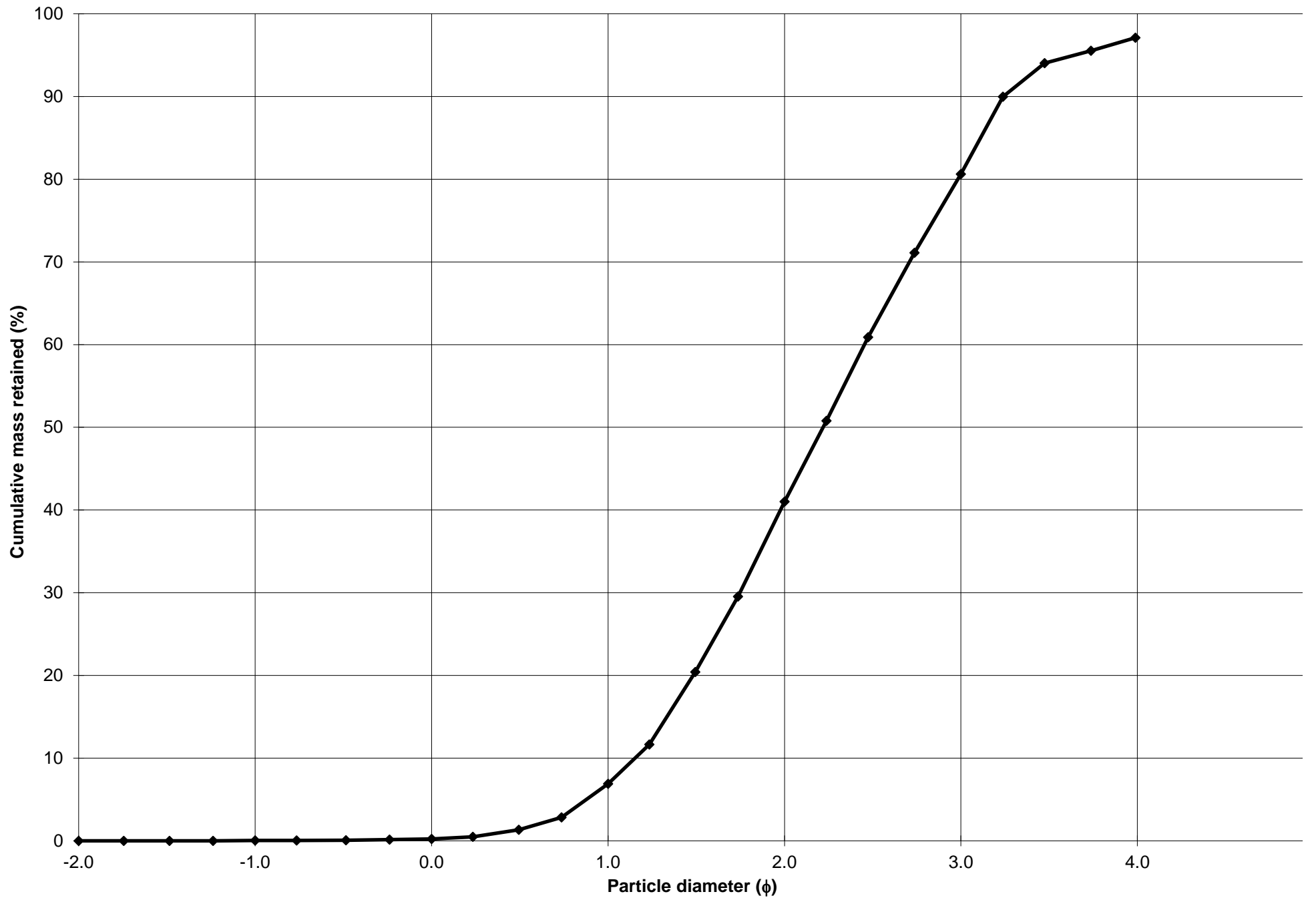
Cumulative Frequency Curve



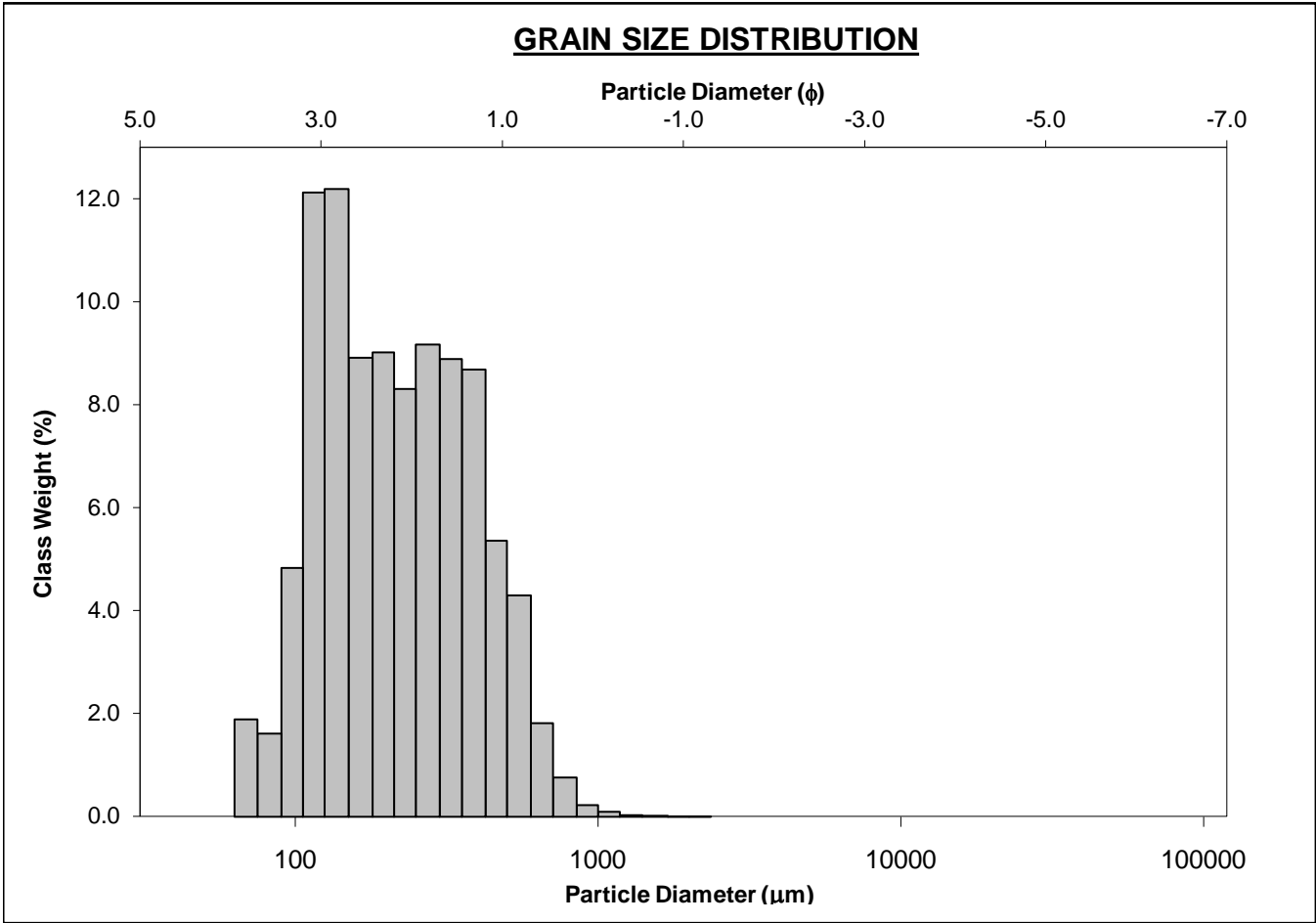
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-232cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 6.7%	
MODE 2:	196.0	2.356	SAND: 97.1%		MEDIUM SAND: 34.1%	
MODE 3:	115.5	3.119	MUD: 2.9%		FINE SAND: 39.6%	
D ₁₀ :	105.9	1.153			V FINE SAND: 16.5%	
MEDIAN or D ₅₀ :	214.9	2.218	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.5%	
D ₉₀ :	449.7	3.240	COARSE GRAVEL: 0.0%		COARSE SILT: 0.5%	
(D ₉₀ / D ₁₀):	4.248	2.810	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.5%	
(D ₉₀ - D ₁₀):	343.9	2.087	FINE GRAVEL: 0.0%		FINE SILT: 0.5%	
(D ₇₅ / D ₂₅):	2.343	1.760	V FINE GRAVEL: 0.0%		V FINE SILT: 0.5%	
(D ₇₅ - D ₂₅):	187.0	1.228	V COARSE SAND: 0.2%		CLAY: 0.5%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	252.4	201.6	2.311	214.3	2.223	Fine Sand
SORTING (σ):	158.1	2.170	1.118	1.803	0.850	Moderately Sorted
SKEWNESS (Sk):	2.296	-1.897	1.897	-0.019	0.019	Symmetrical
KURTOSIS (K):	17.57	9.611	9.611	0.923	0.923	Mesokurtic



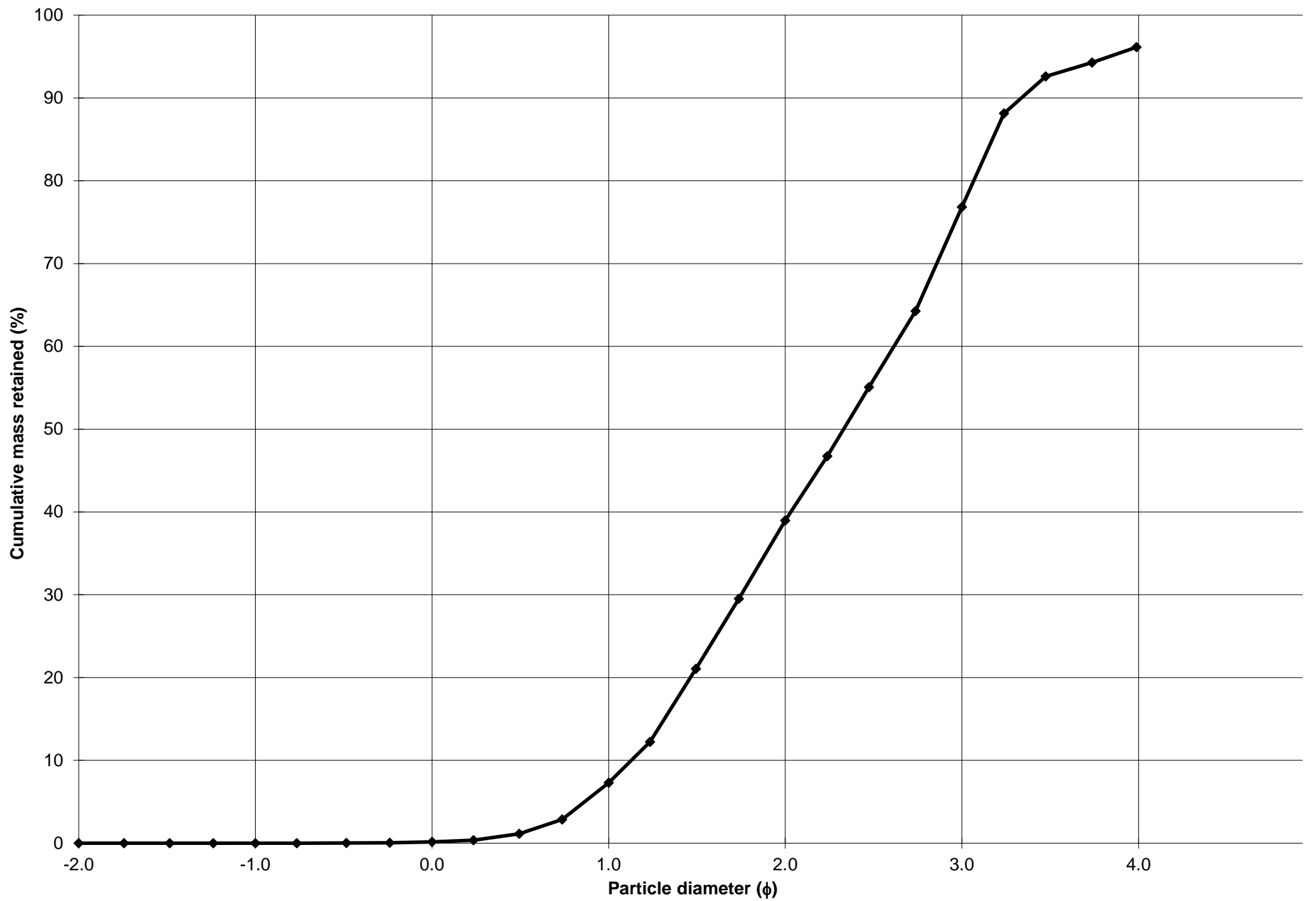
Cumulative Frequency Curve



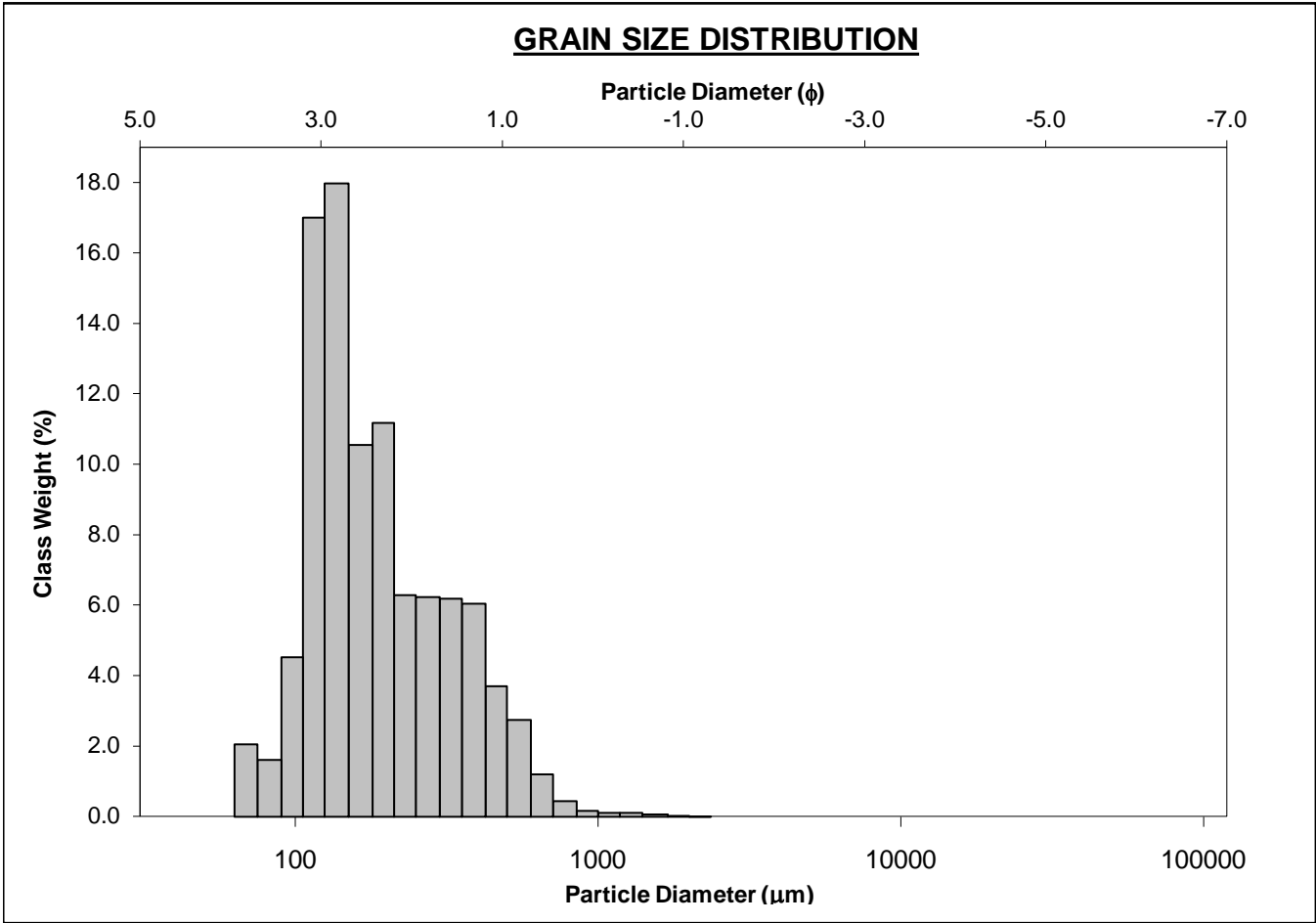
SIEVING ERROR: 1.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-250cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Polymodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 7.1%	
MODE 2:	275.0	1.868	SAND: 96.1%		MEDIUM SAND: 31.7%	
MODE 3:	196.0	2.356	MUD: 3.9%		FINE SAND: 37.8%	
D_{10} :	98.99	1.129			V FINE SAND: 19.3%	
MEDIAN or D_{50} :	198.8	2.330	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.6%	
D_{90} :	457.4	3.337	COARSE GRAVEL: 0.0%		COARSE SILT: 0.6%	
(D_{90} / D_{10}) :	4.621	2.957	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.6%	
$(D_{90} - D_{10})$:	358.4	2.208	FINE GRAVEL: 0.0%		FINE SILT: 0.6%	
(D_{75} / D_{25}) :	2.557	1.843	V FINE GRAVEL: 0.0%		V FINE SILT: 0.6%	
$(D_{75} - D_{25})$:	199.9	1.355	V COARSE SAND: 0.1%		CLAY: 0.6%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	244.6	188.6	2.407	206.5	2.276	Fine Sand
SORTING (σ):	156.8	2.328	1.219	1.868	0.902	Moderately Sorted
SKEWNESS (Sk):	1.524	-1.805	1.805	0.039	-0.039	Symmetrical
KURTOSIS (K):	7.696	8.298	8.298	0.899	0.899	Platykurtic



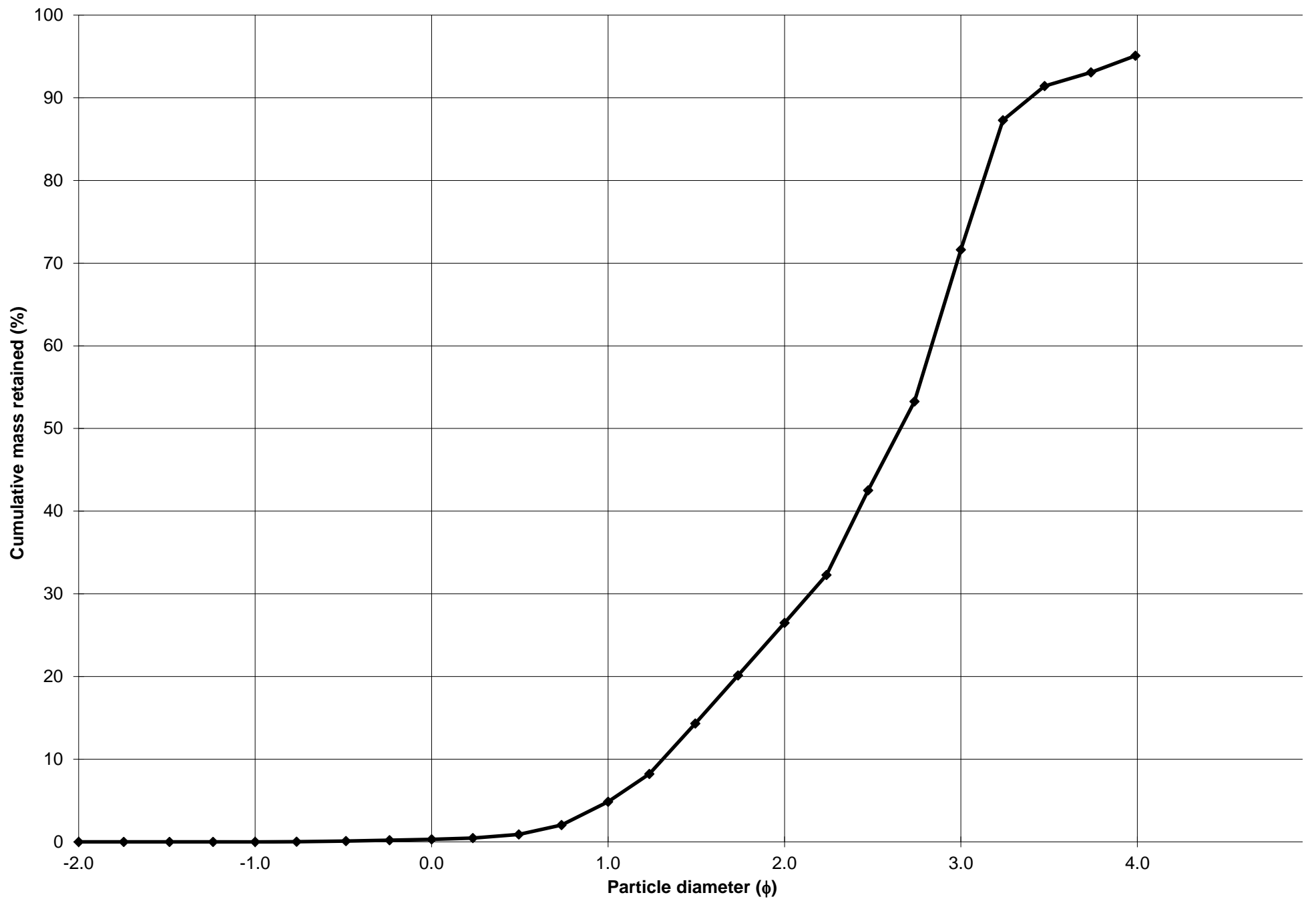
Cumulative Frequency Curve



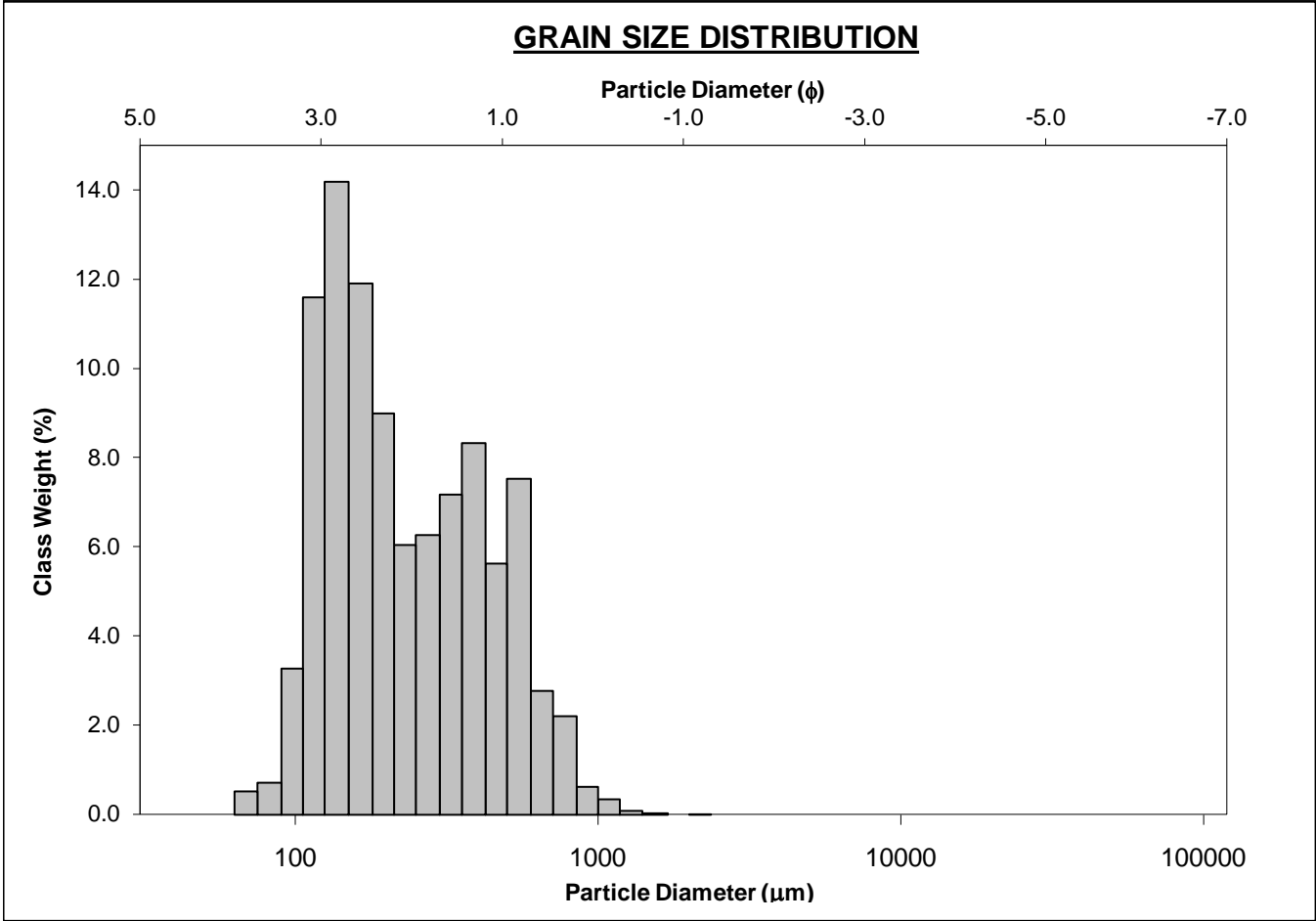
SIEVING ERROR: 1.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-257cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%	COARSE SAND: 4.5%		
MODE 2:	196.0	2.356	SAND: 95.1%	MEDIUM SAND: 21.6%		
MODE 3:			MUD: 4.9%	FINE SAND: 45.1%		
D_{10} :	95.23	1.311		V FINE SAND: 23.5%		
MEDIAN or D_{50} :	158.6	2.657	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.8%		
D_{90} :	403.1	3.392	COARSE GRAVEL: 0.0%	COARSE SILT: 0.8%		
(D_{90} / D_{10}) :	4.233	2.588	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.8%		
$(D_{90} - D_{10})$:	307.9	2.082	FINE GRAVEL: 0.0%	FINE SILT: 0.8%		
(D_{75} / D_{25}) :	2.163	1.574	V FINE GRAVEL: 0.0%	V FINE SILT: 0.8%		
$(D_{75} - D_{25})$:	140.3	1.113	V COARSE SAND: 0.3%	CLAY: 0.8%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	210.7	159.9	2.644	180.5	2.470	Fine Sand
SORTING (σ):	149.7	2.364	1.241	1.809	0.855	Moderately Sorted
SKEWNESS (Sk):	2.659	-1.758	1.758	0.227	-0.227	Coarse Skewed
KURTOSIS (K):	17.17	8.025	8.025	1.093	1.093	Mesokurtic



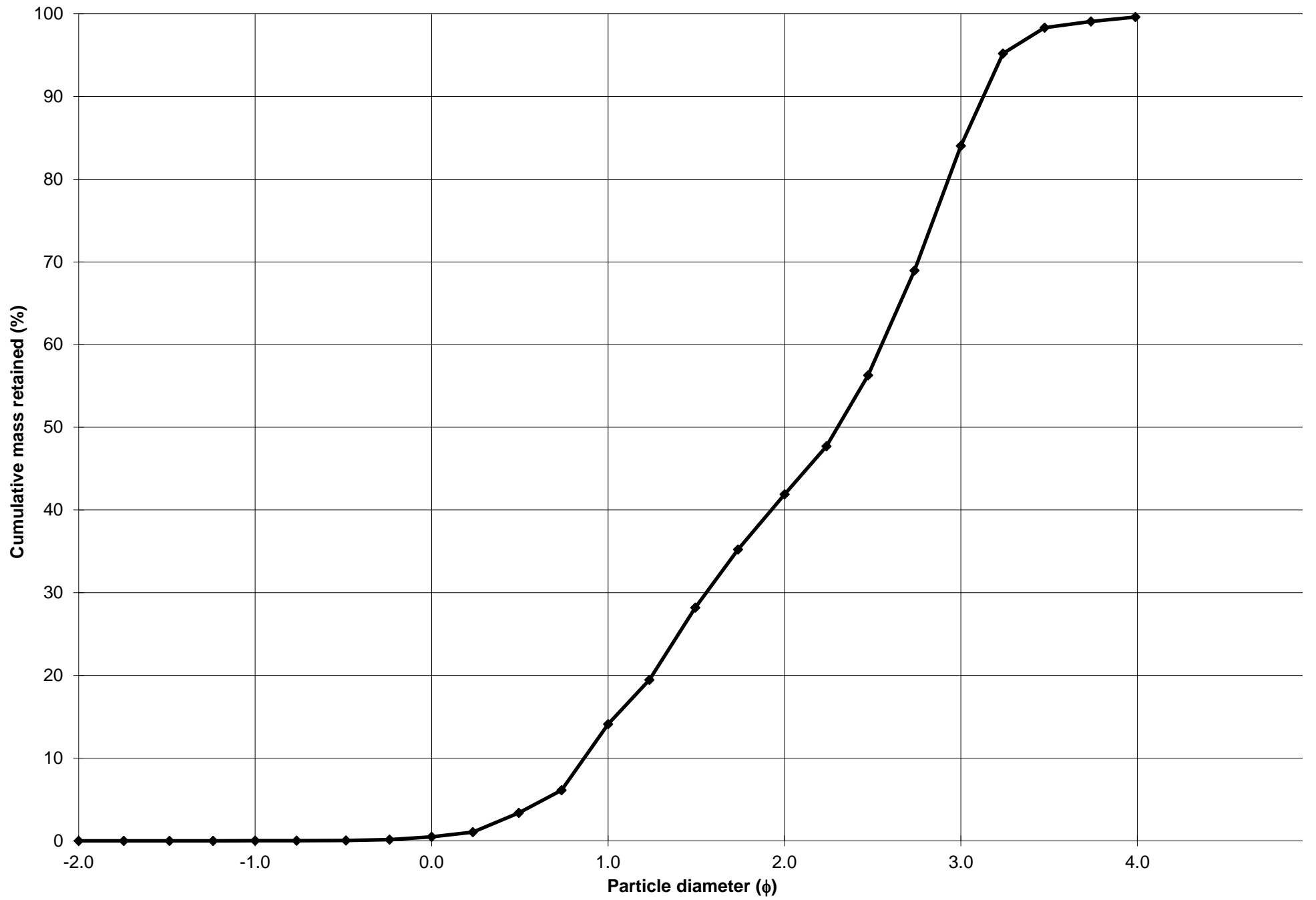
Cumulative Frequency Curve



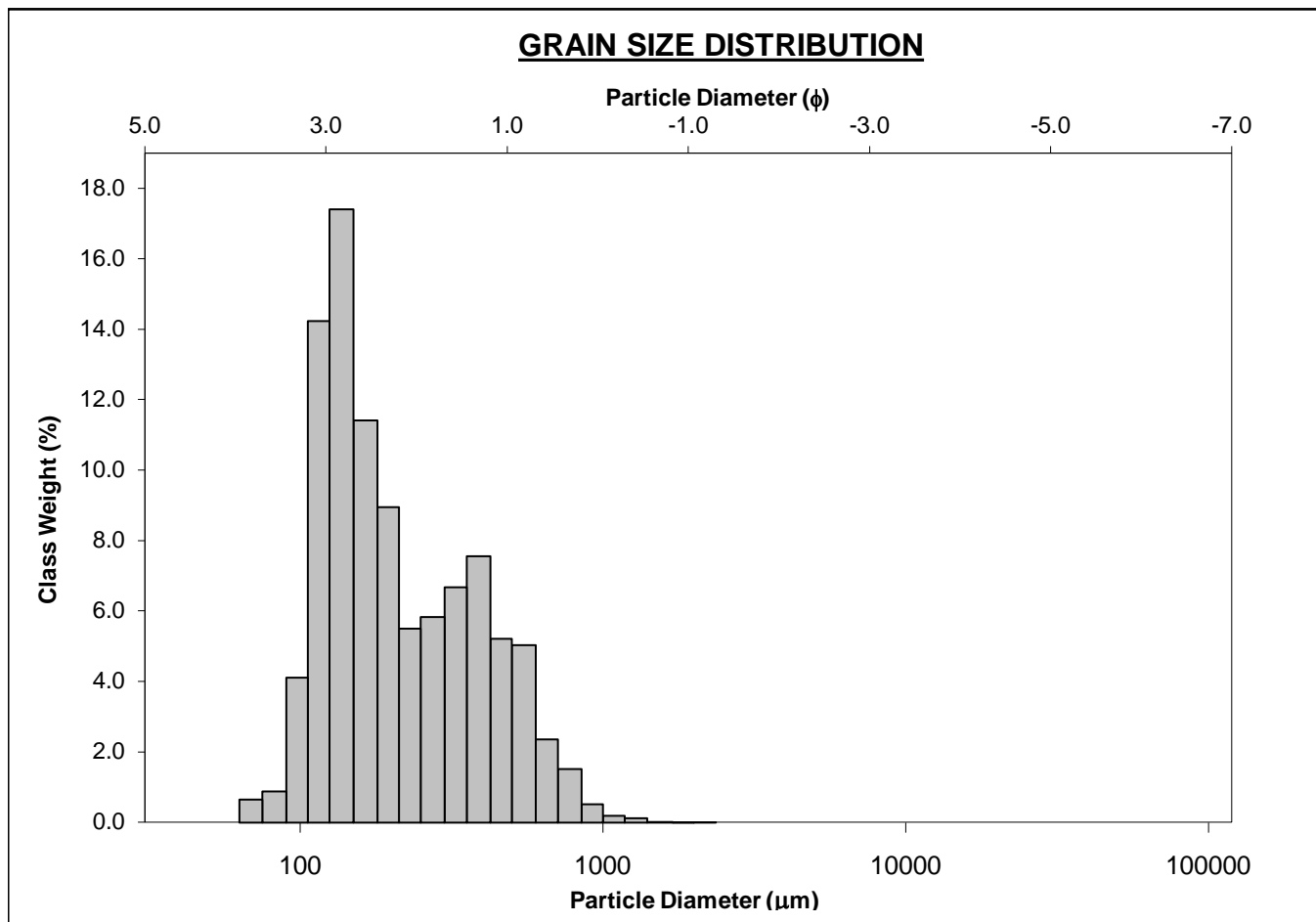
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-269cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 13.6%	
MODE 2:	390.0	1.364	SAND: 99.6%		MEDIUM SAND: 27.8%	
MODE 3:	550.0	0.868	MUD: 0.4%		FINE SAND: 42.1%	
D_{10} :	114.4	0.865			V FINE SAND: 15.6%	
MEDIAN or D_{50} :	202.9	2.301	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D_{90} :	549.1	3.127	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D_{90} / D_{10}) :	4.798	3.616	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
$(D_{90} - D_{10})$:	434.7	2.263	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D_{75} / D_{25}) :	2.719	2.031	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
$(D_{75} - D_{25})$:	239.7	1.443	V COARSE SAND: 0.5%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	280.2	228.8	2.128	228.8	2.128	Fine Sand
SORTING (σ):	188.0	1.887	0.916	1.831	0.872	Moderately Sorted
SKEWNESS (Sk):	1.598	-0.200	0.200	0.276	-0.276	Coarse Skewed
KURTOSIS (K):	6.831	4.888	4.888	0.737	0.737	Platykurtic



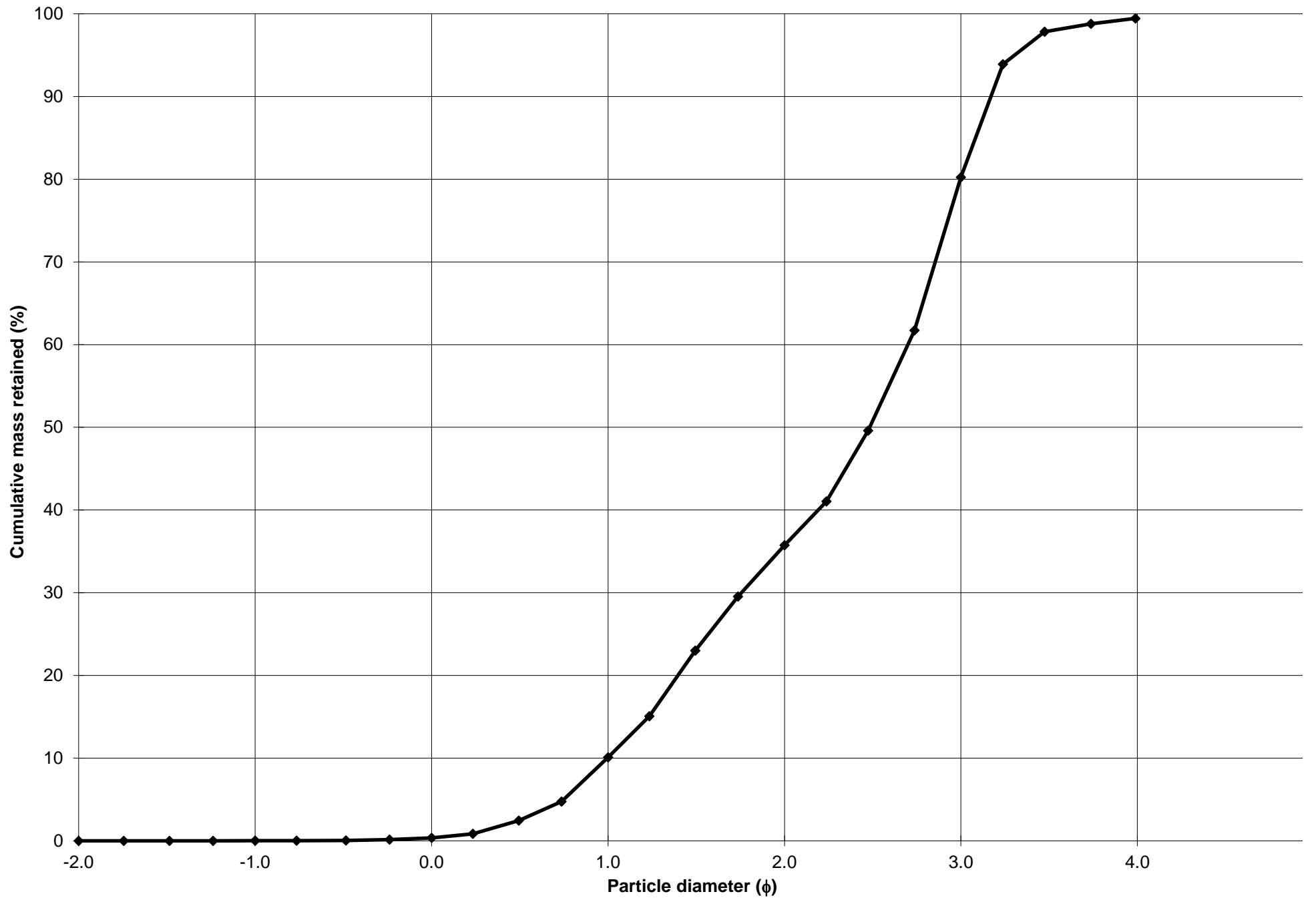
Cumulative Frequency Curve



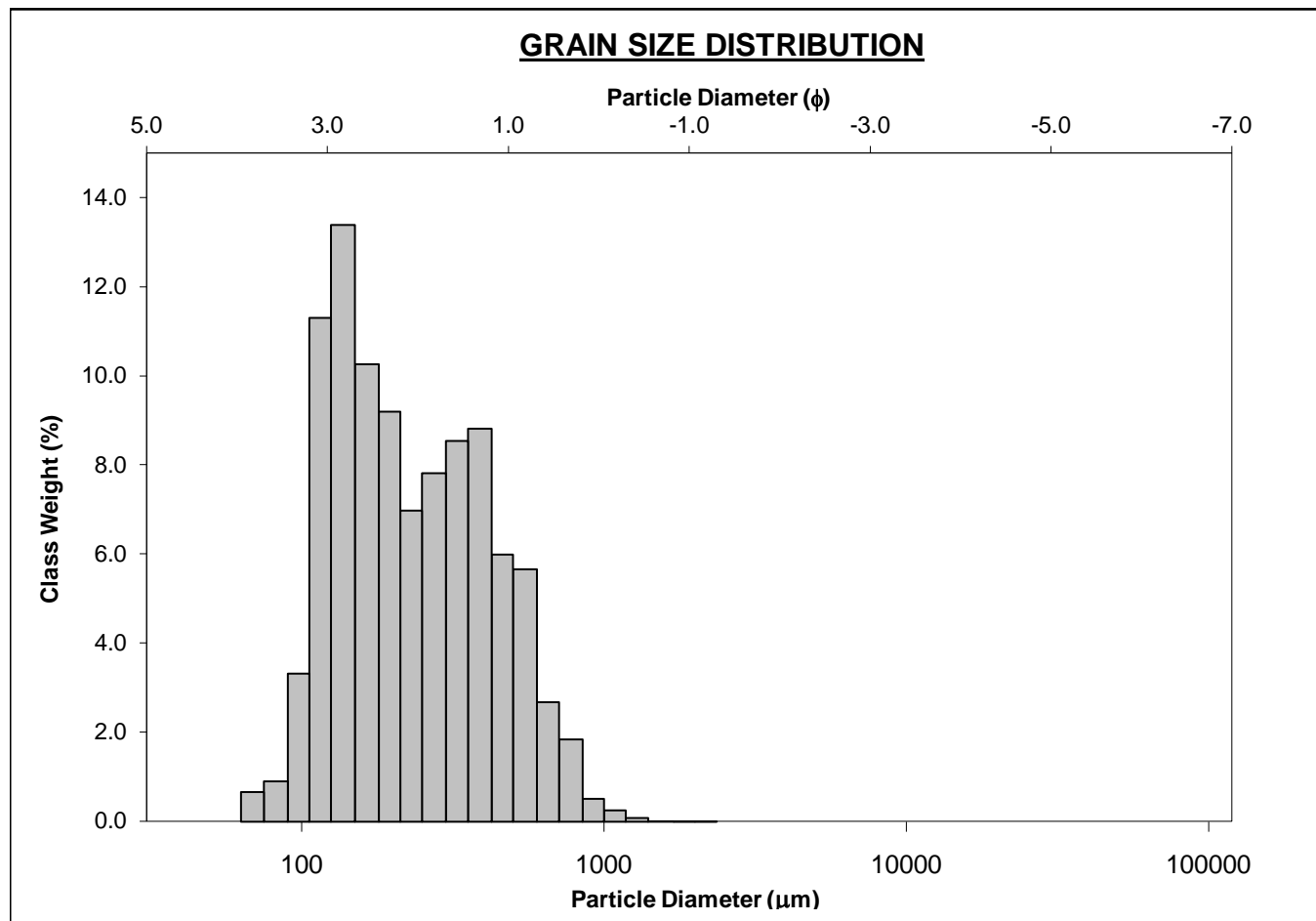
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-274cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 9.8%	
MODE 2:	390.0	1.364	SAND: 99.4%		MEDIUM SAND: 25.6%	
MODE 3:			MUD: 0.6%		FINE SAND: 44.5%	
D ₁₀ :	111.1	0.994			V FINE SAND: 19.2%	
MEDIAN or D ₅₀ :	178.9	2.483	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	501.9	3.170	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	4.517	3.188	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	390.8	2.175	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	2.562	1.865	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	205.6	1.357	V COARSE SAND: 0.3%		CLAY: 0.1%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	253.8	207.5	2.269	207.1	2.271	Fine Sand
SORTING (σ):	175.3	1.877	0.909	1.786	0.837	Moderately Sorted
SKEWNESS (Sk):	1.898	-0.251	0.251	0.355	-0.355	Very Coarse Skewed
KURTOSIS (K):	8.706	5.869	5.869	0.771	0.771	Platykurtic



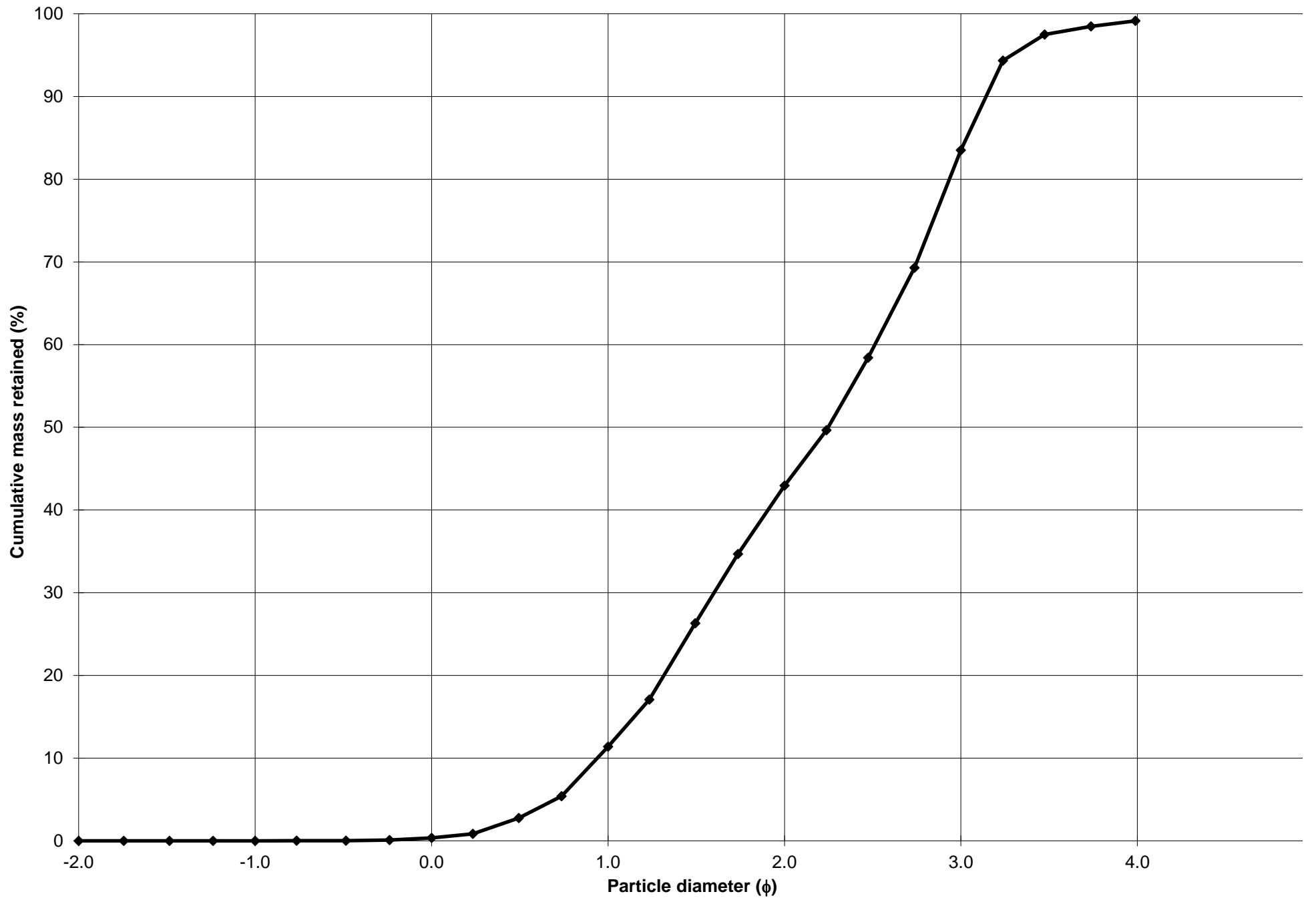
Cumulative Frequency Curve



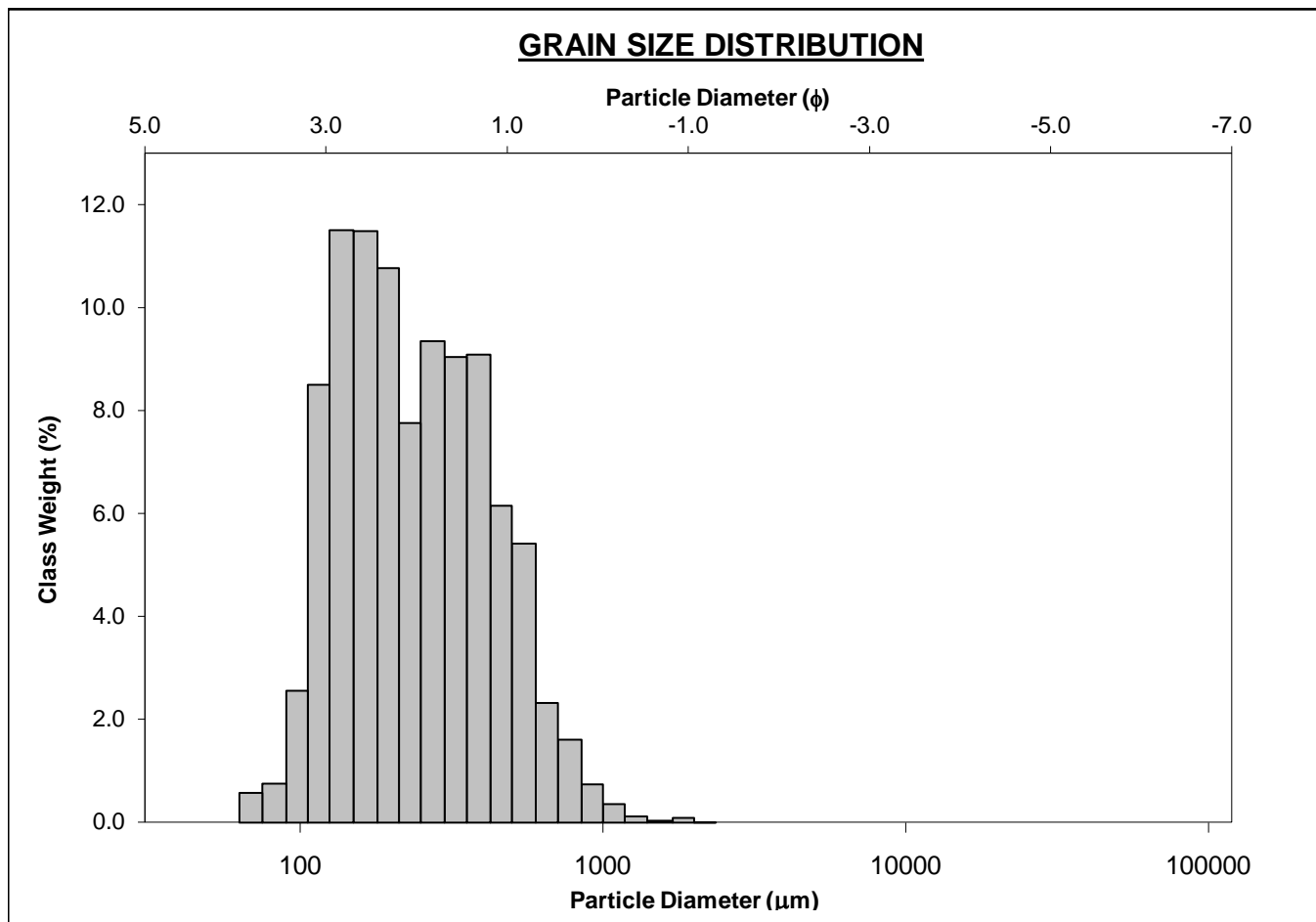
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-288cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 11.1%	
MODE 2:	390.0	1.364	SAND: 99.1%		MEDIUM SAND: 31.6%	
MODE 3:			MUD: 0.9%		FINE SAND: 40.5%	
D ₁₀ :	113.2	0.938			V FINE SAND: 15.6%	
MEDIAN or D ₅₀ :	210.6	2.247	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	521.8	3.143	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	4.608	3.349	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	408.6	2.204	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	2.612	1.950	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	224.7	1.385	V COARSE SAND: 0.3%		CLAY: 0.1%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	273.7	223.9	2.159	225.4	2.149	Fine Sand
SORTING (σ):	177.1	1.930	0.948	1.799	0.847	Moderately Sorted
SKEWNESS (Sk):	1.581	-0.813	0.813	0.178	-0.178	Coarse Skewed
KURTOSIS (K):	6.840	7.206	7.206	0.765	0.765	Platykurtic



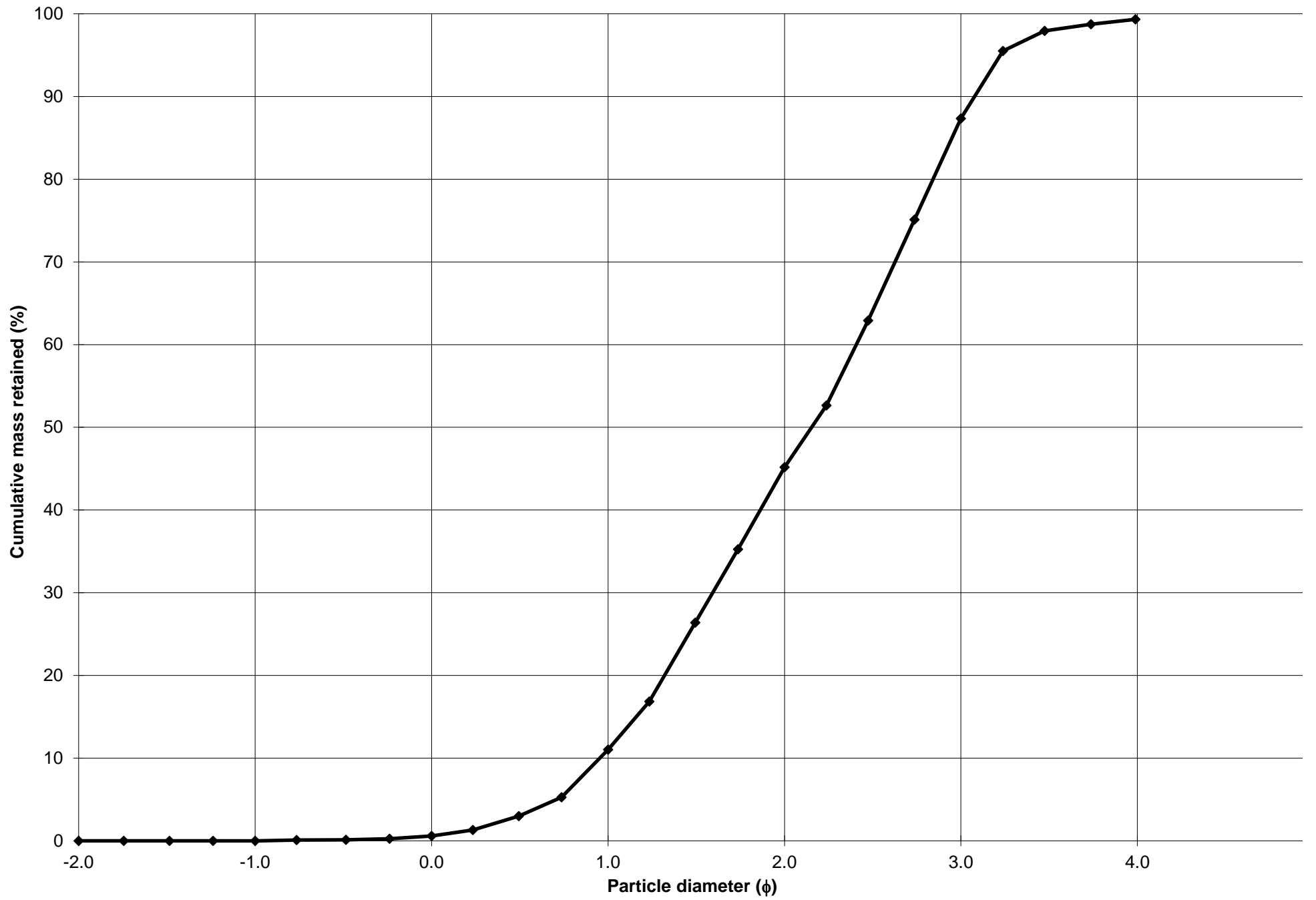
Cumulative Frequency Curve



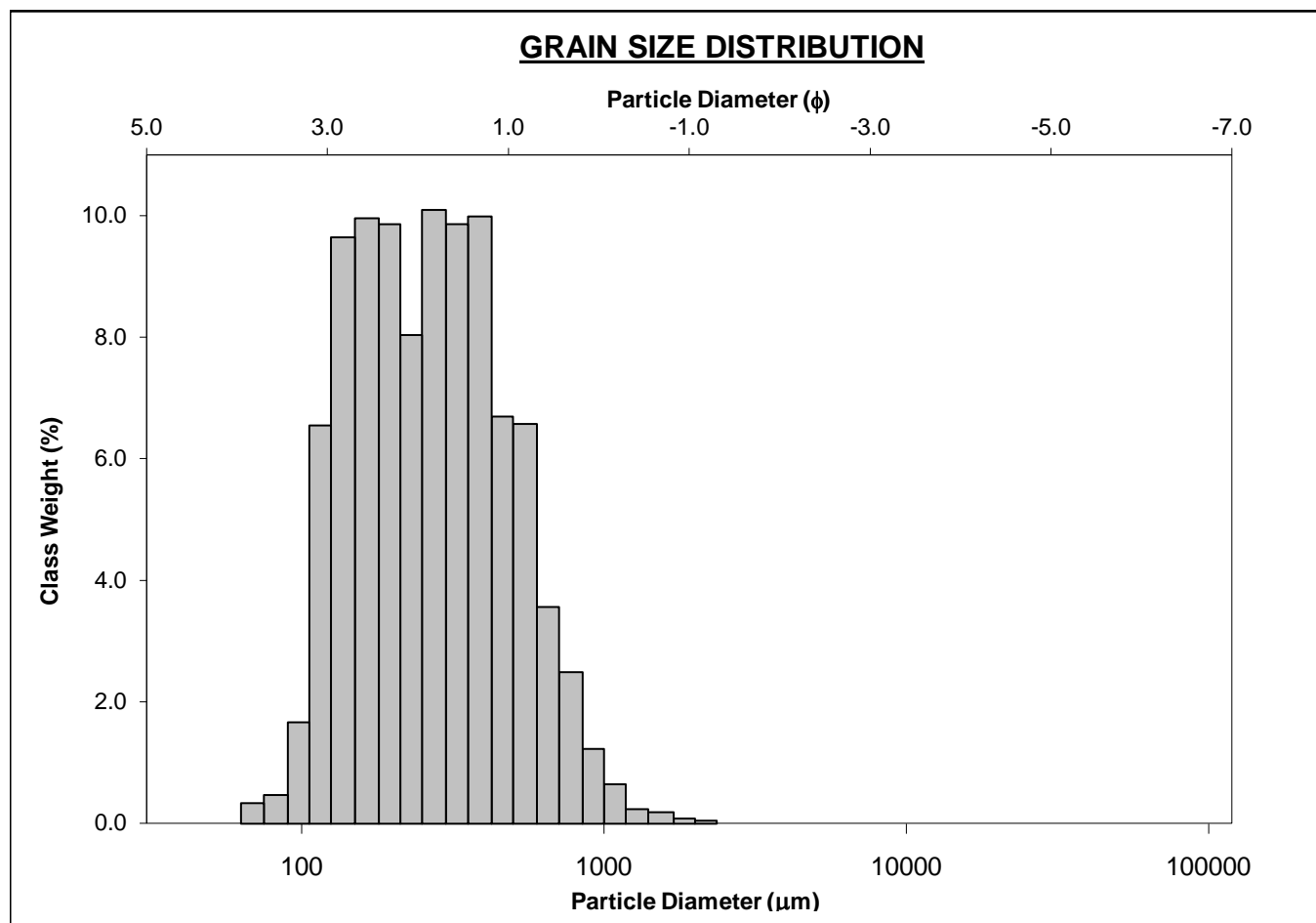
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-301cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 10.4%	
MODE 2:	275.0	1.868	SAND: 99.3%		MEDIUM SAND: 34.2%	
MODE 3:	390.0	1.364	MUD: 0.7%		FINE SAND: 42.1%	
D_{10} :	118.4	0.953			V FINE SAND: 12.0%	
MEDIAN or D_{50} :	224.7	2.154	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D_{90} :	516.5	3.078	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D_{90} / D_{10}) :	4.362	3.230	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
$(D_{90} - D_{10})$:	398.1	2.125	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D_{75} / D_{25}) :	2.426	1.878	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
$(D_{75} - D_{25})$:	214.2	1.278	V COARSE SAND: 0.6%		CLAY: 0.1%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	281.8	233.8	2.097	234.2	2.094	Fine Sand
SORTING (σ):	182.5	1.871	0.904	1.757	0.813	Moderately Sorted
SKEWNESS (Sk):	2.116	-0.741	0.741	0.126	-0.126	Coarse Skewed
KURTOSIS (K):	11.55	7.476	7.476	0.807	0.807	Platykurtic



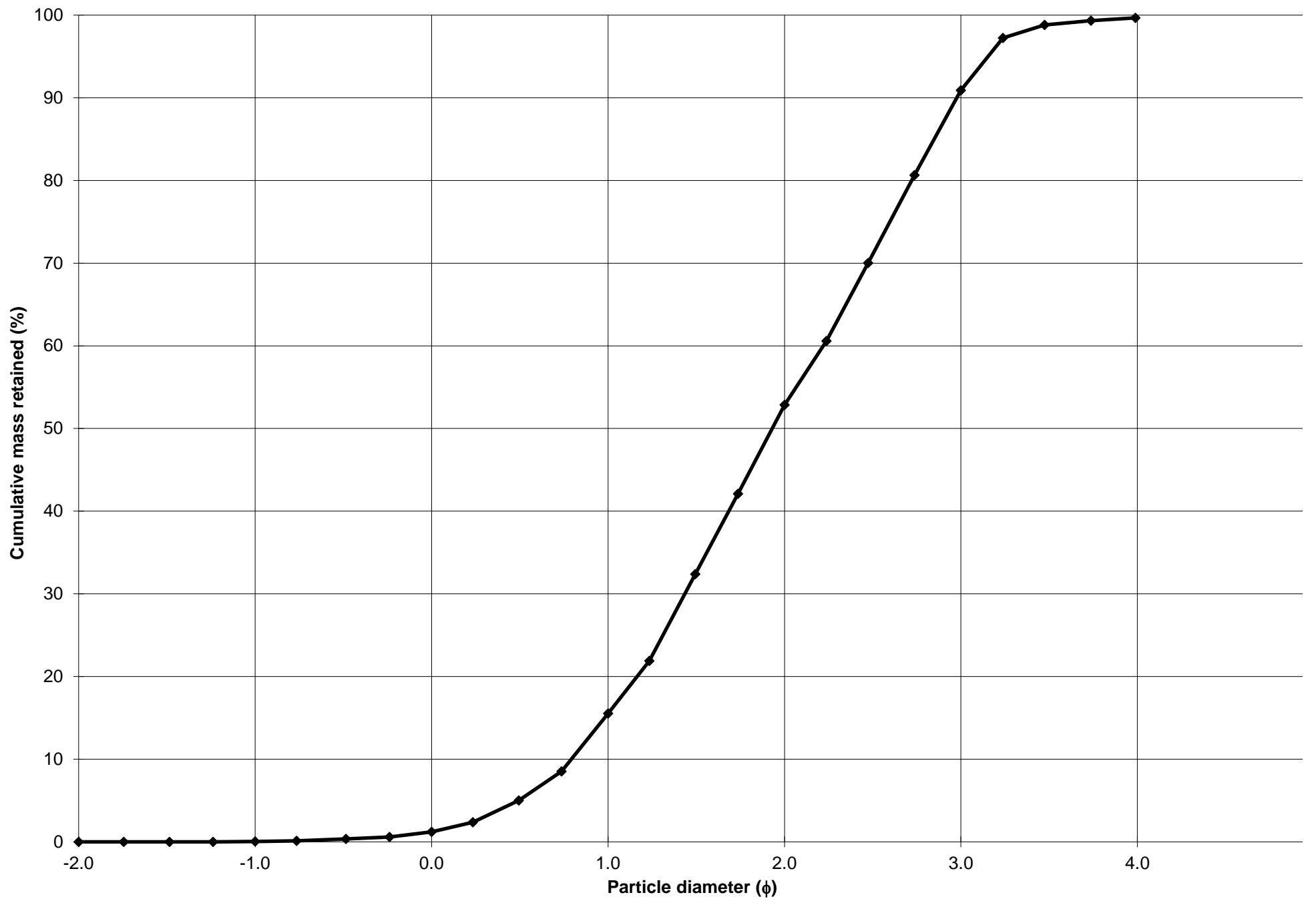
Cumulative Frequency Curve



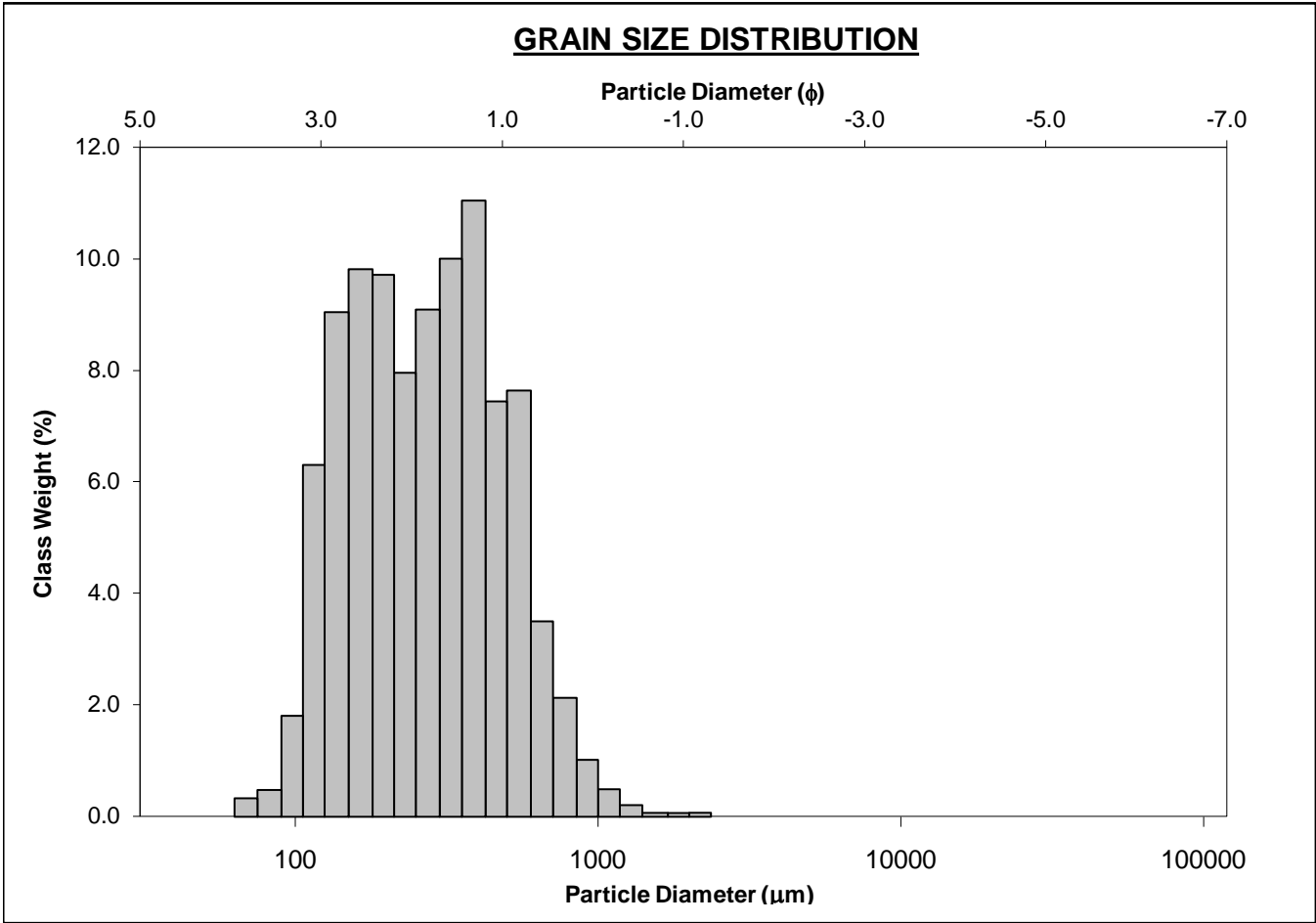
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-310cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 14.3%	
MODE 2:	390.0	1.364	SAND: 99.6%		MEDIUM SAND: 37.3%	
MODE 3:	165.0	2.605	MUD: 0.3%		FINE SAND: 38.1%	
D_{10} :	127.0	0.793			V FINE SAND: 8.8%	
MEDIAN or D_{50} :	262.4	1.930	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D_{90} :	577.2	2.977	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D_{90} / D_{10}) :	4.544	3.755	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
$(D_{90} - D_{10})$:	450.2	2.184	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D_{75} / D_{25}) :	2.438	1.980	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
$(D_{75} - D_{25})$:	237.6	1.286	V COARSE SAND: 1.2%		CLAY: 0.1%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	318.0	263.5	1.924	263.6	1.924	Medium Sand
SORTING (σ):	211.1	1.848	0.886	1.808	0.854	Moderately Sorted
SKEWNESS (Sk):	2.203	-0.334	0.334	0.046	-0.046	Symmetrical
KURTOSIS (K):	11.84	5.616	5.616	0.848	0.848	Platykurtic



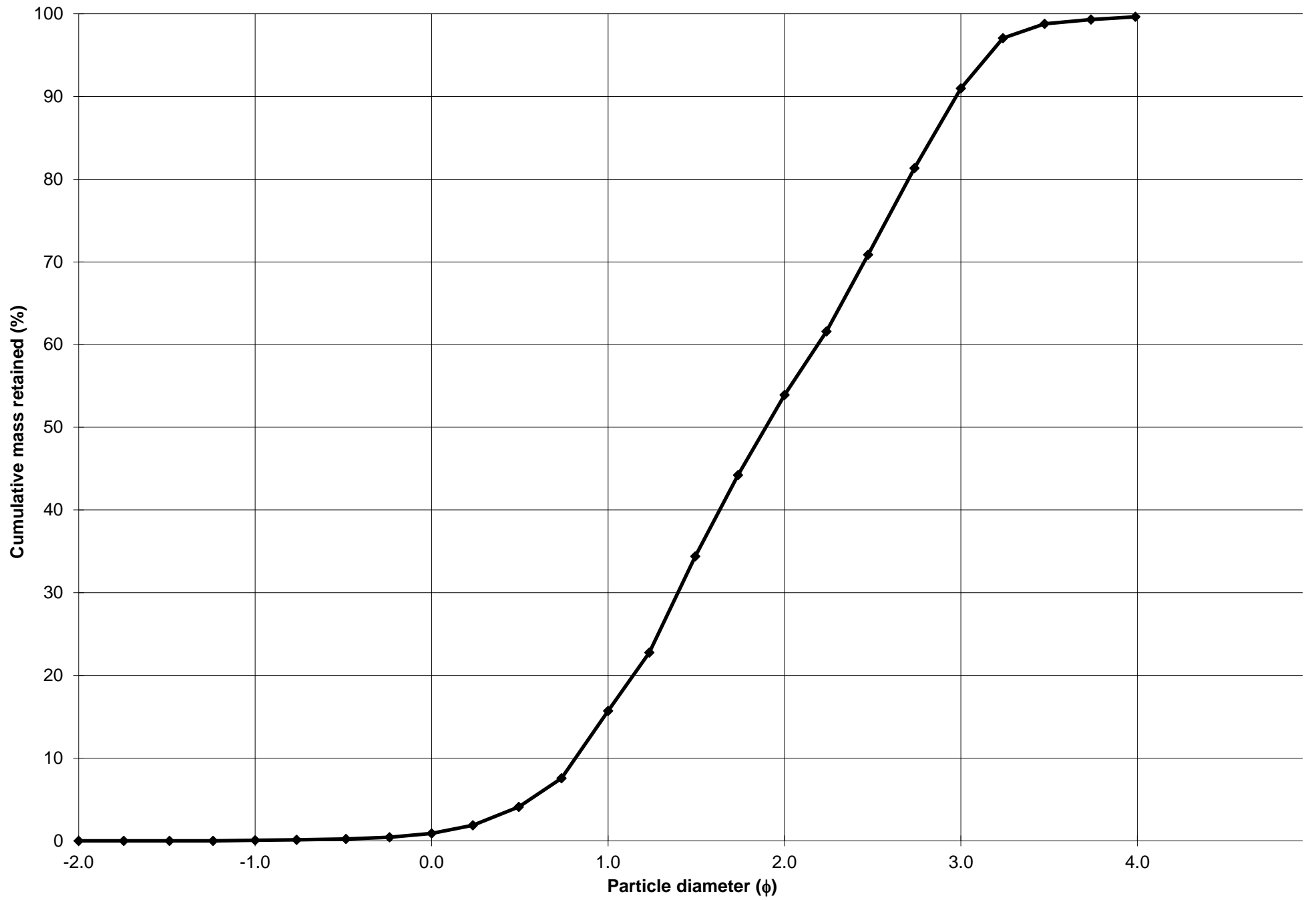
Cumulative Frequency Curve



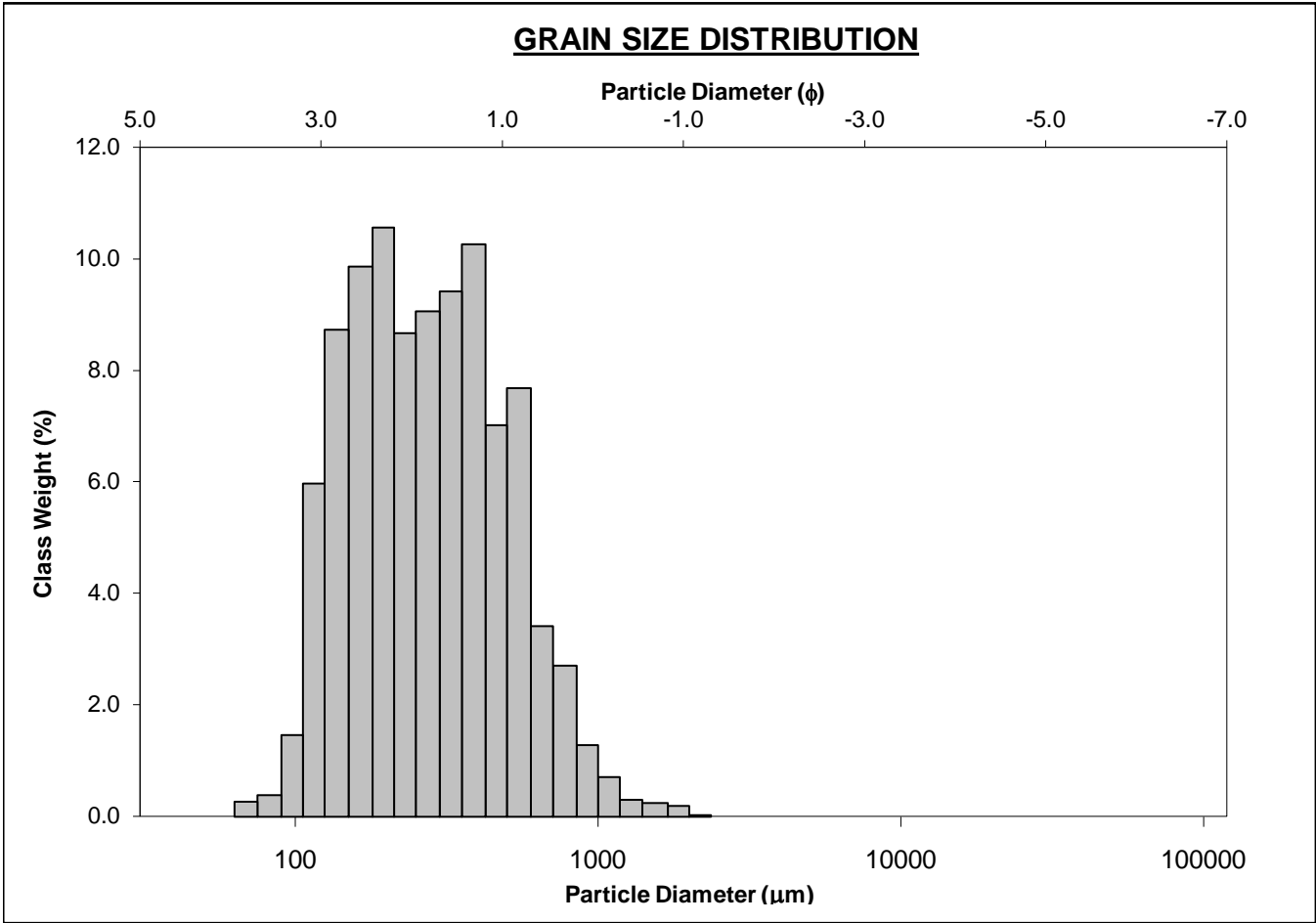
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-320cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.1%	COARSE SAND: 14.8%		
MODE 2:	165.0	2.605	SAND: 99.6%	MEDIUM SAND: 38.2%		
MODE 3:	550.0	0.868	MUD: 0.4%	FINE SAND: 37.1%		
D ₁₀ :	127.3	0.816		V FINE SAND: 8.7%		
MEDIAN or D ₅₀ :	269.1	1.894	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.1%		
D ₉₀ :	568.1	2.973	COARSE GRAVEL: 0.0%	COARSE SILT: 0.1%		
(D ₉₀ / D ₁₀):	4.462	3.645	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.1%		
(D ₉₀ - D ₁₀):	440.8	2.158	FINE GRAVEL: 0.0%	FINE SILT: 0.1%		
(D ₇₅ / D ₂₅):	2.451	2.007	V FINE GRAVEL: 0.1%	V FINE SILT: 0.1%		
(D ₇₅ - D ₂₅):	243.1	1.293	V COARSE SAND: 0.8%	CLAY: 0.1%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	318.5	266.0	1.911	267.1	1.904	Medium Sand
SORTING (σ):	201.4	1.840	0.880	1.795	0.844	Moderately Sorted
SKEWNESS (Sk):	2.115	-0.511	0.511	0.005	-0.005	Symmetrical
KURTOSIS (K):	12.60	5.992	5.992	0.824	0.824	Platykurtic



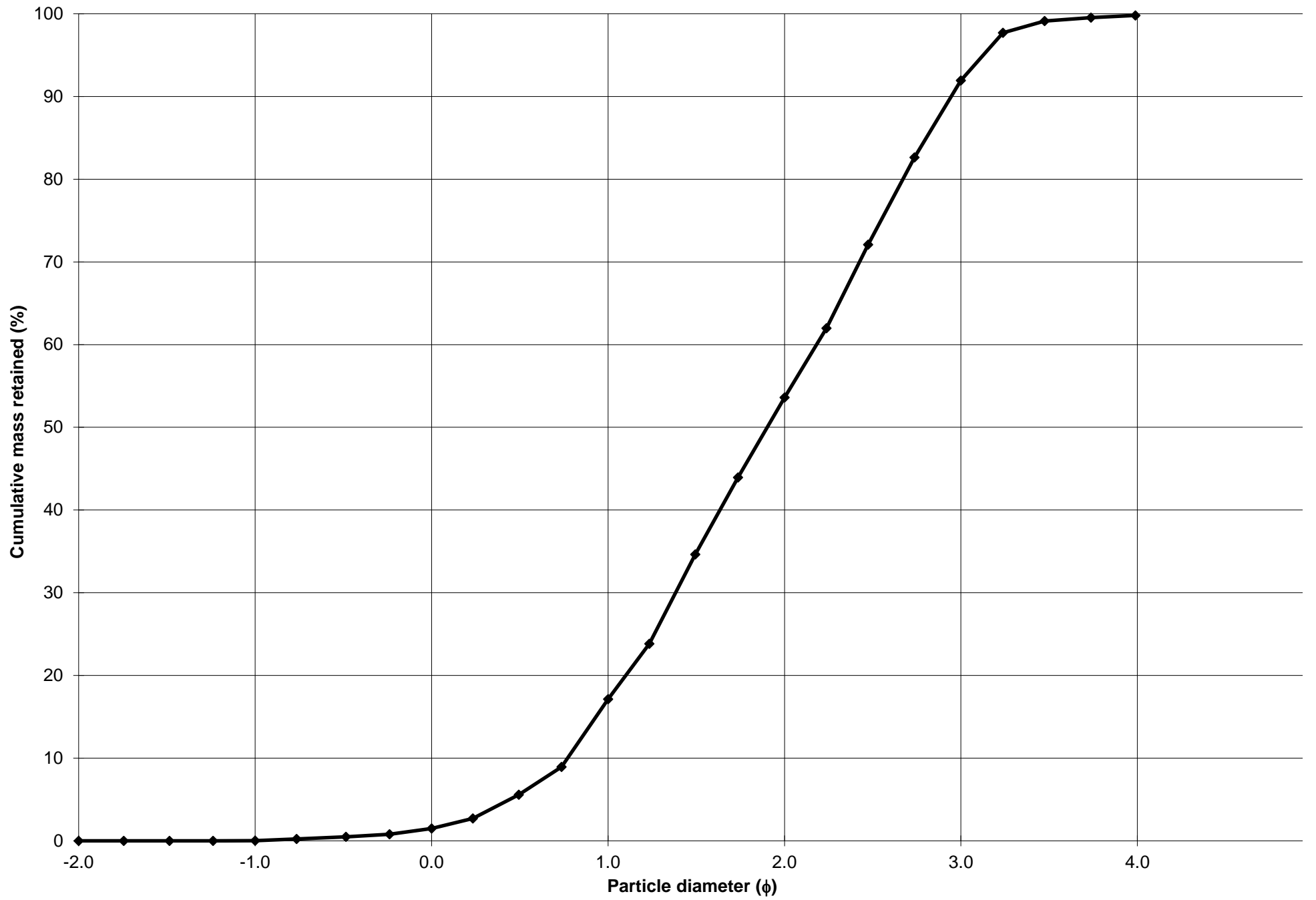
Cumulative Frequency Curve



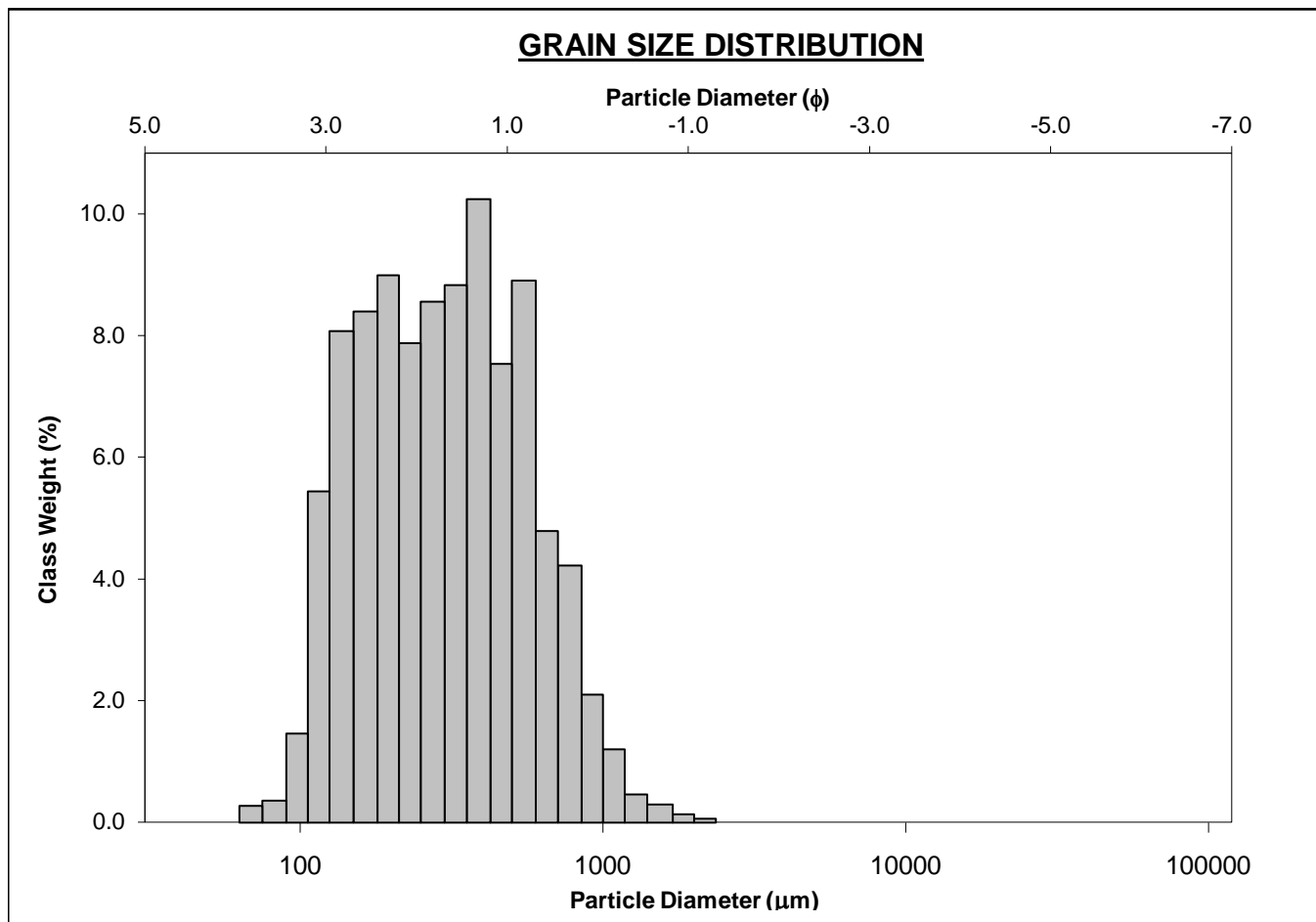
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-330cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%	COARSE SAND: 15.7%		
MODE 2:	390.0	1.364	SAND: 99.8%	MEDIUM SAND: 36.5%		
MODE 3:	550.0	0.868	MUD: 0.2%	FINE SAND: 38.3%		
D ₁₀ :	129.8	0.771		V FINE SAND: 7.9%		
MEDIAN or D ₅₀ :	267.5	1.902	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	586.0	2.945	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	4.513	3.820	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	456.1	2.174	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	2.435	2.017	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	245.6	1.284	V COARSE SAND: 1.5%	CLAY: 0.0%		
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	328.7	272.6	1.875	271.6	1.880	Medium Sand
SORTING (σ):	220.7	1.830	0.872	1.815	0.860	Moderately Sorted
SKEWNESS (Sk):	2.263	-0.100	0.100	0.062	-0.062	Symmetrical
KURTOSIS (K):	11.90	4.570	4.570	0.857	0.857	Platykurtic



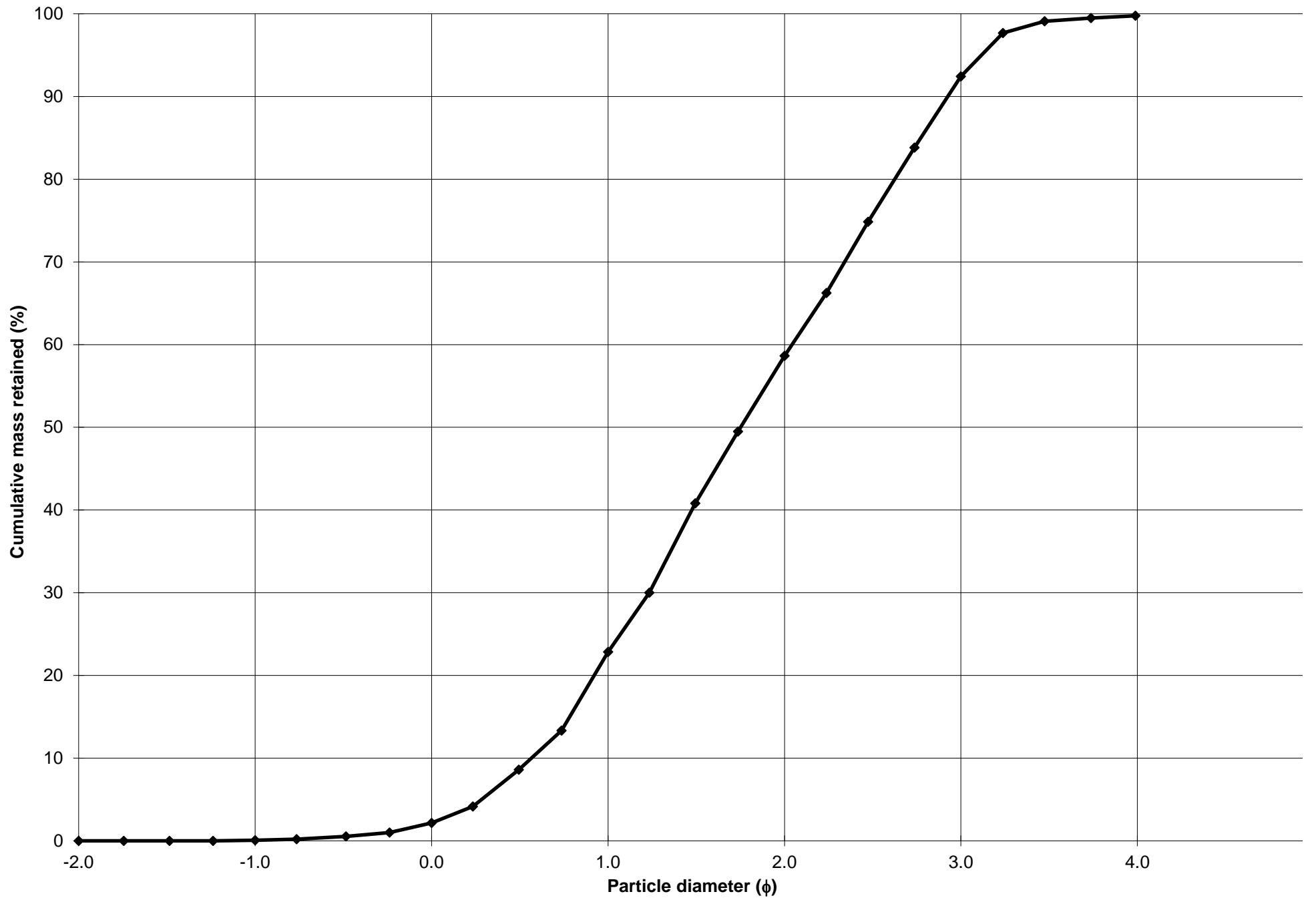
Cumulative Frequency Curve



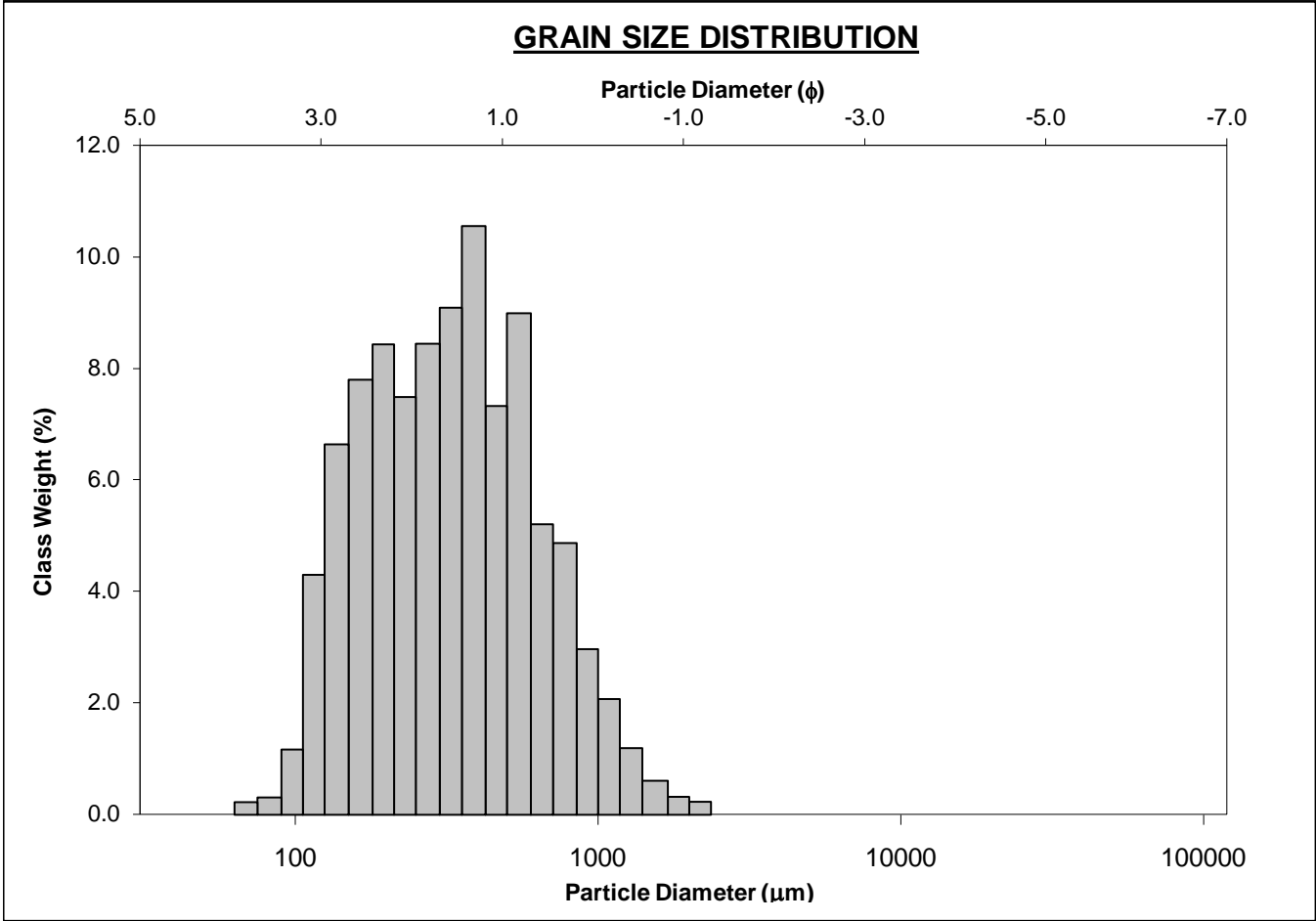
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-343cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.1%		COARSE SAND: 20.7%	
MODE 2:	196.0	2.356	SAND: 99.7%		MEDIUM SAND: 35.8%	
MODE 3:	550.0	0.868	MUD: 0.2%		FINE SAND: 33.8%	
D_{10} :	131.6	0.565			V FINE SAND: 7.3%	
MEDIAN or D_{50} :	297.0	1.751	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	675.8	2.926	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	5.135	5.174	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	544.1	2.360	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	2.653	2.315	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	296.6	1.408	V COARSE SAND: 2.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	362.1	295.4	1.759	293.6	1.768	Medium Sand
SORTING (σ):	244.0	1.901	0.927	1.882	0.912	Moderately Sorted
SKEWNESS (Sk):	1.863	-0.258	0.258	0.005	-0.005	Symmetrical
KURTOSIS (K):	8.833	4.505	4.505	0.825	0.825	Platykurtic



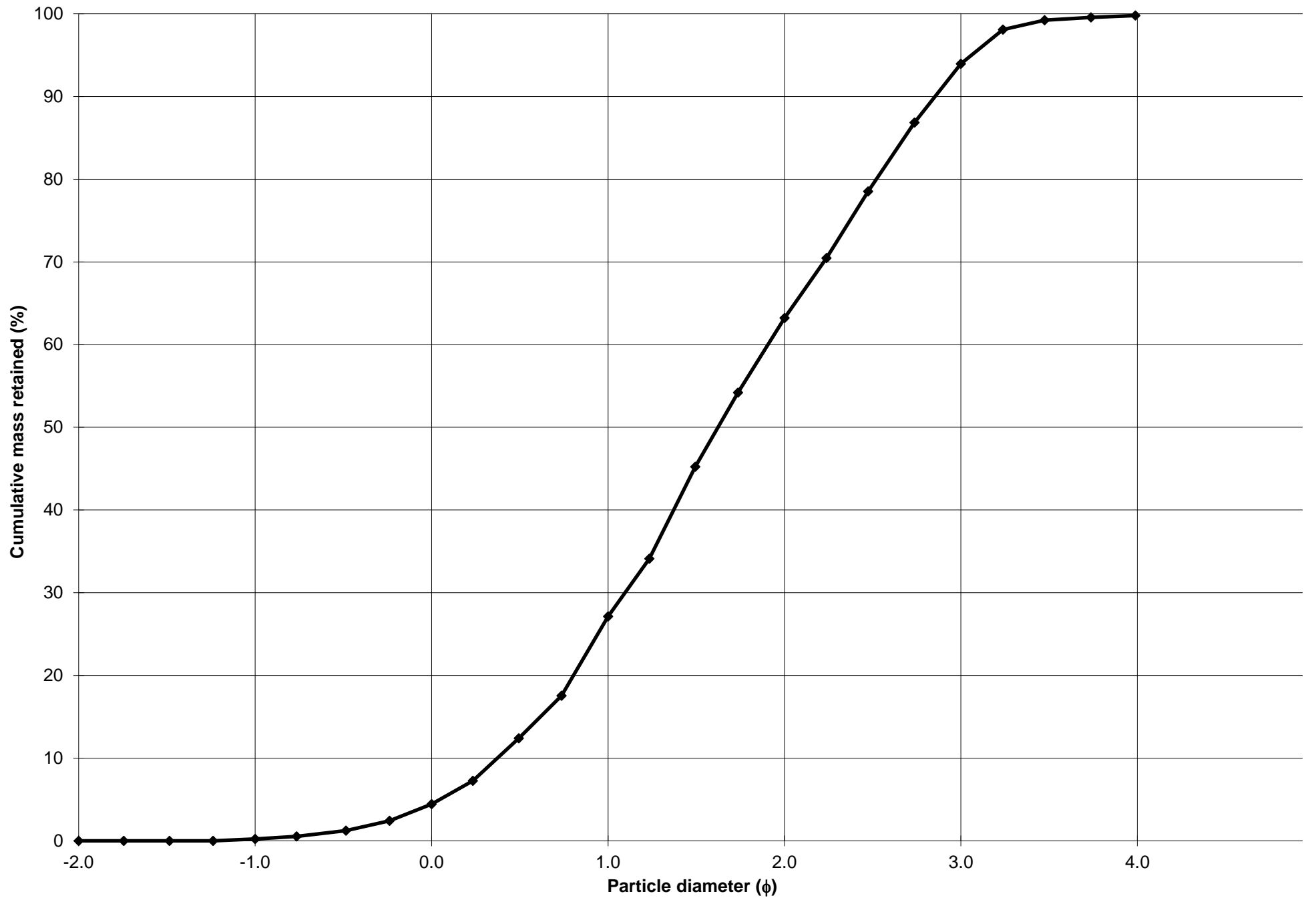
Cumulative Frequency Curve



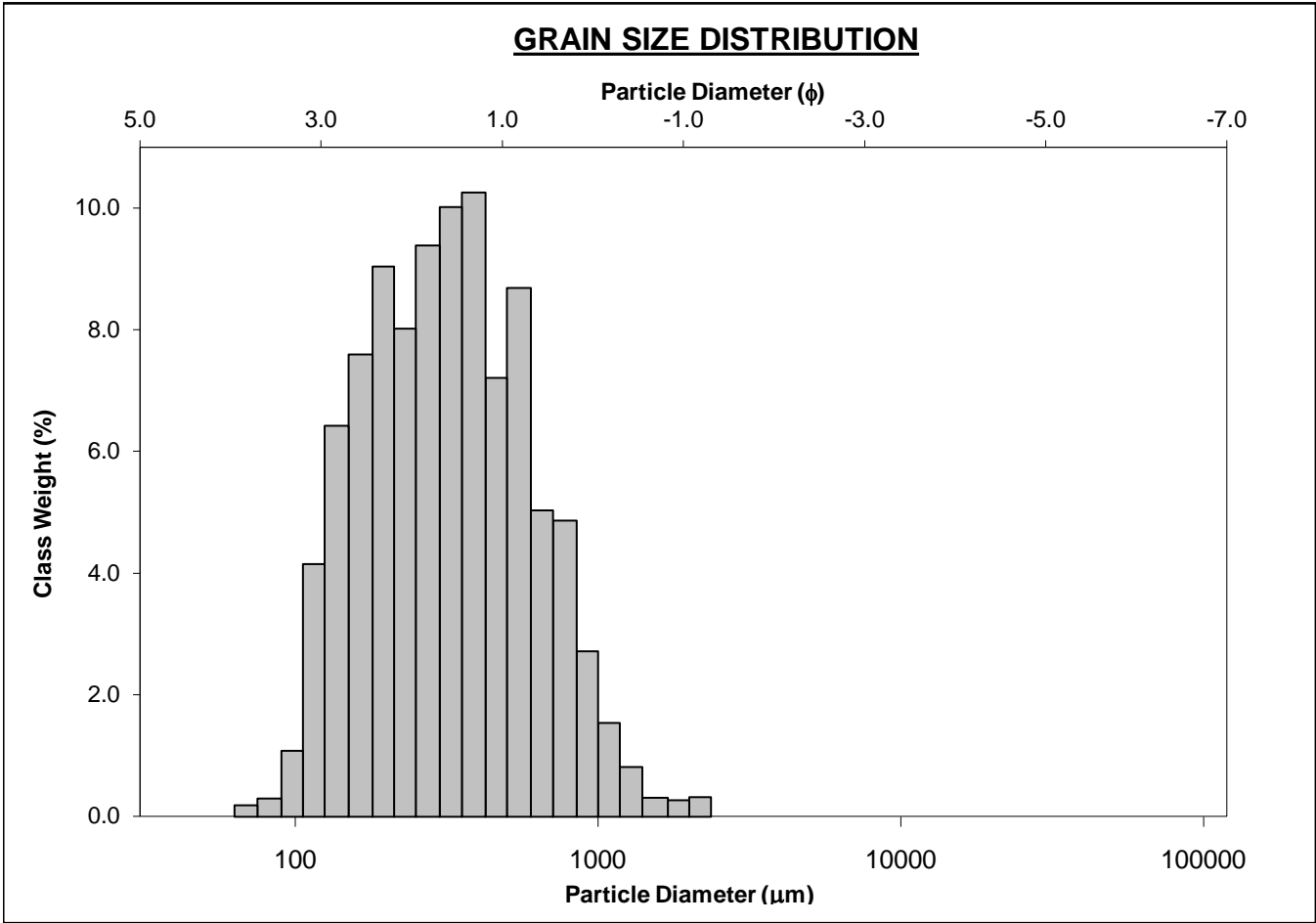
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-355cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.2%		COARSE SAND: 22.7%	
MODE 2:	550.0	0.868	SAND: 99.6%		MEDIUM SAND: 36.1%	
MODE 3:	196.0	2.356	MUD: 0.2%		FINE SAND: 30.7%	
D ₁₀ :	138.3	0.373			V FINE SAND: 5.8%	
MEDIAN or D ₅₀ :	324.6	1.623	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	772.2	2.854	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	5.582	7.652	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	633.9	2.481	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.693	2.518	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	327.3	1.429	V COARSE SAND: 4.2%		CLAY: 0.0%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	403.6	322.9	1.631	319.8	1.645	Medium Sand
SORTING (σ):	291.4	1.950	0.963	1.935	0.952	Moderately Sorted
SKEWNESS (Sk):	2.010	-0.160	0.160	0.007	-0.007	Symmetrical
KURTOSIS (K):	8.954	4.242	4.242	0.864	0.864	Platykurtic



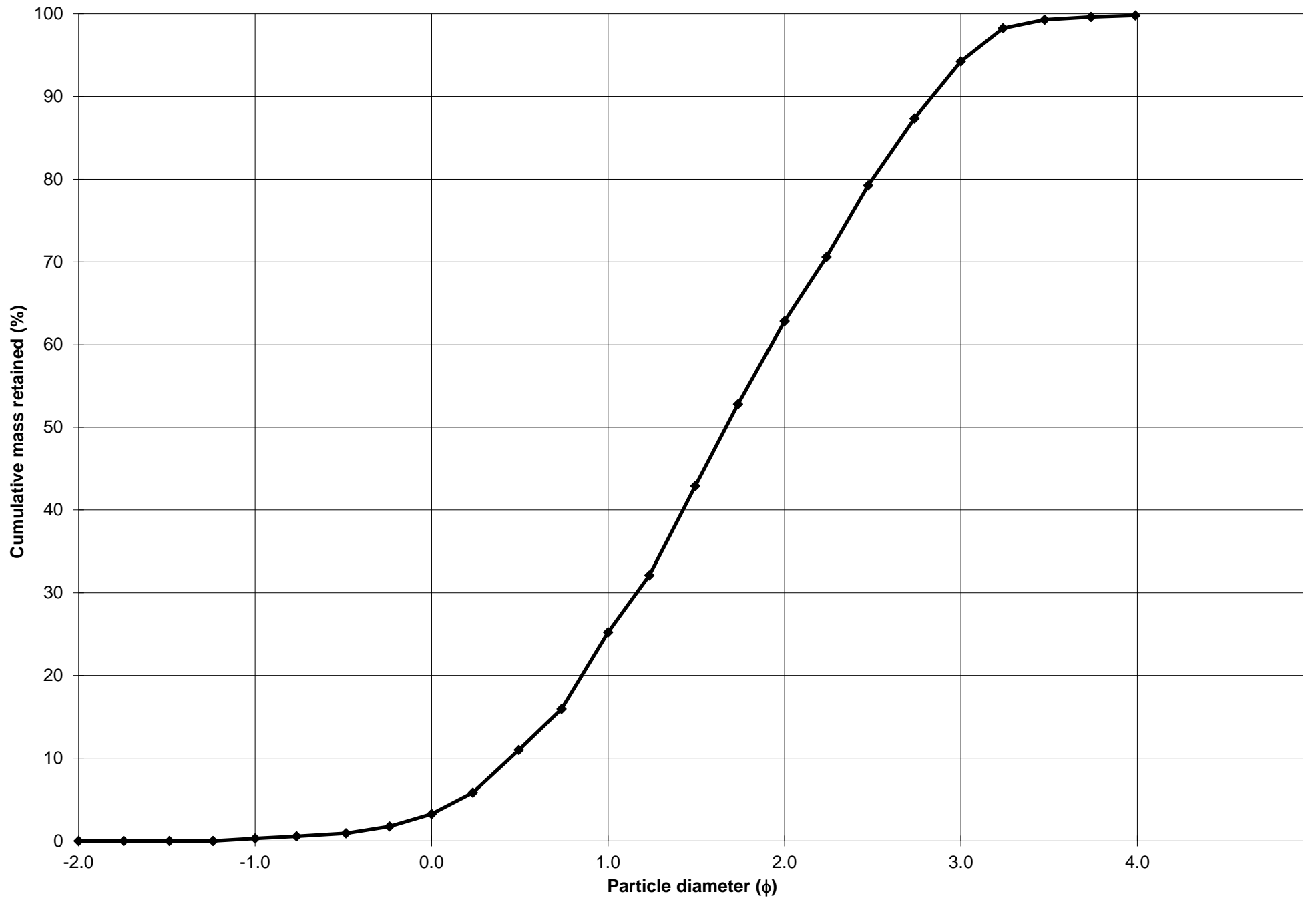
Cumulative Frequency Curve



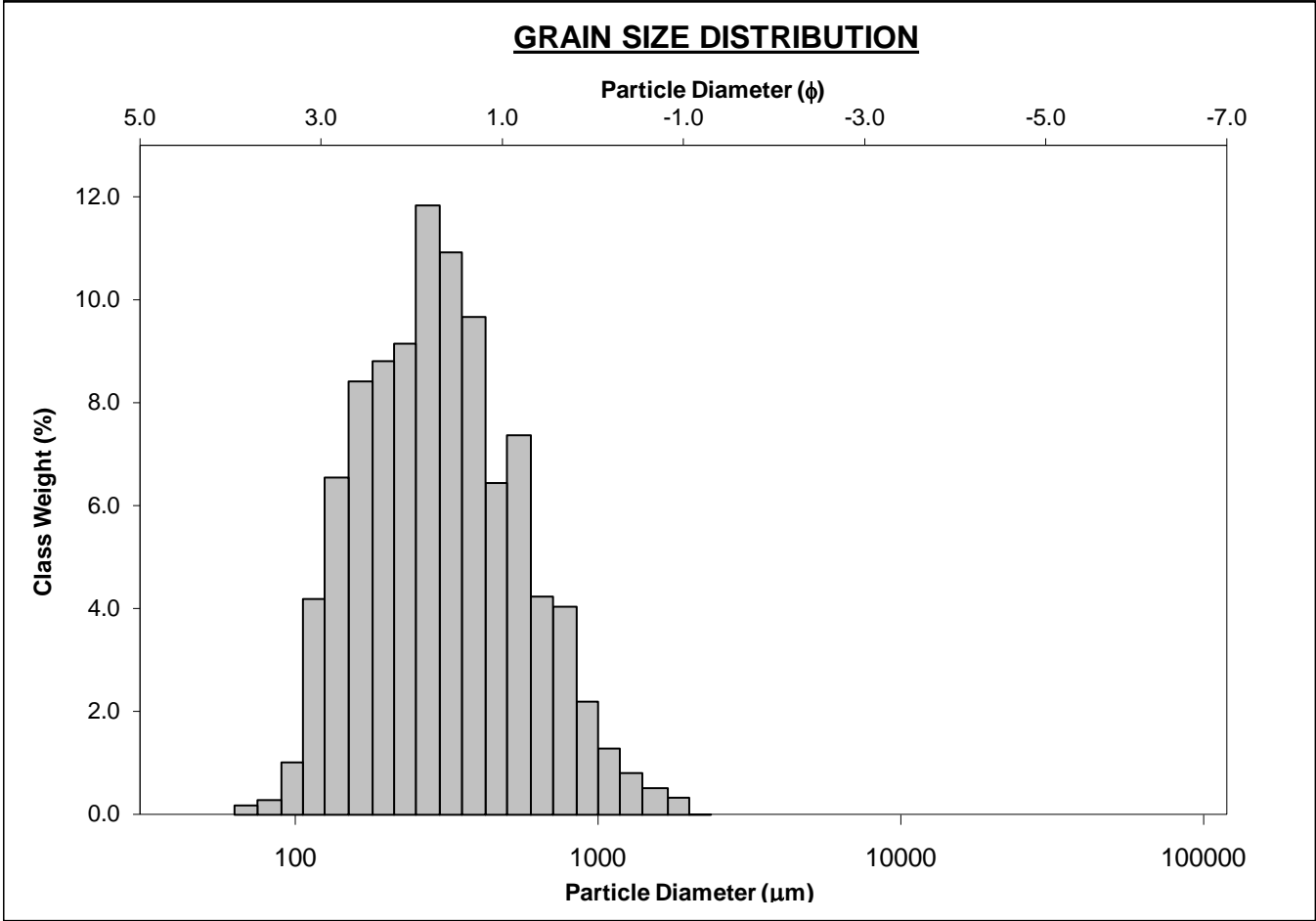
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-365cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.3%	COARSE SAND: 22.0%		
MODE 2:	196.0	2.356	SAND: 99.5%	MEDIUM SAND: 37.6%		
MODE 3:	550.0	0.868	MUD: 0.2%	FINE SAND: 31.4%		
D ₁₀ :	139.9	0.445		V FINE SAND: 5.6%		
MEDIAN or D ₅₀ :	314.6	1.668	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	734.5	2.838	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	5.251	6.374	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	594.6	2.393	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	2.575	2.373	V FINE GRAVEL: 0.3%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	307.1	1.365	V COARSE SAND: 2.9%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	389.4	316.0	1.662	312.4	1.678	Medium Sand
SORTING (σ):	275.4	1.902	0.927	1.879	0.910	Moderately Sorted
SKEWNESS (Sk):	2.234	-0.150	0.150	0.015	-0.015	Symmetrical
KURTOSIS (K):	11.14	4.454	4.454	0.867	0.867	Platykurtic



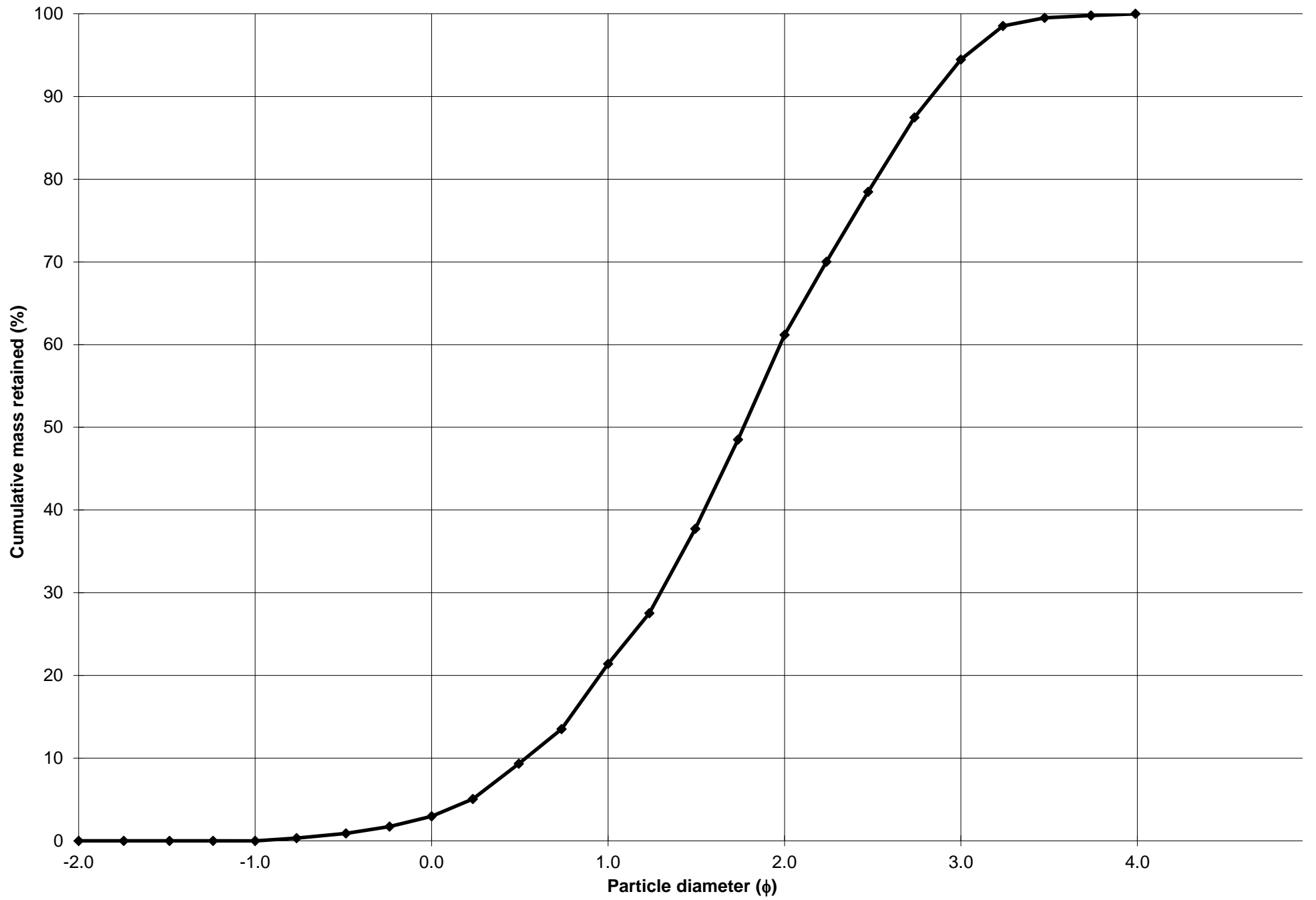
Cumulative Frequency Curve



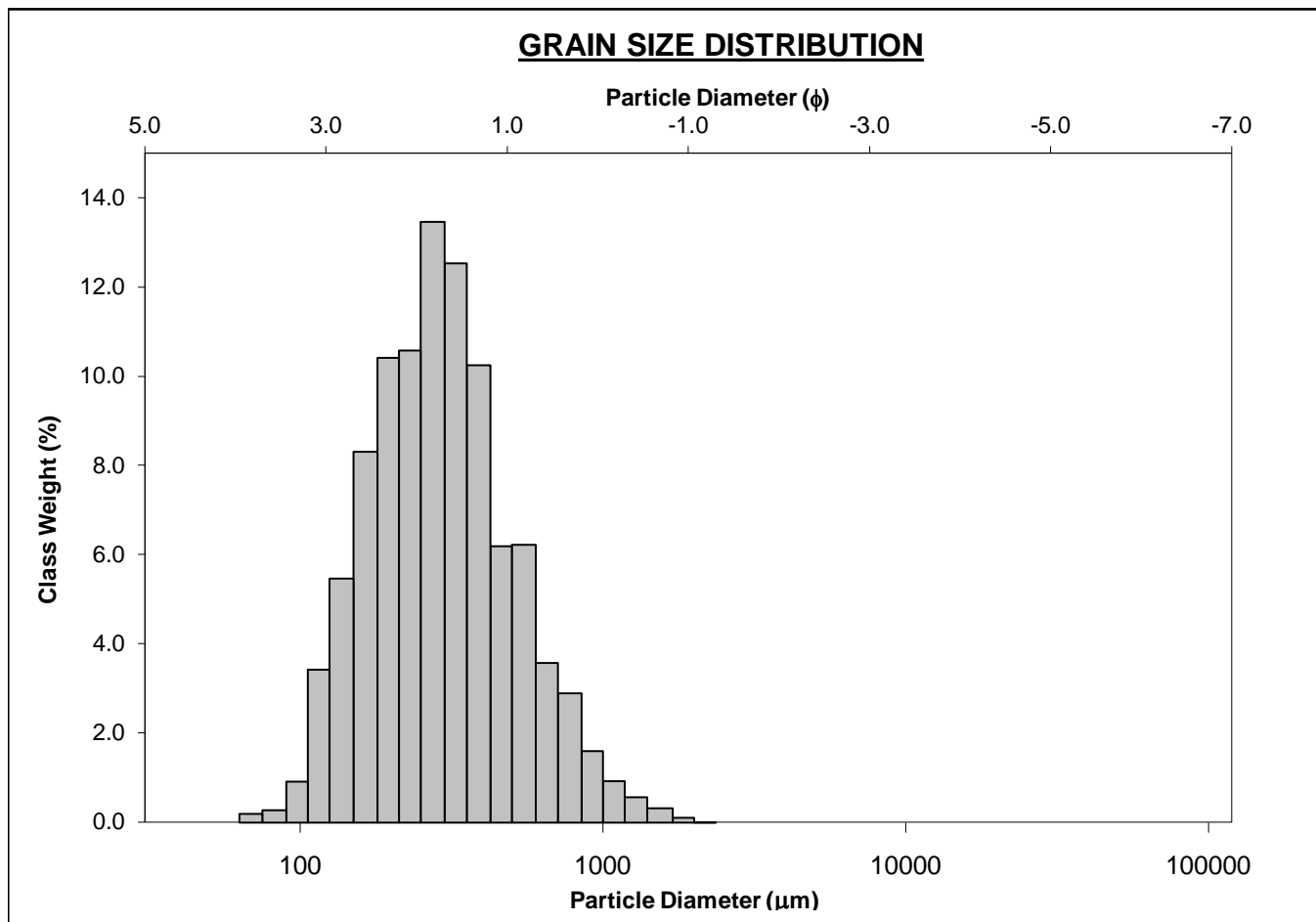
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-378cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 18.4%	
MODE 2:	550.0	0.868	SAND: 100.0%		MEDIUM SAND: 39.8%	
MODE 3:			MUD: 0.0%		FINE SAND: 33.3%	
D ₁₀ :	140.4	0.533			V FINE SAND: 5.5%	
MEDIAN or D ₅₀ :	293.7	1.768	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	691.1	2.832	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.922	5.314	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	550.7	2.299	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.361	2.089	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	262.0	1.239	V COARSE SAND: 3.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	368.4	303.6	1.720	299.1	1.741	Medium Sand
SORTING (σ):	256.4	1.823	0.866	1.839	0.879	Moderately Sorted
SKEWNESS (Sk):	2.143	0.299	-0.299	0.071	-0.071	Symmetrical
KURTOSIS (K):	9.461	2.840	2.840	0.927	0.927	Mesokurtic



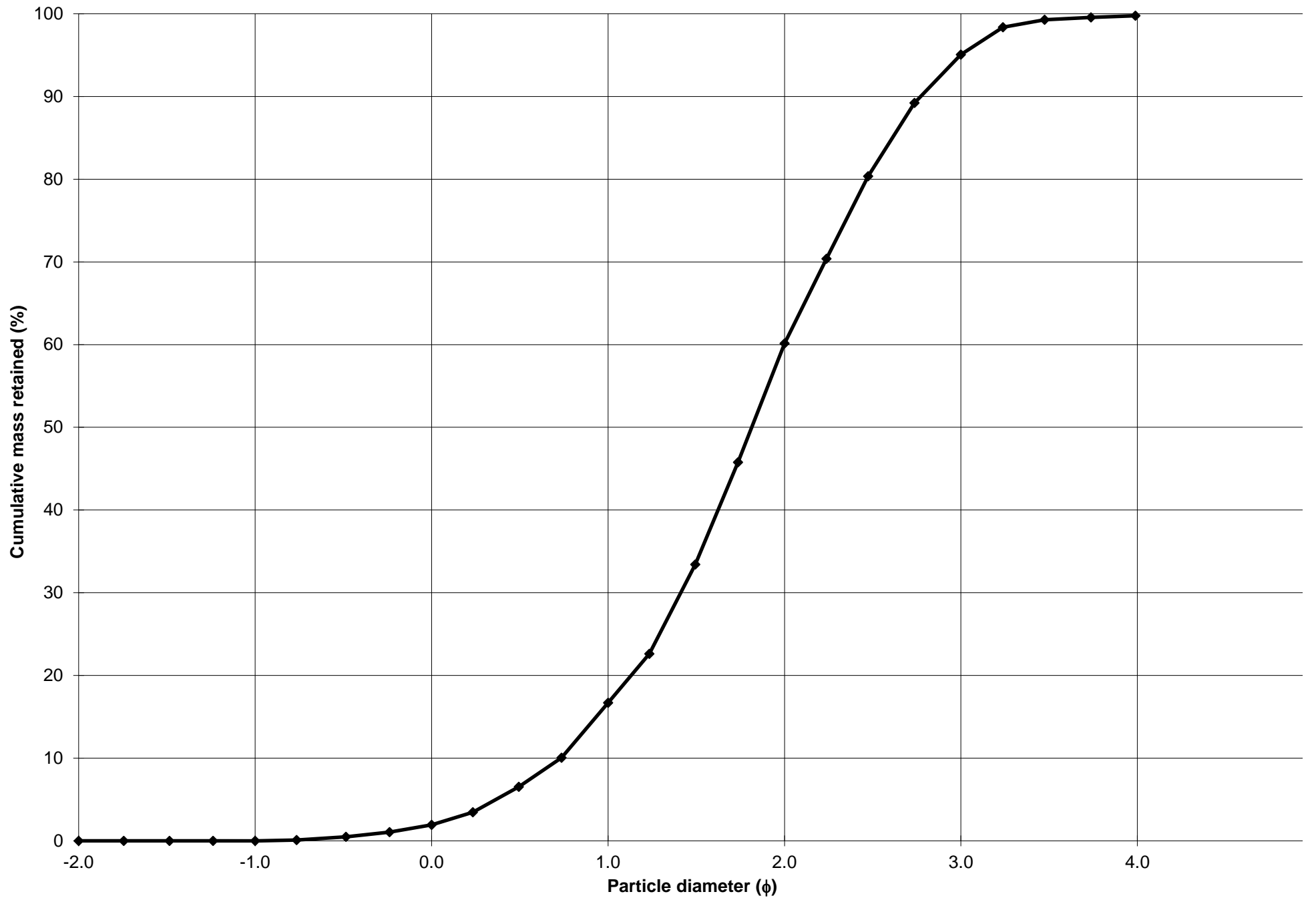
Cumulative Frequency Curve



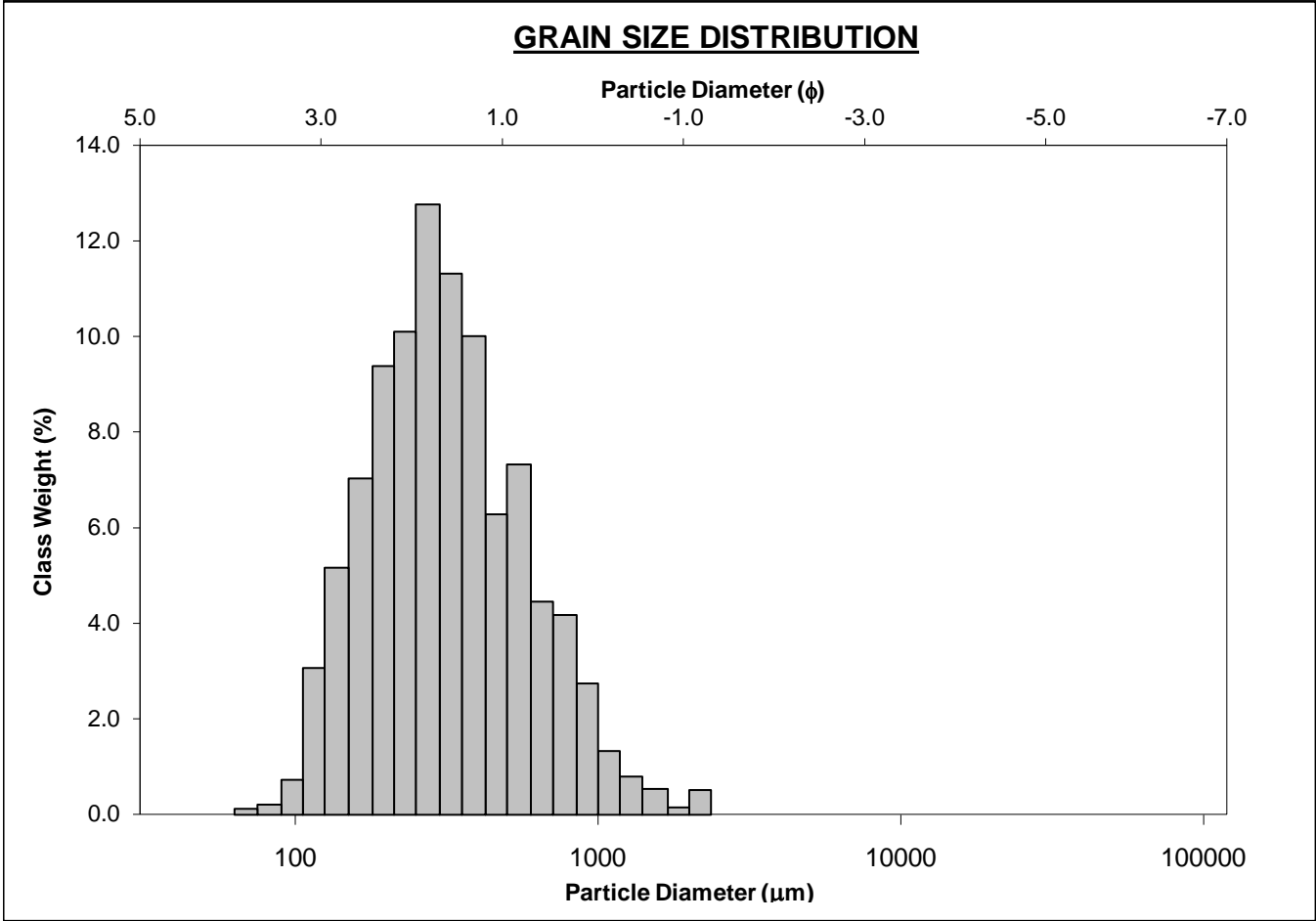
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-388cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 14.8%	
MODE 2:	550.0	0.868	SAND: 99.8%		MEDIUM SAND: 43.4%	
MODE 3:			MUD: 0.2%		FINE SAND: 34.9%	
D ₁₀ :	146.4	0.733			V FINE SAND: 4.7%	
MEDIAN or D ₅₀ :	284.3	1.814	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	601.6	2.772	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.108	3.780	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	455.1	2.038	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.078	1.817	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	211.8	1.055	V COARSE SAND: 1.9%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	342.9	289.9	1.786	289.3	1.789	Medium Sand
SORTING (σ):	220.3	1.773	0.826	1.743	0.801	Moderately Sorted
SKEWNESS (Sk):	2.237	-0.259	0.259	0.074	-0.074	Symmetrical
KURTOSIS (K):	10.46	6.239	6.239	1.022	1.022	Mesokurtic



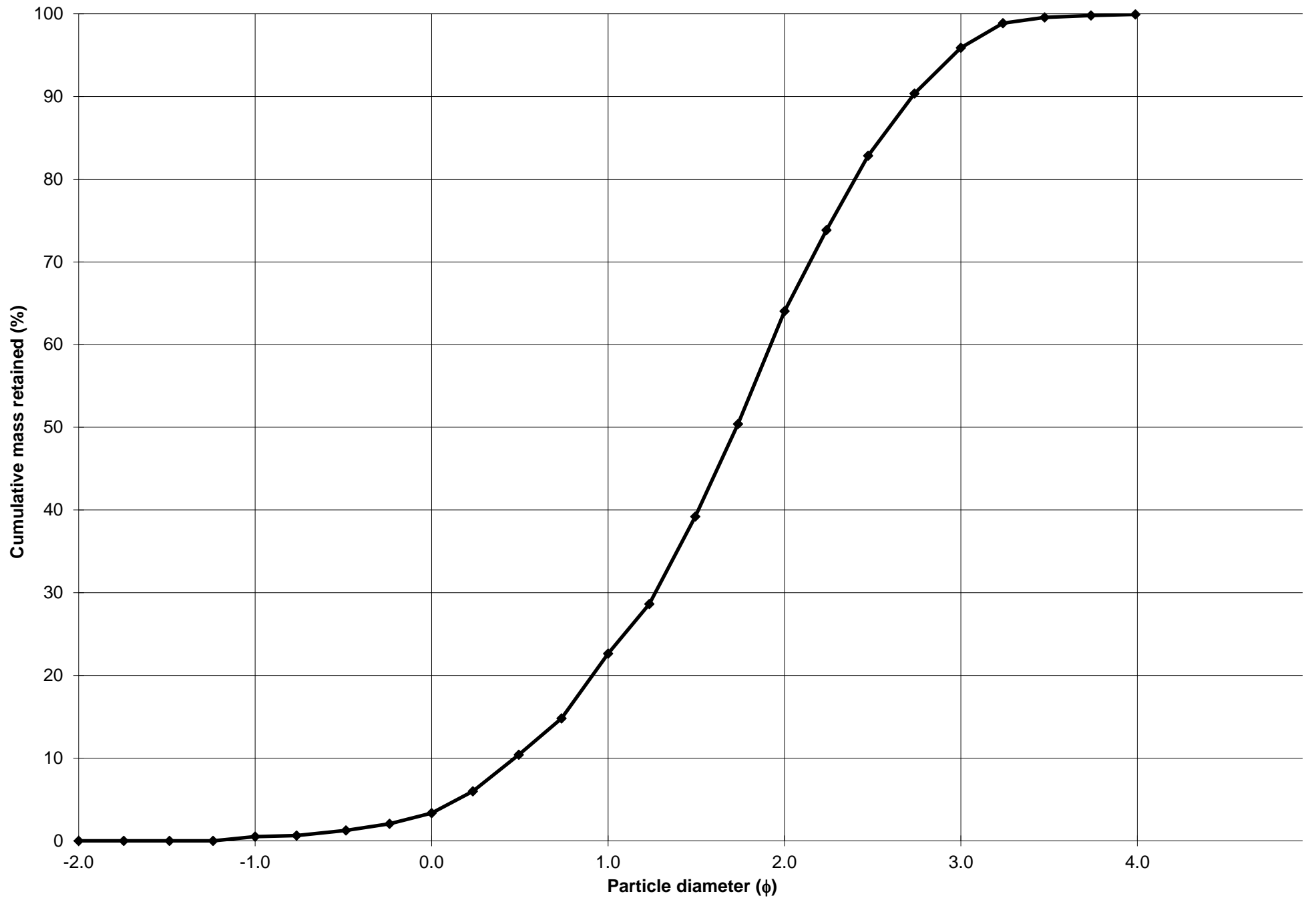
Cumulative Frequency Curve



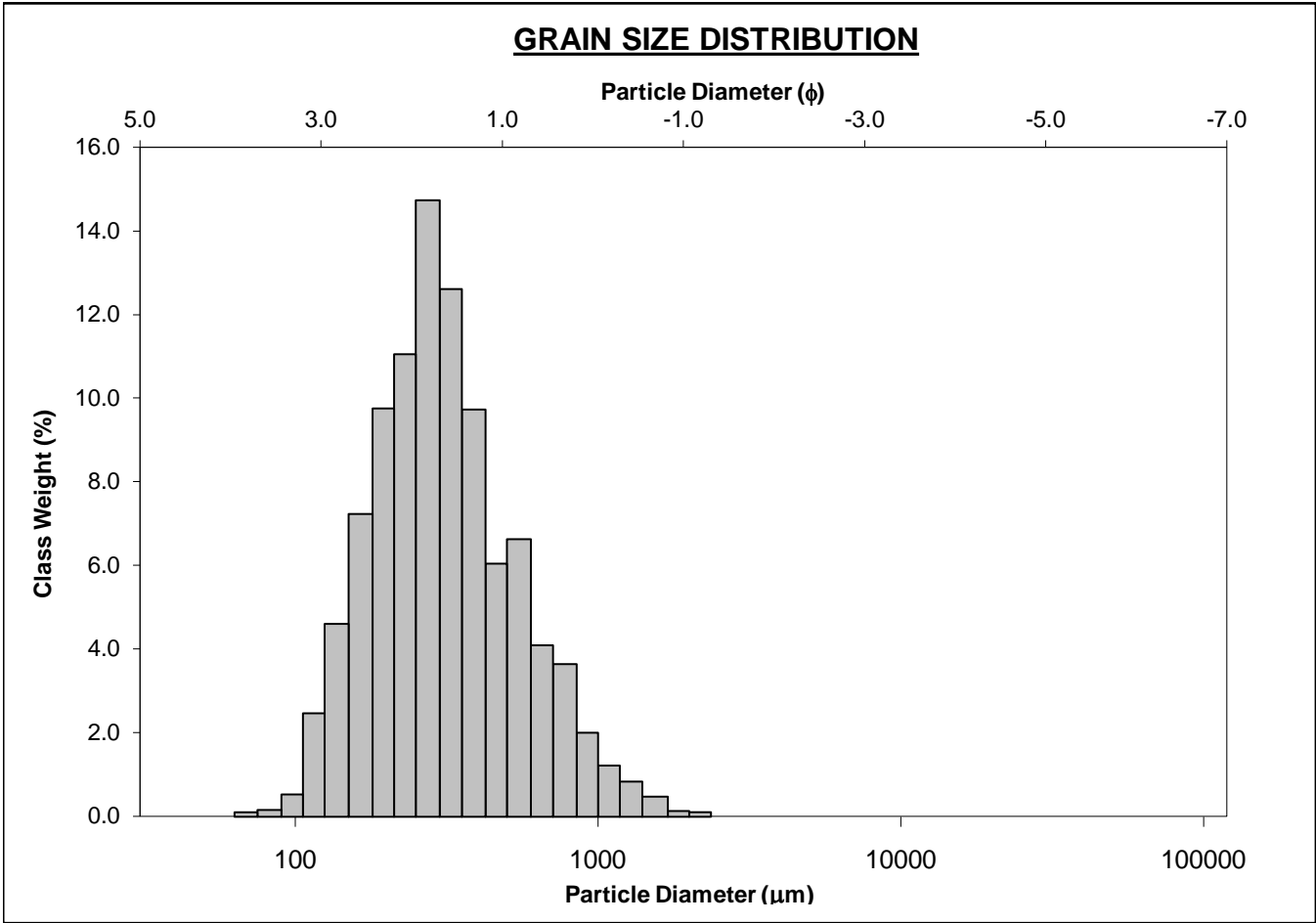
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-398cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.5%		COARSE SAND: 19.3%	
MODE 2:	550.0	0.868	SAND: 99.4%		MEDIUM SAND: 41.4%	
MODE 3:			MUD: 0.1%		FINE SAND: 31.8%	
D ₁₀ :	151.4	0.471			V FINE SAND: 4.0%	
MEDIAN or D ₅₀ :	301.8	1.728	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	721.6	2.724	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.768	5.788	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	570.3	2.253	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.260	2.077	V FINE GRAVEL: 0.5%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	261.5	1.176	V COARSE SAND: 2.9%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	386.2	317.6	1.655	313.5	1.673	Medium Sand
SORTING (σ):	280.6	1.824	0.867	1.815	0.860	Moderately Sorted
SKEWNESS (Sk):	2.629	0.245	-0.245	0.110	-0.110	Coarse Skewed
KURTOSIS (K):	13.40	3.871	3.871	0.979	0.979	Mesokurtic



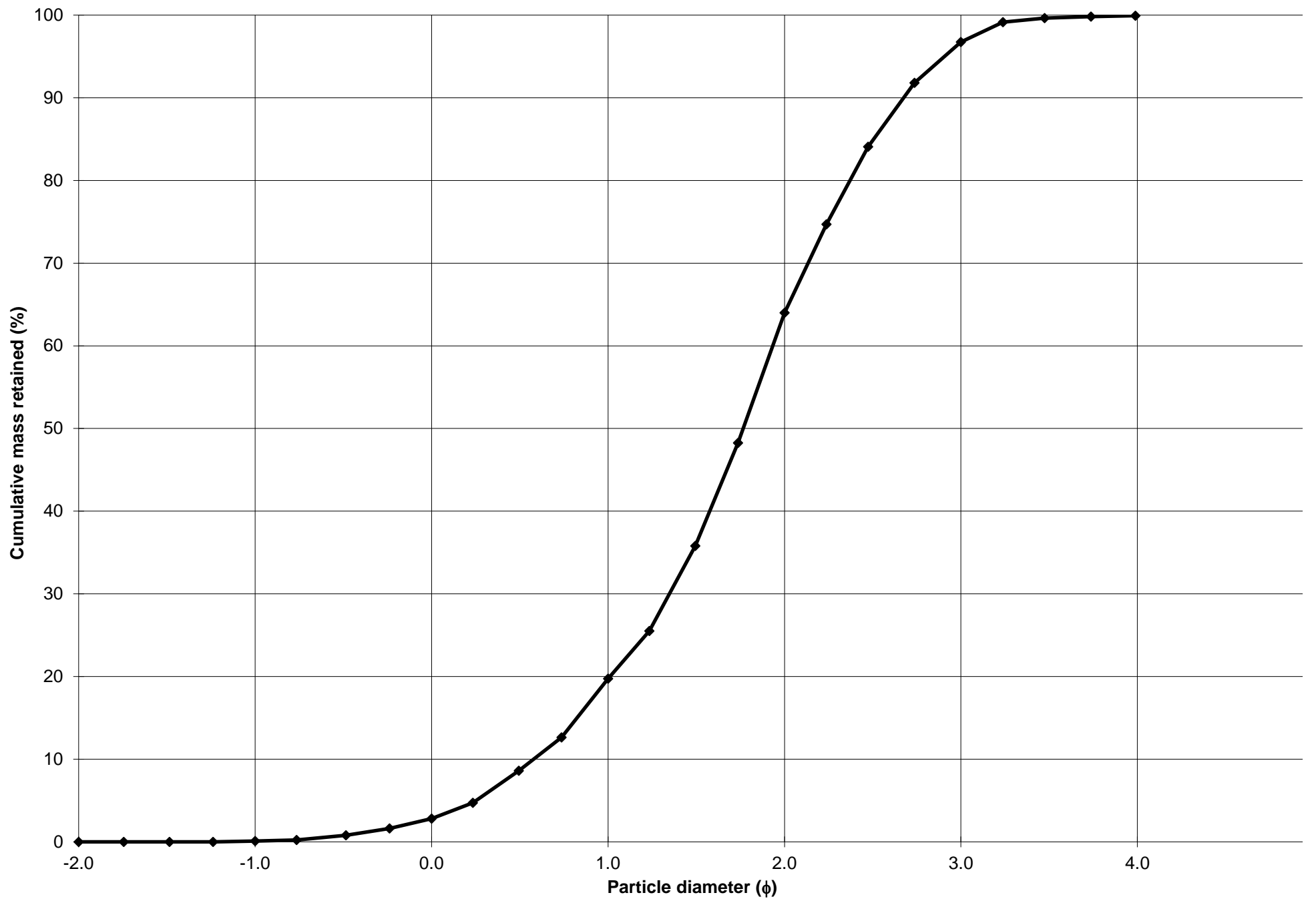
Cumulative Frequency Curve



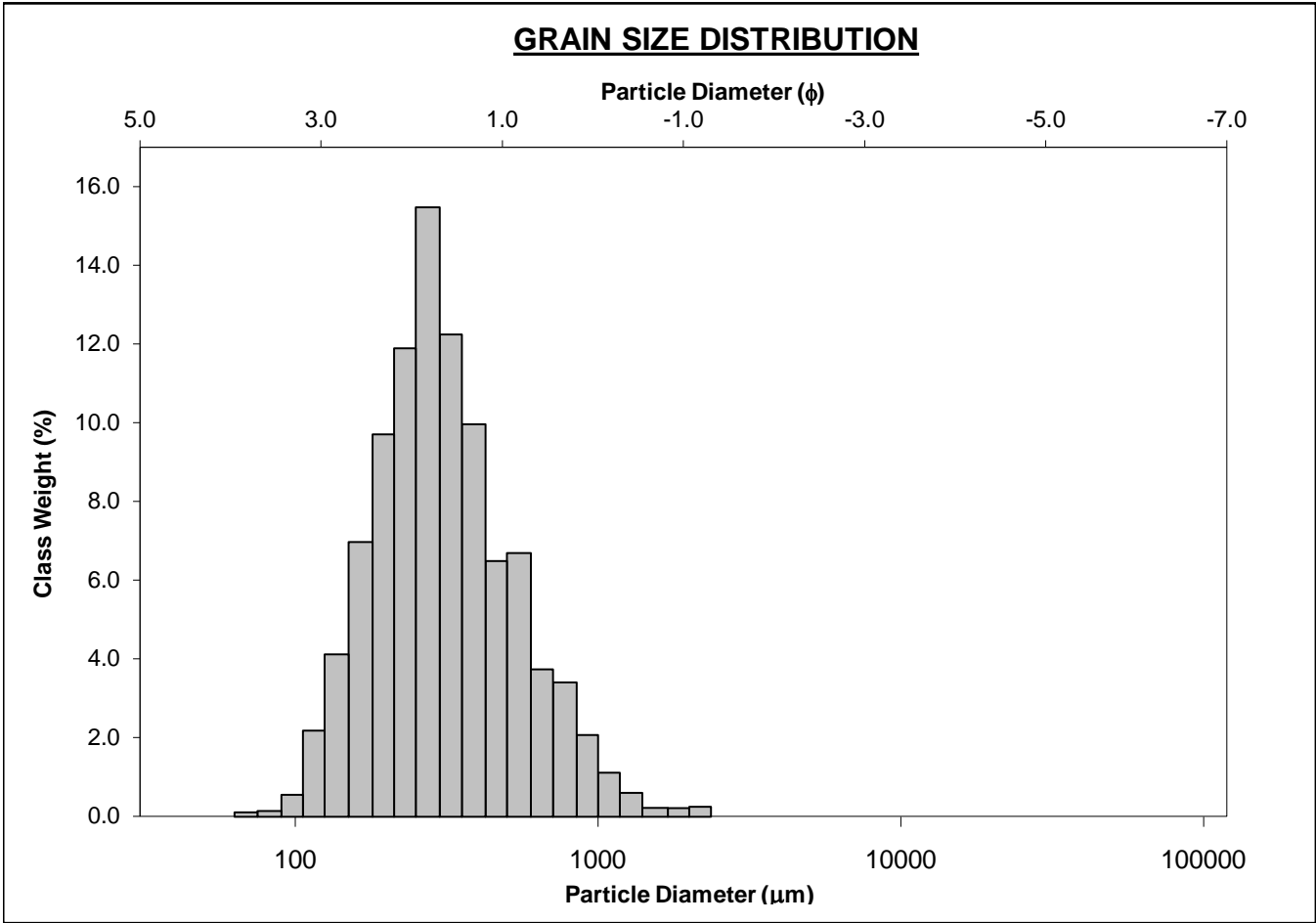
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-410cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.1%		COARSE SAND: 16.9%	
MODE 2:	550.0	0.868	SAND: 99.8%		MEDIUM SAND: 44.3%	
MODE 3:			MUD: 0.1%		FINE SAND: 32.7%	
D ₁₀ :	156.5	0.579			V FINE SAND: 3.2%	
MEDIAN or D ₅₀ :	294.0	1.766	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	669.6	2.676	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.278	4.623	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	513.0	2.097	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.044	1.850	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	220.2	1.032	V COARSE SAND: 2.7%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	367.5	309.8	1.691	307.8	1.700	Medium Sand
SORTING (σ):	246.1	1.752	0.809	1.747	0.805	Moderately Sorted
SKEWNESS (Sk):	2.390	0.249	-0.249	0.132	-0.132	Coarse Skewed
KURTOSIS (K):	11.41	4.162	4.162	1.055	1.055	Mesokurtic



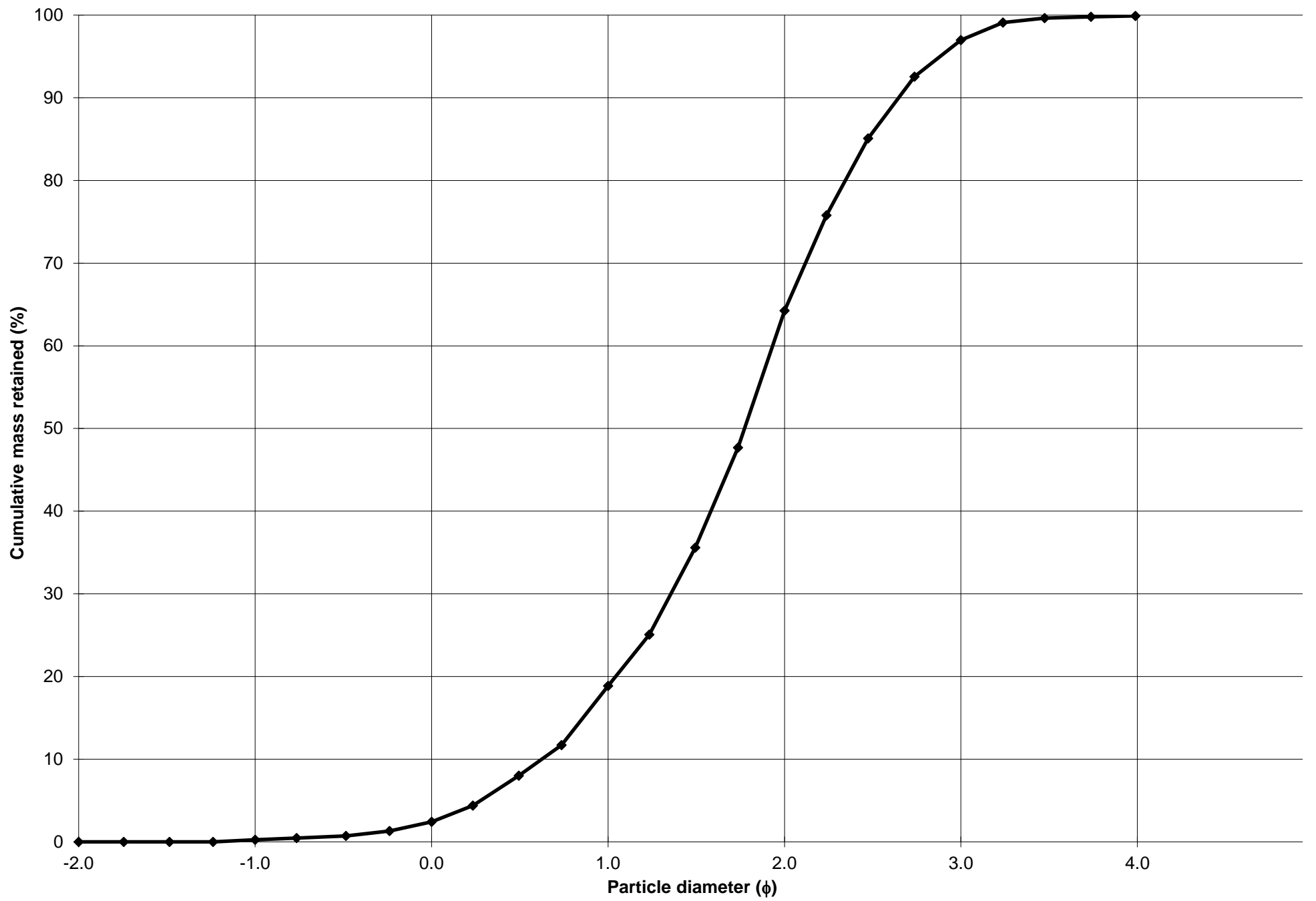
Cumulative Frequency Curve



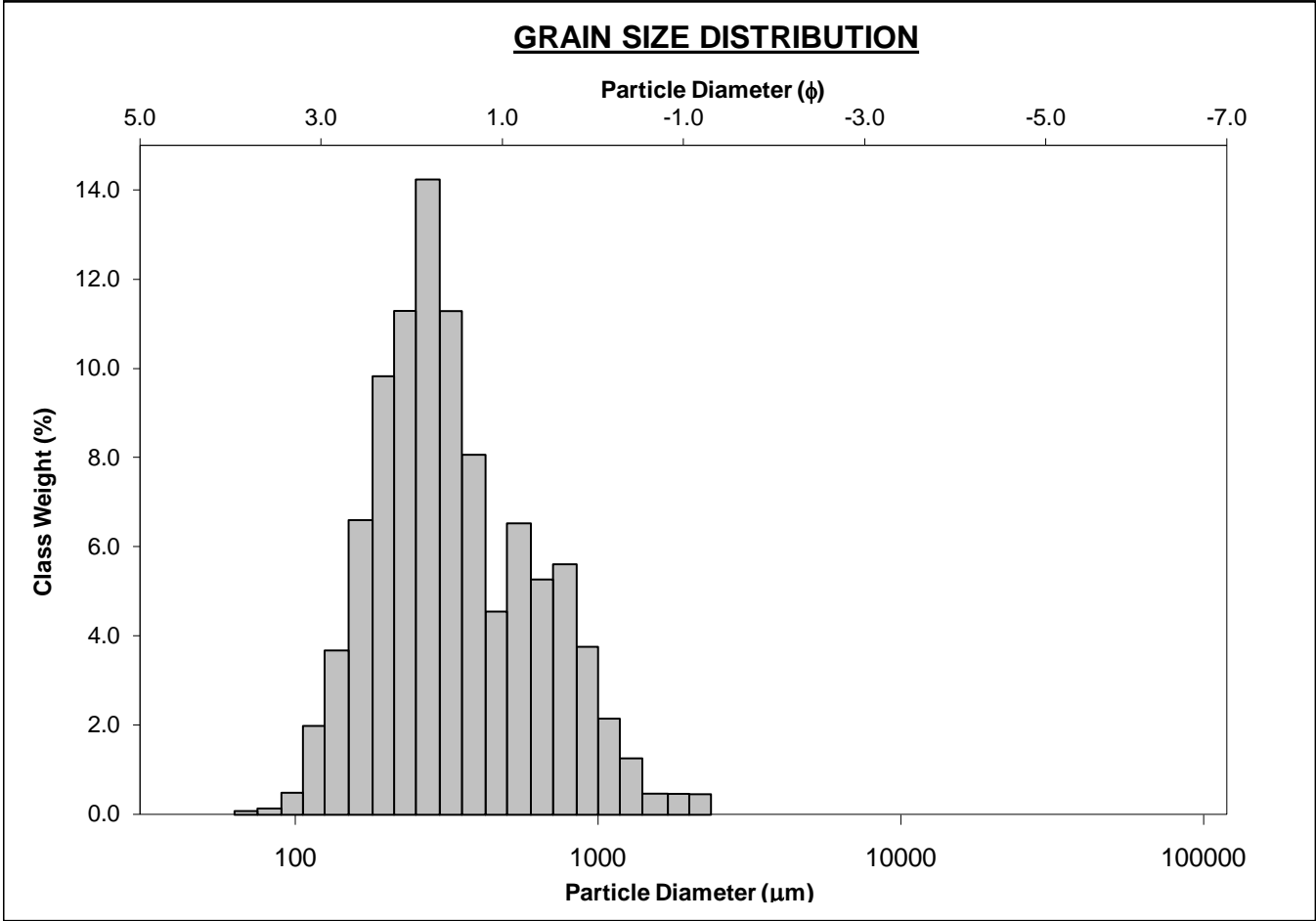
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-420cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.2%		COARSE SAND: 16.5%	
MODE 2:	550.0	0.868	SAND: 99.7%		MEDIUM SAND: 45.4%	
MODE 3:			MUD: 0.1%		FINE SAND: 32.7%	
D ₁₀ :	159.7	0.626			V FINE SAND: 2.9%	
MEDIAN or D ₅₀ :	292.5	1.774	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	648.2	2.647	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.059	4.231	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	488.5	2.021	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.986	1.803	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	211.3	0.990	V COARSE SAND: 2.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	364.5	309.0	1.694	306.7	1.705	Medium Sand
SORTING (σ):	243.9	1.735	0.795	1.720	0.782	Moderately Sorted
SKEWNESS (Sk):	2.753	0.183	-0.183	0.141	-0.141	Coarse Skewed
KURTOSIS (K):	15.12	4.895	4.895	1.078	1.078	Mesokurtic



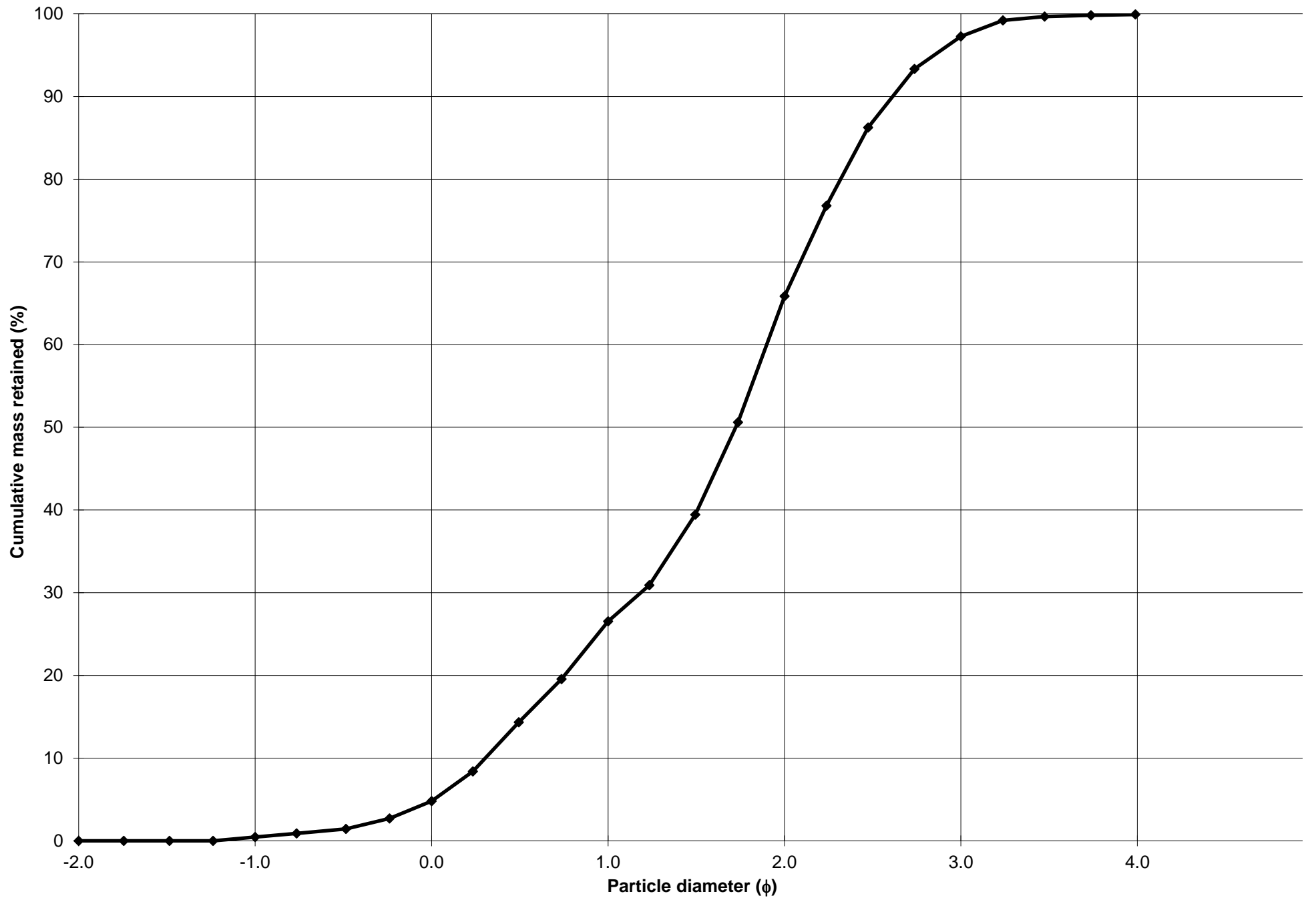
Cumulative Frequency Curve



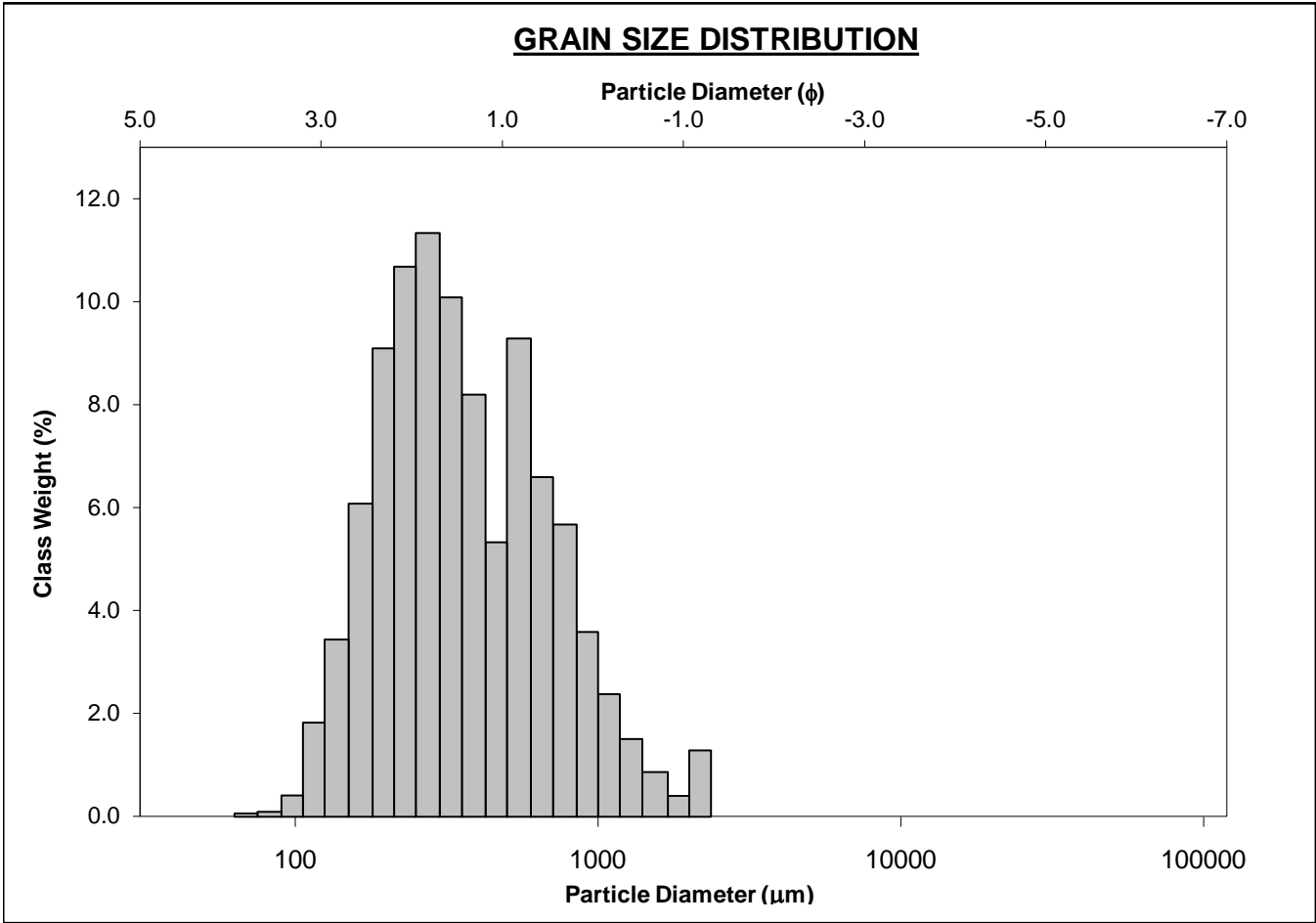
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-430cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.4%		COARSE SAND: 21.7%	
MODE 2:	550.0	0.868	SAND: 99.5%		MEDIUM SAND: 39.3%	
MODE 3:	780.0	0.364	MUD: 0.1%		FINE SAND: 31.4%	
D ₁₀ :	163.4	0.304			V FINE SAND: 2.6%	
MEDIAN or D ₅₀ :	302.7	1.724	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	809.7	2.613	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.955	8.584	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	646.3	2.309	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.390	2.335	V FINE GRAVEL: 0.4%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	302.8	1.257	V COARSE SAND: 4.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	413.6	336.1	1.573	336.6	1.571	Medium Sand
SORTING (σ):	305.4	1.856	0.892	1.855	0.891	Moderately Sorted
SKEWNESS (Sk):	2.273	0.284	-0.284	0.228	-0.228	Coarse Skewed
KURTOSIS (K):	10.17	3.859	3.859	0.925	0.925	Mesokurtic



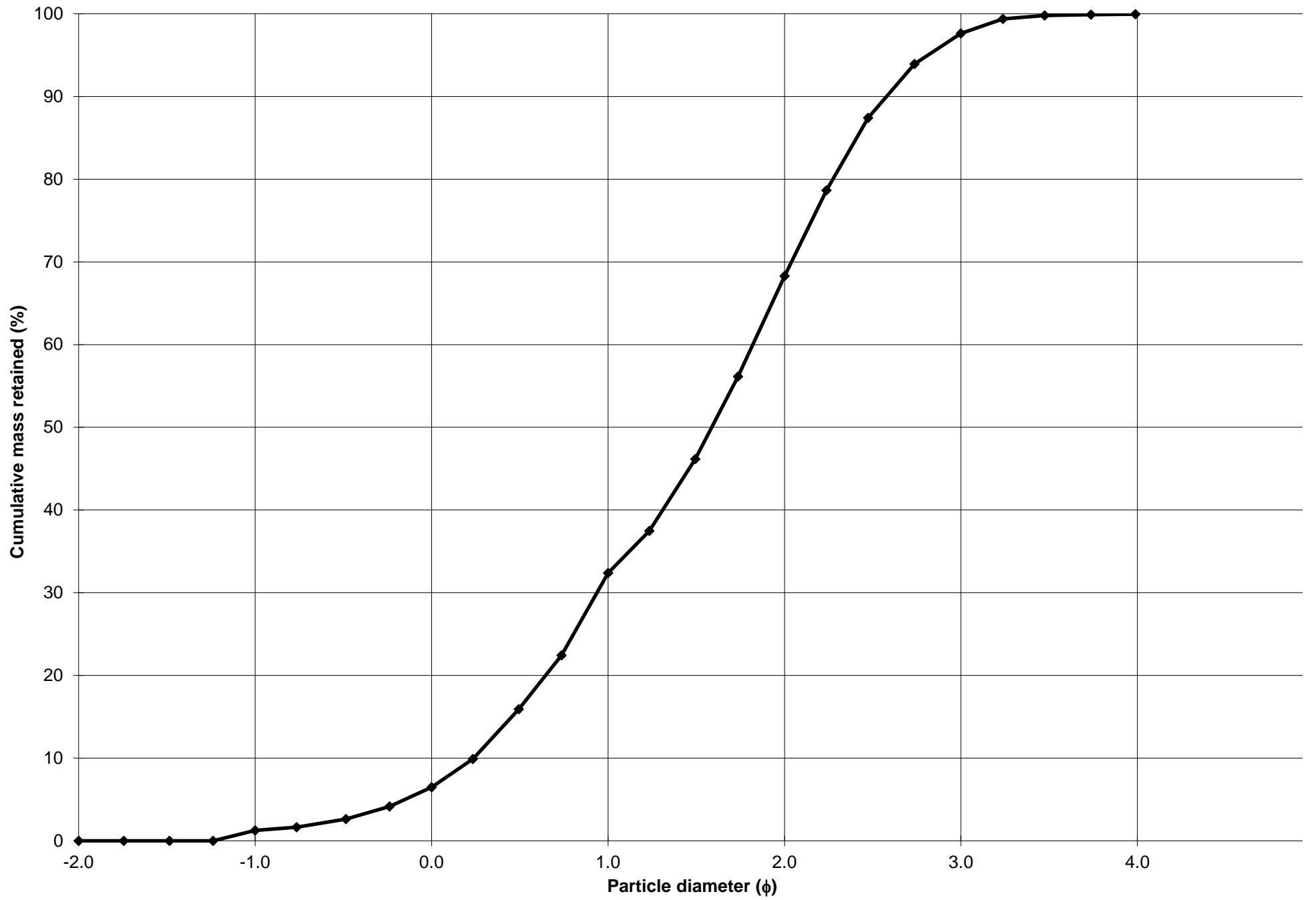
Cumulative Frequency Curve



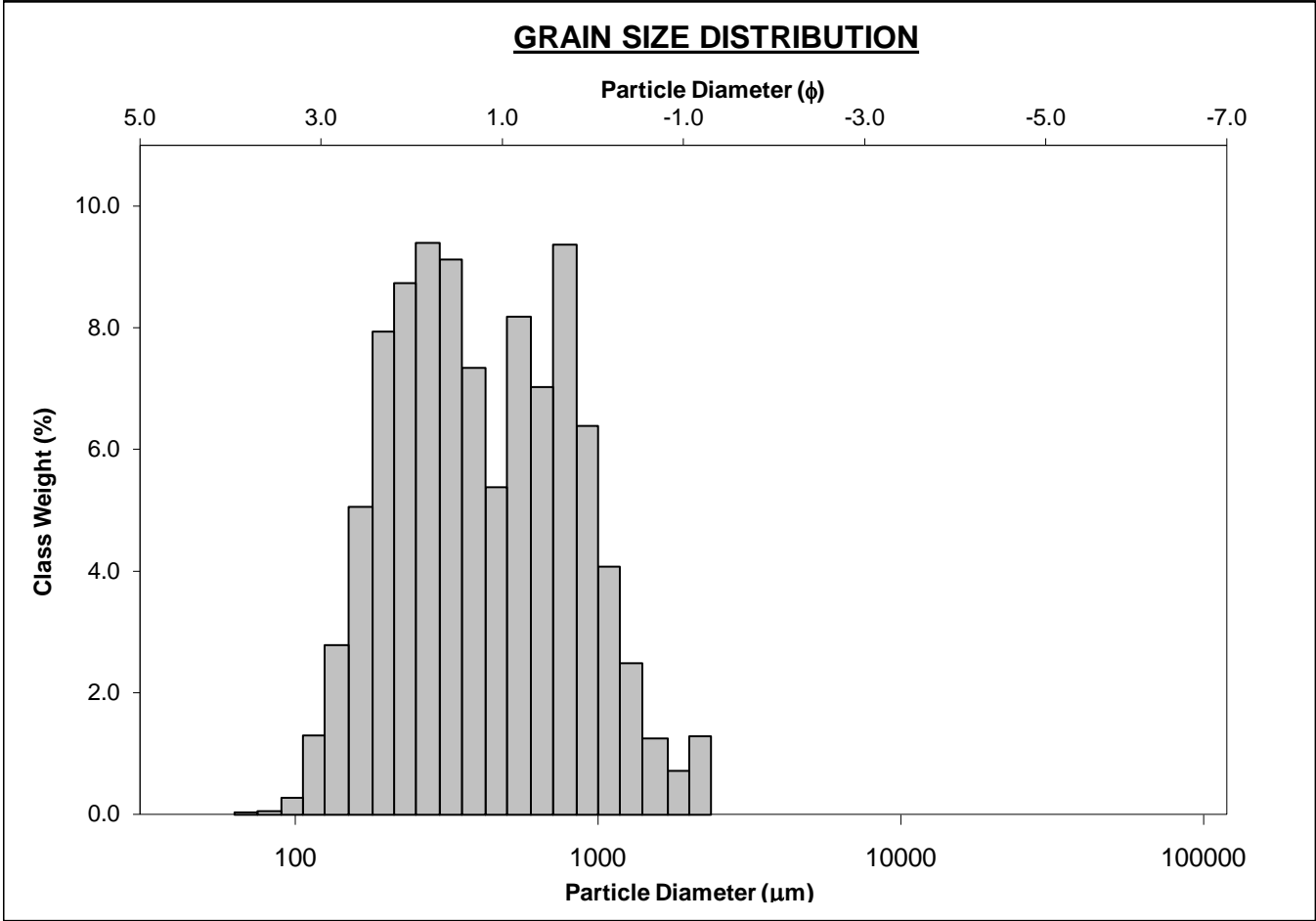
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-440cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 1.3%		COARSE SAND: 25.9%	
MODE 2:	550.0	0.868	SAND: 98.7%		MEDIUM SAND: 35.9%	
MODE 3:			MUD: 0.0%		FINE SAND: 29.3%	
D ₁₀ :	167.4	0.239			V FINE SAND: 2.3%	
MEDIAN or D ₅₀ :	332.7	1.588	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	847.5	2.579	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	5.063	10.80	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	680.1	2.340	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.548	2.677	V FINE GRAVEL: 1.3%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	347.8	1.349	V COARSE SAND: 5.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	453.9	362.6	1.464	356.2	1.489	Medium Sand
SORTING (σ):	351.0	1.902	0.928	1.893	0.920	Moderately Sorted
SKEWNESS (Sk):	2.358	0.333	-0.333	0.165	-0.165	Coarse Skewed
KURTOSIS (K):	10.28	3.255	3.255	0.901	0.901	Mesokurtic



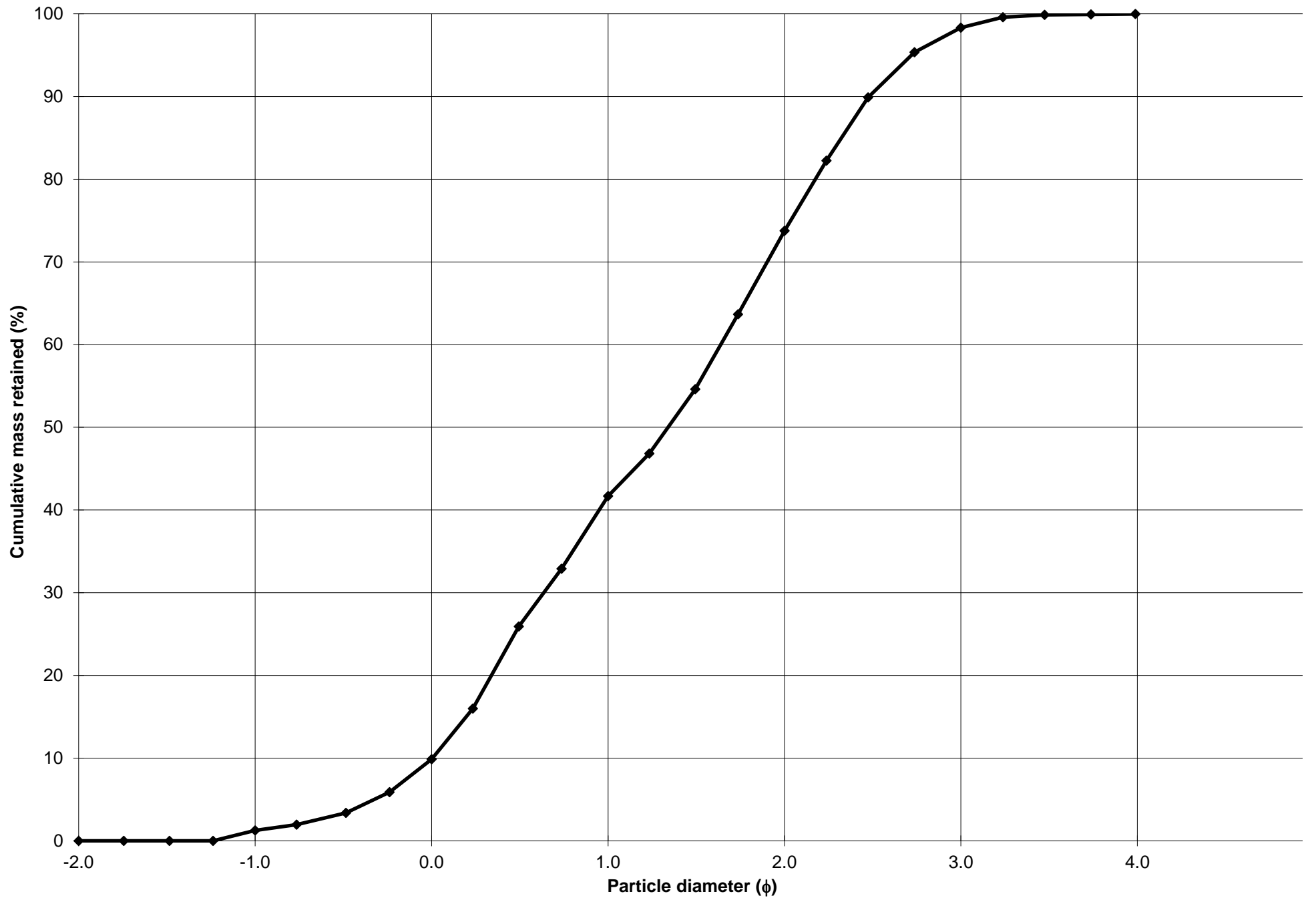
Cumulative Frequency Curve



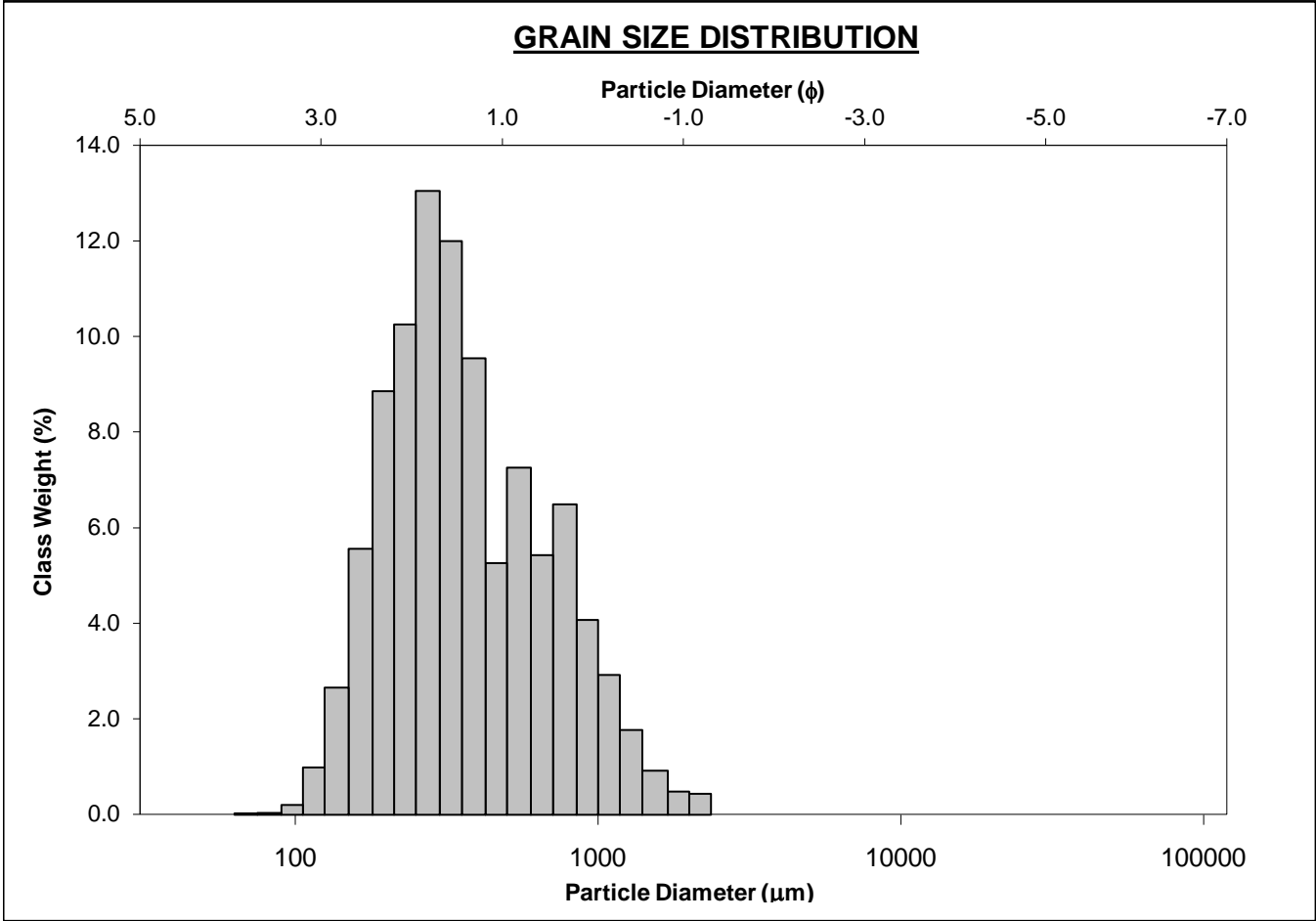
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-451cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 1.3%		COARSE SAND: 31.8%	
MODE 2:	780.0	0.364	SAND: 98.7%		MEDIUM SAND: 32.1%	
MODE 3:	550.0	0.868	MUD: 0.0%		FINE SAND: 24.6%	
D ₁₀ :	179.4	0.005			V FINE SAND: 1.6%	
MEDIAN or D ₅₀ :	395.0	1.340	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	996.5	2.479	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	5.554	492.0	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	817.1	2.474	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.958	4.328	V FINE GRAVEL: 1.3%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	477.9	1.565	V COARSE SAND: 8.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	527.3	417.5	1.260	409.3	1.289	Medium Sand
SORTING (σ):	384.8	1.965	0.975	1.967	0.976	Moderately Sorted
SKEWNESS (Sk):	1.735	0.129	-0.129	0.084	-0.084	Symmetrical
KURTOSIS (K):	6.820	2.578	2.578	0.798	0.798	Platykurtic



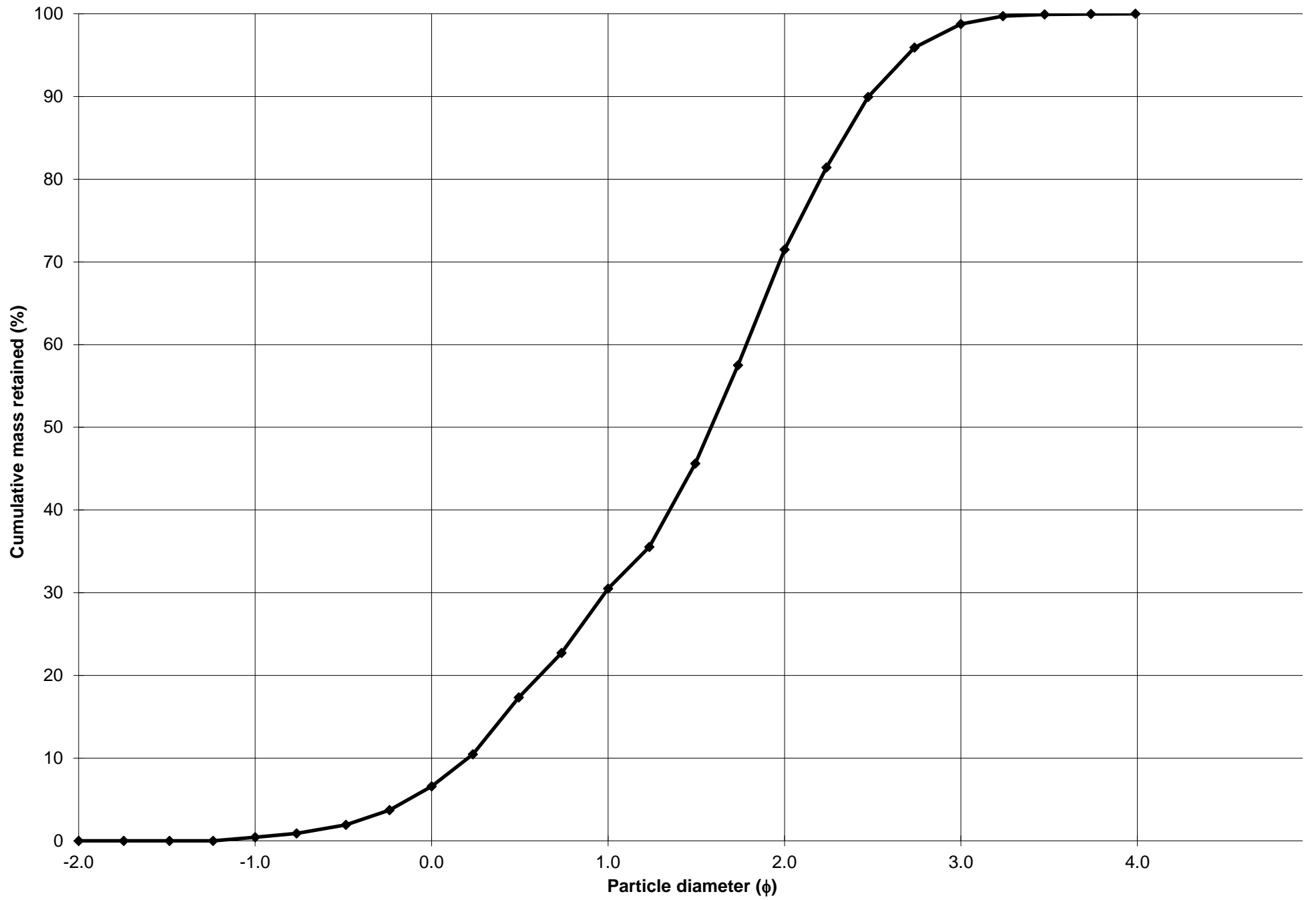
Cumulative Frequency Curve



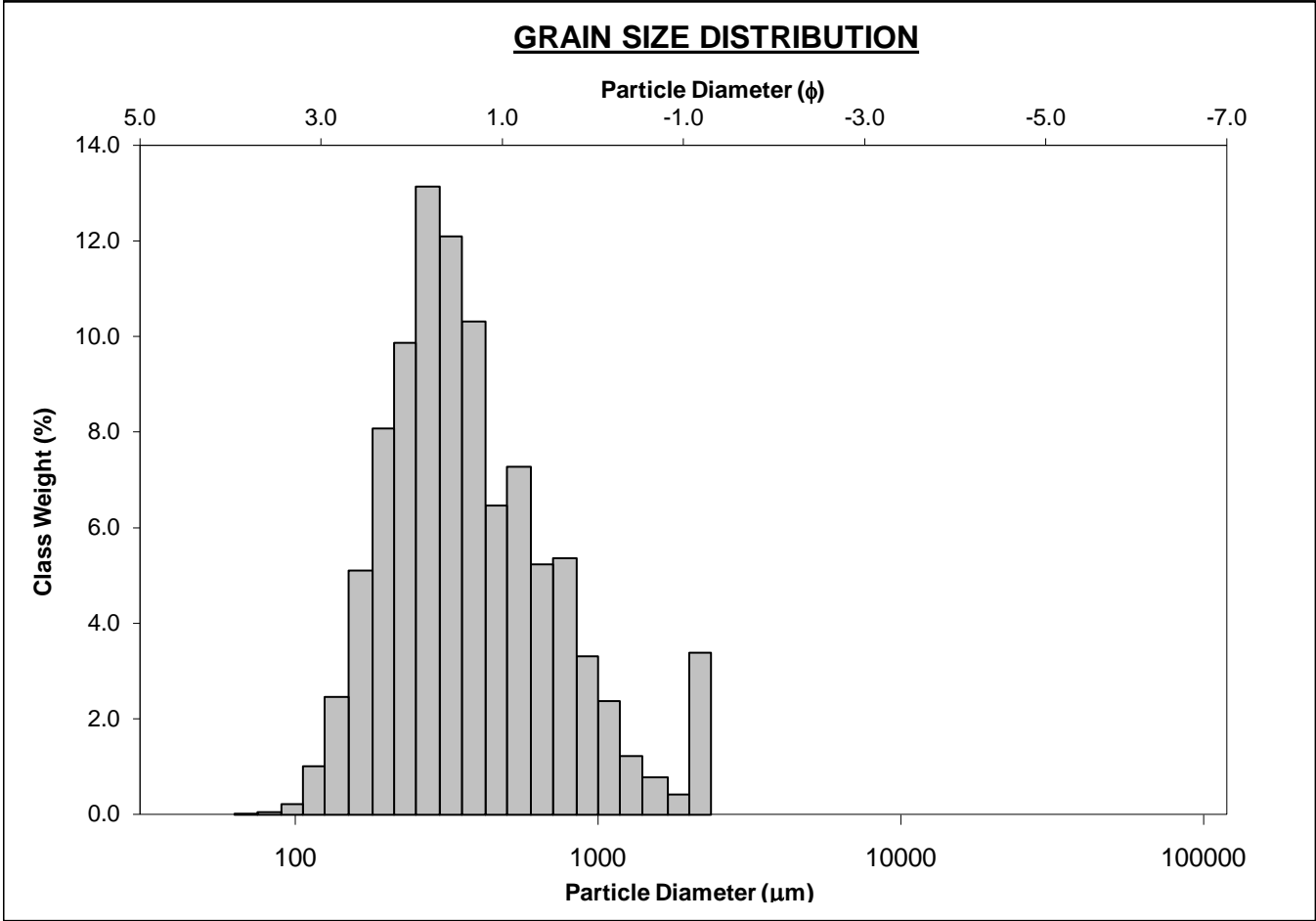
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-451cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.4%		COARSE SAND: 23.9%	
MODE 2:	550.0	0.868	SAND: 99.6%		MEDIUM SAND: 41.0%	
MODE 3:	780.0	0.364	MUD: 0.0%		FINE SAND: 27.3%	
D ₁₀ :	179.7	0.206			V FINE SAND: 1.2%	
MEDIAN or D ₅₀ :	333.7	1.584	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	866.7	2.476	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.823	12.00	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	687.0	2.270	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.411	2.559	V FINE GRAVEL: 0.4%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	332.8	1.270	V COARSE SAND: 6.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	450.7	368.5	1.440	367.2	1.445	Medium Sand
SORTING (σ):	322.4	1.834	0.875	1.860	0.895	Moderately Sorted
SKEWNESS (Sk):	2.021	0.440	-0.440	0.218	-0.218	Coarse Skewed
KURTOSIS (K):	8.284	2.725	2.725	0.913	0.913	Mesokurtic



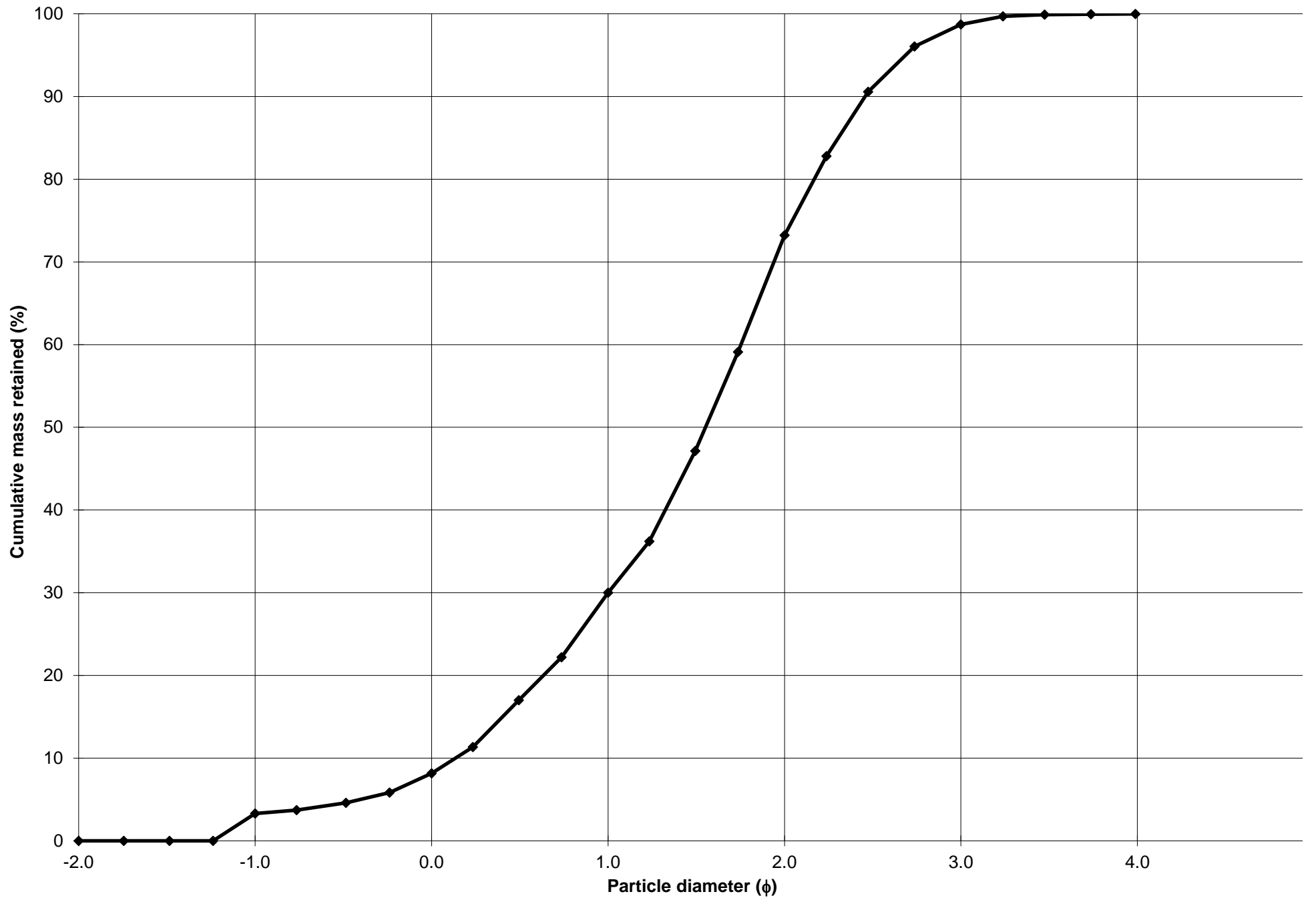
Cumulative Frequency Curve



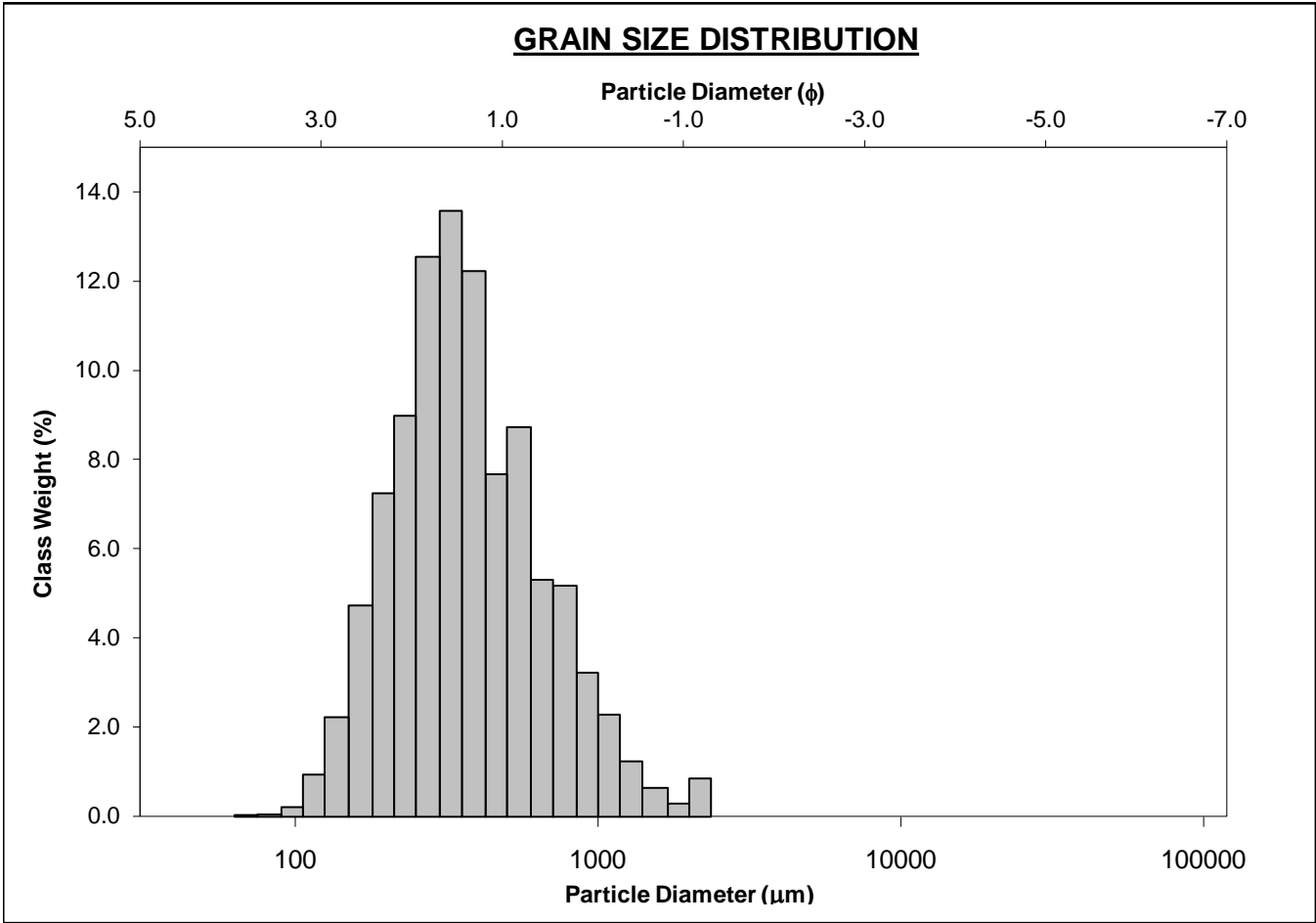
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-475cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Polymodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 3.3%		COARSE SAND: 21.9%	
MODE 2:	550.0	0.868	SAND: 96.7%		MEDIUM SAND: 43.2%	
MODE 3:	780.0	0.364	MUD: 0.0%		FINE SAND: 25.5%	
D ₁₀ :	182.2	0.136			V FINE SAND: 1.3%	
MEDIAN or D ₅₀ :	341.0	1.552	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	909.9	2.457	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.995	18.03	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	727.7	2.320	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.319	2.460	V FINE GRAVEL: 3.3%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	319.6	1.213	V COARSE SAND: 4.9%		CLAY: 0.0%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	485.9	380.7	1.393	372.4	1.425	Medium Sand
SORTING (σ):	419.0	1.911	0.934	1.899	0.925	Moderately Sorted
SKEWNESS (Sk):	2.564	0.667	-0.667	0.238	-0.238	Coarse Skewed
KURTOSIS (K):	10.06	3.478	3.478	1.045	1.045	Mesokurtic



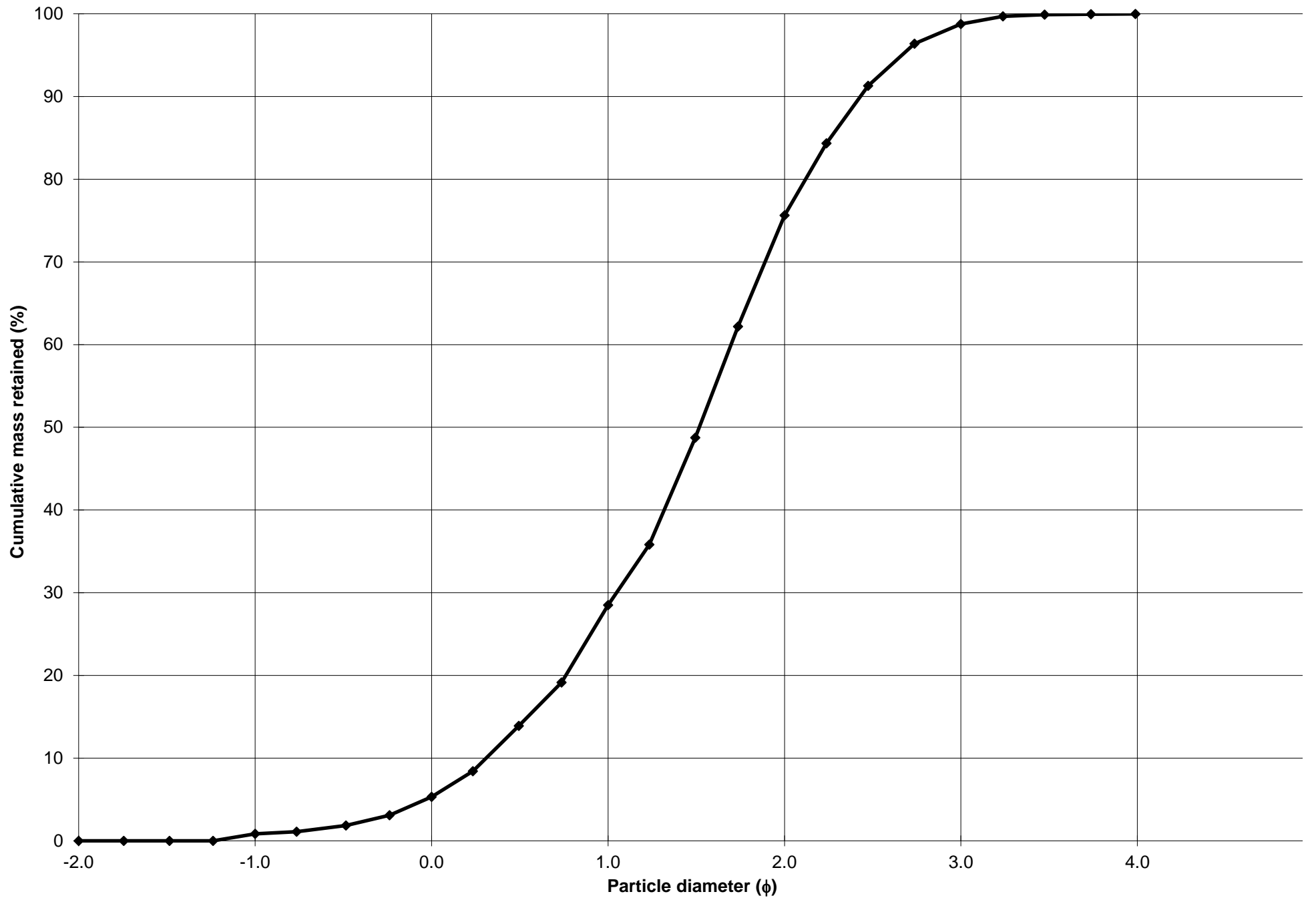
Cumulative Frequency Curve



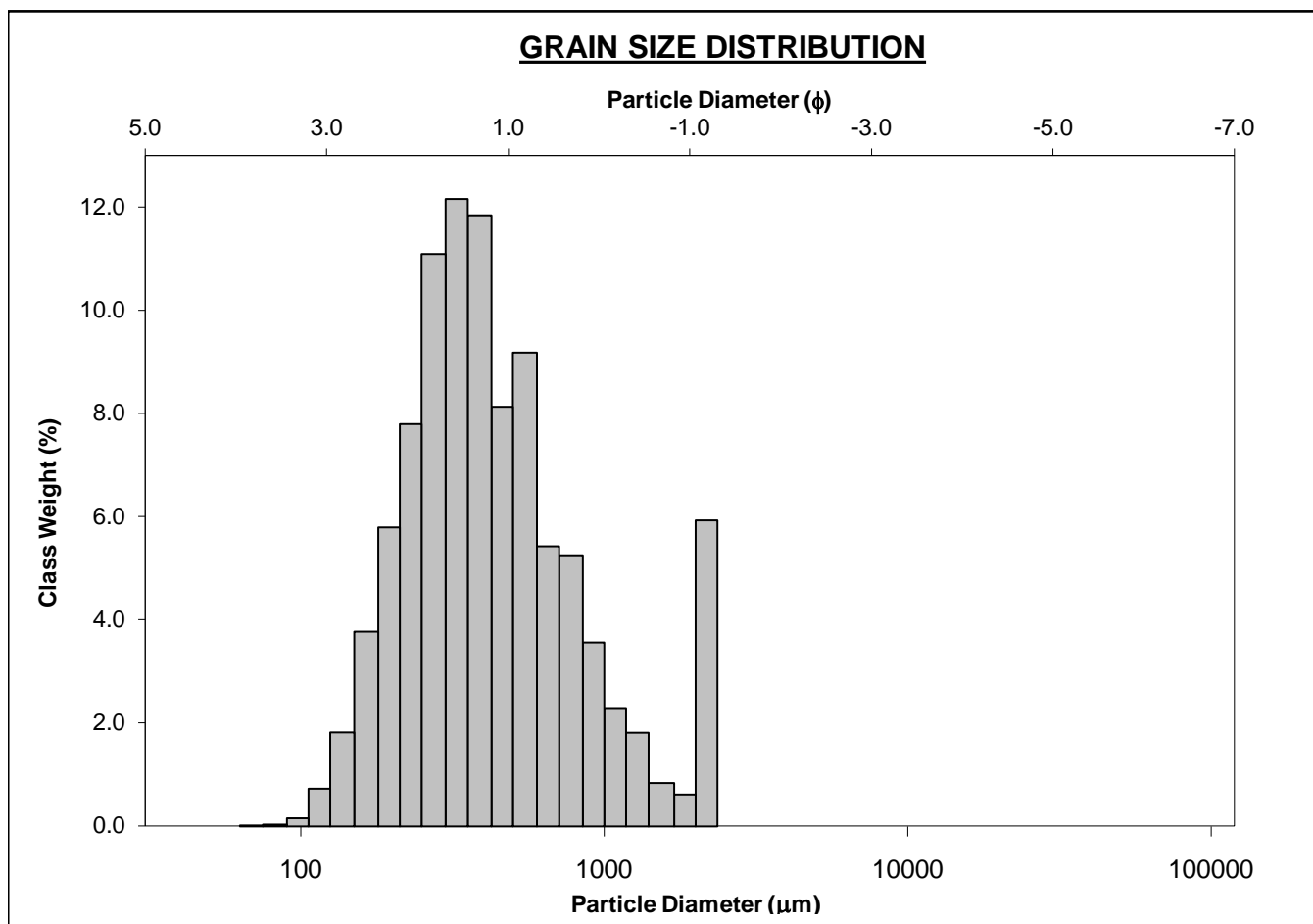
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-487cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.8%		COARSE SAND: 23.2%	
MODE 2:	550.0	0.868	SAND: 99.1%		MEDIUM SAND: 47.1%	
MODE 3:			MUD: 0.0%		FINE SAND: 23.1%	
D ₁₀ :	185.6	0.310			V FINE SAND: 1.2%	
MEDIAN or D ₅₀ :	349.5	1.517	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	806.8	2.430	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.347	7.846	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	621.2	2.120	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.123	2.204	V FINE GRAVEL: 0.8%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	283.1	1.086	V COARSE SAND: 4.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	444.4	371.3	1.429	367.1	1.446	Medium Sand
SORTING (σ):	310.8	1.768	0.822	1.764	0.819	Moderately Sorted
SKEWNESS (Sk):	2.533	0.409	-0.409	0.140	-0.140	Coarse Skewed
KURTOSIS (K):	11.98	3.435	3.435	1.019	1.019	Mesokurtic



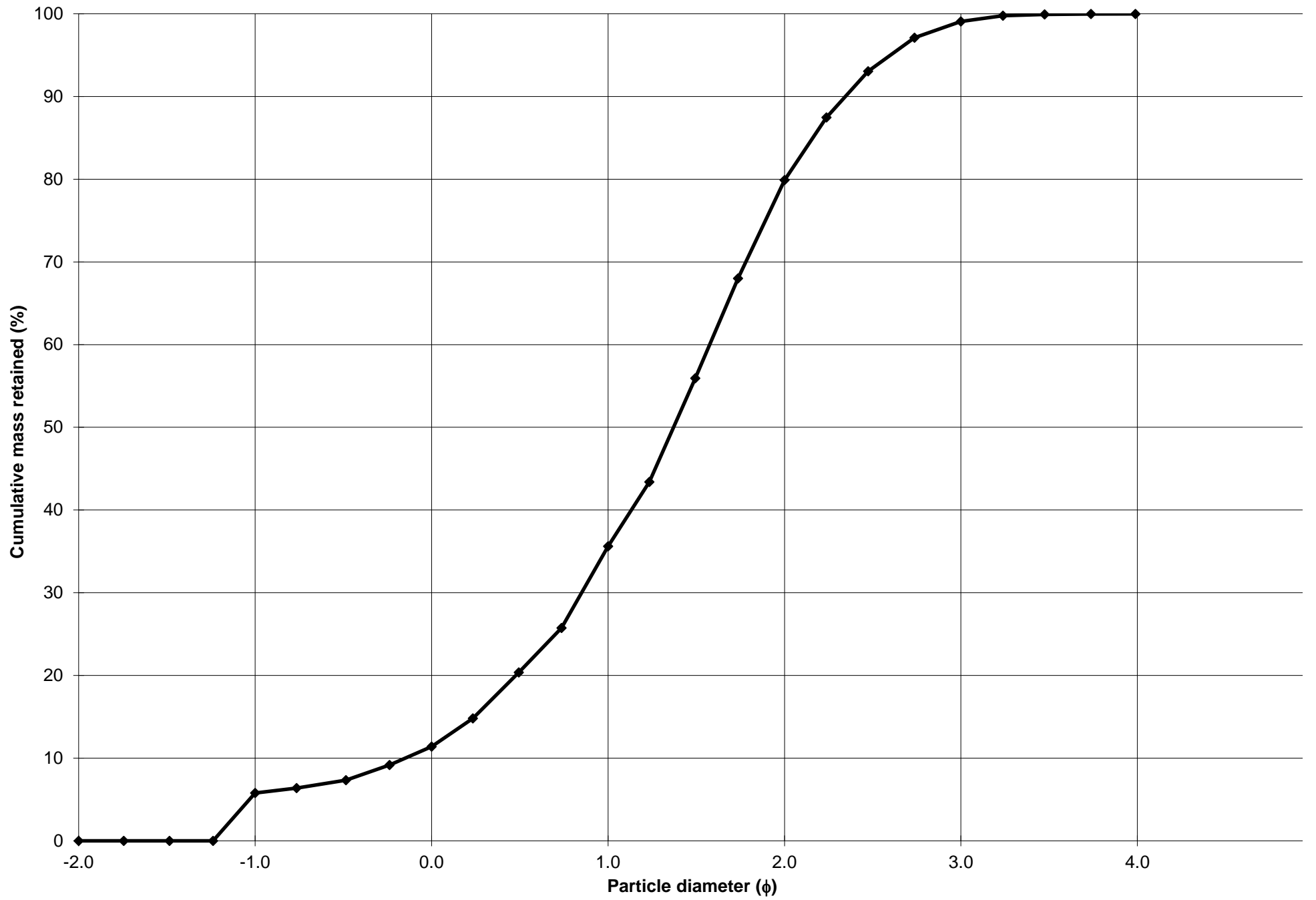
Cumulative Frequency Curve



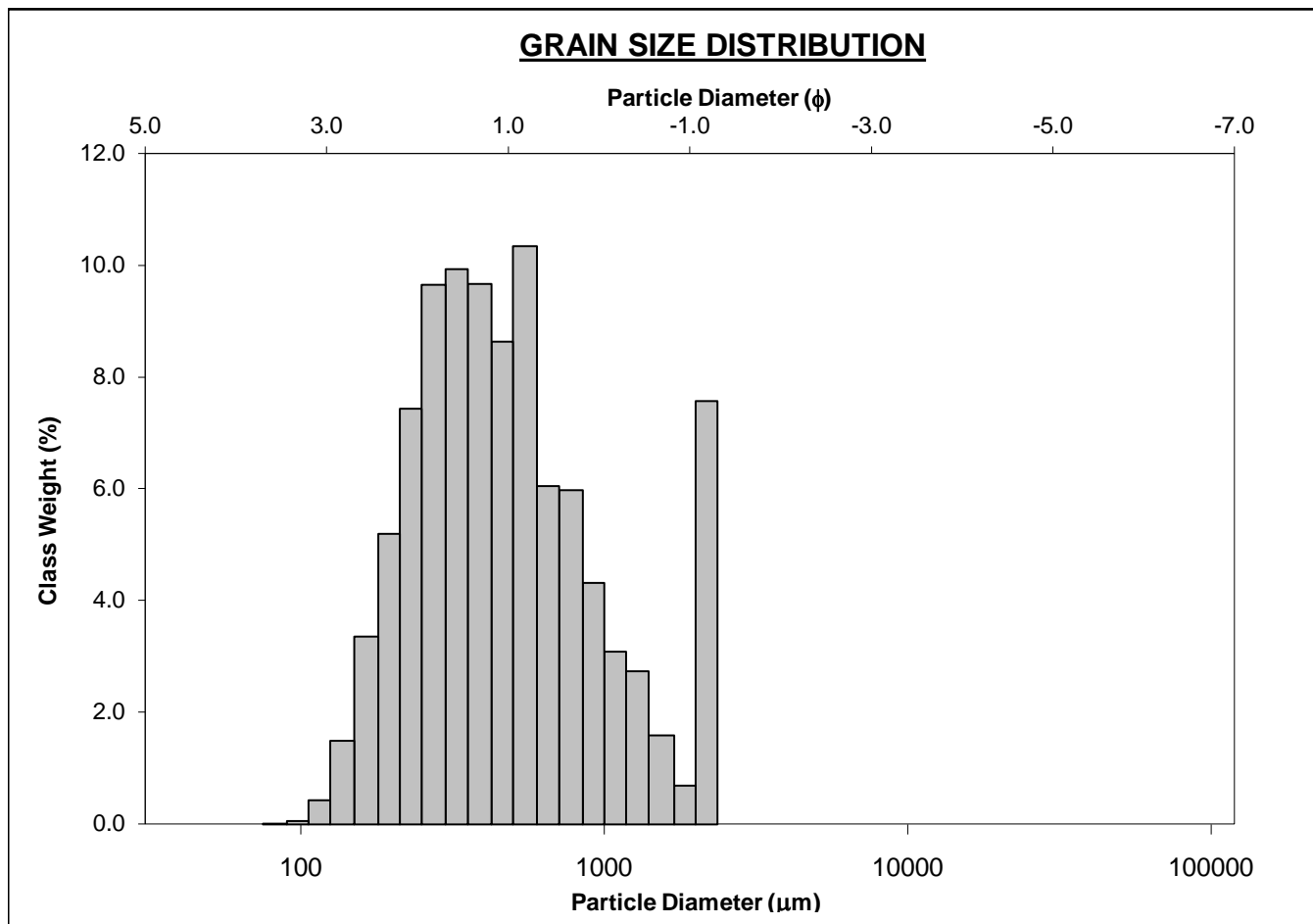
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-497cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Poorly Sorted			TEXTURAL GROUP: Gravelly Sand			
SEDIMENT NAME: Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 5.8%		COARSE SAND: 24.2%	
MODE 2:	550.0	0.868	SAND: 94.2%		MEDIUM SAND: 44.3%	
MODE 3:	2180.0	-1.119	MUD: 0.0%		FINE SAND: 19.2%	
D ₁₀ :	196.8	-0.149			V FINE SAND: 0.9%	
MEDIAN or D ₅₀ :	386.5	1.371	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	1108.6	2.345	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	5.632	-15.765	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	911.8	2.494	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.279	2.690	V FINE GRAVEL: 5.8%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	344.7	1.188	V COARSE SAND: 5.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	560.1	430.0	1.217	416.5	1.264	Medium Sand
SORTING (σ):	492.5	1.967	0.976	2.014	1.010	Poorly Sorted
SKEWNESS (Sk):	2.220	0.642	-0.642	0.250	-0.250	Coarse Skewed
KURTOSIS (K):	7.417	3.304	3.304	1.253	1.253	Leptokurtic



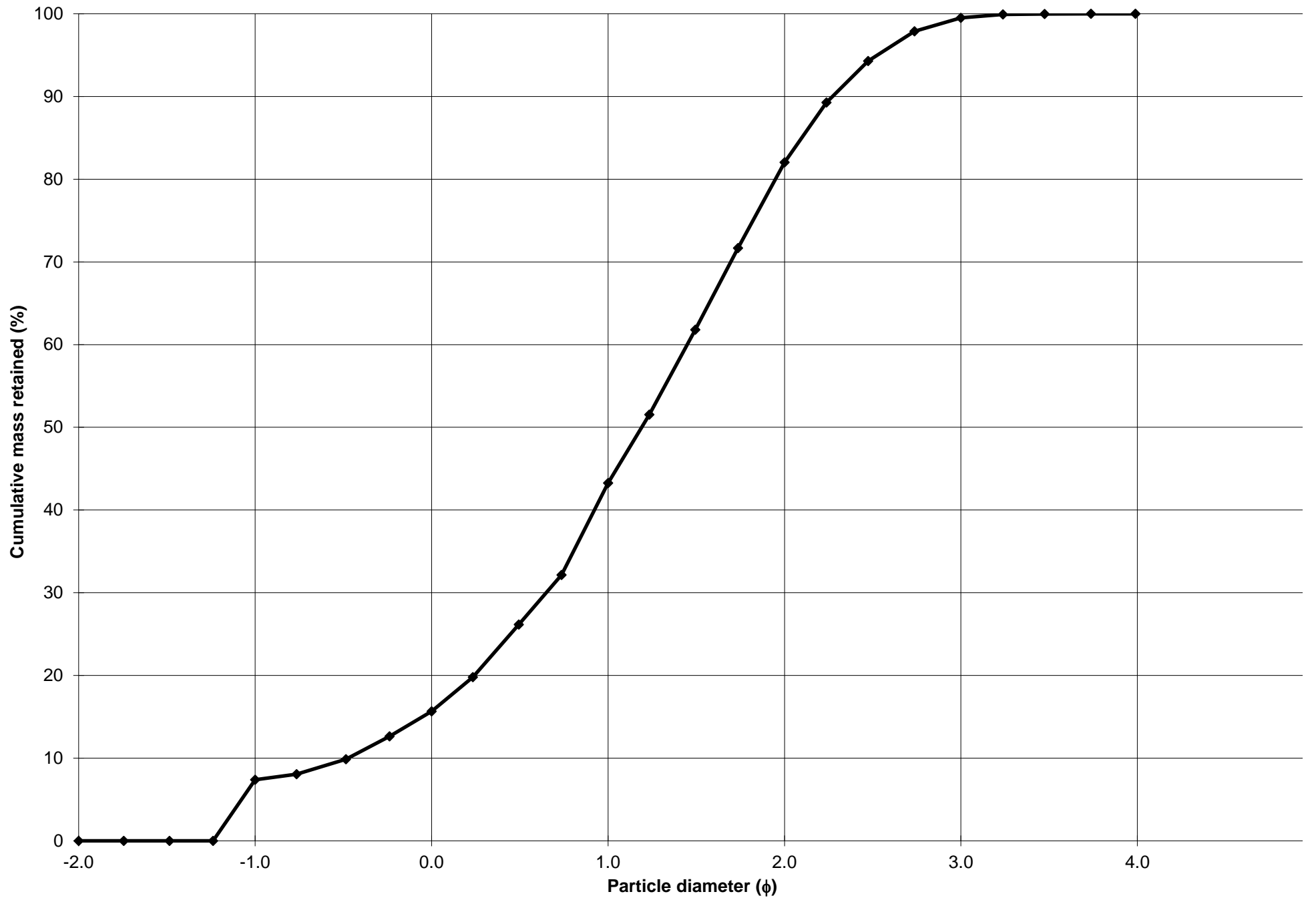
Cumulative Frequency Curve



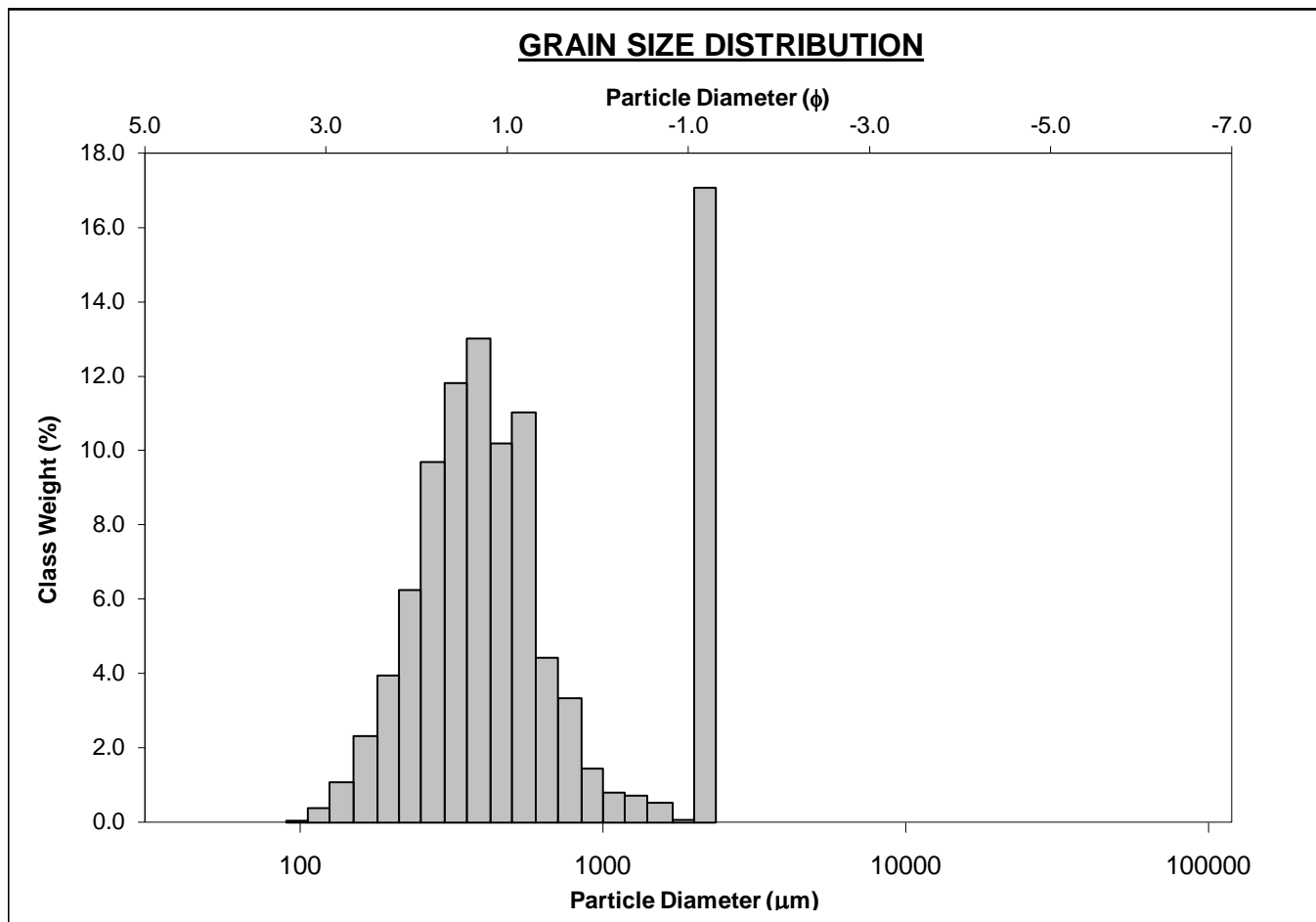
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-512cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Poorly Sorted			TEXTURAL GROUP: Gravelly Sand			
SEDIMENT NAME: Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 7.4%		COARSE SAND: 27.6%	
MODE 2:	327.5	1.616	SAND: 92.6%		MEDIUM SAND: 38.8%	
MODE 3:	2180.0	-1.119	MUD: 0.0%		FINE SAND: 17.5%	
D ₁₀ :	207.0	-0.475			V FINE SAND: 0.5%	
MEDIAN or D ₅₀ :	438.1	1.191	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	1389.5	2.272	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	6.713	-4.788	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	1182.5	2.747	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.592	4.071	V FINE GRAVEL: 7.4%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	450.4	1.374	V COARSE SAND: 8.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	632.8	479.3	1.061	469.2	1.092	Medium Sand
SORTING (σ):	539.8	2.031	1.022	2.081	1.057	Poorly Sorted
SKEWNESS (Sk):	1.824	0.506	-0.506	0.202	-0.202	Coarse Skewed
KURTOSIS (K):	5.506	2.708	2.708	1.075	1.075	Mesokurtic



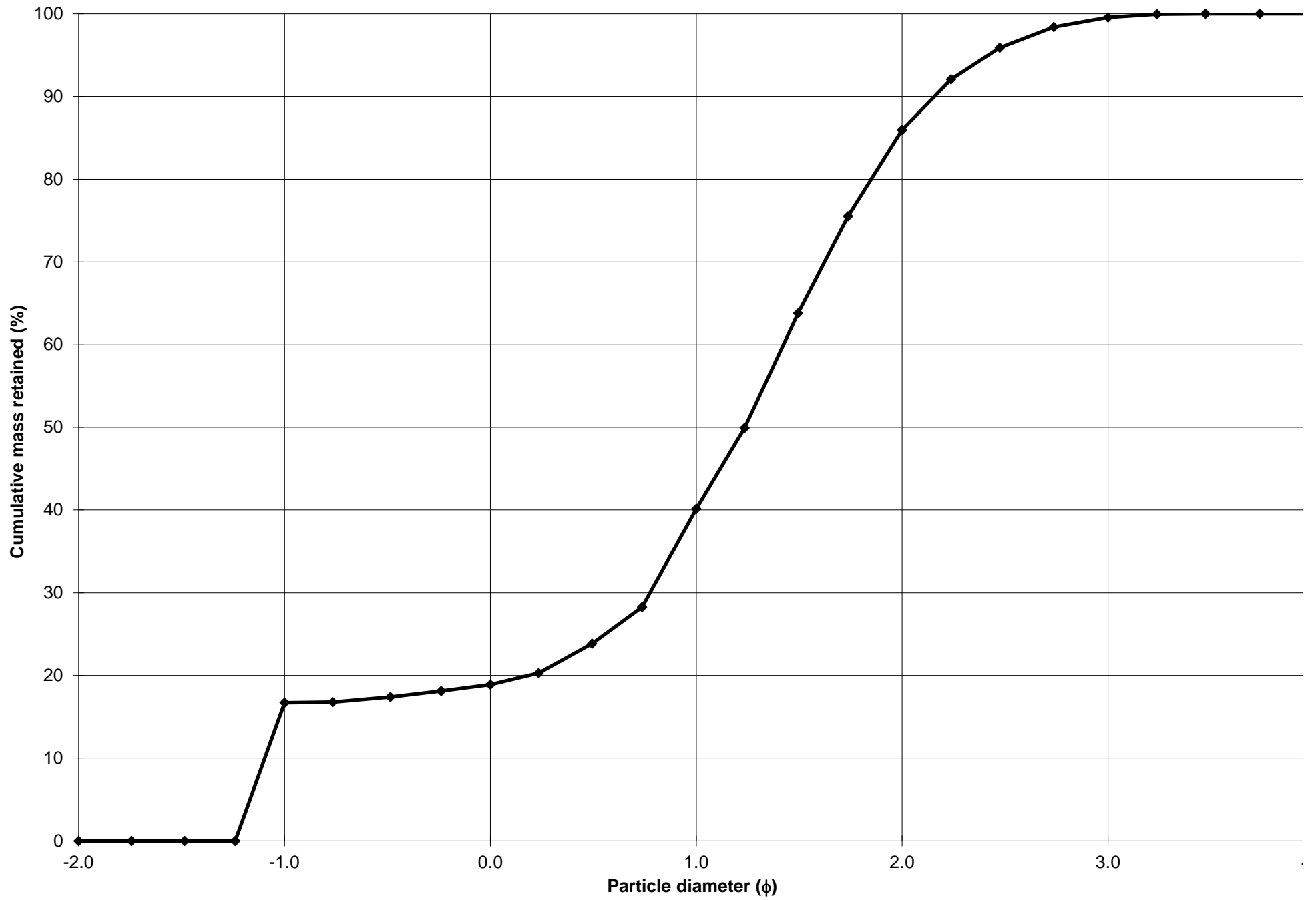
Cumulative Frequency Curve



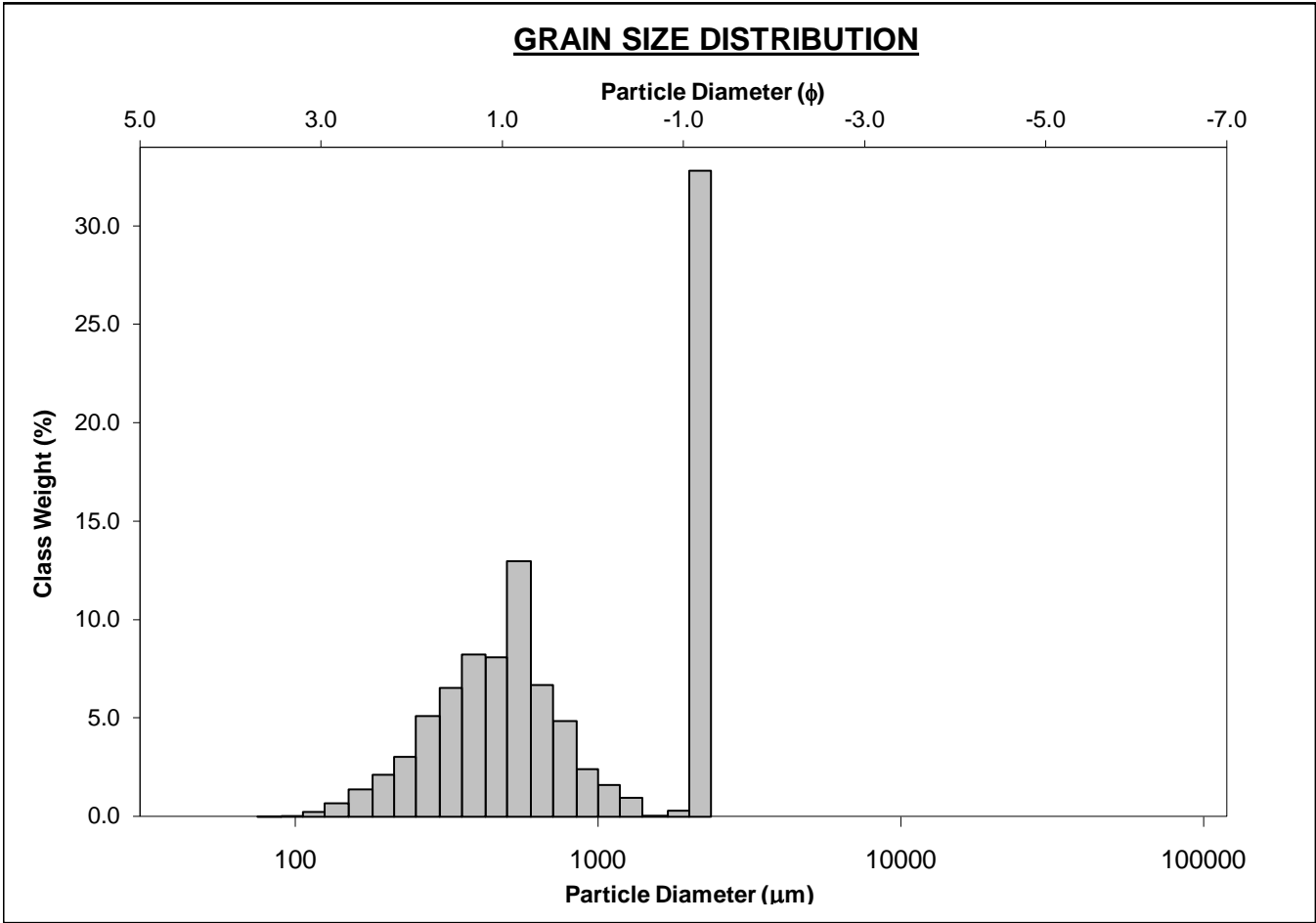
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-523cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Poorly Sorted			TEXTURAL GROUP: Gravelly Sand			
SEDIMENT NAME: Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	2180.0	-1.119	GRAVEL: 16.7%		COARSE SAND: 21.2%	
MODE 2:	390.0	1.364	SAND: 83.3%		MEDIUM SAND: 45.8%	
MODE 3:	550.0	0.868	MUD: 0.0%		FINE SAND: 13.6%	
D ₁₀ :	224.2	-1.096			V FINE SAND: 0.4%	
MEDIAN or D ₅₀ :	424.6	1.236	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	2137.2	2.157	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	9.532	-1.969	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	1913.0	3.253	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.248	3.096	V FINE GRAVEL: 16.7%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	377.2	1.169	V COARSE SAND: 2.2%		CLAY: 0.0%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	721.9	512.3	0.965	604.9	0.725	Coarse Sand
SORTING (σ):	683.7	2.163	1.113	2.434	1.283	Poorly Sorted
SKEWNESS (Sk):	1.500	0.750	-0.750	0.429	-0.429	Very Coarse Skewed
KURTOSIS (K):	3.567	2.618	2.618	1.258	1.258	Leptokurtic



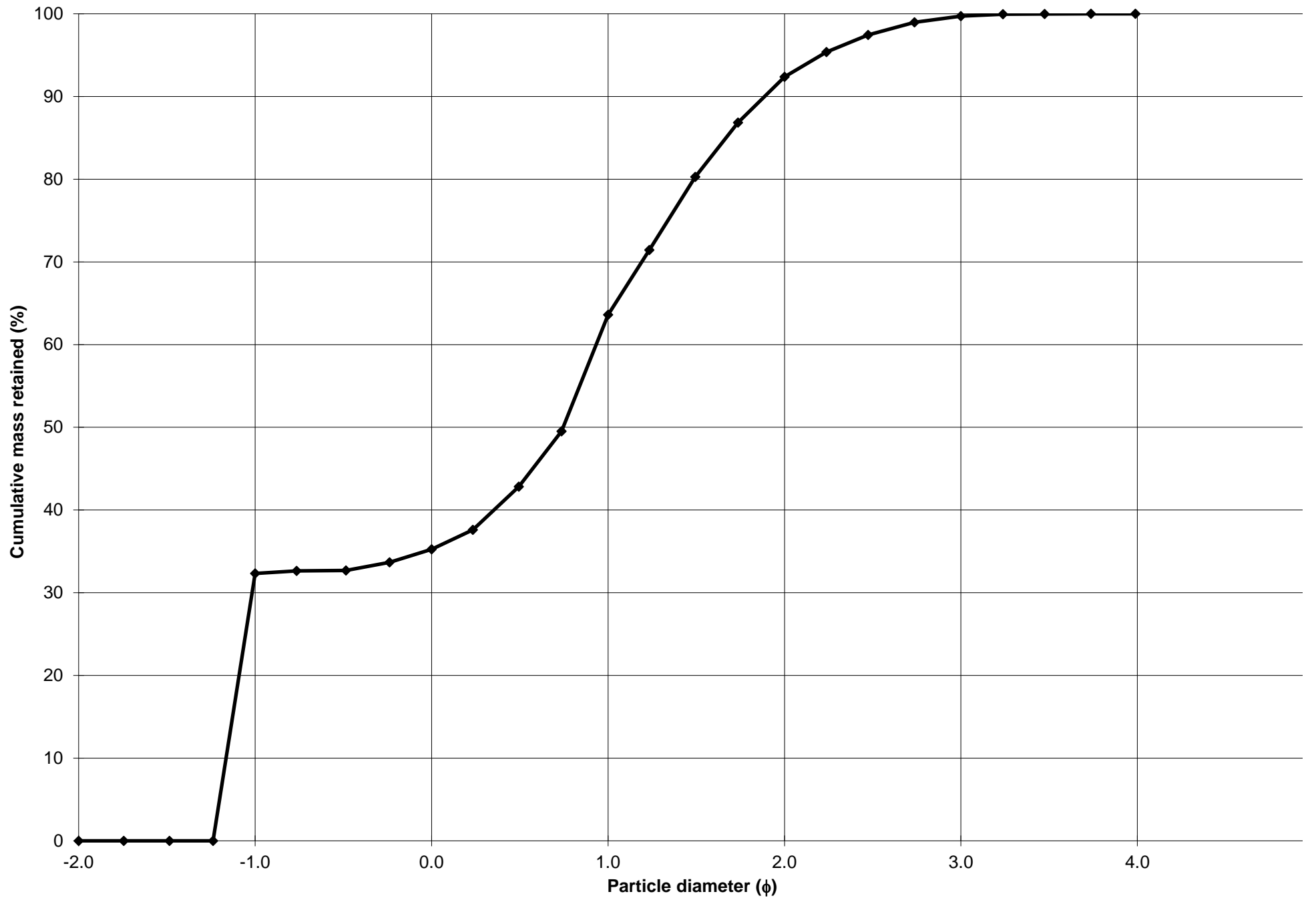
Cumulative Frequency Curve



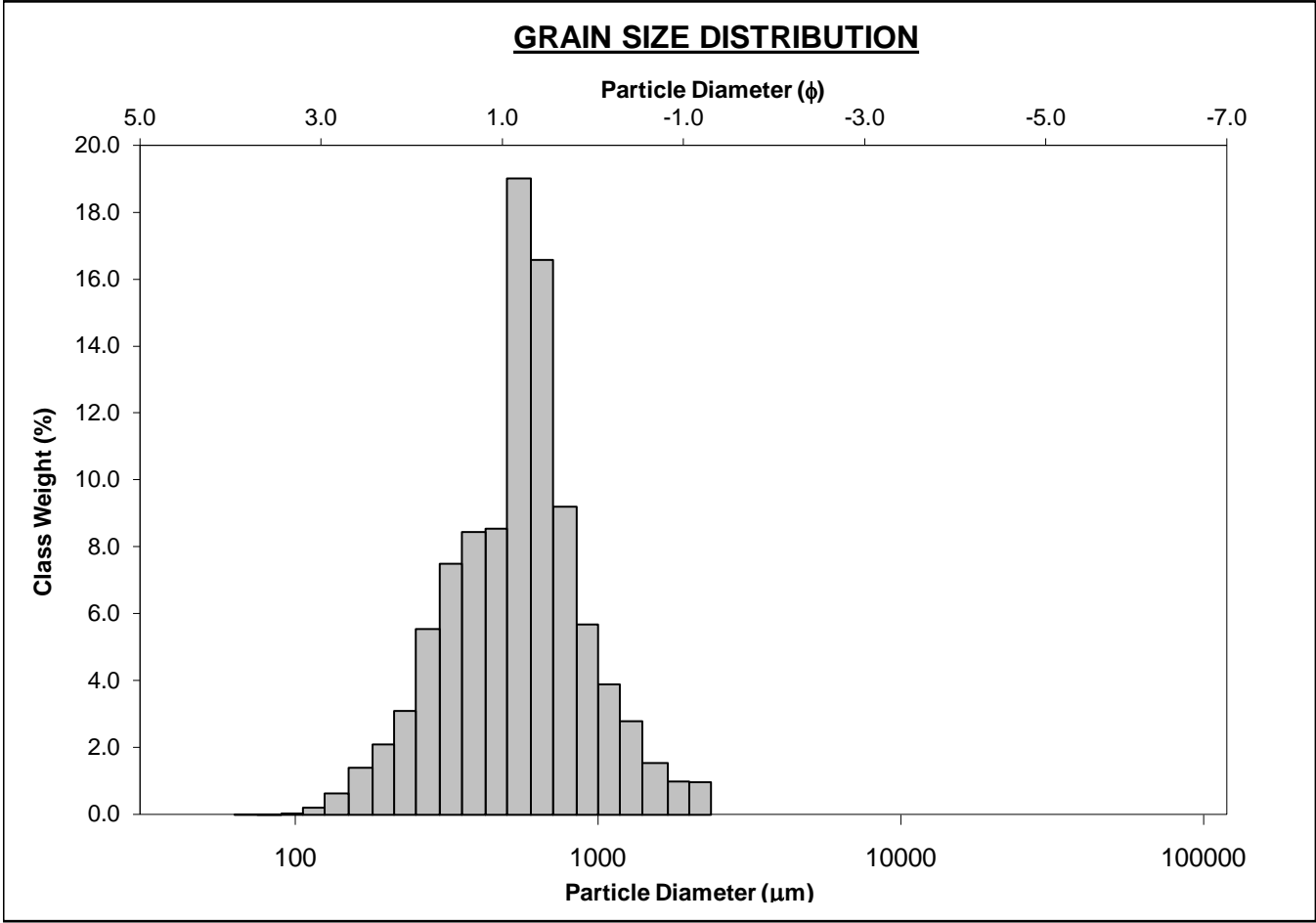
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-533cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Poorly Sorted			TEXTURAL GROUP: Sandy Gravel			
SEDIMENT NAME: Sandy Very Fine Gravel						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	2180.0	-1.119	GRAVEL: 32.3%		COARSE SAND: 28.3%	
MODE 2:	550.0	0.868	SAND: 67.7%		MEDIUM SAND: 28.8%	
MODE 3:	390.0	1.364	MUD: 0.0%		FINE SAND: 7.3%	
D ₁₀ :	270.4	-1.165			V FINE SAND: 0.3%	
MEDIAN or D ₅₀ :	596.3	0.746	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	2242.2	1.887	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	8.293	-1.620	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	1971.9	3.052	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	5.253	-1.270	V FINE GRAVEL: 32.3%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	1681.2	2.393	V COARSE SAND: 2.9%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	1047.2	749.9	0.415	747.9	0.419	Coarse Sand
SORTING (σ):	808.8	2.302	1.203	2.305	1.205	Poorly Sorted
SKEWNESS (Sk):	0.588	0.082	-0.082	0.249	-0.249	Coarse Skewed
KURTOSIS (K):	1.513	1.765	1.765	0.584	0.584	Very Platykurtic



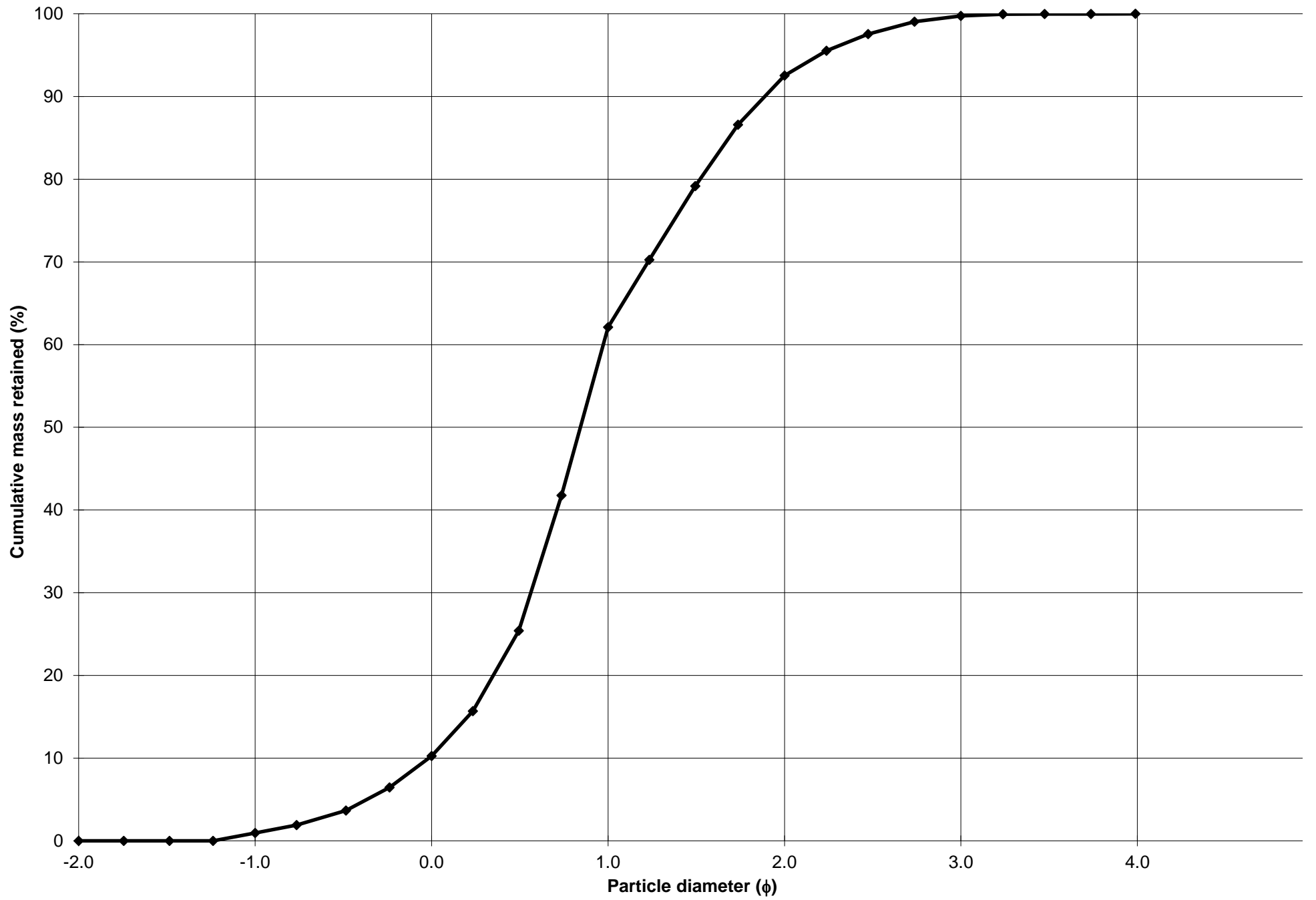
Cumulative Frequency Curve



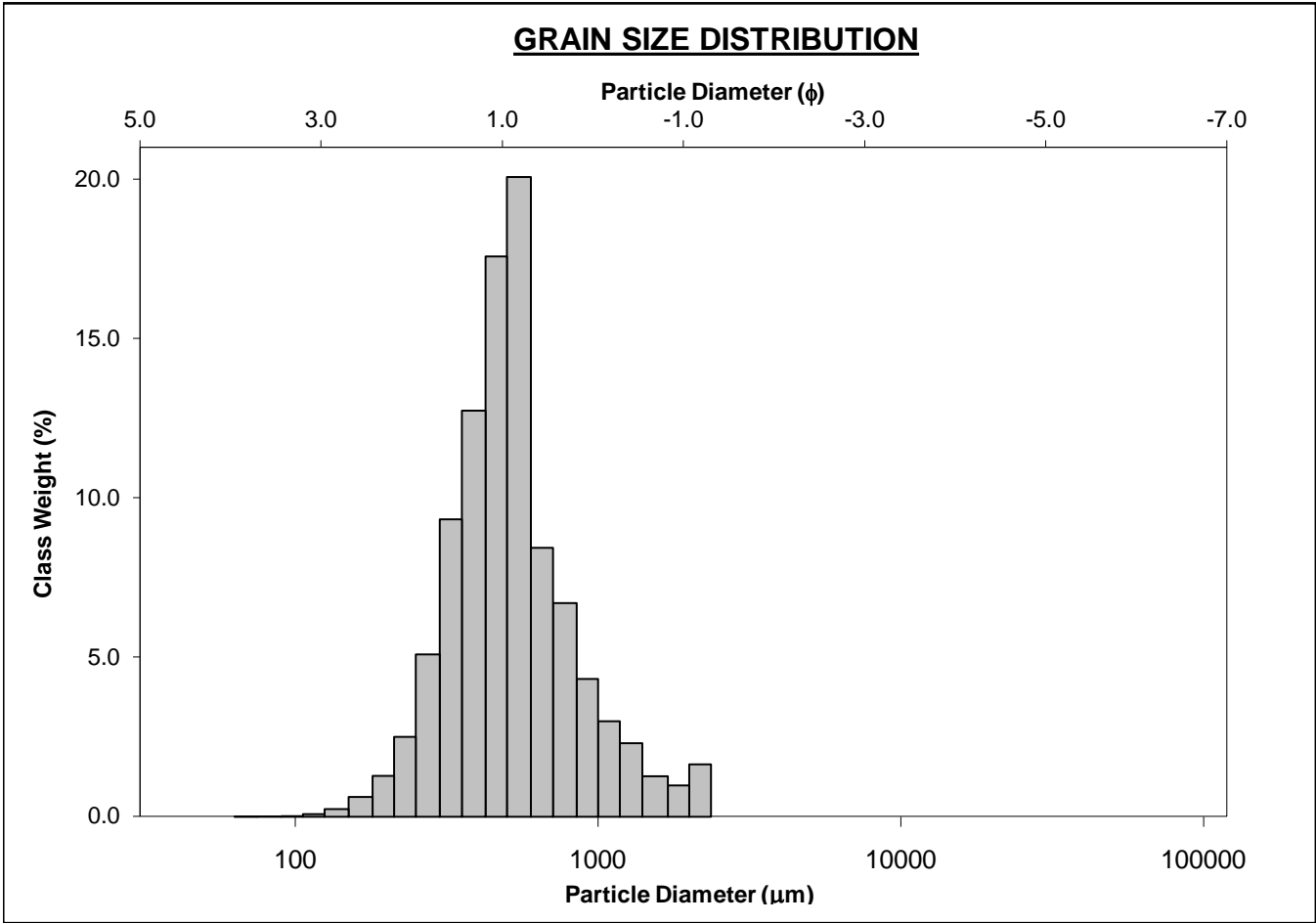
SIEVING ERROR: 1.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-543cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Coarse Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 0.9%		COARSE SAND: 51.9%	
MODE 2:			SAND: 99.0%		MEDIUM SAND: 30.4%	
MODE 3:			MUD: 0.0%		FINE SAND: 7.2%	
D ₁₀ :	270.1	-0.016			V FINE SAND: 0.3%	
MEDIAN or D ₅₀ :	557.3	0.843	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	1011.0	1.888	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.742	-119.438	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	740.9	1.904	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.852	2.838	V FINE GRAVEL: 0.9%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	329.0	0.889	V COARSE SAND: 9.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	615.8	537.1	0.897	531.1	0.913	Coarse Sand
SORTING (σ):	340.7	1.680	0.748	1.671	0.741	Moderately Sorted
SKEWNESS (Sk):	1.820	-0.134	0.134	-0.102	0.102	Fine Skewed
KURTOSIS (K):	7.756	3.684	3.684	1.182	1.182	Leptokurtic



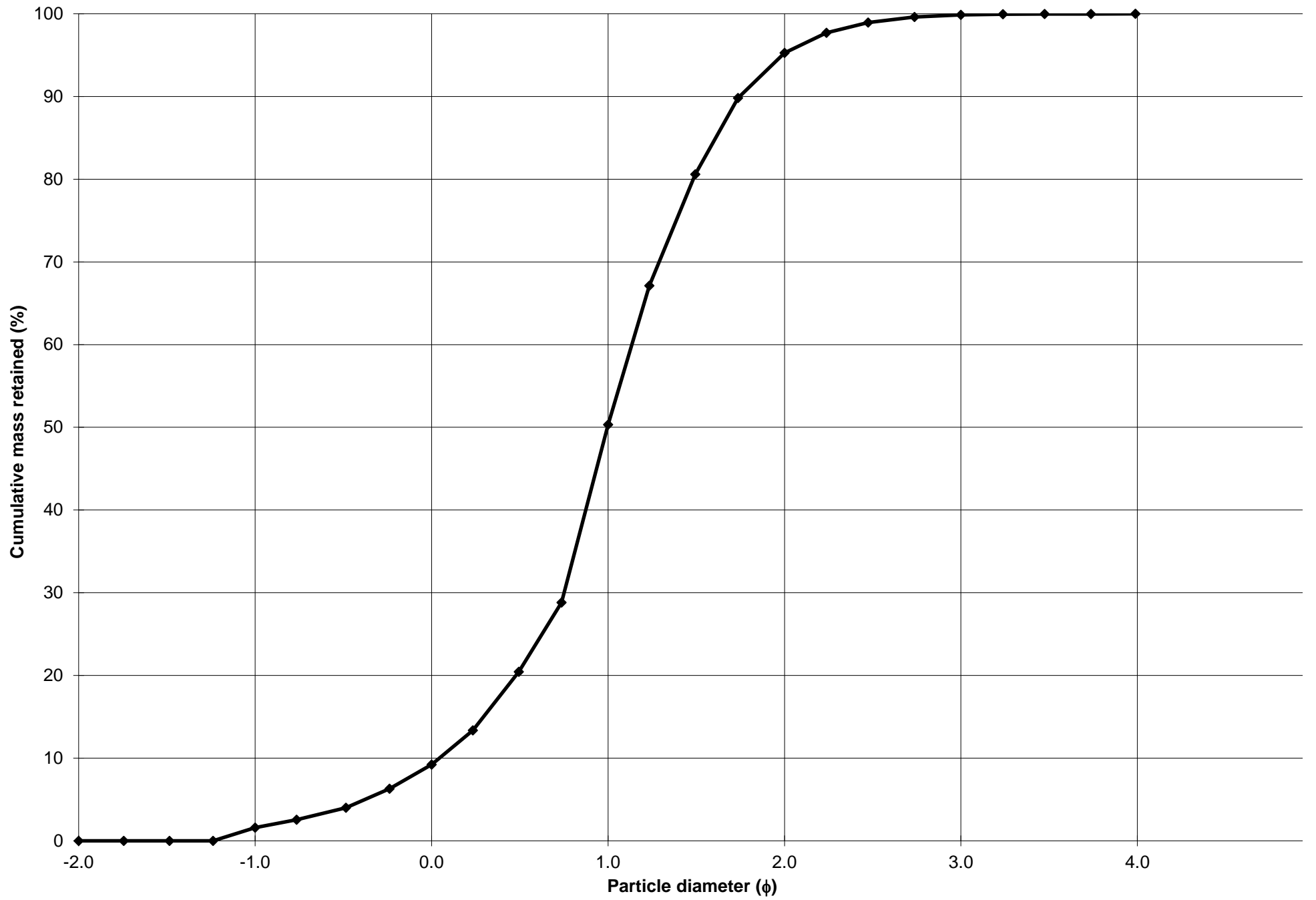
Cumulative Frequency Curve



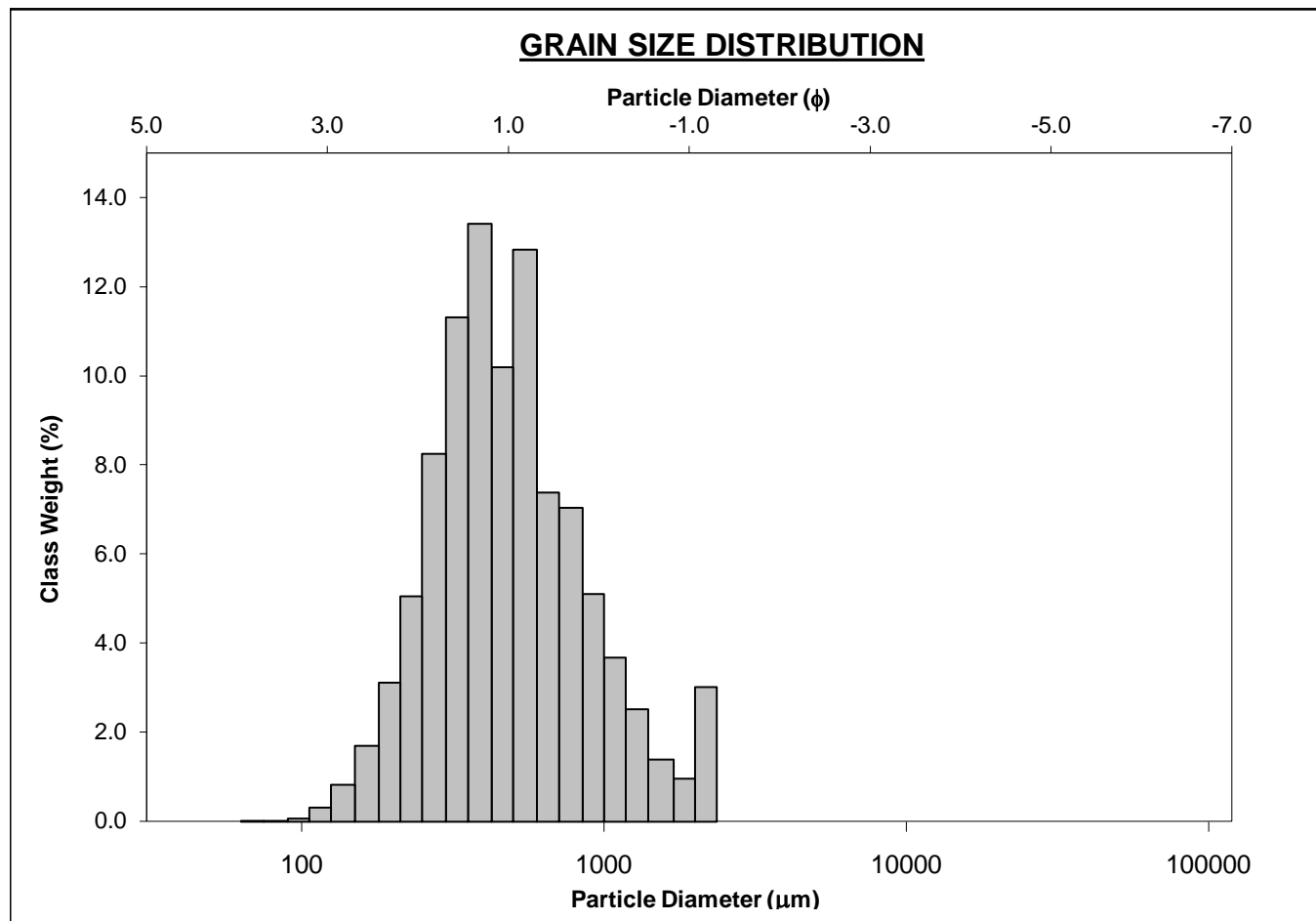
SIEVING ERROR: 1.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-553cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 1.6%		COARSE SAND: 41.1%	
MODE 2:			SAND: 98.4%		MEDIUM SAND: 45.0%	
MODE 3:			MUD: 0.0%		FINE SAND: 4.6%	
D ₁₀ :	298.2	0.044			V FINE SAND: 0.1%	
MEDIAN or D ₅₀ :	501.3	0.996	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	970.1	1.746	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.253	39.85	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	671.9	1.702	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.694	2.213	V FINE GRAVEL: 1.6%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	265.3	0.760	V COARSE SAND: 7.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	588.2	516.2	0.954	510.4	0.970	Coarse Sand
SORTING (σ):	349.7	1.617	0.694	1.593	0.671	Moderately Well Sorted
SKEWNESS (Sk):	2.402	0.501	-0.501	0.112	-0.112	Coarse Skewed
KURTOSIS (K):	9.989	4.097	4.097	1.275	1.275	Leptokurtic



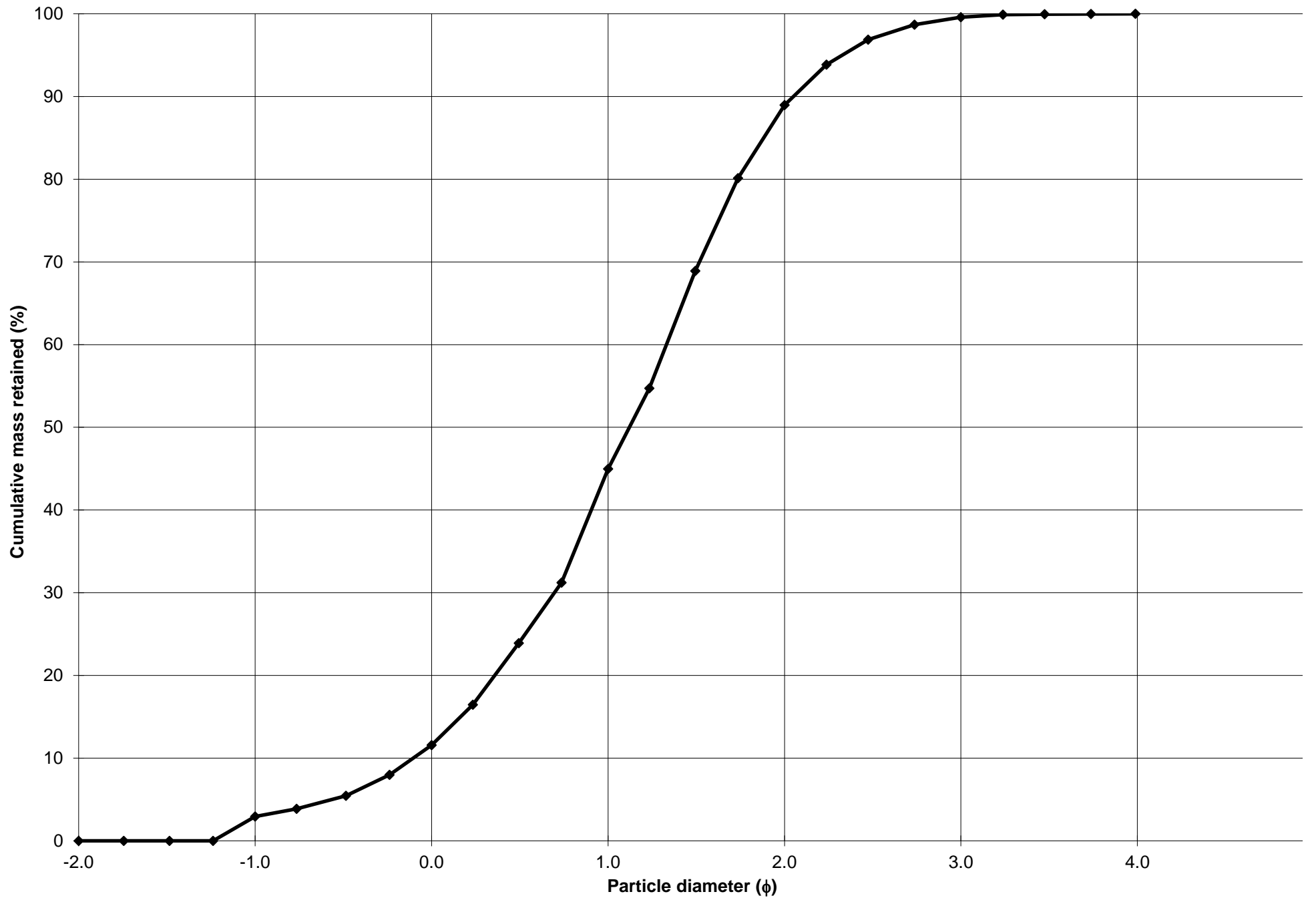
Cumulative Frequency Curve



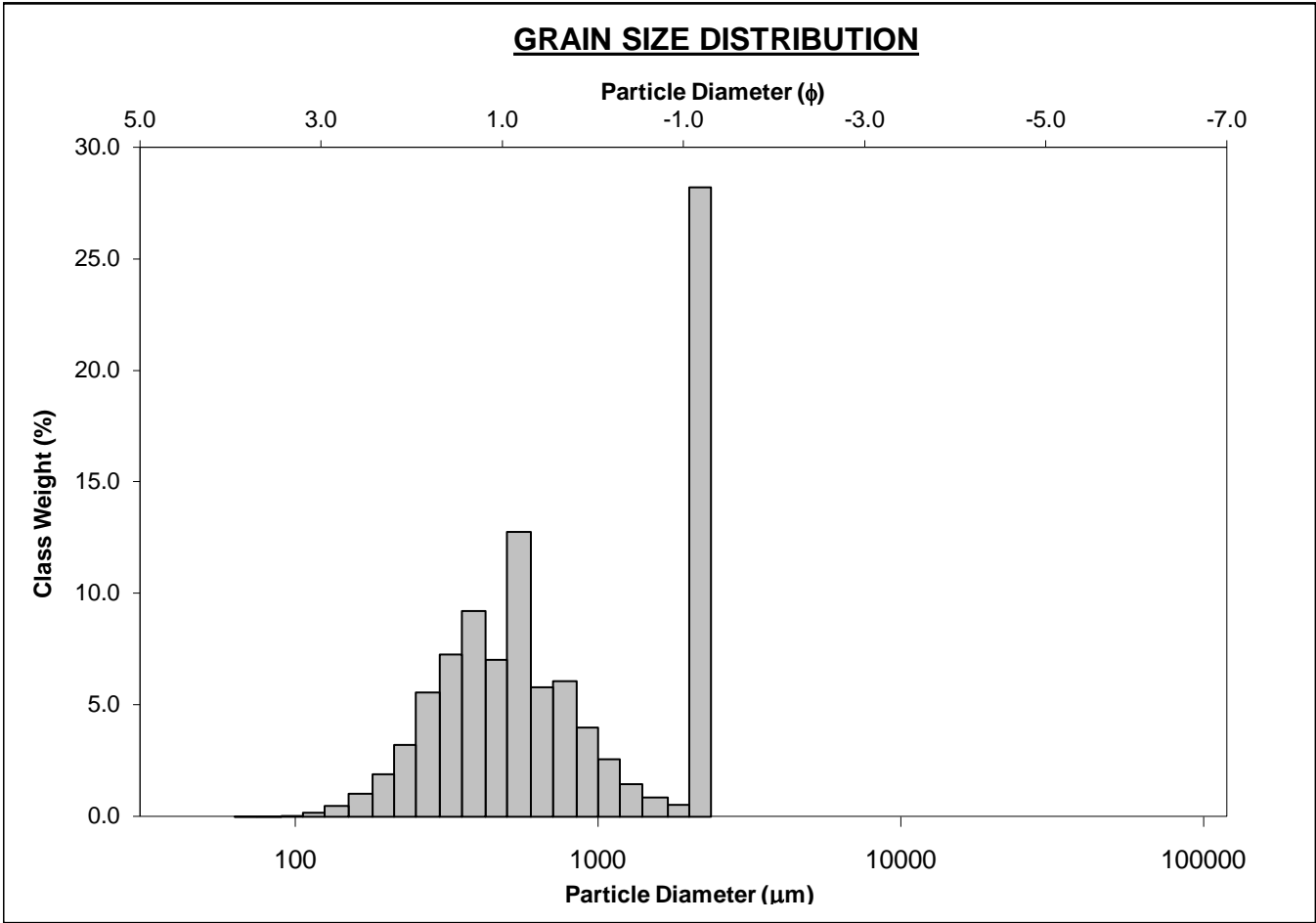
SIEVING ERROR: 0.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-563cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 2.9%		COARSE SAND: 33.4%	
MODE 2:	550.0	0.868	SAND: 97.1%		MEDIUM SAND: 44.0%	
MODE 3:	2180.0	-1.119	MUD: 0.0%		FINE SAND: 10.6%	
D ₁₀ :	241.4	-0.105			V FINE SAND: 0.4%	
MEDIAN or D ₅₀ :	459.8	1.121	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	1075.5	2.051	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.455	-19.530	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	834.1	2.156	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.137	3.066	V FINE GRAVEL: 2.9%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	368.4	1.096	V COARSE SAND: 8.6%		CLAY: 0.0%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	587.8	485.3	1.043	479.0	1.062	Medium Sand
SORTING (σ):	417.8	1.805	0.852	1.800	0.848	Moderately Sorted
SKEWNESS (Sk):	2.118	0.398	-0.398	0.137	-0.137	Coarse Skewed
KURTOSIS (K):	7.858	3.255	3.255	1.082	1.082	Mesokurtic



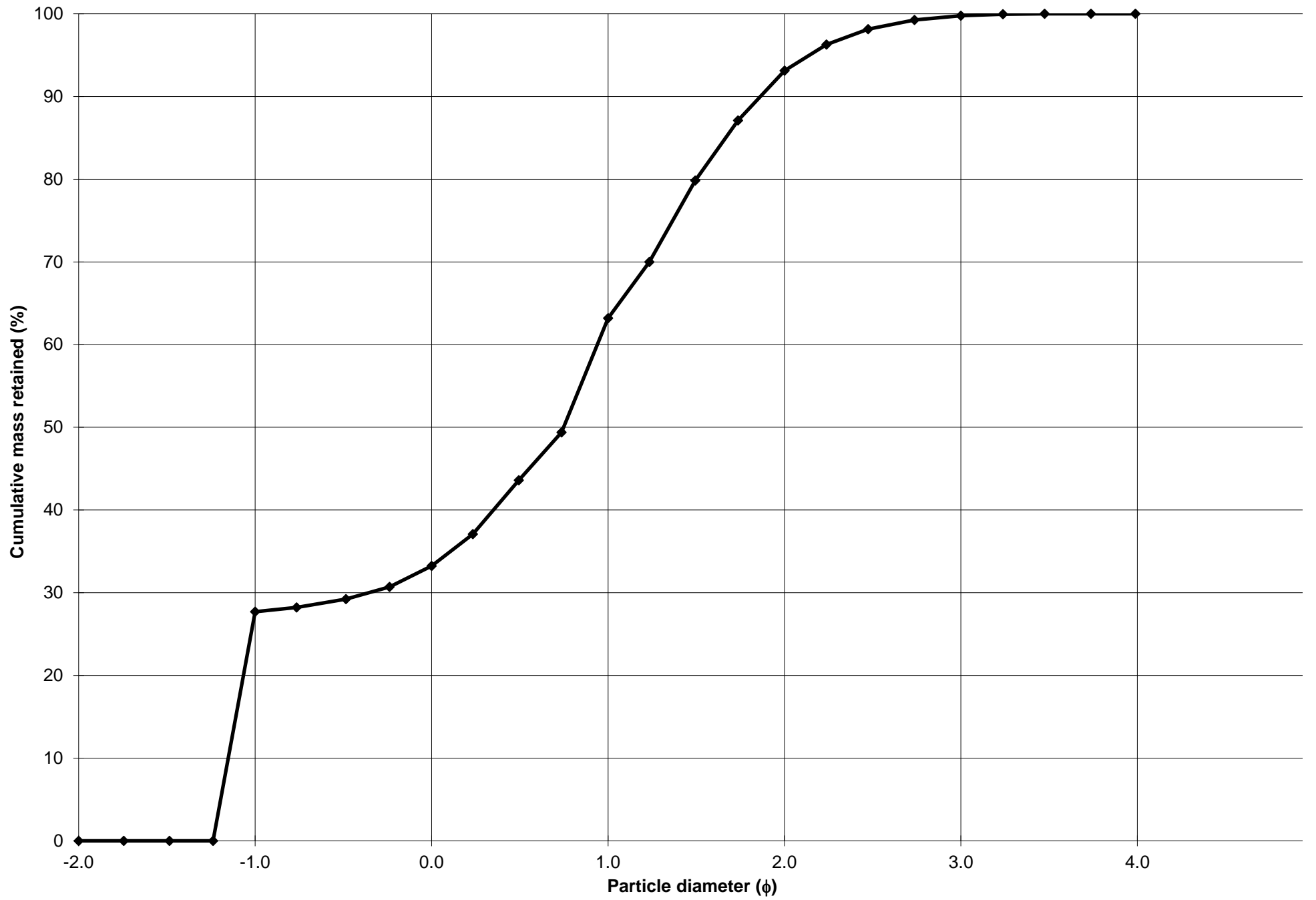
Cumulative Frequency Curve



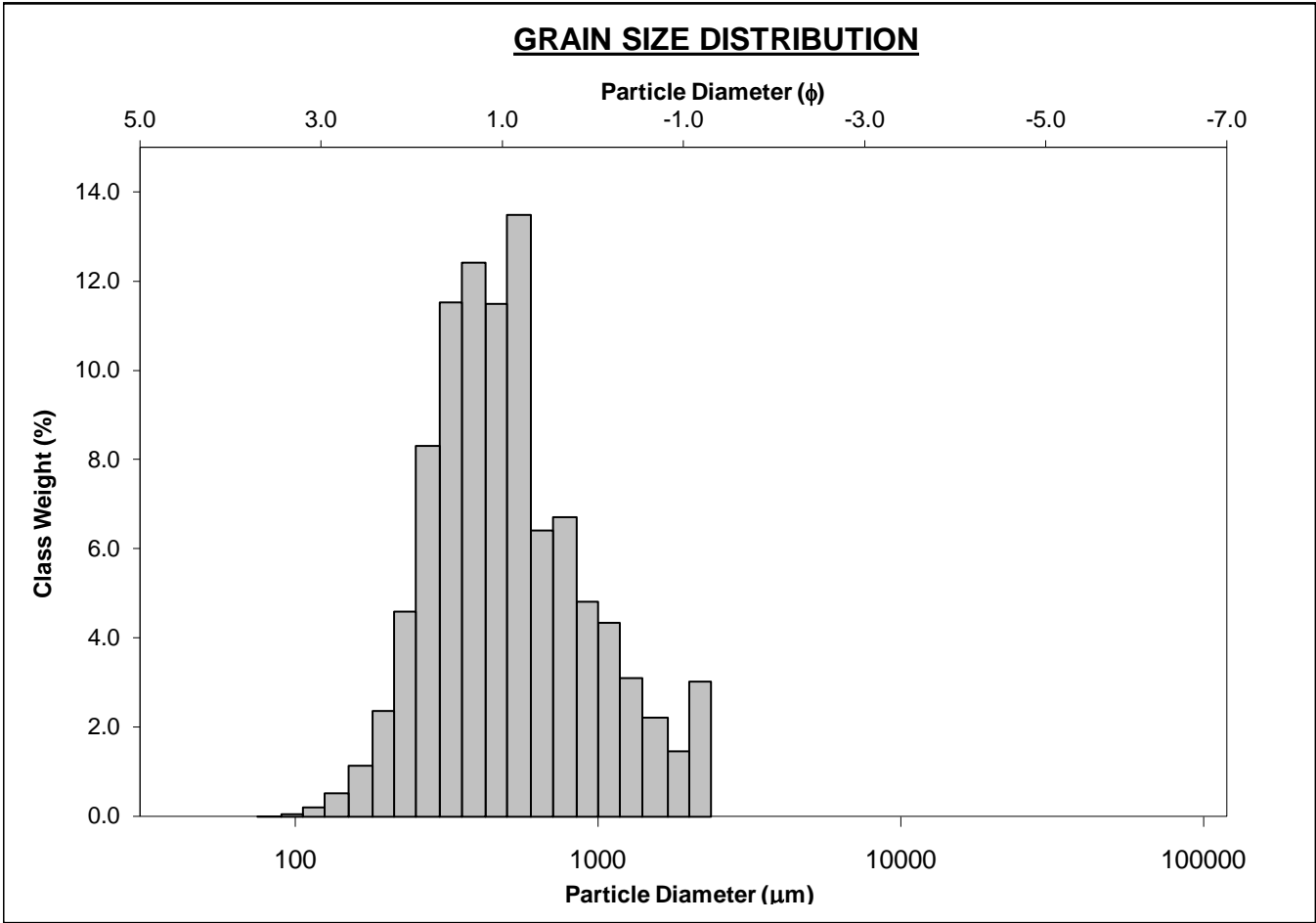
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-573cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Polymodal, Poorly Sorted			TEXTURAL GROUP: Gravelly Sand			
SEDIMENT NAME: Very Fine Gravelly Coarse Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	2180.0	-1.119	GRAVEL: 27.7%		COARSE SAND: 30.0%	
MODE 2:	550.0	0.868	SAND: 72.3%		MEDIUM SAND: 29.9%	
MODE 3:	390.0	1.364	MUD: 0.0%		FINE SAND: 6.6%	
D ₁₀ :	274.8	-1.153			V FINE SAND: 0.2%	
MEDIAN or D ₅₀ :	595.2	0.749	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	2223.2	1.863	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	8.089	-1.617	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	1948.3	3.016	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	5.242	-1.335	V FINE GRAVEL: 27.7%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	1644.8	2.390	V COARSE SAND: 5.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	1000.0	728.8	0.456	743.8	0.427	Coarse Sand
SORTING (σ):	772.8	2.230	1.157	2.280	1.189	Poorly Sorted
SKEWNESS (Sk):	0.718	0.152	-0.152	0.259	-0.259	Coarse Skewed
KURTOSIS (K):	1.758	1.802	1.802	0.572	0.572	Very Platykurtic



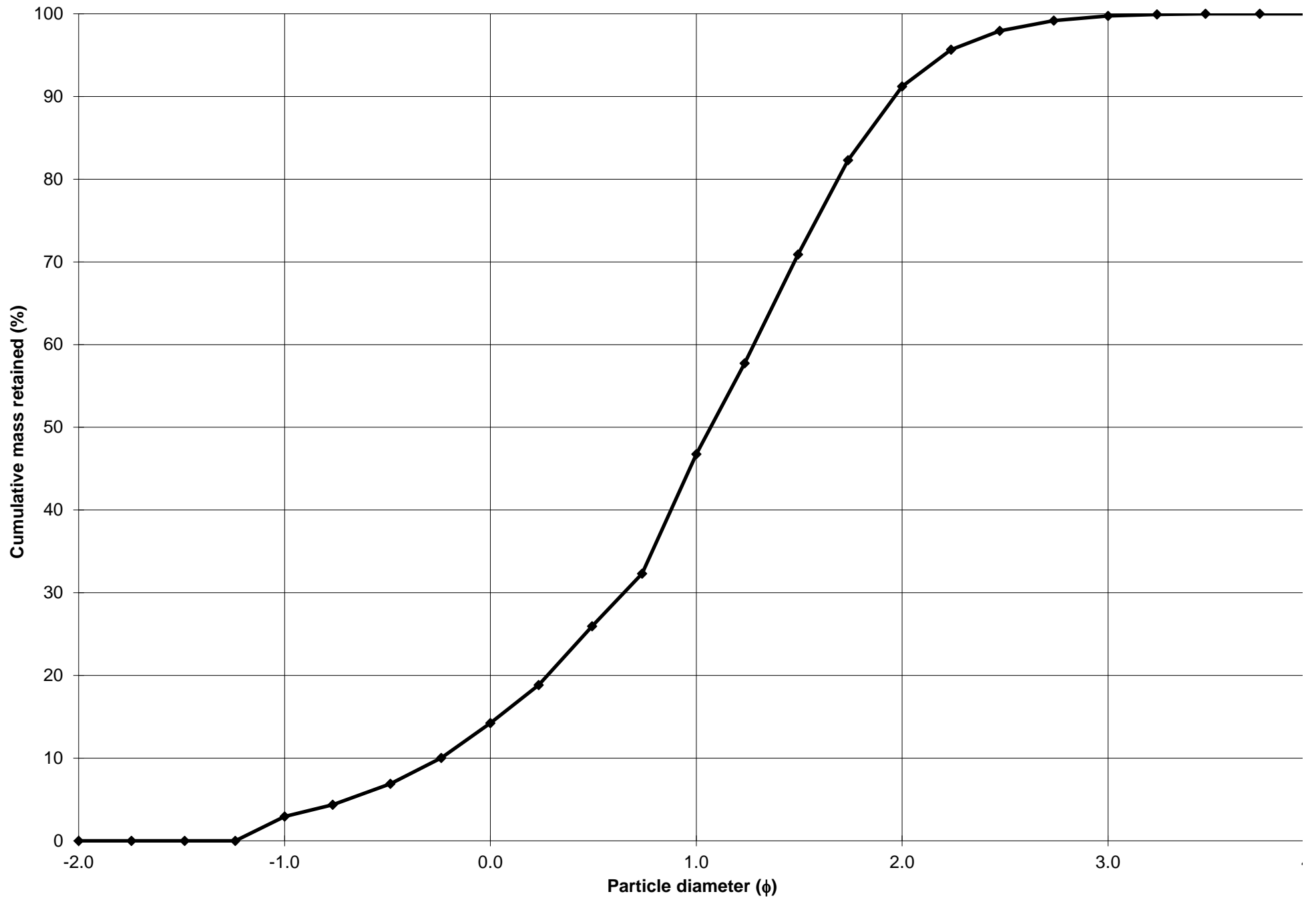
Cumulative Frequency Curve



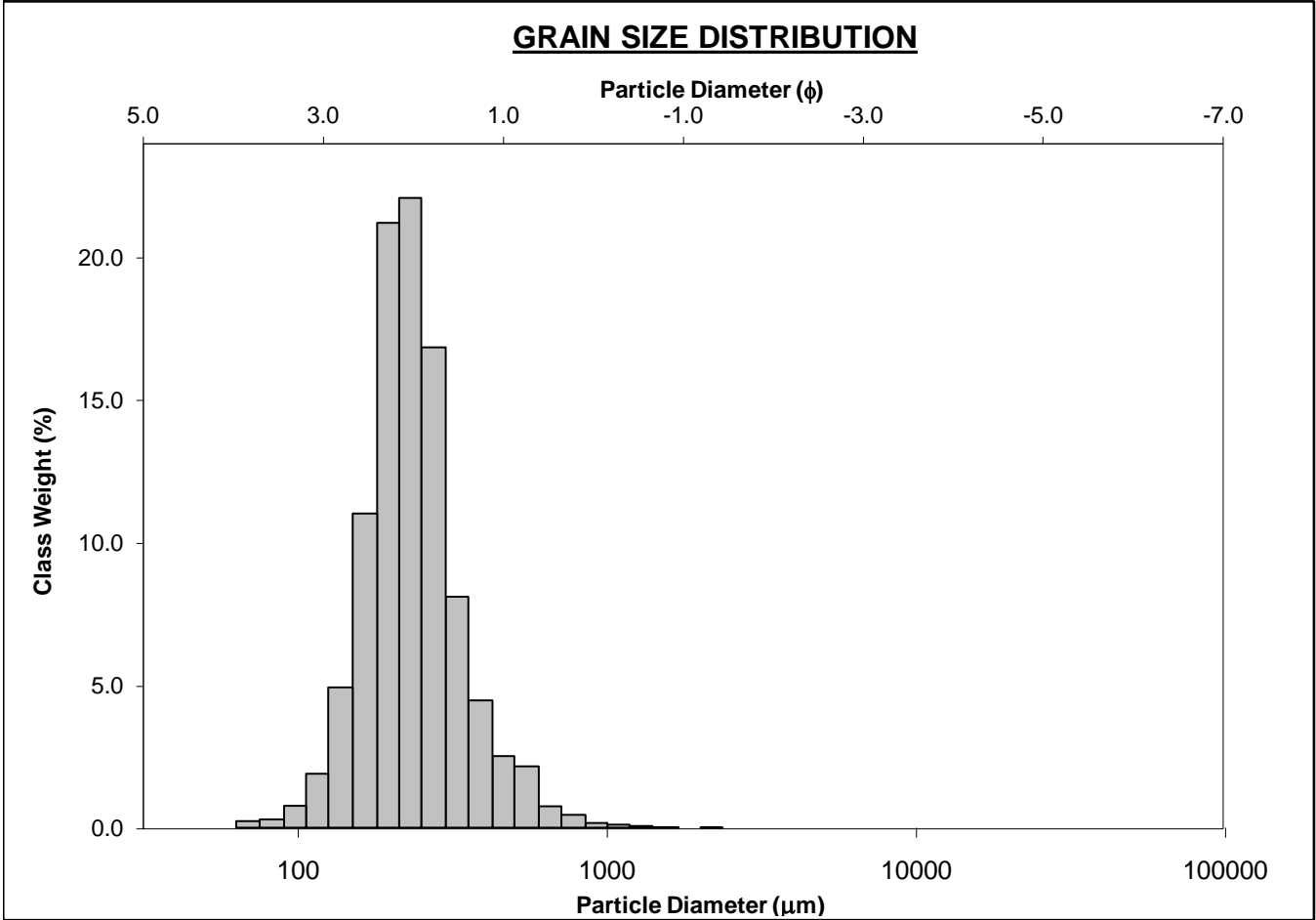
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-1-583cm			ANALYST & DATE: Brian, 4/4/2015			
SAMPLE TYPE: Polymodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 2.9%	COARSE SAND: 32.5%		
MODE 2:	390.0	1.364	SAND: 97.1%	MEDIUM SAND: 44.4%		
MODE 3:	780.0	0.364	MUD: 0.0%	FINE SAND: 8.5%		
D_{10} :	256.2	-0.240		V FINE SAND: 0.3%		
MEDIAN or D_{50} :	476.6	1.069	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	1180.7	1.965	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	4.608	-8.197	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	924.5	2.204	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	2.177	3.443	V FINE GRAVEL: 2.9%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	393.2	1.122	V COARSE SAND: 11.3%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	616.8	508.4	0.976	506.3	0.982	Coarse Sand
SORTING (σ):	436.6	1.806	0.853	1.819	0.863	Moderately Sorted
SKEWNESS (Sk):	1.929	0.478	-0.478	0.186	-0.186	Coarse Skewed
KURTOSIS (K):	6.657	2.951	2.951	1.058	1.058	Mesokurtic



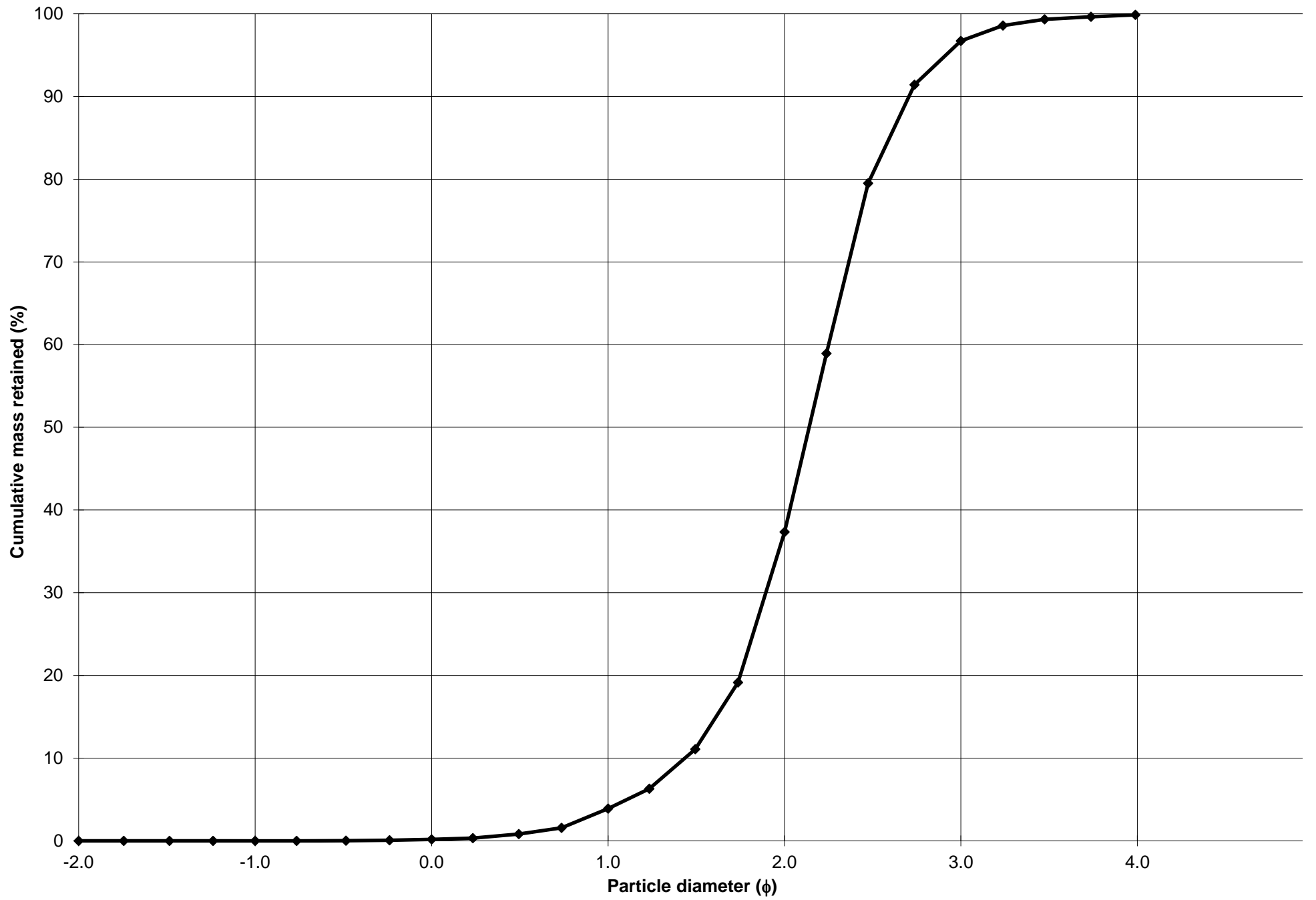
Cumulative Frequency Curve



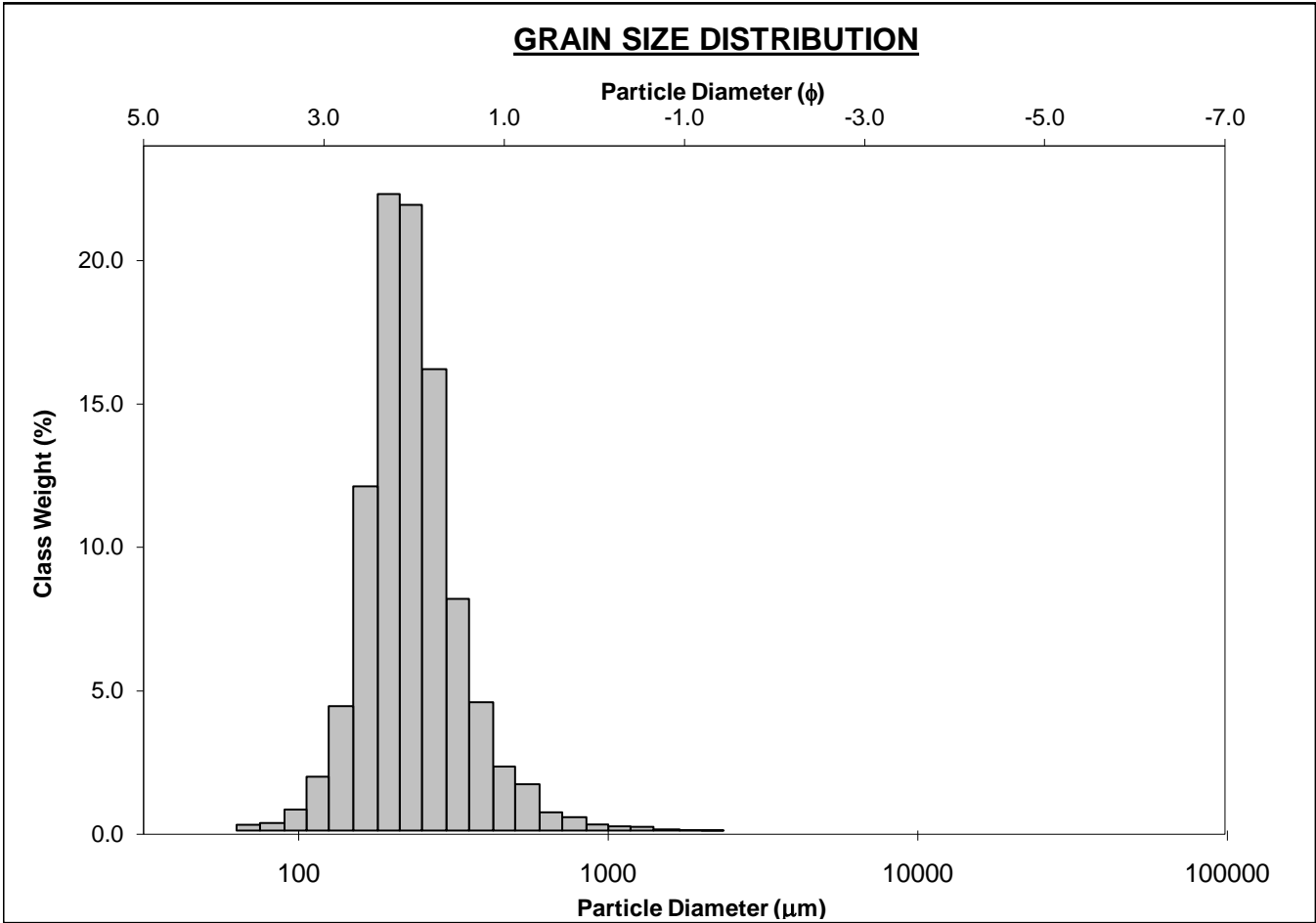
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-21cm			ANALYST & DATE: Chris, 10/27/015			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%		COARSE SAND: 3.7%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 33.5%	
MODE 3:			MUD: 0.1%		FINE SAND: 59.4%	
D ₁₀ :	153.3	1.436			V FINE SAND: 3.1%	
MEDIAN or D ₅₀ :	227.0	2.139	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	369.7	2.706	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.412	1.885	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	216.4	1.270	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.517	1.330	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	96.36	0.601	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	251.9	232.4	2.105	230.3	2.118	Fine Sand
SORTING (σ):	113.0	1.473	0.559	1.421	0.507	Moderately Well Sorted
SKEWNESS (Sk):	3.003	-0.362	0.362	0.105	-0.105	Coarse Skewed
KURTOSIS (K):	21.45	11.31	11.31	1.233	1.233	Leptokurtic



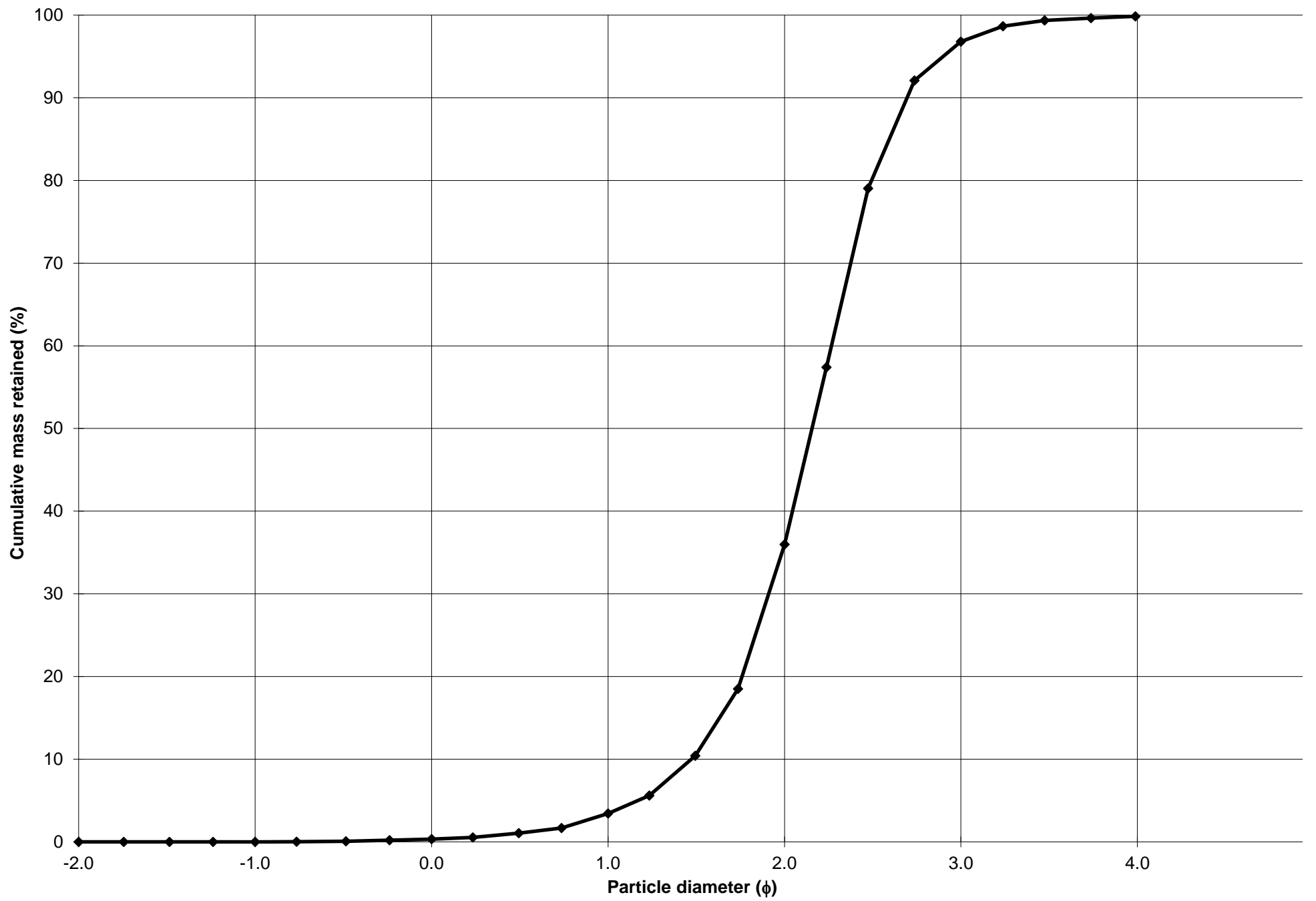
Cumulative Frequency Curve



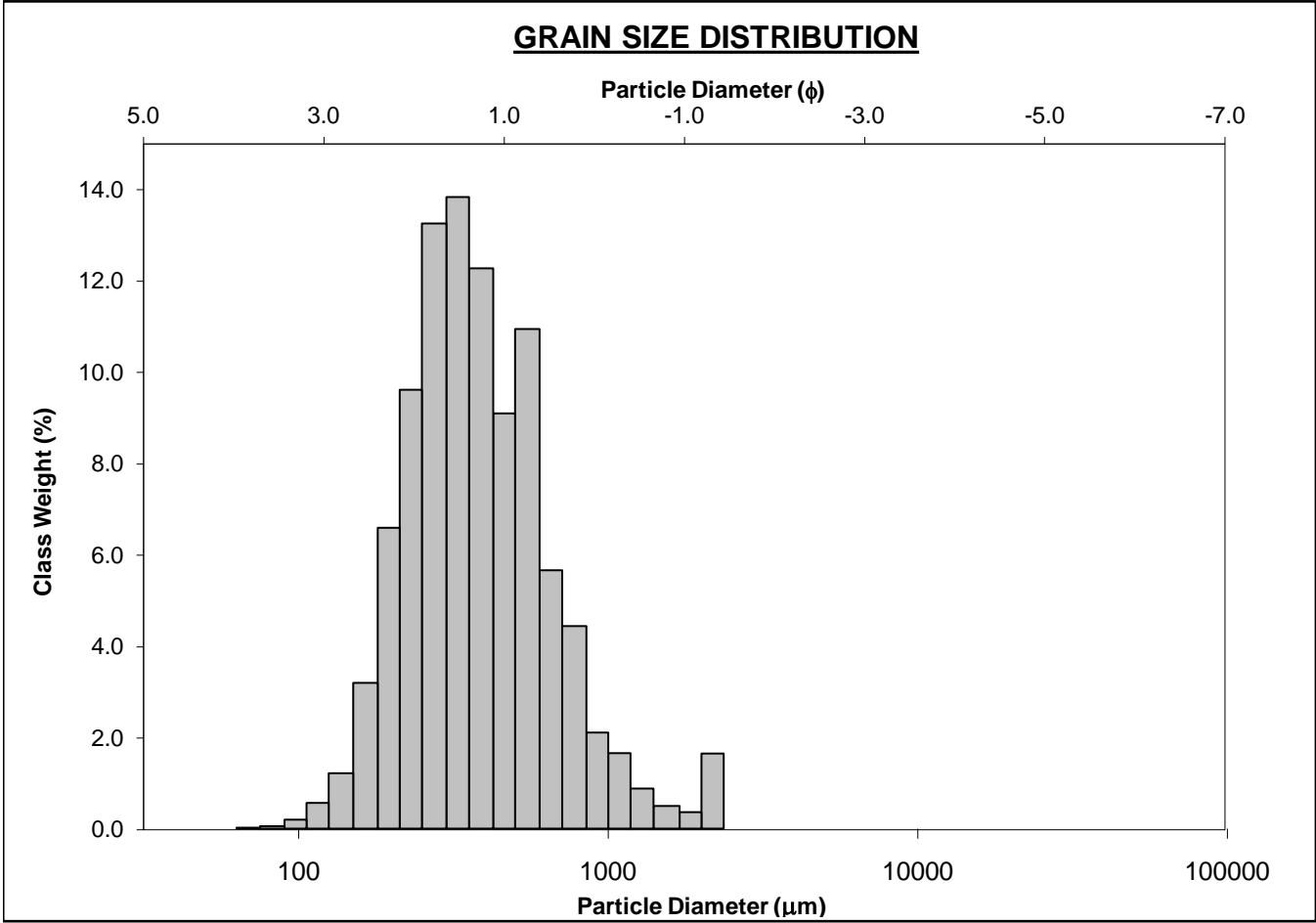
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-30cm			ANALYST & DATE: Chris, 10/27/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 3.1%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 32.5%	
MODE 3:			MUD: 0.1%		FINE SAND: 60.8%	
D ₁₀ :	154.4	1.472			V FINE SAND: 3.1%	
MEDIAN or D ₅₀ :	224.4	2.156	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	360.4	2.695	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.333	1.830	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	205.9	1.222	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.510	1.324	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	94.75	0.595	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	250.5	230.7	2.116	228.4	2.130	Fine Sand
SORTING (σ):	119.1	1.474	0.559	1.405	0.490	Well Sorted
SKEWNESS (Sk):	3.883	-0.317	0.317	0.111	-0.111	Coarse Skewed
KURTOSIS (K):	31.18	12.69	12.69	1.192	1.192	Leptokurtic



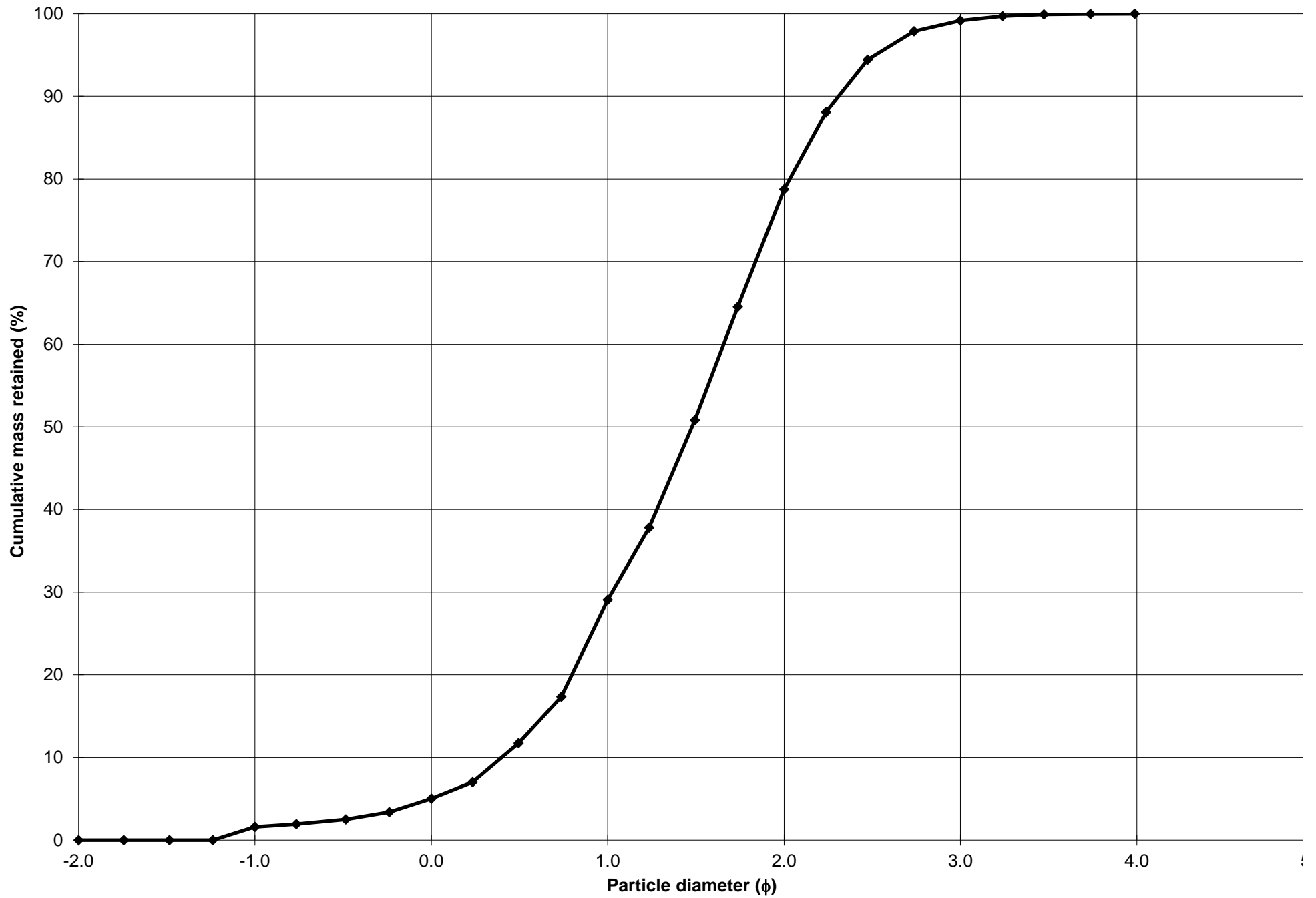
Cumulative Frequency Curve



SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-15-PA2-48cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 1.6%		COARSE SAND: 24.1%	
MODE 2:	550.0	0.868	SAND: 98.4%		MEDIUM SAND: 49.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 20.4%	
D ₁₀ :	201.8	0.399			V FINE SAND: 0.8%	
MEDIAN or D ₅₀ :	359.0	1.478	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	758.5	2.309	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.758	5.790	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	556.7	1.910	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	2.031	2.125	V FINE GRAVEL: 1.6%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	270.4	1.022	V COARSE SAND: 3.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	453.2	381.6	1.390	371.1	1.430	Medium Sand
SORTING (σ):	328.8	1.725	0.787	1.676	0.745	Moderately Sorted
SKEWNESS (Sk):	3.046	0.600	-0.600	0.137	-0.137	Coarse Skewed
KURTOSIS (K):	14.85	4.095	4.095	1.010	1.010	Mesokurtic



Cumulative Frequency Curve



SAMPLE STATISTICS

SAMPLE IDENTITY: **SI-14-PA2-56cm**

ANALYST & DATE: Chris, 11/3/15

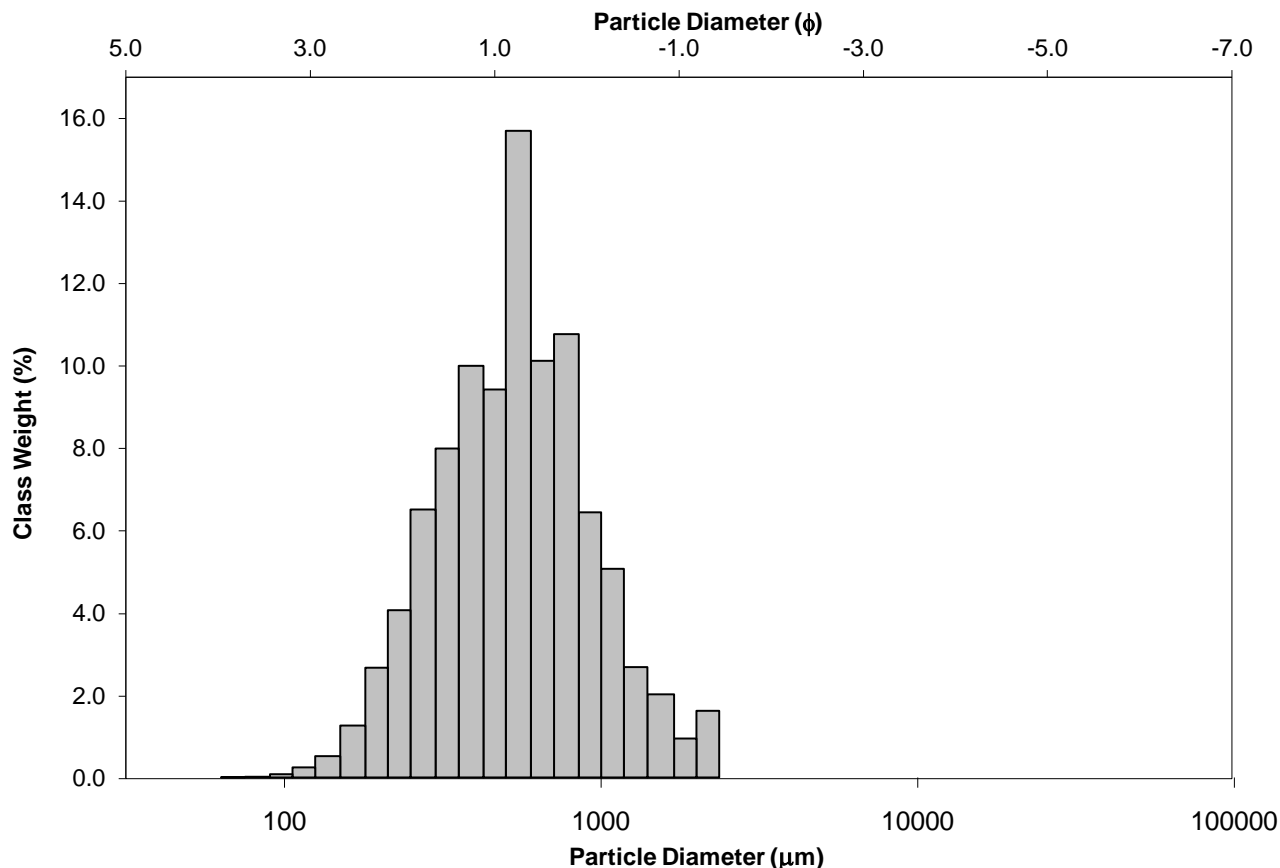
SAMPLE TYPE: Trimodal, Moderately Sorted

TEXTURAL GROUP: Slightly Gravelly Sand

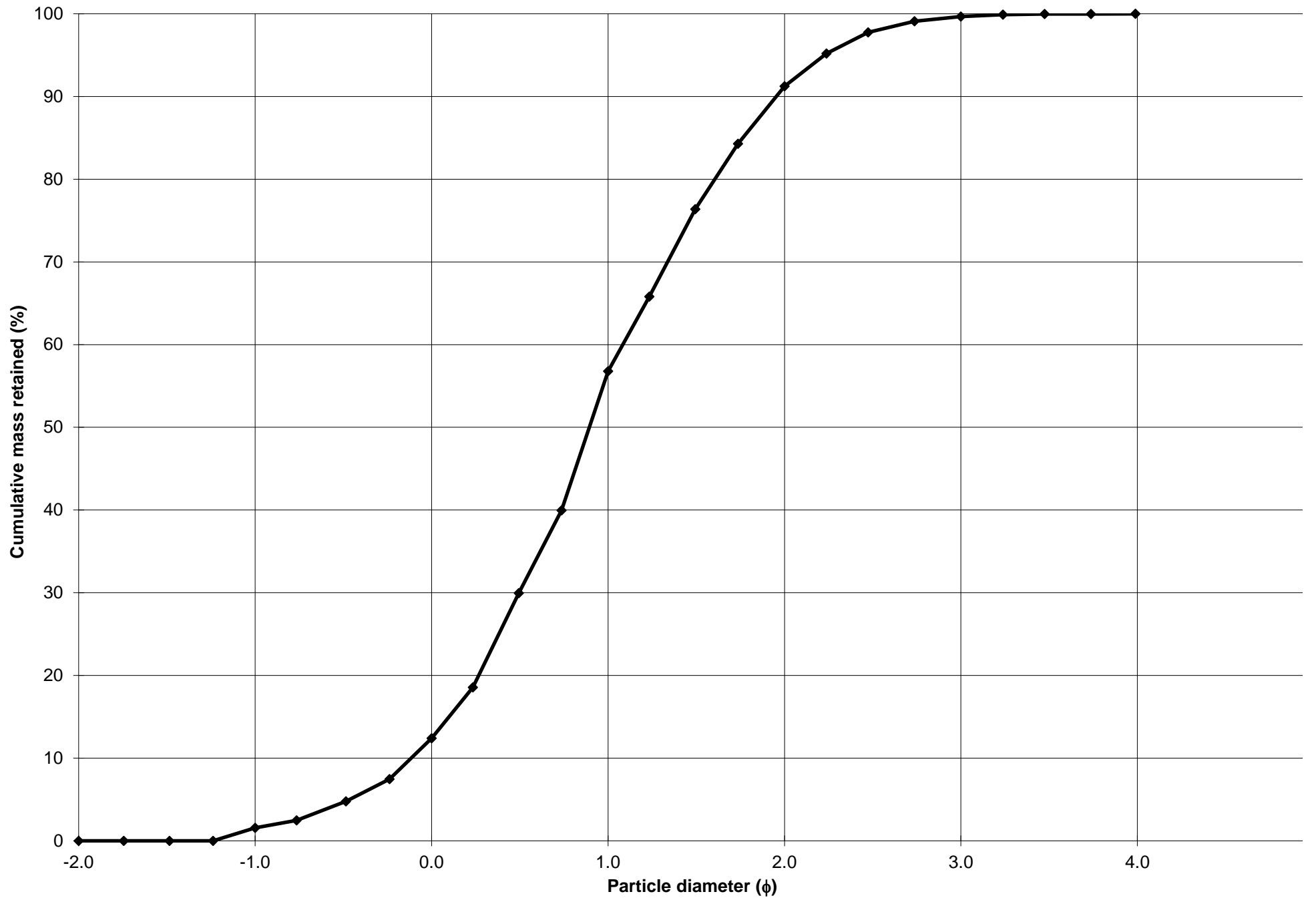
SEDIMENT NAME: Slightly Very Fine Gravelly Coarse Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 1.6%	COARSE SAND: 44.4%		
MODE 2:	780.0	0.364	SAND: 98.4%	MEDIUM SAND: 34.5%		
MODE 3:	390.0	1.364	MUD: 0.0%	FINE SAND: 8.4%		
D_{10} :	258.3	-0.117		V FINE SAND: 0.3%		
MEDIAN or D_{50} :	538.2	0.894	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	1084.1	1.953	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	4.197	-16.758	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	825.8	2.069	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	2.113	3.830	V FINE GRAVEL: 1.6%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	404.4	1.079	V COARSE SAND: 10.8%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	624.6	532.2	0.910	528.6	0.920	Coarse Sand
SORTING (σ):	378.1	1.746	0.804	1.748	0.806	Moderately Sorted
SKEWNESS (Sk):	1.766	0.023	-0.023	-0.019	0.019	Symmetrical
KURTOSIS (K):	6.982	3.203	3.203	1.022	1.022	Mesokurtic

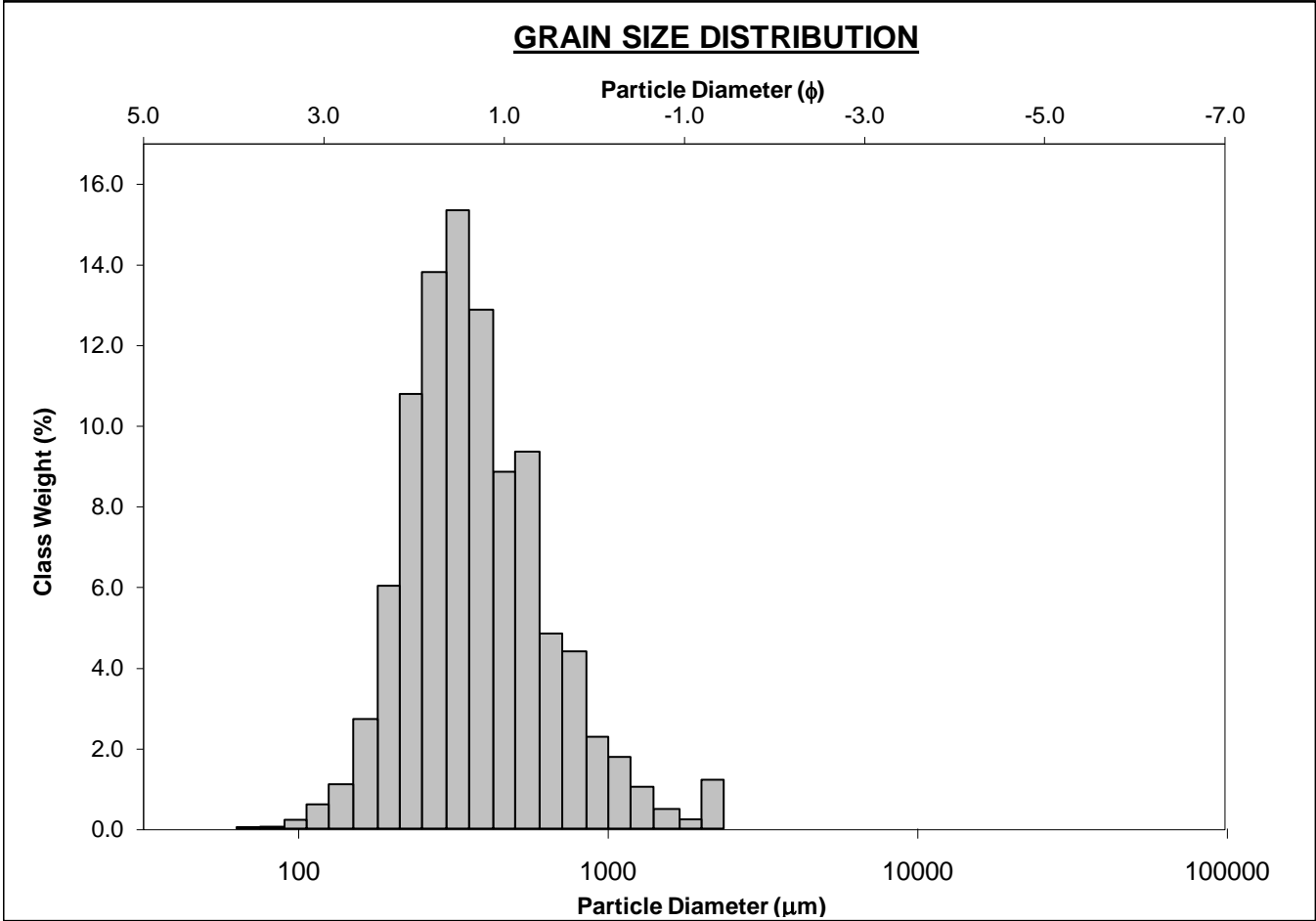
GRAIN SIZE DISTRIBUTION



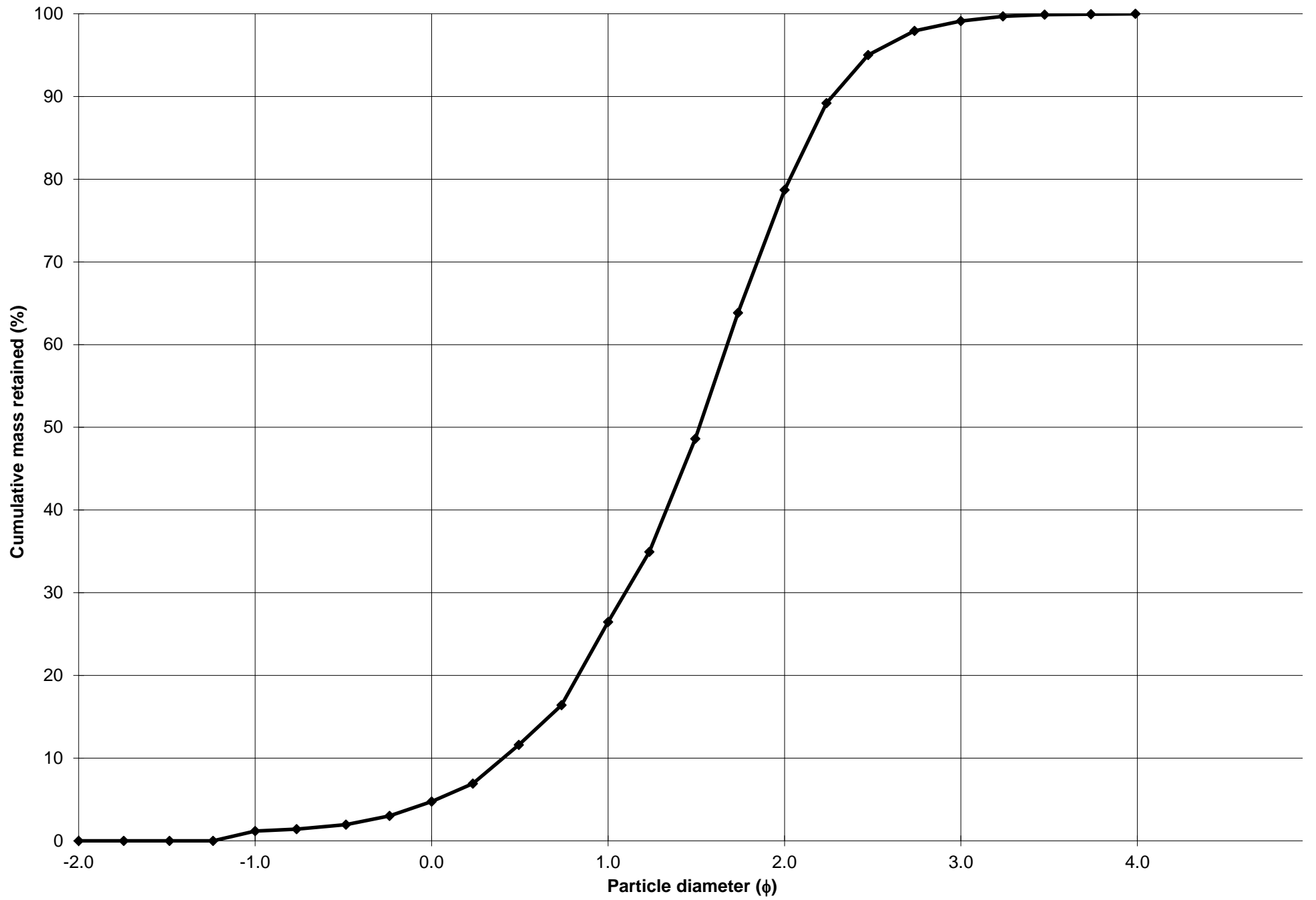
Cumulative Frequency Curve



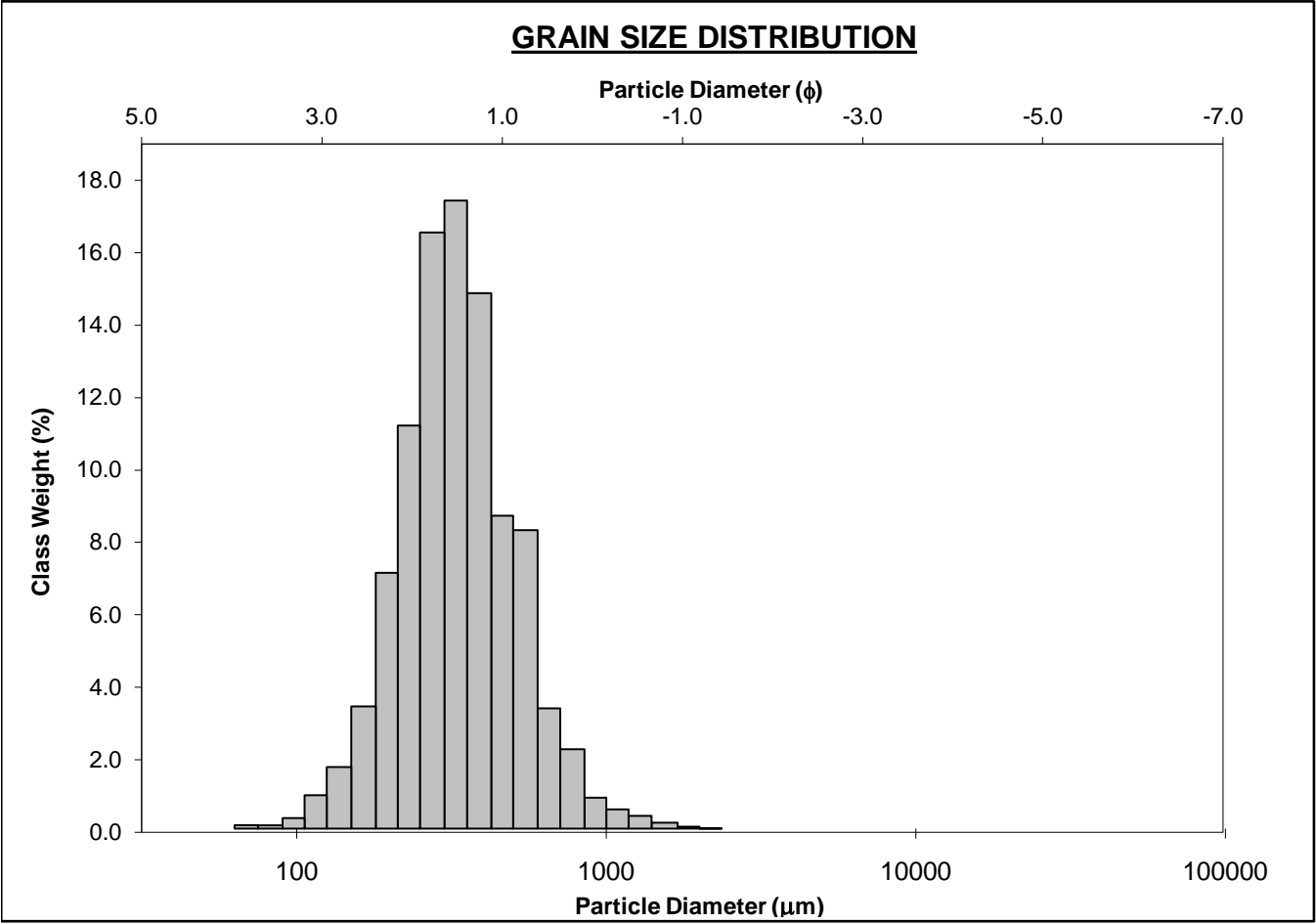
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-61cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 1.2%		COARSE SAND: 21.7%	
MODE 2:	550.0	0.868	SAND: 98.8%		MEDIUM SAND: 52.2%	
MODE 3:			MUD: 0.0%		FINE SAND: 20.4%	
D ₁₀ :	207.2	0.405			V FINE SAND: 0.9%	
MEDIAN or D ₅₀ :	349.6	1.516	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	755.0	2.271	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.644	5.601	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	547.8	1.865	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.962	2.011	V FINE GRAVEL: 1.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	251.8	0.973	V COARSE SAND: 3.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	440.6	374.9	1.415	365.8	1.451	Medium Sand
SORTING (σ):	307.6	1.696	0.762	1.649	0.721	Moderately Sorted
SKEWNESS (Sk):	3.027	0.627	-0.627	0.178	-0.178	Coarse Skewed
KURTOSIS (K):	15.29	4.085	4.085	1.031	1.031	Mesokurtic



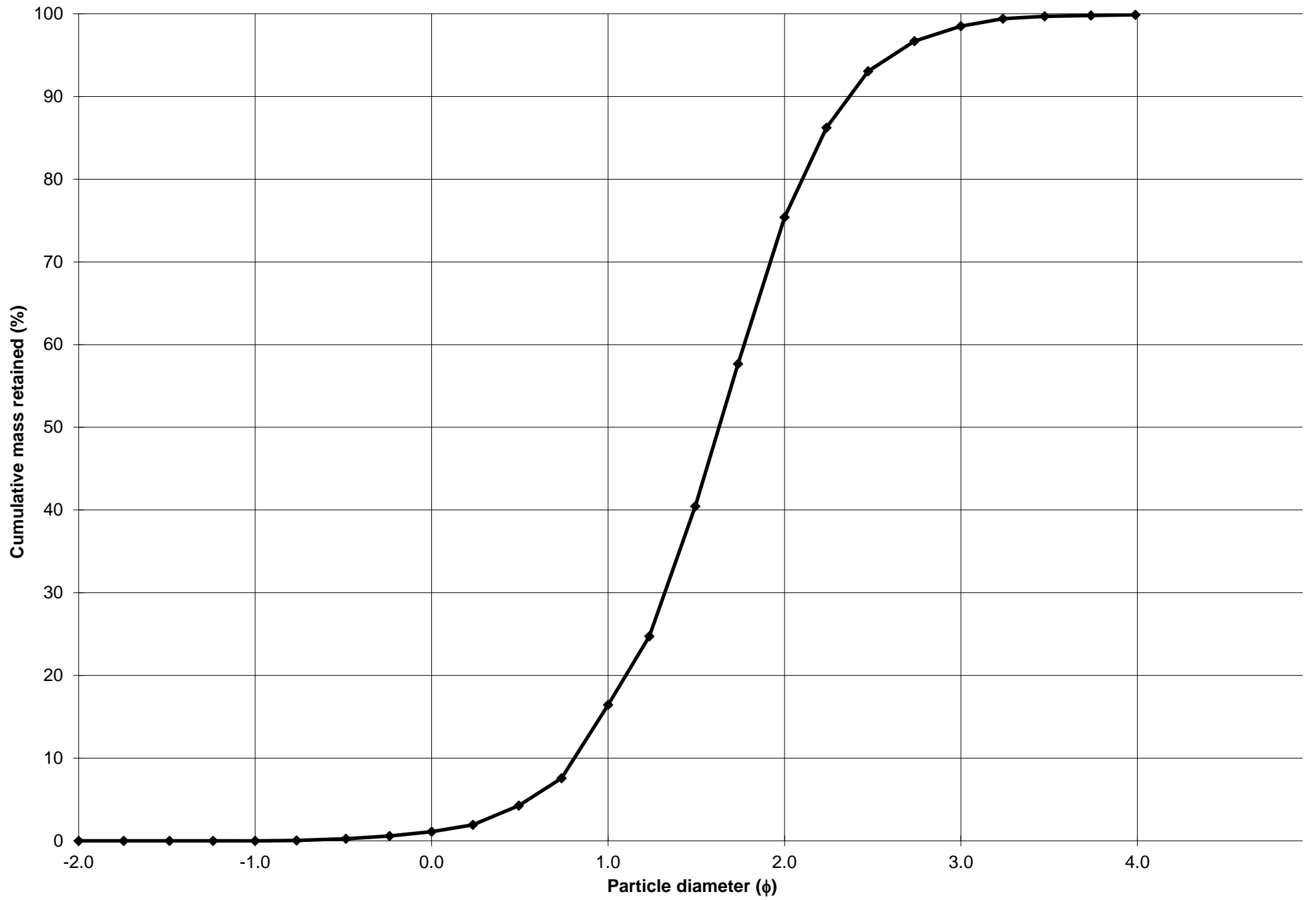
Cumulative Frequency Curve



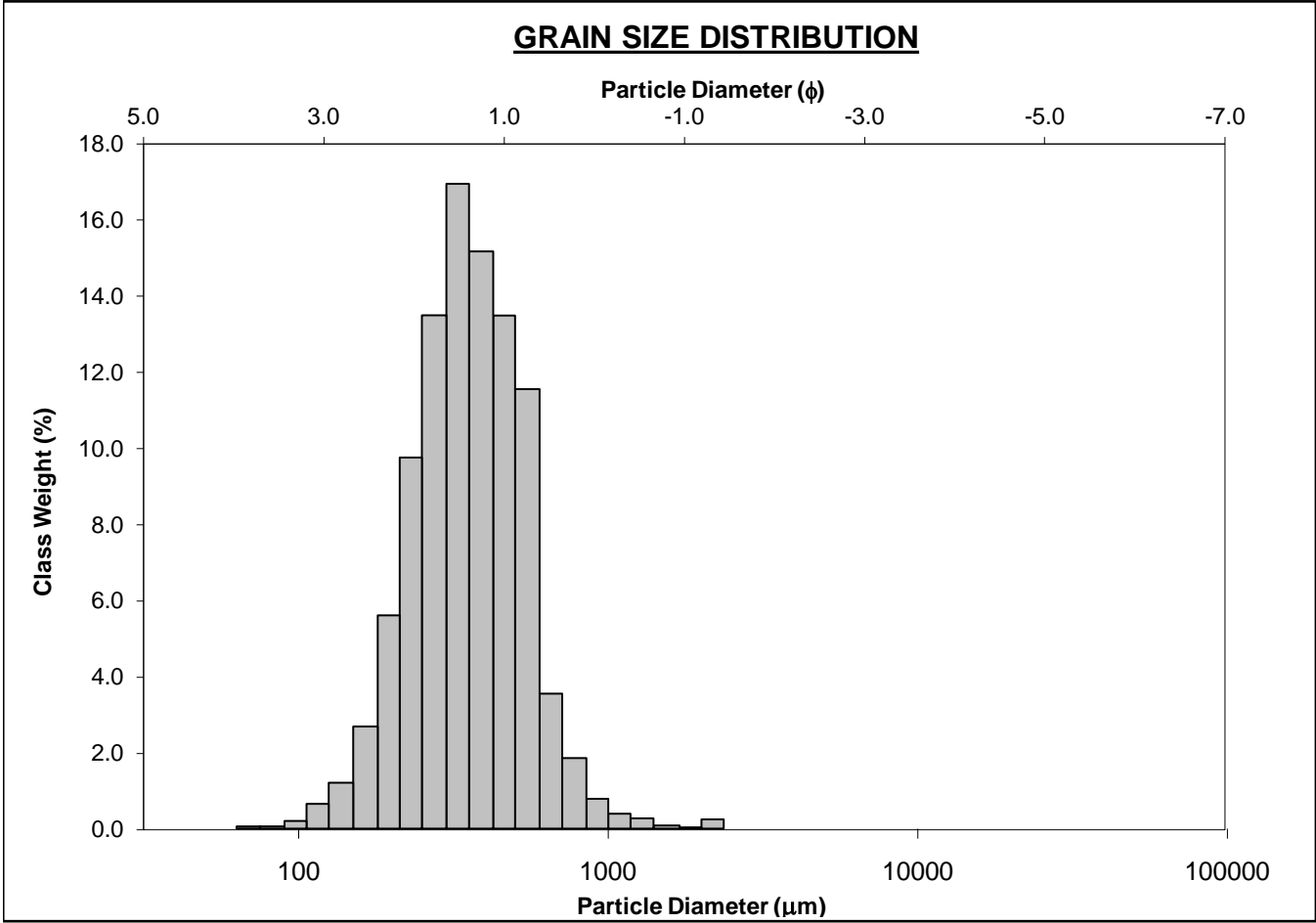
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-70cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 15.3%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 59.0%	
MODE 3:			MUD: 0.1%		FINE SAND: 23.1%	
D ₁₀ :	193.6	0.809			V FINE SAND: 1.4%	
MEDIAN or D ₅₀ :	323.3	1.629	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	570.7	2.368	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.947	2.927	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	377.1	1.559	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.688	1.610	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	172.7	0.755	V COARSE SAND: 1.1%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	363.5	327.6	1.610	329.5	1.602	Medium Sand
SORTING (σ):	178.7	1.569	0.650	1.530	0.614	Moderately Well Sorted
SKEWNESS (Sk):	2.272	-0.468	0.468	0.057	-0.057	Symmetrical
KURTOSIS (K):	12.57	8.627	8.627	1.122	1.122	Leptokurtic



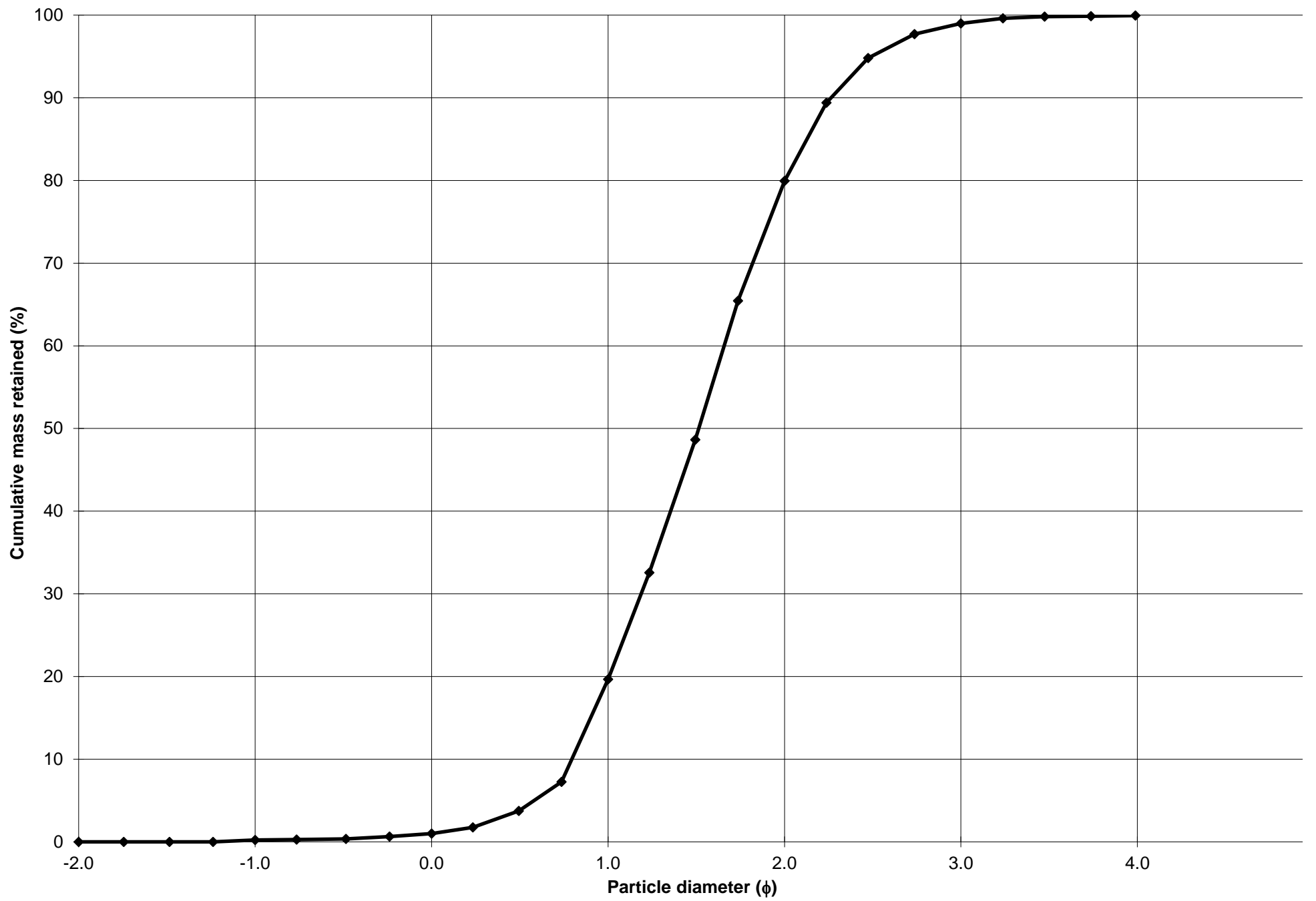
Cumulative Frequency Curve



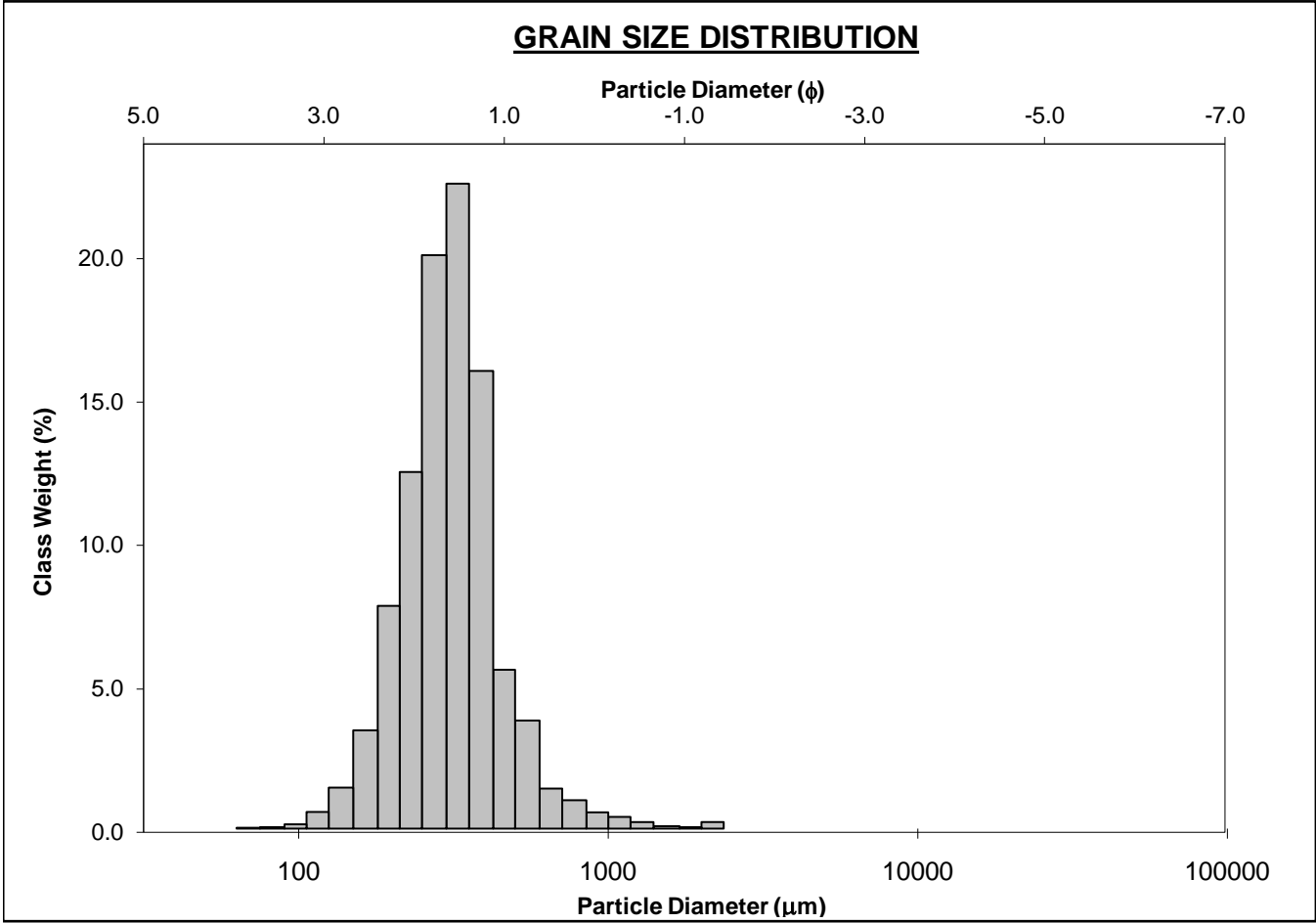
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-80cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.2%		COARSE SAND: 18.6%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 60.3%	
MODE 3:			MUD: 0.1%		FINE SAND: 19.1%	
D ₁₀ :	208.3	0.795			V FINE SAND: 0.9%	
MEDIAN or D ₅₀ :	350.2	1.514	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	576.2	2.264	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.767	2.846	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	367.9	1.468	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.757	1.741	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	201.4	0.813	V COARSE SAND: 0.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	385.7	350.3	1.514	350.4	1.513	Medium Sand
SORTING (σ):	187.4	1.537	0.620	1.499	0.584	Moderately Well Sorted
SKEWNESS (Sk):	3.254	-0.293	0.293	-0.011	0.011	Symmetrical
KURTOSIS (K):	26.02	7.230	7.230	0.962	0.962	Mesokurtic



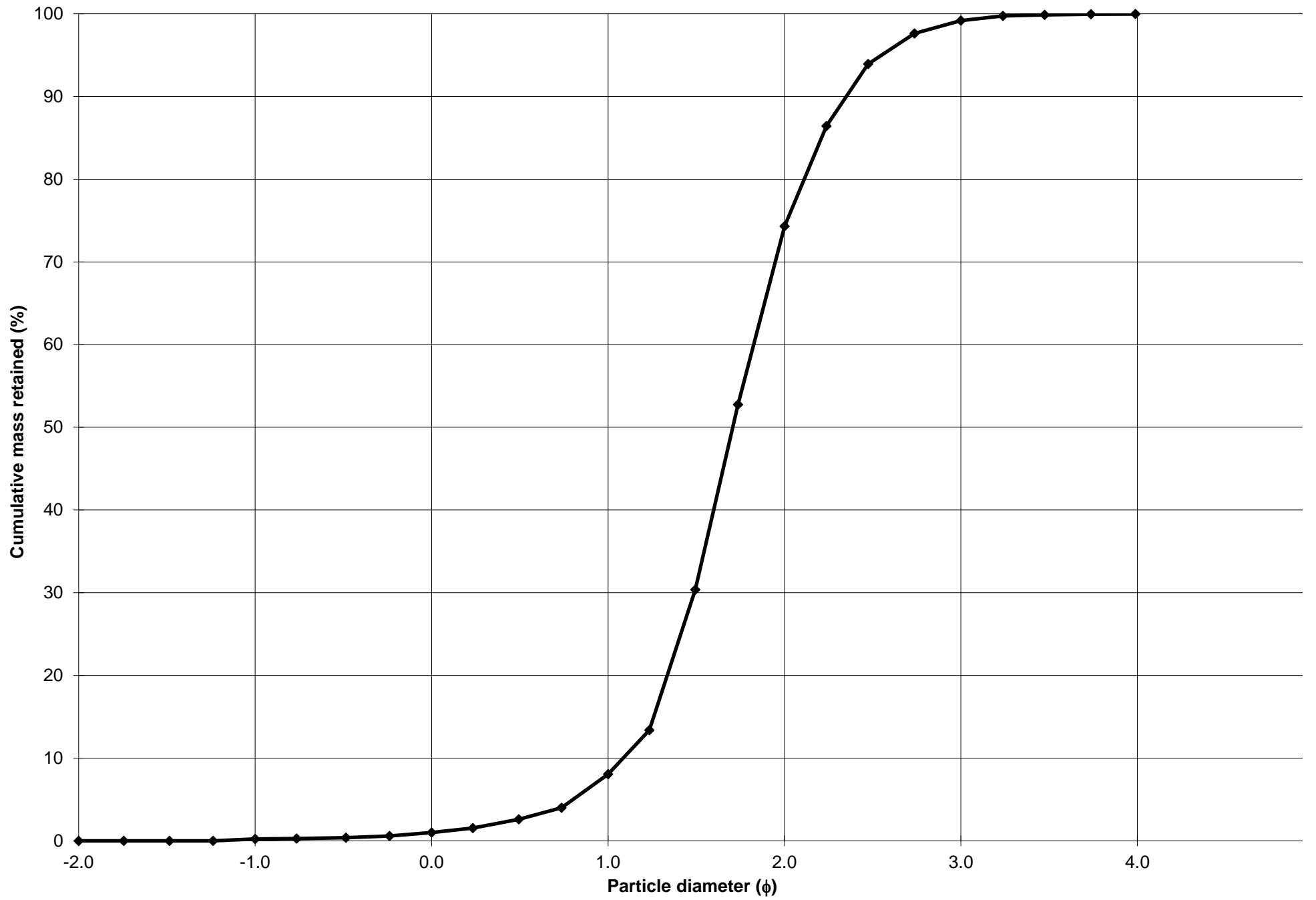
Cumulative Frequency Curve



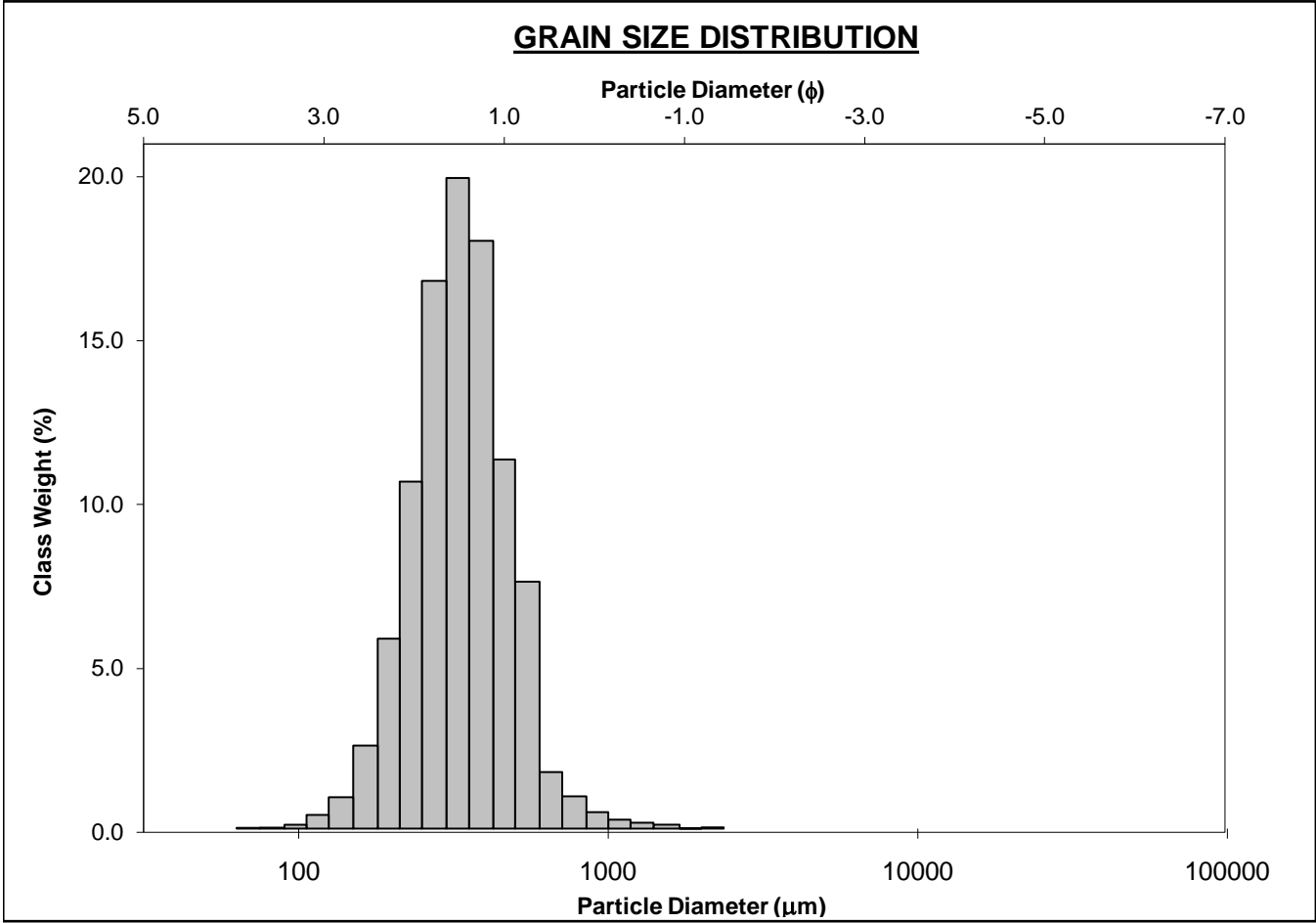
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-89cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.2%		COARSE SAND: 7.1%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 66.2%	
MODE 3:			MUD: 0.0%		FINE SAND: 24.9%	
D ₁₀ :	196.1	1.086			V FINE SAND: 0.8%	
MEDIAN or D ₅₀ :	306.2	1.707	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	471.1	2.350	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.402	2.164	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	275.0	1.264	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.517	1.426	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	128.1	0.602	V COARSE SAND: 0.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	334.6	307.5	1.701	302.7	1.724	Medium Sand
SORTING (σ):	169.9	1.466	0.552	1.408	0.494	Well Sorted
SKEWNESS (Sk):	4.793	0.352	-0.352	-0.010	0.010	Symmetrical
KURTOSIS (K):	42.38	8.351	8.351	1.190	1.190	Leptokurtic



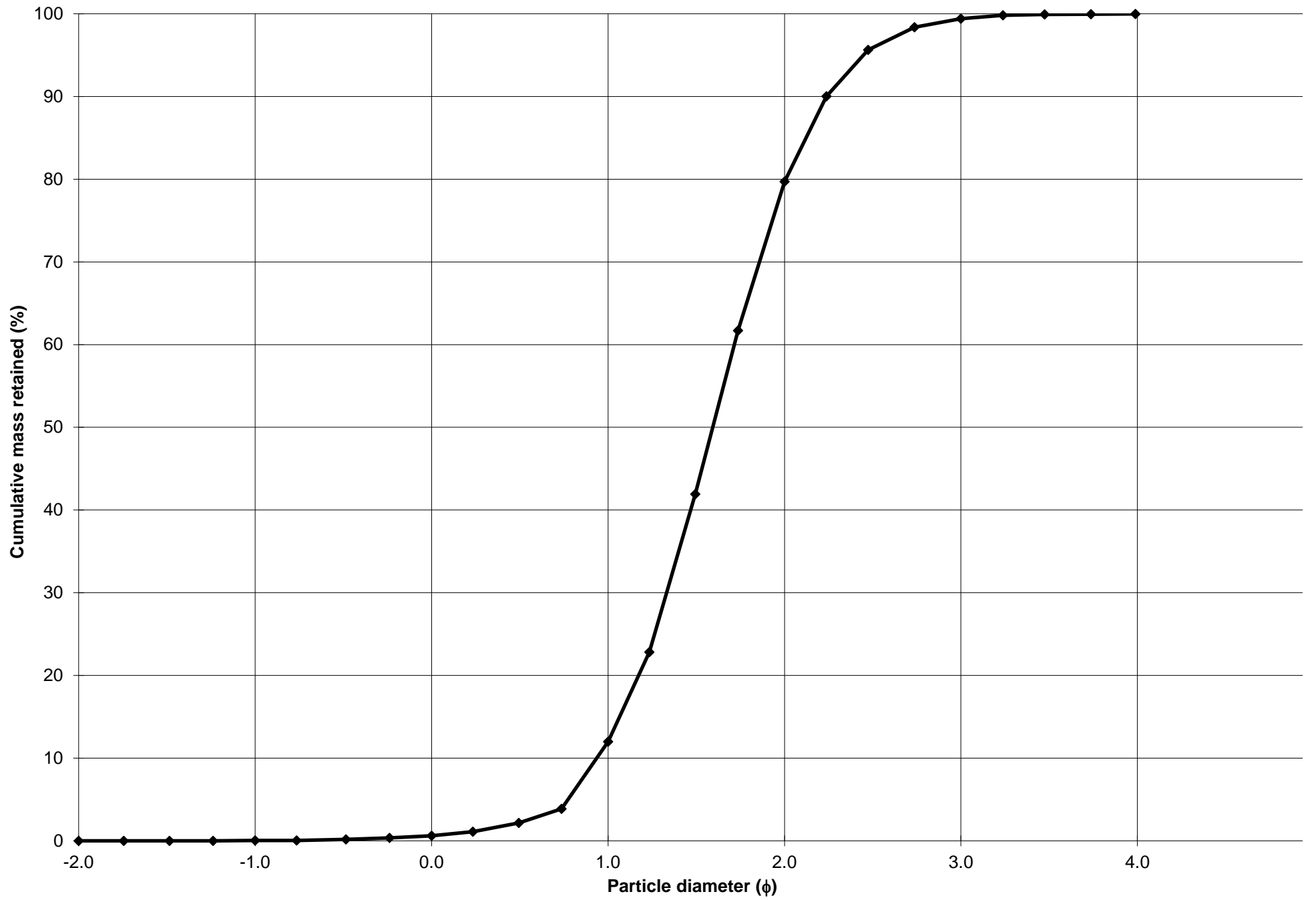
Cumulative Frequency Curve



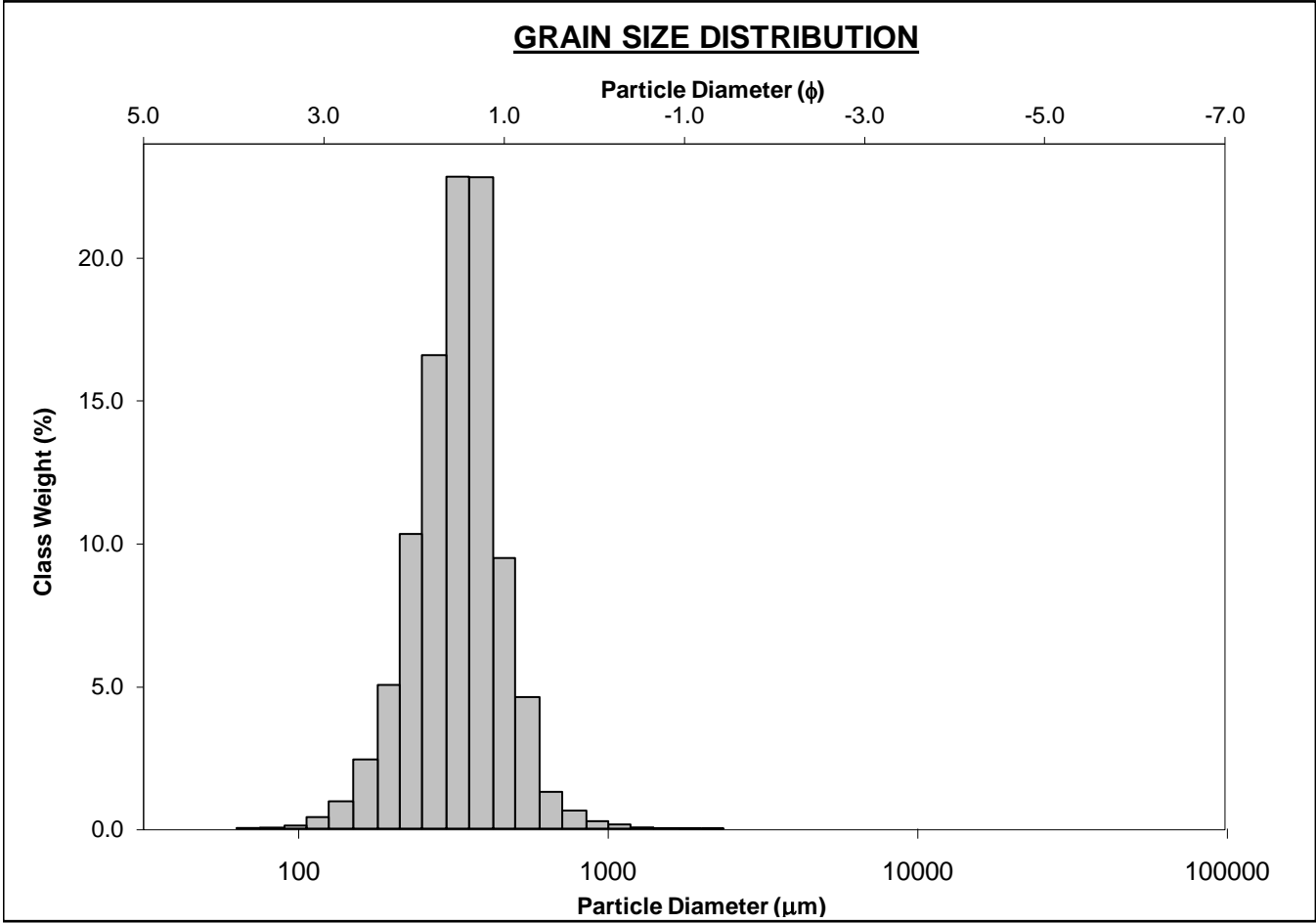
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-101cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 11.4%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 67.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 19.7%	
D ₁₀ :	212.1	0.935			V FINE SAND: 0.6%	
MEDIAN or D ₅₀ :	331.4	1.593	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	522.9	2.237	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.465	2.392	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	310.8	1.302	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.588	1.528	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	154.2	0.667	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	357.0	331.7	1.592	331.5	1.593	Medium Sand
SORTING (σ):	148.3	1.447	0.533	1.421	0.507	Moderately Well Sorted
SKEWNESS (Sk):	2.776	0.005	-0.005	-0.009	0.009	Symmetrical
KURTOSIS (K):	21.36	5.641	5.641	1.028	1.028	Mesokurtic



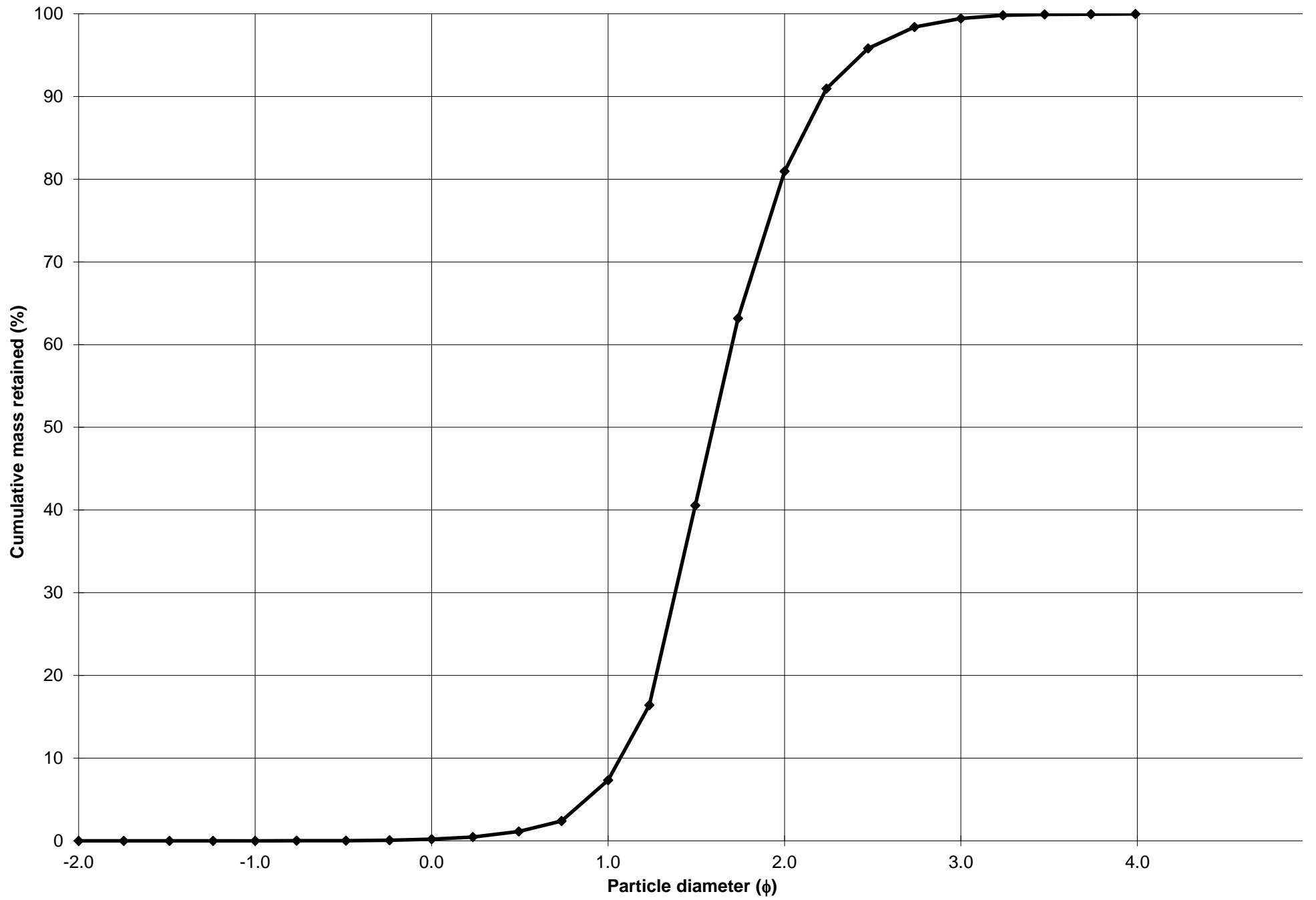
Cumulative Frequency Curve



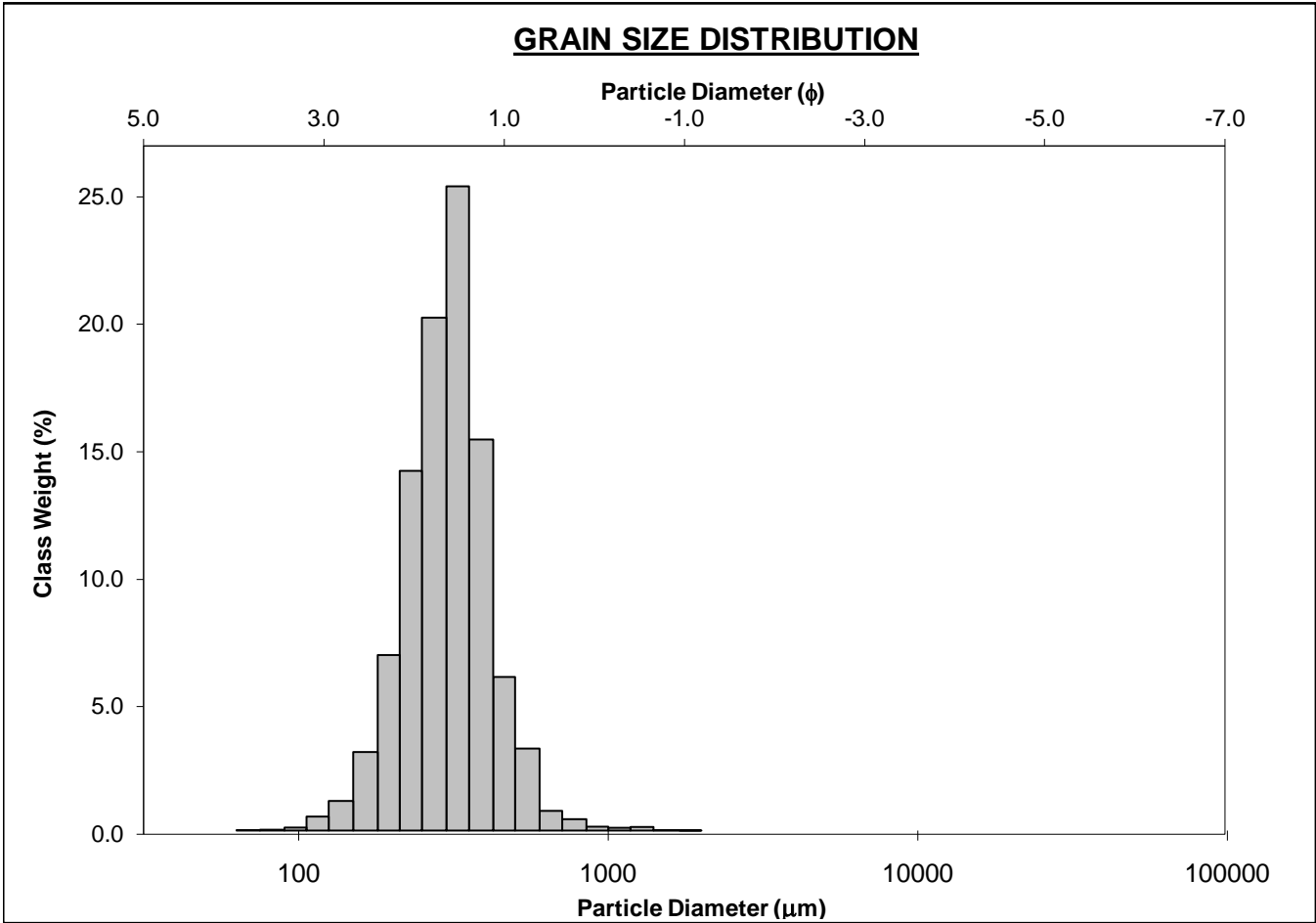
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-110cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 7.1%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 73.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 18.5%	
D ₁₀ :	215.4	1.069			V FINE SAND: 0.6%	
MEDIAN or D ₅₀ :	330.9	1.596	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	476.7	2.215	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.214	2.073	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	261.4	1.146	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.500	1.441	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	132.9	0.585	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	343.5	324.5	1.624	322.9	1.631	Medium Sand
SORTING (σ):	117.0	1.391	0.476	1.365	0.448	Well Sorted
SKEWNESS (Sk):	1.854	-0.426	0.426	-0.100	0.100	Fine Skewed
KURTOSIS (K):	13.98	7.113	7.113	1.092	1.092	Mesokurtic



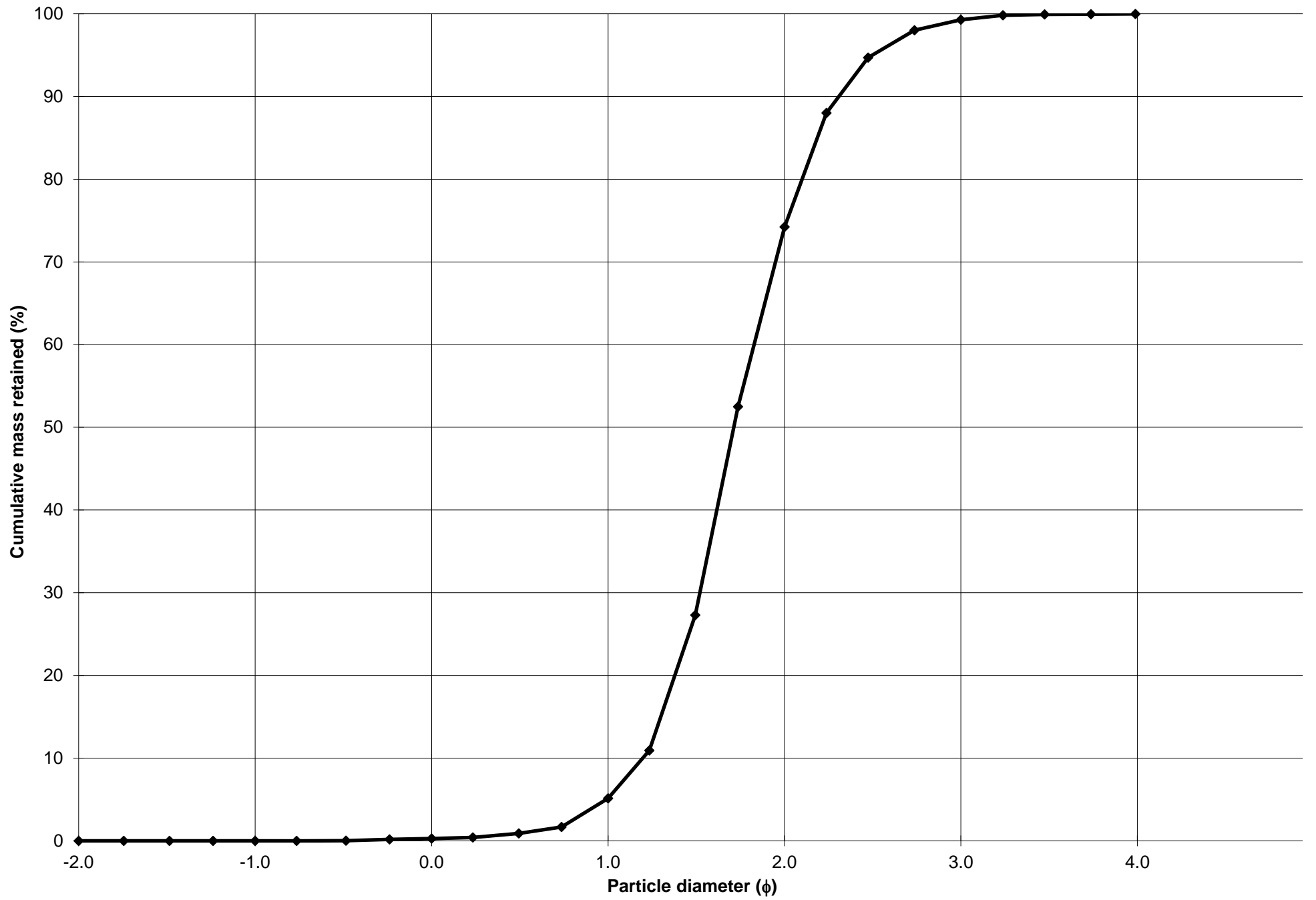
Cumulative Frequency Curve



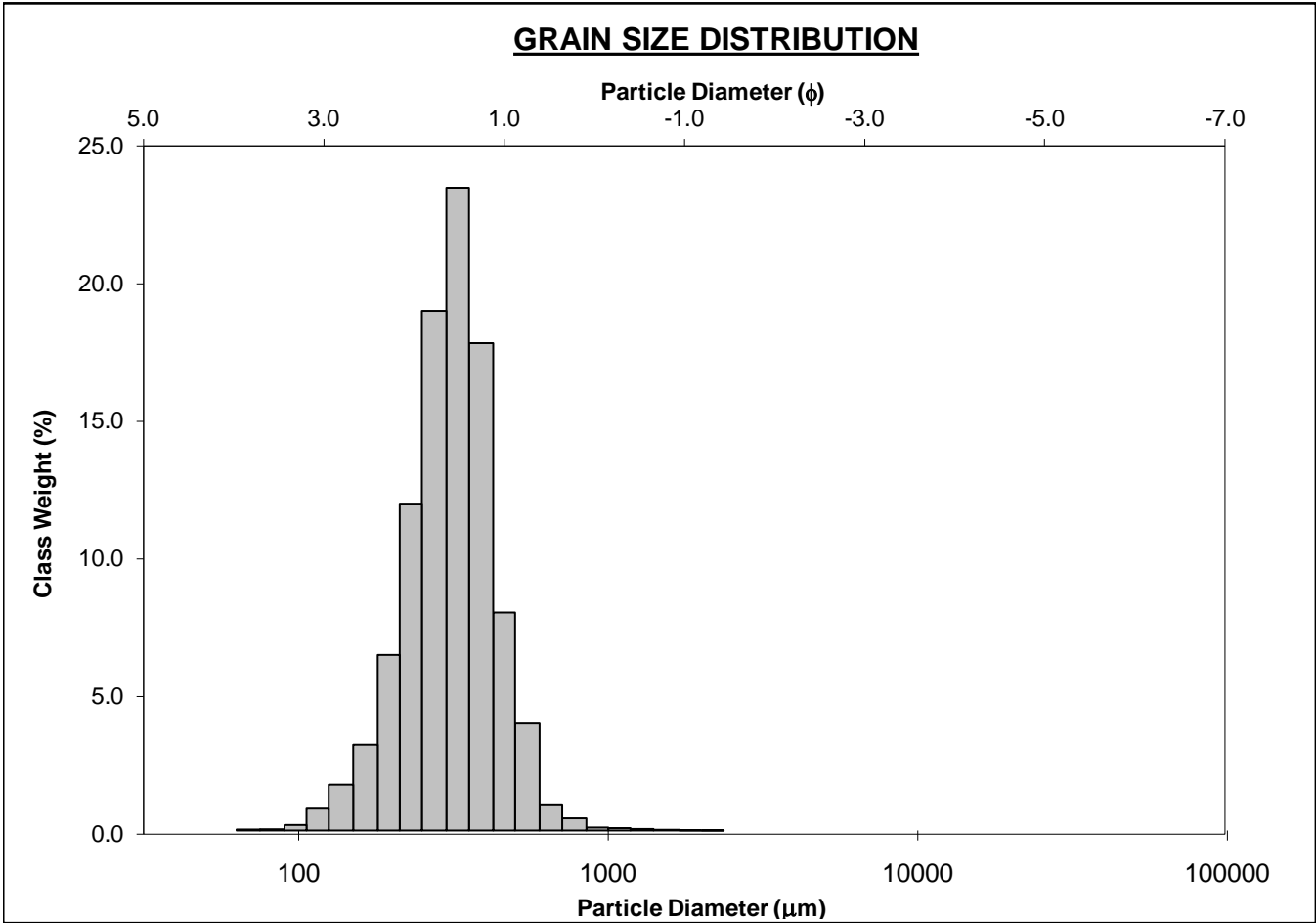
SIEVING ERROR: -0.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-120cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 4.9%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 69.1%	
MODE 3:			MUD: 0.0%		FINE SAND: 25.0%	
D ₁₀ :	201.9	1.196			V FINE SAND: 0.7%	
MEDIAN or D ₅₀ :	305.1	1.713	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	436.3	2.308	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.161	1.929	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	234.4	1.112	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.470	1.381	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	116.4	0.556	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	318.4	300.8	1.733	301.0	1.732	Medium Sand
SORTING (σ):	112.5	1.384	0.469	1.359	0.442	Well Sorted
SKEWNESS (Sk):	2.459	-0.201	0.201	-0.054	0.054	Symmetrical
KURTOSIS (K):	18.42	7.395	7.395	1.113	1.113	Leptokurtic



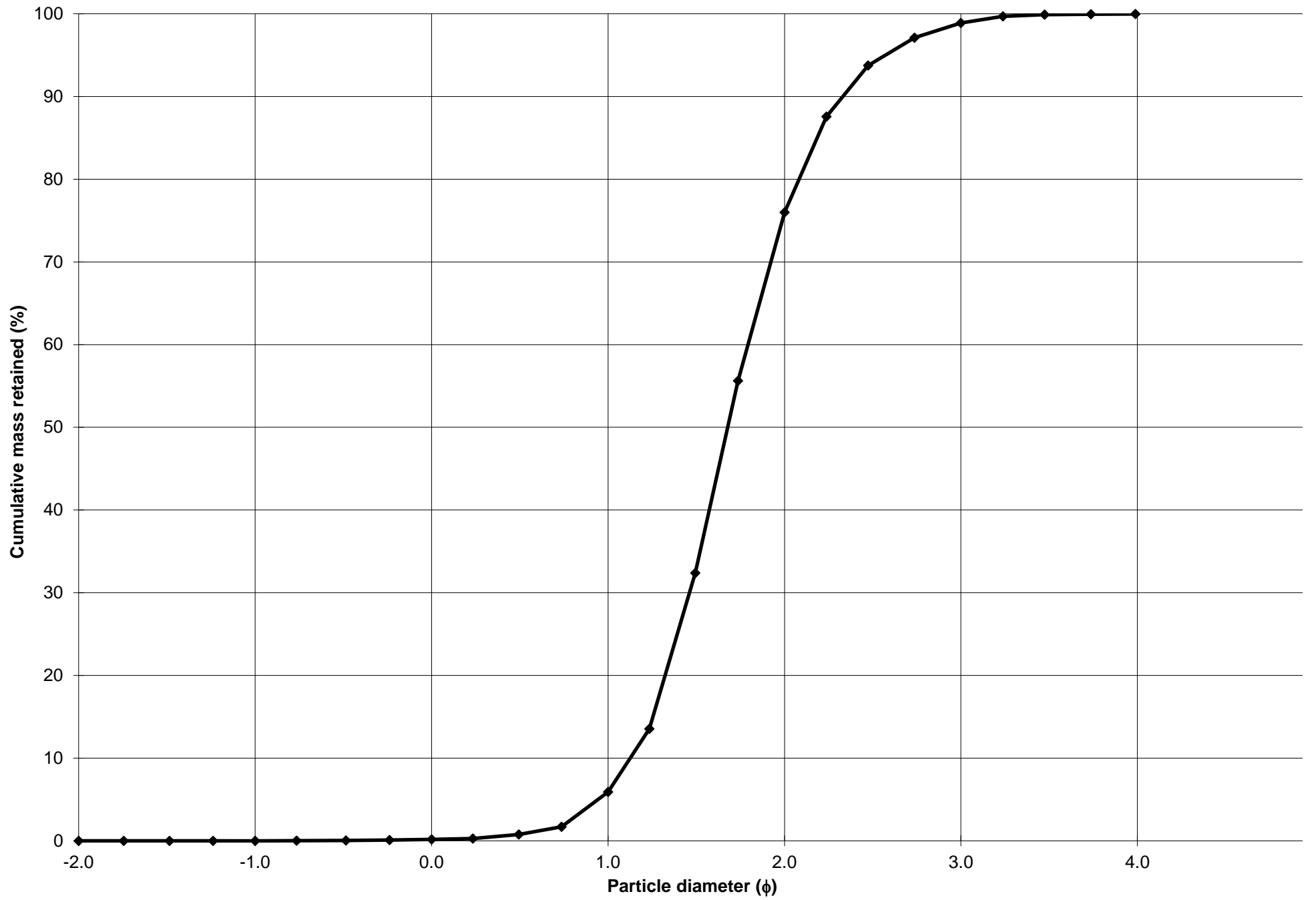
Cumulative Frequency Curve



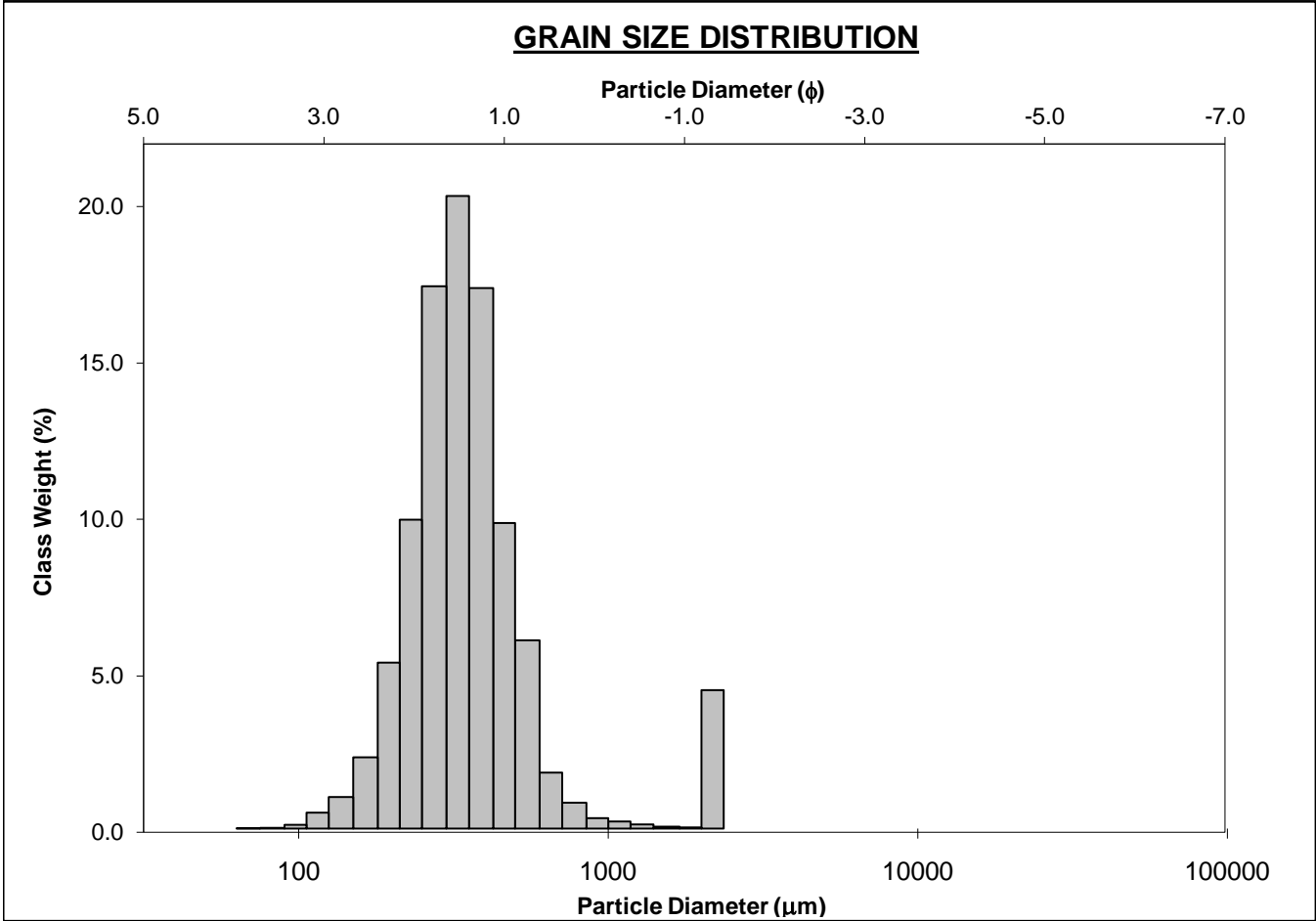
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-130cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 5.7%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 70.1%	
MODE 3:			MUD: 0.0%		FINE SAND: 22.9%	
D ₁₀ :	198.7	1.126			V FINE SAND: 1.1%	
MEDIAN or D ₅₀ :	312.5	1.678	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	458.3	2.331	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.306	2.071	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	259.6	1.205	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.510	1.427	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	128.7	0.595	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	325.2	306.0	1.708	307.0	1.704	Medium Sand
SORTING (σ):	114.4	1.409	0.495	1.386	0.471	Well Sorted
SKEWNESS (Sk):	2.026	-0.514	0.514	-0.092	0.092	Symmetrical
KURTOSIS (K):	17.34	7.278	7.278	1.123	1.123	Leptokurtic



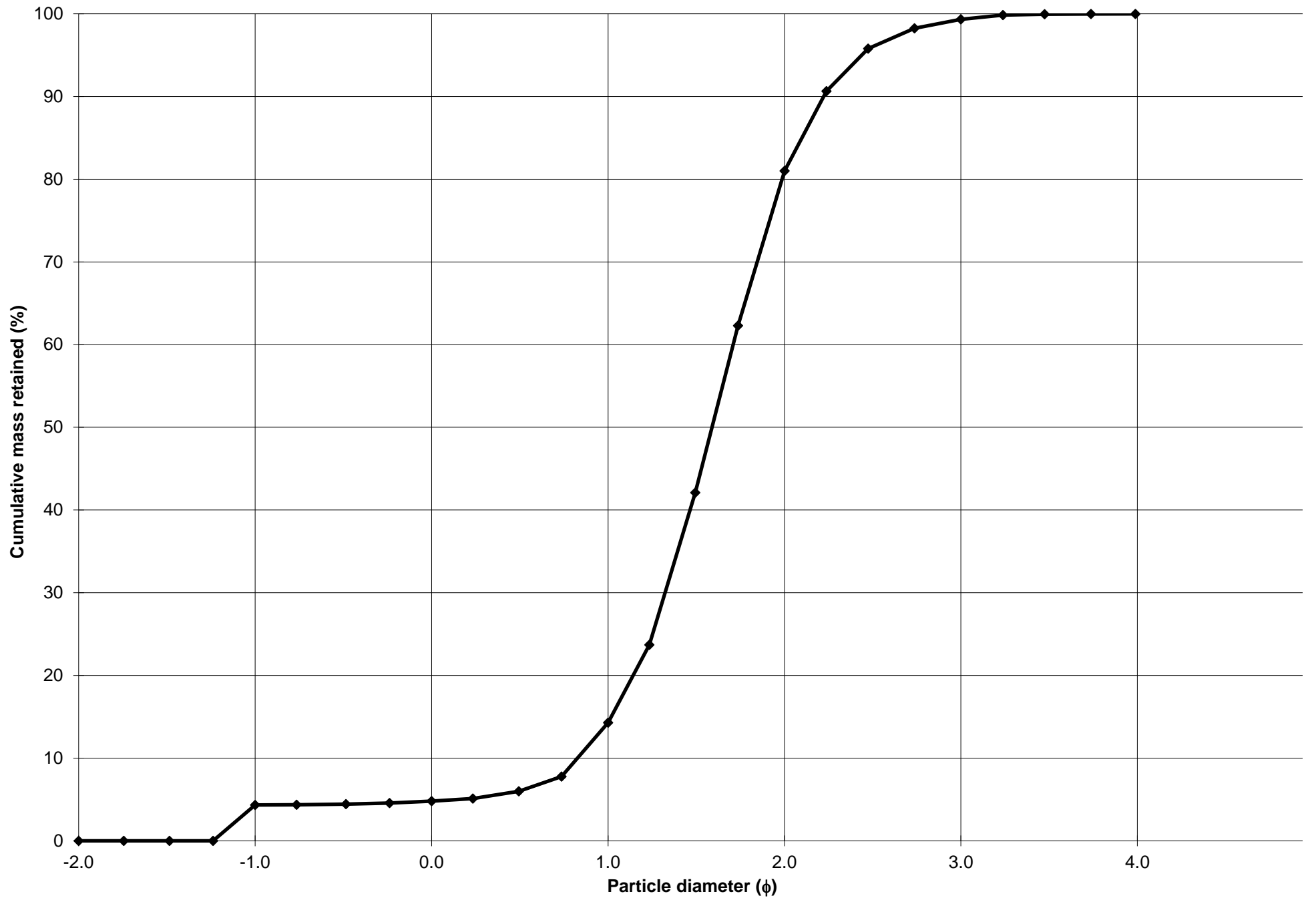
Cumulative Frequency Curve



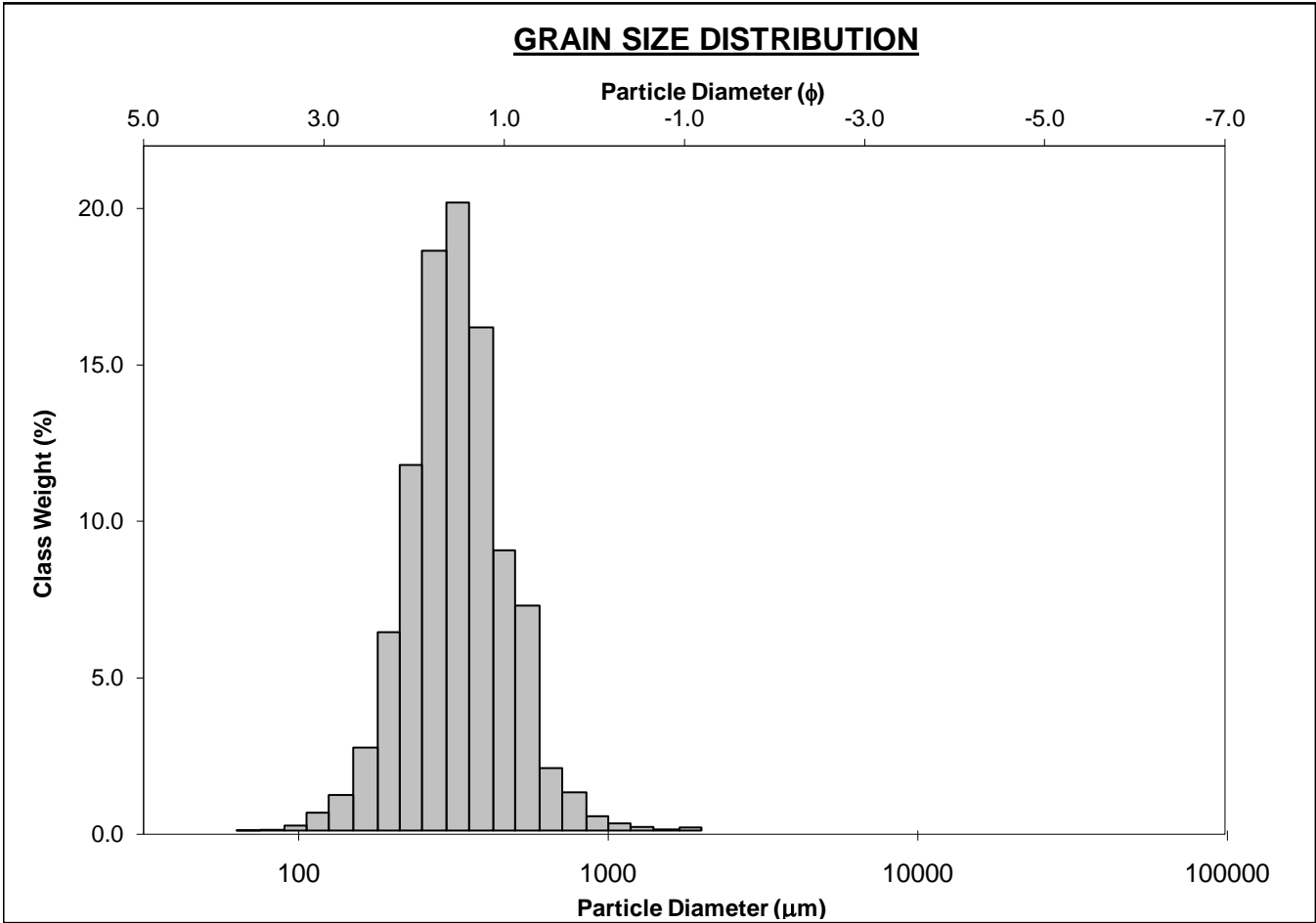
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-140cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 4.3%		COARSE SAND: 9.5%	
MODE 2:	2180.0	-1.119	SAND: 95.6%		MEDIUM SAND: 66.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 18.3%	
D ₁₀ :	214.4	0.827			V FINE SAND: 0.6%	
MEDIAN or D ₅₀ :	332.4	1.589	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	563.9	2.222	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.631	2.688	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	349.5	1.395	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.583	1.529	V FINE GRAVEL: 4.3%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	154.6	0.663	V COARSE SAND: 0.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	429.3	354.7	1.496	337.1	1.569	Medium Sand
SORTING (σ):	396.4	1.683	0.751	1.521	0.605	Moderately Well Sorted
SKEWNESS (Sk):	3.760	1.596	-1.596	0.160	-0.160	Coarse Skewed
KURTOSIS (K):	16.70	7.675	7.675	1.417	1.417	Leptokurtic



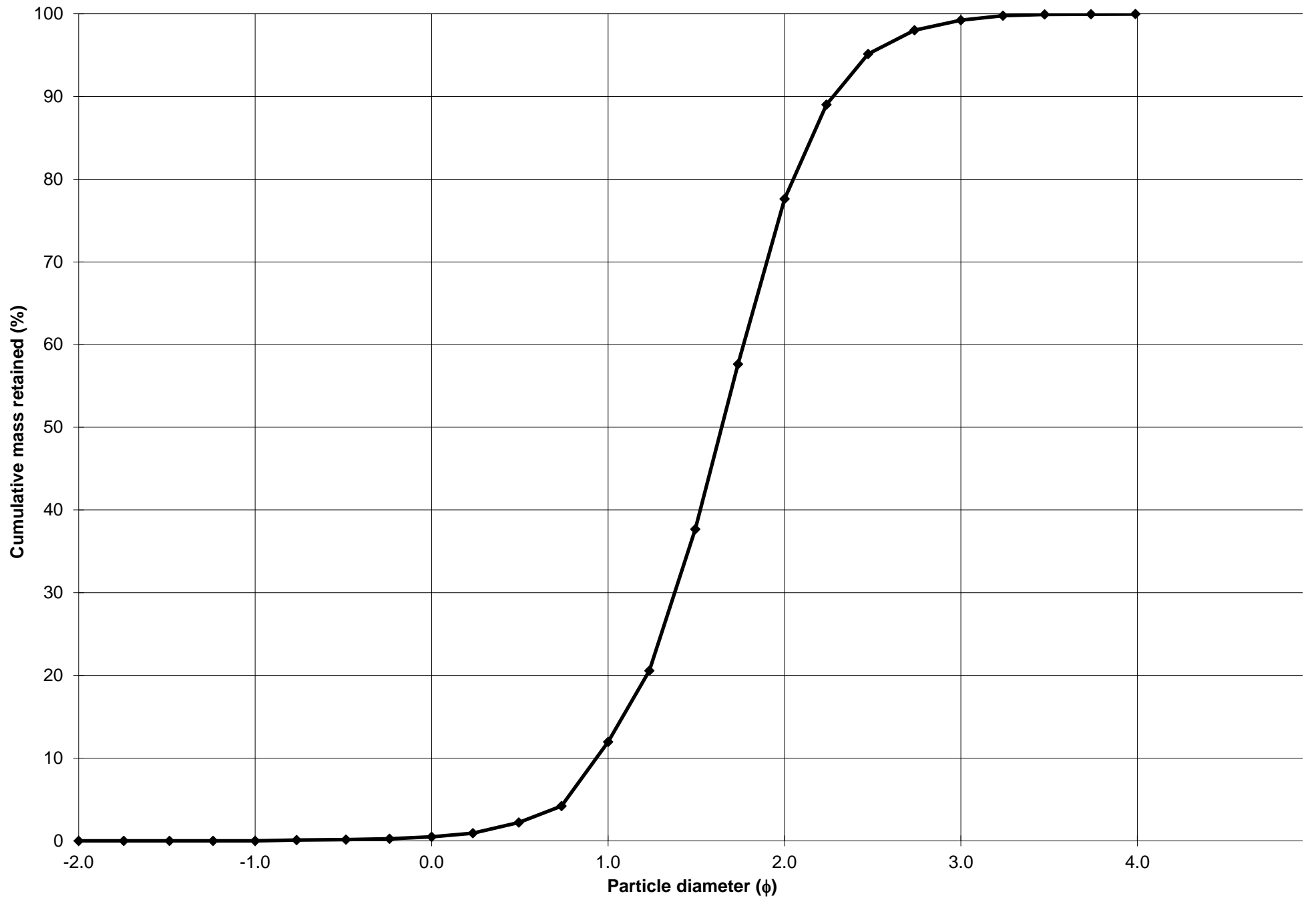
Cumulative Frequency Curve



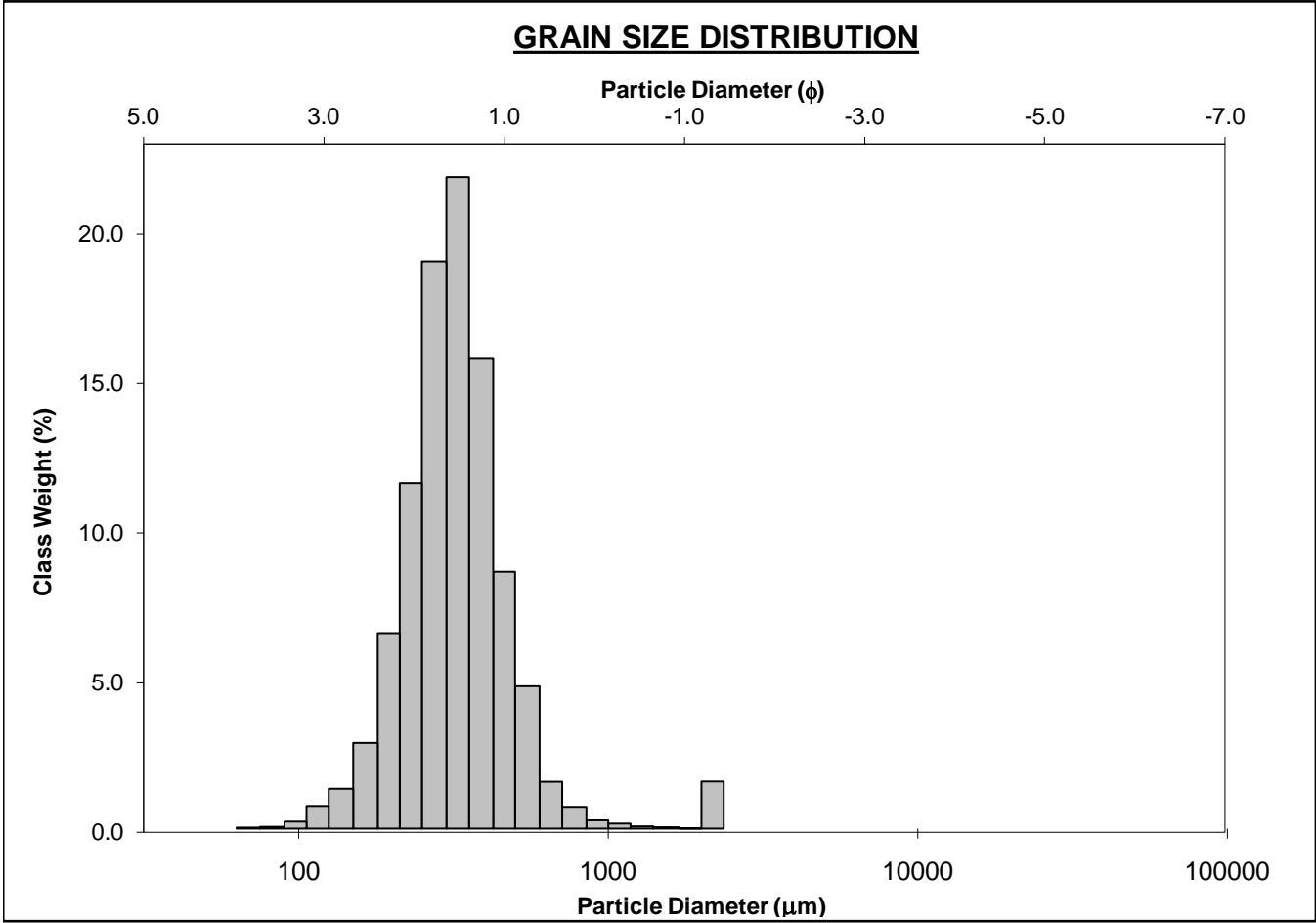
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-150cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 11.5%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 65.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 21.6%	
D ₁₀ :	206.4	0.934			V FINE SAND: 0.7%	
MEDIAN or D ₅₀ :	320.0	1.644	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	523.5	2.276	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.536	2.438	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	317.1	1.342	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.584	1.510	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	149.6	0.664	V COARSE SAND: 0.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	348.6	323.1	1.630	323.3	1.629	Medium Sand
SORTING (σ):	146.5	1.458	0.544	1.428	0.514	Moderately Well Sorted
SKEWNESS (Sk):	2.602	-0.107	0.107	0.038	-0.038	Symmetrical
KURTOSIS (K):	18.92	6.868	6.868	1.053	1.053	Mesokurtic



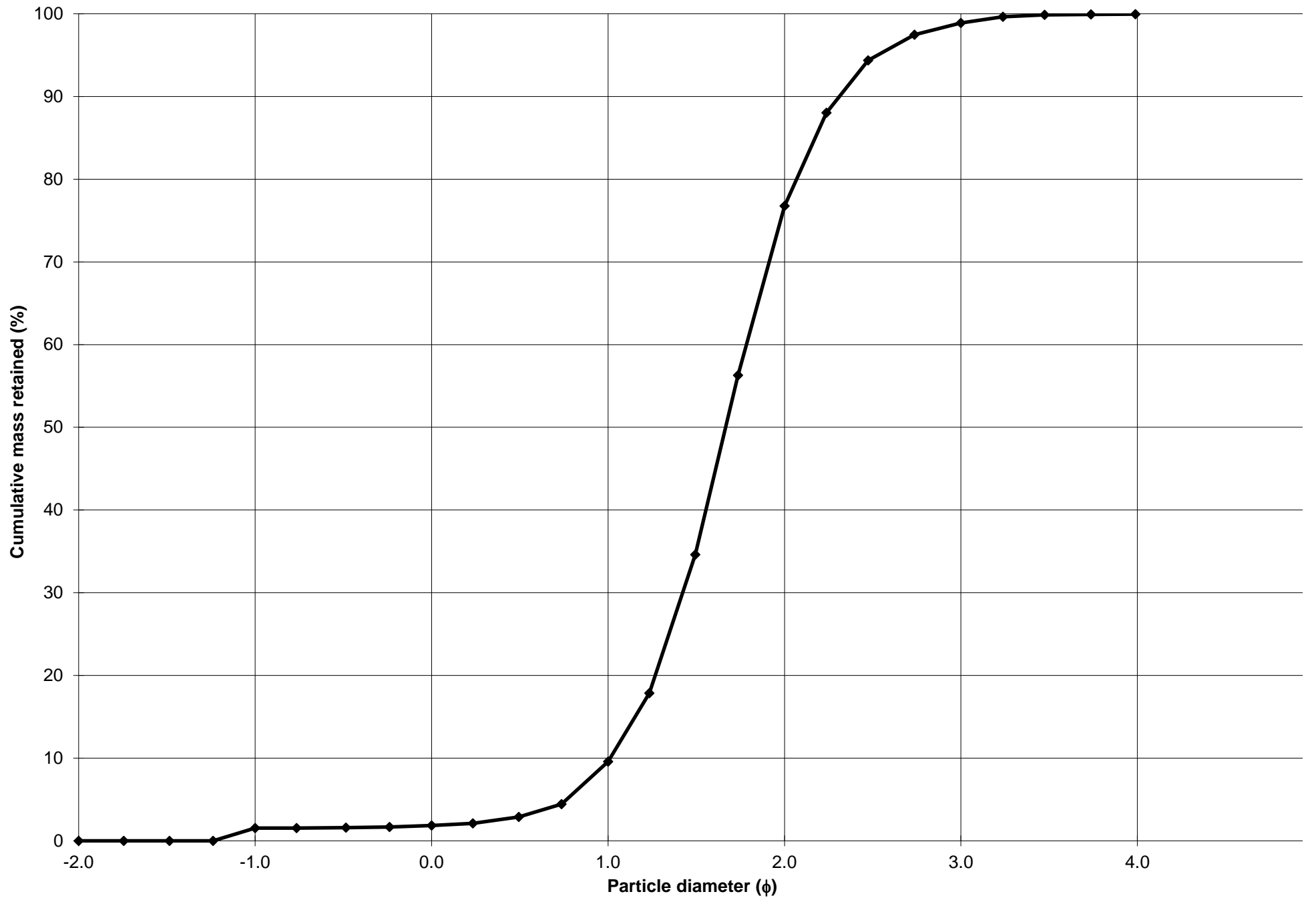
Cumulative Frequency Curve



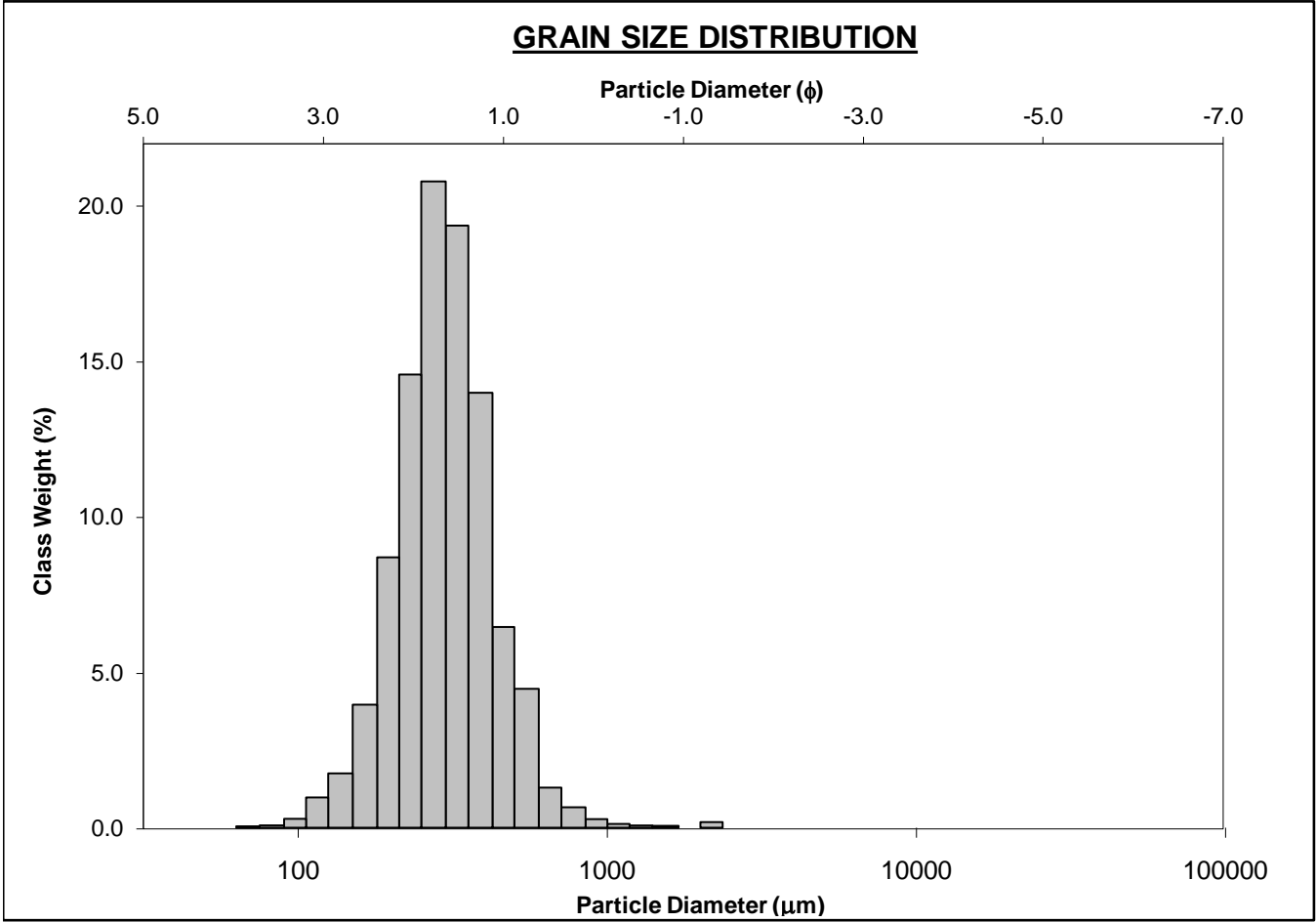
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-160cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 1.5%		COARSE SAND: 7.7%	
MODE 2:			SAND: 98.4%		MEDIUM SAND: 67.2%	
MODE 3:			MUD: 0.0%		FINE SAND: 22.1%	
D ₁₀ :	201.5	1.012			V FINE SAND: 1.1%	
MEDIAN or D ₅₀ :	315.0	1.666	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	495.9	2.311	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.461	2.284	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	294.4	1.299	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.550	1.470	V FINE GRAVEL: 1.5%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	139.6	0.632	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	361.9	320.9	1.640	314.9	1.667	Medium Sand
SORTING (σ):	260.5	1.540	0.623	1.424	0.510	Moderately Well Sorted
SKEWNESS (Sk):	5.409	0.941	-0.941	0.010	-0.010	Symmetrical
KURTOSIS (K):	37.31	10.02	10.02	1.143	1.143	Leptokurtic



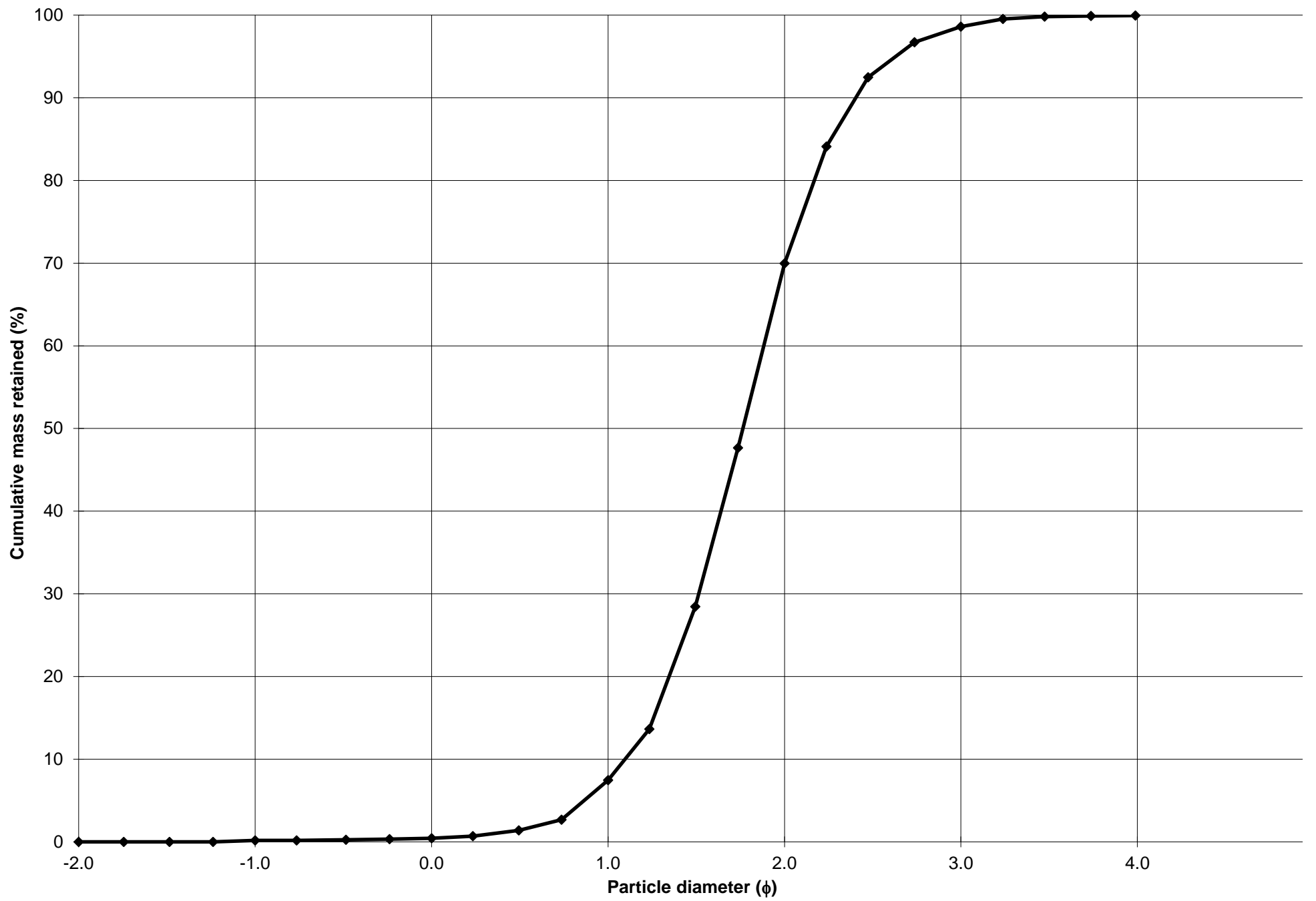
Cumulative Frequency Curve



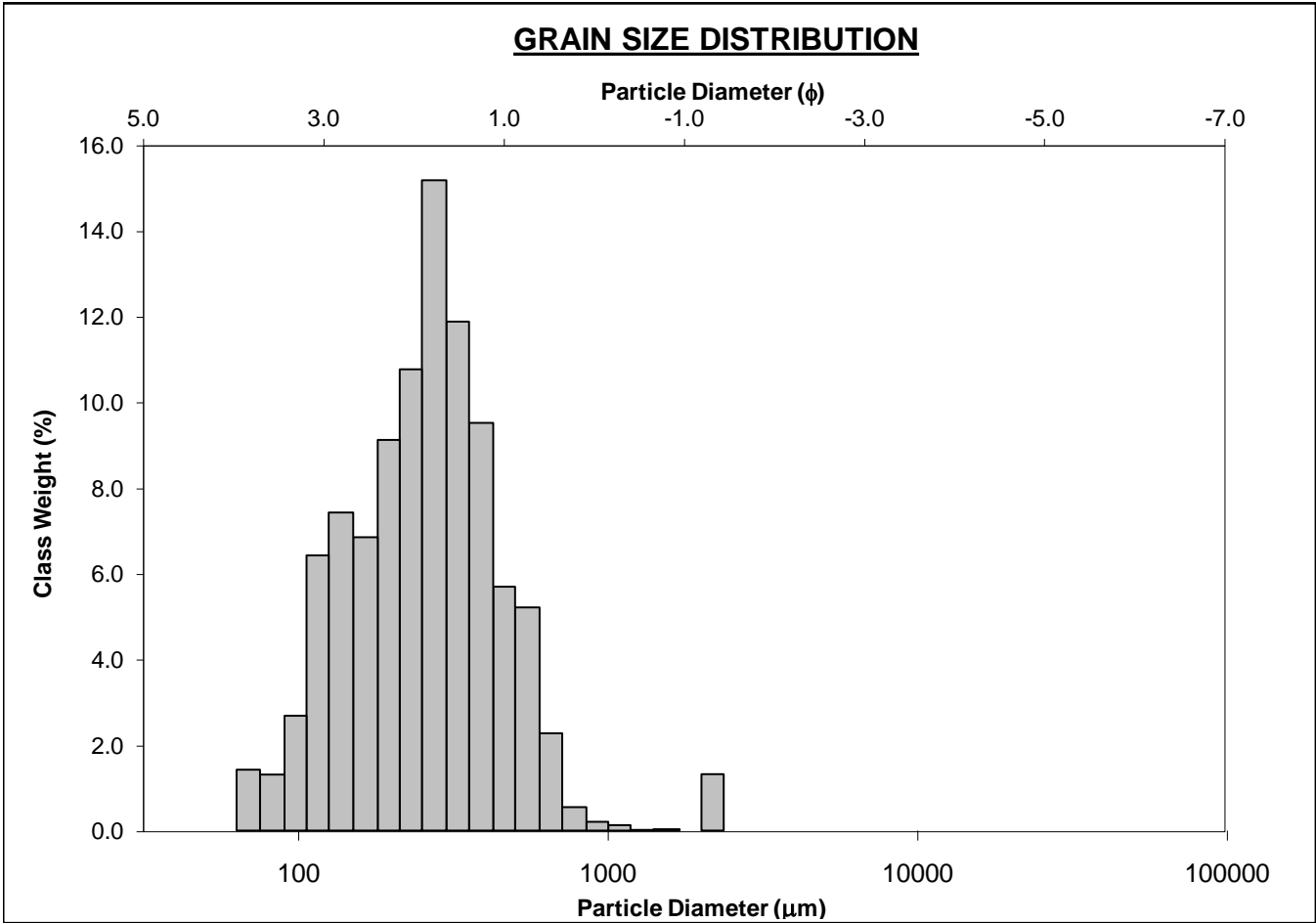
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-170cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.2%		COARSE SAND: 7.0%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 62.5%	
MODE 3:			MUD: 0.1%		FINE SAND: 28.6%	
D ₁₀ :	188.9	1.096			V FINE SAND: 1.3%	
MEDIAN or D ₅₀ :	294.3	1.765	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	467.8	2.404	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.476	2.193	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	278.8	1.308	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.571	1.454	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	134.5	0.651	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	320.4	296.0	1.756	295.5	1.759	Medium Sand
SORTING (σ):	148.6	1.464	0.550	1.422	0.508	Moderately Well Sorted
SKEWNESS (Sk):	4.771	-0.146	0.146	0.019	-0.019	Symmetrical
KURTOSIS (K):	50.84	8.970	8.970	1.111	1.111	Leptokurtic



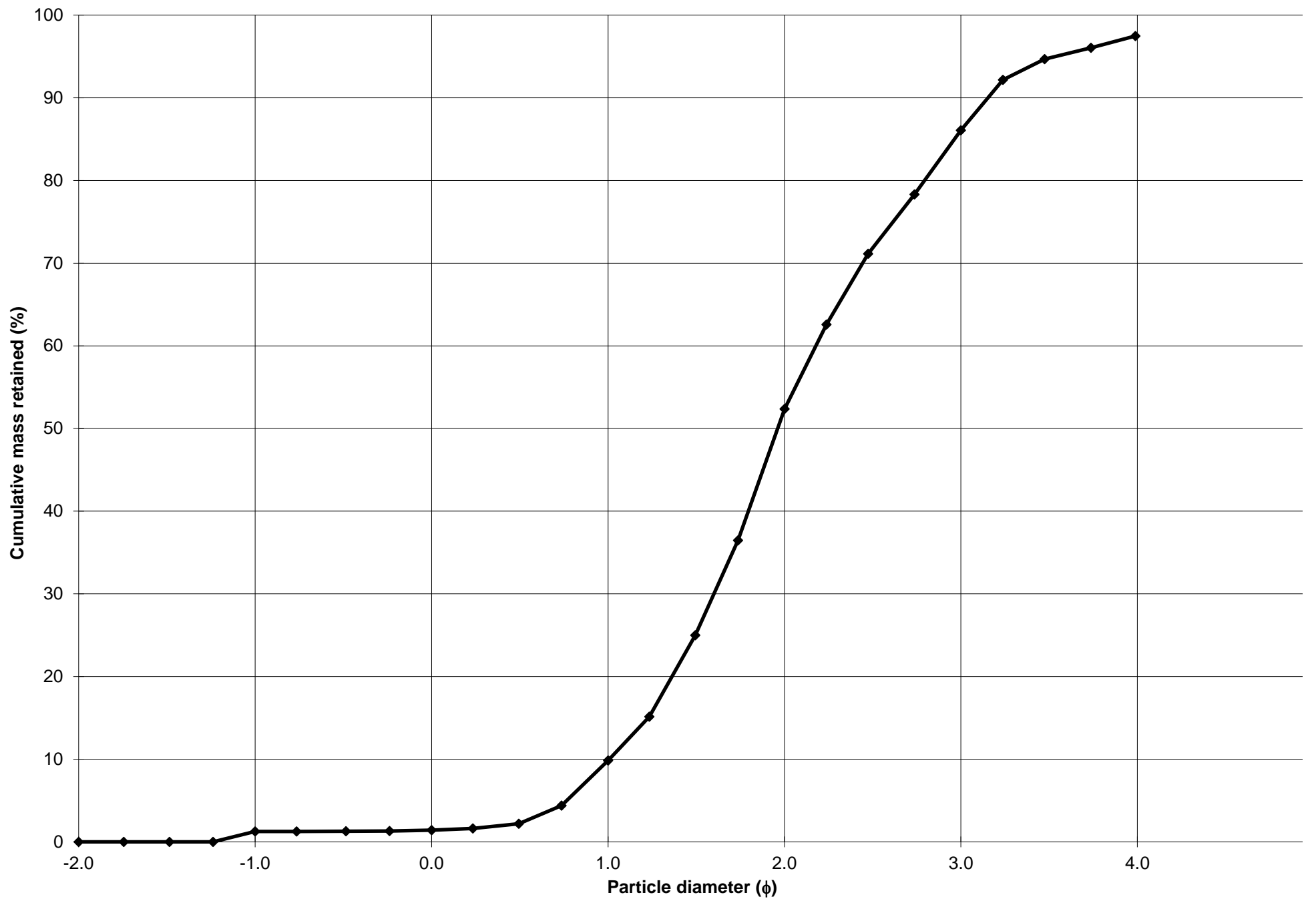
Cumulative Frequency Curve



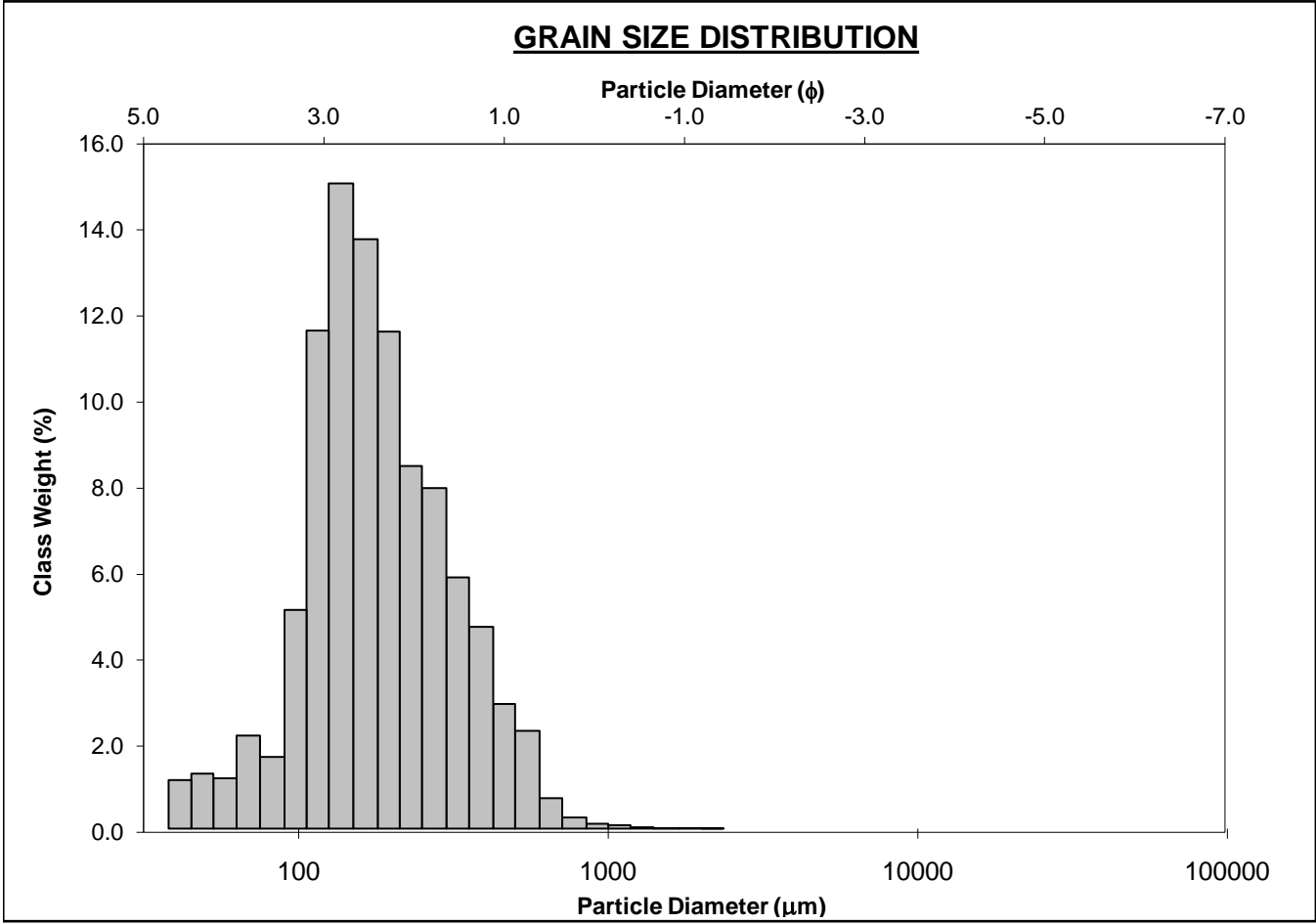
SIEVING ERROR: 1.1%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-180cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 1.3%		COARSE SAND: 8.4%	
MODE 2:	137.5	2.868	SAND: 96.2%		MEDIUM SAND: 42.5%	
MODE 3:			MUD: 2.5%		FINE SAND: 33.7%	
D ₁₀ :	112.4	1.008			V FINE SAND: 11.4%	
MEDIAN or D ₅₀ :	256.9	1.961	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.4%	
D ₉₀ :	497.4	3.153	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D ₉₀ / D ₁₀):	4.425	3.130	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
(D ₉₀ - D ₁₀):	385.0	2.146	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D ₇₅ / D ₂₅):	2.175	1.750	V FINE GRAVEL: 1.3%		V FINE SILT: 0.4%	
(D ₇₅ - D ₂₅):	191.8	1.121	V COARSE SAND: 0.2%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	299.5	232.0	2.108	241.6	2.049	Fine Sand
SORTING (σ):	259.6	2.196	1.135	1.787	0.838	Moderately Sorted
SKEWNESS (Sk):	4.909	-1.678	1.678	-0.148	0.148	Fine Skewed
KURTOSIS (K):	35.14	9.994	9.994	1.012	1.012	Mesokurtic



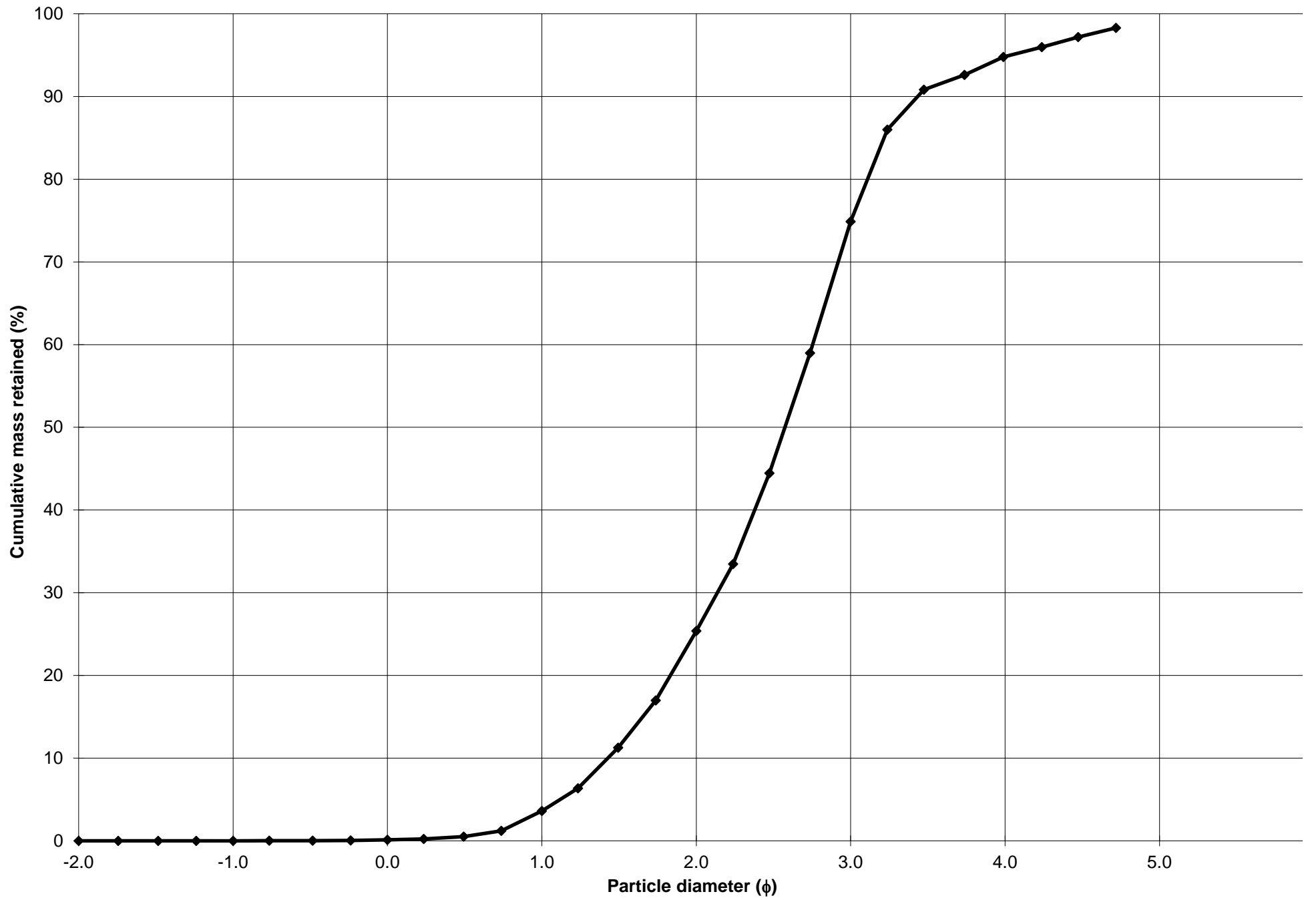
Cumulative Frequency Curve



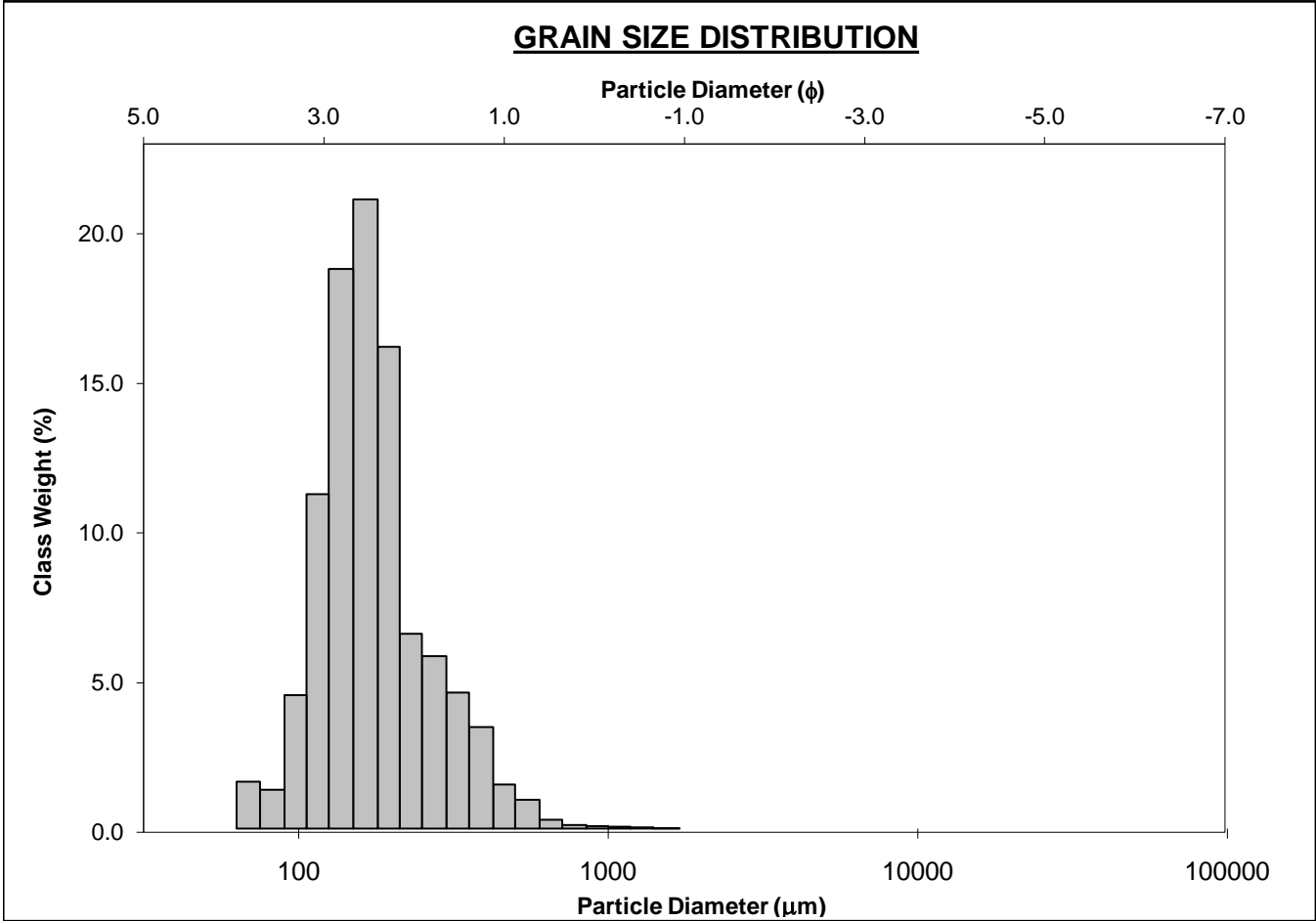
SIEVING ERROR: 1.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-190cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 3.5%	
MODE 2:			SAND: 94.8%		MEDIUM SAND: 21.8%	
MODE 3:			MUD: 5.2%		FINE SAND: 49.5%	
D ₁₀ :	92.56	1.428			V FINE SAND: 20.0%	
MEDIAN or D ₅₀ :	167.9	2.574	V COARSE GRAVEL: 0.0%		V COARSE SILT: 3.5%	
D ₉₀ :	371.8	3.434	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D ₉₀ / D ₁₀):	4.017	2.405	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
(D ₉₀ - D ₁₀):	279.2	2.006	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D ₇₅ / D ₂₅):	2.020	1.510	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
(D ₇₅ - D ₂₅):	127.2	1.014	V COARSE SAND: 0.1%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	204.8	168.0	2.573	178.2	2.488	Fine Sand
SORTING (σ):	128.8	2.006	1.004	1.761	0.816	Moderately Sorted
SKEWNESS (Sk):	2.249	-1.661	1.661	0.085	-0.085	Symmetrical
KURTOSIS (K):	14.48	10.09	10.09	1.178	1.178	Leptokurtic



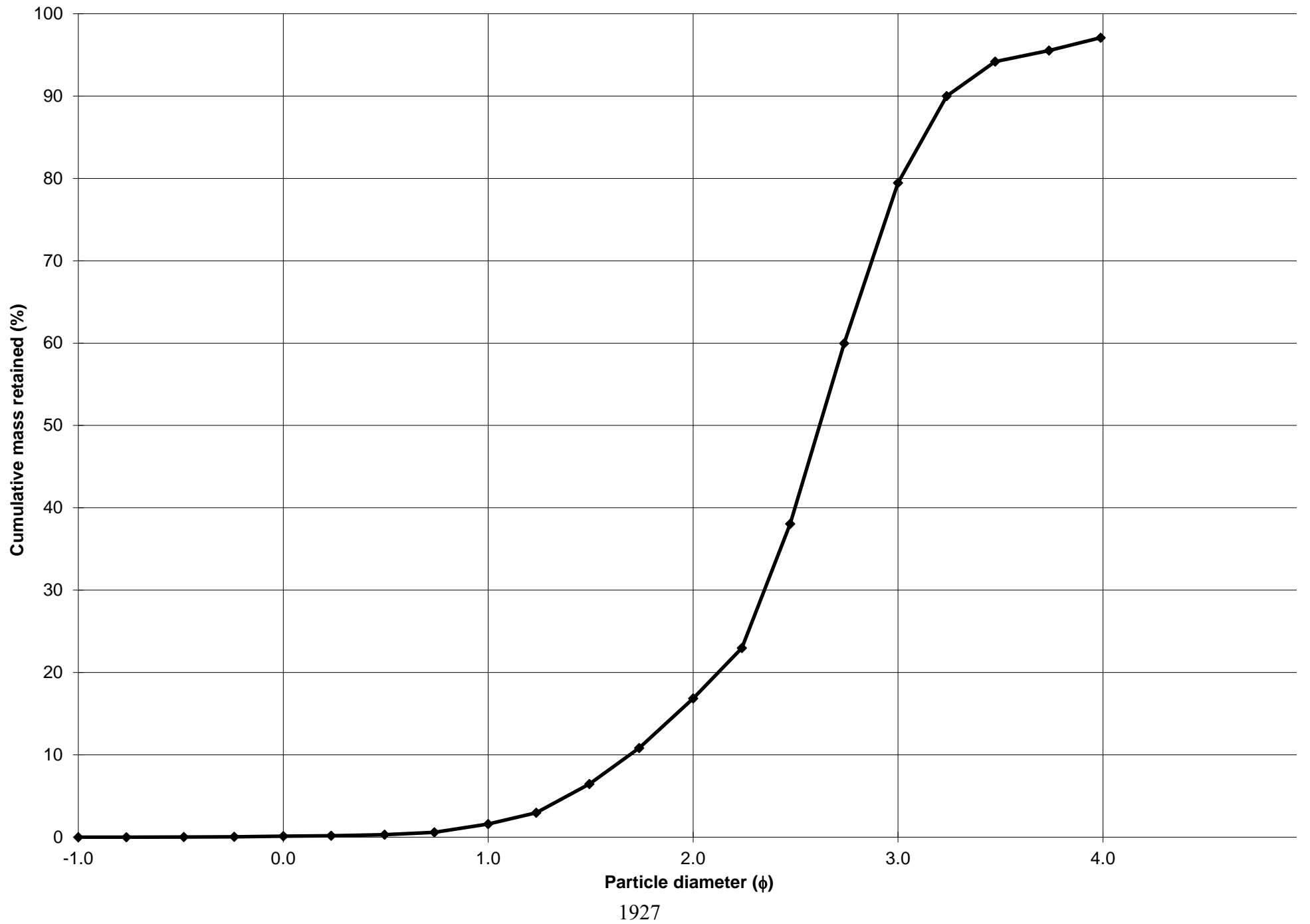
Cumulative Frequency Curve



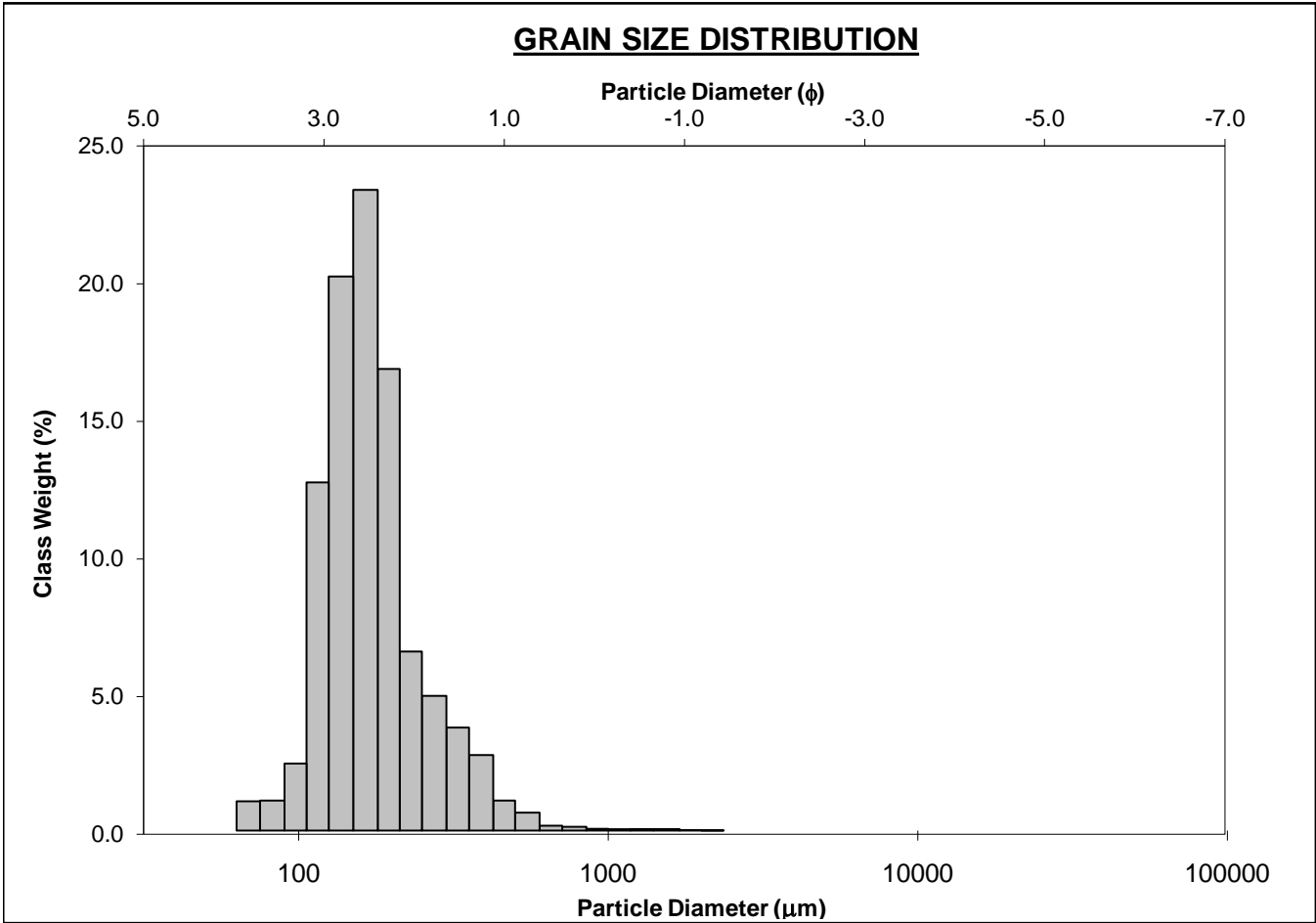
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-200cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 1.5%	
MODE 2:			SAND: 97.1%		MEDIUM SAND: 15.2%	
MODE 3:			MUD: 2.9%		FINE SAND: 62.6%	
D ₁₀ :	106.0	1.691			V FINE SAND: 17.6%	
MEDIAN or D ₅₀ :	163.0	2.617	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.5%	
D ₉₀ :	309.7	3.238	COARSE GRAVEL: 0.0%		COARSE SILT: 0.5%	
(D ₉₀ / D ₁₀):	2.922	1.915	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.5%	
(D ₉₀ - D ₁₀):	203.7	1.547	FINE GRAVEL: 0.0%		FINE SILT: 0.5%	
(D ₇₅ / D ₂₅):	1.591	1.295	V FINE GRAVEL: 0.0%		V FINE SILT: 0.5%	
(D ₇₅ - D ₂₅):	77.06	0.670	V COARSE SAND: 0.1%		CLAY: 0.5%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	187.2	158.9	2.654	169.4	2.561	Fine Sand
SORTING (σ):	102.1	1.935	0.952	1.543	0.625	Moderately Well Sorted
SKEWNESS (Sk):	2.903	-2.429	2.429	0.122	-0.122	Coarse Skewed
KURTOSIS (K):	20.76	13.32	13.32	1.375	1.375	Leptokurtic



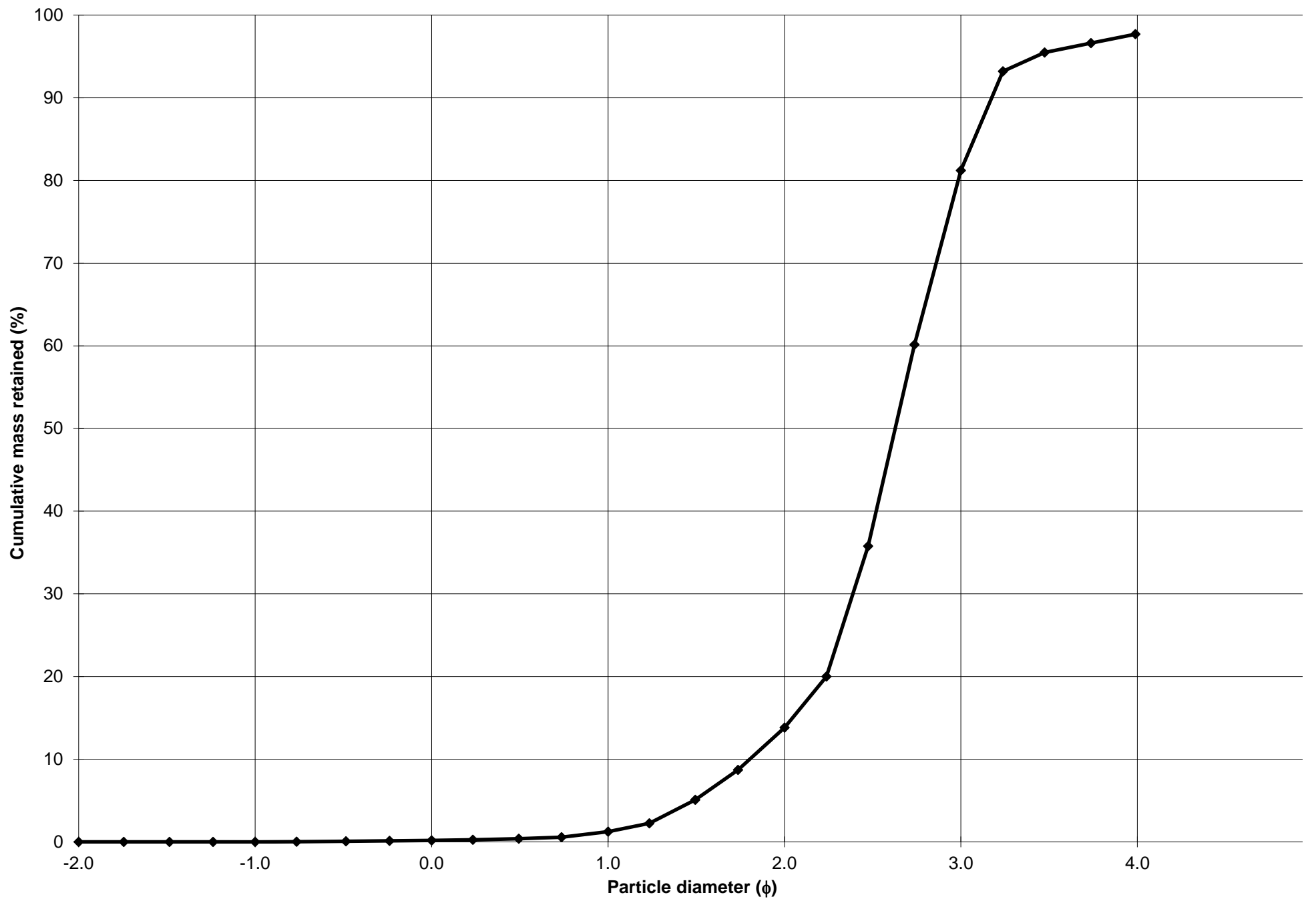
Cumulative Frequency Curve



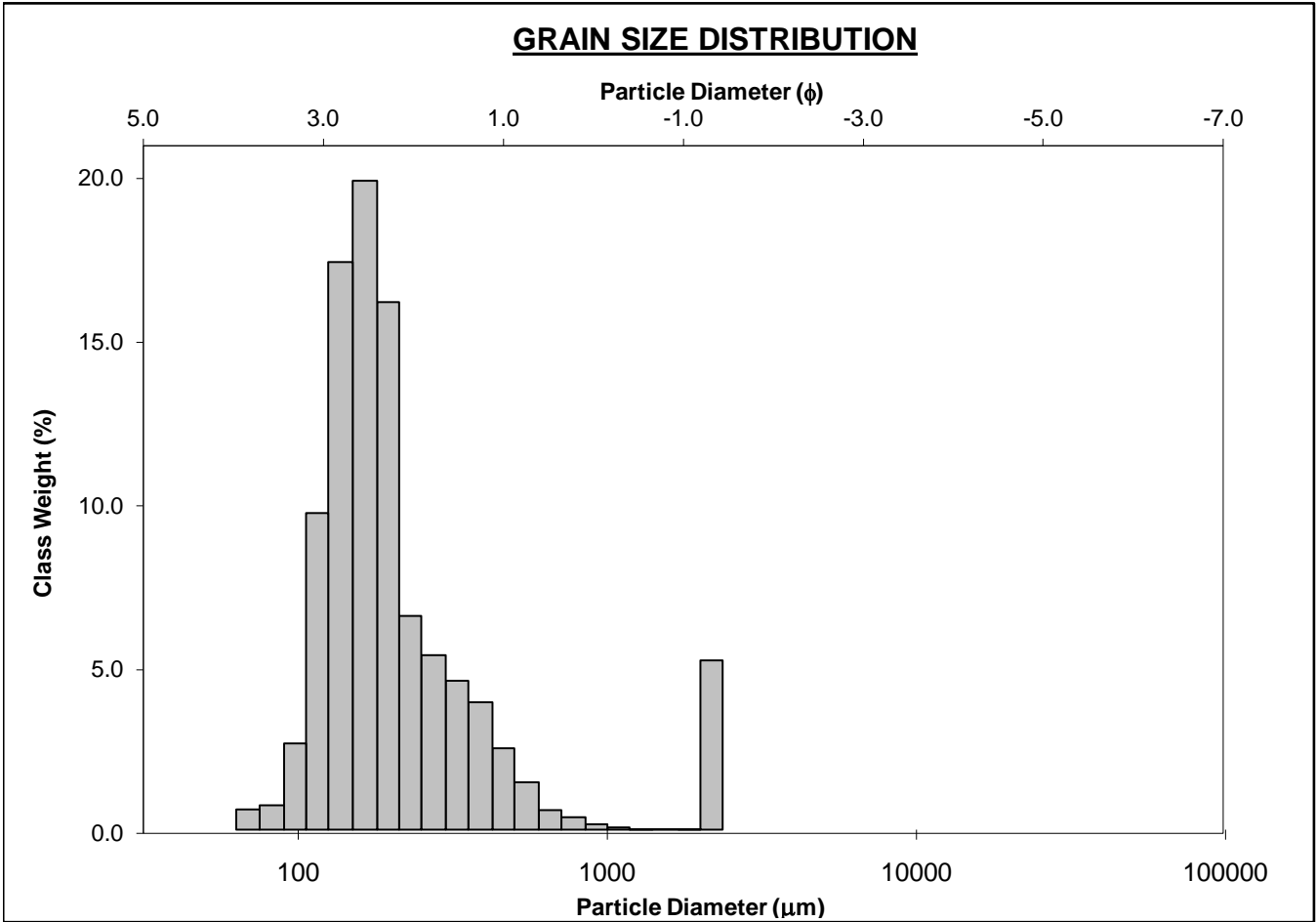
SIEVING ERROR: 1.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-210cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 1.1%	
MODE 2:			SAND: 97.7%		MEDIUM SAND: 12.6%	
MODE 3:			MUD: 2.3%		FINE SAND: 67.4%	
D_{10} :	110.8	1.803			V FINE SAND: 16.5%	
MEDIAN or D_{50} :	161.8	2.628	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.4%	
D_{90} :	286.5	3.174	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D_{90} / D_{10}) :	2.587	1.760	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
$(D_{90} - D_{10})$:	175.8	1.371	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D_{75} / D_{25}) :	1.526	1.264	V FINE GRAVEL: 0.0%		V FINE SILT: 0.4%	
$(D_{75} - D_{25})$:	69.36	0.610	V COARSE SAND: 0.2%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	183.6	159.6	2.647	166.2	2.589	Fine Sand
SORTING (σ):	101.8	1.815	0.860	1.451	0.537	Moderately Well Sorted
SKEWNESS (Sk):	5.070	-2.581	2.581	0.149	-0.149	Coarse Skewed
KURTOSIS (K):	57.49	16.13	16.13	1.303	1.303	Leptokurtic



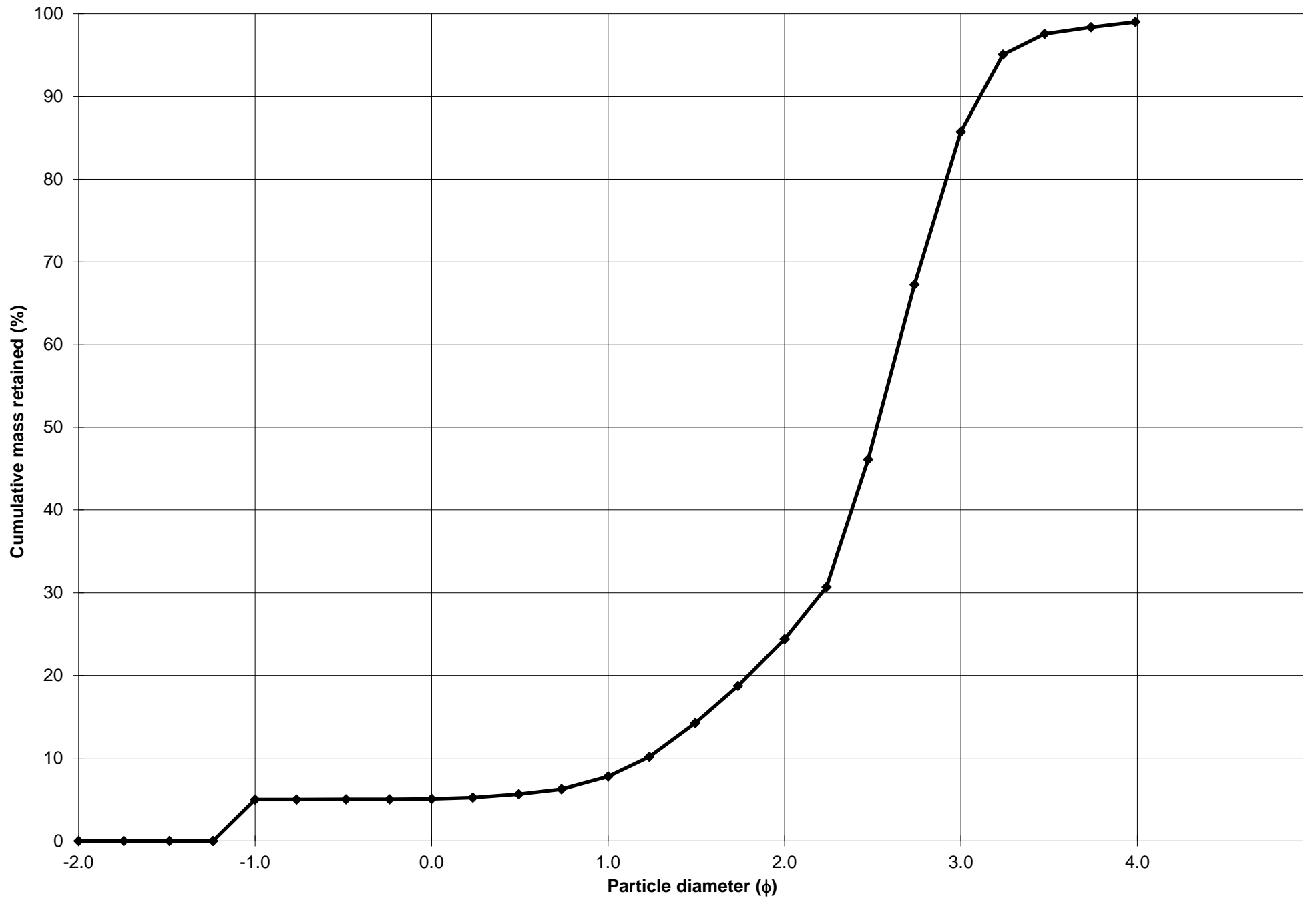
Cumulative Frequency Curve



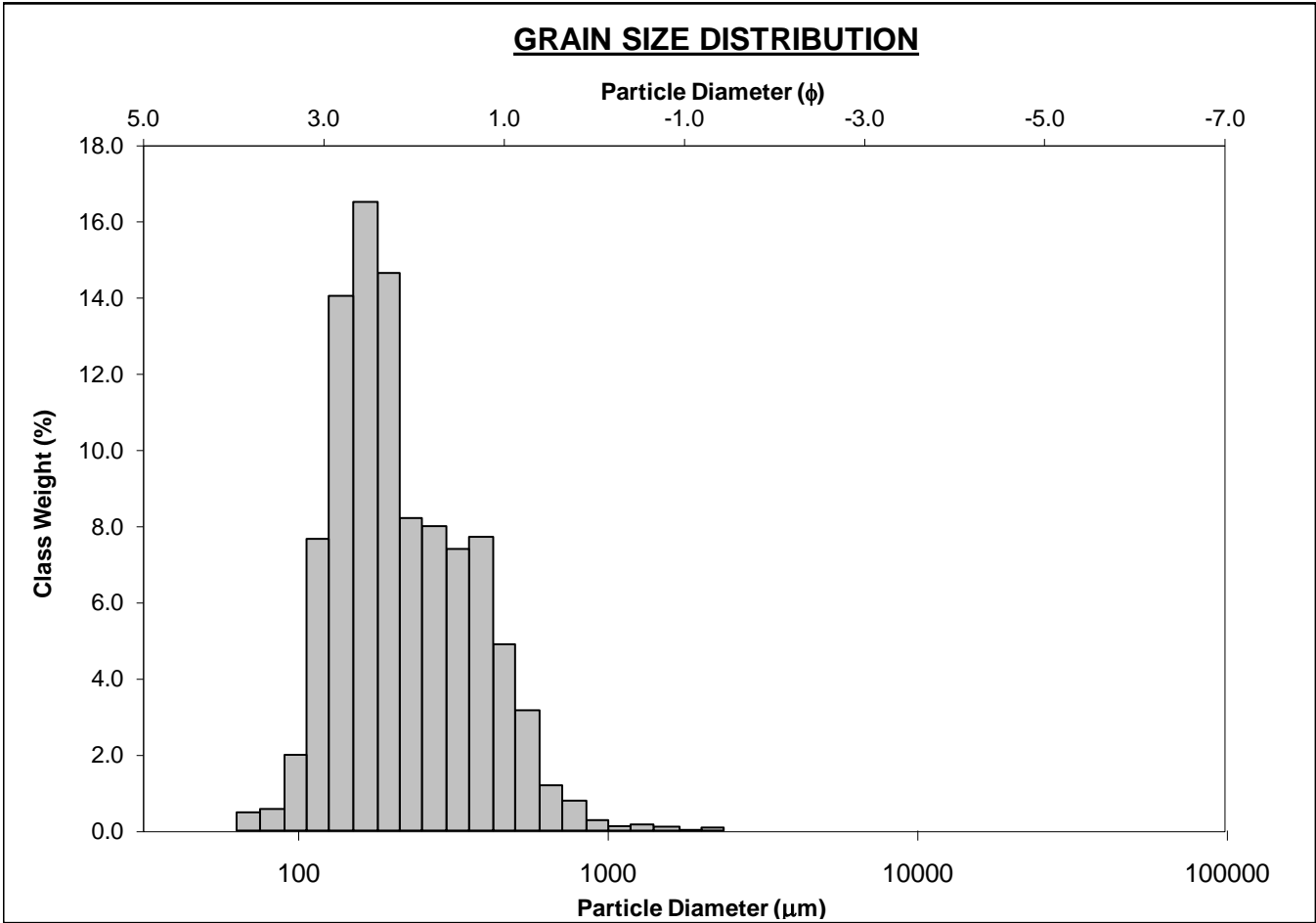
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-220cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Gravelly Sand			
SEDIMENT NAME: Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 5.0%		COARSE SAND: 2.7%	
MODE 2:	2180.0	-1.119	SAND: 94.0%		MEDIUM SAND: 16.6%	
MODE 3:			MUD: 1.0%		FINE SAND: 61.3%	
D_{10} :	115.9	1.220			V FINE SAND: 13.3%	
MEDIAN or D_{50} :	174.1	2.522	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D_{90} :	429.4	3.109	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D_{90} / D_{10}) :	3.704	2.549	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
$(D_{90} - D_{10})$:	313.4	1.889	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D_{75} / D_{25}) :	1.771	1.408	V FINE GRAVEL: 5.0%		V FINE SILT: 0.2%	
$(D_{75} - D_{25})$:	107.2	0.825	V COARSE SAND: 0.1%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	304.0	203.3	2.299	194.5	2.362	Fine Sand
SORTING (σ):	445.3	2.125	1.088	1.984	0.988	Moderately Sorted
SKEWNESS (Sk):	3.736	0.802	-0.802	0.505	-0.505	Very Coarse Skewed
KURTOSIS (K):	15.82	8.683	8.683	2.105	2.105	Very Leptokurtic



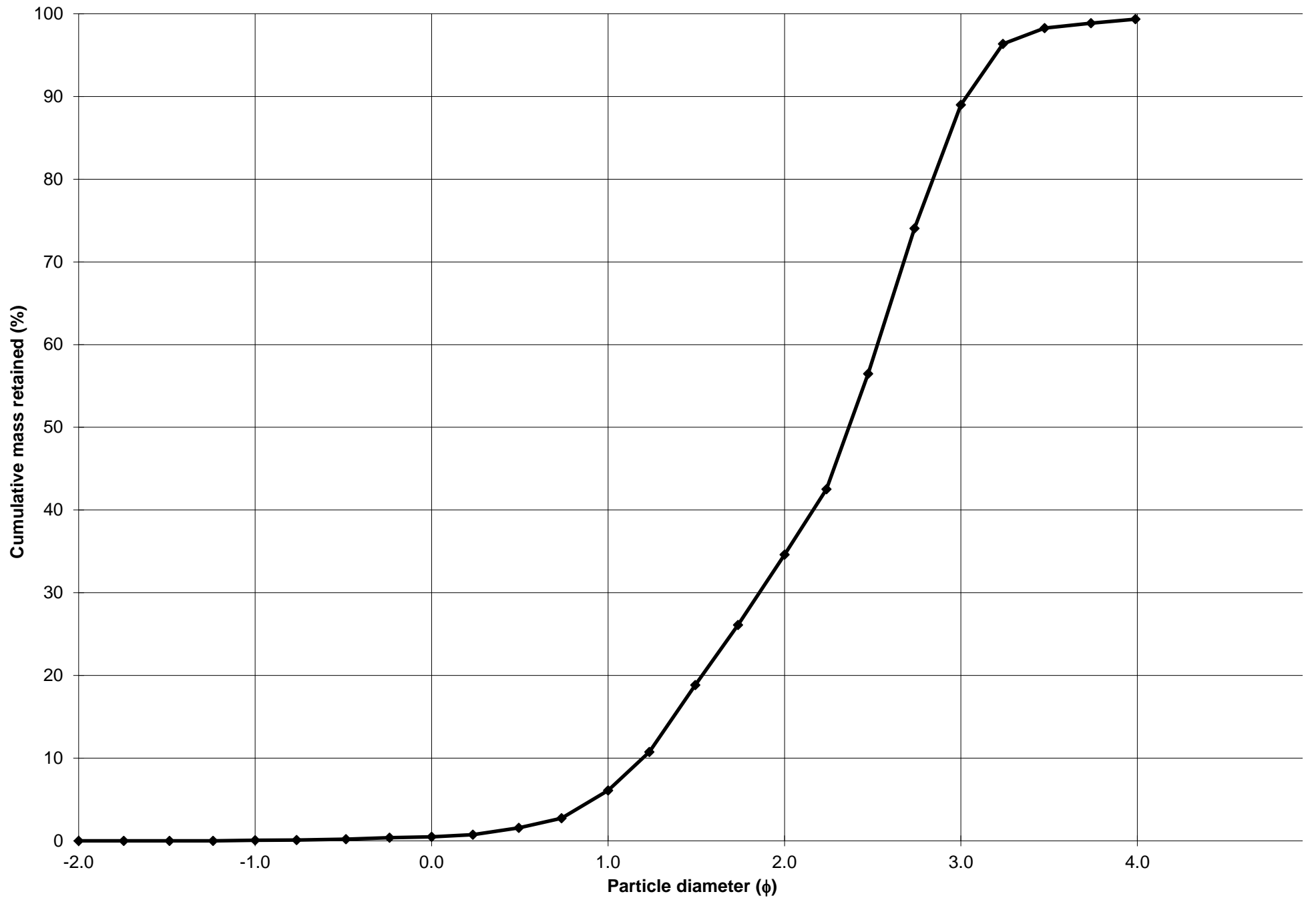
Cumulative Frequency Curve



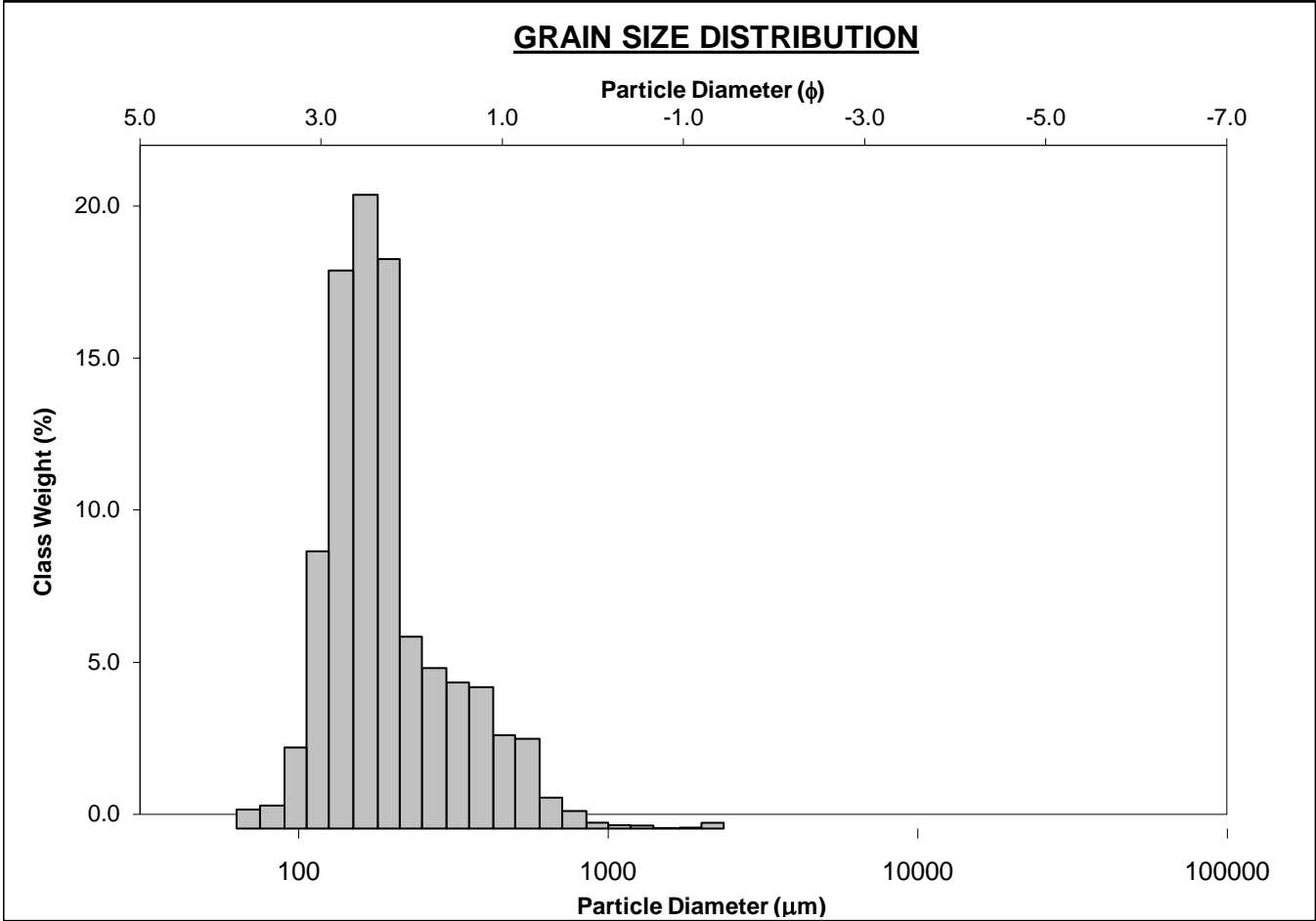
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-231cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.1%		COARSE SAND: 5.6%	
MODE 2:	390.0	1.364	SAND: 99.3%		MEDIUM SAND: 28.5%	
MODE 3:			MUD: 0.7%		FINE SAND: 54.4%	
D ₁₀ :	122.2	1.197			V FINE SAND: 10.4%	
MEDIAN or D ₅₀ :	194.2	2.364	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	436.1	3.033	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.569	2.533	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	313.9	1.835	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	2.076	1.620	V FINE GRAVEL: 0.1%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	159.5	1.054	V COARSE SAND: 0.4%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	248.9	211.9	2.239	213.7	2.227	Fine Sand
SORTING (σ):	162.5	1.764	0.819	1.650	0.723	Moderately Sorted
SKEWNESS (Sk):	3.507	-0.730	0.730	0.273	-0.273	Coarse Skewed
KURTOSIS (K):	28.17	9.538	9.538	0.887	0.887	Platykurtic



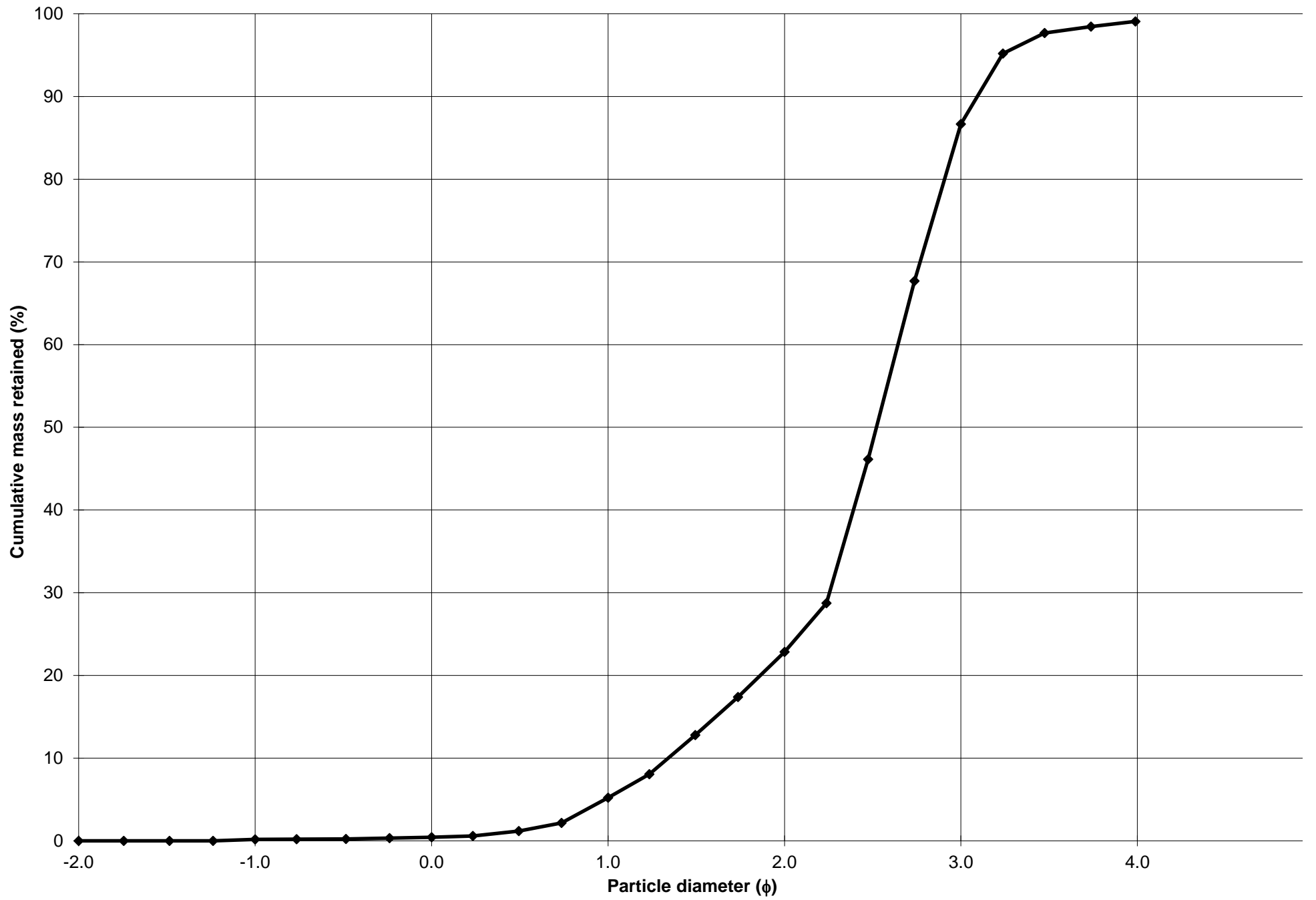
Cumulative Frequency Curve



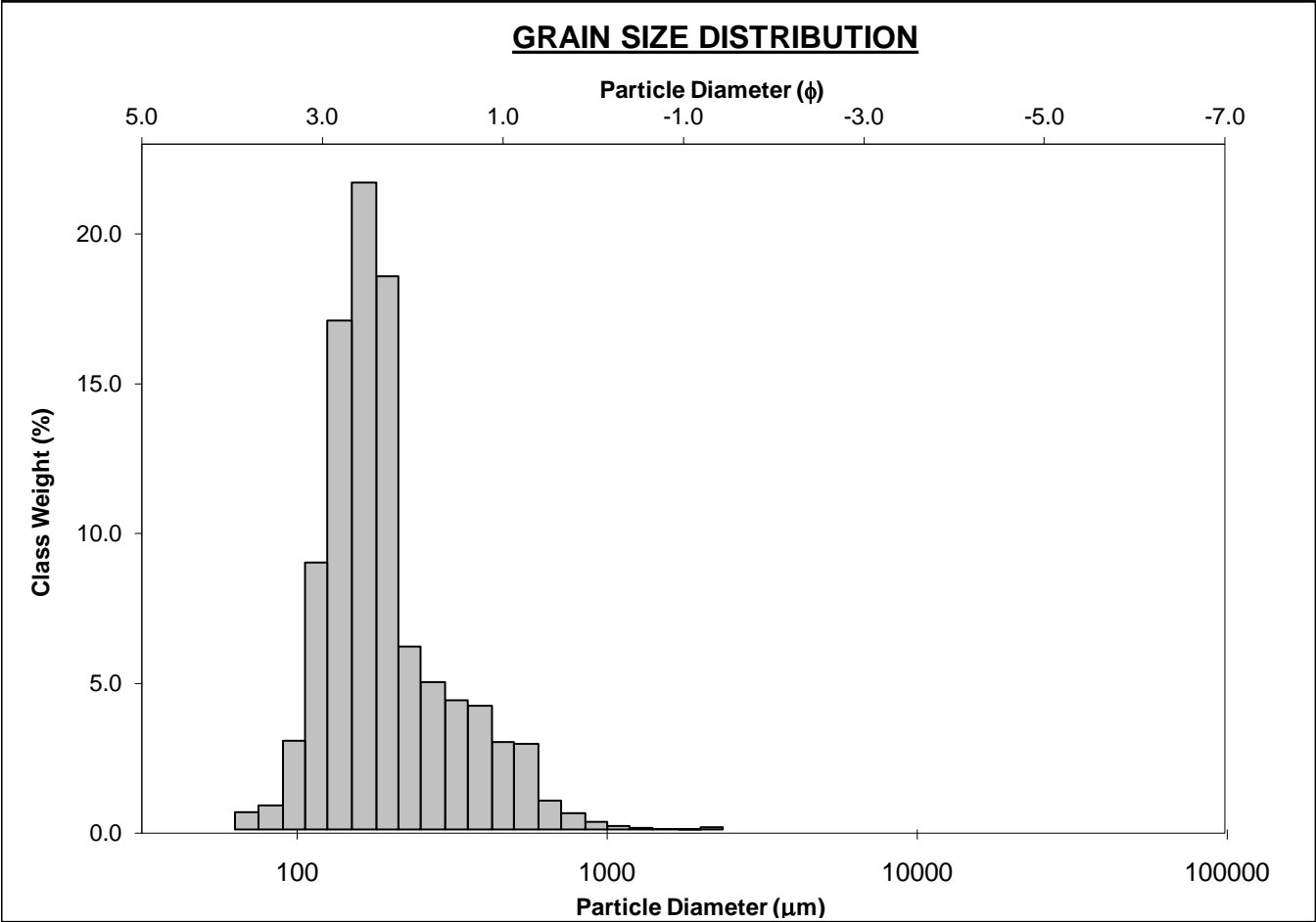
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-240cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.2%		COARSE SAND: 4.8%	
MODE 2:			SAND: 98.9%		MEDIUM SAND: 17.6%	
MODE 3:			MUD: 0.9%		FINE SAND: 63.8%	
D ₁₀ :	117.2	1.341			V FINE SAND: 12.4%	
MEDIAN or D ₅₀ :	174.2	2.521	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	394.7	3.093	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	3.367	2.306	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	277.5	1.752	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.683	1.360	V FINE GRAVEL: 0.2%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	95.55	0.751	V COARSE SAND: 0.2%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	221.1	188.0	2.411	191.8	2.383	Fine Sand
SORTING (σ):	159.3	1.756	0.812	1.586	0.666	Moderately Well Sorted
SKEWNESS (Sk):	5.119	-0.879	0.879	0.344	-0.344	Very Coarse Skewed
KURTOSIS (K):	50.55	11.89	11.89	1.228	1.228	Leptokurtic



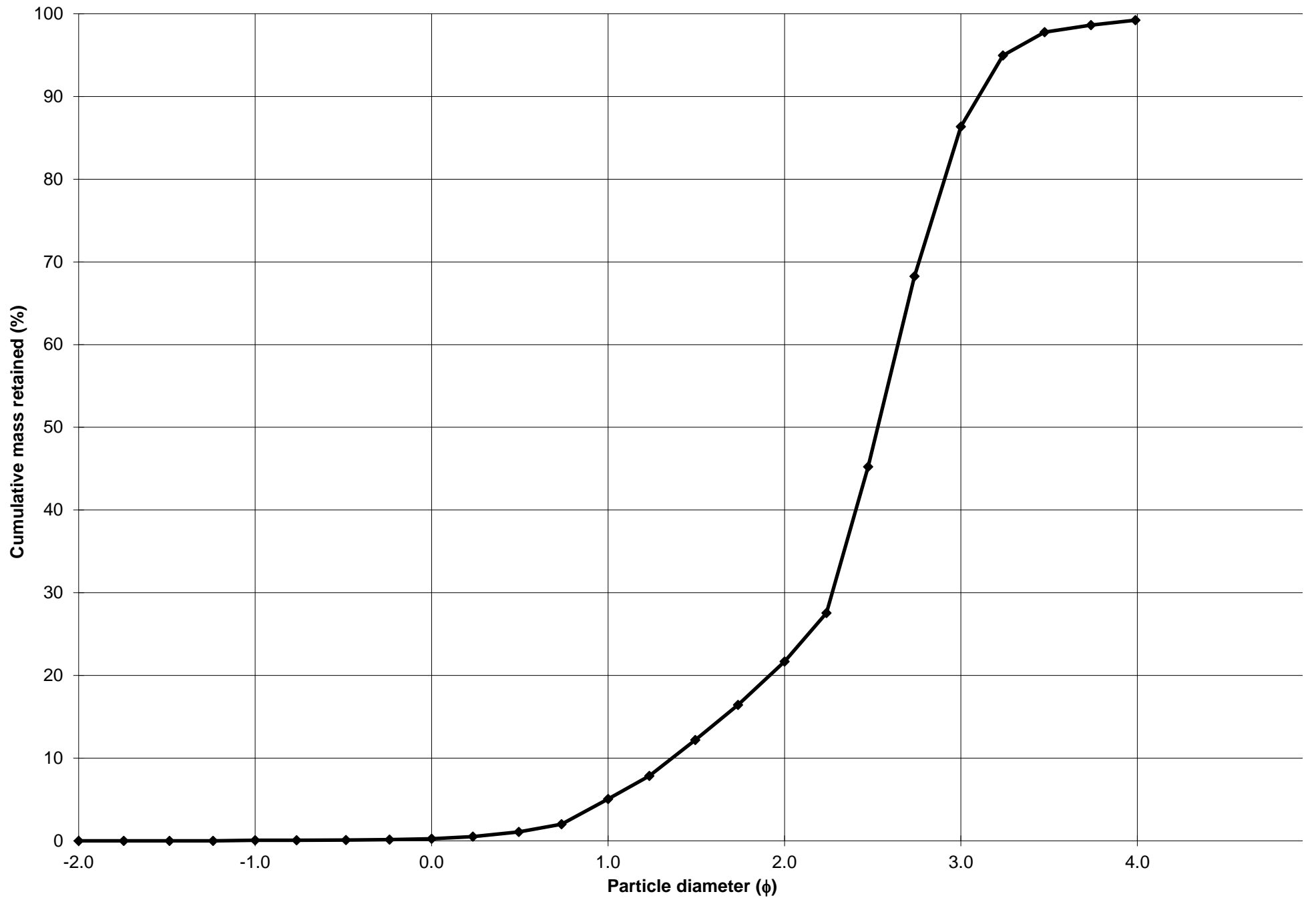
Cumulative Frequency Curve



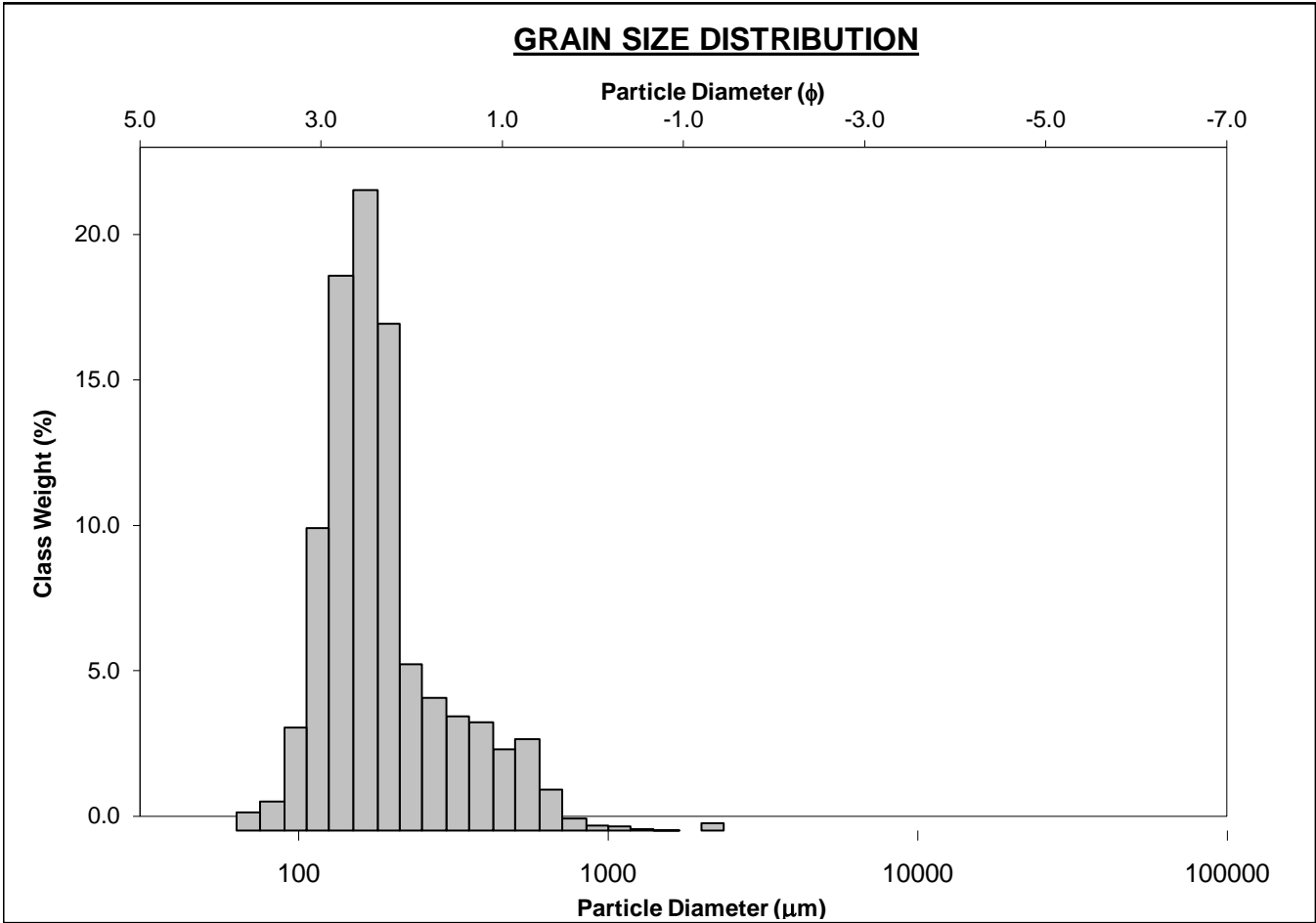
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-250cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.1%		COARSE SAND: 4.8%	
MODE 2:			SAND: 99.2%		MEDIUM SAND: 16.6%	
MODE 3:			MUD: 0.8%		FINE SAND: 64.7%	
D ₁₀ :	116.6	1.364			V FINE SAND: 12.9%	
MEDIAN or D ₅₀ :	173.3	2.528	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	388.6	3.101	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.334	2.274	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	272.1	1.737	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.625	1.328	V FINE GRAVEL: 0.1%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	87.62	0.701	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	216.7	186.7	2.421	189.2	2.402	Fine Sand
SORTING (σ):	142.2	1.715	0.778	1.573	0.654	Moderately Well Sorted
SKEWNESS (Sk):	4.034	-0.804	0.804	0.334	-0.334	Very Coarse Skewed
KURTOSIS (K):	36.69	11.70	11.70	1.315	1.315	Leptokurtic



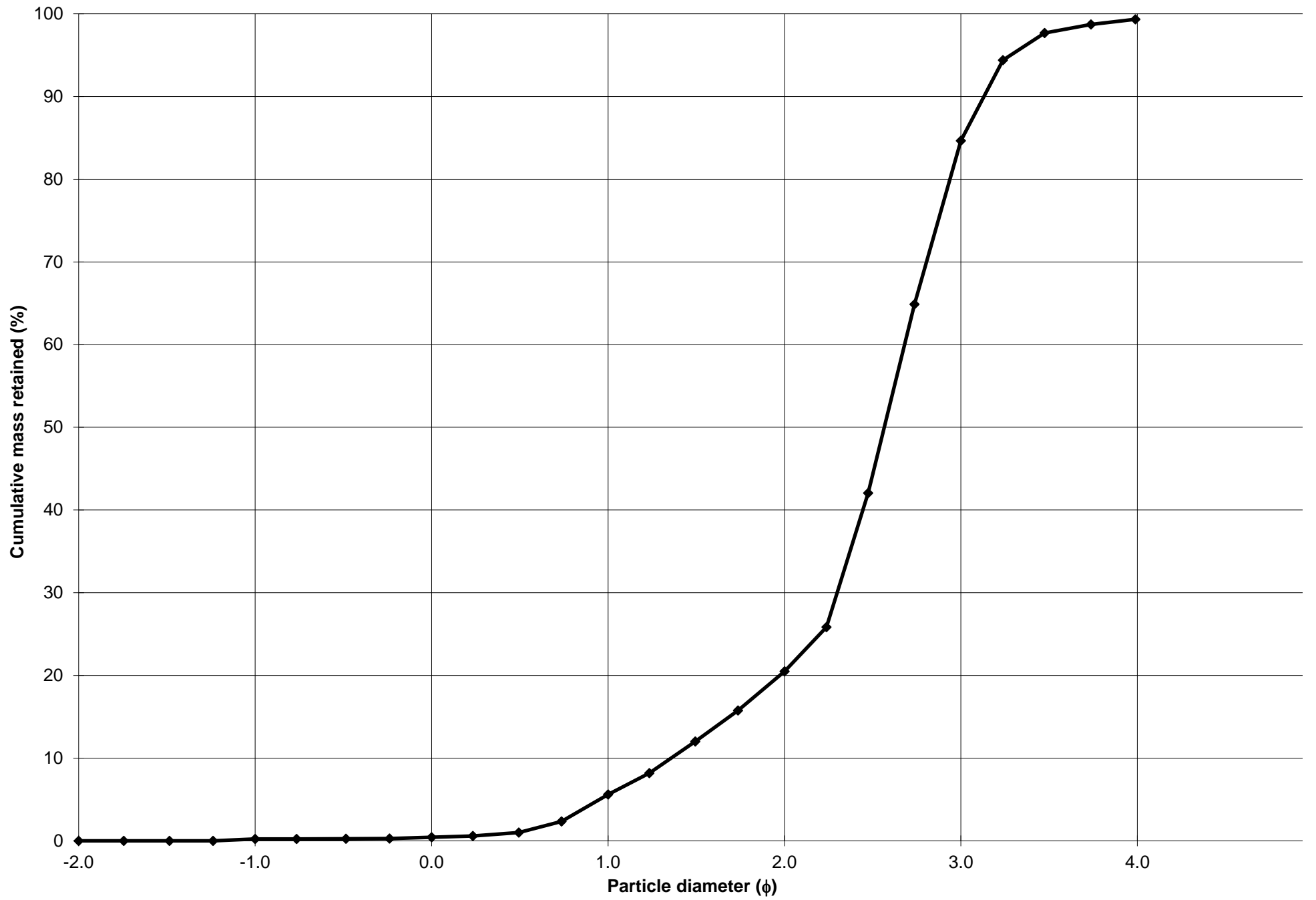
Cumulative Frequency Curve



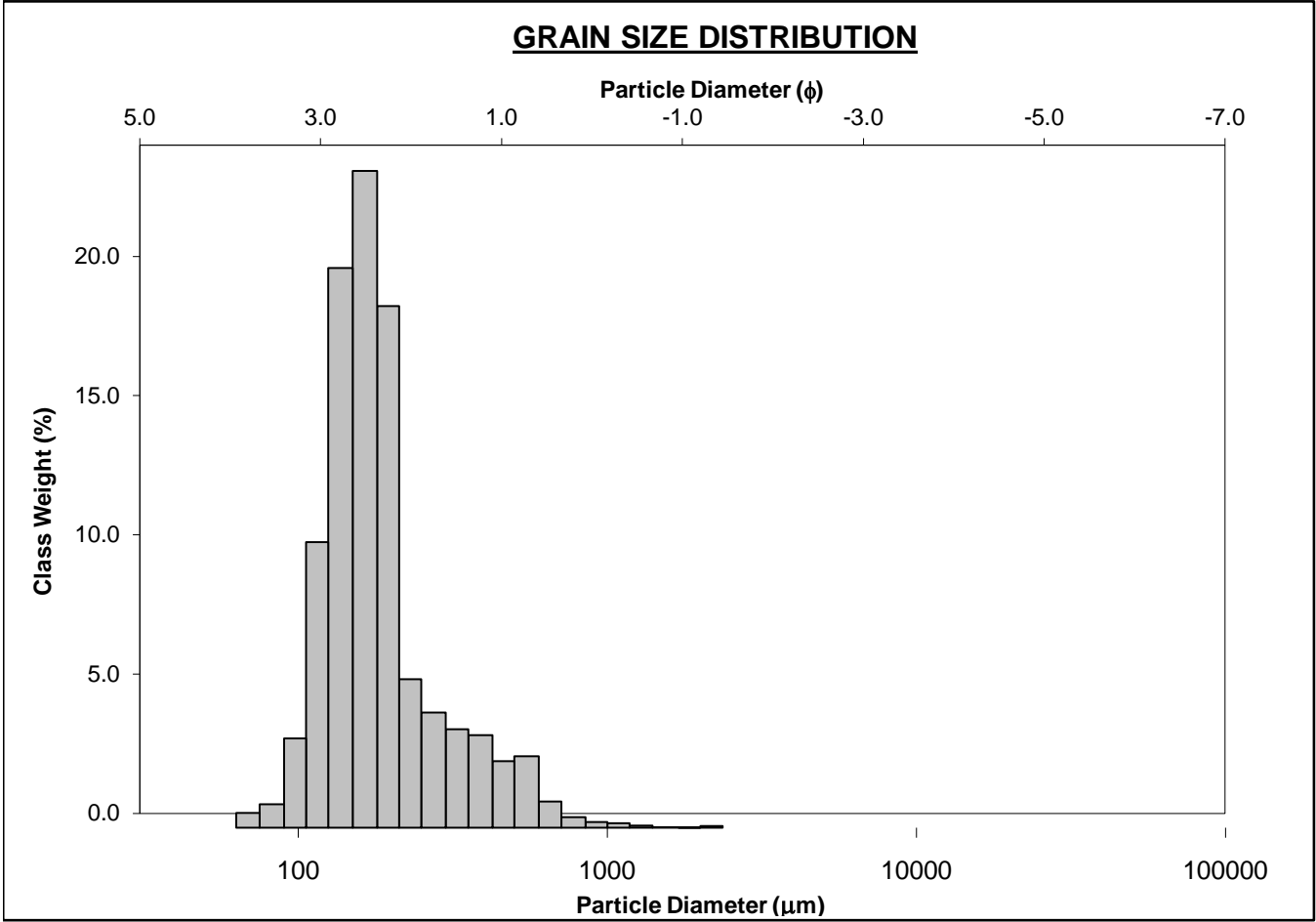
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-263cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.2%		COARSE SAND: 5.2%	
MODE 2:			SAND: 99.1%		MEDIUM SAND: 14.9%	
MODE 3:			MUD: 0.7%		FINE SAND: 64.2%	
D ₁₀ :	114.2	1.358			V FINE SAND: 14.7%	
MEDIAN or D ₅₀ :	168.9	2.566	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	390.2	3.131	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.418	2.306	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	276.0	1.773	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.593	1.305	V FINE GRAVEL: 0.2%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	80.96	0.671	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	215.9	183.7	2.444	184.8	2.436	Fine Sand
SORTING (σ):	162.6	1.720	0.782	1.584	0.663	Moderately Well Sorted
SKEWNESS (Sk):	5.486	-0.378	0.378	0.350	-0.350	Very Coarse Skewed
KURTOSIS (K):	55.63	10.83	10.83	1.423	1.423	Leptokurtic



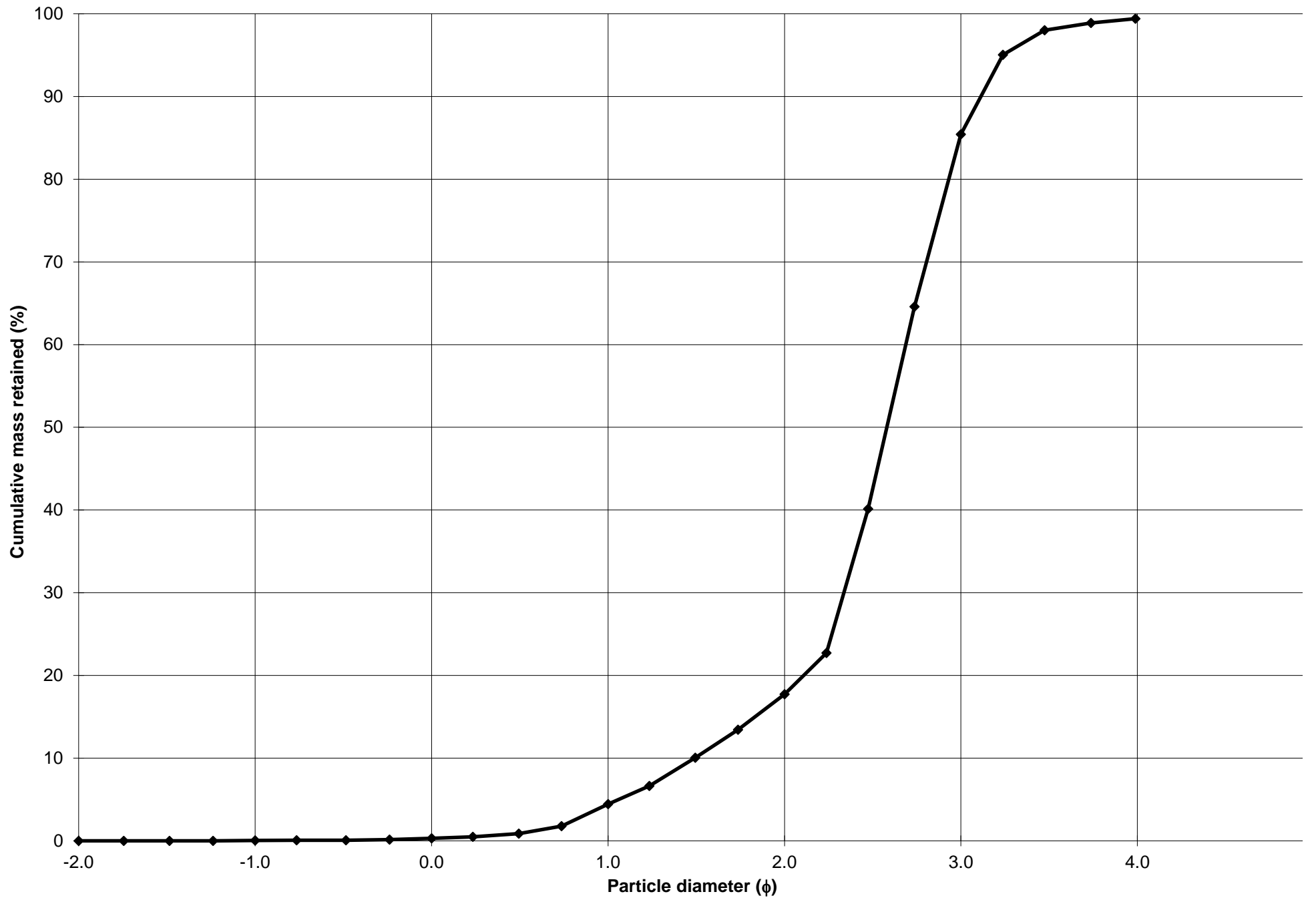
Cumulative Frequency Curve



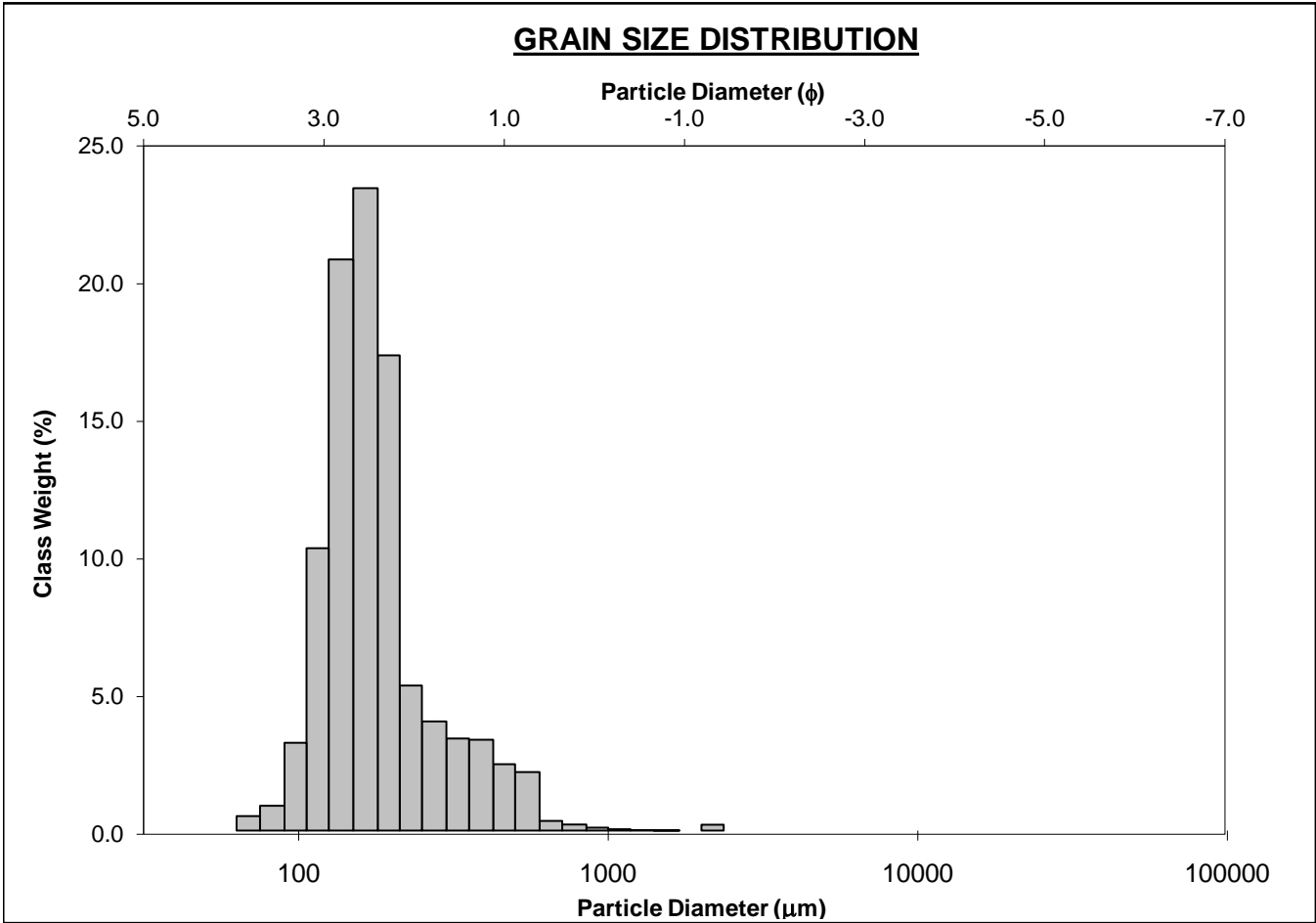
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-272cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.1%		COARSE SAND: 4.1%	
MODE 2:			SAND: 99.4%		MEDIUM SAND: 13.3%	
MODE 3:			MUD: 0.6%		FINE SAND: 67.7%	
D ₁₀ :	115.5	1.490			V FINE SAND: 14.0%	
MEDIAN or D ₅₀ :	167.2	2.580	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	355.9	3.113	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.080	2.089	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	240.4	1.623	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.515	1.264	V FINE GRAVEL: 0.1%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	70.57	0.600	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	205.8	179.4	2.479	178.6	2.486	Fine Sand
SORTING (σ):	135.1	1.654	0.726	1.518	0.602	Moderately Well Sorted
SKEWNESS (Sk):	4.375	-0.484	0.484	0.329	-0.329	Very Coarse Skewed
KURTOSIS (K):	40.22	12.05	12.05	1.488	1.488	Leptokurtic



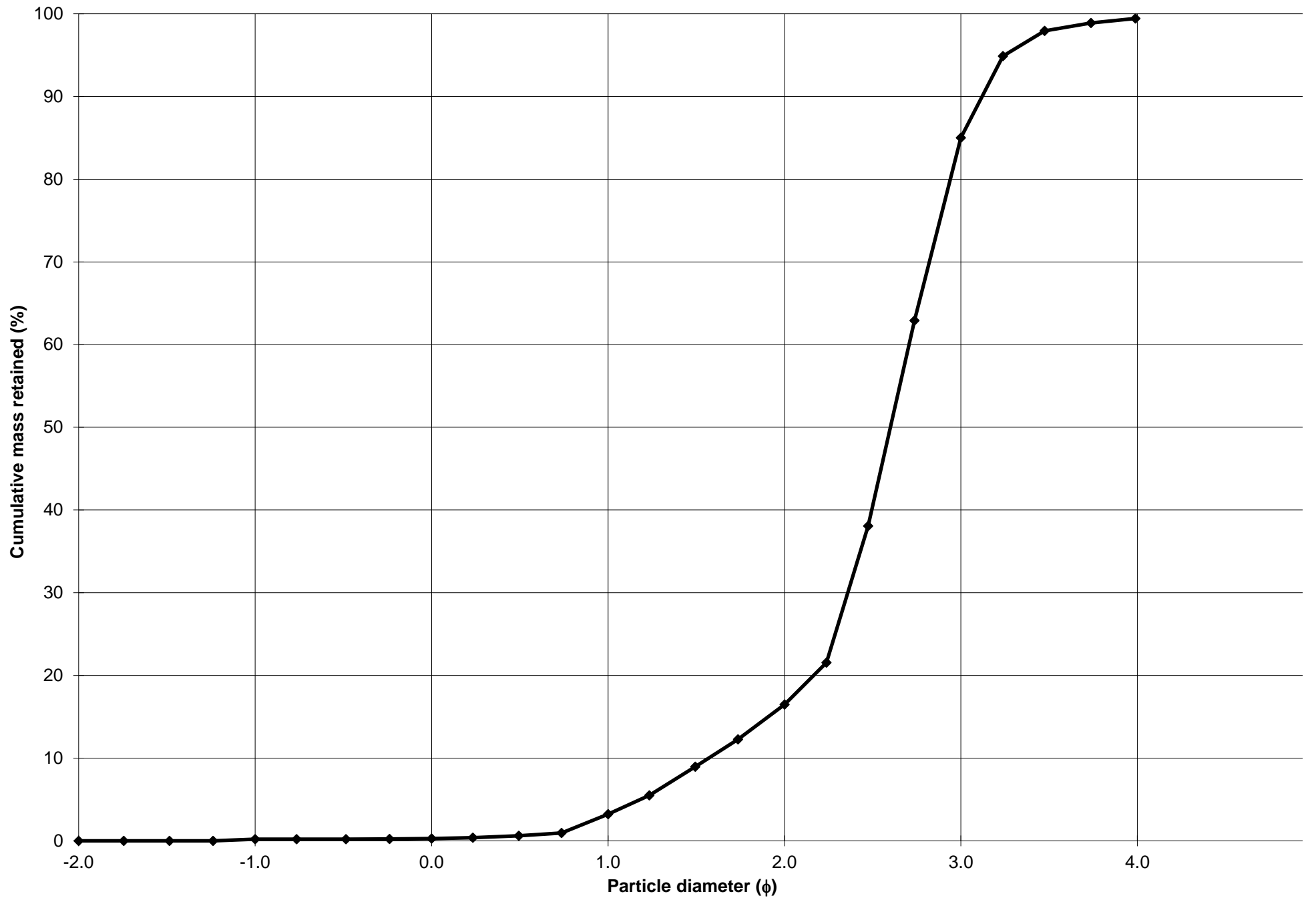
Cumulative Frequency Curve



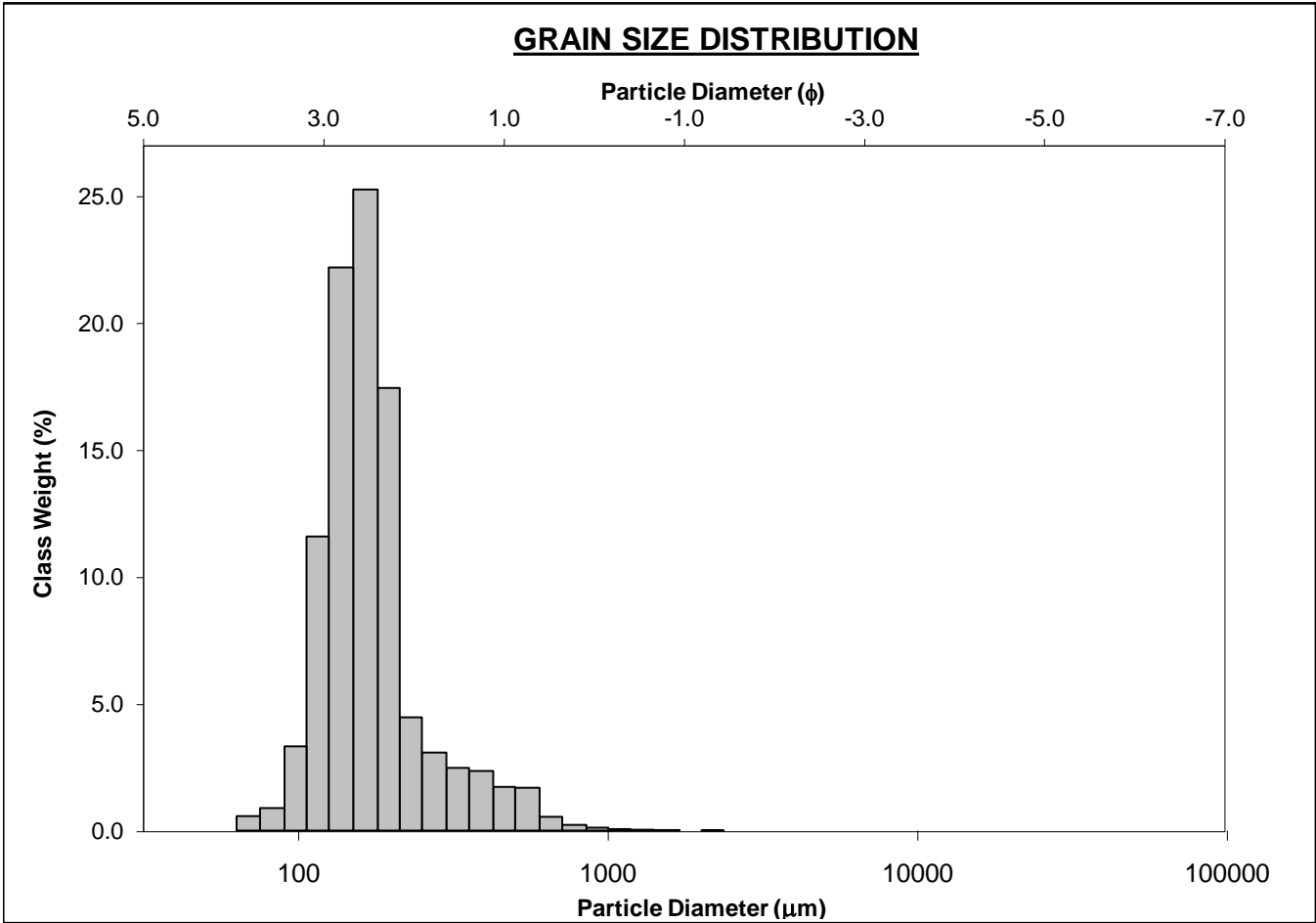
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-281cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.2%		COARSE SAND: 2.9%	
MODE 2:			SAND: 99.2%		MEDIUM SAND: 13.3%	
MODE 3:			MUD: 0.6%		FINE SAND: 68.5%	
D ₁₀ :	115.0	1.570			V FINE SAND: 14.4%	
MEDIAN or D ₅₀ :	164.9	2.600	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	336.8	3.120	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.928	1.987	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	221.8	1.550	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.509	1.260	V FINE GRAVEL: 0.2%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	69.12	0.594	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	200.4	175.8	2.508	174.4	2.519	Fine Sand
SORTING (σ):	140.4	1.626	0.701	1.482	0.567	Moderately Well Sorted
SKEWNESS (Sk):	6.947	-0.482	0.482	0.306	-0.306	Very Coarse Skewed
KURTOSIS (K):	86.04	13.32	13.32	1.424	1.424	Leptokurtic



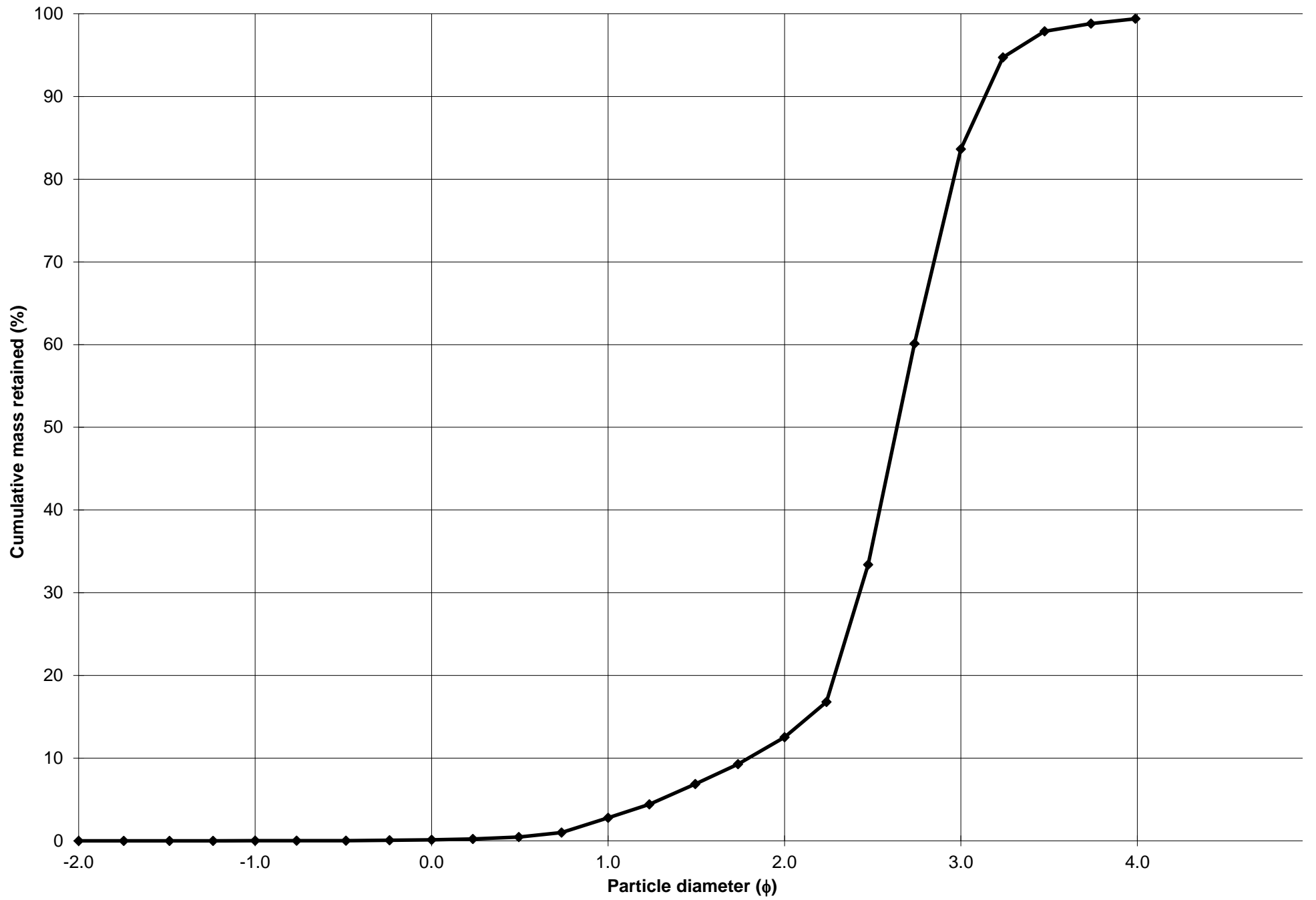
Cumulative Frequency Curve



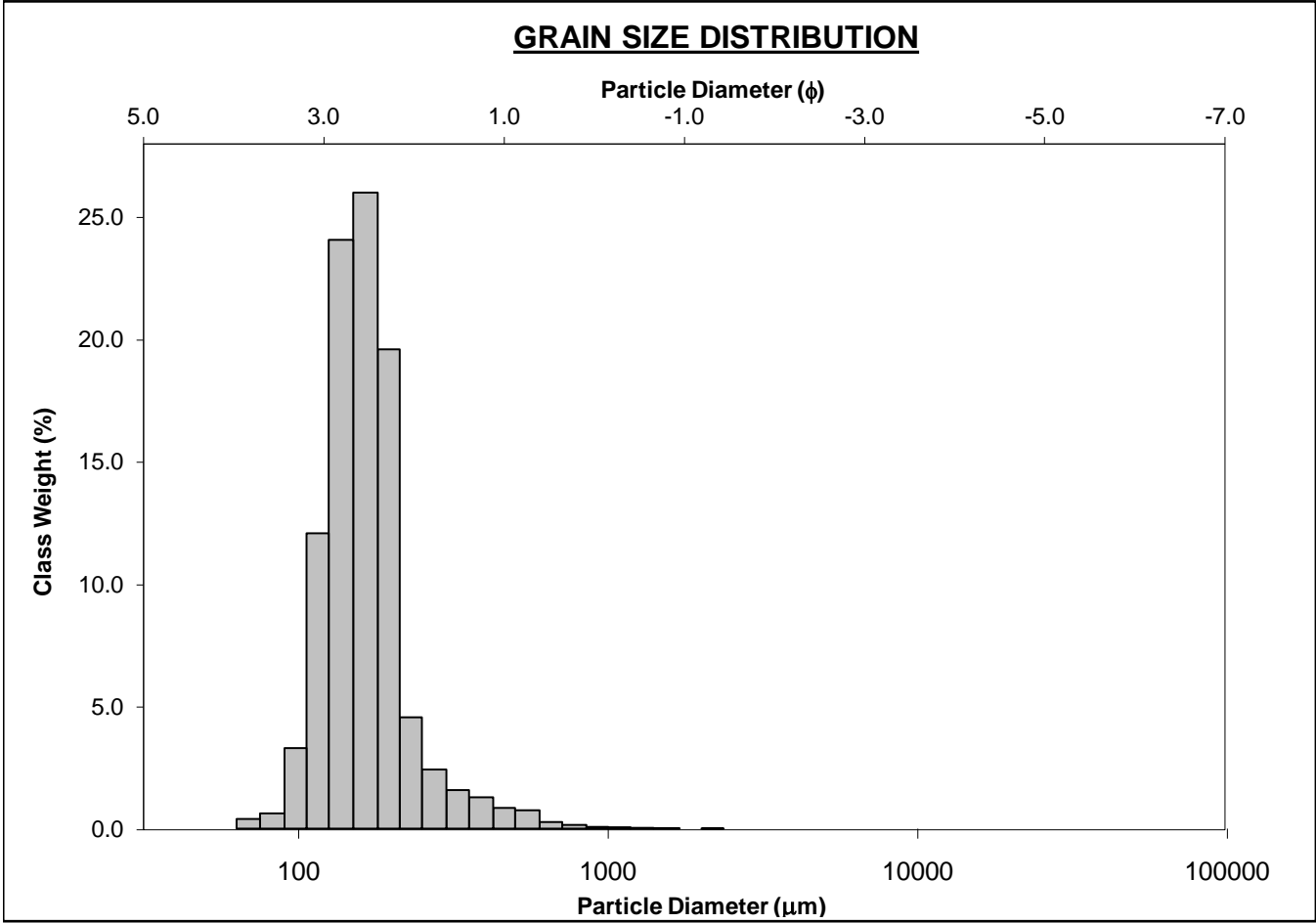
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-290cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 2.7%	
MODE 2:			SAND: 99.4%		MEDIUM SAND: 9.7%	
MODE 3:			MUD: 0.6%		FINE SAND: 71.1%	
D ₁₀ :	113.7	1.796			V FINE SAND: 15.8%	
MEDIAN or D ₅₀ :	160.7	2.637	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	288.0	3.137	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.533	1.747	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	174.3	1.341	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.463	1.233	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	61.86	0.549	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	187.7	168.0	2.573	163.5	2.613	Fine Sand
SORTING (σ):	106.8	1.581	0.661	1.415	0.501	Moderately Well Sorted
SKEWNESS (Sk):	3.912	-0.879	0.879	0.228	-0.228	Coarse Skewed
KURTOSIS (K):	30.93	15.39	15.39	1.464	1.464	Leptokurtic



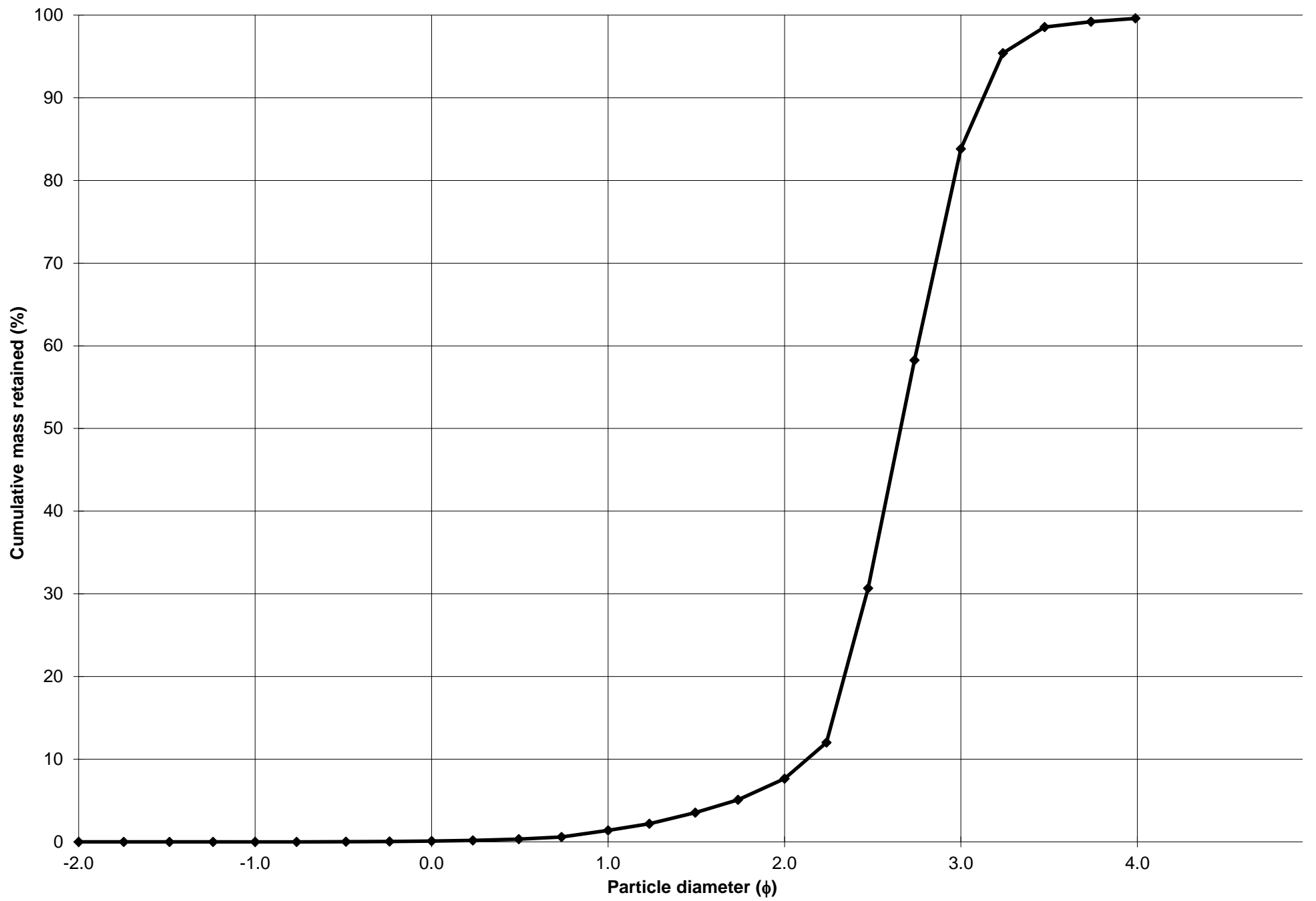
Cumulative Frequency Curve



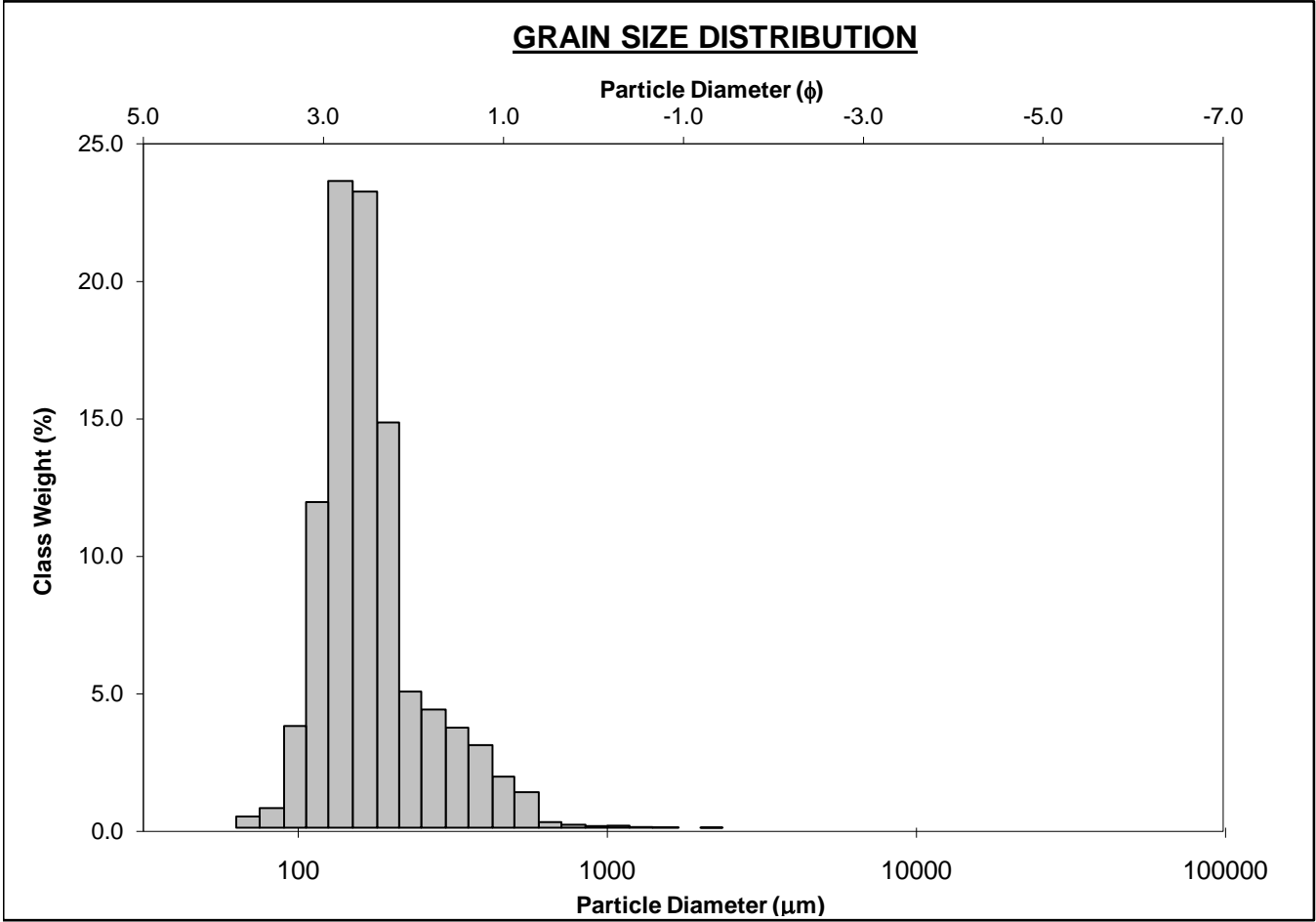
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-300cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 1.3%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 6.2%	
MODE 3:			MUD: 0.4%		FINE SAND: 76.2%	
D ₁₀ :	114.5	2.129			V FINE SAND: 15.8%	
MEDIAN or D ₅₀ :	158.4	2.658	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	228.7	3.127	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	1.998	1.469	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	114.2	0.998	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.421	1.211	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	56.06	0.507	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	175.1	161.9	2.627	159.3	2.650	Fine Sand
SORTING (σ):	85.41	1.462	0.548	1.326	0.407	Well Sorted
SKEWNESS (Sk):	5.330	-0.999	0.999	0.137	-0.137	Coarse Skewed
KURTOSIS (K):	56.44	20.63	20.63	1.216	1.216	Leptokurtic



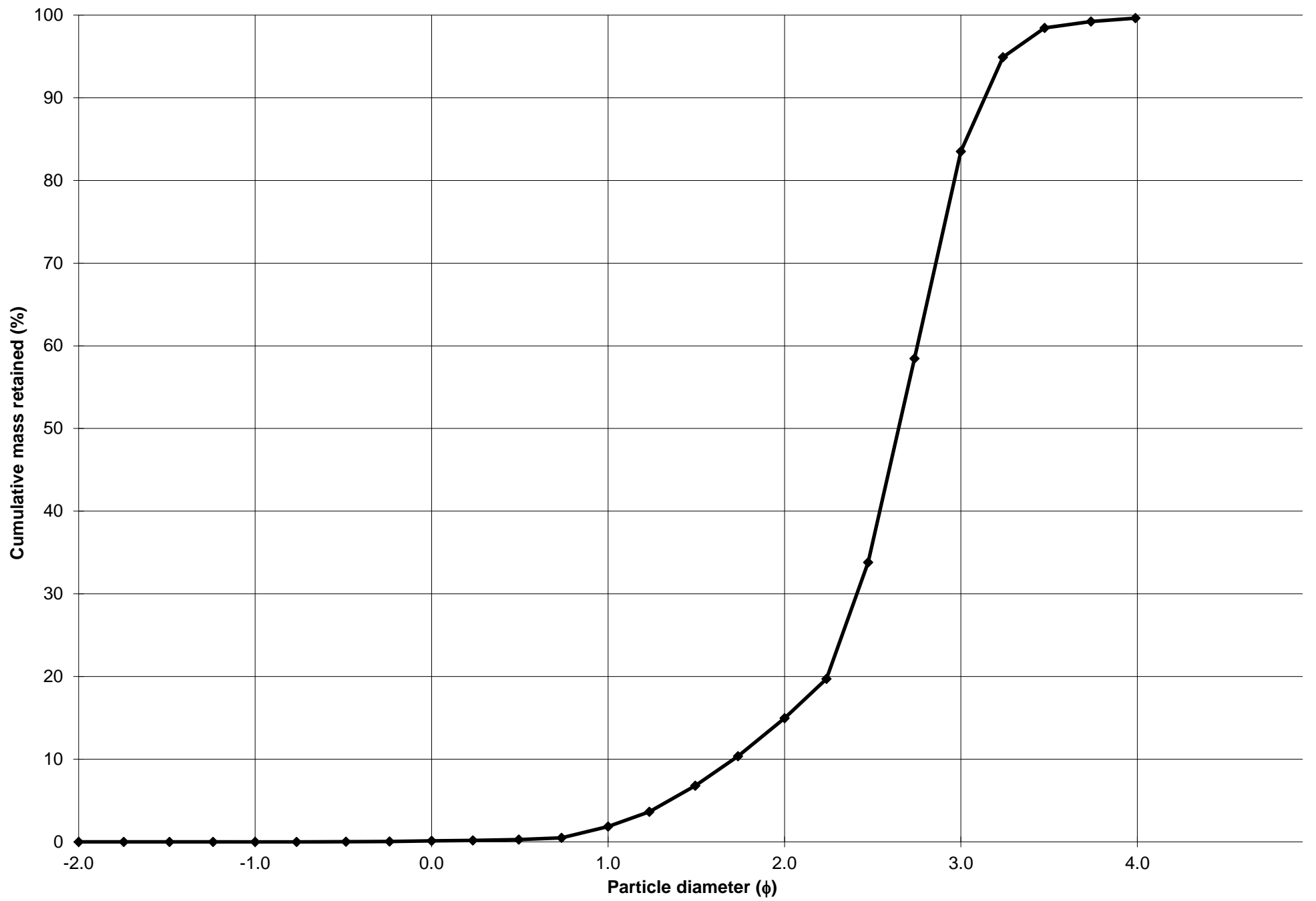
Cumulative Frequency Curve



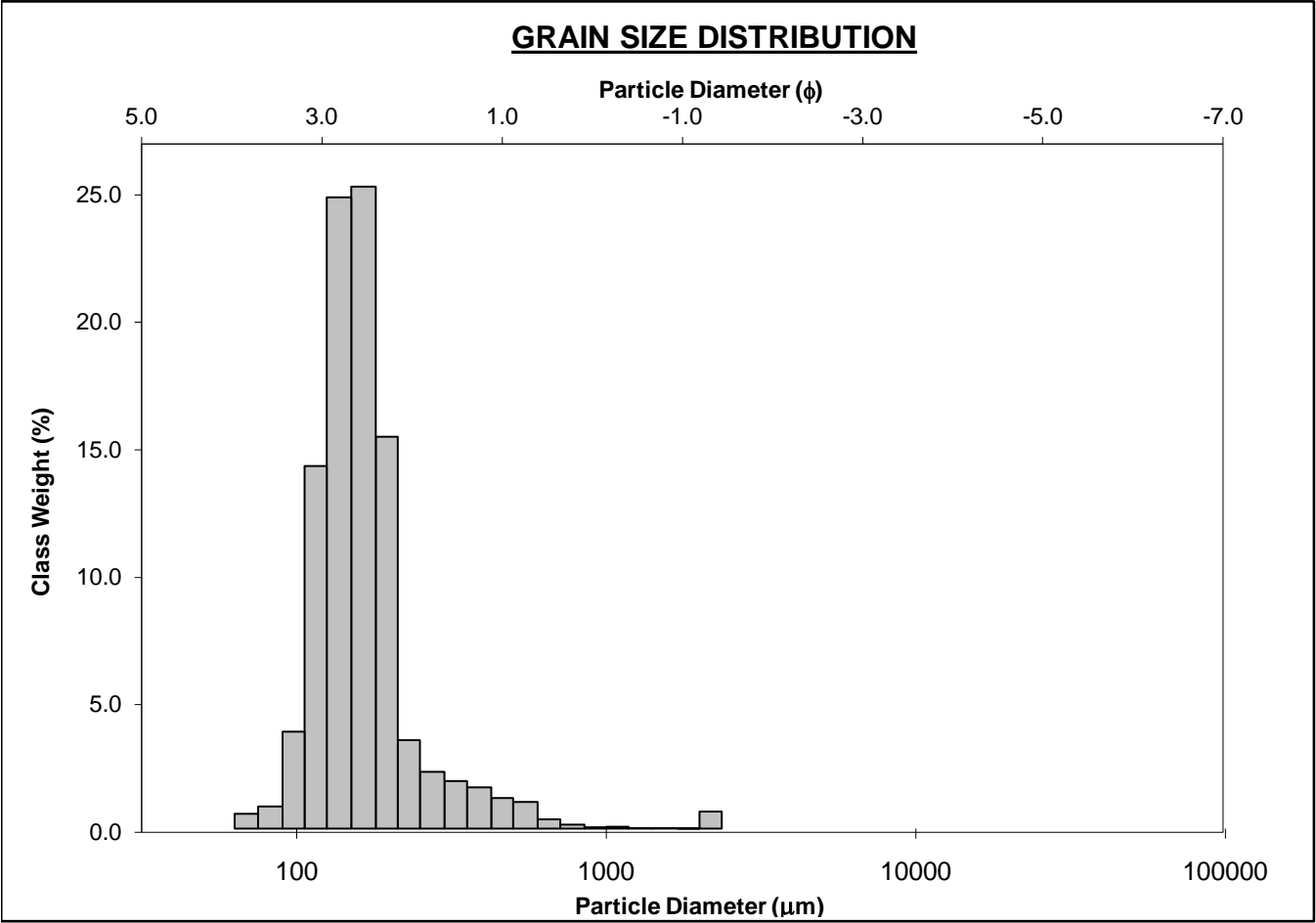
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-310cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 1.7%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 13.1%	
MODE 3:			MUD: 0.4%		FINE SAND: 68.6%	
D ₁₀ :	113.8	1.712			V FINE SAND: 16.1%	
MEDIAN or D ₅₀ :	159.7	2.647	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	305.2	3.135	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.682	1.831	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	191.4	1.423	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.499	1.251	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	66.40	0.584	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	188.0	169.9	2.557	168.4	2.570	Fine Sand
SORTING (σ):	99.66	1.538	0.621	1.441	0.527	Moderately Well Sorted
SKEWNESS (Sk):	3.571	-0.420	0.420	0.306	-0.306	Very Coarse Skewed
KURTOSIS (K):	29.36	12.88	12.88	1.330	1.330	Leptokurtic



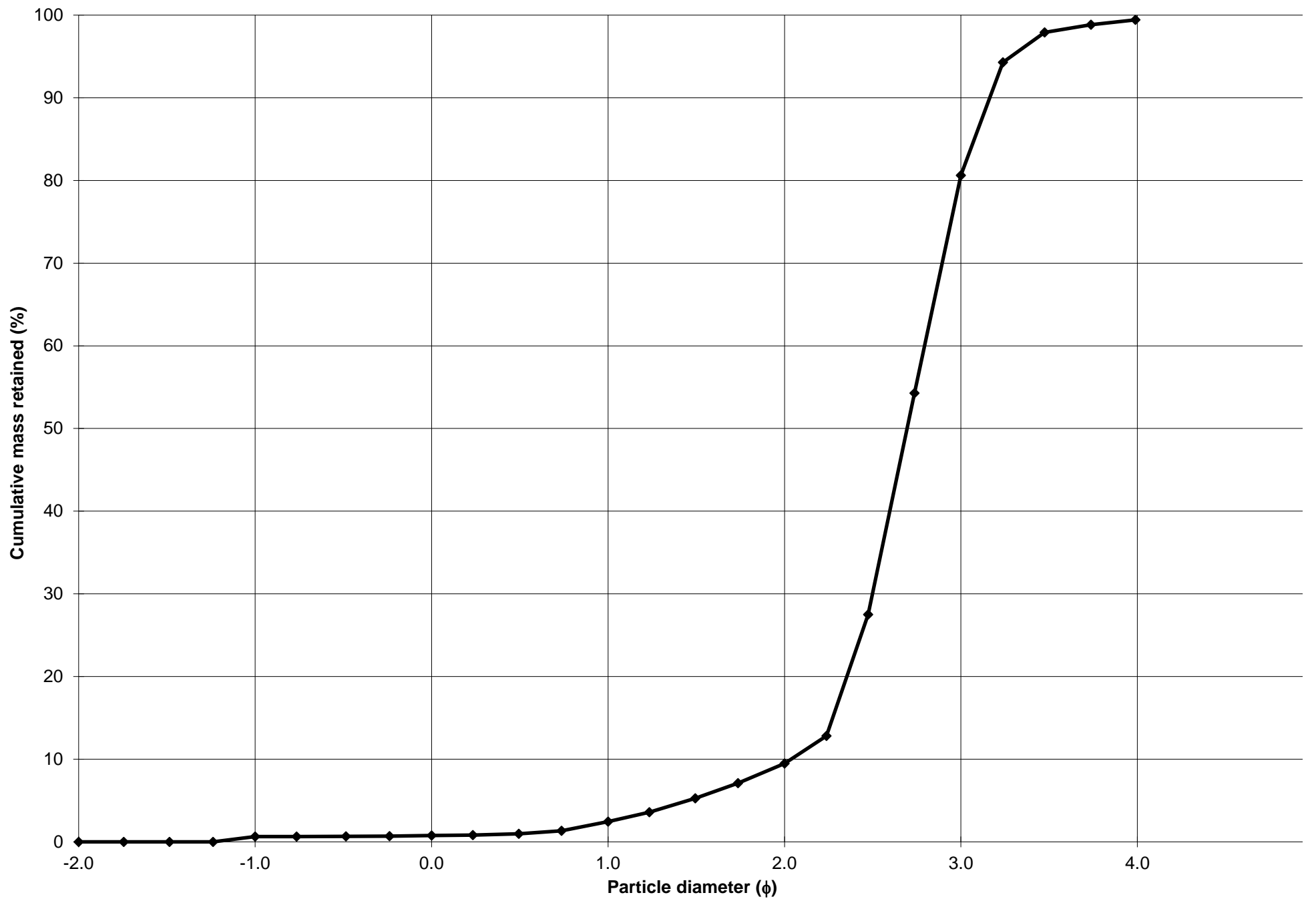
Cumulative Frequency Curve



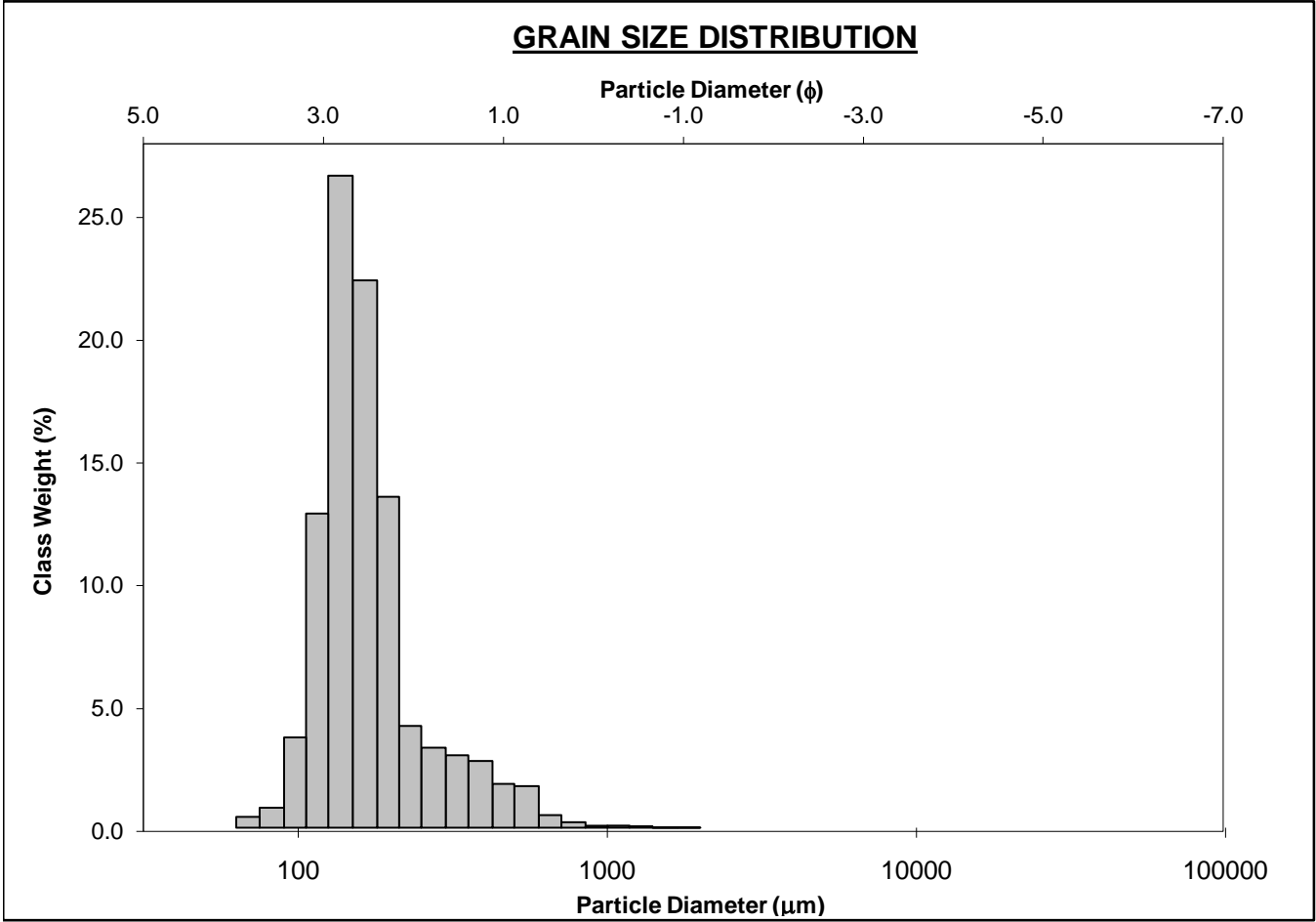
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-320cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.6%		COARSE SAND: 1.7%	
MODE 2:			SAND: 98.8%		MEDIUM SAND: 7.0%	
MODE 3:			MUD: 0.6%		FINE SAND: 71.1%	
D ₁₀ :	111.6	2.037			V FINE SAND: 18.8%	
MEDIAN or D ₅₀ :	154.4	2.695	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	243.6	3.163	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.183	1.553	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	132.0	1.126	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.424	1.210	V FINE GRAVEL: 0.6%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	55.12	0.510	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	187.6	161.7	2.629	155.9	2.681	Fine Sand
SORTING (σ):	185.2	1.601	0.679	1.385	0.470	Well Sorted
SKEWNESS (Sk):	8.539	0.203	-0.203	0.206	-0.206	Coarse Skewed
KURTOSIS (K):	88.62	18.13	18.13	1.473	1.473	Leptokurtic



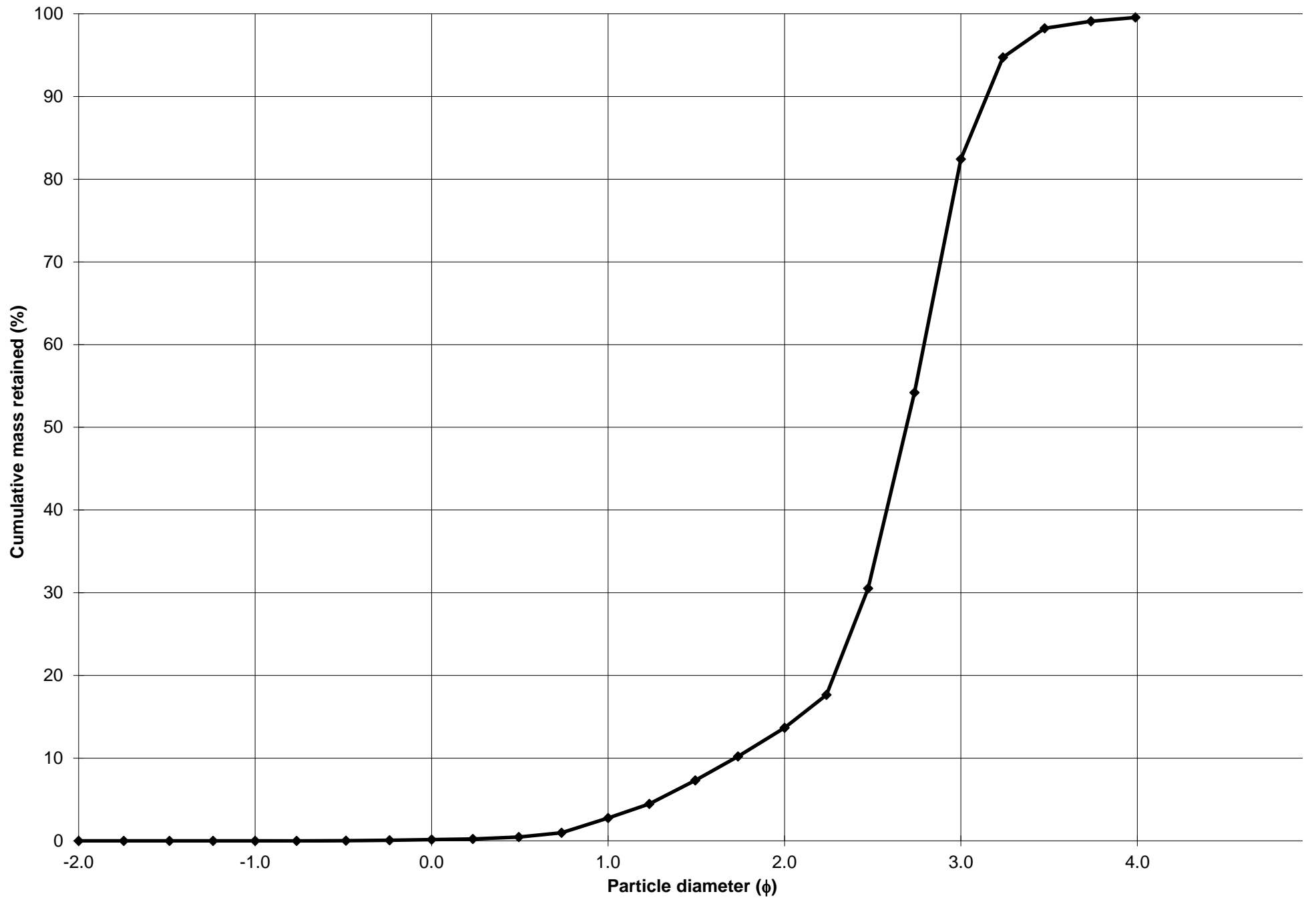
Cumulative Frequency Curve



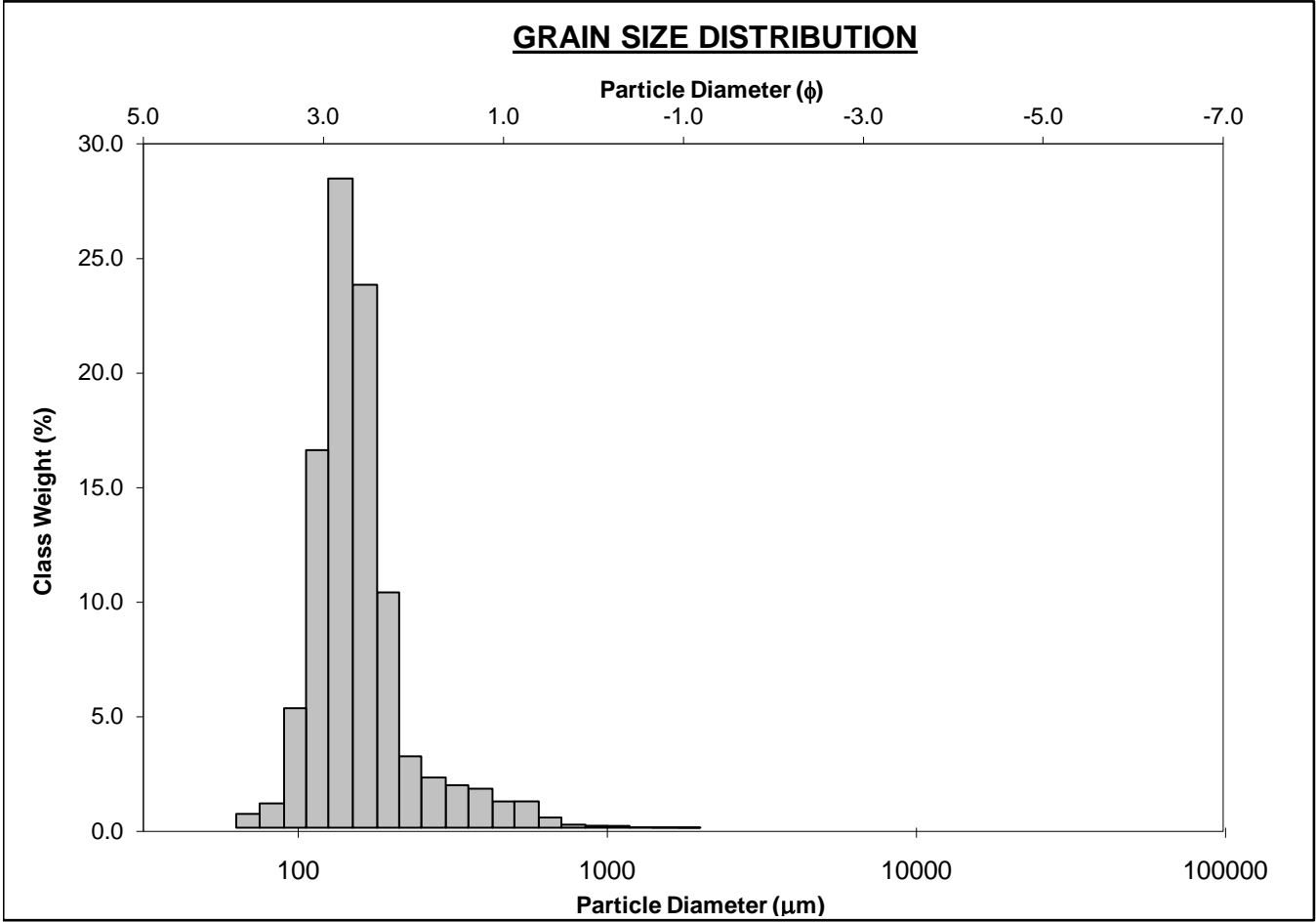
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-331cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 2.6%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 10.9%	
MODE 3:			MUD: 0.4%		FINE SAND: 68.8%	
D ₁₀ :	112.9	1.720			V FINE SAND: 17.1%	
MEDIAN or D ₅₀ :	154.9	2.690	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	303.6	3.146	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.689	1.830	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	190.7	1.427	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.472	1.235	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	61.94	0.558	V COARSE SAND: 0.2%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	186.7	166.8	2.584	162.7	2.620	Fine Sand
SORTING (σ):	108.3	1.570	0.650	1.436	0.522	Moderately Well Sorted
SKEWNESS (Sk):	3.577	-0.338	0.338	0.332	-0.332	Very Coarse Skewed
KURTOSIS (K):	23.90	13.09	13.09	1.449	1.449	Leptokurtic



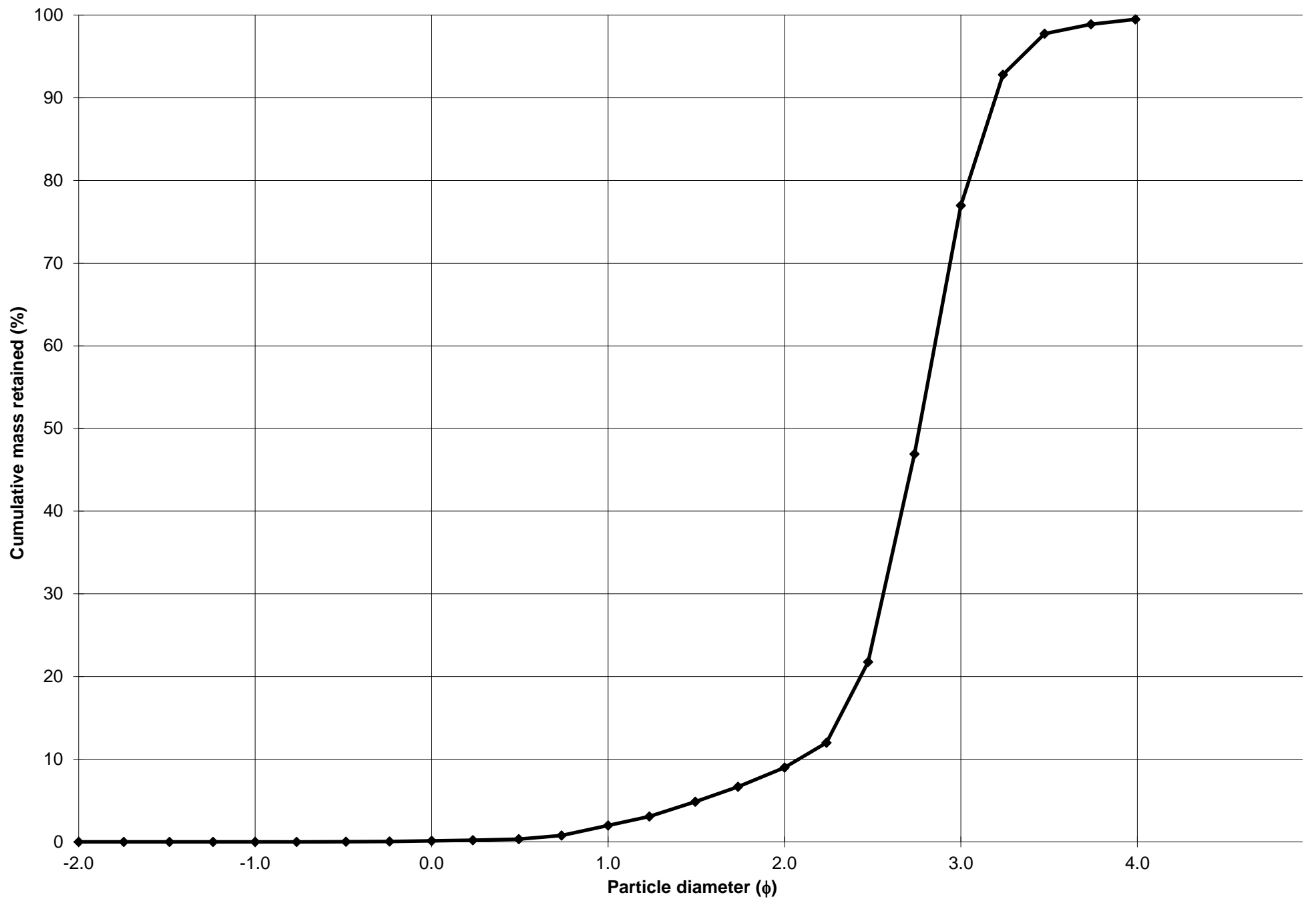
Cumulative Frequency Curve



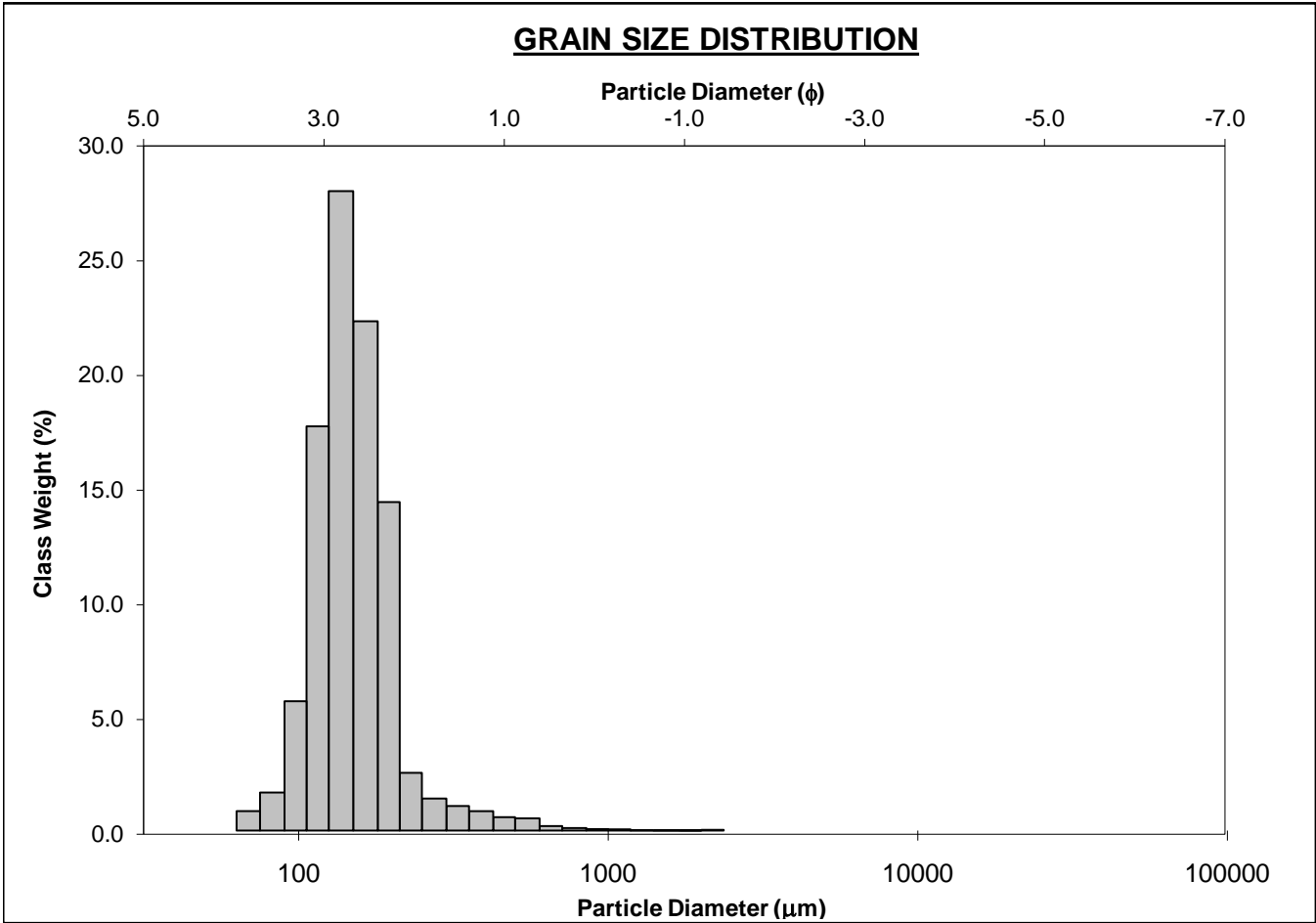
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-343cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 1.9%			
MODE 2:			SAND: 99.5% MEDIUM SAND: 7.0%			
MODE 3:			MUD: 0.5% FINE SAND: 68.0%			
D ₁₀ :	109.1	2.080	V FINE SAND: 22.5%			
MEDIAN or D ₅₀ :	147.2	2.764	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%			
D ₉₀ :	236.6	3.196	COARSE GRAVEL: 0.0% COARSE SILT: 0.1%			
(D ₉₀ / D ₁₀):	2.168	1.537	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%			
(D ₉₀ - D ₁₀):	127.4	1.116	FINE GRAVEL: 0.0% FINE SILT: 0.1%			
(D ₇₅ / D ₂₅):	1.390	1.189	V FINE GRAVEL: 0.0% V FINE SILT: 0.1%			
(D ₇₅ - D ₂₅):	49.32	0.475	V COARSE SAND: 0.1% CLAY: 0.1%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	170.6	154.6	2.694	150.2	2.735	Fine Sand
SORTING (σ):	94.82	1.526	0.610	1.385	0.470	Well Sorted
SKEWNESS (Sk):	4.367	-0.646	0.646	0.240	-0.240	Coarse Skewed
KURTOSIS (K):	34.54	16.74	16.74	1.579	1.579	Very Leptokurtic



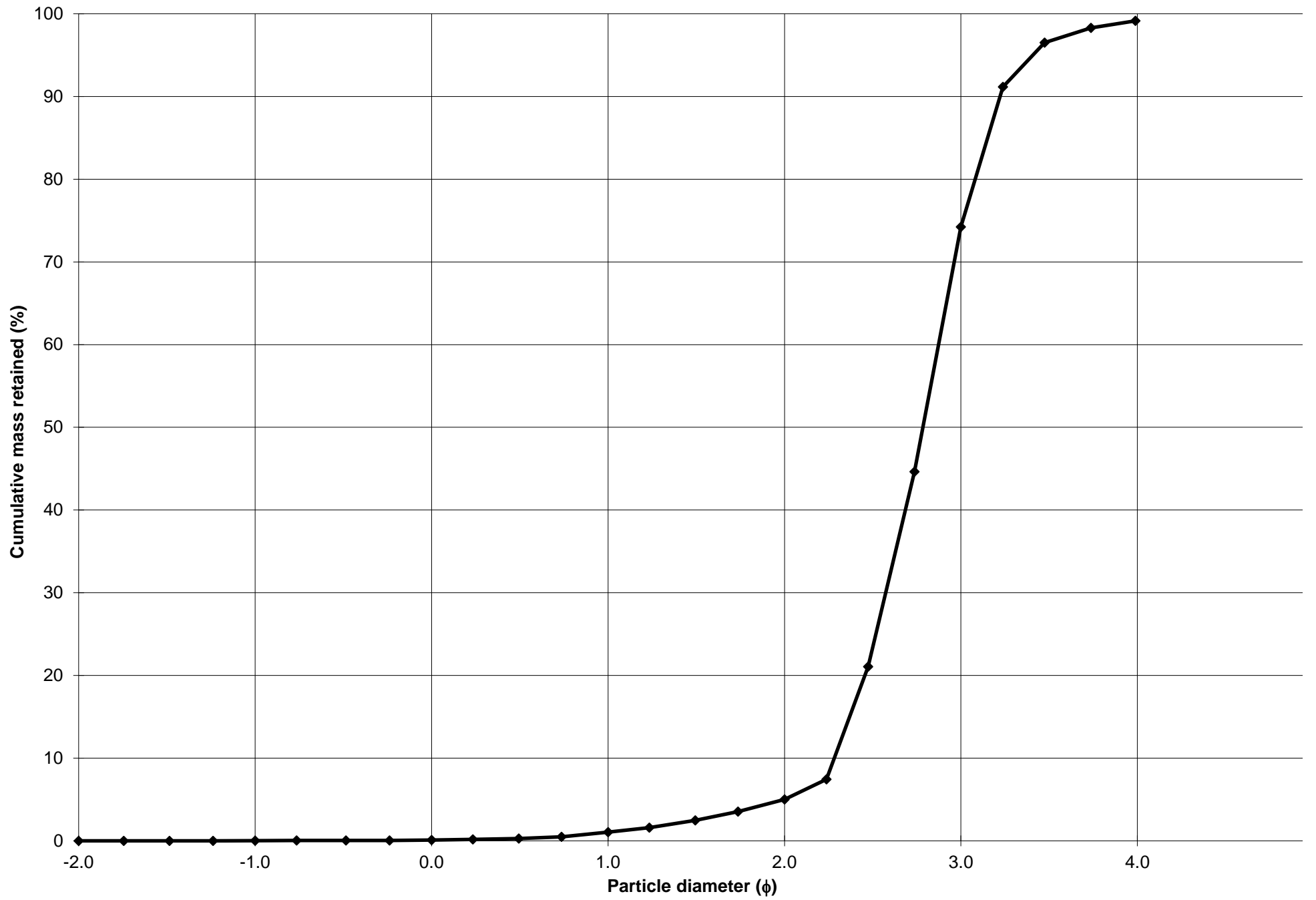
Cumulative Frequency Curve



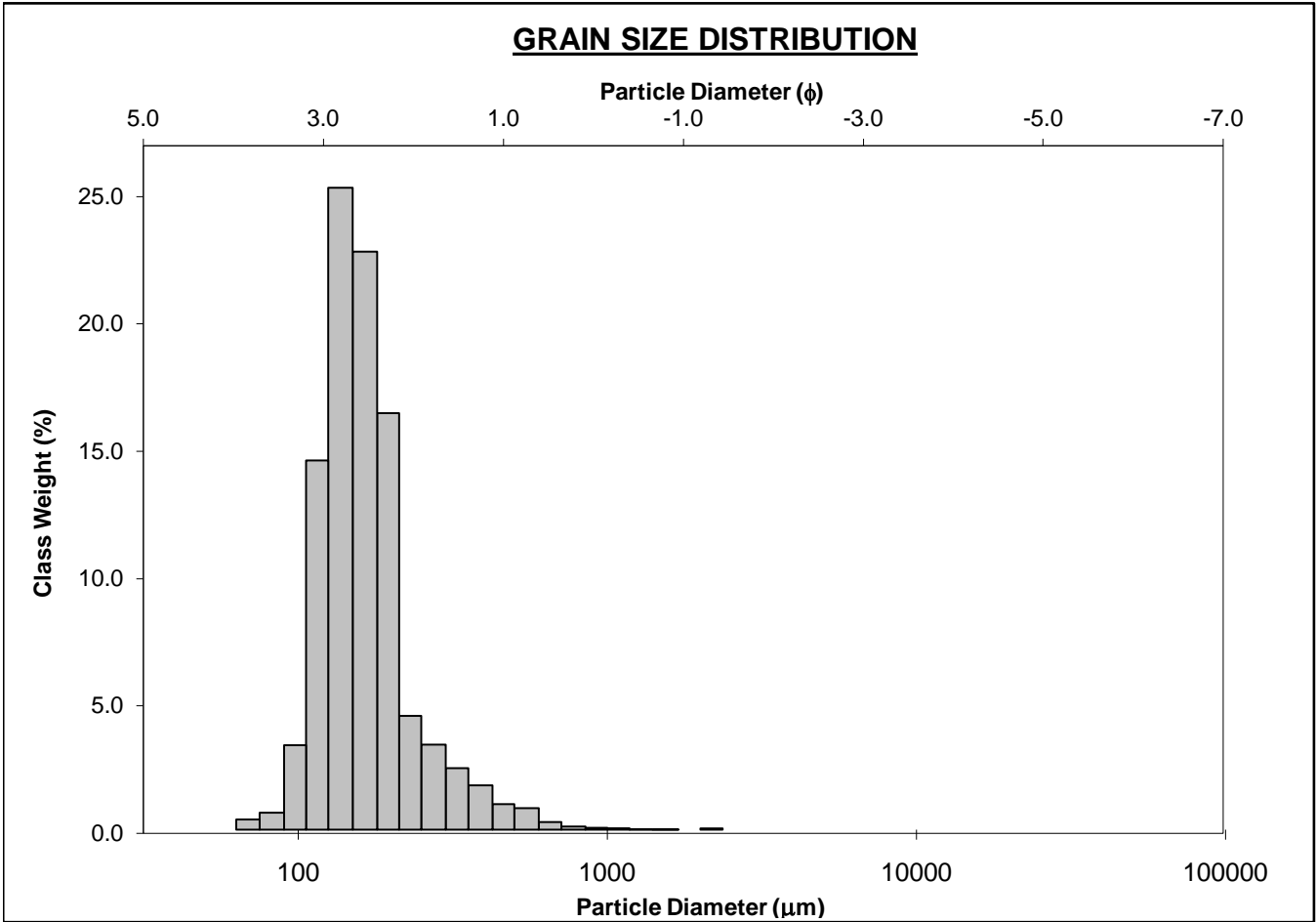
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-350cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 0.9%	
MODE 2:			SAND: 99.1%		MEDIUM SAND: 4.0%	
MODE 3:			MUD: 0.9%		FINE SAND: 69.2%	
D ₁₀ :	107.2	2.282			V FINE SAND: 24.9%	
MEDIAN or D ₅₀ :	145.1	2.785	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	205.6	3.222	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	1.918	1.412	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	98.37	0.939	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.407	1.196	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	50.54	0.493	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	160.0	146.7	2.769	146.7	2.769	Fine Sand
SORTING (σ):	83.82	1.523	0.607	1.321	0.401	Well Sorted
SKEWNESS (Sk):	8.328	-2.095	2.095	0.089	-0.089	Symmetrical
KURTOSIS (K):	141.1	23.57	23.57	1.171	1.171	Leptokurtic



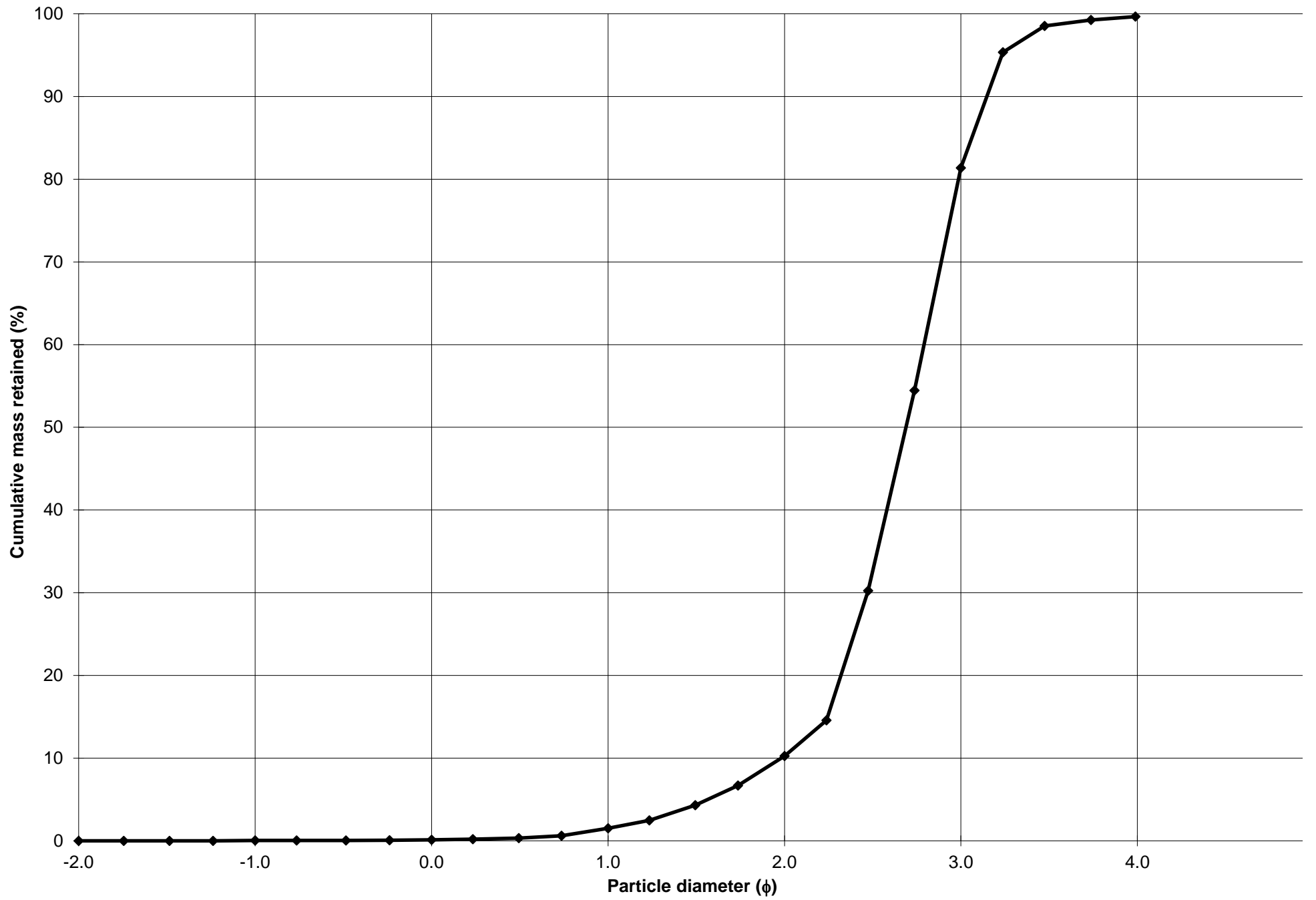
Cumulative Frequency Curve



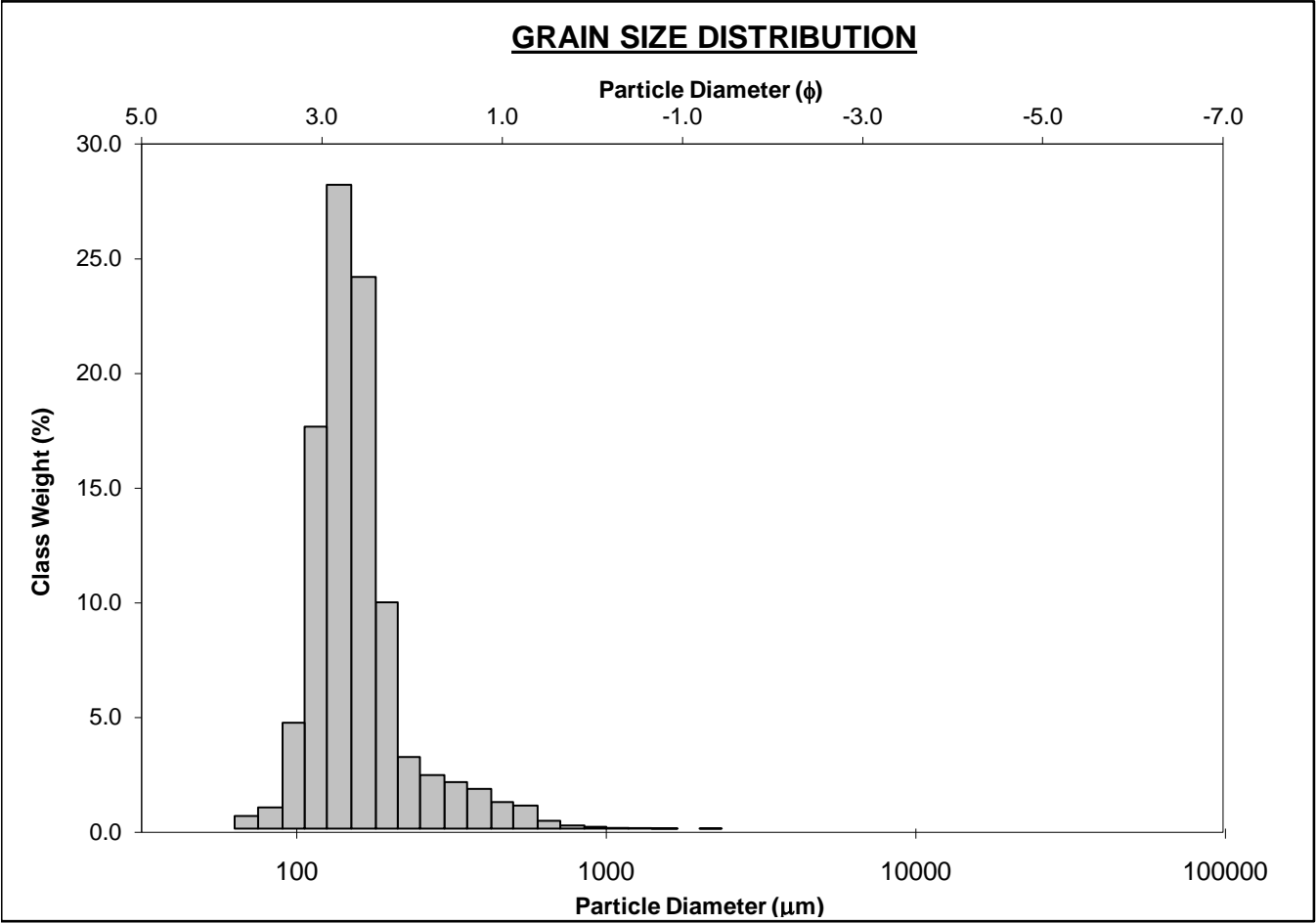
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-360cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 1.4%			
MODE 2:			SAND: 99.6% MEDIUM SAND: 8.7%			
MODE 3:			MUD: 0.3% FINE SAND: 71.1%			
D ₁₀ :	112.9	1.982	V FINE SAND: 18.3%			
MEDIAN or D ₅₀ :	155.1	2.689	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%			
D ₉₀ :	253.2	3.147	COARSE GRAVEL: 0.0% COARSE SILT: 0.1%			
(D ₉₀ / D ₁₀):	2.243	1.588	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%			
(D ₉₀ - D ₁₀):	140.3	1.165	FINE GRAVEL: 0.0% FINE SILT: 0.1%			
(D ₇₅ / D ₂₅):	1.457	1.227	V FINE GRAVEL: 0.0% V FINE SILT: 0.1%			
(D ₇₅ - D ₂₅):	59.60	0.543	V COARSE SAND: 0.1% CLAY: 0.1%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	177.5	162.4	2.622	157.7	2.664	Fine Sand
SORTING (σ):	97.47	1.487	0.572	1.365	0.449	Well Sorted
SKEWNESS (Sk):	6.931	-0.428	0.428	0.220	-0.220	Coarse Skewed
KURTOSIS (K):	103.9	16.51	16.51	1.259	1.259	Leptokurtic



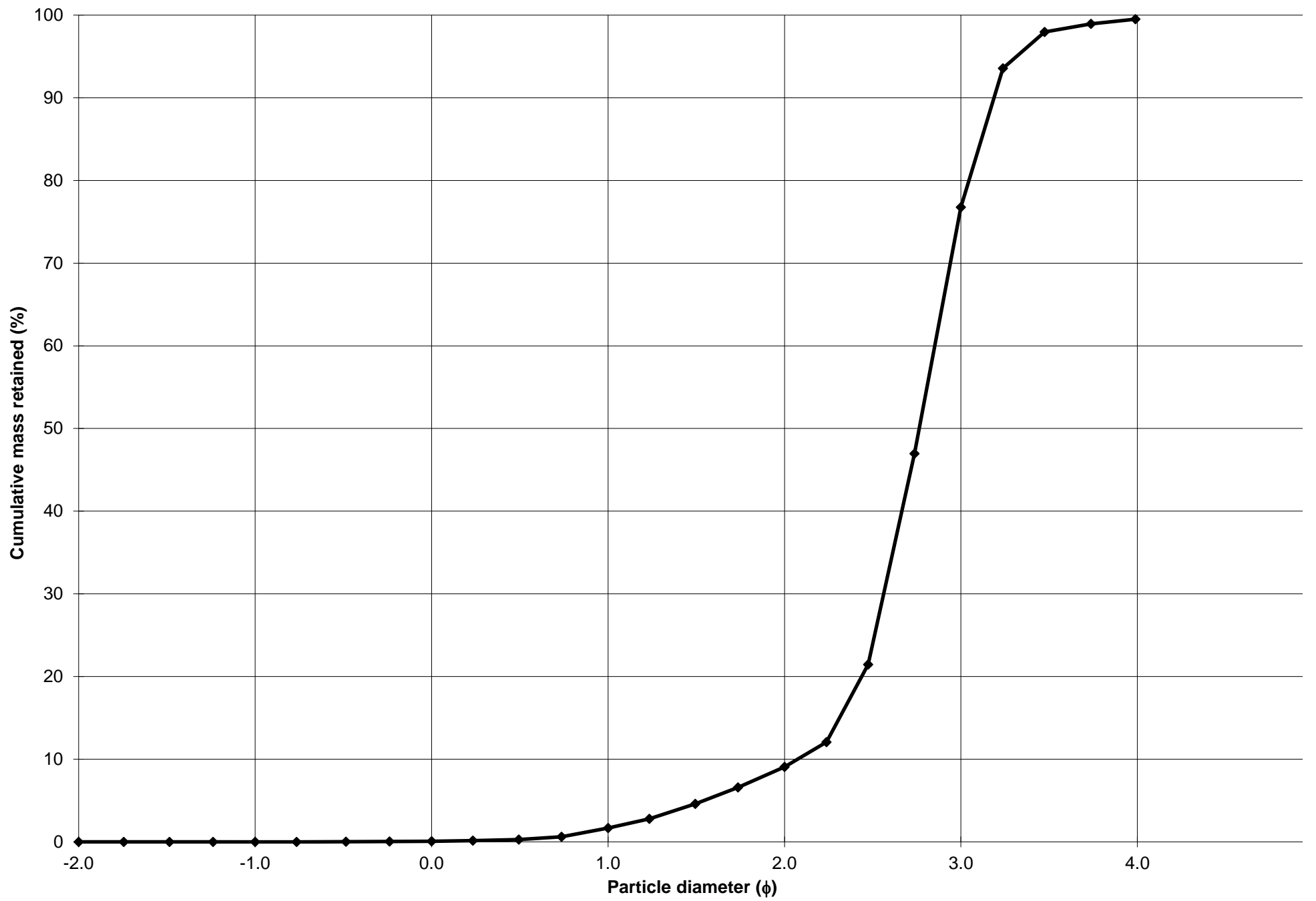
Cumulative Frequency Curve



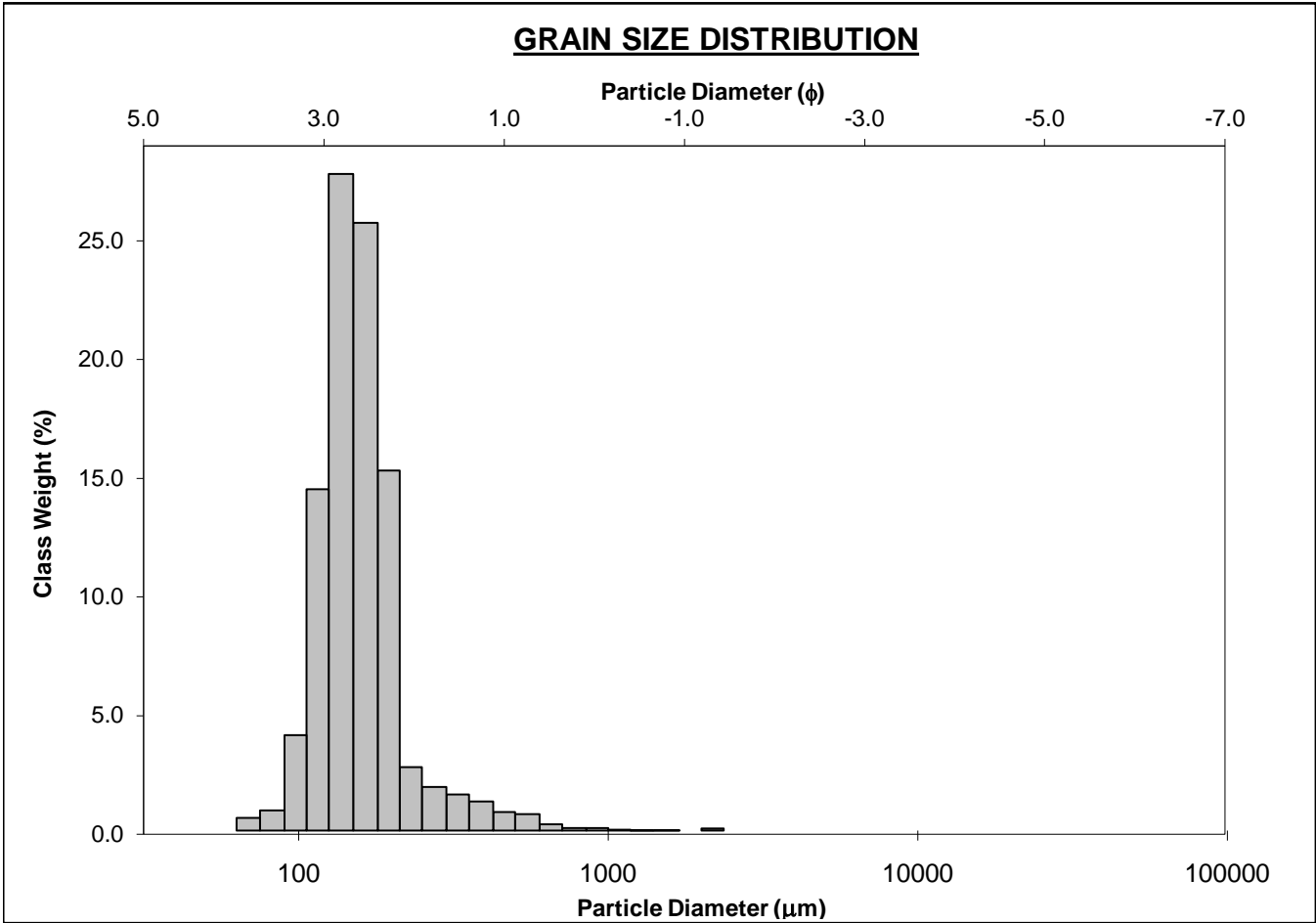
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-372cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 1.6%	
MODE 2:			SAND: 99.5%		MEDIUM SAND: 7.4%	
MODE 3:			MUD: 0.5%		FINE SAND: 67.7%	
D ₁₀ :	109.8	2.075			V FINE SAND: 22.8%	
MEDIAN or D ₅₀ :	147.2	2.764	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	237.3	3.187	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	2.162	1.536	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	127.6	1.112	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.389	1.189	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	49.14	0.474	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	169.6	154.4	2.695	150.3	2.734	Fine Sand
SORTING (σ):	90.52	1.513	0.597	1.375	0.460	Well Sorted
SKEWNESS (Sk):	4.441	-0.744	0.744	0.246	-0.246	Coarse Skewed
KURTOSIS (K):	40.47	17.34	17.34	1.531	1.531	Very Leptokurtic



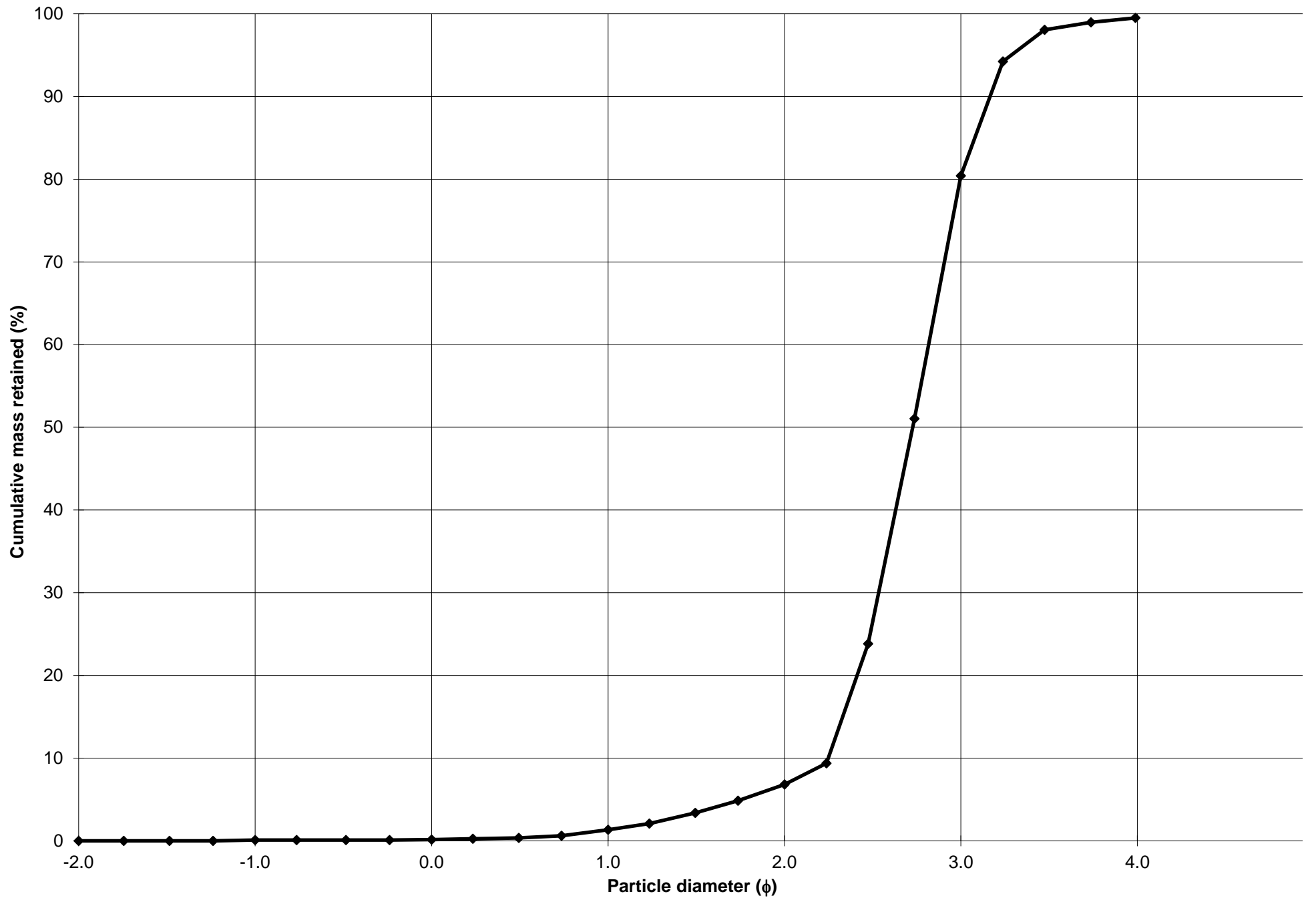
Cumulative Frequency Curve



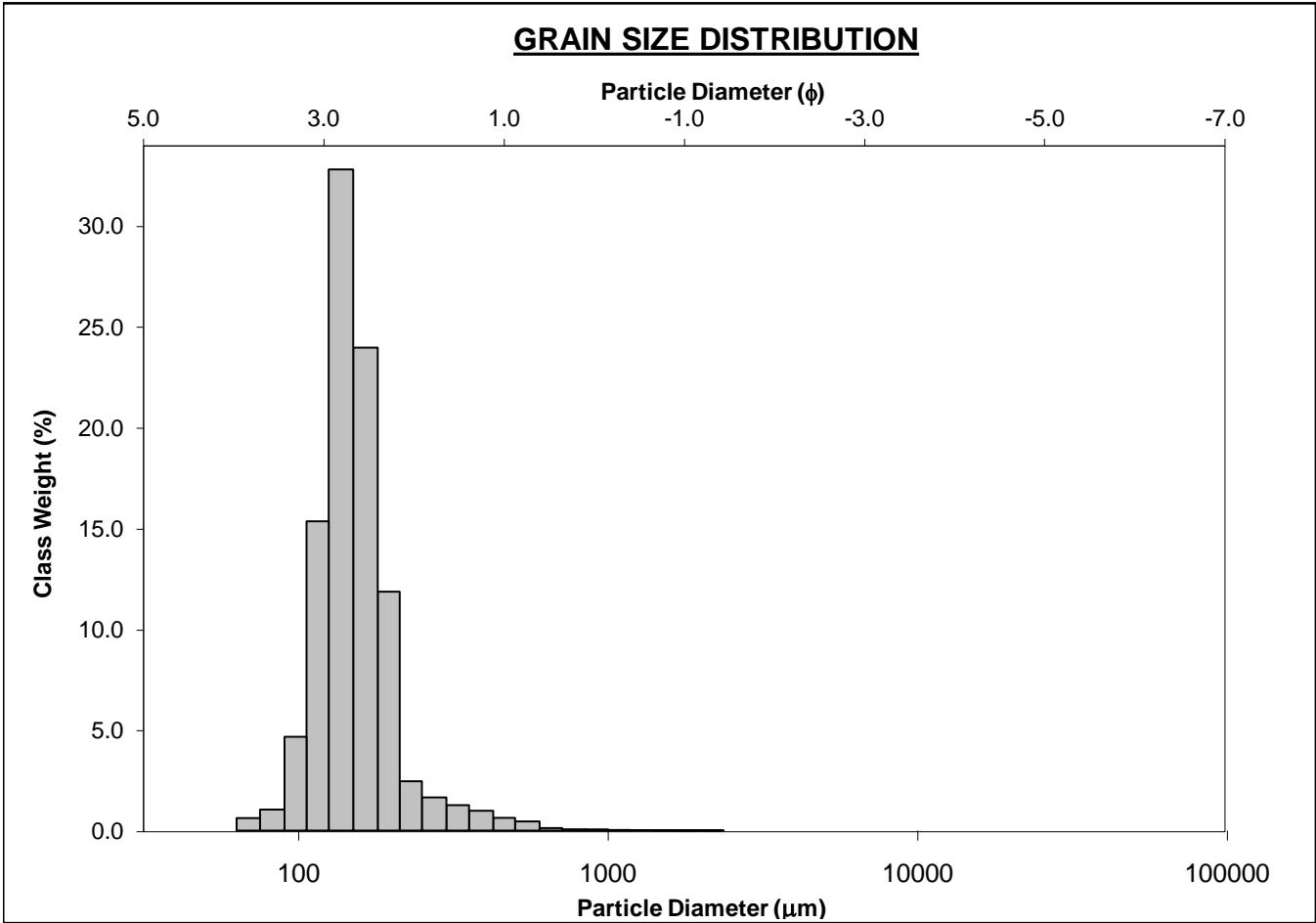
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-380cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.1%		COARSE SAND: 1.2%	
MODE 2:			SAND: 99.4%		MEDIUM SAND: 5.5%	
MODE 3:			MUD: 0.5%		FINE SAND: 73.6%	
D ₁₀ :	111.5	2.248			V FINE SAND: 19.1%	
MEDIAN or D ₅₀ :	151.0	2.727	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	210.5	3.165	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	1.888	1.408	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	99.03	0.917	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.382	1.188	V FINE GRAVEL: 0.1%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	49.33	0.466	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	169.3	155.2	2.688	152.7	2.712	Fine Sand
SORTING (σ):	99.47	1.482	0.568	1.329	0.411	Well Sorted
SKEWNESS (Sk):	9.499	-0.991	0.991	0.167	-0.167	Coarse Skewed
KURTOSIS (K):	159.3	22.04	22.04	1.345	1.345	Leptokurtic



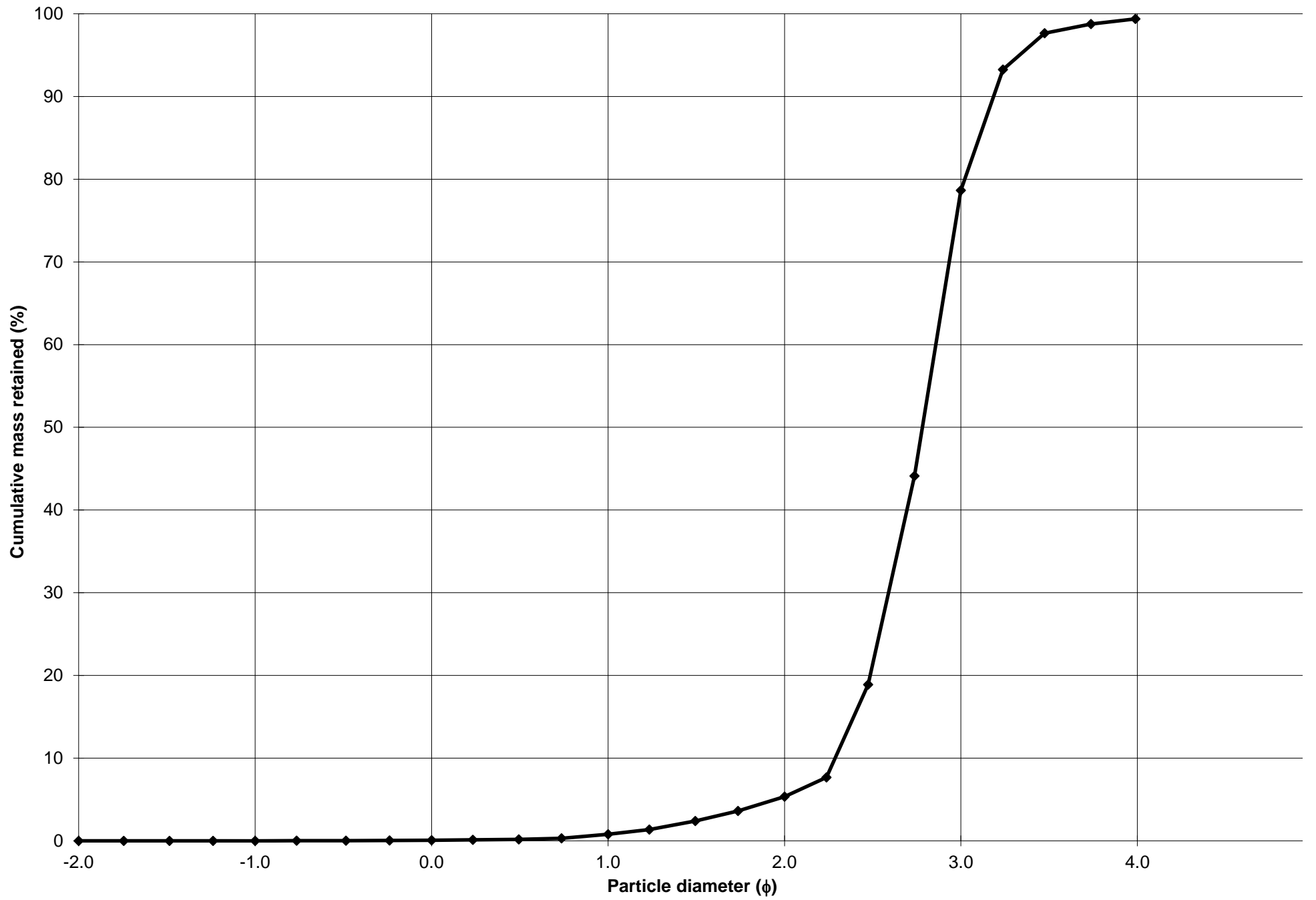
Cumulative Frequency Curve



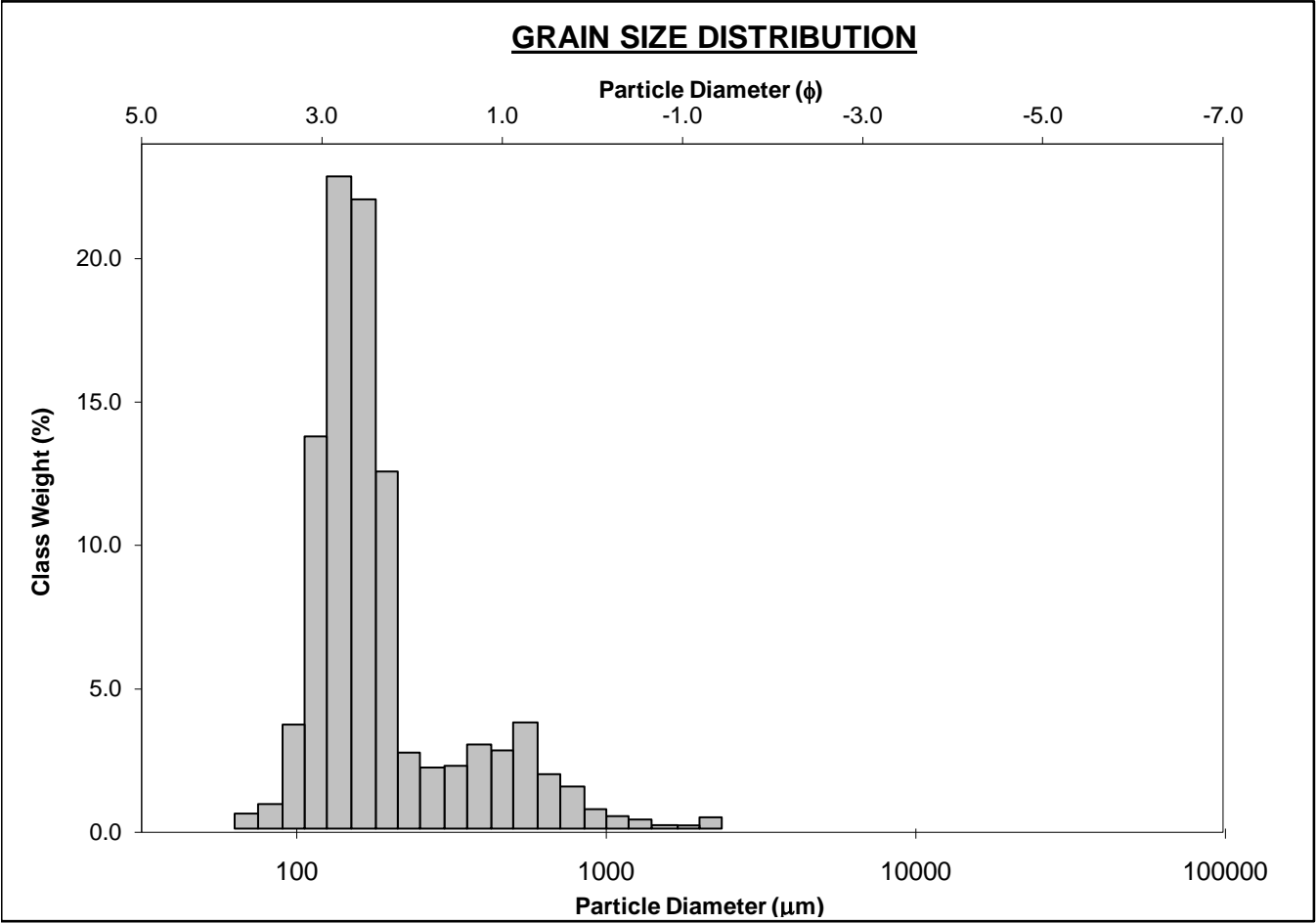
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-390cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 0.7%	
MODE 2:			SAND: 99.4%		MEDIUM SAND: 4.6%	
MODE 3:			MUD: 0.6%		FINE SAND: 73.3%	
D ₁₀ :	110.0	2.287			V FINE SAND: 20.7%	
MEDIAN or D ₅₀ :	145.4	2.782	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	204.9	3.185	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	1.864	1.393	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	94.97	0.898	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.351	1.171	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	44.78	0.434	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	159.9	148.7	2.749	147.6	2.761	Fine Sand
SORTING (σ):	72.50	1.463	0.549	1.300	0.378	Well Sorted
SKEWNESS (Sk):	6.123	-1.997	1.997	0.150	-0.150	Coarse Skewed
KURTOSIS (K):	80.72	25.92	25.92	1.306	1.306	Leptokurtic



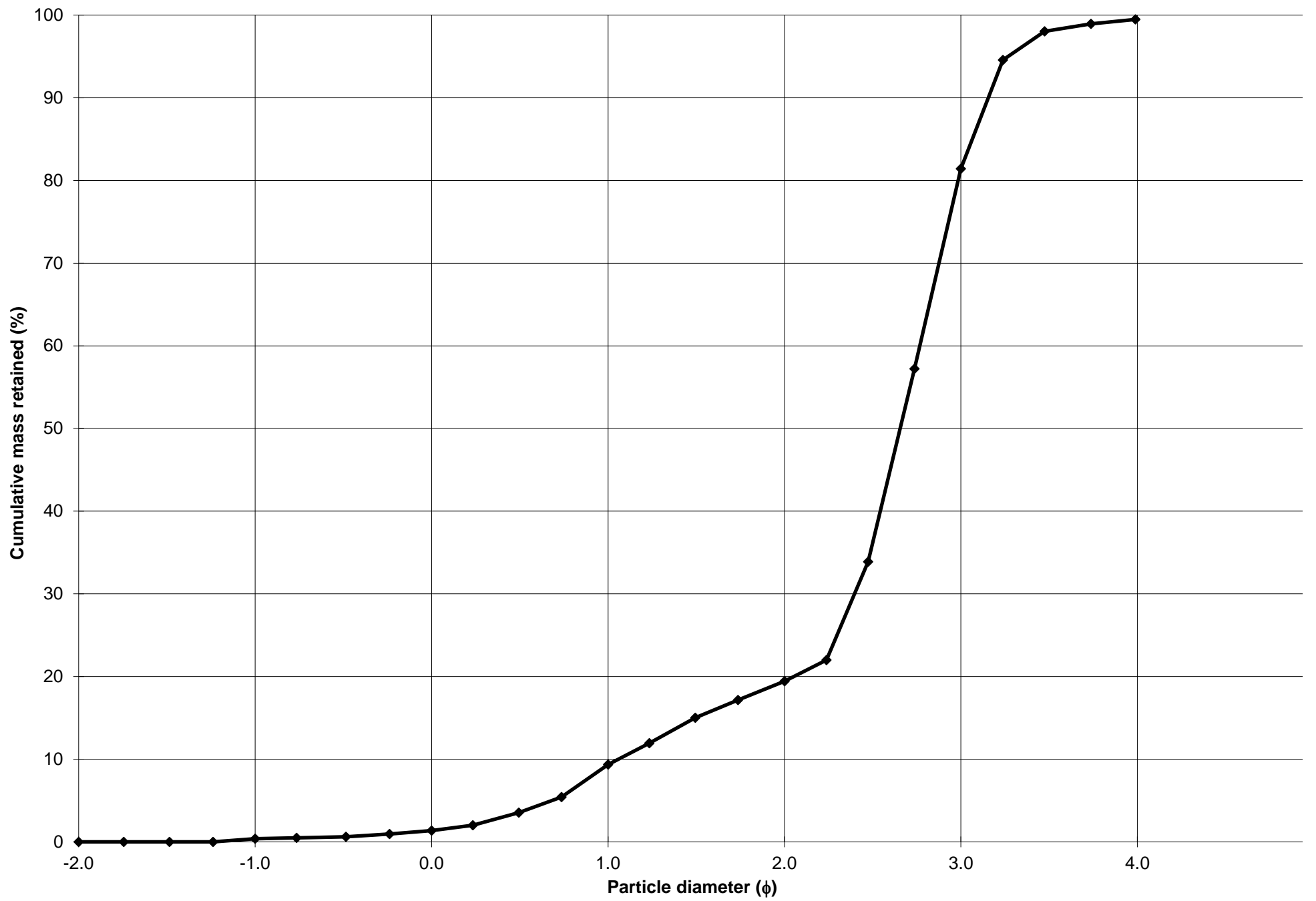
Cumulative Frequency Curve



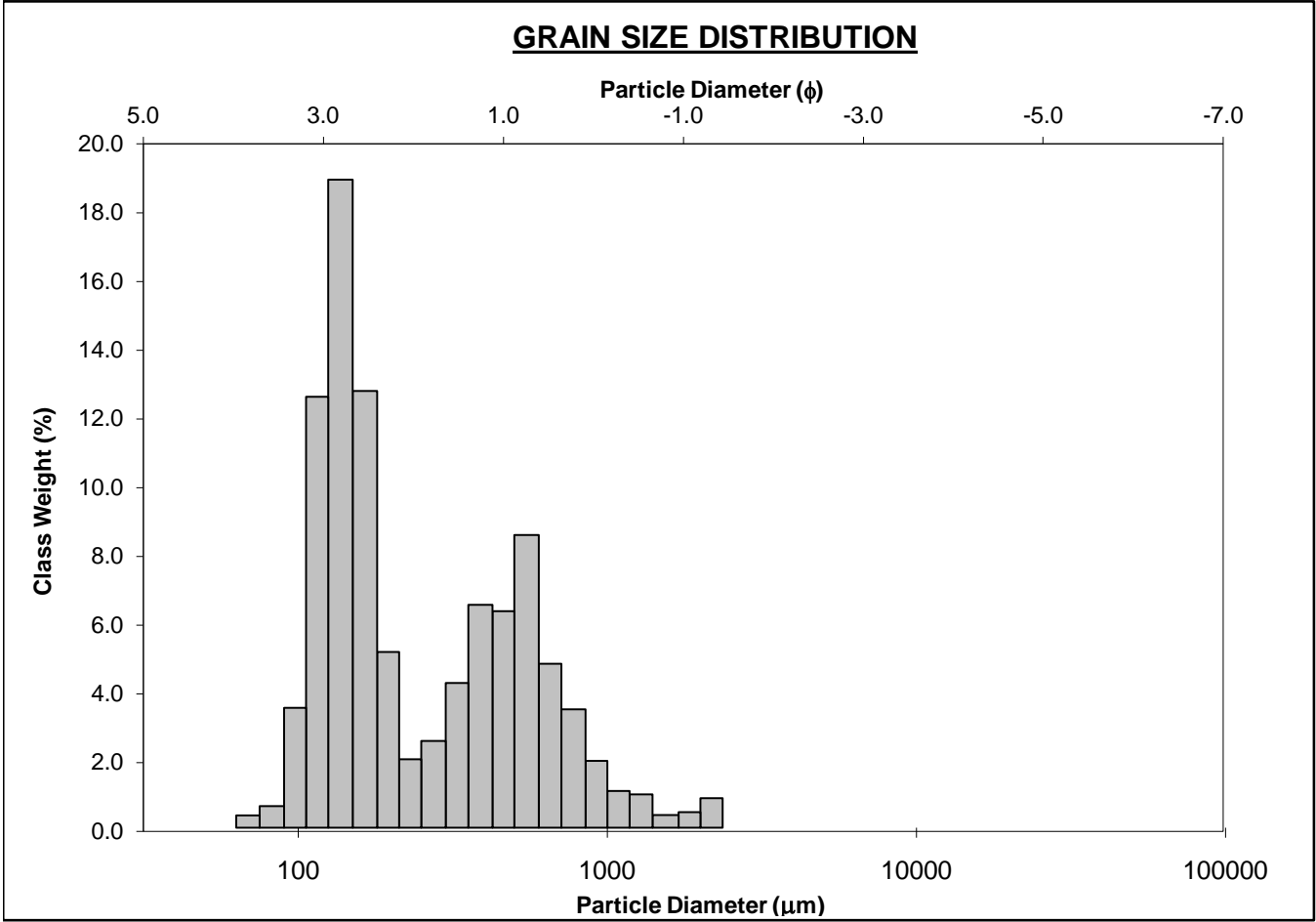
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-400cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.4%		COARSE SAND: 8.0%	
MODE 2:	550.0	0.868	SAND: 99.1%		MEDIUM SAND: 10.1%	
MODE 3:			MUD: 0.5%		FINE SAND: 62.0%	
D ₁₀ :	112.2	1.059			V FINE SAND: 18.1%	
MEDIAN or D ₅₀ :	158.7	2.656	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	480.0	3.155	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	4.276	2.979	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	367.7	2.096	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.550	1.275	V FINE GRAVEL: 0.4%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	72.19	0.633	V COARSE SAND: 1.0%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	231.0	183.6	2.445	184.8	2.436	Fine Sand
SORTING (σ):	223.6	1.833	0.874	1.684	0.752	Moderately Sorted
SKEWNESS (Sk):	4.427	0.584	-0.584	0.492	-0.492	Very Coarse Skewed
KURTOSIS (K):	30.70	7.962	7.962	1.674	1.674	Very Leptokurtic



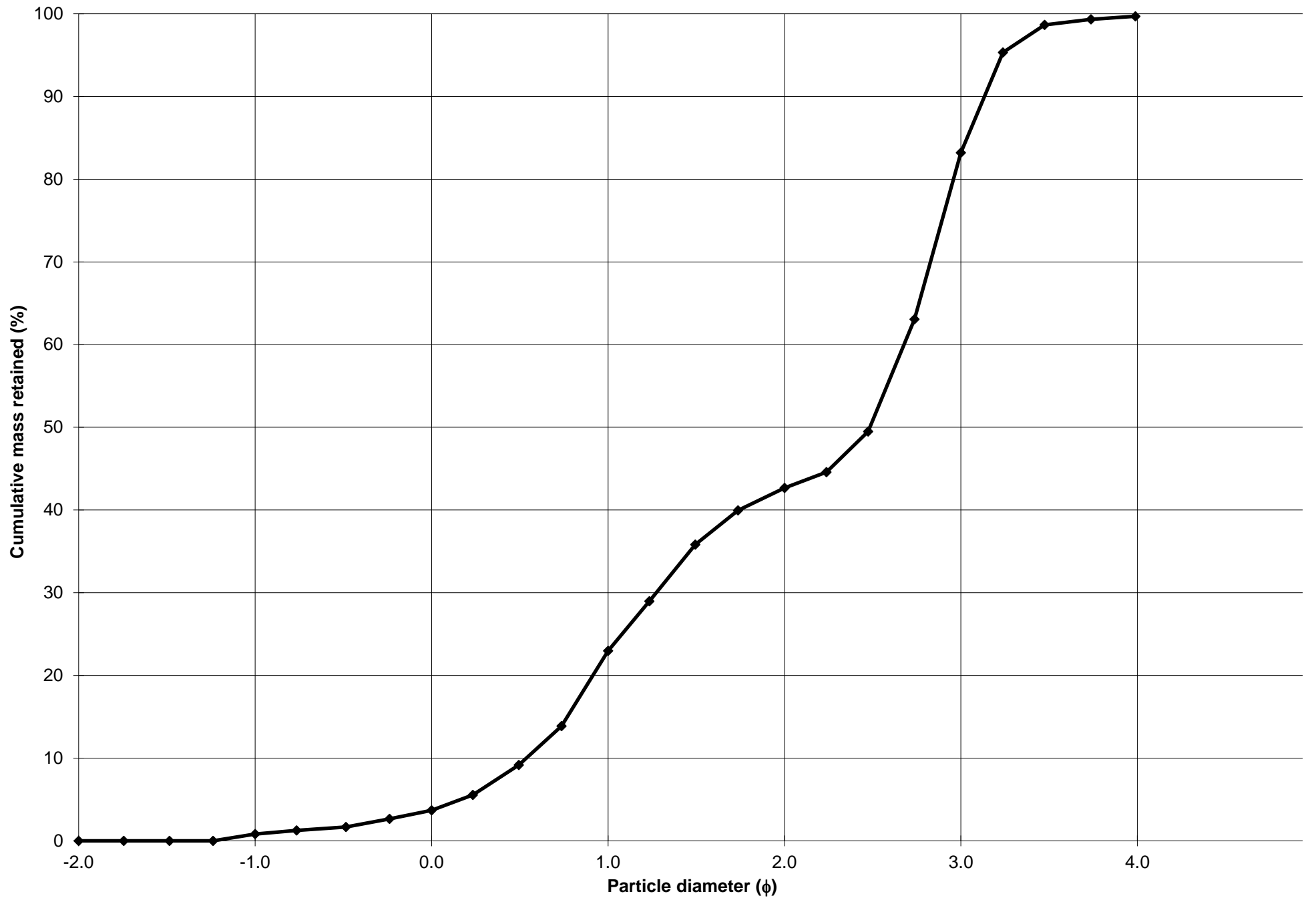
Cumulative Frequency Curve



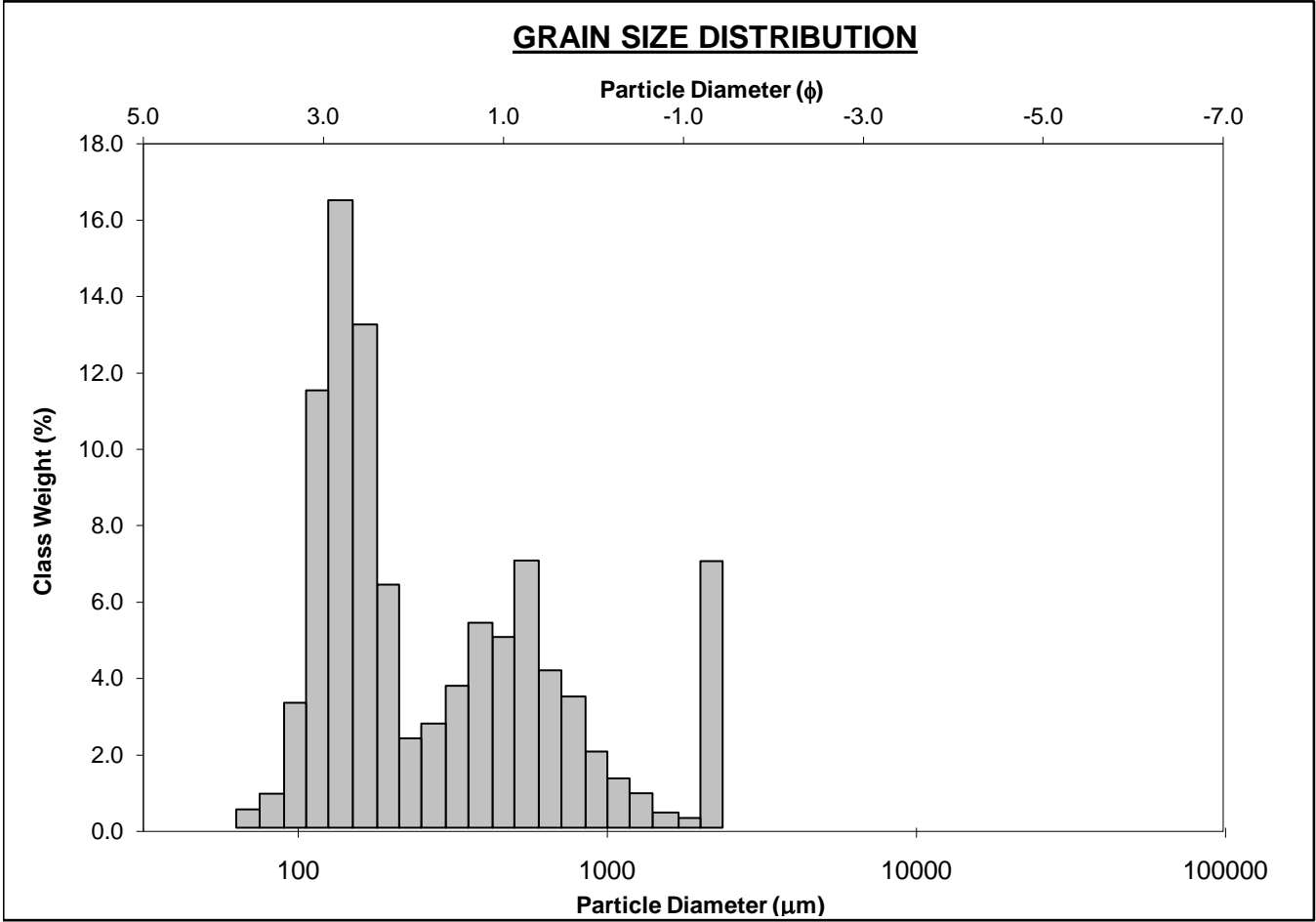
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-410cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Trimodal, Poorly Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.8%		COARSE SAND: 19.3%	
MODE 2:	550.0	0.868	SAND: 98.9%		MEDIUM SAND: 19.7%	
MODE 3:	390.0	1.364	MUD: 0.3%		FINE SAND: 40.5%	
D ₁₀ :	114.0	0.537			V FINE SAND: 16.5%	
MEDIAN or D ₅₀ :	178.8	2.484	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	689.4	3.133	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	6.049	5.838	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	575.4	2.597	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	3.516	2.681	V FINE GRAVEL: 0.8%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	338.7	1.814	V COARSE SAND: 2.9%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	340.5	247.0	2.018	233.4	2.099	Fine Sand
SORTING (σ):	323.6	2.152	1.106	2.026	1.019	Poorly Sorted
SKEWNESS (Sk):	2.692	0.356	-0.356	0.516	-0.516	Very Coarse Skewed
KURTOSIS (K):	13.04	3.399	3.399	0.693	0.693	Platykurtic



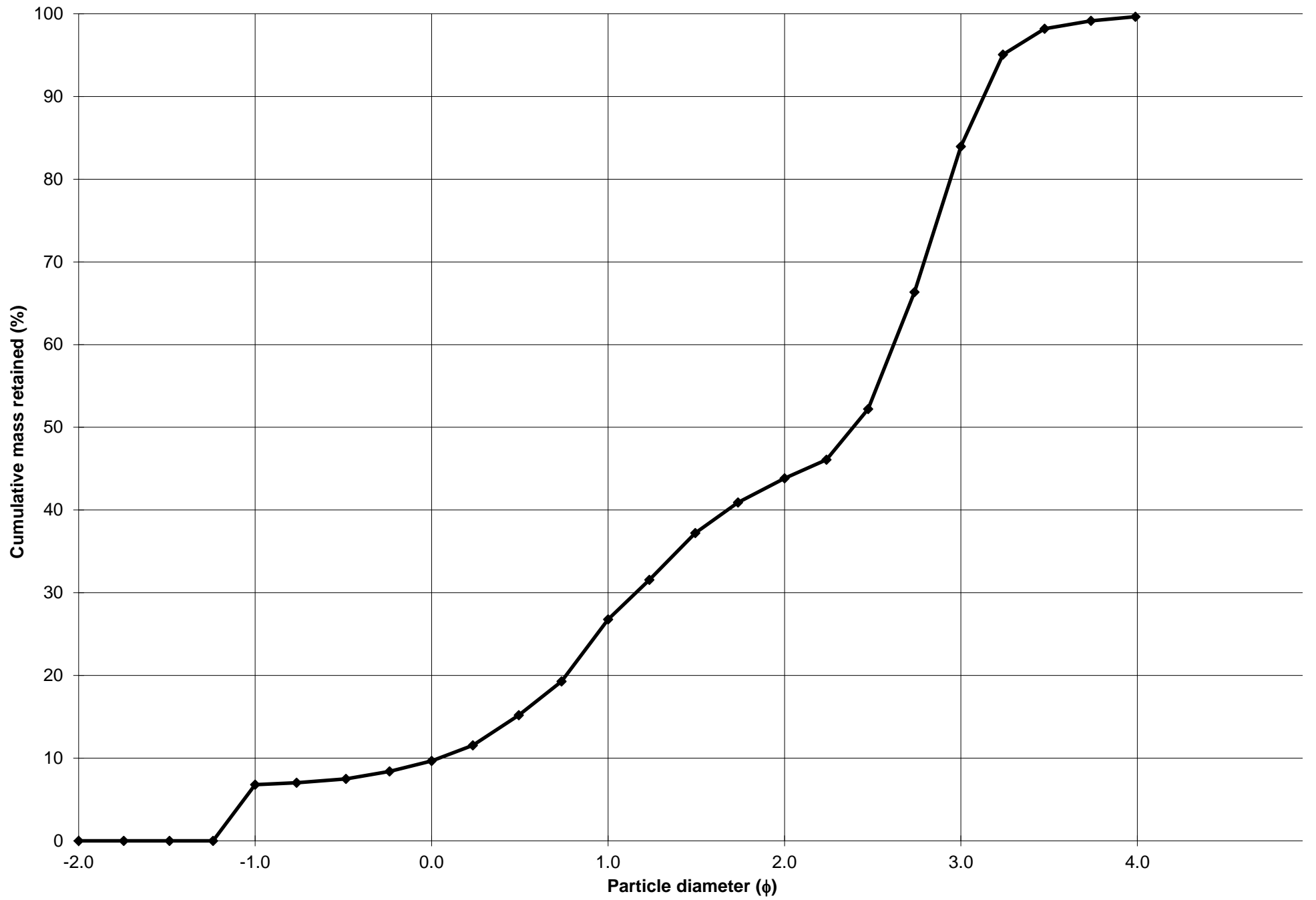
Cumulative Frequency Curve



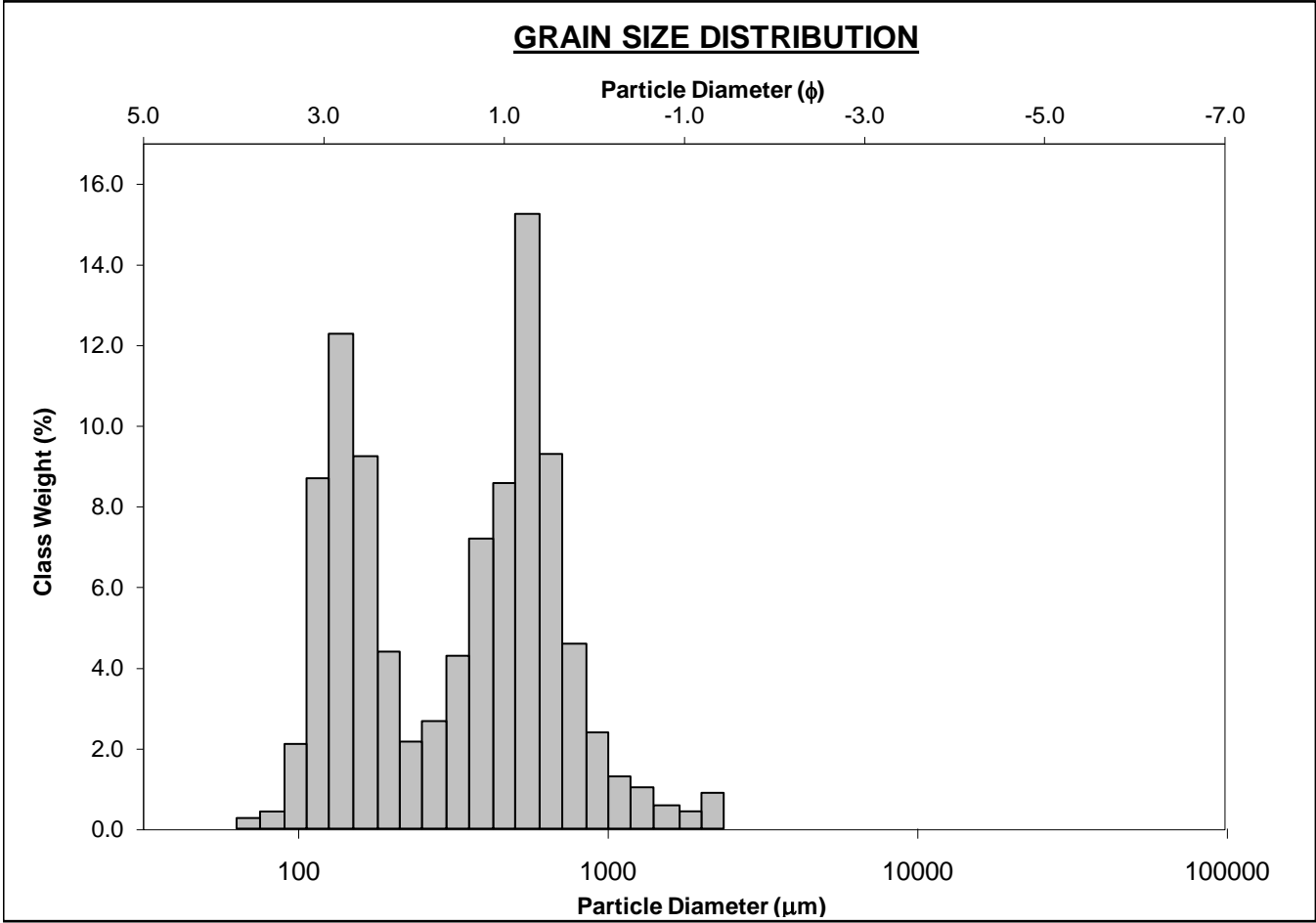
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-420cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Polymodal, Poorly Sorted			TEXTURAL GROUP: Gravelly Sand			
SEDIMENT NAME: Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 6.8%		COARSE SAND: 17.1%	
MODE 2:	550.0	0.868	SAND: 92.9%		MEDIUM SAND: 17.1%	
MODE 3:	2180.0	-1.119	MUD: 0.4%		FINE SAND: 40.1%	
D ₁₀ :	114.3	0.043			V FINE SAND: 15.7%	
MEDIAN or D ₅₀ :	191.0	2.388	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	970.9	3.130	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	8.497	73.36	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	856.6	3.087	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	3.806	3.056	V FINE GRAVEL: 6.8%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	384.9	1.928	V COARSE SAND: 2.9%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	445.2	275.4	1.860	254.0	1.977	Medium Sand
SORTING (σ):	538.6	2.485	1.313	2.405	1.266	Poorly Sorted
SKEWNESS (Sk):	2.332	0.606	-0.606	0.554	-0.554	Very Coarse Skewed
KURTOSIS (K):	7.661	3.334	3.334	0.914	0.914	Mesokurtic



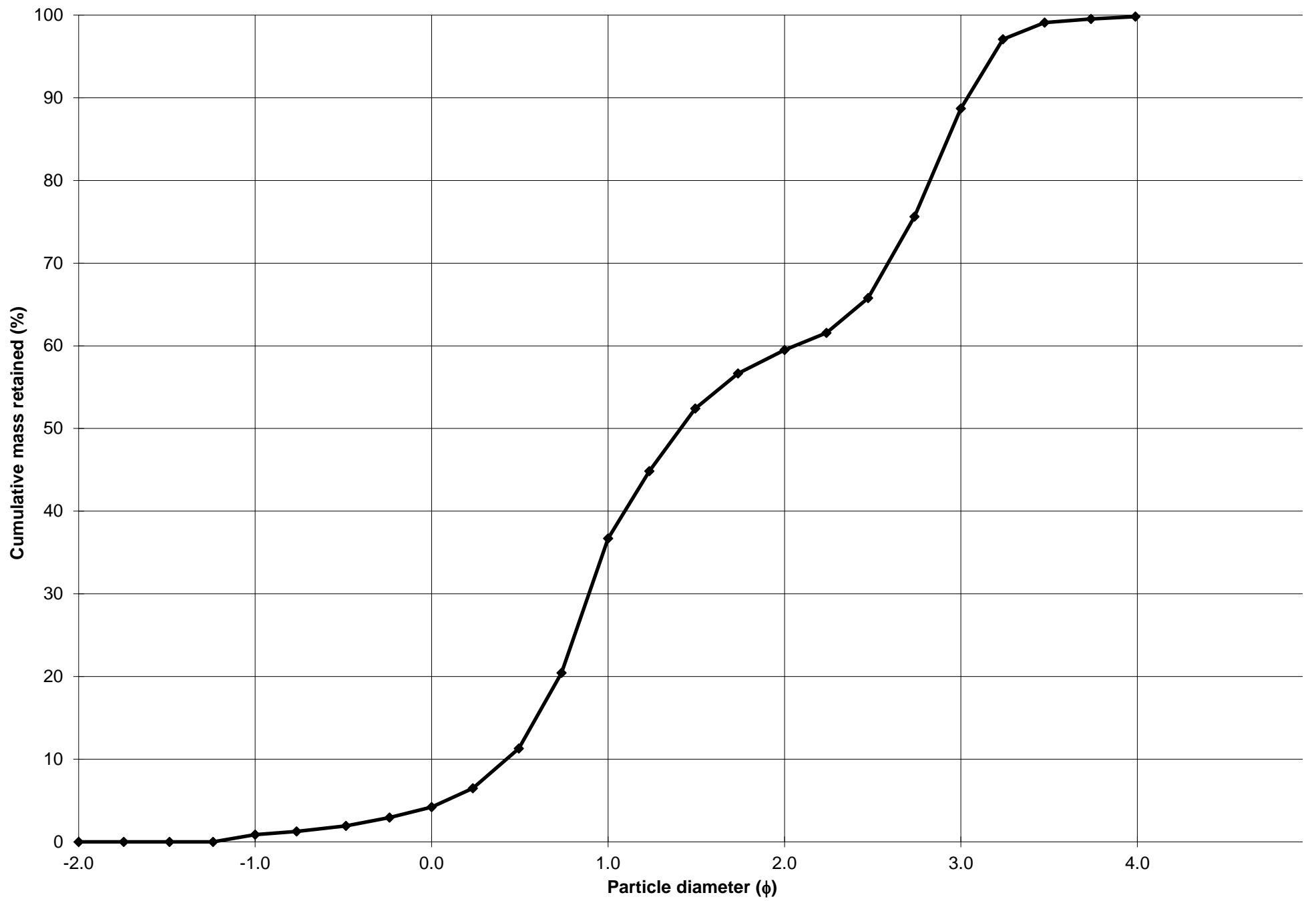
Cumulative Frequency Curve



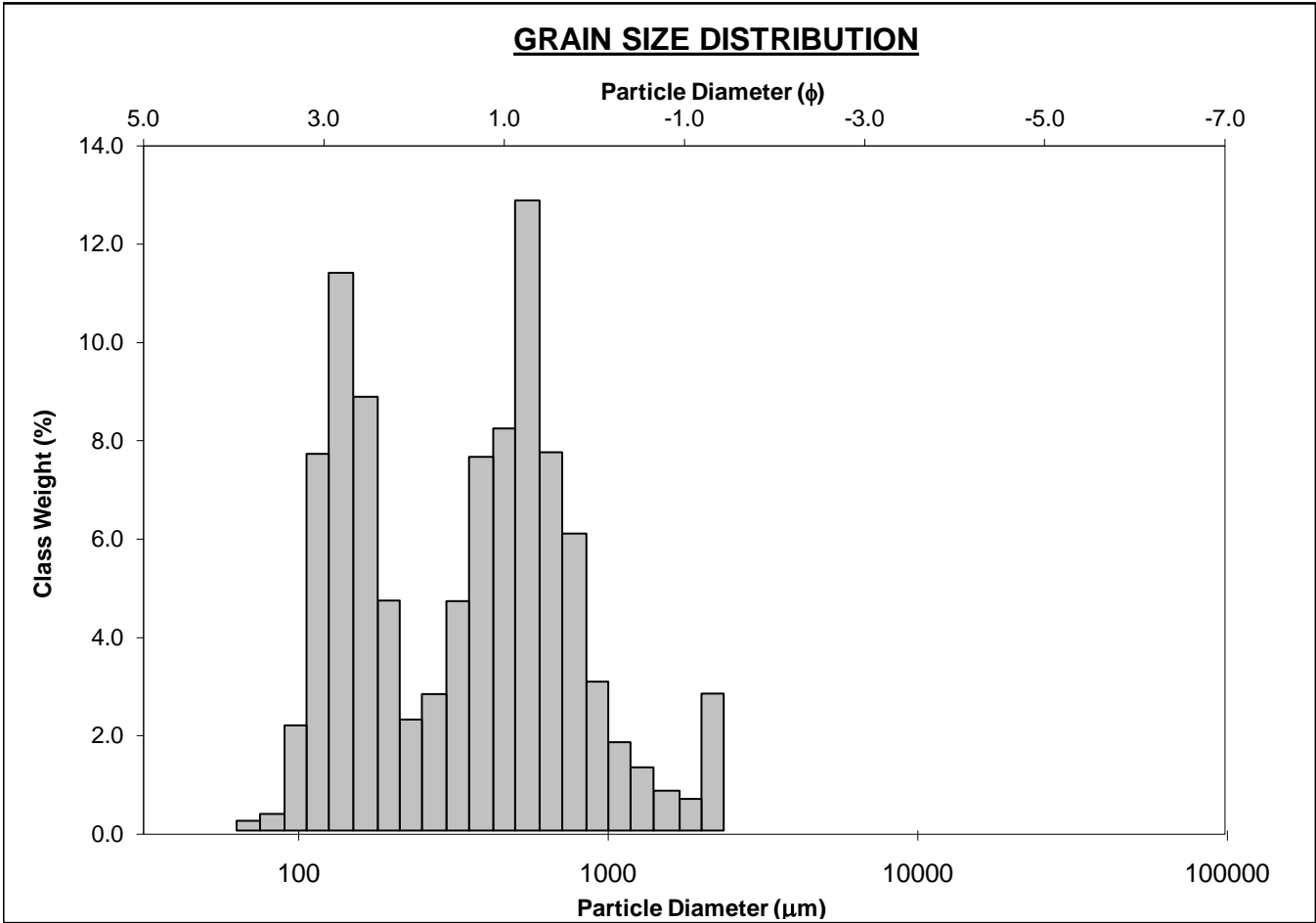
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-430cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Bimodal, Poorly Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Coarse Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 0.9%		COARSE SAND: 32.5%	
MODE 2:	137.5	2.868	SAND: 99.0%		MEDIUM SAND: 22.8%	
MODE 3:			MUD: 0.2%		FINE SAND: 29.2%	
D ₁₀ :	121.9	0.424			V FINE SAND: 11.1%	
MEDIAN or D ₅₀ :	376.0	1.411	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	745.2	3.037	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	6.116	7.156	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	623.3	2.612	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	3.758	3.356	V FINE GRAVEL: 0.9%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	418.4	1.910	V COARSE SAND: 3.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	419.7	317.6	1.655	319.7	1.645	Medium Sand
SORTING (σ):	329.3	2.137	1.096	2.057	1.041	Poorly Sorted
SKEWNESS (Sk):	2.152	-0.138	0.138	-0.224	0.224	Fine Skewed
KURTOSIS (K):	10.53	2.891	2.891	0.664	0.664	Very Platykurtic



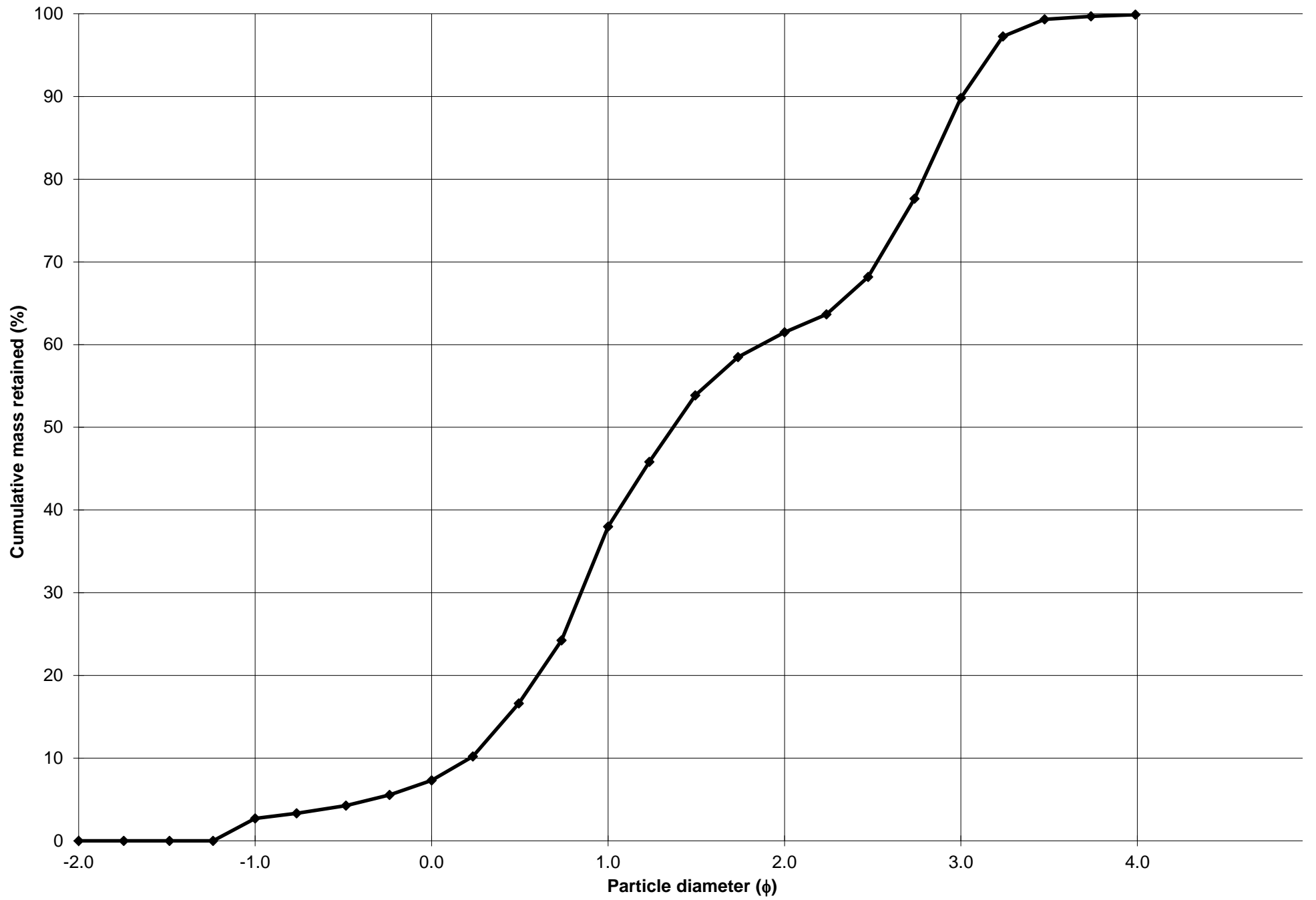
Cumulative Frequency Curve



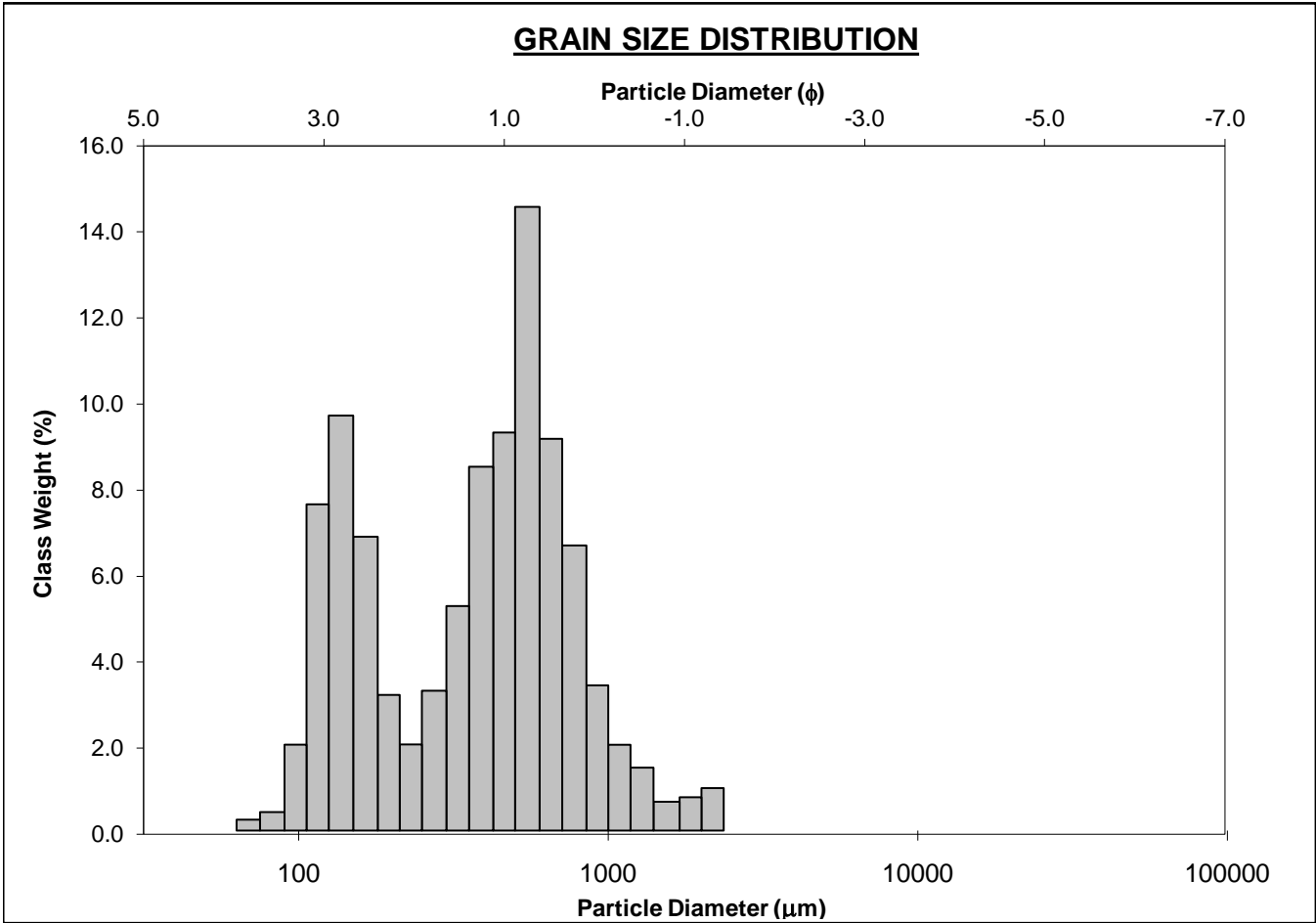
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-440cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Trimodal, Poorly Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Coarse Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 2.7%		COARSE SAND: 30.7%	
MODE 2:	137.5	2.868	SAND: 97.2%		MEDIUM SAND: 23.5%	
MODE 3:	2180.0	-1.119	MUD: 0.1%		FINE SAND: 28.3%	
D ₁₀ :	124.5	0.218			V FINE SAND: 10.1%	
MEDIAN or D ₅₀ :	387.0	1.369	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	859.7	3.006	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	6.905	13.78	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	735.2	2.788	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	3.763	3.543	V FINE GRAVEL: 2.7%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	436.1	1.912	V COARSE SAND: 4.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	471.4	341.3	1.551	336.6	1.571	Medium Sand
SORTING (σ):	419.3	2.226	1.155	2.193	1.133	Poorly Sorted
SKEWNESS (Sk):	2.249	0.077	-0.077	-0.138	0.138	Fine Skewed
KURTOSIS (K):	9.091	2.654	2.654	0.752	0.752	Platykurtic



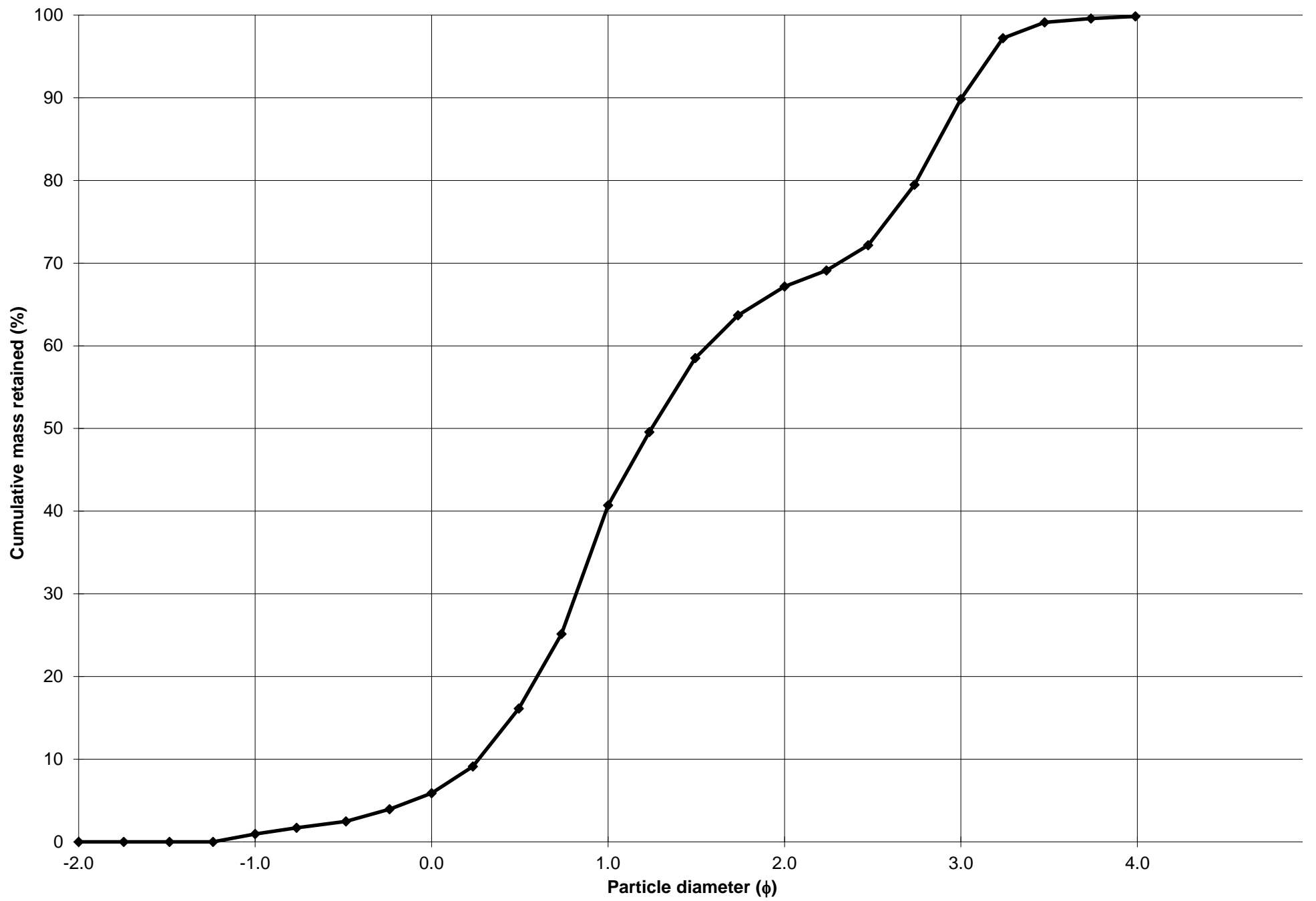
Cumulative Frequency Curve



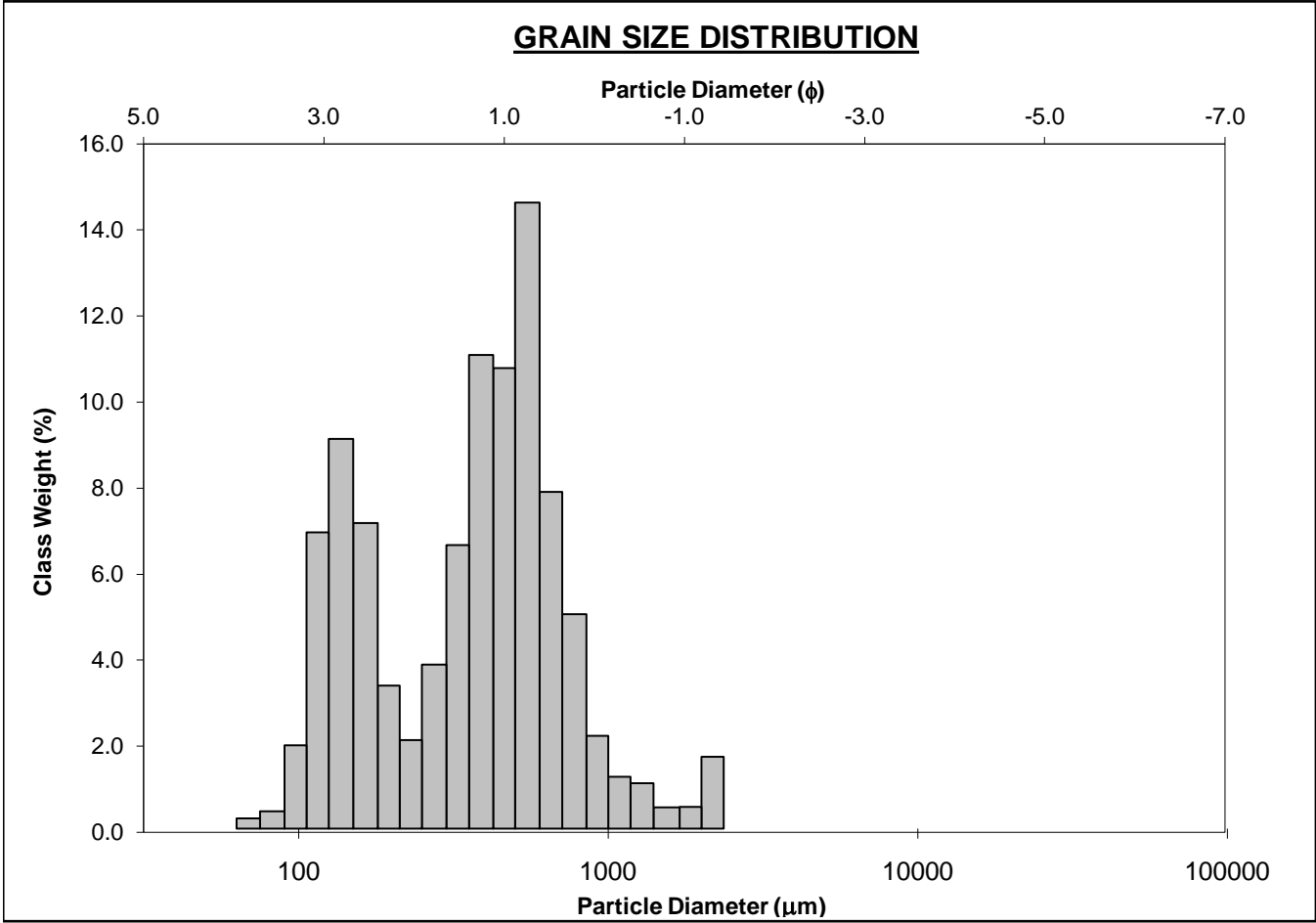
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-448cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Bimodal, Poorly Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Coarse Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 1.0%	COARSE SAND: 34.8%		
MODE 2:	137.5	2.868	SAND: 98.9%	MEDIUM SAND: 26.5%		
MODE 3:			MUD: 0.2%	FINE SAND: 22.7%		
D ₁₀ :	124.6	0.267		V FINE SAND: 10.0%		
MEDIAN or D ₅₀ :	421.3	1.247	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	830.8	3.005	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	6.671	11.24	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	706.3	2.738	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	3.588	3.515	V FINE GRAVEL: 1.0%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	434.0	1.843	V COARSE SAND: 4.9%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	466.1	355.4	1.492	346.4	1.529	Medium Sand
SORTING (σ):	352.1	2.140	1.097	2.124	1.087	Poorly Sorted
SKEWNESS (Sk):	1.950	-0.281	0.281	-0.265	0.265	Fine Skewed
KURTOSIS (K):	8.882	2.976	2.976	0.728	0.728	Platykurtic



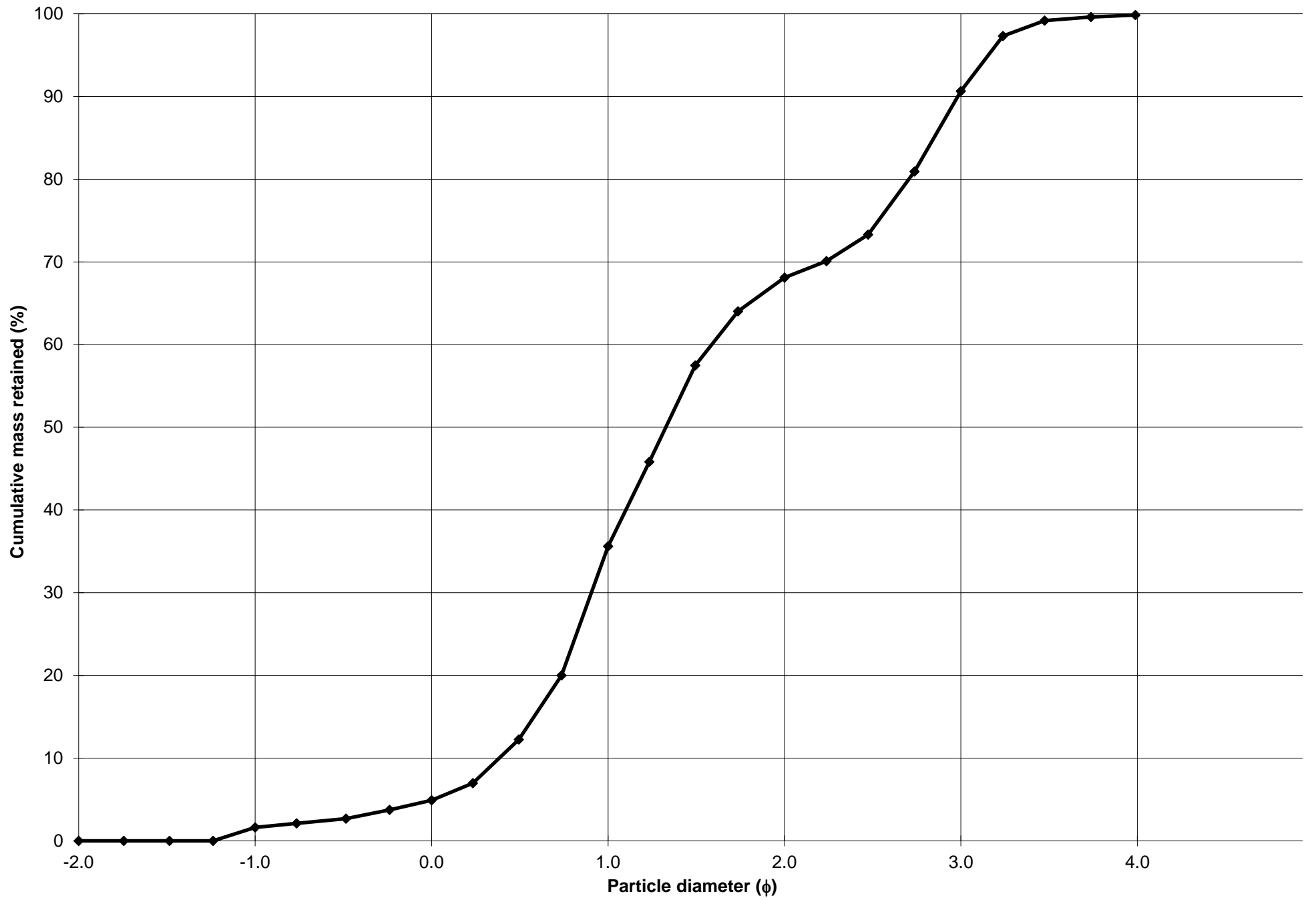
Cumulative Frequency Curve



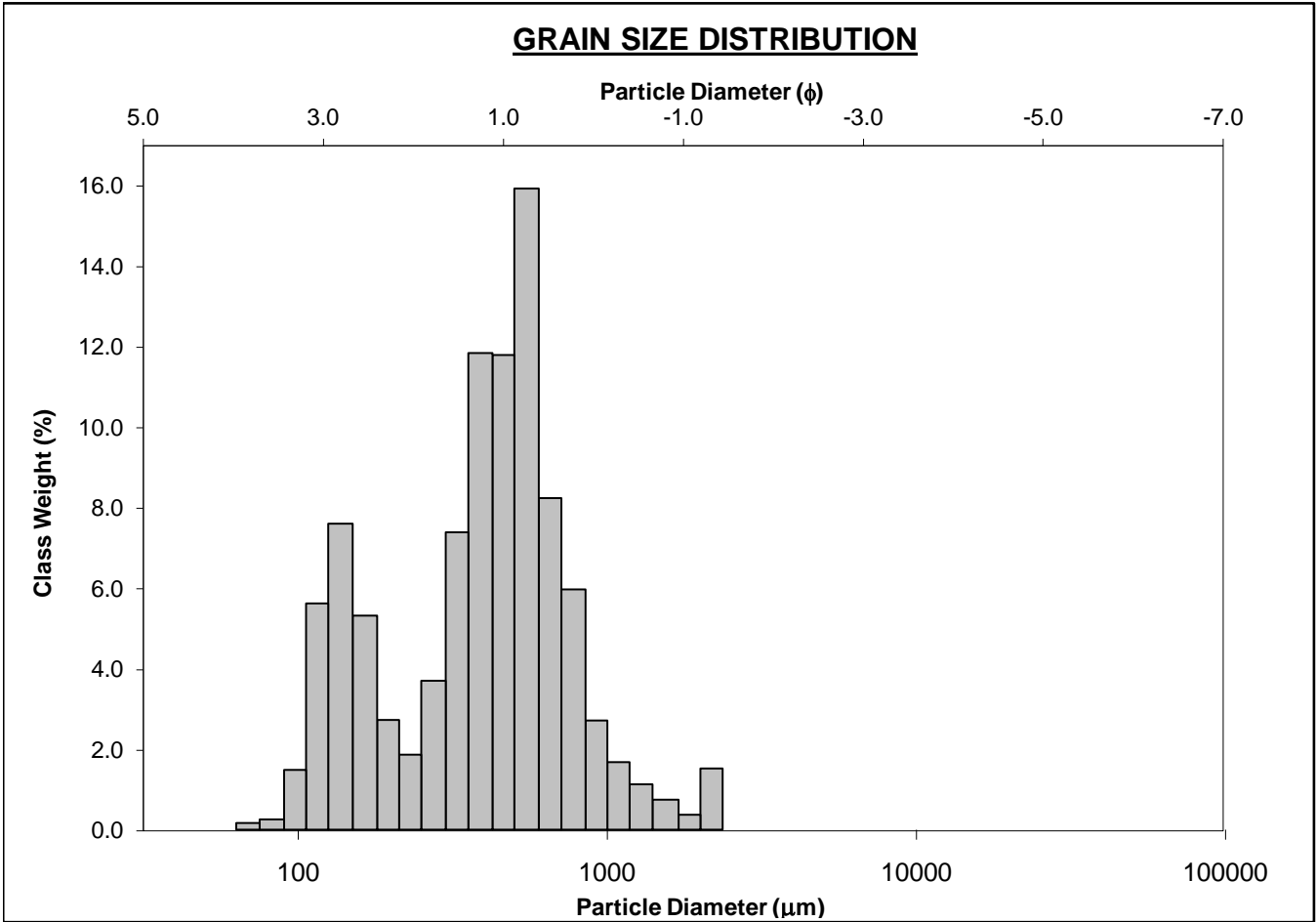
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-458cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Trimodal, Poorly Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 1.6%	COARSE SAND: 30.7%		
MODE 2:	390.0	1.364	SAND: 98.2%	MEDIUM SAND: 32.5%		
MODE 3:	137.5	2.868	MUD: 0.2%	FINE SAND: 22.5%		
D ₁₀ :	126.5	0.384		V FINE SAND: 9.2%		
MEDIAN or D ₅₀ :	398.5	1.327	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	766.5	2.983	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	6.060	7.775	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	640.0	2.599	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	3.275	3.084	V FINE GRAVEL: 1.6%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	393.1	1.711	V COARSE SAND: 3.3%	CLAY: 0.0%		
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	448.7	346.3	1.530	333.0	1.587	Medium Sand
SORTING (σ):	353.2	2.075	1.053	2.040	1.029	Poorly Sorted
SKEWNESS (Sk):	2.497	-0.210	0.210	-0.257	0.257	Fine Skewed
KURTOSIS (K):	11.88	3.374	3.374	0.753	0.753	Platykurtic



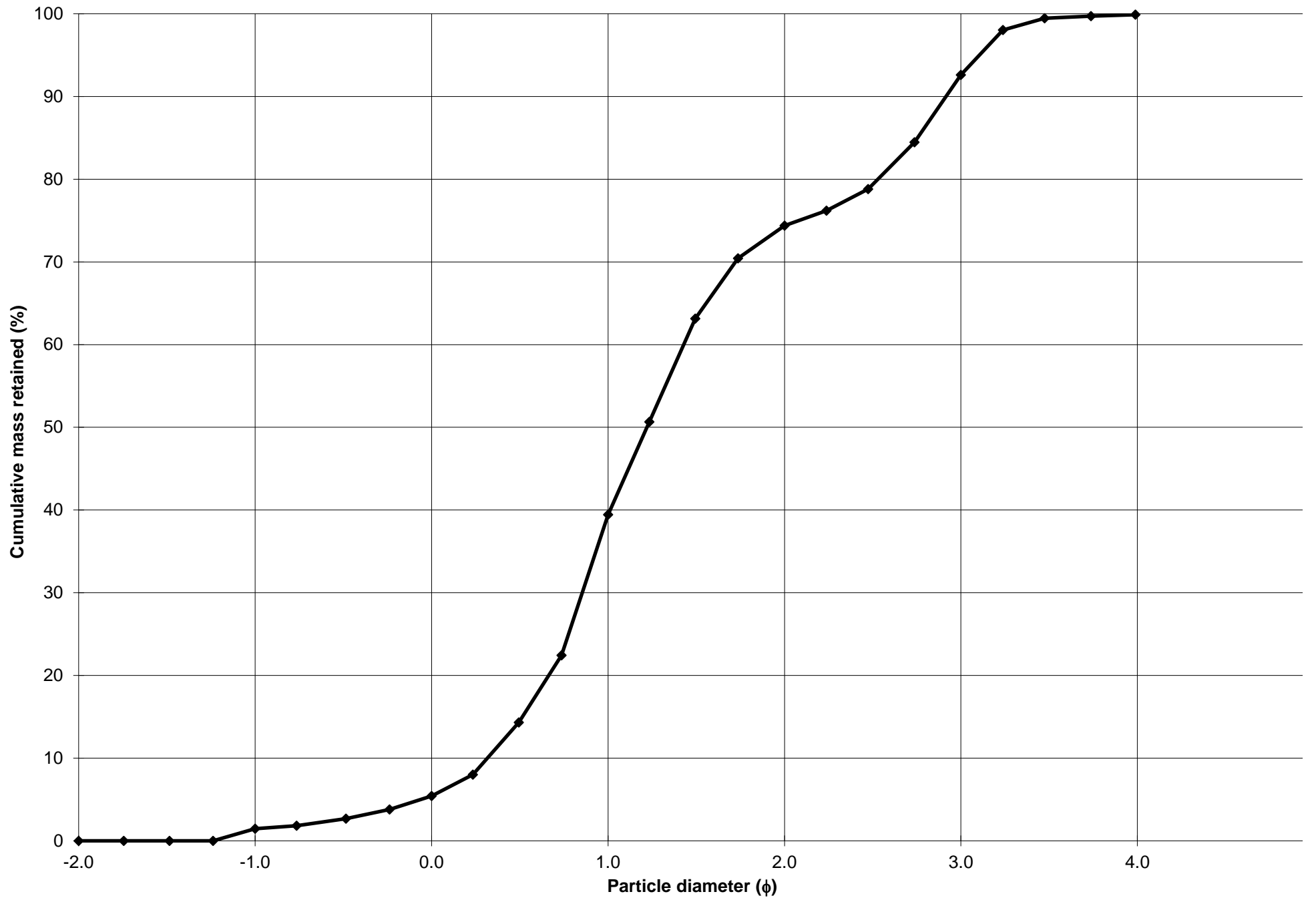
Cumulative Frequency Curve



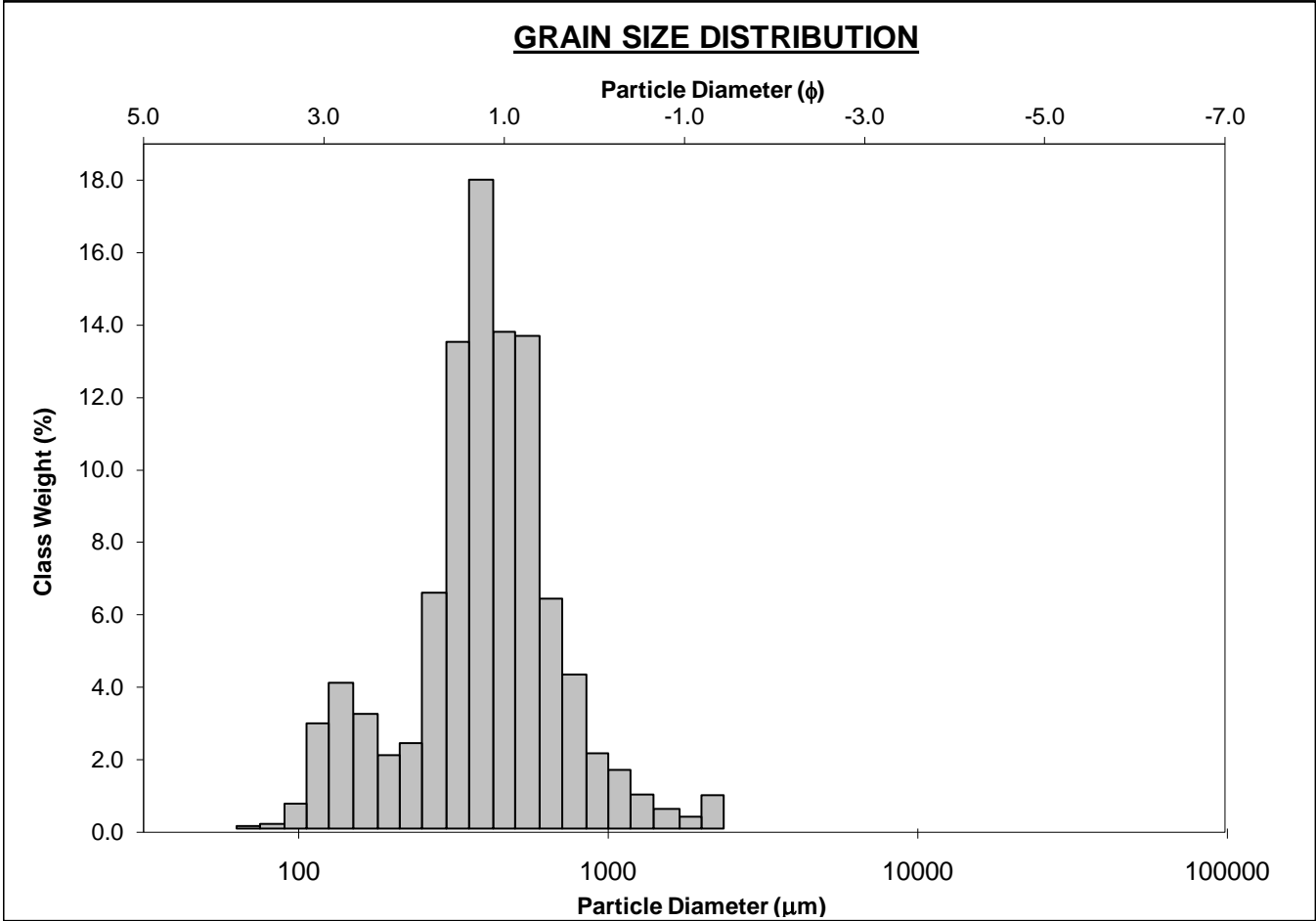
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-470cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Trimodal, Poorly Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 1.5%	COARSE SAND: 34.0%		
MODE 2:	390.0	1.364	SAND: 98.4%	MEDIUM SAND: 34.9%		
MODE 3:	137.5	2.868	MUD: 0.1%	FINE SAND: 18.2%		
D ₁₀ :	132.5	0.317		V FINE SAND: 7.3%		
MEDIAN or D ₅₀ :	429.1	1.221	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	803.0	2.916	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	6.060	9.212	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	670.5	2.599	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	2.470	2.679	V FINE GRAVEL: 1.5%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	347.4	1.305	V COARSE SAND: 4.0%	CLAY: 0.0%		
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	477.0	378.5	1.402	355.2	1.493	Medium Sand
SORTING (σ):	345.6	2.009	1.006	2.032	1.023	Poorly Sorted
SKEWNESS (Sk):	2.341	-0.353	0.353	-0.283	0.283	Fine Skewed
KURTOSIS (K):	11.21	3.552	3.552	0.995	0.995	Mesokurtic



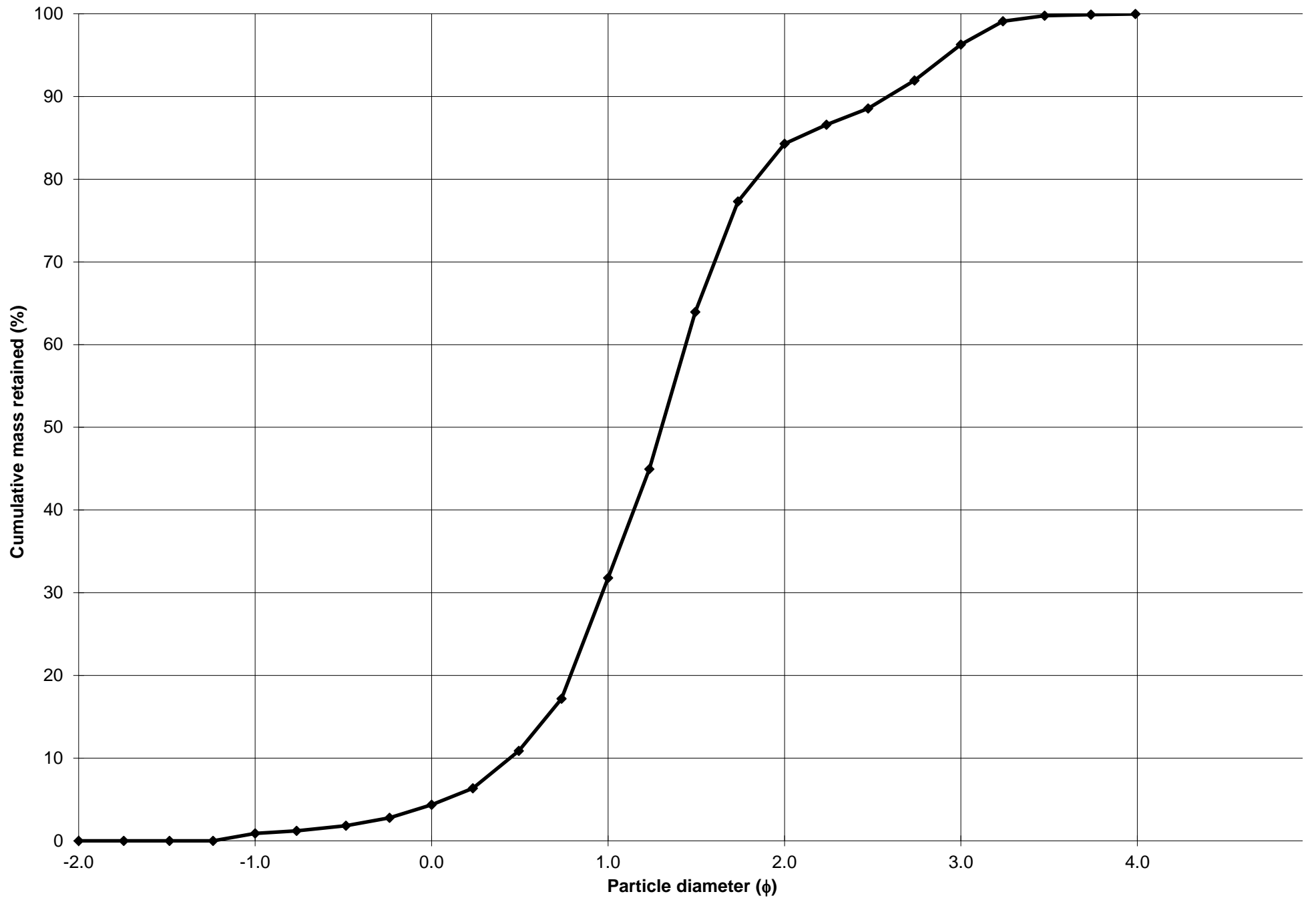
Cumulative Frequency Curve



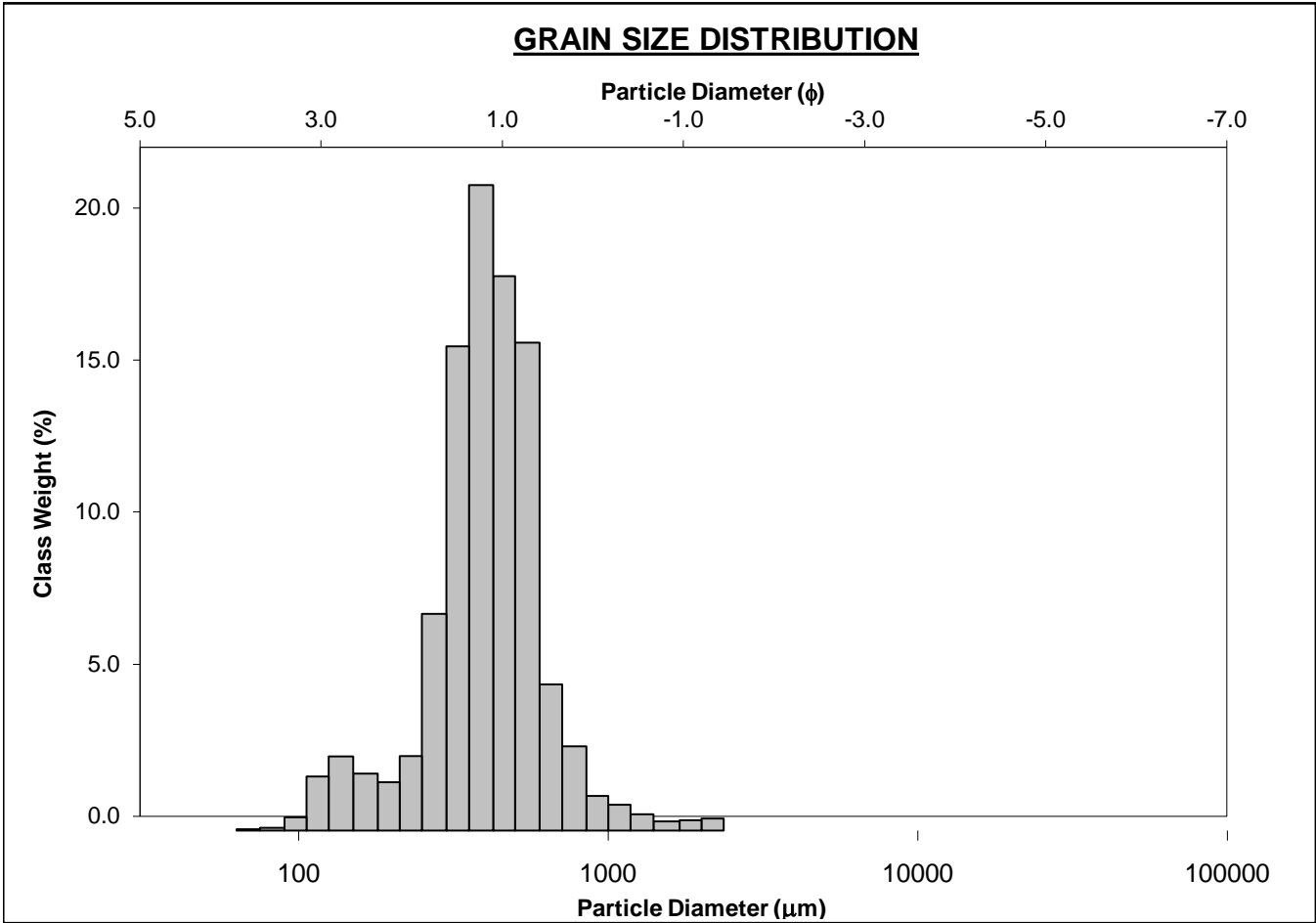
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-479cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.9%		COARSE SAND: 27.4%	
MODE 2:	137.5	2.868	SAND: 99.1%		MEDIUM SAND: 52.5%	
MODE 3:			MUD: 0.0%		FINE SAND: 12.0%	
D ₁₀ :	166.5	0.444			V FINE SAND: 3.7%	
MEDIAN or D ₅₀ :	405.1	1.304	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	735.1	2.586	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	4.415	5.825	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	568.6	2.142	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.762	1.931	V FINE GRAVEL: 0.9%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	235.4	0.817	V COARSE SAND: 3.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	462.5	394.3	1.342	398.3	1.328	Medium Sand
SORTING (σ):	292.6	1.753	0.809	1.688	0.756	Moderately Sorted
SKEWNESS (Sk):	2.778	-0.222	0.222	-0.097	0.097	Symmetrical
KURTOSIS (K):	14.80	4.246	4.246	1.428	1.428	Leptokurtic



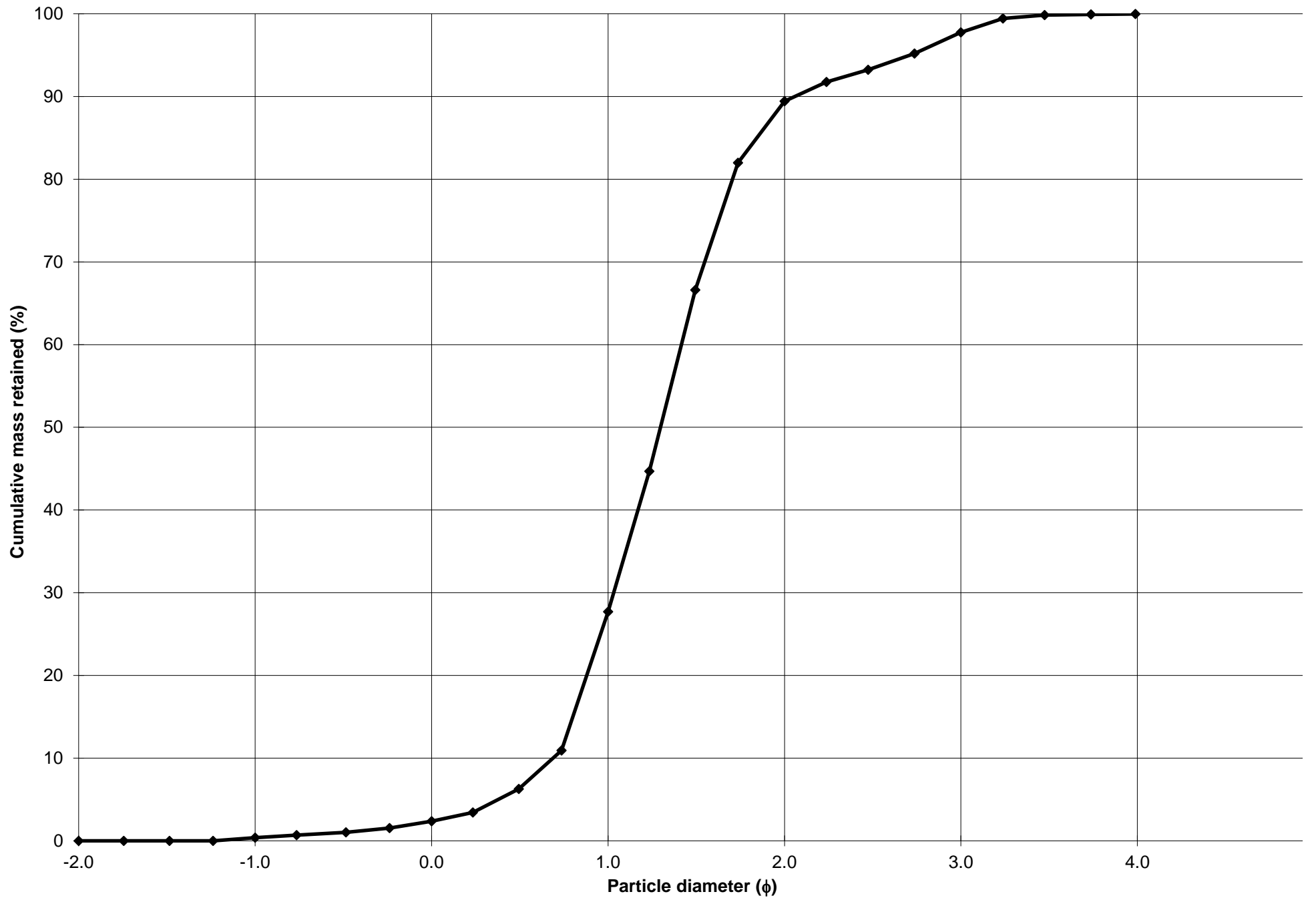
Cumulative Frequency Curve



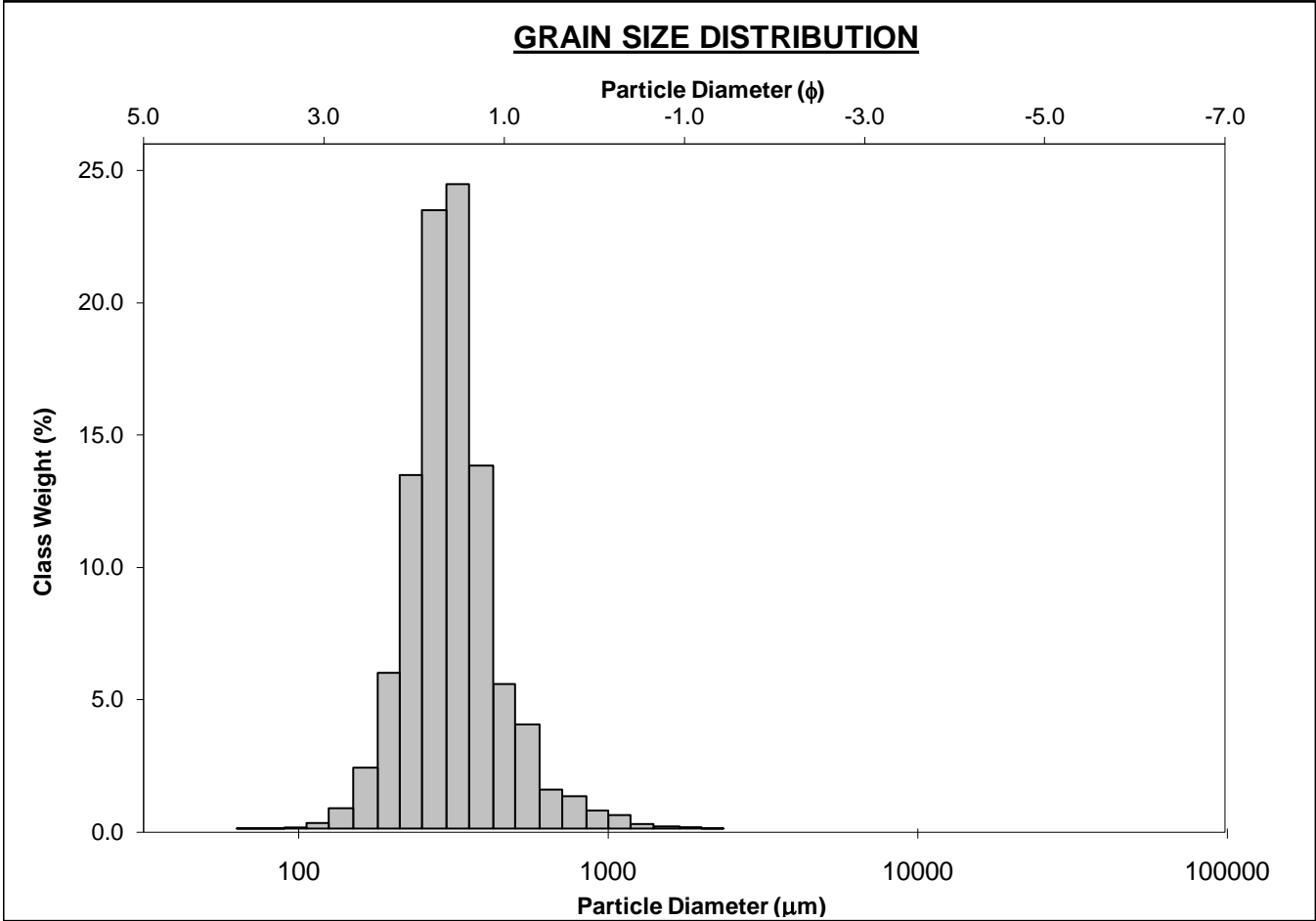
SIEVING ERROR: 0.3%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-490cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.4%		COARSE SAND: 25.3%	
MODE 2:			SAND: 99.6%		MEDIUM SAND: 61.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 8.3%	
D ₁₀ :	240.1	0.689			V FINE SAND: 2.2%	
MEDIAN or D ₅₀ :	406.9	1.297	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	620.4	2.059	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.584	2.989	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	380.3	1.370	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.590	1.699	V FINE GRAVEL: 0.4%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	191.1	0.669	V COARSE SAND: 2.0%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	442.0	397.3	1.332	404.0	1.307	Medium Sand
SORTING (σ):	227.6	1.580	0.660	1.517	0.601	Moderately Well Sorted
SKEWNESS (Sk):	3.266	-0.433	0.433	-0.121	0.121	Fine Skewed
KURTOSIS (K):	21.56	6.226	6.226	1.429	1.429	Leptokurtic



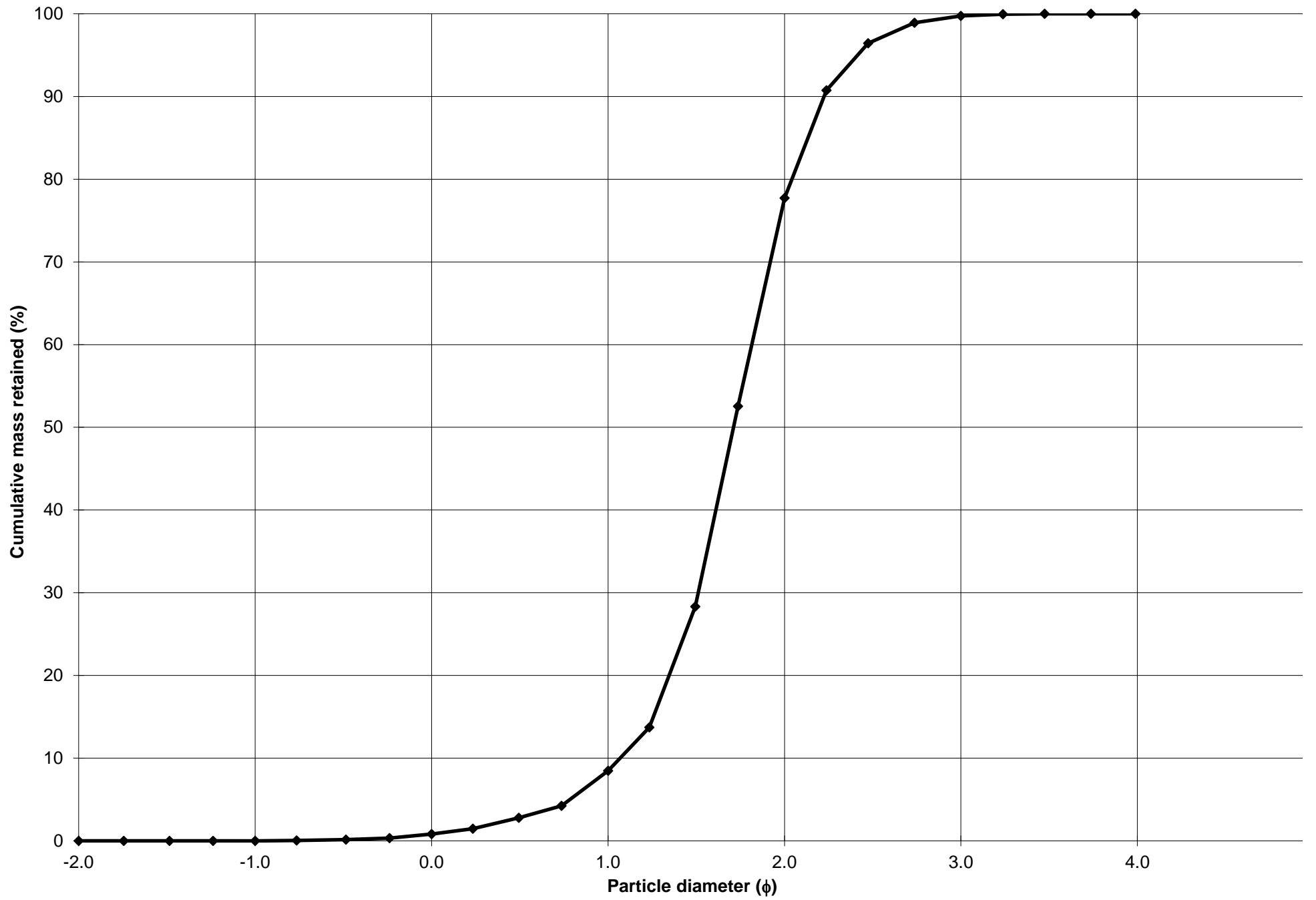
Cumulative Frequency Curve



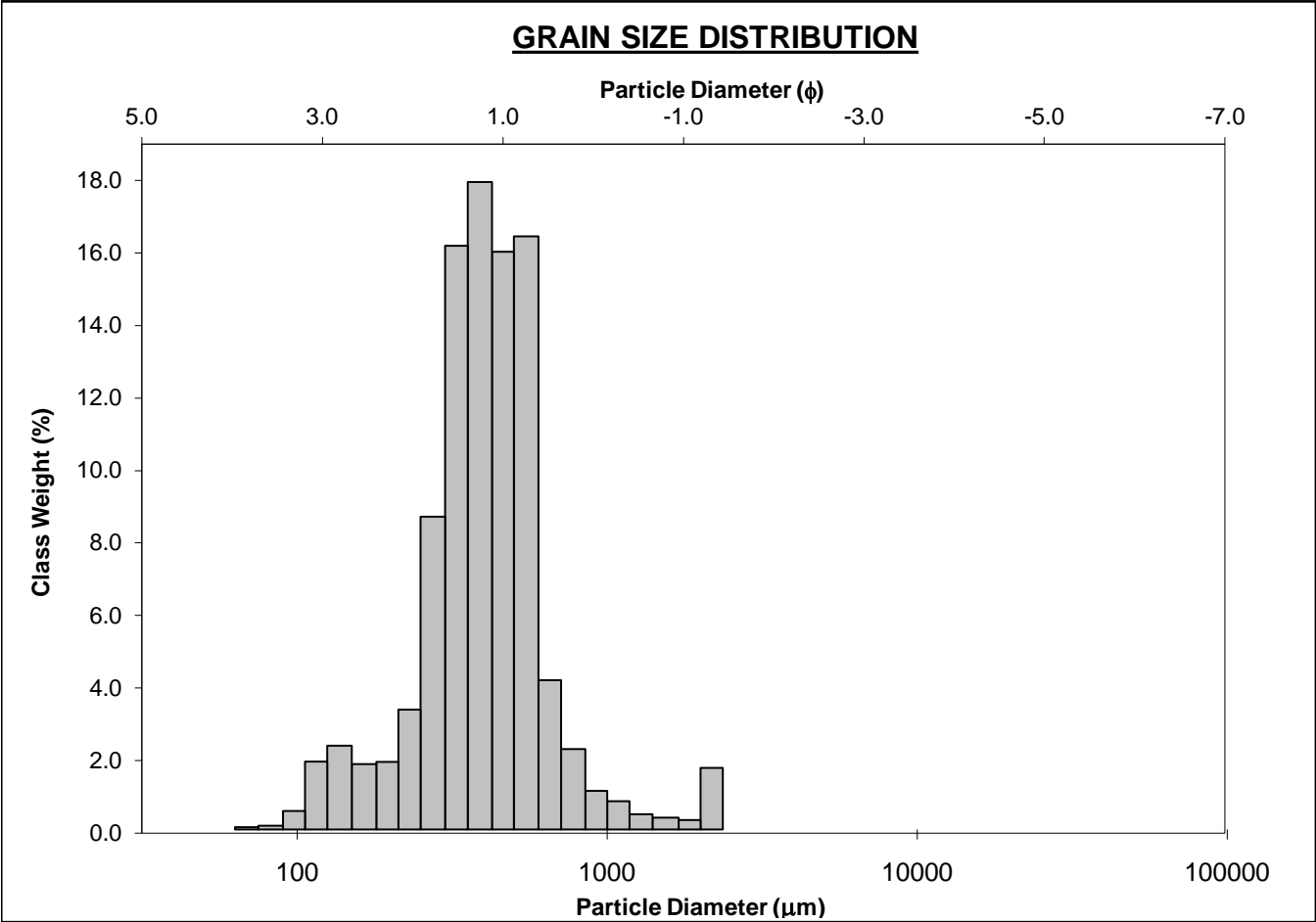
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-500cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%		COARSE SAND: 7.7%	
MODE 2:			SAND: 100.0%		MEDIUM SAND: 69.2%	
MODE 3:			MUD: 0.0%		FINE SAND: 22.0%	
D ₁₀ :	214.0	1.068			V FINE SAND: 0.3%	
MEDIAN or D ₅₀ :	305.4	1.711	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	477.0	2.224	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.229	2.083	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	263.0	1.156	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.450	1.374	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	114.8	0.536	V COARSE SAND: 0.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	335.8	313.2	1.675	307.7	1.700	Medium Sand
SORTING (σ):	145.9	1.410	0.496	1.373	0.457	Well Sorted
SKEWNESS (Sk):	3.293	0.798	-0.798	0.089	-0.089	Symmetrical
KURTOSIS (K):	21.65	5.264	5.264	1.245	1.245	Leptokurtic



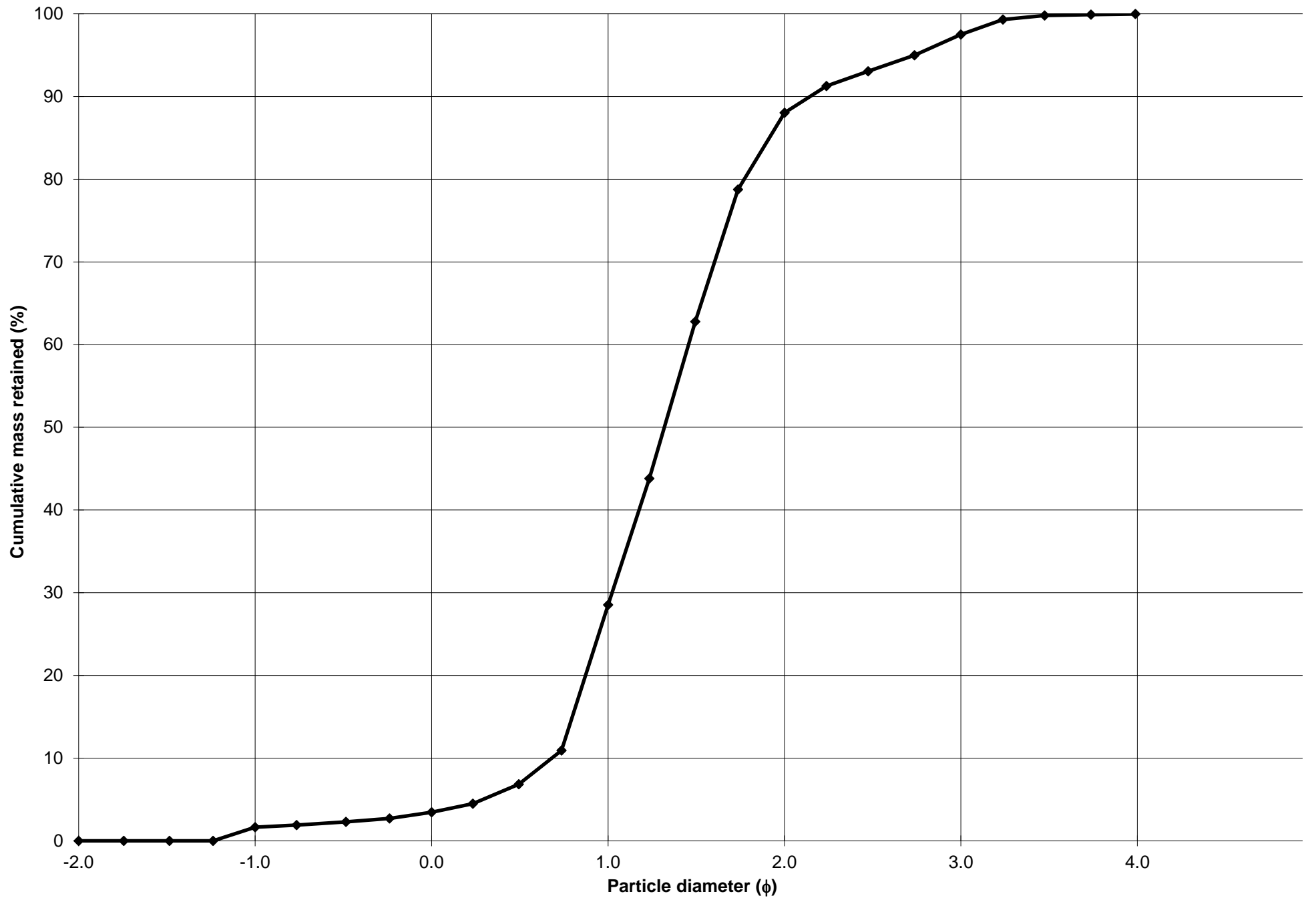
Cumulative Frequency Curve



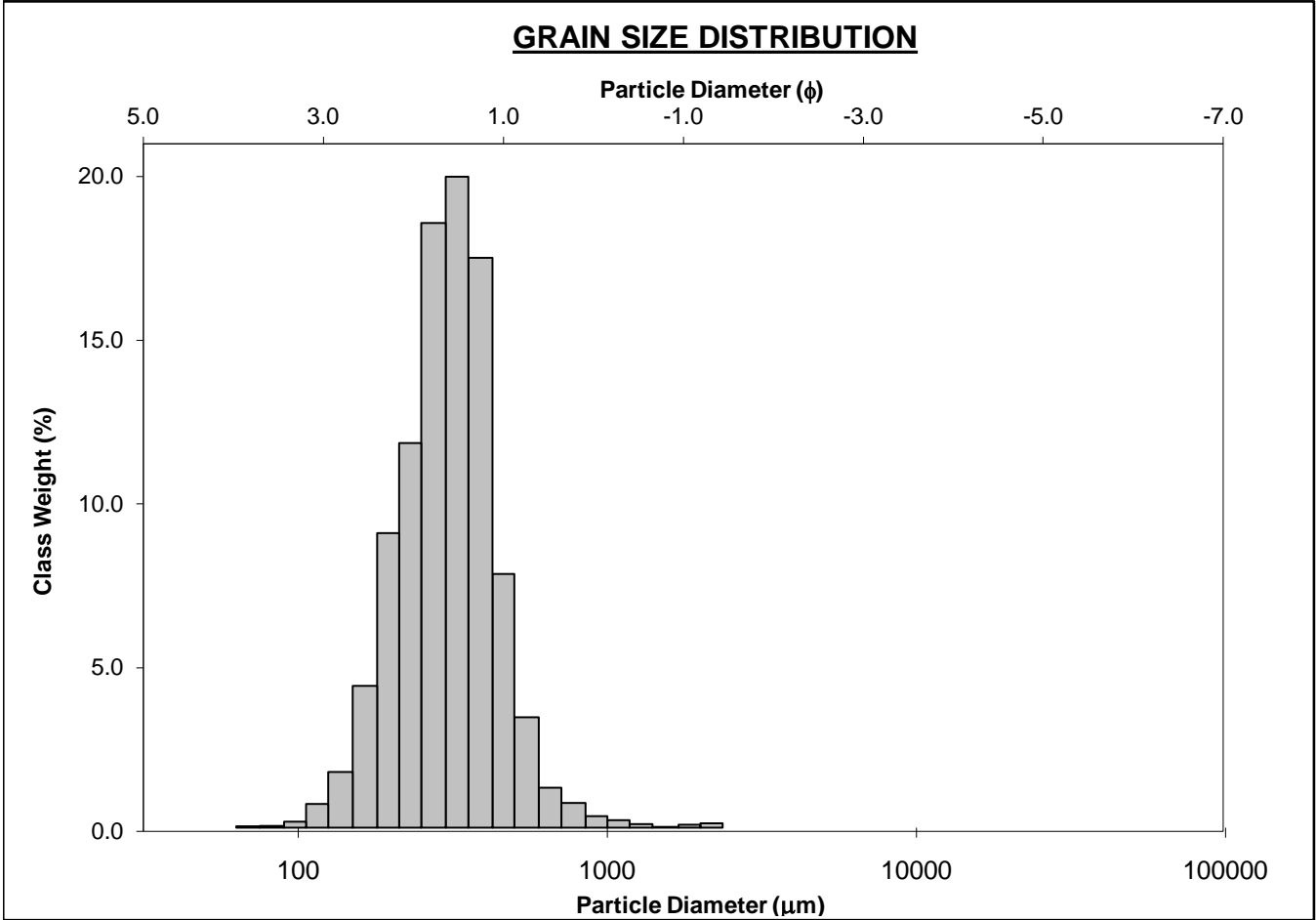
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-510cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 1.7%		COARSE SAND: 25.1%	
MODE 2:	550.0	0.868	SAND: 98.3%		MEDIUM SAND: 59.5%	
MODE 3:			MUD: 0.0%		FINE SAND: 9.4%	
D ₁₀ :	226.1	0.682			V FINE SAND: 2.5%	
MEDIAN or D ₅₀ :	400.7	1.319	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	623.5	2.145	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.758	3.147	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	397.4	1.463	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.662	1.773	V FINE GRAVEL: 1.7%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	206.5	0.733	V COARSE SAND: 1.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	454.5	395.7	1.338	395.3	1.339	Medium Sand
SORTING (σ):	298.5	1.651	0.724	1.557	0.639	Moderately Well Sorted
SKEWNESS (Sk):	3.753	0.057	-0.057	-0.108	0.108	Fine Skewed
KURTOSIS (K):	21.05	6.198	6.198	1.369	1.369	Leptokurtic



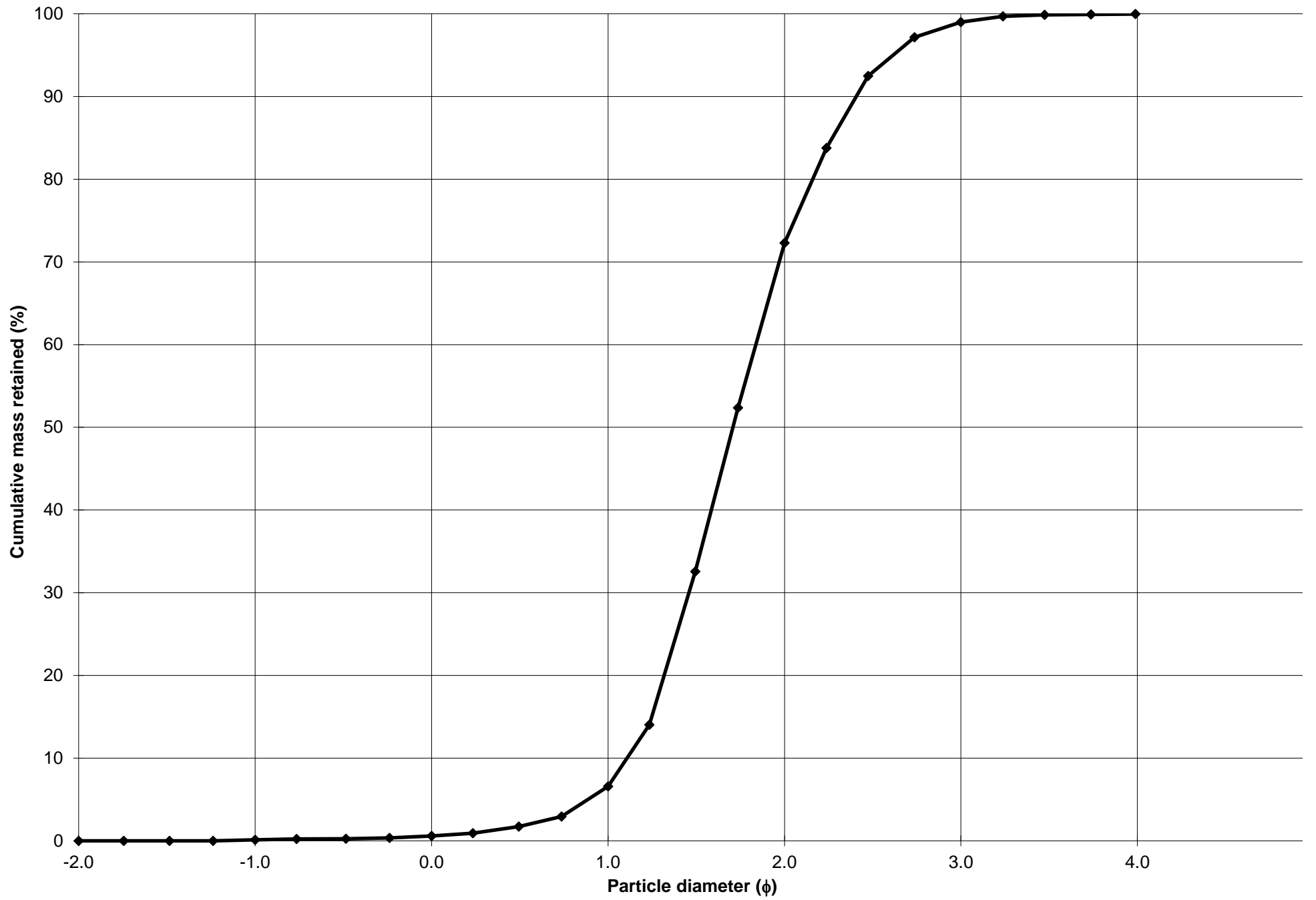
Cumulative Frequency Curve



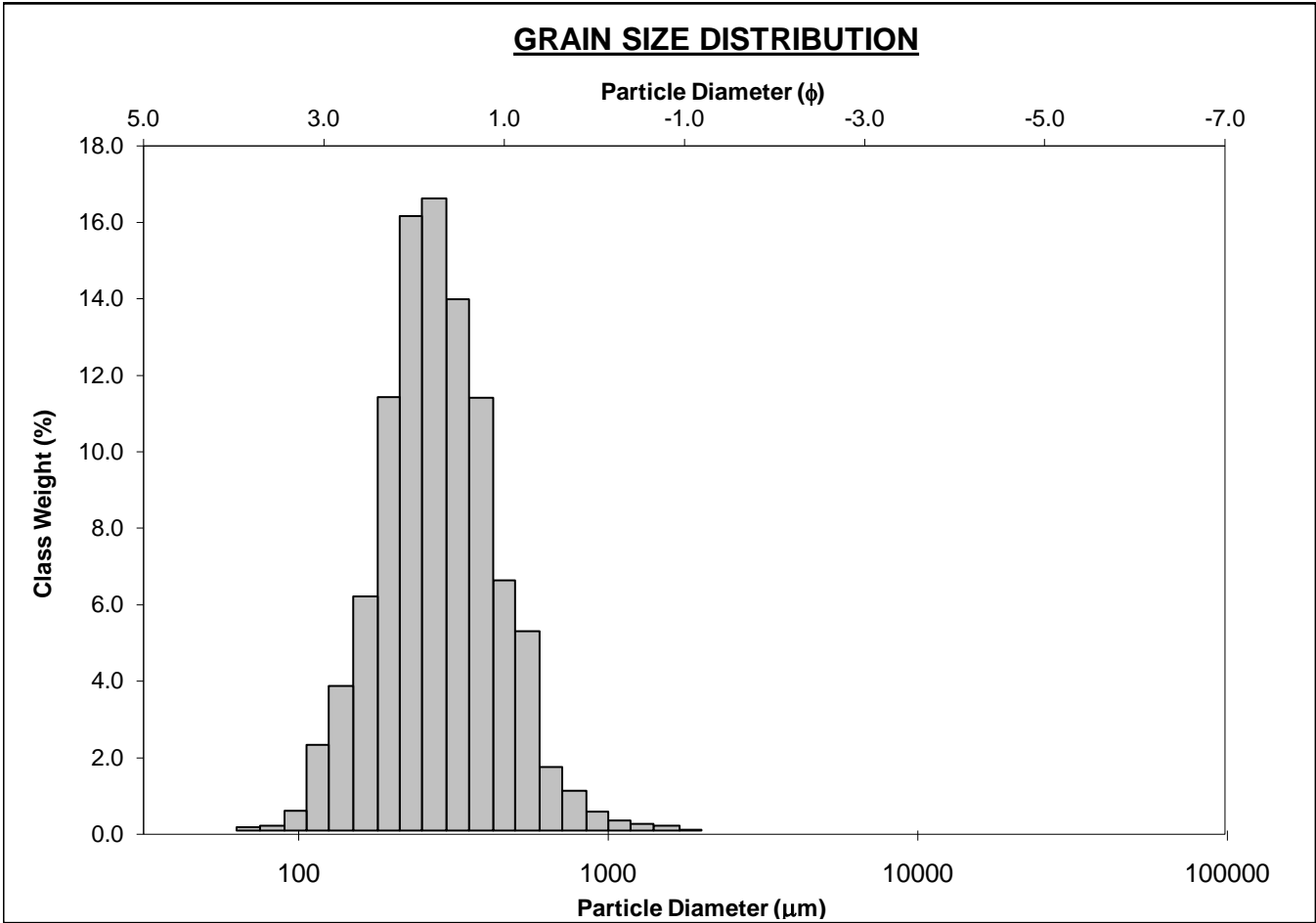
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-522cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.1%		COARSE SAND: 6.0%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 65.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 26.7%	
D ₁₀ :	188.6	1.108			V FINE SAND: 1.0%	
MEDIAN or D ₅₀ :	306.1	1.708	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	464.0	2.407	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.461	2.173	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	275.5	1.299	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.589	1.481	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	141.6	0.668	V COARSE SAND: 0.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	327.4	302.6	1.724	299.8	1.738	Medium Sand
SORTING (σ):	151.0	1.460	0.546	1.422	0.508	Moderately Well Sorted
SKEWNESS (Sk):	4.535	-0.004	0.004	-0.071	0.071	Symmetrical
KURTOSIS (K):	45.26	7.555	7.555	1.062	1.062	Mesokurtic



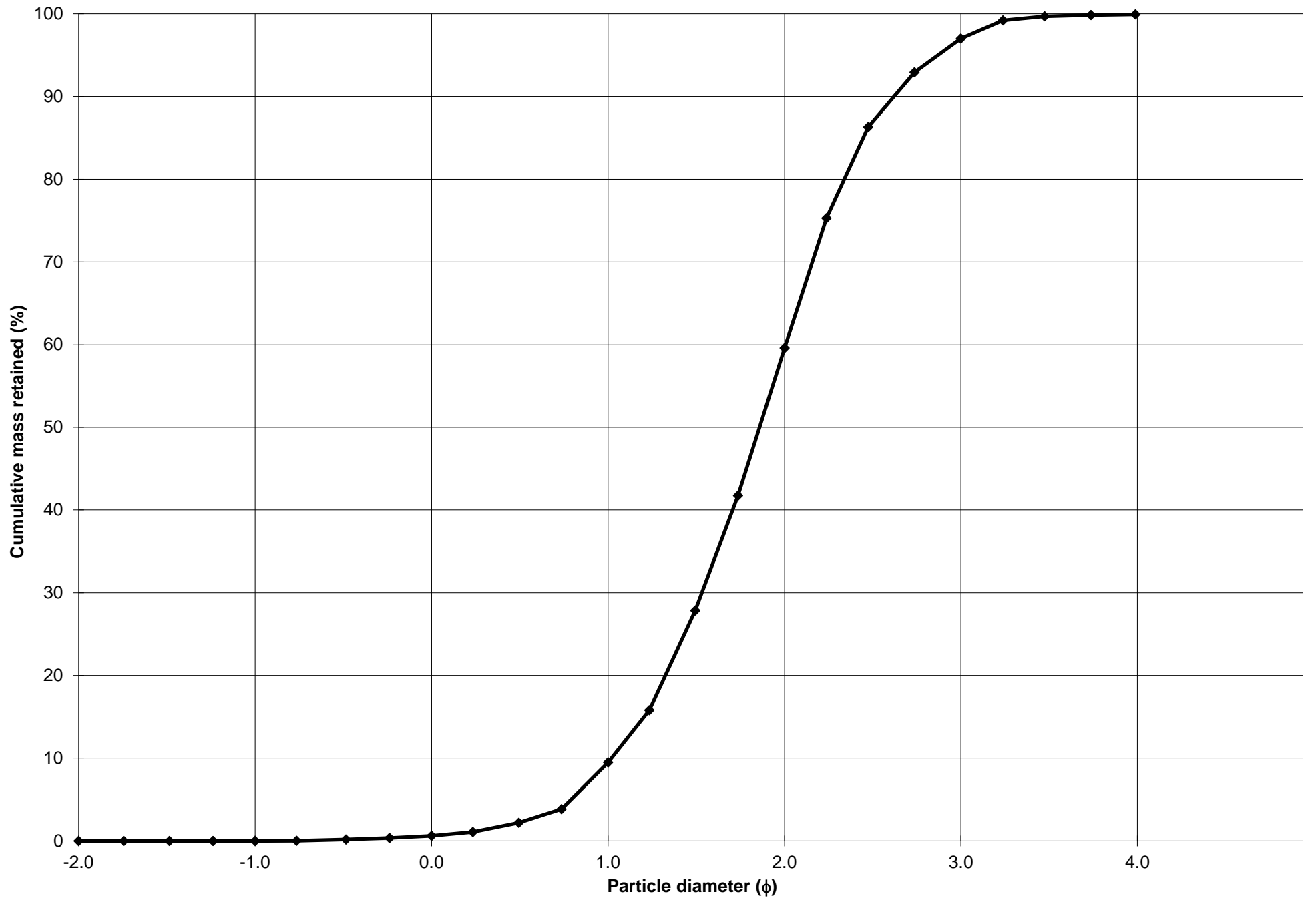
Cumulative Frequency Curve



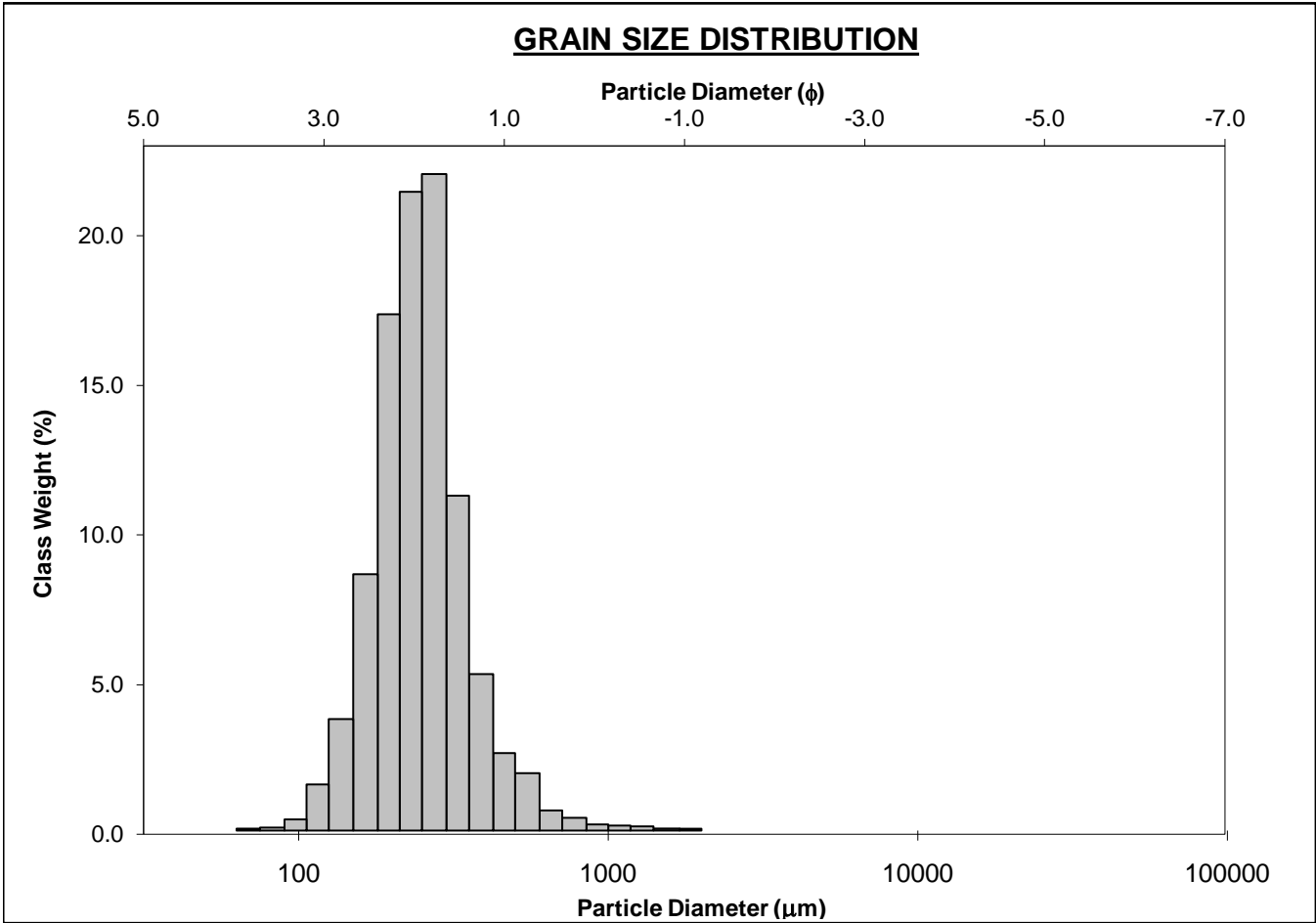
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-532cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Moderately Well Sorted Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 8.9%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 50.1%	
MODE 3:			MUD: 0.1%		FINE SAND: 37.4%	
D ₁₀ :	162.5	1.019			V FINE SAND: 2.9%	
MEDIAN or D ₅₀ :	275.7	1.859	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	493.4	2.621	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	3.035	2.572	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	330.8	1.602	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.742	1.559	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	157.8	0.801	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	311.1	280.3	1.835	279.2	1.841	Medium Sand
SORTING (σ):	155.7	1.560	0.642	1.528	0.612	Moderately Well Sorted
SKEWNESS (Sk):	2.505	-0.136	0.136	0.036	-0.036	Symmetrical
KURTOSIS (K):	15.30	6.366	6.366	1.065	1.065	Mesokurtic



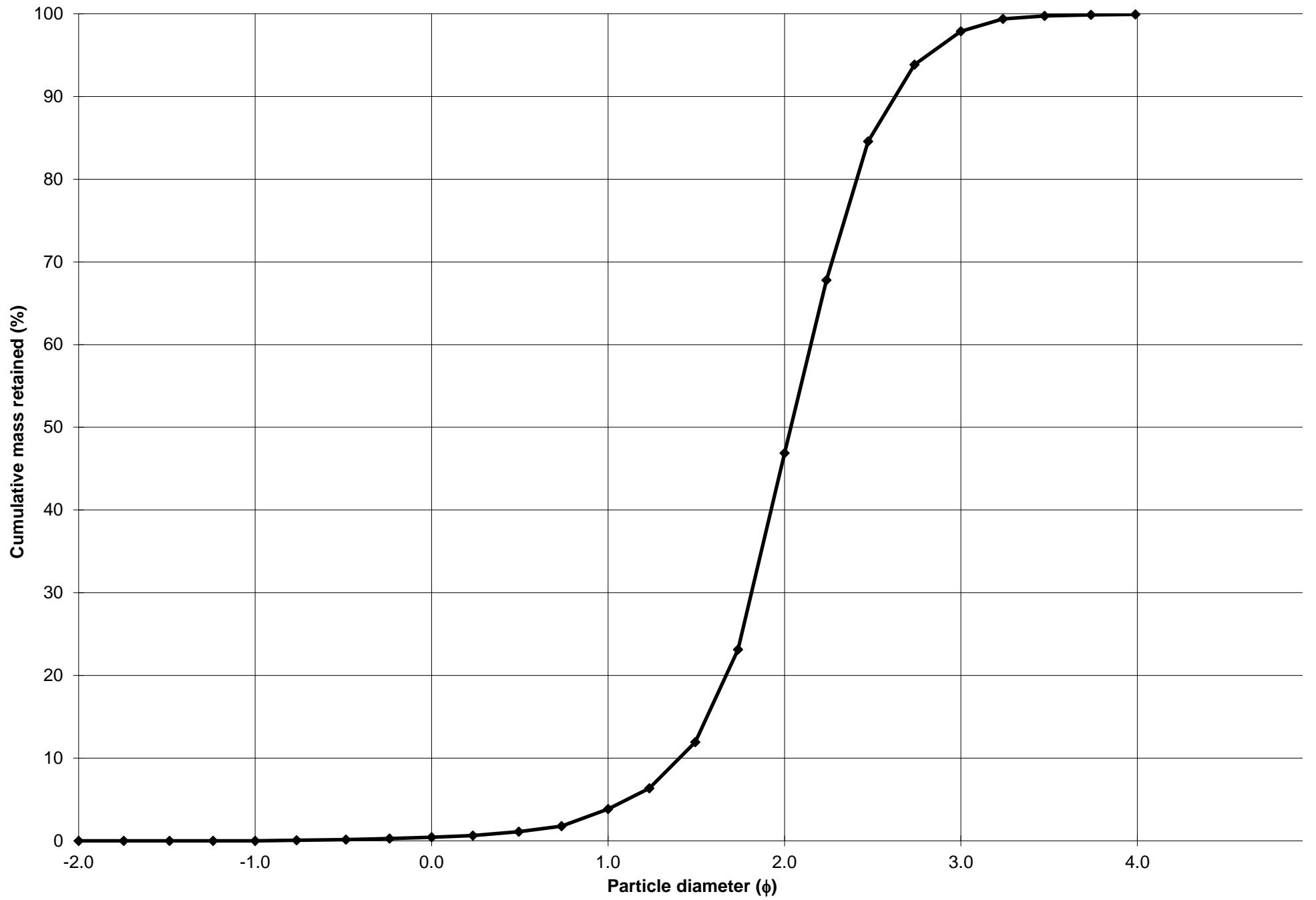
Cumulative Frequency Curve



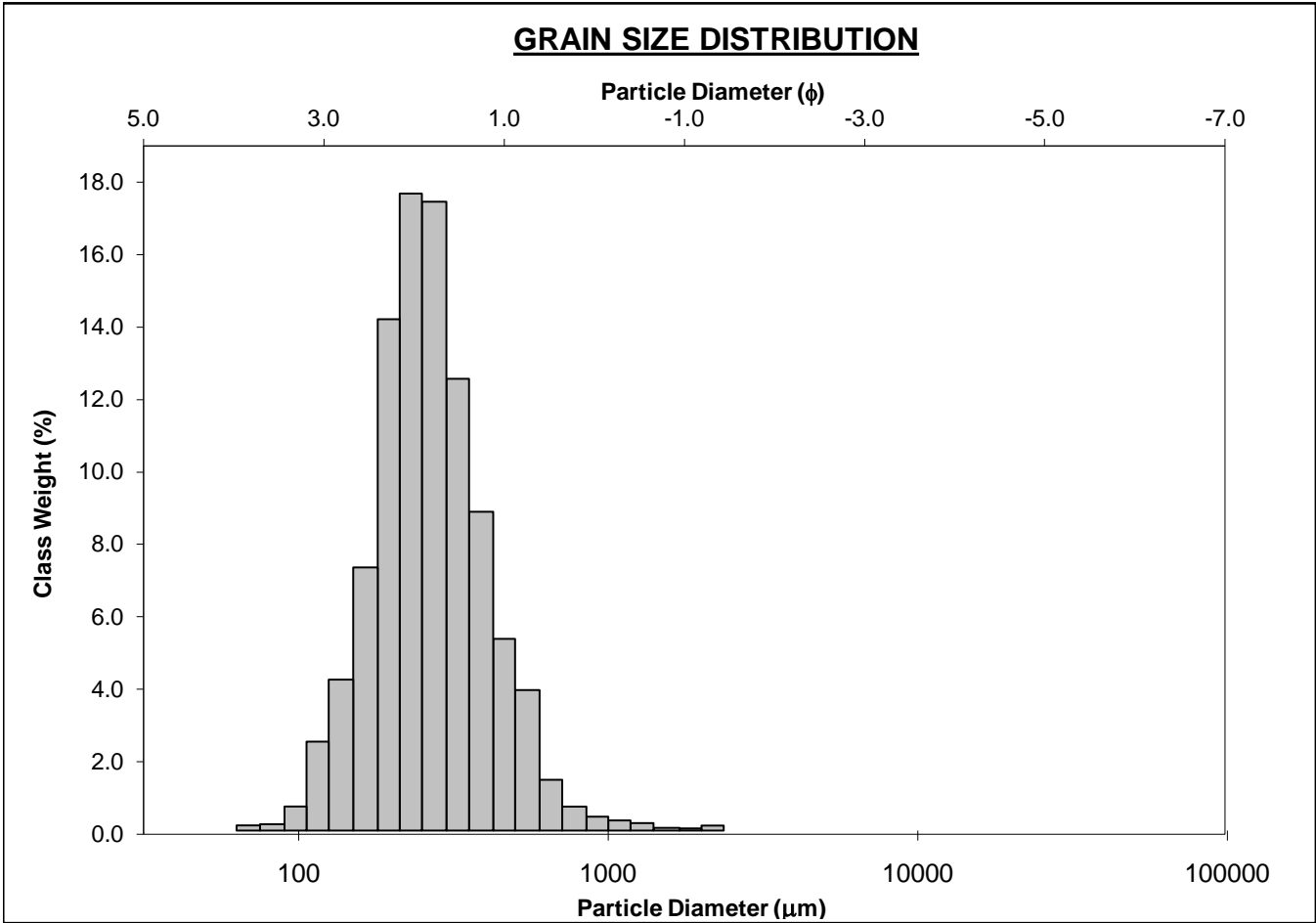
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-545cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Well Sorted Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 3.4%	
MODE 2:			SAND: 99.9%		MEDIUM SAND: 43.0%	
MODE 3:			MUD: 0.1%		FINE SAND: 51.0%	
D ₁₀ :	161.8	1.404			V FINE SAND: 2.0%	
MEDIAN or D ₅₀ :	243.9	2.035	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	377.9	2.628	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.336	1.872	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	216.1	1.224	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.496	1.331	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	98.11	0.582	V COARSE SAND: 0.4%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	266.8	247.0	2.018	245.2	2.028	Fine Sand
SORTING (σ):	125.1	1.447	0.533	1.394	0.479	Well Sorted
SKEWNESS (Sk):	4.331	0.100	-0.100	0.057	-0.057	Symmetrical
KURTOSIS (K):	37.77	10.31	10.31	1.201	1.201	Leptokurtic



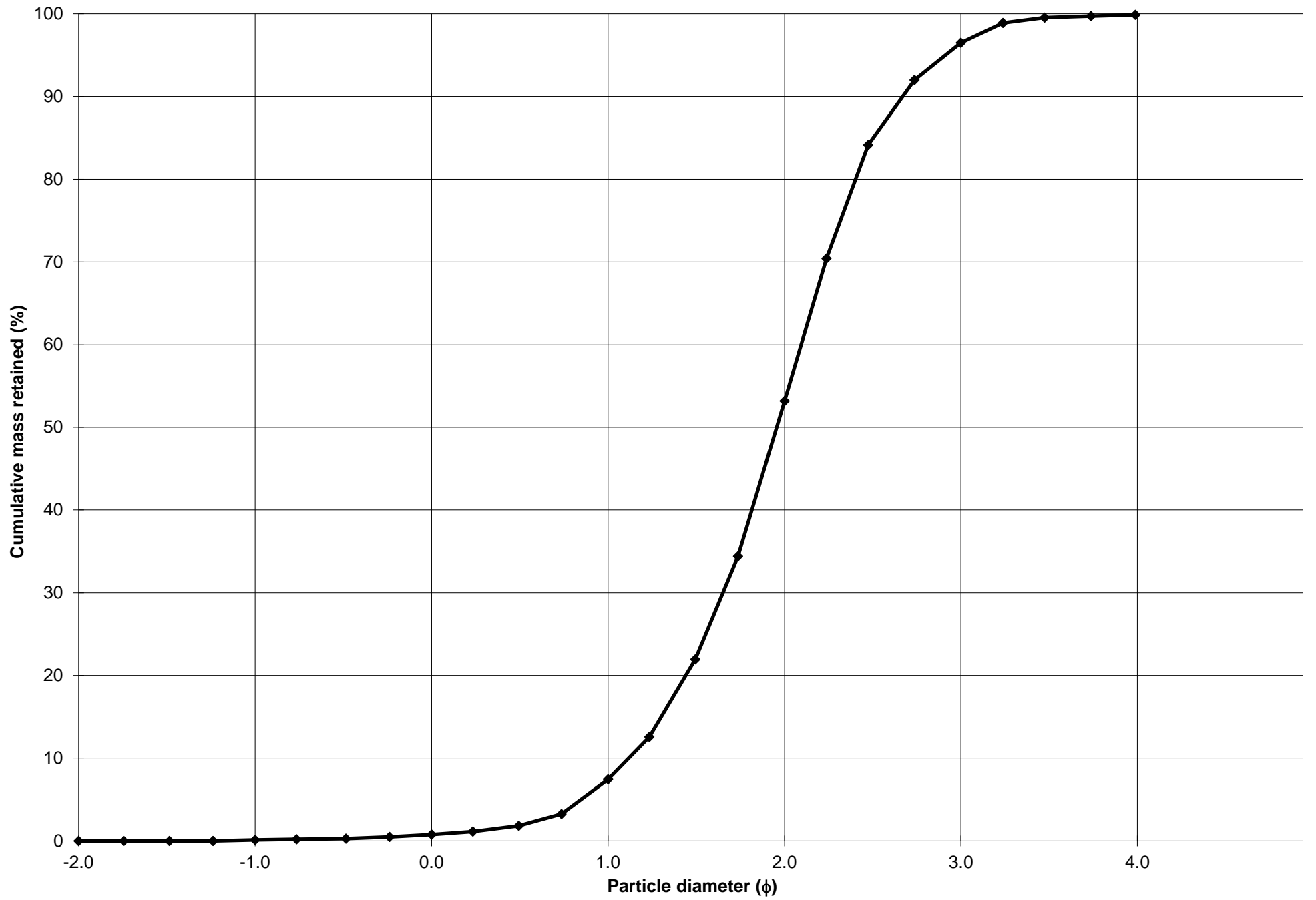
Cumulative Frequency Curve



SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-555cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.1%		COARSE SAND: 6.7%	
MODE 2:			SAND: 99.7%		MEDIUM SAND: 45.8%	
MODE 3:			MUD: 0.1%		FINE SAND: 43.3%	
D ₁₀ :	157.0	1.118			V FINE SAND: 3.4%	
MEDIAN or D ₅₀ :	257.9	1.955	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	460.9	2.671	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.935	2.390	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	303.8	1.553	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.697	1.491	V FINE GRAVEL: 0.1%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	140.0	0.763	V COARSE SAND: 0.6%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	294.5	263.9	1.922	264.4	1.919	Medium Sand
SORTING (σ):	165.3	1.567	0.648	1.514	0.599	Moderately Well Sorted
SKEWNESS (Sk):	4.224	-0.122	0.122	0.084	-0.084	Symmetrical
KURTOSIS (K):	36.68	8.559	8.559	1.109	1.109	Mesokurtic



Cumulative Frequency Curve



SIEVING ERROR: 0.6%

SAMPLE STATISTICSSAMPLE IDENTITY: **SI-14-PA2-564cm**

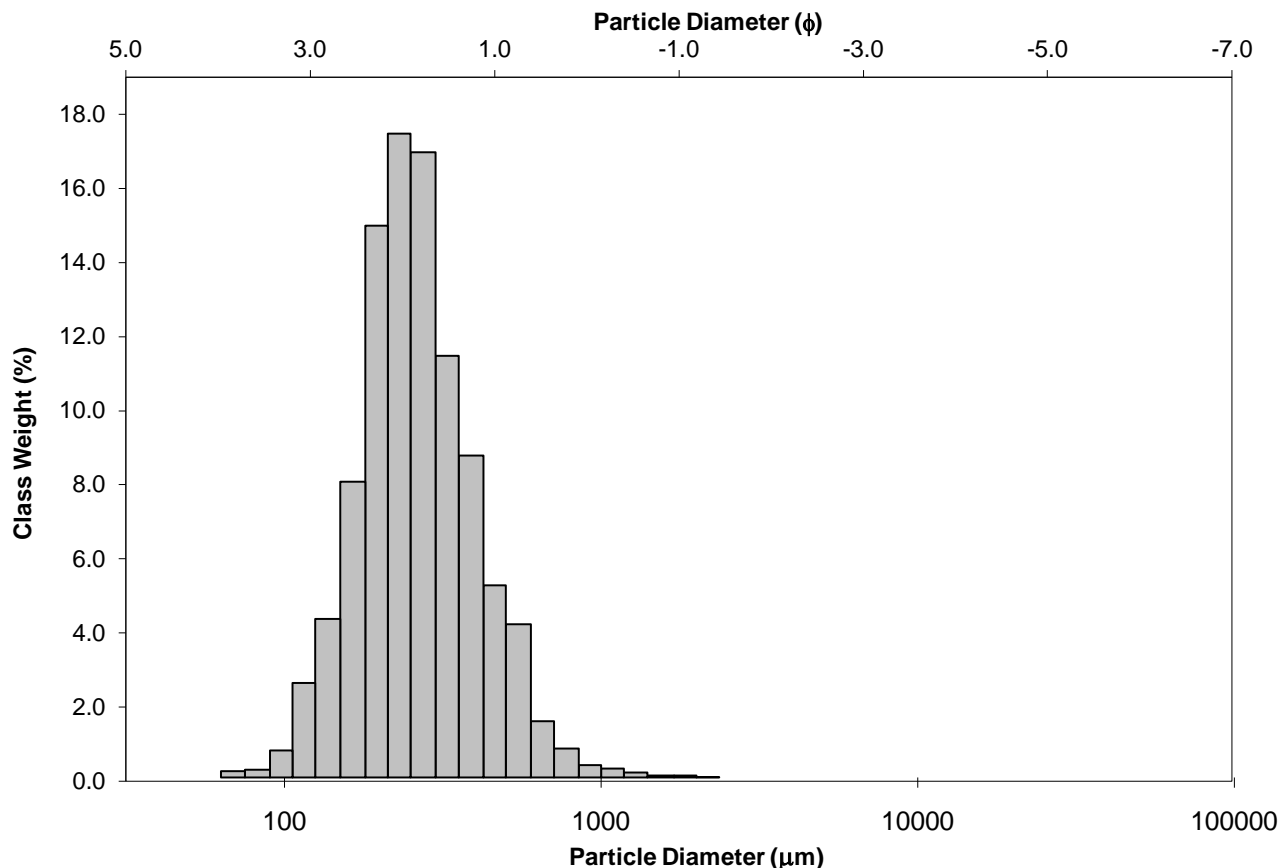
ANALYST & DATE: Chris, 11/3/15

SAMPLE TYPE: Unimodal, Moderately Well Sorted

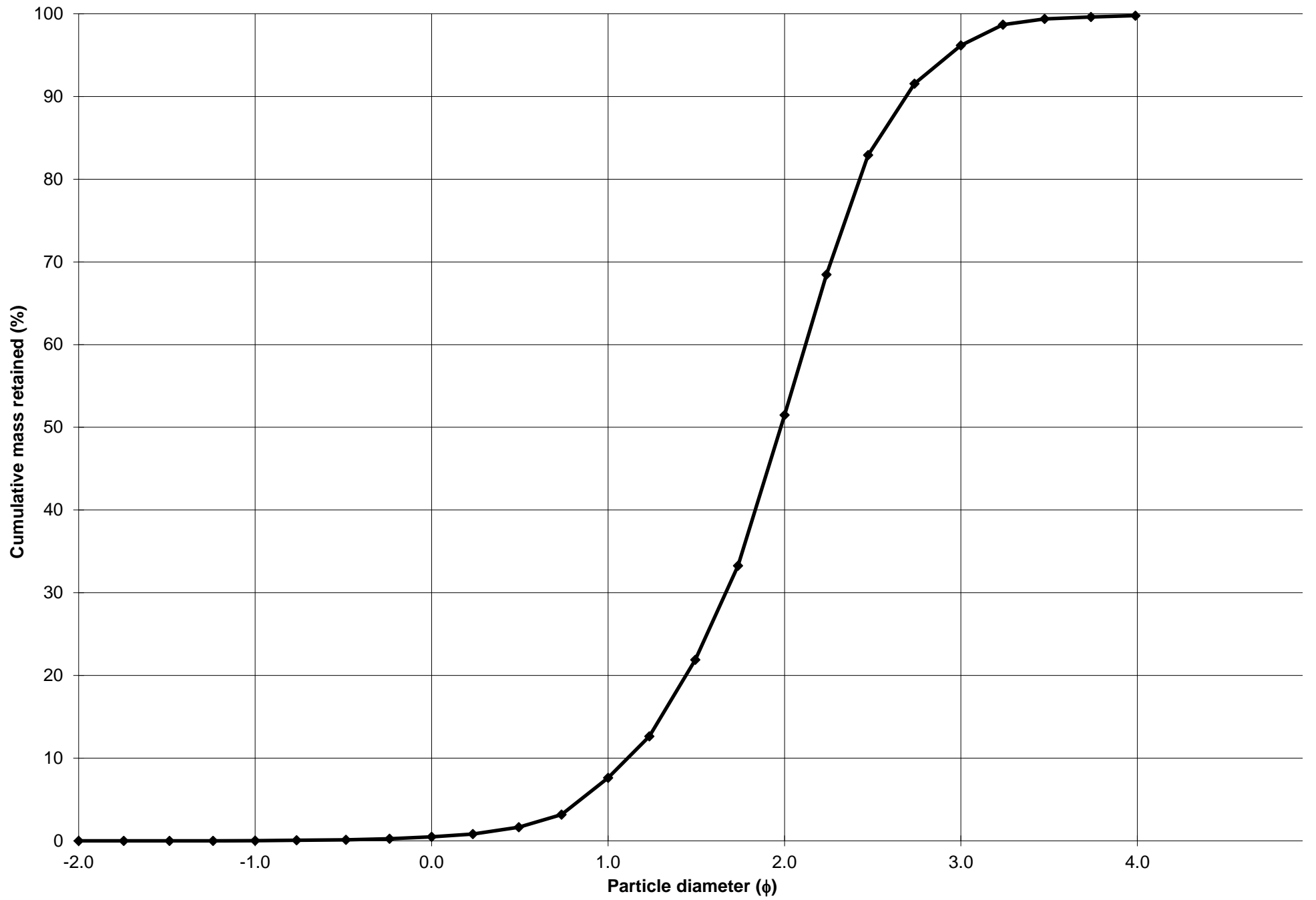
TEXTURAL GROUP: Slightly Gravelly Sand

SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand

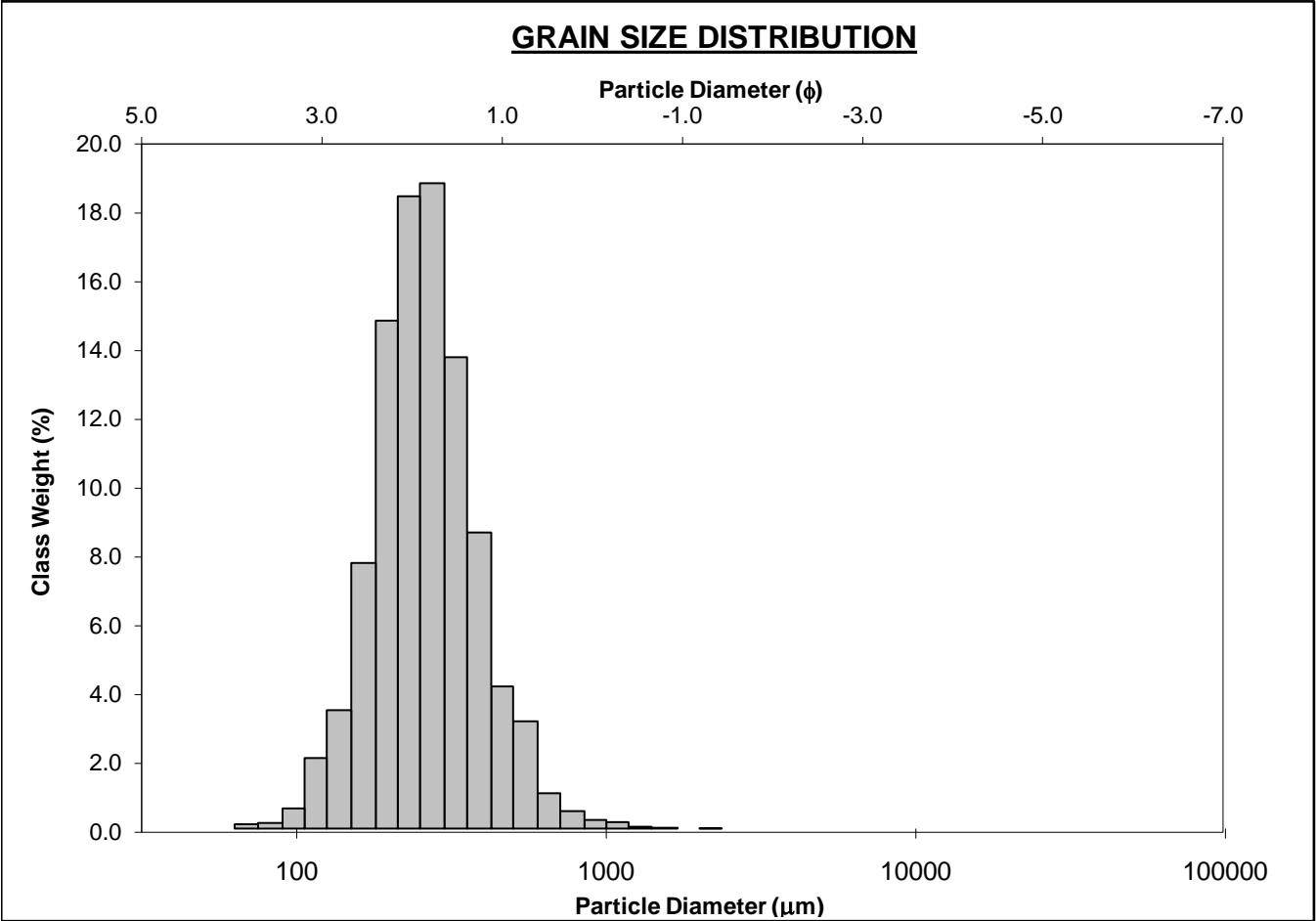
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	231.0	2.119	GRAVEL: 0.0%	COARSE SAND: 7.1%		
MODE 2:			SAND: 99.8%	MEDIUM SAND: 43.9%		
MODE 3:			MUD: 0.2%	FINE SAND: 44.7%		
D_{10} :	155.0	1.111		V FINE SAND: 3.6%		
MEDIAN or D_{50} :	253.8	1.978	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	462.9	2.690	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.986	2.420	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	307.9	1.578	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.722	1.502	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	142.1	0.784	V COARSE SAND: 0.5%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	289.1	259.5	1.946	261.0	1.938	Medium Sand
SORTING (σ):	148.3	1.583	0.663	1.527	0.611	Moderately Well Sorted
SKEWNESS (Sk):	2.865	-0.624	0.624	0.094	-0.094	Symmetrical
KURTOSIS (K):	20.19	10.28	10.28	1.091	1.091	Mesokurtic

GRAIN SIZE DISTRIBUTION

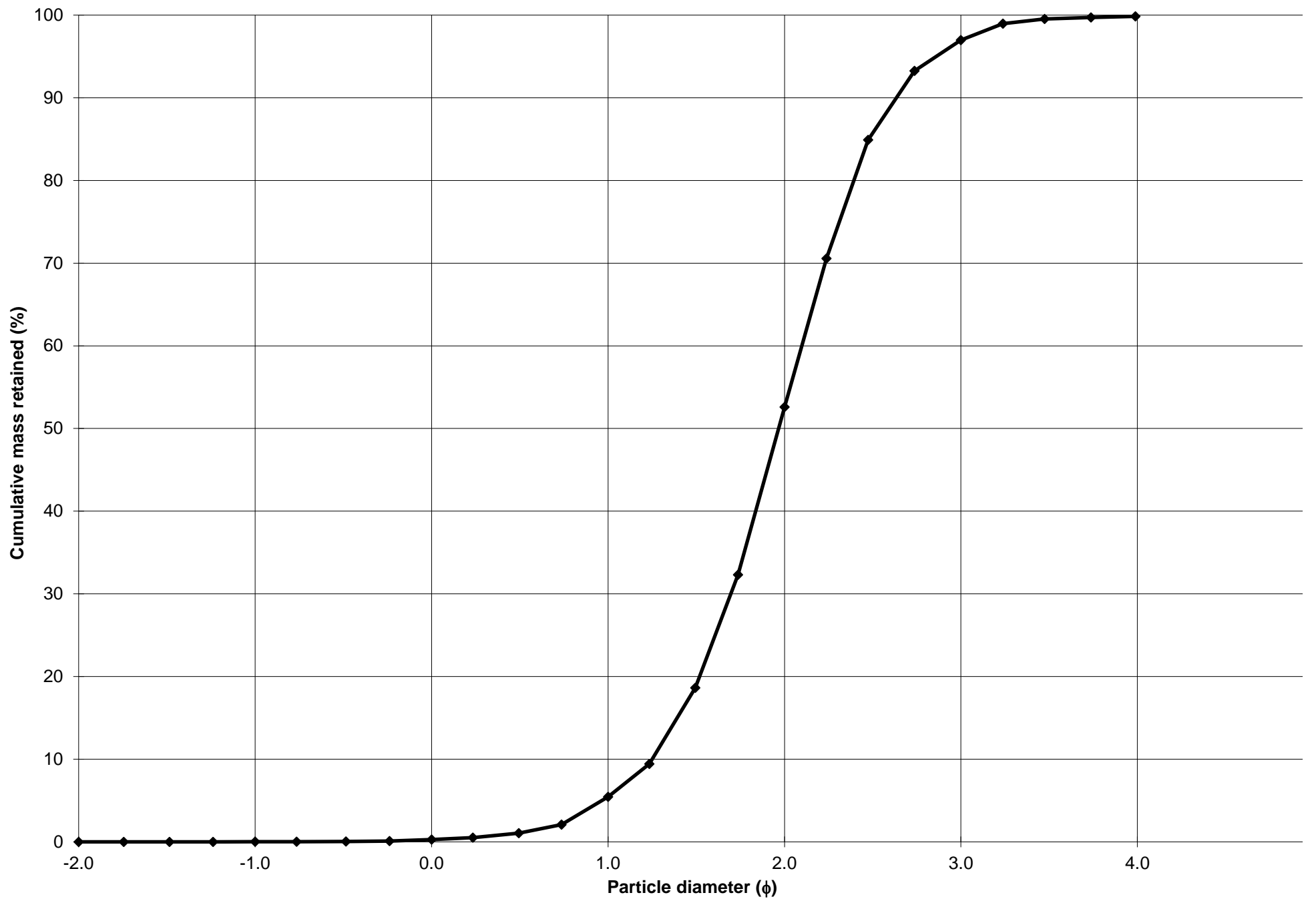
Cumulative Frequency Curve



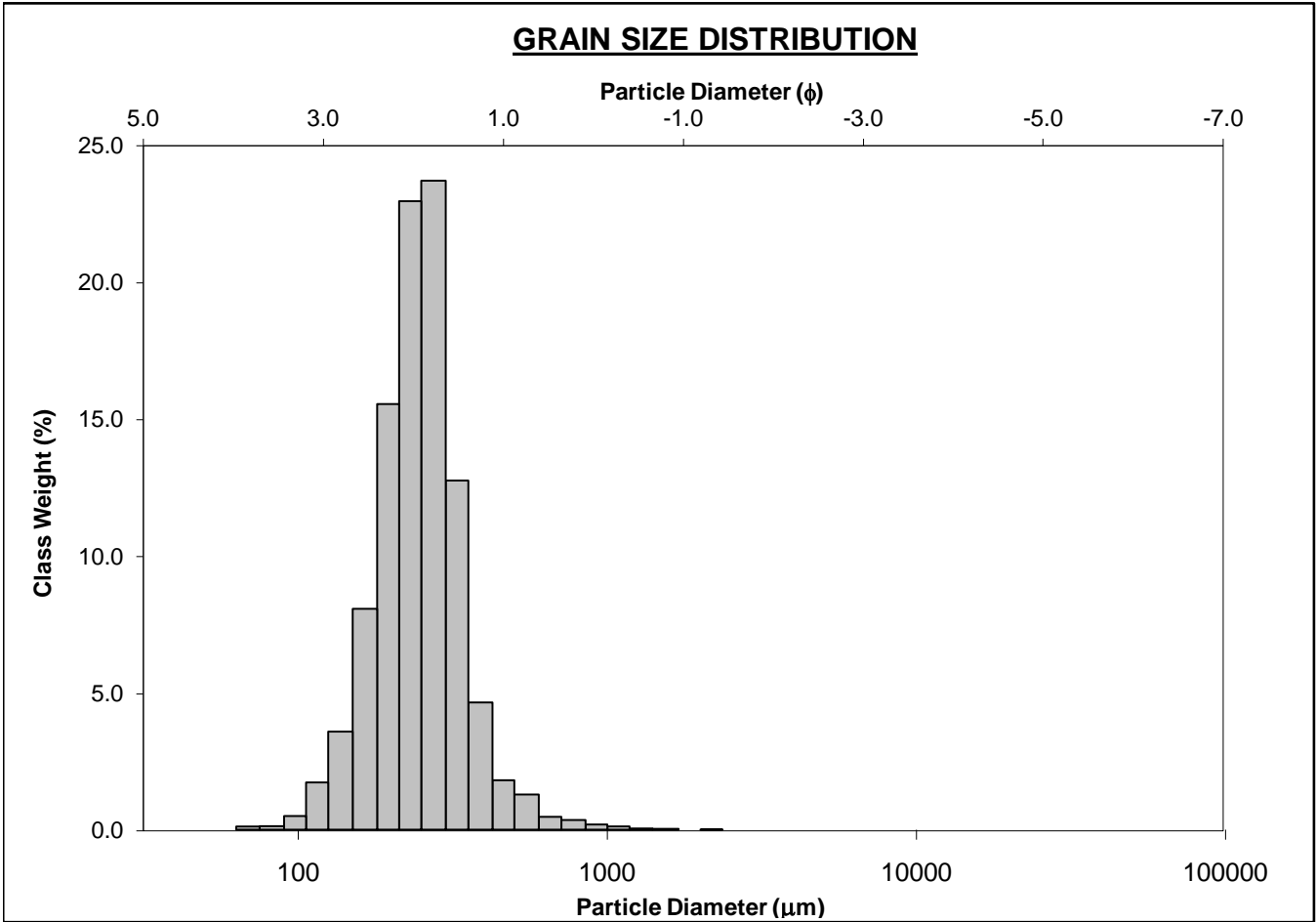
SIEVING ERROR: 0.7%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-574cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 5.2%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 47.1%	
MODE 3:			MUD: 0.1%		FINE SAND: 44.4%	
D ₁₀ :	161.0	1.250			V FINE SAND: 2.9%	
MEDIAN or D ₅₀ :	255.9	1.966	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	420.3	2.635	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.610	2.107	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	259.3	1.384	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.629	1.438	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	126.7	0.704	V COARSE SAND: 0.3%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	281.5	258.2	1.953	259.1	1.948	Medium Sand
SORTING (σ):	125.4	1.508	0.592	1.461	0.547	Moderately Well Sorted
SKEWNESS (Sk):	2.502	-0.656	0.656	0.054	-0.054	Symmetrical
KURTOSIS (K):	17.34	10.92	10.92	1.105	1.105	Mesokurtic



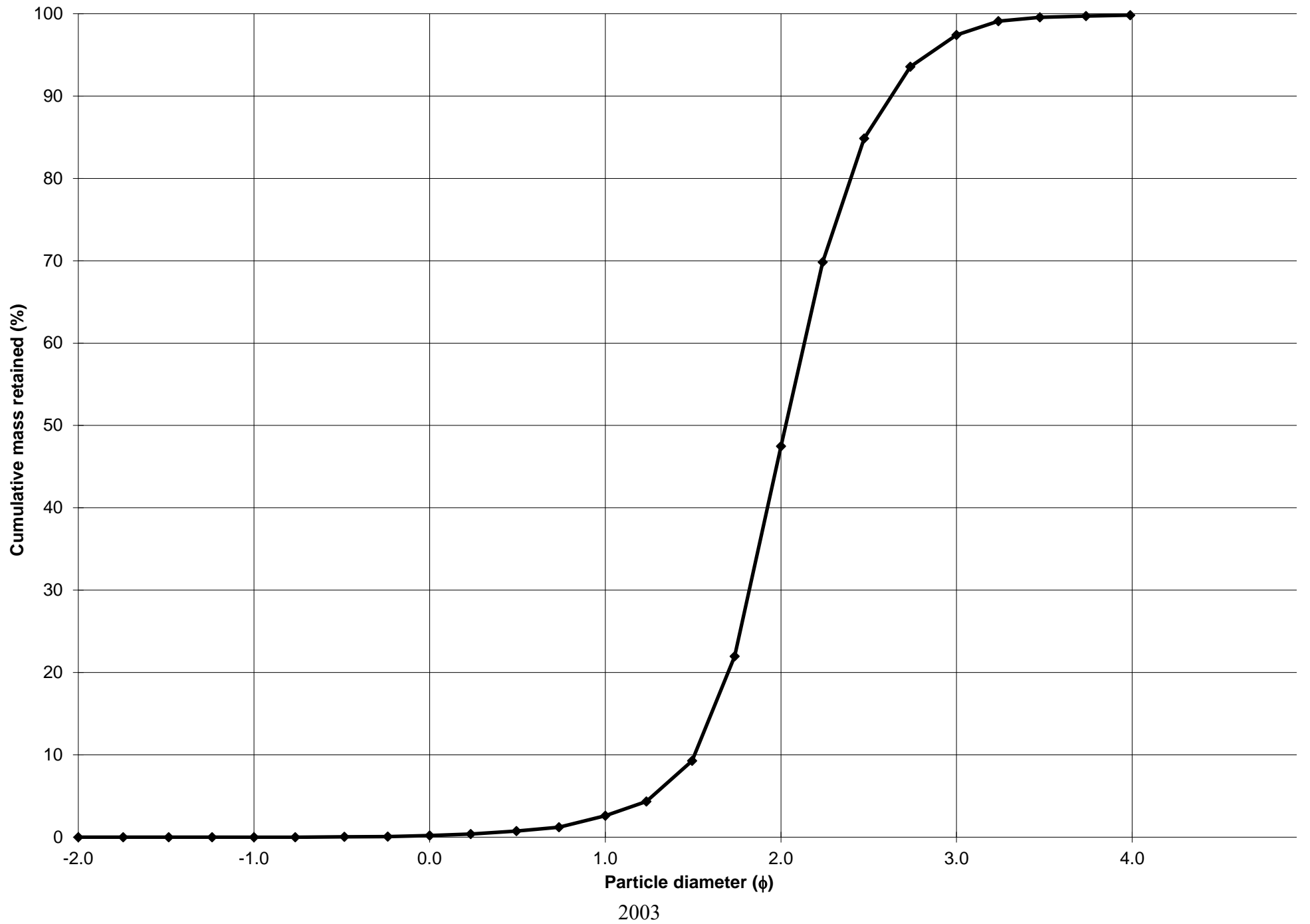
Cumulative Frequency Curve



SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA2-584cm			ANALYST & DATE: Chris, 11/3/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 2.4%	
MODE 2:			SAND: 99.8%		MEDIUM SAND: 44.9%	
MODE 3:			MUD: 0.2%		FINE SAND: 49.9%	
D ₁₀ :	161.6	1.508			V FINE SAND: 2.4%	
MEDIAN or D ₅₀ :	245.4	2.027	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	351.6	2.629	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.176	1.744	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	190.0	1.121	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.465	1.311	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	93.13	0.551	V COARSE SAND: 0.2%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	260.1	243.3	2.039	243.7	2.037	Fine Sand
SORTING (σ):	103.2	1.436	0.522	1.363	0.447	Well Sorted
SKEWNESS (Sk):	3.434	-1.166	1.166	-0.034	0.034	Symmetrical
KURTOSIS (K):	29.42	17.71	17.71	1.166	1.166	Leptokurtic



Cumulative Frequency Curve



SIEVING ERROR: 0.3%

SAMPLE STATISTICSSAMPLE IDENTITY: **SI-14-PA-3-12cm**

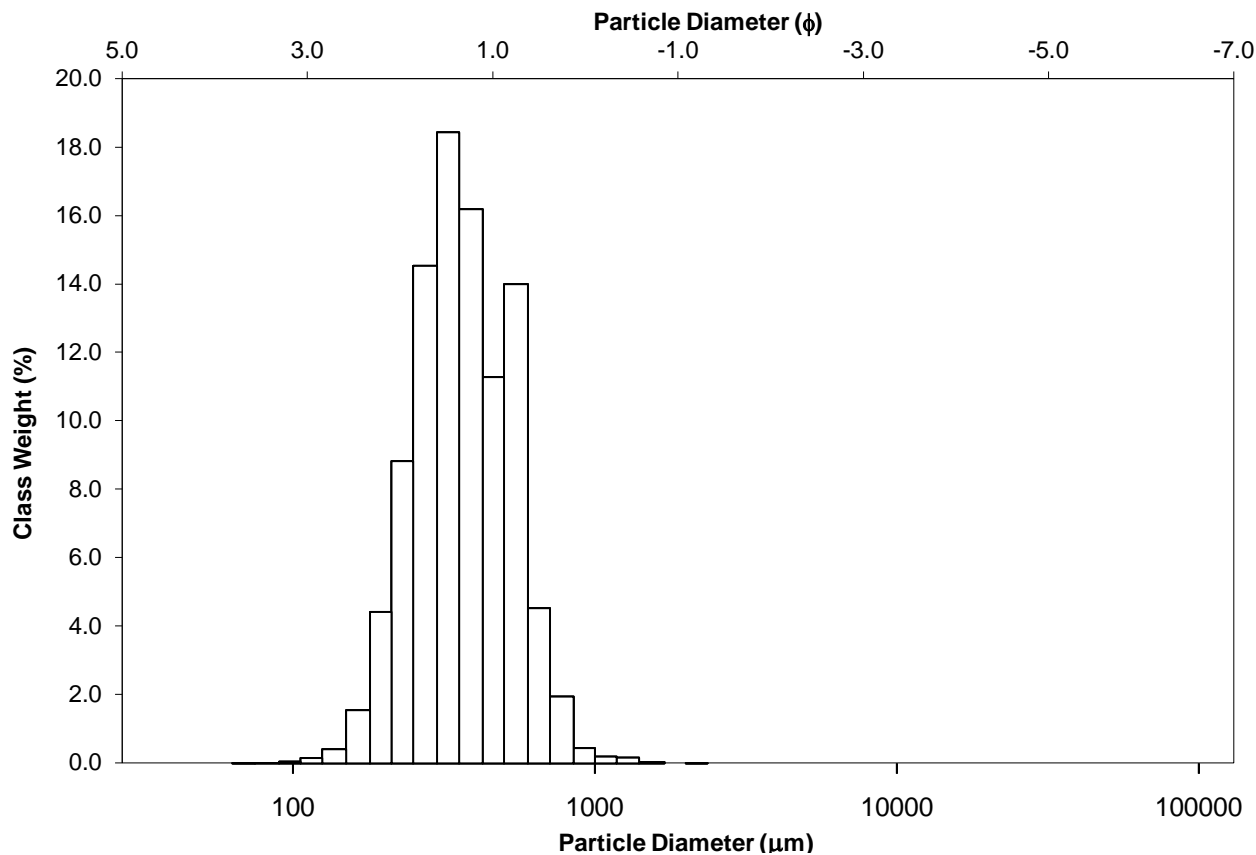
ANALYST & DATE: Brian, 12/19/2014

SAMPLE TYPE: Bimodal, Moderately Well Sorted

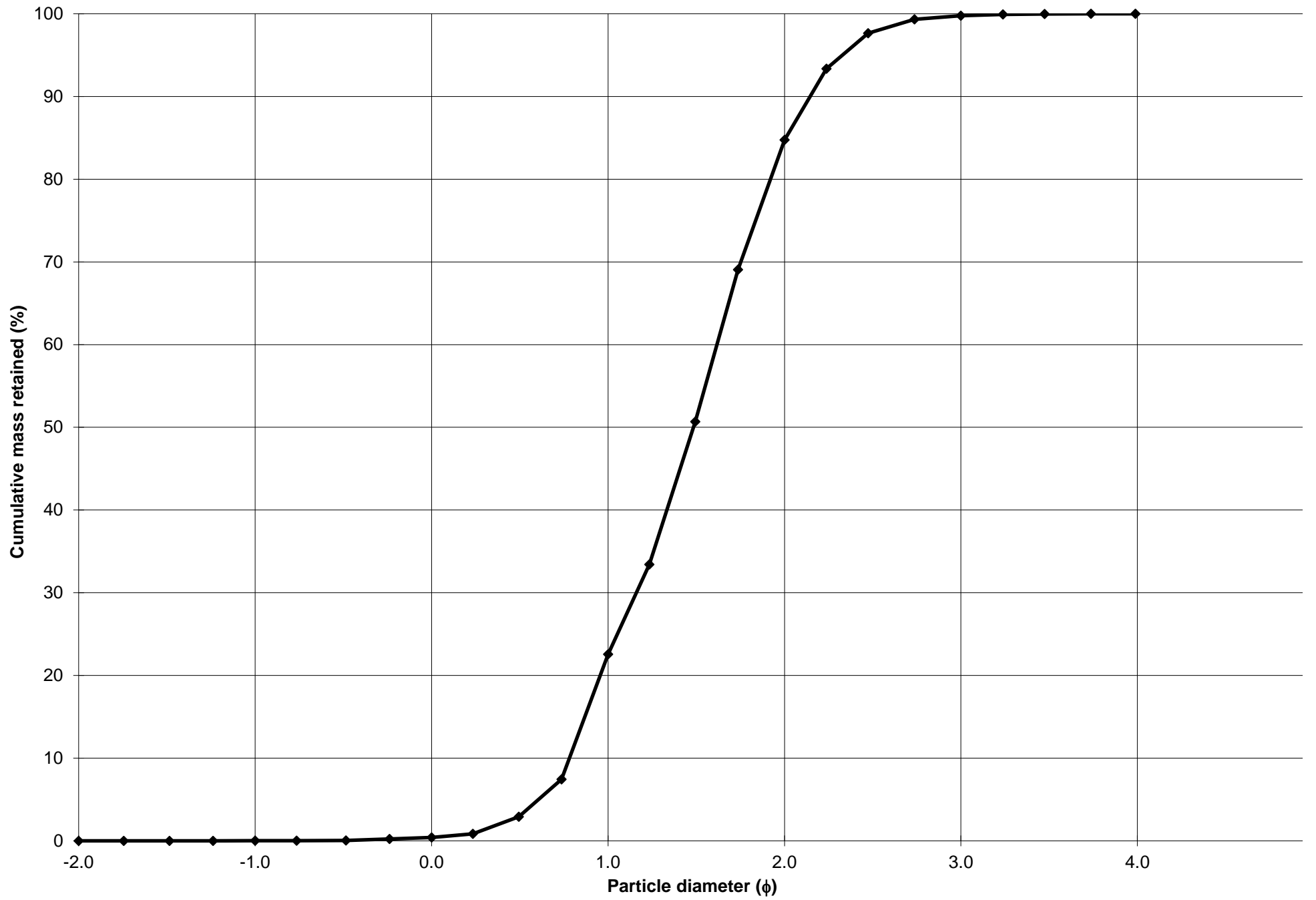
TEXTURAL GROUP: Slightly Gravelly Sand

SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.0%	COARSE SAND: 22.1%		
MODE 2:	550.0	0.868	SAND: 100.0%	MEDIUM SAND: 62.2%		
MODE 3:			MUD: 0.0%	FINE SAND: 15.0%		
D_{10} :	226.1	0.782		V FINE SAND: 0.2%		
MEDIAN or D_{50} :	357.5	1.484	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	581.7	2.145	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.573	2.744	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	355.6	1.363	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.722	1.745	V FINE GRAVEL: 0.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	202.1	0.784	V COARSE SAND: 0.4%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	390.8	363.4	1.460	365.4	1.452	Medium Sand
SORTING (σ):	151.7	1.448	0.534	1.450	0.536	Moderately Well Sorted
SKEWNESS (Sk):	1.449	0.044	-0.044	0.053	-0.053	Symmetrical
KURTOSIS (K):	8.466	3.031	3.031	0.900	0.900	Mesokurtic

GRAIN SIZE DISTRIBUTION

Cumulative Frequency Curve



SIEVING ERROR: 0.4%

SAMPLE STATISTICSSAMPLE IDENTITY: **SI-14-PA-3-20cm**

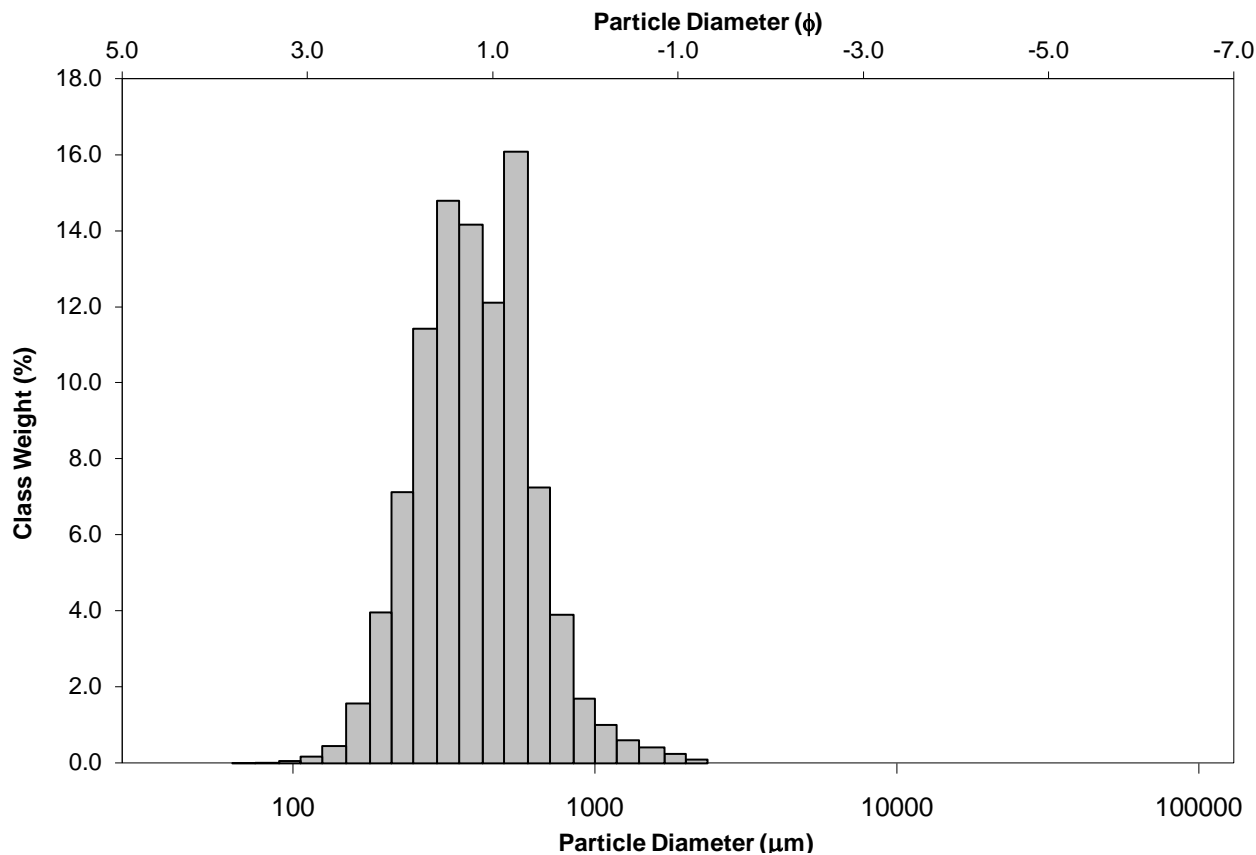
ANALYST & DATE: Brian, 12/19/2014

SAMPLE TYPE: Bimodal, Moderately Well Sorted

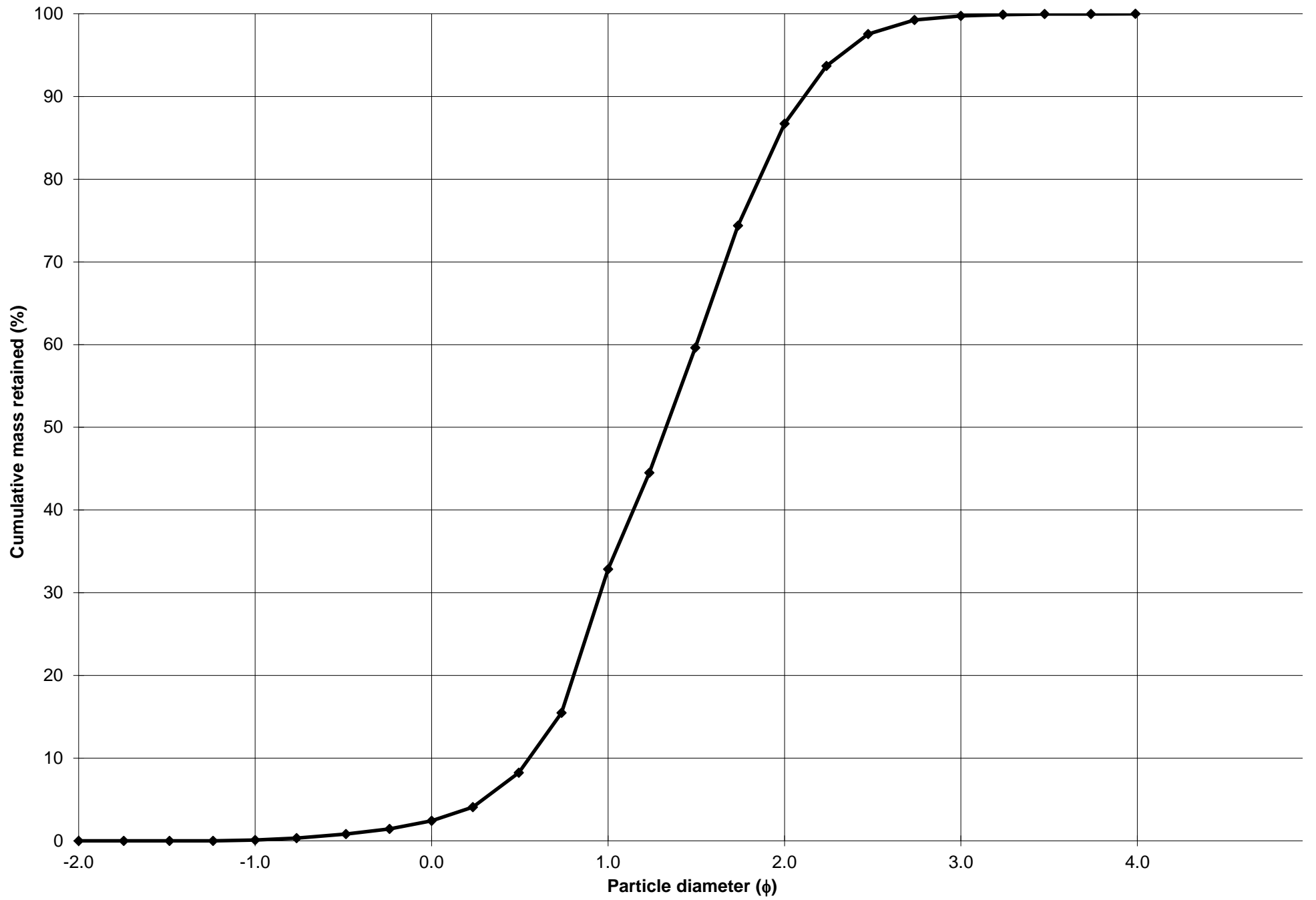
TEXTURAL GROUP: Slightly Gravelly Sand

SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 0.1%	COARSE SAND: 30.4%		
MODE 2:	327.5	1.616	SAND: 99.9%	MEDIUM SAND: 53.9%		
MODE 3:			MUD: 0.0%	FINE SAND: 13.0%		
D_{10} :	231.4	0.553		V FINE SAND: 0.3%		
MEDIAN or D_{50} :	398.1	1.329	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	681.4	2.112	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.945	3.816	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	450.1	1.558	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.826	1.986	V FINE GRAVEL: 0.1%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	245.7	0.869	V COARSE SAND: 2.3%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	446.0	402.2	1.314	395.4	1.339	Medium Sand
SORTING (σ):	222.4	1.550	0.632	1.522	0.606	Moderately Well Sorted
SKEWNESS (Sk):	2.364	0.187	-0.187	-0.001	0.001	Symmetrical
KURTOSIS (K):	13.23	3.811	3.811	0.955	0.955	Mesokurtic

GRAIN SIZE DISTRIBUTION

Cumulative Frequency Curve



SIEVING ERROR: 0.4%

SAMPLE STATISTICSSAMPLE IDENTITY: **SI-14-PA-3-31cm**

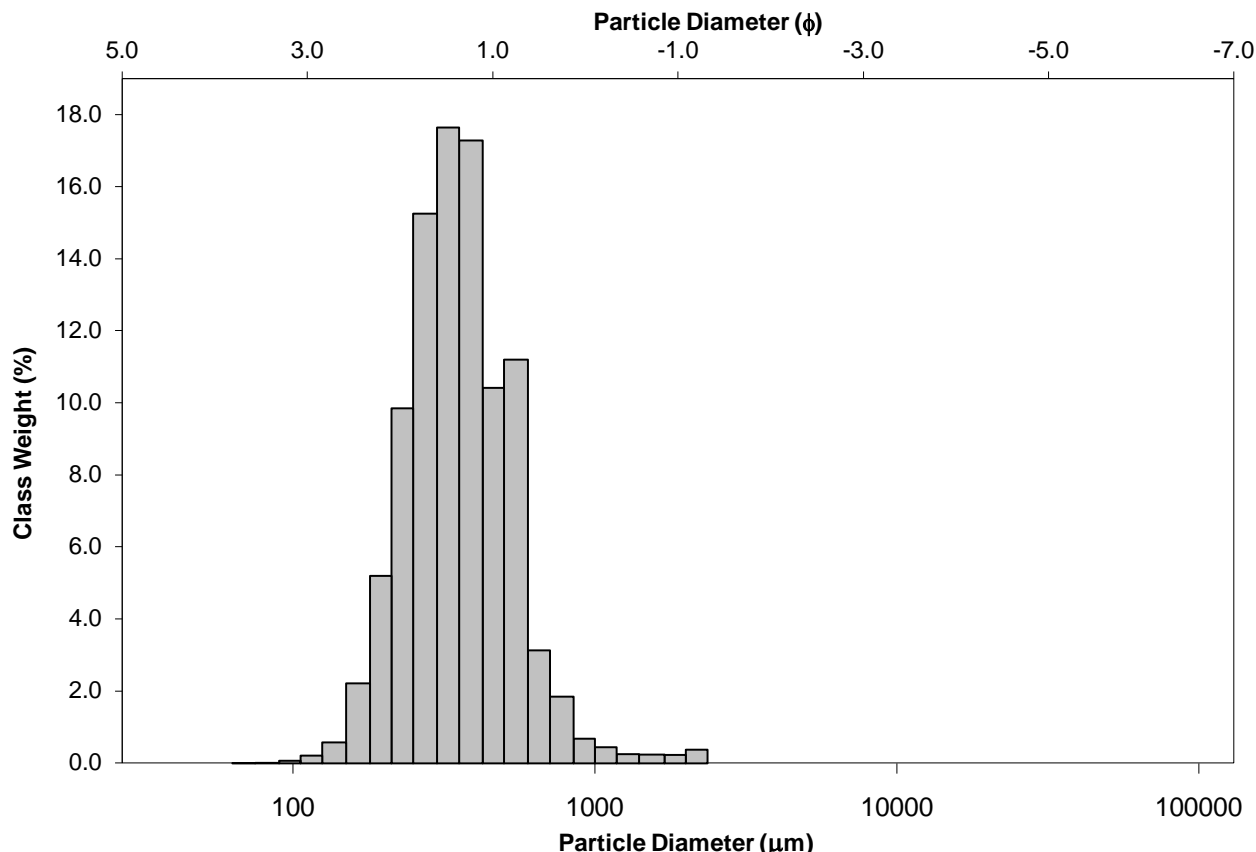
ANALYST & DATE: Brian, 12/19/2014

SAMPLE TYPE: Bimodal, Moderately Well Sorted

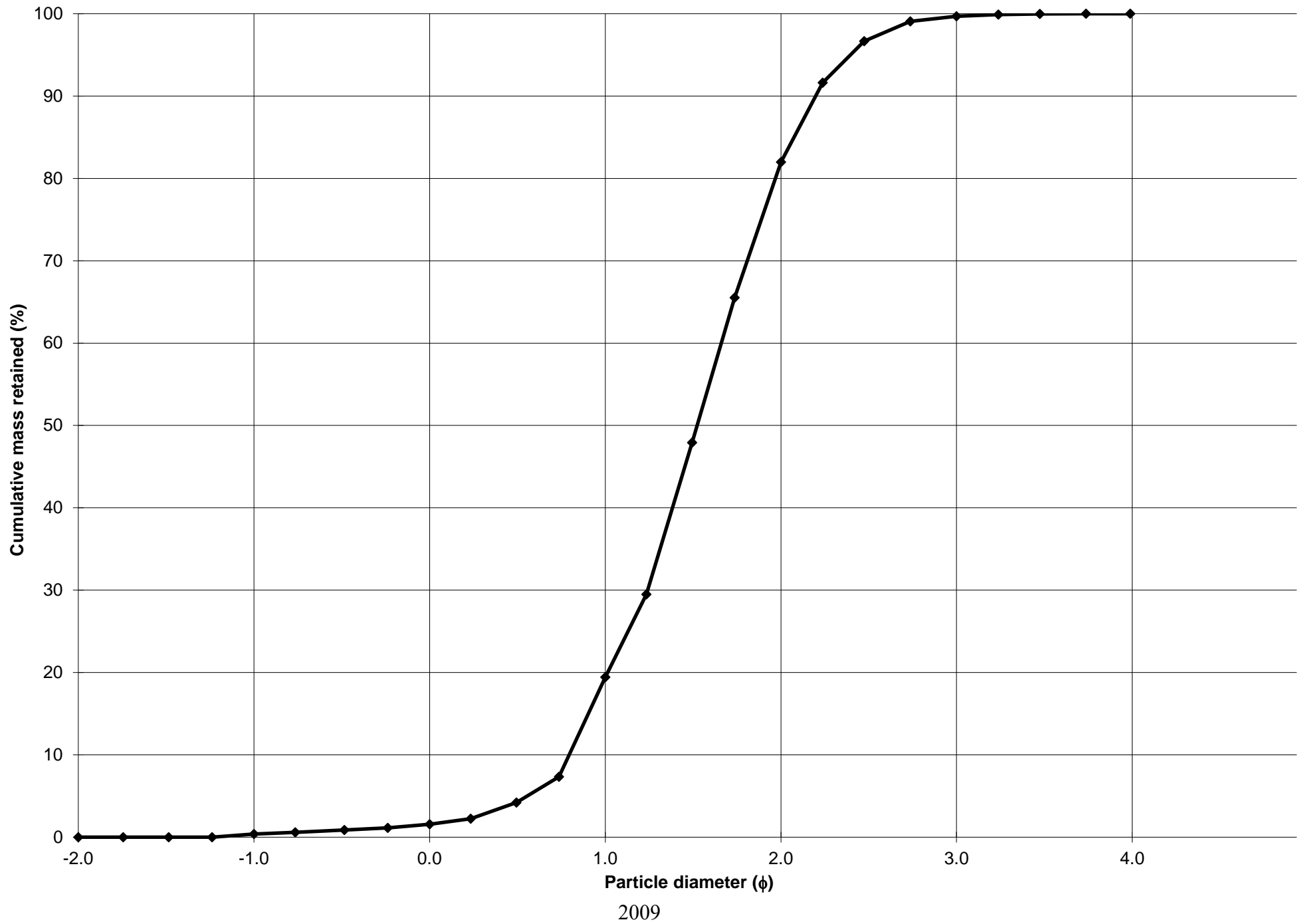
TEXTURAL GROUP: Slightly Gravelly Sand

SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

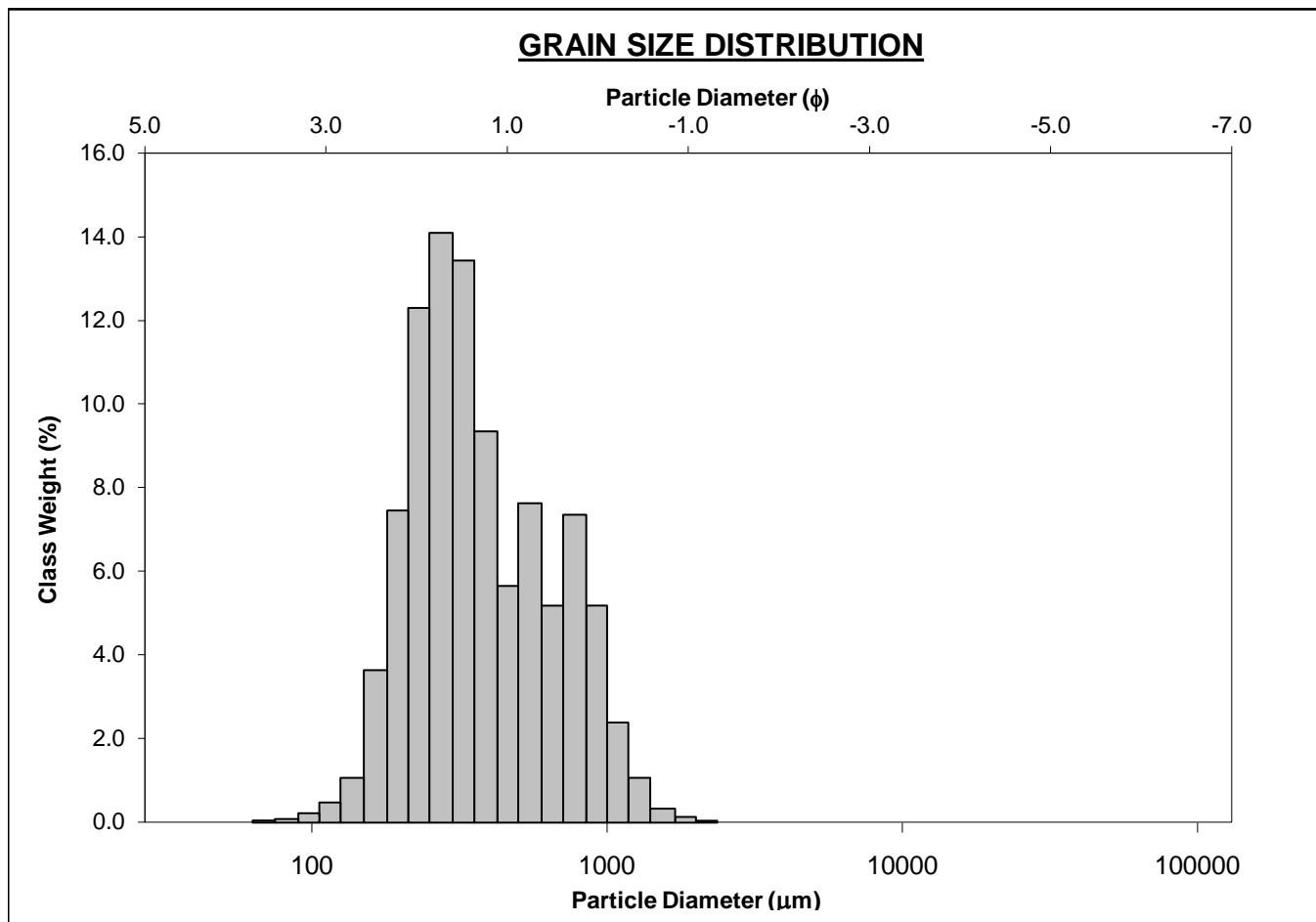
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.4%	COARSE SAND: 17.9%		
MODE 2:	550.0	0.868	SAND: 99.6%	MEDIUM SAND: 62.5%		
MODE 3:			MUD: 0.0%	FINE SAND: 17.7%		
D_{10} :	218.0	0.795		V FINE SAND: 0.3%		
MEDIAN or D_{50} :	348.0	1.523	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	576.4	2.198	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.645	2.765	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	358.5	1.403	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.692	1.671	V FINE GRAVEL: 0.4%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	186.9	0.759	V COARSE SAND: 1.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	391.9	355.5	1.492	353.7	1.499	Medium Sand
SORTING (σ):	211.1	1.507	0.592	1.474	0.560	Moderately Well Sorted
SKEWNESS (Sk):	4.011	0.597	-0.597	0.057	-0.057	Symmetrical
KURTOSIS (K):	29.00	5.050	5.050	0.995	0.995	Mesokurtic

GRAIN SIZE DISTRIBUTION

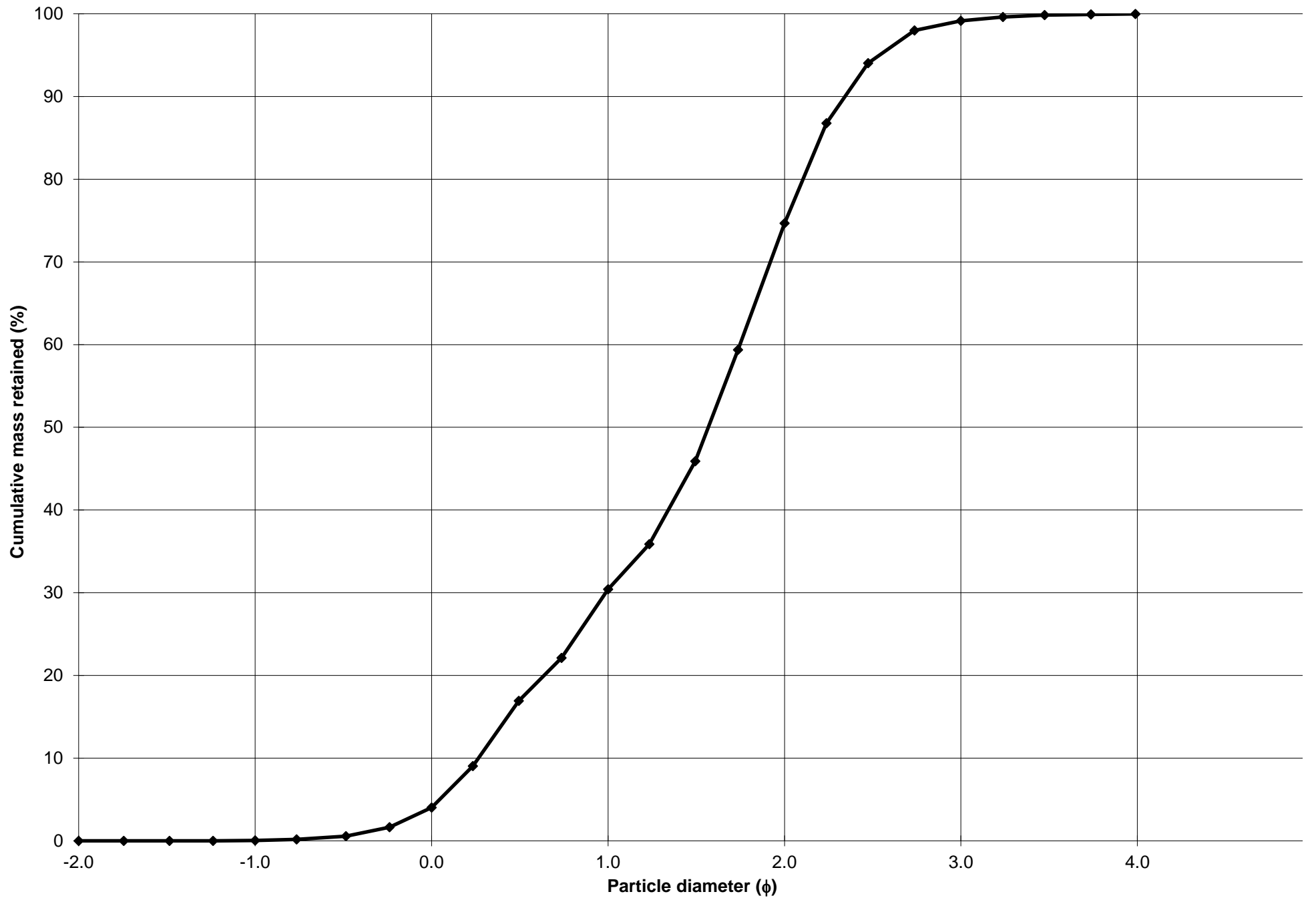
Cumulative Frequency Curve



SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA-3-40cm			ANALYST & DATE: Brian, 12/19/2014			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.0%		COARSE SAND: 26.4%	
MODE 2:	550.0	0.868	SAND: 99.9%		MEDIUM SAND: 44.3%	
MODE 3:	780.0	0.364	MUD: 0.0%		FINE SAND: 24.5%	
D_{10} :	197.1	0.266			V FINE SAND: 0.8%	
MEDIAN or D_{50} :	337.3	1.568	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	831.5	2.343	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	4.219	8.800	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	634.4	2.077	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	2.263	2.422	V FINE GRAVEL: 0.0%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	314.3	1.178	V COARSE SAND: 4.0%		CLAY: 0.0%	
	METHOD OF MOMENTS		FOLK & WARD METHOD			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	438.6	373.3	1.421	377.6	1.405	Medium Sand
SORTING (σ):	267.8	1.731	0.792	1.750	0.808	Moderately Sorted
SKEWNESS (Sk):	1.551	0.310	-0.310	0.253	-0.253	Coarse Skewed
KURTOSIS (K):	5.900	2.843	2.843	0.867	0.867	Platykurtic



Cumulative Frequency Curve



SIEVING ERROR: 0.1%

SAMPLE STATISTICSSAMPLE IDENTITY: **SI-14-PA-3-50cm**

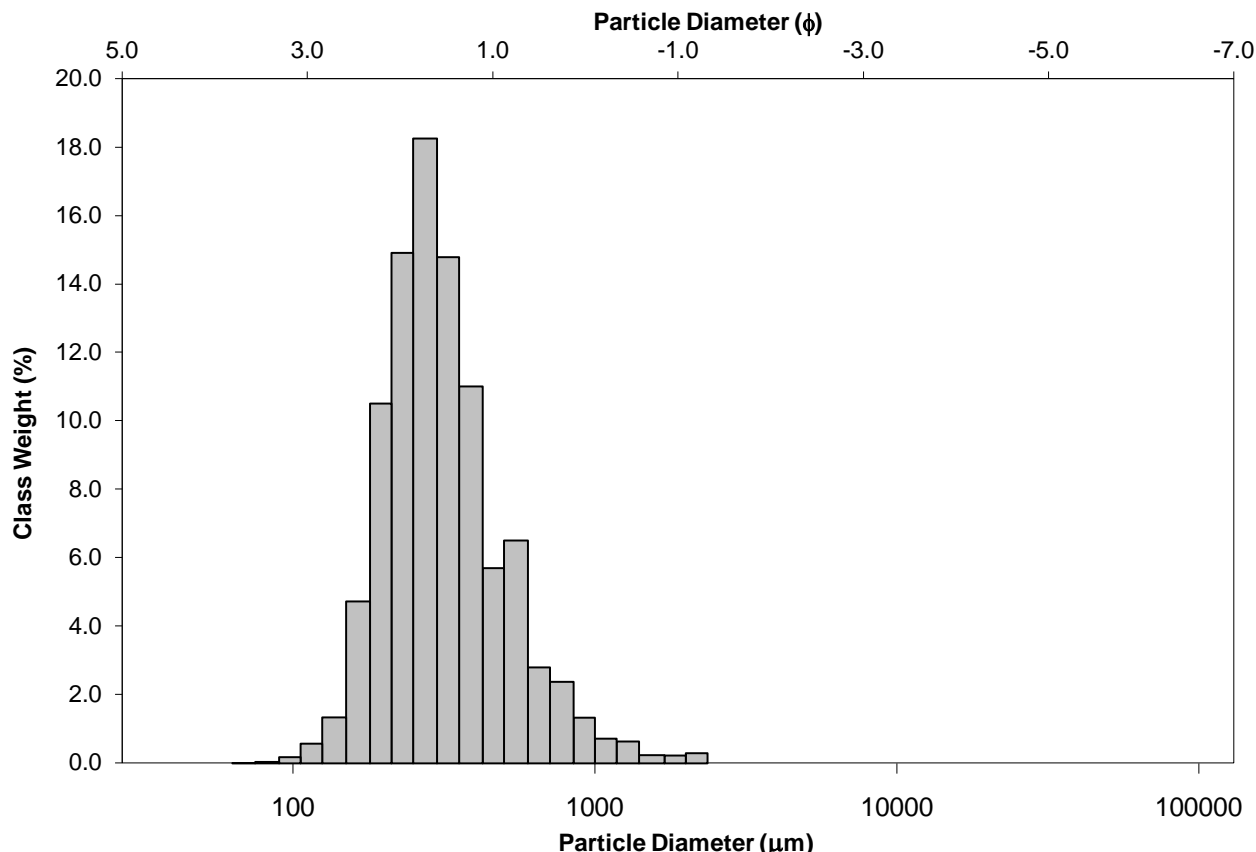
ANALYST & DATE: Brian, 12/19/2014

SAMPLE TYPE: Bimodal, Moderately Well Sorted

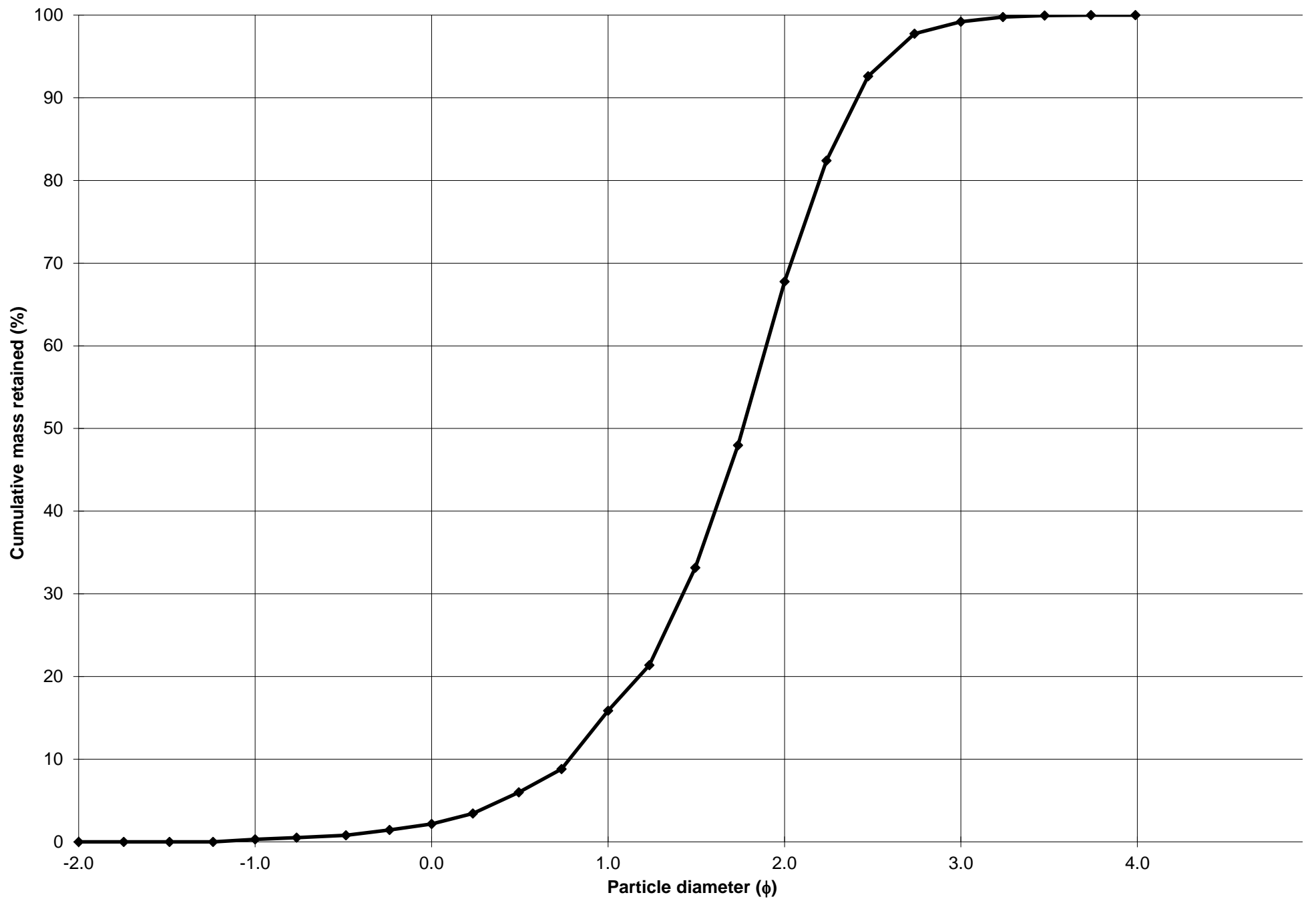
TEXTURAL GROUP: Slightly Gravelly Sand

SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	275.0	1.868	GRAVEL: 0.3%	COARSE SAND: 13.7%		
MODE 2:	550.0	0.868	SAND: 99.7%	MEDIUM SAND: 51.9%		
MODE 3:			MUD: 0.0%	FINE SAND: 31.4%		
D_{10} :	187.7	0.782		V FINE SAND: 0.8%		
MEDIAN or D_{50} :	294.4	1.764	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	581.7	2.414	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.099	3.088	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	394.0	1.632	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.745	1.611	V FINE GRAVEL: 0.3%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	171.7	0.803	V COARSE SAND: 1.9%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	359.5	315.9	1.663	311.7	1.682	Medium Sand
SORTING (σ):	228.4	1.593	0.672	1.570	0.651	Moderately Well Sorted
SKEWNESS (Sk):	3.492	0.863	-0.863	0.220	-0.220	Coarse Skewed
KURTOSIS (K):	21.38	4.370	4.370	1.124	1.124	Leptokurtic

GRAIN SIZE DISTRIBUTION

Cumulative Frequency Curve



SIEVING ERROR: 0.7%

SAMPLE STATISTICSSAMPLE IDENTITY: **SI-14-PA-3-60cm**

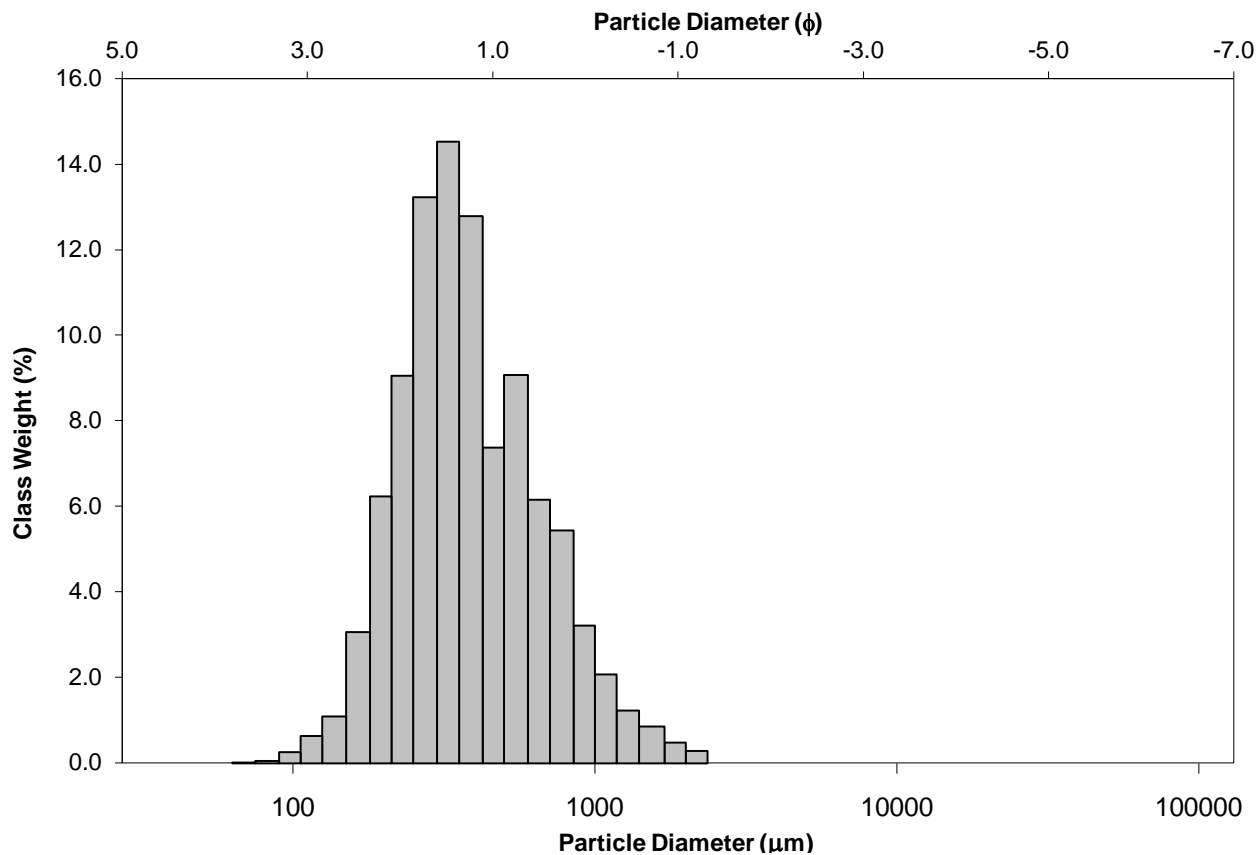
ANALYST & DATE: Brian, 12/19/2014

SAMPLE TYPE: Bimodal, Moderately Sorted

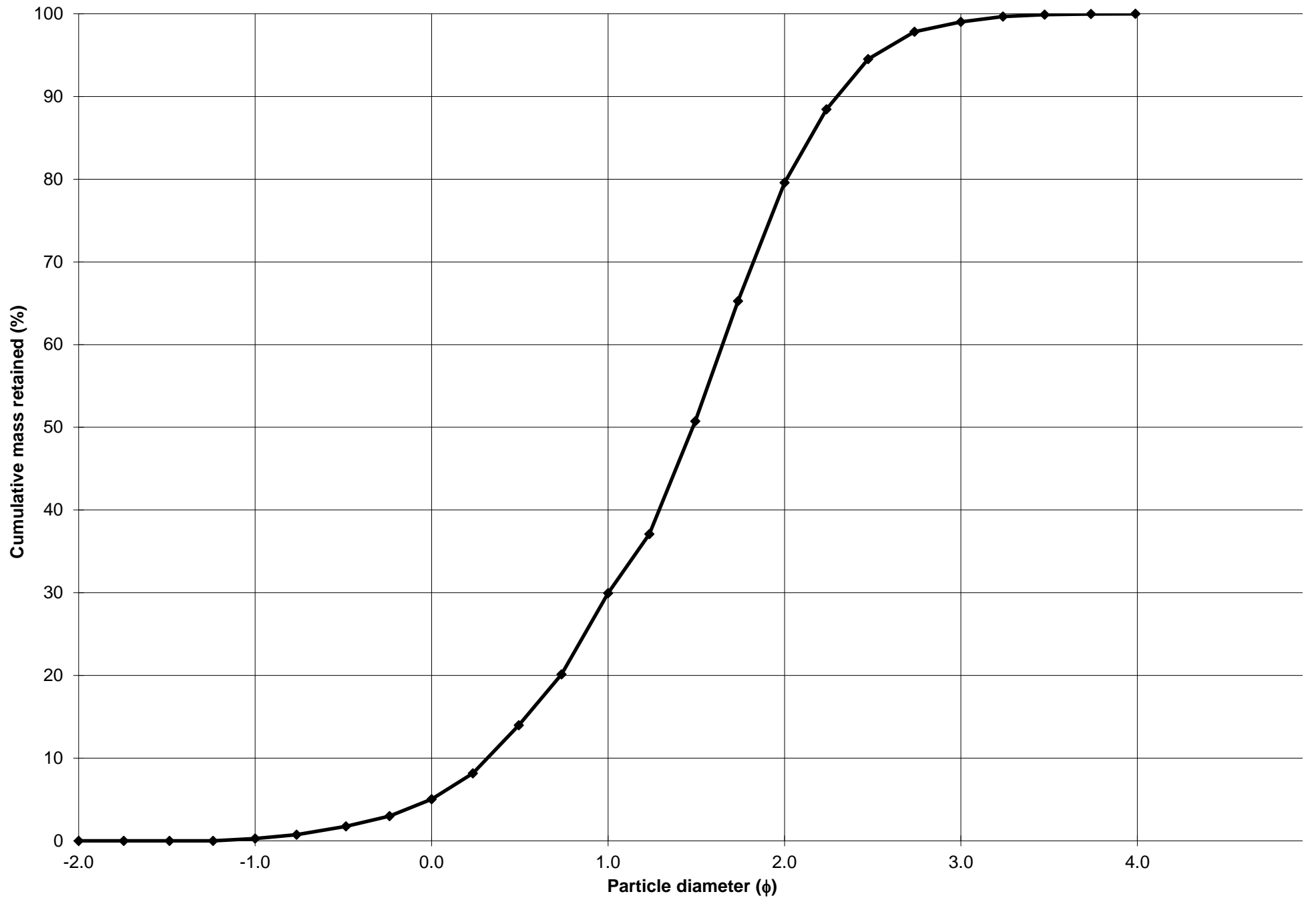
TEXTURAL GROUP: Slightly Gravelly Sand

SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.3%	COARSE SAND: 24.9%		
MODE 2:	550.0	0.868	SAND: 99.7%	MEDIUM SAND: 49.6%		
MODE 3:			MUD: 0.0%	FINE SAND: 19.4%		
D_{10} :	203.4	0.317		V FINE SAND: 1.0%		
MEDIAN or D_{50} :	358.5	1.480	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	802.7	2.298	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.947	7.249	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	599.4	1.981	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	2.068	2.209	V FINE GRAVEL: 0.3%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	283.1	1.048	V COARSE SAND: 4.8%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	450.9	384.5	1.379	381.3	1.391	Medium Sand
SORTING (σ):	290.0	1.713	0.776	1.702	0.767	Moderately Sorted
SKEWNESS (Sk):	2.252	0.398	-0.398	0.177	-0.177	Coarse Skewed
KURTOSIS (K):	10.04	3.370	3.370	0.984	0.984	Mesokurtic

GRAIN SIZE DISTRIBUTION

Cumulative Frequency Curve



SIEVING ERROR: 0.6%

SAMPLE STATISTICSSAMPLE IDENTITY: **SI-14-PA-3-70cm**

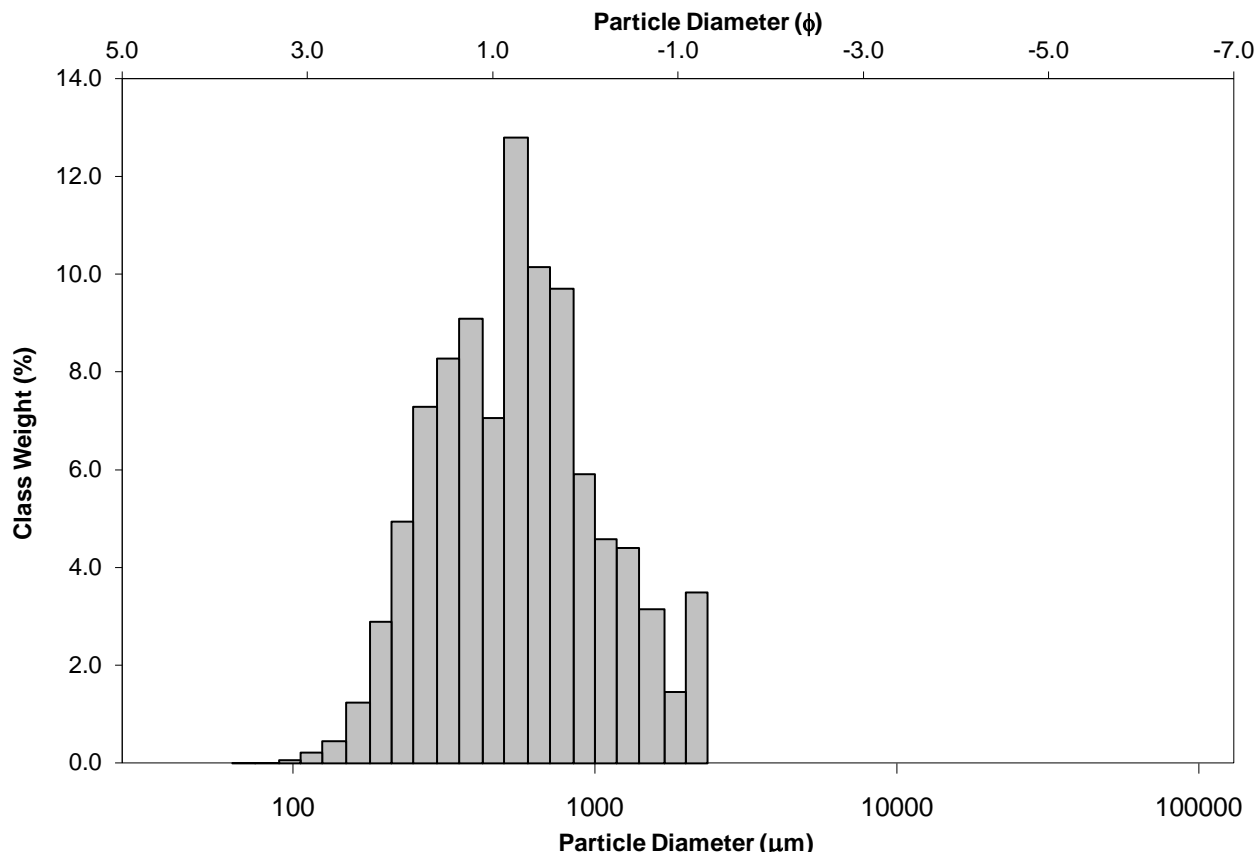
ANALYST & DATE: Brian, 12/19/2014

SAMPLE TYPE: Trimodal, Moderately Sorted

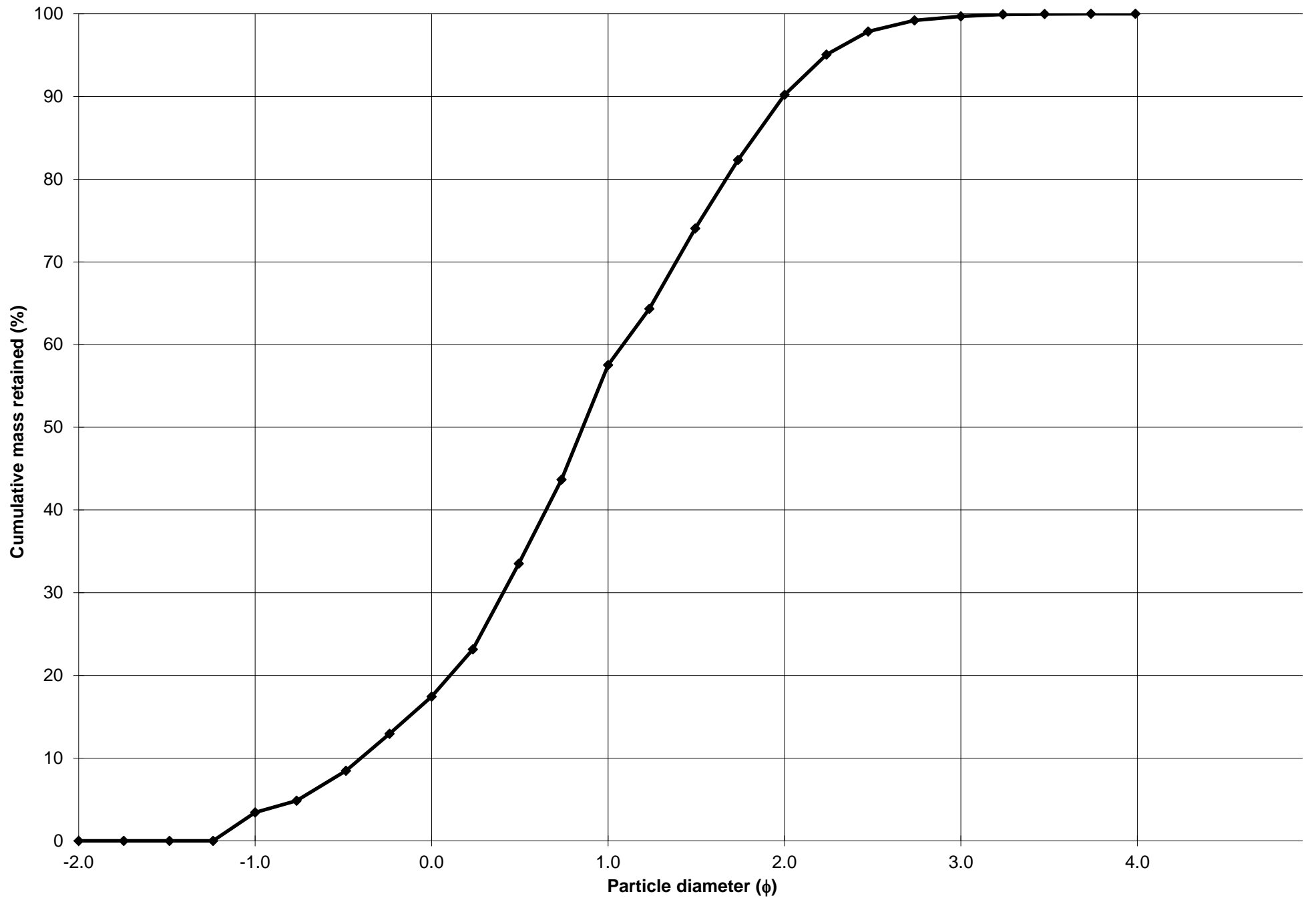
TEXTURAL GROUP: Slightly Gravelly Sand

SEDIMENT NAME: Slightly Very Fine Gravelly Coarse Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 3.4%	COARSE SAND: 40.1%		
MODE 2:	390.0	1.364	SAND: 96.6%	MEDIUM SAND: 32.7%		
MODE 3:	2180.0	-1.119	MUD: 0.0%	FINE SAND: 9.5%		
D_{10} :	251.2	-0.401		V FINE SAND: 0.3%		
MEDIAN or D_{50} :	552.0	0.857	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	1320.7	1.993	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	5.257	-4.966	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	1069.5	2.394	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	2.364	5.424	V FINE GRAVEL: 3.4%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	475.0	1.241	V COARSE SAND: 14.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	678.4	555.0	0.849	551.8	0.858	Coarse Sand
SORTING (σ):	460.5	1.863	0.897	1.892	0.920	Moderately Sorted
SKEWNESS (Sk):	1.583	0.159	-0.159	0.038	-0.038	Symmetrical
KURTOSIS (K):	5.319	2.664	2.664	0.987	0.987	Mesokurtic

GRAIN SIZE DISTRIBUTION

Cumulative Frequency Curve



SIEVING ERROR: 0.2%

SAMPLE STATISTICSSAMPLE IDENTITY: **SI-14-PA-3-80cm**

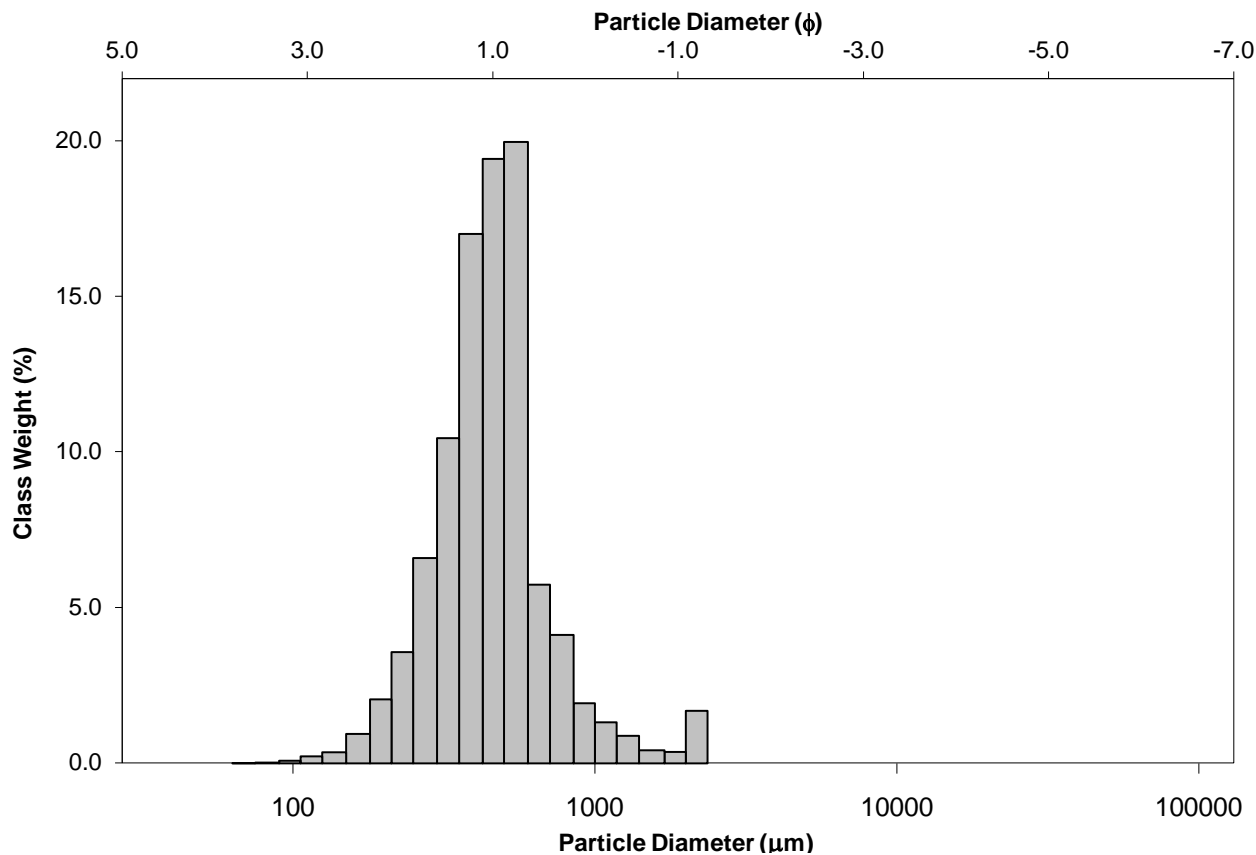
ANALYST & DATE: Brian, 12/19/2014

SAMPLE TYPE: Unimodal, Moderately Well Sorted

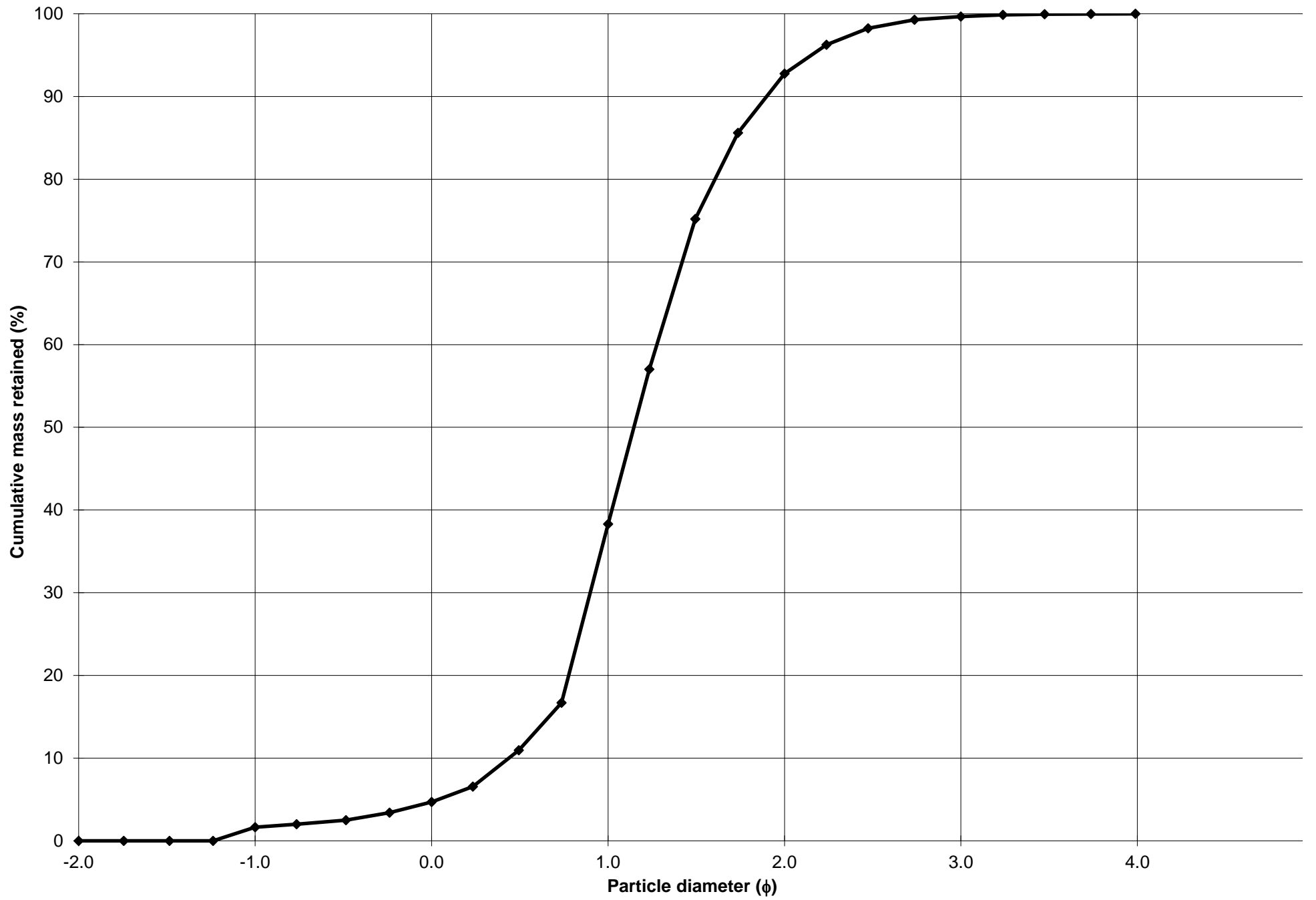
TEXTURAL GROUP: Slightly Gravelly Sand

SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 1.7%	COARSE SAND: 33.6%		
MODE 2:			SAND: 98.3%	MEDIUM SAND: 54.5%		
MODE 3:			MUD: 0.0%	FINE SAND: 6.9%		
D ₁₀ :	268.2	0.438		V FINE SAND: 0.3%		
MEDIAN or D ₅₀ :	451.7	1.147	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	738.4	1.899	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.753	4.339	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	470.2	1.461	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.573	1.780	V FINE GRAVEL: 1.7%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	203.7	0.653	V COARSE SAND: 3.0%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	509.7	453.5	1.141	440.0	1.185	Medium Sand
SORTING (σ):	305.1	1.565	0.646	1.483	0.568	Moderately Well Sorted
SKEWNESS (Sk):	3.391	0.550	-0.550	-0.033	0.033	Symmetrical
KURTOSIS (K):	17.64	5.752	5.752	1.326	1.326	Leptokurtic

GRAIN SIZE DISTRIBUTION

Cumulative Frequency Curve



SIEVING ERROR: 0.3%

SAMPLE STATISTICSSAMPLE IDENTITY: **SI-14-PA-3-90cm**

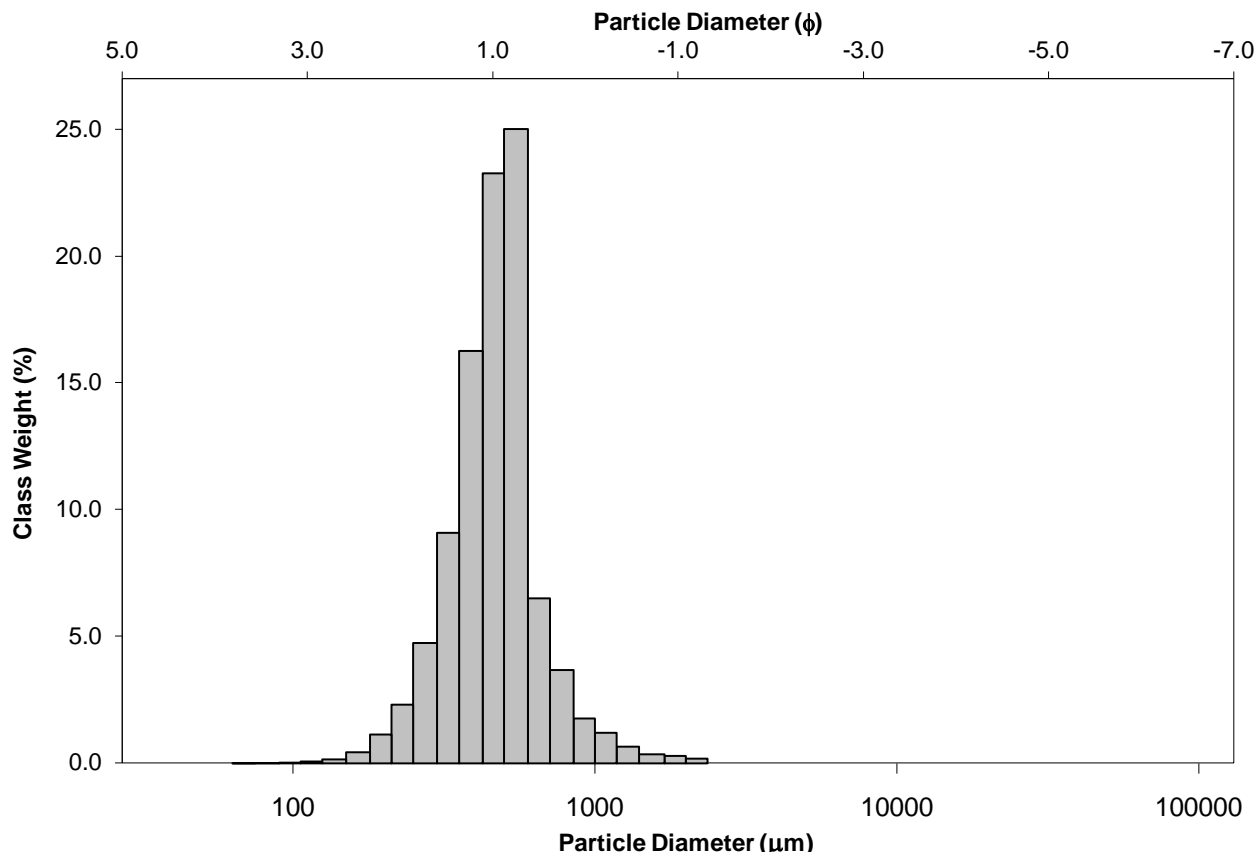
ANALYST & DATE: Brian, 12/19/2014

SAMPLE TYPE: Unimodal, Well Sorted

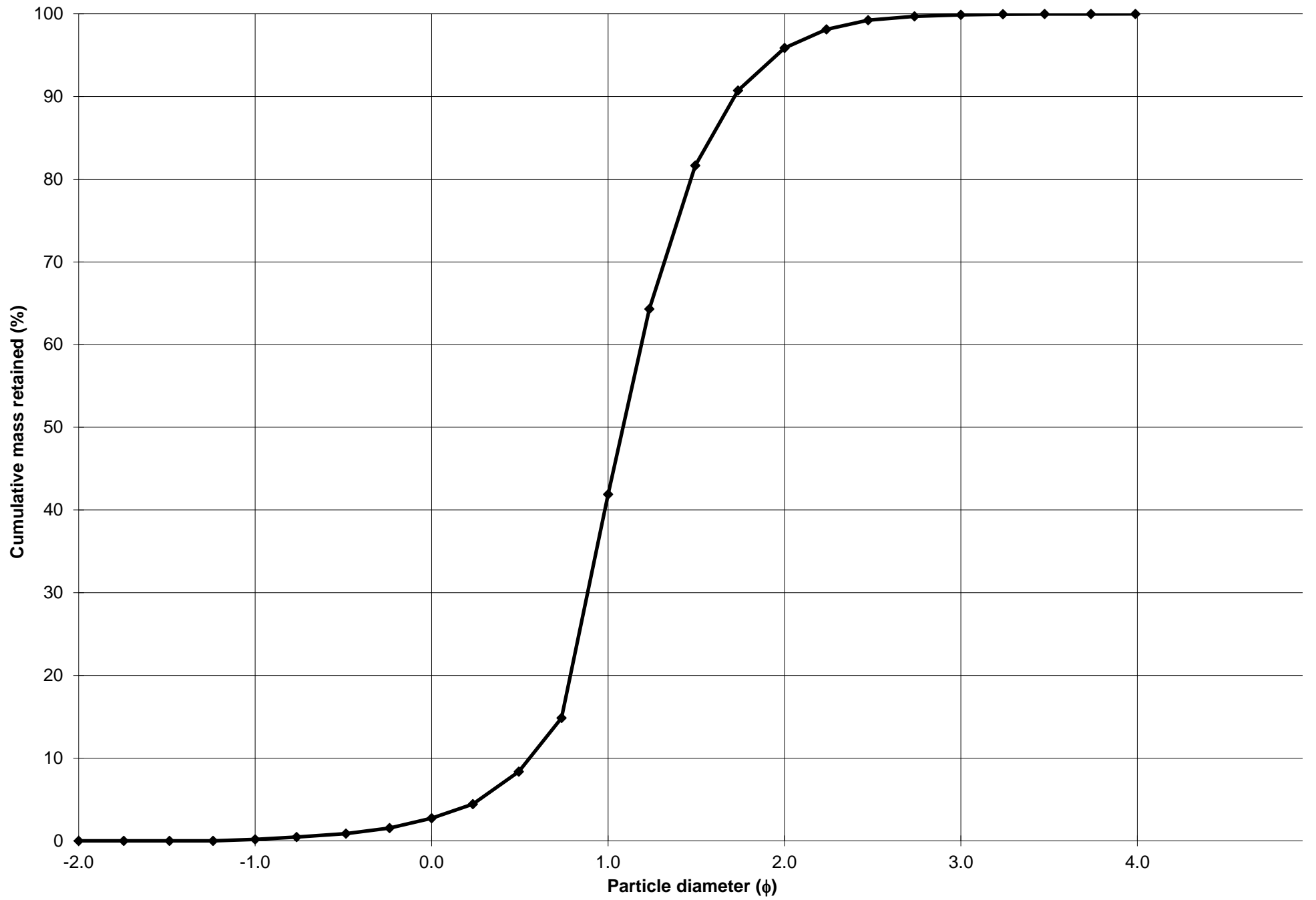
TEXTURAL GROUP: Slightly Gravelly Sand

SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 0.2%	COARSE SAND: 39.2%		
MODE 2:			SAND: 99.8%	MEDIUM SAND: 54.0%		
MODE 3:			MUD: 0.0%	FINE SAND: 4.0%		
D_{10} :	304.1	0.555		V FINE SAND: 0.1%		
MEDIAN or D_{50} :	471.5	1.085	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	680.5	1.717	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.238	3.092	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	376.4	1.162	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.473	1.669	V FINE GRAVEL: 0.2%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	179.9	0.559	V COARSE SAND: 2.5%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	498.5	464.7	1.106	457.0	1.130	Medium Sand
SORTING (σ):	207.1	1.429	0.515	1.373	0.457	Well Sorted
SKEWNESS (Sk):	2.974	0.018	-0.018	-0.101	0.101	Fine Skewed
KURTOSIS (K):	18.83	7.435	7.435	1.235	1.235	Leptokurtic

GRAIN SIZE DISTRIBUTION

Cumulative Frequency Curve



SIEVING ERROR: 0.6%

SAMPLE STATISTICSSAMPLE IDENTITY: **SI-14-PA-3-103cm**

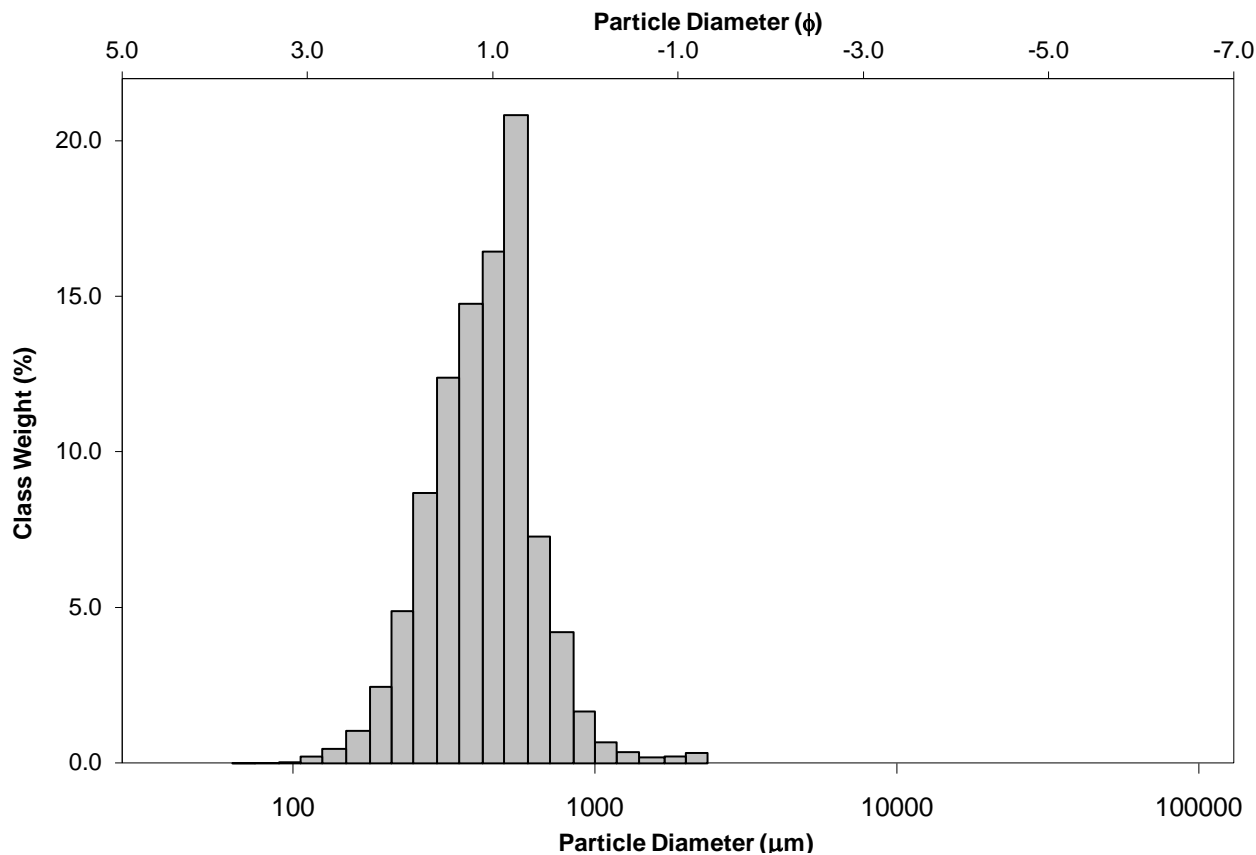
ANALYST & DATE: Brian, 12/19/2014

SAMPLE TYPE: Unimodal, Moderately Well Sorted

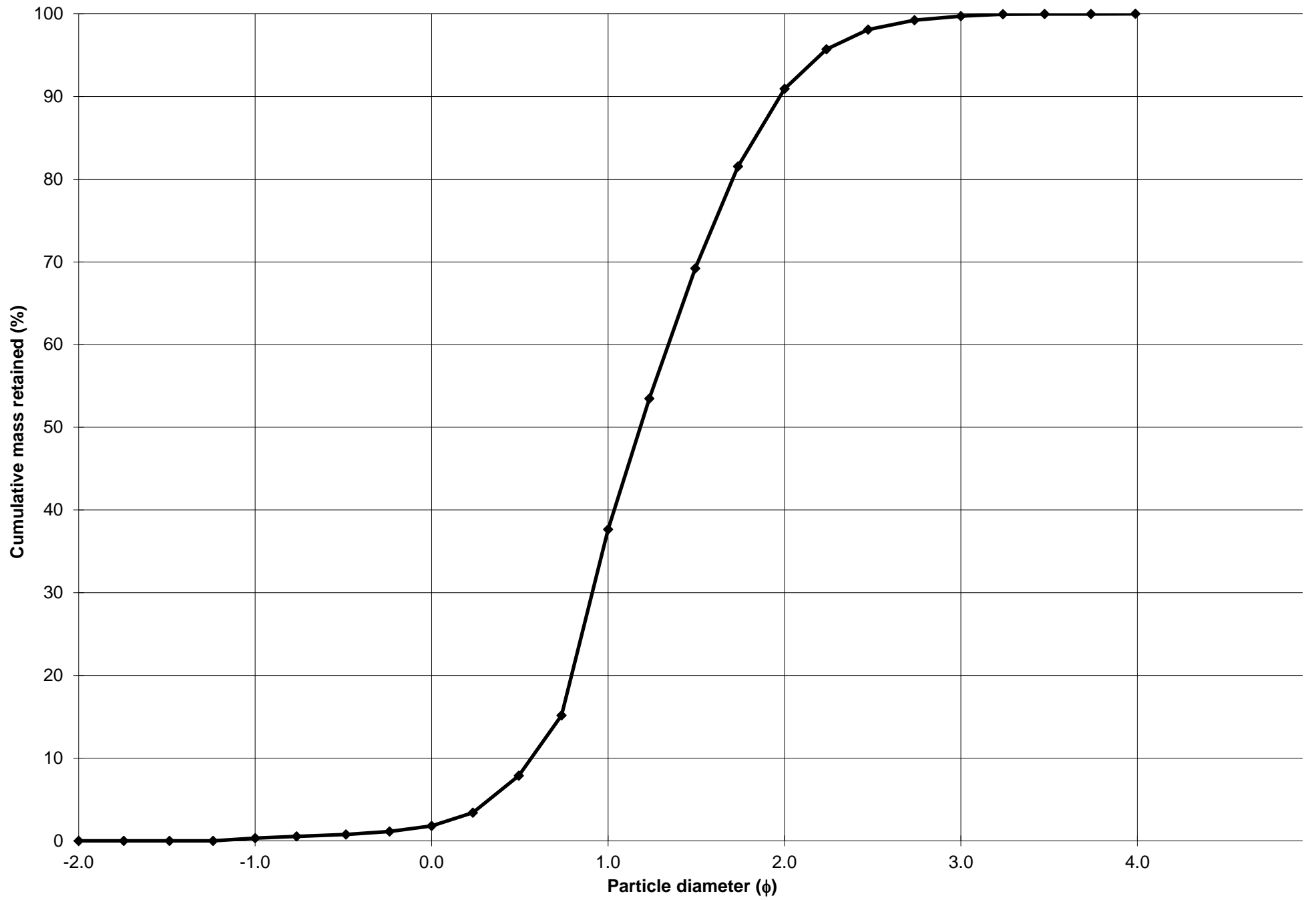
TEXTURAL GROUP: Slightly Gravelly Sand

SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

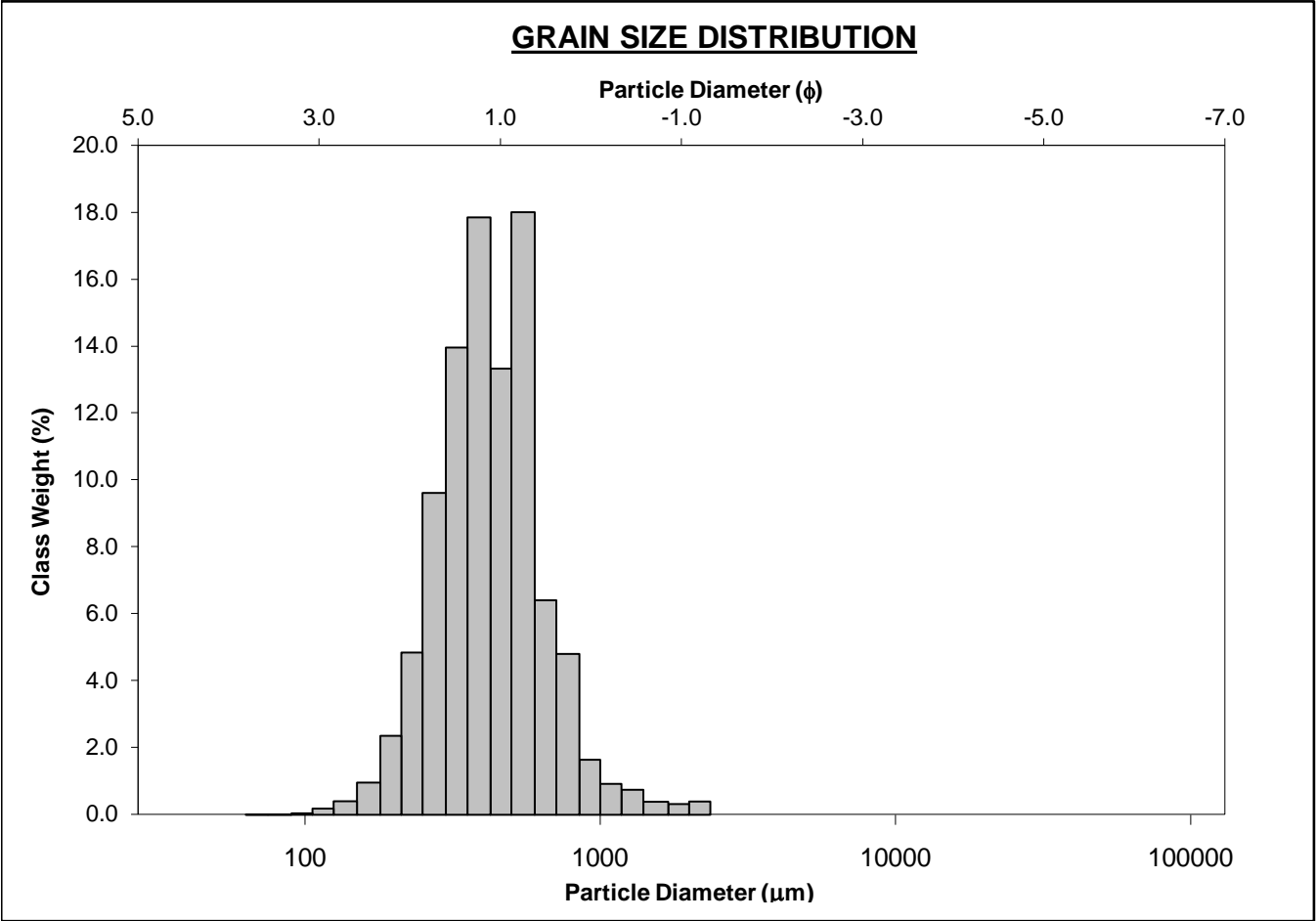
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 0.3%	COARSE SAND: 35.9%		
MODE 2:			SAND: 99.7%	MEDIUM SAND: 53.3%		
MODE 3:			MUD: 0.0%	FINE SAND: 8.8%		
D_{10} :	254.6	0.565		V FINE SAND: 0.3%		
MEDIAN or D_{50} :	440.4	1.183	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	676.1	1.974	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	2.656	3.495	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	421.5	1.409	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	1.689	1.887	V FINE GRAVEL: 0.3%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	225.9	0.756	V COARSE SAND: 1.5%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	467.0	427.6	1.226	421.9	1.245	Medium Sand
SORTING (σ):	215.3	1.502	0.587	1.463	0.549	Moderately Well Sorted
SKEWNESS (Sk):	2.936	-0.018	0.018	-0.131	0.131	Fine Skewed
KURTOSIS (K):	20.30	4.790	4.790	1.017	1.017	Mesokurtic

GRAIN SIZE DISTRIBUTION

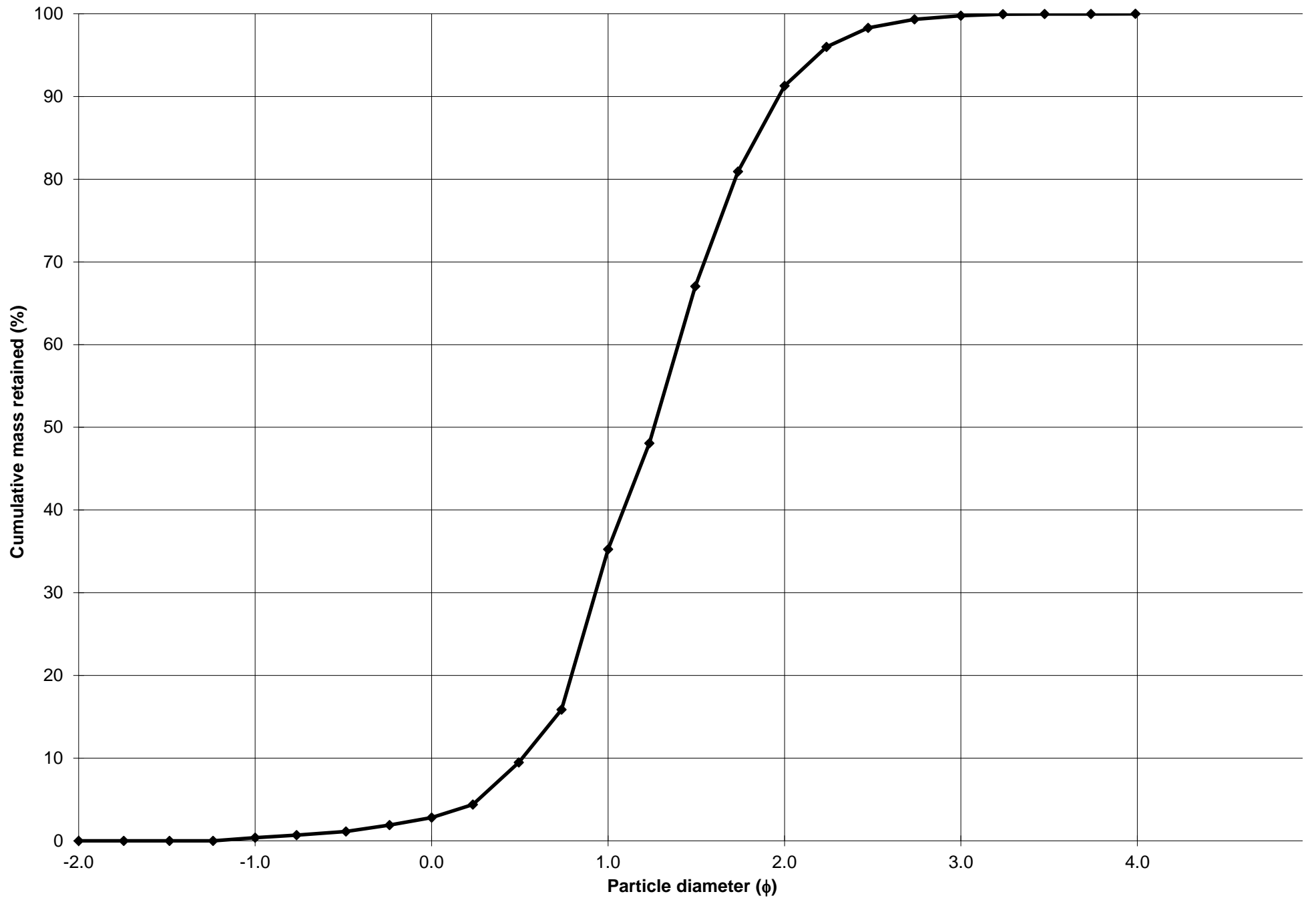
Cumulative Frequency Curve



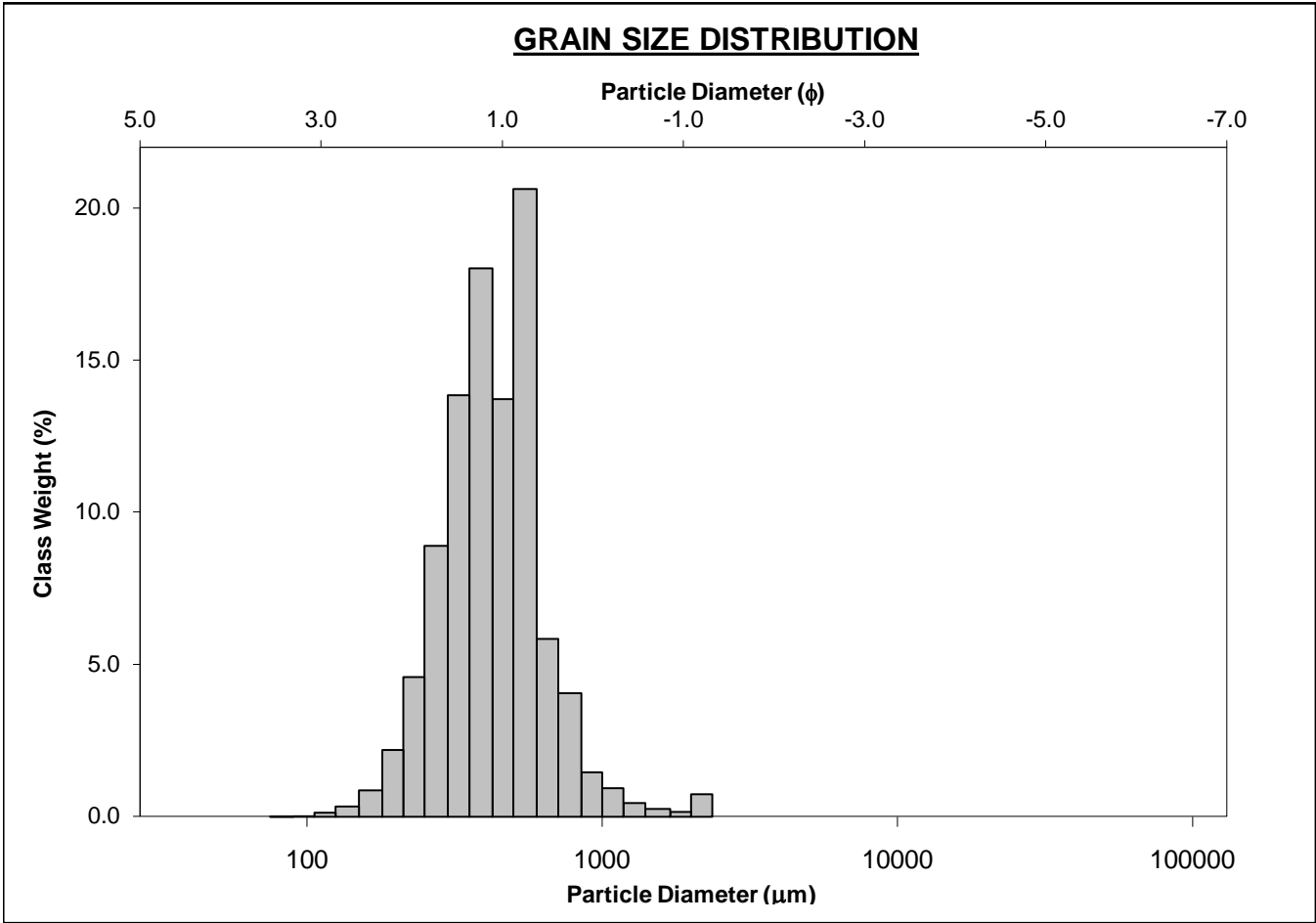
SIEVING ERROR: 1.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA-3-113cm			ANALYST & DATE: Brian, 12/19/2014			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 0.4%	COARSE SAND: 32.5%		
MODE 2:	390.0	1.364	SAND: 99.6%	MEDIUM SAND: 56.0%		
MODE 3:			MUD: 0.0%	FINE SAND: 8.5%		
D ₁₀ :	255.7	0.513		V FINE SAND: 0.2%		
MEDIAN or D ₅₀ :	417.2	1.261	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D ₉₀ :	700.5	1.968	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D ₉₀ / D ₁₀):	2.740	3.832	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
(D ₉₀ - D ₁₀):	444.8	1.454	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D ₇₅ / D ₂₅):	1.708	1.897	V FINE GRAVEL: 0.4%	V FINE SILT: 0.0%		
(D ₇₅ - D ₂₅):	228.3	0.773	V COARSE SAND: 2.4%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	468.7	424.6	1.236	414.2	1.272	Medium Sand
SORTING (σ):	238.2	1.526	0.609	1.475	0.560	Moderately Well Sorted
SKEWNESS (Sk):	2.977	0.267	-0.267	0.003	-0.003	Symmetrical
KURTOSIS (K):	17.80	4.973	4.973	1.019	1.019	Mesokurtic



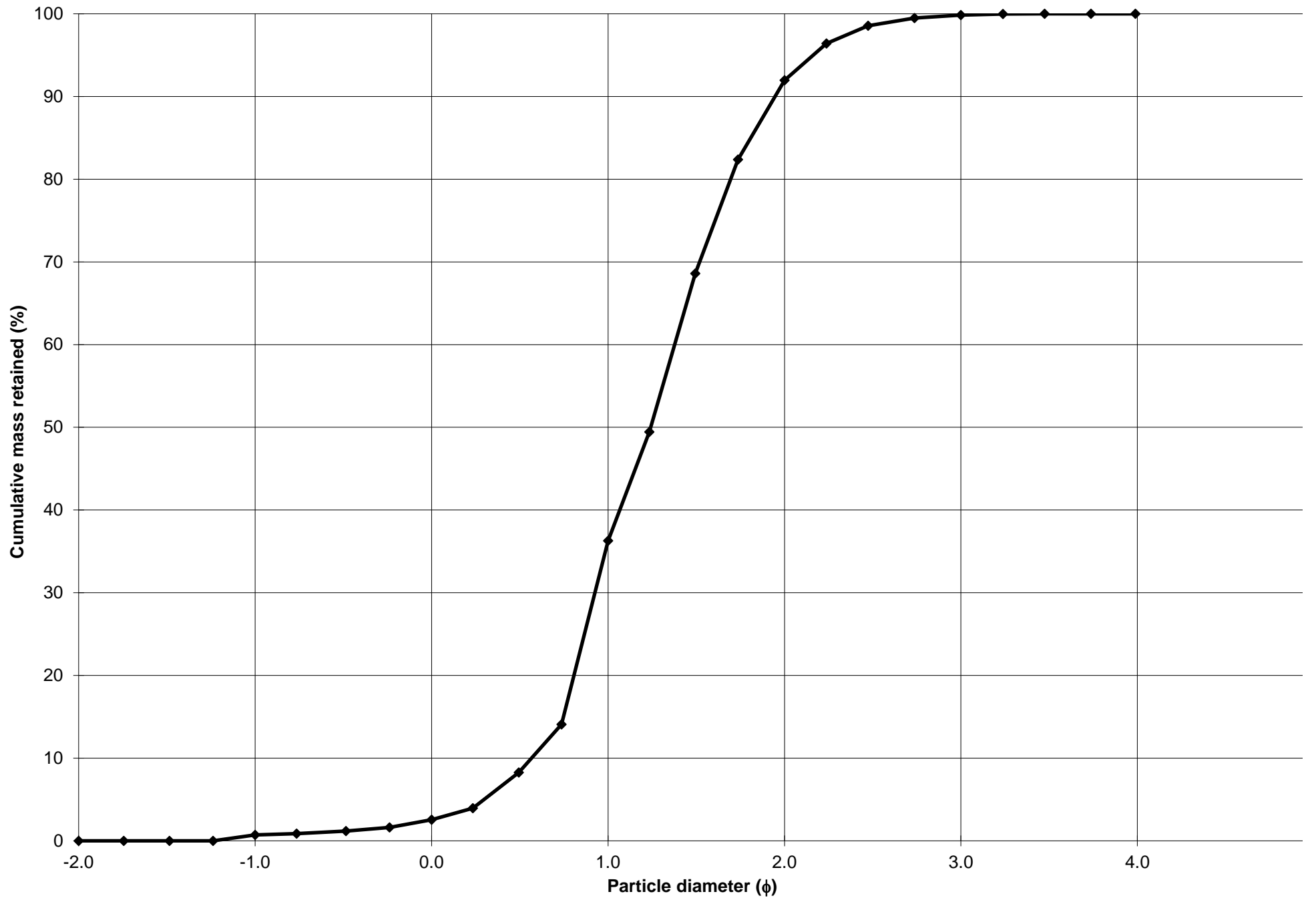
Cumulative Frequency Curve



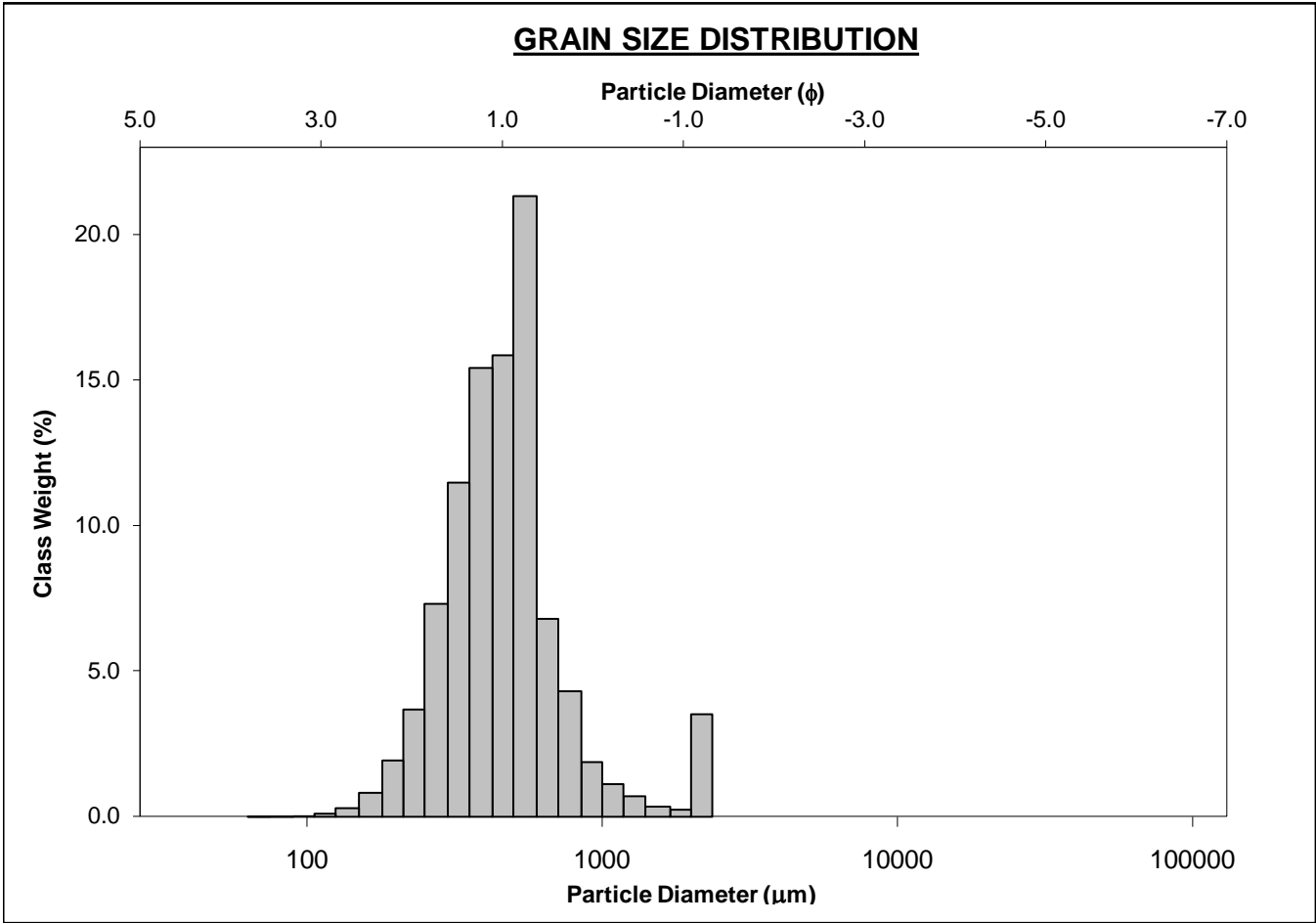
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA-3-120cm			ANALYST & DATE: Brian, 12/19/2014			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 0.7%		COARSE SAND: 33.7%	
MODE 2:	390.0	1.364	SAND: 99.3%		MEDIUM SAND: 55.7%	
MODE 3:			MUD: 0.0%		FINE SAND: 7.9%	
D ₁₀ :	259.5	0.567			V FINE SAND: 0.2%	
MEDIAN or D ₅₀ :	422.8	1.242	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	675.2	1.946	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.602	3.435	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	415.8	1.380	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.671	1.855	V FINE GRAVEL: 0.7%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	220.2	0.741	V COARSE SAND: 1.8%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	469.7	427.3	1.227	417.2	1.261	Medium Sand
SORTING (σ):	240.7	1.505	0.590	1.452	0.538	Moderately Well Sorted
SKEWNESS (Sk):	3.523	0.383	-0.383	-0.022	0.022	Symmetrical
KURTOSIS (K):	22.87	5.191	5.191	1.032	1.032	Mesokurtic



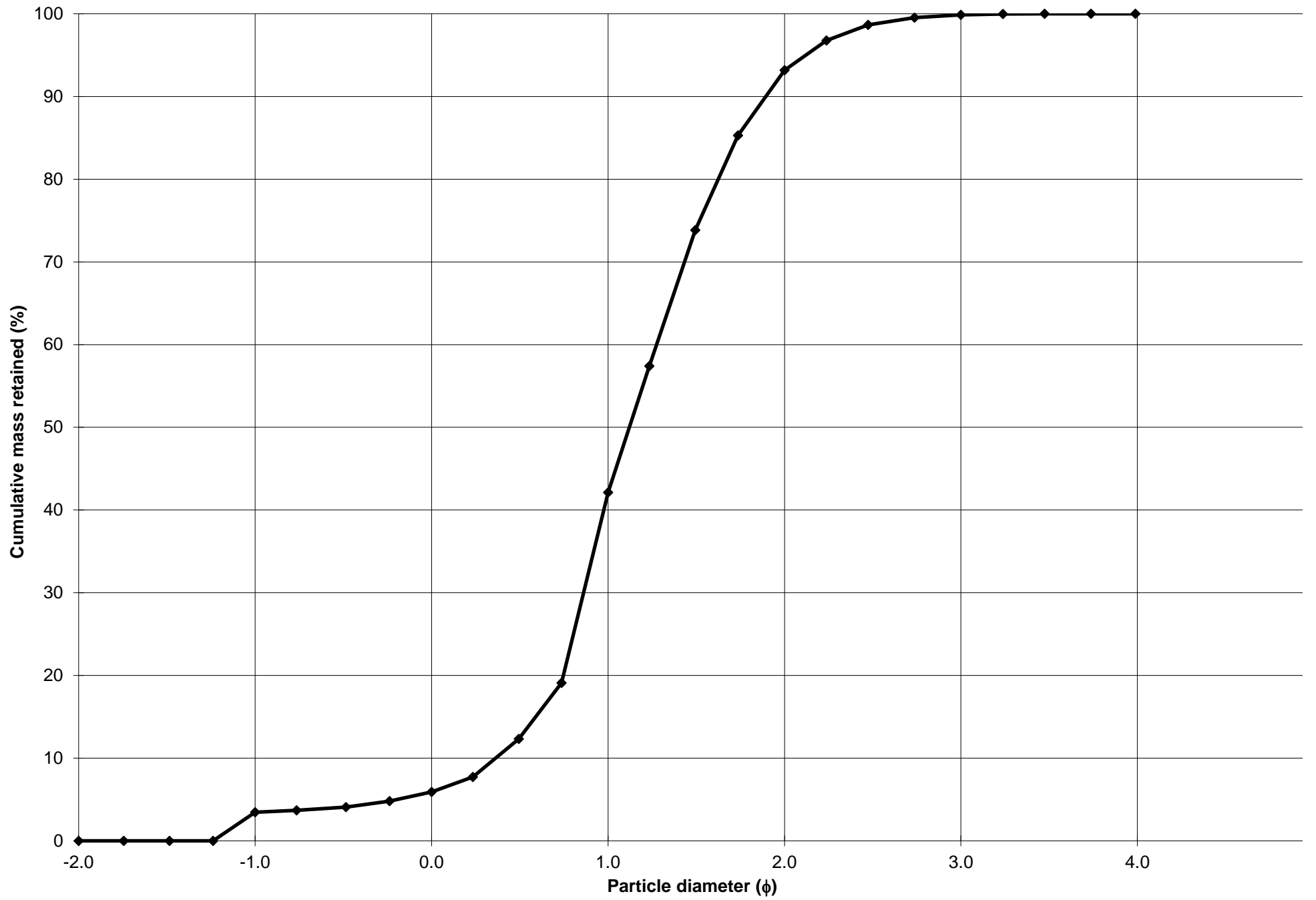
Cumulative Frequency Curve



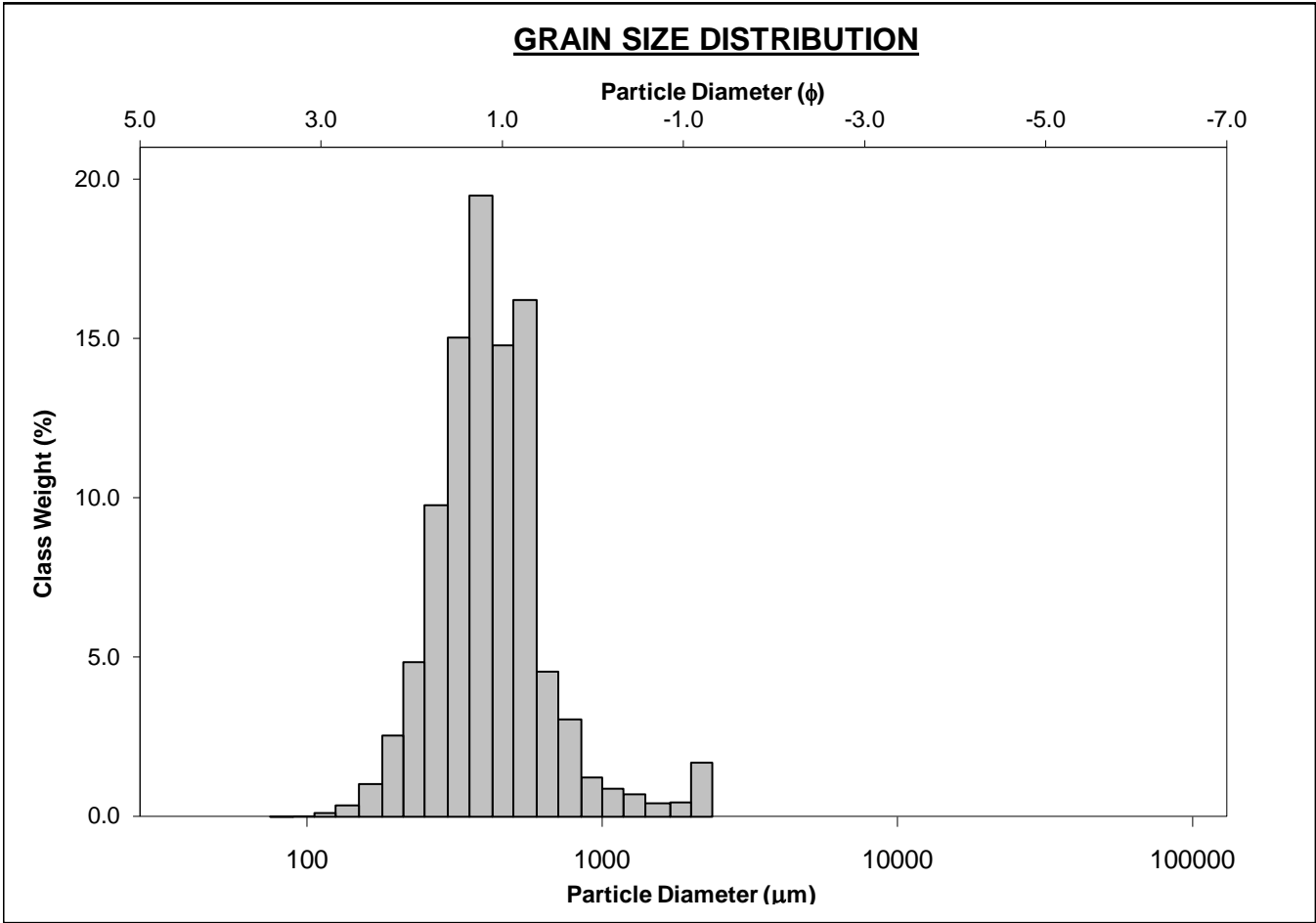
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA-3-130cm			ANALYST & DATE: Brian, 12/19/2014			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	550.0	0.868	GRAVEL: 3.5%		COARSE SAND: 36.2%	
MODE 2:	2180.0	-1.119	SAND: 96.5%		MEDIUM SAND: 51.1%	
MODE 3:			MUD: 0.0%		FINE SAND: 6.7%	
D_{10} :	269.0	0.363			V FINE SAND: 0.1%	
MEDIAN or D_{50} :	459.8	1.121	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D_{90} :	777.3	1.894	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D_{90} / D_{10}) :	2.889	5.212	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
$(D_{90} - D_{10})$:	508.3	1.531	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D_{75} / D_{25}) :	1.641	1.888	V FINE GRAVEL: 3.5%		V FINE SILT: 0.0%	
$(D_{75} - D_{25})$:	223.7	0.715	V COARSE SAND: 2.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	538.8	467.2	1.098	449.9	1.152	Medium Sand
SORTING (σ):	371.0	1.621	0.697	1.539	0.622	Moderately Well Sorted
SKEWNESS (Sk):	3.194	0.921	-0.921	0.025	-0.025	Symmetrical
KURTOSIS (K):	14.11	5.203	5.203	1.329	1.329	Leptokurtic



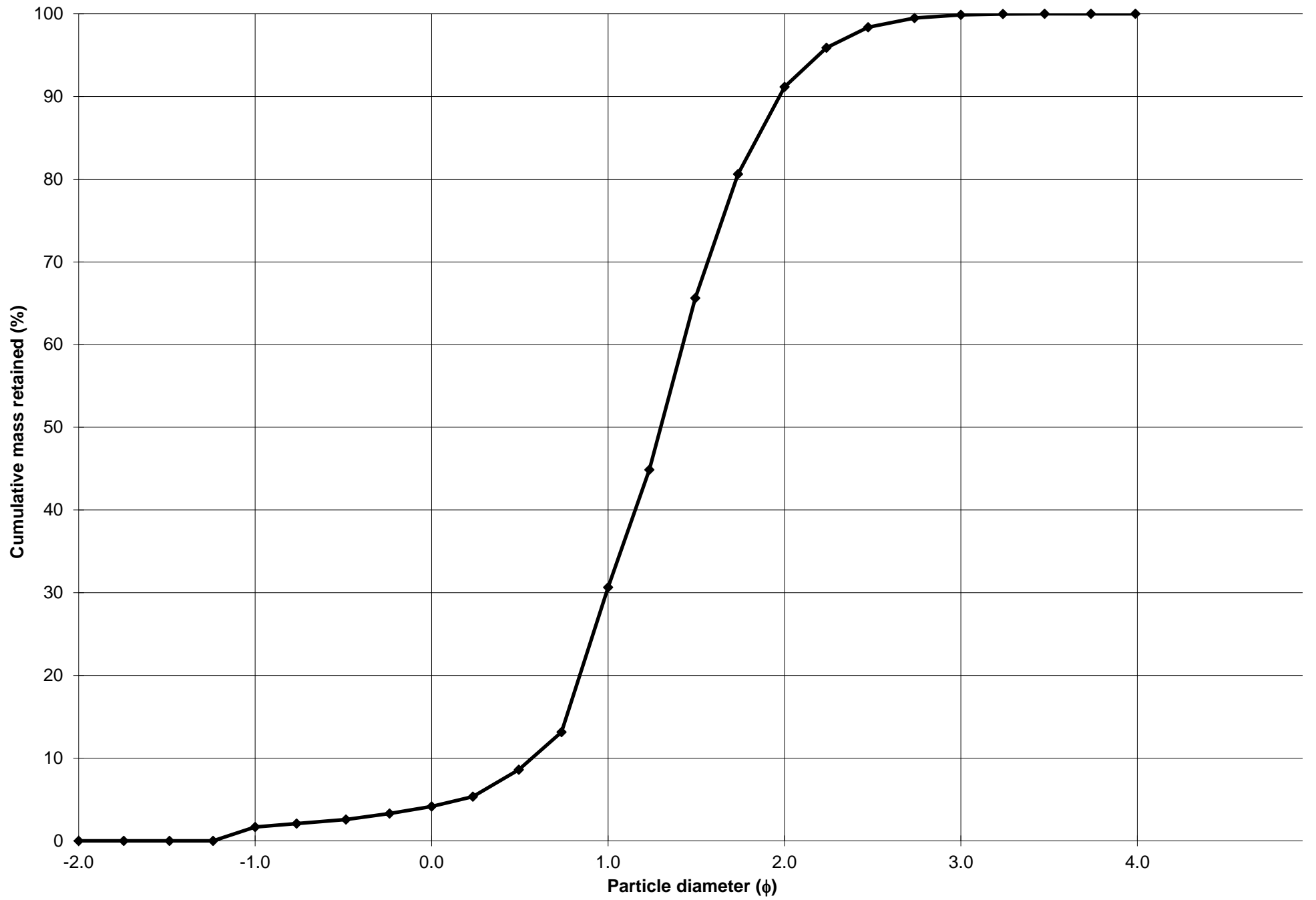
Cumulative Frequency Curve



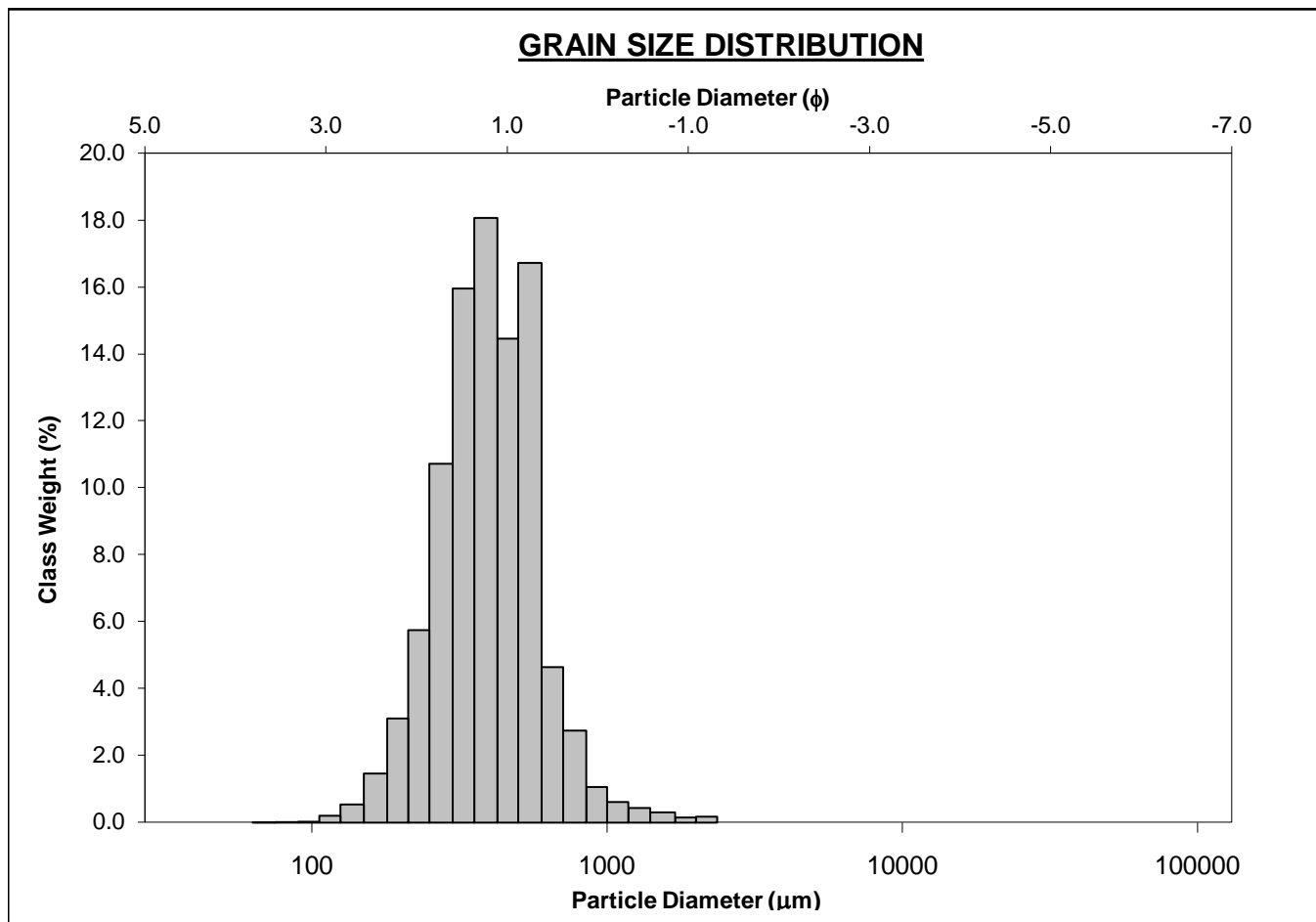
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA-3-140cm			ANALYST & DATE: Brian, 12/19/2014			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 1.7%		COARSE SAND: 26.5%	
MODE 2:	550.0	0.868	SAND: 98.3%		MEDIUM SAND: 60.5%	
MODE 3:			MUD: 0.0%		FINE SAND: 8.7%	
D ₁₀ :	255.1	0.569			V FINE SAND: 0.1%	
MEDIAN or D ₅₀ :	406.5	1.299	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	674.1	1.971	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.643	3.464	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	419.0	1.402	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.660	1.798	V FINE GRAVEL: 1.7%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	210.7	0.731	V COARSE SAND: 2.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	475.9	420.9	1.248	406.1	1.300	Medium Sand
SORTING (σ):	305.8	1.565	0.647	1.482	0.567	Moderately Well Sorted
SKEWNESS (Sk):	3.655	0.916	-0.916	0.057	-0.057	Symmetrical
KURTOSIS (K):	19.23	5.831	5.831	1.137	1.137	Leptokurtic



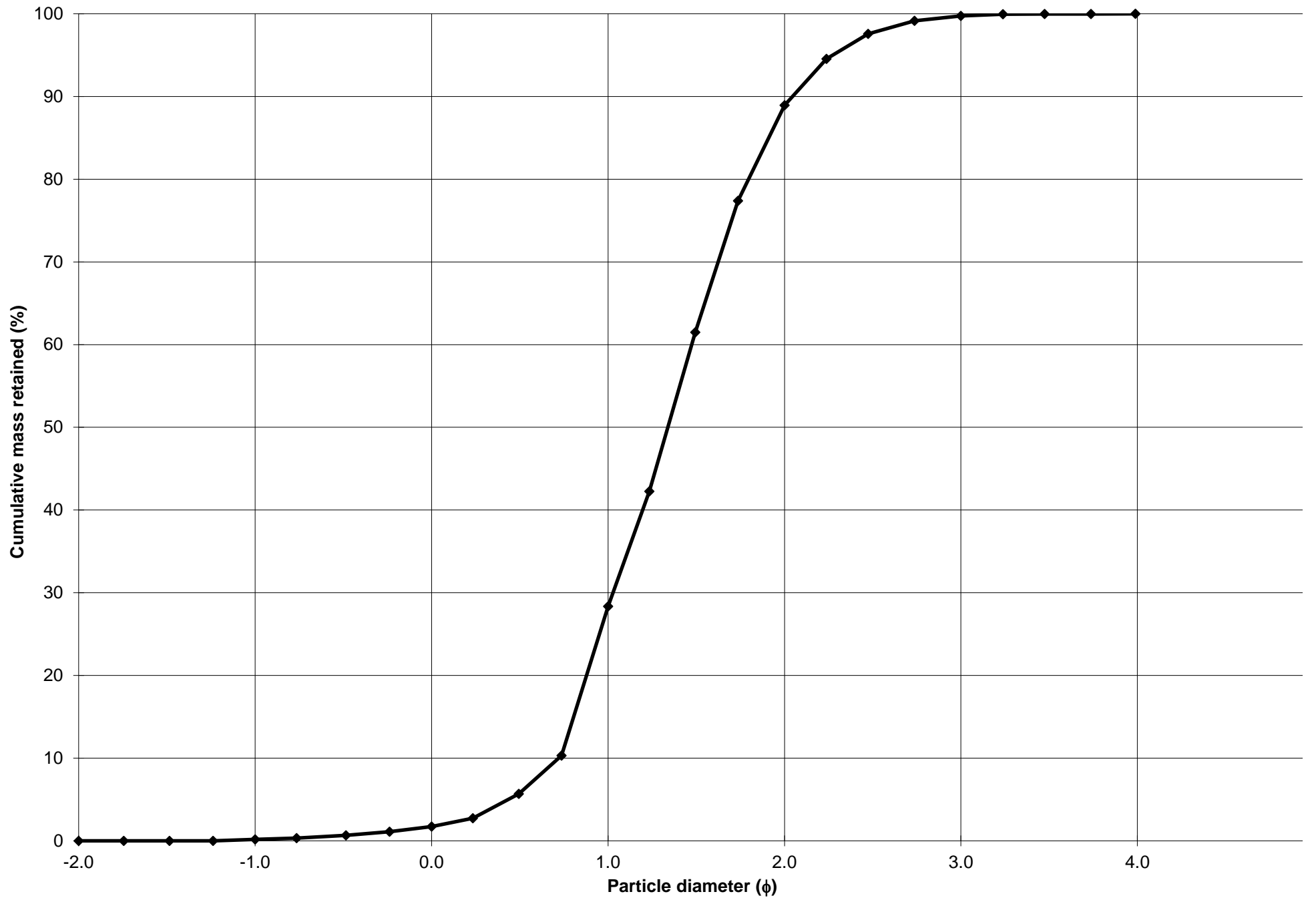
Cumulative Frequency Curve



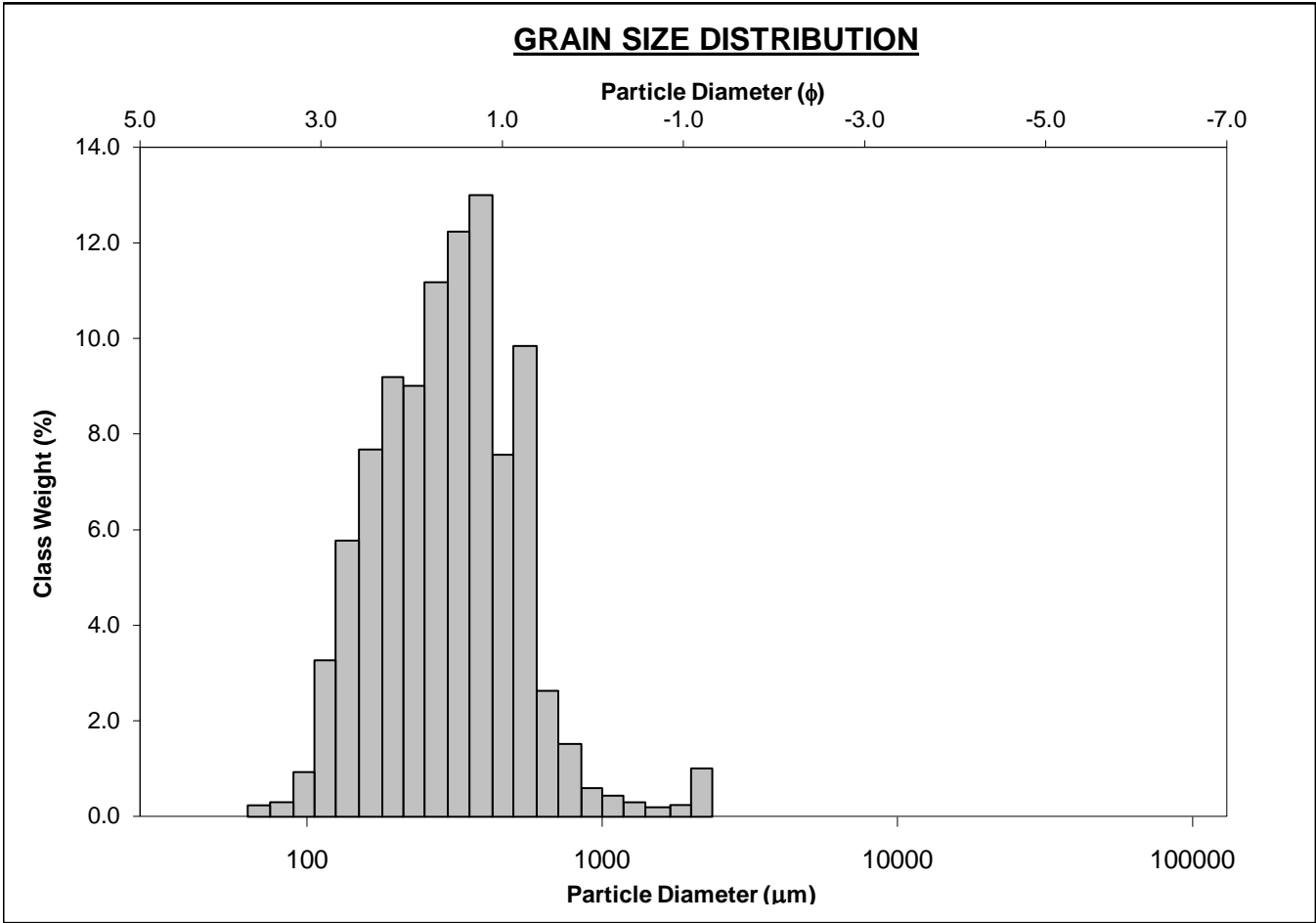
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA-3-151cm			ANALYST & DATE: Brian, 12/19/2014			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 0.2%		COARSE SAND: 26.6%	
MODE 2:	550.0	0.868	SAND: 99.8%		MEDIUM SAND: 60.6%	
MODE 3:			MUD: 0.0%		FINE SAND: 10.8%	
D ₁₀ :	242.4	0.721			V FINE SAND: 0.3%	
MEDIAN or D ₅₀ :	395.3	1.339	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.0%	
D ₉₀ :	606.6	2.045	COARSE GRAVEL: 0.0%		COARSE SILT: 0.0%	
(D ₉₀ / D ₁₀):	2.503	2.835	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.0%	
(D ₉₀ - D ₁₀):	364.2	1.323	FINE GRAVEL: 0.0%		FINE SILT: 0.0%	
(D ₇₅ / D ₂₅):	1.681	1.788	V FINE GRAVEL: 0.2%		V FINE SILT: 0.0%	
(D ₇₅ - D ₂₅):	209.5	0.749	V COARSE SAND: 1.5%		CLAY: 0.0%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	431.9	396.0	1.336	392.6	1.349	Medium Sand
SORTING (σ):	200.8	1.490	0.575	1.459	0.545	Moderately Well Sorted
SKEWNESS (Sk):	2.990	0.175	-0.175	-0.022	0.022	Symmetrical
KURTOSIS (K):	20.23	4.590	4.590	1.005	1.005	Mesokurtic



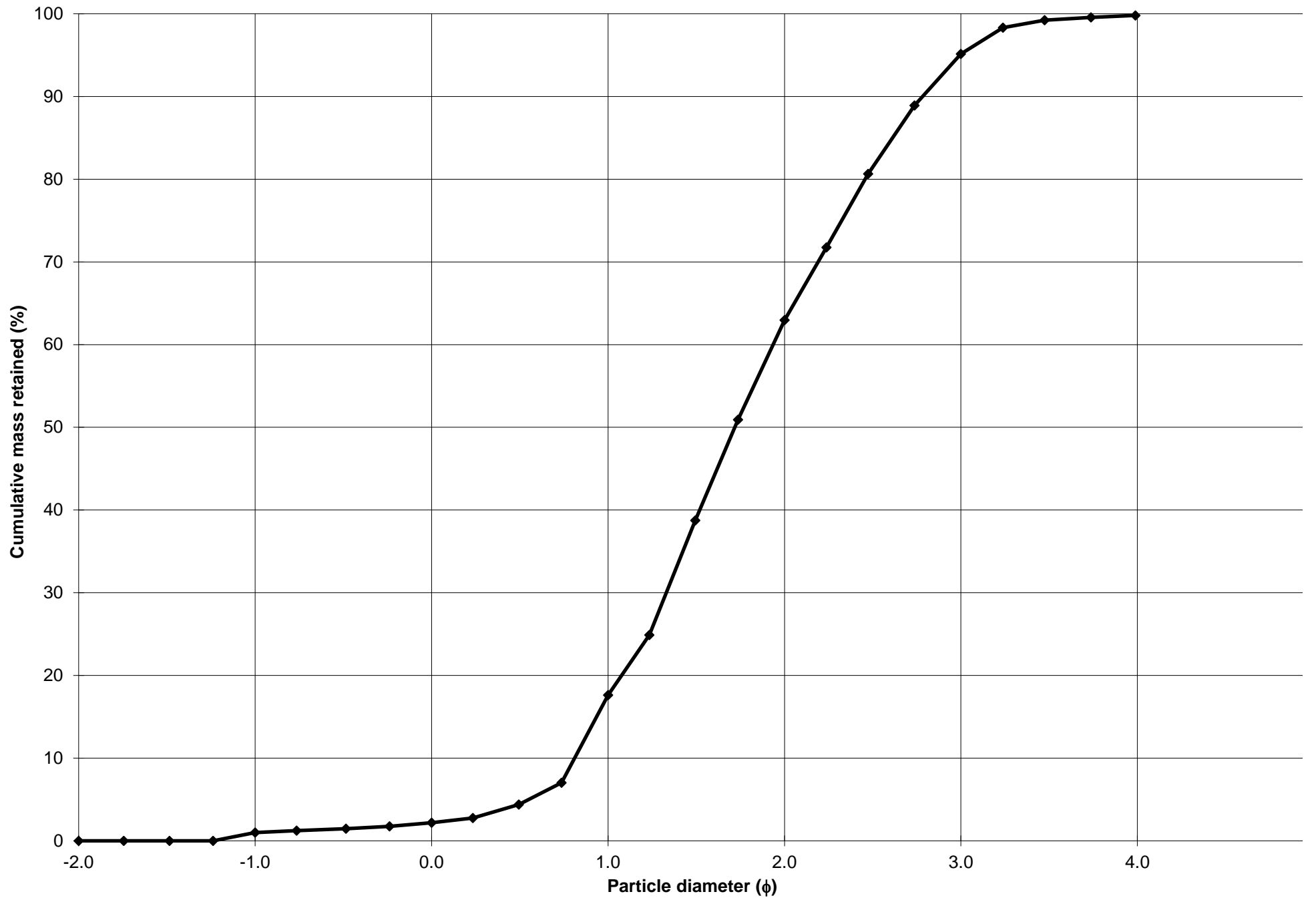
Cumulative Frequency Curve



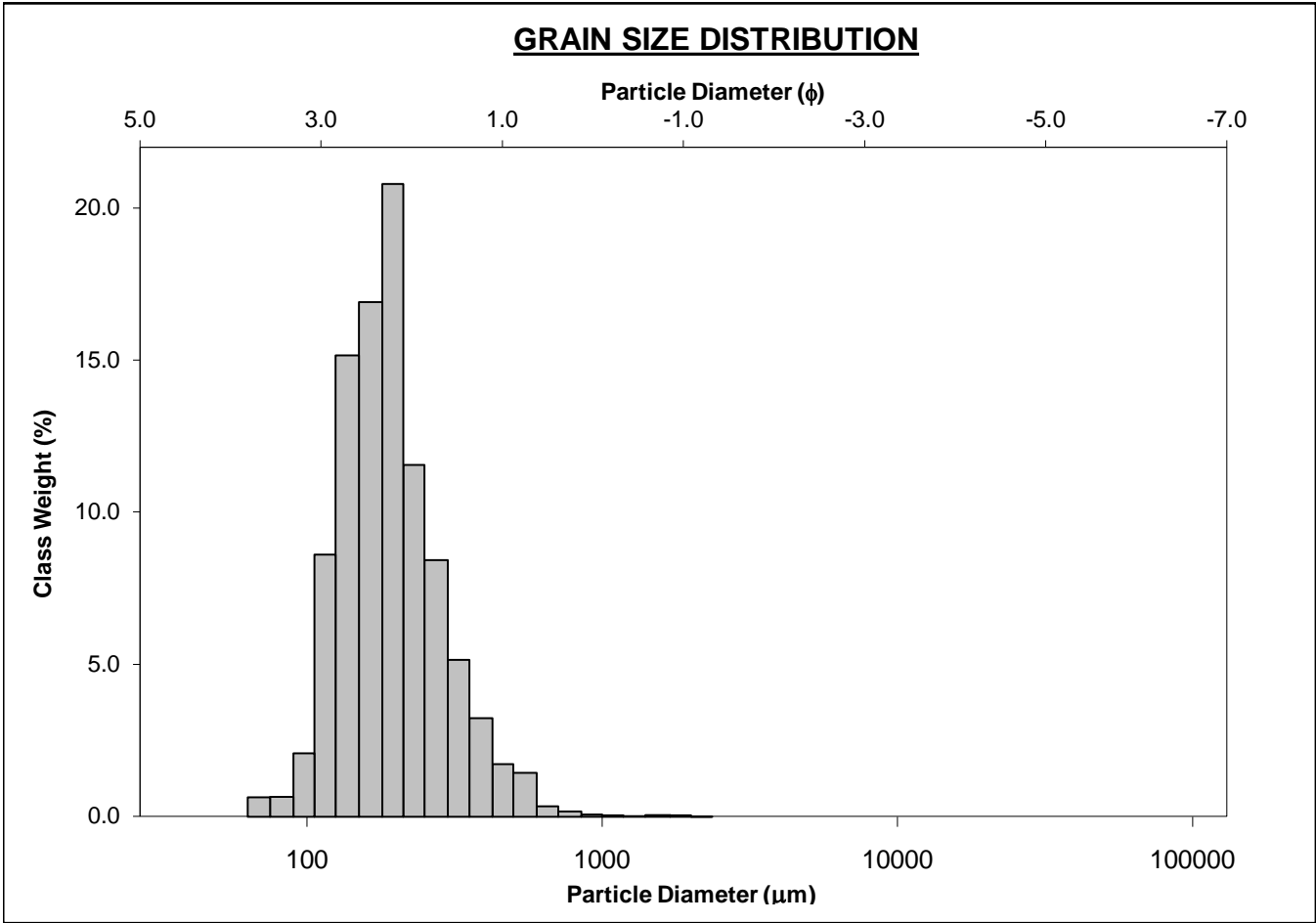
SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA-3-160cm			ANALYST & DATE: Brian, 12/19/2014			
SAMPLE TYPE: Trimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	390.0	1.364	GRAVEL: 1.0%	COARSE SAND: 15.4%		
MODE 2:	550.0	0.868	SAND: 98.8%	MEDIUM SAND: 45.3%		
MODE 3:	196.0	2.356	MUD: 0.2%	FINE SAND: 32.2%		
D_{10} :	145.3	0.811		V FINE SAND: 4.7%		
MEDIAN or D_{50} :	303.8	1.719	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%		
D_{90} :	570.0	2.783	COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%		
(D_{90} / D_{10}) :	3.923	3.431	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%		
$(D_{90} - D_{10})$:	424.7	1.972	FINE GRAVEL: 0.0%	FINE SILT: 0.0%		
(D_{75} / D_{25}) :	2.126	1.880	V FINE GRAVEL: 1.0%	V FINE SILT: 0.0%		
$(D_{75} - D_{25})$:	224.8	1.088	V COARSE SAND: 1.2%	CLAY: 0.0%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	357.3	298.3	1.745	296.6	1.753	Medium Sand
SORTING (σ):	268.7	1.785	0.836	1.712	0.776	Moderately Sorted
SKEWNESS (Sk):	3.970	-0.083	0.083	-0.054	0.054	Symmetrical
KURTOSIS (K):	25.17	6.341	6.341	0.920	0.920	Mesokurtic



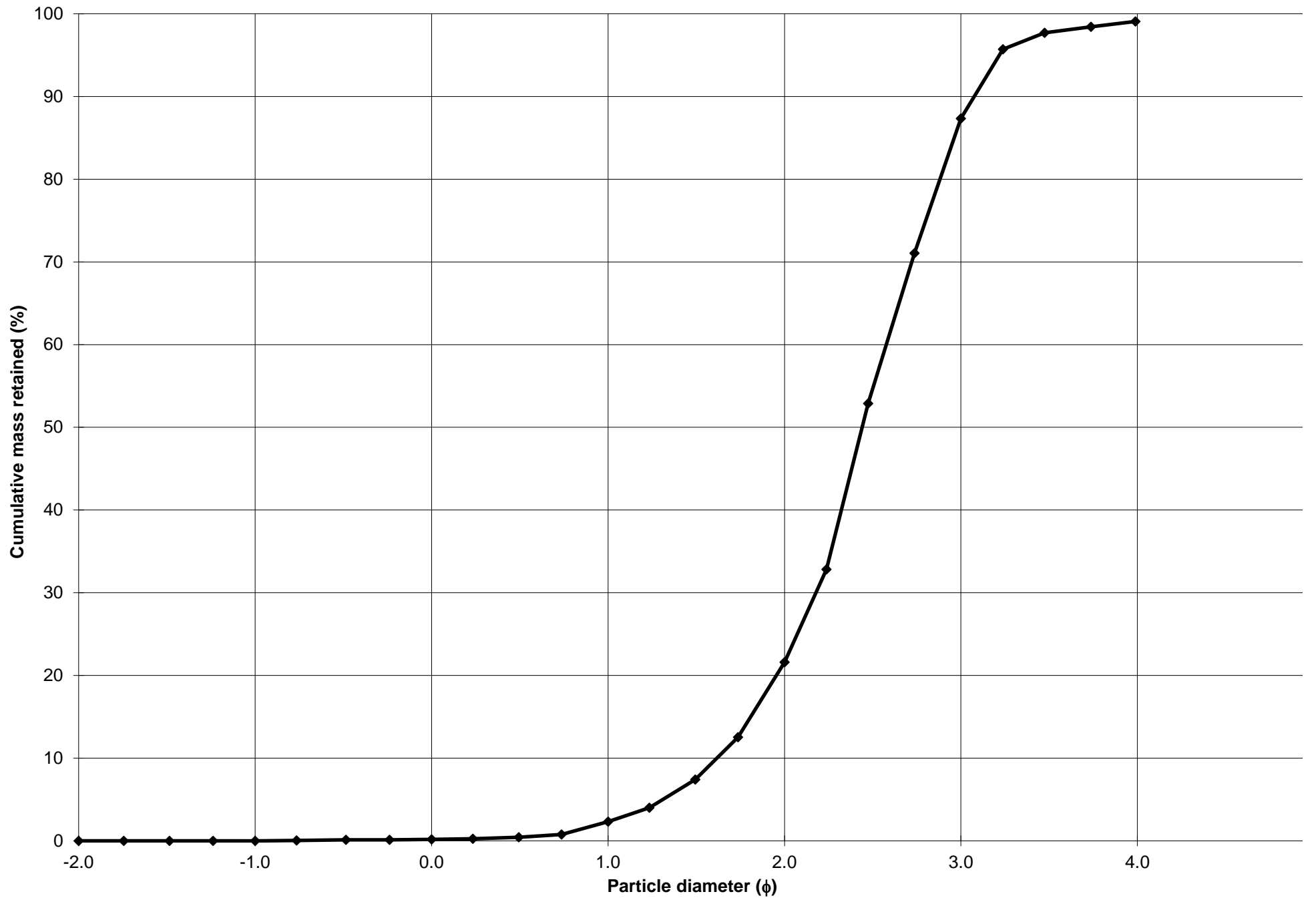
Cumulative Frequency Curve



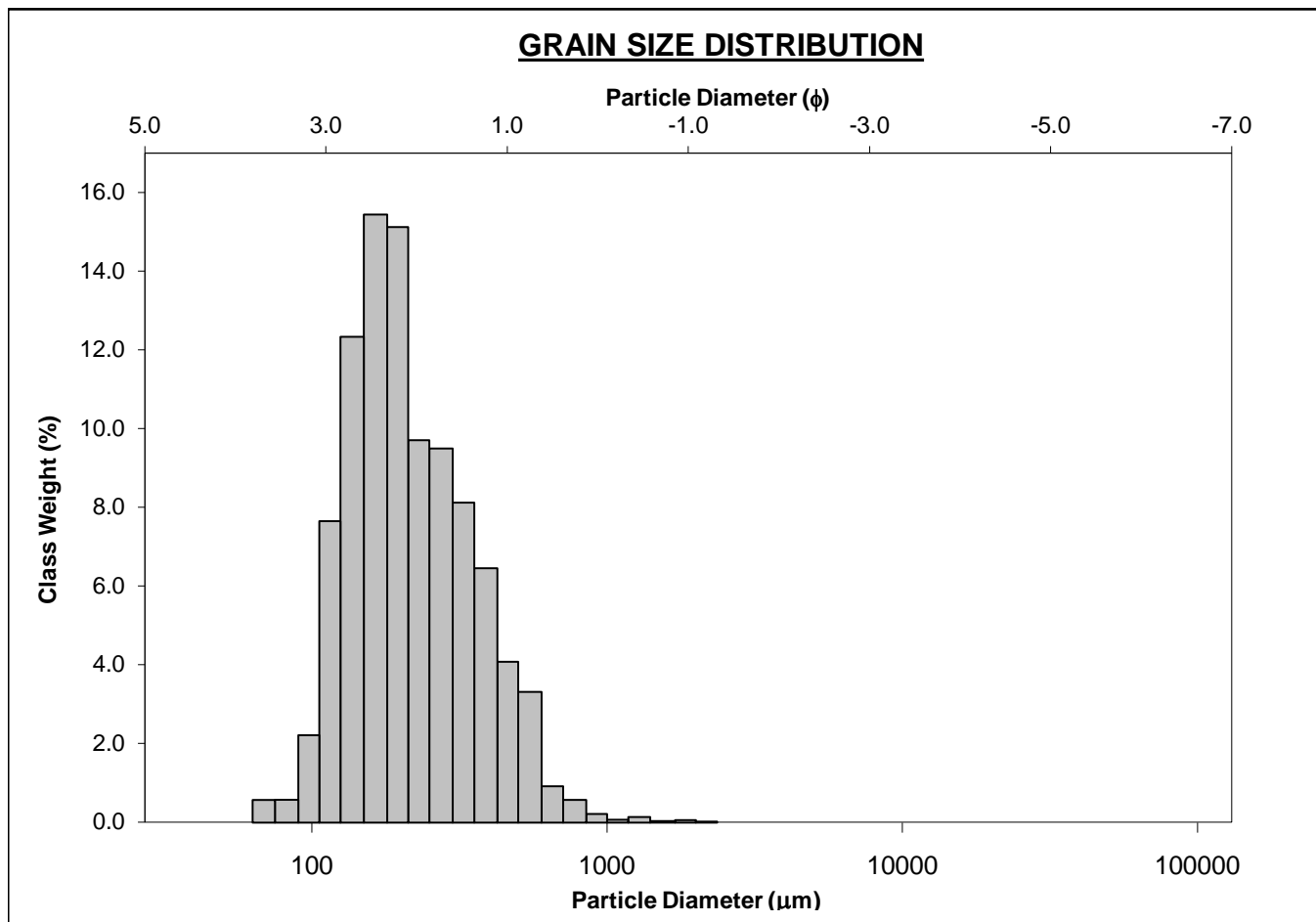
SIEVING ERROR: 0.4%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA-3-170cm			ANALYST & DATE: Brian, 12/19/2014			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	196.0	2.356	GRAVEL: 0.0%		COARSE SAND: 2.2%	
MODE 2:			SAND: 99.1%		MEDIUM SAND: 19.3%	
MODE 3:			MUD: 0.9%		FINE SAND: 65.7%	
D ₁₀ :	118.6	1.616			V FINE SAND: 11.7%	
MEDIAN or D ₅₀ :	184.3	2.440	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	326.1	3.076	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	2.750	1.903	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	207.5	1.459	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.657	1.352	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	94.32	0.729	V COARSE SAND: 0.2%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	208.9	185.9	2.428	188.4	2.408	Fine Sand
SORTING (σ):	112.7	1.656	0.728	1.481	0.566	Moderately Well Sorted
SKEWNESS (Sk):	4.432	-1.803	1.803	0.136	-0.136	Coarse Skewed
KURTOSIS (K):	46.44	16.32	16.32	1.072	1.072	Mesokurtic



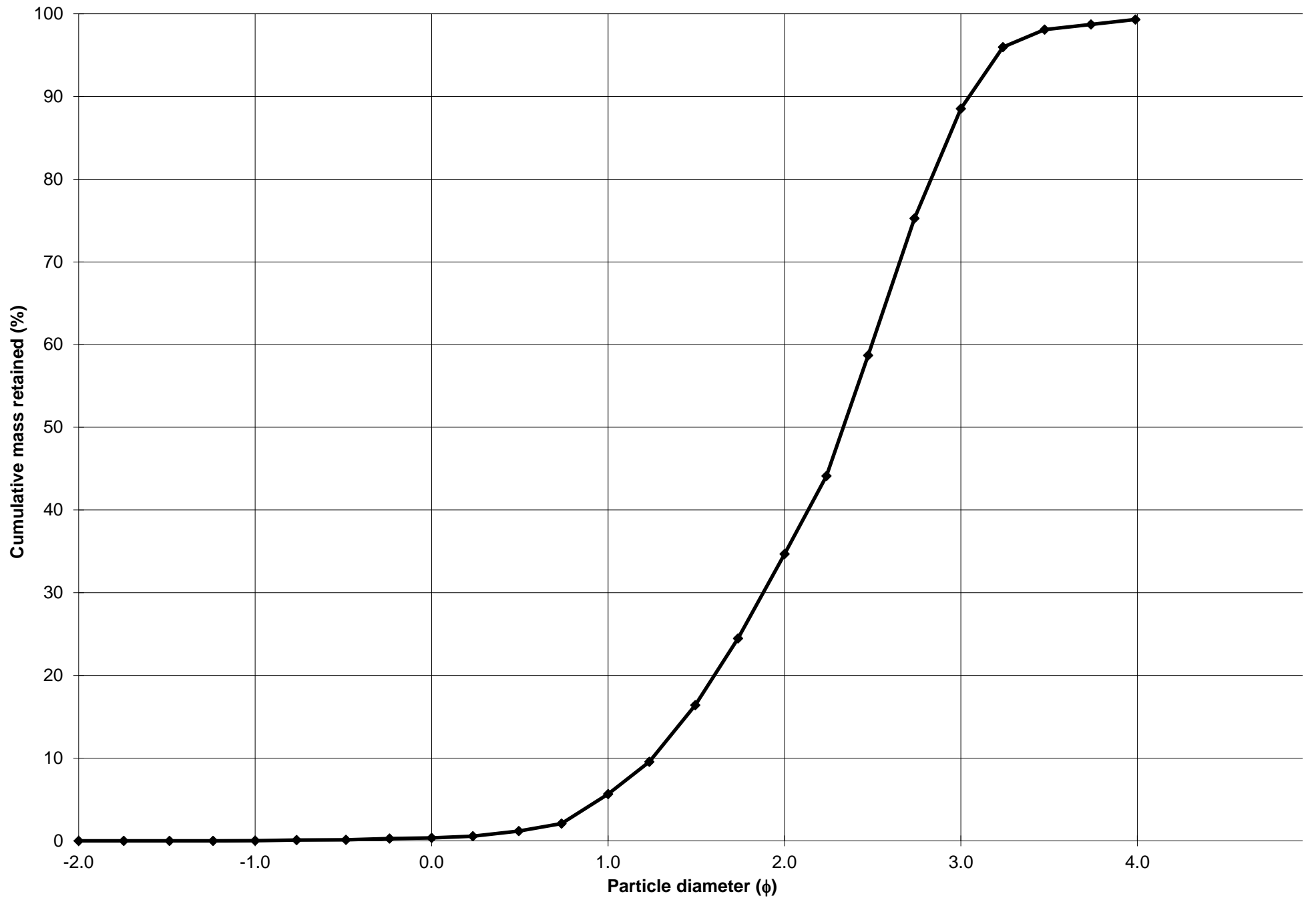
Cumulative Frequency Curve



SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA-3-180cm			ANALYST & DATE: Brian, 12/19/2014			
SAMPLE TYPE: Unimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 5.3%	
MODE 2:			SAND: 99.3%		MEDIUM SAND: 29.0%	
MODE 3:			MUD: 0.7%		FINE SAND: 53.8%	
D ₁₀ :	121.0	1.251			V FINE SAND: 10.8%	
MEDIAN or D ₅₀ :	198.4	2.333	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	420.2	3.047	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	3.474	2.436	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	299.2	1.796	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.975	1.561	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	146.7	0.982	V COARSE SAND: 0.3%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	244.4	210.5	2.248	211.6	2.241	Fine Sand
SORTING (σ):	149.3	1.742	0.801	1.624	0.700	Moderately Well Sorted
SKEWNESS (Sk):	3.262	-0.966	0.966	0.210	-0.210	Coarse Skewed
KURTOSIS (K):	25.96	10.48	10.48	0.941	0.941	Mesokurtic



Cumulative Frequency Curve



SIEVING ERROR: 0.3%

SAMPLE STATISTICSSAMPLE IDENTITY: **SI-14-PA-3-190cm**

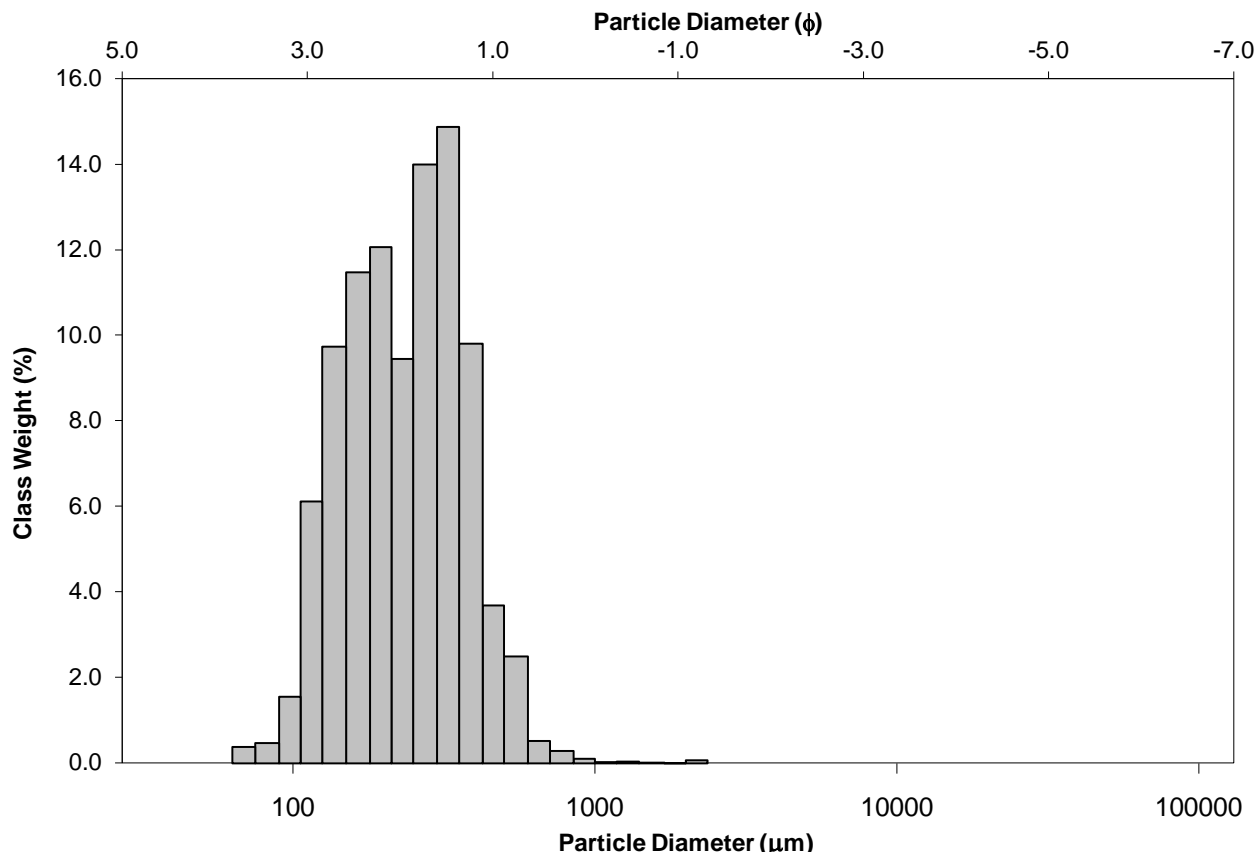
ANALYST & DATE: Brian, 12/19/2014

SAMPLE TYPE: Bimodal, Moderately Well Sorted

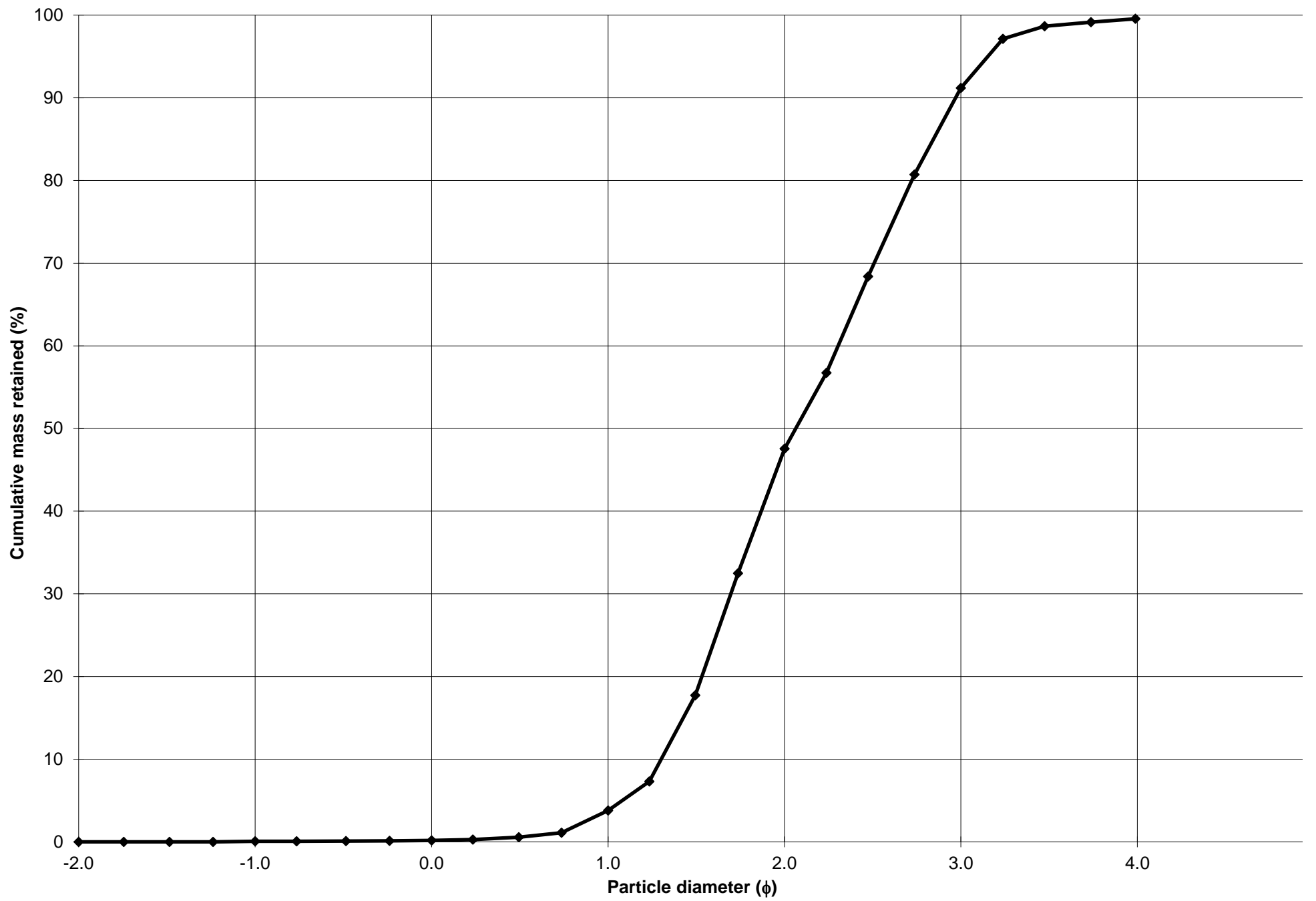
TEXTURAL GROUP: Slightly Gravelly Sand

SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	327.5	1.616	GRAVEL: 0.1%	COARSE SAND: 3.6%		
MODE 2:	196.0	2.356	SAND: 99.5%	MEDIUM SAND: 43.8%		
MODE 3:			MUD: 0.4%	FINE SAND: 43.6%		
D_{10} :	127.6	1.301		V FINE SAND: 8.4%		
MEDIAN or D_{50} :	239.2	2.064	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.1%		
D_{90} :	405.8	2.970	COARSE GRAVEL: 0.0%	COARSE SILT: 0.1%		
(D_{90} / D_{10}) :	3.179	2.282	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.1%		
$(D_{90} - D_{10})$:	278.1	1.669	FINE GRAVEL: 0.0%	FINE SILT: 0.1%		
(D_{75} / D_{25}) :	2.002	1.621	V FINE GRAVEL: 0.1%	V FINE SILT: 0.1%		
$(D_{75} - D_{25})$:	163.5	1.001	V COARSE SAND: 0.1%	CLAY: 0.1%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	259.0	230.0	2.120	231.4	2.111	Fine Sand
SORTING (σ):	131.7	1.656	0.728	1.576	0.656	Moderately Well Sorted
SKEWNESS (Sk):	3.422	-1.219	1.219	-0.078	0.078	Symmetrical
KURTOSIS (K):	39.61	10.94	10.94	0.848	0.848	Platykurtic

GRAIN SIZE DISTRIBUTION

Cumulative Frequency Curve



SIEVING ERROR: 1.0%

SAMPLE STATISTICSSAMPLE IDENTITY: **SI-14-PA-3-200cm**

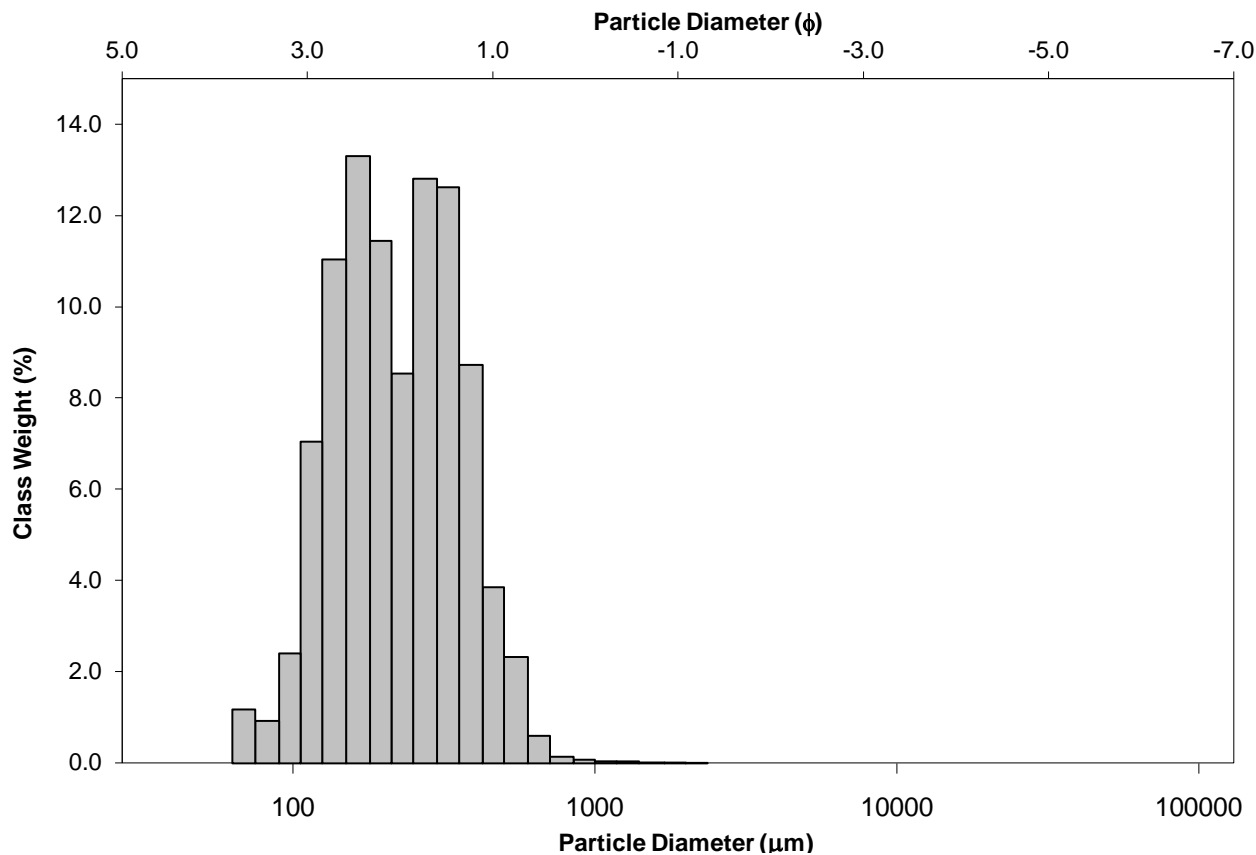
ANALYST & DATE: Brian, 12/19/2014

SAMPLE TYPE: Bimodal, Moderately Sorted

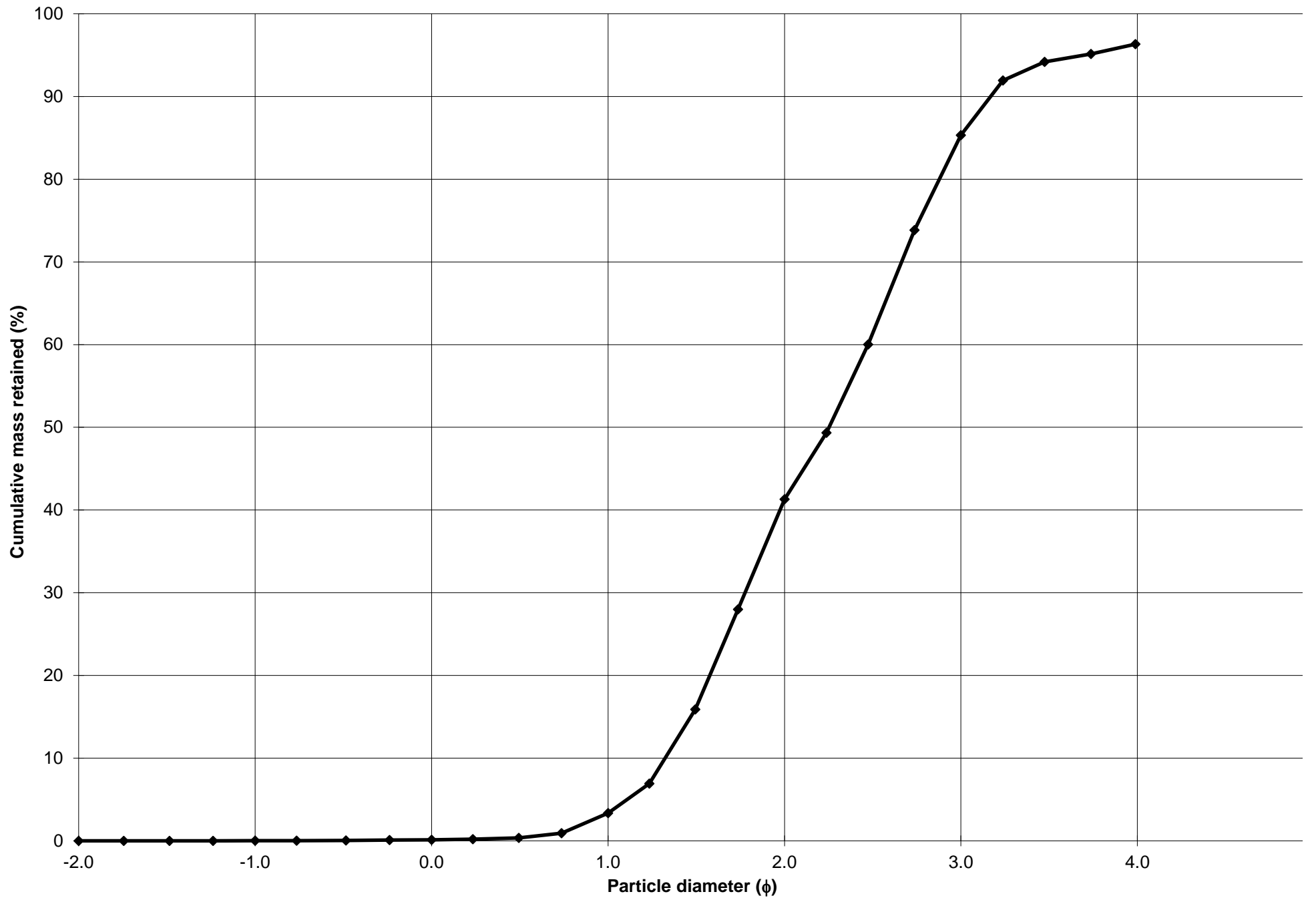
TEXTURAL GROUP: Slightly Gravelly Sand

SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand

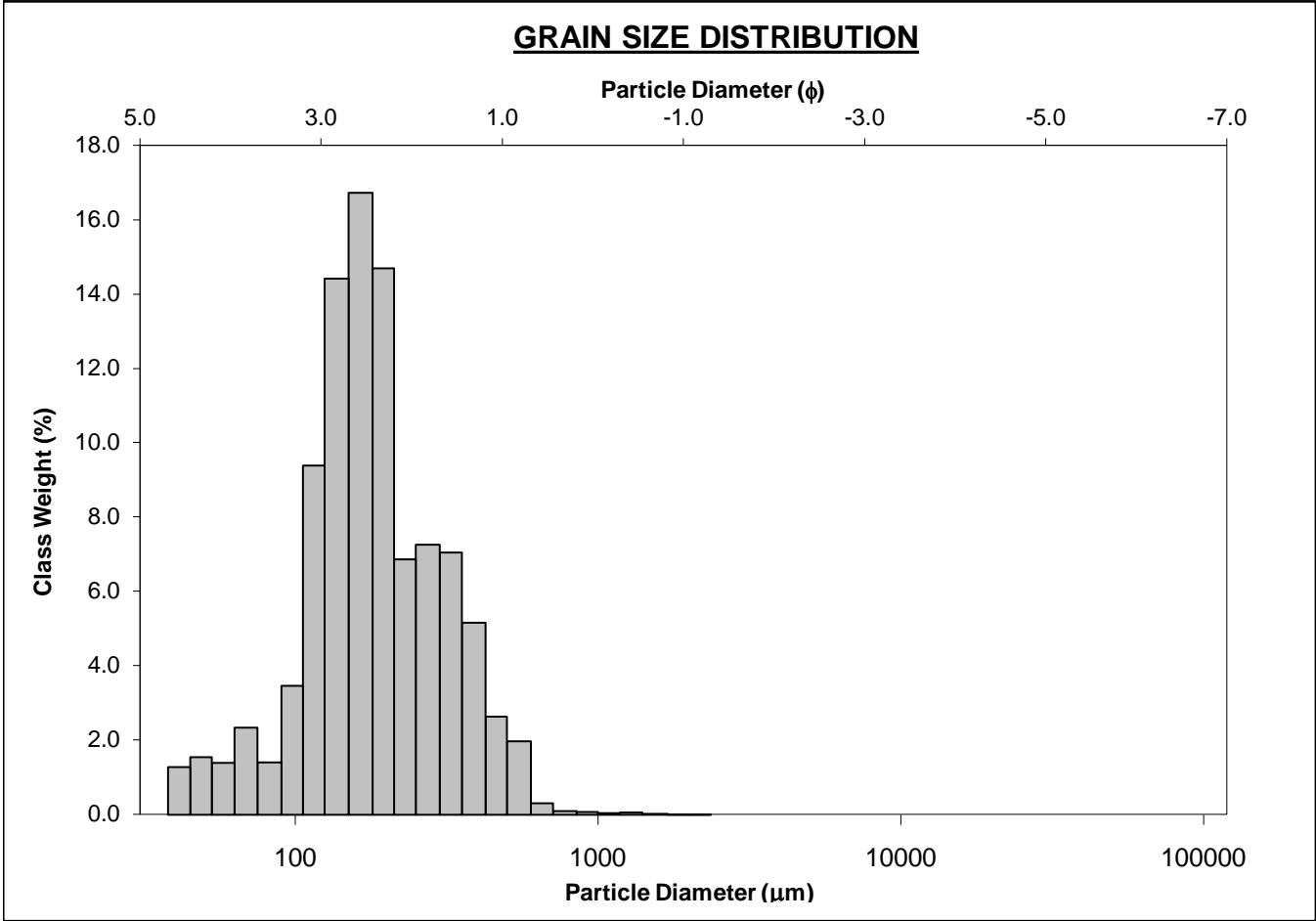
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%	COARSE SAND: 3.2%		
MODE 2:	275.0	1.868	SAND: 96.3%	MEDIUM SAND: 38.0%		
MODE 3:			MUD: 3.7%	FINE SAND: 44.0%		
D_{10} :	111.2	1.323		V FINE SAND: 11.0%		
MEDIAN or D_{50} :	209.9	2.253	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.6%		
D_{90} :	399.6	3.168	COARSE GRAVEL: 0.0%	COARSE SILT: 0.6%		
(D_{90} / D_{10}) :	3.592	2.394	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.6%		
$(D_{90} - D_{10})$:	288.4	1.845	FINE GRAVEL: 0.0%	FINE SILT: 0.6%		
(D_{75} / D_{25}) :	2.124	1.648	V FINE GRAVEL: 0.0%	V FINE SILT: 0.6%		
$(D_{75} - D_{25})$:	165.5	1.087	V COARSE SAND: 0.1%	CLAY: 0.6%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	239.3	194.6	2.361	211.7	2.240	Fine Sand
SORTING (σ):	129.6	2.183	1.127	1.694	0.761	Moderately Sorted
SKEWNESS (Sk):	1.973	-2.374	2.374	-0.045	0.045	Symmetrical
KURTOSIS (K):	17.41	10.92	10.92	0.976	0.976	Mesokurtic

GRAIN SIZE DISTRIBUTION

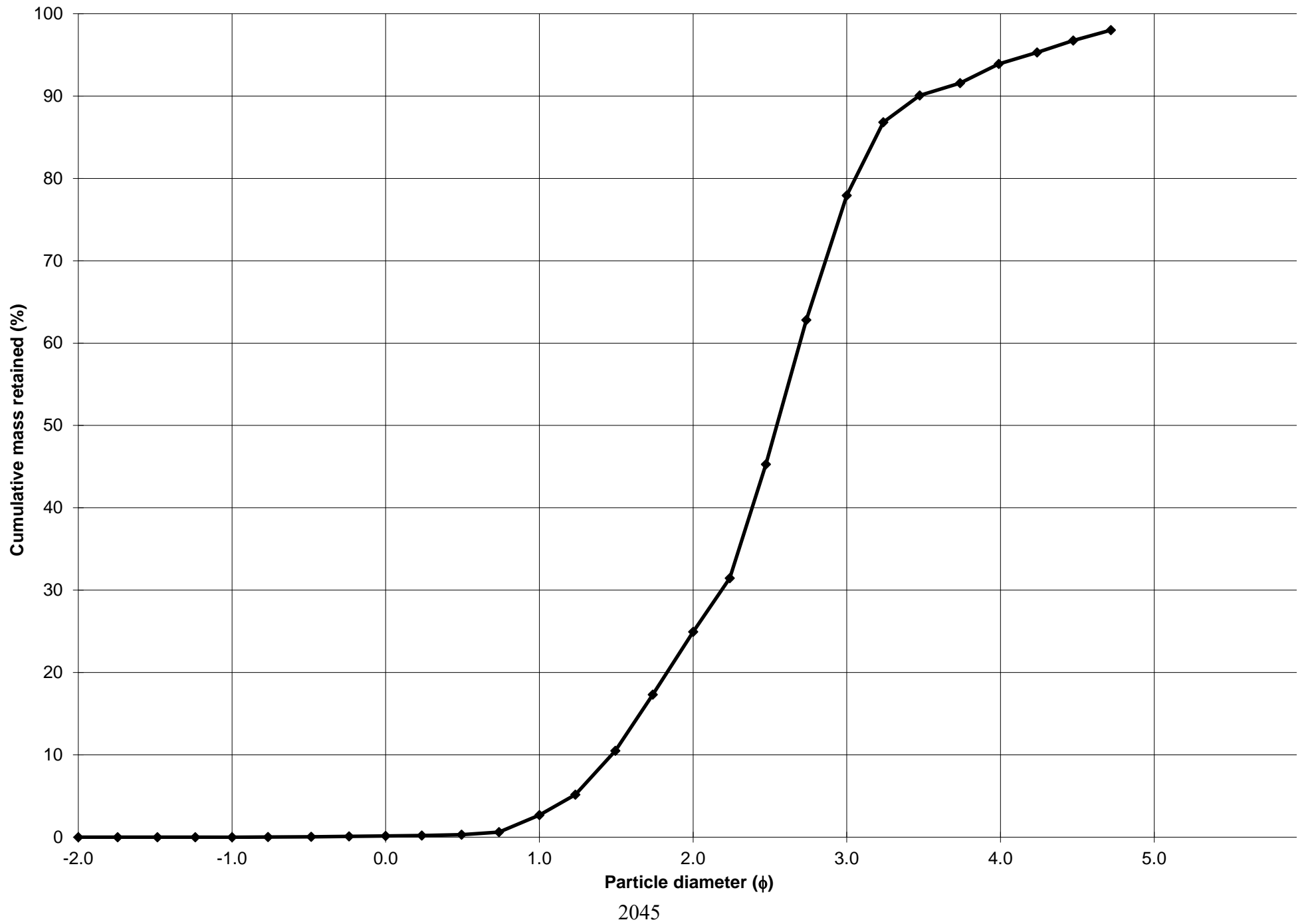
Cumulative Frequency Curve



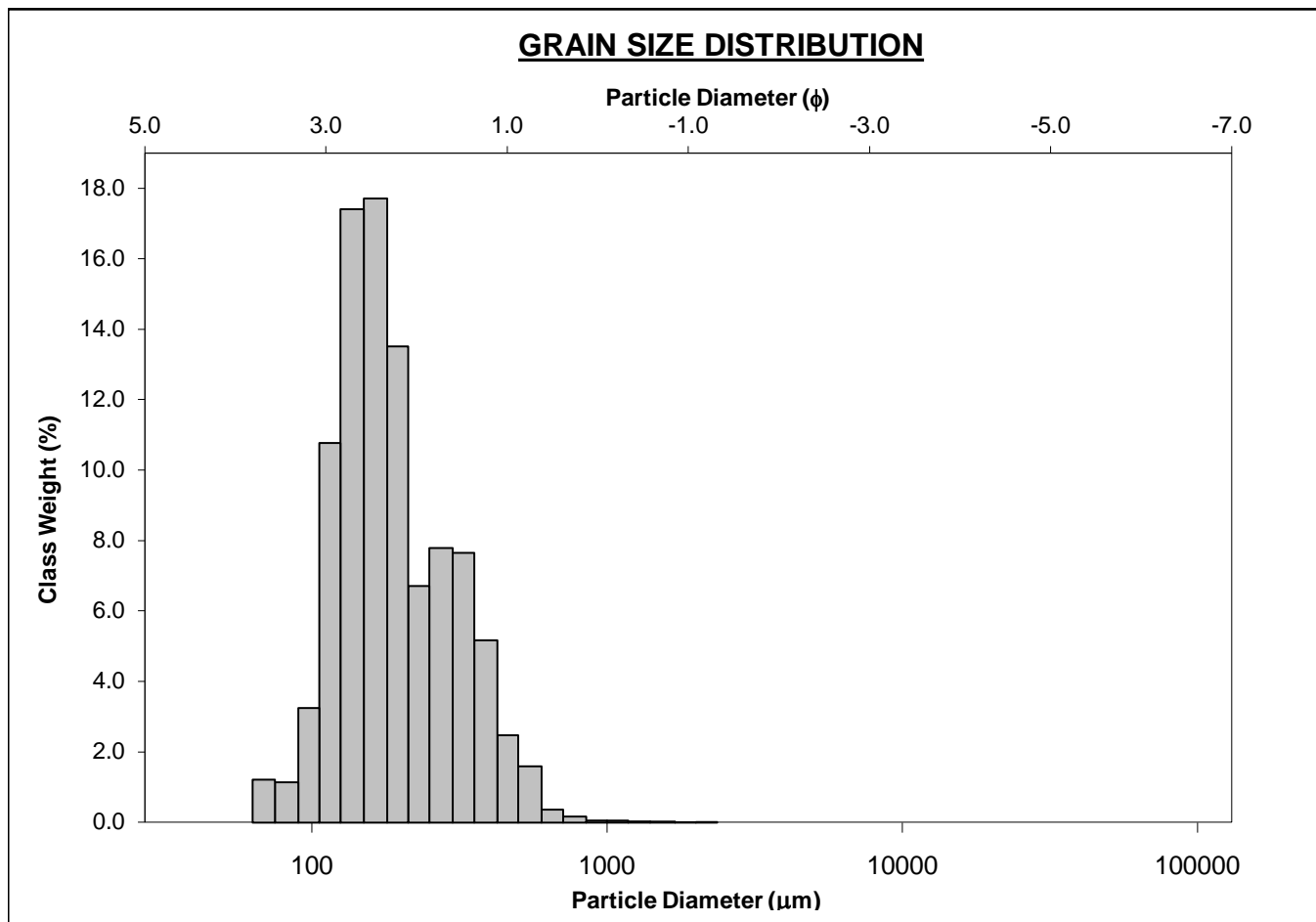
SIEVING ERROR: 2.0%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-3-210cm			ANALYST & DATE: Brian, 4/4/15			
SAMPLE TYPE: Bimodal, Moderately Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 2.5%	
MODE 2:	275.0	1.868	SAND: 94.0%		MEDIUM SAND: 22.2%	
MODE 3:			MUD: 6.0%		FINE SAND: 53.0%	
D_{10} :	90.38	1.470			V FINE SAND: 16.1%	
MEDIAN or D_{50} :	171.4	2.545	V COARSE GRAVEL: 0.0%		V COARSE SILT: 4.1%	
D_{90} :	361.0	3.468	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D_{90} / D_{10}) :	3.994	2.359	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
$(D_{90} - D_{10})$:	270.6	1.998	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D_{75} / D_{25}) :	1.928	1.473	V FINE GRAVEL: 0.0%		V FINE SILT: 0.4%	
$(D_{75} - D_{25})$:	120.1	0.947	V COARSE SAND: 0.1%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	202.8	166.9	2.583	181.0	2.466	Fine Sand
SORTING (σ):	122.2	2.032	1.023	1.762	0.817	Moderately Sorted
SKEWNESS (Sk):	2.402	-1.913	1.913	0.028	-0.028	Symmetrical
KURTOSIS (K):	18.35	10.61	10.61	1.283	1.283	Leptokurtic



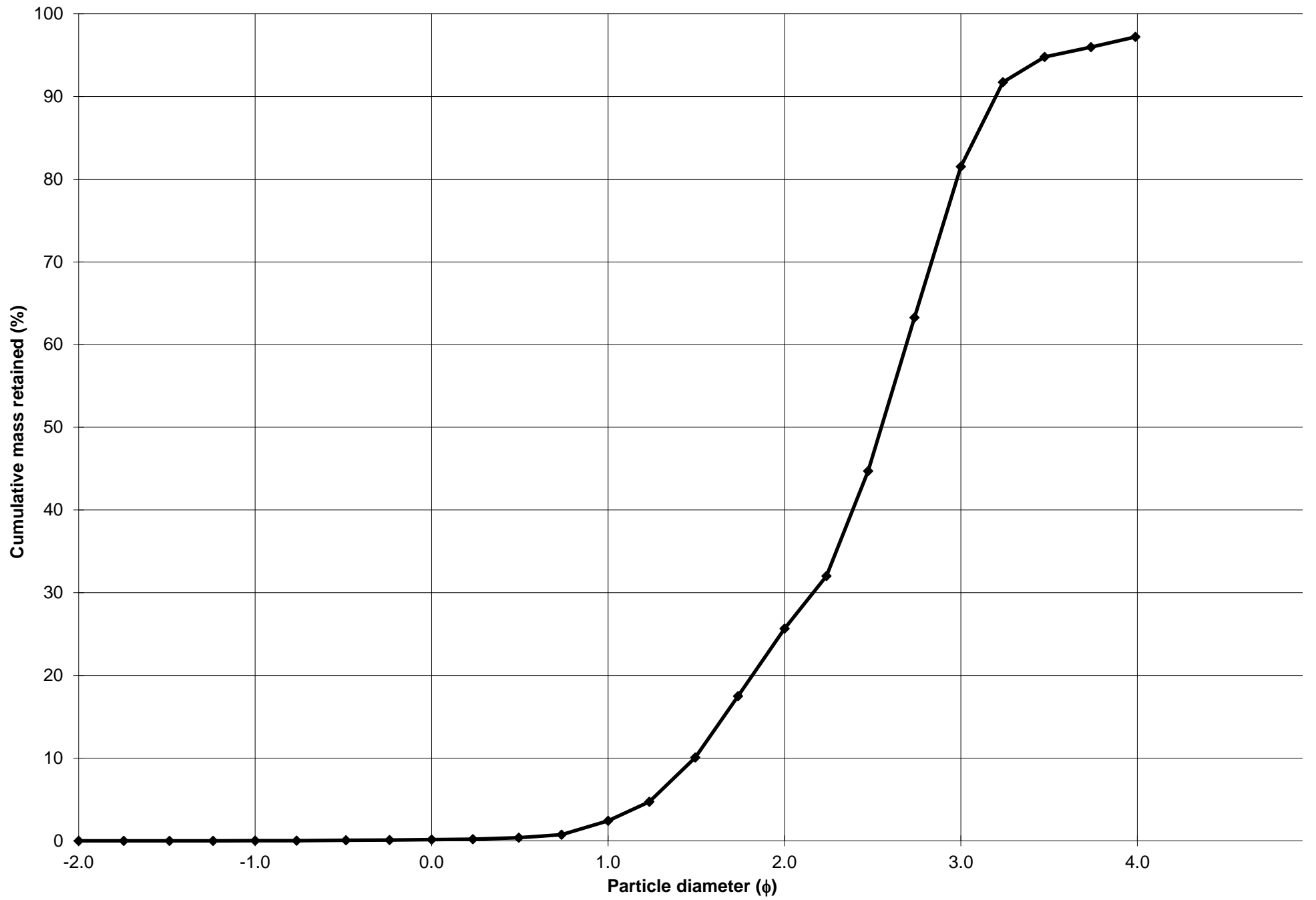
Cumulative Frequency Curve



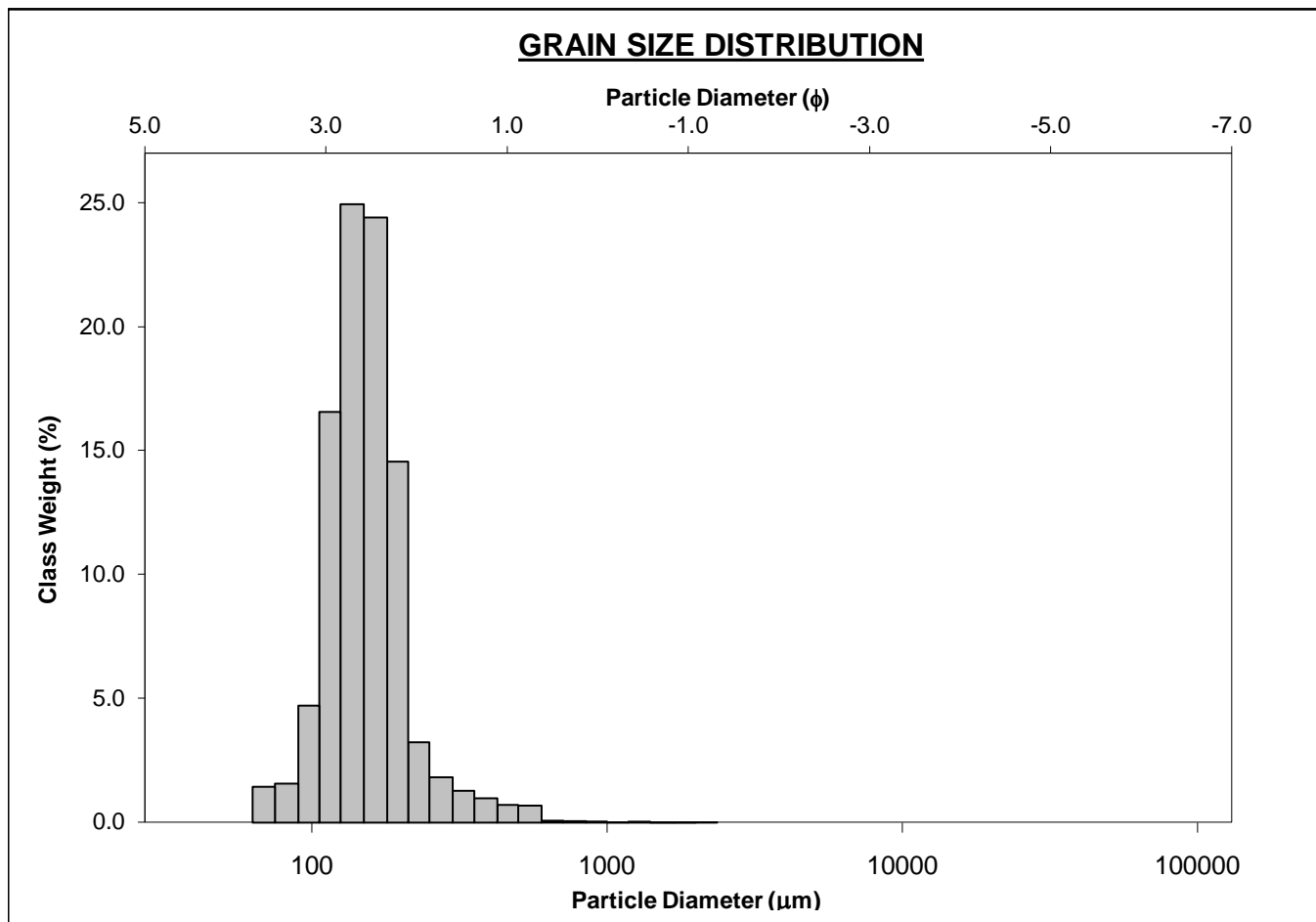
SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA-3-220cm			ANALYST & DATE: Brian, 12/19/2014			
SAMPLE TYPE: Bimodal, Moderately Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	165.0	2.605	GRAVEL: 0.0%		COARSE SAND: 2.3%	
MODE 2:	275.0	1.868	SAND: 97.2%		MEDIUM SAND: 23.2%	
MODE 3:			MUD: 2.8%		FINE SAND: 55.9%	
D_{10} :	109.0	1.490			V FINE SAND: 15.7%	
MEDIAN or D_{50} :	170.9	2.549	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.5%	
D_{90} :	356.0	3.198	COARSE GRAVEL: 0.0%		COARSE SILT: 0.5%	
(D_{90} / D_{10}) :	3.267	2.146	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.5%	
$(D_{90} - D_{10})$:	247.0	1.708	FINE GRAVEL: 0.0%		FINE SILT: 0.5%	
(D_{75} / D_{25}) :	1.901	1.468	V FINE GRAVEL: 0.0%		V FINE SILT: 0.5%	
$(D_{75} - D_{25})$:	120.3	0.927	V COARSE SAND: 0.1%		CLAY: 0.5%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	206.7	172.4	2.536	185.4	2.432	Fine Sand
SORTING (σ):	120.2	1.992	0.994	1.610	0.687	Moderately Well Sorted
SKEWNESS (Sk):	3.122	-2.199	2.199	0.200	-0.200	Coarse Skewed
KURTOSIS (K):	29.61	12.08	12.08	1.006	1.006	Mesokurtic



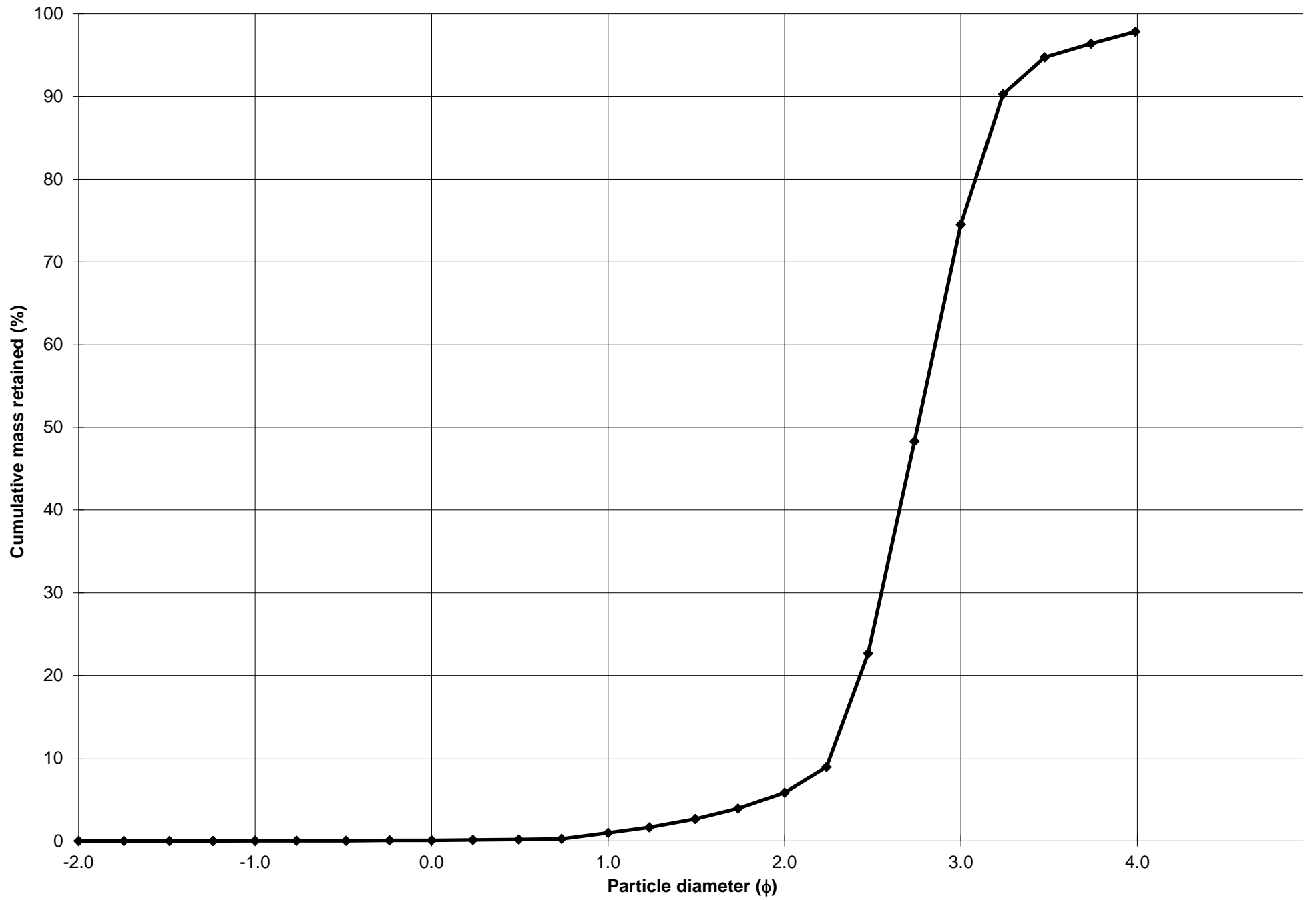
Cumulative Frequency Curve



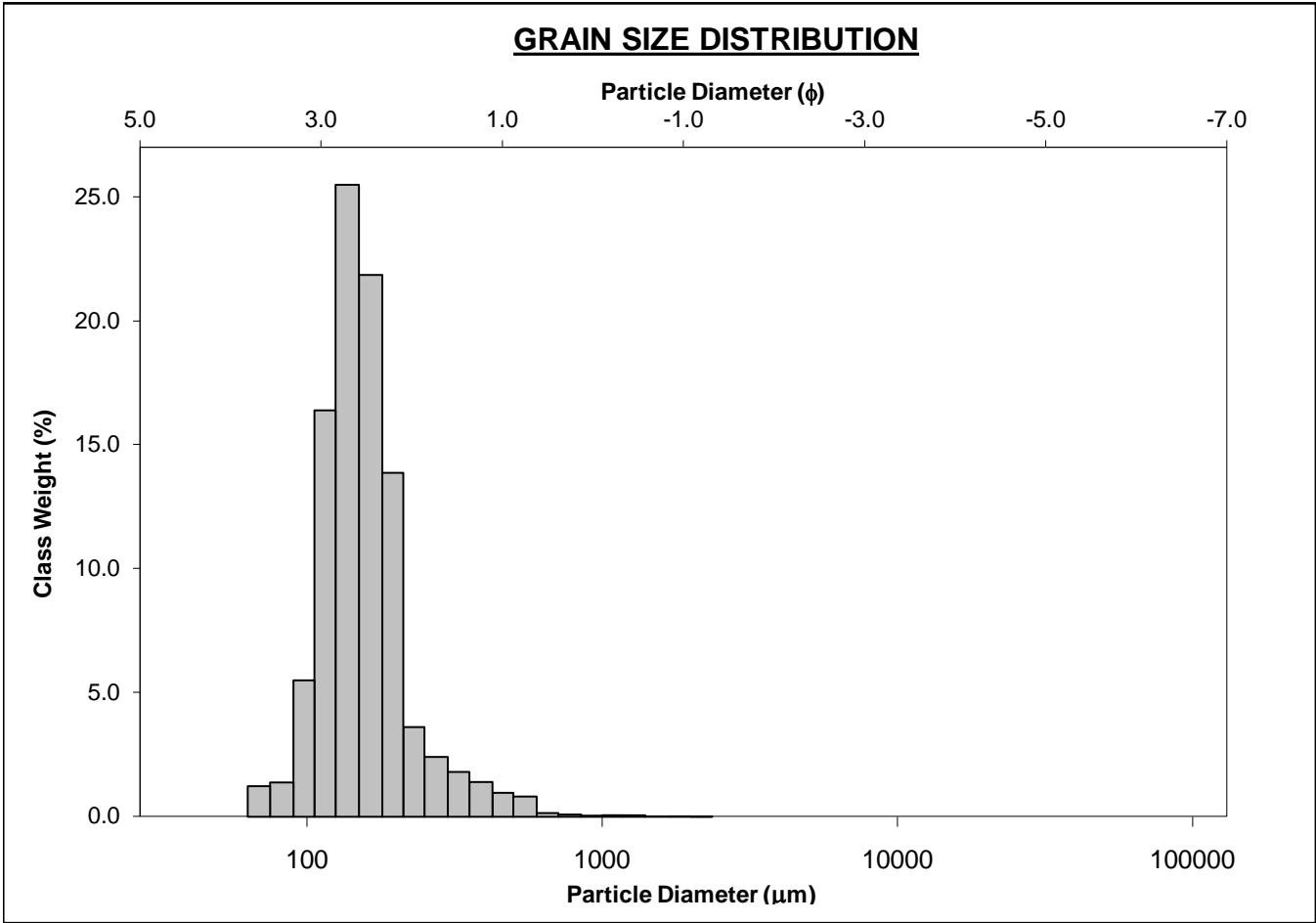
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA-3-230cm			ANALYST & DATE: Brian, 12/19/2014			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 0.9%	
MODE 2:			SAND: 97.8%		MEDIUM SAND: 4.9%	
MODE 3:			MUD: 2.2%		FINE SAND: 68.7%	
D ₁₀ :	106.3	2.256			V FINE SAND: 23.3%	
MEDIAN or D ₅₀ :	148.2	2.754	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.4%	
D ₉₀ :	209.3	3.234	COARSE GRAVEL: 0.0%		COARSE SILT: 0.4%	
(D ₉₀ / D ₁₀):	1.969	1.433	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.4%	
(D ₉₀ - D ₁₀):	103.0	0.977	FINE GRAVEL: 0.0%		FINE SILT: 0.4%	
(D ₇₅ / D ₂₅):	1.423	1.204	V FINE GRAVEL: 0.0%		V FINE SILT: 0.4%	
(D ₇₅ - D ₂₅):	52.65	0.509	V COARSE SAND: 0.1%		CLAY: 0.4%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	160.9	143.4	2.802	148.4	2.752	Fine Sand
SORTING (σ):	80.76	1.720	0.782	1.360	0.443	Well Sorted
SKEWNESS (Sk):	6.546	-2.952	2.952	0.035	-0.035	Symmetrical
KURTOSIS (K):	102.5	19.13	19.13	1.315	1.315	Leptokurtic



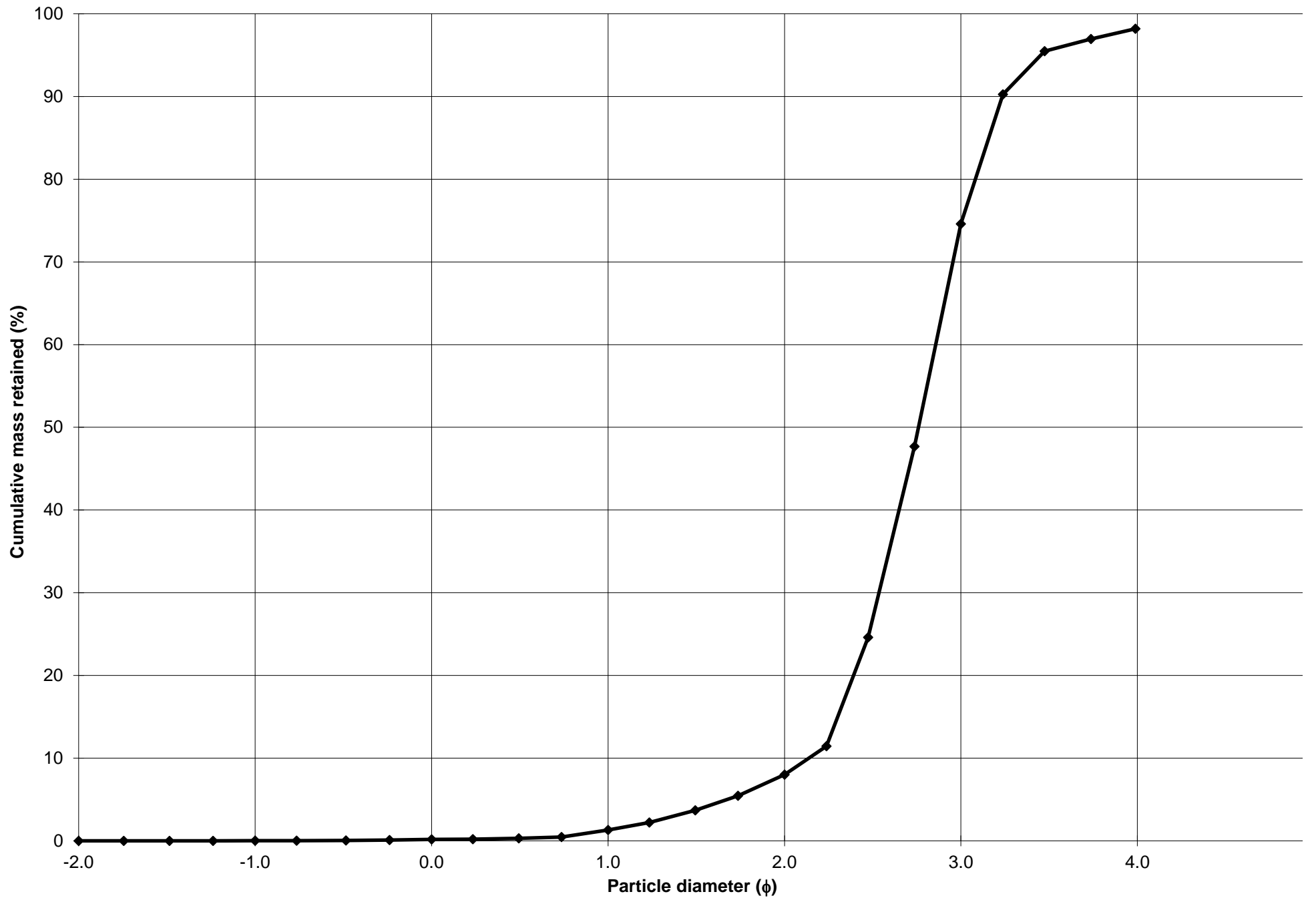
Cumulative Frequency Curve



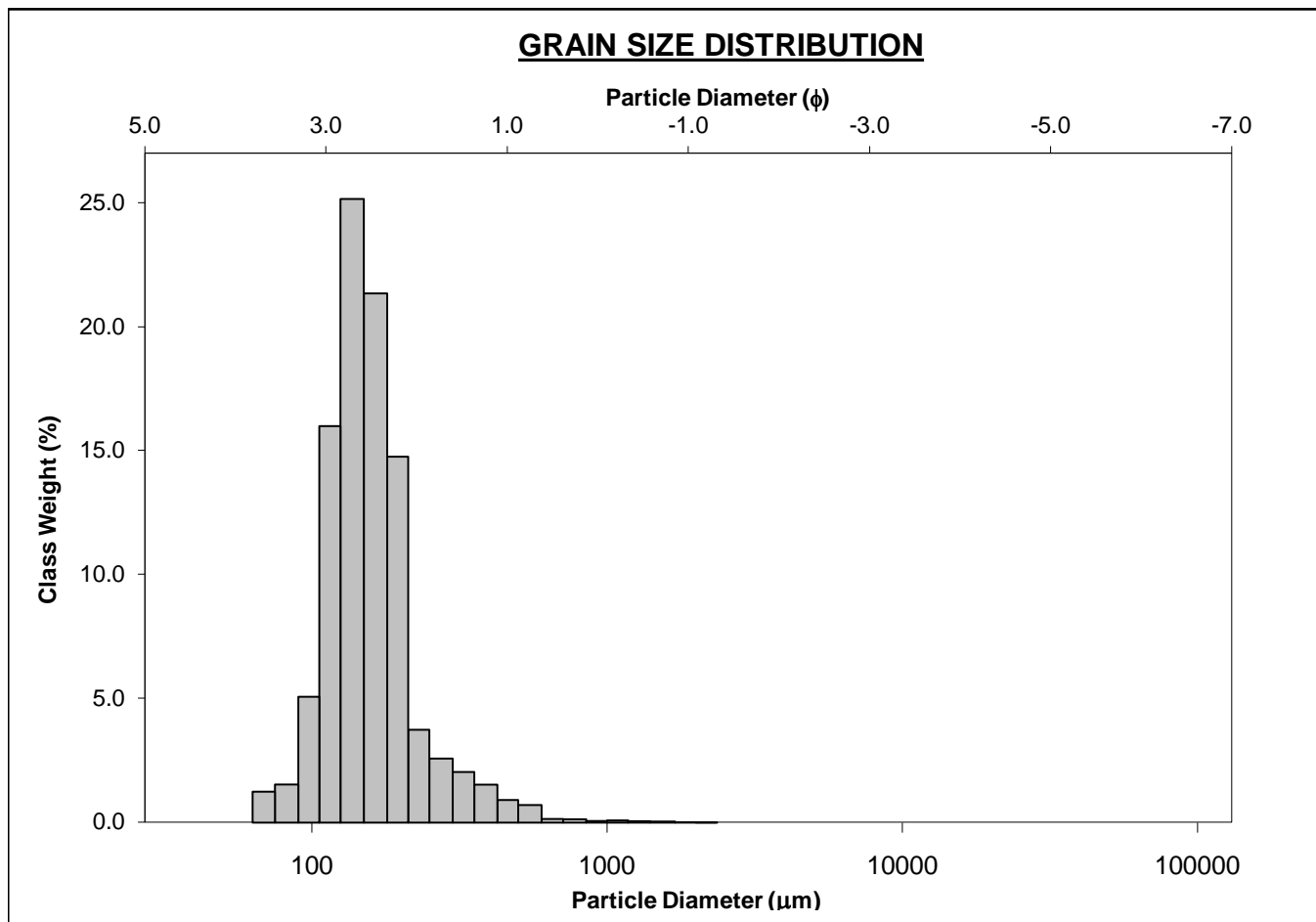
SIEVING ERROR: 0.6%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA-3-240cm			ANALYST & DATE: Brian, 12/19/2014			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 1.1%	
MODE 2:			SAND: 98.2%		MEDIUM SAND: 6.7%	
MODE 3:			MUD: 1.8%		FINE SAND: 66.6%	
D ₁₀ :	106.3	2.138			V FINE SAND: 23.6%	
MEDIAN or D ₅₀ :	147.7	2.760	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.3%	
D ₉₀ :	227.2	3.234	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D ₉₀ / D ₁₀):	2.138	1.513	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
(D ₉₀ - D ₁₀):	120.9	1.096	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D ₇₅ / D ₂₅):	1.442	1.213	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
(D ₇₅ - D ₂₅):	54.96	0.528	V COARSE SAND: 0.2%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	166.5	147.4	2.762	149.6	2.741	Fine Sand
SORTING (σ):	92.97	1.706	0.770	1.390	0.475	Well Sorted
SKEWNESS (Sk):	5.964	-2.471	2.471	0.145	-0.145	Coarse Skewed
KURTOSIS (K):	73.86	18.20	18.20	1.381	1.381	Leptokurtic



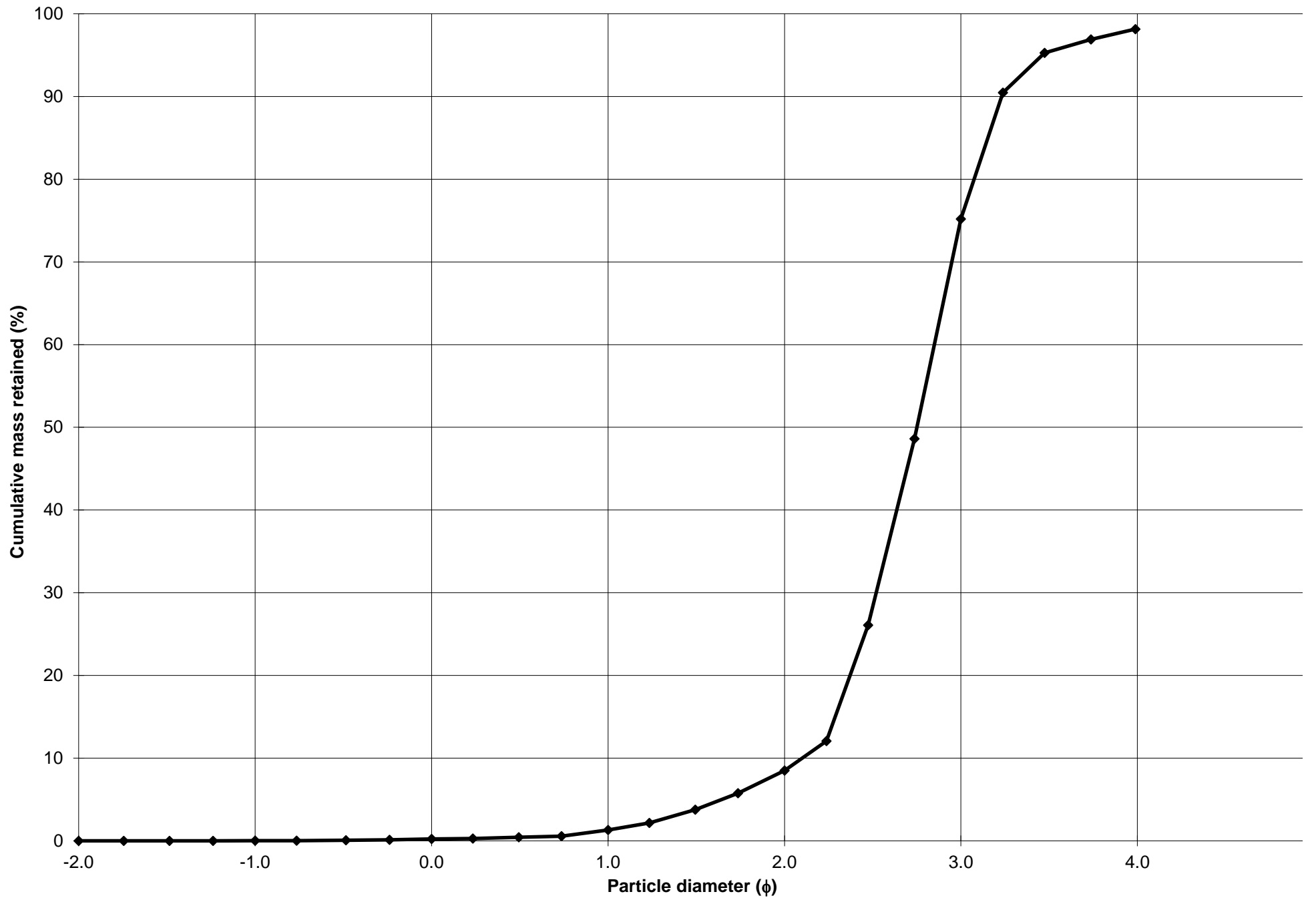
Cumulative Frequency Curve



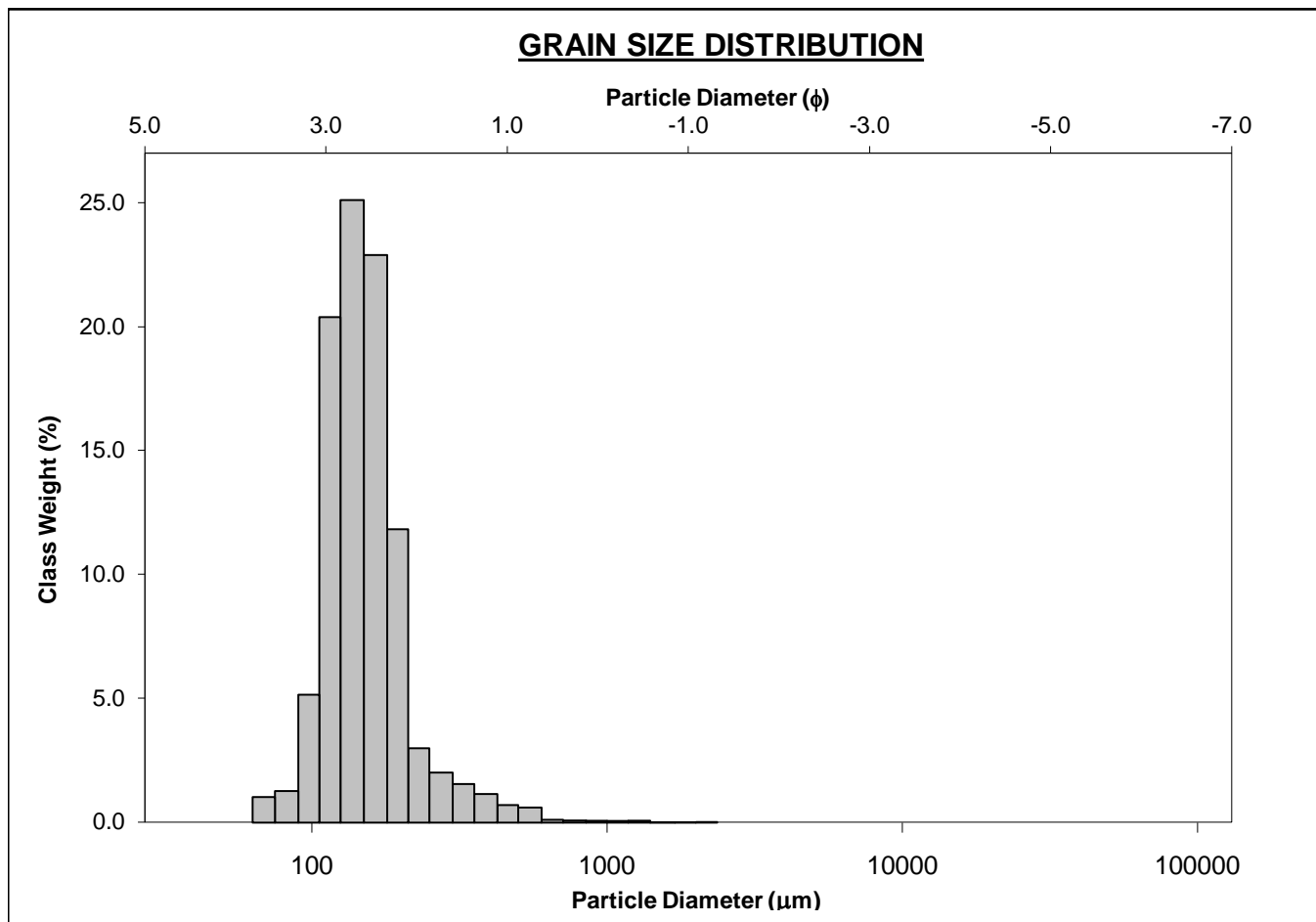
SIEVING ERROR: 0.2%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA-3-252cm			ANALYST & DATE: Brian, 12/19/2014			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 1.1%	
MODE 2:			SAND: 98.1%		MEDIUM SAND: 7.2%	
MODE 3:			MUD: 1.8%		FINE SAND: 66.7%	
D_{10} :	106.5	2.100			V FINE SAND: 23.0%	
MEDIAN or D_{50} :	148.6	2.751	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.3%	
D_{90} :	233.2	3.231	COARSE GRAVEL: 0.0%		COARSE SILT: 0.3%	
(D_{90} / D_{10}) :	2.190	1.538	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.3%	
$(D_{90} - D_{10})$:	126.7	1.131	FINE GRAVEL: 0.0%		FINE SILT: 0.3%	
(D_{75} / D_{25}) :	1.456	1.221	V FINE GRAVEL: 0.0%		V FINE SILT: 0.3%	
$(D_{75} - D_{25})$:	57.10	0.542	V COARSE SAND: 0.2%		CLAY: 0.3%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	168.5	148.5	2.751	150.6	2.731	Fine Sand
SORTING (σ):	98.04	1.720	0.782	1.398	0.484	Well Sorted
SKEWNESS (Sk):	6.144	-2.404	2.404	0.145	-0.145	Coarse Skewed
KURTOSIS (K):	72.47	17.76	17.76	1.373	1.373	Leptokurtic



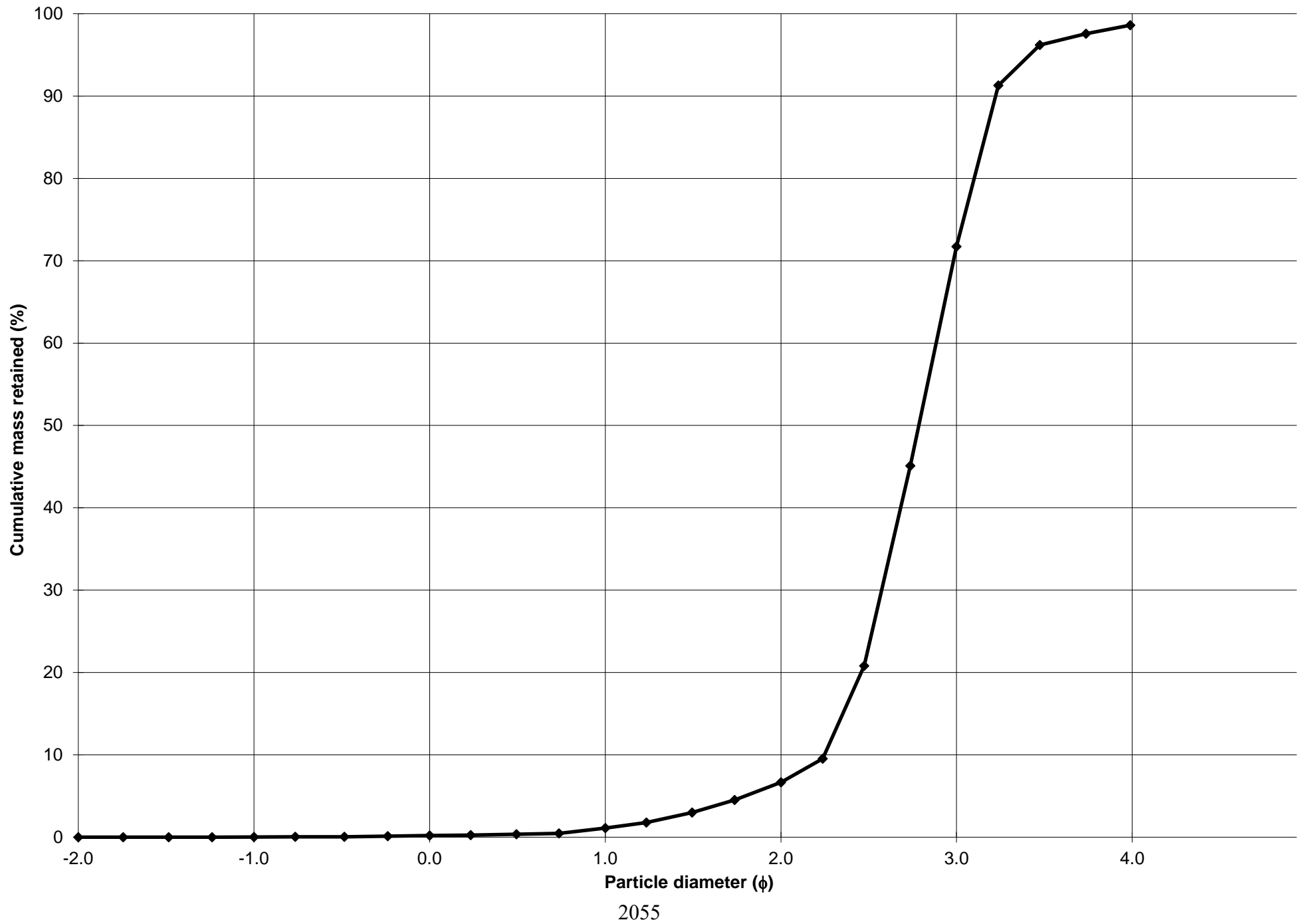
Cumulative Frequency Curve



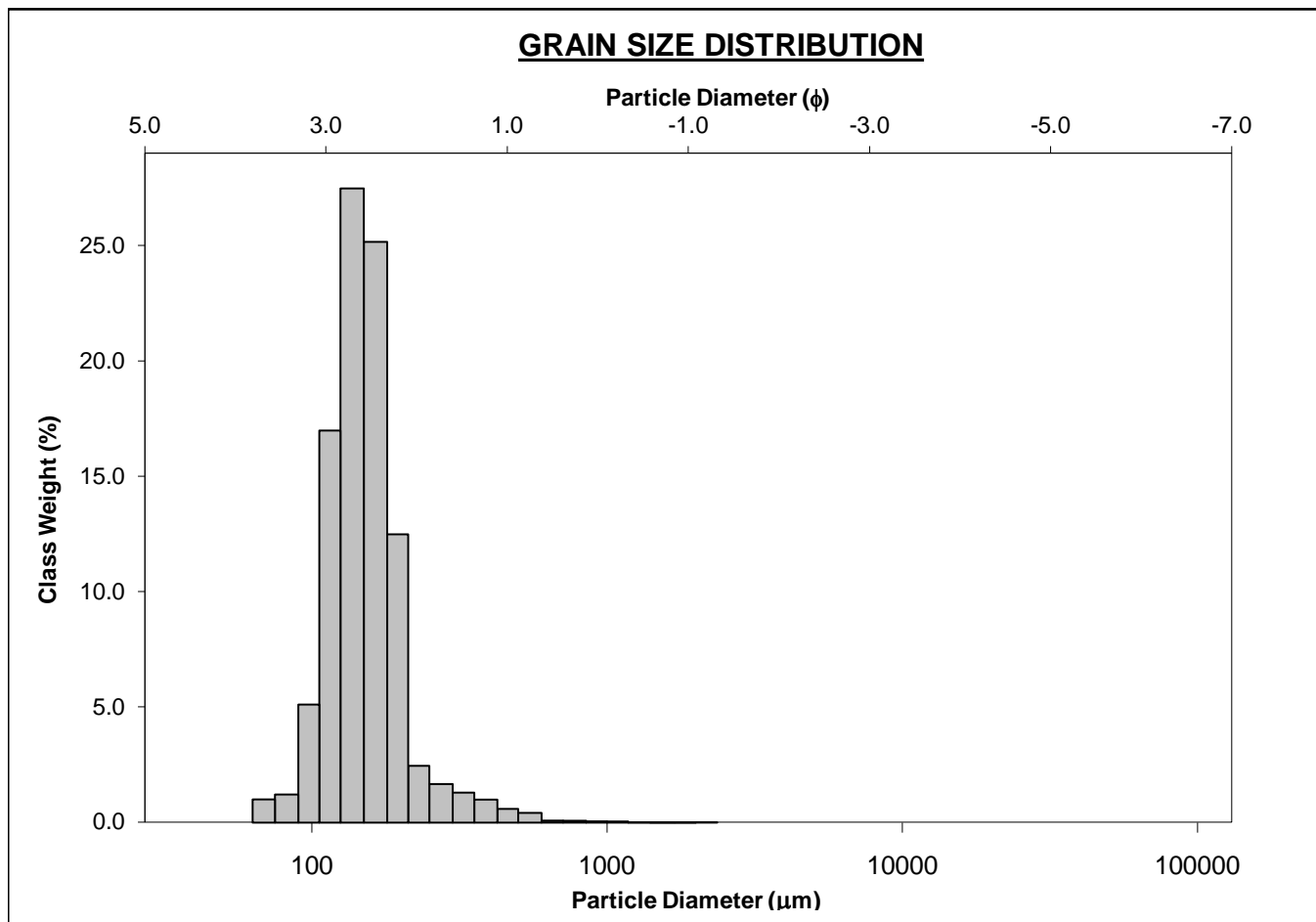
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA-3-260cm			ANALYST & DATE: Brian, 12/19/2014			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.9%			
MODE 2:			SAND: 98.6% MEDIUM SAND: 5.5%			
MODE 3:			MUD: 1.4% FINE SAND: 65.1%			
D ₁₀ :	107.2	2.248	V FINE SAND: 26.9%			
MEDIAN or D ₅₀ :	145.0	2.785	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.2%			
D ₉₀ :	210.6	3.222	COARSE GRAVEL: 0.0% COARSE SILT: 0.2%			
(D ₉₀ / D ₁₀):	1.965	1.434	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.2%			
(D ₉₀ - D ₁₀):	103.4	0.975	FINE GRAVEL: 0.0% FINE SILT: 0.2%			
(D ₇₅ / D ₂₅):	1.434	1.207	V FINE GRAVEL: 0.0% V FINE SILT: 0.2%			
(D ₇₅ - D ₂₅):	52.82	0.520	V COARSE SAND: 0.2% CLAY: 0.2%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	162.1	145.6	2.780	146.7	2.769	Fine Sand
SORTING (σ):	92.21	1.625	0.700	1.356	0.439	Well Sorted
SKEWNESS (Sk):	7.528	-2.359	2.359	0.142	-0.142	Coarse Skewed
KURTOSIS (K):	108.3	20.66	20.66	1.276	1.276	Leptokurtic



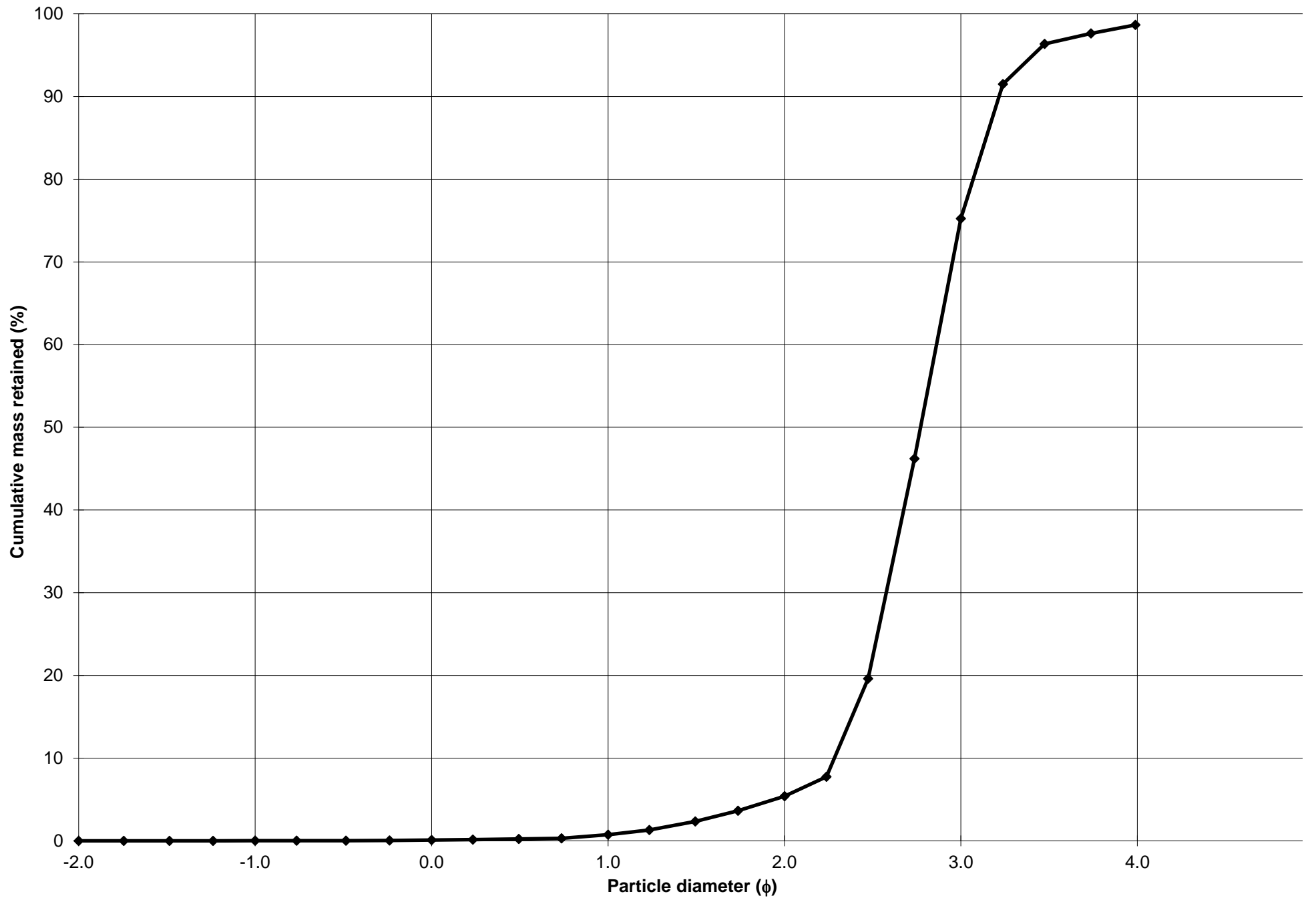
Cumulative Frequency Curve



SIEVING ERROR: 0.5%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-14-PA-3-270cm			ANALYST & DATE: Brian, 12/19/2014			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 0.7%	
MODE 2:			SAND: 98.6%		MEDIUM SAND: 4.6%	
MODE 3:			MUD: 1.3%		FINE SAND: 69.9%	
D ₁₀ :	107.6	2.283			V FINE SAND: 23.4%	
MEDIAN or D ₅₀ :	146.5	2.771	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
D ₉₀ :	205.5	3.216	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
(D ₉₀ / D ₁₀):	1.910	1.409	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
(D ₉₀ - D ₁₀):	97.90	0.933	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
(D ₇₅ / D ₂₅):	1.386	1.186	V FINE GRAVEL: 0.0%		V FINE SILT: 0.2%	
(D ₇₅ - D ₂₅):	48.27	0.470	V COARSE SAND: 0.1%		CLAY: 0.2%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	159.3	145.2	2.783	146.9	2.767	Fine Sand
SORTING (σ):	77.66	1.587	0.666	1.323	0.404	Well Sorted
SKEWNESS (Sk):	7.634	-2.857	2.857	0.074	-0.074	Symmetrical
KURTOSIS (K):	132.2	23.58	23.58	1.278	1.278	Leptokurtic



Cumulative Frequency Curve



SIEVING ERROR: 0.3%

SAMPLE STATISTICSSAMPLE IDENTITY: **SI-14-PA-3-280cm**

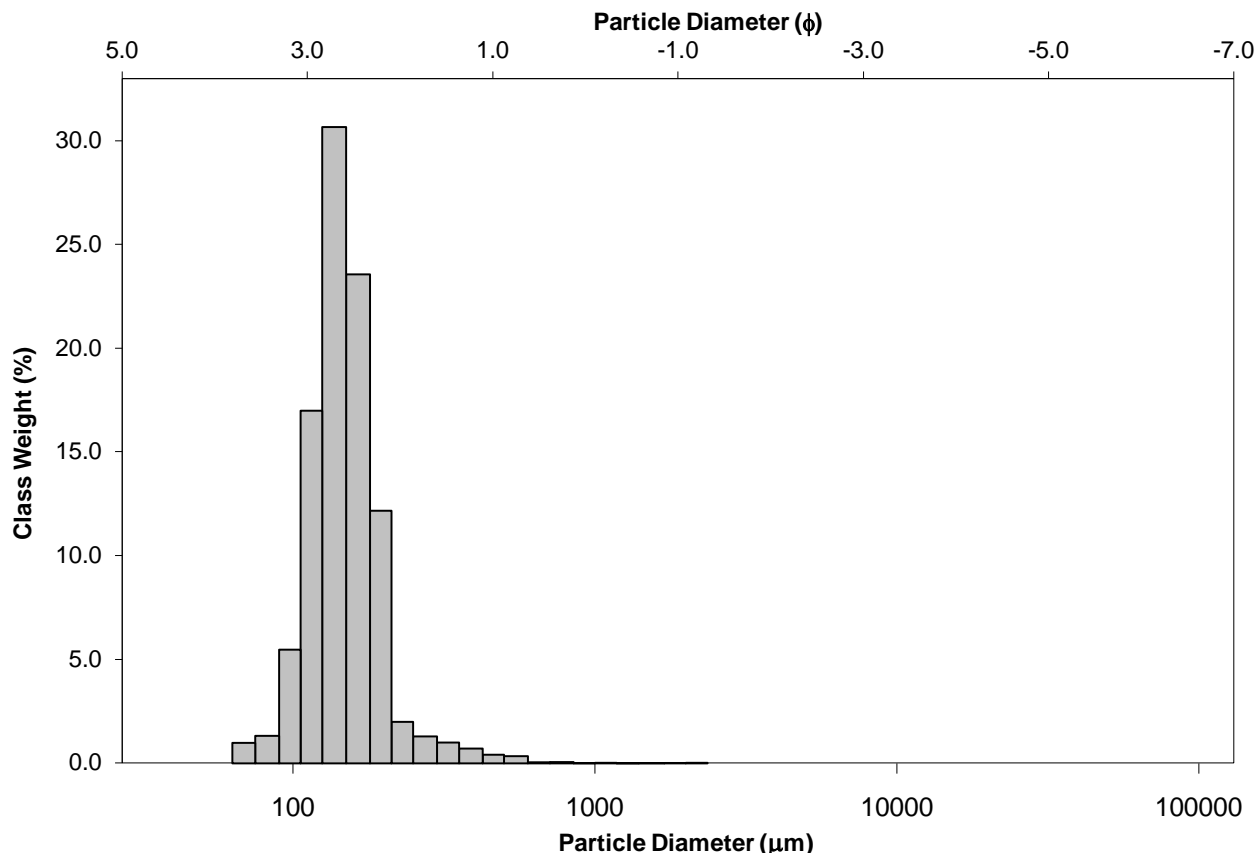
ANALYST & DATE: Brian, 12/19/2014

SAMPLE TYPE: Unimodal, Well Sorted

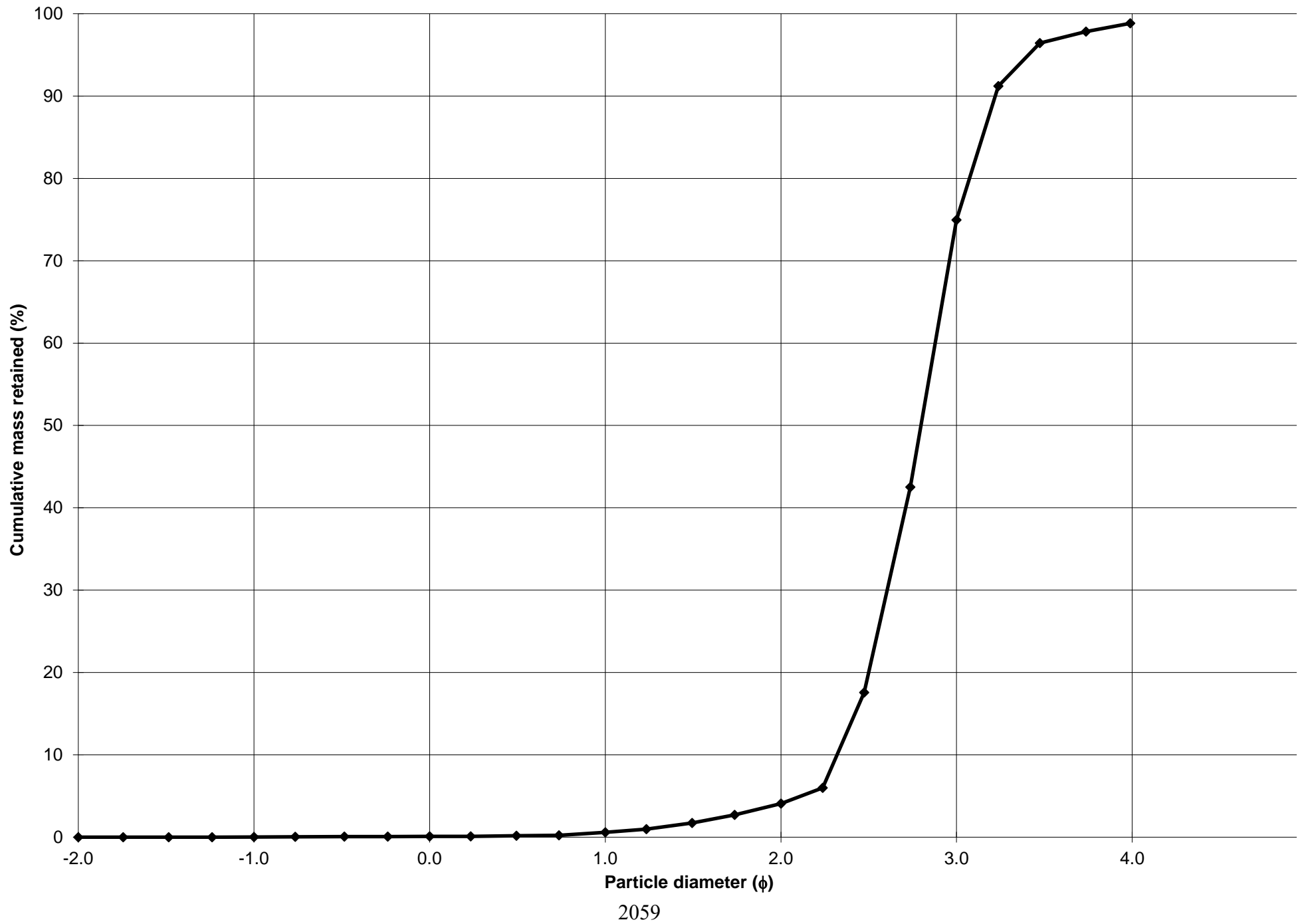
TEXTURAL GROUP: Slightly Gravelly Sand

SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand

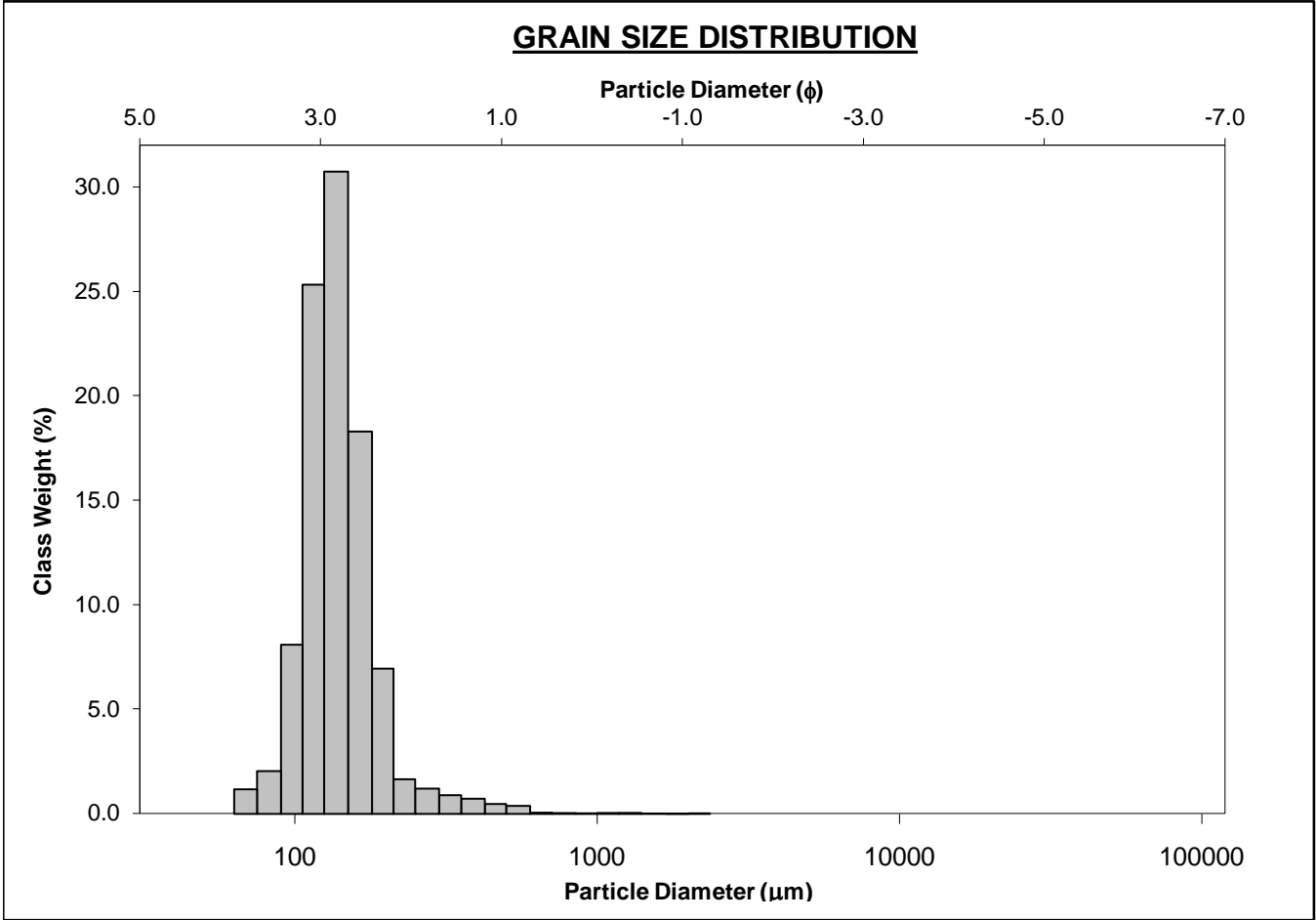
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%	COARSE SAND: 0.5%		
MODE 2:			SAND: 98.8%	MEDIUM SAND: 3.5%		
MODE 3:			MUD: 1.2%	FINE SAND: 70.9%		
D_{10} :	107.3	2.320		V FINE SAND: 23.9%		
MEDIAN or D_{50} :	143.8	2.798	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.2%		
D_{90} :	200.3	3.220	COARSE GRAVEL: 0.0%	COARSE SILT: 0.2%		
(D_{90} / D_{10}) :	1.867	1.388	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.2%		
$(D_{90} - D_{10})$:	93.01	0.900	FINE GRAVEL: 0.0%	FINE SILT: 0.2%		
(D_{75} / D_{25}) :	1.364	1.176	V FINE GRAVEL: 0.0%	V FINE SILT: 0.2%		
$(D_{75} - D_{25})$:	45.53	0.448	V COARSE SAND: 0.1%	CLAY: 0.2%		
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	155.2	143.0	2.806	144.5	2.791	Fine Sand
SORTING (σ):	75.27	1.538	0.621	1.291	0.369	Well Sorted
SKEWNESS (Sk):	10.54	-3.009	3.009	0.043	-0.043	Symmetrical
KURTOSIS (K):	219.7	26.65	26.65	1.184	1.184	Leptokurtic

GRAIN SIZE DISTRIBUTION

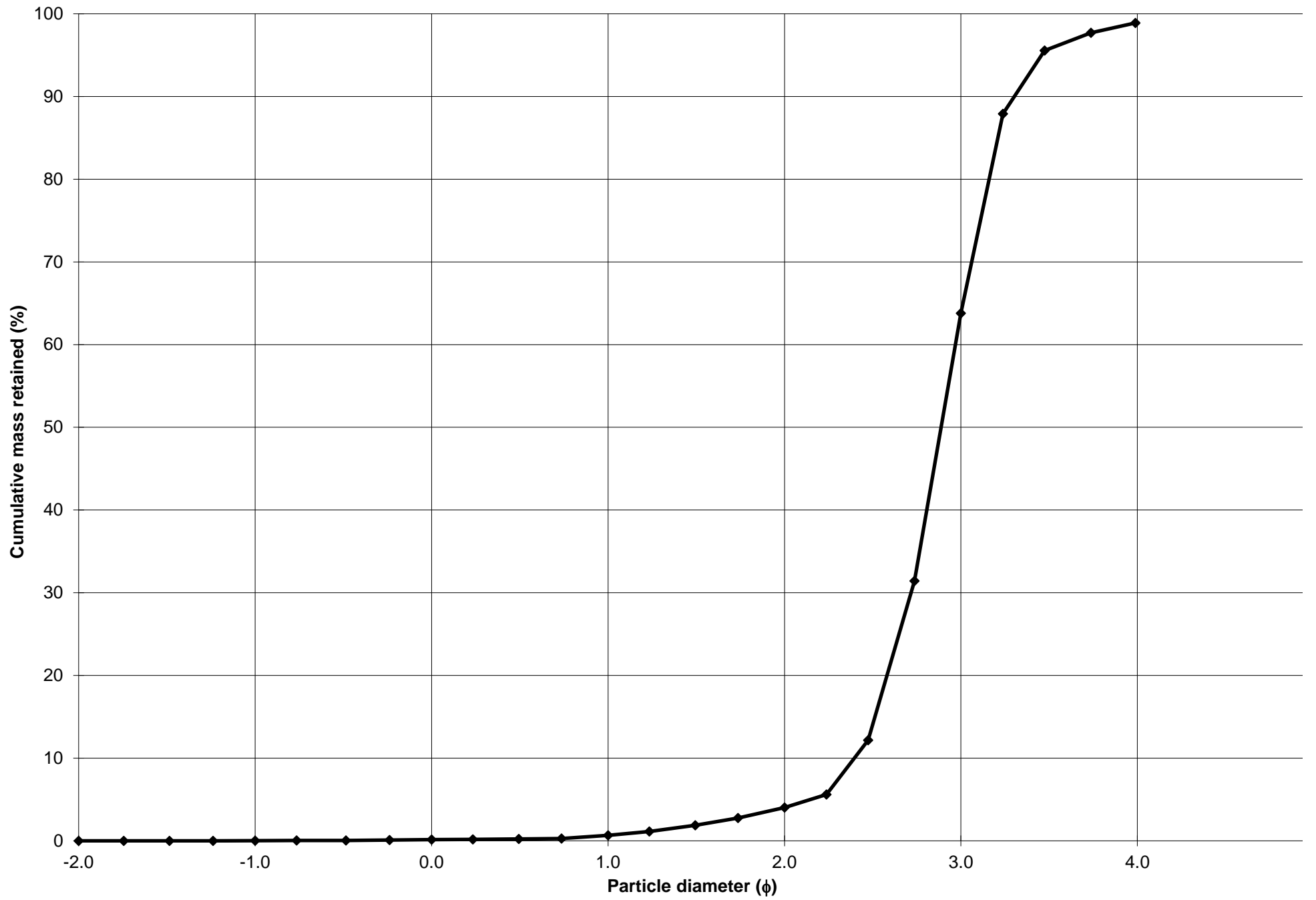
Cumulative Frequency Curve



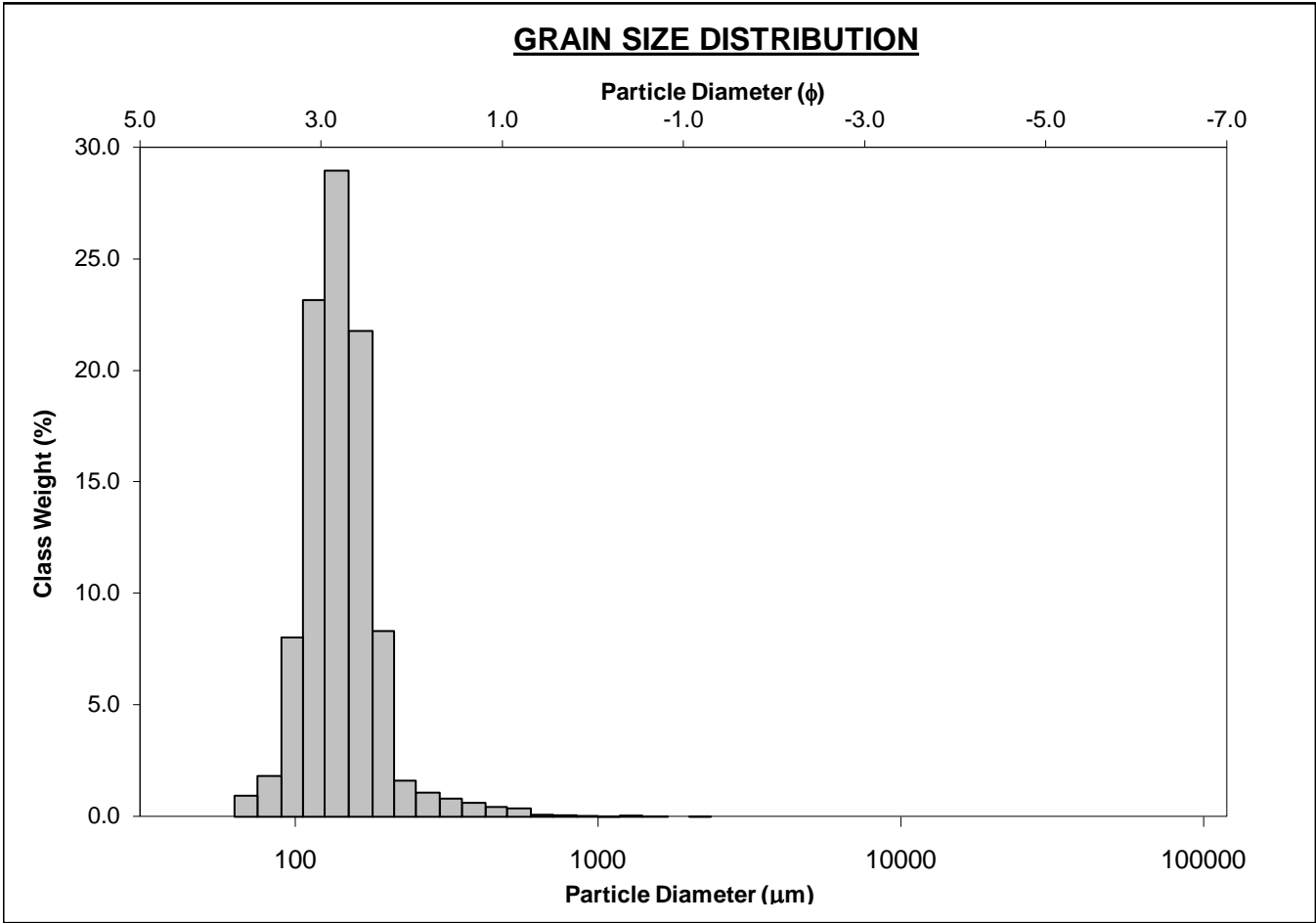
SIEVING ERROR: 0.8%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-3-292cm			ANALYST & DATE: Brian, 4/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0% COARSE SAND: 0.5%			
MODE 2:			SAND: 98.9% MEDIUM SAND: 3.3%			
MODE 3:			MUD: 1.1% FINE SAND: 59.8%			
D ₁₀ :	101.3	2.396	V FINE SAND: 35.1%			
MEDIAN or D ₅₀ :	135.1	2.888	V COARSE GRAVEL: 0.0% V COARSE SILT: 0.2%			
D ₉₀ :	190.0	3.303	COARSE GRAVEL: 0.0% COARSE SILT: 0.2%			
(D ₉₀ / D ₁₀):	1.875	1.378	MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.2%			
(D ₉₀ - D ₁₀):	88.65	0.907	FINE GRAVEL: 0.0% FINE SILT: 0.2%			
(D ₇₅ / D ₂₅):	1.377	1.174	V FINE GRAVEL: 0.0% V FINE SILT: 0.2%			
(D ₇₅ - D ₂₅):	43.64	0.461	V COARSE SAND: 0.1% CLAY: 0.2%			
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	147.8	135.4	2.884	136.7	2.871	Fine Sand
SORTING (σ):	79.98	1.535	0.618	1.289	0.367	Well Sorted
SKEWNESS (Sk):	10.19	-2.474	2.474	0.103	-0.103	Coarse Skewed
KURTOSIS (K):	188.0	24.88	24.88	1.163	1.163	Leptokurtic



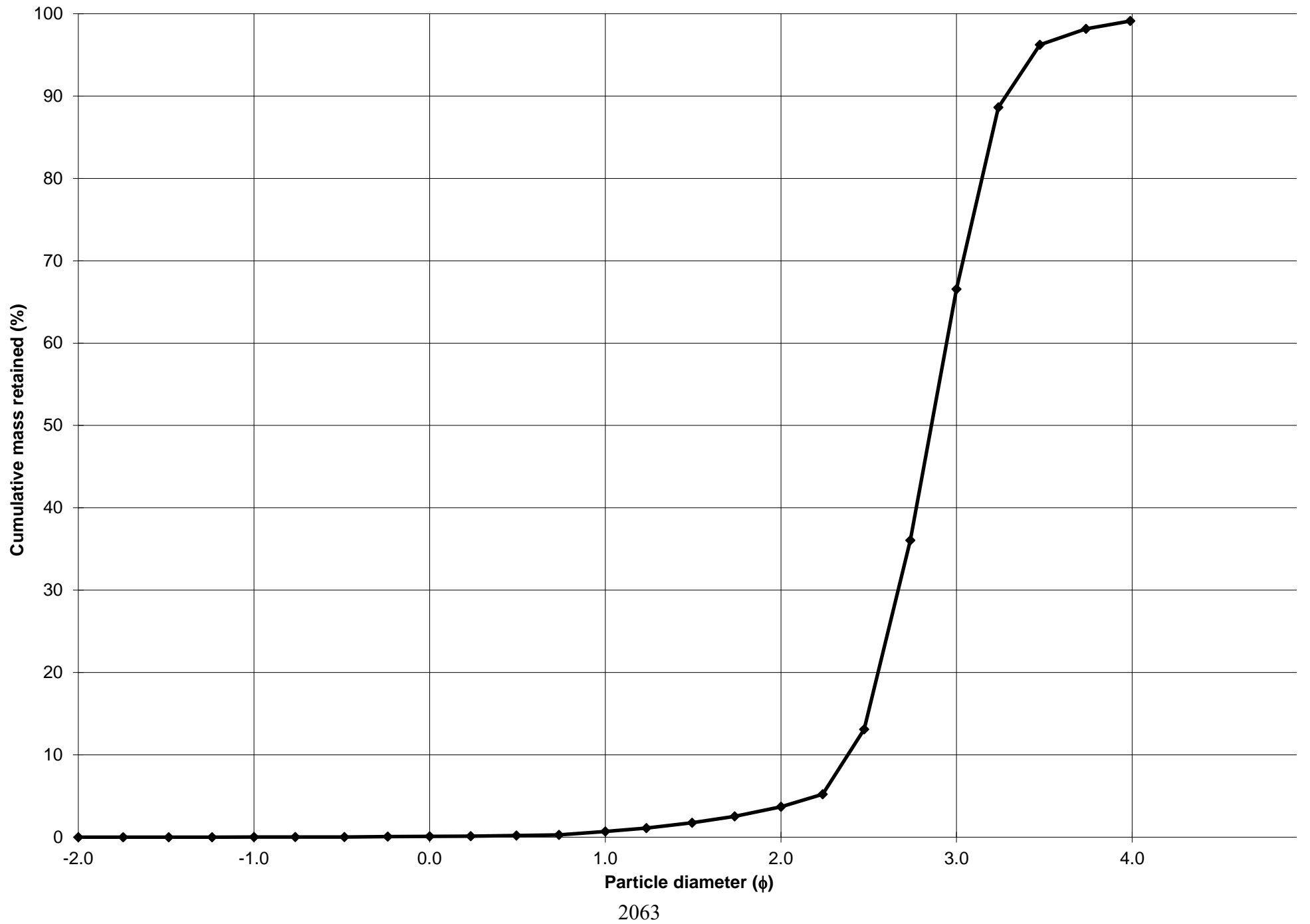
Cumulative Frequency Curve



SIEVING ERROR: 0.9%			<u>SAMPLE STATISTICS</u>			
SAMPLE IDENTITY: SI-PA-3-300cm			ANALYST & DATE: Brian, 4/4/15			
SAMPLE TYPE: Unimodal, Well Sorted			TEXTURAL GROUP: Slightly Gravelly Sand			
SEDIMENT NAME: Slightly Very Fine Gravelly Fine Sand						
	μm	ϕ	GRAIN SIZE DISTRIBUTION			
MODE 1:	137.5	2.868	GRAVEL: 0.0%		COARSE SAND: 0.6%	
MODE 2:			SAND: 99.1%		MEDIUM SAND: 3.0%	
MODE 3:			MUD: 0.9%		FINE SAND: 62.9%	
D ₁₀ :	102.9	2.381			V FINE SAND: 32.6%	
MEDIAN or D ₅₀ :	138.0	2.857	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
D ₉₀ :	192.0	3.280	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
(D ₉₀ / D ₁₀):	1.865	1.378	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
(D ₉₀ - D ₁₀):	89.04	0.899	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
(D ₇₅ / D ₂₅):	1.395	1.184	V FINE GRAVEL: 0.0%		V FINE SILT: 0.1%	
(D ₇₅ - D ₂₅):	46.39	0.481	V COARSE SAND: 0.1%		CLAY: 0.1%	
	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN (\bar{x}):	149.4	138.2	2.855	138.6	2.851	Fine Sand
SORTING (σ):	72.46	1.495	0.580	1.281	0.357	Well Sorted
SKEWNESS (Sk):	8.641	-2.449	2.449	0.045	-0.045	Symmetrical
KURTOSIS (K):	149.4	26.32	26.32	1.051	1.051	Mesokurtic



Cumulative Frequency Curve



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BIOGRAPHY

Christopher T. Seminack graduated from Father Judge High School (Philadelphia, PA) in 2003. He received a Bachelor of Arts degree in Geology from La Salle University (Philadelphia, PA) in 2007. After earning his undergraduate degree, Christopher was employed by Gould Environmental from 2007 to 2009. He was awarded a Master of Science degree from Temple University (Philadelphia, PA) in 2011.