

# INITIATIVE FOR CUNEIFORM ENCODING PROPOSAL

November 1, 2003

*[IMPORTANT NOTE: Due to the pressures of time and other considerations this is one of two proposals submitted to the Unicode Technical Committee by the Initiative for Cuneiform Encoding prior to the UTC meeting at Johns Hopkins University in Baltimore, Nov. 4-7, 2003. This is NOT, however, intended as two competing proposals; it is merely insurance to make sure all exigencies are covered before the ICE proposal presentation at UTC. We intend to present a single proposal.]*

We find ourselves at an historic crux in the history of writing. From our vantage point we can look backwards 5600 years to the beginnings of the world's first writing, cuneiform, and we can look forward into a future where that heritage will be preserved. International computer standards make it possible.

Sumero-Akkadian cuneiform is the world's oldest and longest used writing system. The earliest texts appear in Mesopotamia around 3600 BC and the last native cuneiform texts were written around 75 AD. The ancient scribes pressed the ends of their styluses into damp clay in order to write the approximately 800 different syllabic, logographic, or taxographic signs of this complex, poly-valent script. The clay tablets were sun-dried or baked by fire and were thus preserved in the sands of the Near East for millennia.

Since the decipherment of Babylonian cuneiform some 150 years ago museums have accumulated perhaps 300,000 tablets written in most of the major languages of the Ancient Near East - Sumerian, Akkadian (Babylonian and Assyrian), Eblaite, Hittite, Hurrian, and Elamite. These texts include genres as variegated as mythology and mathematics, law codes and beer recipes. In most cases these documents are the earliest exemplars of their genres, and cuneiformists have made unique and valuable contributions to the study of such disciplines as history, law, religion, linguistics, mathematics, and science.

In spite of continued great interest in mankind's earliest documents it has been estimated that only about 1/10 of the extant cuneiform texts have been read even once in modern times. There are various reasons for this: the complex script system is inherently difficult to learn; there is, as yet, no standard computer encoding for cuneiform; there are only a few hundred qualified cuneiformists in the world; the pedagogical tools are, in many cases, non-optimal; and access to the widely distributed tablets is expensive, time-consuming, and, due to the vagaries of politics, becoming increasingly difficult. The general practice among cuneiformists of working almost exclusively in Latin alphabetic transliteration, although adequate for its intended purposes, is a hindrance to the pervasive use of computers in cuneiform research and instruction.

Michael Everson was probably the first person to propose encoding cuneiform in Unicode. Karljuergen Feuerherm was the first cuneiform scholar to propose it, and he promoted the prospect at international Assyriological conferences and, jointly with Lloyd Anderson, on his own web site. Dean Snyder, at a seminal conference on Electronic Publication of Ancient Near Eastern Texts, held at the Oriental Institute of the University of Chicago in October 1999,

proposed the computer encoding of cuneiform and was encouraged to pursue it. This led to the founding of the Initiative for Cuneiform Encoding (ICE) at Johns Hopkins in the Spring of 2000. ICE is an international group of cuneiformists, Unicode experts, software engineers, linguists, and font architects organized for the purpose of proposing a standard computer encoding for cuneiform. In 2002, ICE, via the Digital Hammurabi Project, received a U.S. National Science Foundation grant to complete the work of encoding cuneiform.

The current proposal represents the historic merger of several specialized and general sign lists, some published and some unpublished. Of particular interest among the creators of unpublished sign lists we mention:

- \* Miguel Civil, Oriental Institute, University of Chicago
- \* Robert Englund, Madeleine Fitzgerald, and Cale Johnson, Cuneiform Digital Library Initiative, UCLA
- \* Rykle Borger, Mesopotamische Zeichenlexikon (forthcoming), Goettingen University
- \* Jeremy Black, Electronic Text Corpus of Sumerian Literature, Oxford University
- \* Steve Tinney, Pennsylvania Sumerian Dictionary Project, University of Pennsylvania

Special recognition should go to Steve Tinney for merging the Civil/CDLI/PSD sign lists and editing them.

[We have temporarily used Linguist's Software's AkkadianU(unicode) TrueType font to create the Neo-Assyrian glyph images included in this proposal (as opposed to embedding the font in the PDF file, which is against Linguist's Software's license stipulations, without paying an extra fee). But, for the final proposal, we plan to use the UR III period font, "Cuneiform Classic", being created by Steve Tinney and Michael Everson.]

Universal Multiple-Octet Coded Character Set  
International Organization for Standardization  
Organisation internationale de normalisation  
еждународная организация по стандартизации

**Doc Type: Working Group Document**

**Title: Proposal to Encode the Sumero-Akkadian Cuneiform Script in the UCS**

**Source: Initiative for Cuneiform Encoding (ICE)**

**Status: Expert Contribution**

**Action: For consideration by JTC1/SC2/WG2 and UTC**

**Date: 2003-11-01**

**A. Administrative**

**1. Title**

Proposal to Encode Sumero-Akkadian Cuneiform Script in the UCS

**2. Requester's name**

Initiative for Cuneiform Encoding (ICE)

**3. Requester type (Member body/Liaison/Individual contribution)**

Expert contribution

**4. Submission date**

2003-11-01

**5. Requester's reference (if applicable)**

Initiative for Cuneiform Encoding

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**6. Choose one of the following:**

**6a. This is a complete proposal**

No

**6b. More information will be provided later**

Yes. This proposal is approximately 90% complete; we foresee finishing the proposal by March 2004

**B. Technical -- General**

**1. Choose one of the following:**

**1a. This proposal is for a new script (set of characters)**

Yes

**Proposed name of script**

Cuneiform

**1b. The proposal is for addition of character(s) to an existing block**

No

**1b. Name of the existing block**

**2. Number of characters in proposal**

745

**3. Proposed category (see section II, Character Categories)**

General Category (including L, M, N, P, S, Zs)

**4a. Proposed Level of Implementation (1, 2 or 3) (see clause 14, ISO/IEC 10646-1: 2000)**

Level 1

**4b. Is a rationale provided for the choice?**

No

**4c. If YES, reference**

**5a. Is a repertoire including character names provided?**

Yes

**5b. If YES, are the names in accordance with the character naming guidelines in Annex L of ISO/IEC 10646-1: 2000?**

Yes

**5c. Are the character shapes attached in a legible form suitable for review?**

Yes. Approximately 75% of the character shapes in the final proposal are included in this proposal.

**6a. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?**

Steve Tinney and Michael Everson

**6b. If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:**

**7a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?**

Yes

**7b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?**

Yes

**8. Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?**

No.

**9. Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at <http://www.unicode.org> for such information on other scripts. Also see Unicode Character Database <http://www.unicode.org/Public/UNIDATA/UnicodeCharacterDatabase.html> and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.**

### **C. Technical -- Justification**

**1. Has this proposal for addition of character(s) been submitted before? If YES, explain.**

No

**2a. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?**

Yes.

**2b. If YES, with whom?**

The Initiative for Cuneiform Encoding, Johns Hopkins University, has been in continual contact with large numbers of the cuneiform and Unicode communities over its 3 years work on this proposal - presenting at international conferences, convening 2 international workshops, and presenting for comment and discussion earlier forms of this proposal on the Unicode hosted cuneiform email list and ICE and PSD web sites. Members of both ICE1 and ICE2 working groups represent a broad spectrum of cuneiform scholars, Unicode experts, software engineers, and font architects. The cuneiformists, in particular, represent an internationally recognized group of leading scholars who are specialists in various areas of cuneiform research. Several of these scholars have contributed historically significant unpublished sign lists which have for the first time been merged into the ICE proposal.

**2c. If YES, available relevant documents**

[www.jhu.edu/ice](http://www.jhu.edu/ice)

**3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?**

Cuneiformists and other scholars

**4a. The context of use for the proposed characters (type of use; common or rare)**

These characters are the basis of the world's oldest writing system, Sumero-Akkadian cuneiform, and as such are indispensable for modern day cuneiform text research and publishing. They are used primarily by the relatively small international cuneiform scholarly community.

**4b. Reference**

**5a. Are the proposed characters in current use by the user community?**

Yes.

**5b. If YES, where?**

Scholarly research and publications.

**6a. After giving due considerations to the principles in Principles and Procedures document (a WG 2 standing document) must the proposed characters be entirely in the BMP?**

No. Plane 1, the SMP (Supplementary Multilingual Plane), U+12000-U+12FFF, have been designated in the Unicode roadmap for Sumero-Akkadian Cuneiform.

**6b. If YES, is a rationale provided?**

**6c. If YES, reference**

**7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?**

Yes

**8a. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?**

No

**8b. If YES, is a rationale for its inclusion provided?**

**8c. If YES, reference**

**9a. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?**

Yes

**9b. If YES, is a rationale for its inclusion provided?** A few of the compound characters (as they are called by cuneiformists, in order to differentiate them from complex, or embedded, characters) have become frozen, non-productive forms both in the ancient script and in modern cuneiformists' psyches (similar to "w" in Latin script), and it was felt only right to encode these few.

**9c. If YES, reference**

**10a. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?**

No.

**10b. If YES, is a rationale for its inclusion provided?**

**10c. If YES, reference**

**11a. Does the proposal include use of combining characters and/or use of composite sequences (see clauses 4.12 and 4.14 in ISO/IEC 10646-1: 2000)?**

Yes

**11b. If YES, is a rationale for such use provided?** There are a few non-spacing, accent/punctuation characters.

**11c. If YES, reference**

**12a. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?**

No. But some may be provided for the final proposal.

**12b. If YES, reference**

**13a. Does the proposal contain characters with any special properties such as control function or similar semantics?**

No.

**13b. If YES, describe in detail (include attachment if necessary)**

**14a. Does the proposal contain any Ideographic compatibility character(s)?**

No.

**14b. If YES, is the equivalent corresponding unified ideographic character(s) identified?**

## **PARTICIPANTS in the INITIATIVE FOR CUNEIFORM ENCODING (ICE)**

- \* Deborah Anderson, Visiting Scholar, Linguistics, Univ. of California at Berkeley
- \* Lloyd Anderson, Linguist, Font Vendor, Ecological Linguistics
- \* Richard Averbeck, Prof. Old Testament & Semitic Languages, Trinity International University
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- \* Carl-Martin Bunz, M.A., Indo-European Linguist, University of Saarland, Germany
- \* Miguel Civil, Emeritus Professor of Sumerology, Oriental Institute, Univ. Chicago, Editor, Materials for the Sumerian Lexicon
- \* Jerrold Cooper, Prof. of Assyriology & Sumerian, Johns Hopkins
- \* Robin Cover, SGML/XML, Oasis
- \* T. R. Davis, Lecturer in Bibliography & Palaeography, Univ. of Birmingham, England
- \* Patrick Durusau, Dir. Research & Development, Society of Biblical Literature, Emory Univ.
- \* Robert Englund, Prof. of Assyriology & Sumerian, UCLA
- \* Michael Everson, Font Vendor, Everson Typography, Ireland
- \* Karljürgen Feuerherm, PhD Candidate in Akkadian, Univ. of Toronto
- \* Madeleine Fitzgerald, Visiting Assistant Prof, Department of Near Eastern Languages & Cultures, UCLA, NSF Digital Libraries Initiative Postdoctoral Fellow for the Cuneiform Digital Library Initiative
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- \* Edwin Hart, Senior Computing Staff, Applied Physics Laboratory, Johns Hopkins
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- \* Thomas Izbicki, Near Eastern Resource Services Librarian, Johns Hopkins
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- \* David Owen, Prof. of Ancient Near Eastern & Judaic Studies, Cornell Univ.
- \* Gerfrid Müller, Institut für Altertumswissenschaften, Universität Würzburg
- \* Simo Parpola, Prof. of Assyriology, Univ. of Helsinki
- \* Philip Payne, Font Vendor, Linguist's Software
- \* Gonzalo Rubio, Asst. Prof of Assyriology, Ohio State Univ.
- \* Eric Smith, Graduate Student, Dept. of Linguistics, Univ. Toronto
- \* Dean A. Snyder, Scholarly Technology Specialist, Manager, Digital Hammurabi, Johns Hopkins
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- \* Jonathan Taylor, an editor for Electronic Text Corpus of Sumerian Literature, Oriental Institute, Univ. Oxford
- \* Steve Tinney, Associate Prof. of Assyriology & Sumerian, Editor, Pennsylvania Sumerian Dictionary, Univ. of Pennsylvania
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- \* Bruce Wells, PhD Near Eastern Studies, Johns Hopkins
- \* Kenneth Whistler, Software Engineer, Sybase, Unicode Technical Director, Managing Editor, The Unicode Standard
- \* Christopher Woods, Assistant Prof. Assyriology, Oriental Institute, Univ. Chicago

**ICE1 2000-2002****Working Group**

Lloyd Anderson  
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John Jenkins  
Rick McGowan  
Dean Snyder  
Simo Parpola (consultant)  
Steve Tinney (consultant)

**Conference Attendees**

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Jerrold Cooper  
Tom Davis  
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John Jenkins  
Alasdair Livingstone  
Rick McGowan  
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Steve Tinney  
Kenneth Whistler

**ICE2 2003-****Working Group**

Miguel Civil  
Jerrold Cooper  
Madeleine Fitzgerald  
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Eckhart Frahm  
Cale Johnson  
Dean Snyder (coordinator)  
Matthew Stolper  
Steve Tinney  
Ken Whistler (liaison to Unicode Technical Committee)

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Michael Droettboom  
Michael Everson  
Karljürgen Feuerherm  
Madeleine Fitzgerald  
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Thomas Izbicki  
Cale Johnson  
Dale Keiger  
Rick McGowan  
Dean A. Snyder  
Steve Tinney  
Lee Watkins  
Bruce Wells  
Ken Whistler

## **ENCODING ISSUES**

### **WHICH CUNEIFORM?**

Wedge-shaped signs were used in several ancient script systems to write several languages. We have not included Old Persian and Ugaritic in our encoding because, although they are strictly cuneiform, they are different script systems than the Sumero-Akkadian cuneiform script system.

### **WHICH PERIODS?**

For a number of reasons, primarily because it is an active and fluid area of research, we have not systematically included archaic, or proto, cuneiform in our encoding. Other than including what we positively know off-hand for sure from the earliest periods, we really begin our encoding with the UR III period and continue on down to the end of cuneiform usage in the first century AD.

### **WHICH SIGNS?**

#### Mergers & Splits

Over the almost 4 millennia of its use, the cuneiform script system, of course, evolved. In addition to a general tendency toward simplification of individual signs, several groups of signs were merged into single signs and, less often, a single sign could be split into separate signs. We are encoding all the separate diachronic members of merged and split sign groups.

#### Compound & Complex Signs

We have agreed to encode complex signs (those signs that have one or more signs embedded in them).

With few exceptions, we will not encode compound signs (those signs that are juxtaposed, or even ligated, one after the other in semantic clusters). A handful of exceptions will be made for those compound signs that have become such common frozen forms to both the ancient scribes and to modern cuneiformists that they warrant a separate encoding (much like "w" in the Latin alphabet).

### **WHAT ABOUT NUMBERS?**

After much discussion, we have concluded that all signs used as numbers will be encoded separately as numbers even if they are also used as "letters". This is based on the observation that in the earlier periods most numbers were written differently than the signs with which they merged in later periods, and therefore they fall under our ruling on merged signs.

## **WHAT NAMES?**

The sign names we are using are the ones in common use today, except for most of the complex signs, to which we are assigning analytical names.

## **WHICH SIGN ORDER?**

It is a matter of active discussion, but we decided provisionally at the ICE2 conference to make the default order of the signs follow the modern names for them, although practically all modern sign lists organize the signs by shape, and the ancient sign lists were organized semantically.

## **WHAT ABOUT LEGACY ISSUES?**

In the early years of cuneiform print publishing there was some use made of cuneiform fonts, but, with some notable exceptions (e.g., the State Archives of Assyria Gilgamesh volume), most modern cuneiform publications use exclusively photographs and hand drawings, "autographs", of the texts and not computer or letterpress cuneiform fonts.

Linguist's Software, Edmonds, Washington, has for some years produced Akkadian cuneiform fonts, and has worked with Rykle Borger in designing fonts used, most notably, in publishing Borger's cuneiform sign lists (cf. MacAkkadian). Recently they have produced AkkadianU, a "complete" Unicode cuneiform font, making use of the private use area.

Before our cuneiform proposal is finalized we will need to decide if we want to support all the "characters" in the various legacy fonts, many of which are compound, or juxtaposed or ligated, signs which we have ruled out of our encoding. In addition, there are some text feature "characters" in some of these older fonts, such as sign effacement and tablet breakage "characters", that we will need to decide how to handle.

## BIBLIOGRAPHY

The Initiative for Cuneiform Encoding has made extensive use of both published and unpublished scholarly materials in establishing its character repertoire. Below is a representative list of published works consulted followed by a complete list of unpublished materials utilized.

### PUBLISHED

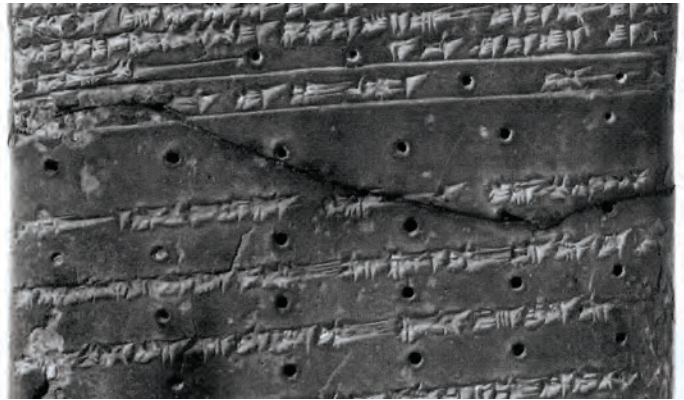
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### UNPUBLISHED

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Englund, Robert 2003 UCLA, unpublished sign list Cuneiform Digital Library Initiative <<http://cdli.ucla.edu/>>
- Parpola, Simo 2002 University of Helsinki, unpublished sign list from the State Archives of Assyria Project <<http://www.helsinki.fi/science/saa/>>
- Tinney, Steve 2003 University of Pennsylvania, unpublished sign list of the Pennsylvania Sumerian Dictionary Project <<http://psd.museum.upenn.edu/>> & <<http://psd.museum.upenn.edu/ICE/>>



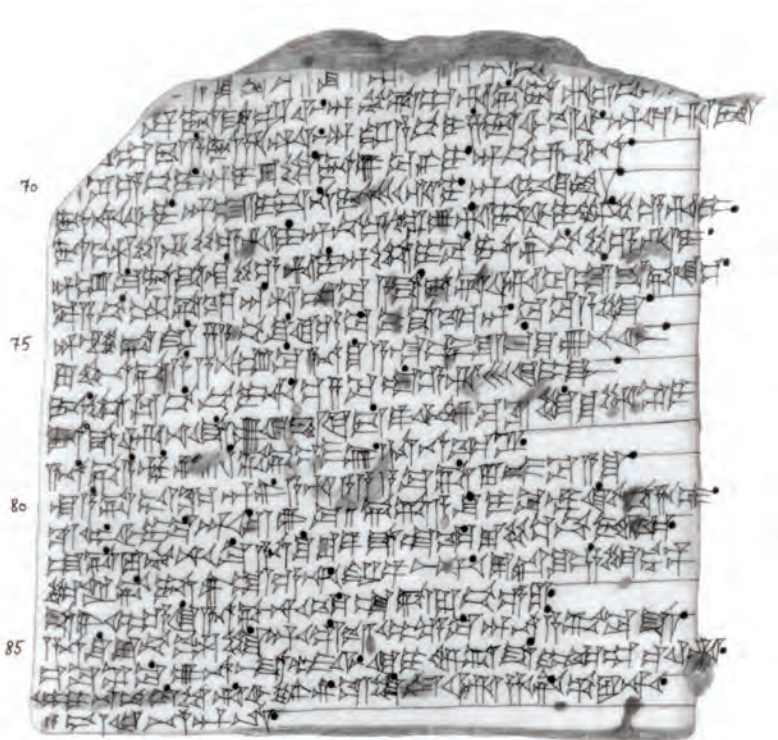
1. Archaic Jemdet Nasr Tablet



2. "Firing" Holes on a Tablet

ku eat	sah pig	museni bird	gi reed	sag head	kiru orchard
gin/gub walk/stand	anse donkey	gu ox	lug por	su hand	gisimmar date-palm
se barley	ud day	ab cow	pu well	a water	ku fish

4 Table of cuneiform signs showing for each sign the pictographic form (c. 3000 bc), an early cuneiform representation (c. 2400 bc), and the Late Assyrian form (c. 650 bc), now turned through 90 degrees, with the Sumerian phonetic equivalent and meaning.



4. El Amarna Tablet #357 Showing Red & Black Ink Dots

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



















122E


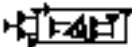




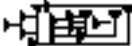












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












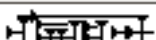
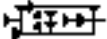






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


















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












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12001		CUNEIFORM SIGN ASH TENU
12002		CUNEIFORM SIGN HAL
12003		CUNEIFORM SIGN BAL
12004		CUNEIFORM SIGN BAL OVER BAL
12005		CUNEIFORM SIGN GIR2
12006		CUNEIFORM SIGN GIR2 GUNU
12007		CUNEIFORM SIGN BUR2
12008		CUNEIFORM SIGN TAR
12009		CUNEIFORM SIGN AN
1200A		CUNEIFORM SIGN MUG
1200B		CUNEIFORM SIGN ZADIM
1200C		CUNEIFORM SIGN BA
1200D		CUNEIFORM SIGN ZU
1200E		CUNEIFORM SIGN SU
1200F		CUNEIFORM SIGN SU TIMES A
12010		CUNEIFORM SIGN ARAD
12011		CUNEIFORM SIGN ARAD TIMES KUR
12012		CUNEIFORM SIGN UD SHESHIG
12013		CUNEIFORM SIGN UD TIMES BAD
12014		CUNEIFORM SIGN SHUBUR
12015		CUNEIFORM SIGN KA
12016		CUNEIFORM SIGN KA TIMES GIR2
12017		CUNEIFORM SIGN KA TIMES TAR
12018		CUNEIFORM SIGN KA TIMES LI
12019		CUNEIFORM SIGN KA TIMES RU
1201A		CUNEIFORM SIGN KA TIMES BAD
1201B		CUNEIFORM SIGN KA TIMES BAR
1201C		CUNEIFORM SIGN KA TIMES ZI
1201D		CUNEIFORM SIGN KA TIMES NUN
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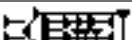








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12021		CUNEIFORM SIGN KA TIMES AD PLUS KU3
12022		CUNEIFORM SIGN KA TIMES NE
12023		CUNEIFORM SIGN KA TIMES USH
12024		CUNEIFORM SIGN KA TIMES KIB
12025		CUNEIFORM SIGN KA TIMES KID
12026		CUNEIFORM SIGN KA TIMES GISH PLUS SAR
12027		CUNEIFORM SIGN KA TIMES SHID
12028		CUNEIFORM SIGN KA TIMES U2
12029		CUNEIFORM SIGN KA TIMES GA
1202A		CUNEIFORM SIGN KA TIMES SAR
1202B		CUNEIFORM SIGN KA TIMES ASH2
1202C		CUNEIFORM SIGN KA TIMES DE2
1202D		CUNEIFORM SIGN KA TIMES GAL
1202E		CUNEIFORM SIGN KA TIMES BALAG
1202F		CUNEIFORM SIGN KA TIMES DUB2
12030		CUNEIFORM SIGN KA TIMES SHA
12031		CUNEIFORM SIGN KA TIMES SHU
12032		CUNEIFORM SIGN KA TIMES SHE
12033		CUNEIFORM SIGN KA TIMES UD
12034		CUNEIFORM SIGN KA TIMES PI
12035		CUNEIFORM SIGN KA TIMES ERIN2
12036		CUNEIFORM SIGN KA TIMES IM
12037		CUNEIFORM SIGN KA TIMES SUHUR
12038		CUNEIFORM SIGN KA TIMES MI
12039		CUNEIFORM SIGN KA TIMES IGI
1203A		CUNEIFORM SIGN KA TIMES KI
1203B		CUNEIFORM SIGN KA TIMES ME
1203C		CUNEIFORM SIGN KA TIMES ME PLUS GI
1203D		CUNEIFORM SIGN KA TIMES ME PLUS DU
1203E		CUNEIFORM SIGN KA TIMES ME PLUS TE
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


















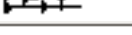




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12041		CUNEIFORM SIGN KA TIMES LU
12042		CUNEIFORM SIGN KA TIMES A
12043		CUNEIFORM SIGN KA TIMES A PLUS LA2
12044		CUNEIFORM SIGN KA TIMES GAR
12045		CUNEIFORM SIGN KA TIMES GUR7
12046		CUNEIFORM SIGN KA TIMES GAR PLUS SHA3 PLUS A
12047		CUNEIFORM SIGN KA TIMES GU
12048		CUNEIFORM SIGN KA TIMES SIG
12049		CUNEIFORM SIGN URU
1204A		CUNEIFORM SIGN URU TIMES TU
1204B		CUNEIFORM SIGN URU TIMES TU PLUS TU
1204C		CUNEIFORM SIGN URU TIMES BAR
1204D		CUNEIFORM SIGN URU TIMES GAN2 TENU
1204E		CUNEIFORM SIGN URU TIMES URUDA
1204F		CUNEIFORM SIGN URU TIMES GA
12050		CUNEIFORM SIGN URU TIMES GAL
12051		CUNEIFORM SIGN URU TIMES UD
12052		CUNEIFORM SIGN URU TIMES IM
12053		CUNEIFORM SIGN URU TIMES IGI
12054		CUNEIFORM SIGN URU TIMES MIN
12055		CUNEIFORM SIGN URU TIMES A
12056		CUNEIFORM SIGN URU TIMES HA
12057		CUNEIFORM SIGN URU TIMES GAR
12058		CUNEIFORM SIGN URU TIMES GU
12059		CUNEIFORM SIGN LI
1205A		CUNEIFORM SIGN TU
1205B		CUNEIFORM SIGN LA
1205C		CUNEIFORM SIGN APIN
1205D		CUNEIFORM SIGN MAH
1205E		CUNEIFORM SIGN PAP
1205F		CUNEIFORM SIGN MU

12060		CUNEIFORM SIGN SILA3
12061		CUNEIFORM SIGN SHESHLAM
12062		CUNEIFORM SIGN NUMUN GUNU
12063		CUNEIFORM SIGN GI TIMES GI
12064		CUNEIFORM SIGN TAK4
12065		CUNEIFORM SIGN KAD2
12066		CUNEIFORM SIGN KAD3
12067		CUNEIFORM SIGN NA
12068		CUNEIFORM SIGN RU
12069		CUNEIFORM SIGN NU
1206A		CUNEIFORM SIGN BAD
1206B		CUNEIFORM SIGN GURUN
1206C		CUNEIFORM SIGN GURUN
1206D		CUNEIFORM SIGN SHIR
1206E		CUNEIFORM SIGN KUL
1206F		CUNEIFORM SIGN TI
12070		CUNEIFORM SIGN TI TENU
12071		CUNEIFORM SIGN DIN
12072		CUNEIFORM SIGN BAR
12073		CUNEIFORM SIGN MASH
12074		CUNEIFORM SIGN AK
12075		CUNEIFORM SIGN AK
12076		CUNEIFORM SIGN AL TIMES KAD3
12077		CUNEIFORM SIGN AK TIMES SHITA PLUS GISH
12078		CUNEIFORM SIGN AK TIMES SAL PLUS GISH
12079		CUNEIFORM SIGN AK TIMES ERIN2
1207A		CUNEIFORM SIGN MASH2
1207B		CUNEIFORM SIGN KUN
1207C		CUNEIFORM SIGN HU
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





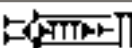











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12082		CUNEIFORM SIGN ZI
12083		CUNEIFORM SIGN ZI OVER ZI
12084		CUNEIFORM SIGN GI
12085		CUNEIFORM SIGN GE TIMES E
12086		CUNEIFORM SIGN RI
12087		CUNEIFORM SIGN NUN
12088		CUNEIFORM SIGN NUN TENU
12089		CUNEIFORM SIGN NUN TIMES NUN
1208A		CUNEIFORM SIGN KAB
1208B		CUNEIFORM SIGN HUB2 TIMES UD
1208C		CUNEIFORM SIGN SUR
1208D		CUNEIFORM SIGN MUSH3 GUNU
1208E		CUNEIFORM SIGN MUSH3
1208F		CUNEIFORM SIGN MUSH3 TIMES A
12090		CUNEIFORM SIGN MUSH3 TIMES A PLUS DI
12091		CUNEIFORM SIGN MUSH3 TIMES DI
12092		CUNEIFORM SIGN GAD
12093		CUNEIFORM SIGN SHINIG
12094		CUNEIFORM SIGN EN
12095		CUNEIFORM SIGN EN TIMES EN
12096		CUNEIFORM SIGN EN TIMES 4
12097		CUNEIFORM SIGN EN TIMES GAN2
12098		CUNEIFORM SIGN EN TIMES ME
12099		CUNEIFORM SIGN EN TIMES GAN2 TENU
1209A		CUNEIFORM SIGN DARA3
1209B		CUNEIFORM SIGN DIM
1209C		CUNEIFORM SIGN DIM TIMES SHE
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



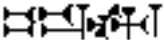


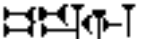


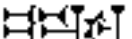









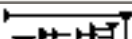
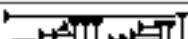

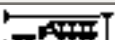

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120A1		CUNEIFORM SIGN SA
120A2		CUNEIFORM SIGN ASHGAB
120A3		CUNEIFORM SIGN GAN2
120A4		CUNEIFORM SIGN GAN2 TENU
120A5		CUNEIFORM SIGN GAN2 TIMES GAN2
120A6		CUNEIFORM SIGN GAN2 OVER GAN2
120A7		CUNEIFORM SIGN GU2
120A8		CUNEIFORM SIGN GU2 TIMES NUN
120A9		CUNEIFORM SIGN GU2 TIMES KAK
120AA		CUNEIFORM SIGN GU2 TIMES KAK TIMES SIG7
120AB		CUNEIFORM SIGN GU2 TIMES SAL PLUS TUG2
120AC		CUNEIFORM SIGN GUR
120AD		CUNEIFORM SIGN SI
120AE		CUNEIFORM SIGN SI GUNU
120AF		CUNEIFORM SIGN DAR
120B0		CUNEIFORM SIGN SAG
120B1		CUNEIFORM SIGN SAG OVER SAG
120B2		CUNEIFORM SIGN SAG TIMES NUN
120B3		CUNEIFORM SIGN SAG TIMES UM
120B4		CUNEIFORM SIGN SAG TIMES DUB
120B5		CUNEIFORM SIGN SAG TIMES DU
120B6		CUNEIFORM SIGN SAG TIMES USH
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120BB		CUNEIFORM SIGN SAG TIMES KUR
120BC		CUNEIFORM SIGN SAG TIMES MI
120BD		CUNEIFORM SIGN SAG TIMES UR
120BE		CUNEIFORM SIGN SAG TIMES A
120BF		CUNEIFORM SIGN SAG TIMES SAL

120C0		CUNEIFORM SIGN SAG TIMES LUM
120C1		CUNEIFORM SIGN SAG TIMES HA
120C2		CUNEIFORM SIGN MA2
120C3		CUNEIFORM SIGN UZ3
120C4		CUNEIFORM SIGN UZ3 TIMES KASKAL
120C5		CUNEIFORM SIGN TAB
120C6		CUNEIFORM SIGN TAB TIMES 4
120C7		CUNEIFORM SIGN GESHTIN
120C8		CUNEIFORM SIGN GESHTIN TIMES KUR
120C9		CUNEIFORM SIGN TAG
120CA		CUNEIFORM SIGN TAG TIMES BI
120CB		CUNEIFORM SIGN TAG TIMES GUD
120CC		CUNEIFORM SIGN TAG TIMES SHU
120CD		CUNEIFORM SIGN TAG TIMES SHE
120CE		CUNEIFORM SIGN TAG TIMES UD
120CF		CUNEIFORM SIGN TAG TIMES KU
120D0		CUNEIFORM SIGN TAG TIMES TUG2
120D1		CUNEIFORM SIGN KA2
120D2		CUNEIFORM SIGN KA2 TIMES KA2
120D3		CUNEIFORM SIGN AB
120D4		CUNEIFORM SIGN AB GUNU
120D5		CUNEIFORM SIGN AB TIMES GAN2 TENU
120D6		CUNEIFORM SIGN AB TIMES SHESH
120D7		CUNEIFORM SIGN AB TIMES ASH2
120D8		CUNEIFORM SIGN AB TIMES GAL
120D9		CUNEIFORM SIGN AB TIMES SIG7
120DA		CUNEIFORM SIGN AB TIMES SIG7
120DB		CUNEIFORM SIGN URUDA
120DC		CUNEIFORM SIGN URUDA TIMES U
120DD		CUNEIFORM SIGN AB TIMES U PLUS U PLUS U
120DE		CUNEIFORM SIGN AB TIMES LAGAB
120DF		CUNEIFORM SIGN AB TIMES DUN3

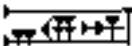
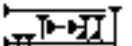
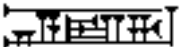
























120E0		CUNEIFORM SIGN AB TIMES HA
120E1		CUNEIFORM SIGN AB TIMES IMIN
120E2		CUNEIFORM SIGN UM
120E3		CUNEIFORM SIGN UM TIMES ME PLUS DA
120E4		CUNEIFORM SIGN DUB
120E5		CUNEIFORM SIGN DUB TIMES ESH2
120E6		CUNEIFORM SIGN UM TIMES SHA3
120E7		CUNEIFORM SIGN UM TIMES U
120E8		CUNEIFORM SIGN UM TIMES LAGAB
120E9		CUNEIFORM SIGN AN OVER AN
120EA		CUNEIFORM SIGN TA
120EB		CUNEIFORM SIGN TA GUNU
120EC		CUNEIFORM SIGN TA TIMES MI
120ED		CUNEIFORM SIGN I
120EE		CUNEIFORM SIGN GAN
120EF		CUNEIFORM SIGN TUR
120F0		CUNEIFORM SIGN AD
120F1		CUNEIFORM SIGN ZE2
120F2		CUNEIFORM SIGN IN
120F3		CUNEIFORM SIGN RAB
120F4		CUNEIFORM SIGN LUGAL SHESHIG
120F5		CUNEIFORM SIGN LUGAL
120F6		CUNEIFORM SIGN LUGAL OVER LUGAL
120F7		CUNEIFORM SIGN MA GUNU
120F8		CUNEIFORM SIGN EZEN
120F9		CUNEIFORM SIGN EZEN TIMES AN
120FA		CUNEIFORM SIGN EZEN TIMES LI
120FB		CUNEIFORM SIGN EZEN TIMES LA
120FC		CUNEIFORM SIGN EZEN TIMES BAD
120FD		CUNEIFORM SIGN EZEN TIMES KASKAL
120FE		CUNEIFORM SIGN EZEN TIMES U2
120FF		CUNEIFORM SIGN EZEN TIMES SIG7











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12101		CUNEIFORM SIGN EZEN TIMES KU3
12102		CUNEIFORM SIGN EZEN TIMES LAL2
12103		CUNEIFORM SIGN EZEN TIMES LU
12104		CUNEIFORM SIGN EZEN TIMES DUN3
12105		CUNEIFORM SIGN EZEN TIMES DUN3 GUNU SHESHIG
12106		CUNEIFORM SIGN EZEN TIMES A
12107		CUNEIFORM SIGN EZEN TIMES A PLUS LAL
12108		CUNEIFORM SIGN EZEN TIMES A PLUS LAL2
12109		CUNEIFORM SIGN EZEN TIMES HA
1210A		CUNEIFORM SIGN SUM
1210B		CUNEIFORM SIGN NAGA
1210C		CUNEIFORM SIGN NAGA TIMES SHU TENU
1210D		CUNEIFORM SIGN PIRIG TIMES KAL
1210E		CUNEIFORM SIGN PIRIG TIMES UD
1210F		CUNEIFORM SIGN PIRIG TIMES ZA
12110		CUNEIFORM SIGN GABA
12111		CUNEIFORM SIGN EDIN
12112		CUNEIFORM SIGN MU OVER MU
12113		CUNEIFORM SIGN KASKAL
12114		CUNEIFORM SIGN GUD TIMES KUR
12115		CUNEIFORM SIGN GUD TIMES A PLUS KUR
12116		CUNEIFORM SIGN UZU
12117		CUNEIFORM SIGN NE SHESHIG
12118		CUNEIFORM SIGN NE
12119		CUNEIFORM SIGN NE TIMES UD
1211A		CUNEIFORM SIGN NE TIMES A
1211B		CUNEIFORM SIGN NINDA2
1211C		CUNEIFORM SIGN NINDA2 TIMES ASH
1211D		CUNEIFORM SIGN NINDA2 TIMES ASH PLUS ASH
1211E		CUNEIFORM SIGN NINDA2 TIMES AN
1211F		CUNEIFORM SIGN NINDA2 TIMES NUN











12120		CUNEIFORM SIGN NINDA2 TIMES NE
12121		CUNEIFORM SIGN NINDA2 TIMES USH
12122		CUNEIFORM SIGN NINDA2 TIMES GUD
12123		CUNEIFORM SIGN NINDA2 TIMES U2 PLUS ASH
12124		CUNEIFORM SIGN NINDA2 TIMES SHE PLUS ASH
12125		CUNEIFORM SIGN NINDA2 TIMES SHE PLUS ASH PLUS ASH
12126		CUNEIFORM SIGN NINDA2 TIMES ME PLUS GAN2
12127		CUNEIFORM SIGN ZIG
12128		CUNEIFORM SIGN GALAM
12129		CUNEIFORM SIGN GUM
1212A		CUNEIFORM SIGN GUM TIMES SHE
1212B		CUNEIFORM SIGN UR2
1212C		CUNEIFORM SIGN UR2 TIMES A PLUS HA
1212D		CUNEIFORM SIGN UR2 TIMES NUN
1212E		CUNEIFORM SIGN UR2 TIMES U2
1212F		CUNEIFORM SIGN UR2 TIMES U2 PLUS ASH
12130		CUNEIFORM SIGN UR2 TIMES U2 PLUS BI
12131		CUNEIFORM SIGN UR2 TIMES HA
12132		CUNEIFORM SIGN IL
12133		CUNEIFORM SIGN IL TIMES GAN2 TENU
12134		CUNEIFORM SIGN DU
12135		CUNEIFORM SIGN DU OVER DU
12136		CUNEIFORM SIGN DU GUNU
12137		CUNEIFORM SIGN DU SHESHIG
12138		CUNEIFORM SIGN ANSHE
12139		CUNEIFORM SIGN TUM
1213A		CUNEIFORM SIGN EGIR
1213B		CUNEIFORM SIGN ISH
1213C		CUNEIFORM SIGN BI
1213D		CUNEIFORM SIGN BI TIMES SIG7
1213E		CUNEIFORM SIGN BI TIMES A
1213F		CUNEIFORM SIGN BI TIMES GAR















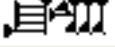

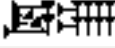
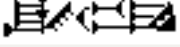











12140		CUNEIFORM SIGN SHIM
12141		CUNEIFORM SIGN SHIM TIMES BAL
12142		CUNEIFORM SIGN SHIM TIMES MUG
12143		CUNEIFORM SIGN SHIM TIMES DIN
12144		CUNEIFORM SIGN SHIM TIMES BULUG
12145		CUNEIFORM SIGN SHIM TIMES SIG7
12146		CUNEIFORM SIGN SHIM TIMES LUL
12147		CUNEIFORM SIGN SHIM TIMES IGI
12148		CUNEIFORM SIGN SHIM TIMES A
12149		CUNEIFORM SIGN SHIM TIMES GAR
1214A		CUNEIFORM SIGN SHIM TIMES SAL
1214B		CUNEIFORM SIGN KIB
1214C		CUNEIFORM SIGN KAK
1214D		CUNEIFORM SIGN NI
1214E		CUNEIFORM SIGN NE2 TIMES E
1214F		CUNEIFORM SIGN USH
12150		CUNEIFORM SIGN USH TIMES TAK4
12151		CUNEIFORM SIGN USH TIMES KUR
12152		CUNEIFORM SIGN USH TIMES KU
12153		CUNEIFORM SIGN USH TIMES A
12154		CUNEIFORM SIGN NA4
12155		CUNEIFORM SIGN GA2
12156		CUNEIFORM SIGN GA2 OVER GA2
12157		CUNEIFORM SIGN GA2 TIMES ASH
12158		CUNEIFORM SIGN GA2 TIMES HAL
12159		CUNEIFORM SIGN GA2 TIMES HAL PLUS LA
1215A		CUNEIFORM SIGN GA2 TIMES GIR2 PLUS SU
1215B		CUNEIFORM SIGN GA2 TIMES AN
1215C		CUNEIFORM SIGN GA2 TIMES TAK4
1215D		CUNEIFORM SIGN GA2 TIMES BAD
1215E		CUNEIFORM SIGN GA2 TIMES BAR PLUS RA
1215F		CUNEIFORM SIGN GA2 TIMES GI

12160		CUNEIFORM SIGN GA2 TIMES GI GUNU PLUS A
12161		CUNEIFORM SIGN GA2 TIMES NUN
12162		CUNEIFORM SIGN GA2 TIMES HUB2
12163		CUNEIFORM SIGN GA2 TIMES EN TIMES GAN2 TENU
12164		CUNEIFORM SIGN GA2 TIMES DIM TIMES SHE
12165		CUNEIFORM SIGN GA2 TIMES GAN2 TENU
12166		CUNEIFORM SIGN GA2 TIMES DUB
12167		CUNEIFORM SIGN GA2 TIMES SUM
12168		CUNEIFORM SIGN GA2 TIMES KASKAL
12169		CUNEIFORM SIGN GA2 TIMES ISH PLUS HU PLUS ASH
1216A		CUNEIFORM SIGN GA2 TIMES KAK
1216B		CUNEIFORM SIGN GA2 TIMES PA
1216C		CUNEIFORM SIGN GA2 TIMES KID
1216D		CUNEIFORM SIGN GA2 TIMES KID PLUS LAL
1216E		CUNEIFORM SIGN GA2 TIMES SHID
1216F		CUNEIFORM SIGN GA2 TIMES NUN OVER NUN
12170		CUNEIFORM SIGN GA2 TIMES GI GUNU
12171		CUNEIFORM SIGN GA2 TIMES SAR
12172		CUNEIFORM SIGN GA2 TIMES DA
12173		CUNEIFORM SIGN GA2 TIMES ASH2 PLUS GAL
12174		CUNEIFORM SIGN GA2 TIMES BUR
12175		CUNEIFORM SIGN GA2 TIMES BUR PLUS RA
12176		CUNEIFORM SIGN GA2 TIMES SHE
12177		CUNEIFORM SIGN GA2 TIMES SHE PLUS TUR
12178		CUNEIFORM SIGN GA2 TIMES UD
12179		CUNEIFORM SIGN GA2 TIMES UD PLUS DU
1217A		CUNEIFORM SIGN GA2 TIMES HI PLUS LI
1217B		CUNEIFORM SIGN GA2 TIMES U
1217C		CUNEIFORM SIGN GA2 TIMES AB2 TENU PLUS TAB
1217D		CUNEIFORM SIGN GA2 TIMES MI
1217E		CUNEIFORM SIGN GA2 TIMES DI
1217F		CUNEIFORM SIGN GA2 TIMES IGI GUNU

12180		CUNEIFORM SIGN GA2 TIMES KU3 PLUS AN
12181		CUNEIFORM SIGN GA2 TIMES ME PLUS EN
12182		CUNEIFORM SIGN GA2 TIMES A PLUS HA PLUS DA
12183		CUNEIFORM SIGN GA2 TIMES A PLUS IGI
12184		CUNEIFORM SIGN GA2 TIMES A PLUS HA
12185		CUNEIFORM SIGN GA2 TIMES HA PLUS LU PLUS ESH2
12186		CUNEIFORM SIGN GA2 TIMES GAR
12187		CUNEIFORM SIGN GA2 TIMES SAL
12188		CUNEIFORM SIGN GA2 TIMES EL
12189		CUNEIFORM SIGN GA2 TIMES EL PLUS LA
1218A		CUNEIFORM SIGN KISAL
1218B		CUNEIFORM SIGN IR
1218C		CUNEIFORM SIGN DAG
1218D		CUNEIFORM SIGN PA
1218E		CUNEIFORM SIGN GISH
1218F		CUNEIFORM SIGN GISH TIMES TAK4
12190		CUNEIFORM SIGN GISH TENU
12191		CUNEIFORM SIGN GISH TIMES BAD
12192		CUNEIFORM SIGN GISH TIMES GISH
12193		CUNEIFORM SIGN GUD
12194		CUNEIFORM SIGN AL
12195		CUNEIFORM SIGN AL TIMES USH
12196		CUNEIFORM SIGN AL TIMES GISH
12197		CUNEIFORM SIGN AL TIMES SHE
12198		CUNEIFORM SIGN AL TIMES AL
12199		CUNEIFORM SIGN AL TIMES DIM2
1219A		CUNEIFORM SIGN AL TIMES KI
1219B		CUNEIFORM SIGN AL TIMES HA
1219C		CUNEIFORM SIGN MAR
1219D		CUNEIFORM SIGN KID
1219E		CUNEIFORM SIGN SHID
1219F		CUNEIFORM SIGN SHID TIMES IM

121A0		CUNEIFORM SIGN SHID TIMES A
121A1		CUNEIFORM SIGN U2
121A2		CUNEIFORM SIGN GA
121A3		CUNEIFORM SIGN GA GUNU
121A4		CUNEIFORM SIGN IL2
121A5		CUNEIFORM SIGN LUH
121A6		CUNEIFORM SIGN E2
121A7		CUNEIFORM SIGN E2 TIMES SHE
121A8		CUNEIFORM SIGN E2 TIMES U
121A9		CUNEIFORM SIGN E2 TIMES MI
121AA		CUNEIFORM SIGN E2 TIMES SAL
121AB		CUNEIFORM SIGN E2 TIMES A PLUS HA PLUS DA
121AC		CUNEIFORM SIGN E2 TIMES GAR
121AD		CUNEIFORM SIGN KAL
121AE		CUNEIFORM SIGN KAL TIMES BAD
121AF		CUNEIFORM SIGN KAL TIMES KAL
121B0		CUNEIFORM SIGN E
121B1		CUNEIFORM SIGN E TIMES PAP
121B2		CUNEIFORM SIGN HILIBU
121B3		CUNEIFORM SIGN DUG
121B4		CUNEIFORM SIGN UN
121B5		CUNEIFORM SIGN NUN OVER NUN
121B6		CUNEIFORM SIGN UB
121B7		CUNEIFORM SIGN GI GUNU
121B8		CUNEIFORM SIGN GI GUNU CROSSING GI GUNU
121B9		CUNEIFORM SIGN GI GUNU OVER GI GUNU
121BA		CUNEIFORM SIGN GU2 GUNU
121BB		CUNEIFORM SIGN RA
121BC		CUNEIFORM SIGN SAG GUNU
121BD		CUNEIFORM SIGN LU2
121BE		CUNEIFORM SIGN LU2 TENU
121BF		CUNEIFORM SIGN LU2 SHESHIG




















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121C1		CUNEIFORM SIGN LU2 TIMES LA PLUS ASH
121C2		CUNEIFORM SIGN LU2 TIMES BAD
121C3		CUNEIFORM SIGN LU2 TIMES NU
121C4		CUNEIFORM SIGN LU2 TIMES LAGAB
121C5		CUNEIFORM SIGN LU2 TIMES ME PLUS EN
121C6		CUNEIFORM SIGN LU2 TIMES ESH2
121C7		CUNEIFORM SIGN LU2 TIMES ESH2 TENU
121C8		CUNEIFORM SIGN LU2 TIMES TUG2
121C9		CUNEIFORM SIGN LU2 TIMES SIK2 PLUS BU
121CA		CUNEIFORM SIGN LU2 TIMES KAD2
121CB		CUNEIFORM SIGN LU2 TIMES KAD3
121CC		CUNEIFORM SIGN LU2 TIMES KAD3 PLUS ASH
121CD		CUNEIFORM SIGN LU2 TIMES GAN2 TENU
121CE		CUNEIFORM SIGN LU2 TIMES SI PLUS ASH
121CF		CUNEIFORM SIGN LU2 TIMES NE
121D0		CUNEIFORM SIGN LU2 TIMES IM
121D1		CUNEIFORM SIGN LU2 TIMES AL
121D2		CUNEIFORM SIGN LU2 TIMES LU2
121D3		CUNEIFORM SIGN LU2 TIMES HI TIMES BAD
121D4		CUNEIFORM SIGN LU2 TIMES KI
121D5		CUNEIFORM SIGN SHESH
121D6		CUNEIFORM SIGN E785
121D7		CUNEIFORM SIGN ZAG
121D8		CUNEIFORM SIGN SAR
121D9		CUNEIFORM SIGN GAR3
121DA		CUNEIFORM SIGN LIL
121DB		CUNEIFORM SIGN MURUB4
121DC		CUNEIFORM SIGN DE2
121DD		CUNEIFORM SIGN ASH2
121DE		CUNEIFORM SIGN MA
121DF		CUNEIFORM SIGN MA TIMES TAK4






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121E1		CUNEIFORM SIGN BARA2
121E2		CUNEIFORM SIGN LU3
121E3		CUNEIFORM SIGN DUN3 GUNU
121E4		CUNEIFORM SIGN DUN3 GUNU SHESHIG
121E5		CUNEIFORM SIGN HA GUNU
121E6		CUNEIFORM SIGN BUR
121E7		CUNEIFORM SIGN A2
121E8		CUNEIFORM SIGN DA
121E9		CUNEIFORM SIGN GASHAN
121EA		CUNEIFORM SIGN DUB2
121EB		CUNEIFORM SIGN SHA
121EC		CUNEIFORM SIGN SHU
121ED		CUNEIFORM SIGN KAD4
121EE		CUNEIFORM SIGN KAD5
121EF		CUNEIFORM SIGN LUL
121F0		CUNEIFORM SIGN SHA6
121F1		CUNEIFORM SIGN ALAN
121F2		CUNEIFORM SIGN URI
121F3		CUNEIFORM SIGN ASH ZIDA
121F4		CUNEIFORM SIGN GAM
121F5		CUNEIFORM SIGN ASH ZIDA OVER ASH ZIDA OVER ASH ZIDA
121F6		CUNEIFORM SIGN KUR
121F7		CUNEIFORM SIGN SHE
121F8		CUNEIFORM SIGN BU
121F9		CUNEIFORM SIGN BU TIMES BU
121FA		CUNEIFORM SIGN E75B
121FB		CUNEIFORM SIGN SUD
121FC		CUNEIFORM SIGN MUSH
121FD		CUNEIFORM SIGN MUSH TIMES A
121FE		CUNEIFORM SIGN MUSH TIMES ZA
121FF		CUNEIFORM SIGN MUSH TIMES MUSH

12200	𐎠𐎡𐎢𐎣	CUNEIFORM SIGN TIR
12201		CUNEIFORM SIGN TIR TIMES TAK4
12202	𐎠𐎡𐎢𐎣𐎠𐎡𐎢𐎣	CUNEIFORM SIGN TIR OVER TIR
12203	𐎠	CUNEIFORM SIGN TE
12204		CUNEIFORM SIGN TE GUNU
12205	𐎠	CUNEIFORM SIGN LISH
12206	𐎠	CUNEIFORM SIGN UD
12207		CUNEIFORM SIGN UD GUNU
12208		CUNEIFORM SIGN UD SHESHIG TIMES BAD
12209		CUNEIFORM SIGN UD TIMES U PLUS U PLUS U
1220A	𐎠𐎡	CUNEIFORM SIGN UD TIMES MI
1220B	𐎠	CUNEIFORM SIGN PI
1220C	𐎠𐎡	CUNEIFORM SIGN PI TIMES AP
1220D	𐎠	CUNEIFORM SIGN PI TIMES I
1220E	𐎠𐎡	CUNEIFORM SIGN PI TIMES PI2
1220F	𐎠𐎡	CUNEIFORM SIGN PI TIMES U2
12210	𐎠𐎡	CUNEIFORM SIGN PI TIMES E
12211	𐎠𐎡	CUNEIFORM SIGN PI TIMES U
12212	𐎠𐎡	CUNEIFORM SIGN PI TIMES PU
12213	𐎠𐎡	CUNEIFORM SIGN PI TIMES IP
12214	𐎠𐎡	CUNEIFORM SIGN PI TIMES A
12215	𐎠𐎡	CUNEIFORM SIGN E792
12216	𐎠𐎡	CUNEIFORM SIGN SHA3
12217		CUNEIFORM SIGN SHA3 TIMES BAD
12218	𐎠𐎡𐎢	CUNEIFORM SIGN SHA3 TIMES TUR
12219	𐎠𐎡𐎢𐎣	CUNEIFORM SIGN SHA3 TIMES NE
1221A		CUNEIFORM SIGN SHA3 TIMES U
1221B	𐎠𐎡𐎢	CUNEIFORM SIGN SHA3 TIMES U PLUS A
1221C	𐎠𐎡	CUNEIFORM SIGN SHA3 TIMES A
1221D	𐎠𐎡	CUNEIFORM SIGN SHA3 TIMES SHU2
1221E	𐎠	CUNEIFORM SIGN ERIN2
1221F	𐎠𐎡	CUNEIFORM SIGN NUNUZ

12220		CUNEIFORM SIGN ASH ZIDA OVER ASH ZIDA OVER ASH ZIDA OVER ASH ZIDA
12221		CUNEIFORM SIGN HI
12222		CUNEIFORM SIGN HI TIMES ASH
12223		CUNEIFORM SIGN A`
12224		CUNEIFORM SIGN HI TIMES NUN
12225		CUNEIFORM SIGN HI TIMES BAD
12226		CUNEIFORM SIGN HI TIMES GAD
12227		CUNEIFORM SIGN IM
12228		CUNEIFORM SIGN IM TIMES IM
12229		CUNEIFORM SIGN IM TIMES TAK4
1222A		CUNEIFORM SIGN HI TIMES SHE
1222B		CUNEIFORM SIGN HI TIMES ASH2
1222C		CUNEIFORM SIGN HI TIMES DISH
1222D		CUNEIFORM SIGN HI TIMES KIN
1222E		CUNEIFORM SIGN SUHUR
1222F	✓	CUNEIFORM SIGN ASH KABA
12230		CUNEIFORM SIGN U
12231		CUNEIFORM SIGN AB2
12232		CUNEIFORM SIGN E87A
12233		CUNEIFORM SIGN AB2 TIMES GAN2 TENU
12234		CUNEIFORM SIGN AB2 TIMES TAK4
12235		CUNEIFORM SIGN AB2 TIMES BALAG
12236		CUNEIFORM SIGN AB2 TIMES DUB2
12237		CUNEIFORM SIGN AB2 TIMES SHA3
12238		CUNEIFORM SIGN GIR3
12239		CUNEIFORM SIGN AB2 TIMES ME PLUS EN
1223A		CUNEIFORM SIGN MI
1223B		CUNEIFORM SIGN GUL
1223C		CUNEIFORM SIGN PAN
1223D		CUNEIFORM SIGN DIM2
1223E		CUNEIFORM SIGN KISIM5
1223F		CUNEIFORM SIGN KISIM5 OVER KISIM5

12240		CUNEIFORM SIGN HI TIMES U
12241		CUNEIFORM SIGN NA2
12242		CUNEIFORM SIGN NIM
12243		CUNEIFORM SIGN NIM TIMES GAN2 TENU
12244		CUNEIFORM SIGN NIM TIMES GAN2 TENU
12245		CUNEIFORM SIGN NIM TIMES GAR PLUS GAN2 TENU
12246		CUNEIFORM SIGN LAM
12247		CUNEIFORM SIGN LAM TIMES KUR
12248		CUNEIFORM SIGN LAM TIMES KUR PLUS RU
12249		CUNEIFORM SIGN AMAR
1224A		CUNEIFORM SIGN AMAR TIMES SHE
1224B		CUNEIFORM SIGN GIR3
1224C		CUNEIFORM SIGN GIR3 TIMES GAN2 TENU
1224D		CUNEIFORM SIGN GIR3 TIMES PA
1224E		CUNEIFORM SIGN GIR3 TIMES IGI
1224F		CUNEIFORM SIGN GIR3 TIMES LU PLUS IGI
12250		CUNEIFORM SIGN GIR3 TIMES A PLUS IGI
12251		CUNEIFORM SIGN DUGUD
12252		CUNEIFORM SIGN GIG
12253		CUNEIFORM SIGN LAGAR
12254		CUNEIFORM SIGN LAGAR GUNU
12255		CUNEIFORM SIGN LAGAR TIMES SHE
12256		CUNEIFORM SIGN LAGAR TIMES SHE PLUS SUM
12257		CUNEIFORM SIGN IGI
12258		CUNEIFORM SIGN DI
12259		CUNEIFORM SIGN KI
1225A		CUNEIFORM SIGN KI TIMES BAD
1225B		CUNEIFORM SIGN KI TIMES UD
1225C		CUNEIFORM SIGN KI TIMES U
1225D		CUNEIFORM SIGN SAG NUTILLU
1225E		CUNEIFORM SIGN DUN
1225F		CUNEIFORM SIGN KU3

12260		CUNEIFORM SIGN PAD
12261		CUNEIFORM SIGN E84 8
12262		CUNEIFORM SIGN DISH
12263		CUNEIFORM SIGN LAL
12264		CUNEIFORM SIGN LAL2
12265		CUNEIFORM SIGN LAL2 TIMES HAL
12266		CUNEIFORM SIGN LAL2 TIMES URU TIMES MIN
12267		CUNEIFORM SIGN LAL2 TIMES SAR
12268		CUNEIFORM SIGN LAL2 TIMES DU
12269		CUNEIFORM SIGN LAL2 TIMES KAK
1226A		CUNEIFORM SIGN LAL2 TIMES NI
1226B		CUNEIFORM SIGN ME
1226C		CUNEIFORM SIGN LAGAB
1226D		CUNEIFORM SIGN LAGAB TIMES HAL
1226E		CUNEIFORM SIGN LAGAB TIMES ASH ZIDA
1226F		CUNEIFORM SIGN LAGAB TIMES AN
12270		CUNEIFORM SIGN LAGAB TIMES TAK4
12271		CUNEIFORM SIGN LAGAB TIMES BAD
12272		CUNEIFORM SIGN LAGAB TIMES KUL
12273		CUNEIFORM SIGN LAGAB TIMES KUL PLUS HI PLUS A
12274		CUNEIFORM SIGN E7E6
12275		CUNEIFORM SIGN LAGAB TIMES EN
12276		CUNEIFORM SIGN LAGAB TIMES DAR
12277		CUNEIFORM SIGN LAGAB TIMES TAG
12278		CUNEIFORM SIGN LAGAB TIMES SUM
12279		CUNEIFORM SIGN LAGAB TIMES NE
1227A		CUNEIFORM SIGN LAGAB TIMES USH
1227B		CUNEIFORM SIGN LAGAB TIMES BI
1227C		CUNEIFORM SIGN LAGAB TIMES SHITA TENU
1227D		CUNEIFORM SIGN LAGAB TIMES SHITA PLUS ERIN2
1227E		CUNEIFORM SIGN LAGAB TIMES GUD
1227F		CUNEIFORM SIGN LAGAB TIMES GUD PLUS GUD

12280		CUNEIFORM SIGN LAGAB TIMES AL
12281		CUNEIFORM SIGN LAGAB TIMES U2 PLUS ASH
12282		CUNEIFORM SIGN LAGAB TIMES GA
12283		CUNEIFORM SIGN LAGAB TIMES IGI GUNU
12284		CUNEIFORM SIGN LAGAB TIMES LUL
12285		CUNEIFORM SIGN LAGAB TIMES SHE PLUS SUM
12286		CUNEIFORM SIGN LAGAB TIMES MUSH
12287		CUNEIFORM SIGN LAGAB TIMES LISH
12288		CUNEIFORM SIGN LAGAB TIMES UD
12289		CUNEIFORM SIGN LAGAB TIMES HI TIMES NUN
1228A		CUNEIFORM SIGN LAGAB TIMES IM
1228B		CUNEIFORM SIGN LAGAB TIMES IM PLUS LU
1228C		CUNEIFORM SIGN LAGAB TIMES IM PLUS HA
1228D		CUNEIFORM SIGN LAGAB TIMES U
1228E		CUNEIFORM SIGN LAGAB TIMES U PLUS A
1228F		CUNEIFORM SIGN LAGAB TIMES U PLUS U PLUS U
12290		CUNEIFORM SIGN LAGAB TIMES KI
12291		CUNEIFORM SIGN LAGAB TIMES KU3
12292		CUNEIFORM SIGN LAGAB TIMES LAGAB
12293		CUNEIFORM SIGN LAGAB TIMES ME
12294		CUNEIFORM SIGN LAGAB TIMES ME PLUS EN
12295		CUNEIFORM SIGN LAGAB TIMES LU
12296		CUNEIFORM SIGN LAGAB TIMES KIN
12297		CUNEIFORM SIGN LAGAB TIMES A
12298		CUNEIFORM SIGN LAGAB TIMES A PLUS DA PLUS HA
12299		CUNEIFORM SIGN LAGAB TIMES A PLUS LAL
1229A		CUNEIFORM SIGN LAGAB TIMES A PLUS GAR
1229B		CUNEIFORM SIGN LAGAB TIMES HA
1229C		CUNEIFORM SIGN LAGAB TIMES GAR
1229D		CUNEIFORM SIGN LAGAB TIMES SHU2
1229E		CUNEIFORM SIGN LAGAB TIMES SHU2 PLUS SHU2
1229F		CUNEIFORM SIGN IB

122A0		CUNEIFORM SIGN KU
122A1		CUNEIFORM SIGN LU
122A2		CUNEIFORM SIGN LU TIMES BAD
122A3		CUNEIFORM SIGN KIN
122A4		CUNEIFORM SIGN SIK2
122A5		CUNEIFORM SIGN SIK2 TIMES NUN
122A6		CUNEIFORM SIGN EREN
122A7		CUNEIFORM SIGN GUR7
122A8		CUNEIFORM SIGN MUNSUB
122A9		CUNEIFORM SIGN SHUSHANA
122AA		CUNEIFORM SIGN TUK
122AB		CUNEIFORM SIGN UR
122AC		CUNEIFORM SIGN UR SHESHIG
122AD		CUNEIFORM SIGN UR TIMES UR
122AE		CUNEIFORM SIGN GIDIM
122AF		CUNEIFORM SIGN UDUG
122B0		CUNEIFORM SIGN UR4
122B1		CUNEIFORM SIGN GIN2
122B2		CUNEIFORM SIGN ISHSHEBU
122B3		CUNEIFORM SIGN A
122B4		CUNEIFORM SIGN A TIMES BAD
122B5		CUNEIFORM SIGN A TIMES SAG
122B6		CUNEIFORM SIGN A TIMES MUSH
122B7		CUNEIFORM SIGN A TIMES LAGAR GUNU
122B8		CUNEIFORM SIGN A TIMES IGI
122B9		CUNEIFORM SIGN A TIMES A
122BA		CUNEIFORM SIGN A TIMES HA
122BB		CUNEIFORM SIGN ZA
122BC		CUNEIFORM SIGN ZA TENU
122BD		CUNEIFORM SIGN HA
122BE		CUNEIFORM SIGN HA TENU
122BF		CUNEIFORM SIGN GAR

122C0	𐎠	CUNEIFORM SIGN SHU2
122C1	𐎡	CUNEIFORM SIGN HUL2
122C2	𐎢	CUNEIFORM SIGN SHEG9
122C3	𐎣	CUNEIFORM SIGN SIG
122C4	𐎤	CUNEIFORM SIGN PESH2
122C5	𐎥	CUNEIFORM SIGN SAL
122C6	𐎦	CUNEIFORM SIGN ZUM
122C7	𐎧	CUNEIFORM SIGN DAM
122C8	𐎨	CUNEIFORM SIGN GU
122C9	𐎩	CUNEIFORM SIGN GU TIMES GU
122CA	𐎪	CUNEIFORM SIGN NAGAR
122CB	𐎫	CUNEIFORM SIGN KUSHU2
122CC	𐎬	CUNEIFORM SIGN EL
122CD	𐎭	CUNEIFORM SIGN LUM
122CE	𐎮	CUNEIFORM SIGN LUM OVER LUM
122CF	𐎯	CUNEIFORM SIGN SIG4
122D0	𐎰	CUNEIFORM SIGN EZEN TIMES KASKAL TIMES 4
122D1	𐎱	CUNEIFORM NUMBER 3 HORZ
122D2	𐎲	CUNEIFORM NUMBER LIMMU2
122D3	𐎳	CUNEIFORM NUMBER SIG7
122D4	𐎴	CUNEIFORM NUMBER NIMIN
122D5	𐎵	CUNEIFORM NUMBER MIN
122D6	𐎶	CUNEIFORM NUMBER SHANABI
122D7	𐎷	CUNEIFORM NUMBER KINGUSILI
122D8	𐎸	CUNEIFORM NUMBER IA2
122D9	𐎹	CUNEIFORM NUMBER ASH3
122DA	𐎺	CUNEIFORM NUMBER IMIN
122DB	𐎻	CUNEIFORM NUMBER USSU
122DC	𐎼	CUNEIFORM NUMBER IMIN
122DD	𐎽	CUNEIFORM NUMBER USSU
122DE	𐎾	CUNEIFORM NUMBER ILIMMU
122DF		CUNEIFORM NUMBER BANMIN

