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The original, printed version had missing pages. We apologize for the inconvenience.



ALBERTA GEOLOGICAL SURVEY  
COAL GEOLOGY

COAL GEOLOGY DATA BASE

R.J.H. Richardson  
G.B. Mandryk  
D.W. Fietz

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5th FLOOR, TERRACE PLAZA  
4445 CALGARY TRAIL SOUTH  
EDMONTON, ALBERTA, CANADA  
J6H 5R7

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## FORWORD

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In the early to mid 1980's, during three major regional subsurface coal studies, it was realized that there were strong reasons to establish a Coal Data Base within the Alberta Geological Survey. It was found that information had been retrieved several times from the same area and that interpreted (new) information was stored electronically (in ASCII) and in a variety of formats. In addition, there was no central repository or data base for the new and expensive information. Without a uniform and flexible storage and retrieval system for the data, much effort would need to be expended in future projects just to duplicate what had already been done. Scarce resources, more accountability, and technological advances in relational data base design and data storage indicated that work towards establishing a coal research oriented data base at the Alberta Geological Survey should begin.

Data generated by the research activities of the Alberta Geological Survey, the coal industry, and the Energy Resources Conservation Board's (ERCB) coal hole file will be collected and added to the data base. This will ensure that a standardized source of data will be available to support Geological Survey research and the activities of the coal industry, while simultaneously archiving valuable and costly data.

The Coal Data Base will form the foundation for all future coal geology and related studies at the Alberta Geological Survey. In addition to serving as a data repository, the data base will support mapping, geostatistical, well log, and geographic information systems activities. This report serves as an introduction and as supporting documentation to the Alberta Geological Survey Coal Data Base.

## EXECUTIVE SUMMARY

A data base of coal-related information has been developed at the Alberta Geological Survey. The Coal Data Base's prime function is to support the information requirements of the Alberta Geological Survey's Coal Geology Group as well as those of industry and government. It will also provide a centralized collection of coal data in a consistent format, regardless of the source of the data, while simultaneously archiving costly-to-obtain data. It should be stressed that the data base itself, and not this report, is the primary product of this project. This report reflects the state of the data base project at the end of December 1988; improvements and modifications to the data base will continue.

The following broad data categories can be stored within the Coal Data Base: location information, geological picks, lithological descriptions, sample types, coal quality information, structural geology attributes, and sample storage information. We plan to enhance our coal geology glossary (one of the project's products) and make it widely available as part of an effort to standardize and improve the level of technical dialogue in Alberta. Currently, the Coal Data Base contains data from the Alberta Geological Survey (AGS) and data from the Energy Resources Conservation Board (ERCB) coal hole file. Data from the AGS consists of geology picks from three coal-bearing units of the Alberta plains to a maximum depth of 400 m. These units are the Ardley coal zone, the Horseshoe Canyon Formation, and the Belly River Group comprising a total of 5125 holes with 10 000 formation picks and 24 976 coal seam picks. Coal quality data is available for 205 holes. The majority of the coal-related information in the data base is from the ERCB's coal hole file. The ERCB's data spans the foothills/mountains and plains coals. Their coal hole file held data, as of March 1988, on 49 216 holes, with 2938 having coal quality (proximate or ultimate analyses) information.

The Coal Data Base is a relational data base, implemented in INGRES data base software on a VAX computer. It is intended that the data be a resource for all those involved in the coal sector. One attraction of the relational data model is that it gives users the freedom to query the data base with their own unique questions rather than being locked into fixed format queries. For example, one person may request data related by company, another can request data related by date of sampling and log types. A common request will be, "tell me all you can about coal in this area". The Coal Data Base runs on both mainframe and microcomputers which allows portions of the data base to be transferred digitally into a user's office microcomputer for further querying or analysis.

The Coal Data Base can serve as an exploration, research, and information tool for the 1990's. The result of queries can be sent from office to office on the same day it is retrieved. The data base speeds gathering data for a project's initiation and forms a foundation to the true spatial data and map analysis systems (i.e. geographic information systems) which will be a dominant geoscience tool in the 1990's.

## INTRODUCTION

### OBJECTIVES

The Coal Data Base's prime function is to support the information requirements of the Alberta Geological Survey's Coal Geology Group as well as those of industry and government. The consolidation and integration of data produced by the AGS Coal Geology Group since 1983 was an important objective of the project (Mandryk and Richardson, 1988). The data base must also provide a centralized collection of coal geoscience data in a consistent format, regardless of the source of the data, while simultaneously archiving costly-to-obtain data.

### SCOPE

The data base is designed to include any coal related information, regardless of the source, for the whole of Alberta. The following broad data categories can be stored within the Coal Data Base: location information, geological picks, lithological descriptions, sample types, coal quality information, structural geology attributes, and sample storage information. Currently, the Coal Data Base contains data from the Energy Resources Conservation Board (ERCB) coal hole file while data from the Alberta Geological Survey (AGS) has been formatted for input in the spring of 1989. The majority of the coal-related information in the Data Base for the near future will be from the ERCB's coal hole file.

The ERCB is the primary repository for coal exploration information collected in the province. Filing of coal exploration results with the ERCB is required under the Coal Conservation Act and Regulations. The initial collection of all the industry produced data and its inclusion (data input) in a provincial data base is clearly outside the mandate of the Alberta Geological Survey. A cognitive effort has been made to insure no duplication of effort between the ERCB data base (coal hole file) and the AGS's Coal Data Base. Although a considerable amount of

data is resident in both data bases the key difference is in the scope of the two data bases. The ERCB data base has a repository focus and the AGS Coal Data Base has an interpreted and research oriented focus.

## STATUS

This report reflects the state of the Coal Data Base to the end of December 1988; improvements and modifications will continue. The Coal Data Base has been identified as an ongoing activity of the AGS Coal Geology Program.

## METHODS

### DESIGNING AND IMPLEMENTING THE Coal Data Base

Designing and implementing a relational data base involves a number of basic steps. The following outlines the development path followed by the Coal Geology Group.

1. Establish objectives that list what the purpose of the data base is and what its functions are to be.
2. Establish a data dictionary that lists the data types and their formats for all types of data that will be stored.
3. Produce an Entity-Relationship Model (ERM) which groups data into categories. Establish data relations based on and optimized on the queries which may be posed as outlined in the prospectus.
4. Test the ERM to see if the structure of the data base will support the queries. Revise where necessary.
5. Create the data base tables in the computer data base system.
6. Acquire and format available data.
7. Load data into the data base.
8. Test structure and queries; revise to optimize the data base.

## DATA DICTIONARY

To use and extract data from the Coal Data Base, a data dictionary must identify 'which' specific data types are stored within the data base, what their format is, and how equivalent data is identified in other data bases. Future versions of the data dictionary will be available in electronic form and distributed on diskettes.

To facilitate use, the data dictionary (Appendix 2) was divided into numerous sections. These sections are described below.

### Section 1

Provides general information by listing the names and abbreviations of the tables in the Coal Data Base and the names and abbreviations of the attributes of each table. A brief definition of each table and attribute names is given.

### Section 2

Gives detailed information about the attributes in the Coal Data Base. The columns in section 2 contain the following information.

#### TBL\_ABBREV

- Abbreviated table names. The abbreviated names are used exclusively in the Coal Data Base.

#### CLMN\_ABBREV

- Abbreviated column name (attribute); used exclusively in the data base.

#### STORAGE UNITS (K\_TYP STORED\_UNITS)

- The units in which an attribute is stored, provided the attribute has units, i.e., mm, kg.

#### DATA RANGE (INTEG\_CHECK)

- The range of numbers or codes which the attributes are known to span or are allowed to span.

#### STORAGE FORMAT (INGRS\_STGE\_FMT)

- The INGRES data type defined for each attribute.

#### DISPLAY FORMAT (I\_FLT\_PNT\_FMT)

- The format in which numeric attributes should be displayed.

### Section 3

Sorted version of section 2. Sorted on attribute abbreviation.

#### Section 4

This table relates the data elements in the Energy Resources Conservation Board (ERCB) Coal Hole File to attributes stored in the AGS Coal Data Base.

#### Section 5

Sorted version of section 4. Sorted by ERCB data element name.

#### Section 6

A list of all tables in the Coal Data Base. This list also provides a summary of the type of information in the table (i.e. geology, location) and the table's purpose (i.e. relational, data, reference).

#### Section 7

This table lists all the attributes in the Coal Data Base which serve as relational attributes. The relational attributes are tuple identifiers.

Relational tuple identifier numbers, or relational keys are either;

- (i) unique numbers for an entity tuple (i.e. unique internal data base number for a location, i.e. SITID) or;
- (ii) unique numbers for a reference tuple (i.e. ATOMNUM, used to signify the atomic number of an element, ATOMNUM would correspond to an actual list of names in a reference table, in this case the table ATOMIC\_NO).

Data from the agencies listed in sections 8 and 9 are not presently entered in the Coal Data Base. The relationship of data elements and terminology is presented to allow for reference and comparison.

#### Section 8

This table relates the data elements in the Institute of Sedimentary and Petroleum Geology (ISPG), of the Geological Survey of Canada (GSC) "Coal Data Base" to attributes in the Alberta Geological Survey Coal Data Base.



### Section 9

This table relates the data elements found in Alberta Geological Survey, Open File Report 1988-07 (Mandryk and Richardson, 1988), to the AGS Coal Data Base.

### Section 10

This table permits the recording of comments for an attribute. It is intended for the use of users of the Coal Data Base or for the convenience of those who have access to other data bases.

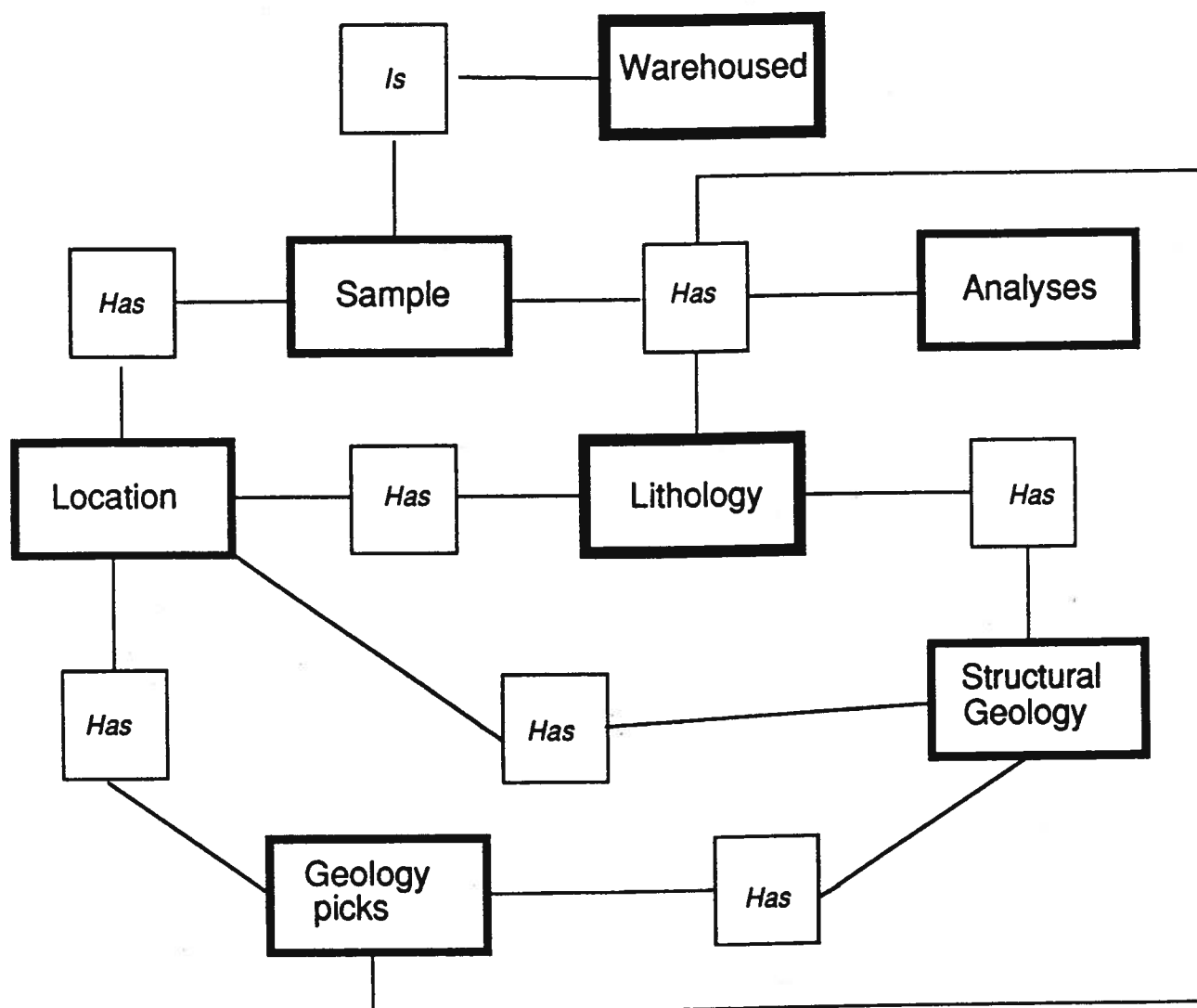


FIGURE 1. Simplified Entity Relationship Model (ERM).

## ENTITY-RELATIONSHIP MODEL

Simply defined, an Entity Relationship Model (ERM) is the logical model of a data base. The ERM forms the design framework that determines the nature, capabilities, and ultimately the success of a relational data base. The major advantage of an ERM is in it's efficiency; it presents the data base diagrammatically thereby conveying a great deal of information in an easy to understand form (Figure 1; and Appendix 3). Almost nine man months of effort went into the careful planning, organization and cross checking of the ERM.

### PURPOSE OF COAL ERM

The Coal Entity-Relationship Model shows the kinds of data in the relational data base and how it is related (Appendix 3). The ERM serves other important functions:

1. The ERM was used to test, on paper, whether the data base structure could meet the requirements of the Coal Geology Group. For example, could the lithology, stratigraphic level, and coal quality analyses be stored and retrieved for any sample from any location?
2. The ERM, combined with the data dictionary, serves as a blueprint for creating the actual computer data base.
3. The ERM is a map of the data base and indicates what is available and the necessary relations needed to extract information.

### DESIGN PHILOSOPHY

The overriding design philosophy was to allow complete flexibility for the type and number of data attributes stored. New fields or data types could be added or deleted at any time without seriously disrupting the integrity of the data base. The design would enable increases in

the bulk or amount of information and hardware storage constraints would be minimized through normalization of the data (third normal form). At present the data base can run with subsets of data on mini and microcomputers as separate data sets or the data can be entirely loaded onto a mini system. Another attraction of a relational data model is that it gives users the freedom to query the data base with their current questions rather than being locked into fixed queries.

An ERM describes data in terms of **entities** {rectangles}, **relations** {diamonds}, and **attributes** {ovals} (Appendix 3). **Entities** are groupings of real-world information about something, such as information about a drill hole; entities are tables. **Attributes** contain the information about an entity, such as when the hole was drilled; attributes are columns in a table. **Relations** relate entities and are also a type of entity. However, relations differ in a important way from entities by having relational attributes which then serve to relate entities. In the Coal Data Base two or more entities can be related.

## DATA SOURCES

Currently, the Coal Data Base contains data from the Energy Resources Conservation Board (ERCB) coal hole file (Table 1 and ERCB Coal Hole Locations map in Appendix 6). Data from the Alberta Geological Survey (Mandryk and Richardson, 1988 map Appendix 6) has been formatted for input during the spring of 1989. Information obtained from industry sources for use by the AGS Coal Group have not, as yet, been formatted for merging with the data base. The Geological Survey of Canada's (GSC) National Coal Inventory program (data base) holds a considerable amount of Alberta coal information that is unavailable elsewhere; no formal cooperative understanding on data exchange exists at present (McCabe et. al. 1987; Langenberg et. al. 1986). Efforts to arrange access to the ISPG Alberta data are continuing. Comparison of data elements between the GSC and AGS data bases appears in the data dictionary; Appendix 2, Section 8.

## ENERGY RESOURCES CONSERVATION BOARD

The ERCB is the prime repository for coal exploration information collected in the province, as required under the Coal Conservation Act. The majority of the coal-related information in the data base is from the ERCB. The ERCB's data spans the foothills/mountains and plains coals regions. Their data base, as of March 1988, contained information on 49 216 holes; 2938 with coal quality information (proximate or ultimate analyses; Table 2 and maps Appendix 6). Their coal hole file is constantly being updated and a major effort, by the ERCB, to include coal quality data has been underway for the last two years.

## ALBERTA GEOLOGICAL SURVEY

Data from the AGS is a consolidation and integration of data produced by the Coal Geology Group between 1982 and 1986 (Mandryk and Richardson, 1988) and consists of geology picks from three coal-bearing units of the Alberta plains to a maximum depth of 400 m. These units are the Ardley coal zone, the Horseshoe Canyon Formation (Drumheller coal zone), and the Belly River Group coal zones (5125 holes with 10 000 formation picks, 24 976 coal seam picks; Appendix 6). Coal quality data is available for 205 holes.

During the next year outcrop data on lithology, structure and coal quality collected since 1986, during our recent program, will be entered in the data base as funding is found.

## INDUSTRY

Information from coal companies has been collected and decoded for use in a number of AGS coal research projects. Much of the information is duplicated in the ERCB Coal Hole File while some additional data elements are present. The data in some cases is not yet in the public domain and therefore can not be made available (in an uninterpreted form) by the AGS prior to normal public release by the ERCB. Data be released with the written permission of the owner of the data.

## DATA CODING

### STORAGE

The Coal Data Base is designed to store all text information related to coal geology (descriptive geological information of coal and associated sediments), location (three dimensional), and coal analytical information (coal chemistry, petrography, palynology). In general the approach is to:

- store field locations of sample data in 3-D;
- record where a sample is stored;
- store geological picks (formations, marker horizons, lithological zones including coal) and their ages;
- store analytical results (grain size, coal petrography, palynology etc.);
- store which company performed any action which resulted in data (drilling company, laboratory);
- store what person or group of people (source and date of information) interpreted geology, collected samples, or performed analysis (i.e. petrography, palynology);
- store multiple identifications/tests of the geological horizon, sample analysis for the same point in space;
- store information related to structural geology. Dip, dip direction, trend, plunge, contact, sample, or measurement point.

Future data base development will store and relate both graphical and text information within a GeoScience Information System environment, as well as present time relationships.

### SAMPLE INTERVAL CODING

Information in the Coal Data Base is stored with reference to 3-dimensional space. The 2-dimensional location of a drillhole or an outcrop is recorded, for example, using latitude and longitude or UTM meterage, or by Dominion Land Survey coordinates. The location of a

sample, a formation boundary, or a lithological description at a 2-dimensional location requires the third dimension to fully define its location. Depending on the kind of location, the third dimensional distance to a piece of information may be measured either downwards (drillhole information) or upwards (outcrop information, channel information) Table 1. Figures 2 to 6 illustrate these intervals.

For example, information collected along a drillhole is measured downwards as depth; information collected from an outcrop or a channel is measured upwards from the origin, usually the ground surface. The distance up or down is always stored as a positive number in the Coal Data Base. The data source (i.e. outcrop, drillhole) dictates how the distance is stored in the data base. The Data Base table name and the table attribute names let the user know what type of location an interval is from and whether the interval is measured up or down from the ground surface, refer to Figures 2 to 6 for diagrammatic sketches of intervals.

Table 1. Mechanism of recording 3-D data in database.

Information measured downwards from the surface:

1. Drillhole information.
  - Sample interval
  - Lithological description interval
  - Depth interval of a geological pick
  - Cored interval
  - Deviation data

Information measured upwards from the surface:

1. Outcrop information.
  - Sample interval
  - Lithological description interval
  - Formation boundary (Geological pick)
  - Structural geology feature
2. Channel information
  - Sample interval
  - Lithological description interval

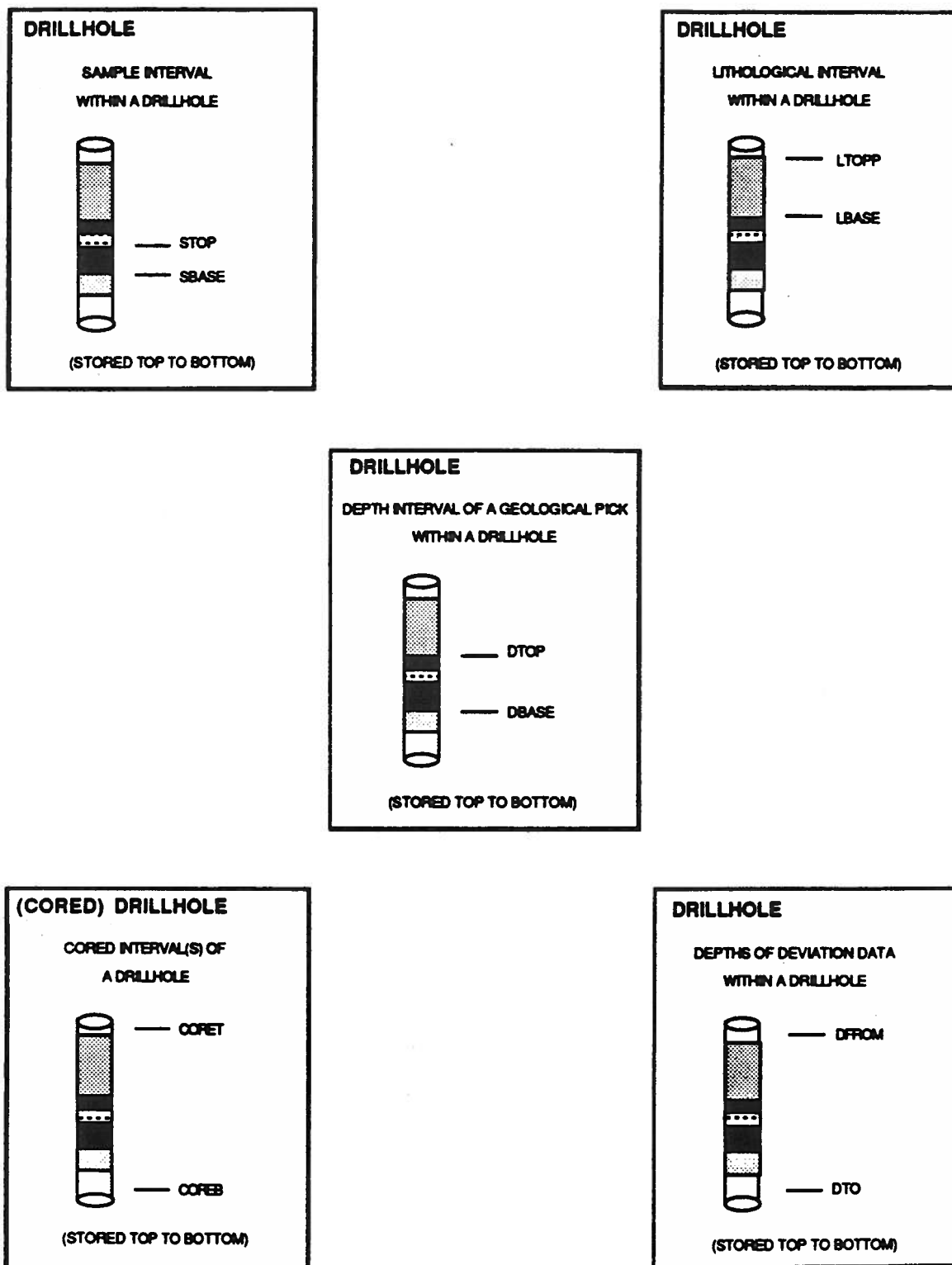


Figure 2. Drillhole intervals. STOP and SBASE (for example) represent the top and bottom depth of a sample measured from the ground surface down. STOP and SBASE ARE ATTRIBUTES IN THE COAL DATA BASE.

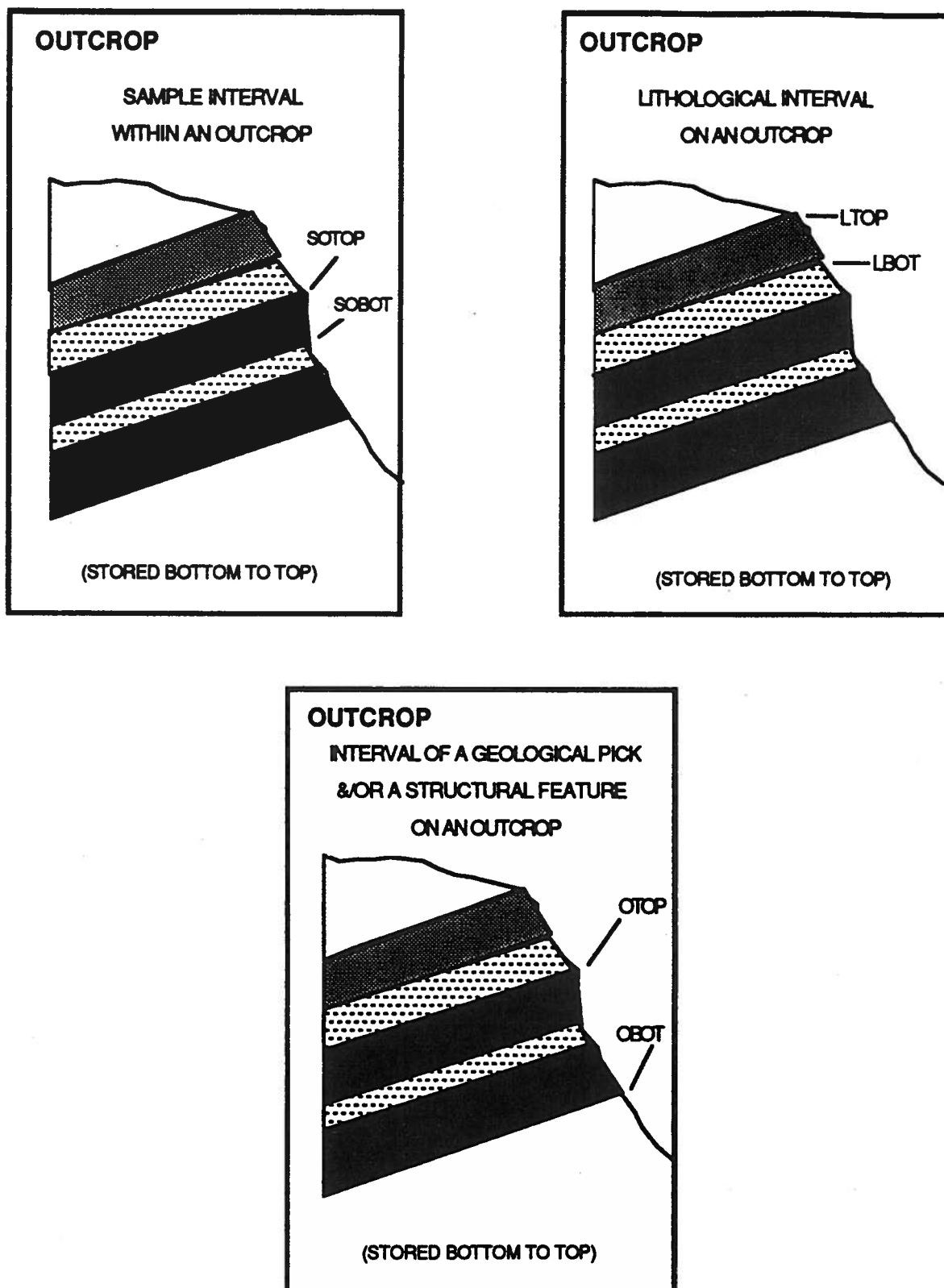


FIGURE 3. Outcrop intervals. SOTOP and SOBOT (for example) represent the upper and lower sample intervals from an outcrop as measured upwards from the bottom part of the outcrop.



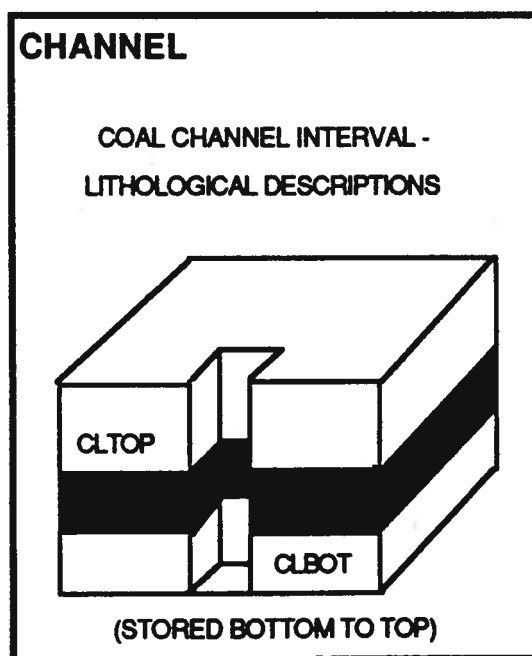
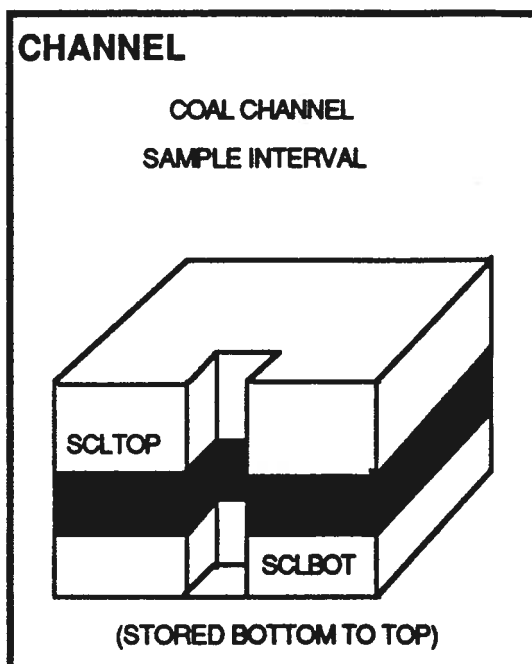


Figure 4. Channel interval. SCLTOP and SCLBOT (for example) represent the upper and lower sample intervals from a channel as measured upwards from the bottom of the channel.

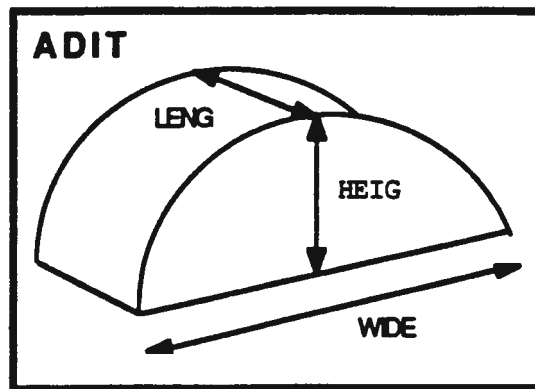


Figure 5. Adit dimensions. LENG, WIDE and HEIG are the Coal Data Base attributes where length, width, and height of an adit are stored in the Coal Data Base.

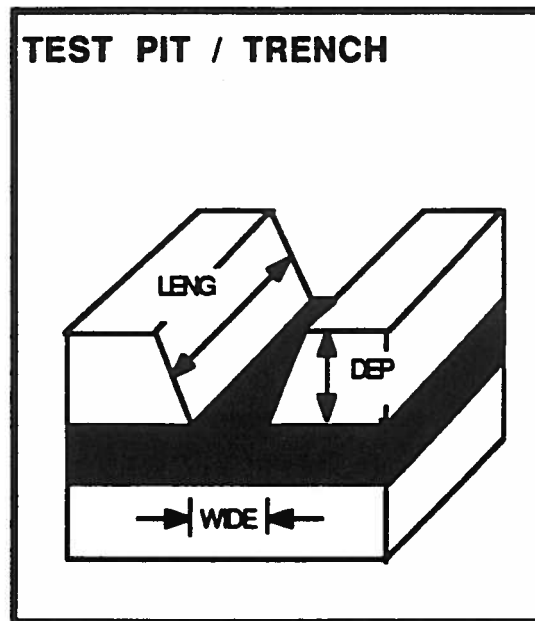


Figure 6. Test pit or trench dimensions. LENG, WIDE and DEP are the Coal Data Base attributes where the length, width, and depth of a test pit or trench are stored in the Coal Data Base.

## INPUT

Data will be mainly loaded by copying ASCII files into the data base. Other ways in which loading will occur is by digital file loading via interactive direct keyboard input using the database's menu system. A series of data coding forms for manual recording have been created and are presented in Appendix 4. These forms will need to be modified as the data base develops but are now available for coding new field data or existing data that is not in a digital form. The manual forms will be replaced, in time, by direct keyboard input or digital files as field computers become more commonplace.

## PROCESSING

### HARDWARE

The bulk of the data base development has been carried out on a DIGITAL VAX 780 mini computer with some additional processing on a DIGITAL VAX 8600. It is calculated that during the project, nearly \$25,000 was spent in machine time directly related to database development (some expenditures in support of other coal group projects are not separately identifiable). Some of the more costly procedures involved decoding the ERCB data tapes which are not VAX compatible being IBM format data. Converting a tape to ASCII format can cost more than \$500. Data update flags are lacking on the ERCB tape and this adds complexity to updates. At present we cannot always recognize updated data in the ERCB Coal Hole File. Discussions with the ERCB are continuing.

### SOFTWARE

The data base software for the AGS Coal Data Base is a relational 4th generation package called INGRES. One of the advantages of this type of software is the capability to subset data and operate on PC

class machines. This can reduce project costs and provide the capability for both downloading and uploading of data sets. This capability was demonstrated at the 1988 AGS Geoscience Forum, in Calgary, some 300 km from the parent data base. The ability of the software to upload and download data may reduce storage and hardware costs since only the data base structure and minimal data need to be on-line at all times. The bulk of the data base can be stored on inexpensive tapes or CD-ROM type devices.

As well as the data base software a number of FORTRAN routines were written for data extraction and a line editor was used for data manipulation.

## EXTRACTING DATA

### AVAILABLE DATA TYPES

The types of data available can be seen on Figure 1, or identified in Appendix 2 (Section 1), and the Glossary (Appendix 1). Some discussion of the type of data stored can also be found in the section on data storage. The data can be grouped into the following categories:

- SITID (LINK OR KEY IN THE data base)
- LOCATION (e.g. TEN TM, THREE TM, MINE GRID, NTS, DLS-CORD., DLS LSD, UTM, LLELEV)
- STRUCTURAL GEOLOGY
- LITHOLOGY
- COAL QUALITY
- PALYNOLOGY
- COAL PETROGRAPHY
- SAMPLE INFORMATION
- SAMPLE STORAGE
- ANALYSIS INFORMATION
- GEOTECHNICAL INFORMATION

## DATA COVERAGE/AVAILABILITY

The current surface spacial availability of data within the data base can be seen in Appendix 6 (map, distribution of data ERCB Coal Hole File and ARC Map, Richardson and Mandryk, 1987). Information availability in the subsurface is highly variable but little information is attainable for depths greater than 400 meters.

Coal quality information is even more restricted in areal distribution. Seven index maps in Appendix 6 shows the distribution of proximate, ultimate, chemical, fusion, trace element analysis and coking test data sites in the province.

## RELIABILITY

At present the database does not include a guide to data reliability with the exception of that provided by the ERCB. The confidence level (CNF\_LVL; Appendix 1) or data reliability is a subjective measure of the reliability of the data, especially the logs, on an ascending scale of confidence; the value '1' is reserved for poor quality holes, (i.e. short holes, caved holes, etc.); the value '0' has the meaning not assessed (ref: ERCB 'Data Element Description Report; this code is used internally at and by the ERCB). It was beyond the scope of the present study to evaluate the reliability of all data within the data base. Problems are known to exist (Strobl et. al., 1989; Macdonald et. al., 1989) with the data. Future evaluations by the AGS on the data and an estimate of it's reliability will be noted in the data base as the data is examined in AGS studies. This is not a trivial problem; the matter requires additional research to address the larger problem of the recognition of reliable data.

## QUERY PROCEDURES

### SIMPLE RETRIEVAL

The Coal Data Base Search Request Form (Appendix 5) can be used (beginning in May 1989) as a guide to simple data retrievals from the AGS Coal Data Base. Presently data is queried using interactive Structured Query Language (SQL) commands. Next year (1990) SQL commands embedded in other application software, such as a GIS routines, will query the data base for attributes based on a region "drawn" on a GIS display. Other queries will be made through the data base's menu system, or through a number of customized user friendly query procedures that will be developed for common requests (presently under development). Examples of query procedures could be: find locations where any type of an analytical result, geological occurrence, or other any type of specified data or the values associated with those attributes is located; with associated qualifies, questions such as how many?, when?, by whom?

These queries will be done on a cost recovery basis and are expected to cost a few tens of dollars per simple request. As part of the data base development, during 1989-1990 fiscal year, requests for information costing under \$1000. will not be charged. In the future simple requests may be paid using VISA. The objective is to provide inexpensive, convenient and equable access to the data.

### COMPLEX EXTRACTIONS

Extractions which are very specific, or large and complex extractions of data requiring SQL programming will also be done on a cost recovery basis or can be negotiated. Complex and large retrievals costing more than \$1000 can be paid and negotiated through short term contracts with ARC (see example contract form; Appendix 5). The short form contract can be used for standing or open orders from frequent clients.

## CONFIDENTIAL DATA

Although one of the reasons for establishing a coal geology research data base is to make information widely available and useful to the Alberta coal sector some information must, at least for a time, be kept confidential. Industry data in some cases is not in the public domain or it has not been released for public use by the ERCB. It therefore, cannot be made available in an uninterpreted form by the AGS without written permission of the individual industry source.

## SUMMARY

It is important to stress that it is the Coal Data Base itself and not this report that is the primary product of this project. This report and its Appendices should, however, document the data base as fully as possible. The Coal Data Base's prime function is to support the coal-related information requirements of the Alberta Geological Survey's Coal Geology Group as well as those of industry and government. It will also provide a centralized collection of coal data in a consistent format, regardless of the source of the data, while simultaneously archiving costly-to-obtain data. The overriding design philosophy was to allow complete flexibility for the type and number of data attributes stored. New fields or data types can be added or deleted at any time without damaging the integrity of the data base. Currently, the Coal Data Base contains data from the Energy Resources Conservation Board (ERCB) Coal Hole File while data from the Alberta Geological Survey (AGS) has been formatted for input in the spring of 1989. The Coal Data Base is fundamental since it supports all present and future projects undertaken by the Coal Geology Group of the Alberta Geological Survey.

## FUTURE PLANS

Our future objectives are to enhance and support the capabilities of the Coal Data Base. This will be achieved by keeping the data base operational, adding data, developing reporting capabilities which make querying easier, and by improving the data base's capability to store sedimentary geology information.

To get the maximum benefit it is planned to keep the data base current by adding existing hardcopy data and new data as it becomes available. In addition, data in the data base must become more accessible to project geologists through reporting procedures. Since information in the data base comes from the context of sedimentary geology, the data base must be enhanced to provide more comprehensive sedimentological descriptions. Cooperative ventures with the ISPG will be pursued in this regard.

The data base gives resource companies a current view of the coal information publicly available in Alberta. We plan to increase the level of awareness of the data base to both industry and government, in part, by writing user manuals and pamphlets and by demonstrating the Data Base at technical conferences. A "meta" data base or index of the information held in the AGS Coal Data Base will be produced, on diskettes, thereby providing users with a cost effective means of locating and requesting the information they need.

In the future we hope to move the data base to a more efficient hardware set linked to the Alberta Research Council's computing network. Dedicated hardware will eliminate on-going CPU charges of a time-shared mainframe computer, speed response time, and encourage use and exploration of the data. We plan to update the Data Base regularly with new releases of the ERCB Coal Hole File and with new AGS data. It is estimated that considerable effort will be needed to write an automated update procedure. We plan to enter into cooperative discussions with



the ERCB regarding the nature of the data collected, its format and automated updating.

A major effort in entering hardcopy coal data and new data presently not in digital format will need to be initiated during the next year or two. More time should be spent on developing and enhancing the sedimentary geology module of the Data Base so that complete outcrop and core descriptions can be stored. In addition links with our digital log analysis machine and digitally storing of log records will be explored. New data storage and distribution technologies such as CD-ROM disks will be evaluated. Effort is planned for developing easy to use query and reporting procedures based on identified user needs and to develop links to geostatistical, statistical, and GeoScience Information System mapping software (Richardson et.al., 1989).

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**APPENDIX 1**  
**SEE**  
**ARC OFR 1989-02B**

**APPENDIX 2**  
**SEE**  
**ARC OFR 1989-02C**

## **APPENDIX 3**

ALBERTA GEOLOGICAL SURVEY  
COAL GEOLOGY

COAL GEOLOGY DATA BASE  
GLOSSARY APPENDIX 1  
OPEN FILE REPORT 1989-2B

R.J.H. Richardson  
G.B. Mandryk  
D.W. Fietz

Open File Report 1989-02B  
Alberta Geological Survey  
Alberta Research Council

## **DISCLAIMER**

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**APPENDIX 1**  
**AGS COAL DATABASE GLOSSARY**

**1.0 PREAMBLE:**

During the early part of 1988, the Coal Group of the Alberta Geological Survey began development of the Coal Database. The Coal Database was established in a VAX/VMS environment and used INGRES as the relational database management system. The Coal Database was designed to accommodate virtually any type of

- o locational
- o structural
- o lithological
- o geological
- o sample/analytical data relating to coal and associated strata in Alberta.

The above noted types of information have been grouped into many electronic tables, each containing a number of attributes (columns). To properly

- o add
- o delete
- o revise
- o extract data from the Coal Database, it is imperative that a user know (or is able to find out) the specific data types stored within the Database. The following text " 2.0 GLOSSARY " provides that necessary information.

The Glossary has been compiled in alphabetical order based on the assigned abbreviation of an attribute. Overall, the Glossary has a split-page format

- o left side; the assigned abbreviation of an attribute
- o right side; attribute definition; drawings and figures have been incorporated where deemed suitable and/or necessary.



## 2.0 GLOSSARY

<u>ATTRIBUTE</u>	<u>DEFINITION</u>
ABV	Abrasiveness; 'a measure of the property of a material causing wear on a surface due to friction'...ref: ERCB 'Data Element Description Report'.
ADD_CITY	Identifies the 'city' part of a coal company's address.
ADD_PC	Identifies the 'postal code' part of a coal company's address.
ADD_PO_BOX	Identifies the 'post office box number' part of a coal company's address.
ADD_PROV	Identifies the 'province' part of a coal company's address.
ADD_ST	Identifies the 'street name/number' part of a coal company's address.
ADD_SUITE_NO	Identifies the 'suite number' part of a coal company's address.
AFFIL	Affiliation; pertains to the palynological or petrographic analyses of coal and identifies the agency and/or company that conducted the analyses.
AL203	Aluminum Oxide; ' the percent weight of aluminum oxide as determined in the chemical analysis of coal ash' .....ref :ERCB 'Data Element Description Report'; this result reflects the more commonly run 'high temperature analysis'.
AL203_L	Aluminum Oxide; 'the percent weight of aluminum oxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the less commonly run 'low temperature analysis'.

ALLL	<p>Atterberg Liquid Limit; identifies the moisture content at which a sediment sample goes through the transition from a plastic to a semiliquid state.</p> <p>Background Notes re: Atterberg Limits: Atterberg Limits are an empirically developed but widely used procedure for establishing and describing the consistency of sediment. The consistency of cohesive sediments is greatly affected by the water content of the sediment. A gradual increase of the water content may transform a dry clay from a solid state to a semisolid state, to a plastic state, and after a further moisture increase, into a liquid state; the water contents at the corresponding junction points between states are respectively known as the shrinkage limit, the plastic limit, and the liquid limit.</p>
ANANUM	<p>Analytical Number; represents an unique internal AGS-assigned number which identifies an analyzed sample. The ANANUM's are sequentially assigned integers beginning with 1. An ANANUM is unique for every single laboratory analysis.</p>
ANK	<p>Ankerite; 'the percent weight of the mineral ankerite (Ca(Mg,Fe) (CO<sub>3</sub>)<sub>2</sub>) as determined by inorganic analysis of coal'....ref: ERCB 'Data Element Description Report'.</p>
APL	<p>Atterberg Plastic Limit; identifies the moisture content at which a sediment sample begins to crumble when rolled out into thin threads. See ALLL (Atterberg Liquid Limit) for additional background information concerning Atterberg Limits.</p>
ARCH_DT	<p>Archival Date of a Sample; part of the information recorded for a sample (whole or in-part) when it is retained/stored for future reference. Code/record date as month-day-year.</p>
ART_CONT	<p>Air-tight Container; part of the information recorded for a sample (whole or in-part) when it is retained/stored for future reference. Code/record as Y or N to indicate whether the sample has been stored in an air-tight container.</p>

AT_DIP	Dip of a Bedding Plane or Fault; this value can be determined from a drillhole or an adit (as reported by the ERCB). It can be measured directly from an adit, or indirectly from dipmeter logs, or derived from a series of core-bedding angle measurements (CBA). See AT_DRN, ATTITUDE and ATTNUM for additional information.
AT_DRN	Dip Direction; this value can be determined from a drillhole or an adit (as reported by the ERCB). It can be measured directly from an adit, or indirectly from dipmeter logs, or derived from a series of core-bedding angle measurements (CBA). The dip direction is reported in degrees azimuth. See AT_DIP, ATTITUDE and ATTNUM for additional information.
ATNUM	Analysis Type Number; represents an unique internal AGS-assigned number which identifies each of the different types of analyses. The ATNUMS's are sequentially assigned integers beginning with 1.
ATOMNUM	Atomic Number; represents an element's atomic number, generally used to identify Trace Elements. The assigned ATOMNUM's are integers and correspond to the elements' atomic number as identified in a Periodic Table (eg, the ATOMNUM for the element Mercury is 80).
ATTITUDE	Attitude; describes how the dip and dip direction were derived from a drillhole; ie. from dipmeter, ERCB adit, or CBA (core-bedding angle) derived.
ATTNUM	Attitude Number; represents an unique internal AGS-assigned number which identifies an ATTITUDE type. The ATTNUM's are sequentially assigned integers beginning with 1. See ATTITUDE for additional background information.

AXI_STR	<p>Axial Strain @ Max <math>P(1)/P(3)</math>; pertains to the Triaxial (geotechnical) test . No further description of AXI_STR has been completed to date.</p> <p>Background Notes re: Triaxial Test:  A sediment specimen is encased in a rubber membrane to prevent the pressurized cell fluid (usually water) from penetrating the pores of the sediment; axial load is applied through a piston, and the volume change of the specimen during a drained test or the induced pore water pressure during an undrained test is measured; the drainage to and from the specimen can be controlled and it is possible, with some assumptions, to control the stress paths applied to the specimen; the failure plane is not forced ... the specimen is free to fail on any weak plane or, as sometimes occurs, to simply bulge.</p> <p>Drainage conditions or paths followed in the triaxial test are models of specific critical design situations required for the analysis of stability in engineering practice; these are commonly designated by a two-letter symbol; the first letter refers to what happens before shear, ie. whether the specimen is consolidated ; the second letter refers to the drainage condition during shear; the three permissible drainage conditions in the triaxial test are unconsolidated-undrained (UU), consolidated-undrained (CU) and consolidated-drained (CD).</p>
AXTNUM	<p>Axial Trace Number; represents an unique internal AGS-assigned number which identifies the measured axial plane of a mesoscopic fold; both the trend and the plunge of the trace of the axial plane must be measured/recorded. The AXTNUM's are sequentially assigned integers beginning with 1. See PLG and TRD for additional background information.</p>
AX_ST	<p>Axial Strain @ Max <math>P(1)-P(3)</math>; pertains to the Triaxial (geotechnical) test. No further description of AX_ST has been completed to date. See AXI_STR for additional background information concerning the Triaxial test.</p>
AZM	<p>Azimuth; 'a direction measured in degrees clockwise from the north'....ref: ERCB 'Data Element Description Report'. See Figure 1 Magnetic declination map of Alberta (ref...EMR Map MCR 701).</p>

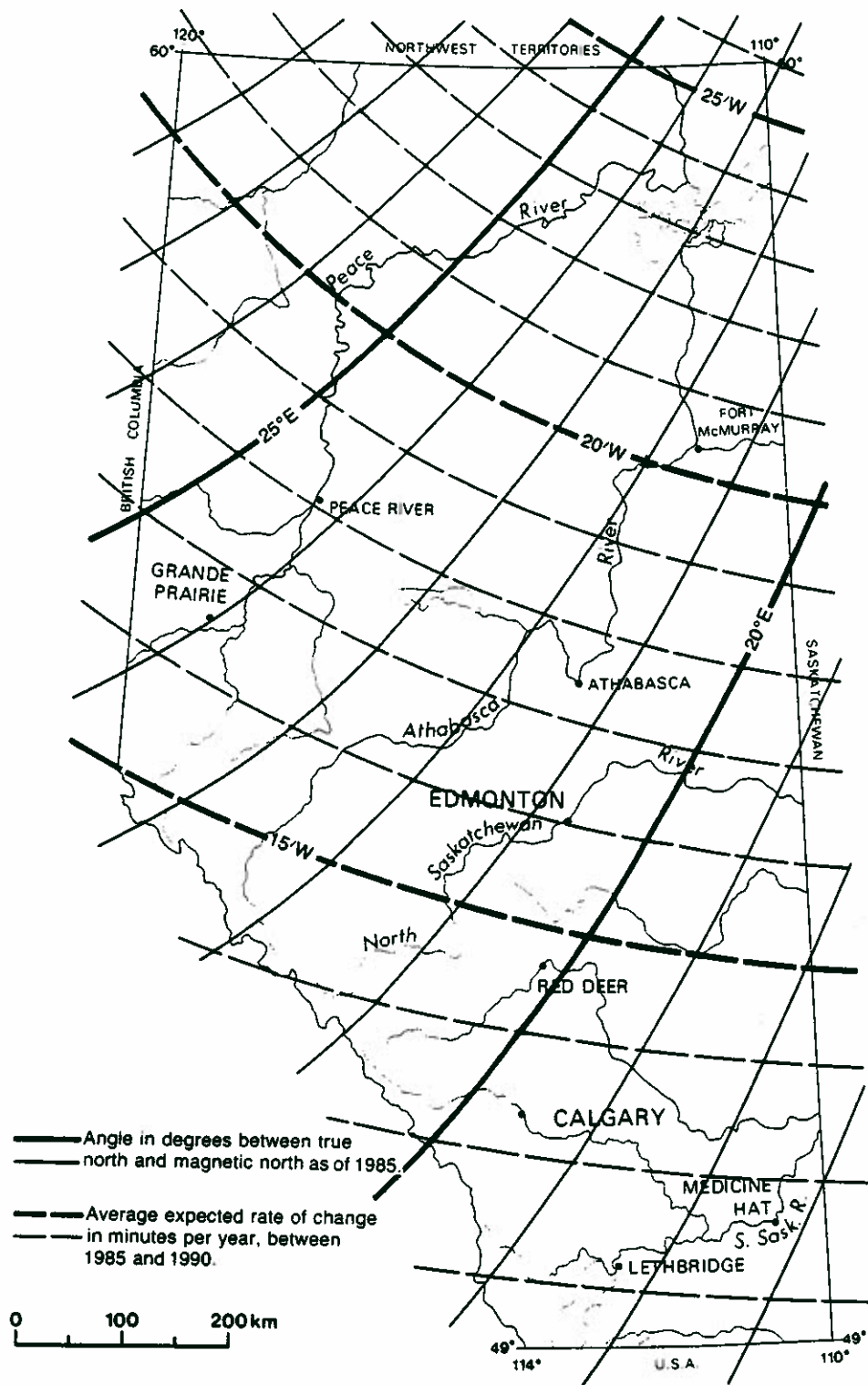


Figure 1. Magnetic declination map of Alberta (ref...EMR Map MCR 701.

AZXB	Azimuth of the X-Axis Baseline; there are a number of coal properties (primarily producing mines and advanced exploration projects) within the Province that have their own location grids; this attribute identifies the azimuth of the X-Axis of the (mine-grid) Baseline. See AZM and AZYB for additional background information.
AZYB	Azimuth of the Y-Axis Baseline; there are a number of coal properties (primarily producing mines and advanced exploration projects) within the Province that have their own location grids; this attribute identifies the azimuth of the Y-Axis of the (mine-grid) Baseline. See AZM and AZXB for additional background information.
A_APP	Analysis Approval Description; describes 'whether the analysis record has been approved or contains suspicious data'.... ref:ERCB 'Data Element Description Report'. See OKNUM for additional background information.
A_CONF	Analysis Confidentiality Description; describes 'whether or not the laboratory data (analysis data) have been made public'...ref:ERCB 'Data Element Description Report'. See CONFNUM for additional background information.
A_DT	Analysis Date; identifies the date a sample was analyzed. Code/record date as month-day-year.
A_TYP	Analysis Type Description; describes (identifies) each of the different analysis types that may be stored within the Database. A_TYP is part of the database table ANA_TYPE.

**BDEN**

**Bulk Density;** pertains to the bulk density of a sample when it is not part of the geotechnical test result for the Direct Shear and/or Triaxial tests. See BDS for additional information.

**Background Note re: Bulk Density:**

Bulk Density is defined as the mass of a unit volume of particles, inclusive of the water and/or air spaces between the particles.

**Background Notes re: Direct Shear:**

The Direct Shear test is a simple and widely used test for determining the shear strength of a sediment; the apparatus used is a shear box consisting of 2 sections, an upper and a lower section ; the lower section is fixed to a frame and the upper section moves horizontally relative to the lower section once the shear load is applied a sediment sample is placed in the box, with approximately half of the sample within each section; a shear force 'T' pulls the upper section relative to the lower, thereby creating a shear plane and corresponding shear stresses ; a normal force 'N' is applied to the plane of shear via a plate placed over the the sediment specimen; porous stones may be used at the top and bottom of the shear box to facilitate drainage.

The sample is subjected to a shear force and subsequent rupture by increasing the horizontal force 'T', either at a constant speed (strain-controlled test) or at a constant load (stress-controlled test) until 'failure is induced'; this procedure is repeated for several values of normal force 'N'; by plotting the normal stresses and corresponding shear stresses from the results of such tests, a failure envelope is obtained.

If the test is run on samples which have not undergone substantial water drainage it is commonly referred to as an 'undrained' shear test, ie. the load is applied soon after the placement of the specimen in the shear box. The sediment sample may be subjected to a sustained normal load and subsequent consolidation before the test commences; in this instance, if the test is run quickly, pore pressures are developed and the test is referred to as 'consolidated undrained'. If the test is performed very slowly so that no pore pressure develops, the test is referred to as 'consolidated drained'.

BDS	Bulk Density; pertains to the bulk density of a sample when it forms part of the geotechnical test result for the Direct Shear and/or Triaxial tests. See BDEN for additional background information concerning Bulk Density and the Direct Shear test. See AXI_STR for additional background information concerning the Triaxial test.
BKHT	Becker Hammer Test; this is a geotechnical test that records the rate of penetration in terms of number of hammer blows per unit length; the resulting value, usually expressed as 'number of blows/ft', can be related to the relative density of a material.
BSDNUM	Based_On Number; represents an unique internal AGS-assigned number which identifies the type of datapoint on which a given interpretation, within the Database, may be based. The BSDNUM's are sequentially assigned integers beginning with 1.
BSD_ON	Based_On Description; describes (identifies) each of the different types of datapoints on which an interpretation, within the Database, may be based; eg. based on core or geophysical well logs.
BSLX	Baseline Number X-Axis; there are a number of coal properties (primarily producing mines and advanced exploration projects) within the Province that have their own location grids; this attribute records the number of the X-Axis Baseline, since the baseline number may not always equal zero. See BSLY for additional background information.
BSLY	Baseline Number Y-Axis; there are a number of coal properties (primarily producing mines and advanced exploration projects) within the Province that have their own location grids; this attribute records the number of the Y-Axis Baseline, since the baseline number may not always equal zero. See BSLX for additional background information.



CAO	Calcium Oxide; 'the percent weight of calcium oxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the more commonly run 'high temperature analysis'.
CAO_L	Calcium Oxide; 'the percent weight of calcium oxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the less commonly run 'low temperature analysis'.
CAT_ID	Catalogue Identification Number as assigned by the ERCB to coal holes in the ERCB Coal Hole File; 'a unique number assigned to each entity in the data base which has no particular correspondence to any particular component'....ref:ERCB 'Data Element Description Report'. The CAT_ID numbers are the ERCB's unique numbers for coal holes in their datafile.
CBA	Core Bedding Angle; records the bedding angle of strata as measured from the drill core; the recorded angles are measured from the core axis....as an example, bedding that is perpendicular to the core axis (ie, flat) has a core bedding angle of 90 degrees.
CBI	Composition Balance Index; pertains to a stored record on the GSC's database. No further supplemental technical information has been located to date. CBI is an attribute of PETROG_INDICES.
CCN	<p>Coefficient of Consolidation; pertains to the Consolidation (geotechnical) test. No further description of CCN has been completed to date.</p> <p>Background Note re: Consolidation Test:  'Consolidation Analysis' deals with data relating to the compressibility of sediments; when materials are loaded or stressed they deform or strain; some materials, especially clays, require a relatively long time for deformation to take place.</p>
CH4	Methane; 'the percent weight of methane as determined in the coal analysis'.....ref:ERCB 'Data Element Description Report'.

CKPR	Coke Pressure; pertains to a stored record on the GSC's data base. No further supplemental information has been located to date. CKPR is an attribute of COKE_PR.
CLBOT	Bottom of Coal Channel Interval; refers to the bottom interval within a lithologic description of a coal channel.
CLCT	Calcite; 'the percent weight of the mineral calcite (CaCO <sub>3</sub> ) as determined by inorganic analysis of coal' ...ref: ERCB 'Data Element Description Report'.
CLTOP	Top of Coal Channel Interval; refers to the top interval within a lithologic description of a coal channel.
CLTYNUM	Coal Type Number; represents an internal unique AGS-assigned number which identifies 'the type of end use of the coal produced'....ref:ERCB 'Data Element Description Report'. The CLTYNUM's are sequentially assigned integers beginning with 1. See C_TYPE for additional background information.
CNFDY	Confidentiality Type Descriptions; describes the 'various components to distinguish amongst different types of public and confidential holes'....ref:ERCB 'Data Element Description Report'. See CNFNUM for additional background information.
CNFNUM	Confidentiality Type Number; represents an unique internal AGS-assigned number which identifies each of the Confidentiality Types (CNFDY's). The CNFNUM's are sequentially assigned integers beginning with 1. See CNFDY for additional background information.
CNF_LVL	Confidence Level re: Data Reliability; ' a subjective measure of the reliability of the data , especially the logs, on an ascending scale of confidence; the value '1' is reserved for bad holes, ie, short holes, caved holes, etc; the value '0' has the meaning not assessed'....ref:ERCB 'Data Element Description Report'. This code is used internally at and by the ERCB.
CNTRCTR_NM	Name of Mechanical Contractor; the name of the mechanical contractor who generated the datapoint; this attribute does not include the names of geophysical logging contractors....for that information see L_CNTR_NM.

CN_FR	<p>Cone Penetration Friction; a geotechnical test result obtained from a cone penetrometer. No further description of CN_FR has been completed to date.</p> <p>Background Notes re: Cone Penetrometer: This is a device used in the field to determine undrained shear strength; like the pocket penetrometer, it is limited in accuracy and should be used in conjunction with information from other more elaborate methods and evaluations.</p>
CN_RS	<p>Cone Penetration Resistance; a geotechnical test result obtained from a cone penetrometer. No further description of CN_RS has been completed to date. See CN_FR for additional background information concerning the cone penetrometer.</p>
CO2	<p>Carbon Dioxide; 'the percent weight of carbon dioxide as determined in the coal analysis'....ref:ERCB 'Data Element Description Report'; this result reflects the more commonly run 'high temperature analysis'.</p>
CO2_L	<p>Carbon Dioxide; 'the percent weight of carbon dioxide as determined in the coal analysis'....ref:ERCB 'Data Element Description Report'; this result reflects the less commonly run 'low temperature analysis'.</p>
COMM	<p>Comments; pertains to comments made on a Traverse. COMM is in the entity TRAV_PART.</p>
COMPANY	<p>Company; 'name of the company identified by company code'....ref:ERCB 'Data Element Description Report', ie, the name of the company responsible for generating the datapoint.</p>
COMP_ABBREV	<p>Company Abbreviation; 'abbreviation of the name of that company indicated by company code'....ref:ERCB 'Data Element Description Report'; see COMPANY for additional background information.</p>
COMP_CODE	<p>Company Code; a unique code number used to identify the company for which a code explanation hole was made ....ref:ERCB 'Data Element Description Report'; see COMPANY for additional background information.</p>

CONFNUM	Confidentiality Type Number; represents an unique internal AGS-assigned number which identifies 'whether or not laboratory data (analysis data) have been made public'....ref:ERCB 'Data Element Description Report'. The CONFNUM's are sequentially assigned integers beginning with 1. 0=confidential or no analysis data 1=closed 0 and 1 from ERCB
CONT	Continuity of sample; describes 'the degree of continuity of the sampled interval'....ref:ERCB 'Data Element Description Report'; eg. identifies the sample as a composite and whether it includes or excludes the partings.
CONTNUM	Continuity Number; represents an unique internal AGS-assigned number which identifies 'the degree of continuity of the sampled interval'...ref:ERCB 'Data Element Description Report'. The CONTNUM's are sequentially assigned integers beginning with 1. See CONT for additional background information.
CON_PRE	Consolidation Pressure; pertains to the Consolidation (geotechnical) test. No further description of CON_PRE has been completed to date. See CCN for additional background information concerning the Consolidation test.
COORDNUM	Coordinate Number; represents an unique internal AGS-assigned number which identifies the precision of the reported/measured survey coordinates of a datapoint. The COORDNUM's are sequentially assigned integers beginning at 1. See C_ORG for additional background information.
COO_ACC	Coordinate Accuracy; describes 'the accuracy, in metres, to which the location has been established'....ref:ERCB 'Data Element Description Report'.
CORE_RECOV	Core Recovery (Drillhole); identifies the percentage of total core recovered for all cored intervals within a drillhole; CORE_RECOV is defined as $[(\text{total thickness of all core recovered}) / (\text{total thickness of all cored intervals})] \times 100\%$ . See RECOV for core recoveries of specific intervals within a drillhole. Core_Recov numbers from ERCB coal hole file may be from one or more cores. If from one core then CORE_RECOV is equivalent to RECOV. (Cannot distinguish the two for ERCB data.)

CORPNUM	Corporation Number; represents an unique internal AGS-assigned number which identifies the corporation or company responsible for generating the datapoint. The CORPNUM's are sequentially assigned integers beginning with 1. See COMPANY for additional background information. Every CORPNUM corresponds to an unique COMP_CODE in the relation COMP.
CPDT	Completion Date; 'completion date for drillhole and excavation, or measuring date for an outcrop'....ref:ERCB 'Data Element Description Report' ie. the completion date for any datapoint (SITID) stored in the Database. Code the date as month-day-year.
CPI	Compression Index; pertains to the Consolidation (geotechnical) test. No further description of CPI has been completed to date. See CCN for additional background information concerning the Consolidation test.
CR03	Chromium Trioxide; 'the percent weight of chromium trioxide as determined in the chemical analysis of coal ash' ....ref:ERCB 'Data Element Description Report'; this result reflects the more commonly run 'high temperature analysis'.
CR03_L	Chromium Trioxide; 'the percent weight of chromium trioxide as determined in the chemical analysis of coal ash' ....ref:ERCB 'Data Element Description Report'; this result reflects the less commonly run 'low temperature analysis'.
CSG_DIAM	Casing Diameter of a Drillhole; 'the outside diameter of the casing string (in millimetres)'....ref:ERCB 'Data Element Description Report'.
CSG_TD	Casing Total Depth; pertains to the total depth of the casing string (in metres) within a drillhole.
CSNUM	Coal Seam Number; represents an unique internal AGS-assigned number which identifies 'a group of coal occurrences as a coal seam that is widely recognizable'....ref:ERCB 'Data Element Description Report'. CSNUM is assigned to 'named' seams, where the names can either be alphabetic and/or numeric. The CSNUM's are sequentially assigned integers beginning with 1. See CS_NM for additional background information.

CS_NM	Coal Seam Name/Number; 'identifies a group of coal occurrences as a coal seam that is widely recognizable' ....ref: ERCB 'Data Element Description Report'.
CTRNUM	Contractor Number; represents an unique internal AGS-assigned number which identifies the mechanical contractor (eg. the drilling, excavation or adit contractor) who generated the datapoint; CTRNUM's does not represent the unique numbers for geophysical logging contractors...see LG_CNTNUM. The CTRNUM's are sequentially assigned integers beginning with 1.
CVC	Coefficient of Volumetric Compression; pertains to the Consolidation (geotechnical) test. No further description of CVC has been completed to date . See CCN for additional background information concerning the Consolidation test.
CZNUM	Coal Zone Number; represents an unique internal AGS-assigned number which identifies 'the position of the coal occurrence to a narrow range of rock strata'....ref:ERCB 'Data Element Description Report'. The CZNUM's are sequentially assigned integers beginning with 1. See CZ_NM for additional background information.
CZ_NM	Coal Zone Name; identifies 'the position of the coal occurrence to a narrow range of rock strata'....ref:ERCB 'Data Element Description Report'.
C_ORG	Coordinates Original; identifies the data source on which the 'original' survey coordinates, of a datapoint, are based. Indirectly this attribute identifies the precision of the reported measured survey coordinates. Examples of C_ORG would include topographic maps (including the scale and date), air photos (including the scale and date) and type of mechanical survey.
C_RANK	Coal Rank Description; 'indicates the ASTM rank of the coal mined'....ref:ERCB 'Data Element Description Report'.
C_TYPE	Coal Type Description; indicates 'the type of end use of the coal produced'....ref:ERCB 'Data Element Description Report'; eg. thermal or metallurgical.

DBASE	Base of Drillhole Depth Interval; the top part of an interval of a named geological pick which has been derived from drillhole data. See DTOP for additional background information.
DDEN	Dry Density; pertains to the dry density of a sample when it is not part of the geotechnical test results for the Direct Shear and/or Triaxial tests. See DDS for additional background information.
DDS	Dry Density; pertains to the dry density of a sample when it forms part of the geotechnical test results for the Direct Shear and/or Triaxial tests. See DDEN for additional background information. See AXI_STR for additional background information concerning the Triaxial test. See BDEN for additional background information concerning the Direct Shear test.
DEP	Depth of Excavation; pertains to the 'height or depth of an excavation in metres'....ref:ERCB 'Data Element Description Report'; within the AGS Database, DEP identifies the depth of a trench or test pit.
DEVNUM	Deviation Data Number; represents an unique internal AGS-assigned number which identifies drillhole deviation data. The DEVNUM's are sequentially assigned integers beginning with 1. See AZM and DEVV for additional background information.
DEVV	Deviation Degrees as Measured from the Vertical; records the number of degrees, at a given depth (DFROM and DTO), that a drillhole deviates from the vertical (ie. a vertical hole has a DEVV of 0 degrees).
DFDPC	Final Dilatation Per Cent; pertains to the Dilatometer test. No further description of DFDPC has been completed to date.  Background Note re: Dilatometer test: A dilatometer records the various contractions and expansions of a coal sample during carbonization at a specific, relatively slow rate of heating and then cooling.
DFROM	The upper depth to which drillhole deviation data pertains. See DEVV for additional background information.

DILNUM	Dilatometer Type Number; represents an unique internal AGS-assigned number which identifies each of the Dilatometer Test Types (DLTM_TYP). The DILNUM's are sequentially assigned integers beginning with 1. See DLTM_TYP and DFDPC for additional background information.
DIP	Dip; 'the angle in degrees at which a stratum or any other planar feature is inclined from the horizontal'....ref:ERCB 'Data Element Description Report'. DIP can be measured only at an outcrop; the outcrop can be located either on surface or underground.
DIPNUM	Dip Number ; represents an unique internal AGS-assigned number to uniquely identify measured dip data, ie, dip and dip direction. The DIPNUM's are sequentially assigned integers beginning with 1. See DIP and DIP_D for additional background information.
DIP_D	Dip Direction; represents the direction the stratum or feature dips and is reported in degrees azimuth. See AZM and DIP for additional background information. DIP_D can be measured only at an outcrop; the outcrop can be located either on surface or underground.
DLTM_TYP	Dilatometer Test Type Description; describes 'the type of dilatometer test' run on a coal sample....ref:ERCB 'Data Element Description Report'. See DFDPC for additional information concerning the Dilatometer test.
DMCPC	Maximum Contraction Per Cent; pertains to the Dilatometer test. No further description of DMCPC has been completed to date. See DFDPC for additional information concerning the Dilatometer test.
DMDPC	Maximum Dilatation Per Cent; pertains to the Dilatometer test. No further description of DMDPC has been completed to date. See DFDPC for additional information concerning the Dilatometer test.
DMXCNT	Maximum Contraction Temperature; pertains to the Dilatometer test. No further description of DMXCNT has been completed to date. See DFDPC for additional information concerning the Dilatometer test.



DMXDIT	Maximum Dilatation Temperature; pertains to the Dilatometer test. No further description of DMXDIT has been completed to date. See DFDPC for additional information concerning the Dilatometer test.
DOL	Dolomite; 'the percent weight of the mineral dolomite (CaMgCO <sub>3</sub> ) as determined by inorganic analysis of coal' ...ref:ERCB 'Data Element Description Report'.
DRESOLT	Resolidification Temperature; pertains to the Dilatometer test. No further description of DRESOLT has been completed to date. See DFDPC for additional information concerning the Dilatometer test.
DRLD	Data Release Date; pertains to 'the calculated date for the release of strip log forms to the public from the Record Centre'....ref:ERCB 'Data Element Description Form'. Code/report date as month-day-year.
DRL_LOG	Driller'(s) Log Available; pertains to the presence of a driller's log . Code/record as Y or N to indicate whether the available information associated with a drillhole does or does not include a driller's log.
DRNUM	Drainage Condition Number; represents an unique internal AGS-assigned number which identifies the drainage conditions associated with a Triaxial (geotechnical) test. The DRNUM's are sequentially assigned integers beginning at 1. See AXI_STR and DR_CN for additional background information concerning the Triaxial test.
DRST	Drop Shatter Test; pertains to 'the percent size stability - a measurement of resistance to breakage'....ref:ERCB 'Data Element Description Report'.
DR_CN	Drainage Condition Description; describes the types of drainage conditions associated with a Triaxial (geotechnical) test. See AXI_STR for additional background notes concerning the Triaxial test.

DSOFT	Initial Softening Temperature; pertains to the Dilatometer test. No further description of DSOFT has been completed to date. See DFDPC for additional information concerning the Dilatometer test.
DT0	Drillhole Deviation Data 'To' Depth; the lower depth to which drillhole deviation data pertains. See DEVV for additional background information.
DTOP	Top of Drillhole Depth Interval; is the bottom part of an interval of a named geological pick which has been derived from drillhole data. See DBASE for additional background information.
DT_WTR_LVL	Date of Water Level Measurement; pertains to the date that a (static) water level was measured in a drillhole. Record date as month-day-year.
ECP	Effective Cell Pressure; pertains to the Triaxial (geotechnical) test. No further description of ECP has been completed to date. See AXI_STR for additional background notes concerning the Triaxial test.
ELEV	Ground (Surface) Elevation; pertains to 'the surface elevation above sea level' of the datapoint...ref:ERCB 'Data Element Description Report'. Ground elevations are reported in metres above mean sea level.
ELEV_ACC	Elevation Accuracy; describes 'the accuracy, in metres, to which the elevation has been established'....ref:ERCB 'Data Element Description Report'.
ELEVNUM	Elevation Number; represents an unique internal AGS-assigned number which identifies the precision of the reported/measured survey coordinates of a datapoint. The ELEVNUM's are sequentially assigned integers beginning at 1. See E_ORG for additional background information.

ELKB	Kelly Bushing Elevation; pertains to the elevation of a drillhole's Kelly Bushing. The Kelly Bushing elevations are reported in metres above mean sea level.
EQM	Equilibrium Moisture; 'the percentage weight of moisture that a sample will absorb and hold when it is in equilibrium with an atmosphere at 96%-97% relative humidity'....ref:ERCB 'Data Element Description Report'. Equilibrium Moisture may also be referred to as 'Capacity Moisture' or 'Inherent Moisture' or 'Bed Moisture'. See PMAD and PMAR for additional background information concerning coal moistures.
EXIN	Exinite; pertains to maceral analysis and is defined as 'the percent weight of a maceral group composed of alginite, cutinite, resinite and sporinite' ...ref:ERCB 'Data Element Description Report'. No further description of EXIN has been completed to date.
E_ORG	Elevations' Original; describes and identifies the data source on which the 'original' elevation value/determination ,of a datapoint, is based; eg. 1:50000 NTS sheets, 1:5000 mine grid and 1:1000 air photos.
E_RES	Electrical Resistivity; 'the measure of resistance (ohms/metre) to the flow of electric current through a particle of ash'....ref:ERCB 'Data Element Description Report'.
E_RES_EXP	Electrical Resistivity Exponent; 'the exponent to which the 'electrical resistivity' field is to be raised'....ref:ERCB 'Data Element Description Report'. See E_RES for additional background information.
FE203	Iron Oxide; 'the percent weight of iron oxide as determined in the chemical analysis of coal ash'....ref: ERCB 'Data Element Description Report'; this result reflects the more commonly run 'high temperature analysis'.
FE203_L	Iron Oxide; 'the percent weight of iron oxide as determined in the chemical analysis of coal ash'....ref: ERCB 'Data Element Description Report'; this result reflects the less commonly run 'low temperature analysis'.

FIN_DT	Completion (finish) Date of Petrographic or Palynological Analysis; pertains to the completion date of the petrographic/palynological analysis of a particular coal sample. Report date as month-day-year.
FLNG	Degree of Fouling Description; describes and identifies 'the tendency of the dry ash particles to adhere to the boiler tubes'....ref:ERCB 'Data Element Description Report'.
FLPG	<p>Flash Pyrolysis Gas Product; 'the percent weight of combustible and non-combustible gaseous products as determined by flash pyrolysis'....ref:ERCB 'Data Element Description Report'. No further description of FLPG has been completed to date.</p> <p>Background Note re: Flash Pyrolysis: The pyrolysis of coal involves the liquifaction of the coal. The process uses a relatively high temperature to drive off the the volatile matter from a coal sample, leaving behind a residue of coke or char. Flash Pyrolysis requires that the coal is heated to the active decomposition temperature very rapidly; when heated in this manner, the coal tends to undergo more extensive fragmentation and leads to enhanced product yields.</p>
FLPL	Flash Pyrolysis Liquid Product; 'the percent weight of water and water-soluble products as determined by flash pyrolysis'....ref:ERCB 'Data Element Description Report'. No further description of FLPL has been completed to date. See FLPG for additional background information concerning Flash Pyrolysis.
FLPS	Flash Pyrolysis Solid Product; 'the coke or char given as a percentage by weight of the original coal sample determined by flash pyrolysis'....ref:ERCB 'Data Element Description Report'. No further description of FLPS has been completed to date. See FLPG for additional background information concerning Flash Pyrolysis.

FLPT	Flash Pyrolysis Tar Product; 'the percent weight of hydrocarbons and oxygen-containing products as determined by Flash Pyrolysis'...ref:ERCB 'Data Element Description Report'. No further description of FLPT has been completed to date. See FLPG for additional background information concerning Flash Pyrolysis.
FMNUM	Geological Formation Number; represents an unique internal AGS-assigned number which identifies the geological formation. The FMNUM's are sequentially assigned integers beginning with 1. See FM_NM for additional background information.
FM_NM	Geological Formation Name; the name of a geological formation.
FOULNUM	Fouling Number; represents an unique internal AGS-assigned number which identifies 'the tendency of the dry ash particles to adhere to the boiler tubes'....ref:ERCB 'Data Element Description Report'. The FOULNUM's are sequentially assigned integers beginning with 1. See FLNG for additional background information.
FSAG	<p>Fischer Assay Gas Product; 'the percent weight of combustible and non-combustible gaseous products as determined by the Fischer Assay'....ref:ERCB 'Data Element Description Report'. No further description of FSAG has been completed to date.</p> <p>Background Note re: Fischer Assay: The Fischer Assay determines the amount of oil, water, gas, and spent residue which a coal sample yields when it is heated in a retort according to a specified temperature program.</p>
FSAL	Fischer Assay Liquid Product; 'the percent weight of water and water-soluble products as determined by Fischer Assay'....ref:ERCB 'Data Element Description Report'. No further description of FSAL has been completed to date. See FSAG for additional background information concerning the Fischer Assay.

- FSAS** Fischer Assay Solid Product; identified as the 'the coke or char given as a percentage by weight of the original coal sample determined by Fischer Assay'....ref:ERCB 'Data Element Description Report'. No further description of FSAS has been completed to date. See FSAG for additional background information concerning the Fischer Assay.
- FSAT** Fischer Assay Tar Product; 'the percent weight of hydrocarbons and oxygen-containing products as determined by Fischer Assay'....ref:ERCB 'Data Element Description Report'. No further description of FSAT has been completed to date. See FSAG for additional background information concerning the Fischer Assay.
- FSI** Free Swelling Index; 'the index number which best conforms to a set standard in the Free Swelling Index test'....ref:ERCB 'Data Element Description Report'.
- Background Note re: Free Swelling Index:  
 In the FSI test, a small sample of powdered coal is placed in a crucible and heated at a rapid, and specified rate, to about 800 degrees C. The resulting degree of swelling is assessed by comparing the profile of the coke product with a series of reference profiles.  
 Swelling indices of between 0 & 9 are possible; 0 indicates non-coherent residue, 1 indicates coherent but non-swollen residue and 1 1/2 to 9 relate to coherent, swollen residue; based on these numbers, a coal may be described as non-caking, non-swelling, low-swelling, medium-swelling, or high-swelling.  
 It should be noted that that this is a pseudo-quantitative test and the resultant coke button shapes may be subject to various interpretations.
- GAL** Galena; 'the percent weight of the mineral galena (PbS) as determined by inorganic analysis of coal'....ref:ERCB 'Data Element Description Report'.

- GDDM**            Giesler Plastometer Dial Divisions per Minute; 'a measurement of fluidity in dial divisions per minute' as determined by the Giesler Plastometer test....ref:ERCB 'Data Element Description Report'. No further description of GDDM has been completed to date.
- Background Notes re: Giesler Plastometer test:  
Plastometers are used to study the plastic behavior of coal when heated slowly under prescribed conditions. The principle involves the resistance offered to the rotation of a stirrer situated within a coal sample. In the Giesler Plastometer test, a constant torque is applied to the stirrer and the rate of rotation (dial divisions per minute) is progressively measured with respect to temperature.  
Maximum fluidity measurements can range from low values for non-reactive coals to 1000000 for coals of high fluidity. The primary use of this test is to establish the suitability of a coal or blend of coals for coke manufacture .
- GEOL**            Geologist; identifies the person responsible for the interpretation of the available data of a datapoint (SITID), stored in the AGS Database. Code/report data by surname followed by the initial(s) of first name(s).
- GKAG**            Gray-King Assay Gas Product; 'the percent weight of combustible and non-combustible gaseous products as determined by the Gray-King Assay'....ref:ERCB 'Data Element Description Report'. No further description of GKAG has been completed to date.

**Background Notes re: Gray-King Assay:**

This test involves the heating of a finely ground sample of coal in a horizontal tube, at a relatively slow rate, to a temperature of 600 degrees C. The profile (and form) of the residue is compared with standard profiles corresponding to indices A to G and G1 to G2.

The above indices describe cokes which range from those which are non-coherent or non-caking (Type A) to those which are hard but of the same volume as the original coal (Type G). For those that swell slightly, up to the extent of filling the tube, profiles G1 and G2 apply.

For those coals that have greater swelling tendencies, the procedure includes mixing an inert material with the coal sample in amounts so that, upon carbonization, a residue of a profile similar to Type G is given. The index is then calculated as G3 to G14, where the number indicates the minimum amount of inert material in grams per 20 grams of coal sample, that is required to give a coke profile comparable to that of G.

While the indices G to G14 indicate the tendency of a coal to swell, the test also indicates the coal's ability to agglomerate, with or without inert material and to form a coherent coke.

- GKAL      Gray-King Assay Liquid Product; 'the percent weight of water and water-soluble products as determined by Gray-King Assay'....ref:ERCB 'Data Element Description Report'. No further description of GKAL has been completed to date. See GKAG for additional background information concerning the Gray-King Assay.
- GKAS      Gray-King Assay Solid Product; identified as 'the coke or char given as a percentage by weight of the original coal sample determined by Gray-King Assay'....ref:ERCB 'Data Element Description Report'. No further description of GKAS has been completed to date. See GKAG for additional background information concerning the Gray-King Assay.
- GKAT      Gray-King Assay Tar Product; 'the percent weight of hydrocarbons and oxygen-containing products as determined by Gray-King Assay'....ref:ERCB 'Data Element Description Report'. No further description of GKAT has been completed to date. See GKAG for additional background information concerning the Gray-King Assay.



GKHV	Gray-King Assay Heating Value; identified as 'the measure of heat in megajoules per cubic metre obtained by complete combustion of the gaseous products as determined by Gray-King Assay'....ref:ERCB 'Data Element Description Report'. No further description of GKHV has been completed to date. See GKAG for additional background information concerning the Gray-King Assay.
GK_ID	Gray-King Assay Index Designation; 'the coke type as determined by comparison of the solid residue of the Gray-King Assay with a standard' profile....ref:ERCB 'Data Element Description Report'. No further description of GK_ID has been completed to date. See GKAG for additional background information concerning the Gray-King Assay.
GPFR	Giesler Plastometer Fluidity Temperature Range; identified as the temperature difference between the GPFT (Giesler Plastometer Maximum Fluid Temperature ) and GPSL (Giesler Plastometer Solidification Temperature....defined as the temperature at a certain minimum dial-divisions per minute). No further description of GPFR has been completed to date. See GDDM for additional background information concerning the Giesler Plastometer test.
GPFT	Giesler Plastometer Maximum Fluid Temperature; identified as 'the temperature in degrees Celsius at which point coal attains its maximum fluidity' as determined by the Giesler Plastometer test....ref:ERCB 'Data Element Description Report'. No further description of GPFT has been completed to date. See GDDM for additional background information concerning the Giesler Plastometer test.
GPNUM	Geological Group Number; represents an unique internal AGS-assigned number which identifies 'the gross stratigraphic position of a coal occurrence'....in this case, the Stratigraphic Group. The GPNUM's are sequentially assigned integers beginning with 1. See GRP_NM for additional background information.

GPSL	Giesler Plastometer Solidification Temperature; 'the temperature in degrees Celsius at which the coal solidifies' as determined by the Giesler Plastometer test....ref:ERCB 'Data Element Description Report'. No further description of GPSL has been completed to date. See GDDM for additional background information concerning the Giesler Plastometer test.
GPST	Giesler Plastometer Initial Softening Temperature; 'the initial softening temperature in degrees Celsius' as determined by the Giesler Plastometer test....:ERCB 'Data Element Description Report'. No further description of GPST has been completed to date. See GDDM for additional background information concerning the Giesler Plastometer test.
GRP_NM	Geological Group Name; identifies the name of a Geological Group.
GRYNUM	Gray-King Assay Index Number; represents an unique internal AGS-assigned number which identifies the Gray-King profiles/indices. The GRYNUM's are sequentially assigned integers beginning with 1. See GK_ID and GKAG for additional background information concerning the Gray-King Assay.
HAZNUM	Drillhole Hazard Number; represents an unique internal AGS-assigned number which identifies 'an indicator of potential hazard in a drillhole'....ref:ERCB 'Data Element Description Report'. The HAZNUM's are sequentially assigned integers beginning with 1. See HAZ_DESC for additional background information.
HAZ_DESC	Drillhole Hazard Description; represents 'an indicator of potential hazard in a drillhole'....ref:ERCB 'Data Element Description Report'.
HEIG	Height, in metres, of an adit drivage.

- HGI** Hardgrove Grindability Index; pertains to 'an index indicating how easily coal is pulverized under prescribed conditions'....ref:ERCB 'Data Element Description Report'.
- Background Notes re: Hardgrove Grindability Index test:  
The Hardgrove Grindability Index is the most common method of representing a coal's grindability. A prepared sample receives a specific amount of grinding energy in a miniature pulverizer, the product is screened and the Hardgrove Index calculated from the amount of material that has been reduced to less than 74 microns.  
Hardgrove Indices range from 20 to 110+; higher numbers represent a coal that is more easily ground.  
The grindability of coal and the grinding performance are important parameters used in the design and operation of milling equipment. Grinding facilities should always be designed to accommodate the least grindable coal expected .
- HOLE\_DIAM** Drillhole Diameter; identifies 'the diameter of the drilling bit in millimetres'....ref:ERCB 'Data Element Description Report'.
- HVADB** Heating Value (Air-Dried Basis); identifies the 'amount of heat generated by completely combusting coal in an excess of oxygen'...ref:ERCB 'Data Element Description Report'. Within the AGS Database, Heating Value is stored as Megajoules per kilogram.
- Background Notes re: Heating Value:  
The Heating Value is measured by burning a sample of coal, usually air-dried, in a standard bomb calorimeter, in excess oxygen. The gross heating value represents the total heat available from a coal as measured by standard methods when all combustion products are returned to ambient temperatures. Common Heating Values, and their equivalents, which are measured follow:
- $$1\text{MJ/kg} = 429.92 \text{ Btu/lb} = 238.846 \text{ cal/g}$$
- HVARB** Heating Value (As Received Basis); identifies the 'amount of heat generated by completely combusting coal in an excess of oxygen'...ref:ERCB 'Data ElementDescription Report'. Within the AGS Database, Heating Value is stored as Megajoules per kilogram. See HVADB for additional background information concerning Heating Value.

IBD	Initial Bulk Density; pertains to the initial bulk density of a sample when it forms part of the test results for the (geotechnical) Consolidation test. No further description of IBD has been completed to date. See CCN for additional background information concerning the Consolidation test.
IDD	Initial Dry Density; pertains to the initial dry density of a sample when it forms part of the test results for the (geotechnical) Consolidation test. No further description of IBD has been completed to date. See CCN for additional background information concerning the Consolidation test.
INC	Inclination; records the degrees of inclination, including positive (upslope) or negative (downslope), as it pertains to the slope of an adit drive or a leg of a measured traverse.
INCNUM	Increment Number; represents an unique internal AGS-assigned number which identifies the incremental sample number as it applies to the Consolidation (geotechnical) test. The INCNUM's are sequentially assigned integers beginning with 1. See INC_NM for additional background information.
INC_NM	Increment Number Description; identifies the number of the incremental sample as it applies to the Consolidation (geotechnical) test. See CCN for additional background notes concerning the Consolidation test.
INMAC	Inert Macerals Content; pertains to and identifies the percent, by weight, of inert macerals contained within a coal sample. No further description of INMAC has been completed to date.
INRT	Inertinite; pertains to maceral analysis and is defined as 'the percent weight of a maceral group composed of fusinite, semifusinite, micrinite, macrinite and sclerotinite' ....ref: ERCB 'Data Element Description Report'. No further description of INRT has been completed to date.
INTD	Date of Geological Interpretation; the completion date of the geological interpretation. Code/report date as month-day-year.

INVR	Intermediate Vitrinite Reflectance; pertains to part of the data generated from the petrographic analysis of polished coal blocks; the Intermediate Vitrinite Reflectance is recorded as a %. No further description of INVR has been completed to date.
IVR	Initial Void Ratio; pertains to the initial void ratio of a sample when it forms part of the test results for the geotechnical Consolidation test. No further description of IVR has been completed to date. See CCN for additional background information concerning the Consolidation test.
IWC	Initial Water Content; pertains to the initial water content of a sample when it forms part of the geotechnical test results for the Triaxial and/or Direct Shear and/or Consolidation tests. See AXI_STR for additional background information concerning the Triaxial test. See BDEN for additional background information concerning the Direct Shear test. See CCN for additional background information concerning the Consolidation test.
JINUM	Joint Infilling Number; represents an unique internal AGS-assigned number which identifies the material that has infilled noted/described joints. The JINUM's are sequentially assigned integers beginning with 1. See JNT_IN for additional background information.
JNT	Number of Joints; records the number of joints noted/described within an interval. No further description of JNT has been completed to date.
JNT_IN	Joint Infilling Description; describes the type of material that has infilled the noted/described joints. No further description of JNT_IN has been completed to date.
JNT_ST	Status of Joints Description; describes the status of a noted/described joint. No further description of JNT_ST has been completed to date.
K20	Potassium Oxide; 'the percent weight of potassium oxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the more commonly run 'high temperature analysis'.

K20_L	Potassium Oxide; 'the percent weight of potassium oxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the less commonly run 'low temperature analysis'.
KAOL	Kaolinite; 'the percent weight of the mineral kaolinite (Al <sub>4</sub> Si <sub>4</sub> O <sub>10</sub> (OH) <sub>8</sub> ) as determined by inorganic analysis of coal' ....ref:ERCB 'Data Element Description Report'.
LABNUM	<p>Lab Number; represents an unique internal AGS-assigned number which identifies the laboratory that conducted the analytical work on a sample. The LABNUM's are sequentially assigned integers beginning with 1. See LAB_NM for additional background information.</p> <p>Note: A sample can be split and sent to different labs. In this case, the SAMNUM would be the same, the ANANUM may or may not be equal and the LABNUM would be different.</p>
LAB_NM	Name of Laboratory; pertains to the name of the laboratory that conducted the analytical work on a given sample.
LAT	Latitude; 'the angular distance north of the equator' ....ref': ERCB 'Data Element Description Report'. No further description of LAT has been completed to date.
LBASE	Base of Drillhole Interval with a Lithologic Description; refers to and is equivalent to the bottom part of the depth interval within a drillhole's lithologic description.
LBOT	Bottom of Outcrop Interval with a Lithologic Description; refers to and is equivalent to the bottom part of an outcrop interval with a lithologic description.

LENG	Length of Excavation; pertains to the 'length of the excavation in metres as measured along the bottom' ....ref: ERCB 'Data Element Description Report'. Within the AGS Database, LENG identifies the length of an adit, a test pit or a trench.
LGCNTNUM	Logging Contractor Number; represents an unique internal AGS-assigned number which identifies the geophysical logging contractor who generated the geophysical logs. The LGCNTNUM's are sequentially assigned integers beginning with 1. See L_CNTR_NM for additional background information.
LITHNUM	Lithologic Interval Number; represents an unique internal AGS-assigned number which identifies each of the lithologic intervals contained within the Database. The LITHNUM's are sequentially assigned integers beginning with 1.
LOGNUM	Log Type Number; represents an unique internal AGS-assigned number which identifies the different types of down-hole geophysical logs. The LOGNUM's are sequentially assigned numbers beginning with 1. See LOG_TYPE for additional background information.
LOG_CODE	Log Type Code; represents a string of LOGNUM's to identify the types of down-hole geophysical logs that exist for a particular drillhole. Code/report LOG_CODE as ##-##-## etc. where '##' is a specific LOGNUM. See LOG_TYPE for additional background information.
LOG_TYPE	Log Type Description; identifies the 'type of log associated with the coal hole'....ref:ERCB 'Data Element Description Report'. No further description of LOG_TYPE has been completed to date.
LONG	Longitude; 'the angular distance west of Greenwich' ....ref: ERCB 'Data Element Description Report'. No further description of LONG has been completed to date.

## LSD

Legal Subdivision; 'legal subdivision, the smallest division in the Dominion/Alberta Land Survey System. There are 16 LSD's within a section'....ref:ERCB 'Data Element Description Report'.

Background Notes re: Dominion/Alberta Land Survey System: Most areas covered by the Township grid in Alberta are in the Third System of Township Surveys.

Under this System, land is designated as being West of the 4th Meridian (110 degree line of longitude), West of the 5th Meridian (114 degree line of longitude) or West of the Sixth Meridian (118 degree line of longitude). As noted, the meridians are lines of longitude that run north and south through Alberta. The 4th Meridian forms the the border between Alberta and Saskatchewan, the 5th Meridian runs through Stony Plain and Calgary, and the 6th Meridian passes near Debolt and Jasper.

Between the meridians are columns called Ranges which are numbered in consecutive order moving westward from each meridian.

Townships are rows which cross meridians and Ranges. The row adjacent to the U.S. border is called Township 1, the next row northward is Township 2, and so on up to to Township 126 which is the row adjacent to the Northwest Territories' border.

The word 'township' is also used to describe the area formed by the intersection of a township row with a range; this township is about 6 miles square and contains 36 sections, each about 1 mile square. The 36 sections within a township are numbered in a snake-like-fashion starting from the southeast corner of the section.

Land (excepting that which has been subdivided) is legally described according to its geographical location, ie, by meridian, range, township, section and legal subdivision (LSD) , a term that identifies a particular 40 acre tract within a section.

Figure 2 has been included to further clarify/explain the common terminology of the Third System of Township Surveys.

## LSDM

Legal Subdivision Modifier; identifies the location of a SITID to a particular quadrant of a legal subdivision (LSD). Code/report LSDM as NW, NE, SW or SE. See LSD for additional background information concerning the Third System of Township Survey.

## LTOP

Top of Outcrop Interval; refers to and is equivalent to the top part of an outcrop interval with a lithologic description.



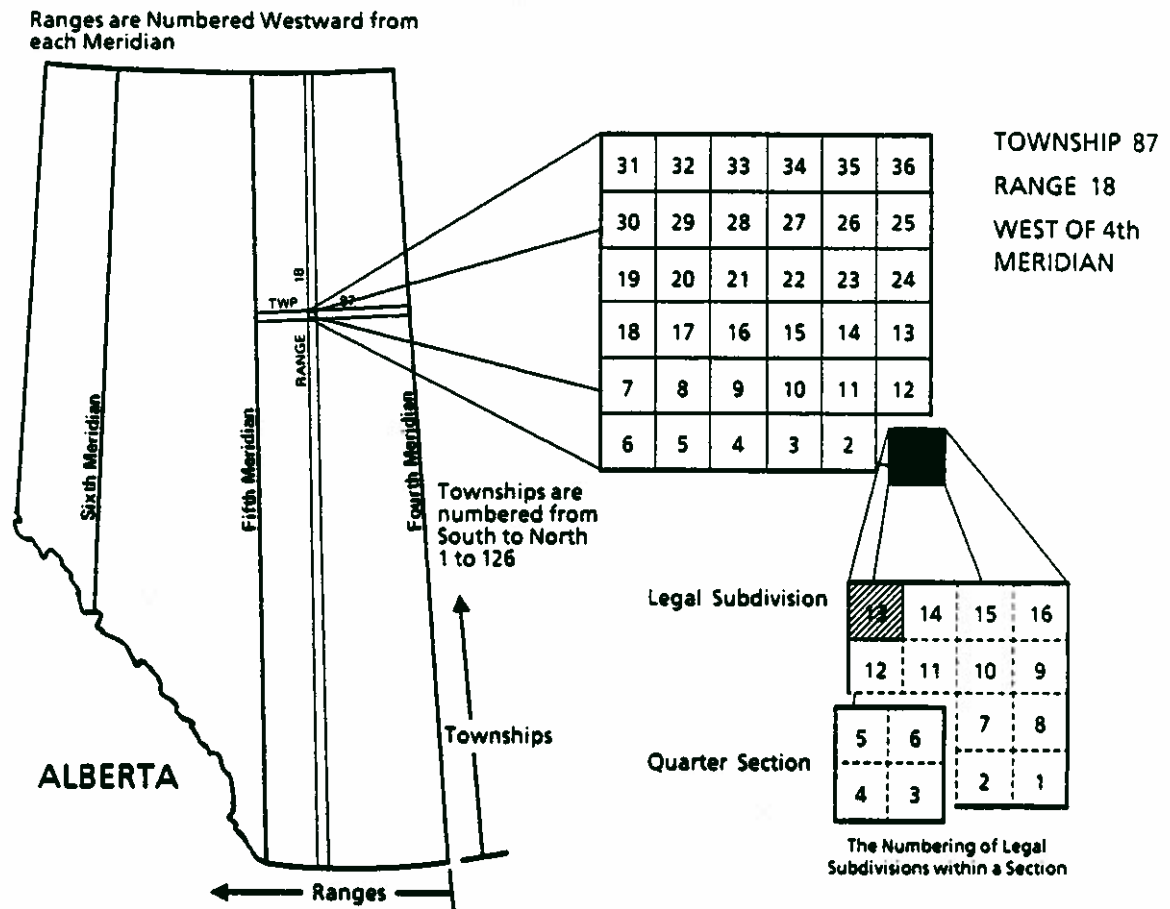


Figure 2. Alberta/Dominion Survey System (Maps Alberta Catalogue '88 - '89; AFLW)

LTOPP	Top of Drillhole Interval with a Lithologic Description; refers to and is equivalent to the top part of the depth interval within a drillhole's lithologic description.
L_CNTR_NM	Name of Geophysical Logging Contractor; the name of the geophysical logging contractor who generated the down-hole geophysical logs.
L_CTGY	Lithologic Category Description; categorizes the lithologic type descriptions (L_TYP) into one of the following categories: No_Data, Unconsolidated, or Consolidated. See L_TYP for additional background information.
L_LEG	Length of Leg of Traverse; records, in metres, the length of a particular leg of a specified traverse.
L_L_ADJ	Lithologic Intervals Adjusted to Geophysical Log Depths; denotes whether lithologic intervals for a particular drillhole have been adjusted to reflect geophysical log depths. Code as Y or N to reflect said status of the lithologic intervals of the drillhole.
L_REMX	Lithologic Interval Remarks; remarks associated with a lithologic interval.
L_S_NO	Lab Sample Number; 'an identifier supplied by the laboratory for its identification of the sample'....ref:ERCB ....'Data Element Description Report'.
L_TYP	Lithologic Type Description; describes and identifies the primary lithology of a lithologic interval.

MAINUM	<p>Main Lithology Number; represents an unique internal AGS-assigned number which identifies the 'main' lithology types. The MAINUM's are sequentially assigned integers beginning with 1 (and may continue on up to 99). Integers 1 to 10 inclusive have been reserved for L_CTGY type 'No_Data'.</p> <p>Integers 11 to 40 inclusive have been reserved for L_CTGY type 'Unconsolidated'. Integers 41 to 99 inclusive have been reserved for L_CTGY type 'Consolidated'. See L_CTGY and L_TYP for additional background information.</p>
MAL_CITY	Identifies the 'city' part of a (coal) company's mailing address.
MAL_COMP_NAM	Identifies the 'company name' part of a (coal) company's mailing address.
MAL_PC	Identifies the 'postal code' part of a (coal) company's mailing address.
MAL_PO_BOX	Identifies the 'post office box number' part of a (coal) company's mailing address.
MAL_PROV	Identifies the 'province' part of a (coal) company's mailing address.
MAL_ST	Identifies the 'street name/number' part of a (coal) company's mailing address.
MAL_SUITE_NO	Identifies the 'suite number' part of a (coal) company's mailing address.
MASS_STD	Mass of Stored Sample; part of the information recorded for a sample (whole or in-part) when it is retained for future reference. Code MASS_STD in units of 'kilograms'.
MBRNUM	<p>Geological Member Number; represents an unique internal AGS-assigned number which identifies 'the position of the coal occurrence to a narrow range of rock strata'....ref: ERCB 'Data Element Description Report'. For this attribute, 'the position' is the stratigraphic member. The MBRNUM's are sequentially assigned integers beginning with 1. See MBR_NM for additional background information.</p>

MBR_NM	Geological Member Name; describes and identifies 'the position of the coal occurrence to a narrow range of rock strata'....ref:ERCB 'Data Element Description Report'. For this attribute, 'the position' is the stratigraphic member.
MCHD	Microhardness; 'a measure of coal hardness measured in kilograms / square metre'....ref:ERCB 'Data Element Description Report'. No further description of MCHD has been completed to date.
MCOM	Mining Company Name; the name of a specific coal mining company.
MER	Meridian; 'the meridian number used within the Dominion/Alberta Land Survey defined as: The Province is divided into three areas, bounded by meridians. These areas are referred to as West of the Fourth (110o), Fifth (114o) and Sixth (118o) Meridians. These Meridians correspond to specific longitudinal degrees'....ref:ERCB 'Data Element Description Report'. See LSD for additional background information concerning the Third System of Township Survey.
METE	Metres East or West from the Reference Corner; 'the distance in metres in the east or west direction' from the reference corner (RCNR) of the reference section (RSEC)....ref:ERCB 'Data Element Description Report'. Code/report 'east' coordinates (from the RCNR) as positive values and 'west' coordinates (from the RCNR) as negative values. See LSD for additional background information concerning the Third System of Township Survey.
METN	Metres North or South from the Reference Corner; 'the distance in metres in the north or south direction' from the reference corner (RCNR) of the reference section (RSEC)....ref:ERCB 'Data Element Description Report'. Code/report 'north' coordinates (from the RCNR) as positive values and 'south' coordinates (from the RCNR) as negative values. See LSD for additional background information concerning the Third System of Township Survey.
MGO	Magnesium Oxide; 'the percent weight of magnesium oxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the more commonly run 'high temperature analysis'.

MGO_L	Magnesium Oxide; 'the percent weight of magnesium oxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the less commonly run 'low temperature analysis'.
MKRNUM	Geological Marker Number; represents an unique internal AGS-assigned number which identifies a specific geological marker horizon or unit. The MKRNUM's are sequentially assigned integers beginning with 1. See MKR_TYPE for additional background information.
MKR_TYPE	Geological Marker Description; describes and identifies the different types of marker horizons or units stored in the Database.
MNAM	Coal Mine Name; pertains to the 'name assigned to a coal mine'....ref:ERCB 'Data Element Description Report'.
MNGNUM	Mine Grid Benchmark Number; represents an unique internal AGS-assigned number which identifies a specific mine grid benchmark. The MNGNUM's are sequentially assigned integers beginning with 1.
MNMN	Pellets: Mean of Minimum Reflectance; pertains to part of the data generated from the petrographic analysis of coal pellets; the Mean of Minimum Reflectance is recorded as a %. No further description of MNMN has been completed to date.
MNMTNUM	Type of Mining Method Number; represents an unique internal AGS-assigned number which identifies the manner or method of coal extraction'...ref:ERCB 'Data Element Description Report'. The MNMTNUM's are sequentially assigned integers beginning with 1. See M_METH for additional background information.
MNMX	Pellets: Mean of Maximum Reflectance; pertains to part of the data generated from the petrographic analysis of coal pellets and is defined as 'the ratio of the intensity of reflected radiation to that of the radiation incident on a surface' ....ref: ERCB 'Data Element Description Report'; the Mean of Maximum Reflectance is recorded as a % and is the average of (at least) 100 maximum reflectance readings. No further description of MNMX has been completed to date.

MNO	Magnesium Oxide; 'the percent weight of manganese oxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the more commonly run 'high temperature analysis'.
MNOM	Coal Mine Number; 'an identifier assigned to a coal mine that is unique to that mine'...ref:ERCB 'Data Element Description Report'. The Coal Mine Number is assigned by the ERCB. No further description of MNOM has been completed to date.
MNO_L	Magnesium Oxide; 'the percent weight of manganese oxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the less commonly run 'low temperature analysis'.
MNRDM	Pellets: Mean of Random Reflectance; pertains to part of the data generated from the petrographic analysis of coal pellets; the Mean of Random Reflectance is recorded as a %. No further description of MNRDM has been completed to date.
MNTYNUM	Coal Mine Type Number; represents an unique internal AGS-assigned number which identifies 'the type of coal mine (surface or underground)'....ref:ERCB 'Data Element Description Report'. The MNTYNUM's are sequentially assigned integers beginning with 1. See M_TYPE for additional background information.
MNVR	Minimum Vitrinite Reflectance; pertains to part of the data generated from the petrographic analysis of polished blocks; the Minimum Vitrinite Reflectance is recorded as a %. No further description of MNVR has been completed to date.
MODNUM	Lithology Modifier Number; represents an unique internal AGS-assigned number 'to better describe a particular rock type or geological unit'....ref:ERCB 'Data Element Description Report'. The MODNUM's are sequentially assigned integers beginning with 100. Integers 100 to 199 inclusive have been reserved for 'compositional type' modifiers. Integers 200 to 299 have been reserved for 'descriptive type' modifiers. The Database has been designed to accommodate up to 2 MODNUM's per MAINUM. See L_TYP, MAINUM, M_DESC and M_TYP for additional background information.

MOIST	Specific Gravity Moisture Description; describes 'the moisture basis of the coal sample analyzed for the purposes of determining specific gravity'....ref:ERCB 'Data Element Description Report'. No further description of MOIST has been completed to date.
M003	Molybdenum Trioxide; 'the percent weight of molybdenum trioxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the more commonly run 'high temperature analysis'.
M003_L	Molybdenum Trioxide; 'the percent weight of molybdenum trioxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the less commonly run 'low temperature analysis'.
MSTNUM	Specific Gravity Moisture Number; represents an unique internal AGS-assigned number which identifies 'the moisture basis of the coal sample analyzed for the purposes of determining specific gravity'....ref:ERCB 'Data Element Description Report'. See MOIST for additional background information.
MTIL	Montmorillinite and Illite; 'the percent weight of the minerals montmorillonite and illite ( $\text{Al}_2\text{Si}_4\text{O}_{10}(\text{OH})_2 \times \text{XH}_2\text{O}$ ) as determined by inorganic analysis of coal' ....ref:ERCB 'Data Element Description Report'.
MXVR	Maximum Vitrinite Reflectance; pertains to part of the data generated from the petrographic analysis of polished blocks; the Maximum Vitrinite Reflectance is recorded as a %. No further description of MXVR has been completed to date.
M_DESC	Lithology Modifier Description; forms part of the stored lithologic data 'to better describe a particular rock type or geological unit'....ref:ERCB 'Data Element Description Report'. See L_TYP, MAINUM, MODNUM and M_TYP for additional background information.
M_LGL_S	Coal Mine Legal Status; identifies and describes 'the legal status of a coal mine'....ref:ERCB 'Data Element Description Report'.

M_METH	Type of Mining Method Description; identifies and describes 'the manner or method of coal extraction'....ref:ERCB 'Data Element Description Report'.
M_TYP	Lithologic Modifier Type Description; categorizes the lithologic modifier descriptions (M_DESC) into one of the following categories: Compositional or Descriptive. See MODNUM and M_DESC for additional background information.
M_TYPE	Coal Mine Type Description; identifies 'the type of coal mine (surface or underground)'....ref:ERCB 'Data Element Description Report'.
NA20	Sodium Monoxide; 'the percent weight of sodium monoxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the more commonly run 'high temperature analysis'.
NA20_L	Sodium Monoxide; 'the percent weight of sodium monoxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the less commonly run 'low temperature analysis'.
NIO	Nickel Oxide; 'the percent weight of nickel oxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the more commonly run 'high temperature analysis'.
NIO_L	Nickel Oxide; 'the percent weight of nickel oxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the less commonly run 'low temperature analysis'.
NMAX	Pellets: Number of Measurements of Maximum Reflectance; identifies the number of readings of maximum reflectance that have been recorded for a given coal pellet. The number of measurements is required to determine the mean of maximum reflectance (MNMX) and the standard deviation of the maximum reflectance (SDMX).



NMIN	Pellets: Number of Measurements of Minimum Reflectance; identifies the number of readings of minimum reflectance that have been recorded during the petrographic analysis of a given coal pellet. The number of measurements is required to determine the mean of minimum reflectance (MNMN) and the standard deviation of the minimum reflectance (SDMN).
NOM	Number of Measurements; identifies the number of readings that have been recorded during the petrographic analysis of an oriented coal sample.
NRDM	Pellets: Number of Measurements of Random Reflectance; identifies the number of readings of random reflectance that have been recorded during the petrographic analysis of a given coal pellet. The number of measurements is required to determine the mean of random reflectance (MNRDM) and the standard deviation of the random reflectance (SDRDM).
NSTR	Normal Stress ( $\Sigma$ ); pertains to the 'normal stress' of a sample when it is part of the geotechnical test result for the Direct Shear test. See BDEN for additional background information concerning the Direct Shear test.
NTSP	National Topographic System (NTS): Primary Sheet; defines a large, unique quadrangle that comprises an area 8 degrees longitude by 4 degrees latitude. Each of these large blocks has an assigned '1 to 3 digit' number. Figure 3 illustrates the NTS Primary Sheets (Number Units) and the NTS Secondary Sheets (Letter Units) for Alberta.

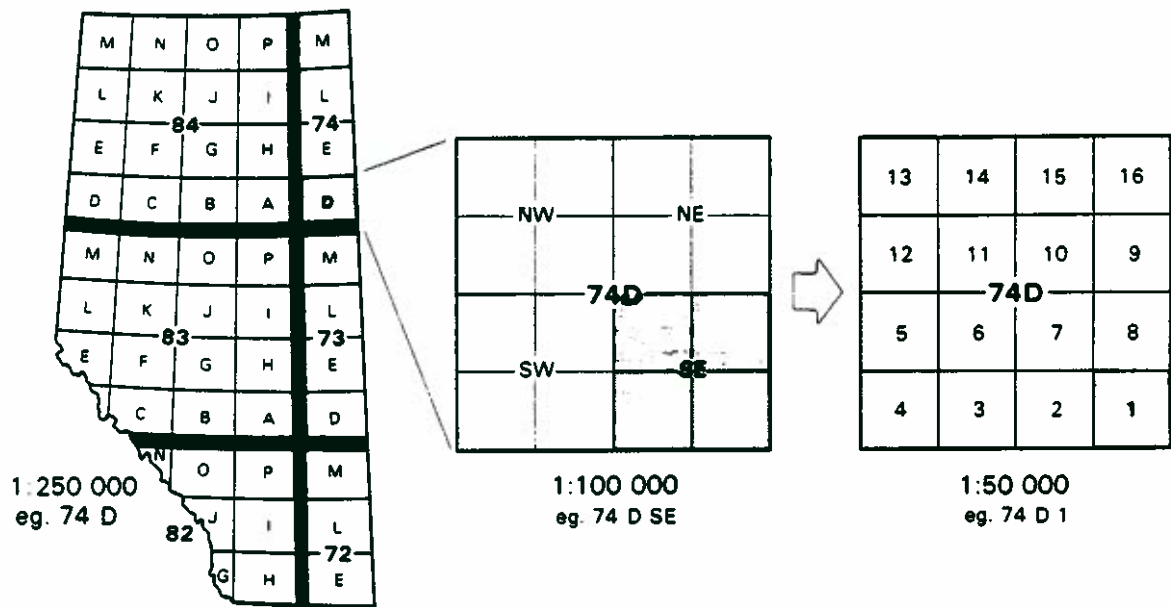


Figure 3. National Topographic System (Maps Alberta Catalogue '88 - '89; AFLW)

Background Notes re: National Topographic System:  
 Under the National Topographic System (NTS), Canada is divided into numbered quadrangles, each eight degrees longitude by four degrees latitude. Each of these large quadrangles are called 'Primary Sheets' or 'Number Units' (eg, '74' on Figure 3). Limits and identification of the quadrangles are based on the (subdivision of) Primary Sheets. The system of further subdivision follows.  
 Each 'Primary Sheet' can be divided into 16 unique 'Secondary Sheets' or 'Letter Units' of A to P inclusive. Each of the 'Secondary Sheets' comprises an area of 2 degrees longitude by 1 degree latitude (eg, 'D' of '83D' on Figure 3 is the Secondary Sheet designation). See also Figure 3 to identify those 'Secondary Sheets' that are located within Alberta. Each of the 'Secondary Sheets' can be further subdivided into 16 unique 'Tertiary Sheets' or 'Portion Units' of 1 to 16 inclusive. Each of the 'Tertiary Sheets' comprises an area of 30 minutes longitude by 15 minutes latitude (eg, '16' of '74D1' on Figure 3 is the Tertiary Sheet Designation).

- NTSS      National Topographic System (NTS): Secondary Sheet; pertains to the subdivision of a NTS Primary Sheet (NTSP) into 16 unique 'Secondary Sheets' or 'Letter Units'. These secondary sheets are designated A to P inclusive (map scale 1:250000). See NTSP for additional background information concerning NTSS and the National Topographic System.
- NTST      National Topographic System (NTS): Tertiary Sheet; pertains to the subdivision of a NTS Secondary Sheet (NTSS) into 16 unique 'Tertiary Sheets' or 'Portion Units'. These tertiary sheets are designated 1 to 16 inclusive (map scale 1:50000). See NTSP for additional background information concerning NTST and the National Topographic System.
- NWC      Natural Water Content; pertains to the natural water content of a sediment sample when it is part of the (geotechnical) Atterberg test. See ALLL for additional background information concerning the Atterberg test.

- OBOT Bottom of Outcrop Interval; refers to and is equivalent to the bottom part of the interval within an outcrop's structural description and/or an outcrop's named geological pick.
- OC\_SNS Outcrop Sense Description; pertains to part of the structural geology information collected from an outcrop; more specifically, this attribute identifies a structure's sense of movement.
- OFLT Fluid Temperature: Oxidizing Atmosphere; pertains to part of the data generated during the Ash Fusion Temperature test and is identified as 'the temperature in degrees Celsius at which the fused cone has spread out to a flat layer with a maximum height of 1.6 mm under an oxidizing atmosphere'....ref:ERCB 'Data Element Description Report.
- Background Notes re: Ash Fusion Temperature:  
 The temperature at which coal ash melts is an important consideration for coal-fired boilers. The molten ash forms silicic acid, a material that has a very corrosive effect on the fire bars.  
 Fusion points may be determined in either an oxidizing or reducing atmosphere.  
 For the test, a sample of ash, shaped into a sharp pointed pyramid, is heated and temperatures noted at which standard pyramid profiles are produced. The standard pyramid profiles include the original cone, initial deformation, softening, hemispherical and flow.  
 Due to equipment limitations, there may be limits to temperatures that can be measured in the determination of ash fusion points; it should be noted that these limits can, and do, vary between laboratories; when a temperature exceeds the maximum measurable temperature of the furnace, the value is usually reported, by the laboratory, as the 'maximum measurable temperature +'; as an example, the maximum measurable temperature for Loring Laboratories Ltd. is 2650 degrees F (1454 degrees C) while the maximum measurable temperature for Birtley Coal and Minerals Testing is 2800 degrees F (1537 degrees C).

- OHET** Hemispherical Temperature: Oxidizing Atmosphere; pertains to part of the data generated during the Ash Fusion test and is identified as 'the temperature in degrees Celsius at which the cone has fused down to a hemispherical lump in which the height is equal to half the width of the base under an oxidizing atmosphere'....ref:ERCB 'Data Element Description Report'. See OFLT for additional background information concerning the Ash Fusion test.
- OIDT** Initial Deformation Temperature: Oxidizing Atmosphere; pertains to part of the data generated during the Ash Fusion test and is identified as 'the temperature in degrees Celsius at which the tip of the cone softens to a round point under an oxidizing atmosphere'....ref:ERCB 'Data Element Description Report'. See OFLT for additional background information concerning the Ash Fusion test.
- OKNUM** Analysis Approval (OK) Number; represents an unique internal AGS-assigned number which identifies 'whether the analysis record has been approved or contains suspicious data' .... ref: ERCB 'Data Element Description Report'. The OKNUM's are sequentially assigned integers beginning with 1; ie. 1 - analyses approved (A), 2 - seemingly bad data (B) and 3 - suspicious data (S). See A\_APP for additional background information.
- OPNG** Size of Sieve Opening; pertains to part of the data recorded during Sieve (Grain Size) Analysis and is identified as the size of the sieve opening in mm.
- Background Note re: Sieve Analysis:  
Sieve Analysis deals with the grain size distribution of a sediment; particle size, especially for granular material, is important in trying to predict engineering behavior. Sieve Analysis is impractical for sieve openings of less than 0.075 mm (No. 200 U.S. Standard Sieve). For finer-grained sediments, hydrometer analysis is commonly used.
- OPRJ** Original Project/Prospect Name Designation; as suggested, pertains to the original name of the project and/or prospect as designated by the COMPANY and/or the GEOL.

ORIG	Original Identification Number of the Datapoint; pertains to the original 'code supplied by the company for its identification of the drillhole or to identify the particular outcrop measured or for its identification of the "excavation"'. . . .ref:ERCB 'Data Element Description Report'.
ORNTN	Orientation Type Description; pertains to part of the structural geology information collected from an outcrop; more specifically, this attribute identifies the status of the way-up of the strata.
ORNUM	Orientation Type Number; represents an unique internal AGS-assigned number which identifies the status of the way-up of the strata. The ORNUM's are sequentially assigned integers beginning with 1. See ORNTN for additional background information.
OSOT	Softening Temperature: Oxidizing Atmosphere; pertains to part of the data generated during the Ash Fusion test and is identified as 'the temperature in degrees Celsius at which the cone has fused down to a spherical lump in which the height is equal to the width of the base under an oxidizing atmosphere' . . . .ref:ERCB 'Data Element Description Report'. See OFLT for additional background information concerning the Ash Fusion test.
OTOP	Top of Outcrop Interval; refers to and is equivalent to the upper part of the interval within an outcrop's structural description and/or an outcrop's named geological pick.
P205	Phosphorus Pentoxide; 'the percent weight of phosphorus pentoxide as determined in the chemical analysis of coal ash' . . . .ref:ERCB 'Data Element Description Report'; this result reflects the more commonly run 'high temperature analysis'.

P205\_L

Phosphorus Pentoxide; 'the percent weight of phosphorus pentoxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the less commonly run 'low temperature analysis'.

PAAD

Ash Content (Air-Dried Basis) of Proximate Analysis; pertains to part of the data generated during the Proximate Analysis test and is identified as 'the percent weight of inorganic residue remaining after ignition of combustible substances as determined by definite prescribed methods'....ref:ERCB 'Data Element Description Report'. For this attribute the ash determination has either been determined from an air-dried basis coal sample or the results have been adjusted to an air-dried basis from another basis. See EQM, PMAD and PMAR for additional background information concerning coal moistures.

Background Notes re: Proximate Analysis:

Proximate Analysis is one of the most common analysis of coal; it is the determination, by standard methods, of the moisture, ash, volatile matter and fixed carbon contents of a coal sample. The first three components are determined while the fourth, fixed carbon, is determined by difference, ie, the four components total 100%.

The ash content of coal is an important part of coal analysis. Ash content reflects the amount of heating value a coal may possess and, indirectly, the amount of mineral matter in the coal; ash content also gives a basic indication of the 'dirtiness' of the coal and may indicate the need for coal cleaning ; further, the ash content determines, in combination with ash fusion temperatures and ash oxide analyses, the suitability of various coals for industrial usage.

The volatile matter content is determined by measuring the weight loss when coal is heated under specific conditions, in the absence of air and correcting for the moisture content of the (air-dried) sample; the volatiles consist primarily of gases, such as hydrogen, carbon monoxide and methane, and condensable vapors; the volatile matter content (and composition) of coal is related to coal rank and is an important parameter in the classification of coal; volatile matter, in combination with other tests, also gives an indication of the coal's coking/caking capacity and/or its suitability as a feedstock for gasification and/or liquefaction processes.

The fixed carbon content of a coal is calculated by difference after the determination of moisture, ash and volatile matter contents by standard methods; the fixed carbon content represents the combustible portion of the residue remaining after the removal of the moisture and volatile matter.

PAAR	Ash Content (As Received Basis) of Proximate Analysis; pertains to part of the data generated during the Proximate Analysis test and is identified as 'the percent weight of inorganic residue remaining after ignition of combustible substances as determined by definite prescribed methods' ....ref: ERCB 'Data Element Description Report'. For this attribute the ash determination has either been determined from an as received basis coal sample or the results have been adjusted to an as-received basis from another basis. See EQM, PMAD and PMAR for additional background information concerning coal moistures. See PAAD for additional background information concerning Proximate Analysis.
PCHNUM	Pitch Type Number; represents an unique internal AGS-assigned number which identifies a measured pitch (structural geology). The PCHNUM's are sequentially assigned integers beginning with 1. See PITCH for additional background information.
PCP	Preconsolidation Pressure; pertains to the preconsolidation pressure of a sample when it forms part of the test results for the (geotechnical) Consolidation test. See CCN for additional background information concerning the Consolidation test.
PDSP	Peak Displacement; pertains to the peak displacement (measured in mm) of a sample when it is part of the Direct Shear (geotechnical) test. See BDEN for additional background information concerning the Direct Shear test.
PETNUM	Petrographic/Palynologic Analysis Sample Number; represents an unique internal AGS-assigned number which identifies a 'petrographic or palynologic analysis' sample. The PETNUM's are sequentially assigned integers beginning with 1. See PETSAM_NO for additional background information.
PETROG	Coal Petrography/Palynology Completed By; identifies the person that conducted/completed the petrographic/palynologic analyses of the coal sample.
PETSAM_NO	Petrographer/Palynologist's Identification Number of the Sample; identifies the number assigned by the coal petrographer/palynologist (PETROG) to uniquely identify a 'petrographic/palynologic analysis' sample.



PFCAD	Fixed Carbon Content (Air-Dried Basis): Proximate Analysis; pertains to part of the data generated during the Proximate Analysis test and is identified as 'the percent weight of solid residue other than ash, obtained by destructive distillation under prescribed conditions'....ref:ERCB 'Data Element Description Report'. Fixed carbon results are either determined from an air-dried coal sample or the results have been adjusted to an air-dried basis from another basis. See EQM, PMAD and PMAR for additional background information concerning coal moistures. See PAAD for additional background information concerning Proximate Analysis.
PFCAR	Fixed Carbon Content (As Received Basis): Proximate Analysis; pertains to part of the data generated during the Proximate Analysis test and is identified as 'the percent weight of solid residue other than ash, obtained by destructive distillation under prescribed conditions'....ref:ERCB 'Data Element Description Report'. Fixed carbon results are either determined from an as received coal sample or the results have been adjusted to an as received basis from another basis. See EQM, PMAD and PMAR for additional background information concerning coal moistures. See PAAD for additional background information concerning Proximate Analysis.
PIEZO	Piezometers Installed in the Drillhole; pertains to the presence of piezometers. Code/record as Y or N to indicate whether or not said drillhole contains a piezometer(s).
PIKNUM	Geological Pick Number; represents an unique internal AGS-assigned number which identifies each of the geological pick intervals contained within the Database. The PIKNUM's are sequentially assigned integers beginning with 1.
PIK_Q	Quality of Geological Pick; describes and identifies, in the form of a comment , the 'quality' of a geological pick stored within the Database. No further description of PIK_Q has been completed to date.
PITCH	Pitch; identifies, in degrees, the mean pitch of linear structures (eg, striae) on an associated planar structure (structural geology). No further description of PITCH has been completed to date.

- PLG Plunge; the plunge of the trace of an axial plane. No further description of PLG has been completed to date.
- PLIN Plunge-Intermediate Degrees; pertains to part of the data generated from the petrographic analysis of polished blocks; the Plunge (Intermediate) is recorded in degrees. No further description of PLIN has been completed to date.
- PLMN Plunge-Minimum Degrees; pertains to part of the data generated from the petrographic analysis of polished blocks; the Plunge (Minimum) is recorded in degrees. No further description of PLMN has been completed to date.
- PLMX Plunge-Maximum Degrees; pertains to part of the data generated from the petrographic analysis of polished blocks; the Plunge (Maximum) is recorded in degrees. No further description of PLMX has been completed to date.
- PMAD Moisture Content (Air-Dried Basis): Proximate Analysis; identified as 'that moisture remaining in the sample after determining air dry loss, expressed as a percentage by weight. Synonymous descriptions are 'as determined moisture' and 'as analyzed moisture' and 'residual moisture'..ref:ERCB 'Data Element Description Report'. See EQM and PMAR for additional background information concerning coal moistures. See PAAD for additional background information concerning Proximate Analysis.
- PMAR Moisture Content (As-Received Basis): Proximate Analysis; identified as 'the percentage loss in weight when coal is heated under certain prescribed conditions'...ref:ERCB 'Data Element Description Report'. As received moisture may also be referred to as total moisture. See EQM and PMAD for additional background information concerning coal moistures. See PAAD for additional background information concerning Proximate Analysis.

PMDD	<p>Maximum Dry Density: Proctor Test; pertains to the maximum dry density of a sample when it forms part of the Proctor (geotechnical) test.</p> <p>Background Note re: Proctor test: The Proctor Compaction Test determines the 'sediment density-water content' relationship of a sediment. Dry densities for each sediment sample are determined and plotted vs the water contents for each sample; the resulting cross-plot forms a compaction curve and is unique for a given sediment type, method of compaction and (constant) compactive effort.</p>
POAD	<p>Porosity, As Determined; identified as 'a percent measure of the pore volume per unit volume of coal as determined' ....ref: ERCB 'Data Element Description Report'. No further description of POAD has been completed to date.</p>
POCK	<p>Pocket Penetrometer; pertains to a (geotechnical) test result obtained from a pocket penetrometer, a hand-held device used primarily for in-field testing; the pocket penetrometer indicates the approximate unconfined compressive strength of a sediment. No further description of POCK has been completed to date.</p>
POIN	<p>Porosity, Insitu; identified as 'a percent measure of the pore volume per unit of coal insitu' ....ref:ERCB 'Data Element Description Report'. No further description of POIN has been completed to date.</p>
PORE_PRES	<p>Pore Pressure @ Max P(1)-P(3); pertains to the Triaxial (geotechnical) test. No further description of PORE_PRES has been completed to date. See AXI_STR for additional background information concerning the Triaxial test.</p>
PPM	<p>Parts per Million; pertains to 'the measurement in parts per million of the trace element....as determined by the inorganic analysis of coal' ....ref:ERCB 'Data Element Description Report'. Code as -99 for the 'default' value and -88 for 'trace' values.</p>

PP_MAX	Pore Pressure @ Max $P(1)/P(3)$ ; pertains to the Triaxial (geotechnical) test. No further description of PP_MAX has been completed to date. See AXI_STR for additional background information concerning the Triaxial test.
PREP	Sample Preparation Type Description; describes and identifies 'the degree of preparation of the coal used in the analysis' ...ref:ERCB 'Data Element Description Report' (Sample-Type of ERCB). ERCB's - "Sample - Type"
PREPNUM	Sample Preparation Type Number; represents an unique internal AGS-assigned number which identifies 'the degree of preparation of the coal used in the analysis'...ref:ERCB 'Data Element Description Report'. The PREPNUM's are sequentially assigned integers beginning with 1.
PSSTR	Peak Shear Stress; pertains to the peak shear stress of a sample when it is part of the Direct Shear (geotechnical) test. No further description of PSSTR has been completed to date. See BDEN for additional background information concerning the Direct Shear test.
PTMC	Pyrite and/or Marcasite; 'the percent weight of the minerals pyrite and/or marcasite ( $\text{FeS}_2$ ) as determined by inorganic analysis of coal'...ref:ERCB 'Data Element Description Report'. See SADB for additional background information concerning sulphur.
PTMC	Optimum Moisture Content: Proctor Test; pertains to the optimum moisture content of a sample when it forms part of the Proctor (geotechnical) test. See PMDD for additional background information concerning the Proctor test.

PVMAD	<p>Volatile Matter Content (Air-Dried Basis) of Proximate Analysis; pertains to part of the data generated during the Proximate Analysis test and is identified as 'the percent weight of those products, exclusive of moisture, given off by a material as gas or vapor, determined by definite prescribed methods'... ref:ERCB 'Data Element Description Report'. Volatile matter results, for this attribute, are either determined from an air-dried coal sample or the results have been adjusted to an air-dried basis from another basis. See EQM, PMAD and PMAR for additional background information concerning coal moistures. See PAAD for additional background information concerning Proximate Analysis.</p>
PVMAR	<p>Volatile Matter Content (As Received Basis) of Proximate Analysis; pertains to part of the data generated during the Proximate Analysis test and is identified as 'the percent weight of those products, exclusive of moisture, given off by a material as gas or vapor, determined by definite prescribed methods'... ref:ERCB 'Data Element Description Report'. Volatile matter results, for this attribute, are either determined from an as received coal sample or the results have been adjusted to an as received basis from another basis. See EQM, PMAD and PMAR for additional background information concerning coal moistures. See PAAD for additional background information concerning Proximate Analysis.</p>
P_L_ADJ	<p>Geological Picks Adjusted to Geophysical Log Depths; denotes whether geological picks for a particular drillhole have been adjusted to reflect geophysical log depths. Code as Y or N to reflect said status of the geological picks of the drillhole.</p>
QTZ	<p>Quartz; 'the percent weight of the mineral quartz (SiO<sub>2</sub>) as determined by inorganic analysis of coal'...ref:ERCB 'Data Element Description Report'.</p>
RCNR	<p>Reference Corner of Section; identifies from which corner of a Dominion/Alberta Land Survey System section (RSEC) the survey coordinates originate. Code/report RCNR as NW, NE, SW or SE. See LSD for additional background information concerning the Third System of Township Survey.</p>

RDSP	Residual Displacement; pertains to the residual displacement of a sample when it is part of the Direct Shear (geotechnical) test. No further description of RDSP has been completed to date. See BDEN for additional background information concerning the Direct Shear test.
RECOV	Core Recovery in a Specific Individual Drillhole Interval; identifies the percentage of core recovered from a specific cored interval within a drillhole ; RECOV is defined as $[(\text{total thickness, in metres, of core recovered from the interval}) / (\text{thickness, in metres, of the same interval})] \times 100\%$ . For the overall core recovery of the drillhole, see CORE_RECOV.
REFRIG	Refrigerated; part of the information recorded for a sample (whole or in-part) when it is retained/stored for future reference. Code/record as Y or N to indicate whether the sample has been stored in a refrigerated environment.
REMAC	Reactive Macerals Content; pertains to and identifies the percent, by weight, of reactive macerals contained within a coal sample. No further description of REMAC has been completed to date.
REMARKS	Geological Picks Remarks; noted remarks concerning a geological pick stored within the Database.
REMD	Remarks Date; pertains to the 'date of a remark written about a mine'....or any other SITID stored within the Database. 'It will be used to search the remarks record for future add, change or delete'....ref:ERCB 'Data Element Description Report'. See REMX for additional background information. Code/record data as month-day-year.
REMX	SITID Remarks; as suggested, pertains to any remarks associated with a SITID stored within the Database. REMD, as noted prior, registers the date of the REMX.
RFLA	Pellets: Reflectance Angle; identifies the setting of the polarizer in degrees; the degrees are measured from the vertical plane. No further description of RFLA has been completed to date.

- RFLT** Fluid Temperature: Reducing Atmosphere; pertains to part of the data generated during the Ash Fusion Temperature test and is identified as 'the temperature in degrees Celsius at which the fused cone has spread out to a flat layer with a maximum height of 1.6 mm under a reducing atmosphere'....ref:ERCB 'Data Element Description Report'. See OFLT for additional background information concerning the the Ash Fusion Test.
- RGE** Range; 'the range number used within the Dominion/Alberta Land Survey System defined as: Lines extending north and south across the Province, 9.6 kilometers (6 miles) apart, numbered sequentially between meridians, from east to west' ....ref:ERCB 'Data Element Description Report'. See LSD for additional background information concerning the Third System of Township Survey.
- RHET** Hemispherical Temperature: Reducing Atmosphere; pertains to part of the data generated during the Ash Fusion test and is identified as 'the temperature in degrees Celsius at which the cone has fused down to a hemispherical lump in which the height is equal to half the width of the base under a reducing atmosphere'....ref:ERCB 'Data Element Description Report'. See OFLT for additional background information concerning the Ash Fusion test.
- RIDT** Initial Deformation Temperature: Reducing Atmosphere; pertains to part of the data generated during the Ash Fusion test and is identified as 'the temperature in degrees Celsius at which the tip of the cone softens to a round point under a reducing atmosphere'....ref:ERCB 'Data Element Description Report'. See OFLT for additional background information concerning the Ash Fusion test.
- RNKNUM** Coal Rank Number; represents an unique internal AGS-assigned number which identifies and 'indicates the ASTM rank of the coal mined'....ref:ERCB 'Data Element Description Report'. The RNKNUM's are sequentially assigned integers beginning with 1. See C\_RANK for additional background information.
- RQD** Rock Quality Designation; pertains to the fraction of solid core recovered and is defined as  $[(\text{sum of lengths of recovered core greater than 0.1 m in length}) / (\text{sum of length of core cut})] \times 100\%$ .

- RSEC** Reference Section; as suggested, identifies the section number used within the Dominion/Alberta Land Survey System, from which the survey coordinates originate. In most cases, the RSEC and the SECT are the same; however, there are instances where the 'origin of the survey coordinates' section is not the same as the 'location of the datapoint' section. See LSD for additional background information concerning the Third System of Township Survey.
- RSOT** Softening Temperature: Reducing Atmosphere; pertains to part of the data generated during the Ash Fusion test and is identified as 'the temperature in degrees Celsius at which the cone has fused down to a spherical lump in which the height is equal to the width of the base under a reducing atmosphere'....ref:ERCB 'Data Element Description Report'. See OFLT for additional background information concerning the Ash Fusion test.
- RSSTR** Residual Shear Stress; pertains to the residual shear stress of a sample when it is part of the Direct Shear (geotechnical) test. No further description of RSSTR has been completed to date. See BDEN for additional background information concerning the Direct Shear test.
- SADB** Sulphur (Air-Dried Basis); pertains to 'the percent weight of sulphur in its organic form'....ref:ERCB 'Data Element Description Report'. Organic sulphur results are either determined from an air-dried sample of coal or the results have been adjusted to an air-dried basis from another basis. See PMAD and PMAR for additional background information concerning coal-related moistures.
- Background Notes re: Sulphur:  
 The determination of total sulphur content, within a coal, is extremely important in evaluating the impacts of the sulphurous oxide emissions when it is burned.  
 Sulphur may occur as:  
 o organic sulphur; ie, incorporated into the hydrocarbon compounds of the coal (SADB and/or SARB)  
 o inorganic sulfides; ie, occurring primarily as pyrite and/or marcasite (PTMC)  
 o inorganic sulfates (SPHT).  
 In the Ultimate Analysis, the 'total sulphur' content is determined, representing sulphur occurrences in all 3 of the above forms (UAS).



SAMNUM	Sample Number; represents an unique internal AGS-assigned number which identifies a sampled interval. The SAMNUM's are sequentially assigned integers beginning with 1. If a sample is split for different types of analysis, all splits would be assigned the same SAMNUM, but each split would have an unique ANANUM.
SAMTYPNUM	Sample Type Number; represents an unique internal AGS-assigned number which identifies, 'for drillholes ... whether a sample was taken and in what form'....ref:ERCB 'Data Element Description Report'. The SAMTYPNUM's are sequentially assigned integers beginning with 1. See SPL_TYPE for additional background information.
SARB	Sulphur (As Received Basis); pertains to 'the percent weight of sulphur in its organic form'....ref:ERCB 'Data Element Description Report'. Organic sulphur is either determined from an as received sample of coal or the results have been adjusted to the as received basis from another basis. See SADB for additional background information concerning sulphur. See PMAD and PMAR for additional background information concerning coal-related moistures.
SBASE	Base (Bottom) of Drillhole Sample Interval; refers to and is equivalent to the bottom part of a sampled interval from within a drillhole.
SCLBOT	Bottom of a Coal Channel Sample Interval; refers to and is equivalent to the bottom part of a sampled interval within a coal channel.
SCLTOP	Top of a Coal Channel Sample Interval; refers to and is equivalent to the top part of a sampled interval within a coal channel.
SDMN	Pellets: Standard Deviation of Minimum Reflectance; relates to data generated from the petrographic analysis of coal pellets and more specifically, pertains to the standard deviation of the mean of the minimum reflectance value. No further description of SDMN has been completed to date.

SDMX	Pellets: Standard Deviation of Maximum Reflectance; relates to data generated from the petrographic analysis of coal pellets and more specifically, pertains to the standard deviation of the mean of the maximum reflectance value. No further description of SDMX has been completed to date.
SDRDM	Pellets: Standard Deviation of Random Reflectance; relates to data generated from the petrographic analysis of coal pellets and more specifically, pertains to the standard deviation of the mean of the random reflectance value. No further description of SDRM has been completed to date.
SECT	Section; identifies 'the section number used within the Dominion/Alberta Land Survey System'....ref:ERCB 'Data Element Description Report'. See LSD for additional background information concerning the Third System of Township Survey.
SEGNUM	Sample Segment Type Number; represents an unique internal AGS-assigned number which identifies the type of sampled interval/segment. The SEGNUM's are sequentially assigned integers beginning with 1. See SGMT for additional background information.
SG	Specific Gravity; indicates 'the ratio of the density of coal to that of water. The number may be the true, apparent or the upper limit of a range of specific gravities depending on the "Specific Gravity Type"'....ref:ERCB 'Data Element Description Report'. No further description of SG has been completed to date.
SGIN	Slagging Indices; identified as 'a measure of the tendency of the semi-fluid ash particles to adhere to the boiler tubes' .... ref: ERCB 'Data Element Description Report. No further description of SGIN has been completed to date.
SGLO	Specific Gravity: Lower Limit of a Range; pertains to and indicates 'the lower limit of a range of specific gravities applicable only if the "Specific Gravity Type" is a Code 2 (Fraction)' ie, SGNUM equal 3. 'The number is the ratio of the density of coal to that of water'....ref:ERCB 'Data Element Description Report'. No further description of SGLO has been completed to date.

SGMT	<p>Sample Segment Type Description; pertains to and identifies the type of sampled interval/segment.</p> <p>Background Notes re: Sample Segment Type Descriptions: Sample Segment Descriptions originated in the TransAlta Utilities Corporation Drillhole Database. Sample segment types are identified as being Composite, Gross or Detail. A Composite Sample Segment refers to a composite sample (ie, top to bottom) of the coal seam/zone. A Gross Sample Segment subdivides a coal seam/zone into readily identifiable subunits usually based on visual and/or physical changes in lithology and/or changes in geophysical log response(s). Partings, depending on their frequency and/or thickness, may or may not be sampled. A Detail Sample Segment subdivides a coal seam/zone into numerous samples each of an equal predetermined thickness. This mode of sampling is used infrequently.</p>
SGNUM	<p>Specific Gravity Type Number; represents an unique internal AGS-assigned number which identifies 'the type of Specific Gravity' test run....ref:ERCB 'Data Element Description Report'. The SGNUM's are sequentially assigned integers beginning with 1. See SGTYPE for additional background information.</p>
SGTYPE	<p>Specific Gravity Type Description; pertains to and identifies 'the type of Specific Gravity' test run....ref:ERCB 'Data Element Description Report'. No further description of SGTYPE has been completed to date.</p>
SHAPE	<p>Specimen Shape: Direct Shear Test; pertains to the shape of a sample specimen when it has been subjected to the Direct Shear (geotechnical) test. No further description of SHAPE has been completed to date. See BDEN for additional background information concerning the Direct Shear test.</p>
SIDR	<p>Siderite; 'the percent weight of the mineral siderite (<math>\text{FeCO}_3</math>) as determined by inorganic analysis of coal'...ref:ERCB 'Data Element Description Report'.</p>
SIGMA1	<p>Sigma 1 @ Max P(1)-P(3); pertains to the Triaxial (geotechnical) test. No further description of SIGMA1 has been completed to date. See AXI_STR for additional background information concerning the Triaxial test.</p>

SIGMA1_MAX	Sigma 1 @ Max $P(1)/P(3)$ ; pertains to the Triaxial (geotechnical) test. No further description of SIGMA1_MAX has been completed to date. See AXI_STR for additional background information concerning the Triaxial test.
SIGMA3	Sigma 3 @ Max $P(1)-P(3)$ ; pertains to the Triaxial (geotechnical) test. No further description of SIGMA3 has been completed to date. See AXI_STR for additional background information concerning the Triaxial test.
SIGMA3_MAX	Sigma 3 @ Max $P(1)/P(3)$ ; pertains to the Triaxial (geotechnical) test. No further description of SIGMA3_MAX has been completed to date. See AXI_STR for additional background information concerning the Triaxial test.
SI02	Silicon Dioxide; 'the percent weight of silicon dioxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the more commonly run 'high temperature analysis'.
SI02_L	Silicon Dioxide; 'the percent weight of silicon dioxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the less commonly run 'low temperature analysis'.
SITID	Site Identification Number; represents an unique internal AGS-assigned number which identifies a datapoint in the AGS Coal Database. The SITID's are sequentially assigned integers beginning with 1. As an example, a SITID can be a drillhole location, outcrop or the start of a traverse.
SIVNUM	Size of Sieve Opening Number; represents an unique internal AGS-assigned number which identifies the size of a sieve opening. The SIVNUM's are sequentially assigned integers beginning with 1. See OPNG for additional background information concerning Sieve Analysis.
SJNUM	Status of Joints Number; represents an unique internal AGS-assigned number which identifies the style/status of a noted/described joint. The SJNUM's are sequentially assigned integers beginning with 1. See JNT_ST for additional background information concerning Status of Joints.

SNSNUM	Outcrop Sense Number; represents an unique internal AGS-assigned number which identifies part of the structural information collected from a geological outcrop; more specifically, the SNSNUM identifies a structure's sense of movement. The SNSNUM's are sequentially assigned integers beginning with 1. See OC_SNS for additional information concerning Outcrop Sense.
S03	Sulphur Trioxide; 'the percent weight of sulphur trioxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the more commonly run 'high temperature analysis'.
S03_L	Sulphur Trioxide; 'the percent weight of sulphur trioxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the less commonly run 'low temperature analysis'.
SOBOT	Bottom of a Sampled Outcrop Interval; refers to and is equivalent to the lower part of a sampled interval within an outcrop.
SOILS	Soil(s) Test(s) Result(s) Available; pertains to the presence of results of any conducted soils tests. Code/record as Y or N to indicate whether or not said soils information exists.
SOTOP	Top of a Sampled Outcrop Interval; refers to and is equivalent to the upper part of a sampled interval within an outcrop.
SPHAL	Sphalerite; 'the percent weight of the mineral sphalerite ((Zn,Fe) S) as determined by inorganic analysis of coal' .... ref: ERCB 'Data Element Description Report'.
SPECNUM	Specimen Number; represents an unique internal AGS-assigned number which identifies the specimen number of a geotechnical sample for the Triaxial and/or the Direct Shear (geotechnical) tests. The SPECNUM's are sequentially assigned integers beginning with 1. See SPMN_NO for additional background information. See AXI_STR for additional background information concerning the Direct Shear test. See BDEN for additional background information concerning the Triaxial test.

SPFNUM	Special Feature Number; represents an unique internal AGS-assigned number which identifies the observed 'special (geological) features' within a lithologic interval. The SPFNUM's are sequentially assigned integers beginning with 300. See SP_FE for additional background information. See L_TYP, MAINUM, MODNUM, M_DESC and M_TYP for additional background information concerning the description and/or coding of a lithologic interval.
SPHT	Sulfates; 'the percent weight of sulphur occurring as a sulfate'...ref:ERCB 'Data Element Description Report'. See SADB for additional background information concerning sulphur.
SPL_TYPE	Sample Type Description; describes and identifies, 'for drillholes....whether a sample was taken and in what form'....ref:ERCB 'Data Element Description Report' (Sample-Code of ERCB).
SPMN_NO	Specimen Number Description; identifies the laboratory-assigned specimen number of a geotechnical sample for the Triaxial and/or the Direct Shear (geotechnical) tests. See AXI_STR for additional background information concerning the Direct Shear test. See BDEN for additional background information concerning the Triaxial test.
SPT	<p>Standard Penetration Test; pertains to a (geotechnical) test to determine relative densities of stratum; results are obtained by recording the number of hammer blows required to advance the sample tube.</p> <p>Background Notes re: Standard Penetration Test :  Standard penetration test results are obtained by driving a split-spoon sampler a total of 450 millimetres (18 inches) with a 64 kilogram (140 pound) hammer falling for a fixed distance of 760 millimetres (30 inches). A record is made of the number of blows required to drive each 150 millimeter (6 inch) segment. The number of blows required to drive the sampler the last 300 millimetres (12 inches) is an indication of the relative density of the material and is generally referred to as the standard penetration resistance or SPR. Samples are generally taken at each change of sediment stratum and/or at specified intervals of depth. The blow count from the standard penetration test is frequently used as a measure of relative density and/or stiffness of the sand/stratum in which the sample is taken. This method is not recommended for measuring comparable characteristics of formations that contain gravels (particularly large sizes) or cohesive sediments.</p>

SP_FE	Special Features Description; pertains to and identifies the observed 'special (geological) features' within a lithologic interval. See L_TYP, MAINUM, MODNUM, M_DESC and M_TYP for additional background information concerning the description and/or coding of a lithologic interval.
SRCNUM	Source of Datapoint Number; represents an unique internal AGS-assigned number which identifies 'the entity which the Coalhole Record represents'....ref:ERCB 'Data Element Description Report'; ie, this attribute uniquely identifies the types of datapoints stored within the AGS Coal Database. The SRCNUM's are sequentially assigned integers beginning with 1. See SRC_DESC for additional background information.
SRC_DESC	Source of Datapoint Description; pertains to and identifies 'the entity which the Coalhole Record represents'....ref:ERCB 'Data Element Description Report'; ie, this attribute uniquely identifies the types of datapoints (eg. drillhole (type of), test pit, adit, trench and measured section) stored within the AGS Coal Database.
SRVNUM	Type of Survey Number; represents an unique internal AGS-assigned number which identifies the original (type of) survey coordinates for a given datapoint (SITID). The SRVNUM'S are sequentially assigned integers beginning with 1. See SURV_DESC for additional background information.
STANUM	Coal Mine Legal Status Number; represents an unique internal AGS-assigned number which describes 'the legal status of a coal mine'....ref:ERCB 'Data Element Description Report'. The STANUM's are sequentially assigned integers beginning with 1. See M_LGL_S for additional background information.
STBI	Stability Index from Petrography; pertains to a stored record on the GSC's database. No further supplemental technical information has been located to date.
STOP	Top of Drillhole Sample Interval; refers to and is equivalent to the top part of a sampled interval from within a drillhole.
STRI	Strength Index from Petrography; pertains to a stored record on the GSC's database. No further supplemental technical information has been located to date.



ST_DT	Commencement (start) Date of Petrographic / Palynologic Analysis; as suggested, pertains to the starting date of the petrographic/palynologic analysis of a particular coal sample. Code/report date as month-day-year.
SURV_DESC	Type of Survey Description; describes and identifies the original (type of) survey coordinates for a given datapoint (SITID). Examples of SURV_DESC include Dominion/Alberta Land Survey coordinates, Baseline coordinates, and UTM coordinates.
SV_NO	U.S. Standard Sieve Number; identifies the U.S. Standard Sieve Numbers used for Sieve (Particle/Grain Size) Analysis. See OPNG for additional background information concerning Sieve Analysis.
SZNUM	Size Fraction Number; represents an unique internal AGS-assigned number which identifies 'the size of the coal used in sample analysis'....ref:ERCB 'Data Element Description Report'. The SZNUM's are sequentially assigned integers beginning with 1. See SZ_FR for additional background information.
S_BY	Sampled By; identifies the person who generated the sample. Code/report data by surname followed by the initial(s) of first name(s).
S_DT	Date of Sampling; as suggested, pertains to the date of sampling. Code/report date as month-day-year.
S_LTH	Sample Length; identifies, in meters, the length of a given sample obtained from a drillhole; depending on the percent core recovery of a given interval (RECOV), S_LTH may be equal to or less than the interval thickness. See CORE_RECOV for the overall core recovery (%) of a drillhole. See RECOV for the core recovery (%) of a drillhole interval.
S_L_ADJ	Sample Intervals Adjusted to Geophysical Log Depths; as suggested, denotes whether sample intervals for a particular drillhole have been adjusted to reflect geophysical log responses. Code as Y or N to reflect said status of the sampled intervals of the drillhole.



S_NO	Sample Number; pertains to an identifier assigned by the sampler (S_BY) to uniquely identify a sample, in the case of data from the ERCB Coal hole file the S_NO is the ERCB's sample number "Sample-No".
S_RMX	Sample Interval Remarks; pertains to any remarks associated with a given sample.
S_WT	Sample Weight; the weight of a given sample in kilograms.
TD	Total Depth; the total drilled depth, in meters, of a drillhole.
TENTME	Pertains to the 10 Degree Transverse Mercator System; represents the 'east' coordinate, in metres, of a datapoint as measured from a reference line of longitude (115°) where coordinates east of 115° are positive, and those to the west are negative.
TENTMN	Pertains to the 10 Degree Transverse Mercator System; represents the 'north' coordinate, in metres, of a datapoint as measured from the equator.
TE_SYM	Trace Element Symbol; pertains to and identifies the symbol for elements of the periodic table.
THRU	Percent of Material Passing Through; pertains to part of the data recorded during Sieve (Particle/Grain Size) Analysis and is identified as the percent of material that passes through a given sieve (see SIVNUM and/or SV_NO). See OPNG for additional background information concerning Sieve Analysis.
TI02	Titanium Oxide; 'the percent weight of titanium oxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the more commonly run 'high temperature analysis'.
TI02_L	Titanium Oxide; 'the percent weight of titanium oxide as determined in the chemical analysis of coal ash'....ref:ERCB 'Data Element Description Report'; this result reflects the less commonly run 'low temperature analysis'.

TRAVNUM	Traverse Number; represents an unique internal AGS-assigned number which identifies a traverse contained within the AGS Coal Database. The TRAVNUM's are sequentially assigned integers beginning with 1. See TRAV_NO for additional background information.
TRAV_NO	Traverse Number as Assigned in the Field; pertains to an identifier, assigned in the field, to uniquely identify a geological traverse.
TRD	Trend; the trend (ie, the azimuth) of the trace of an axial plane. No further description of TRD has been completed to date.
TRIN	Trend-Intermediate Degrees; pertains to part of the data generated from the petrographic analysis of polished blocks; the Trend (Intermediate) is recorded in (azimuth) degrees. No further description of TRIN has been completed to date.
TRMN	Trend-Minimum Degrees; pertains to part of the data generated from the petrographic analysis of polished blocks; the Trend (Minimum) is recorded in (azimuth) degrees. No further description of TRMN has been completed to date.
TRMX	Trend-Maximum Degrees; pertains to part of the data generated from the petrographic analysis of polished blocks; the Trend (Maximum) is recorded in (azimuth) degrees. No further description of TRMX has been completed to date.
TRTMC	Pertains to the 3 Degree Transverse Mercator System; represents the central meridian (ie, the reference line of longitude) from which the eastern coordinate (TRTME) is measured. No further supplemental technical information re: 3TM has been located to date.
TRTME	Pertains to the 3 Degree Transverse Mercator System; represents the 'east' coordinate, in metres, of a datapoint as measured from the central meridian (TRTMC). No further supplemental technical information re: 3TM has been located to date.

TRTMN	Pertains to the 3 Degree Transverse Mercator System; represents the 'north' coordinate, in metres, of a datapoint as measured from the equator. No further supplemental technical information re: 3TM has been located to date.
TRTMZ	3 Degree Transverse Mercator System Zone; each central meridian (TRTMC) passes through the centre of a 3TM_Zone ; each zone has its own assigned number. No further supplemental technical information re: 3TM has been located to date.
TR_EL	Trace Element; identifies each of the trace elements, by name, as listed in the periodic table.
TWP	Township; 'the township number used within the Dominion/Alberta Land Survey System and defined as: The area enclosed by the Township lines, which run east and west across the Province 9.6 kilometers (6 miles) apart, and Range lines. The Township lines are numbered sequentially from south to north'....ref:ERCB 'Data Element Description Report'. See LSD for additional background information concerning the Third System of Township Survey.
UAA	<p>Ash Content (Air-Dried Basis) of Ultimate Analysis; 'the percent weight of inorganic residue remaining after ignition of combustible substances as determined by definite prescribed methods'....ref:ERCB 'Data Element Description Report'.</p> <p>Background Notes re: Ultimate Analysis:            Ultimate Analysis, usually determined from an air-dried sample, is used to determine the carbon, hydrogen, nitrogen, sulfur and oxygen (by difference) of a coal sample. The contents of carbon, hydrogen and oxygen are important in assessing the coking, gasification and liquifaction properties of a coal. Further, they may be used as indices of rank and as parameters for coal classification. Nitrogen and sulfur contents represent possible sources of pollution should the coal be used for combustion applications.</p>

UAC	Carbon Content (Air-Dried Basis) of Ultimate Analysis; 'the percent weight of carbon as determined in an Ultimate Analysis'....ref:ERCB 'Data Element Description Report'. See UAA for additional background information concerning Ultimate Analysis.
UAH	Hydrogen Content (Air-Dried Basis) of Ultimate Analysis; 'the percent weight of hydrogen as determined in an Ultimate Analysis'....ref:ERCB 'Data Element Description Report'. See UAA for additional background information concerning Ultimate Analysis.
UAMAD	Moisture Content (Air-Dried Basis) of Ultimate Analysis; 'the percent weight moisture if Ultimate Analysis was not reported on a dry basis'....ref:ERCB 'Data Element Description Report'. See UAA for additional background information concerning Ultimate Analysis.
UAN	Nitrogen Content (Air-Dried Basis) of Ultimate Analysis; 'the percent weight of nitrogen as determined in an Ultimate Analysis'....ref:ERCB 'Data Element Description Report'. See UAA for additional background information concerning Ultimate Analysis.
UAO	Oxygen Content (Air-Dried Basis) of Ultimate Analysis; 'the percent weight of oxygen as determined in an Ultimate Analysis'....ref:ERCB 'Data Element Description Report'. See UAA for additional background information concerning Ultimate Analysis.
UAS	Sulfur Content (Air-Dried Basis) of Ultimate Analysis; 'the percent weight of sulfur as determined in an Ultimate Analysis'....ref:ERCB 'Data Element Description Report'. See UAA for additional background information concerning Ultimate Analysis. See SADB for additional background information concerning sulfur.
UINC	Inclusion Code re: Hydrogen and Oxygen Contents: Ultimate Analysis; identifies 'whether or not, percent weights of hydrogen and oxygen include the hydrogen and oxygen weights in the moisture (0 = Yes ; 1 = No)'....ref:ERCB 'Data Element Description Report'. For the AGS coal Database, code/report as 'Y' or 'N'. See UAA for additional background information concerning Ultimate Analysis.

UNDT Undetermined Oxides; the percent weight of 'undetermined oxides' as determined in the chemical analysis of coal ash; this result reflects the more commonly run 'high temperature analysis'.

UNDT\_L Undetermined Oxides; the percent weight of 'undetermined oxides' as determined in the chemical analysis of coal ash; this result reflects the more commonly run 'low temperature analysis'.

UN\_COMP Unconfined Compression Test; pertains to the results from a (geotechnical) test. No further description of UN\_COMP has been completed to date.

UTMC Universal Transverse Mercator Projection: Central Meridian; pertains to and is identified as 'the longitude to which the UTM-Easting is referenced'....ref:ERCB 'Data Element Description Report'.

Background Notes re: Universal Transverse Mercator Projection (UTM):  
 This System, a modification of the Transverse Mercator System, was introduced by the United States Army in the early 1950's as a uniform projection system for use throughout the world, excepting the polar regions. It is now well established and has been adapted for civilian purposes. The world is divided into 60 Zones, each extending through six degrees of longitude. The Zones are numbered consecutively from 1 to 60 beginning with the Zone between 180 degrees W and 174 degrees W and continuing eastward. A Zone extends 3 degrees eastward and westward from its Central Meridian. Figure 4 shows the UTM Zones and Central Meridians for Alberta.

A scale distortion or grid scale constant of 0.9996 is applied along the Central Meridian of each Zone to improve scale retention characteristics of the projection. A plane rectangular metric grid is superimposed on each zone, assigning a 500,000 meter false Easting (Y coordinate value) to the Central Meridian, a 0 (zero) Northing (X coordinate) to the Equator for the Northern Hemisphere and a false Northing of 10,000,000 meters to the Equator for the Southern

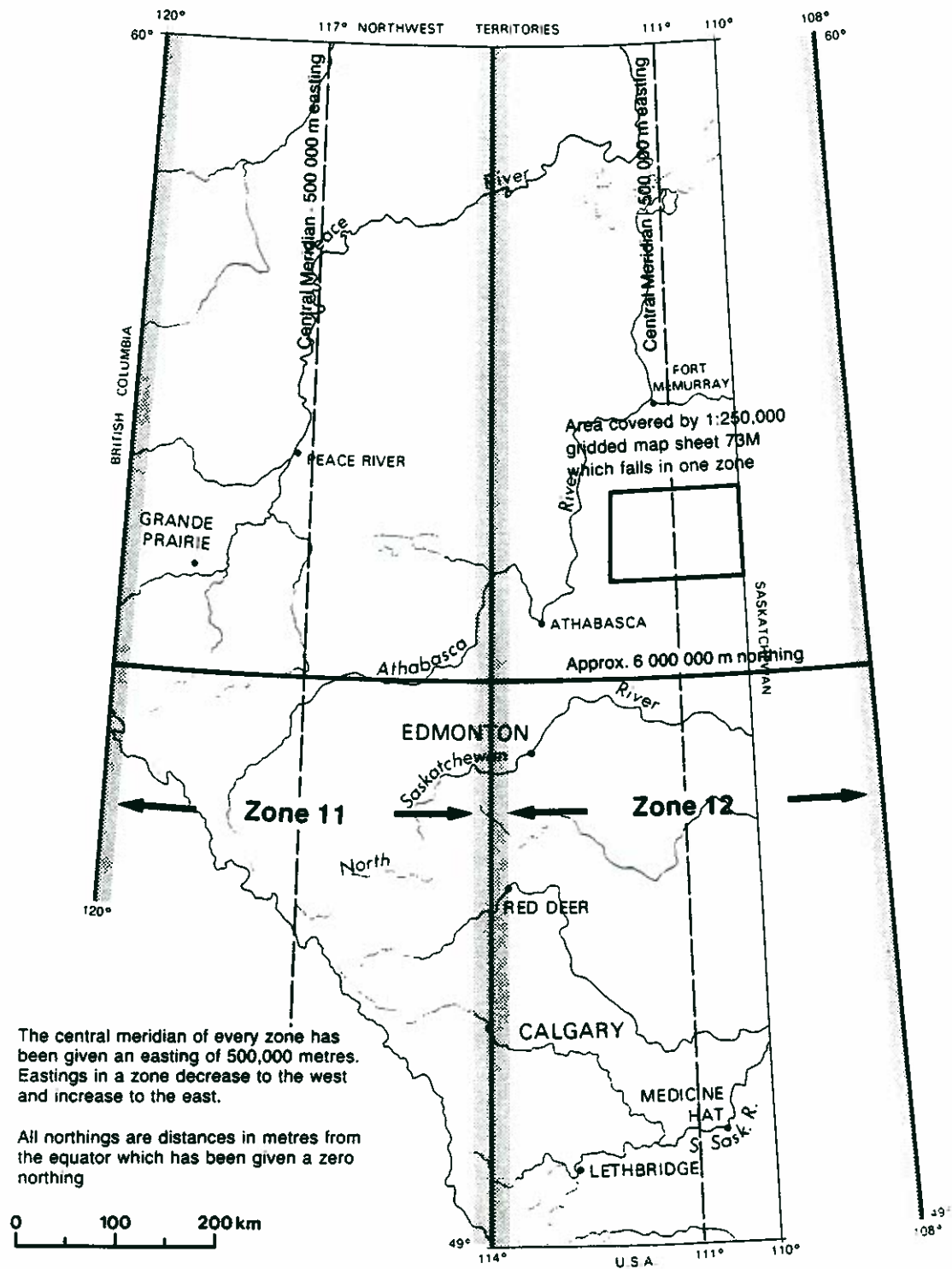


Figure 4. Universal Transverse Mercator Projection (UTM) for Alberta

Hemisphere. By this arrangement, negative coordinate values are eliminated.

There is customarily a grid overlap of approximately 40 kilometers on either side of each Zone boundary.

The UTM System excludes the polar regions and is used between the latitudes of 84 degrees N and 80 degrees S.

Both polar regions are covered by the Universal Polar Stereographic System which compliments the UTM System but is quite independent of it.

- UTME Universal Transverse Mercator Projection (6°): Easting; pertains to and is identified as 'the distance in metres of a point measured east of a reference longitude'...ref:ERCB 'Data Element Description Report'. See UTM for additional background information concerning Universal Transverse Mercator Projection. Includes a 500 000m assigned value.
- UTMN Universal Transverse Mercator Projection (6°): Northing; pertains to and is identified as 'the distance in metres of a point measured north of the equator'...ref:ERCB 'Data Element Description Report'. See UTM for additional background information concerning Universal Transverse Mercator Projection.
- UTMZ Universal Transverse Mercator Projection (6°): Zone; identifies the Zone to which the UTM-Easting is referenced. See UTM for additional background information concerning Universal Transverse Mercator Projection.
- VANE Vane Shear Test; pertains to the results from a (geotechnical) test.
- Background Notes re: Vane Shear Test:  
 Vane shear tests are used to determine the shear strength of sediments insitu.  
 The instrument consists of a rod with radial vanes. Once pushed into the sediment, the vane is rotated by an applied torque. The resistance to the applied torque is provided by the shearing forces on the two ends of the vane and on the circumferential plane.  
 The instrument works best in soft to stiff clays. Readings may be unreliable if the vane encounters sand layers, varves, stones, etc. and/or the vane is rotated too rapidly.

VITR	Vitrinite; pertains to maceral analysis and is defined as 'the percent weight of the predominant maceral group composed of collinite and telinite'....ref:ERCB 'Data Element Description Report'. No further description of VITR has been completed to date.
V03	Vanadium Trioxide; 'the percent weight of vanadium trioxide as determined in the chemical analysis of coal ash' ....ref:ERCB 'Data Element Description Report'; this result reflects the more commonly run 'high temperature analysis'.
V03_L	Vanadium Trioxide; 'the percent weight of vanadium trioxide as determined in the chemical analysis of coal ash' ....ref:ERCB 'Data Element Description Report'; this result reflects the less commonly run 'low temperature analysis'.
VISC	Viscosity; 'a measurement in pascal seconds of the resistance to flow of fluid ash and is defined as the ratio of the shearing stress to the shear of motion'....ref:ERCB 'Data Element Description Report'. No further description of VISC has been completed to date.
WIDE	Width of Excavation; pertains to the 'width of an excavation in meters as measured at the bottom'....ref:ERCB 'Data Element Description Report'. Within the AGS Database, WIDE identifies the width of an adit, a test pit or a trench.
WRHNUM	Warehouse Number; represents an unique internal AGS-assigned number which identifies the sample storage warehouse. The WRHNUM's are sequentially assigned integers beginning with 1. See WRH_NM for additional background information.
WRHTAGNO	Warehouse Tag Number; pertains to and is identified as the warehouse-assigned-tag-no to identify 'saved/retained' samples. No further description of WRHTAGNO has been completed to date.
WRH_ADD	Warehouse Address; the physical address (ie. the street, city, etc.) of the sample storage warehouse. No further description of WRH_ADD has been completed to date.



WRH_CNTCT	Warehouse Contact Person; identifies the warehouse-person responsible for the storage of 'saved/retained' samples. Code/report data by surname followed by the initial(s) of first name(s).
WRH_NM	Warehouse Name; identifies the name of the warehouse where 'saved/retained' samples have been archived. No further description of WRH_NM has been completed to date.
WRH_PH	Warehouse Phone Number; identifies the phone number of the warehouse where 'saved/retained' samples have been archived. Code/report data to include the area code followed by the seven digit number.
WTR_LVL	Water Level Within a Drillhole; identified as 'the depth at which water is encountered by a drillhole. 'Zero indicates unknown ....ref:ERCB 'Data Element Description Report'. No further description of WTR_LVL has been completed to date.
XBCD	X-Coordinate of a Benchmark; pertains to a benchmark and is identified as 'the X-coordinate of a point relative to a set of axes'....ref:ERCB 'Data Element Description Report'. No further description of XBCD has been completed to date.
XCMG	X-Coordinate of a Mine Grid; pertains to a mine grid and is identified as 'the X-coordinate of a point relative to a set of axes'....ref:ERCB 'Data Element Description Report'. No further description of XCMG has been completed to date.
XSEC_AR	Cross-Section Area: Direct Shear Test; pertains to the shape of a sample specimen when it has been subjected to the Direct Shear (geotechnical) test. No further description of XSEC_AREA has been completed to date. See BDEN for additional background information concerning the Direct Shear test.
YBCD	Y-Coordinate of a Benchmark; pertains to a benchmark and is identified as 'the Y-coordinate of a point relative to a set of axes'....ref:ERCB 'Data Element Description Report'. No further description of YBCD has been completed to date.
YCMG	Y-Coordinate of a Mine Grid; pertains to a mine grid and is identified as 'the Y-coordinate of a point relative to a set of axes'....ref:ERCB 'Data Element Description Report'. No further description of YCMG has been completed to date.

ALBERTA GEOLOGICAL SURVEY  
COAL GEOLOGY

COAL GEOLOGY DATA BASE  
DATA DICTIONARY APPENDIX 2

R.J.H. Richardson  
G.B. Mandryk  
D.W. Fietz

Open File Report 1989-02C  
Alberta Geological Survey  
Alberta Research Council

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## APPENDIX 2

## APPENDIX 2

### Descriptive Paragraphs for the Data Dictionary

#### 1.0 PREAMBLE:

To facilitate use, the data dictionary was divided into numerous sections. These sections are described below.

##### Section 1

Provides general information by listing the names and abbreviations of the tables in the Coal data base and the names and abbreviations of the attributes of each table. A brief definition of each table and attribute names is given.

##### Section 2

Gives detailed information about the attributes in the Coal data base. The columns in section 2 contain the following information.

###### TBL\_ABBREV

- Abbreviated table names. The abbreviated names are used exclusively in the Coal data base.

###### CLMN\_ABBREV

- Abbreviated column name (attribute); used exclusively in the data base.

###### STORAGE UNITS (K\_TYP STORED\_UNITS)

- The units in which an attribute is stored, provided the attribute has units, i.e., mm, kg.

###### DATA RANGE (INTEG\_CHECK)

- The range of numbers or codes which the attributes are known to span or are allowed to span.

###### STORAGE FORMAT (INGRS\_STGE\_FMT)

- The INGRES data type defined for each attribute.

#### DISPLAY FORMAT (I\_FLT\_PNT\_FMT)

- The format in which numeric attributes should be displayed.

#### Section 3

Sorted version of section 2. Sorted on attribute abbreviation.

#### Section 4

This table relates the data elements in the Energy Resources Conservation Board (ERCB) Coal Hole File to attributes in the AGS Coal data base.

##### TBL\_ABBREV

- Abbreviated AGS Coal data base table name.

##### CLMN\_ABBREV

- Abbreviated attribute column name in the AGS Coal data base.

##### ERCB\_DATA\_ELEMENT

- Name of the ERCB data element that has an equivalent attribute in the Coal data base.

##### ERCB\_STRD\_FMT

- Storage format of the ERCB element in the ERCB Coal Hole File, in packed decimal notation.

##### MULT\_ELMNT\_INDCTR

- Multiple element indicator (!). An exclamation mark indicates cases where a particular ERCB\_DATA\_ELEMENT is stored in more than one AGS coal data base attribute. This was necessary where a ERCB\_DATA\_ELEMENT contain more than a single information item.

#### Section 5

Sorted version of section 4. Sorted by ERCB data element name.

## Section 6

A list of all tables in the Coal data base. This list also provides information about the type of information in the table (i.e. geology, location) and the table's purpose (i.e. relational, data, reference).

The four columns in this table are defined as follows:

<u>CIGY</u>	<u>TABLE CATEGORY</u>
GE	Geology, picks
LI	Lithology
LO	Location
RF	Reference tables (data entry forms not required)
SA	Sample and Analysis tables
ST	Structural Geology

### TABLE\_NM

- Full table name; table abbreviations are used in Coal data base and on the entity relationship model.

### TABLE\_ABBREV

- Table name abbreviation.

### DEFINITION

- A very brief description of a table's function.

• Note that the order of the tables in section 6, aside from the RF (reference) tables is similar to the order of the data coding forms, Appendix 4.

## Section 7

This table lists all the attributes in the Coal data base which serve as relational attributes. The relational attributes are tuple identifiers.

Relational tuple identifier numbers, or relational keys are either;

- (i) unique numbers for an entity tuple (i.e. unique internal data base number for a location, i.e. SITID) or;
- (ii) unique numbers for a reference tuple (i.e. ATOMNUM, used to signify the atomic number of an element, ATOMNUM would correspond to an actual list of names in a reference table in this case the table ATOMIC\_NO).

Note: Data from the agencies listed in sections 8 and 9 are not presently entered in the Coal data base. The relationship of data elements and terminology is presented to allow for reference and comparison.

#### Section 8

This table relates the data elements in the Institute of sedimentary and Petroleum Geology (ISPG), of the Geological Survey of Canada (GSC) "coal data base" to attributes in the Alberta Geological Survey Coal data base.

##### TBL\_ABBREV

- Abbreviated AGS Coal data base name.

##### CLMN\_ABBREV

- Abbreviated attribute column name in the AGS Coal data base.

##### GSC\_DATA\_ELEMENT

- Name of the GSC data element with an equivalent attribute in the AGS Coal data base.

##### GSC\_STRD\_UNIT

- Units used by the GSC (not recorded at this time).

##### GSC\_STGE\_FORMAT

- Storage format of the GSC element in the GSC data base.

##### MULT\_ELMNT\_INDCTR

- Multiple element indicator (!). An exclamation mark indicates cases where a particular ERCB\_DATA\_ELEMENT is stored in more than one AGS coal data base attribute. This was necessary where a ERCB\_DATA\_ELEMENT contains more than a single information item.



## Section 9

This table relates the data elements found in Alberta Geological Survey, Open File Report 1988-07 (Mandryk and Richardson, 1988), to the AGS Coal data base.

TBL\_ABBREV

- Abbreviated Coal data base name.

CLMN\_ABBREV

- Abbreviated attribute column name in the Coal data base.

ARC\_DATA\_ELEMENT

- The attribute name used in Open File Report 1988-07.

ARC\_STRD\_UNIT

- FORTRAN data type of the ARC\_DATA\_ELEMENT.

ARC\_STGE\_FORMAT

- In this instance the field width of the ARC\_DATA\_ELEMENT.

## Section 10

This table serves as an area where any comments about an attribute can be recorded. It is intended for the use of users of the Coal data base or for the convenience of those who have access to other data bases.

TBL\_ABBREV

- Abbreviated Coal data base name.

CLMN\_ABBREV

- Abbreviated attribute column name in the Coal data base.

MISC\_REMARX\_COMMENT

- Comments pertaining to an attribute.

**A P P E N D I X   2**

**S E C T I O N   1**

<u>TBL_NAME</u>	<u>TBL_ABBREV</u>	<u>CLMN_NAME</u>	<u>CLMN_ABBRV</u>	<u>SECTION 1</u> <u>DEFINITION</u>
UTM	UTM			UNIVERSAL TRANSVERSE MERCATOR LOCATIONS
UTM	UTM	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
UTM	UTM	UTM_ZONE	UTMZ	UTM-ZONE
UTM	UTM	UTM_CENT_MERID	UTMC	UTM-CENTRAL MERIDIAN
UTM	UTM	UTM_NORTHING	UTMN	UTM-NORTHING
UTM	UTM	UTM_EASTING	UTME	UTM-EASTING
LLELEV	LLELEV			LATITUDE-LONGITUDE LCTNS
LLELEV	LLELEV	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
LLELEV	LLELEV	LATITUDE	LAT	LATITUDE
LLELEV	LLELEV	LONGITUDE	LONG	LONGITUDE
LLELEV	LLELEV	GROUND_ELEV	ELEV	GROUND SURFACE ELEV (METERS AMSL) OF DATAPOINT
LLELEV	LLELEV	KB_ELEV	ELKB	KELLY-BUSHING ELEV (METERS AMSL) OF DRILLHOLE
DLS_LSD	DLS_LSD			TOWNSHIP-RANGE LCTNS (TO THE NEAREST LSD)
DLS_LSD	DLS_LSD	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
DLS_LSD	DLS_LSD	MERIDIAN	MER	MERIDIAN
DLS_LSD	DLS_LSD	TOWNSHIP	TWP	TOWNSHIP
DLS_LSD	DLS_LSD	RANGE	RGE	RANGE
DLS_LSD	DLS_LSD	SECTION	SECT	SECTION
DLS_LSD	DLS_LSD	LSD	LSD	LEGAL SUBDIVISION
DLS_LSD	DLS_LSD	LSD_MODIFIER	LSDM	LEGAL SUBDIVISION MODIFIER
DLS_COORD	DLS_COORD			TOWNSHIP-RANGE LCTNS (USING COORDINATES)
DLS_COORD	DLS_COORD	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
DLS_COORD	DLS_COORD	MERIDIAN	MER	MERIDIAN
DLS_COORD	DLS_COORD	TOWNSHIP	TWP	TOWNSHIP
DLS_COORD	DLS_COORD	RANGE	RGE	RANGE
DLS_COORD	DLS_COORD	SECTION	SECT	SECTION
DLS_COORD	DLS_COORD	REF_SECTION	RSEC	REF SECTION FROM WHICH SURVEY COORDS ARE MEASURED
DLS_COORD	DLS_COORD	REF_CORNER	RCNR	REF CORNER FROM WHICH SURVEY COORDS ARE MEASURED
DLS_COORD	DLS_COORD	METERS+/-	METN	FROM RCNR,+ OR - METERS EITHER NORTH OR SOUTH
DLS_COORD	DLS_COORD	METERS+/-	METE	FROM RCNR,+ OR - METERS EITHER EAST OR WEST
NTS	NTS			NATIONAL TOPOGRAPHIC SYSTEM LCTNS
NTS	NTS	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
NTS	NTS	NTS_PRIMARY	NTSP	NTS:PRIMARY MAP SHEET
NTS	NTS	NTS_SECONDARY	NTSS	NTS:SECONDARY MAP SHEET
NTS	NTS	NTS_TERTIARY	NTST	NTS:TERTIARY MAP SHEET
MN_GD_BNCH	MN_GD_BNCH			RELATES SITID TO MNGNUM
MN_GD_BNCH	MN_GD_BNCH	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
MN_GD_BNCH	MN_GD_BNCH	MNGNUM	MNGNUM	UNIQUE AGS-ASSIGNED-NO FOR A MINE GRID BENCHMARK

<u>TBL_NAME</u>	<u>TBL_ABBREV</u>	<u>CLMN_NAME</u>	<u>CLMN_ABBRV</u>	<u>SECTION 1</u> <u>DEFINITION</u>
BENCHMARK	BNCHMK			MINE GRID BENCHMARK LCTNS
BENCHMARK	BNCHMK	MNGNUM	MNGNUM	UNIQUE AGS-ASSIGNED-NO FOR A MINE GRID BENCHMARK
BENCHMARK	BNCHMK	UTM_ZONE	UTMZ	UTM-ZONE
BENCHMARK	BNCHMK	UTM_CENT_MERID	UTMC	UTM-CENTRAL MERIDIAN
BENCHMARK	BNCHMK	UTM_NORTHING	UTMN	UTM-NORTHING
BENCHMARK	BNCHMK	UTM_EASTING	UTME	UTM-EASTING
BENCHMARK	BNCHMK	LATITUDE	LAT	LATITUDE
BENCHMARK	BNCHMK	LONGITUDE	LONG	LONGITUDE
BENCHMARK	BNCHMK	MERIDIAN	MER	MERIDIAN
BENCHMARK	BNCHMK	TOWNSHIP	TWP	TOWNSHIP
BENCHMARK	BNCHMK	RANGE	RGE	RANGE
BENCHMARK	BNCHMK	SECTION	SECT	SECTION
BENCHMARK	BNCHMK	REF_SECTION	RSEC	REF SECTION FROM WHICH SURVEY COORDS ARE MEASURED
BENCHMARK	BNCHMK	REF_CORNER	RCNR	REF CORNER FROM WHICH SURVEY COORDS ARE MEASURED
BENCHMARK	BNCHMK	METERS+/-	METN	FROM RCNR,+ OR - METERS EITHER NORTH OR SOUTH
BENCHMARK	BNCHMK	METERS+/-	METE	FROM RCNR,+ OR - METERS EITHER EAST OR WEST
BENCHMARK	BNCHMK	AZ_X_BASELINE	AZXB	AZIMUTH OF THE X-AXIS-BASELINE
BENCHMARK	BNCHMK	AZ_Y_BASELINE	AZYB	AZIMUTH OF THE Y-AXIS-BASELINE
BENCHMARK	BNCHMK	BNCHMK_X_COORD	XBCD	X-COORDINATE OF THE BENCHMARK
BENCHMARK	BNCHMK	BNCHMK_Y_COORD	YBCD	Y-COORDINATE OF THE BENCHMARK
BENCHMARK	BNCHMK	GROUND_ELEV	ELEV	GROUND SURFACE ELEV (METERS AMSL) OF DATAPOINT
COMP_PARTIC	COMP_PARTIC			RELATES SITID TO CORPNUM
COMP_PARTIC	COMP_PARTIC	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
COMP_PARTIC	COMP_PARTIC	CORPNUM	CORPNUM	UNIQUE AGS-ASSIGNED-NO FOR EACH COAL EXP/DEV CORP
COMPANY	COMP			ADDRESSES OF COAL EXP/DEV CORP/COMP
COMPANY	COMP	CORPNUM	CORPNUM	UNIQUE AGS-ASSIGNED-NO FOR EACH COAL EXP/DEV CORP
COMPANY	COMP	ORIG_COMPANY	COMPANY	NAME OF ORIGINAL COMPANY
COMPANY	COMP	COMP_ABBREV	COMP_ABBREV	COMPANY ABBREVIATION
COMPANY	COMP	COMP_CODE	COMP_CODE	ERCB COMPANY CODE
COMPANY	COMP	ADD_SUITE_NO	ADD_SUITE_NO	ADDRESS;SUITE NO
COMPANY	COMP	ADD_PO_BOX	ADD_PO_BOX	ADDRESS;POST OFFICE BOX NO
COMPANY	COMP	ADD_STREET	ADD_ST	ADDRESS;STREET NAME/NO
COMPANY	COMP	ADD_CITY	ADD_CITY	ADDRESS;CITY
COMPANY	COMP	ADD_PROV	ADD_PROV	ADDRESS;PROVINCE
COMPANY	COMP	ADD_PC	ADD_PC	ADDRESS;POSTAL CODE
COMPANY	COMP	MAL_COMP_NM	MAL_COMP_NAM	MAILING ADDRESS;COMPANY NAME
COMPANY	COMP	MAL_SUITE_NO	MAL_SUITE_NO	MAILING ADDRESS;SUITE NO
COMPANY	COMP	MAL_PO_BOX	MAL_PO_BOX	MAILING ADDRESS;POST OFFICE BOX NO

<u>TBL_NAME</u>	<u>TBL_ABBREV</u>	<u>CLMN_NAME</u>	<u>CLMN_ABBRV</u>	<u>SECTION 1</u> <u>DEFINITION</u>
COMPANY	COMP	MAL_ST	MAL_ST	MAILING ADDRESS;STREET NAME/NO
COMPANY	COMP	MAL_CITY	MAL_CITY	MAILING ADDRESS;CITY
COMPANY	COMP	MAL_PROV	MAL_PROV	MAILING ADDRESS;PROVINCE
COMPANY	COMP	MAL_PC	MAL_PC	MAILING ADDRESS;POSTAL CODE
MINE_GRID	MINE_GRID			MINE GRID LCTNS
MINE_GRID	MINE_GRID	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
MINE_GRID	MINE_GRID	BSL_NO_X	BSLX	BASELINE NO-X AXIS
MINE_GRID	MINE_GRID	BSL_NO_Y	BSLY	BASELINE NO-Y AXIS
MINE_GRID	MINE_GRID	X_COORD	XCMG	X-COORDINATE OF MINE GRID
MINE_GRID	MINE_GRID	Y_COORD	YCMG	Y-COORDINATE OF MINE GRID
THREETM	THREETM			3TM LCTNS
THREETM	THREETM	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
THREETM	THREETM	TRTM_ZONE	TRTMZ	3TM-ZONE
THREETM	THREETM	TRTM_CENT_MRDN	TRTMC	3TM-CENTRAL MERIDIAN
THREETM	THREETM	TRTM_N	TRTMN	3TM-NORTHING
THREETM	THREETM	TRTM_E	TRTME	3TM-EASTING
SOURCE	SOURCE			SOURCE OF DATAPOINT (BACKGROUND INFO)
SOURCE	SOURCE	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
SOURCE	SOURCE	CATALOG_ID	CAT_ID	ERCB CATALOG-ID NO
SOURCE	SOURCE	ORIG_NO	ORIG	ORIGINAL DESIGNATED NUMBER OF A DATAPOINT
SOURCE	SOURCE	ORIG_PRJ_NAM	OPRJ	ORIGINAL PROJECT/PROSPECT DESIGNATION (NAME OF)
SOURCE	SOURCE	COMPLTN_DATE	CPDT	COMPLETION DATE
TENTM	TENTM			10TM LCTNS
TENTM	TENTM	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
TENTM	TENTM	TENTM_E	TENTME	10TM-EASTING
TENTM	TENTM	TENTM_N	TENTMN	10TM-NORTHING
DATA_SOURCE	DATA_SOURCE			RELATES SITID TO SRCNUM
DATA_SOURCE	DATA_SOURCE	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
DATA_SOURCE	DATA_SOURCE	SRCNUM	SRCNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF DATAPOINTS
SR_MTH	SR_MTH			SOURCE METHODS
SR_MTH	SR_MTH	SRCNUM	SRCNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF DATAPOINTS
SR_MTH	SR_MTH	SOURCE_DESC	SRC_DESC	SOURCE-TYPE DESCRIPTIONS
SRVY_SOURCE	SRVY_SRC			RELATES SITID TO SRVNUM
SRVY_SOURCE	SRVY_SRC	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
SRVY_SOURCE	SRVY_SRC	SRVNUM	SRVNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF SURVEY COORD
SURVEY	SURVEY			ORIGINAL SURVEY DATA
SURVEY	SURVEY	SRVNUM	SRVNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF SURVEY COORD
SURVEY	SURVEY	SURVEY_DESC	SURV_DESC	SURVEY-TYPE DESCRIPTION

<u>TBL_NAME</u>	<u>TBL_ABBREV</u>	<u>CLMN_NAME</u>	<u>CLMN_ABBREV</u>	<u>SECTION 1 DEFINITION</u>
STATUS_MINE	STATUS_MINE			RELATES SITID TO STANUM
STATUS_MINE	STATUS_MINE	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
STATUS_MINE	STATUS_MINE	STANUM	STANUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF MINES'STATUS
MINE_STATUS	MINE_STS			MINE STATUS
MINE_STATUS	MINE_STS	STANUM	STANUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF MINES'STATUS
MINE_STATUS	MINE_STS	MINE_LGL_STS	M_LGL_S	MINE'S LEGAL STATUS DESCRIPTION
TYPE_MINE	TYPE_MINE			RELATES SITID TO MNTYNUM
TYPE_MINE	TYPE_MINE	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
TYPE_MINE	TYPE_MINE	MNTYNUM	MNTYNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF COAL MINES
MINE_TYP	MINE_TYP			TYPES OF COAL MINES
MINE_TYP	MINE_TYP	MNTYNUM	MNTYNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF COAL MINES
MINE_TYP	MINE_TYP	MINE_TYPE	M_TYPE	TYPE OF COAL MINE DESCRIPTION
METH_MINING	METH_MING			RELATES SITID TO MNMTNUM
METH_MINING	METH_MING	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
METH_MINING	METH_MING	MNMTNUM	MNMTNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF MINING MTHDS
MINE_MTHD	MINE_MTHD			COAL MINING METHODS
MINE_MTHD	MINE_MTHD	MNMTNUM	MNMTNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF MINING MTHDS
MINE_MTHD	MINE_MTHD	MINING_METH	M_METH	MINING METHOD DESCRIPTION
RANK_OF_COAL	RNK_COAL			RELATES SITID TO RNKNUM
RANK_OF_COAL	RNK_COAL	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
RANK_OF_COAL	RNK_COAL	RNKNUM	RNKNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF COAL RANK
C_RANK	C_RNK			TYPES OF COAL RANK
C_RANK	C_RNK	RNKNUM	RNKNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF COAL RANK
C_RANK	C_RNK	COAL_RANK	C_RANK	COAL RANK DESCRIPTION
TYPE_OF_COAL	TYPE_COAL			RELATES SITID TO CLTYNUM
TYPE_OF_COAL	TYPE_COAL	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
TYPE_OF_COAL	TYPE_COAL	CLTYNUM	CLTYNUM	UNIQUE AGS-ASSIGNED-NO TO ID COAL TYPES
C_TYP	C_TYP			TYPES OF COAL
C_TYP	C_TYP	CLTYNUM	CLTYNUM	UNIQUE AGS-ASSIGNED-NO TO ID COAL TYPES
C_TYP	C_TYP	COAL_TYPE	C_TYPE	COAL TYPE DESCRIPTION
CONTRACTOR	CONTRACTOR			RELATES SITID TO CTRNUM
CONTRACTOR	CONTRACTOR	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
CONTRACTOR	CONTRACTOR	CTRNUM	CTRNUM	UNIQUE AGS-ASSIGNED-NO TO ID CONTRACTORS (MECHAN)
CNTRCTR	CNTRCTR			LISTING OF MECHANICAL CONTRACTORS
CNTRCTR	CNTRCTR	CTRNUM	CTRNUM	UNIQUE AGS-ASSIGNED-NO TO ID CONTRACTORS (MECHAN)
CNTRCTR	CNTRCTR	CNTRCTR_NAME	CNTRCTR_NM	NAMES OF MECHANICAL CONTRACTORS
LGGNG_CNTR	LGGNG_CNTR			RELATES SITID TO LGCNTNUM
LGGNG_CNTR	LGGNG_CNTR	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB

<u>TBL_NAME</u>	<u>TBL_ABBREV</u>	<u>CLMN_NAME</u>	<u>CLMN_ABBRV</u>	<u>SECTION 1</u> <u>DEFINITION</u>
LGGNG_CNTR	LGGNG_CNTR	LGCNTNUM	LGCNTNUM	UNIQUE AGS-ASSIGNED-NO TO ID LOGGING CONTRACTORS
LG_CNT	LG_CNT			LISTING OF GEOPHYSICAL LOGGING CONTRACTORS
LG_CNT	LG_CNT	LGCNTNUM	LGCNTNUM	UNIQUE AGS-ASSIGNED-NO TO ID LOGGING CONTRACTORS
LG_CNT	LG_CNT	LGNG_CNTR_NM	L_CNTR_NM	NAMES OF GEOPHYSICAL LOGGING CONTRACTORS
ADIT	ADIT			ADIT PARTICULARS
ADIT	ADIT	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
ADIT	ADIT	LENGTH	LENG	LENGTH OF EXCAVATION
ADIT	ADIT	WIDTH	WIDE	WIDTH OF EXCAVATION
ADIT	ADIT	HEIGHT	HEIG	HEIGHT OF EXCAVATION
ADIT	ADIT	AZM	AZM	AZIMUTH
ADIT	ADIT	INC	INC	INCLINATION
MINE	MINE			COAL MINE PARTICULARS
MINE	MINE	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
MINE	MINE	MIN_COM_NM	MCOM	COAL MINING COMPANY NAME
MINE	MINE	MINE_NAME	MNAM	COAL MINE NAME
MINE	MINE	MINE_NO	MNOM	COAL MINE NUMBER AS DESIGNATED BY THE ERCB
DRILLHOLE	DH			DRILLHOLE PARTICULARS
DRILLHOLE	DH	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
DRILLHOLE	DH	DRLRS_LOG	DRL_LOG	DRILLER'(S) LOG AVAILABLE ?
DRILLHOLE	DH	CSG_DIAM	CSG_DIAM	CASING DIAMETER
DRILLHOLE	DH	CSG_TD	CSG_TD	CASING TD (TOTAL DEPTH)
DRILLHOLE	DH	HOLE_DIAM	HOLE_DIAM	DRILLHOLE DIAMETER
DRILLHOLE	DH	TD	TD	TOTAL DEPTH
DRILLHOLE	DH	CORE_RECOV	CORE_RECOV	CORE RECOVERY
DRILLHOLE	DH	LOG_CODE	LOG_CODE	GEOPHYSICAL LOGS RUN
DRILLHOLE	DH	WTR_LVL_DATE	DT_WTR_LVL	DATE OF WATER LEVEL MEASUREMENT
DRILLHOLE	DH	WTR_LVL	WTR_LVL	WATER LEVEL WITHIN A DRILLHOLE
DRILLHOLE	DH	PIEZO	PIEZO	PIEZOMETERS INSTALLED IN THE HOLE ?
DRILLHOLE	DH	SOILS_TEST	SOILS	SOILS TESTS RESULTS AVAILABLE
LOG_RUN	LOG_RUN			RELATES SITID TO LOGNUM
LOG_RUN	LOG_RUN	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
LOG_RUN	LOG_RUN	LOGNUM	LOGNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOPHY LOG TYPES
LOGS	LOGS			GEOPHYSICAL LOGS
LOGS	LOGS	LOGNUM	LOGNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOPHY LOG TYPES
LOGS	LOGS	LOG_TYPE	LOG_TYPE	TYPES OF GEOPHYSICAL LOGS
HAZ	HAZ			RELATES SITID TO HAZNUM
HAZ	HAZ	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
HAZ	HAZ	HAZNUM	HAZNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF DH HAZARDS

<u>TBL_NAME</u>	<u>TBL_ABBREV</u>	<u>CLMN_NAME</u>	<u>CLMN_ABBREV</u>	<u>SECTION 1 DEFINITION</u>
HAZARD	HAZARD			DRILLHOLE HAZARDS
HAZARD	HAZARD	HAZNUM	HAZNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF DH HAZARDS
HAZARD	HAZARD	HAZ_DESC	HAZ_DESC	DESCRIPTION OF DRILLHOLE HAZARDS
SAMPLE_TYPE	SMPL			RELATES SITID TO SAMTYPNUM
SAMPLE_TYPE	SMPL	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
SAMPLE_TYPE	SMPL	SAMTYPNUM	SAMTYPNUM	UNIQUE AGS-ASSIGNED-NO TO ID DH SMPLE TYPE/STATUS
SPL_TYP	SPL_TYP			DRILLHOLE SAMPLE TYPE/STATUS
SPL_TYP	SPL_TYP	SAMTYNUM	SAMTYPNUM	UNIQUE AGS-ASSIGNED-NO TO ID DH SMPLE TYPE/STATUS
SPL_TYP	SPL_TYP	SPL_TYPE	SPL_TYPE	DH SAMPLE TYPE/STATUS DESCRIPTION
TEST_PIT	TEST_PIT			TEST PIT PARTICULARS
TEST_PIT	TEST_PIT	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
TEST_PIT	TEST_PIT	LENGTH	LENG	LENGTH OF EXCAVATION
TEST_PIT	TEST_PIT	WIDTH	WIDE	WIDTH OF EXCAVATION
TEST_PIT	TEST_PIT	DEPTH	DEP	DEPTH OF EXCAVATION
TRENCH	TRENCH			TRENCH PARTICULARS
TRENCH	TRENCH	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
TRENCH	TRENCH	LENGTH	LENG	LENGTH OF EXCAVATION
TRENCH	TRENCH	WIDTH	WIDE	WIDTH OF EXCAVATION
TRENCH	TRENCH	DEPTH	DEP	DEPTH OF EXCAVATION
TRENCH	TRENCH	AZM	AZM	AZIMUTH
TRAVERSE	TRAVERSE			RELATES SITID TO TRAVNUM TO TRAV_NO
TRAVERSE	TRAVERSE	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
TRAVERSE	TRAVERSE	TRAVNUM	TRAVNUM	UNIQUE AGS-ASSIGNED-NO TO ID A TRAVERSE
TRAVERSE	TRAVERSE	FIELD_TRAV_NO	TRAV_NO	ORIGINAL FIELD DESIGNATION OF A TRAVERSE
TRAV_PART	TRAV_PART			TRAVERSE PARTICULARS
TRAV_PART	TRAV_PART	TRAVNUM	TRAVNUM	UNIQUE AGS-ASSIGNED-NO TO ID A TRAVERSE
TRAV_PART	TRAV_PART	AZIMUTH	AZM	AZIMUTH
TRAV_PART	TRAV_PART	INCLIN	INC	INCLINATION
TRAV_PART	TRAV_PART	L_OF_LEG	L_LEG	LENGTH OF LEG OF TRAVERSE
TRAV_PART	TRAV_PART	COMMENTS	COMM	COMMENTS
DH_DEV	DH_DEV			RELATES SITID TO DEVNUM TO DFROM TO DTO
DH_DEV	DH_DEV	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
DH_DEV	DH_DEV	DEVNUM	DEVNUM	UNIQUE AGS-ASSIGNED-NO TO ID DEVIATION DATA
DH_DEV	DH_DEV	DFROM	DFROM	DRILLHOLE 'FROM' DEPTH FOR DEVIATION DATA
DH_DEV	DH_DEV	DTO	DTO	DRILLHOLE 'TO' DEPTH FOR DEVIATION DATA
DEVIATION	DEV			DRILLHOLE DEVIATION
DEVIATION	DEV	DEVNUM	DEVNUM	UNIQUE AGS-ASSIGNED-NO TO ID DEVIATION DATA
DEVIATION	DEV	AZIMUTH	AZM	AZIMUTH



<u>TBL_NAME</u>	<u>TBL_ABBREV</u>	<u>CLMN_NAME</u>	<u>CLMN_ABBREV</u>	<u>SECTION 1 DEFINITION</u>
DEVIATION	DEV	DEV_FRM_VERT	DEVV	DEVIATION FROM VERTICAL
CONFNTLY	CONFNTLY			CONFIDENTIALITY
CONFNTLY	CONFNTLY	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
CONFNTLY	CONFNTLY	DATA_REL_DT	DRLD	DATA-RELEASE DATE
CONFIDENT	CONFIDENT			RELATES SITID TO CNFNUM
CONFIDENT	CONFIDENT	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
CONFIDENT	CONFIDENT	CNFNUM	CNFNUM	UNIQUE AGS-ASSIGNED-NO TO ID CONFIDENTIALITY TYPES
CNFDTL	CNFDTL			CONFIDENTIALITY
CNFDTL	CNFDTL	CNFNUM	CNFNUM	UNIQUE AGS-ASSIGNED-NO TO ID CONFIDENTIALITY TYPES
CNFDTL	CNFDTL	CONFDLTY	CNFDTY	CONFIDENTIALITY TYPE DESCRIPTIONS
GEOL_INTERP	INTERP			GEOLOGICAL INTERPRETATION PARTICULARS
GEOL_INTERP	INTERP	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
GEOL_INTERP	INTERP	GEOLOGIST	GEOL	GEOLOGIST RESPONSIBLE FOR INTERPRETATION
GEOL_INTERP	INTERP	DATE	INTD	INTERPRETATION DATE
REMARX	REMARX			REMARKS &/OR COMMENTS
REMARX	REMARX	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
REMARX	REMARX	REMARKS	REMX	REMARKS
REMARX	REMARX	REMARKS_DATE	REMD	REMARKS DATE
CONFIDENCE	CONFIDC			DATA CONFIDENCE/PRECISION
CONFIDENCE	CONFIDC	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
CONFIDENCE	CONFIDC	CNFDNC_LVL	CNF_LVL	CONFIDENCE LEVEL RE: DATA RELIABILITY
CONFIDENCE	CONFIDC	COORD_ACCURACY	COO_ACC	ACCURACY OF SURVEYED COORDINATES OF THE SITID
CONFIDENCE	CONFIDC	ELEV_ACC	ELEV_ACC	ACCURACY OF SURVEYED ELEVATION OF THE SITID
PRECISION	PREC			RELATES SITID TO COORNUM TO ELEVNUM
PRECISION	PREC	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
PRECISION	PREC	COORNUM	COORNUM	UNIQUE AGS-ASSIGNED-NO TO ID COORD-SRCE PRECISION
PRECISION	PREC	ELEVNUM	ELEVNUM	UNIQUE AGS-ASSIGNED-NO TO ID ELEV-SRCE PRECISION
COORD_BSD_ON	COORD_BSD_ON			COORDINATES BASED ON
COORD_BSD_ON	COORD_BSD_ON	COORNUM	COORNUM	UNIQUE AGS-ASSIGNED-NO TO ID COORD-SRCE PRECISION
COORD_BSD_ON	COORD_BSD_ON	COORD_ORIGNL	C_ORG	SOURCE ON WHICH ORIGINAL SURVEY COORDS ARE BASED
ELEV_BSD_ON	ELEV_BSD_ON			ELEVATION BASED ON
ELEV_BSD_ON	ELEV_BSD_ON	ELEVNUM	ELEVNUM	UNIQUE AGS-ASSIGNED-NO TO ID ELEV-SRCE PRECISION
ELEV_BSD_ON	ELEV_BSD_ON	ELEV_ORIGNL	E_ORG	SOURCE ON WHICH ORIGINAL SURVEY ELEV IS BASED
BDG_NORM	BDG_NORM			RELATES SITID TO ORNUM TO DIPNUM TO PCHNUM TO OBOT TO OTOP
BDG_NORM	BDG_NORM	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
BDG_NORM	BDG_NORM	ORNUM	ORNUM	UNIQUE AGS-ASSIGNED-NO TO ID OUTCROP ORIENTATION
BDG_NORM	BDG_NORM	DIPNUM	DIPNUM	UNIQUE AGS-ASSIGNED-NO TO ID MEASURED DIP & DIRCTN
BDG_NORM	BDG_NORM	PCHNUM	PCHNUM	UNIQUE AGS-ASSIGNED-NO TO ID MEASURED PITCHES

<u>TBL_NAME</u>	<u>TBL_ABBREV</u>	<u>CLMN_NAME</u>	<u>CLMN_ABBRV</u>	<u>SECTION 1 DEFINITION</u>
BDG_NORM	BDG_NORM	OBOT	OBOT	BOTTOM OF OUTCROP INTERVAL (EQUIV TO 'FROM')
O_ORN	O_ORN			OUTCROP ORIENTATION (WAY-UP)
O_ORN	O_ORN	ORNUM	ORNUM	UNIQUE AGS-ASSIGNED-NO TO ID OUTCROP ORIENTATION
O_ORN	O_ORN	ORNTN_DESC	ORNTN	ORIENTATION DESCRIPTION
DIP_DIP_DIR	DDDIR			DIP AND DIP DIRECTION
DIP_DIP_DIR	DDDIR	DIPNUM	DIPNUM	UNIQUE AGS-ASSIGNED-NO TO ID MEASURED DIP & DIRCTN
DIP_DIP_DIR	DDDIR	DIP	DIP	DIP OF STRATA
DIP_DIP_DIR	DDDIR	DIP_DIR	DIP_D	DIP DIRECTION
PITCH_INFO	PITCH_INFO			PITCH INFO
PITCH_INFO	PITCH_INFO	PCHNUM	PCHNUM	UNIQUE AGS-ASSIGNED-NO TO ID MEASURED PITCHES
PITCH_INFO	PITCH_INFO	PITCH	PITCH	PITCH
BDG_FOLDED	BDG_FOLD			RELATES SITID TO ORNUM TO DIPNUM TO AXTNUM TO OBOT TO OTOP
BDG_FOLDED	BDG_FOLD	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
BDG_FOLDED	BDG_FOLD	ORNUM	ORNUM	UNIQUE AGS-ASSIGNED-NO TO ID OUTCROP ORIENTATION
BDG_FOLDED	BDG_FOLD	DIPNUM	DIPNUM	UNIQUE AGS-ASSIGNED-NO TO ID MEASURED DIP & DIRCTN
BDG_FOLDED	BDG_FOLD	AXTNUM	AXTNUM	UNIQUE AGS-ASSIGNED-NO TO ID AXIAL TRACES
BDG_FOLDED	BDG_FOLD	OBOT	OBOT	BOTTOM OF OUTCROP INTERVAL (EQUIV TO 'FROM')
AXIAL_TRACE	AX_TR			AXIAL TRACE DATA
AXIAL_TRACE	AX_TR	AXTNUM	AXTNUM	UNIQUE AGS-ASSIGNED-NO TO ID AXIAL TRACES
AXIAL_TRACE	AX_TR	TREND	TRD	TREND
AXIAL_TRACE	AX_TR	PLUNGE	PLG	PLUNGE
FAULT	FAULT			RELATES SITID TO DIPNUM TO PCHNUM TO SNSNUM TO OBOT TO OTOP
FAULT	FAULT	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
FAULT	FAULT	DIPNUM	DIPNUM	UNIQUE AGS-ASSIGNED-NO TO ID MEASURED DIP & DIRCTN
FAULT	FAULT	PCHNUM	PCHNUM	UNIQUE AGS-ASSIGNED-NO TO ID MEASURED PITCHES
FAULT	FAULT	SNSNUM	SNSNUM	UNIQUE AGS-ASSIGNED-NO TO ID OUTCROP SENSE
FAULT	FAULT	OBOT	OBOT	BOTTOM OF OUTCROP INTERVAL (EQUIV TO 'FROM')
O_SNS	O_SNS			OUTCROP SENSE
O_SNS	O_SNS	SNSNUM	SNSNUM	UNIQUE AGS-ASSIGNED-NO TO ID OUTCROP SENSE
O_SNS	O_SNS	OC_SNS	OC_SNS	OUTCROP SENSE DESCRIPTION
JOINT_SET	JNT_SET			RELATES SITID TO DIPNUM TO PCHNUM TO SNSNUM TO OBOT TO OTOP
JOINT_SET	JNT_SET	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
JOINT_SET	JNT_SET	DIPNUM	DIPNUM	UNIQUE AGS-ASSIGNED-NO TO ID MEASURED DIP & DIRCTN
JOINT_SET	JNT_SET	PCHNUM	PCHNUM	UNIQUE AGS-ASSIGNED-NO TO ID MEASURED PITCHES
JOINT_SET	JNT_SET	SNSNUM	SNSNUM	UNIQUE AGS-ASSIGNED-NO TO ID OUTCROP SENSE
JOINT_SET	JNT_SET	OBOT	OBOT	BOTTOM OF OUTCROP INTERVAL (EQUIV TO 'FROM')
CLEAVAGE	CLEAV			RELATES SITID TO DIPNUM TO OBOT TO OTOP
CLEAVAGE	CLEAV	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB

<u>TBL_NAME</u>	<u>TBL_ABBREV</u>	<u>CLMN_NAME</u>	<u>CLMN_ABBREV</u>	<u>SECTION 1</u> <u>DEFINITION</u>
CLEAVAGE	CLEAV	DIPNUM	DIPNUM	UNIQUE AGS-ASSIGNED-NO TO ID MEASURED DIP & DIRCTN
CLEAVAGE	CLEAV	OBOT	OBOT	BOTTOM OF OUTCROP INTERVAL (EQUIV TO 'FROM')
STRUCL_OC_IS	ST_OC_LTH			RELATES A STRUCTURAL GEOL DATAPOINT TO LITHOLOGY
STRUCL_OC_IS	ST_OC_LTH	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
STRUCL_OC_IS	ST_OC_LTH	OBOT	OBOT	BOTTOM OF OUTCROP INTERVAL (EQUIV TO 'FROM')
STRUCL_OC_IS	ST_OC_LTH	LITHNUM	LITHNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC INTERVAL
TRAV_LITH	TR_LTH			RELATES TRAVNUM TO LITHNUM
TRAV_LITH	TR_LTH	TRAVNUM	TRAVNUM	UNIQUE AGS-ASSIGNED-NO TO ID A TRAVERSE
TRAV_LITH	TR_LTH	LITHNUM	LITHNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC INTERVAL
TRAV_SPL	TR_SPL			RELATES TRAVNUM TO SAMNUM
TRAV_SPL	TR_SPL	TRAVNUM	TRAVNUM	UNIQUE AGS-ASSIGNED-NO TO ID A TRAVERSE
TRAV_SPL	TR_SPL	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
TRAV_PICK	TR_PCK			RELATES TRAVNUM TO PIKNUM
TRAV_PICK	TR_PCK	TRAVNUM	TRAVNUM	UNIQUE AGS-ASSIGNED-NO TO ID A TRAVERSE
TRAV_PICK	TR_PCK	PIKNUM	PIKNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL PICKS
STRUCL_OC_IN	ST_OC_GEO			RELATES A STRUCTURAL GEOL DTAPNT TO GEOL AGE ETAL
STRUCL_OC_IN	ST_OC_GEO	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
STRUCL_OC_IN	ST_OC_GEO	OBOT	OBOT	BOTTOM OF OUTCROP INTERVAL (EQUIV TO 'FROM')
STRUCL_OC_IN	ST_OC_GEO	FMNUM	FMNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL FORMATIONS
STRUCL_OC_IN	ST_OC_GEO	MBRNUM	MBRNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL MEMBERS
STRUCL_OC_IN	ST_OC_GEO	CZNUM	CZNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL COAL ZONES
STRUCL_OC_IN	ST_OC_GEO	CSNUM	CSNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL COAL SEAMS
PICK_DH_INT	P_DH_INT			PICK BASED ON A DRILLHOLE INTERVAL
PICK_DH_INT	P_DH_INT	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
PICK_DH_INT	P_DH_INT	PIKNUM	PIKNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL PICKS
PICK_DH_INT	P_DH_INT	DTOP	DTOP	DRILLHOLE 'FROM' DEPTH FOR GEOLOGICAL PICKS
PICK_DH_INT	P_DH_INT	DBASE	DBASE	DRILLHOLE 'TO' DEPTH FOR GEOLOGICAL PICKS
PICK_DH_INT	P_DH_INT	PIX_L_ADJ	P_L_ADJ	GEOLOGICAL PICKS ADJUSTED TO GEOPHYSICAL LOG DPTHs
INT_REMARKS	INT_RMX			INTERVAL REMARKS INFO
INT_REMARKS	INT_RMX	PIKNUM	PIKNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL PICKS
INT_REMARKS	INT_RMX	REMARKS	REMARKS	GEOLOGICAL PICKS REMARKS
PICK_OC_INT	P_OC_INT			PICK BASED ON AN OUTCROP/SURFACE INTERVAL
PICK_OC_INT	P_OC_INT	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
PICK_OC_INT	P_OC_INT	PIKNUM	PIKNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL PICKS
PICK_OC_INT	P_OC_INT	OBOT	OBOT	BOTTOM OF OUTCROP INTERVAL (EQUIV TO 'FROM')
PICK_OC_INT	P_OC_INT	OTOP	OTOP	TOP OF OUTCROP INTERVAL (EQUIV TO 'TO')
PICK	PICK			PICK QUALITY INFO
PICK	PICK	PIKNUM	PIKNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL PICKS

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PICK	PICK	PIK_QUAL	PIK_Q	QUALITY/INTEGRITY OF GEOLOGICAL PICK
PICK_IN_MKR	P_MKR			RELATES PIKNUM TO MKRNUM
PICK_IN_MKR	P_MKR	PIKNUM	PIKNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL PICKS
PICK_IN_MKR	P_MKR	MKRNUM	MKRNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL MARKER HRZ
MKR_TYP	MKR_TYP			GEOLOGICAL MARKER HORIZONS
MKR_TYP	MKR_TYP	MKRNUM	MKRNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL MARKER HRZ
MKR_TYP	MKR_TYP	MARKER_TYPE	MKR_TYPE	GEOLOGICAL MARKER-TYPE DESCRIPTION
PICK_BSD_ON	P_BSD_ON			RELATES PIKNUM TO BSDNUM
PICK_BSD_ON	P_BSD_ON	PIKNUM	PIKNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL PICKS
PICK_BSD_ON	P_BSD_ON	BSDNUM	BSDNUM	UNIQUE AGS-ASSIGNED-NO TO ID BASE DATA USED
PICK_IN_GP	P_GP			RELATES PIKNUM TO GPNUM
PICK_IN_GP	P_GP	PIKNUM	PIKNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL PICKS
PICK_IN_GP	P_GP	GPNUM	GPNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL GROUPS
PICK_IN_FM	P_FM			RELATES PIKNUM TO FMNUM
PICK_IN_FM	P_FM	PIKNUM	PIKNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL PICKS
PICK_IN_FM	P_FM	FMNUM	FMNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL FORMATIONS
PICK_IN_MBR	P_MBR			RELATES PIKNUM TO MBRNUM
PICK_IN_MBR	P_MBR	PIKNUM	PIKNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL PICKS
PICK_IN_MBR	P_MBR	MBRNUM	MBRNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL MEMBERS
PICK_IN_CZ	P_CZ			RELATES PIKNUM TO CZNUM
PICK_IN_CZ	P_CZ	PIKNUM	PIKNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL PICKS
PICK_IN_CZ	P_CZ	CZNUM	CZNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL COAL ZONES
PICK_IN_CS	P_CS			RELATES PIKNUM TO CSNUM
PICK_IN_CS	P_CS	PIKNUM	PIKNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL PICKS
PICK_IN_CS	P_CS	CSNUM	CSNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL COAL SEAMS
GEOL_GROUP	GEOL_GROUP			GEOLOGICAL GROUP INFO
GEOL_GROUP	GEOL_GROUP	GPNUM	GPNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL GROUPS
GEOL_GROUP	GEOL_GROUP	GRP_NM	GRP_NM	GEOLOGICAL GROUP NAME
FM_IN_GP	FM_IN_GP			RELATES GPNUM TO FMNUM
FM_IN_GP	FM_IN_GP	GPNUM	GPNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL GROUPS
FM_IN_GP	FM_IN_GP	FMNUM	FMNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL FORMATIONS
GEOL_FM	GEOL_FM			GEOLOGICAL FORMATION INFO
GEOL_FM	GEOL_FM	FMNUM	FMNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL FORMATIONS
GEOL_FM	GEOL_FM	FM_NAME	FM_NM	GEOLOGICAL FORMATION NAME
MBR_IN_FM	MBR_IN_FM			RELATES FMNUM TO MBRNUM
MBR_IN_FM	MBR_IN_FM	FMNUM	FMNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL FORMATIONS
MBR_IN_FM	MBR_IN_FM	MBRNUM	MBRNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL MEMBERS
GEOL_MBR	GEOL_MBR			GEOLOGICAL MEMBER INFO

<u>TBL_NAME</u>	<u>TBL_ABBREV</u>	<u>CLMN_NAME</u>	<u>CLMN_ABBREV</u>	<u>SECTION 1</u> <u>DEFINITION</u>
GEOL_MBR	GEOL_MBR	MBRNUM	MBRNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL MEMBERS
GEOL_MBR	GEOL_MBR	MBR_NAME	MBR_NM	GEOLOGICAL MEMBER NAME
CZ_IN_MBR	CZ_IN_MBR			RELATES MBRNUM TO CZNUM
CZ_IN_MBR	CZ_IN_MBR	MBRNUM	MBRNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL MEMBERS
CZ_IN_MBR	CZ_IN_MBR	CZNUM	CZNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL COAL ZONES
CZ_IN_FM	CZ_IN_FM			RELATES FMNUM TO CZNUM
CZ_IN_FM	CZ_IN_FM	FMNUM	FMNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL FORMATIONS
CZ_IN_FM	CZ_IN_FM	CZNUM	CZNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL COAL ZONES
GEOL_CZ	GEOL_CZ			GEOLOGICAL COAL ZONE INFO
GEOL_CZ	GEOL_CZ	CZNUM	CZNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL COAL ZONES
GEOL_CZ	GEOL_CZ	CZ_NAME	CZ_NM	GEOLOGICAL COAL ZONE NAME
CS_IN_CZ	CS_IN_CZ			RELATES CZNUM TO CSNUM
CS_IN_CZ	CS_IN_CZ	CZNUM	CZNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL COAL ZONES
CS_IN_CZ	CS_IN_CZ	CSNUM	CSNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL COAL SEAMS
GEOL_CS	GEOL_CS			GEOLOGICAL COAL SEAM INFO
GEOL_CS	GEOL_CS	CSNUM	CSNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL COAL SEAMS
GEOL_CS	GEOL_CS	CS_NAME	CS_NM	GEOLOGICAL COAL SEAM NAME/NUMBER
LITHO_DH_INT	L_DH			LITHOLOGY OF A DRILLHOLE INTERVAL
LITHO_DH_INT	L_DH	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
LITHO_DH_INT	L_DH	LITHNUM	LITHNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC INTERVAL
LITHO_DH_INT	L_DH	LTOPP	LTOPP	DRILLHOLE 'FROM' DEPTH FOR A LITHOLOGIC INTERVAL
LITHO_DH_INT	L_DH	LBASE	LBASE	DRILLHOLE 'TO' DEPTH FOR A LITHOLOGIC INTERVAL
LITHO_DH_INT	L_DH	LITH_L_ADJ	L_L_ADJ	LITHO INTERVALS ADJUSTED TO GEOPHYSICAL LOG DEPTHS
LITH_INT_REM	L_REM			LITHOLOGICAL INTERVAL REMARKS INFO
LITH_INT_REM	L_REM	LITHNUM	LITHNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC INTERVAL
LITH_INT_REM	L_REM	LITH_REMX	L_REMX	LITHOLOGIC INTERVAL REMARKS
LITHO_MAIN	L_MAIN			RELATES LITHNUM TO MAINUM
LITHO_MAIN	L_MAIN	LITHNUM	LITHNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC INTERVAL
LITHO_MAIN	L_MAIN	MAINUM	MAINUM	UNIQUE AGS-ASSIGNED-NO TO ID MAIN LITHO OF AN INT
LITHO_OC_INT	L_OC			LITHOLOGY OF AN OUTCROP/SURFACE INTERVAL
LITHO_OC_INT	L_OC	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
LITHO_OC_INT	L_OC	LITHNUM	LITHNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC INTERVAL
LITHO_OC_INT	L_OC	LBOT	LBOT	BOTTOM OF OUTCROP LITHO INT (EQUIV TO 'FROM')
LITHO_OC_INT	L_OC	LTOP	LTOP	TOP OF OUTCROP LITHO INTERVAL (EQUIV TO 'TO')
LITH_CHN_INT	L_CHN			LITHOLOGY OF A CHANNEL INTERVAL
LITH_CHN_INT	L_CHN	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
LITH_CHN_INT	L_CHN	LITHNUM	LITHNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC INTERVAL
LITH_CHN_INT	L_CHN	CLTOP	CLTOP	TOP OF CHANNEL INTERVAL (EQUIV TO 'FROM')[LITH. DESC]

<u>TBL_NAME</u>	<u>TBL_ABBREV</u>	<u>COLMN_NAME</u>	<u>COLMN_ABBRV</u>	<u>SECTION 1 DEFINITION</u>
LITH_CHN_INT	L_CHN	CLBOT	CLBOT	BOTTOM OF CHANNEL INTERVAL (EQUIV TO 'TO')[LITH. DESC]
LITHO_LOG	L_LOG			LITHOLOGIC LOG
LITHO_LOG	L_LOG	LITHNUM	LITHNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC INTERVAL
LITHO_MOD1	L_MOD1			RELATES LITHNUM TO MODNUM (FOR A MODIFIER)
LITHO_MOD1	L_MOD1	LITHNUM	LITHNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC INTERVAL
LITHO_MOD1	L_MOD1	MODNUM	MODNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC MODIFIER
LITHO_MOD2	L_MOD2			RELATES LITHNUM TO MODNUM (FOR A SECOND MODIFIER)
LITHO_MOD2	L_MOD2	LITHNUM	LITHNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC INTERVAL
LITHO_MOD2	L_MOD2	MODNUM	MODNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC MODIFIER
LITHO_SP_FT	L_SP_FT			RELATES LITHNUM TO SPFNUM
LITHO_SP_FT	L_SP_FT	LITHNUM	LITHNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC INTERVAL
LITHO_SP_FT	L_SP_FT	SPFNUM	SPFNUM	UNIQUE AGS-ASSIGNED-NO TO ID A 'SPECIAL FEATURE'
PICK_LITHO	P_LITHO			RELATES PIKNUM TO LITHNUM
PICK_LITHO	P_LITHO	PIKNUM	PIKNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL PICKS
PICK_LITHO	P_LITHO	LITHNUM	LITHNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC INTERVAL
PICK_LITHO	P_LITHO	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
PICK_LITHO	P_LITHO	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
LITHO_ATT	L_ATT			RELATES LITHNUM TO ATTNUM
LITHO_ATT	L_ATT	LITHNUM	LITHNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC INTERVAL
LITHO_ATT	L_ATT	ATTNUM	ATTNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF ATTITUDES
LITHO_ATT	L_ATT	AT_DIP	AT_DIP	DIP OF FEATURE
LITHO_ATT	L_ATT	AT_DRN	AT_DRN	DIP DIRECTION OF FEATURE
LITHO_ATT	L_ATT	CBA	CBA	CORE-BEDDING ANGLE
ATT	ATT			ATTITUDE INFO
ATT	ATT	ATTNUM	ATTNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF ATTITUDES
ATT	ATT	ATTITUDE	ATTITUDE	ATTITUDE TYPE DESCRIPTION
LITHO_MAIN	LITH_MN			LITHOLOGY MAIN LISTING
LITHO_MAIN	LITH_MN	LITHO_MAIN	MAINUM	UNIQUE AGS-ASSIGNED-NO TO ID MAIN LITHO OF AN INT
LITHO_MAIN	LITH_MN	LITHO_CTGY	L_CTGY	LITHOLOGIC CATEGORY DESCRIPTION
LITHO_MAIN	LITH_MN	LITHO_TYPE	L_TYP	LITHOLOGIC TYPE DESCRIPTION
LITHO_MODFR	LITH_MD			LITHOLOGIC MODIFIER LISTING
LITHO_MODFR	LITH_MD	MODNUM	MODNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC MODIFIER
LITHO_MODFR	LITH_MD	MOD_TYP	M_TYP	LITHOLOGIC MODIFIER TYPE
LITHO_MODFR	LITH_MD	MOD_DESC	M_DESC	LITHOLOGIC MODIFIER DESCRIPTION
L_SP_FEA	L_SP_FEA			LITHOLOGIC SPECIAL FEATURE LISTING
L_SP_FEA	L_SP_FEA	SPNUM	SPFNUM	UNIQUE AGS-ASSIGNED-NO TO ID A 'SPECIAL FEATURE'
L_SP_FEA	L_SP_FEA	SP_FEATURES	SP_FE	SPECIAL FEATURE DESCRIPTION
LITHO_BSD_ON	L_BSD_ON			RELATES LITHNUM TO BSDNUM

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LITHO_BSD_ON	L_BSD_ON	LITHNUM	LITHNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC INTERVAL
LITHO_BSD_ON	L_BSD_ON	BSDNUM	BSDNUM	UNIQUE AGS-ASSIGNED-NO TO ID BASE DATA USED
BASED_ON	BASED			BASIS (SOURCE) OF GEOL & LITHO INTERPRETATION
BASED_ON	BASED	BSDNUM	BSDNUM	UNIQUE AGS-ASSIGNED-NO TO ID BASE DATA USED
BASED_ON	BASED	BSD_ON	BSD_ON	BASED-ON DESCRIPTION
SPL_FRM_ETAL	S_FRM			RELATES SAMNUM TO FMNUM TO MBRNUM TO CZNUM TO CSNUM
SPL_FRM_ETAL	S_FRM	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
SPL_FRM_ETAL	S_FRM	FMNUM	FMNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL FORMATIONS
SPL_FRM_ETAL	S_FRM	MBRNUM	MBRNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL MEMBERS
SPL_FRM_ETAL	S_FRM	CZNUM	CZNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL COAL ZONES
SPL_FRM_ETAL	S_FRM	CSNUM	CSNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL COAL SEAMS
SPL_OC_INT	S_OC			SAMPLE FROM AN OUTCROP/SURFACE INTERVAL
SPL_OC_INT	S_OC	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
SPL_OC_INT	S_OC	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
SPL_OC_INT	S_OC	SOBOT	SOBOT	BOTTOM OF AN OUTCROP SAMPLE INT (EQUIV TO 'FROM')
SPL_OC_INT	S_OC	SOTOP	SOTOP	TOP OF AN OUTCROP SAMPLE INT (EQUIV TO 'TO')
SPL_CHNL_INT	S_CHNL			CHANNEL SAMPLES
SPL_CHNL_INT	S_CHNL	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
SPL_CHNL_INT	S_CHNL	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
SPL_CHNL_INT	S_CHNL	SCLTOP	SCLTOP	TOP OF CHANNEL-SAMPLE-INTERVAL (EQUIV TO 'FROM')
SPL_CHNL_INT	S_CHNL	SCLBOT	SCLBOT	BOTTOM OF CHANNEL-SAMPLE-INTERVAL (EQUIV TO 'TO')
SPL_DH_INT	S_DH			SAMPLE FROM A DRILLHOLE INTERVAL
SPL_DH_INT	S_DH	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
SPL_DH_INT	S_DH	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
SPL_DH_INT	S_DH	STOP	STOP	TOP OF DRILLHOLE SAMPLE INTERVAL (EQUIV TO 'FROM')
SPL_DH_INT	S_DH	SBASE	SBASE	BASE OF DRILLHOLE SAMPLE INTERVAL (EQUIV TO 'TO')
SPL_DH_INT	S_DH	SPL_L_ADJ	S_L_ADJ	SAMPLE INTERVALS ADJUSTED TO GEOPHYSICAL LOG DEPTHS
SPL_STATUS	S_STAT			SAMPLE STATUS
SPL_STATUS	S_STAT	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
SPL_STATUS	S_STAT	SPL_NO	S_NO	SAMPLE NUMBER (AS ASSIGNED IN-FIELD)
SPL_STATUS	S_STAT	SPL_LNGTH	S_LTH	SAMPLE LENGTH (IE, RECOVERY)
SPL_STATUS	S_STAT	SPL_WT	S_WT	SAMPLE WEIGHT
SPL_STATUS	S_STAT	SPL_DATE	S_DT	DATE OF SAMPLING
SPL_STATUS	S_STAT	SPLD_BY	S_BY	NAME OF SAMPLER
SPL_INT_REMX	S_REMX			SAMPLE INTERVAL REMARKS INFO
SPL_INT_REMX	S_REMX	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
SPL_INT_REMX	S_REMX	SPL_REMX	S_RMX	SAMPLE INTERVAL REMARKS
SPL_CONTIN	S_CONTIN			RELATES SAMNUM TO CONTNUM

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SPL_CONTIN	S_CONTIN	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
SPL_CONTIN	S_CONTIN	CONTNUM	CONTNUM	UNIQUE AGS-ASSIGNED-NO TO ID SAMPLE CONTINUITY
CONTIN_CODE	CONTIN			SAMPLE CONTINUITY INFO
CONTIN_CODE	CONTIN	CONTNUM	CONTNUM	UNIQUE AGS-ASSIGNED-NO TO ID SAMPLE CONTINUITY
CONTIN_CODE	CONTIN	CONTINUITY	CONT	SAMPLE CONTINUITY DESCRIPTION
SPL_SEG	S_SEG			RELATES SAMNUM TO SEGNUM
SPL_SEG	S_SEG	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
SPL_SEG	S_SEG	SEGNUM	SEGNUM	UNIQUE AGS-ASSIGNED-NO TO ID SAMPLE-SEGMENT-TYPE
SPL_SEGMENT	S_SEGMT			SAMPLE SEGMENT INFO
SPL_SEGMENT	S_SEGMT	SEGNUM	SEGNUM	UNIQUE AGS-ASSIGNED-NO TO ID SAMPLE-SEGMENT-TYPE
SPL_SEGMENT	S_SEGMT	SEGMENT	SGMT	SAMPLE SEGMENT DESCRIPTION
SPL_PREPTN	S_PREPTN			RELATES SAMNUM TO PREPNUM
SPL_PREPTN	S_PREPTN	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
SPL_PREPTN	S_PREPTN	PREPNUM	PREPNUM	UNIQUE AGS-ASSIGNED-NO TO ID SAMPLE PREP TYPE
SPL_PREP	S_PREP			SAMPLE PREPARATION TYPE INFO
SPL_PREP	S_PREP	PREPNUM	PREPNUM	UNIQUE AGS-ASSIGNED-NO TO ID SAMPLE PREP TYPE
SPL_PREP	S_PREP	SAMPLE_PREP	PREP	SAMPLE PREPARATION TYPE DESCRIPTION
ANA_STATUS	A_STA			ANALYSIS STATUS
ANA_STATUS	A_STA	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
ANA_STATUS	A_STA	LAB_SPL_NO	L_S_NO	LAB SAMPLE NO
ANA_STATUS	A_STA	ANAL_DATE	A_DT	DATE OF ANALYSIS
LAB_ANA	LAB_ANA			RELATES ANANUM TO LABNUM
LAB_ANA	LAB_ANA	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
LAB_ANA	LAB_ANA	LABNUM	LABNUM	UNIQUE AGS-ASSIGNED-NO TO ID THE ANALYTICAL LAB
LAB	LAB			ANALYTICAL LAB INFO
LAB	LAB	LABNUM	LABNUM	UNIQUE AGS-ASSIGNED-NO TO ID THE ANALYTICAL LAB
LAB	LAB	LAB_NAME	LAB_NM	NAME OF ANALYTICAL LAB
SZFRACT_ANA	SZ_ANA			RELATES ANANUM TO SZNUM
SZFRACT_ANA	SZ_ANA	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
SZFRACT_ANA	SZ_ANA	SZNUM	SZNUM	UNIQUE AGS-ASSIGNED-NO TO ID SZ OF COAL PART ANALYZ
OK_ANALYSIS	OK_ANA			RELATES ANANUM TO OKNUM
OK_ANALYSIS	OK_ANA	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
OK_ANALYSIS	OK_ANA	OKNUM	OKNUM	UNIQUE AGS-ASSIGNED-NO TO ID ANALYSIS' RELIABILITY
CONFID_ANA	CNF_ANA			RELATES ANANUM TO CONFNUM
CONFID_ANA	CNF_ANA	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
CONFID_ANA	CNF_ANA	CONFNUM	CONFNUM	UNIQUE AGS-ASSIGNED-NO TO ID ANALYT DATA CNFDNTLTY
ANA_CONF	ANA_CONF			STATUS OF CONFIDENTIALITY OF ANALYTICAL DATA
ANA_CONF	ANA_CONF	CONFNUM	CONFNUM	UNIQUE AGS-ASSIGNED-NO TO ID ANALYT DATA CNFDNTLTY



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ANA_CONF	ANA_CONF	A_CONFIDENT	A_CONF	ANALYSIS' CONFIDENTIALITY DESCRIPTION
SZ_FRACT	SZ_FRACT			SIZE OF COAL PARTICLES ANALYZED
SZ_FRACT	SZ_FRACT	SZNUM	SZNUM	UNIQUE AGS-ASSIGNED-NO TO ID SZ OF COAL PART ANALYZ
SZ_FRACT	SZ_FRACT	SZ_FRACTION	SZ_FR	SIZE FRACTION DESCRIPTION
ANA_OK	ANA_OK			RELIABILITY OF ANALYTICAL DATA
ANA_OK	ANA_OK	OKNUM	OKNUM	UNIQUE AGS-ASSIGNED-NO TO ID ANALYSIS' RELIABILITY
ANA_OK	ANA_OK	A_APPROV	A_APP	ANALYSIS-APPROVAL DESCRIPTION
EQUIL_MOIST	E_MOIST			EQUILIBRIUM MOISTURE INFO
EQUIL_MOIST	E_MOIST	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
EQUIL_MOIST	E_MOIST	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
EQUIL_MOIST	E_MOIST	EQUI_MOIST	EQM	EQUILIBRIUM MOISTURE
SULPHUR	S			SULPHUR INFO
SULPHUR	S	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
SULPHUR	S	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
SULPHUR	S	SULPHUR_ARB	SARB	SULPHUR;AS RECEIVED BASIS
SULPHUR	S	SULPHUR_ADB	SADB	SULPHUR;AIR DRIED BASIS
HEATING_VALUE	HV			HEATING VALUE INFO
HEATING_VALUE	HV	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
HEATING_VALUE	HV	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
HEATING_VALUE	HV	HV_ARB	HVARB	HEATING VALUE;AS RECEIVED BASIS
HEATING_VALUE	HV	HV_ADB	HVADB	HEATING VALUE;AIR DRIED BASIS
PROXIMATES	PROX			PROXIMATE ANALYSIS INFO
PROXIMATES	PROX	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
PROXIMATES	PROX	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
PROXIMATES	PROX	MOIST_ARB	PMAR	MOISTURE;AS RECEIVED BASIS
PROXIMATES	PROX	VM_ARB	PVMAR	VOLATILE MATTER;AS RECEIVED BASIS
PROXIMATES	PROX	ASH_ARB	PAAR	ASH;AS RECEIVED BASIS
PROXIMATES	PROX	FC_ARB	PFCAR	FIXED CARBON;AS RECEIVED BASIS
PROXIMATES	PROX	MOIST_ADB	PMAD	MOISTURE;AIR DRIED BASIS
PROXIMATES	PROX	VM_ADB	PVMAD	VOLATILE MATTER;AIR DRIED BASIS
PROXIMATES	PROX	ASH_ADB	PAAD	ASH,AIR DRIED BASIS
PROXIMATES	PROX	FC_ADB	PFCAD	FIXED CARBON;AIR DRIED BASIS
ASH_FUSIB	A_FUS			ASH FUSIBILITY INFO
ASH_FUSIB	A_FUS	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
ASH_FUSIB	A_FUS	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
ASH_FUSIB	A_FUS	R_IDT	RIDT	REDUCING ATM;INITIAL DEFORMATION TEMPERATURE
ASH_FUSIB	A_FUS	R_SOFT	RSOT	REDUCING ATM;SOFTENING TEMPERATURE
ASH_FUSIB	A_FUS	R_HEMIS	RHET	REDUCING ATM;HEMISPHERICAL TEMPERATURE

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ASH_FUSIB	A_FUS	R_FLOW	RFLT	REDUCING ATM;FLOW TEMPERATURE
ASH_FUSIB	A_FUS	O_IDT	OIDT	OXIDIZING ATM;INITIAL DEFORMATION TEMPERATURE
ASH_FUSIB	A_FUS	O_SOFT	OSOT	OXIDIZING ATM;SOFTENING TEMPERATURE
ASH_FUSIB	A_FUS	O_HEMIS	OHET	OXIDIZING ATM;HEMISPHERICAL TEMPERATURE
ASH_FUSIB	A_FUS	O_FLOW	OFLT	OXIDIZING ATM;FLOW TEMPERATURE
ASH_FUSIB	A_FUS	VISCOSITY	VISC	VISCOSITY OF FLUID ASH
POROSITY	POROS			POROSITY INFO
POROSITY	POROS	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
POROSITY	POROS	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
POROSITY	POROS	PORO_AS_DET	POAD	POROSITY;AS DETERMINED BASIS
POROSITY	POROS	PORO_INSITU	POIN	POROSITY; INSITU
METHANE	METHANE			METHANE INFO
METHANE	METHANE	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
METHANE	METHANE	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
METHANE	METHANE	METHANE_CNT	CH4	METHANE-CONTENT
ASH_RESIS	A_RESIS			ASH RESISTIVITY INFO
ASH_RESIS	A_RESIS	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
ASH_RESIS	A_RESIS	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
ASH_RESIS	A_RESIS	ELEC_RES_EXP	E_RES_EXP	ELECTRICAL RESISTIVITY EXPONENT
ASH_RESIS	A_RESIS	ELEC_RES	E_RES	ELECTRICAL RESISTIVITY THROUGH A PARTICLE OF ASH
ULTIMATE	ULT			ULTIMATE ANALYSIS INFO
ULTIMATE	ULT	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
ULTIMATE	ULT	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
ULTIMATE	ULT	MOIST_ADB	UAMAD	MOISTURE;AIR DRIED BASIS (ULTIMATE ANALYSIS)
ULTIMATE	ULT	CARBON	UAC	CARBON
ULTIMATE	ULT	HYDROGEN	UAH	HYDROGEN
ULTIMATE	ULT	NITROGEN	UAN	NITROGEN
ULTIMATE	ULT	ASH	UAA	ASH
ULTIMATE	ULT	SULPHUR	UAS	SULPHUR (ULTIMATE ANALYSIS)
ULTIMATE	ULT	OXY_BY_DIFF	UAO	OXYGEN BY DIFFERENCE
ULTIMATE	ULT	INCLUS_CODE	UINC	INCLUSION CODE RE:WTS OF H & O IN MOISTURE DETERM
HGI_ABRAS	HGI_ABRAS			GRINDABILITY, ABRASIVENESS & HARDNESS INFO
HGI_ABRAS	HGI_ABRAS	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
HGI_ABRAS	HGI_ABRAS	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
HGI_ABRAS	HGI_ABRAS	HARDGROVE	HGI	HARDGROVE GRINDABILITY INDEX
HGI_ABRAS	HGI_ABRAS	ABRASIVENESS	ABV	ABRASIVENESS
HGI_ABRAS	HGI_ABRAS	MICROHARDNESS	MCHD	MICROHARDNESS
HGI_ABRAS	HGI_ABRAS	DROP_SHTR	DRST	DROP SHATTER TEST

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TRACE_ELEM	TR_ELEM			RELATES SAMNUM TO ANANUM TO ATOMNUM TO PPM
TRACE_ELEM	TR_ELEM	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
TRACE_ELEM	TR_ELEM	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
TRACE_ELEM	TR_ELEM	ATOMNUM	ATOMNUM	UNIQUE AGS-ASSIGNED-NO TO ID ATOMIC NO OF TRC ELEM
TRACE_ELEM	TR_ELEM	PPM_VALUE	PPM	CONCENTRATION OF ELEMENT IN PARTS PER MILLION
ATOMIC_NO	ATOMIC_NO			ATOMIC NUMBER/TRACE ELEMENT INFO
ATOMIC_NO	ATOMIC_NO	ATOMNUM	ATOMNUM	UNIQUE AGS-ASSIGNED-NO TO ID ATOMIC NO OF TRC ELEM
ATOMIC_NO	ATOMIC_NO	TRC_ELEM_NM	TR_EL	TRACE ELEMENT NAME
ATOMIC_NO	ATOMIC_NO	TRC_ELEM_SYM	TE_SYM	TRACE ELEMENT SYMBOL
MINERAL_ANAL	MNRL_ANA			MINERAL ANALYSIS OF COAL
MINERAL_ANAL	MNRL_ANA	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
MINERAL_ANAL	MNRL_ANA	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
MINERAL_ANAL	MNRL_ANA	ANKERITE	ANK	WEIGHT (%) OF ANKERITE IN COAL
MINERAL_ANAL	MNRL_ANA	CALCITE	CLCT	WEIGHT (%) OF CALCITE IN COAL
MINERAL_ANAL	MNRL_ANA	DOLOMITE	DOL	WEIGHT (%) OF DOLOMITE IN COAL
MINERAL_ANAL	MNRL_ANA	GALENA	GAL	WEIGHT (%) OF GALENA IN COAL
MINERAL_ANAL	MNRL_ANA	KAOLINITE	KAOL	WEIGHT (%) OF KAOLINITE IN COAL
MINERAL_ANAL	MNRL_ANA	MONTM_ILLITE	MTIL	WEIGHT (%) OF MONTMORILLINITE & ILLITE IN COAL
MINERAL_ANAL	MNRL_ANA	PYR_MARCAS	PTMC	WEIGHT (%) OF PYRITE-AND-OR-MARCASITE IN COAL
MINERAL_ANAL	MNRL_ANA	SIDERITE	SIDR	WEIGHT (%) OF SIDERITE IN COAL
MINERAL_ANAL	MNRL_ANA	SPHALERITE	SPHAL	WEIGHT (%) OF SPHALERITE IN COAL
MINERAL_ANAL	MNRL_ANA	QUARTZ	QTZ	WEIGHT (%) OF QUARTZ IN COAL
ASH_ANAL_HI	A_ANA_H			ASH ANALYSIS OF COAL (HIGH TEMPERATURE ANALYSIS)
ASH_ANAL_HI	A_ANA_H	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
ASH_ANAL_HI	A_ANA_H	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
ASH_ANAL_HI	A_ANA_H	SI02	SI02	WEIGHT (%) OF SILICON DIOXIDE IN COAL ASH (HIGH TEMP)
ASH_ANAL_HI	A_ANA_H	AL203	AL203	WEIGHT (%) OF ALUMINUM OXIDE IN COAL ASH (HIGH TEMP)
ASH_ANAL_HI	A_ANA_H	TI02	TI02	WEIGHT (%) OF TITANIUM OXIDE IN COAL ASH (HIGH TEMP)
ASH_ANAL_HI	A_ANA_H	FE203	FE203	WEIGHT (%) OF IRON OXIDE IN COAL ASH (HIGH TEMP)
ASH_ANAL_HI	A_ANA_H	CAO	CAO	WEIGHT (%) OF CALCIUM OXIDE IN COAL ASH (HIGH TEMP)
ASH_ANAL_HI	A_ANA_H	MGO	MGO	WEIGHT (%) OF MAGNESIUM OXIDE IN COAL ASH (HIGH TEMP)
ASH_ANAL_HI	A_ANA_H	NA2O	NA2O	WEIGHT (%) OF SODIUM MONOXIDE IN COAL ASH (HIGH TEMP)
ASH_ANAL_HI	A_ANA_H	K2O	K2O	WEIGHT (%) OF POTASSIUM OXIDE IN COAL ASH (HIGH TEMP)
ASH_ANAL_HI	A_ANA_H	P2O5	P2O5	WEIGHT (%) OF PHOSPHOROUS PENTOXIDE IN COAL ASH (HIGH TEMP)
ASH_ANAL_HI	A_ANA_H	SO3	SO3	WEIGHT (%) OF SULPHUR TRIOXIDE IN COAL ASH (HIGH TEMP)
ASH_ANAL_HI	A_ANA_H	UNDT	UNDT	WEIGHT (%) OF 'UNDETERMINED' OXIDES IN COAL ASH (HIGH TEMP)
ASH_ANAL_HI	A_ANA_H	CO2	CO2	WEIGHT (%) OF CARBON DIOXIDE IN COAL ASH (HIGH TEMP)
ASH_ANAL_HI	A_ANA_H	CRO3	CRO3	WEIGHT (%) OF CHROMIUM TRIOXIDE IN COAL ASH (HIGH TEMP)

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ASH_ANAL_HI	A_ANA_H	MNO	MNO	WEIGHT (%) OF MANGANESE OXIDE IN COAL ASH (HIGH TEMP)
ASH_ANAL_HI	A_ANA_H	MOO3	MOO3	WEIGHT (%) OF MOLYBDENUM TRIOXIDE IN COAL ASH (HIGH TEMP)
ASH_ANAL_HI	A_ANA_H	NIO	NIO	WEIGHT (%) OF NICKEL OXIDE IN COAL ASH (HIGH TEMP)
ASH_ANAL_HI	A_ANA_H	VO3	VO3	WEIGHT (%) OF VANADIUM TRIOXIDE IN COAL ASH (HIGH TEMP)
ASH_ANAL_HI	A_ANA_H	FOULNUM	FOULNUM	UNIQUE AGS-ASSIGNED-NO TO ID ASH ADHERENCE TENDANCY
ASH_ANAL_LO	A_ANA_L			ASH ANALYSIS OF COAL (LOW TEMPERATURE ANALYSIS)
ASH_ANAL_LO	A_ANA_L	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
ASH_ANAL_LO	A_ANA_L	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
ASH_ANAL_LO	A_ANA_L	SI02_L	SI02_L	WEIGHT (%) OF SILICON DIOXIDE IN COAL ASH (LOW TEMP)
ASH_ANAL_LO	A_ANA_L	AL203_L	AL203_L	WEIGHT (%) OF ALUMINUM OXIDE IN COAL ASH (LOW TEMP)
ASH_ANAL_LO	A_ANA_L	TIO2_L	TIO2_L	WEIGHT (%) OF TITANIUM OXIDE IN COAL ASH (LOW TEMP)
ASH_ANAL_LO	A_ANA_L	FE203_L	FE203_L	WEIGHT (%) OF IRON OXIDE IN COAL ASH (LOW TEMP)
ASH_ANAL_LO	A_ANA_L	CAO_L	CAO_L	WEIGHT (%) OF CALCIUM OXIDE IN COAL ASH (LOW TEMP)
ASH_ANAL_LO	A_ANA_L	MGO_L	MGO_L	WEIGHT (%) OF MAGNESIUM OXIDE IN COAL ASH (LOW TEMP)
ASH_ANAL_LO	A_ANA_L	NA2O_L	NA2O_L	WEIGHT (%) OF SODIUM MONOXIDE IN COAL ASH (LOW TEMP)
ASH_ANAL_LO	A_ANA_L	K2O_L	K2O_L	WEIGHT (%) OF POTASSIUM OXIDE IN COAL ASH (LOW TEMP)
ASH_ANAL_LO	A_ANA_L	P205_L	P205_L	WEIGHT (%) OF PHOSPHOROUS PENTOXIDE IN COAL ASH (LOW TEMP)
ASH_ANAL_LO	A_ANA_L	SO3_L	SO3_L	WEIGHT (%) OF SULPHUR TRIOXIDE IN COAL ASH (LOW TEMP)
ASH_ANAL_LO	A_ANA_L	UNDT_L	UNDT_L	WEIGHT (%) OF 'UNDETERMINED' OXIDES IN COAL ASH (LOW TEMP)
ASH_ANAL_LO	A_ANA_L	CO2_L	CO2_L	WEIGHT (%) OF CARBON DIOXIDE IN COAL ASH (LOW TEMP)
ASH_ANAL_LO	A_ANA_L	CRO3_L	CRO3_L	WEIGHT (%) OF CHROMIUM TRIOXIDE IN COAL ASH (LOW TEMP)
ASH_ANAL_LO	A_ANA_L	MNO_L	MNO_L	WEIGHT (%) OF MANGANESE OXIDE IN COAL ASH (LOW TEMP)
ASH_ANAL_LO	A_ANA_L	MOO3_L	MOO3_L	WEIGHT (%) OF MOLYBDENUM TRIOXIDE IN COAL ASH (LOW TEMP)
ASH_ANAL_LO	A_ANA_L	NIO_L	NIO_L	WEIGHT (%) OF NICKEL OXIDE IN COAL ASH (LOW TEMP)
ASH_ANAL_LO	A_ANA_L	VO3_L	VO3_L	WEIGHT (%) OF VANADIUM TRIOXIDE IN COAL ASH (LOW TEMP)
ASH_ANAL_LO	A_ANA_L	FOULNUM	FOULNUM	UNIQUE AGS-ASSIGNED-NO TO ID ASH ADHERENCE TENDNCY
FOUL	FOUL			TENDNCY OF DRY ASH PRICLE TO ADHERE TO BOILER TUBE
FOUL	FOUL	FOULNUM	FOULNUM	UNIQUE AGS-ASSIGNED-NO TO ID ASH ADHERENCE TENDNCY
FOUL	FOUL	FOULNG_DEG	FLNG	DEGREE OF FOULING DESCRIPTION
SG_DENS	SG_DENS			SPECIFIC GRAVITY & DENSITY
SG_DENS	SG_DENS	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
SG_DENS	SG_DENS	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
SG_DENS	SG_DENS	DRY_DENS	DDEN	DRY DENSITY
SG_DENS	SG_DENS	BULK_DENS	BDEN	BULK DENSITY
SG_DENS	SG_DENS	MSTNUM	MSTNUM	UNIQUE AGS-ASSIGNED-NO TO ID MOISTURE BASIS FOR SG
SG_DENS	SG_DENS	SGNUM	SGNUM	UNIQUE AGS-ASSIGNED-NO TO ID SPECIFIC-GRAVITY TYPE
SG_DENS	SG_DENS	SG	SG	SPECIFIC GRAVITY; TRUE, APPARENT, OR UPPER RANGE
SG_DENS	SG_DENS	SGLO	SGLO	SPECIFIC GRAVITY; LOWER LIMIT OF A RANGE

<u>TBL NAME</u>	<u>TBL ABBREV</u>	<u>CLMN NAME</u>	<u>CLMN ABBRV</u>	<u>SECTION 1 DEFINITION</u>
RQD_ETAL	RQD_ETAL			ROCK QUALITY, RECOVERY & JOINT-TYPE INFO
RQD_ETAL	RQD_ETAL	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
RQD_ETAL	RQD_ETAL	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
RQD_ETAL	RQD_ETAL	RQD	RQD	ROCK QUALITY DESIGNATION
RQD_ETAL	RQD_ETAL	NO_JOINTS	JNT	NUMBER OF JOINTS
RQD_ETAL	RQD_ETAL	SJNUM	SJNUM	UNIQUE AGS-ASSIGNED-NO TO ID STATUS OF JOINTS
RQD_ETAL	RQD_ETAL	JINUM	JINUM	UNIQUE AGS-ASSIGNED-NO TO ID JOINT INFILLING
STAT_JNT	SJNT			STATUS OF JOINT INT INFO
STAT_JNT	SJNT	SJNUM	SJNUM	UNIQUE AGS-ASSIGNED-NO TO ID STATUS OF JOINTS
STAT_JNT	SJNT	JOINT_STATUS	JNT_ST	STATUS OF JOINTS DESCRIPTION
JNT_INFL	JNTI			JOINT-INFILLING INFO
JNT_INFL	JNTI	JINUM	JINUM	UNIQUE AGS-ASSIGNED-NO TO ID JOINT INFILLING
JNT_INFL	JNTI	JOINT_INFILL	JNT_IN	JOINT-INFILLING DESCRIPTION
SG_INFO	SG_INF			SPECIFIC GRAVITY INFO
SG_INFO	SG_INF	SGNUM	SGNUM	UNIQUE AGS-ASSIGNED-NO TO ID SPECIFIC-GRAVITY TYPE
SG_INFO	SG_INF	SG_TYPE	SGTYPE	SPECIFIC GRAVITY TYPE DESCRIPTION
MOISTURE	MOISTURE			MOISTURE BASIS FOR SPECIFIC GRAVITY DETERMINATION
MOISTURE	MOISTURE	MSTNUM	MSTNUM	UNIQUE AGS-ASSIGNED-NO TO ID MOISTURE BASIS FOR SG
MOISTURE	MOISTURE	MOIST_BASIS	MOIST	MOISTURE BASIS (FOR SG DETERMINATIONS) DESCRIPTION
SIEVE_ANAL	SIEVE_ANAL			SIEVE ANALYSIS
SIEVE_ANAL	SIEVE_ANAL	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
SIEVE_ANAL	SIEVE_ANAL	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
SIEVE_ANAL	SIEVE_ANAL	SIVNUM	SIVNUM	UNIQUE AGS-ASSIGNED-NO TO ID STANDARD SIEVE OPNGS
SIEVE_ANAL	SIEVE_ANAL	MTL_THRU	THRU	MATERIAL PASSING THRU (%)
SIEVE	SIEVE			SIEVE SIZE INFO
SIEVE	SIEVE	SIVNUM	SIVNUM	UNIQUE AGS-ASSIGNED-NO TO ID STANDARD SIEVE OPNGS
SIEVE	SIEVE	SIEVE_NO	SV_NO	U.S. STANDARD SIEVE NO
SIEVE	SIEVE	OPENING	OPNG	SIZE OF SIEVE OPENING IN MM
PROCTOR	PROCT			PROCTOR COMPACTION TESTS
PROCTOR	PROCT	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
PROCTOR	PROCT	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
PROCTOR	PROCT	OPT_MOIST	PTOM	PROCTOR TEST: OPTIMUM MOISTURE
PROCTOR	PROCT	DRY_DENS	PMDD	PROCTOR TEST: MAXIMUM DRY DENSITY
ATTERBERG	ATTER			ATTERBERG LIMITS
ATTERBERG	ATTER	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
ATTERBERG	ATTER	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
ATTERBERG	ATTER	NAT_WTR_CNT	NWC	ATTERBERG: NATURAL WATER CONTENT
ATTERBERG	ATTER	LIQ_LIM	ALLL	ATTERBERG: LIQUID LIMIT

<u>TBL_NAME</u>	<u>TBL_ABBREV</u>	<u>CLMN_NAME</u>	<u>CLMN_ABBRV</u>	<u>SECTION 1 DEFINITION</u>
ATTERBERG	ATTER	PLSTC_LIM	APL	ATTERBERG: PLASTIC LIMIT
TRIAXIAL	TRIAX			TRIAXIAL TEST DATA
TRIAXIAL	TRIAX	SAMNUN	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
TRIAXIAL	TRIAX	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
TRIAXIAL	TRIAX	DRNUM	DRNUM	UNIQUE AGS-ASSIGNED-NO TO ID TRIAXIAL DRAINAGE CDTN
TRIAXIAL	TRIAX	SPECNUM	SPECNUM	UNIQUE AGS-ASSIGNED-NO TO ID SPECIMEN NO (GEOTECH)
TRIAXIAL	TRIAX	INIT_WTR_CON	IWC	INITIAL WATER CONTENT
TRIAXIAL	TRIAX	DRY_DENS	DDS	DRY DENSITY
TRIAXIAL	TRIAX	BULK_DENS	BDS	BULK DENSITY
TRIAXIAL	TRIAX	ECP	ECP	TRIAX: EFFECTIVE CELL PRESSURE
TRIAXIAL	TRIAX	PORE_PRES	PORE_PRES	TRIAX: PORE PRESSURE @ MAX P(1)-P(3)
TRIAXIAL	TRIAX	SIGMA1	SIGMA1	TRIAX: SIGMA 1 @ MAX P(1)-P(3)
TRIAXIAL	TRIAX	SIGMA3	SIGMA3	TRIAX: SIGMA 3 @ MAX P(1)-P(3)
TRIAXIAL	TRIAX	AX_ST	AX_ST	TRIAX: AXIAL STRAIN @ MAX P(1)-P(3)
TRIAXIAL	TRIAX	PP_MAX	PP_MAX	TRIAX: PORE PRESSURE @ MAX P(1)/P(3)
TRIAXIAL	TRIAX	SIGMA1_MAX	SIGMA1_MAX	TRIAX: SIGMA 1 @ MAX P(1)/P(3)
TRIAXIAL	TRIAX	SIGMA3_MAX	SIGMA3_MAX	TRIAX: SIGMA 3 @ MAX P(1)/P(3)
TRIAXIAL	TRIAX	AXI_STR	AXI_STR	TRIAX: AXIAL STRAIN @ MAX P(1)/P(3)
DRAIN	DRAIN			DRAINAGE CONDITION FOR TRIAXIAL TESTS
DRAIN	DRAIN	DRNUM	DRNUM	UNIQUE AGS-ASSIGNED-NO TO ID TRIAXIAL DRAINAGE CDTN
DRAIN	DRAIN	DRAIN_CNDTN	DR_CN	DRAINAGE CONDITION DESCRIPTION
SPEC_NO	SPEC_NO			SPECIMEN NUMBER INFO
SPEC_NO	SPEC_NO	SPECNUM	SPECNUM	UNIQUE AGS-ASSIGNED-NO TO ID SPECIMEN NO (GEOTECH)
SPEC_NO	SPEC_NO	SPECIMEN_NO	SPMN_NO	ASSIGNED SPECIMEN NO (TRIAX & DIRECT SHEAR TESTS)
DIRECT_SHEAR	DIR_SHR			DIRECT SHEAR TEST
DIRECT_SHEAR	DIR_SHR	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
DIRECT_SHEAR	DIR_SHR	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
DIRECT_SHEAR	DIR_SHR	SPECNUM	SPECNUM	UNIQUE AGS-ASSIGNED-NO TO ID SPECIMEN NO (GEOTECH)
DIRECT_SHEAR	DIR_SHR	INIT_WTR_CON	IWC	INITIAL WATER CONTENT
DIRECT_SHEAR	DIR_SHR	DRY_DENS	DDS	DRY DENSITY
DIRECT_SHEAR	DIR_SHR	BULK_DENS	BDS	BULK DENSITY
DIRECT_SHEAR	DIR_SHR	NORM_STRESS	NSTR	DIRECT SHEAR: NORMAL STRESS (SIGMA)
DIRECT_SHEAR	DIR_SHR	PK_SHR_STR	PSSTR	DIRECT SHEAR: PEAK SHEAR STRESS
DIRECT_SHEAR	DIR_SHR	PK_DISPLACE	PDSP	DIRECT SHEAR: PEAK DISPLACEMENT
DIRECT_SHEAR	DIR_SHR	RES_SHR_STR	RSSTR	DIRECT SHEAR: RESIDUAL SHEAR STRESS
DIRECT_SHEAR	DIR_SHR	RESID_DSPL	RDSP	DIRECT SHEAR: RESIDUAL DISPLACEMENT
DIRECT_SHEAR	DIR_SHR	XSEC_AREA	XSEC_AR	DIRECT SHEAR: SPECIMEN CROSS-SECTION AREA
DIRECT_SHEAR	DIR_SHR	SHAPE	SHAPE	DIRECT SHEAR: SPECIMEN SHAPE

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CONSOLIDATION	CONSOL			CONSOLIDATION TESTS
CONSOLIDATION	CONSOL	SAMNUM	SAMNUM	UNIQUE AGS--ASSIGNED--NO TO ID A SAMPLED INTERVAL
CONSOLIDATION	CONSOL	ANANUM	ANANUM	UNIQUE AGS--ASSIGNED--NO TO ID AN ANALYZED SAMPLE
CONSOLIDATION	CONSOL	INIT_WTR_CON	IWC	INITIAL WATER CONTENT
CONSOLIDATION	CONSOL	INT_BLK_DENS	IBD	INITIAL BULK DENSITY
CONSOLIDATION	CONSOL	INT_DRY_DENS	IDD	INITIAL DRY DENSITY
CONSOLIDATION	CONSOL	INT_VOID_R	IVR	CONSOLID: INITIAL VOID RATIO
CONSOLIDATION	CONSOL	PRECON_PRESS	PCP	PRECONSOLIDATION PRESSURE
CONSOLIDATION	CONSOL	COMPRES_IND	CPI	COMPRESSION INDEX
CONSOLIDATION	CONSOL	INCNUM	INCNUM	UNIQUE AGS--ASSIGNED--NO TO ID INCREMENT NO (CNSLDN)
CONSOLIDATION	CONSOL	CONSOL_PRES	CON_PRE	CONSOLIDATION PRESSURE
CONSOLIDATION	CONSOL	COF_VOL_COMP	CVC	COEFFICIENT OF VOLUMETRIC COMPRESSION
CONSOLIDATION	CONSOL	COF_CONSOL	CCN	COEFFICIENT OF CONSOLIDATION
HAMMER	HMR			HAMMER (PENETRATION) TESTS
HAMMER	HMR	SAMNUM	SAMNUM	UNIQUE AGS--ASSIGNED--NO TO ID A SAMPLED INTERVAL
HAMMER	HMR	ANANUM	ANANUM	UNIQUE AGS--ASSIGNED--NO TO ID AN ANALYZED SAMPLE
HAMMER	HMR	SPT	SPT	STANDARD PENETRATION TEST
HAMMER	HMR	BECKER	BKHT	BECKER HAMMER TEST
STRENGTHS	STRGTH			STRENGTHS (SHEAR & COMPRESSIVE)
STRENGTHS	STRGTH	SAMNUM	SAMNUM	UNIQUE AGS--ASSIGNED--NO TO ID A SAMPLED INTERVAL
STRENGTHS	STRGTH	ANANUM	ANANUM	UNIQUE AGS--ASSIGNED--NO TO ID AN ANALYZED SAMPLE
STRENGTHS	STRGTH	POCK_PEN	POCK	POCKET PENETROMETER TEST
STRENGTHS	STRGTH	UNCONF_COMP	UN_COMP	UNCONFINED COMPRESSION TEST
STRENGTHS	STRGTH	VANE_SHR	VANE	VANE SHEAR TEST
STRENGTHS	STRGTH	CONE_PEN_RES	CN_RS	CONE PENETRATION: CONE RESISTANCE
STRENGTHS	STRGTH	CONE_PEN_FRIC	CN_FR	CONE PENETRATION: FRICTION
INCRMNT	INCRMNT			INCREMENT NUMBER INFO
INCRMNT	INCRMNT	INCNUM	INCNUM	UNIQUE AGS--ASSIGNED--NO TO ID INCREMENT NO (CNSLDN)
INCRMNT	INCRMNT	INCREMENT_NO	INC_NO	INCREMENT NO ASSIGNED (CONSOLIDATION TEST)
FSI_IND	FSI_IND			FREE SWELLING INDEX TEST
FSI_IND	FSI_IND	SAMNUM	SAMNUM	UNIQUE AGS--ASSIGNED--NO TO ID A SAMPLED INTERVAL
FSI_IND	FSI_IND	ANANUM	ANANUM	UNIQUE AGS--ASSIGNED--NO TO ID AN ANALYZED SAMPLE
FSI_IND	FSI_IND	FRE_SWE_IND	FSI	FREE SWELLING INDEX NUMBER
GRAY_KING	GRAY_KING			GRAY-KING ASSAY
GRAY_KING	GRAY_KING	SAMNUM	SAMNUM	UNIQUE AGS--ASSIGNED--NO TO ID A SAMPLED INTERVAL
GRAY_KING	GRAY_KING	ANANUM	ANANUM	UNIQUE AGS--ASSIGNED--NO TO ID AN ANALYZED SAMPLE
GRAY_KING	GRAY_KING	GRYNUM	GRYNUM	UNIQUE AGS--ASSIGNED--NO TO ID GRAY-KING INDICES
GRAY_KING	GRAY_KING	GKA_TAR	GKAT	GRAY-KING ASSAY: TAR%

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GRAY_KING	GRAY_KING	GKA_GAS	GKAG	GRAY-KING ASSAY: GAS%
GRAY_KING	GRAY_KING	GKA_LIQUID	GKAL	GRAY-KING ASSAY: LIQUID%
GRAY_KING	GRAY_KING	GKA_SOLID	GKAS	GRAY-KING ASSAY: SOLID%
GRAY_KING	GRAY_KING	GK_GAS_HV	GKHV	GRAY-KING ASSAY: HEATING VALUE
FLASH_PYROL	FLASH			FLASH PYROLYSIS PRODUCTS
FLASH_PYROL	FLASH	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
FLASH_PYROL	FLASH	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
FLASH_PYROL	FLASH	FP_TAR	FLPT	FLASH PYROLYSIS: TAR%
FLASH_PYROL	FLASH	FP_GAS	FLPG	FLASH PYROLYSIS: GAS%
FLASH_PYROL	FLASH	FP_LIQUID	FLPL	FLASH PYROLYSIS: LIQUID%
FLASH_PYROL	FLASH	FP_SOLID	FLPS	FLASH PYROLYSIS: SOLID%
GRY_KNG	GRY_KING			GRAY-KING INFO
GRY_KNG	GRY_KING	GRYNUM	GRYNUM	UNIQUE AGS-ASSIGNED-NO TO ID GRAY-KING INDICES
GRY_KNG	GRY_KING	GRAY_KING_ID	GK_ID	GRAY-KING INDEX DESIGNATION
FISCHER_PYROL	FISCHER			FISCHER PYROLYSIS ASSAY
FISCHER_PYROL	FISCHER	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
FISCHER_PYROL	FISCHER	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
FISCHER_PYROL	FISCHER	FISA_TAR	FSAT	FISCHER ASSAY: TAR%
FISCHER_PYROL	FISCHER	FISA_GAS	FSAG	FISCHER ASSAY: GAS%
FISCHER_PYROL	FISCHER	FISA_LIQUID	FSAL	FISCHER ASSAY: LIQUID%
FISCHER_PYROL	FISCHER	FISA_SOLID	FSAS	FISCHER ASSAY: SOLID%
DILATOMETER	DILATOM			DILATOMETER TEST
DILATOMETER	DILATOM	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
DILATOMETER	DILATOM	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
DILATOMETER	DILATOM	DILNUM	DILNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPE OF DILATOMETER
DILATOMETER	DILATOM	D_SOFT	DSOFT	DILATOMETER: INITIAL SOFTENING TEMPERATURE
DILATOMETER	DILATOM	MAX_CON_TMP	DMXCNT	DILATOMETER: MAXIMUM CONTRACTION TEMPERATURE
DILATOMETER	DILATOM	MAX_CONTRACT	DMCPC	DILATOMETER: MAXIMUM CONTRACTION%
DILATOMETER	DILATOM	MAX_DIL_TMP	DMXDIT	DILATOMETER: MAXIMUM DILATATION TEMPERATURE
DILATOMETER	DILATOM	MAX_DILAT	DMDPC	DILATOMETER: MAXIMUM DILATATION%
DILATOMETER	DILATOM	FNL_DILAT	DFDPC	DILATOMETER: FINAL DILATATION %
DILATOMETER	DILATOM	RESOL_TEMP	DRESOLT	DILATOMETER: RESOLIDIFICATION TEMPERATURE
GEIS_PLASTO	GEIS			GIESLER PLASTOMETER TEST
GEIS_PLASTO	GEIS	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
GEIS_PLASTO	GEIS	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
GEIS_PLASTO	GEIS	GEIS_SOFT	GPST	GIESLER: INITIAL SOFTENING TEMPERATURE
GEIS_PLASTO	GEIS	GEIS_MX_FLD	GPFT	GIESLER: MAXIMUM FLUID TEMPERATURE
GEIS_PLASTO	GEIS	DDM	GDDM	GIESLER: MAX FLUIDITY (ANGULAR VELOCITY IN DDM)



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GEIS_PLASTO	GEIS	GEIS_SLD	GPSL	GIESLER: SOLIDIFICATION TEMPERATURE
GEIS_PLASTO	GEIS	FLUID_RNG	GPFR	GIESLER: FLUIDITY TEMPERATURE RANGE
SLAGGING	SLAG			SLAGGING INDICES INFO
SLAGGING	SLAG	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
SLAGGING	SLAG	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
SLAGGING	SLAG	SLAG_IND	SGIN	SLAGGING INDEX
COKE_PRESS	COKE_PRES			COKE PRESSURE INFO
COKE_PRESS	COKE_PRES	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
COKE_PRESS	COKE_PRES	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
COKE_PRESS	COKE_PRES	COKE_PRES	CKPR	COKE PRESSURE
DLTM	DLTM			DILATOMETER INFO
DLTM	DLTM	DILNUM	DILNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPE OF DILATOMETER
DLTM	DLTM	DILATMTR_TYP	DLTM_TYP	DILATOMETER TEST-TYPE DESCRIPTION
POLLEN_SPORE	POLLEN			RELATES SAMNUM TO ANANUM TO PETNUM
POLLEN_SPORE	POLLEN	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
POLLEN_SPORE	POLLEN	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
POLLEN_SPORE	POLLEN	PETNUM	PETNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLE OF PETR ANAL
PETROG_PRO	P_PRO			PETROGRAPHIC PROCESSING INFO
PETROG_PRO	P_PRO	PETNUM	PETNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLE OF PETR ANAL
PETROG_PRO	P_PRO	PETROG_BY	PETROG	PETROGRAPHY COMPLETED BY (PERSON)
PETROG_PRO	P_PRO	AFFILTN	AFFIL	PETROGRAPHY COMPLETED BY (AGENCY OR COMPANY)
PETROG_PRO	P_PRO	START_DATE	ST_DT	PETROGRAPHIC ANALYSIS: START DATE
PETROG_PRO	P_PRO	FINISH_DATE	FIN_DT	PETROGRAPHIC ANALYSIS: COMPLETION DATE
PETROG_PRO	P_PRO	PTRGHR_SMPL_NO	PETSAM_NO	SAMPLE NO (AS ASSIGNED BY THE COAL PETROGRAPHER)
PELLETS	PELLETS			PETROGRAPHIC ANALYSIS OF POLISHED BRIQUETS (PELLETS)
PELLETS	PELLETS	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
PELLETS	PELLETS	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
PELLETS	PELLETS	PETNUM	PETNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLE OF PETR ANAL
PELLETS	PELLETS	REFLECT_ANG	RFLA	PELLETS; REFLECTANCE ANGLE
PELLETS	PELLETS	NO_MEAS_MAX	NMAX	PELLETS; NO OF MEASUREMENTS (MAXIMUM REFLECTANCE)
PELLETS	PELLETS	MN_MX_REFL	MNMN	PELLETS; MEAN OF MAXIMUM REFLECTANCE
PELLETS	PELLETS	STD_DEV_MAX	SDMX	PELLETS; STANDARD DEVIATION OF MAXIMUM REFLECTANCE
PELLETS	PELLETS	NO_MEAS_MIN	NMIN	PELLETS; NO OF MEASUREMENTS (MINIMUM REFLECTANCE)
PELLETS	PELLETS	MN_MIN_REFL	MNMN	PELLETS; MEAN OF MINIMUM REFLECTANCE
PELLETS	PELLETS	STD_DEV_MIN	SDMN	PELLETS; STANDARD DEVIATION OF MINIMUM REFLECTANCE
PELLETS	PELLETS	NO_MEAS_RDM	NRDM	PELLETS; NO OF MEASUREMENTS (RANDOM REFLECTANCE)
PELLETS	PELLETS	MN_RDM_REFL	MNRDM	PELLETS; MEAN OF RANDOM REFLECTANCE
PELLETS	PELLETS	STD_DEV_RDM	SDRDM	PELLETS; STANDARD DEVIATION OF RANDOM REFLECTANCE

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BLOCKS	BLOX			PETROGRAPHIC ANALYSIS OF POLISHED BLOCKS (ORIENTED)
BLOCKS	BLOX	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
BLOCKS	BLOX	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
BLOCKS	BLOX	PETNUM	PETNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLE OF PETR ANAL
BLOCKS	BLOX	NO_MEAS	NOM	BLOCKS;NO OF MEASUREMENTS
BLOCKS	BLOX	MAX_VIT_REFL	MXVR	BLOCKS;MAXIMUM VITRINITE REFLECTANCE
BLOCKS	BLOX	MIN_VIT_REFL	MNVR	BLOCKS;MINIMUM VITRINITE REFLECTANCE
BLOCKS	BLOX	INT_VIT_REFL	INVR	BLOCKS;INTERMEDIATE VITRINITE REFLECTANCE
BLOCKS	BLOX	TREND_MAX	TRMX	BLOCKS;TREND (MAXIMUM DEGREES)
BLOCKS	BLOX	PLUNGE_MAX	PLMX	BLOCKS;PLUNGE (MAXIMUM DEGREES)
BLOCKS	BLOX	TREND_MIN	TRMN	BLOCKS;TREND (MINIMUM DEGREES)
BLOCKS	BLOX	PLUNGE_MIN	PLMN	BLOCKS;PLUNGE (MINIMUM DEGREES)
BLOCKS	BLOX	TREND_INT	TRIN	BLOCKS;TREND (INTERMEDIATE DEGREES)
BLOCKS	BLOX	PLUNGE_INT	PLIN	BLOCKS;PLUNGE (INTERMEDIATE DEGREES)
MACERAL_ANAL	MACERAL			MACERAL ANALYSIS
MACERAL_ANAL	MACERAL	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
MACERAL_ANAL	MACERAL	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
MACERAL_ANAL	MACERAL	PETNUM	PETNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLE OF PETR ANAL
MACERAL_ANAL	MACERAL	VITR_WT	VITR	MACERAL;VITRINITE % BY WEIGHT
MACERAL_ANAL	MACERAL	EXIN_WT	EXIN	MACERAL;EXINITE % BY WEIGHT
MACERAL_ANAL	MACERAL	INERT_WT	INRT	MACERAL;INERTINITE % BY WEIGHT
MACERAL_ANAL	MACERAL	REACT_MCRL	REMAC	MACERAL;REACTIVE MACERALS % BY WT
MACERAL_ANAL	MACERAL	INERT_MCRL	INMAC	MACERAL;INERT MACERALS % BY WT
PETROG_INDICE	P_IND			PETROGRAPHIC INDICES
PETROG_INDICE	P_IND	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
PETROG_INDICE	P_IND	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
PETROG_INDICE	P_IND	PETNUM	PETNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLE OF PETR ANAL
PETROG_INDICE	P_IND	COMP_BAL_IND	CBI	COMPOSITION BALANCE INDEX
PETROG_INDICE	P_IND	STRENGTH_IND	STRI	STRENGTH INDEX FROM PETROGRAPHY
PETROG_INDICE	P_IND	STAB_IND	STBI	STABILITY INDEX FROM PETROGRAPHY
ANAL_WRH_AT	A_WRH_AT			RELATES ANANUM TO WRHNUM TO WRHTAGNO
ANAL_WRH_AT	A_WRH_AT	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
ANAL_WRH_AT	A_WRH_AT	WRHNUM	WRHNUM	UNIQUE AGS-ASSIGNED-NO TO ID SMPL STORAGE WAREHOUSE
ANAL_WRH_AT	A_WRH_AT	WRHTAGNO	WRHTAGNO	WAREHOUSE-ASSIGNED-TAG-NO TO ID 'SAVED' SAMPLES
SPL_HAS_ANAL	S_HAS_A			RELATES SAMNUM TO ANANUM TO ATNUM
SPL_HAS_ANAL	S_HAS_A	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
SPL_HAS_ANAL	S_HAS_A	ANANUM	ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
SPL_HAS_ANAL	S_HAS_A	ATNUM	ATNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPE OF ANALYSIS

<u>TBL_NAME</u>	<u>TBL_ABBREV</u>	<u>CLMN_NAME</u>	<u>CLMN_ABBREV</u>	<u>SECTION 1 DEFINITION</u>
SVD_COAL_UNA	SVD_C_UNA			RELATES SAMNUM TO WRHNUM
SVD_COAL_UNA	SVD_C_UNA	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
SVD_COAL_UNA	SVD_C_UNA	WRHNUM	WRHNUM	UNIQUE AGS-ASSIGNED-NO TO ID SMPL STORAGE WAREHOUSE
ANA_TYPE	ANA_TYP			ANALYSIS TYPE INFO
ANA_TYPE	ANA_TYP	ATNUM	ATNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPE OF ANALYSIS
ANA_TYPE	ANA_TYP	A_TYP	A_TYP	ANALYSIS TYPE DESCRIPTION
WAREHOUSE	WAREHOUSE			SAMPLE-STORAGE-WAREHOUSE PARTICULARS
WAREHOUSE	WAREHOUSE	WRHNUM	WRHNUM	UNIQUE AGS-ASSIGNED-NO TO ID SMPL STORAGE WAREHOUSE
WAREHOUSE	WAREHOUSE	WRH_NAME	WRH_NM	WAREHOUSE NAME
WAREHOUSE	WAREHOUSE	WRH_ADD	WRH_ADD	WAREHOUSE ADDRESS
WAREHOUSE	WAREHOUSE	WRH_PH	WRH_PH	WAREHOUSE PHONE NUMBER
WAREHOUSE	WAREHOUSE	WRH_CONTACT	WRH_CNTCT	WAREHOUSE CONTACT PERSON
SVD_SPL_INFO	SVD_SPL			SAVED SAMPLE INFO
SVD_SPL_INFO	SVD_SPL	SAMNUM	SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
SVD_SPL_INFO	SVD_SPL	WRHTAGNO	WRHTAGNO	WAREHOUSE-ASSIGNED-TAG-NO TO ID 'SAVED' SAMPLES
SVD_SPL_INFO	SVD_SPL	MASS_STORED	MASS_STD	MASS OF STORED SAMPLE
SVD_SPL_INFO	SVD_SPL	AIRTITE_CONT	ART_CONT	HAS SAMPLE BEEN STORED IN AN AIR-TIGHT CONTAINER?
SVD_SPL_INFO	SVD_SPL	REFRIGRD	REFRIG	HAS SAMPLE BEEN REFRIGERATED?
SVD_SPL_INFO	SVD_SPL	ARCHIVE_DATE	ARCH_DT	SAMPLE ARCHIVING DATE
DRILL_CORE	DR_CORE			
DRILL_CORE	DR_CORE	SITID	SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
DRILL_CORE	DR_CORE	CORENUM	CORENUM	UNIQUE AGS-ASSIGNED-NO FOR A SECTION OF CORE
CORE_INFO	CORE_INF			
CORE_INFO	CORE_INF	CORENUM	CORENUM	UNIQUE AGS-ASSIGNED-NO FOR A SECTION OF CORE
CORE_INFO	CORE_INF	CORET	CORET	DEPTH TO TOP OF CORED INTERVAL
CORE_INFO	CORE_INF	COREB	COREB	DEPTH TO BOTTOM OF CORED INTERVAL
CORE_INFO	CORE_INF	RECOV	RECOV	CORE RECOVERED
CORE_INFO	CORE_INF	CORE_COMMENTS	CORE_COM	COMMENTS ABOUT THE CORE

**A P P E N D I X   2**

**S E C T I O N   2**

SECTION 2					
TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT I_FLT_PNT_FMT
UTM					
UTM	SITID			1000001-2000000	INTEGER
UTM	UTMZ			11,12 or ==-99	INTEGER1
UTM	UTMC	DEGREES		111,117 or ==-99	INTEGER1
UTM	UTMN	METERS		5000000-8000000 or ==-99	FLOAT8 f9.1
UTM	UTME	METERS		100000-1000000 or ==-99	FLOAT8 f9.1
LLELEV					
LLELEV	SITID			1000001-2000000	INTEGER
LLELEV	LAT	DEGREES		49-60 or ==-99	FLOAT8 f10.6
LLELEV	LONG	DEGREES		110-120 or ==-99	FLOAT8 f10.6
LLELEV	ELEV	METERS			FLOAT4 F7.2
LLELEV	ELKB	METERS			FLOAT4 F7.2
DLS_LSD					
DLS_LSD	SITID			1000001-2000000	INTEGER
DLS_LSD	MER			4,5,6 or ==-99	INTEGER1
DLS_LSD	TWP			1-126 or ==-99	INTEGER1
DLS_LSD	RGE			1-30 or ==-99	INTEGER1
DLS_LSD	SECT			1-36 or ==-99	INTEGER1
DLS_LSD	LSD			1-16 or ==-99	INTEGER1
DLS_LSD	LSDM			NW,NE,SW,SE or ' '	C2
DLS_COORD					
DLS_COORD	SITID			1000001-2000000	INTEGER
DLS_COORD	MER			4,5,6 or ==-99	INTEGER1
DLS_COORD	TWP			1-126 or ==-99	INTEGER1
DLS_COORD	RGE			1-30 or ==-99	INTEGER1
DLS_COORD	SECT			1-36 or ==-99	INTEGER1
DLS_COORD	RSEC			1-36 or ==-99	INTEGER1
DLS_COORD	RCNR			NW,NE,SW,SE	C2
DLS_COORD	METN	METERS			FLOAT4 f8.1
DLS_COORD	METE	METERS			FLOAT4 f8.1
NTS					
NTS	SITID			1000001-2000000	INTEGER
NTS	NTSP			72,73,74,82,83,84 or ==-99	INTEGER1
NTS	NTSS			A-P or ' '	C1
NTS	NTST			1-16 or ==-99	INTEGER1
MN_GD_BNCH					
MN_GD_BNCH	SITID			1000001-2000000	INTEGER
MN_GD_BNCH	MNGNUM			>0	SMALLINT

SECTION 2					
TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT I_FLT_PNT_FMT
ESTRAT	SITID			1000001-2000000	
ESTRAT	DEPCOAL		METERS		Float4 F7.2
BNCHMK					
BNCHMK	MNGNUM			>0	SMALLINT
BNCHMK	UTMZ			11,12 or =-99	INTEGER1
BNCHMK	UTMC		DEGREES	111,117 or =-99	INTEGER1
BNCHMK	UTMN		METERS	5000000-8000000 or =-99	Float8 f9.1
BNCHMK	UTME		METERS	100000-1000000 or =-99	Float8 f9.1
BNCHMK	LAT		DEGREES	49-60 or =-99	Float8 f10.6
BNCHMK	LONG		DEGREES	110-120 or =-99	Float8 f10.6
BNCHMK	MER			4,5,6 or =-99	INTEGER1
BNCHMK	TWP			1-126 or =-99	INTEGER1
BNCHMK	RGE			1-30 or =-99	INTEGER1
BNCHMK	SECT			1-36 or =-99	INTEGER1
BNCHMK	RSEC			1-36 or =-99	INTEGER1
BNCHMK	RCNR			NW,NE,SW,SE	C2
BNCHMK	METN		METERS		Float4 f8.1
BNCHMK	METE		METERS		Float4 f8.1
BNCHMK	AZXB		DEGREES	0-360 or =-99	Float4 f6.2
BNCHMK	AZYB		DEGREES	0-360 or =-99	Float4 f6.2
BNCHMK	XBCD		METERS		Float4 f11.1
BNCHMK	YBCD		METERS		Float4 f11.1
BNCHMK	ELEV		METERSASL	>0 or =-99	Float4 f7.2
COMP_PARTIC					
COMP_PARTIC	SITID			1000001-2000000	INTEGER
COMP_PARTIC	CORPNUM			>0	SMALLINT
COMP					
COMP	CORPNUM			>0	SMALLINT
COMP	COMPANY				C55
COMP	COMP_ABBREV				C14
COMP	COMP_CODE				C3
COMP	ADD_SUITE_NO				C30
COMP	ADD_PO_BOX				C30
COMP	ADD_ST				C30
COMP	ADD_CITY				C12
COMP	ADD_PROV				C12
COMP	ADD_PC				C6
COMP	MAL_COMP_NAM				C55

## SECTION 2

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
COMP	MAL_SUITE_NO				C30	
COMP	MAL_PO_BOX				C30	
COMP	MAL_ST				C30	
COMP	MAL_CITY				C12	
COMP	MAL_PROV				C12	
COMP	MAL_PC				C6	
MINE_GRID						
MINE_GRID	SITID			1000001-2000000	INTEGER	
MINE_GRID	BSLX				INTEGER	
MINE_GRID	BSLY				INTEGER	
MINE_GRID	XCMG				FLOAT8	f11.1
MINE_GRID	YCMG				FLOAT8	f11.1
THREETM						
THREETM	SITID			1000001-2000000	INTEGER	
THREETM	TRTMZ			>=0 or =-99	INTEGER1	
THREETM	TRTMC		DEGREES	>=0 or =-99	INTEGER1	
THREETM	TRTMN		METERS	5000000-8000000 or =-99	FLOAT8	f9.1
THREETM	TRTME		METERS	100000-1000000 or =-99	FLOAT8	f9.1
SOURCE						
SOURCE	SITID			1000001-2000000	INTEGER	
SOURCE	CAT_ID			>0	INTEGER	
SOURCE	ORIG				C11	
SOURCE	OPRJ				C30	
SOURCE	CPDT				DATE	
TENTM						
TENTM	SITID			1000001-2000000	INTEGER	
TENTM	TENTME		METERS	>=0 or =-99	FLOAT8	f9.1
TENTM	TENTMN		METERS	>=0 or =-99	FLOAT8	f9.1
DATA_SOURCE						
DATA_SOURCE	SITID			1000001-2000000	INTEGER	
DATA_SOURCE	SRCNUM			>0	INTEGER1	
SR_MTH						
SR_MTH	SRCNUM			>0	INTEGER1	
SR_MTH	SRC_DESC				C35	
SRVY_SRC						
SRVY_SRC	SITID			1000001-2000000	INTEGER	
SRVY_SRC	SRVNUM			>0	INTEGER1	
SURVEY						

SECTION 2				
TBL_ABBREV	CLMN_ABBRV	K_TYP STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT I_FLT_PNT_FMT
SURVEY	SRVNUM		>0	INTEGER1
SURVEY	SURV_DESC			C40
STATUS_MINE				
STATUS_MINE	SITID	1000001-2000000		INTEGER
STATUS_MINE	STANUM	>0		INTEGER1
MINE_STS				
MINE_STS	STANUM	>0		INTEGER1
MINE_STS	M_LGL_S			C15
TYPE_MINE				
TYPE_MINE	SITID	1000001-2000000		INTEGER
TYPE_MINE	MNTYNUM	>0		INTEGER1
MINE_TYP				
MINE_TYP	MNTYNUM	>0		INTEGER1
MINE_TYP	M_TYPE			C15
METH_MING				
METH_MING	SITID	1000001-2000000		INTEGER
METH_MING	MNMTNUM	>0		INTEGER1
MINE_MTHD				
MINE_MTHD	MNMTNUM	>0		INTEGER1
MINE_MTHD	M_METH			C30
RNK_COAL				
RNK_COAL	SITID	1000001-2000000		INTEGER
RNK_COAL	RNKNUM	>0		INTEGER1
C_RNK				
C_RNK	RNKNUM	>0		INTEGER1
C_RNK	C_RANK			C30
TYPE_COAL				
TYPE_COAL	SITID	1000001-2000000		INTEGER
TYPE_COAL	CLTYNUM	>0		INTEGER1
C_TYP				
C_TYP	CLTYNUM	>0		INTEGER1
C_TYP	C_TYPE			C25
CONTRACTOR				
CONTRACTOR	SITID	1000001-2000000		INTEGER
CONTRACTOR	CTRNUM	>0		INTEGER1
CNTRCTR				
CNTRCTR	CTRNUM	>0		INTEGER1
CNTRCTR	CNTRCTR_NM			C45



SECTION 2					
TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT I_FLT_PNT_FMT
LGGNG_CNTR					
LGGNG_CNTR	SITID			1000001-2000000	INTEGER
LGGNG_CNTR	LGCNTNUM			>0	INTEGER2
LG_CNT					
LG_CNT	LGCNTNUM			>0	INTEGER2
LG_CNT	L_CNTR_NM				C60
ADIT					
ADIT	SITID			1000001-2000000	INTEGER
ADIT	LENG	METERS		>=0 or =-99	FLOAT4 17.2
ADIT	WIDE	METERS		>=0 or =-99	FLOAT4 17.2
ADIT	HEIG	METERS		>=0 or =-99	FLOAT4 17.2
ADIT	AZM	DEGREES		0-360 or =-99	SMALLINT
ADIT	INC	DEGREES		-90TO+90 or =-99	INTEGER1
MINE					
MINE	SITID			1000001-2000000	INTEGER
MINE	MCOM				C20
MINE	MNAM				C15
MINE	MNOM				C10
DH					
DH	SITID			1000001-2000000	INTEGER
DH	DRL_LOG			Y,N,''	C1
DH	CSG_DIAM	MILLIMETERS		>0 or =-99	FLOAT4 16.1
DH	CSG_TD	METERS		>0 or =-99	FLOAT4 15.1
DH	HOLE_DIAM	MILLIMETERS		>0 or =-99	FLOAT4 16.1
DH	TD	METERS		>=0 or =-99	FLOAT4 16.1
DH	CORE_RECOV	%		0-100	INTEGER1
DH	LOG_ CODE				C40
DH	DT_WTR_LVL				DATE
DH	WTR_LVL	METERS		>=0 or =-99	FLOAT4 16.1
DH	PIEZO			Y,N,''	C1
DH	SOILS			Y,N,''	C1
LOG_RUN					
LOG_RUN	SITID			1000001-2000000	INTEGER
LOG_RUN	LOGNUM			>0	INTEGER1
LOGS					
LOGS	LOGNUM			>0	INTEGER1
LOGS	LOG_TYPE				C30
HAZ					

SECTION 2					
TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEGR_CHEK	INGRS_STGE_FMT I_FLT_PNT_FMT
HAZ	SITID			1000001-2000000	INTEGER
HAZ	HAZNUM			>0	INTEGER1
HAZARD					
HAZARD	HAZNUM			>0	INTEGER1
HAZARD	HAZ_DESC				C30
SMPL					
SMPL	SITID			1000001-2000000	INTEGER
SMPL	SAMTYPNUM			>0	INTEGER1
SPL_TYP					
SPL_TYP	SAMTYPNUM			>0	INTEGER1
SPL_TYP	SPL_TYPE				C35
TEST_PIT					
TEST_PIT	SITID			1000001-2000000	INTEGER
TEST_PIT	LENG	METERS		>=0 or =-99	FLOAT4 f7.2
TEST_PIT	WIDE	METERS		>=0 or =-99	FLOAT4 f7.2
TEST_PIT	DEP	METERS		>=0 or =-99	FLOAT4 f7.2
TRENCH					
TRENCH	SITID			1000001-2000000	INTEGER
TRENCH	LENG	METERS		>=0 or =-99	FLOAT4 f7.2
TRENCH	WIDE	METERS		>=0 or =-99	FLOAT4 f7.2
TRENCH	DEP	METERS		>=0 or =-99	FLOAT4 f7.2
TRENCH	AZM	DEGREES		0-360 or =-99	SMALLINT
TRAVERSE					
TRAVERSE	SITID			1000001-2000000	INTEGER
TRAVERSE	TRAVNUM			>0	SMALLINT
TRAVERSE	TRAV_NO				C20
TRAV_PART					
TRAV_PART	TRAVNUM			>0	SMALLINT
TRAV_PART	AZM	DEGREES		0-360 or =-99	SMALLINT
TRAV_PART	INC	DEGREES		-90TO+90 or =-99	INTEGER1
TRAV_PART	L_LEG	METERS		>=0 or =-99	FLOAT4 f7.2
TRAV_PART	COMM				C25
DH_DEV					
DH_DEV	SITID			1000001-2000000	INTEGER
DH_DEV	DEVNUM			>0	INTEGER
DH_DEV	DFROM	METERS		>=0 or =-99	FLOAT4 f6.1
DH_DEV	DTO	METERS		>=0 or =-99	FLOAT4 f6.1
DEV					

SECTION 2				
TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEGR_CHEK
DEV	DEVNUM			INTEGER
DEV	AZM	DEGREES	0-360 or --99	SMALLINT
DEV	DEVV	DEGREES	-90TO+90 or --99	FLOAT4
CONFNTLY				15.1
CONFNTLY	SITID		1000001-2000000	INTEGER
CONFNTLY	DRLD			DATE
CONFIDENT				INTEGER
CONFIDENT	SITID		1000001-2000000	INTEGER1
CONFIDENT	CNFNUM		>0	INTEGER1
CNFDTL				C65
CNFDTL	CNFNUM		>0	INTEGER1
CNFDTL	CNFDY			C65
INTERP				INTEGER
INTERP	SITID		1000001-2000000	INTEGER
INTERP	GEOL			C40
INTERP	INTD			DATE
REMARX				INTEGER
REMARX	SITID		1000001-2000000	INTEGER
REMARX	REMX			C80
REMARX	REMD			DATE
CONFIDC				INTEGER
CONFIDC	SITID		1000001-2000000	INTEGER1
CONFIDC	CNF_LVL	%	0-100 or --99	INTEGER1
CONFIDC	COO_ACC	METERS	0-999 or --99	SMALLINT
CONFIDC	ELEV_ACC	METERS	0-999 or --99	SMALLINT
PREC				INTEGER
PREC	SITID		1000001-2000000	INTEGER
PREC	COORNUM		>0	INTEGER1
PREC	ELEVNUM		>0	INTEGER1
COORD_BSD_ON				INTEGER1
COORD_BSD_ON	COORNUM		>0	INTEGER1
COORD_BSD_ON	C_ORG			C50
ELEV_BSD_ON				INTEGER1
ELEV_BSD_ON	ELEVNUM		>0	INTEGER1
ELEV_BSD_ON	E_ORG			C50
BDG_NORM				INTEGER
BDG_NORM	SITID		1000001-2000000	INTEGER
BDG_NORM	ORNUM		>0	INTEGER1

SECTION 2					
TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT I_FLT_PNT_FMT
BDG_NORM	DIPNUM			>0	SMALLINT
BDG_NORM	PCHNUM			>0	SMALLINT
BDG_NORM	OBOT		METERS		FLOAT4 17.2
O_ORN					
O_ORN	ORNUM			>0	INTEGER1
O_ORN	ORNTN				C15
DDDIR					
DDDIR	DIPNUM			>0	SMALLINT
DDDIR	DIP		DEGREES	0-90 or =-99	FLOAT4 16.2
DDDIR	DIP_D		DEGREES	0-360 or =-99	FLOAT4 16.2
PITCH_INFO					
PITCH_INFO	PCHNUM			>0	SMALLINT
PITCH_INFO	PITCH		DEGREES	0-180 or =-99	FLOAT4 16.2
BDG_FOLD					
BDG_FOLD	SITID			1000001-2000000	INTEGER
BDG_FOLD	ORNUM			>0	INTEGER1
BDG_FOLD	DIPNUM			>0	SMALLINT
BDG_FOLD	AXTNUM			>0	SMALLINT
BDG_FOLD	OBOT		METERS		FLOAT4 17.2
AX_TR					
AX_TR	AXTNUM			>0	SMALLINT
AX_TR	TRD		DEGREES	0-360 or =-99	FLOAT4 16.2
AX_TR	PLG		DEGREES	0-90 or =-99	FLOAT4 16.2
FAULT					
FAULT	SITID			1000001-2000000	INTEGER
FAULT	DIPNUM			>0	SMALLINT
FAULT	PCHNUM			>0	SMALLINT
FAULT	SNSNUM			>0	INTEGER1
FAULT	OBOT		METERS		FLOAT4 17.2
O_SNS					
O_SNS	SNSNUM			>0	INTEGER1
O_SNS	OC_SNS				C20
JNT_SET					
JNT_SET	SITID			1000001-2000000	INTEGER
JNT_SET	DIPNUM			>0	SMALLINT
JNT_SET	PCHNUM			>0	SMALLINT
JNT_SET	SNSNUM			>0	INTEGER1
JNT_SET	OBOT		METERS		FLOAT4 17.2

## SECTION 2

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
CLEAV						
CLEAV	SITID			1000001-2000000	INTEGER	
CLEAV	DIPNUM			>0	SMALLINT	
CLEAV	OBOT		METERS		FLOAT4	17.2
ST_OC_LTH						
ST_OC_LTH	SITID			1000001-2000000	INTEGER	
ST_OC_LTH	OBOT				FLOAT4	17.2
ST_OC_LTH	LITHNUM			>0	INTEGER	
TR_LTH						
TR_LTH	TRAVNUM			>0	SMALLINT	
TR_LTH	LITHNUM			>0	INTEGER	
TR_SPL						
TR_SPL	TRAVNUM			>0	SMALLINT	
TR_SPL	SAMNUM			>0	INTEGER	
TR_PCK						
TR_PCK	TRAVNUM			>0	SMALLINT	
TR_PCK	PIKNUM			>0	INTEGER	
ST_OC_GEO						
ST_OC_GEO	SITID			1000001-2000000	INTEGER	
ST_OC_GEO	OBOT				FLOAT4	17.2
ST_OC_GEO	FMNUM			>0	SMALLINT	
ST_OC_GEO	MBRNUM			>0	SMALLINT	
ST_OC_GEO	CZNUM			>0	INTEGER1	
ST_OC_GEO	CSNUM			>0	SMALLINT	
P_DH_INT						
P_DH_INT	SITID			1000001-2000000	INTEGER	
P_DH_INT	PIKNUM			>0	INTEGER	
P_DH_INT	DTOP		METERS	>=0 or =-99	FLOAT4	17.2
P_DH_INT	DBASE		METERS	>=0 or =-99	FLOAT4	17.2
P_DH_INT	P_L_ADJ			Y,N, ''	C1	
INT_RMX						
INT_RMX	PIKNUM			>0	INTEGER	
INT_RMX	REMARKS				C25	
P_OC_INT						
P_OC_INT	SITID			1000001-2000000	INTEGER	
P_OC_INT	PIKNUM			>0	INTEGER	
P_OC_INT	OBOT		METERS		FLOAT4	17.2
P_OC_INT	OTOP		METERS		FLOAT4	17.2

## SECTION 2

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
PICK						
PICK	PIKNUM			>0	INTEGER	
PICK	PIK_Q				C30	
P_MKR						
P_MKR	PIKNUM			>0	INTEGER	
P_MKR	MKRNUM			>0	SMALLINT	
MKR_TYP						
MKR_TYP	MKRNUM			>0	SMALLINT	
MKR_TYP	MKR_TYPE				C30	
P_BSD_ON						
P_BSD_ON	PIKNUM			>0	INTEGER	
P_BSD_ON	BSDNUM			>0	INTEGER1	
P_GP						
P_GP	PIKNUM			>0	INTEGER	
P_GP	GPNUM			>0	INTEGER1	
P_FM						
P_FM	PIKNUM			>0	INTEGER	
P_FM	FMNUM			>0	SMALLINT	
P_MBR						
P_MBR	PIKNUM			>0	INTEGER	
P_MBR	MBRNUM			>0	SMALLINT	
P_CZ						
P_CZ	PIKNUM			>0	INTEGER	
P_CZ	CZNUM			>0	INTEGER1	
P_CS						
P_CS	PIKNUM			>0	INTEGER	
P_CS	CSNUM			>0	SMALLINT	
GEOL_GROUP						
GEOL_GROUP	GPNUM			>0	INTEGER1	
GEOL_GROUP	GRP_NM				C25	
FM_IN_GP						
FM_IN_GP	GPNUM			>0	INTEGER1	
FM_IN_GP	FMNUM			>0	SMALLINT	
GEOL_FM						
GEOL_FM	FMNUM			>0	SMALLINT	
GEOL_FM	FM_NM				C30	
MBR_IN_FM						
MBR_IN_FM	FMNUM			>0	SMALLINT	

SECTION 2				
TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEGR_CHK
MBR_IN_FM	MBRNUM			>0
GEOL_MBR				
GEOL_MBR	MBRNUM			>0
GEOL_MBR	MBR_NM			
CZ_IN_MBR				
CZ_IN_MBR	MBRNUM			>0
CZ_IN_MBR	CZNUM			>0
CZ_IN_FM				
CZ_IN_FM	FMNUM			>0
CZ_IN_FM	CZNUM			>0
GEOL_CZ				
GEOL_CZ	CZNUM			>0
GEOL_CZ	CZ_NM			
CS_IN_CZ				
CS_IN_CZ	CZNUM			>0
CS_IN_CZ	CSNUM			>0
GEOL_CS				
GEOL_CS	CSNUM			>0
GEOL_CS	CS_NM			
L_DH				
L_DH	SITID			1000001-2000000
L_DH	LITHNUM			>0
L_DH	LTOPP	METERS		
L_DH	LBASE	METERS		
L_DH	L_L_ADJ			Y,N,''
L_REM				
L_REM	LITHNUM			>0
L_REM	L_REMX			
L_MAIN				
L_MAIN	LITHNUM			>0
L_MAIN	MAINUM			>0
L_OC				
L_OC	SITID			1000001-2000000
L_OC	LITHNUM			>0
L_OC	LBOT	METERS		
L_OC	LTOP	METERS		
L_CHN				
L_CHN	SITID			1000001-2000000

INGRS\_STGE\_FMT I\_FLT\_PNT\_FMT

SMALLINT

SMALLINT

C25

SMALLINT

INTEGER1

SMALLINT

INTEGER1

INTEGER1

C25

INTEGER1

SMALLINT

SMALLINT

C25

INTEGER

INTEGER

FLOAT4 17.2

FLOAT4 17.2

C1

INTEGER

C25

INTEGER

INTEGER1

INTEGER

INTEGER

FLOAT4 17.2

FLOAT4 17.2

INTEGER

## SECTION 2

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
L_CHN	LITHNUM			>0	INTEGER	
L_CHN	CLTOP		METERS		FLOAT4	17.2
L_CHN	CLBOT		METERS		FLOAT4	17.2
L_LOG						
L_LOG	LITHNUM			>0	INTEGER	
L_MOD1						
L_MOD1	LITHNUM			>0	INTEGER	
L_MOD1	MODNUM			>0	SMALLINT	
L_MOD2						
L_MOD2	LITHNUM			>0	INTEGER	
L_MOD2	MODNUM			>0	SMALLINT	
L_SP_FT						
L_SP_FT	LITHNUM			>0	INTEGER	
L_SP_FT	SPFNUM			>0	SMALLINT	
P_LITHO						
P_LITHO	PIKNUM			>0	INTEGER	
P_LITHO	LITHNUM			>0	INTEGER	
P_LITHO	SAMNUM			>0	INTEGER	
P_LITHO	ANANUM			>0	INTEGER	
L_ATT						
L_ATT	LITHNUM			>0	INTEGER	
L_ATT	ATTNUM			>0	INTEGER1	
L_ATT	AT_DIP		DEGREES	0-90 or -99	FLOAT4	16.2
L_ATT	AT_DRN		DEGREES	0-360 or -99	FLOAT4	16.2
L_ATT	CBA		DEGREES	0-90 or -99	INTEGER1	
ATT						
ATT	ATTNUM			>0	INTEGER1	
ATT	ATTITUDE				C60	
LITH_MN						
LITH_MN	MAINUM			>0	INTEGER1	
LITH_MN	L_CTGY				C20	
LITH_MN	L_TYP				C35	
LITH_MD						
LITH_MD	MODNUM			>0	SMALLINT	
LITH_MD	M_TYP				C20	
LITH_MD	M_DESC				C30	
L_SP_FEA						
L_SP_FEA	SPFNUM			>0	SMALLINT	



SECTION 2				
TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEGR_CHK
L_SP_FEA	SP_FE			
L_BSD_ON				
L_BSD_ON	LITHNUM			
L_BSD_ON	BSDNUM			
BASED				
BASED	BSDNUM			
BASED	BSD_ON			
S_FRM				
S_FRM	SAMNUM			
S_FRM	FMNUM			
S_FRM	MBRNUM			
S_FRM	CZNUM			
S_FRM	CSNUM			
S_OC				
S_OC	SITID			
S_OC	SAMNUM			
S_OC	SOBOT			
S_OC	SOTOP			
S_CHNL				
S_CHNL	SITID			
S_CHNL	SAMNUM			
S_CHNL	SCLTOP			
S_CHNL	SCLBOT			
S_DH				
S_DH	SITID			
S_DH	SAMNUM			
S_DH	STOP			
S_DH	SBASE			
S_DH	S_L_ADJ			
S_STAT				
S_STAT	SAMNUM			
S_STAT	S_NO			
S_STAT	S_LTH			
S_STAT	S_WT			
S_STAT	S_DT			
S_STAT	S_BY			
S_REMX				
S_REMX	SAMNUM			

## SECTION 2

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
S_REMX	S_RMX				C25	
S_CONTIN						
S_CONTIN	SAMNUM			>0	INTEGER	
S_CONTIN	CONTNUM			>0	INTEGER1	
CONTIN						
CONTIN	CONTNUM			>0	INTEGER1	
CONTIN	CONT				C22	
S_SEG						
S_SEG	SAMNUM			>0	INTEGER	
S_SEG	SEGNUM			>0	INTEGER1	
S_SEGMT						
S_SEGMT	SEGNUM			>0	INTEGER1	
S_SEGMT	SGMT				C20	
S_PREPTN						
S_PREPTN	SAMNUM			>0	INTEGER	
S_PREPTN	PREPNUM			>0	INTEGER1	
S_PREP						
S_PREP	PREPNUM			>0	INTEGER1	
S_PREP	PREP				C20	
A_STA						
A_STA	ANANUM			>0	INTEGER	
A_STA	L_S_NO				C20	
A_STA	A_DT				DATE	
LAB_ANA						
LAB_ANA	ANANUM			>0	INTEGER	
LAB_ANA	LABNUM			>0	INTEGER	
LAB						
LAB	LABNUM			>0	INTEGER	
LAB	LAB_NM				C45	
SZ_ANA						
SZ_ANA	ANANUM			>0	INTEGER	
SZ_ANA	SZNUM			>0	INTEGER1	
OK_ANA						
OK_ANA	ANANUM			>0	INTEGER	
OK_ANA	OKNUM			>0	INTEGER1	
CNF_ANA						
CNF_ANA	ANANUM			>0	INTEGER	
CNF_ANA	CONFNUM			>0	INTEGER1	

SECTION 2					
TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEGR_CHEK	INGRS_STGE_FMT I_FLT_PNT_FMT
ANA_CONF					
ANA_CONF	CONFNUM			>0	INTEGER1
ANA_CONF	A_CONF				C35
SZ_FRACT					
SZ_FRACT	SZNUM			>0	INTEGER1
SZ_FRACT	SZ_FR				C28
ANA_OK					
ANA_OK	OKNUM			>0	INTEGER1
ANA_OK	A_APP				C20
E_MOIST					
E_MOIST	SAMNUM			>0	INTEGER
E_MOIST	ANANUM			>0	INTEGER
E_MOIST	EQM	%		0-100 or --99	FLOAT4 16.2
S					
S	SAMNUM			>0	INTEGER
S	ANANUM			>0	INTEGER
S	SARB	%		0-10 or --99	FLOAT4 16.2
S	SADB	%		0-10 or --99	FLOAT4 16.2
HV					
HV	SAMNUM			>0	INTEGER
HV	ANANUM			>0	INTEGER
HV	HVARB	MJ/KG		0-40 or --99	FLOAT4 17.3
HV	HVADB	MJ/KG		0-40 or --99	FLOAT4 17.3
PROX					
PROX	SAMNUM			>0	INTEGER
PROX	ANANUM			>0	INTEGER
PROX	PMAR	%		0-100 or --99	FLOAT4 16.2
PROX	PVMAR	%		0-100 or --99	FLOAT4 16.2
PROX	PAAR	%		0-100 or --99	FLOAT4 16.2
PROX	PFCAR	%		0-100 or --99	FLOAT4 16.2
PROX	PMAD	%		0-100 or --99	FLOAT4 16.2
PROX	PVMAD	%		0-100 or --99	FLOAT4 16.2
PROX	PAAD	%		0-100 or --99	FLOAT4 16.2
PROX	PFCAD	%		0-100 or --99	FLOAT4 16.2
A_FUS					
A_FUS	SAMNUM			>0	INTEGER
A_FUS	ANANUM			>0	INTEGER
A_FUS	RIDT	CELSIUS		0-1600 or --99	SMALLINT

## SECTION 2

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
A_FUS	RSOT		CELSIUS	0-1600 or --99	SMALLINT	
A_FUS	RHET		CELSIUS	0-1600 or --99	SMALLINT	
A_FUS	RFLT		CELSIUS	0-1600 or --99	SMALLINT	
A_FUS	OIDT		CELSIUS	0-1600 or --99	SMALLINT	
A_FUS	OSOT		CELSIUS	0-1600 or --99	SMALLINT	
A_FUS	OHET		CELSIUS	0-1600 or --99	SMALLINT	
A_FUS	OFLT		CELSIUS	0-1600 or --99	SMALLINT	
A_FUS	VISC		PA-SEC	>0	FLOAT4	f6.1
POROS						
POROS	SAMNUM			>0	INTEGER	
POROS	ANANUM			>0	INTEGER	
POROS	POAD	%		0-100 or --99	FLOAT4	f6.2
POROS	POIN	%		0-100 or --99	FLOAT4	f6.2
METHANE						
METHANE	SAMNUM			>0	INTEGER	
METHANE	ANANUM			>0	INTEGER	
METHANE	CH4	%		0-100 or --99	FLOAT4	f6.2
A_RESIS						
A_RESIS	SAMNUM			>0	INTEGER	
A_RESIS	ANANUM			>0	INTEGER	
A_RESIS	E_RES_EXP				INTEGER1	
A_RESIS	E_RES		OHMS/METRE		FLOAT4	f5.2
ULT						
ULT	SAMNUM			>0	INTEGER	
ULT	ANANUM			>0	INTEGER	
ULT	UAMAD	%		0-100 or --99	FLOAT4	f6.2
ULT	UAC	%		0-100 or --99	FLOAT4	f6.2
ULT	UAH	%		0-100 or --99	FLOAT4	f6.2
ULT	UAN	%		0-100 or --99	FLOAT4	f6.2
ULT	UAA	%		0-100 or --99	FLOAT4	f6.2
ULT	UAS	%		0-10 or --99	FLOAT4	f6.2
ULT	UAO	%		0-100 or --99	FLOAT4	f6.2
ULT	UINC			Y,N,''	C1	
HGI_ABRAS						
HGI_ABRAS	SAMNUM			>0	INTEGER	
HGI_ABRAS	ANANUM			>0	INTEGER	
HGI_ABRAS	HGI			20-150 or --99	FLOAT4	f5.1
HGI_ABRAS	ABV			>0 or --99	INTEGER	

SECTION 2					
TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT I_FLT_PNT_FMT
HGI_ABRAS	MCHD		kg/m2	>=0 or =-99	SMALLINT
HGI_ABRAS	DRST		%	0-99.99 or =-99	FLOAT4 f6.2
TR_ELEM					
TR_ELEM	SAMNUM			>0	INTEGER
TR_ELEM	ANANUM			>0	INTEGER
TR_ELEM	ATOMNUM			>0	INTEGER1
TR_ELEM	PPM		PPM	>=0 or =-99 or =-88	FLOAT8 f10.2
ATOMIC_NO					
ATOMIC_NO	ATOMNUM			>0	INTEGER1
ATOMIC_NO	TR_EL				C15
ATOMIC_NO	TE_SYM				C2
MNRL_ANA					
MNRL_ANA	SAMNUM			>0	INTEGER
MNRL_ANA	ANANUM			>0	INTEGER
MNRL_ANA	ANK		%	0-99.99 or =-99	FLOAT4 f6.2
MNRL_ANA	CLCT		%	0-99.99 or =-99	FLOAT4 f6.2
MNRL_ANA	DOL		%	0-99.99 or =-99	FLOAT4 f6.2
MNRL_ANA	GAL		%	0-99.99 or =-99	FLOAT4 f6.2
MNRL_ANA	KAOL		%	0-99.99 or =-99	FLOAT4 f6.2
MNRL_ANA	MTIL		%	0-99.99 or =-99	FLOAT4 f6.2
MNRL_ANA	PTMC		%	0-99.99 or =-99	FLOAT4 f6.2
MNRL_ANA	SIDR		%	0-99.99 or =-99	FLOAT4 f6.2
MNRL_ANA	SPHAL		%	0-99.99 or =-99	FLOAT4 f6.2
MNRL_ANA	QTZ		%	0-99.99 or =-99	FLOAT4 f6.2
A_ANA_H					
A_ANA_H	SAMNUM			>0	INTEGER
A_ANA_H	ANANUM			>0	INTEGER
A_ANA_H	SI02		%	0-99.99 or =-99	FLOAT4 f6.2
A_ANA_H	AL2O3		%	0-99.99 or =-99	FLOAT4 f6.2
A_ANA_H	TI02		%	0-99.99 or =-99	FLOAT4 f6.2
A_ANA_H	FE2O3		%	0-99.99 or =-99	FLOAT4 f6.2
A_ANA_H	CAO		%	0-99.99 or =-99	FLOAT4 f6.2
A_ANA_H	MGO		%	0-99.99 or =-99	FLOAT4 f6.2
A_ANA_H	NA2O		%	0-99.99 or =-99	FLOAT4 f6.2
A_ANA_H	K2O		%	0-99.99 or =-99	FLOAT4 f6.2
A_ANA_H	P2O5		%	0-99.99 or =-99	FLOAT4 f6.2
A_ANA_H	SO3		%	0-99.99 or =-99	FLOAT4 f6.2
A_ANA_H	UNDT		%	0-99.99 or =-99	FLOAT4 f6.2

## SECTION 2

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
A_ANA_H	CO2	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_H	CRO3	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_H	MNO	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_H	MOO3	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_H	NIO	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_H	VO3	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_H	FOULNUM			>0	INTEGER1	
A_ANA_L						
A_ANA_L	SAMNUM			>0	INTEGER	
A_ANA_L	ANANUM			>0	INTEGER	
A_ANA_L	SI02_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	AL203_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	TI02_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	FE203_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	CAO_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	MGO_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	NA2O_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	K2O_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	P2O5_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	SO3_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	UNDT_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	CO2_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	CRO3_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	MNO_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	MOO3_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	NIO_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	VO3_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	FOULNUM			>0	INTEGER1	
FOUL						
FOUL	FOULNUM			>0	INTEGER1	
FOUL	FLNG				C10	
SG_DENS						
SG_DENS	SAMNUM			>0	INTEGER	
SG_DENS	ANANUM			>0	INTEGER	
SG_DENS	DDEN	GM/CM3		0-25 or --99	FLOAT4	f6.2
SG_DENS	BDEN	GM/CM3		0-25 or --99	FLOAT4	f6.2
SG_DENS	MSTNUM			>0	INTEGER1	
SG_DENS	SGNUM			>0	INTEGER1	

## SECTION 2

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
SG_DENS	SG			0-25 or ==-99	FLOAT4	f6.2
SG_DENS	SGLO			0-25 or ==-99	FLOAT4	f6.2
RQD_ETAL						
RQD_ETAL	SAMNUM			>0	INTEGER	
RQD_ETAL	ANANUM			>0	INTEGER	
RQD_ETAL	RQD	%		0-100 or ==-99	FLOAT4	f6.2
RQD_ETAL	JNT			>=0 or ==-99	INTEGER1	
RQD_ETAL	SJNUM			>0	INTEGER1	
RQD_ETAL	JINUM			>0	INTEGER1	
SJNT						
SJNT	SJNUM			>0	INTEGER1	
SJNT	JNT_ST				C15	
JNTI						
JNTI	JINUM			>0	INTEGER1	
JNTI	JNT_IN				C10	
SG_INF						
SG_INF	SGNUM			>0	INTEGER1	
SG_INF	SGTYPE				C55	
MOISTURE						
MOISTURE	MSTNUM			>0	INTEGER1	
MOISTURE	MOIST				C30	
SIEVE_ANAL						
SIEVE_ANAL	SAMNUM			>0	INTEGER	
SIEVE_ANAL	ANANUM			>0	INTEGER	
SIEVE_ANAL	SIVNUM			>0	INTEGER1	
SIEVE_ANAL	THRU	%		0-100 or ==-99	FLOAT4	f6.2
SIEVE						
SIEVE	SIVNUM			>0	INTEGER1	
SIEVE	SV_NO				SMALLINT	
SIEVE	OPNG	MILLIMETERS			FLOAT4	f6.3
PROCT						
PROCT	SAMNUM			>0	INTEGER	
PROCT	ANANUM			>0	INTEGER	
PROCT	PTOM	%		>=0 or ==-99	FLOAT4	f6.2
PROCT	PMDD	KG/M3		>=0 or ==-99	FLOAT4	f7.2
ATTER						
ATTER	SAMNUM			>0	INTEGER	
ATTER	ANANUM			>0	INTEGER	

## SECTION 2

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
ATTER	NWC	%		>=0 or ==-99	FLOAT4	f6.2
ATTER	ALLL	%		>=0 or ==-99	FLOAT4	f6.2
ATTER	APL	%		>=0 or ==-99	FLOAT4	f6.2
TRIAx						
TRIAx	SAMNUM			>0	INTEGER	
TRIAx	ANANUM			>0	INTEGER	
TRIAx	DRNUM			>0	INTEGER1	
TRIAx	SPECNUM			>0	INTEGER1	
TRIAx	IWC	%		>=0 or ==-99	FLOAT4	f6.2
TRIAx	DDS	KG/M3		>=0 or ==-99	FLOAT4	f7.2
TRIAx	BDS	KG/M3		>=0 or ==-99	FLOAT4	f7.2
TRIAx	ECP	KPA		>=0 or ==-99	FLOAT4	f7.2
TRIAx	PORE_PRES	KPA		>=0 or ==-99	FLOAT4	f7.2
TRIAx	SIGMA1	KPA		>=0 or ==-99	FLOAT4	f7.2
TRIAx	SIGMA3	KPA		>=0 or ==-99	FLOAT4	f7.2
TRIAx	AX_ST	%		>=0 or ==-99	FLOAT4	f6.2
TRIAx	PP_MAX	KPA		>=0 or ==-99	FLOAT4	f7.2
TRIAx	SIGMA1_MAX	KPA		>=0 or ==-99	FLOAT4	f7.2
TRIAx	SIGMA3_MAX	KPA		>=0 or ==-99	FLOAT4	f7.2
TRIAx	AXI_STR	%		>=0 or ==-99	FLOAT4	f6.2
DRAIN						
DRAIN	DRNUM			>0	INTEGER1	
DRAIN	DR_CN				C25	
SPEC_NO						
SPEC_NO	SPECNUM			>0	INTEGER1	
SPEC_NO	SPMN_NO				C8	
DIR_SHR						
DIR_SHR	SAMNUM			>0	INTEGER	
DIR_SHR	ANANUM			>0	INTEGER	
DIR_SHR	SPECNUM			>0	INTEGER1	
DIR_SHR	IWC	%		>=0 or ==-99	FLOAT4	f6.2
DIR_SHR	DDS	KG/M3		>0 or ==-99	FLOAT4	f7.2
DIR_SHR	BDS	KG/M3		>0 or ==-99	FLOAT4	f7.2
DIR_SHR	NSTR	KPA		>0 or ==-99	FLOAT4	f7.2
DIR_SHR	PSSTR	KPA		>0 or ==-99	FLOAT4	f7.2
DIR_SHR	PDSP	MILLIMETERS		>=0 or ==-99	FLOAT4	f6.2
DIR_SHR	RSSTR	KPA		>=0 or ==-99	FLOAT4	f7.2
DIR_SHR	RDSP	MILLIMETERS		>=0 or ==-99	FLOAT4	f7.2



## SECTION 2

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
DIR_SHR	XSEC_AR		CM2	>=0 or ==-99	FLOAT4	f7.2
DIR_SHR	SHAPE				C1	
CONSOL						
CONSOL	SAMNUM			>0	INTEGER	
CONSOL	ANANUM			>0	INTEGER	
CONSOL	IWC	%		>=0 or ==-99	FLOAT4	f6.2
CONSOL	IBD	KG/M3		>0 or ==-99	FLOAT4	f7.2
CONSOL	IDD	KG/M3		>0 or ==-99	FLOAT4	f7.2
CONSOL	IVR			>0 or ==-99	SMALLINT	
CONSOL	PCP	KPA		>0 or ==-99	FLOAT4	f7.2
CONSOL	CPI			>0 or ==-99	SMALLINT	
CONSOL	INCNUM			>0	INTEGER1	
CONSOL	CON_PRE	KPA		>0 or ==-99	FLOAT4	f7.2
CONSOL	CVC	M2/(KN X 0.0001)		>0 or ==-99	FLOAT4	f7.2
CONSOL	CCN	M2/YR		>0 or ==-99	FLOAT4	f7.2
HMR						
HMR	SAMNUM			>0	INTEGER	
HMR	ANANUM			>0	INTEGER	
HMR	SPT	BLOWS/FT		>=0 or ==-99	INTEGER1	
HMR	BKHT	BLOWS/FT		>=0 or ==-99	INTEGER1	
STRGTH						
STRGTH	SAMNUM			>0	INTEGER	
STRGTH	ANANUM			>0	INTEGER	
STRGTH	POCK	KPA		>=0 or ==-99	FLOAT4	f7.2
STRGTH	UN_COMP	KPA		>=0 or ==-99	FLOAT4	f7.2
STRGTH	VANE	KPA		>=0 or ==-99	FLOAT4	f7.2
STRGTH	CN_RS	KPA		>=0 or ==-99	FLOAT4	f7.2
STRGTH	CN_FR	KPA		>=0 or ==-99	FLOAT4	f7.2
INCRMNT						
INCRMNT	INCNUM			>0	INTEGER1	
INCRMNT	INC_NO				C8	
FSI_IND						
FSI_IND	SAMNUM			>0	INTEGER	
FSI_IND	ANANUM			>0	INTEGER	
FSI_IND	FSI			0-9.9 or ==-99	FLOAT4	f5.1
GRAY_KING						
GRAY_KING	SAMNUM			>0	INTEGER	
GRAY_KING	ANANUM			>0	INTEGER	

## SECTION 2

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
GRAY_KING	GRYNUM			>0	INTEGER1	
GRAY_KING	GKAT	%		>=0 or ==-99	FLOAT4	f6.2
GRAY_KING	GKAG	%		>=0 or ==-99	FLOAT4	f6.2
GRAY_KING	GKAL	%		>=0 or ==-99	FLOAT4	f6.2
GRAY_KING	GKAS	%		>=0 or ==-99	FLOAT4	f6.2
GRAY_KING	GKHV		KJ/M3	>=0 or ==-99	SMALLINT	
FLASH						
FLASH	SAMNUM			>0	INTEGER	
FLASH	ANANUM			>0	INTEGER	
FLASH	FLPT	%		>=0 or ==-99	FLOAT4	f6.2
FLASH	FLPG	%		>=0 or ==-99	FLOAT4	f6.2
FLASH	FLPL	%		>=0 or ==-99	FLOAT4	f6.2
FLASH	FLPS	%		>=0 or ==-99	FLOAT4	f6.2
GRY_KING						
GRY_KING	GRYNUM			>0	INTEGER1	
GRY_KING	GK_ID				C3	
FISCHER						
FISCHER	SAMNUM			>0	INTEGER	
FISCHER	ANANUM			>0	INTEGER	
FISCHER	FSAT	%		>=0 or ==-99	FLOAT4	f6.2
FISCHER	FSAG	%		>=0 or ==-99	FLOAT4	f6.2
FISCHER	FSAL	%		>=0 or ==-99	FLOAT4	f6.2
FISCHER	FSAS	%		>=0 or ==-99	FLOAT4	f6.2
DILATOM						
DILATOM	SAMNUM			>0	INTEGER	
DILATOM	ANANUM			>0	INTEGER	
DILATOM	DILNUM			>0	INTEGER1	
DILATOM	DSOFT		CELCIUS	>0 or ==-99	SMALLINT	
DILATOM	DMXCNT		CELCIUS	>0 or ==-99	SMALLINT	
DILATOM	DMCPC	%		>=0 or ==-99	SMALLINT	
DILATOM	DMXDIT		CELCIUS	>0 or ==-99	SMALLINT	
DILATOM	DMDPC	%		0-500 or ==-99	SMALLINT	
DILATOM	DFDPC			>=0 or ==-99	SMALLINT	
DILATOM	DRESOLT			>0 or ==-99	SMALLINT	
GEIS						
GEIS	SAMNUM			>0	INTEGER	
GEIS	ANANUM			>0	INTEGER	
GEIS	GPST		CELCIUS	0-700 or ==-99	SMALLINT	

SECTION 2						
TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
GEIS	GPFT		CELCIUS	0-700 or =-99	SMALLINT	
GEIS	GDDM		DIAL-DIV/MIN	>=0 or =-99	INTEGER	
GEIS	GPSL		CELCIUS	0-700 or =-99	SMALLINT	
GEIS	GPFR		CELCIUS	0-700 or =-99	SMALLINT	
SLAG						
SLAG	SAMNUM			>0	INTEGER	
SLAG	ANANUM			>0	INTEGER	
SLAG	SGIN				SMALLINT	
COKE_PRES						
COKE_PRES	SAMNUM			>0	INTEGER	
COKE_PRES	ANANUM			>0	INTEGER	
COKE_PRES	CKPR		ATMOSPHERES	>=0 or =-99	FLOAT4	f6.2
DLTM						
DLTM	DILNUM			>0	INTEGER1	
DLTM	DLTM_TYP				C10	
POLLEN						
POLLEN	SAMNUM			>0	INTEGER	
POLLEN	ANANUM			>0	INTEGER	
POLLEN	PETNUM			>0	SMALLINT	
P_PRO						
P_PRO	PETNUM			>0	SMALLINT	
P_PRO	PETROG				C30	
P_PRO	AFFIL				C25	
P_PRO	ST_DT				DATE	
P_PRO	FIN_DT				DATE	
P_PRO	PETSAM_NO				SMALLINT	
PELLETS						
PELLETS	SAMNUM			>0	INTEGER	
PELLETS	ANANUM			>0	INTEGER	
PELLETS	PETNUM			>0	SMALLINT	
PELLETS	RFLA		DEGREES	0-90 or =-99	INTEGER1	
PELLETS	NMAX			>=0 or =-99	SMALLINT	
PELLETS	MNMX	%		0-9.99 or =-99	FLOAT4	f6.2
PELLETS	SDMX	%		>=0 or =-99	FLOAT4	f6.2
PELLETS	NMIN			>=0 or =-99	SMALLINT	
PELLETS	MNMN	%		0-9.99 or =-99	FLOAT4	f6.2
PELLETS	SDMN	%		>=0 or =-99	FLOAT4	f6.2
PELLETS	NRDM			>=0 or =-99	SMALLINT	

## SECTION 2

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
PELLETS	MNRDM	%		0-9.99 or =-99	FLOAT4	f6.2
PELLETS	SORDM	%		>=0 or =-99	FLOAT4	f6.2
BLOX						
BLOX	SAMNUM			>0	INTEGER	
BLOX	ANANUM			>0	INTEGER	
BLOX	PETNUM			>0	SMALLINT	
BLOX	NOM	RS		>0 or =-99	SMALLINT	
BLOX	MXVR	%		0-9.99 or =-99	FLOAT4	f6.2
BLOX	MNVR	%		0-9.99 or =-99	FLOAT4	f6.2
BLOX	INVR	%		0-9.99 or =-99	FLOAT4	f6.2
BLOX	TRMX	DEGREES		0-360 or =-99	SMALLINT	
BLOX	PLMX	DEGREES		0-90 or =-99	INTEGER1	
BLOX	TRMN	DEGREES		0-360 or =-99	SMALLINT	
BLOX	PLMN	DEGREES		0-90 or =-99	INTEGER1	
BLOX	TRIN	DEGREES		0-360 or =-99	SMALLINT	
BLOX	PLIN	DEGREES		0-90 or =-99	INTEGER1	
MACERAL						
MACERAL	SAMNUM			>0	INTEGER	
MACERAL	ANANUM			>0	INTEGER	
MACERAL	PETNUM			>0	SMALLINT	
MACERAL	VITR	%		>=0 or =-99	FLOAT4	f6.2
MACERAL	EXIN	%		>=0 or =-99	FLOAT4	f6.2
MACERAL	INRT	%		>=0 or =-99	FLOAT4	f6.2
MACERAL	REMAC	%		>=0 or =-99	FLOAT4	f6.2
MACERAL	INMAC	%		>=0 or =-99	FLOAT4	f6.2
P_IND						
P_IND	SAMNUM			>0	INTEGER	
P_IND	ANANUM			>0	INTEGER	
P_IND	PETNUM			>0	SMALLINT	
P_IND	CBI				FLOAT4	f6.2
P_IND	STRI				FLOAT4	f6.2
P_IND	STBI				SMALLINT	
A_WRH_AT						
A_WRH_AT	ANANUM			>0	INTEGER	
A_WRH_AT	WRHNUM			>0	INTEGER1	
A_WRH_AT	WRHTAGNO				C12	
S_HAS_A						
S_HAS_A	SAMNUM			>0	INTEGER	

SECTION 2				
TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEGR_CHK
S_HAS_A	ANANUM			>0
S_HAS_A	ATNUM			>0
SVD_C_UNA				
SVD_C_UNA	SAMNUM			>0
SVD_C_UNA	WRHNUM			>0
ANA_TYP				
ANA_TYP	ATNUM			>0
ANA_TYP	A_TYP			
WAREHOUSE				
WAREHOUSE	WRHNUM			>0
WAREHOUSE	WRH_NM			
WAREHOUSE	WRH_ADD			
WAREHOUSE	WRH_PH			
WAREHOUSE	WRH_CNTCT			
SVD_SPL				
SVD_SPL	SAMNUM			>0
SVD_SPL	WRHTAGNO			
SVD_SPL	MASS_STD	KILOGRAMS		>=0 or =-99
SVD_SPL	ART_CONT			Y,N,''
SVD_SPL	REFRIG			Y,N,''
SVD_SPL	ARCH_DT			
DR_CORE				
DR_CORE	SITID			1000001-2000000
DR_CORE	CORENUM			>0
CORE_INF				
CORE_INF	CORENUM			>0
CORE_INF	CORET	METERS		
CORE_INF	COREB	METERS		
CORE_INF	RECOV	%		0-125 or -99
CORE_INF	CORE_COM			
				INGRS_STGE_FMT I_FLT_PNT_FMT
				INTEGER
				SMALLINT
				INTEGER
				INTEGER1
				SMALLINT
				C50
				INTEGER1
				C25
				C75
				C10
				C25
				INTEGER
				C12
				FLOAT4 16.2
				C1
				C1
				DATE
				INTEGER
				SMALLINT
				SMALLINT
				FLOAT4
				FLOAT4
				FLOAT4 16.2
				C30

## **A P P E N D I X 2**

### **S E C T I O N 3**

## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
HGI_ABRAS	ABV			>0 or =-99	INTEGER	
COMP	ADD_CITY				C12	
COMP	ADD_PC				C6	
COMP	ADD_PO_BOX				C30	
COMP	ADD_PROV				C12	
COMP	ADD_ST				C30	
COMP	ADD_SUITE_NO				C30	
P_PRO	AFFIL				C25	
A_ANA_H	AL203	%		0-99.99 or =-99	FLOAT4	f6.2
A_ANA_L	AL203_L	%		0-99.99 or =-99	FLOAT4	f6.2
ATTER	ALLL	%		>=0 or =-99	FLOAT4	f6.2
ATTER	ANANUM			>0	INTEGER	
A_ANA_H	ANANUM			>0	INTEGER	
A_ANA_L	ANANUM			>0	INTEGER	
A_FUS	ANANUM			>0	INTEGER	
A_RESIS	ANANUM			>0	INTEGER	
A_STA	ANANUM			>0	INTEGER	
A_WRH_AT	ANANUM			>0	INTEGER	
BLOX	ANANUM			>0	INTEGER	
CNF_ANA	ANANUM			>0	INTEGER	
COKE_PRES	ANANUM			>0	INTEGER	
CONSOL	ANANUM			>0	INTEGER	
DILATOM	ANANUM			>0	INTEGER	
DIR_SHR	ANANUM			>0	INTEGER	
E_MOIST	ANANUM			>0	INTEGER	
FISCHER	ANANUM			>0	INTEGER	
FLASH	ANANUM			>0	INTEGER	
FSI_IND	ANANUM			>0	INTEGER	
GEIS	ANANUM			>0	INTEGER	
GRAY_KING	ANANUM			>0	INTEGER	
HGI_ABRAS	ANANUM			>0	INTEGER	
HMR	ANANUM			>0	INTEGER	
HV	ANANUM			>0	INTEGER	
LAB_ANA	ANANUM			>0	INTEGER	
MACERAL	ANANUM			>0	INTEGER	
METHANE	ANANUM			>0	INTEGER	
MNRL_ANA	ANANUM			>0	INTEGER	
OK_ANA	ANANUM			>0	INTEGER	

## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
PELLETS	ANANUM			>0	INTEGER	
POLLEN	ANANUM			>0	INTEGER	
POROS	ANANUM			>0	INTEGER	
PROCT	ANANUM			>0	INTEGER	
PROX	ANANUM			>0	INTEGER	
P_IND	ANANUM			>0	INTEGER	
P_LITHO	ANANUM			>0	INTEGER	
RQD_ETAL	ANANUM			>0	INTEGER	
S	ANANUM			>0	INTEGER	
SG_DENS	ANANUM			>0	INTEGER	
SIEVE_ANAL	ANANUM			>0	INTEGER	
SLAG	ANANUM			>0	INTEGER	
STRGTH	ANANUM			>0	INTEGER	
SZ_ANA	ANANUM			>0	INTEGER	
S_HAS_A	ANANUM			>0	INTEGER	
TRIAx	ANANUM			>0	INTEGER	
TR_ELEM	ANANUM			>0	INTEGER	
ULT	ANANUM			>0	INTEGER	
MNRL_ANA	ANK	%		0-99.99 or --99	FLOAT4	f6.2
ATTER	APL	%		>=0 or --99	FLOAT4	f6.2
SVD_SPL	ARCH_DT				DATE	
SVD_SPL	ART_CONT			Y,N,''	C1	
ANA_TYP	ATNUM			>0	SMALLINT	
S_HAS_A	ATNUM			>0	SMALLINT	
ATOMIC_NO	ATOMNUM			>0	INTEGER1	
TR_ELEM	ATOMNUM			>0	INTEGER1	
ATT	ATTITUDE				C60	
ATT	ATTNUM			>0	INTEGER1	
L_ATT	ATTNUM			>0	INTEGER1	
L_ATT	AT_DIP	DEGREES		0-90 or -99	FLOAT4	f6.2
L_ATT	AT_DRN	DEGREES		0-360 or -99	FLOAT4	f6.2
TRIAx	AXI_STR	%		>=0 or --99	FLOAT4	f6.2
AX_TR	AXTNUM			>0	SMALLINT	
BDG_FOLD	AXTNUM			>0	SMALLINT	
TRIAx	AX_ST	%		>=0 or --99	FLOAT4	f6.2
ADIT	AZM	DEGREES		0-360 or --99	SMALLINT	
DEV	AZM	DEGREES		0-360 or --99	SMALLINT	
TRAV_PART	AZM	DEGREES		0-360 or --99	SMALLINT	



## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
TRENCH	AZM		DEGREES	0-360 or --99	SMALLINT	
BNCHMK	AZXB		DEGREES	0-360 or --99	FLOAT4	16.2
BNCHMK	AZYB		DEGREES	0-360 or --99	FLOAT4	16.2
ANA_OK	A_APP				C20	
ANA_CONF	A_CONF				C35	
A_STA	A_DT				DATE	
ANA_TYP	A_TYP				C50	
SG_DENS	BDEN		GM/CM3	0-25 or --99	FLOAT4	16.2
DIR_SHR	BDS		KG/M3	>0 or --99	FLOAT4	17.2
TRIAx	BDS		KG/M3	>=0 or --99	FLOAT4	17.2
HMR	BKHT		BLOWS/FT	>=0 or --99	INTEGER1	
BASED	BSDNUM			>0	INTEGER1	
L_BSD_ON	BSDNUM			>0	INTEGER1	
P_BSD_ON	BSDNUM			>0	INTEGER1	
BASED	BSD_ON				C30	
MINE_GRID	BSLX				INTEGER	
MINE_GRID	BSLY				INTEGER	
A_ANA_H	CAO	%		0-99.99 or --99	FLOAT4	16.2
A_ANA_L	CAO_L	%		0-99.99 or --99	FLOAT4	16.2
SOURCE	CAT_ID			>0	INTEGER	
L_ATT	CBA		DEGREES	0-90 or -99	INTEGER1	
P_IND	CBI				FLOAT4	16.2
CONSOL	CCN		M2/YR	>0 or --99	FLOAT4	17.2
METHANE	CH4	%		0-100 or --99	FLOAT4	16.2
COKE_PRES	CKPR		ATMOSPHERES	>=0 or --99	FLOAT4	16.2
L_CHN	CLBOT		METERS		FLOAT4	17.2
MNRL_ANA	CLCT	%		0-99.99 or --99	FLOAT4	16.2
TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
L_CHN	CLTOP		METERS		FLOAT4	17.2
C_TYP	CLTYNUM			>0	INTEGER1	
TYPE_COAL	CLTYNUM			>0	INTEGER1	
CNFDTL	CNFDY				C65	
CNFDTL	CNFNUM			>0	INTEGER1	
CONFIDENT	CNFNUM			>0	INTEGER1	
CONFIDC	CNF_LVL	%		0-100 or --99	INTEGER1	
CNTRCTR	CNTRCTR_NM				C45	
STRGTH	CN_FR		KPA	>=0 or --99	FLOAT4	17.2
STRGTH	CN_RS		KPA	>=0 or --99	FLOAT4	17.2

## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
A_ANA_H	CO2	%		0-99.99 or --99	FLOAT4	16.2
A_ANA_L	CO2_L	%		0-99.99 or --99	FLOAT4	16.2
TRAV_PART	COMM				C25	
COMP	COMPANY				C55	
COMP	COMP_ABBREV				C14	
COMP	COMP_CODE				C3	
ANA_CONF	CONFNUM			>0	INTEGER1	
CNF_ANA	CONFNUM			>0	INTEGER1	
CONTIN	CONT				C22	
CONTIN	CONTNUM			>0	INTEGER1	
S_CONTIN	CONTNUM			>0	INTEGER1	
CONSOL	CON_PRE	KPA		>0 or --99	FLOAT4	17.2
COORD_BSD_ON	COORNUM			>0	INTEGER1	
PREC	COORNUM			>0	INTEGER1	
CONFIDC	COO_ACC	METERS		0-999 or --99	SMALLINT	
CORE_INF	COREB	METERS			FLOAT4	
CORE_INF	CORENUM			>0	SMALLINT	
DR_CORE	CORENUM			>0	SMALLINT	
CORE_INF	CORET	METERS			FLOAT4	
CORE_INF	CORE_COM				C30	
DH	CORE_RECOV	%		0-100	INTEGER1	
COMP	CORPNUM			>0	SMALLINT	
COMP_PARTIC	CORPNUM			>0	SMALLINT	
SOURCE	CPDT				DATE	
CONSOL	CPI			>0 or --99	SMALLINT	
A_ANA_H	CRO3	%		0-99.99 or --99	FLOAT4	16.2
A_ANA_L	CRO3_L	%		0-99.99 or --99	FLOAT4	16.2
DH	CSG_DIAM	MILLIMETERS		>0 or --99	FLOAT4	16.1
DH	CSG_TD	METERS		>0 or --99	FLOAT4	15.1
CS_IN_CZ	CSNUM			>0	SMALLINT	
GEOLOGY_CS	CSNUM			>0	SMALLINT	
P_CS	CSNUM			>0	SMALLINT	
ST_OC_GEO	CSNUM			>0	SMALLINT	
S_FRM	CSNUM			>0	SMALLINT	
GEOLOGY_CS	CS_NM				C25	
CNTRCTR	CTRNUM			>0	INTEGER1	
CONTRACTOR	CTRNUM			>0	INTEGER1	
CONSOL	CVC	M2/(KN X 0.0001)		>0 or --99	FLOAT4	17.2

## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
CS_IN_CZ	CZNUM			>0	INTEGER1	
CZ_IN_FM	CZNUM			>0	INTEGER1	
CZ_IN_MBR	CZNUM			>0	INTEGER1	
GEOL_CZ	CZNUM			>0	INTEGER1	
P_CZ	CZNUM			>0	INTEGER1	
ST_OC_GEO	CZNUM			>0	INTEGER1	
S_FRM	CZNUM			>0	INTEGER1	
GEOL_CZ	CZ_NM				C25	
COORD_BSD_ON	C_ORG				C50	
C_RNK	C_RANK				C30	
C_TYP	C_TYPE				C25	
P_DH_INT	DBASE	METERS		>=0 or ==-99	FLOAT4	f7.2
SG_DENS	DDEN	GM/CM3		0-25 or ==-99	FLOAT4	f6.2
DIR_SHR	DDS	KG/M3		>0 or ==-99	FLOAT4	f7.2
TRIAx	DDS	KG/M3		>=0 or ==-99	FLOAT4	f7.2
TEST_PIT	DEP	METERS		>=0 or ==-99	FLOAT4	f7.2
TRENCH	DEP	METERS		>=0 or ==-99	FLOAT4	f7.2
ESTRAT	DEPCOAL	METERS			FLOAT4	F7.2
DEV	DEVNUM				INTEGER	
DH_DEV	DEVNUM			>0	INTEGER	
DEV	DEVV	DEGREES		-90TO+90 or ==-99	FLOAT4	f5.1
DILATOM	DFDPC			>=0 or ==-99	SMALLINT	
DH_DEV	DFROM	METERS		>=0 or ==-99	FLOAT4	f6.1
DILATOM	DILNUM			>0	INTEGER1	
DLTM	DILNUM			>0	INTEGER1	
DDDIR	DIP	DEGREES		0-90 or ==-99	FLOAT4	f6.2
BDG_FOLD	DIPNUM			>0	SMALLINT	
BDG_NORM	DIPNUM			>0	SMALLINT	
CLEAV	DIPNUM			>0	SMALLINT	
DDDIR	DIPNUM			>0	SMALLINT	
FAULT	DIPNUM			>0	SMALLINT	
JNT_SET	DIPNUM			>0	SMALLINT	
DDDIR	DIP_D	DEGREES		0-360 or ==-99	FLOAT4	f6.2
DLTM	DLTM_TYP				C10	
DILATOM	DMCPC	%		>=0 or ==-99	SMALLINT	
DILATOM	DMDPC	%		0-500 or ==-99	SMALLINT	
DILATOM	DMXCNT	CELCIUS		>0 or ==-99	SMALLINT	
DILATOM	DMXDIT	CELCIUS		>0 or ==-99	SMALLINT	

## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
MNRL_ANA	DOL	%		0-99.99 or --99	FLOAT4	f6.2
DILATOM	DRESOLT			>0 or --99	SMALLINT	
CONFNTLY	DRLD				DATE	
DH	DRL_LOG			Y,N,''	C1	
DRAIN	DRNUM			>0	INTEGER1	
TRIAx	DRNUM			>0	INTEGER1	
HGI_ABRAS	DRST	%		0-99.99 or --99	FLOAT4	f6.2
DRAIN	DR_CN				C25	
DILATOM	DSOFT	CELCIUS		>0 or --99	SMALLINT	
DH_DEV	DT0	METERS		>=0 or --99	FLOAT4	f6.1
P_DH_INT	DTOP	METERS		>=0 or --99	FLOAT4	f7.2
DH	DT_WTR_LVL				DATE	
TRIAx	ECP	KPA		>=0 or --99	FLOAT4	f7.2
BNCHMK	ELEV	METERSASL		>0 or --99	FLOAT4	f7.2
LLELEV	ELEV	METERS			FLOAT4	f7.2
ELEV_BSD_ON	ELEVNUM			>0	INTEGER1	
PREC	ELEVNUM			>0	INTEGER1	
CONFIDC	ELEV_ACC	METERS		0-999 or --99	SMALLINT	
LLELEV	ELKB	METERS			FLOAT4	f7.2
E_MOIST	EQM	%		0-100 or --99	FLOAT4	f6.2
MACERAL	EXIN	%		>=0 or --99	FLOAT4	f6.2
ELEV_BSD_ON	E_ORG				C50	
A_RESIS	E_RES	OHMS/METRE			FLOAT4	f5.2
A_RESIS	E_RES_EXP				INTEGER1	
A_ANA_H	FE203	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	FE203_L	%		0-99.99 or --99	FLOAT4	f6.2
P_PRO	FIN_DT				DATE	
FOUL	FLNG				C10	
FLASH	FLPG	%		>=0 or --99	FLOAT4	f6.2
FLASH	FLPL	%		>=0 or --99	FLOAT4	f6.2
FLASH	FLPS	%		>=0 or --99	FLOAT4	f6.2
FLASH	FLPT	%		>=0 or --99	FLOAT4	f6.2
CZ_IN_FM	FMNUM			>0	SMALLINT	
FM_IN_GP	FMNUM			>0	SMALLINT	
GEOL_FM	FMNUM			>0	SMALLINT	
MBR_IN_FM	FMNUM			>0	SMALLINT	
P_FM	FMNUM			>0	SMALLINT	
ST_OC_GEO	FMNUM			>0	SMALLINT	

## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
S_FRM	FMNUM			>0	SMALLINT	
GEOL_FM	FM_NM				C30	
A_ANA_H	FOULNUM			>0	INTEGER1	
A_ANA_L	FOULNUM			>0	INTEGER1	
FOUL	FOULNUM			>0	INTEGER1	
FISCHER	FSAG	%		>=0 or =-99	FLOAT4	f6.2
FISCHER	FSAL	%		>=0 or =-99	FLOAT4	f6.2
FISCHER	FSAS	%		>=0 or =-99	FLOAT4	f6.2
FISCHER	FSAT	%		>=0 or =-99	FLOAT4	f6.2
FSI_IND	FSI			0-9.9 or =-99	FLOAT4	f5.1
MNRL_ANA	GAL	%		0-99.99 or =-99	FLOAT4	f6.2
GEIS	GDDM		DIAL-DIV/MIN	>=0 or =-99	INTEGER	
INTERP	GEOL				C40	
GRAY_KING	GKAG	%		>=0 or =-99	FLOAT4	f6.2
GRAY_KING	GKAL	%		>=0 or =-99	FLOAT4	f6.2
GRAY_KING	GKAS	%		>=0 or =-99	FLOAT4	f6.2
GRAY_KING	GKAT	%		>=0 or =-99	FLOAT4	f6.2
GRAY_KING	GKHV		KJ/M3	>=0 or =-99	SMALLINT	
GRY_KING	GK_ID				C3	
GEIS	GPFR		CELCIUS	0-700 or =-99	SMALLINT	
GEIS	GPFT		CELCIUS	0-700 or =-99	SMALLINT	
FM_IN_GP	GPNUM			>0	INTEGER1	
GEOL_GROUP	GPNUM			>0	INTEGER1	
P_GP	GPNUM			>0	INTEGER1	
GEIS	GPSL		CELCIUS	0-700 or =-99	SMALLINT	
GEIS	GPST		CELCIUS	0-700 or =-99	SMALLINT	
GEOL_GROUP	GRP_NM				C25	
GRAY_KING	GRYNUM			>0	INTEGER1	
GRY_KING	GRYNUM			>0	INTEGER1	
HAZ	HAZNUM			>0	INTEGER1	
HAZARD	HAZNUM			>0	INTEGER1	
HAZARD	HAZ_DESC				C30	
ADIT	HEIG		METERS	>=0 or =-99	FLOAT4	f7.2
HGI_ABRAS	HGI			20-150 or =-99	FLOAT4	f5.1
DH	HOLE_DIAM		MILLIMETERS	>0 or =-99	FLOAT4	f6.1
HV	HVADB		MJ/KG	0-40 or =-99	FLOAT4	f7.3
HV	HVARB		MJ/KG	0-40 or =-99	FLOAT4	f7.3
CONSOL	IBD		KG/M3	>0 or =-99	FLOAT4	f7.2

## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
CONSOL	IDD		KG/M3	>0 or =-99	FLOAT4	f7.2
ADIT	INC		DEGREES	-90TO+90 or =-99	INTEGER1	
TRAV_PART	INC		DEGREES	-90TO+90 or =-99	INTEGER1	
CONSOL	INCNUM			>0	INTEGER1	
INCRMNT	INCNUM			>0	INTEGER1	
INCRMNT	INC_NO				C8	
MACERAL	INMAC	%		>=0 or =-99	FLOAT4	f6.2
MACERAL	INRT	%		>=0 or =-99	FLOAT4	f6.2
INTERP	INTD				DATE	
BLOX	INVR	%		0-9.99 or =-99	FLOAT4	f6.2
CONSOL	IVR			>0 or =-99	SMALLINT	
CONSOL	IWC	%		>=0 or =-99	FLOAT4	f6.2
DIR_SHR	IWC	%		>=0 or =-99	FLOAT4	f6.2
TRIAx	IWC	%		>=0 or =-99	FLOAT4	f6.2
JNTI	JINUM			>0	INTEGER1	
RQD_ETAL	JINUM			>0	INTEGER1	
RQD_ETAL	JNT			>=0 or =-99	INTEGER1	
JNTI	JNT_IN				C10	
SJNT	JNT_ST				C15	
A_ANA_H	K20	%		0-99.99 or =-99	FLOAT4	f6.2
A_ANA_L	K20_L	%		0-99.99 or =-99	FLOAT4	f6.2
MNRL_ANA	KAOL	%		0-99.99 or =-99	FLOAT4	f6.2
LAB	LABNUM			>0	INTEGER	
LAB_ANA	LABNUM			>0	INTEGER	
LAB	LAB_NM				C45	
BNCHMK	LAT	DEGREES		49-60 or =-99	FLOAT8	f10.6
LLELEV	LAT	DEGREES		49-60 or =-99	FLOAT8	f10.6
L_DH	LBASE	METERS			FLOAT4	f7.2
L_OC	LBOT	METERS			FLOAT4	f7.2
ADIT	LENG	METERS		>=0 or =-99	FLOAT4	f7.2
TEST_PIT	LENG	METERS		>=0 or =-99	FLOAT4	f7.2
TRENCH	LENG	METERS		>=0 or =-99	FLOAT4	f7.2
LGGNG_CNTR	LGCNTNUM			>0	INTEGER2	
LG_CNT	LGCNTNUM			>0	INTEGER2	
L_ATT	LITHNUM			>0	INTEGER	
L_BSD_ON	LITHNUM			>0	INTEGER	
L_CHN	LITHNUM			>0	INTEGER	
L_DH	LITHNUM			>0	INTEGER	

## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
L_LOG	LITHNUM			>0	INTEGER	
L_MAIN	LITHNUM			>0	INTEGER	
L_MOD1	LITHNUM			>0	INTEGER	
L_MOD2	LITHNUM			>0	INTEGER	
L_OC	LITHNUM			>0	INTEGER	
L_REM	LITHNUM			>0	INTEGER	
L_SP_FT	LITHNUM			>0	INTEGER	
P_LITHO	LITHNUM			>0	INTEGER	
ST_OC_LTH	LITHNUM			>0	INTEGER	
TR_LTH	LITHNUM			>0	INTEGER	
LOGS	LOGNUM			>0	INTEGER1	
LOG_RUN	LOGNUM			>0	INTEGER1	
DH	LOG_CODE				C40	
LOGS	LOG_TYPE				C30	
BNCHMK	LONG	DEGREES		110-120 or --99	FLOAT8	f10.6
LLELEV	LONG	DEGREES		110-120 or --99	FLOAT8	f10.6
DLS_LSD	LSD			1-16 or --99	INTEGER1	
DLS_LSD	LSDM			NW,NE,SW,SE or ' '	C2	
L_OC	LTOP	METERS			FLOAT4	f7.2
L_DH	LTOPP	METERS			FLOAT4	f7.2
LG_CNT	L_CNTR_NM				C60	
LITH_MN	L_CTGY				C20	
TRAV_PART	L_LEG	METERS		>=0 or --99	FLOAT4	f7.2
L_DH	L_L_ADJ			Y,N,''	C1	
L_REM	L_REMX				C25	
A_STA	L_S_NO				C20	
LITH_MN	L_TYP				C35	
LITH_MN	MAINUM			>0	INTEGER1	
L_MAIN	MAINUM			>0	INTEGER1	
COMP	MAL_CITY				C12	
COMP	MAL_COMP_NAM				C55	
COMP	MAL_PC				C6	
COMP	MAL_PO_BOX				C30	
COMP	MAL_PROV				C12	
COMP	MAL_ST				C30	
COMP	MAL_SUITE_NO				C30	
SVD_SPL	MASS_STD	KILOGRAMS		>=0 or --99	FLOAT4	f6.2
CZ_IN_MBR	MBRNUM			>0	SMALLINT	

## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
GEOL_MBR	MBRNUM			>0	SMALLINT	
MBR_IN_FM	MBRNUM			>0	SMALLINT	
P_MBR	MBRNUM			>0	SMALLINT	
ST_OC_GEO	MBRNUM			>0	SMALLINT	
S_FRM	MBRNUM			>0	SMALLINT	
GEOL_MBR	MBR_NM				C25	
HGI_ABRAS	MCHD		kg/m2	>=0 or ==-99	SMALLINT	
MINE	MCOM				C20	
BNCHMK	MER			4,5,6 or ==-99	INTEGER1	
DLS_COORD	MER			4,5,6 or ==-99	INTEGER1	
DLS_LSD	MER			4,5,6 or ==-99	INTEGER1	
BNCHMK	METE		METERS		FLOAT4	f8.1
DLS_COORD	METE		METERS		FLOAT4	f8.1
BNCHMK	METN		METERS		FLOAT4	f8.1
DLS_COORD	METN		METERS		FLOAT4	f8.1
A_ANA_H	MGO		%	0-99.99 or ==-99	FLOAT4	f6.2
A_ANA_L	MGO_L		%	0-99.99 or ==-99	FLOAT4	f6.2
MKR_TYP	MKRNUM			>0	SMALLINT	
P_MKR	MKRNUM			>0	SMALLINT	
MKR_TYP	MKR_TYPE				C30	
MINE	MNAM				C15	
BNCHMK	MNGNUM			>0	SMALLINT	
MN_GD_BNCH	MNGNUM			>0	SMALLINT	
PELLETS	MNMN		%	0-9.99 or ==-99	FLOAT4	f6.2
METH_MING	MNMTNUM			>0	INTEGER1	
MINE_MTHD	MNMTNUM			>0	INTEGER1	
PELLETS	MNMX		%	0-9.99 or ==-99	FLOAT4	f6.2
A_ANA_H	MNO		%	0-99.99 or ==-99	FLOAT4	f6.2
MINE	MNOM				C10	
A_ANA_L	MNO_L		%	0-99.99 or ==-99	FLOAT4	f6.2
PELLETS	MNRDM		%	0-9.99 or ==-99	FLOAT4	f6.2
MINE_TYP	MNTYNUM			>0	INTEGER1	
TYPE_MINE	MNTYNUM			>0	INTEGER1	
BLOX	MNVR		%	0-9.99 or ==-99	FLOAT4	f6.2
LITH_MD	MODNUM			>0	SMALLINT	
L_MOD1	MODNUM			>0	SMALLINT	
L_MOD2	MODNUM			>0	SMALLINT	
MOISTURE	MOIST				C30	



## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
A_ANA_H	MO03	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	MO03_L	%		0-99.99 or --99	FLOAT4	f6.2
MOISTURE	MSTNUM			>0	INTEGER1	
SG_DENS	MSTNUM			>0	INTEGER1	
MNRL_ANA	MTIL	%		0-99.99 or --99	FLOAT4	f6.2
BLOX	MXVR	%		0-9.99 or --99	FLOAT4	f6.2
LITH_MD	M_DESC				C30	
MINE_STS	M_LGL_S				C15	
MINE_MTHD	M_METH				C30	
LITH_MD	M_TYP				C20	
MINE_TYP	M_TYPE				C15	
A_ANA_H	NA20	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	NA20_L	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_H	NIO	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	NIO_L	%		0-99.99 or --99	FLOAT4	f6.2
PELLETS	NMAX			>=0 or --99	SMALLINT	
PELLETS	NMIN			>=0 or --99	SMALLINT	
BLOX	NOM	RS		>0 or --99	SMALLINT	
PELLETS	NRDM			>=0 or --99	SMALLINT	
DIR_SHR	NSTR	KPA		>0 or --99	FLOAT4	f7.2
NTS	NTSP			72,73,74,82,83,84 or --99	INTEGER1	
NTS	NTSS			A-P or ' '	C1	
NTS	NTST			1-16 or --99	INTEGER1	
ATTER	NWC	%		>=0 or --99	FLOAT4	f6.2
BDG_FOLD	OBOT	METERS			FLOAT4	f7.2
BDG_NORM	OBOT	METERS			FLOAT4	f7.2
CLEAV	OBOT	METERS			FLOAT4	f7.2
FAULT	OBOT	METERS			FLOAT4	f7.2
JNT_SET	OBOT	METERS			FLOAT4	f7.2
P_OC_INT	OBOT	METERS			FLOAT4	f7.2
ST_OC_GEO	OBOT				FLOAT4	f7.2
ST_OC_LTH	OBOT				FLOAT4	f7.2
O_SNS	OC_SNS				C20	
A_FUS	OFLT	CELSIUS		0-1600 or --99	SMALLINT	
A_FUS	OHET	CELSIUS		0-1600 or --99	SMALLINT	
A_FUS	OIDT	CELSIUS		0-1600 or --99	SMALLINT	
ANA_OK	OKNUM			>0	INTEGER1	
OK_ANA	OKNUM			>0	INTEGER1	

## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
SIEVE	OPNG		MILLIMETERS		FLOAT4	f6.3
SOURCE	OPRJ				C30	
SOURCE	ORIG				C11	
O_ORN	ORNTN				C15	
BDG_FOLD	ORNUM			>0	INTEGER1	
BDG_NORM	ORNUM			>0	INTEGER1	
O_ORN	ORNUM			>0	INTEGER1	
A_FUS	OSOT		CELSIUS	0-1600 or --99	SMALLINT	
P_OC_INT	OTOP		METERS		FLOAT4	f7.2
A_ANA_H	P205	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	P205_L	%		0-99.99 or --99	FLOAT4	f6.2
PROX	PAAD	%		0-100 or --99	FLOAT4	f6.2
PROX	PAAR	%		0-100 or --99	FLOAT4	f6.2
BDG_NORM	PCHNUM			>0	SMALLINT	
FAULT	PCHNUM			>0	SMALLINT	
JNT_SET	PCHNUM			>0	SMALLINT	
PITCH_INFO	PCHNUM			>0	SMALLINT	
CONSOL	PCP		KPA	>0 or --99	FLOAT4	f7.2
DIR_SHR	PDSP		MILLIMETERS	>=0 or --99	FLOAT4	f6.2
BLOX	PETNUM			>0	SMALLINT	
MACERAL	PETNUM			>0	SMALLINT	
PELLETS	PETNUM			>0	SMALLINT	
POLLEN	PETNUM			>0	SMALLINT	
P_IND	PETNUM			>0	SMALLINT	
P_PRO	PETNUM			>0	SMALLINT	
P_PRO	PETROG				C30	
P_PRO	PETSAM_NO				SMALLINT	
PROX	PFCAD	%		0-100 or --99	FLOAT4	f6.2
PROX	PFCAR	%		0-100 or --99	FLOAT4	f6.2
DH	PIEZO			Y,N,''	C1	
INT_RMX	PIKNUM			>0	INTEGER	
PICK	PIKNUM			>0	INTEGER	
P_BSD_ON	PIKNUM			>0	INTEGER	
P_CS	PIKNUM			>0	INTEGER	
P_CZ	PIKNUM			>0	INTEGER	
P_DH_INT	PIKNUM			>0	INTEGER	
P_FM	PIKNUM			>0	INTEGER	
P_GP	PIKNUM			>0	INTEGER	

## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
P_LITHO	PIKNUM			>0	INTEGER	
P_MBR	PIKNUM			>0	INTEGER	
P_MKR	PIKNUM			>0	INTEGER	
P_OC_INT	PIKNUM			>0	INTEGER	
TR_PCK	PIKNUM			>0	INTEGER	
PICK	PIK_Q				C30	
PITCH_INFO	PITCH		DEGREES	0-180 or --99	FLOAT4	f6.2
AX_TR	PLG		DEGREES	0-90 or --99	FLOAT4	f6.2
BLOX	PLIN		DEGREES	0-90 or --99	INTEGER1	
BLOX	PLMN		DEGREES	0-90 or --99	INTEGER1	
BLOX	PLMX		DEGREES	0-90 or --99	INTEGER1	
PROX	PMAD		%	0-100 or --99	FLOAT4	f6.2
PROX	PMAR		%	0-100 or --99	FLOAT4	f6.2
PROCT	PMDD		KG/M3	>=0 or --99	FLOAT4	f7.2
POROS	POAD		%	0-100 or --99	FLOAT4	f6.2
STRGTH	POCK		KPA	>=0 or --99	FLOAT4	f7.2
POROS	POIN		%	0-100 or --99	FLOAT4	f6.2
TRIAx	PORE_PRES		KPA	>=0 or --99	FLOAT4	f7.2
TR_ELEM	PPM		PPM	>=0 or --99 or --88	FLOAT8	f10.2
TRIAx	PP_MAX		KPA	>=0 or --99	FLOAT4	f7.2
S_PREP	PREP				C20	
S_PREP	PREPNUM			>0	INTEGER1	
S_PREPTN	PREPNUM			>0	INTEGER1	
DIR_SHR	PSSTR		KPA	>0 or --99	FLOAT4	f7.2
MNRL_ANA	PTMC		%	0-99.99 or --99	FLOAT4	f6.2
PROCT	PTOM		%	>=0 or --99	FLOAT4	f6.2
PROX	PVMAD		%	0-100 or --99	FLOAT4	f6.2
PROX	PVMAR		%	0-100 or --99	FLOAT4	f6.2
P_DH_INT	P_L_ADJ			Y,N,''	C1	
MNRL_ANA	QTZ		%	0-99.99 or --99	FLOAT4	f6.2
BNCHMK	RCNR			NW,NE,SW,SE	C2	
DLS_COORD	RCNR			NW,NE,SW,SE	C2	
DIR_SHR	RDSP		MILLIMETERS	>=0 or --99	FLOAT4	f7.2
CORE_INF	RECOV		%	0-125 or --99	FLOAT4	f6.2
SVD_SPL	REFRIG			Y,N,''	C1	
MACERAL	REMAC		%	>=0 or --99	FLOAT4	f6.2
INT_RMX	REMARKS				C25	
REMARX	REMD				DATE	

## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
REMARX	REMX				C80	
PELLETS	RFLA		DEGREES	0-90 or --99	INTEGER1	
A_FUS	RFLT		CELSIUS	0-1600 or --99	SMALLINT	
BNCHMK	RGE			1-30 or --99	INTEGER1	
DLS_COORD	RGE			1-30 or --99	INTEGER1	
DLS_LSD	RGE			1-30 or --99	INTEGER1	
A_FUS	RHET		CELSIUS	0-1600 or --99	SMALLINT	
A_FUS	RIDT		CELSIUS	0-1600 or --99	SMALLINT	
C_RNK	RNKNUM			>0	INTEGER1	
RNK_COAL	RNKNUM			>0	INTEGER1	
RQD_ETAL	RQD		%	0-100 or --99	FLOAT4	16.2
BNCHMK	RSEC			1-36 or --99	INTEGER1	
DLS_COORD	RSEC			1-36 or --99	INTEGER1	
A_FUS	RSOT		CELSIUS	0-1600 or --99	SMALLINT	
DIR_SHR	RSSTR		KPA	>=0 or --99	FLOAT4	17.2
S	SADB		%	0-10 or --99	FLOAT4	16.2
ATTER	SAMNUM			>0	INTEGER	
A_ANA_H	SAMNUM			>0	INTEGER	
A_ANA_L	SAMNUM			>0	INTEGER	
A_FUS	SAMNUM			>0	INTEGER	
A_RESIS	SAMNUM			>0	INTEGER	
BLOX	SAMNUM			>0	INTEGER	
COKE_PRES	SAMNUM			>0	INTEGER	
CONSOL	SAMNUM			>0	INTEGER	
DILATOM	SAMNUM			>0	INTEGER	
DIR_SHR	SAMNUM			>0	INTEGER	
E_MOIST	SAMNUM			>0	INTEGER	
FISCHER	SAMNUM			>0	INTEGER	
FLASH	SAMNUM			>0	INTEGER	
FSI_IND	SAMNUM			>0	INTEGER	
GEIS	SAMNUM			>0	INTEGER	
GRAY_KING	SAMNUM			>0	INTEGER	
HGI_ABRAS	SAMNUM			>0	INTEGER	
HMR	SAMNUM			>0	INTEGER	
HV	SAMNUM			>0	INTEGER	
MACERAL	SAMNUM			>0	INTEGER	
METHANE	SAMNUM			>0	INTEGER	
MNRL_ANA	SAMNUM			>0	INTEGER	

## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
PELLETS	SAMNUM			>0	INTEGER	
POLLEN	SAMNUM			>0	INTEGER	
POROS	SAMNUM			>0	INTEGER	
PROCT	SAMNUM			>0	INTEGER	
PROX	SAMNUM			>0	INTEGER	
P_IND	SAMNUM			>0	INTEGER	
P_LITHO	SAMNUM			>0	INTEGER	
RQD_ETAL	SAMNUM			>0	INTEGER	
S	SAMNUM			>0	INTEGER	
SG_DENS	SAMNUM			>0	INTEGER	
SIEVE_ANAL	SAMNUM			>0	INTEGER	
SLAG	SAMNUM			>0	INTEGER	
STRGTH	SAMNUM			>0	INTEGER	
SVD_C_UNA	SAMNUM			>0	INTEGER	
SVD_SPL	SAMNUM			>0	INTEGER	
S_CHNL	SAMNUM			>0	INTEGER	
S_CONTIN	SAMNUM			>0	INTEGER	
S_DH	SAMNUM			>0	INTEGER	
S_FRM	SAMNUM			>0	INTEGER	
S_HAS_A	SAMNUM			>0	INTEGER	
S_OC	SAMNUM			>0	INTEGER	
S_PREPTN	SAMNUM			>0	INTEGER	
S_REMX	SAMNUM			>0	INTEGER	
S_SEG	SAMNUM			>0	INTEGER	
S_STAT	SAMNUM			>0	INTEGER	
TRIAx	SAMNUM			>0	INTEGER	
TR_ELEM	SAMNUM			>0	INTEGER	
TR_SPL	SAMNUM			>0	INTEGER	
ULT	SAMNUM			>0	INTEGER	
SMPL	SAMTYPNUM			>0	INTEGER1	
SPL_TYP	SAMTYPNUM			>0	INTEGER1	
S	SARB	%		0-10 or --99	FLOAT4	f6.2
S_DH	SBASE	METERS			FLOAT4	f7.2
S_CHNL	SCLBOT	METERS			FLOAT4	f7.2
S_CHNL	SCLTOP	METERS			FLOAT4	f7.2
PELLETS	SDMN	%		>=0 or --99	FLOAT4	f6.2
PELLETS	SDMX	%		>=0 or --99	FLOAT4	f6.2
PELLETS	SDRDM	%		>=0 or --99	FLOAT4	f6.2

## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
BNCHMK	SECT			1-36 or =-99	INTEGER1	
DLS_COORD	SECT			1-36 or =-99	INTEGER1	
DLS_LSD	SECT			1-36 or =-99	INTEGER1	
S_SEG	SEGNUM			>0	INTEGER1	
S_SEGMT	SEGNUM			>0	INTEGER1	
SG_DENS	SG			0-25 or =-99	FLOAT4	f6.2
SLAG	SGIN				SMALLINT	
SG_DENS	SGLO			0-25 or =-99	FLOAT4	f6.2
S_SEGMT	SGMT				C20	
SG_DENS	SGNUM			>0	INTEGER1	
SG_INF	SGNUM			>0	INTEGER1	
SG_INF	SGTYPE				C55	
DIR_SHR	SHAPE				C1	
MNRL_ANA	SIDR	%		0-99.99 or =-99	FLOAT4	f6.2
TRIAx	SIGMA1	KPA		>=0 or =-99	FLOAT4	f7.2
TRIAx	SIGMA1_MAX	KPA		>=0 or =-99	FLOAT4	f7.2
TRIAx	SIGMA3	KPA		>=0 or =-99	FLOAT4	f7.2
TRIAx	SIGMA3_MAX	KPA		>=0 or =-99	FLOAT4	f7.2
A_ANA_H	SIO2	%		0-99.99 or =-99	FLOAT4	f6.2
A_ANA_L	SIO2_L	%		0-99.99 or =-99	FLOAT4	f6.2
ADIT	SITID			1000001-2000000	INTEGER	
BDG_FOLD	SITID			1000001-2000000	INTEGER	
BDG_NORM	SITID			1000001-2000000	INTEGER	
CLEAV	SITID			1000001-2000000	INTEGER	
COMP_PARTIC	SITID			1000001-2000000	INTEGER	
CONFDNTLY	SITID			1000001-2000000	INTEGER	
CONFIDC	SITID			1000001-2000000	INTEGER	
CONFIDENT	SITID			1000001-2000000	INTEGER	
CONTRACTOR	SITID			1000001-2000000	INTEGER	
DATA_SOURCE	SITID			1000001-2000000	INTEGER	
DH	SITID			1000001-2000000	INTEGER	
DH_DEV	SITID			1000001-2000000	INTEGER	
DLS_COORD	SITID			1000001-2000000	INTEGER	
DLS_LSD	SITID			1000001-2000000	INTEGER	
DR_CORE	SITID			1000001-2000000	INTEGER	
ESTRAT	SITID			1000001-2000000	INTEGER	
FAULT	SITID			1000001-2000000	INTEGER	
HAZ	SITID			1000001-2000000	INTEGER	

## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
INTERP	SITID			1000001-2000000	INTEGER	
JNT_SET	SITID			1000001-2000000	INTEGER	
LGGNG_CNTR	SITID			1000001-2000000	INTEGER	
LLELEV	SITID			1000001-2000000	INTEGER	
LOG_RUN	SITID			1000001-2000000	INTEGER	
L_CHN	SITID			1000001-2000000	INTEGER	
L_DH	SITID			1000001-2000000	INTEGER	
L_OC	SITID			1000001-2000000	INTEGER	
METH_MING	SITID			1000001-2000000	INTEGER	
MINE	SITID			1000001-2000000	INTEGER	
MINE_GRID	SITID			1000001-2000000	INTEGER	
MN_GD_BNCH	SITID			1000001-2000000	INTEGER	
NTS	SITID			1000001-2000000	INTEGER	
PREC	SITID			1000001-2000000	INTEGER	
P_DH_INT	SITID			1000001-2000000	INTEGER	
P_OC_INT	SITID			1000001-2000000	INTEGER	
REMARX	SITID			1000001-2000000	INTEGER	
RNK_COAL	SITID			1000001-2000000	INTEGER	
SMPL	SITID			1000001-2000000	INTEGER	
SOURCE	SITID			1000001-2000000	INTEGER	
SRVY_SRC	SITID			1000001-2000000	INTEGER	
STATUS_MINE	SITID			1000001-2000000	INTEGER	
ST_OC_GEO	SITID			1000001-2000000	INTEGER	
ST_OC_LTH	SITID			1000001-2000000	INTEGER	
S_CHNL	SITID			1000001-2000000	INTEGER	
S_DH	SITID			1000001-2000000	INTEGER	
S_OC	SITID			1000001-2000000	INTEGER	
TENTM	SITID			1000001-2000000	INTEGER	
TEST_PIT	SITID			1000001-2000000	INTEGER	
THREETM	SITID			1000001-2000000	INTEGER	
TRAVERSE	SITID			1000001-2000000	INTEGER	
TRENCH	SITID			1000001-2000000	INTEGER	
TYPE_COAL	SITID			1000001-2000000	INTEGER	
TYPE_MINE	SITID			1000001-2000000	INTEGER	
UTM	SITID			1000001-2000000	INTEGER	
SIEVE	SIVNUM			>0	INTEGER1	
SIEVE_ANAL	SIVNUM			>0	INTEGER1	
RQD_ETAL	SJNUM			>0	INTEGER1	

## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
SJNT	SJNUM			>0	INTEGER1	
FAULT	SNSNUM			>0	INTEGER1	
JNT_SET	SNSNUM			>0	INTEGER1	
O_SNS	SNSNUM			>0	INTEGER1	
A_ANA_H	SO3	%		0-99.99 or =-99	FLOAT4	f6.2
A_ANA_L	SO3_L	%		0-99.99 or =-99	FLOAT4	f6.2
S_OC	SOBOT		METERS		FLOAT4	f7.2
DH	SOILS			Y,N,''	C1	
S_OC	SOTOP		METERS		FLOAT4	f7.2
DIR_SHR	SPECNUM			>0	INTEGER1	
SPEC_NO	SPECNUM			>0	INTEGER1	
TRIAx	SPECNUM			>0	INTEGER1	
L_SP_FEA	SPFNUM			>0	SMALLINT	
L_SP_FT	SPFNUM			>0	SMALLINT	
MNRL_ANA	SPHAL	%		0-99.99 or =-99	FLOAT4	f6.2
SPL_TYP	SPL_TYPE				C35	
SPEC_NO	SPMN_NO				C8	
HMR	SPT		BLOWS/FT	>=0 or =-99	INTEGER1	
L_SP_FEA	SP_FE				C25	
DATA_SOURCE	SRCNUM			>0	INTEGER1	
SR_MTH	SRCNUM			>0	INTEGER1	
SR_MTH	SRC_DESC				C35	
SRVY_SRC	SRVNUM			>0	INTEGER1	
SURVEY	SRVNUM			>0	INTEGER1	
MINE_STS	STANUM			>0	INTEGER1	
STATUS_MINE	STANUM			>0	INTEGER1	
P_IND	STBI				SMALLINT	
S_DH	STOP		METERS		FLOAT4	f7.2
P_IND	STRI				FLOAT4	f6.2
P_PRO	ST_DT				DATE	
SURVEY	SURV_DESC				C40	
SIEVE	SV_NO				SMALLINT	
SZ_ANA	SZNUM			>0	INTEGER1	
SZ_FRACT	SZNUM			>0	INTEGER1	
SZ_FRACT	SZ_FR				C28	
S_STAT	S_BY				C15	
S_STAT	S_DT				DATE	
S_STAT	S_LTH		METERS	>=0 or =-99	FLOAT4	f6.2



## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
S_DH	S_L_ADJ			Y,N,''	C1	
S_STAT	S_NO				C15	
S_REMX	S_RMX				C25	
S_STAT	S_WT		KILOGRAMS	>=0 or =-99	FLOAT8	f13.5
DH	TD		METERS	>=0 or =-99	FLOAT4	f6.1
TENTM	TENTME		METERS	>=0 or =-99	FLOAT8	f9.1
TENTM	TENTMN		METERS	>=0 or =-99	FLOAT8	f9.1
ATOMIC_NO	TE_SYM				C2	
SIEVE_ANAL	THRU	%		0-100 or =-99	FLOAT4	f6.2
A_ANA_H	TIO2	%		0-99.99 or =-99	FLOAT4	f6.2
A_ANA_L	TIO2_L	%		0-99.99 or =-99	FLOAT4	f6.2
TRAVERSE	TRAVNUM			>0	SMALLINT	
TRAV_PART	TRAVNUM			>0	SMALLINT	
TR_LTH	TRAVNUM			>0	SMALLINT	
TR_PCK	TRAVNUM			>0	SMALLINT	
TR_SPL	TRAVNUM			>0	SMALLINT	
TRAVERSE	TRAV_NO				C20	
AX_TR	TRD		DEGREES	0-360 or =-99	FLOAT4	f6.2
BLOX	TRIN		DEGREES	0-360 or =-99	SMALLINT	
BLOX	TRMN		DEGREES	0-360 or =-99	SMALLINT	
BLOX	TRMX		DEGREES	0-360 or =-99	SMALLINT	
THREETM	TRTMC		DEGREES	>=0 or =-99	INTEGER1	
THREETM	TRTME		METERS	100000-1000000 or =-99	FLOAT8	f9.1
THREETM	TRTMN		METERS	5000000-8000000 or =-99	FLOAT8	f9.1
THREETM	TRTMZ			>=0 or =-99	INTEGER1	
ATOMIC_NO	TR_EL				C15	
BNCHMK	TWP			1-126 or =-99	INTEGER1	
DLS_COORD	TWP			1-126 or =-99	INTEGER1	
DLS_LSD	TWP			1-126 or =-99	INTEGER1	
ULT	UAA	%		0-100 or =-99	FLOAT4	f6.2
ULT	UAC	%		0-100 or =-99	FLOAT4	f6.2
ULT	UAH	%		0-100 or =-99	FLOAT4	f6.2
ULT	UAMAD	%		0-100 or =-99	FLOAT4	f6.2
ULT	UAN	%		0-100 or =-99	FLOAT4	f6.2
ULT	UAO	%		0-100 or =-99	FLOAT4	f6.2
ULT	UAS	%		0-10 or =-99	FLOAT4	f6.2
ULT	UINC			Y,N,''	C1	
A_ANA_H	UNDT	%		0-99.99 or =-99	FLOAT4	f6.2

## SECTION 3

TBL_ABBREV	CLMN_ABBRV	K_TYP	STORED_UNITS	INTEG_CHEK	INGRS_STGE_FMT	I_FLT_PNT_FMT
A_ANA_L	UNDT_L	%		0-99.99 or --99	FLOAT4	f6.2
STRGTH	UN_COMP	KPA		>=0 or --99	FLOAT4	f7.2
BNCHMK	UTMC	DEGREES		111,117 or --99	INTEGER1	
UTM	UTMC	DEGREES		111,117 or --99	INTEGER1	
BNCHMK	UTME	METERS		100000-1000000 or --99	FLOAT8	f9.1
UTM	UTME	METERS		100000-1000000 or --99	FLOAT8	f9.1
BNCHMK	UTMN	METERS		5000000-8000000 or --99	FLOAT8	f9.1
UTM	UTMN	METERS		5000000-8000000 or --99	FLOAT8	f9.1
BNCHMK	UTMZ			11,12 or --99	INTEGER1	
UTM	UTMZ			11,12 or --99	INTEGER1	
STRGTH	VANE	KPA		>=0 or --99	FLOAT4	f7.2
A_FUS	VISC	PA-SEC		>0	FLOAT4	f6.1
MACERAL	VITR	%		>=0 or --99	FLOAT4	f6.2
A_ANA_H	VO3	%		0-99.99 or --99	FLOAT4	f6.2
A_ANA_L	VO3_L	%		0-99.99 or --99	FLOAT4	f6.2
ADIT	WIDE	METERS		>=0 or --99	FLOAT4	f7.2
TEST_PIT	WIDE	METERS		>=0 or --99	FLOAT4	f7.2
TRENCH	WIDE	METERS		>=0 or --99	FLOAT4	f7.2
A_WRH_AT	WRHNUM			>0	INTEGER1	
SVD_C_UNA	WRHNUM			>0	INTEGER1	
WAREHOUSE	WRHNUM			>0	INTEGER1	
A_WRH_AT	WRHTAGNO				C12	
SVD_SPL	WRHTAGNO				C12	
WAREHOUSE	WRH_ADD				C75	
WAREHOUSE	WRH_CNTCT				C25	
WAREHOUSE	WRH_NM				C25	
WAREHOUSE	WRH_PH				C10	
DH	WTR_LVL	METERS		>=0 or --99	FLOAT4	f6.1
BNCHMK	XBCD	METERS			FLOAT4	f11.1
MINE_GRID	XCMG				FLOAT8	f11.1
DIR_SHR	XSEC_AR	CM2		>=0 or --99	FLOAT4	f7.2
BNCHMK	YBCD	METERS			FLOAT4	f11.1
MINE_GRID	YCMG				FLOAT8	f11.1

**A P P E N D I X   2**

**S E C T I O N   4**

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 4 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
UTM					
UTM	SITID				
UTM	UTMZ				
UTM	UTMC	REF--LONG	S999		
UTM	UTMN	NORTHING	S9(8)V9		
UTM	UTME	EASTING		S9(8)V9	
LLELEV					
LLELEV	SITID				
LLELEV	LAT	LAT		S9(2)V9(6)	
LLELEV	LONG	LONG		S9(4)V9(6)	
LLELEV	ELEV	GROUND--ELEV		S9(4)V99	
LLELEV	ELKB				
DLS_LSD					
DLS_LSD	SITID				
DLS_LSD	MER	MERIDAN		9	
DLS_LSD	TWP	TOWNSHIP		999	
DLS_LSD	RGE	RNGE		99	
DLS_LSD	SECT	SEC		99	
DLS_LSD	LSD				
DLS_LSD	LSDM				
DLS_COORD					
DLS_COORD	SITID				
DLS_COORD	MER	MERIDAN		9	
DLS_COORD	TWP	TOWNSHIP		XXX	
DLS_COORD	RGE	RNGE		99	
DLS_COORD	SECT	SEC		99	
DLS_COORD	RSEC				
DLS_COORD	RCNR				
DLS_COORD	METN	NORTH--SOUTH--DIST		S9(4)V9	
DLS_COORD	NSCD	NORTH--SOUTH--CODE		X	
DLS_COORD	METE	EAST--WEST--DIST		S9(4)V9	
DLS_COORD	EWCD	EAST--WEST--CODE		X	
NTS					
NTS	SITID				
NTS	NTSP				
NTS	NTSS				
NTS	NTST				
MN_GD_BNCH					

			SECTION 4		
TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
MN_GD_BNCH	SITID				
MN_GD_BNCH	MNGNUM				
BNCHMK					
BNCHMK	MNGNUM				
BNCHMK	UTMZ				
BNCHMK	UTMC	REF-LONG		S999	
BNCHMK	UTMN	NORTHING		S9(8)V9	
BNCHMK	UTME	EASTING		S9(8)V9	
BNCHMK	LAT	LAT		S9(2)V9(6)	
BNCHMK	LONG	LONG		S9(4)V9(6)	
BNCHMK	MER	MERIDAN		9	
BNCHMK	TWP	TOWNSHIP		X	
BNCHMK	RGE	RNGE		99	
BNCHMK	SECT	SEC		99	
BNCHMK	RSEC				
BNCHMK	RCNR				
BNCHMK	METN	NORTH-SOUTH-DIST		S9(4)V9	
BNCHMK	NSCD	NORTH-SOUTH-CODE		X	
BNCHMK	METE	EAST-WEST-DIST		S9(4)V99	
BNCHMK	EWCD	EAST-WEST-CODE		X	
BNCHMK	AZXB				
BNCHMK	AZYB				
BNCHMK	XBCD	X-COORD		S9(8)V9	
BNCHMK	YBCD	Y-COORD		S9(8)V9	
BNCHMK	ELEV	GROUND-ELEV		S9(4)V99	
COMP_PARTIC					
COMP_PARTIC	SITID				
COMP_PARTIC	CORPNUM				
COMP					
COMP	CORPNUM				
COMP	COMPANY	CO-NAME		X(55)	
COMP	COMP_ABBREV	CO-ABBREV		X(14)	
COMP	COMP_CODE	CO-CODE		XXX	
COMP	ADD_SUITE_NO	SUITE-NO		X(30)	
COMP	ADD_PO_BOX	PO-BOX		X(30)	
COMP	ADD_ST	STREET		X(30)	
COMP	ADD_CITY	CITY		X(12)	
COMP	ADD_PROV	PROVINCE		X(12)	

			SECTION 4		
TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
COMP	ADD_PC	POSTAL-CODE		X(6)	
COMP	MAL_COMP_NAM	MAIL-NAME		X(55)	
COMP	MAL_SUITE_NO	MAIL-SUITE-NO		X(30)	
COMP	MAL_PO_BOX	MAIL-PO-BOX		X(30)	
COMP	MAL_ST	STREET		X(30)	
COMP	MAL_CITY	MAIL-CITY		X(12)	
COMP	MAL_PROV	MAIL-PROVINCE		X(12)	
COMP	MAL_PC	MAIL-POSTAL-CODE		X(6)	
MINE_GRID					
MINE_GRID	SITID				
MINE_GRID	BSLX				
MINE_GRID	BSLY				
MINE_GRID	XCMG	X-COORD		S9(8)V9	
MINE_GRID	YCMG	Y-COORD		S9(8)V9	
THREETM					
THREETM	SITID				
THREETM	TRTMZ				
THREETM	TRTMC				
THREETM	TRTMN				
THREETM	TRTME				
SOURCE					
SOURCE	SITID				
SOURCE	CAT_ID	CATALOG-ID		9(9)	
SOURCE	ORIG	CO-HOLE-NO		X(6)	!
SOURCE	ORIG	DATAPOINT-NO		X(6)	!
SOURCE	ORIG	EXCAVATION-NO		X(6)	!
SOURCE	OPRJ				
SOURCE	CPDT	EXPL-FIN-DATE		9(8)	
TENTM					
TENTM	SITID				
TENTM	TENTME	10TM-EASTING		S9(7)	
TENTM	TENTMN	10TM-NORTHING		S9(7)	
DATA_SOURCE					
DATA_SOURCE	SITID				
DATA_SOURCE	SRCNUM	EXPL-ENTITY-TYPE		X	!
DATA_SOURCE	SCRNUM	SOURCE-METH-CODE		XX	!
SR_MTH					
SR_MTH	SRCNUM	EXPL-ENTITY-TYPE		X	!

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 4		
			ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
SR_MTH	SRCNUM	SOURCE-METH-CODE		XX	1
SR_MTH	SRC_DESC				
SRVY_SRC					
SRVY_SRC	SITID				
SRVY_SRC	SRVNUM	COORD-SYS-USED		9	
SURVEY					
SURVEY	SRVNUM	COORD-SYS-USED		9	
SURVEY	SURV_DESC				
STATUS_MINE					
STATUS_MINE	SITID				
STATUS_MINE	STANUM	MINE-LEGAL-STATUS		X	
MINE_STS					
MINE_STS	STANUM	MINE-LEGAL-STATUS		X	
MINE_STS	M_LGL_S				
TYPE_MINE					
TYPE_MINE	SITID				
TYPE_MINE	MNTYNUM	MINE-TYPE		9	
MINE_TYP					
MINE_TYP	MNTYNUM	MINE-TYPE		9	
MINE_TYP	M_TYPE				
METH_MING					
METH_MING	SITID				
METH_MING	MNMTNUM	MINING-METHOD		X	
MINE_MTHD					
MINE_MTHD	MNMTNUM	MINING-METHOD		X	
MINE_MTHD	M_METH				
RNK_COAL					
RNK_COAL	SITID				
RNK_COAL	RNKNUM	COAL-RANK		XX	
C_RNK					
C_RNK	RNKNUM	COAL-RANK		XX	
C_RNK	C_RANK				
TYPE_COAL					
TYPE_COAL	SITID				
TYPE_COAL	CLTYNUM	COAL-TYPE		S9	
C_TYP					
C_TYP	CLTYNUM	COAL-TYPE		S9	
C_TYP	C_TYPE				

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 4 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
CONTRACTOR					
CONTRACTOR	SITID				
CONTRACTOR	CTRNUM				
CNTRCTR					
CNTRCTR	CTRNUM				
CNTRCTR	CNTRCTR_NM				
LGGNG_CNTR					
LGGNG_CNTR	SITID				
LGGNG_CNTR	LGCNTNUM	LOGGING-CO-CODE		X(3)	
LG_CNT					
LG_CNT	LGCNTNUM	LOGGING-CO-CODE		X(3)	
LG_CNT	L_CNTR_NM				
ADIT					
ADIT	SITID				
ADIT	LENG	EXCAVATION-LENGTH		S9(4)V99	
ADIT	WIDE	EXCAVATION-WIDTH		S9(4)V9	
ADIT	HEIG	EXCAVATION-HEIGHT		S9(4)V99	
ADIT	AZM	AZIMUTH		S9(4)	
ADIT	INC	INCLINE		S9(2)	
MINE					
MINE	SITID				
MINE	MCOM	MINING-CO-NAME		X(20)	
MINE	MNAM	MINE-NAME		X(15)	
MINE	MNOM	MINE-NO		X(10)	
DH					
DH	SITID				
DH	DRL_LOG				
DH	CSG_DIAM				
DH	CSG_TD				
DH	HOLE_DIAM	DIAM		S9(4)V9	
DH	TD	DEPTH		S9(4)V9	
DH	CORE_RECOV	CORE-RECOV		S9(3)	
DH	LOG_CODE				
DH	DT_WTR_LVL				
DH	WTR_LVL	WTRTBL-DEPTH		S9(4)V9	
DH	PIEZO				
DH	SOILS				
LOG_RUN					



TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 4		
			ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
LOG_RUN	SITID				
LOG_RUN	LOGNUM	LOG-TYPE		X	
LOGS					
LOGS	LOGNUM	LOG-TYPE		X	
LOGS	LOG_TYPE				
HAZ					
HAZ	SITID				
HAZ	HAZNUM	HAZARD-CODE		X	
HAZARD					
HAZARD	HAZNUM	HAZARD-CODE		X	
HAZARD	HAZ_DESC				
SMPL					
SMPL	SITID				
SMPL	SAMTYPNUM	SAMPLE-CODE		9	
SPL_TYP					
SPL_TYP	SAMTYPNUM	SAMPLE-CODE		9	
SPL_TYP	SPL_TYPE				
TEST_PIT					
TEST_PIT	SITID				
TEST_PIT	LENG	EXCAVATION-LENGTH		S9(4)V99	
TEST_PIT	WIDE	EXCAVATION-WIDTH		S9(4)V9	
TEST_PIT	DEP	EXCAVATION-HEIGHT		S9(4)V99	
TRENCH					
TRENCH	SITID				
TRENCH	LENG	EXCAVATION-LENGTH		S9(4)V99	
TRENCH	WIDE	EXCAVATION-WIDTH		S9(4)V9	
TRENCH	DEP	EXCAVATION-HEIGHT		S9(4)V99	
TRENCH	AZM	AZIMUTH		S9(4)	
TRAVERSE					
TRAVERSE	SITID				
TRAVERSE	TRAVNUM				
TRAVERSE	TRAV_NO				
TRAV_PART					
TRAV_PART	TRAVNUM				
TRAV_PART	AZM				
TRAV_PART	INC				
TRAV_PART	L_LEG				
TRAV_PART	COMM				

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 4 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
DH_DEV					
DH_DEV	SITID				
DH_DEV	DEVNUM				
DH_DEV	DFROM				
DH_DEV	DTO				
DEV					
DEV	DEVNUM				
DEV	AZM	AZIMUTH		S9(4)	
DEV	DEVV				
CONFNTLY					
CONFNTLY	SITID				
CONFNTLY	DRLD	DATA-REL-DATE		9(8)	
CONFIDENT					
CONFIDENT	SITID				
CONFIDENT	CNFNUM	CONF-CODE		X	
CNFDTL					
CNFDTL	CNFNUM	CONF-CODE		X	
CNFDTL	CNFDY				
INTERP					
INTERP	SITID				
INTERP	GEOL				
INTERP	INTD				
REMARX					
REMARX	SITID				
REMARX	REMX	OUTCROP-SOURCE		X(25)	
REMARX	REMD	REMARK-DATE		9(8)	
CONFIDC					
CONFIDC	SITID				
CONFIDC	CNF_LVL	CNFDNC-LEVEL		S99	
CONFIDC	COO_ACC	COORD-ACC		S999	
CONFIDC	ELEV_ACC	ELEV-ACC		S999	
PREC					
PREC	SITID				
PREC	COORNUM				
PREC	ELEVNUM				
COORD_BSD_ON					
COORD_BSD_ON	COORNUM				
COORD_BSD_ON	C_ORG				

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 4 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
ELEV_BSD_ON					
ELEV_BSD_ON	ELEVNUM				
ELEV_BSD_ON	E_ORG				
BDG_NORM					
BDG_NORM	SITID				
BDG_NORM	ORNUM				
BDG_NORM	DIPNUM				
BDG_NORM	PCHNUM				
BDG_NORM	OBOT				
O_ORN					
O_ORN	ORNUM				
O_ORN	ORNTN				
DDDIR					
DDDIR	DIPNUM				
DDDIR	DIP				
DDDIR	DIP_D				
PITCH_INFO					
PITCH_INFO	PCHNUM				
PITCH_INFO	PITCH				
BDG_FOLD					
BDG_FOLD	SITID				
BDG_FOLD	ORNUM				
BDG_FOLD	DIPNUM				
BDG_FOLD	AXTNUM				
BDG_FOLD	OBOT				
AX_TR					
AX_TR	AXTNUM				
AX_TR	TRD				
AX_TR	PLG				
FAULT					
FAULT	SITID				
FAULT	DIPNUM				
FAULT	PCHNUM				
FAULT	SNSNUM				
FAULT	OBOT				
O_SNS					
O_SNS	SNSNUM				
O_SNS	OC_SNS				

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 4 ERCB_STRO_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
JNT_SET					
JNT_SET	SITID				
JNT_SET	DIPNUM				
JNT_SET	PCHNUM				
JNT_SET	SNSNUM				
JNT_SET	OBOT				
CLEAV					
CLEAV	SITID				
CLEAV	DIPNUM				
CLEAV	OBOT				
ST_OC_LTH					
ST_OC_LTH	SITID				
ST_OC_LTH	OBOT				
ST_OC_LTH	LITHNUM				
TR_LTH					
TR_LTH	TRAVNUM				
TR_LTH	LITHNUM				
TR_SPL					
TR_SPL	TRAVNUM				
TR_SPL	SAMNUM				
TR_PCK					
TR_PCK	TRAVNUM				
TR_PCK	PIKNUM				
ST_OC_GEO					
ST_OC_GEO	SITID				
ST_OC_GEO	OBOT				
ST_OC_GEO	FMNUM	BASEUNIT		XXX	I
ST_OC_GEO	FMNUM	SUBDIVISION		XXX	I
ST_OC_GEO	MBRNUM	SUBDIVISION		XXX	I
ST_OC_GEO	CZNUM	SUBDIVISION		XXX	
ST_OC_GEO	CSNUM	SEAM-NAME		XXX	I
ST_OC_GEO_	CSNUM	SEAM-NO		XXX	I
P_DH_INT					
P_DH_INT	SITID				
P_DH_INT	PIKNUM				
P_DH_INT	DTOP				
P_DH_INT	DBASE				
P_DH_INT	P_L_ADJ				

			SECTION 4		
TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
INT_RMX					
INT_RMX	PIKNUM				
INT_RMX	REMARKS				
P_OC_INT					
P_OC_INT	SITID				
P_OC_INT	PIKNUM				
P_OC_INT	OBOT				
P_OC_INT	OTOP				
PICK					
PICK	PIKNUM				
PICK	PIK_Q				
P_MKR					
P_MKR	PIKNUM				
P_MKR	MKRNUM				
MKR_TYP					
MKR_TYP	MKRNUM				
MKR_TYP	MKR_TYPE				
P_BSD_ON					
P_BSD_ON	PIKNUM				
P_BSD_ON	BSDNUM				
P_GP					
P_GP	PIKNUM				
P_GP	GPNUM	BASEUNIT		XXX	
P_FM					
P_FM	PIKNUM				
P_FM	FMNUM	BASEUNIT		XXX	1
P_FM	FMNUM	SUBDIVISION		XXX	1
P_MBR					
P_MBR	PIKNUM				
P_MBR	MBRNUM	BASEUNIT		XXX	1
P_MBR	MBRNUM	SUBDIVISION		XXX	1
P_CZ					
P_CZ	PIKNUM				
P_CZ	CZNUM	SUBDIVISION		XXX	
P_CS					
P_CS	PIKNUM				
P_CS	CSNUM	SEAM-NAME		X(5)	1
P_CS	CSUM	SEAM-NO		S999	1

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 4		
			ERCB_STRO_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
GEOL_GROUP					
GEOL_GROUP	GPNUM	BASEUNIT		XXX	
GEOL_GROUP	GRP_NM				
FM_IN_GP					
FM_IN_GP	GPNUM	BASEUNIT		XXX	
FM_IN_GP	FMNUM	BASEUNIT		XXX	!
FM_IN_GP	FMNUM	SUBDIVISION		XXX	!
GEOL_FM					
GEOL_FM	FMNUM	BASEUNIT		XXX	!
GEOL_FM	FMNUM	SUBDIVISION		XXX	!
GEOL_FM	FM_NM				
MBR_IN_FM					
MBR_IN_FM	FMNUM	BASEUNIT		XXX	!
MBR_IN_FM	FMNUM	SUBDIVISION		XXX	!
MBR_IN_FM	MBRNUM	BASEUNIT		XXX	!
MBR-IN_FM	MBRNUM	SUBDIVISION		XXX	!
GEOL_MBR					
GEOL_MBR	MBRNUM	BASEUNIT		XXX	!
GEOL_MBR	MBRNUM	SUBDIVISION		XXX	!
GEOL_MBR	MBR_NM				
CZ_IN_MBR					
CZ_IN_MBR	MBRNUM	BASEUNIT		XXX	!
CZ_IN_MBR	MBRNUM	SUBDIVISION		XXX	!
CZ_IN_MBR	CZNUM	SUBDIVISION		XXX	
CZ_IN_FM					
CZ_IN_FM	FMNUM	BASEUNIT		XXX	
CZ_IN_FM	CZNUM	SUBDIVISION		XXX	
GEOL_CZ					
GEOL_CZ	CZNUM	SUBDIVISION		XXX	
GEOL_CZ	CZ_NM				
CS_IN_CZ					
CS_IN_CZ	CZNUM	SUBDIVISION		XXX	
CS_IN_CZ	CSNUM	SEAM-NAME		X(5)	!
CS_IN_CZ	CSNUM	SEAM-NO		S999	!
GEOL_CS					
GEOL_CS	CSNUM	SEAM-NAME		X(5)	!
GEOL_CS	CSNUM	SEAM-NO		S999	!
GEOL_CS	CS_NM				

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 4 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
L_DH					
L_DH	SITID				
L_DH	LITHNUM				
L_DH	LTOPP				
L_DH	LBASE				
L_DH	CBA				
L_DH	L_L_ADJ				
L_REM					
L_REM	LITHNUM				
L_REM	L_REMX				
L_MAIN					
L_MAIN	LITHNUM				
L_MAIN	MAINUM	ROCK-TYPE-OR-GEOL-UNIT		XXX	
L_OC					
L_OC	SITID				
L_OC	LITHNUM				
L_OC	LBOT				
L_OC	LTOP				
L_CHN					
L_CHN	SITID				
L_CHN	LITHNUM				
L_CHN	CLTOP				
L_CHN	CLBOT				
L_LOG					
L_LOG	LITHNUM				
L_MOD1					
L_MOD1	LITHNUM				
L_MOD1	MODNUM	FIRST-MODIFIER		XXX	1
L_MOD1	MODNUM	SECOND-MODIFIER		XXX	1
L_MOD2					
L_MOD2	LITHNUM				
L_MOD2	MODNUM	FIRST-MODIFIER		XXX	1
L_MOD2	MODNUM	SECOND-MODIFIER		XXX	1
L_SP_FT					
L_SP_FT	LITHNUM				
L_SP_FT	SPFNUM				
P_LITHO					
P_LITHO	PIKNUM				

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 4 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
P_LITHO	LITHNUM				
P_LITHO	SAMNUM				
P_LITHO	ANANUM				
L_ATT					
L_ATT	LITHNUM				
L_ATT	ATTNUM	ATTITUDE-CODE		S9	
ATT					
ATT	ATTNUM	ATTITUDE-CODE		S9	
ATT	ATTITUDE				
LITH_MN					
LITH_MN	MAINUM	ROCK-TYPE-OR-GEOL-UNIT		XXX	
LITH_MN	L_CTGY				
LITH_MN	L_TYP				
LITH_MD					
LITH_MD	MODNUM	FIRST-MODIFIER		XXX	!
LITH_MD	MODNUM	SECOND-MODIFIER		XXX	!
LITH_MD	M_TYP				
LITH_MD	M_DESC				
L_SP_FEA					
L_SP_FEA	SPFNUM				
L_SP_FEA	SP_FE				
L_BSD_ON					
L_BSD_ON	LITHNUM				
L_BSD_ON	BSDNUM				
BASED					
BASED	BSDNUM				
BASED	BSD_ON				
S_FRM					
S_FRM	SAMNUM				
S_FRM	FMNUM	BASEUNIT		XXX	!
S_FRM	FMNUM	SUBDIVISION		XXX	!
S_FRM	MBRNUM	BASEUNIT		XXX	!
S_FRM	MBRNUM	SUBDIVISION		XXX	!
S_FRM	CZNUM	SUBDIVISION		XXX	!
S_FRM	CSNUM	SEAM-NAME		XXX	!
S_FRM	CSNUM	SEAM-NO		XXX	!
S_OC					
S_OC	SITID				



TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 4 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
S_OC	SAMNUM				
S_OC	SOBOT				
S_OC	SOTOP				
S_CHNL					
S_CHNL	SITID				
S_CHNL	SAMNUM				
S_CHNL	SCLTOP				
S_CHNL	SCLBOT				
S_DH					
S_DH	SITID				
S_DH	SAMNUM				
S_DH	STOP				
S_DH	SBASE				
S_DH	S_L_ADJ				
S_STAT					
S_STAT	SAMNUM				
S_STAT	S_NO				
S_STAT	S_LTH				
S_STAT	S_WT	SAMPLE-WT			
S_STAT	S_DT	SAMPLE-DATE		S9(7)V9(5)	
S_STAT	S_BY			9(8)	
S_REMX					
S_REMX	SAMNUM				
S_REMX	S_RMX				
S_CONTIN					
S_CONTIN	SAMNUM				
S_CONTIN	CONTNUM	COM-CODE			
CONTIN				X	
CONTIN	CONTNUM	COM-CODE			
CONTIN	CONT			X	
S_SEG					
S_SEG	SAMNUM				
S_SEG	SEGNUM				
S_SEGMT					
S_SEGMT	SEGNUM				
S_SEGMT	SGMT				
S_PREPTN					
S_PREPTN	SAMNUM				

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 4		
			ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
S_PREPTN	PREPNUM	SAMPLE-TYPE		S9(2)	!
S_PREP					
S_PREP	PREPNUM	SAMPLE-TYPE		S9(2)	!
S_PREP	PREP				
A_STA					
A_STA	ANANUM				
A_STA	L_S_NO	LAB-SAMPLE-ID		X(6)	
A_STA	A_DT	ANALYSIS-DATE			
LAB_ANA					
LAB_ANA	ANANUM				
LAB_ANA	LABNUM	LAB-CODE		S99	
LAB					
LAB	LABNUM	LAB-CODE		S99	
LAB	LAB_NM				
SZ_ANA					
SZ_ANA	ANANUM				
SZ_ANA	SZNUM	SIZE-FRACTION		X	
OK_ANA					
OK_ANA	ANANUM				
OK_ANA	OKNUM	APPROVAL-FLAG		X	
CNF_ANA					
CNF_ANA	ANANUM				
CNF_ANA	CONFNUM	ANALYSIS-CONF-CODE		X	
ANA_CONF					
ANA_CONF	CONFNUM	ANALYSIS-CONF-CODE		X	
ANA_CONF	A_CONF				
SZ_FRACT					
SZ_FRACT	SZNUM	SIZE-FRACTION		X	
SZ_FRACT	SZ_FR				
ANA_OK					
ANA_OK	OKNUM	APPROVAL-FLAG		X	
ANA_OK	A_APP				
E_MOIST					
E_MOIST	SAMNUM				
E_MOIST	ANANUM				
E_MOIST	EQM	EQUILIB-MOIST		S99V99	
S					
S	SAMNUM				

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 4 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
S	ANANUM				
S	SARB	ORGANIC		S99V99	
S	SADB	ORGANIC		S99V99	
HV					
HV	SAMNUM				
HV	ANANUM				
HV	HVARB	CALORIFIC-VALUE	J/GM	S9(5)	!
HV	HVADB	CALORIFIC-VALUE	J/GM	S9(5)	!
PROX					
PROX	SAMNUM				
PROX	ANANUM				
PROX	PMAR	AS-REC-MOIST		S99V99	!
PROX	PMAR	PROX-MOISTURE-CODE		9	!
PROX	PVMAR	VOLATILE-MATTER		S99V99	!
PROX	PVMAR	PROX-MOISTURE-CODE		9	!
PROX	PAAR	PROX-ASH		S99V99	!
PROX	PAAR	PROX-MOISTURE-CODE		9	!
PROX	PFCAR	FIXED-CARBON		S99V99	!
PROX	PFCAR	PROX-MOISTURE-CODE		9	!
PROX	PMAD	RESID-MOIST		S99V99	!
PROX	PMAD	PROX-MOISTURE-CODE		9	!
PROX	PVMAD	VOLATILE-MATTER		S99V99	!
PROX	PVMAD	PROX-MOISTURE-CODE		9	!
PROX	PAAD	PROX-ASH		S99V99	!
PROX	PAAD	PROX-MOISTURE-CODE		9	!
PROX	PFCAD	FIXED-CARBON		S99V99	!
PROX	PFCAD	PROX-MOISTURE-CODE		9	!
A_FUS					
A_FUS	SAMNUM				
A_FUS	ANANUM				
A_FUS	RIDT	IT-REDUCING		S9(4)	
A_FUS	RSOT	ST-REDUCING		S9(4)	
A_FUS	RHET	HT-REDUCING		S9(4)	
A_FUS	RFLT	FT-REDUCING		S9(4)	
A_FUS	OIDT	IT-OXIDIZING		S9(4)	
A_FUS	OSOT	ST-OXIDIZING		S9(4)	
A_FUS	OHET	HT-OXIDIZING		S9(4)	
A_FUS	OFLT	FT-OXIDIZING		S9(4)	

SECTION 4					
TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
A_FUS	VISC	VISCOSITY		S9(4)	
POROS					
POROS	SAMNUM				
POROS	ANANUM				
POROS	POAD	AS-DETERMINED-POROSITY		S99V99	
POROS	POIN	INSITU-POROSITY		S99V99	
METHANE					
METHANE	SAMNUM				
METHANE	ANANUM				
METHANE	CH4	METHANE		S99V99	
A_RESIS					
A_RESIS	SAMNUM				
A_RESIS	ANANUM				
A_RESIS	E_RES_EXP	ELEC-RESIS-EXPONENT		S99	
A_RESIS	E_RES	ELECTRICAL-RESISTIVITY		S99V99	
ULT					
ULT	SAMNUM				
ULT	ANANUM				
ULT	UAMAD	ULT-MOIST		S99V99	
ULT	UAC	CARBON		S99V99	
ULT	UAH	HYDROGEN		S99V99	
ULT	UAN	NITROGEN		S99V99	
ULT	UAA	ULT-ASH		S99V99	
ULT	UAS	SULPHUR		S99V99	
ULT	UAO	OXYGEN		S99V99	
ULT	UINC	INCLUSION-CODE		X	
HGI_ABRAS					
HGI_ABRAS	SAMNUM				
HGI_ABRAS	ANANUM				
HGI_ABRAS	HGI	HARDGROVE-GRINDABILITY		S999V9	
HGI_ABRAS	ABV	ABRASIVENESS		S9(8)	
HGI_ABRAS	MCHD	MICRO-HARDNESS		S9(4)	
HGI_ABRAS	DRST	DROP-SHATTER-TEST		S99V99	
TR_ELEM					
TR_ELEM	SAMNUM				
TR_ELEM	ANANUM				
TR_ELEM	ATOMNUM				
TR_ELEM	PPM	ELEMENT-VALUE		S9(4)V99	!

## SECTION 4

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
TR_ELEM	PPM	ARSENIC		S9(4)V99	!
TR_ELEM	PPM	BORON		S9(4)V99	!
TR_ELEM	PPM	BERYLLIUM		S9(4)V99	!
TR_ELEM	PPM	CADMIUM		S9(4)V99	!
TR_ELEM	PPM	CHLORINE		S9(4)V99	!
TR_ELEM	PPM	FLUORINE		S9(4)V99	!
TR_ELEM	PPM	MERCURY		S9(4)V99	!
TR_ELEM	PPM	MANGANESE		S9(4)V99	!
TR_ELEM	PPM	LEAD		S9(4)V99	!
TR_ELEM	PPM	SELENIUM		S9(4)V99	!
TR_ELEM	PPM	URANIUM		S9(4)V99	!
ATOMIC_NO					
ATOMIC_NO	ATOMNUM				
ATOMIC_NO	TR_EL				
ATOMIC_NO	TE_SYM				
MNRL_ANA					
MNRL_ANA	SAMNUM				
MNRL_ANA	ANANUM				
MNRL_ANA	ANK	ANKERITE		S99V99	
MNRL_ANA	CLCT	CALCITE		S99V99	
MNRL_ANA	DOL	DOLOMITE		S99V99	
MNRL_ANA	GAL	GALENA		S99V99	
MNRL_ANA	KAOL	KAOLINITE		S99V99	
MNRL_ANA	MTIL	MONTMORILLINITE-AND-ILLITE		S99V99	
MNRL_ANA	PTMC	PYRITE-AND-OR-MARCASITE		S99V99	
MNRL_ANA	SIDR	SIDERITE		S99V99	
MNRL_ANA	SPHAL	SPHALERITE		S99V99	
MNRL_ANA	QTZ	QUARTZ		S99V99	
A_ANA_H					
A_ANA_H	SAMNUM				
A_ANA_H	ANANUM				
A_ANA_H	SI02	SILICON-DIOXIDE		S99V99	
A_ANA_H	AL203	ALUMINUM-OXIDE		S99V99	
A_ANA_H	TIO2	TITANIUM-OXIDE		S99V99	
A_ANA_H	FE203	IRON-OXIDE		S99V99	
A_ANA_H	CAO	CALCIUM-OXIDE		S99V99	
A_ANA_H	MGO	MAGNESIUM-OXIDE		S99V99	
A_ANA_H	NA2O	SODIUM-MONOXIDE		S99V99	

SECTION 4					
TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
A_ANA_H	K20	POTASSIUM-OXIDE		S99V99	
A_ANA_H	P205	PHOSPHORUS-PENTOXIDE		S99V99	
A_ANA_H	SO3	SULPHUR-TRIOXIDE		S99V99	
A_ANA_H	UNDT				
A_ANA_H	CO2	CARBON-DIOXIDE		S99V99	
A_ANA_H	CR03	CHROMIUM-TRIOXIDE		S99V99	
A_ANA_H	MNO	MANGANESE-OXIDE		S99V99	
A_ANA_H	MOO3	MOLYBDENUM-TRIOXIDE		S99V99	
A_ANA_H	NIO	NICKEL-OXIDE		S99V99	
A_ANA_H	VO3	VANADIUM-TRIOXIDE		S99V99	
A_ANA_H	FOULNUM				
A_ANA_L					
A_ANA_L	SAMNUM				
A_ANA_L	ANANUM				
A_ANA_L	SI02_L				
A_ANA_L	AL203_L				
A_ANA_L	TI02_L				
A_ANA_L	FE203_L				
A_ANA_L	CAO_L				
A_ANA_L	MGO_L				
A_ANA_L	NA2O_L				
A_ANA_L	K2O_L				
A_ANA_L	P205_L				
A_ANA_L	SO3_L				
A_ANA_L	UNDT_L				
A_ANA_L	CO2_L				
A_ANA_L	CR03_L				
A_ANA_L	MNO_L				
A_ANA_L	MOO3_L				
A_ANA_L	NIO_L				
A-ANA_L	VO3_L				
A_ANA_L	FOULNUM				
FOUL					
FOUL	FOULNUM	FOULING		X	
FOUL	FLNG				
SG_DENS					
SG_DENS	SAMNUM				
SG_DENS	ANANUM				

				SECTION 4	
TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
SG_DENS	DDEN				
SG_DENS	BDEN				
SG_DENS	MSTNUM	PHYSICAL-MOISTURE-CODE		X	
SG_DENS	SGNUM	SPECIFIC-GRAVITY-CODE		X	
SG_DENS	SG	SPECIFIC-GRAVITY-HI		S9V99	
SG_DENS	SGLO	SPECIFIC-GRAVITY-LO		S9V99	
RQD_ETAL					
RQD_ETAL	SAMNUM				
RQD_ETAL	ANANUM				
RQD_ETAL	RECOV				
RQD_ETAL	RQD				
RQD_ETAL	JNT				
RQD_ETAL	SJNUM				
RQD_ETAL	JINUM				
SJNT					
SJNT	SJNUM				
SJNT	JNT_ST				
JNTI					
JNTI	JINUM				
JNTI	JNT_IN				
SG_INF					
SG_INF	SGNUM	SPECIFIC-GRAVITY-CODE		X	
SG_INF	SGTYPE				
MOISTURE					
MOISTURE	MSTNUM	PHYSICAL-MOISTURE-CODE		X	
MOISTURE	MOIST				
SIEVE_ANAL					
SIEVE_ANAL	SAMNUM				
SIEVE_ANAL	ANANUM				
SIEVE_ANAL	SIVNUM				
SIEVE_ANAL	THRU				
SIEVE					
SIEVE	SIVNUM				
SIEVE	SV_NO				
SIEVE	OPNG				
PROCT					
PROCT	SAMNUM				
PROCT	ANANUM				

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 4 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
PROCT	PTOM				
PROCT	PMDD				
ATTER					
ATTER	SAMNUM				
ATTER	ANANUM				
ATTER	NWC				
ATTER	ALLL				
ATTER	APL				
TRIAx					
TRIAx	SAMNUM				
TRIAx	ANANUM				
TRIAx	DRNUM				
TRIAx	SPECNUM				
TRIAx	IWC				
TRIAx	DDS				
TRIAx	BDS				
TRIAx	ECP				
TRIAx	PORE_PRES				
TRIAx	SIGMA1				
TRIAx	SIGMA3				
TRIAx	AX_ST				
TRIAx	PP_MAX				
TRIAx	SIGMA1_MAX				
TRIAx	SIGMA3_MAX				
TRIAx	AXI_STR				
LDRAIN					
DRAIN	DRNUM				
DRAIN	DR_CN				
SPEC_NO					
SPEC_NO	SPECNUM				
SPEC_NO	SPMN_NO				
DIR_SHR					
DIR_SHR	SAMNUM				
DIR_SHR	ANANUM				
DIR_SHR	SPECNUM				
DIR_SHR	IWC				
DIR_SHR	DDS				
DIR_SHR	BDS				



# SECTION 4

ERCB\_STRD\_UNIT

ERCB\_STGE\_FMT

MULT\_ELMNT\_INDCTR

TBL\_ABBREV CLMN\_ABBRV ERCB\_DATA\_ELEMENT

DIR_SHR	NSTR
DIR_SHR	PSSTR
DIR_SHR	PDSP
DIR_SHR	RSSTR
DIR_SHR	RDSP
DIR_SHR	XSEC_AR
DIR_SHR	SHAPE
CONSOL	
CONSOL	SAMNUM
CONSOL	ANANUM
CONSOL	IWC
CONSOL	IBD
CONSOL	IDD
CONSOL	IVR
CONSOL	PCP
CONSOL	CPI
CONSOL	INCNUM
CONSOL	CON_PRE
CONSOL	CVC
CONSOL	CC
HMR	
HMR	SAMNUM
HMR	ANANUM
HMR	SPT
HMR	BKHT
STRGTH	
STRGTH	SAMNUM
STRGTH	ANANUM
STRGTH	POCK
STRGTH	UN_COMP
STRGTH	VANE
STRGTH	CN_RS
STRGTH	CN_FR
INCRMNT	
INCRMNT	INCNUM
INCRMNT	INC_NO
FSI_IND	
FSI_IND	SAMNUM

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 4 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
FSI_IND	ANANUM				
FSI_IND	FSI	FSI		S99V9	
GRAY_KING					
GRAY_KING	SAMNUM				
GRAY_KING	ANANUM				
GRAY_KING	GRYNUM	COKE-TYPE		X	
GRAY_KING	GKAT	GA-TAR		S99V99	
GRAY_KING	GKAG	GA-GAS		S99V99	
GRAY_KING	GKAL	GA-LIQUOR		S99V99	
GRAY_KING	GKAS	GA-SOLID		S99V99	
GRAY_KING	GKHV	GAS-HEAT-VALUE		S9(4)	
FLASH					
FLASH	SAMNUM				
FLASH	ANANUM				
FLASH	FLPT	FP-TAR		S99V99	
FLASH	FLPG	FP-GAS		S99V99	
FLASH	FLPL	FP-LIQUOR		S99V99	
FLASH	FLPS	FP-SOLID		S99V99	
GRY_KING					
GRY_KING	GRYNUM	COKE-TYPE		X	
GRY_KING	GK_ID				
FISCHER					
FISCHER	SAMNUM				
FISCHER	ANANUM				
FISCHER	FSAT	FA-TAR		S99V99	
FISCHER	FSAG	FA-GAS		S99V99	
FISCHER	FSAL	FA-LIQUOR		S99V99	
FISCHER	FSAS	FA-SOLID		S99V99	
DILATOM					
DILATOM	SAMNUM				
DILATOM	ANANUM				
DILATOM	DILNUM	DILATOMETER-TEST-TYPE-CODES		X	
DILATOM	DSOFT	INITIAL-SOFTENING-TEMP		S999	
DILATOM	DMXCNT	MAXIMUM-CONTRACTION-TEMP		S999	
DILATOM	DMCPC	MAXIMUM-CONTRACTION-PERCENT		S999	
DILATOM	DMXDIT	MAXIMUM-SWELLING-TEMP		S999	
DILATOM	DMDPC	MAXIMUM-SWELLING-PERCENT		S999	
DILATOM	DFDPC	FINAL-DILATION-PERCENT		S999	

			SECTION 4		
TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
DILATOM	DRESOLT	RESOLIDIFICATION-TEMP		S999	
GEIS					
GEIS	SAMNUM				
GEIS	ANANUM				
GEIS	GPST	INITIAL-SOFTENING-TEMP		S999	
GEIS	GPFT	MAXIMUM-FLUID-TEMP		S999	
GEIS	GDDM	MAXIMUM-FLUIDITY		S9(6)	
GEIS	GPSL	SOLIDIFICATION-TEMP		S999	
GEIS	GPFR				
SLAG					
SLAG	SAMNUM				
SLAG	ANANUM				
SLAG	SGIN	SLAGGING-INDICES		S(9)4	
COKE_PRES					
COKE_PRES	SAMNUM				
COKE_PRES	ANANUM				
COKE_PRES	CKPR				
DLTM					
DLTM	DILNUM	DILATOMETER-TEST-TYPE-CODES		X	
DLTM	DLTM_TYP				
POLLEN					
POLLEN	SAMNUM				
POLLEN	ANANUM				
POLLEN	PETNUM				
P_PRO					
P_PRO	PETNUM				
P_PRO	PETROG				
P_PRO	AFFIL				
P_PRO	ST_DT				
P_PRO	FIN_DT				
P_PRO	PETSAM_NO				
PELLETS					
PELLETS	SAMNUM				
PELLETS	ANANUM				
PELLETS	PETNUM				
PELLETS	RFLA	REFLECTANCE-ANGLE		S9(3)	
PELLETS	NMAX				
PELLETS	MNMX	REFLECTANCE		S99V99	

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 4 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
PELLETS	SDMX				
PELLETS	MMIN				
PELLETS	MNMN				
PELLETS	SDMN				
PELLETS	NRDM				
PELLETS	MNRDM				
PELLETS	SDRDM				
BLOX					
BLOX	SAMNUM				
BLOX	ANANUM				
BLOX	PETNUM				
BLOX	NOM				
BLOX	MXVR				
BLOX	MNVR				
BLOX	INVR				
BLOX	TRMX				
BLOX	PLMX				
BLOX	TRMN				
BLOX	PLMN				
BLOX	TRIN				
BLOX	PLIN				
MACERAL					
MACERAL	SAMNUM				
MACERAL	ANANUM				
MACERAL	PETNUM				
MACERAL	VITR	VITRINITE		S99V99	
MACERAL	EXIN	EXINITE		S99V99	
MACERAL	INRT	INERTINITE		S99V99	
MACERAL	REMAC				
MACERAL	INMAC				
P_IND					
P_IND	SAMNUM				
P_IND	ANANUM				
P_IND	PETNUM				
P_IND	CBI				
P_IND	STRI				
P_IND	STBI				
A_WRH_AT					

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 4 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
A_WRH_AT	ANANUM				
A_WRH_AT	WRHNUM				
A_WRH_AT	WRHTAGNO				
S_HAS_A					
S_HAS_A	SAMNUM				
S_HAS_A	ANANUM				
S_HAS_A	ATNUM				
SVD_C_UNA					
SVD_C_UNA	SAMNUM				
SVD_C_UNA	WRHNUM				
ANA_TYP					
ANA_TYP	ATNUM				
ANA_TYP	A_TYP				
WAREHOUSE					
WAREHOUSE	WRHNUM				
WAREHOUSE	WRH_NM				
WAREHOUSE	WRH_ADD				
WAREHOUSE	WRH_PH				
WAREHOUSE	WRH_CNTCT				
SVD_SPL					
SVD_SPL	SAMNUM				
SVD_SPL	WRHTAGNO				
SVD_SPL	MASS_STD				
SVD_SPL	ART_CONT				
SVD_SPL	REFRIG				
SVD_SPL	ARCH_DT				

**A P P E N D I X 2**

**S E C T I O N 5**

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 5 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
A-ANA_L	V03_L				
ADIT					
ADIT	SITID				
ANA_CONF					
ANA_CONF	A_CONF				
ANA_OK	A_APP				
ANA_OK					
ANA_TYP					
ANA_TYP	A_TYP				
ANA_TYP	ATNUM				
ATOMIC_NO	TR_EL				
ATOMIC_NO	ATOMNUM				
ATOMIC_NO					
ATOMIC_NO	TE_SYM				
ATT					
ATT	ATTITUDE				
ATTER	ALLL				
ATTER	APL				
ATTER	NWC				
ATTER	ANANUM				
ATTER	SAMNUM				
ATTER					
AX_TR					
AX_TR	TRD				
AX_TR	AXTNUM				
AX_TR	PLG				
A_ANA_H	ANANUM				
A_ANA_H	FOULNUM				
A_ANA_H					
A_ANA_H	UNDT				
A_ANA_H	SAMNUM				
A_ANA_L	MNO_L				
A_ANA_L	MOO3_L				
A_ANA_L	MGO_L				
A_ANA_L	NA20_L				
A_ANA_L	UNDT_L				
A_ANA_L	CRO3_L				
A_ANA_L	SAMNUM				

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 5 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
A_ANA_L	S03_L				
A_ANA_L	N10_L				
A_ANA_L	CO2_L				
A_ANA_L					
A_ANA_L	AL203_L				
A_ANA_L	ANANUM				
A_ANA_L	FE203_L				
A_ANA_L	CAO_L				
A_ANA_L	SI02_L				
A_ANA_L	P205_L				
A_ANA_L	FOULNUM				
A_FUS	ANANUM				
A_FUS					
A_FUS	SAMNUM				
A_RESIS					
A_RESIS	SAMNUM				
A_RESIS	ANANUM				
A_STA					
A_STA	ANANUM				
A_WRH_AT	WRHNUM				
A_WRH_AT	WRHTAGNO				
A_WRH_AT					
A_WRH_AT	ANANUM				
BASED	BSD_ON				
BASED	BSDNUM				
BASED					
BDG_FOLD	AXTNUM				
BDG_FOLD	SITID				
BDG_FOLD	DIPNUM				
BDG_FOLD	ORNUM				
BDG_FOLD					
BDG_FOLD	OBOT				
BDG_NORM	SITID				
BDG_NORM	PCHNUM				
BDG_NORM					
BDG_NORM	ORNUM				
BDG_NORM	OBOT				
BDG_NORM	DIPNUM				



TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 5 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
BLOX	PLMX				
BLOX	SAMNUM				
BLOX	TRMX				
BLOX	TRMN				
BLOX	ANANUM				
BLOX	PETNUM				
BLOX	PLIN				
BLOX	INVR				
BLOX	NOM				
BLOX	MXVR				
BLOX					
BLOX	TRIN				
BLOX	MNVR				
BLOX	PLMN				
BNCHMK	MNGNUM				
BNCHMK	AZYB				
BNCHMK	RCNR				
BNCHMK					
BNCHMK	UTMZ				
BNCHMK	AZXB				
BNCHMK	RSEC				
CLEAV	SITID				
CLEAV					
CLEAV	OBOT				
CLEAV	DIPNUM				
CNFOTL					
CNFDTL	CNFDY				
CNF_ANA	ANANUM				
CNF_ANA					
CNTRCTR	CNTRCTR_NM				
CNTRCTR	CTRNUM				
CNTRCTR					
COKE_PRES	CKPR				
COKE_PRES	SAMNUM				
COKE_PRES	ANANUM				
COKE_PRES					
COMP					
COMP	CORPNUM				

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 5 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
COMP_PARTIC	SITID				
COMP_PARTIC	CORPNUM				
COMP_PARTIC					
CONFNTLY	SITID				
CONFNTLY					
CONFIDC	SITID				
CONFIDC					
CONFIDENT	SITID				
CONFIDENT					
CONSOL	IVR				
CONSOL	IDD				
CONSOL	IBD				
CONSOL					
CONSOL	PCP				
CONSOL	IWC				
CONSOL	INCNUM				
CONSOL	CPI				
CONSOL	CC				
CONSOL	SAMNUM				
CONSOL	ANANUM				
CONSOL	CON_PRE				
CONSOL	CVC				
CONTIN	CONT				
CONTIN					
CONTRACTOR					
CONTRACTOR	CTRNUM				
CONTRACTOR	SITID				
COORD_BSD_ON	COORNUM				
COORD_BSD_ON					
COORD_BSD_ON	C_ORG				
CS_IN_CZ					
CZ_IN_FM					
CZ_IN_MBR					
C_RNK	C_RANK				
C_RNK					
C_TYP					
C_TYP	C_TYPE				
DATA_SOURCE	SITID				

			SECTION 5		
TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
DATA_SOURCE					
DDDIR		DIP_D			
DDDIR		DIPNUM			
DDDIR		DIP			
DDDIR					
DEV		DEVNUM			
DEV					
DEV		DEVV			
DH		DT_WTR_LVL			
DH		LOG_CODE			
DH		DRL_LOG			
DH		SITID			
DH		CSG_TD			
DH		SOILS			
DH					
DH		PIEZO			
DH		CSG_DIAM			
DH_DEV		SITID			
DH_DEV		DEVNUM			
DH_DEV		DFROM			
DH_DEV		DTO			
DH_DEV					
DILATOM					
DILATOM		SAMNUM			
DILATOM		ANANUM			
DIR_SHR		RSSTR			
DIR_SHR		PDSP			
DIR_SHR					
DIR_SHR		ANANUM			
DIR_SHR		SAMNUM			
DIR_SHR		BDS			
DIR_SHR		DDS			
DIR_SHR		IWC			
DIR_SHR		SPECNUM			
DIR_SHR		PSSTR			
DIR_SHR		NSTR			
DIR_SHR		SHAPE			
DIR_SHR		XSEC_AR			

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 5 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
DIR_SHR	RDSP				
DLS_COORD	RCNR				
DLS_LSD	LSDM				
DLS_LSD	LSD				
DLTM					
DRAIN	DR_CN				
DRAIN	DRNUM				
ELEV_BSD_ON					
ELEV_BSD_ON	ELEVNUM				
ELEV_BSD_ON	E_ORG				
E_MOIST	SAMNUM				
E_MOIST					
E_MOIST	ANANUM				
FAULT	SNSNUM				
FAULT	OBOT				
FAULT	SITID				
FAULT					
FAULT	PCHNUM				
FAULT	DIPNUM				
FISCHER	SAMNUM				
FISCHER	ANANUM				
FISCHER					
FLASH					
FLASH	SAMNUM				
FLASH	ANANUM				
FOUL	FLNG				
FOUL					
FSI_IND	SAMNUM				
FSI_IND	ANANUM				
FSI_IND					
GEIS	GPFR				
GEIS	ANANUM				
GEIS	SAMNUM				
GEIS					
GEOL_CS	CS_NM				
GEOL_CZ	CZ_NM				
GEOL_CZ					
GEOL_FM					

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 5 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
GEOL_FM	FM_NM				
GEOL_GROUP	GRP_NM				
GEOL_GROUP					
GEOL_MBR	MBR_NM				
GEOL_MBR					
GRAY_KING					
GRAY_KING	ANANUM				
GRAY_KING	SAMNUM				
GRY_KING					
GRY_KING	GK_ID				
HAZ	SITID				
HAZ					
HAZARD	HAZ_DESC				
HAZARD					
HGI_ABRAS					
HGI_ABRAS	ANANUM				
HGI_ABRAS	SAMNUM				
HMR	ANANUM				
HMR	BKHT				
HMR	SPT				
HMR					
HMR	SAMNUM				
HV					
HV	SAMNUM				
HV	ANANUM				
INCRMNT					
INCRMNT	INCNUM				
INCRMNT	INC_NO				
INTERP	SITID				
INTERP	GEOL				
INTERP					
INTERP	INTD				
INT_RMX	REMARKS				
INT_RMX					
INT_RMX	PIKNUM				
JNTI	JNT_IN				
JNTI					
JNTI	JINUM				

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 5 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
JNT_SET	OBOT				
JNT_SET					
JNT_SET	SITID				
JNT_SET	PCHNUM				
JNT_SET	SNSNUM				
JNT_SET	DIPNUM				
LAB	LAB_NM				
LAB					
LAB_ANA					
LAB_ANA	ANANUM				
LGGNG_CNTR					
LGGNG_CNTR	SITID				
LG_CNT					
LG_CNT	L_CNTR_NM				
LITH_MD	M_TYP				
LITH_MD	M_DESC				
LITH_MD					
LITH_MN	L_TYP				
LITH_MN					
LITH_MN	L_CTGY				
LLELEV	ELKB				
LLELEV	SITID				
LLELEV					
LOGS					
LOGS	LOG_TYPE				
LOG_RUN	SITID				
LOG_RUN					
L_ATT					
L_ATT	LITHNUM				
L_BSD_ON	BSDNUM				
L_BSD_ON	LITHNUM				
L_BSD_ON					
L_CHN	CLTOP				
L_CHN	LITHNUM				
L_CHN	SITID				
L_CHN					
L_CHN	CLBOT				
L_DH	L_L_ADJ				

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 5 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
L_DH					
L_DH	LBASE				
L_DH	CBA				
L_DH	SITID				
L_DH	LITHNUM				
L_LOG	LITHNUM				
L_LOG					
L_MAIN	LITHNUM				
L_MAIN					
L_MOD1	LITHNUM				
L_MOD1					
L_MOD2					
L_MOD2	LITHNUM				
L_OC	LBOT				
L_OC					
L_OC	LTOP				
L_OC	SITID				
L_OC	LITHNUM				
L_REM	L_REMX				
L_REM	LITHNUM				
L_REM					
L_SP_FEA					
L_SP_FEA	SPFNUM				
L_SP_FEA	SP_FE				
L_SP_FT					
L_SP_FT	SPFNUM				
L_SP_FT	LITHNUM				
MACERAL					
MACERAL	REMAC				
MACERAL	SAMNUM				
MACERAL	INMAC				
MACERAL	PETNUM				
MACERAL	ANANUM				
MBR_IN_FM					
METHANE	SAMNUM				
METHANE					
METHANE	ANANUM				
METH_MING					

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 5 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
METH_MING	SITID				
MINE	SITID				
MINE					
MINE_GRID					
MINE_GRID	BSLX				
MINE_GRID	SITID				
MINE_MTHD					
MINE_MTHD	M_METH				
MINE_STS					
MINE_STS	M_LGL_S				
MINE_TYP	M_TYPE				
MINE_TYP					
MKR_TYP	MKRNUM				
MKR_TYP	MKR_TYPE				
MKR_TYP					
MNRL_ANA	ANANUM				
MNRL_ANA	SAMNUM				
MNRL_ANA					
MN_GD_BNCH	MNGNUM				
MN_GD_BNCH					
MN_GD_BNCH	SITID				
MOISTURE					
MOISTURE	MOIST				
NTS	NTSP				
NTS	SITID				
NTS					
NTS	NTST				
NTS	NTSS				
OK_ANA					
OK_ANA	ANANUM				
O_ORN					
O_ORN	ORNUM				
O_ORN	ORNTN				
O_SNS	SNSNUM				
O_SNS					
O_SNS	OC_SNS				
PELLETS	MNRDM				
PELLETS	SDRDM				



## SECTION 5

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
PELLETS	SDMX				
PELLETS	MNMN				
PELLETS	MMIN				
PELLETS					
PELLETS	SAMNUM				
PELLETS	PETNUM				
PELLETS	ANANUM				
PELLETS	NMAX				
PELLETS	NRDM				
PELLETS	SDMN				
PICK					
PICK	PIKNUM				
PICK	PIK_Q				
PITCH_INFO					
PITCH_INFO	PCHNUM				
PITCH_INFO	PITCH				
POLLEN	ANANUM				
POLLEN	PETNUM				
POLLEN					
POLLEN	SAMNUM				
POROS	SAMNUM				
POROS	ANANUM				
POROS					
PREC	COORNUM				
PREC	ELEVNUM				
PREC					
PREC	SITID				
PROCT	SAMNUM				
PROCT					
PROCT	ANANUM				
PROCT	PMDD				
PROCT	PTOM				
PROX	ANANUM				
PROX	SAMNUM				
PROX					
P_BSD_ON	BSDNUM				
P_BSD_ON					
P_BSD_ON	PIKNUM				

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 5 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
P_CS	PIKNUM				
P_CS					
P_CZ	PIKNUM				
P_CZ					
P_DH_INT	DTOP				
P_DH_INT	DBASE				
P_DH_INT	PIKNUM				
P_DH_INT	P_L_ADJ				
P_DH_INT	SITID				
P_DH_INT					
P_FM					
P_FM	PIKNUM				
P_GP					
P_GP	PIKNUM				
P_IND	STBI				
P_IND	STRI				
P_IND					
P_IND	CBI				
P_IND	SAMNUM				
P_IND	PETNUM				
P_IND	ANANUM				
P_LITHO	SAMNUM				
P_LITHO	LITHNUM				
P_LITHO					
P_LITHO	ANANUM				
P_LITHO	PIKNUM				
P_MBR					
P_MBR	PIKNUM				
P_MKR	PIKNUM				
P_MKR					
P_MKR	MKRNUM				
P_OC_INT	SITID				
P_OC_INT	OTOP				
P_OC_INT					
P_OC_INT	OBOT				
P_OC_INT	PIKNUM				
P_PRO	FIN_DT				
P_PRO	ST_DT				

			SECTION 5		
TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
P_PRO	PETSAM_NO				
P_PRO					
P_PRO	PETNUM				
P_PRO	PETROG				
P_PRO	AFFIL				
REMARX					
REMARX	SITID				
RNK_COAL					
RNK_COAL	SITID				
RQD_ETAL	JNT				
RQD_ETAL	ANANUM				
RQD_ETAL					
RQD_ETAL	RECOV				
RQD_ETAL	SJNUM				
RQD_ETAL	JINUM				
RQD_ETAL	RQD				
RQD_ETAL	SAMNUM				
S					
S	SAMNUM				
S	ANANUM				
SG_DENS					
SG_DENS	ANANUM				
SG_DENS	DDEN				
SG_DENS	BDEN				
SG_DENS	SAMNUM				
SG_INF					
SIEVE	OPNG				
SIEVE	SV_NO				
SIEVE					
SIEVE	SIVNUM				
SIEVE_ANAL	SAMNUM				
SIEVE_ANAL	THRU				
SIEVE_ANAL	ANANUM				
SIEVE_ANAL					
SIEVE_ANAL	SIVNUM				
SJNT	JNT_ST				
SJNT	SJNUM				
SJNT					

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 5 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
SLAG	ANANUM				
SLAG					
SLAG	SAMNUM				
SMPL					
SMPL	SITID				
SOURCE	OPRJ				
SOURCE	SITID				
SOURCE					
SPEC_NO	SPMN_NO				
SPEC_NO	SPECNUM				
SPEC_NO					
SPL_TYP	SPL_TYPE				
SPL_TYP					
SRVY_SRC					
SRVY_SRC	SITID				
SR_MTH	SRC_DESC				
SR_MTH					
STATUS_MINE					
STATUS_MINE	SITID				
STRGTH	CN_FR				
STRGTH	CN_RS				
STRGTH	VANE				
STRGTH					
STRGTH	SAMNUM				
STRGTH	ANANUM				
STRGTH	POCK				
STRGTH	UN_COMP				
ST_OC_GEO	OBOT				
ST_OC_GEO	SITID				
ST_OC_GEO					
ST_OC_LTH	SITID				
ST_OC_LTH	LITHNUM				
ST_OC_LTH	OBOT				
ST_OC_LTH					
SURVEY					
SURVEY	SURV_DESC				
SVD_C_UNA	WRHNUM				
SVD_C_UNA					

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 5		
			ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
SVD_C_UNA	SAMNUM				
SVD_SPL					
SVD_SPL	REFRIG				
SVD_SPL	ART_CONT				
SVD_SPL	ARCH_DT				
SVD_SPL	SAMNUM				
SVD_SPL	WRHTAGNO				
SVD_SPL	MASS_STD				
SZ_ANA					
SZ_ANA	ANANUM				
SZ_FRACT					
SZ_FRACT	SZ_FR				
S_CHNL	SAMNUM				
S_CHNL	SCLBOT				
S_CHNL					
S_CHNL	SCLTOP				
S_CHNL	SITID				
S_CONTIN					
S_CONTIN	SAMNUM				
S_DH	SBASE				
S_DH	SAMNUM				
S_DH	STOP				
S_DH	SITID				
S_DH	S_L_ADJ				
S_DH					
S_FRM	SAMNUM				
S_FRM					
S_HAS_A	ANANUM				
S_HAS_A					
S_HAS_A	ATNUM				
S_HAS_A	SAMNUM				
S_OC	SOBOT				
S_OC					
S_OC	SOTOP				
S_OC	SAMNUM				
S_OC	SITID				
S_PREP					
S_PREP	PREP				

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 5		
			ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
S_PREPTN					
S_PREPTN	SAMNUM				
S_REMX	S_RMX				
S_REMX	SAMNUM				
S_REMX					
S_SEG	SAMNUM				
S_SEG					
S_SEG	SEGNUM				
S_SEGMT	SEGNUM				
S_SEGMT					
S_SEGMT	SGMT				
S_STAT					
S_STAT	SAMNUM				
S_STAT	S_BY				
S_STAT	S_NO				
S_STAT	S_LTH				
TENTM	SITID				
TEST_PIT					
TEST_PIT	SITID				
THREETM	SITID				
TRAVERSE	SITID				
TRAVERSE					
TRAVERSE	TRAV_NO				
TRAVERSE	TRAVNUM				
TRAV_PART	L_LEG				
TRAV_PART	AZM				
TRAV_PART	COMM				
TRAV_PART	INC				
TRAV_PART					
TRAV_PART	TRAVNUM				
TRENCH	SITID				
TRENCH					
TRIAx	ECP				
TRIAx	BDS				
TRIAx	PORE_PREs				
TRIAx	DDS				
TRIAx					
TRIAx	SPECNUM				

## SECTION 5

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
TRIAX	DRNUM				
TRIAX	IWC				
TRIAX	ANANUM				
TRIAX	SIGMA3				
TRIAX	SIGMA1				
TRIAX	PP_MAX				
TRIAX	SIGMA3_MAX				
TRIAX	SIGMA1_MAX				
TRIAX	AX_ST				
TRIAX	SAMNUM				
TRIAX	AXI_STR				
TR_ELEM					
TR_ELEM	SAMNUM				
TR_ELEM	ANANUM				
TR_ELEM	ATOMNUM				
TR_LTH					
TR_LTH	TRAVNUM				
TR_LTH	LITHNUM				
TR_PCK	TRAVNUM				
TR_PCK	PIKNUM				
TR_PCK					
TR_SPL	TRAVNUM				
TR_SPL					
TYPE_COAL	SITID				
TYPE_COAL					
TYPE_MINE	SITID				
TYPE_MINE					
ULT	ANANUM				
ULT	SAMNUM				
ULT					
UTM	UTMZ				
UTM	SITID				
WAREHOUSE	WRH_PH				
WAREHOUSE	WRHNUM				
WAREHOUSE					
WAREHOUSE	WRH_CNTCT				
WAREHOUSE	WRH_ADD				
WAREHOUSE	WRH_NM				

			SECTION 5		
TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
A_ANA_L	K20_L				
LDRAIN					
L_DH	LTOPP				
TENTM					
THREETM	TRTMZ				
THREETM	TRTMC				
THREETM	TRTMN				
THREETM	TRTME				
A_ANA_L	TIO2_L				
DLS_COORD					
THREETM					
GEOL_CS					
DLTM	DLTM_TYP				
DLS_COORD	RSEC				
TR_SPL	SAMNUM				
SG_INF	SGTYPE				
DLS_COORD	SITID				
DLS_LSD	SITID				
DLS_LSD					
FM_IN_GP					
MINE_GRID	BSLY				
UTM					
TENTM	TENTME	10TM-EASTING		S9(7)	
TENTM	TENTMN	10TM-NORTHING		S9(7)	
HGI_ABRAS	ABV	ABRASIVENESS		S9(8)	
A_ANA_H	AL2O3	ALUMINUM-OXIDE		S99V99	
ANA_CONF	CONFNUM	ANALYSIS-CONF-CODE		X	
CNF_ANA	CONFNUM	ANALYSIS-CONF-CODE		X	
A_STA	A_DT	ANALYSIS-DATE			
MNRL_ANA	ANK	ANKERITE		S99V99	
ANA_OK	OKNUM	APPROVAL-FLAG		X	
OK_ANA	OKNUM	APPROVAL-FLAG		X	
TR_ELEM	PPM	ARSENIC		S9(4)V99	1
POROS	POAD	AS-DETERMINED-POROSITY		S99V99	
PROX	PMAR	AS-REC-MOIST		S99V99	1
ATT	ATTNUM	ATTITUDE-CODE		S9	
L_ATT	ATTNUM	ATTITUDE-CODE		S9	
ADIT	AZM	AZIMUTH		S9(4)	



TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 5		
			ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
DEV	AZM	AZIMUTH		S9(4)	
TRENCH	AZM	AZIMUTH		S9(4)	
CZ_IN_FM	FMNUM	BASEUNIT		XXX	
CZ_IN_MBR	MBRNUM	BASEUNIT		XXX	!
FM_IN_GP	GPNUM	BASEUNIT		XXX	
FM_IN_GP	FMNUM	BASEUNIT		XXX	!
GEOL_FM	FMNUM	BASEUNIT		XXX	!
GEOL_GROUP	GPNUM	BASEUNIT		XXX	
GEOL_MBR	MBRNUM	BASEUNIT		XXX	!
MBR_IN_FM	MBRNUM	BASEUNIT		XXX	!
MBR_IN_FM	FMNUM	BASEUNIT		XXX	!
P_FM	FMNUM	BASEUNIT		XXX	!
P_GP	GPNUM	BASEUNIT		XXX	
P_MBR	MBRNUM	BASEUNIT		XXX	!
ST_OC_GEO	FMNUM	BASEUNIT		XXX	!
S_FRM	MBRNUM	BASEUNIT		XXX	!
S_FRM	FMNUM	BASEUNIT		XXX	!
TR_ELEM	PPM	BERYLLIUM		S9(4)V99	!
TR_ELEM	PPM	BORON		S9(4)V99	!
TR_ELEM	PPM	CADMIUM		S9(4)V99	!
MNRL_ANA	CLCT	CALCITE		S99V99	
A_ANA_H	CAO	CALCIUM-OXIDE		S99V99	
HV	HVARB	CALORIFIC-VALUE	J/GM	S9(5)	!
HV	HVADB	CALORIFIC-VALUE	J/GM	S9(5)	!
ULT	UAC	CARBON		S99V99	
A_ANA_H	CO2	CARBON-DIOXIDE		S99V99	
SOURCE	CAT_ID	CATALOG-ID		9(9)	
TR_ELEM	PPM	CHLORINE		S9(4)V99	!
A_ANA_H	CRO3	CHROMIUM-TRIOXIDE		S99V99	
COMP	ADD_CITY	CITY		X(12)	
CONFIDC	CNF_LVL	CNFDNC-LEVEL		S99	
COMP	COMP_ABBREV	CO-ABBREV		X(14)	
COMP	COMP_CODE	CO-CODE		XXX	
SOURCE	ORIG	CO-HOLE-NO		X(6)	!
COMP	COMPANY	CO-NAME		X(55)	
C_RNK	RNKNUM	COAL-RANK		XX	
RNK_COAL	RNKNUM	COAL-RANK		XX	
C_TYP	CLTYNUM	COAL-TYPE		S9	

			SECTION 5		
TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
TYPE_COAL	CLTYNUM	COAL-TYPE		S9	
GRAY_KING	GRYNUM	COKE-TYPE		X	
GRY_KING	GRYNUM	COKE-TYPE		X	
CONTIN	CONTNUM	COM-CODE		X	
S_CONTIN	CONTNUM	COM-CODE		X	
CNFDTL	CNFNUM	CONF-CODE		X	
CONFIDENT	CNFNUM	CONF-CODE		X	
CONFIDC	COO_ACC	COORD-ACC		S999	
SRVY_SRC	SRVNUM	COORD-SYS-USED		9	
SURVEY	SRVNUM	COORD-SYS-USED		9	
DH	CORE_RECOV	CORE-RECOV		S9(3)	
CONFDNTRY	DRLD	DATA-REL-DATE		9(8)	
SOURCE	ORIG	DATAPoint-NO		X(6)	!
DH	TD	DEPTH		S9(4)V9	
DH	HOLE_DIAM	DIAM		S9(4)V9	
DILATOM	DILNUM	DILATOMETER-TEST-TYPE-CODES		X	
DLTM	DILNUM	DILATOMETER-TEST-TYPE-CODES		X	
MNRL_ANA	DOL	DOLOMITE		S99V99	
HGI_ABRAS	DRST	DROP-SHATTER-TEST		S99V99	
BNCHMK	EWCD	EAST-WEST-CODE		X	
DLS_COORD	EWCD	EAST-WEST-CODE		X	
BNCHMK	METE	EAST-WEST-DIST		S9(4)V99	
DLS_COORD	METE	EAST-WEST-DIST		S9(4)V9	
BNCHMK	UTME	EASTING		S9(8)V9	
UTM	UTME	EASTING		S9(8)V9	
A_RESIS	E_RES_EXP	ELEC-RESIS-EXPONENT		S99	
A_RESIS	E_RES	ELECTRICAL-RESISTIVITY		S99V99	
TR_ELEM	PPM	ELEMENT-VALUE		S9(4)V99	!
CONFIDC	ELEV_ACC	ELEV-ACC		S999	
E_MOIST	EQM	EQUILIB-MOIST		S99V99	
ADIT	HEIG	EXCAVATION-HEIGHT		S9(4)V99	
TEST_PIT	DEP	EXCAVATION-HEIGHT		S9(4)V99	
TRENCH	DEP	EXCAVATION-HEIGHT		S9(4)V99	
ADIT	LENG	EXCAVATION-LENGTH		S9(4)V99	
TEST_PIT	LENG	EXCAVATION-LENGTH		S9(4)V99	
TRENCH	LENG	EXCAVATION-LENGTH		S9(4)V99	
SOURCE	ORIG	EXCAVATION-NO		X(6)	!
ADIT	WIDE	EXCAVATION-WIDTH		S9(4)V9	

			SECTION 5		
TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
TEST_PIT	WIDE	EXCAVATION-WIDTH		S9(4)V9	
TRENCH	WIDE	EXCAVATION-WIDTH		S9(4)V9	
MACERAL	EXIN	EXINITE		S99V99	
DATA_SOURCE	SRCNUM	EXPL-ENTITY-TYPE		X	!
SR_MTH	SRCNUM	EXPL-ENTITY-TYPE		X	!
SOURCE	CPDT	EXPL-FIN-DATE		9(8)	
FISCHER	FSAG	FA-GAS		S99V99	
FISCHER	FSAL	FA-LIQUOR		S99V99	
FISCHER	FSAS	FA-SOLID		S99V99	
FISCHER	FSAT	FA-TAR		S99V99	
DILATOM	DFDPC	FINAL-DILATION-PERCENT		S999	
LITH_MD	MODNUM	FIRST-MODIFIER		XXX	!
L_MOD1	MODNUM	FIRST-MODIFIER		XXX	!
L_MOD2	MODNUM	FIRST-MODIFIER		XXX	!
PROX	PFCAR	FIXED-CARBON		S99V99	!
PROX	PFCAD	FIXED-CARBON		S99V99	!
TR_ELEM	PPM	FLUORINE		S9(4)V99	!
FOUL	FOULNUM	FOULING		X	
FLASH	FLPG	FP-GAS		S99V99	
FLASH	FLPL	FP-LIQUOR		S99V99	
FLASH	FLPS	FP-SOLID		S99V99	
FLASH	FLPT	FP-TAR		S99V99	
FSI_IND	FSI	FSI		S99V9	
A_FUS	OFLT	FT-OXIDIZING		S9(4)	
A_FUS	RFLT	FT-REDUCING		S9(4)	
GRAY_KING	GKAG	GA-GAS		S99V99	
GRAY_KING	GKAL	GA-LIQUOR		S99V99	
GRAY_KING	GKAS	GA-SOLID		S99V99	
GRAY_KING	GKAT	GA-TAR		S99V99	
MNRL_ANA	GAL	GALENA		S99V99	
GRAY_KING	GKHV	GAS-HEAT-VALUE		S9(4)	
BNCHMK	ELEV	GROUND-ELEV		S9(4)V99	
LLELEV	ELEV	GROUND-ELEV		S9(4)V99	
HGI_ABRAS	HGI	HARDGROVE-GRINDABILITY		S999V9	
HAZ	HAZNUM	HAZARD-CODE		X	
HAZARD	HAZNUM	HAZARD-CODE		X	
A_FUS	OHET	HT-OXIDIZING		S9(4)	
A_FUS	RHET	HT-REDUCING		S9(4)	

SECTION 5					
TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
ULT	UAH	HYDROGEN		S99V99	
ADIT	INC	INCLINE		S9(2)	
ULT	UINC	INCLUSION-CODE		X	
MACERAL	INRT	INERTINITE		S99V99	
DILATOM	DSOFT	INITIAL-SOFTENING-TEMP		S999	
GEIS	GPST	INITIAL-SOFTENING-TEMP		S999	
POROS	POIN	INSITU-POROSITY		S99V99	
A_ANA_H	FE203	IRON-OXIDE		S99V99	
A_FUS	OIDT	IT-OXIDIZING		S9(4)	
A_FUS	RIDT	IT-REDUCING		S9(4)	
MNRL_ANA	KAOL	KAOLINITE		S99V99	
LAB	LABNUM	LAB-CODE		S99	
LAB_ANA	LABNUM	LAB-CODE		S99	
A_STA	L_S_NO	LAB-SAMPLE-ID		X(6)	
BNCHMK	LAT	LAT		S9(2)V9(6)	
LLELEV	LAT	LAT		S9(2)V9(6)	
TR_ELEM	PPM	LEAD		S9(4)V99	1
LOGS	LOGNUM	LOG-TYPE		X	
LOG_RUN	LOGNUM	LOG-TYPE		X	
LGGNG_CNTR	LGCNTNUM	LOGGING-CO-CODE		X(3)	
LG_CNT	LGCNTNUM	LOGGING-CO-CODE		X(3)	
BNCHMK	LONG	LONG		S9(4)V9(6)	
LLELEV	LONG	LONG		S9(4)V9(6)	
A_ANA_H	MGO	MAGNESIUM-OXIDE		S99V99	
COMP	MAL_CITY	MAIL-CITY		X(12)	
COMP	MAL_COMP_NAM	MAIL-NAME		X(55)	
COMP	MAL_PO_BOX	MAIL-PO-BOX		X(30)	
COMP	MAL_PC	MAIL-POSTAL-CODE		X(6)	
COMP	MAL_PROV	MAIL-PROVINCE		X(12)	
COMP	MAL_SUITE_NO	MAIL-SUITE-NO		X(30)	
TR_ELEM	PPM	MANGANESE		S9(4)V99	1
A_ANA_H	MNO	MANGANESE-OXIDE		S99V99	
DILATOM	DMCPC	MAXIMUM-CONTRACTION-PERCENT		S999	
DILATOM	DMXCNT	MAXIMUM-CONTRACTION-TEMP		S999	
GEIS	GPFT	MAXIMUM-FLUID-TEMP		S999	
GEIS	GDDM	MAXIMUM-FLUIDITY		S9(6)	
DILATOM	DMDPC	MAXIMUM-SWELLING-PERCENT		S999	
DILATOM	DMXDIT	MAXIMUM-SWELLING-TEMP		S999	

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 5		
			ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
TR_ELEM	PPM	MERCURY		S9(4)V99	!
BNCHMK	MER	MERIDAN		9	
DLS_COORD	MER	MERIDAN		9	
DLS_LSD	MER	MERIDAN		9	
METHANE	CH4	METHANE		S99V99	
HGI_ABRAS	MCHD	MICRO-HARDNESS		S9(4)	
MINE_STS	STANUM	MINE-LEGAL-STATUS		X	
STATUS_MINE	STANUM	MINE-LEGAL-STATUS		X	
MINE	MNAM	MINE-NAME		X(15)	
MINE	MNOM	MINE-NO		X(10)	
MINE_TYP	MNTYNUM	MINE-TYPE		9	
TYPE_MINE	MNTYNUM	MINE-TYPE		9	
MINE	MCOM	MINING-CO-NAME		X(20)	
METH_MING	MNMNUM	MINING-METHOD		X	
MINE_MTHD	MNMNUM	MINING-METHOD		X	
A_ANA_H	MOO3	MOLYBDENUM-TRIOXIDE		S99V99	
MNRL_ANA	MTIL	MONTMORILLINITE-AND-ILLITE		S99V99	
A_ANA_H	NIO	NICKEL-OXIDE		S99V99	
ULT	UAN	NITROGEN		S99V99	
BNCHMK	NSCD	NORTH-SOUTH-CODE		X	
DLS_COORD	NSCD	NORTH-SOUTH-CODE		X	
BNCHMK	METN	NORTH-SOUTH-DIST		S9(4)V9	
DLS_COORD	METN	NORTH-SOUTH-DIST		S9(4)V9	
UTM	UTMN	NORTHING S9(8)V9			
BNCHMK	UTMN	NORTHING		S9(8)V9	
S	SADB	ORGANIC		S99V99	
S	SARB	ORGANIC		S99V99	
REMARX	REMX	OUTCROP-SOURCE		X(25)	
ULT	UAO	OXYGEN		S99V99	
A_ANA_H	P205	PHOSPHORUS-PENTOXIDE		S99V99	
MOISTURE	MSTNUM	PHYSICAL-MOISTURE-CODE		X	
SG_DENS	MSTNUM	PHYSICAL-MOISTURE-CODE		X	
COMP	ADD_PO_BOX	PO-BOX		X(30)	
COMP	ADD_PC	POSTAL-CODE		X(6)	
A_ANA_H	K2O	POTASSIUM-OXIDE		S99V99	
COMP	ADD_PROV	PROVINCE		X(12)	
PROX	PAAD	PROX-ASH		S99V99	!
PROX	PAAR	PROX-ASH		S99V99	!

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 5		
			ERCB_STRO_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
PROX	PAAR	PROX-MOISTURE-CODE		9	!
PROX	PMAD	PROX-MOISTURE-CODE		9	!
PROX	PAAD	PROX-MOISTURE-CODE		9	!
PROX	PVMAR	PROX-MOISTURE-CODE		9	!
PROX	PFCAD	PROX-MOISTURE-CODE		9	!
PROX	PMAR	PROX-MOISTURE-CODE		9	!
PROX	PFCAR	PROX-MOISTURE-CODE		9	!
PROX	PVMAD	PROX-MOISTURE-CODE		9	!
MNRL_ANA	PTMC	PYRITE-AND-OR-MARCASITE		S99V99	
MNRL_ANA	QTZ	QUARTZ		S99V99	
UTM	UTMC	REF-LONG S999			
BNCHMK	UTMC	REF-LONG		S999	
PELLETS	MNMX	REFLECTANCE		S99V99	
PELLETS	RFLA	REFLECTANCE-ANGLE		S9(3)	
REMARX	REMD	REMARK-DATE		9(8)	
PROX	PMAD	RESID-MOIST		S99V99	!
DILATOM	DRESOLT	RESOLIDIFICATION-TEMP		S999	
BNCHMK	RGE	RNGE		99	
DLS_COORD	RGE	RNGE		99	
DLS_LSD	RGE	RNGE		99	
LITH_MN	MAINUM	ROCK-TYPE-OR-GEOL-UNIT		XXX	
L_MAIN	MAINUM	ROCK-TYPE-OR-GEOL-UNIT		XXX	
SMPL	SAMTYPNUM	SAMPLE-CODE		9	
SPL_TYP	SAMTYPNUM	SAMPLE-CODE		9	
S_STAT	S_DT	SAMPLE-DATE		9(8)	
S_PREP	PREPNUM	SAMPLE-TYPE		S9(2)	!
S_PREPTN	PREPNUM	SAMPLE-TYPE		S9(2)	!
S_STAT	S_WT	SAMPLE-WT		S9(7)V9(5)	
CS_IN_CZ	CSNUM	SEAM-NAME		X(5)	!
GEOL_CS	CSNUM	SEAM-NAME		X(5)	!
P_CS	CSNUM	SEAM-NAME		X(5)	!
ST_OC_GEO	CSNUM	SEAM-NAME		XXX	!
S_FRM	CSNUM	SEAM-NAME		XXX	!
CS_IN_CZ	CSNUM	SEAM-NO		S999	!
GEOL_CS	CSNUM	SEAM-NO		S999	!
P_CS	CSUM	SEAM-NO		S999	!
ST_OC_GEO_	CSNUM	SEAM-NO		XXX	!
S_FRM	CSNUM	SEAM-NO		XXX	!

			SECTION 5		
TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
BNCHMK	SECT	SEC		99	
DLS_COORD	SECT	SEC		99	
DLS_LSD	SECT	SEC		99	
LITH_MD	MODNUM	SECOND-MODIFIER		XXX	!
L_MOD1	MODNUM	SECOND-MODIFIER		XXX	!
L_MOD2	MODNUM	SECOND-MODIFIER		XXX	!
TR_ELEM	PPM	SELENIUM		S(4)V99	!
MNRL_ANA	SIDR	SIDERITE		S99V99	
A_ANA_H	SIO2	SILICON-DIOXIDE		S99V99	
SZ_ANA	SZNUM	SIZE-FRACTION		X	
SZ_FRACT	SZNUM	SIZE-FRACTION		X	
SLAG	SGIN	SLAGGING-INDICES		S(9)4	
A_ANA_H	NA2O	SODIUM-MONOXIDE		S99V99	
GEIS	GPSL	SOLIDIFICATION-TEMP		S999	
DATA_SOURCE	SCRNUM	SOURCE-METH-CODE		XX	!
SR_MTH	SRCNUM	SOURCE-METH-CODE		XX	!
SG_DENS	SGNUM	SPECIFIC-GRAVITY-CODE		X	
SG_INF	SGNUM	SPECIFIC-GRAVITY-CODE		X	
SG_DENS	SG	SPECIFIC-GRAVITY-HI		S9V99	
SG_DENS	SGLO	SPECIFIC-GRAVITY-LO		S9V99	
MNRL_ANA	SPHAL	SPHALERITE		S99V99	
A_FUS	OSOT	ST-OXIDIZING		S(4)	
A_FUS	RSOT	ST-REDUCING		S(4)	
COMP	ADD_ST	STREET		X(30)	
COMP	MAL_ST	STREET		X(30)	
CS_IN_CZ	CZNUM	SUBDIVISION		XXX	
CZ_IN_FM	CZNUM	SUBDIVISION		XXX	
CZ_IN_MBR	MBRNUM	SUBDIVISION		XXX	!
CZ_IN_MBR	CZNUM	SUBDIVISION		XXX	
FM_IN_GP	FMNUM	SUBDIVISION		XXX	!
GEOL_CZ	CZNUM	SUBDIVISION		XXX	
GEOL_FM	FMNUM	SUBDIVISION		XXX	!
GEOL_MBR	MBRNUM	SUBDIVISION		XXX	!
MBR-IN_FM	MBRNUM	SUBDIVISION		XXX	!
MBR-IN_FM	FMNUM	SUBDIVISION		XXX	!
P_CZ	CZNUM	SUBDIVISION		XXX	
P_FM	FMNUM	SUBDIVISION		XXX	!
P_MBR	MBRNUM	SUBDIVISION		XXX	!

TBL_ABBREV	CLMN_ABBRV	ERCB_DATA_ELEMENT	SECTION 5 ERCB_STRD_UNIT	ERCB_STGE_FMT	MULT_ELMNT_INDCTR
ST_OC_GEO	CZNUM	SUBDIVISION		XXX	
ST_OC_GEO	FMNUM	SUBDIVISION		XXX	!
ST_OC_GEO	MBRNUM	SUBDIVISION		XXX	!
S_FRM	FMNUM	SUBDIVISION		XXX	!
S_FRM	CZNUM	SUBDIVISION		XXX	
S_FRM	MBRNUM	SUBDIVISION		XXX	!
COMP	ADD_SUITE_NO	SUITE-NO		X(30)	
ULT	UAS	SULPHUR		S99V99	
A_ANA_H	SO3	SULPHUR-TRIOXIDE		S99V99	
A_ANA_H	TIO2	TITANIUM-OXIDE		S99V99	
BNCHMK	TWP	TOWNSHIP		X	
DLS_COORD	TWP	TOWNSHIP		XXX	
DLS_LSD	TWP	TOWNSHIP		999	
ULT	UAA	ULT-ASH		S99V99	
ULT	UAMAD	ULT-MOIST		S99V99	
TR_ELEM	PPM	URANIUM		S9(4)V99	!
A_ANA_H	VO3	VANADIUM-TRIOXIDE		S99V99	
A_FUS	VISC	VISCOSITY		S9(4)	
MACERAL	VITR	VITRINITE		S99V99	
PROX	PVMAD	VOLATILE-MATTER		S99V99	!
PROX	PVMAR	VOLATILE-MATTER		S99V99	!
DH	WTR_LVL	WTRTBL-DEPTH		S9(4)V9	
BNCHMK	XBCD	X-COORD		S9(8)V9	
MINE_GRID	XCMG	X-COORD		S9(8)V9	
BNCHMK	YBCD	Y-COORD		S9(8)V9	
MINE_GRID	YCMG	Y-COORD		S9(8)V9	



**A P P E N D I X   2**

**S E C T I O N   6**

# SECTION 6

CTGY	TABLE_NM	TABLE_ABBREV	DEFINITION
1GE	CS_IN_CZ	CS_IN_CZ	RELATES CZNUM TO CSNUM
GE	CZ_IN_FM	CZ_IN_FM	RELATES FMNUM TO CZNUM
GE	CZ_IN_MBR	CZ_IN_MBR	RELATES MBRNUM TO CZNUM
GE	FM_IN_GP	FM_IN_GP	RELATES GPNUM TO FMNUM
GE	INT_REMARKS	INT_RMX	INTERVAL REMARKS INFO
GE	MBR_IN_FM	MBR_IN_FM	RELATES FMNUM TO MBRNUM
GE	PICK	PICK	PICK QUALITY INFO
GE	PICK_BSD_ON	P_BSD_ON	RELATES PIKNUM TO BSDNUM
GE	PICK_DH_INT	P_DH_INT	PICK BASED ON A DRILLHOLE INTERVAL
GE	PICK_IN_CS	P_CS	RELATES PIKNUM TO CSNUM
GE	PICK_IN_CZ	P_CZ	RELATES PIKNUM TO CZNUM
GE	PICK_IN_FM	P_FM	RELATES PIKNUM TO FMNUM
GE	PICK_IN_GP	P_GP	RELATES PIKNUM TO GPNUM
GE	PICK_IN_MBR	P_MBR	RELATES PIKNUM TO MBRNUM
GE	PICK_IN_MKR	P_MKR	RELATES PIKNUM TO MKRNUM
GE	PICK_LITHO	P_LITHO	RELATES PIKNUM TO LITHNUM
GE	PICK_OC_INT	P_OC_INT	PICK BASED ON AN OUTCROP/SURFACE INTERVAL
GE	STRUCL_OC_IN	ST_OC_GEO	RELATES A STRUCTURAL GEOL DTAPNT TO GEOL AGE ETAL
GE	TRAV_PICK	TR_PCK	RELATES TRAVNUM TO PIKNUM
LI	LITHO_ATT	L_ATT	RELATES LITHNUM TO ATTNUM
LI	LITHO_BSD_ON	L_BSD_ON	RELATES LITHNUM TO BSDNUM
LI	LITHO_DH_INT	L_DH	LITHOLOGY OF A DRILLHOLE INTERVAL
LI	LITHO_LOG	L_LOG	LITHOLOGIC LOG

NOTE :THE FOLLOWING LISTS ALL TABLES CONTAINED WITHIN THE AGS COAL data base. THE TABLES HAVE BEEN ALPHABETICALLY SORTED BY CATEGORY AND TABLE NAME. THE ORDER, EXCEPT FOR THE 'RF' TABLES, IS THE SAME AS THE SEQUENCE OF THE DATA ENTRY FORMS etal CONTAINED IN THE BINDER 'AGS COAL DB: DATA ENTRY FORMS etal'.  
THE TABLES HAVE BEEN SEPARATED INTO 6 SEPARATE CATEGORIES....

GE....GEOLOGY/PIX ETAL

LI....LITHOLOGY ETAL

LO....LOCATION ETAL

RF....REFERENCE TABLES (DATA ENTRY FORMS ARE NOT REQUIRED)

SA....SAMPLE/ANALYSIS ETAL

ST....STRUCT\_GEOL\_OF\_OUTCROPS ETAL

# SECTION 6

CTGY	TABLE_NM	TABLE_ABBREV	DEFINITION
LI	LITHO_MAIN	L_MAIN	RELATES LITHNUM TO MAINUM
LI	LITHO_MOD1	L_MOD1	RELATES LITHNUM TO MODNUM (FOR A MODIFIER)
LI	LITHO_MOD2	L_MOD2	RELATES LITHNUM TO MODNUM (FOR A SECOND MODIFIER)
LI	LITHO_OC_INT	L_OC	LITHOLOGY OF AN OUTCROP/SURFACE INTERVAL
LI	LITHO_SP_FT	L_SP_FT	RELATES LITHNUM TO SPFNUM
LI	LITH_CHN_INT	L_CHN	LITHOLOGY OF A CHANNEL INTERVAL
LI	LITH_INT_REM	L_REM	LITHOLOGICAL INTERVAL REMARKS INFO
LI	STRUCL_OC_IS	ST_OC_LTH	RELATES A STRUCTURAL GEOL DATAPOINT TO LITHOLOGY
LI	TRAV_LITH	TR_LTH	RELATES TRAVNUM TO LITHNUM
LO	ADIT	ADIT	ADIT PARTICULARS
LO	BENCHMARK	BNCHMK	MINE GRID BENCHMARK LCTNS
LO	COMP_PARTIC	COMP_PARTIC	RELATES SITID TO CORPNUM
LO	CONFNTLY	CONFNTLY	CONFIDENTIALITY
LO	CONFIDENCE	CONFIDC	DATA CONFIDENCE/PRECISION
LO	CONFIDENT	CONFIDENT	RELATES SITID TO CNFNUM
LO	CONTRACTOR	CONTRACTOR	RELATES SITID TO CTRNUM
LO	COORD_BSD_ON	COORD_BSD_ON	COORDINATES BASED ON
LO	DATA_SOURCE	DATA_SOURCE	RELATES SITID TO SRCNUM
LO	DEVIATION	DEV	DRILLHOLE DEVIATION
LO	DH_DEV	DH_DEV	RELATES SITID TO DEVNUM TO DFROM TO DTO
LO	DLS_COORD	DLS_COORD	TOWNSHIP-RANGE LCTNS (USING COORDINATES)
LO	DLS_LSD	DLS_LSD	TOWNSHIP-RANGE LCTNS (TO THE NEAREST LSD)
LO	DRILLHOLE	DH	DRILLHOLE PARTICULARS
LO	ELEVATION	ELEVAT	SURFACE ELEVATIONS OF A DATAPOINT
LO	ELEV_BSD_ON	ELEV_BSD_ON	ELEVATION BASED ON
LO	GEOL_INTERP	INTERP	GEOLOGICAL INTERPRETATION PARTICULARS
LO	HAZ	HAZ	RELATES SITID TO HAZNUM
LO	LAT_LONG	LAT_LONG	LATITUDE-LONGITUDE LCTNS
LO	LGGNG_CNTR	LGGNG_CNTR	RELATES SITID TO LGCNTNUM
LO	LOG_RUN	LOG_RUN	RELATES SITID TO LOGNUM
LO	METH_MINING	METH_MING	RELATES SITID TO MNMTNUM
LO	MINE	MINE	COAL MINE PARTICULARS
LO	MINE_GRID	MINE_GRID	MINE GRID LCTNS
LO	MN_GD_BNCH	MN_GD_BNCH	RELATES SITID TO MNGNUM
LO	NTS	NTS	NATIONAL TOPOGRAPHIC SYSTEM LCTNS
LO	PRECISION	PREC	RELATES SITID TO COORNUM TO ELEVNUM

## SECTION 6

CTGY	TABLE_NM	TABLE_ABBREV	DEFINITION
LO	RANK_OF_COAL	RNK_COAL	RELATES SITID TO RNKNUM
LO	REMARKX	REMARKX	REMARKS &/OR COMMENTS
LO	SOURCE	SOURCE	SOURCE OF DATAPOINT (BACKGROUND INFO)
LO	SRVY_SOURCE	SRVY_SRC	RELATES SITID TO SRVNUM
LO	STATUS_MINE	STATUS_MINE	RELATES SITID TO STANUM
LO	TENTM	TENTM	10TM LCTNS
LO	TEST_PIT	TEST_PIT	TEST PIT PARTICULARS
LO	THREETM	THREETM	3TM LCTNS
LO	TRAVERSE	TRAVERSE	RELATES TO TRAVNUM TO TRAV_NO
LO	TRAV_PART	TRAV_PART	TRAVERSE PARTICULARS
LO	TRENCH	TRENCH	TRENCH PARTICULARS
LO	TYPE_MINE	TYPE_MINE	RELATES SITID TO MNTYNUM
LO	TYPE_OF_COAL	TYPE_COAL	RELATES SITID TO CLTYNUM
LO	UTM	UTM	UNIVERSAL TRANSVERSE MERCATOR LOCATIONS
RF	ANA_CONF	ANA_CONF	STATUS OF CONFIDENTIALITY OF ANALYTICAL DATA
RF	ANA_OK	ANA_OK	RELIABILITY OF ANALYTICAL DATA
RF	ANA_TYPE	ANA_TYP	ANALYSIS TYPE INFO
RF	ATOMIC_NO	ATOMIC_NO	ATOMIC NUMBER/TRACE ELEMENT INFO
RF	ATT	ATT	ATTITUDE INFO
RF	BASED_ON	BASED	BASIS (SOURCE) OF GEOL & LITHO INTERPRETATION
RF	CNFDTL	CNFDTL	CONFIDENTIALITY
RF	CNTRCTR	CNTRCTR	LISTING OF MECHANICAL CONTRACTORS
RF	COMPANY	COMP	ADDRESSES OF COAL EXP/DEV CORP/COMP
RF	CONTIN_CODE	CONTIN	SAMPLE CONTINUITY INFO
RF	C_RANK	C_RNK	TYPES OF COAL RANK
RF	C_TYP	C_TYP	TYPES OF COAL
RF	DLTM	DLTM	DILATOMETER INFO
RF	DRAIN	DRAIN	DRAINAGE CONDITION FOR TRIAXIAL TESTS
RF	FOUL	FOUL	TENDNCY OF DRY ASH PRCLC TO ADHERE TO BOILER TUBE
RF	GEOL_CS	GEOL_CS	GEOLOGICAL COAL SEAM INFO
RF	GEOL_CZ	GEOL_CZ	GEOLOGICAL COAL ZONE INFO
RF	GEOL_FM	GEOL_FM	GEOLOGICAL FORMATION INFO
RF	GEOL_GROUP	GEOL_GROUP	GEOLOGICAL GROUP INFO
RF	GEOL_MBR	GEOL_MBR	GEOLOGICAL MEMBER INFO
RF	GRY_KNG	GRY_KING	GRAY-KING INFO
RF	HAZARD	HAZARD	DRILLHOLE HAZARDS

## SECTION 6

CTGY	TABLE_NM	TABLE_ABBREV	DEFINITION
RF	INCRMNT	INCRMNT	INCREMENT NUMBER INFO
RF	JNT_INFL	JNTI	JOINT-INFILLING INFO
RF	LAB	LAB	ANALYTICAL LAB INFO
RF	LG_CNT	LG_CNT	LISTING OF GEOPHYSICAL LOGGING CONTRACTORS
RF	LITHO_MAIN	LITH_MN	LITHOLOGY MAIN LISTING
RF	LITHO_MODFR	LITH_MD	LITHOLOGIC MODIFIER LISTING
RF	LOGS	LOGS	GEOPHYSICAL LOGS
RF	L_SP_FEA	L_SP_FEA	LITHOLOGIC SPECIAL FEATURE LISTING
RF	MINE_MTHD	MINE_MTHD	COAL MINING METHODS
RF	MINE_STATUS	MINE_STS	MINE STATUS
RF	MINE_TYP	MINE_TYP	TYPES OF COAL MINES
RF	MKR_TYP	MKR_TYP	GEOLOGICAL MARKER HORIZONS
RF	MOISTURE	MOISTURE	MOISTURE BASIS FOR SPECIFIC GRAVITY DETERMINATION
RF	O_ORN	O_ORN	OUTCROP ORIENTATION (WAY-UP)
RF	O_SNS	O_SNS	OUTCROP SENSE
RF	SG_INFO	SG_INF	SPECIFIC GRAVITY INFO
RF	SIEVE	SIEVE	SIEVE SIZE INFO
RF	SPEC_NO	SPEC_NO	SPECIMEN NUMBER INFO
RF	SPL_PREP	S_PREP	SAMPLE PREPARATION TYPE INFO
RF	SPL_SEGMENT	S_SEGMT	SAMPLE SEGMENT INFO
RF	SPL_TYP	SPL_TYP	DRILLHOLE SAMPLE TYPE/STATUS
RF	SR_MTH	SR_MTH	SOURCE METHODS
RF	STAT_JNT	SJNT	STATUS OF JOINT INT INFO
RF	SURVEY	SURVEY	ORIGINAL SURVEY DATA
RF	SZ_FRACT	SZ_FRACT	SIZE OF COAL PARTICLES ANALYZED
RF	WAREHOUSE	WAREHOUSE	SAMPLE-STORAGE-WAREHOUSE PARTICULARS
SA	ANAL_WRH_AT	A_WRH_AT	RELATES ANANUM TO WRHNUM TO WRHTAGNO
SA	ANA_STATUS	A_STA	ANALYSIS STATUS
SA	ASH_ANAL_HI	A_ANA_H	ASH ANALYSIS OF COAL (HIGH TEMPERATURE ANALYSIS)
SA	ASH_ANAL_LO	A_ANA_L	ASH ANALYSIS OF COAL (LOW TEMPERATURE ANALYSIS)
SA	ASH_FUSIB	A_FUS	ASH FUSIBILITY INFO
SA	ASH_RESIS	A_RESIS	ASH RESISTIVITY INFO
SA	ATTERBERG	ATTER	ATTERBERG LIMITS
SA	BLOCKS	BLOX	PETROGRAPHIC ANALYSIS OF POLISHED BLOCKS (ORIENTED)
SA	COKE_PRESS	COKE_PRES	COKE PRESSURE INFO
SA	CONFID_ANA	CNF_ANA	RELATES ANANUM TO CNFNUM

## SECTION 6

CTGY	TABLE_NM	TABLE_ABBREV	DEFINITION
SA	CONSOLIDATION	CONSOL	CONSOLIDATION TESTS
SA	DILATOMETER	DILATOM	DILATOMETER TEST
SA	DIRECT_SHEAR	DIR_SHR	DIRECT SHEAR TEST
SA	EQUIL_MOIST	E_MOIST	EQUILIBRIUM MOISTURE INFO
SA	FISCHER_PYROL	FISCHER	FISCHER PYROLYSIS ASSAY
SA	FLASH_PYROL	FLASH	FLASH PYROLYSIS PRODUCTS
SA	FSI_IND	FSI_IND	FREE SWELLING INDEX TEST
SA	GEIS_PLASTO	GEIS	GIESLER PLASTOMETER TEST
SA	GRAY_KING	GRAY_KING	GRAY-KING ASSAY
SA	HAMMER	HMR	HAMMER (PENETRATION) TESTS
SA	HEATING_VALUE	HV	HEATING VALUE INFO
SA	HGI_ABRAS	HGI_ABRAS	GRINDABILITY, ABRASIVENESS & HARDNESS INFO
SA	LAB_ANA	LAB_ANA	RELATES ANANUM TO LABNUM
SA	MACERAL_ANAL	MACERAL	MACERAL ANALYSIS
SA	METHANE	METHANE	METHANE INFO
SA	MINERAL_ANAL	MNRL_ANA	MINERAL ANALYSIS OF COAL
SA	OK_ANALYSIS	OK_ANA	RELATES ANANUM TO OKNUM
SA	PELLETS	PELLETS	PETROGRAPHIC ANALYSIS OF POLISHED BRIQUETS (PELLETS)
SA	PETROG_INDICE	P_IND	PETROGRAPHIC INDICES
SA	PETROG_PRO	P_PRO	PETROGRAPHIC PROCESSING INFO
SA	POLLEN_SPORE	POLLEN	RELATES SAMNUM TO ANANUM TO PETNUM
SA	POROSITY	POROS	POROSITY INFO
SA	PROCTOR	PROCT	PROCTOR COMPACTION TESTS
SA	PROXIMATES	PROX	PROXIMATE ANALYSIS INFO
SA	RQD_ETAL	RQD_ETAL	ROCK QUALITY, RECOVERY & JOINT-TYPE INFO
SA	SAMPLE_TYPE	SMPL	RELATES SITID TO SAMTYPNUM
SA	SG_DENS	SG_DENS	SPECIFIC GRAVITY & DENSITY
SA	SIEVE_ANAL	SIEVE_ANAL	SIEVE ANALYSIS
SA	SLAGGING	SLAG	SLAGGING INDICES INFO
SA	SPL_CHNL_INT	S_CHNL	CHANNEL SAMPLES
SA	SPL_CONTIN	S_CONTIN	RELATES SAMNUM TO CONTNUM
SA	SPL_DH_INT	S_DH	SAMPLE FROM A DRILLHOLE INTERVAL
SA	SPL_FRM_ETAL	S_FRM	RELATES SAMNUM TO FMNUM TO MBRNUM TO CZNUM TO CSNUM
SA	SPL_HAS_ANAL	S_HAS_A	RELATES SAMNUM TO ANANUM TO ATNUM
SA	SPL_INT_REMX	S_REMX	SAMPLE INTERVAL REMARKS INFO
SA	SPL_OC_INT	S_OC	SAMPLE FROM AN OUTCROP/SURFACE INTERVAL
SA	SPL_PREPTN	S_PREPTN	RELATES SAMNUM TO PREPNUM
SA	SPL_SEG	S_SEG	RELATES SAMNUM TO SEGNUM

## SECTION 6

CTGY	TABLE_NM	TABLE_ABBREV	DEFINITION
SA	SPL_STATUS	S_STAT	SAMPLE STATUS
SA	STRENGTHS	STRGTH	(SHEAR & COMPRESSIVE)
SA	SULPHUR	S	SULPHUR INFO
SA	SVD_COAL_UNA	SVD_C_UNA	RELATES SAMNUM TO WRHNUM
SA	SVD_SPL_INFO	SVD_SPL	SAVED SAMPLE INFO
SA	SZFRACT_ANA	SZ_ANA	RELATES ANANUM TO SZNUM
SA	TRACE_ELEM	TR_ELEM	RELATES SAMNUM TO ANANUM TO ATOMNUM TO PPM
SA	TRAV_SPL	TR_SPL	RELATES TRAVNUM TO SAMNUM
SA	TRIAXIAL	TRIAX	TRIAXIAL TEST DATA
SA	ULTIMATE	ULT	ULTIMATE ANALYSIS INFO
ST	AXIAL_TRACE	AX_TR	AXIAL TRACE DATA
ST	BDG_FOLDED	BDG_FOLD	RELATES SITID TO ORNUM TO DIPNUM TO AXTNUM TO OBOT TO OTOP
ST	BDG_NORM	BDG_NORM	RELATES SITID TO ORNUM TO DIPNUM TO PCHNUM TO OBOT TO OTOP
ST	CLEAVAGE	CLEAV	RELATES SITID TO DIPNUM TO OBOT TO OTOP
ST	DIP_DIP_DIR	DDDIR	DIP AND DIP DIRECTION
ST	FAULT	FAULT	RELATES SITID TO DIPNUM TO PCHNUM TO SNSNUM TO OBOT TO OTOP
ST	JOINT_SET	JNT_SET	RELATES SITID TO DIPNUM TO PCHNUM TO SNSNUM TO OBOT TO OTOP
ST	PITCH_INFO	PITCH_INFO	PITCH INFO

**A P P E N D I X   2**

**S E C T I O N   7**



## SECTION 7

UNIQUE_NAME (UNQNUM_NM)	DESCRIPTION (UNQ_DESC)
SITID	UNIQUE AGS-ASSIGNED-NO FOR A DATAPOINT IN COAL DB
MNGNUM	UNIQUE AGS-ASSIGNED-NO FOR A MINE GRID BENCHMARK
CORPNUM	UNIQUE AGS-ASSIGNED-NO FOR EACH COAL EXP/DEV CORP
SRCNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF DATAPOINTS
SRVNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF SURVEY COORD
STANUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF MINES' STATUS
MNTYNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF COAL MINES
MNMTNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF MINING MTHDS
RNKNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF COAL RANK
CLTYNUM	UNIQUE AGS-ASSIGNED-NO TO ID COAL TYPES
CTRUNUM	UNIQUE AGS-ASSIGNED-NO TO ID CONTRACTORS (MECHAN)
LGCNTNUM	UNIQUE AGS-ASSIGNED-NO TO ID LOGGING CONTRACTORS
LOGNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOPHYSICAL LOG TYPES
HAZNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF DH HAZARDS
SAMTYPNUM	UNIQUE AGS-ASSIGNED-NO TO ID DH SMPLE/TYPE STATUS
TRAVNUM	UNIQUE AGS-ASSIGNED-NO TO ID A TRAVERSE
DEVNUM	UNIQUE AGS-ASSIGNED-NO TO ID DEVIATION DATA
CNFNUM	UNIQUE AGS-ASSIGNED-NO TO ID CONFIDENTIALITY TYPE
COORNUM	UNIQUE AGS-ASSIGNED-NO TO ID COORD-SRCE PRECISION
ELEVNUM	UNIQUE AGS-ASSIGNED-NO TO ID ELEV-SRCE PRECISION
ORNUM	UNIQUE AGS-ASSIGNED-NO TO ID OUTCROP ORIENTATION
DIPNUM	UNIQUE AGS-ASSIGNED-NO TO ID MEASURED DIP AND DIRECTION
PCHNUM	UNIQUE AGS-ASSIGNED-NO TO ID MEASURED PITCHES
AXTNUM	UNIQUE AGS-ASSIGNED-NO TO ID AXIAL TRACES
SNSNUM	UNIQUE AGS-ASSIGNED-NO TO ID OUTCROP SENSE
LITHNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC INTERVAL
FMNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL FORMATIONS
MBRNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL MEMBERS
CZNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL COAL ZONES
CSNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL COAL SEAMS
SAMNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLED INTERVAL
PIKNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL PICKS
MKRNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL MARKER HORIZON
BSDNUM	UNIQUE AGS-ASSIGNED-NO TO ID BASE DATA USED
GPNUM	UNIQUE AGS-ASSIGNED-NO TO ID GEOLOGICAL GROUPS
MAINUM	UNIQUE AGS-ASSIGNED-NO TO ID MAIN LITHO OF AN INT
MODNUM	UNIQUE AGS-ASSIGNED-NO TO ID A LITHOLOGIC MODIFIER
SPFNUM	UNIQUE AGS-ASSIGNED-NO TO ID A 'SPECIAL FEATURE'

## SECTION 7

UNIQUE_NAME (UNQNUM_NM)	DESCRIPTION (UNQ_DESC)
ANANUM	UNIQUE AGS-ASSIGNED-NO TO ID AN ANALYZED SAMPLE
ATTNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPES OF ATTITUDES
CONNUM	UNIQUE AGS-ASSIGNED-NO TO ID SAMPLE CONTINUITY
SEGNUM	UNIQUE AGS-ASSIGNED-NO TO ID SAMPLE-SEGMENT-TYPE
PREPNUM	UNIQUE AGS-ASSIGNED-NO TO ID SAMPLE PREP TYPE
LABNUM	UNIQUE AGS-ASSIGNED-NO TO ID THE ANALYTICAL LAB
SZNUM	UNIQUE AGS-ASSIGNED-NO TO ID SZ OF COAL PART ANALYZ
OKNUM	UNIQUE AGS-ASSIGNED-NO TO ID ANALYSIS' RELIABILITY
CONFNUM	UNIQUE AGS-ASSIGNED-NO TO ID ANALYTICAL CNFDNTLTY
ATOMNUM	UNIQUE AGS-ASSIGNED-NO TO ID ATOMIC NO OF TRC ELEM
FOULNUM	UNIQUE AGS-ASSIGNED-NO TO ID ASH ADHERENCE TENDNCY
MSTNUM	UNIQUE AGS-ASSIGNED-NO TO ID MOISTURE BASIS FOR SG
SGNUM	UNIQUE AGS-ASSIGNED-NO TO ID SPECIFIC-GRAVITY TYPE
SJNUM	UNIQUE AGS-ASSUGBED-NO TO ID STATUS OF JOINTS
JINUM	UNIQUE AGS-ASSIGNED-NO TO ID JOINT INFILLING
SIVNUM	UNIQUE AGS-ASSIGNED-NO TO ID STANDARD SIEVE OPNGS
DRNUM	UNIQUE AGS-ASSIGNED-NO TO ID TRIAXIAL DRAINAGE CDTN
SPECNUM	UNIQUE AGS-ASSIGNED-NO TO ID SPECIMEN NO (GEOTECH)
INCNUM	UNIQUE AGS-ASSIGNED-NO TO ID INCREMENT NO (CNSLDN)
GRYNUM	UNIQUE AGS-ASSIGNED-NO TO ID GRAY-KING INDICES
DILNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPE OF DILATOMETER
PETNUM	UNIQUE AGS-ASSIGNED-NO TO ID A SAMPLE OF PETR ANAL
WRHNUM	UNIQUE AGS-ASSIGNED-NO TO ID SMPL STORAGE WAREHOUSE
ATNUM	UNIQUE AGS-ASSIGNED-NO TO ID TYPE OF ANALYSIS

**A P P E N D I X   2**

**S E C T I O N   8**

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8 GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
UTM					
UTM	SITID				
UTM	UTMZ	UTM-ZONE		+14	
UTM	UTMC	UTM-CEN-MER		+14	
UTM	UTMN	NORTHING		+110	
UTM	UTME	EASTING		+110	
LAT_LONG					
LAT_LONG	SITID				
LAT_LONG	LAT	LATITUDE		R9(5)	
LAT_LONG	LONG	LONGITUDE		R9(5)	
DLS_LSD					
DLS_LSD	SITID				
DLS_LSD	MER	MERIDAN			
DLS_LSD	TWP	TWP			
DLS_LSD	RGE	RANGE			
DLS_LSD	SECT	SECTION			
DLS_LSD	LSD	LSD			
DLS_LSD	LSDM	LSD-MOD			
DLS_COORD					
DLS_COORD	SITID				
DLS_COORD	MER	MERIDAN			
DLS_COORD	TWP	TWP			
DLS_COORD	RGE	RANGE			
DLS_COORD	SECT	SECTION			
DLS_COORD	RSEC				
DLS_COORD	RCNR	CORNER			
DLS_COORD	METN	YOFFSET			
DLS_COORD	NSCD	N-S			
DLS_COORD	METE	XOFFSET			
DLS_COORD	EWCD	E-W			
NTS					
NTS	SITID				
NTS	NTSP	NTS-PRIM		+114	
NTS	NTSS	NTS-SEC		A2	
NTS	NTST	NTS-TERT		+14	
ELEVAT					
ELEVAT	SITID				
ELEVAT	ELEV	ELEVATION			

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8 GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
ELEVAT	ELKB				
MN_GD_BNCH					
MN_GD_BNCH	SITID				
MN_GD_BNCH	MNGNUM				
BNCHMK					
BNCHMK	MNGNUM				
BNCHMK	UTMZ	UTM-ZONE		+I4	
BNCHMK	UTMC	UTM-CEN-MER		+I4	
BNCHMK	UTMN	NORTHING		+I10	
BNCHMK	UTME	EASTING		+I10	
BNCHMK	LAT	LATITUDE		R9(5)	
BNCHMK	LONG	LONGITUDE		R9(5)	
BNCHMK	MER	MERIDAN			
BNCHMK	TWP	TWP			
BNCHMK	RGE	RANGE			
BNCHMK	SECT	SECTION			
BNCHMK	RSEC				
BNCHMK	RCNR	CORNER			
BNCHMK	METN	YOFFSET			
BNCHMK	NSCD	N-S			
BNCHMK	METE	XOFFSET			
BNCHMK	EWCD	E-W			
BNCHMK	AZX8				
BNCHMK	AZY8				
BNCHMK	XBCD				
BNCHMK	YBCD				
BNCHMK	ELEV	ELEVATION			
COMP_PARTIC					
COMP_PARTIC	SITID				
COMP_PARTIC	CORPNUM	SOURCE-OF-DATA			
COMP					
COMP	CORPNUM	SOURCE-OF-DATA			
COMP	COMPANY				
COMP	COMP_ABBREV				
COMP	COMP_CODE				
COMP	ADD_SUITE_NO				
COMP	ADD_PO_BOX				
COMP	ADD_ST				

## SECTION 8

GSC\_STRD\_UNIT

GSC\_STGE\_FMT

MULT\_ELMNT\_INDCTR

TBL\_ABBREV CLMN\_ABBRV GSC\_DATA\_ELEMENT

COMP	ADD_CITY	
COMP	ADD_PROV	
COMP	ADD_PC	
COMP	MAL_COMP_NAM	
COMP	MAL_SUITE_NO	
COMP	MAL_PO_BOX	
COMP	MAL_ST	
COMP	MAL_CITY	
COMP	MAL_PROV	
COMP	MAL_PC	

MINE_GRID		
MINE_GRID	SITID	
MINE_GRID	BSLX	
MINE_GRID	BSLY	
MINE_GRID	XCMG	
MINE_GRID	YCMG	

THREETM		
THREETM	SITID	
THREETM	TRTMZ	
THREETM	TRTMC	
THREETM	TRTMN	
THREETM	TRTME	

SOURCE		
SOURCE	SITID	
SOURCE	CAT_ID	
SOURCE	ORIG	HOLE-ID
SOURCE	OPRJ	
SOURCE	CPDT	DATE-DRILLED

TENTM		
TENTM	SITID	
TENTM	TENTME	
TENTM	TENTMN	

DATA_SOURCE		
DATA_SOURCE	SITID	
DATA_SOURCE	SRCNUM	

SR_MTH		
SR_MTH	SRCNUM	
SR_MTH	SRC_DESC	DRILL-TYPE

## SECTION 8

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
SRVY_SRC					
SRVY_SRC	SITID				
SRVY_SRC	SRVNUM				
SURVEY					
SURVEY	SRVNUM				
SURVEY	SURV_DESC				
STATUS_MINE					
STATUS_MINE	SITID				
STATUS_MINE	STANUM				
MINE_STS					
MINE_STS	STANUM				
MINE_STS	M_LGL_S				
TYPE_MINE					
TYPE_MINE	SITID				
TYPE_MINE	MNTYNUM				
MINE_TYP					
MINE_TYP	MNTYNUM				
MINE_TYP	M_TYPE				
METH_MING					
METH_MING	SITID				
METH_MING	MNMTNUM				
MINE_MTHD					
MINE_MTHD	MNMTNUM				
MINE_MTHD	M_METH				
RNK_COAL					
RNK_COAL	SITID				
RNK_COAL	RNKNUM				
C_RNK					
C_RNK	RNKNUM				
C_RNK	C_RANK	RANK-ASTM		A4	
TYPE_COAL					
TYPE_COAL	SITID				
TYPE_COAL	CLTYNUM				
C_TYP					
C_TYP	CLTYNUM				
C_TYP	C_TYPE				
CONTRACTOR					
CONTRACTOR	SITID				

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8 GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
CONTRACTOR	CTRNUM				
CNTRCTR					
CNTRCTR	CTRNUM				
CNTRCTR	CNTRCTR_NM	DRILLING-CO			
LGGNG_CNTR					
LGGNG_CNTR	SITID				
LGGNG_CNTR	LGCNTNUM				
LG_CNT					
LG_CNT	LGCNTNUM				
LG_CNT	L_CNTR_NM				
ADIT					
ADIT	SITID				
ADIT	LENG				
ADIT	WIDE				
ADIT	HEIG				
ADIT	AZM				
ADIT	INC				
MINE					
MINE	SITID				
MINE	MCOM				
MINE	MNAM				
MINE	MNOM				
DH					
DH	SITID				
DH	DRL_LOG				
DH	CSG_DIAM				
DH	CSG_TD				
DH	HOLE_DIAM				
DH	TD	TOTAL-DEPTH			
DH	CORE_RECOV	REC%			
DH	LOG_CODE				
DH	DT_WTR_LVL				
DH	WTR_LVL				
DH	PIEZO				
DH	SOILS				
LOG_RUN					
LOG_RUN	SITID				
LOG_RUN	LOGNUM				



TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8 GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
LOGS					
LOGS	LOGNUM				
LOGS	LOG_TYPE	RESISTANCE			!
LOGS	LOG_TYPE	SP			!
LOGS	LOG_TYPE	DENSITY			!
LOGS	LOG_TYPE	GAMMA			!
LOGS	LOG_TYPE	CALIPER			!
LOGS	LOG_TYPE	NEUTRON			!
LOGS	LOG_TYPE	NORMAL			!
LOGS	LOG_TYPE	LATERAL			!
LOGS	LOG_TYPE	FOCUS			!
LOGS	LOG_TYPE	INDUCT			!
LOGS	LOG_TYPE	SONIC			!
HAZ					
HAZ	SITID				
HAZ	HAZNUM				
HAZARD					
HAZARD	HAZNUM				
HAZARD	HAZ_DESC				
SMPL					
SMPL	SITID				
SMPL	SAMTYPNUM				
SPL_TYP					
SPL_TYP	SAMTYPNUM				
SPL_TYP	SPL_TYPE				
TEST_PIT					
TEST_PIT	SITID				
TEST_PIT	LENG				
TEST_PIT	WIDE				
TEST_PIT	DEP				
TRENCH					
TRENCH	SITID				
TRENCH	LENG				
TRENCH	WIDE				
TRENCH	DEP				
TRENCH	AZM				
TRAVERSE					
TRAVERSE	SITID				

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8 GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCR
TRAVERSE	TRAVNUM				
TRAVERSE	TRAV_NO				
TRAV_PART					
TRAV_PART	TRAVNUM				
TRAV_PART	AZM				
TRAV_PART	INC				
TRAV_PART	L_LEG				
TRAV_PART	COMM				
DH_DEV					
DH_DEV	SITID				
DH_DEV	DEVNUM				
DH_DEV	DFROM				
DH_DEV	DTO				
DEV					
DEV	DEVNUM				
DEV	AZM				
DEV	DEVV				
CONFNTLY					
CONFNTLY	SITID				
CONFNTLY	DRLD				
CONFIDENT					
CONFIDENT	SITID				
CONFIDENT	CNFNUM				
CNFDTL					
CNFDTL	CNFNUM				
CNFDTL	CNFDY				
INTERP					
INTERP	SITID				
INTERP	GEOL	GEOLOGIST			
INTERP	INTD	COMPILED-ON			
REMARX					
REMARX	SITID				
REMARX	REMX				
REMARX	REMD				
CONFIDC					
CONFIDC	SITID				
CONFIDC	CNF_LVL				
CONFIDC	COO_ACC	LOG-UNCERTAINTY			

## SECTION 8

GSC\_STRD\_UNIT

GSC\_STGE\_FMT

MULT\_ELMNT\_INDCTR

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT
CONFIDC	ELEV_ACC	ELEV-UNCERTAINTY
PREC		
PREC	SITID	
PREC	COORNUM	
PREC	ELEVNUM	
COORD_BSD_ON		
COORD_BSD_ON	COORNUM	
COORD_BSD_ON	C_ORG	
ELEV_BSD_ON		
ELEV_BSD_ON	ELEVNUM	
ELEV_BSD_ON	E_ORG	
BDG_NORM		
BDG_NORM	SITID	
BDG_NORM	ORNUM	
BDG_NORM	DIPNUM	
BDG_NORM	PCHNUM	
BDG_NORM	OBOT	
O_ORN		
O_ORN	ORNUM	
O_ORN	ORNTN	
DDDIR		
DDDIR	DIPNUM	
DDDIR	DIP	
DDDIR	DIP_D	
PITCH_INFO		
PITCH_INFO	PCHNUM	
PITCH_INFO	PITCH	
BDG_FOLD		
BDG_FOLD	SITID	
BDG_FOLD	ORNUM	
BDG_FOLD	DIPNUM	
BDG_FOLD	AXTNUM	
BDG_FOLD	OBOT	
AX_TR		
AX_TR	AXTNUM	
AX_TR	TRD	
AX_TR	PLG	
FAULT		

## SECTION 8

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
FAULT	SITID				
FAULT	DIPNUM				
FAULT	PCHNUM				
FAULT	SNSNUM				
FAULT	OBOT				
O_SNS					
O_SNS	SNSNUM				
O_SNS	OC_SNS				
JNT_SET					
JNT_SET	SITID				
JNT_SET	DIPNUM				
JNT_SET	PCHNUM				
JNT_SET	SNSNUM				
JNT_SET	OBOT				
CLEAV					
CLEAV	SITID				
CLEAV	DIPNUM				
CLEAV	OBOT				
ST_OC_LTH					
ST_OC_LTH	SITID				
ST_OC_LTH	OBOT				
ST_OC_LTH	LITHNUM				
TR_LTH					
TR_LTH	TRAVNUM				
TR_LTH	LITHNUM				
TR_SPL					
TR_SPL	TRAVNUM				
TR_SPL	SAMNUM				
TR_PCK					
TR_PCK	TRAVNUM				
TR_PCK	PIKNUM				
ST_OC_GEO					
ST_OC_GEO	SITID				
ST_OC_GEO	OBOT				
ST_OC_GEO	FMNUM				
ST_OC_GEO	MBRNUM				
ST_OC_GEO	CZNUM				
ST_OC_GEO	CSNUM				

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8 GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
P_DH_INT					
P_DH_INT	SITID				
P_DH_INT	PIKNUM				
P_DH_INT	DTOP				
P_DH_INT	DBASE				
P_DH_INT	P_L_ADJ				
INT_RMX					
INT_RMX	PIKNUM				
INT_RMX	REMARKS				
P_OC_INT					
P_OC_INT	SITID				
P_OC_INT	PIKNUM				
P_OC_INT	OBOT				
P_OC_INT	OTOP				
PICK					
PICK	PIKNUM				
PICK	PIK_Q				
P_MKR					
P_MKR	PIKNUM				
P_MKR	MKRNUM				
MKR_TYP					
MKR_TYP	MKRNUM				
MKR_TYP	MKR_TYPE				
P_BSD_ON					
P_BSD_ON	PIKNUM				
P_BSD_ON	BSDNUM				
P_GP					
P_GP	PIKNUM				
P_GP	GPNUM				
P_FM					
P_FM	PIKNUM				
P_FM	FMNUM				
P_MBR					
P_MBR	PIKNUM				
P_MBR	MBRNUM				
P_CZ					
P_CZ	PIKNUM				
P_CZ	CZNUM				

			SECTION 8		
TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
P_CS					
P_CS	PIKNUM				
P_CS	CSNUM				
GEOL_GROUP					
GEOL_GROUP	GPNUM				
GEOL_GROUP	GRP_NM				
FM_IN_GP					
FM_IN_GP	GPNUM				
FM_IN_GP	FMNUM				
GEOL_FM					
GEOL_FM	FMNUM				
GEOL_FM	FM_NM	FORMATION		A8	
MBR_IN_FM					
MBR_IN_FM	FMNUM				
MBR_IN_FM	MBRNUM				
GEOL_MBR					
GEOL_MBR	MBRNUM				
GEOL_MBR	MBR_NM	FORM-MEM		A8	
CZ_IN_MBR					
CZ_IN_MBR	MBRNUM				
CZ_IN_MBR	CZNUM				
CZ_IN_FM					
CZ_IN_FM	FMNUM				
CZ_IN_FM	CZNUM				
GEOL_CZ					
GEOL_CZ	CZNUM				
GEOL_CZ	CZ_NM	ZONE-NAME			1
GEOL_CZ	CZ_NM	COAL-HORIZON		A8	1
CS_IN_CZ					
CS_IN_CZ	CZNUM				
CS_IN_CZ	CSNUM				
GEOL_CS					
GEOL_CS	CSNUM				
GEOL_CS	CS_NM	ZONE-MOD			
L_DH					
L_DH	SITID				
L_DH	LITHNUM				
L_DH	LTOPP	TOP-DEPTH			

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8 GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
L_DH	LBASE	BOTTOM-DEPTH			
L_DH	CBA				
L_DH	L_L_ADJ				
L_REM					
L_REM	LITHNUM				
L_REM	L_REMX				
L_MAIN					
L_MAIN	LITHNUM				
L_MAIN	MAINUM				
L_OC					
L_OC	SITID				
L_OC	LITHNUM				
L_OC	LBOT				
L_OC	LTOPP				
L_CHN					
L_CHN	SITID				
L_CHN	LITHNUM				
L_CHN	CLTOP				
L_CHN	CLBOT				
L_LOG					
L_LOG	LITHNUM				
L_MOD1					
L_MOD1	LITHNUM				
L_MOD1	MODNUM				
L_MOD2					
L_MOD2	LITHNUM				
L_MOD2	MODNUM				
L_SP_FT					
L_SP_FT	LITHNUM				
L_SP_FT	SPFNUM				
P_LITHO					
P_LITHO	PIKNUM				
P_LITHO	LITHNUM				
P_LITHO	SAMNUM				
P_LITHO	ANANUM				
L_ATT					
L_ATT	LITHNUM				
L_ATT	ATTNUM				

## SECTION 8

GSC\_STRD\_UNIT

GSC\_STGE\_FMT

MULT\_ELMNT\_INDCTR

TBL\_ABBREV CLMN\_ABBRV GSC\_DATA\_ELEMENT

ATT		
ATT	ATTNUM	
ATT	ATTITUDE	
LITH_MN		
LITH_MN	MAINUM	
LITH_MN	L_CTGY	LITHOLOGY
LITH_MN	L_TYP	LITHOLOGY
LITH_MD		
LITH_MD	MODNUM	
LITH_MD	M_TYP	LITHOLOGY
LITH_MD	M_DESC	LITHOLOGY
L_SP_FEA		
L_SP_FEA	SPFNUM	
L_SP_FEA	SP_FE	LITHOLOGY
L_BSD_ON		
L_BSD_ON	LITHNUM	
L_BSD_ON	BSDNUM	
BASED		
BASED	BSDNUM	
BASED	BSD_ON	
S_FRM		
S_FRM	SAMNUM	
S_FRM	FMNUM	
S_FRM	MBRNUM	
S_FRM	CZNUM	
S_FRM	CSNUM	
S_OC		
S_OC	SITID	
S_OC	SAMNUM	
S_OC	SOBOT	
S_OC	SOTOP	
S_CHNL		
S_CHNL	SITID	
S_CHNL	SAMNUM	
S_CHNL	SCLTOP	
S_CHNL	SCLBOT	
S_DH		
S_DH	SITID	



## SECTION 8

GSC\_STRD\_UNIT

GSC\_STGE\_FMT

MULT\_ELMNT\_INDCTR

TBL\_ABBREV CLMN\_ABBRV GSC\_DATA\_ELEMENT

S_DH	SAMNUM
S_DH	STOP
S_DH	SBASE
S_DH	S_L_ADJ
S_STAT	
S_STAT	SAMNUM
S_STAT	S_NO
S_STAT	S_LTH
S_STAT	S_WT
S_STAT	S_DT
S_STAT	S_BY
S_REMX	
S_REMX	SAMNUM
S_REMX	S_RMX
S_CONTIN	
S_CONTIN	SAMNUM
S_CONTIN	CONTNUM
CONTIN	
CONTIN	CONTNUM
CONTIN	CONT
S_SEG	
S_SEG	SAMNUM
S_SEG	SEGNUM
S_SEGMT	
S_SEGMT	SEGNUM
S_SEGMT	SGMT
S_PREPTN	
S_PREPTN	SAMNUM
S_PREPTN	PREPNUM
S_PREP	
S_PREP	PREPNUM
S_PREP	PREP
A_STA	
A_STA	ANANUM
A_STA	L_S_NO
A_STA	A_DT
LAB_ANA	
LAB_ANA	ANANUM

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8 GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
LAB_ANA	LABNUM				
LAB					
LAB	LABNUM				
LAB	LAB_NM	LAB			
SZ_ANA					
SZ_ANA	ANANUM				
SZ_ANA	SZNUM				
OK_ANA					
OK_ANA	ANANUM				
OK_ANA	OKNUM				
CNF_ANA					
CNF_ANA	ANANUM				
CNF_ANA	CONFNUM				
ANA_CONF					
ANA_CONF	CONFNUM				
ANA_CONF	A_CONF				
SZ_FRACT					
SZ_FRACT	SZNUM				
SZ_FRACT	SZ_FR				
ANA_OK					
ANA_OK	OKNUM				
ANA_OK	A_APP				
E_MOIST					
E_MOIST	SAMNUM				
E_MOIST	ANANUM				
E_MOIST	EQM				
S					
S	SAMNUM				
S	ANANUM				
S	SARB	D-SULPHUR-P%		R6(2)	
S	SADB				
HV					
HV	SAMNUM				
HV	ANANUM				
HV	HVARB	D-HEAT		R9(4)	
HV	HVADB				
PROX					
PROX	SAMNUM				

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8 GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
PROX	ANANUM				
PROX	PMAR	PMOIST%		R6(2)	
PROX	PVMAR	D-VOLM%		R6(2)	
PROX	PAAR	D-ASH-P%		R6(2)	
PROX	PFCAR	D-FIXC%		R6(2)	
PROX	PMAD				
PROX	PVMAD				
PROX	PAAD				
PROX	PFCAD				
A_FUS					
A_FUS	SAMNUM				
A_FUS	ANANUM				
A_FUS	RIDT	INITIAL-R		R6(2)	
A_FUS	RSOT	SPHERE-R		R6(2)	
A_FUS	RHET	HEMI-SPH-R		R6(2)	
A_FUS	RFLT	FLUID-R		R6(2)	
A_FUS	OIDT	INITIAL-O		R6(2)	
A_FUS	OSOT	SPHERE-O		R6(2)	
A_FUS	OHET	HEMI-SPH-O		R6(2)	
A_FUS	OFLT	FLUID-O		R6(2)	
A_FUS	VISC				
POROS					
POROS	SAMNUM				
POROS	ANANUM				
POROS	POAD				
POROS	POIN				
METHANE					
METHANE	SAMNUM				
METHANE	ANANUM				
METHANE	CH4				
A_RESIS					
A_RESIS	SAMNUM				
A_RESIS	ANANUM				
A_RESIS	E_RES_EXP	ASH-RESIST	9	11	
A_RESIS	E_RES	ASH-RESIST	OHM-CM	R9(3)	
ULT					
ULT	SAMNUM				
ULT	ANANUM				

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8 GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
ULT	UAMAD	UMOIST%		R6(2)	
ULT	UAC	D-CARBON%		R6(2)	
ULT	UAH	D-HYDROGEN%		R6(2)	
ULT	UAN	D-NITROGEN%		R6(2)	
ULT	UAA	D-ASH-U%		R6(2)	
ULT	UAS	ULT-SULPHUR-TOT		R6(2)	!
ULT	UAS	ULT-SULPHUR-PYR		R6(2)	!
ULT	UAO	D-OXYGEN%		R6(2)	
ULT	UINC	ULT-BASIS-DEP		A4	
HGI_ABRAS					
HGI_ABRAS	SAMNUM				
HGI_ABRAS	ANANUM				
HGI_ABRAS	HGI	HAR-GRIND		R6(2)	
HGI_ABRAS	ABV				
HGI_ABRAS	MCHD				
HGI_ABRAS	DRST				
TR_ELEM					
TR_ELEM	SAMNUM				
TR_ELEM	ANANUM				
TR_ELEM	ATOMNUM				
TR_ELEM	PPM	DEP-B		R11(3)	!
TR_ELEM	PPM	DEP-AS		R11(3)	!
TR_ELEM	PPM	DEP-SE		R11(3)	!
TR_ELEM	PPM	DEP-MO		R11(3)	!
TR_ELEM	PPM	DEP-CD		R11(3)	!
TR_ELEM	PPM	DEP-V		R11(3)	!
TR_ELEM	PPM	DEP-CR		R11(3)	!
TR_ELEM	PPM	DEP-NI		R11(3)	!
TR_ELEM	PPM	DEP-CU		R11(3)	!
TR_ELEM	PPM	DEP-ZN		R11(3)	!
TR_ELEM	PPM	DEP-HG		R11(3)	!
TR_ELEM	PPM	DEP-BR		R11(3)	!
TR_ELEM	PPM	DEP-CL		R11(3)	!
TR_ELEM	PPM	DEP-FE		R11(3)	!
TR_ELEM	PPM	DEP-MN		R11(3)	!
TR_ELEM	PPM	DEP-GE		R11(3)	!
TR_ELEM	PPM	DEP-TH		R11(3)	!
TR_ELEM	PPM	DEP-U		R11(3)	!

## SECTION 8

GSC\_STRD\_UNIT

GSC\_STGE\_FMT

MULT\_ELMNT\_INDCTR

TBL\_ABBREV

CLMN\_ABBRV

GSC\_DATA\_ELEMENT

ATOMIC\_NO

ATOMIC\_NO

ATOMIC\_NO

ATOMIC\_NO

ATOMNUM

TR\_EL

TE\_SYM

MNRL\_ANA

MNRL\_ANA

MNRL\_ANA

MNRL\_ANA

MNRL\_ANA

MNRL\_ANA

MNRL\_ANA

MNRL\_ANA

MNRL\_ANA

MNRL\_ANA

MNRL\_ANA

MNRL\_ANA

MNRL\_ANA

MNRL\_ANA

MNRL\_ANA

SAMNUM

ANANUM

ANK

CLCT

DOL

GAL

KAOL

MTIL

PTMC

SIDR

SPHAL

QTZ

SPHT

S-SULPHATE%

A\_ANA\_H

A\_ANA\_H

A\_ANA\_H

A\_ANA\_H

A\_ANA\_H

A\_ANA\_H

A\_ANA\_H

A\_ANA\_H

A\_ANA\_H

A\_ANA\_H

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A\_ANA\_H

A\_ANA\_H

A\_ANA\_H

A\_ANA\_H

A\_ANA\_H

A\_ANA\_H

A\_ANA\_H

A\_ANA\_H

A\_ANA\_H

SAMNUM

ANANUM

SI02

AL203

TI02

FE203

CAO

MGO

NA2O

K2O

P205

SO3

UNDT

CO2

CR03

MNO

MO03

NIO

VO3

SI02%

AL203%

TI02%

FE203%

CA0%

MGO%

NA20%

K20%

P205%

S03%

UNDET%

R6(2)

R6(2)

R6(2)

R6(2)

R6(2)

R6(2)

R6(2)

R6(2)

R6(2)

R6(2)

R6(2)

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8 GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
A_ANA_H	FOULNUM				
A_ANA_L					
A_ANA_L	SAMNUM				
A_ANA_L	ANANUM				
A_ANA_L	SI02_L				
A_ANA_L	AL203_L				
A_ANA_L	TI02_L				
A_ANA_L	FE203_L				
A_ANA_L	CA0_L				
A_ANA_L	MGO_L				
A_ANA_L	NA20_L				
A_ANA_L	K20_L				
A_ANA_L	P205_L				
A_ANA_L	SO3_L				
A_ANA_L	UNDT_L				
A_ANA_L	CO2_L				
A_ANA_L	CR03_L				
A_ANA_L	MNO_L				
A_ANA_L	MO03_L				
A_ANA_L	NIO_L				
A_ANA_L	VO3_L				
A_ANA_L	FOULNUM				
FOUL					
FOUL	FOULNUM				
FOUL	FLNG	FOUL-INDEX		R6(2)	
SG_DENS					
SG_DENS	SAMNUM				
SG_DENS	ANANUM				
SG_DENS	DDEN				
SG_DENS	BDEN				
SG_DENS	MSTNUM				
SG_DENS	SGNUM				
SG_DENS	SG	SG-HOG			I
SG_DENS	SG	SG-AIR			I
SG_DENS	SGLO				
RQD_ETAL					
RQD_ETAL	SAMNUM				
RQD_ETAL	ANANUM				

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8 GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
RQD_ETAL	RECOV				
RQD_ETAL	RQD				
RQD_ETAL	JNT				
RQD_ETAL	SJNUM				
RQD_ETAL	JINUM				
SJNT					
SJNT	SJNUM				
SJNT	JNT_ST				
JNTI					
JNTI	JINUM				
JNTI	JNT_IN				
SG_INF					
SG_INF	SGNUM				
SG_INF	SGTYPE				
MOISTURE					
MOISTURE	MSTNUM				
MOISTURE	MOIST				
SIEVE_ANAL					
SIEVE_ANAL	SAMNUM				
SIEVE_ANAL	ANANUM				
SIEVE_ANAL	SIVNUM				
SIEVE_ANAL	THRU				
SIEVE					
SIEVE	SIVNUM				
SIEVE	SV_NO				
SIEVE	OPNG				
PROCT					
PROCT	SAMNUM				
PROCT	ANANUM				
PROCT	PTOM				
PROCT	PMDD				
ATTER					
ATTER	SAMNUM				
ATTER	ANANUM				
ATTER	NWC				
ATTER	ALLL				
ATTER	APL				
TRIAx					

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8		
			GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
TRIAx	SAMNUM				
TRIAx	ANANUM				
TRIAx	DRNUM				
TRIAx	SPECNUM				
TRIAx	IWC				
TRIAx	DDS				
TRIAx	BDS				
TRIAx	ECP				
TRIAx	PORE_PRES				
TRIAx	SIGMA1				
TRIAx	SIGMA3				
TRIAx	AX_ST				
TRIAx	PP_MAX				
TRIAx	SIGMA1_MAX				
TRIAx	SIGMA3_MAX				
TRIAx	AXI_STR				
DRAIN					
DRAIN	DRNUM				
DRAIN	DR_CN				
SPEC_NO					
SPEC_NO	SPECNUM				
SPEC_NO	SPMN_NO				
DIR_SHR					
DIR_SHR	SAMNUM				
DIR_SHR	ANANUM				
DIR_SHR	SPECNUM				
DIR_SHR	IWC				
DIR_SHR	DDS				
DIR_SHR	BDS				
DIR_SHR	NSTR				
DIR_SHR	PSSTR				
DIR_SHR	PDSP				
DIR_SHR	RSSTR				
DIR_SHR	RDSP				
DIR_SHR	XSEC_AR				
DIR_SHR	SHAPE				
CONSOL					
CONSOL	SAMNUM				



TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8 GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
CONSOL	ANANUM				
CONSOL	IWC				
CONSOL	IBD				
CONSOL	IDD				
CONSOL	IVR				
CONSOL	PCP				
CONSOL	CPI				
CONSOL	INCNUM				
CONSOL	CON_PRE				
CONSOL	CVC				
CONSOL	CC				
HMR					
HMR	SAMNUM				
HMR	ANANUM				
HMR	SPT				
HMR	BKHT				
STRGTH					
STRGTH	SAMNUM				
STRGTH	ANANUM				
STRGTH	POCK				
STRGTH	UN_COMP				
STRGTH	VANE				
STRGTH	CN_RS				
STRGTH	CN_FR				
INCRMNT					
INCRMNT	INCNUM				
INCRMNT	INC_NO				
FSI_IND					
FSI_IND	SAMNUM				
FSI_IND	ANANUM				
FSI_IND	FSI	FSI		+14	
GRAY_KING					
GRAY_KING	SAMNUM				
GRAY_KING	ANANUM				
GRAY_KING	GRYNUM				
GRAY_KING	GKAT				
GRAY_KING	GKAG				
GRAY_KING	GKAL				

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8 GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
GRAY_KING	GKAS				
GRAY_KING	GKHV				
FLASH					
FLASH	SAMNUM				
FLASH	ANANUM				
FLASH	FLPT				
FLASH	FLPG				
FLASH	FLPL				
FLASH	FLPS				
GRY_KING					
GRY_KING	GRYNUM				
GRY_KING	GK_ID				
FISCHER					
FISCHER	SAMNUM				
FISCHER	ANANUM				
FISCHER	FSAT				
FISCHER	FSAG				
FISCHER	FSAL				
FISCHER	FSAS				
DILATOM					
DILATOM	SAMNUM				
DILATOM	ANANUM				
DILATOM	DILNUM				
DILATOM	DSOFT				
DILATOM	DMXCNT				
DILATOM	DMCPC				
DILATOM	DMXDIT				
DILATOM	DMDPC				
DILATOM	DFDPC				
DILATOM	DRESOLT				
GEIS					
GEIS	SAMNUM				
GEIS	ANANUM				
GEIS	GPST	PLAS-START-TEMP		+14	
GEIS	GPFT	PLAS-FINAL-TEMP		+14	
GEIS	GDDM	MAX-FLUIDITY		+15	
GEIS	GPSL				
GEIS	GPFR	PLAS-MELT-RANGE		+14	

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8 GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
SLAG					
SLAG	SAMNUM				
SLAG	ANANUM				
SLAG	SGIN				
COKE_PRES					
COKE_PRES	SAMNUM				
COKE_PRES	ANANUM				
COKE_PRES	CKPR	COKE-PRES		R4(2)	
DLTM					
DLTM	DILNUM				
DLTM	DLTM_TYP				
POLLEN					
POLLEN	SAMNUM				
POLLEN	ANANUM				
POLLEN	PETNUM				
P_PRO					
P_PRO	PETNUM				
P_PRO	PETROG				
P_PRO	AFFIL				
P_PRO	ST_DT				
P_PRO	FIN_DT				
P_PRO	PETSAM_NO				
PELLETS					
PELLETS	SAMNUM				
PELLETS	ANANUM				
PELLETS	PETNUM				
PELLETS	RFLA				
PELLETS	NMAX				
PELLETS	MNMX	DEP-REFL-MAX		R6(2)	
PELLETS	SDMX				
PELLETS	MMIN				
PELLETS	MNMN	DEP-REFL-MIN		R6(2)	
PELLETS	SDMN				
PELLETS	NRDM				
PELLETS	MNRDM	DEP-REFL-MEAN		R6(2)	
PELLETS	SDRDM				
BLOX					
BLOX	SAMNUM				

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8 GSC_STRD_UNIT	GSC_STGE_FMT	MULT_ELMNT_INDCTR
BLOX	ANANUM				
BLOX	PETNUM				
BLOX	NOM				
BLOX	MXVR				
BLOX	MNVR				
BLOX	INVR				
BLOX	TRMX				
BLOX	PLMX				
BLOX	TRMN				
BLOX	PLMN				
BLOX	TRIN				
BLOX	PLIN				
MACERAL					
MACERAL	SAMNUM				
MACERAL	ANANUM				
MACERAL	PETNUM				
MACERAL	VITR				
MACERAL	EXIN				
MACERAL	INRT				
MACERAL	REMAC	REACTIVES			R6(2)
MACERAL	INMAC	INERTS			R6(2)
P_IND					
P_IND	SAMNUM				
P_IND	ANANUM				
P_IND	PETNUM				
P_IND	CBI	BAL-INDEX			R6(2)
P_IND	STRI	STRENGTH-INDEX			R6(2)
P_IND	STBI	STABILITY-INDEX			I4
A_WRH_AT					
A_WRH_AT	ANANUM				
A_WRH_AT	WRHNUM				
A_WRH_AT	WRHTAGNO				
S_HAS_A					
S_HAS_A	SAMNUM				
S_HAS_A	ANANUM				
S_HAS_A	ATNUM				
SVD_C_UNA					
SVD_C_UNA	SAMNUM				

TBL_ABBREV	CLMN_ABBRV	GSC_DATA_ELEMENT	SECTION 8 GSC_STRD_UNIT	GSC_STGE_FMT.	MULT_ELMNT_INDCTR
SVD_C_UNA	WRHNUM				
ANA_TYP					
ANA_TYP	ATNUM				
ANA_TYP	A_TYP				
WAREHOUSE					
WAREHOUSE	WRHNUM				
WAREHOUSE	WRH_NM				
WAREHOUSE	WRH_ADD				
WAREHOUSE	WRH_PH				
WAREHOUSE	WRH_CNTCT				
SVD_SPL					
SVD_SPL	SAMNUM				
SVD_SPL	WRHTAGNO				
SVD_SPL	MASS_STD				
SVD_SPL	ART_CONT				
SVD_SPL	REFRIG				
SVD_SPL	ARCH_DT				

**A P P E N D I X 2**

**S E C T I O N 9**

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
UTM				
UTM	SITID	SITID		16
UTM	UTMZ			
UTM	UTMC			
UTM	UTMN			
UTM	UTME			
LAT_LONG				
LAT_LONG	SITID	SITID		16
LAT_LONG	LAT			
LAT_LONG	LONG			
DLS_LSD				
DLS_LSD	SITID	SITID		16
DLS_LSD	MER			
DLS_LSD	TWP			
DLS_LSD	RGE			
DLS_LSD	SECT			
DLS_LSD	LSD			
DLS_LSD	LSDM			
DLS_COORD				
DLS_COORD	SITID	SITID		16
DLS_COORD	MER			
DLS_COORD	TWP			
DLS_COORD	RGE			
DLS_COORD	SECT			
DLS_COORD	RSEC			
DLS_COORD	RCNR			
DLS_COORD	METN			
DLS_COORD	NSCD			
DLS_COORD	METE			
DLS_COORD	EWCD			
NTS				
NTS	SITID	SITID		16
NTS	NTSP			
NTS	NTSS			
NTS	NTST			
ELEVAT				
ELEVAT	SITID	SITID		16
ELEVAT	ELEV	GRND ELEV	METERS	14

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
ELEVAT	ELKB	KB	METERS	F6.1
MN_GD_BNCH				
MN_GD_BNCH	SITID	SITID		16
MN_GD_BNCH	MNGNUM			
BNCHMK				
BNCHMK	MNGNUM			
BNCHMK	UTMZ			
BNCHMK	UTMC			
BNCHMK	UTMN			
BNCHMK	UTME			
BNCHMK	LAT			
BNCHMK	LONG			
BNCHMK	MER			
BNCHMK	TWP			
BNCHMK	RGE			
BNCHMK	SECT			
BNCHMK	RSEC			
BNCHMK	RCNR			
BNCHMK	METN			
BNCHMK	NSCD			
BNCHMK	METE			
BNCHMK	EWCD			
BNCHMK	AZXB			
BNCHMK	AZYB			
BNCHMK	XBCD			
BNCHMK	YBCD			
BNCHMK	ELEV	GRND ELEV	METERS	14
COMP_PARTIC				
COMP_PARTIC	SITID	SITID		16
COMP_PARTIC	CORPNUM			
COMP				
COMP	CORPNUM			
COMP	COMPANY			
COMP	COMP_ABBREV			
COMP	COMP_CODE			
COMP	ADD_SUITE_NO			
COMP	ADD_PO_BOX			
COMP	ADD_ST			



TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
COMP	ADD_CITY			
COMP	ADD_PROV			
COMP	ADD_PC			
COMP	MAL_COMP_NAM			
COMP	MAL_SUITE_NO			
COMP	MAL_PO_BOX			
COMP	MAL_ST			
COMP	MAL_CITY			
COMP	MAL_PROV			
COMP	MAL_PC			
MINE_GRID				
MINE_GRID	SITID	SITID		I6
MINE_GRID	BSLX			
MINE_GRID	BSLY			
MINE_GRID	XCMG			
MINE_GRID	YCMG			
THREETM				
THREETM	SITID	SITID		I6
THREETM	TRTMZ			
THREETM	TRTMC			
THREETM	TRTMN			
THREETM	TRTME			
SOURCE				
SOURCE	SITID	SITID		I6
SOURCE	CAT_ID			
SOURCE	ORIG	TEST HOLE		A3
SOURCE	OPRJ			
SOURCE	CPDT			
TENTM				
TENTM	SITID	SITID		I6
TENTM	TENTME			
TENTM	TENTMN			
DATA_SOURCE				
DATA_SOURCE	SITID	SITID		I6
DATA_SOURCE	SRCNUM	STATUS		I1
SR_MTH				
SR_MTH	SRCNUM	STATUS		I1
SR_MTH	SRC_DESC			

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
SRVY_SRC				
SRVY_SRC	SITID	SITID		16
SRVY_SRC	SRVNUM			
SURVEY				
SURVEY	SRVNUM			
SURVEY	SURV_DESC			
STATUS_MINE				
STATUS_MINE	SITID	SITID		16
STATUS_MINE	STANUM			
MINE_STS				
MINE_STS	STANUM			
MINE_STS	M_LGL_S			
TYPE_MINE				
TYPE_MINE	SITID	SITID		16
TYPE_MINE	MNTYNUM			
MINE_TYP				
MINE_TYP	MNTYNUM			
MINE_TYP	M_TYPE			
METH_MING				
METH_MING	SITID	SITID		16
METH_MING	MNMTNUM			
MINE_MTHD				
MINE_MTHD	MNMTNUM			
MINE_MTHD	M_METH			
RNK_COAL				
RNK_COAL	SITID	SITID		16
RNK_COAL	RNKNUM	RANK		11
C_RNK				
C_RNK	RNKNUM	RANK		11
C_RNK	C_RANK			
TYPE_COAL				
TYPE_COAL	SITID	SITID		16
TYPE_COAL	CLTYNUM			
C_TYP				
C_TYP	CLTYNUM			
C_TYP	C_TYPE			
CONTRACTOR				
CONTRACTOR	SITID	SITID		16

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
CONTRACTOR	CTRNUM			
CNTRCTR				
CNTRCTR	CTRNUM			
CNTRCTR	CNTRCTR_NM			
LGGNG_CNTR				
LGGNG_CNTR	SITID	SITID		16
LGGNG_CNTR	LGCNTNUM			
LG_CNT				
LG_CNT	LGCNTNUM			
LG_CNT	L_CNTR_NM			
ADIT				
ADIT	SITID	SITID		16
ADIT	LENG			
ADIT	WIDE			
ADIT	HEIG			
ADIT	AZM			
ADIT	INC			
MINE				
MINE	SITID	SITID		16
MINE	MCOM			
MINE	MNAM			
MINE	MNOM			
DH				
DH	SITID	SITID		16
DH	DRL_LOG			
DH	CSG_DIAM			
DH	CSG_TD	CASE	METERS	F6.1
DH	HOLE_DIAM			
DH	TD			
DH	CORE_RECOV			
DH	LOG_CODE			
DH	DT_WTR_LVL			
DH	WTR_LVL			
DH	PIEZO			
DH	SOILS			
LOG_RUN				
LOG_RUN	SITID	SITID		16
LOG_RUN	LOGNUM			

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
LOGS				
LOGS	LOGNUM			
LOGS	LOG_TYPE			
HAZ				
HAZ	SITID	SITID		16
HAZ	HAZNUM			
HAZARD				
HAZARD	HAZNUM			
HAZARD	HAZ_DESC			
SMPL				
SMPL	SITID	SITID		16
SMPL	SAMTYPNUM			
SPL_TYP				
SPL_TYP	SAMTYPNUM			
SPL_TYP	SPL_TYPE			
TEST_PIT				
TEST_PIT	SITID	SITID		16
TEST_PIT	LENG			
TEST_PIT	WIDE			
TEST_PIT	DEP			
TRENCH				
TRENCH	SITID	SITID		16
TRENCH	LENG			
TRENCH	WIDE			
TRENCH	DEP			
TRENCH	AZM			
TRAVERSE				
TRAVERSE	SITID	SITID		16
TRAVERSE	TRAVNUM			
TRAVERSE	TRAV_NO			
TRAV_PART				
TRAV_PART	TRAVNUM			
TRAV_PART	AZM			
TRAV_PART	INC			
TRAV_PART	L_LEG			
TRAV_PART	COMM			
DH_DEV				
DH_DEV	SITID	SITID		16

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
DH_DEV	DEVNUM			
DH_DEV	DFROM			
DH_DEV	DTO			
DEV				
DEV	DEVNUM			
DEV	AZM			
DEV	DEVV			
CONFNTLY				
CONFNTLY	SITID	SITID		16
CONFNTLY	DRLD			
CONFIDENT				
CONFIDENT	SITID	SITID		16
CONFIDENT	CNFNUM			
CNFDTL				
CNFDTL	CNFNUM			
CNFDTL	CNFY			
INTERP				
INTERP	SITID	SITID		16
INTERP	GEOL			
INTERP	INTD			
REMARX				
REMARX	SITID	SITID		16
REMARX	REMX			
REMARX	REMD			
CONFIDC				
CONFIDC	SITID	SITID		16
CONFIDC	CNF_LVL			
CONFIDC	COO_ACC			
CONFIDC	ELEV_ACC			
PREC				
PREC	SITID	SITID		16
PREC	COORNUM			
PREC	ELEVNUM			
COORD_BSD_ON				
COORD_BSD_ON	COORNUM			
COORD_BSD_ON	C_ORG			
ELEV_BSD_ON				
ELEV_BSD_ON	ELEVNUM			

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
ELEV_BSD_ON	E_ORG			
BDG_NORM				
BDG_NORM	SITID	SITID		16
BDG_NORM	ORNUM			
BDG_NORM	DIPNUM			
BDG_NORM	PCHNUM			
BDG_NORM	OBOT			
O_ORN				
O_ORN	ORNUM			
O_ORN	ORNTN			
DDDIR				
DDDIR	DIPNUM			
DDDIR	DIP			
DDDIR	DIP_D			
PITCH_INFO				
PITCH_INFO	PCHNUM			
PITCH_INFO	PITCH			
BDG_FOLD				
BDG_FOLD	SITID	SITID		16
BDG_FOLD	ORNUM			
BDG_FOLD	DIPNUM			
BDG_FOLD	AXTNUM			
BDG_FOLD	OBOT			
AX_TR				
AX_TR	AXTNUM			
AX_TR	TRD			
AX_TR	PLG			
FAULT				
FAULT	SITID	SITID		16
FAULT	DIPNUM			
FAULT	PCHNUM			
FAULT	SNSNUM			
FAULT	OBOT			
O_SNS				
O_SNS	SNSNUM			
O_SNS	OC_SNS			
JNT_SET				
JNT_SET	SITID	SITID		16

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
JNT_SET	DIPNUM			
JNT_SET	PCHNUM			
JNT_SET	SNSNUM			
JNT_SET	OBOT			
CLEAV				
CLEAV	SITID	SITID		16
CLEAV	DIPNUM			
CLEAV	OBOT			
ST_OC_LTH				
ST_OC_LTH	SITID	SITID		16
ST_OC_LTH	OBOT			
ST_OC_LTH	LITHNUM			
TR_LTH				
TR_LTH	TRAVNUM			
TR_LTH	LITHNUM			
TR_SPL				
TR_SPL	TRAVNUM			
TR_SPL	SAMNUM			
TR_PCK				
TR_PCK	TRAVNUM			
TR_PCK	PIKNUM	BATTLE CODE		11
ST_OC_GEO				
ST_OC_GEO	SITID	SITID		16
ST_OC_GEO	OBOT			
ST_OC_GEO	FMNUM	NAME OF FM		14
ST_OC_GEO	MBRNUM	NAME OF FM		14
ST_OC_GEO	CZNUM	SEAM NAME		13
ST_OC_GEO	CSNUM	SEAM NAME		13
P_DH_INT				
P_DH_INT	SITID	SITID		16
P_DH_INT	PIKNUM	BATTLE CODE		11
P_DH_INT	DTOP	TOP DEPTH ; DEPTH OF PICK	METERS	F6.1
P_DH_INT	DBASE	BOT DEPTH	METERS	F6.1
P_DH_INT	P_L_ADJ			
INT_RMX				
INT_RMX	PIKNUM	BATTLE CODE		11
INT_RMX	REMARKS			
P_OC_INT				

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9	
			ARC_STRD_UNIT	ARC_STGE_FMT
P_OC_INT	SITID	SITID		16
P_OC_INT	PIKNUM	BATTLE CODE		11
P_OC_INT	OBOT			
P_OC_INT	OTOP			
PICK				
PICK	PIKNUM	BATTLE CODE		11
PICK	PIK_Q			
P_MKR				
P_MKR	PIKNUM	BATTLE CODE		11
P_MKR	MKRNUM	MARKER CODE		16
MKR_TYP				
MKR_TYP	MKRNUM	MARKER CODE		16
MKR_TYP	MKR_TYPE			
P_BSD_ON				
P_BSD_ON	PIKNUM	BATTLE CODE		11
P_BSD_ON	BSDNUM			
P_GP				
P_GP	PIKNUM	BATTLE CODE		11
P_GP	GPNUM	NAME OF FM		14
P_FM				
P_FM	PIKNUM	BATTLE CODE		11
P_FM	FMNUM	NAME OF FM		14
P_MBR				
P_MBR	PIKNUM	BATTLE CODE		11
P_MBR	MBRNUM	NAME OF FM		14
P_CZ				
P_CZ	PIKNUM	BATTLE CODE		11
P_CZ	CZNUM	SEAM NAME		13
P_CS				
P_CS	PIKNUM	BATTLE CODE		11
P_CS	CSNUM	SEAM NAME		13
GEOL_GROUP				
GEOL_GROUP	GPNUM	NAME OF FM		14
GEOL_GROUP	GRP_NM			
FM_IN_GP				
FM_IN_GP	GPNUM	NAME OF FM		14
FM_IN_GP	FMNUM	NAME OF FM		14
GEOL_FM				



TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9	
			ARC_STRD_UNIT	ARC_STGE_FMT
GEOL_FM	FMNUM	NAME OF FM		14
GEOL_FM	FM_NM			
MBR_IN_FM				
MBR_IN_FM	FMNUM	NAME OF FM		14
MBR_IN_FM	MBRNUM	NAME OF FM		14
GEOL_MBR				
GEOL_MBR	MBRNUM	NAME OF FM		14
GEOL_MBR	MBR_NM			
CZ_IN_MBR				
CZ_IN_MBR	MBRNUM	NAME OF FM		14
CZ_IN_MBR	CZNUM	SEAM NAME		13
CZ_IN_FM				
CZ_IN_FM	FMNUM	NAME OF FM		14
CZ_IN_FM	CZNUM	SEAM NAME		13
GEOL_CZ				
GEOL_CZ	CZNUM	SEAM NAME		13
GEOL_CZ	CZ_NM			
CS_IN_CZ				
CS_IN_CZ	CZNUM	SEAM NAME		13
CS_IN_CZ	CSNUM	SEAM NAME		13
GEOL_CS				
GEOL_CS	CSNUM	SEAM NAME		13
GEOL_CS	CS_NM			
L_DH				
L_DH	SITID	SITID		16
L_DH	LITHNUM			
L_DH	LTOPP	TOP DEPTH	METERS	F6.1
L_DH	LBASE	BOT DEPTH	METERS	F6.1
L_DH	CBA			
L_DH	L_L_ADJ			
L_REM				
L_REM	LITHNUM			
L_REM	L_REMX			
L_MAIN				
L_MAIN	LITHNUM			
L_MAIN	MAINUM	NAME		13
L_OC				
L_OC	SITID	SITID		16

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
L_OC	LITHNUM			
L_OC	LBOT			
L_OC	LTOP			
L_CHN				
L_CHN	SITID	SITID		16
L_CHN	LITHNUM			
L_CHN	CLTOP			
L_CHN	CLBOT			
L_LOG				
L_LOG	LITHNUM			
L_MOD1				
L_MOD1	LITHNUM			
L_MOD1	MODNUM			
L_MOD2				
L_MOD2	LITHNUM			
L_MOD2	MODNUM			
L_SP_FT				
L_SP_FT	LITHNUM			
L_SP_FT	SPFNUM			
P_LITHO				
P_LITHO	PIKNUM	BATTLE CODE		11
P_LITHO	LITHNUM			
P_LITHO	SAMNUM			
P_LITHO	ANANUM			
L_ATT				
L_ATT	LITHNUM			
L_ATT	ATTNUM			
ATT				
ATT	ATTNUM			
ATT	ATTITUDE			
LITH_MN				
LITH_MN	MAINUM	NAME		13
LITH_MN	L_CTGY			
LITH_MN	L_TYP			
LITH_MD				
LITH_MD	MODNUM			
LITH_MD	M_TYP			
LITH_MD	M_DESC			

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
L_SP_FEA				
L_SP_FEA	SPFNUM			
L_SP_FEA	SP_FE			
L_BSD_ON				
L_BSD_ON	LITHNUM			
L_BSD_ON	BSDNUM			
BASED				
BASED	BSDNUM			
BASED	BSD_ON			
S_FRM				
S_FRM	SAMNUM			
S_FRM	FMNUM	NAME OF FM		14
S_FRM	MBRNUM	NAME OF FM		14
S_FRM	CZNUM	SEAM NAME		13
S_FRM	CSNUM	SEAM NAME		13
S_OC				
S_OC	SITID	SITID		16
S_OC	SAMNUM			
S_OC	SOBOT			
S_OC	SOTOP			
S_CHNL				
S_CHNL	SITID	SITID		16
S_CHNL	SAMNUM			
S_CHNL	SCLTOP			
S_CHNL	SCLBOT			
S_DH				
S_DH	SITID	SITID		16
S_DH	SAMNUM			
S_DH	STOP	TOP DEPTH	METERS	F5.1
S_DH	SBASE	BOT DEPTH	METERS	F5.1
S_DH	S_L_ADJ			
S_STAT				
S_STAT	SAMNUM			
S_STAT	S_NO			
S_STAT	S_LTH			
S_STAT	S_WT			
S_STAT	S_DT			
S_STAT	S_BY			

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
S_REMX				
S_REMX	SAMNUM			
S_REMX	S_RMX			
S_CONTIN				
S_CONTIN	SAMNUM			
S_CONTIN	CONTNUM			
CONTIN				
CONTIN	CONTNUM			
CONTIN	CONT			
S_SEG				
S_SEG	SAMNUM			
S_SEG	SEGNUM			
S_SEGMT				
S_SEGMT	SEGNUM			
S_SEGMT	SGMT			
S_PREPTN				
S_PREPTN	SAMNUM			
S_PREPTN	PREPNUM			
S_PREP				
S_PREP	PREPNUM			
S_PREP	PREP			
A_STA				
A_STA	ANANUM			
A_STA	L_S_NO			
A_STA	A_DT			
LAB_ANA				
LAB_ANA	ANANUM			
LAB_ANA	LABNUM			
LAB				
LAB	LABNUM			
LAB	LAB_NM			
SZ_ANA				
SZ_ANA	ANANUM			
SZ_ANA	SZNUM			
OK_ANA				
OK_ANA	ANANUM			
OK_ANA	OKNUM			
CNF_ANA				

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
CNF_ANA	ANANUM			
CNF_ANA	CONFNUM			
ANA_CONF				
ANA_CONF	CONFNUM			
ANA_CONF	A_CONF			
SZ_FRACT				
SZ_FRACT	SZNUM			
SZ_FRACT	SZ_FR			
ANA_OK				
ANA_OK	OKNUM			
ANA_OK	A_APP			
E_MOIST				
E_MOIST	SAMNUM			
E_MOIST	ANANUM			
E_MOIST	EQM	MEQ	%	F4.1
S				
S	SAMNUM			
S	ANANUM			
S	SARB			
S	SADB			
HV				
HV	SAMNUM			
HV	ANANUM			
HV	HVARB			
HV	HVADB			
PROX				
PROX	SAMNUM			
PROX	ANANUM			
PROX	PMAR			
PROX	PVMAR			
PROX	PAAR			
PROX	PFCAR			
PROX	PMAD	ADM	%	F4.1
PROX	PVMAD			
PROX	PAAD			
PROX	PFCAD			
A_FUS				
A_FUS	SAMNUM			

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
A_FUS	ANANUM			
A_FUS	RIDT			
A_FUS	RSOT			
A_FUS	RHET			
A_FUS	RFLT			
A_FUS	OIDT			
A_FUS	OSOT			
A_FUS	OHET			
A_FUS	OFLT			
A_FUS	VISC			
POROS				
POROS	SAMNUM			
POROS	ANANUM			
POROS	POAD			
POROS	POIN			
METHANE				
METHANE	SAMNUM			
METHANE	ANANUM			
METHANE	CH4			
A_RESIS				
A_RESIS	SAMNUM			
A_RESIS	ANANUM			
A_RESIS	E_RES_EXP			
A_RESIS	E_RES			
ULT				
ULT	SAMNUM			
ULT	ANANUM			
ULT	UAMAD			
ULT	UAC			
ULT	UAH			
ULT	UAN			
ULT	UAA			
ULT	UAS			
ULT	UAO			
ULT	UINC			
HGI_ABRAS				
HGI_ABRAS	SAMNUM			
HGI_ABRAS	ANANUM			

			SECTION 9	
TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	ARC_STRD_UNIT	ARC_STGE_FMT
HGI_ABRAS	HGI			
HGI_ABRAS	ABV			
HGI_ABRAS	MCHD			
HGI_ABRAS	DRST			
TR_ELEM				
TR_ELEM	SAMNUM			
TR_ELEM	ANANUM			
TR_ELEM	ATOMNUM			
TR_ELEM	PPM			
ATOMIC_NO				
ATOMIC_NO	ATOMNUM			
ATOMIC_NO	TR_EL			
ATOMIC_NO	TE_SYM			
MNRL_ANA				
MNRL_ANA	SAMNUM			
MNRL_ANA	ANANUM			
MNRL_ANA	ANK			
MNRL_ANA	CLCT			
MNRL_ANA	DOL			
MNRL_ANA	GAL			
MNRL_ANA	KAOL			
MNRL_ANA	MTIL			
MNRL_ANA	PTMC			
MNRL_ANA	SIDR			
MNRL_ANA	SPHAL			
MNRL_ANA	QTZ			
MNRL_ANA	SPHT			
A_ANA_H				
A_ANA_H	SAMNUM			
A_ANA_H	ANANUM			
A_ANA_H	SI02			
A_ANA_H	AL203			
A_ANA_H	TI02			
A_ANA_H	FE203			
A_ANA_H	CAO			
A_ANA_H	MGO			
A_ANA_H	NA2O			
A_ANA_H	K2O			

## SECTION 9

ARC\_STRD\_UNIT

ARC\_STGE\_FMT

TBL\_ABBREV CLMN\_ABBRV ARC\_DATA\_ELEMENT

A_ANA_H	P205
A_ANA_H	S03
A_ANA_H	UNDT
A_ANA_H	C02
A_ANA_H	CRO3
A_ANA_H	MNO
A_ANA_H	MOO3
A_ANA_H	NIO
A_ANA_H	V03
A_ANA_H	FOULNUM
A_ANA_L	
A_ANA_L	SAMNUM
A_ANA_L	ANANUM
A_ANA_L	SI02_L
A_ANA_L	AL203_L
A_ANA_L	TIO2
A_ANA_L	FE203_L
A_ANA_L	CAO_L
A_ANA_L	MGO_L
A_ANA_L	NA20_L
A_ANA_L	K20_L
A_ANA_L	P205_L
A_ANA_L	S03_L
A_ANA_L	UNDT_L
A_ANA_L	C02_L
A_ANA_L	CRO3_L
A_ANA_L	MNO_L
A_ANA_L	MOO3_L
A_ANA_L	NIO_L
A_ANA_L	V03_L
A_ANA_L	FOULNUM
FOUL	
FOUL	FOULNUM
FOUL	FLNG
SG_DENS	
SG_DENS	SAMNUM
SG_DENS	ANANUM
SG_DENS	DDEN



## SECTION 9

ARC\_STRD\_UNIT

ARC\_STGE\_FMT

TBL\_ABBREV

CLMN\_ABBRV

ARC\_DATA\_ELEMENT

SG_DENS	BDEN
SG_DENS	MSTNUM
SG_DENS	SGNUM
SG_DENS	SG
SG_DENS	SGLO
RQD_ETAL	
RQD_ETAL	SAMNUM
RQD_ETAL	ANANUM
RQD_ETAL	RECOV
RQD_ETAL	RQD
RQD_ETAL	JNT
RQD_ETAL	SJNUM
RQD_ETAL	JINUM
SJNT	
SJNT	SJNUM
SJNT	JNT_ST
JNTI	
JNTI	JINUM
JNTI	JNT_IN
SG_INF	
SG_INF	SGNUM
SG_INF	SGTYPE
MOISTURE	
MOISTURE	MSTNUM
MOISTURE	MOIST
SIEVE_ANAL	
SIEVE_ANAL	SAMNUM
SIEVE_ANAL	ANANUM
SIEVE_ANAL	SIVNUM
SIEVE_ANAL	THRU
SIEVE	
SIEVE	SIVNUM
SIEVE	SV_NO
SIEVE	OPNG
PROCT	
PROCT	SAMNUM
PROCT	ANANUM
PROCT	PTOM

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
PROCT	PMDD			
ATTER				
ATTER	SAMNUM			
ATTER	ANANUM			
ATTER	NWC			
ATTER	ALLL			
ATTER	APL			
TRIAx				
TRIAx	SAMNUM			
TRIAx	ANANUM			
TRIAx	DRNUM			
TRIAx	SPECNUM			
TRIAx	IWC			
TRIAx	DDS			
TRIAx	BDS			
TRIAx	ECP			
TRIAx	PORE_PRES			
TRIAx	SIGMA1			
TRIAx	SIGMA3			
TRIAx	AX_ST			
TRIAx	PP_MAX			
TRIAx	SIGMA1_MAX			
TRIAx	SIGMA3_MAX			
TRIAx	AXI_STR			
DRAIN				
DRAIN	DRNUM			
DRAIN	DR_CN			
SPEC_NO				
SPEC_NO	SPECNUM			
SPEC_NO	SPMN_NO			
DIR_SHR				
DIR_SHR	SAMNUM			
DIR_SHR	ANANUM			
DIR_SHR	SPECNUM			
DIR_SHR	IWC			
DIR_SHR	DDS			
DIR_SHR	BDS			
DIR_SHR	NSTR			

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
DIR_SHR	PSSTR			
DIR_SHR	PDSP			
DIR_SHR	RSSTR			
DIR_SHR	RDSP			
DIR_SHR	XSEC_AR			
DIR_SHR	SHAPE			
CONSOL				
CONSOL	SAMNUM			
CONSOL	ANANUM			
CONSOL	IWC			
CONSOL	IBD			
CONSOL	IDD			
CONSOL	IVR			
CONSOL	PCP			
CONSOL	CPI			
CONSOL	INCNUM			
CONSOL	CON_PRE			
CONSOL	CVC			
CONSOL	CC			
HMR				
HMR	SAMNUM			
HMR	ANANUM			
HMR	SPT			
HMR	BKHT			
STRGTH				
STRGTH	SAMNUM			
STRGTH	ANANUM			
STRGTH	POCK			
STRGTH	UN_COMP			
STRGTH	VANE			
STRGTH	CN_RS			
STRGTH	CN_FR			
INCRMNT				
INCRMNT	INCNUM			
INCRMNT	INC_NO			
FSI_IND				
FSI_IND	SAMNUM			
FSI_IND	ANANUM			

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
FSI_IND	FSI			
GRAY_KING				
GRAY_KING	SAMNUM			
GRAY_KING	ANANUM			
GRAY_KING	GRYNUM			
GRAY_KING	GKAT			
GRAY_KING	GKAG			
GRAY_KING	GKAL			
GRAY_KING	GKAS			
GRAY_KING	GKHV			
FLASH				
FLASH	SAMNUM			
FLASH	ANANUM			
FLASH	FLPT			
FLASH	FLPG			
FLASH	FLPL			
FLASH	FLPS			
GRY_KING				
GRY_KING	GRYNUM			
GRY_KING	GK_ID			
FISCHER				
FISCHER	SAMNUM			
FISCHER	ANANUM			
FISCHER	FSAT			
FISCHER	FSAG			
FISCHER	FSAL			
FISCHER	FSAS			
DILATOM				
DILATOM	SAMNUM			
DILATOM	ANANUM			
DILATOM	DILNUM			
DILATOM	DSOFT			
DILATOM	DMXCNT			
DILATOM	DMCPC			
DILATOM	DMXDIT			
DILATOM	DMDPC			
DILATOM	DFDPC			
DILATOM	DRESOLT			

			SECTION 9	
TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	ARC_STRD_UNIT	ARC_STGE_FMT
GEIS				
GEIS	SAMNUM			
GEIS	ANANUM			
GEIS	GPST			
GEIS	GPFT			
GEIS	GDDM			
GEIS	GPSL			
GEIS	GPFR			
SLAG				
SLAG	SAMNUM			
SLAG	ANANUM			
SLAG	SGIN			
COKE_PRES				
COKE_PRES	SAMNUM			
COKE_PRES	ANANUM			
COKE_PRES	CKPR			
DLTM				
DLTM	DILNUM			
DLTM	DLTM_TYP			
POLLEN				
POLLEN	SAMNUM			
POLLEN	ANANUM			
POLLEN	PETNUM			
P_PRO				
P_PRO	PETNUM			
P_PRO	PETROG			
P_PRO	AFFIL			
P_PRO	ST_DT			
P_PRO	FIN_DT			
P_PRO	PETSAMNUM			
PELLETS				
PELLETS	SAMNUM			
PELLETS	ANANUM			
PELLETS	PETNUM			
PELLETS	RFLA			
PELLETS	NMAX			
PELLETS	MNMX			
PELLETS	SDMX			

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
PELLETS	MMIN			
PELLETS	MNMN			
PELLETS	SDMN			
PELLETS	NRDM			
PELLETS	MNRDM			
PELLETS	SDROM			
BLOX				
BLOX	SAMNUM			
BLOX	ANANUM			
BLOX	PETNUM			
BLOX	NOM			
BLOX	MXVR			
BLOX	MNVR			
BLOX	INVR			
BLOX	TRMX			
BLOX	PLMX			
BLOX	TRMN			
BLOX	PLMN			
BLOX	TRIN			
BLOX	PLIN			
MACERAL				
MACERAL	SAMNUM			
MACERAL	ANANUM			
MACERAL	PETNUM			
MACERAL	VITR			
MACERAL	EXIN			
MACERAL	INRT			
MACERAL	REMAC			
MACERAL	INMAC			
P_IND				
P_IND	SAMNUM			
P_IND	ANANUM			
P_IND	PETNUM			
P_IND	CB1			
P_IND	STRI			
P_IND	STBI			
A_WRH_AT				
A_WRH_AT	ANANUM			

TBL_ABBREV	CLMN_ABBRV	ARC_DATA_ELEMENT	SECTION 9 ARC_STRD_UNIT	ARC_STGE_FMT
A_WRH_AT	ATNUM			
A_WRH_AT	WRHNUM			
A_WRH_AT	WRHTAGNO			
S_HAS_A				
S_HAS_A	SAMNUM			
S_HAS_A	ANANUM			
S_HAS_A	ATNUM			
SVD_C_UNA				
SVD_C_UNA	SAMNUM			
SVD_C_UNA	WRHNUM			
ANA_TYP				
ANA_TYP	ATNUM			
ANA_TYP	A_TYP			
WAREHOUSE				
WAREHOUSE	WRHNUM			
WAREHOUSE	WRH_NM			
WAREHOUSE	WRH_ADD			
WAREHOUSE	WRH_PH			
WAREHOUSE	WRH_CNTCT			
SVD_SPL				
SVD_SPL	SAMNUM			
SVD_SPL	WRHTAGNO			
SVD_SPL	MASS_STD			
SVD_SPL	ART_CONT			
SVD_SPL	REFRIG			
SVD_SPL	ARCH_DT			

**A P P E N D I X   2**

**S E C T I O N   10**



## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
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UTM		
UTM	SITID	
UTM	UTMZ	
UTM	UTMC	
UTM	UTMN	
UTM	UTME	
LAT_LONG		
LAT_LONG	SITID	
LAT_LONG	LAT	
LAT_LONG	LONG	
DLS_LSD		
DLS_LSD	SITID	
DLS_LSD	MER	
DLS_LSD	TWP	
DLS_LSD	RGE	
DLS_LSD	SECT	
DLS_LSD	LSD	
DLS_LSD	LSDM	
DLS_COORD		
DLS_COORD	SITID	
DLS_COORD	MER	
DLS_COORD	TWP	
DLS_COORD	RGE	
DLS_COORD	SECT	
DLS_COORD	RSEC	
DLS_COORD	RCNR	
DLS_COORD	METN	
DLS_COORD	NSCD	
DLS_COORD	METE	
DLS_COORD	EWCD	
NTS		
NTS	SITID	
NTS	NTSP	
NTS	NTSS	
NTS	NTST	
ELEVAT		
ELEVAT	SITID	
ELEVAT	ELEV	

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
ELEVAT	ELKB	
MN_GD_BNCH		
MN_GD_BNCH	SITID	
MN_GD_BNCH	MNGNUM	
BNCHMK		
BNCHMK	MNGNUM	
BNCHMK	UTMZ	
BNCHMK	UTMC	
BNCHMK	UTMN	
BNCHMK	UTME	
BNCHMK	LAT	
BNCHMK	LONG	
BNCHMK	MER	
BNCHMK	TWP	
BNCHMK	RGE	
BNCHMK	SECT	
BNCHMK	RSEC	
BNCHMK	RCNR	
BNCHMK	METN	
BNCHMK	NSCD	
BNCHMK	METE	
BNCHMK	EWCD	
BNCHMK	AZXB	
BNCHMK	AZYB	
BNCHMK	XBCD	
BNCHMK	YBCD	
BNCHMK	ELEV	
COMP_PARTIC		
COMP_PARTIC	SITID	
COMP_PARTIC	CORPNUM	
COMP		
COMP	CORPNUM	
COMP	COMPANY	
COMP	COMP_ABBREV	
COMP	COMP_CODE	
COMP	ADD_SUITE_NO	
COMP	ADD_PO_BOX	
COMP	ADD_ST	

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
COMP	ADD_CITY	
COMP	ADD_PROV	
COMP	ADD_PC	
COMP	MAL_COMP_NAM	
COMP	MAL_SUITE_NO	
COMP	MAL_PO_BOX	
COMP	MAL_ST	
COMP	MAL_CITY	
COMP	MAL_PROV	
COMP	MAL_PC	
MINE_GRID		
MINE_GRID	SITID	
MINE_GRID	BSLX	
MINE_GRID	BSLY	
MINE_GRID	XCMG	
MINE_GRID	YCMG	
THREETM		
THREETM	SITID	
THREETM	TRTMZ	
THREETM	TRTMC	
THREETM	TRTMN	
THREETM	TRTME	
SOURCE		
SOURCE	SITID	
SOURCE	CAT_ID	
SOURCE	ORIG	
SOURCE	OPRJ	
SOURCE	CPDT	
TENTM		
TENTM	SITID	
TENTM	TENTME	
TENTM	TENTMN	
DATA_SOURCE		
DATA_SOURCE	SITID	
DATA_SOURCE	SRCNUM	
SR_MTH		
SR_MTH	SRCNUM	
SR_MTH	SRC_DESC	

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
SRVY_SRC		
SRVY_SRC	SITID	
SRVY_SRC	SRVNUM	
SURVEY		
SURVEY	SRVNUM	
SURVEY	SURV_DESC	
STATUS_MINE		
STATUS_MINE	SITID	
STATUS_MINE	STANUM	
MINE_STS		
MINE_STS	STANUM	
MINE_STS	M_LGL_S	
TYPE_MINE		
TYPE_MINE	SITID	
TYPE_MINE	MNTYNUM	
MINE_TYP		
MINE_TYP	MNTYNUM	
MINE_TYP	M_TYPE	
METH_MING		
METH_MING	SITID	
METH_MING	MNMTNUM	
MINE_MTHD		
MINE_MTHD	MNMTNUM	
MINE_MTHD	M_METH	
RNK_COAL		
RNK_COAL	SITID	
RNK_COAL	RNKNUM	
C_RNK		
C_RNK	RNKNUM	
C_RNK	C_RANK	
TYPE_COAL		
TYPE_COAL	SITID	
TYPE_COAL	CLTYNUM	
C_TYP		
C_TYP	CLTYNUM	
C_TYP	C_TYPE	
CONTRACTOR		
CONTRACTOR	SITID	

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
CONTRACTOR	CTRNUM	
CNTRCTR		
CNTRCTR	CTRNUM	
CNTRCTR	CNTRCTR_NM	
LGGNG_CNTR		
LGGNG_CNTR	SITID	
LGGNG_CNTR	LGCNTNUM	
LG_CNT		
LG_CNT	LGCNTNUM	
LG_CNT	L_CNTR_NM	
ADIT		
ADIT	SITID	
ADIT	LENG	
ADIT	WIDE	
ADIT	HEIG	
ADIT	AZM	
ADIT	INC	
MINE		
MINE	SITID	
MINE	MCOM	
MINE	MNAM	
MINE	MNOM	
DH		
DH	SITID	
DH	DRL_LOG	
DH	CSG_DIAM	
DH	CSG_TD	
DH	HOLE_DIAM	
DH	TD	
DH	CORE_RECOV	
DH	LOG_CODE	
DH	DT_WTR_LVL	
DH	WTR_LVL	
DH	PIEZO	
DH	SOILS	
LOG_RUN		
LOG_RUN	SITID	
LOG_RUN	LOGNUM	

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
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LOGS		
LOGS	LOGNUM	
LOGS	LOG_TYPE	
HAZ		
HAZ	SITID	
HAZ	HAZNUM	
HAZARD		
HAZARD	HAZNUM	
HAZARD	HAZ_DESC	
SMPL		
SMPL	SITID	
SMPL	SAMTYPNUM	
SPL_TYP		
SPL_TYP	SAMTYPNUM	
SPL_TYP	SPL_TYPE	
TEST_PIT		
TEST_PIT	SITID	
TEST_PIT	LENG	
TEST_PIT	WIDE	
TEST_PIT	DEP	
TRENCH		
TRENCH	SITID	
TRENCH	LENG	
TRENCH	WIDE	
TRENCH	DEP	
TRENCH	AZM	
TRAVERSE		
TRAVERSE	SITID	
TRAVERSE	TRAVNUM	
TRAVERSE	TRAV_NO	
TRAV_PART		
TRAV_PART	TRAVNUM	
TRAV_PART	AZM	
TRAV_PART	INC	
TRAV_PART	L_LEG	
TRAV_PART	COMM	
DH_DEV		
DH_DEV	SITID	

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
DH_DEV	DEVNUM	
DH_DEV	DFROM	
DH_DEV	DTO	
DEV		
DEV	DEVNUM	
DEV	AZM	
DEV	DEVV	
CONFNTLY		
CONFNTLY	SITID	
CONFNTLY	DRLD	
CONFIDENT		
CONFIDENT	SITID	
CONFIDENT	CNFNUM	
CNFDTL		
CNFDTL	CNFNUM	
CNFDTL	CNFY	
INTERP		
INTERP	SITID	
INTERP	GEOL	
INTERP	INTD	
REMARX		
REMARX	SITID	
REMARX	REMX	
REMARX	REMD	
CONFIDC		
CONFIDC	SITID	
CONFIDC	CNF_LVL	
CONFIDC	COO_ACC	
CONFIDC	ELEV_ACC	
PREC		
PREC	SITID	
PREC	COORNUM	
PREC	ELEVNUM	
COORD_BSD_ON		
COORD_BSD_ON	COORNUM	
COORD_BSD_ON	C_ORG	
ELEV_BSD_ON		
ELEV_BSD_ON	ELEVNUM	

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
ELEV_BSD_ON	E_ORG	
BDG_NORM		
BDG_NORM	SITID	
BDG_NORM	ORNUM	
BDG_NORM	DIPNUM	
BDG_NORM	PCHNUM	
BDG_NORM	OBOT	
O_ORN		
O_ORN	ORNUM	
O_ORN	ORNTN	
DDDIR		
DDDIR	DIPNUM	
DDDIR	DIP	
DDDIR	DIP_D	
PITCH_INFO		
PITCH_INFO	PCHNUM	
PITCH_INFO	PITCH	
BDG_FOLD		
BDG_FOLD	SITID	
BDG_FOLD	ORNUM	
BDG_FOLD	DIPNUM	
BDG_FOLD	AXTNUM	
BDG_FOLD	OBOT	
AX_TR		
AX_TR	AXTNUM	
AX_TR	TRD	
AX_TR	PLG	
FAULT		
FAULT	SITID	
FAULT	DIPNUM	
FAULT	PCHNUM	
FAULT	SNSNUM	
FAULT	OBOT	
O_SNS		
O_SNS	SNSNUM	
O_SNS	OC_SNS	
JNT_SET		
JNT_SET	SITID	



## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
JNT_SET	DIPNUM	
JNT_SET	PCHNUM	
JNT_SET	SNSNUM	
JNT_SET	OBOT	
CLEAV		
CLEAV	SITID	
CLEAV	DIPNUM	
CLEAV	OBOT	
ST_OC_LTH		
ST_OC_LTH	SITID	
ST_OC_LTH	OBOT	
ST_OC_LTH	LITHNUM	
TR_LTH		
TR_LTH	TRAVNUM	
TR_LTH	LITHNUM	
TR_SPL		
TR_SPL	TRAVNUM	
TR_SPL	SAMNUM	
TR_PCK		
TR_PCK	TRAVNUM	
TR_PCK	PIKNUM	
ST_OC_GEO		
ST_OC_GEO	SITID	
ST_OC_GEO	OBOT	
ST_OC_GEO	FMNUM	
ST_OC_GEO	MBRNUM	
ST_OC_GEO	CZNUM	
ST_OC_GEO	CSNUM	
P_DH_INT		
P_DH_INT	SITID	
P_DH_INT	PIKNUM	
P_DH_INT	DTOP	
P_DH_INT	DBASE	
P_DH_INT	P_L_ADJ	
INT_RMX		
INT_RMX	PIKNUM	
INT_RMX	REMARKS	
P_OC_INT		

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
P_OC_INT	SITID	
P_OC_INT	PIKNUM	
P_OC_INT	OBOT	
P_OC_INT	OTOP	
PICK		
PICK	PIKNUM	
PICK	PIK_Q	
P_MKR		
P_MKR	PIKNUM	
P_MKR	MKRNUM	
MKR_TYP		
MRK_TYP	MRKNUM	
MRK_TYP	MRK_TYPE	
P_BSD_ON		
P_BSD_ON	PIKNUM	
P_BSD_ON	BSDNUM	
P_GP		
P_GP	PIKNUM	
P_GP	GPNUM	
P_FM		
P_FM	PIKNUM	
P_FM	FMNUM	
P_MBR		
P_MBR	PIKNUM	
P_MBR	MBRNUM	
P_CZ		
P_CZ	PIKNUM	
P_CZ	CZNUM	
P_CS		
P_CS	PIKNUM	
P_CS	CSNUM	
GEOL_GROUP		
GEOL_GROUP	GPNUM	
GEOL_GROUP	GRP_NM	
FM_IN_GP		
FM_IN_GP	GPNUM	
FM_IN_GP	FMNUM	
GEOL_FM		

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
GEOL_FM	FMNUM	
GEOL_FM	FM_NM	
MBR_IN_FM		
MBR_IN_FM	FMNUM	
MBR_IN_FM	MBRNUM	
GEOL_MBR		
GEOL_MBR	MBRNUM	
GEOL_MBR	MBR_NM	
CZ_IN_MBR		
CZ_IN_MBR	MBRNUM	
CZ_IN_MBR	CZNUM	
CZ_IN_FM		
CZ_IN_FM	FMNUM	
CZ_IN_FM	CZNUM	
GEOL_CZ		
GEOL_CZ	CZNUM	
GEOL_CZ	CZ_NM	
CS_IN_CZ		
CS_IN_CZ	CZNUM	
CS_IN_CZ	CSNUM	
GEOL_CS		
GEOL_CS	CSNUM	
GEOL_CS	CS_NM	
L_DH		
L_DH	SITID	
L_DH	LITHNUM	
L_DH	LTOPP	
L_DH	LBASE	
L_DH	CBA	
L_DH	L_L_ADJ	
L_REM		
L_REM	LITHNUM	
L_REM	L_REMX	
L_MAIN		
L_MAIN	LITHNUM	
L_MAIN	MAINUM	
L_OC		
L_OC	SITID	

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
L_OC	LITHNUM	
L_OC	LBOT	
L_OC	LTOP	
L_CHN		
L_CHN	SITID	
L_CHN	LITHNUM	
L_CHN	CLTOP	
L_CHN	CLBOT	
L_LOG		
L_LOG	LITHNUM	
L_MOD1		
L_MOD1	LITHNUM	
L_MOD1	MODNUM	
L_MOD2		
L_MOD2	LITHNUM	
L_MOD2	MODNUM	
L_SP_FT		
L_SP_FT	LITHNUM	
L_SP_FT	SPFNUM	
P_LITHO		
P_LITHO	PIKNUM	
P_LITHO	LITHNUM	
P_LITHO	SAMNUM	
P_LITHO	ANANUM	
L_ATT		
L_ATT	LITHNUM	
L_ATT	ATTNUM	
ATT		
ATT	ATTNUM	
ATT	ATTITUDE	
LITH_MN		
LITH_MN	MAINUM	
LITH_MN	L_CTGY	
LITH_MN	L_TYP	
LITH_MD		
LITH_MD	MODNUM	
LITH_MD	M_TYP	
LITH_MD	M_DESC	

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
L_SP_FEA		
L_SP_FEA	SPFNUM	
L_SP_FEA	SP_FE	
L_BSD_ON		
L_BSD_ON	LITHNUM	
L_BSD_ON	BSDNUM	
BASED		
BASED	BSDNUM	
BASED	BSD_ON	
S_FRM		
S_FRM	SAMNUM	
S_FRM	FMNUM	
S_FRM	MBRNUM	
S_FRM	CZNUM	
S_FRM	CSNUM	
S_OC		
S_OC	SITID	
S_OC	SAMNUM	
S_OC	SOBOT	
S_OC	SOTOP	
S_CHNL		
S_CHNL	SITID	
S_CHNL	SAMNUM	
S_CHNL	SCLTOP	
S_CHNL	SCLBOT	
S_DH		
S_DH	SITID	
S_DH	SAMNUM	
S_DH	STOP	
S_DH	SBASE	
S_DH	S_L_ADJ	
S_STAT		
S_STAT	SAMNUM	
S_STAT	S_NO	
S_STAT	S_LTH	
S_STAT	S_WT	
S_STAT	S_DT	
S_STAT	S_BY	

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
S_REMX		
S_REMX	SAMNUM	
S_REMX	S_RMX	
S_CONTIN		
S_CONTIN	SAMNUM	
S_CONTIN	CONTNUM	
CONTIN		
CONTIN	CONTNUM	
CONTIN	CONT	
S_SEG		
S_SEG	SAMNUM	
S_SEG	SEGNUM	
S_SEGMT		
S_SEGMT	SEGNUM	
S_SEGMT	SGMT	
S_PREPTN		
S_PREPTN	SAMNUM	
S_PREPTN	PREPNUM	
S_PREP		
S_PREP	PREPNUM	
S_PREP	PREP	
A_STA		
A_STA	ANANUM	
A_STA	L_S_NO	
A_STA	A_DT	
LAB_ANA		
LAB_ANA	ANANUM	
LAB_ANA	LABNUM	
LAB		
LAB	LABNUM	
LAB	LAB_NM	
SZ_ANA		
SZ_ANA	ANANUM	
SZ_ANA	SZNUM	
OK_ANA		
OK_ANA	ANANUM	
OK_ANA	OKNUM	
CNF_ANA		

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
CNF_ANA	ANANUM	
CNF_ANA	CONFNUM	
ANA_CONF		
ANA_CONF	CONFNUM	
ANA_CONF	A_CONF	
SZ_FRACT		
SZ_FRACT	SZNUM	
SZ_FRACT	SZ_FR	
ANA_OK		
ANA_OK	OKNUM	
ANA_OK	A_APP	
E_MOIST		
E_MOIST	SAMNUM	
E_MOIST	ANANUM	
E_MOIST	EQM	
S		
S	SAMNUM	
S	ANANUM	
S	SARB	ERCB DOES NOT SPECIFY MOISTURE BASIS; CHECK AND/OR CONFIRM
S	SADB	ERCB DOES NOT SPECIFY MOISTURE BASIS; CHECK AND/OR CONFIRM
HV		
HV	SAMNUM	
HV	ANANUM	
HV	HVARB	ERCB DOES NOT SPECIFY MOISTURE BASIS; CHECK AND/OR CONFIRM
HV	HVADB	ERCB DOES NOT SPECIFY MOISTURE BASIS; CHECK AND/OR CONFIRM
PROX		
PROX	SAMNUM	
PROX	ANANUM	
PROX	PMAR	
PROX	PVMAR	
PROX	PAAR	
PROX	PFCAR	
PROX	PMAD	
PROX	PVMAD	
PROX	PAAD	
PROX	PFCAD	
A_FUS		
A_FUS	SAMNUM	

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
A_FUS	ANANUM	
A_FUS	RIDT	
A_FUS	RSOT	
A_FUS	RHET	
A_FUS	RFLT	
A_FUS	OIDT	
A_FUS	OSOT	
A_FUS	OHET	
A_FUS	OFLT	
A_FUS	VISC	
POROS		
POROS	SAMNUM	
POROS	ANANUM	
POROS	POAD	
POROS	POIN	
METHANE		
METHANE	SAMNUM	
METHANE	ANANUM	
METHANE	CH4	
A_RESIS		
A_RESIS	SAMNUM	
A_RESIS	ANANUM	
A_RESIS	E_RES_EXP	
A_RESIS	E_RES	
ULT		
ULT	SAMNUM	
ULT	ANANUM	
ULT	UAMAD	
ULT	UAC	
ULT	UAH	
ULT	UAN	
ULT	UAA	
ULT	UAS	
ULT	UAO	
ULT	UINC	
HGI_ABRAS		
HGI_ABRAS	SAMNUM	
HGI_ABRAS	ANANUM	



## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
HGI_ABRAS	HGI	
HGI_ABRAS	ABV	
HGI_ABRAS	MCHD	
HGI_ABRAS	DRST	
TR_ELEM		
TR_ELEM	SAMNUM	
TR_ELEM	ANANUM	
TR_ELEM	ATOMNUM	
TR_ELEM	PPM	
ATOMIC_NO		
ATOMIC_NO	ATOMNUM	
ATOMIC_NO	TR_EL	
ATOMIC_NO	TE_SYM	
MNRL_ANA		
MNRL_ANA	SAMNUM	
MNRL_ANA	ANANUM	
MNRL_ANA	ANK	
MNRL_ANA	CLCT	
MNRL_ANA	DOL	
MNRL_ANA	GAL	
MNRL_ANA	KAOL	
MNRL_ANA	MTIL	
MNRL_ANA	PTMC	
MNRL_ANA	SIDR	
MNRL_ANA	SPHAL	
MNRL_ANA	QTZ	
MNRL_ANA	SPHT	
A_ANA_H		
A_ANA_H	SAMNUM	
A_ANA_H	ANANUM	
A_ANA_H	SI02	
A_ANA_H	AL203	
A_ANA_H	TI02	
A_ANA_H	FE203	
A_ANA_H	CAO	
A_ANA_H	MGO	
A_ANA_H	NA2O	
A_ANA_H	K2O	

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
A_ANA_H	P205	
A_ANA_H	S03	
A_ANA_H	UNDT	
A_ANA_H	C02	
A_ANA_H	CR03	
A_ANA_H	MNO	
A_ANA_H	MO03	
A_ANA_H	NIO	
A_ANA_H	V03	
A_ANA_H	FOULNUM	
A_ANA_L		
A_ANA_L	SAMNUM	
A_ANA_L	ANANUM	
A_ANA_L	SI02_L	
A_ANA_L	AL203_L	
A_ANA_L	TI02_L	
A_ANA_L	FE203_L	
A_ANA_L	CA0_L	
A_ANA_L	MGO_L	
A_ANA_L	NA20_L	
A_ANA_L	K20_L	
A_ANA_L	P205_L	
A_ANA_L	S03_L	
A_ANA_L	UNDT_L	
A_ANA_L	C02_L	
A_ANA_L	CR03_L	
A_ANA_L	MNO_L	
A_ANA_L	MO03_L	
A_ANA_L	NIO_L	
A_ANA_L	V03_L	
A_ANA_L	FOULNUM	
FOUL		
FOUL	FOULNUM	
FOUL	FLNG	
SG_DENS		
SG_DENS	SAMNUM	
SG_DENS	ANANUM	
SG_DENS	DDEN	

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
SG_DENS	BDEN	
SG_DENS	MSTNUM	
SG_DENS	SGNUM	
SG_DENS	SG	
SG_DENS	SGLO	
RQD_ETAL		
RQD_ETAL	SAMNUM	
RQD_ETAL	ANANUM	
RQD_ETAL	RECOV	
RQD_ETAL	RQD	
RQD_ETAL	JNT	
RQD_ETAL	SJNUM	
RQD_ETAL	JINUM	
SJNT		
SJNT	SJNUM	
SJNT	JNT_ST	
JNTI		
JNTI	JINUM	
JNTI	JNT_IN	
SG_INF		
SG_INF	SGNUM	
SG_INF	SGTYPE	
MOISTURE		
MOISTURE	MSTNUM	
MOISTURE	MOIST	
SIEVE_ANAL		
SIEVE_ANAL	SAMNUM	
SIEVE_ANAL	ANANUM	
SIEVE_ANAL	SIVNUM	
SIEVE_ANAL	THRU	
SIEVE		
SIEVE	SIVNUM	
SIEVE	SV_NO	
SIEVE	OPNG	
PROCT		
PROCT	SAMNUM	
PROCT	ANANUM	
PROCT	PTOM	

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
PROCT	PMDD	
ATTER		
ATTER	SAMNUM	
ATTER	ANANUM	
ATTER	NWC	
ATTER	ALL	
ATTER	APL	
TRIAx		
TRIAx	SAMNUM	
TRIAx	ANANUM	
TRIAx	DRNUM	
TRIAx	SPECNUM	
TRIAx	IWC	
TRIAx	DDS	
TRIAx	BDS	
TRIAx	ECP	
TRIAx	PORE_PRES	
TRIAx	SIGMA1	
TRIAx	SIGMA3	
TRIAx	AX_ST	
TRIAx	PP_MAX	
TRIAx	SIGMA1_MAX	
TRIAx	SIGMA3_MAX	
TRIAx	AXI_STR	
DRAIN		
DRAIN	DRNUM	
DRAIN	DR_CN	
SPEC_NO		
SPEC_NO	SPECNUM	
SPEC_NO	SPMN_NO	
DIR_SHR		
DIR_SHR	SAMNUM	
DIR_SHR	ANANUM	
DIR_SHR	SPECNUM	
DIR_SHR	IWC	
DIR_SHR	DDS	
DIR_SHR	BDS	
DIR_SHR	NSTR	

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
DIR_SHR	PSSTR	
DIR_SHR	PDSP	
DIR_SHR	RSSTR	
DIR_SHR	RDSP	
DIR_SHR	XSEC_AR	
DIR_SHR	SHAPE	
CONSOL		
CONSOL	SAMNUM	
CONSOL	ANANUM	
CONSOL	IWC	
CONSOL	IBD	
CONSOL	IDD	
CONSOL	IVR	
CONSOL	PCP	
CONSOL	CPI	
CONSOL	INCNUM	
CONSOL	CON_PRE	
CONSOL	CVC	
CONSOL	CC	
HMR		
HMR	SAMNUM	
HMR	ANANUM	
HMR	SPT	
HMR	BKHT	
STRGTH		
STRGTH	SAMNUM	
STRGTH	ANANUM	
STRGTH	POCK	
STRGTH	UN_COMP	
STRGTH	VANE	
STRGTH	CN_RS	
STRGTH	CN_FR	
INCRMNT		
INCRMNT	INCNUM	
INCRMNT	INC_NO	
FSI_IND		
FSI_IND	SAMNUM	
FSI_IND	ANANUM	

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
FSI_IND	FSI	
GRAY_KING		
GRAY_KING	SAMNUM	
GRAY_KING	ANANUM	
GRAY_KING	GRYNUM	
GRAY_KING	GKAT	
GRAY_KING	GKAG	
GRAY_KING	GKAL	
GRAY_KING	GKAS	
GRAY_KING	GKHV	
FLASH		
FLASH	SAMNUM	
FLASH	ANANUM	
FLASH	FLPT	
FLASH	FLPG	
FLASH	FLPL	
FLASH	FLPS	
GRY_KING		
GRY_KING	GRYNUM	
GRY_KING	GK_ID	
FISCHER		
FISCHER	SAMNUM	
FISCHER	ANANUM	
FISCHER	FSAT	
FISCHER	FSAG	
FISCHER	FSAL	
FISCHER	FSAS	
DILATOM		
DILATOM	SAMNUM	
DILATOM	ANANUM	
DILATOM	DILNUM	
DILATOM	DSOFT	
DILATOM	DMXCNT	
DILATOM	DMCPC	
DILATOM	DMXDIT	
DILATOM	DMDPC	
DILATOM	DFDPC	
DILATOM	DRESOLT	

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
------------	------------	----------------------

GEIS		
GEIS	SAMNUM	
GEIS	ANANUM	
GEIS	GPST	
GEIS	GPFT	
GEIS	GDDM	
GEIS	GPSL	
GEIS	GPFR	
SLAG		
SLAG	SAMNUM	
SLAG	ANANUM	
SLAG	SGIN	
COKE_PRES		
COKE_PRES	SAMNUM	
COKE_PRES	ANANUM	
COKE_PRES	CKPR	
DLTM		
DLTM	DILNUM	
DLTM	DLTM_TYP	
POLLEN		
POLLEN	SAMNUM	
POLLEN	ANANUM	
POLLEN	PETNUM	
P_PRO		
P_PRO	PETNUM	
P_PRO	PETROG	
P_PRO	AFFIL	
P_PRO	ST_DT	
P_PRO	FIN_DT	
P_PRO	PETSAM_NO	
PELLETS		
PELLETS	SAMNUM	
PELLETS	ANANUM	
PELLETS	PETNUM	
PELLETS	RFLA	
PELLETS	NMAX	
PELLETS	MNMX	
PELLETS	SDMX	

'POLLEN' TABLE IS INCOMPLETE; ADD/EDIT/REVISE AS DATA IS REQUIRED

## SECTION 10

TBL_ABBREV	CLMN_ABBRV	MISC_REMARX_COMMENTS
PELLETS	MMIN	
PELLETS	MNMN	
PELLETS	SDMN	
PELLETS	NRDM	
PELLETS	MNRDM	
PELLETS	SDRDM	
BLOX		
BLOX	SAMNUM	
BLOX	ANANUM	
BLOX	PETNUM	
BLOX	NOM	
BLOX	MXVR	
BLOX	MNVR	
BLOX	INVR	
BLOX	TRMX	
BLOX	PLMX	
BLOX	TRMN	
BLOX	PLMN	
BLOX	TRIN	
BLOX	PLIN	
MACERAL		
MACERAL	SAMNUM	
MACERAL	ANANUM	
MACERAL	PETNUM	
MACERAL	VITR	
MACERAL	EXIN	
MACERAL	INRT	
MACERAL	REMAC	
MACERAL	INMAC	
P_IND		
P_IND	SAMNUM	
P_IND	ANANUM	
P_IND	PETNUM	
P_IND	CBI	
P_IND	STRI	
P_IND	STBI	
A_WRH_AT		
A_WRH_AT	ANANUM	



ALBERTA GEOLOGICAL SURVEY  
COAL GEOLOGY

COAL GEOLOGY DATA BASE  
CODING FORMS APPENDIX 4

89-212

R.J.H. Richardson  
G.B. Mandryk  
D.W. Fietz

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## **DISCLAIMER**

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**A P P E N D I X   4**

THE FOLLOWING LISTS ALL TABLES CONTAINED WITHIN THE AGS COAL data base. THE TABLES HAVE BEEN ALPHABETICALLY SORTED BY CATEGORY AND TABLE NAME. THE ORDER, EXCEPT FOR THE 'RF' TABLES, IS THE SAME AS THE SEQUENCE OF THE DATA ENTRY FORMS *etal* CONTAINED IN THE BINDER 'AGS COAL DB: DATA ENTRY FORMS *etal*'.

THE TABLES HAVE BEEN SEPARATED INTO 6 SEPARATE CATEGORIES....

GE....GEOLOGY/PIX ETAL  
 LI....LITHOLOGY ETAL  
 LO....LOCATION ETAL  
 RF....REFERENCE TABLES (DATA ENTRY FORMS ARE NOT REQUIRED)  
 SA....SAMPLE/ANALYSIS ETAL  
 ST....STRUCT\_GEOL\_OF\_OUTCROPS ETAL

CTGY	TABLE_NM	TABLE_ABBREV	DEFINITION
GE	CS_IN_CZ	CS_IN_CZ	RELATES CZNUM TO CSNUM
GE	CZ_IN_FM	CZ_IN_FM	RELATES FMNUM TO CZNUM
GE	CZ_IN_MBR	CZ_IN_MBR	RELATES MBRNUM TO CZNUM
GE	FM_IN_GP	FM_IN_GP	RELATES GPNUM TO FMNUM
GE	INT_REMARKS	INT_RMX	INTERVAL REMARKS INFO
GE	MBR_IN_FM	MBR_IN_FM	RELATES FMNUM TO MBRNUM
GE	PICK	PICK	PICK QUALITY INFO
GE	PICK_BSD_ON	P_BSD_ON	RELATES PIKNUM TO BSDNUM
GE	PICK_DH_INT	P_DH_INT	PICK BASED ON A DRILLHOLE INTERVAL
GE	PICK_IN_CS	P_CS	RELATES PIKNUM TO CSNUM
GE	PICK_IN_CZ	P_CZ	RELATES PIKNUM TO CZNUM
GE	PICK_IN_FM	P_FM	RELATES PIKNUM TO FMNUM
GE	PICK_IN_GP	P_GP	RELATES PIKNUM TO GPNUM
GE	PICK_IN_MBR	P_MBR	RELATES PIKNUM TO MBRNUM
GE	PICK_IN_MKR	P_MKR	RELATES PIKNUM TO MKRNUM
GE	PICK_LITHO	P_LITHO	RELATES PIKNUM TO LITHNUM
GE	PICK_OC_INT	P_OC_INT	PICK BASED ON AN OUTCROP/SURFACE INTERVAL
GE	STRUCL_OC_IN	ST_OC_GEO	RELATES A STRUCTURAL GEOL DTAPNT TO GEOL AGE ETAL
GE	TRAV_PICK	TR_PCK	RELATES TRAVNUM TO PIKNUM

CTGY	TABLE_NM	TABLE_ABBREV	DEFINITION
LI	LITHO_ATT	L_ATT	RELATES LITHNUM TO ATTNUM
LI	LITHO_BSD_ON	L_BSD_ON	RELATES LITHNUM TO BSDNUM
LI	LITHO_DH_INT	L_DH	LITHOLOGY OF A DRILLHOLE INTERVAL
LI	LITHO_LOG	L_LOG	LITHOLOGIC LOG
LI	LITHO_MAIN	L_MAIN	RELATES LITHNUM TO MAINUM
LI	LITHO_MOD1	L_MOD1	RELATES LITHNUM TO MODNUM (FOR A MODIFIER)
LI	LITHO_MOD2	L_MOD2	RELATES LITHNUM TO MODNUM (FOR A SECOND MODIFIER)
LI	LITHO_OC_INT	L_OC	LITHOLOGY OF AN OUTCROP/SURFACE INTERVAL
LI	LITHO_SP_FT	L_SP_FT	RELATES LITHNUM TO SPFNUM
LI	LITH_CHN_INT	L_CHN	LITHOLOGY OF A CHANNEL INTERVAL
LI	LITH_INT_REM	L_REM	LITHOLOGICAL INTERVAL REMARKS INFO
LI	STRUCL_OC_IS	ST_OC_LTH	RELATES A STRUCTURAL GEOL DATAPOINT TO LITHOLOGY
LI	TRAV_LITH	TR_LTH	RELATES TRAVNUM TO LITHNUM
LO	ADIT	ADIT	ADIT PARTICULARS
LO	BENCHMARK	BNCHMK	MINE GRID BENCHMARK LCTNS
LO	COMP_PARTIC	COMP_PARTIC	RELATES SITID TO CORPNUM
LO	CONFDNTRY	CONFDNTRY	CONFIDENTIALITY
LO	CONFIDENCE	CONFIDC	DATA CONFIDENCE/PRECISION
LO	CONFIDENT	CONFIDENT	RELATES SITID TO CNFNUM
LO	CONTRACTOR	CONTRACTOR	RELATES SITID TO CTRNUM
LO	COORD_BSD_ON	COORD_BSD_ON	COORDINATES BASED ON
LO	DATA_SOURCE	DATA_SOURCE	RELATES SITID TO SRCNUM
LO	DEVIATION	DEV	DRILLHOLE DEVIATION
LO	DH_DEV	DH_DEV	RELATES SITID TO DEVNUM TO DFROM TO DTO
LO	DLS_COORD	DLS_COORD	TOWNSHIP-RANGE LCTNS (USING COORDINATES)
LO	DLS_LSD	DLS_LSD	TOWNSHIP-RANGE LCTNS (TO THE NEAREST LSD)
LO	DRILLHOLE	DH	DRILLHOLE PARTICULARS
LO	ELEVATION	ELEVAT	SURFACE ELEVATIONS OF A DATAPOINT
LO	ELEV_BSD_ON	ELEV_BSD_ON	ELEVATION BASED ON
LO	GEOL_INTERP	INTERP	GEOLOGICAL INTERPRETATION PARTICULARS
LO	HAZ	HAZ	RELATES SITID TO HAZNUM
LO	LAT_LONG	LAT_LONG	LATITUDE-LONGITUDE LCTNS
LO	LGGNG_CNTR	LGGNG_CNTR	RELATES SITID TO LGCNTNUM
LO	LOG_RUN	LOG_RUN	RELATES SITID TO LOGNUM
LO	METH_MINING	METH_MING	RELATES SITID TO MNMTNUM
LO	MINE	MINE	COAL MINE PARTICULARS

CTGY	TABLE_NM	TABLE_ABBREV	DEFINITION
LO	MINE_GRID	MINE_GRID	MINE GRID LCTNS
LO	MN_GD_BNCH	MN_GD_BNCH	RELATES SITID TO MNGNUM
LO	NTS	NTS	NATIONAL TOPOGRAPHIC SYSTEM LCTNS
LO	PRECISION	PREC	RELATES SITID TO COORNUM TO ELEVNUM
LO	RANK_OF_COAL	RNK_COAL	RELATES SITID TO RNKNUM
LO	REMARX	REMARX	REMARKS &/OR COMMENTS
LO	SOURCE	SOURCE	SOURCE OF DATAPOINT (BACKGROUND INFO)
LO	SRVY_SOURCE	SRVY_SRC	RELATES SITID TO SRVNUM
LO	STATUS_MINE	STATUS_MINE	RELATES SITID TO STANUM
LO	TENTM	TENTM	10TM LCTNS
LO	TEST_PIT	TEST_PIT	TEST PIT PARTICULARS
LO	THREETM	THREETM	3TM LCTNS
LO	TRAVERSE	TRAVERSE	RELATES TO TRAVNUM TO TRAV_NO
LO	TRAV_PART	TRAV_PART	TRAVERSE PARTICULARS
LO	TRENCH	TRENCH	TRENCH PARTICULARS
LO	TYPE_MINE	TYPE_MINE	RELATES SITID TO MNTYNUM
LO	TYPE_OF_COAL	TYPE_COAL	RELATES SITID TO CLTYNUM
LO	UTM	UTM	UNIVERSAL TRANSVERSE MERCATOR LOCATIONS
RF	ANA_CONF	ANA_CONF	STATUS OF CONFIDENTIALITY OF ANALYTICAL DATA
RF	ANA_OK	ANA_OK	RELIABILITY OF ANALYTICAL DATA
RF	ANA_TYPE	ANA_TYP	ANALYSIS TYPE INFO
RF	ATOMIC_NO	ATOMIC_NO	ATOMIC NUMBER/TRACE ELEMENT INFO
RF	ATT	ATT	ATTITUDE INFO
RF	BASED_ON	BASED	BASIS (SOURCE) OF GEOL & LITHO INTERPRETATION
RF	CNFDTL	CNFDTL	CONFIDENTIALITY
RF	CNTRCTR	CNTRCTR	LISTING OF MECHANICAL CONTRACTORS
RF	COMPANY	COMP	ADDRESSES OF COAL EXP/DEV CORP/COMP
RF	CONTIN_CODE	CONTIN	SAMPLE CONTINUITY INFO
RF	C_RANK	C_RNK	TYPES OF COAL RANK
RF	C_TYP	C_TYP	TYPES OF COAL
RF	DLTM	DLTM	DILATOMETER INFO
RF	DRAIN	DRAIN	DRAINAGE CONDITION FOR TRIAXIAL TESTS
RF	FOUL	FOUL	TENDNCY OF DRY ASH PRTCLE TO ADHERE TO BOILER TUBE
RF	GEOL_CS	GEOL_CS	GEOLOGICAL COAL SEAM INFO
RF	GEOL_CZ	GEOL_CZ	GEOLOGICAL COAL ZONE INFO
RF	GEOL_FM	GEOL_FM	GEOLOGICAL FORMATION INFO

CTGY	TABLE_NM	TABLE_ABBREV	DEFINITION
<hr/>			
RF	GEOL_GROUP	GEOL_GROUP	GEOLOGICAL GROUP INFO
RF	GEOL_MBR	GEOL_MBR	GEOLOGICAL MEMBER INFO
RF	GRY_KNG	GRY_KING	GRAY-KING INFO
RF	HAZARD	HAZARD	DRILLHOLE HAZARDS
RF	INCRMNT	INCRMNT	INCREMENT NUMBER INFO
RF	JNT_INFL	JNTI	JOINT-INFILLING INFO
RF	LAB	LAB	ANALYTICAL LAB INFO
RF	LG_CNT	LG_CNT	LISTING OF GEOPHYSICAL LOGGING CONTRACTORS
RF	LITHO_MAIN	LITH_MN	LITHOLOGY MAIN LISTING
RF	LITHO_MODFR	LITH_MD	LITHOLOGIC MODIFIER LISTING
RF	LOGS	LOGS	GEOPHYSICAL LOGS
RF	L_SP_FEA	L_SP_FEA	LITHOLOGIC SPECIAL FEATURE LISTING
RF	MINE_MTHD	MINE_MTHD	COAL MINING METHODS
RF	MINE_STATUS	MINE_STS	MINE STATUS
RF	MINE_TYP	MINE_TYP	TYPES OF COAL MINES
RF	MKR_TYP	MKR_TYP	GEOLOGICAL MARKER HORIZONS
RF	MOISTURE	MOISTURE	MOISTURE BASIS FOR SPECIFIC GRAVITY DETERMINATION
RF	O_ORN	O_ORN	OUTCROP ORIENTATION (WAY-UP)
RF	O_SNS	O_SNS	OUTCROP SENSE
RF	SG_INFO	SG_INF	SPECIFIC GRAVITY INFO
RF	SIEVE	SIEVE	SIEVE SIZE INFO
RF	SPEC_NO	SPEC_NO	SPECIMEN NUMBER INFO
RF	SPL_PREP	S_PREP	SAMPLE PREPARATION TYPE INFO
RF	SPL_SEGMENT	S_SEGMENT	SAMPLE SEGMENT INFO
RF	SPL_TYP	SPL_TYP	DRILLHOLE SAMPLE TYPE/STATUS
RF	SR_MTH	SR_MTH	SOURCE METHODS
RF	STAT_JNT	SJNT	STATUS OF JOINT INT INFO
RF	SURVEY	SURVEY	ORIGINAL SURVEY DATA
RF	SZ_FRACT	SZ_FRACT	SIZE OF COAL PARTICLES ANALYZED
RF	WAREHOUSE	WAREHOUSE	SAMPLE-STORAGE-WAREHOUSE PARTICULARS
SA	ANAL_WRH_AT	A_WRH_AT	RELATES ANANUM TO WRHNUM TO WRHTAGNO
SA	ANA_STATUS	A_STA	ANALYSIS STATUS
SA	ASH_ANAL_HI	A_ANA_H	ASH ANALYSIS OF COAL (HIGH TEMPERATURE ANALYSIS)
SA	ASH_ANAL_LO	A_ANA_L	ASH ANALYSIS OF COAL (LOW TEMPERATURE ANALYSIS)
SA	ASH_FUSIB	A_FUS	ASH FUSIBILITY INFO
SA	ASH_RESIS	A_RESIS	ASH RESISTIVITY INFO

CTGY	TABLE_NM	TABLE_ABBREV	DEFINITION
SA	ATTERBERG	ATTER	ATTERBERG LIMITS
SA	BLOCKS	BLOX	PETROGRAPHIC ANALYSIS OF POLISHED BLOCKS (ORIENTED)
SA	COKE_PRESS	COKE_PRES	COKE PRESSURE INFO
SA	CONFID_ANA	CNF_ANA	RELATES ANANUM TO CNFNUM
SA	CONSOLIDATION	CONSOL	CONSOLIDATION TESTS
SA	DILATOMETER	DILATOM	DILATOMETER TEST
SA	DIRECT_SHEAR	DIR_SHR	DIRECT SHEAR TEST
SA	EQUIL_MOIST	E_MOIST	EQUILIBRIUM MOISTURE INFO
SA	FISCHER_PYROL	FISCHER	FISCHER PYROLYSIS ASSAY
SA	FLASH_PYROL	FLASH	FLASH PYROLYSIS PRODUCTS
SA	FSI_IND	FSI_IND	FREE SWELLING INDEX TEST
SA	GEIS_PLASTO	GEIS	GIESLER PLASTOMETER TEST
SA	GRAY_KING	GRAY_KING	GRAY-KING ASSAY
SA	HAMMER	HMR	HAMMER (PENETRATION) TESTS
SA	HEATING_VALUE	HV	HEATING VALUE INFO
SA	HGI_ABRAS	HGI_ABRAS	GRINDABILITY, ABRASIVENESS & HARDNESS INFO
SA	LAB_ANA	LAB_ANA	RELATES ANANUM TO LABNUM
SA	MACERAL_ANAL	MACERAL	MACERAL ANALYSIS
SA	METHANE	METHANE	METHANE INFO
SA	MINERAL_ANAL	MNRL_ANA	MINERAL ANALYSIS OF COAL
SA	OK_ANALYSIS	OK_ANA	RELATES ANANUM TO OKNUM
SA	PELLETS	PELLETS	PETROGRAPHIC ANALYSIS OF POLISHED BRIQUETS (PELLETS)
SA	PETROG_INDICE	P_IND	PETROGRAPHIC INDICES
SA	PETROG_PRO	P_PRO	PETROGRAPHIC PROCESSING INFO
SA	POLLEN_SPORE	POLLEN	RELATES SAMNUM TO ANANUM TO PETNUM
SA	POROSITY	POROS	POROSITY INFO
SA	PROCTOR	PROCT	PROCTOR COMPACTION TESTS
SA	PROXIMATES	PROX	PROXIMATE ANALYSIS INFO
SA	RQD_ETAL	RQD_ETAL	ROCK QUALITY, RECOVERY & JOINT-TYPE INFO
SA	SAMPLE_TYPE	SMPL	RELATES SITID TO SAMTYPNUM
SA	SG_DENS	SG_DENS	SPECIFIC GRAVITY & DENSITY
SA	SIEVE_ANAL	SIEVE_ANAL	SIEVE ANALYSIS
SA	SLAGGING	SLAG	SLAGGING INDICES INFO
SA	SPL_CHNL_INT	S_CHNL	CHANNEL SAMPLES
SA	SPL_CONTIN	S_CONTIN	RELATES SAMNUM TO CONTNUM
SA	SPL_DH_INT	S_DH	SAMPLE FROM A DRILLHOLE INTERVAL
SA	SPL_FRM_ETAL	S_FRM	RELATES SAMNUM TO FMNUM TO MBRNUM TO CZNUM TO CSNUM
SA	SPL_HAS_ANAL	S_HAS_A	RELATES SAMNUM TO ANANUM TO ATNUM



CTGY	TABLE_NM	TABLE_ABBREV	DEFINITION
SA	SPL_INT_REMX	S_REMX	SAMPLE INTERVAL REMARKS INFO
SA	SPL_OC_INT	S_OC	SAMPLE FROM AN OUTCROP/SURFACE INTERVAL
SA	SPL_PREPTN	S_PREPTN	RELATES SAMNUM TO PREPNUM
SA	SPL_SEG	S_SEG	RELATES SAMNUM TO SEGNUM
SA	SPL_STATUS	S_STAT	SAMPLE STATUS
SA	STRENGTHS	STRGTH	(SHEAR & COMPRESSIVE)
SA	SULPHUR	S	SULPHUR INFO
SA	SVD_COAL_UNA	SVD_C_UNA	RELATES SAMNUM TO WRHNUM
SA	SVD_SPL_INFO	SVD_SPL	SAVED SAMPLE INFO
SA	SZFRACT_ANA	SZ_ANA	RELATES ANANUM TO SZNUM
SA	TRACE_ELEM	TR_ELEM	RELATES SAMNUM TO ANANUM TO ATOMNUM TO PPM
SA	TRAV_SPL	TR_SPL	RELATES TRAVNUM TO SAMNUM
SA	TRIAXIAL	TRIAX	TRIAXIAL TEST DATA
SA	ULTIMATE	ULT	ULTIMATE ANALYSIS INFO
ST	AXIAL_TRACE	AX_TR	AXIAL TRACE DATA
ST	BDG_FOLDED	BDG_FOLD	RELATES SITID TO ORNUM TO DIPNUM TO AXTNUM TO OBOT TO OTOP
ST	BDG_NORM	BDG_NORM	RELATES SITID TO ORNUM TO DIPNUM TO PCHNUM TO OBOT TO OTOP
ST	CLEAVAGE	CLEAV	RELATES SITID TO DIPNUM TO OBOT TO OTOP
ST	DIP_DIP_DIR	DDDIR	DIP AND DIP DIRECTION
ST	FAULT	FAULT	RELATES SITID TO DIPNUM TO PCHNUM TO SNSNUM TO OBOT TO OTOP
ST	JOINT_SET	JNT_SET	RELATES SITID TO DIPNUM TO PCHNUM TO SNSNUM TO OBOT TO OTOP
ST	PITCH_INFO	PITCH_INFO	PITCH INFO

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**CZ\_IN\_MBR**DATA ENTRY  
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**PICK\_IN\_CS**DATA ENTRY  
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**PICK\_IN\_CZ**DATA ENTRY  
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PAGE \_\_ OF \_\_

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CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**PICK\_IN\_MBR**DATA ENTRY  
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**PICK\_IN\_MKR**DATA ENTRY  
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PICK\_LITHO

DATA ENTRY  
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CODING DATE (MM-DD-YY):\_\_-\_\_-\_\_

**PICK\_OC\_INT**

## DATA ENTRY FORM

ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database		PAGE __ OF __
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STRUCL\_OC\_IN

DATA ENTRY  
FORM[illegible]

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**TRAV\_PICK**DATA ENTRY  
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DATA ENTRY  
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**LITHO\_BSD\_ON**DATA ENTRY  
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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): __ - __ - __	<b>LITHO_DH_INT</b> DATA ENTRY FORM

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): __ - __ - __	<b>LITHO_DH_INT</b> DATA ENTRY FORM

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): __ - __ - __	<b>LITHO_DH_INT</b> DATA ENTRY FORM

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<b>LITHO_DH_INT</b> DATA ENTRY FORM

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<b>LITHO_DH_INT</b> DATA ENTRY FORM

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<b>LITHO_DH_INT</b> DATA ENTRY FORM

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SITID REFERENCE NUMBER : \_\_\_\_\_

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**LITHO\_LOG**DATA ENTRY  
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**LITHO\_MAIN**DATA ENTRY  
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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<b>LITHO_MOD1</b>	DATA ENTRY FORM

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<b>LITHO_MOD1</b> DATA ENTRY FORM

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<b>LITHO_MOD1</b> DATA ENTRY FORM

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<b>LITHO_MOD1</b> DATA ENTRY FORM

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<b>LITHO_MOD1</b> DATA ENTRY FORM

LITHIUM

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**LITHO\_MOD2**DATA ENTRY  
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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): __ - __ - __	<div style="display: inline-block; width: 60%;">LITHO_OC_INT</div> <div style="display: inline-block; width: 40%; text-align: right;">DATA ENTRY FORM</div>
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SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**LITHO\_SP\_FT**

DATA ENTRY  
FORM

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**CODING DATE (MM-DD-YY):** \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**LITH\_CHN\_INT**

DATA ENTRY  
FORM

Figure 1 displays a 10x4 grid of diagrams illustrating the evolution of a 1D lattice over time. The columns are labeled SITID, LITHNUM, CLTOP (m), and CLBOT (m). Each row represents a time step. SITID and LITHNUM show a moving front of filled cells. CLTOP and CLBOT show a moving shaded region representing a specific state or measurement.

<b>ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database</b>			PAGE __ OF __
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DATA ENTRY FORM			

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<div style="display: inline-block; width: 45%;">LITH_INT_REM</div> <div style="display: inline-block; width: 45%; text-align: right;">DATA ENTRY FORM</div>	

<b>ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database</b>			PAGE __ OF __
SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<div style="display: inline-block; width: 45%;">LITH_INT_REM</div> <div style="display: inline-block; width: 45%; text-align: right;">DATA ENTRY FORM</div>	

<b>ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database</b>			PAGE __ OF __
SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<div style="display: inline-block; width: 45%;">LITH_INT_REM</div> <div style="display: inline-block; width: 45%; text-align: right;">DATA ENTRY FORM</div>	

<b>ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database</b>			PAGE __ OF __
SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<div style="display: inline-block; width: 45%;">LITH_INT_REM</div> <div style="display: inline-block; width: 45%; text-align: right;">DATA ENTRY FORM</div>	

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<b>LITH_INT_REM</b>	
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A horizontal ruler scale showing measurements from 0 to 10 centimeters. The scale has major markings every 1 cm and minor markings every 1 mm.

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CODING DATE (MM-DD-YY): \_\_ - \_\_ - \_\_

STRUCL\_OC\_IS

DATA ENTRY  
FORM

**SITID**

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## LITHIUM

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OBOT (m)

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SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**TRAV\_LITH**DATA ENTRY  
FORM

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CODING DATE (MM-DD-YY): \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**ADIT**

DATA ENTRY  
FORM

SITID

LENGTH (m)

WIDTH (m)

HEIGHT(m)

AZM

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**CONTRACTOR**

DATA ENTRY  
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A horizontal number line with 15 tick marks, labeled from 0 to 14. The line is enclosed in a rectangular box.

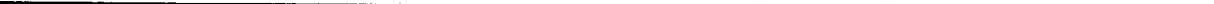
1111

A horizontal ruler with 15 tick marks, labeled from 1 to 15.

11/11/11



A horizontal number line with 15 tick marks, labeled from 0 to 14. The line is enclosed in a rectangular box.



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PAGE \_\_ OF \_\_

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**DATA\_SOURCE**DATA ENTRY  
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**DEVIATION**

DATA ENTRY  
FORM

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MERIDIAN

TOWNSHIP

RANGE	

SECTION

REF\_SECTION

REF\_CORNER

METERS+/- N/S

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SITID

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A horizontal ruler with markings every 1/16 inch, labeled from 1 to 16.

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Category	Count
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200	200
300	300
400	400
500	500

8550\_1D (III)

ID (III)				

A horizontal number line with 20 tick marks, labeled from 0 to 19. The line is enclosed in a rectangular box.

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SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**ELEVATION**

DATA ENTRY  
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ELEVNUM

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A horizontal number line with 20 tick marks, labeled from 0 to 19. The line is enclosed in a rectangular box.

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A horizontal number line with 20 tick marks, labeled from 0 to 19. The line is used for plotting data points.

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A horizontal number line with 20 tick marks, labeled from 0 to 19. The line is used for plotting data points.

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A horizontal number line with 20 tick marks, labeled from 0 to 19. The line is used for plotting data points.

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SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**HAZ**

DATA ENTRY  
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LATITUDE (DEGREES)

LONGITUDE (DEGREES)

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A horizontal number line with tick marks at every integer from 0 to 10. The segment between 0 and 1 is shaded with diagonal lines, representing the fraction  $\frac{1}{10}$ .

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**LGGNG\_\_CNTR**DATA ENTRY  
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**LOG\_RUN**DATA ENTRY  
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**METH\_MINING**

DATA ENTRY  
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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<div style="display: flex; justify-content: space-between;"> <div><b>MINE</b></div> <div>DATA ENTRY FORM</div> </div>

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**MN\_GD\_BNCH**DATA ENTRY  
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**PRECISION**

DATA ENTRY  
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**RANK\_OF\_COAL**

DATA ENTRY  
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**SRVY\_SOURCE**DATA ENTRY  
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PAGE \_\_ OF \_\_

SITID REFERENCE NUMBER : \_\_\_\_\_

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CODING DATE (MM-DD-YY): \_\_ - \_\_ - \_\_

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**DATA ENTRY  
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Age Group	Percentage
18-24	10%
25-34	15%
35-44	20%
45-54	25%
55-64	30%
65-74	35%
75-84	40%
85+	45%

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Age Group	Percentage
18-24	10%
25-34	15%
35-44	20%
45-54	25%
55-64	30%
65-74	35%
75-84	40%
85+	45%

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SITID	TRTM_ZONE	TRTM_CENT_MRDN	TRTM_N (m)	TRTM_E (m)

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**SITID REFERENCE NUMBER :** \_\_\_\_\_

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DATA ENTRY  
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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____-____-____	<div style="display: inline-block; width: 80%;"><b>TRAV_PART</b></div> <div style="display: inline-block; width: 15%; text-align: right;">DATA ENTRY FORM</div>	

TRAVNUM	AZIMUTH	INCLIN (+/- degrees)	L_OF_LEG (m)
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TRAVNUM	AZIMUTH	INCLIN (+/- degrees)	L_OF_LEG (m)
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COMMENTS

TRAVNUM	AZIMUTH	INCLIN (+/- degrees)	L_OF_LEG (m)
<div style="display: flex; justify-content: space-around; height: 20px;"> <span style="width: 15px; height: 15px; border: 1px solid black;"></span> <span style="width: 15px; height: 15px; border: 1px solid black;"></span> <span style="width: 15px; height: 15px; border: 1px solid black;"></span> <span style="width: 15px; height: 15px; border: 1px solid black;"></span> </div>	<div style="display: flex; justify-content: space-around; height: 20px;"> <span style="width: 10px; height: 10px; border: 1px solid black;"></span> <span style="width: 10px; height: 10px; border: 1px solid black;"></span> </div>	<div style="display: flex; justify-content: space-around; height: 20px;"> <span style="width: 10px; height: 10px; border: 1px solid black;"></span> <span style="width: 10px; height: 10px; border: 1px solid black;"></span> <span style="width: 10px; height: 10px; border: 1px solid black;"></span> <span style="width: 10px; height: 10px; border: 1px solid black;"></span> </div>	<div style="display: flex; justify-content: space-around; height: 20px;"> <span style="width: 15px; height: 15px; border: 1px solid black;"></span> <span style="width: 15px; height: 15px; border: 1px solid black;"></span> <span style="width: 15px; height: 15px; border: 1px solid black;"></span> <span style="width: 15px; height: 15px; border: 1px solid black;"></span> </div>

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<b>TRENCH</b>	DATA ENTRY FORM
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TYPE\_OF\_COAL

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A horizontal number line with 20 tick marks, labeled from 1 to 20.

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# ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database

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SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**ASH\_ANAL\_HI**

DATA ENTRY  
FORM

SAMNUM

ANANUM

FOULNUM

SiO<sub>2</sub> %

Al<sub>2</sub>O<sub>3</sub> %

TiO<sub>2</sub> %

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Fe<sub>2</sub>O<sub>3</sub> %

CaO %

MgO %

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Na<sub>2</sub>O %

K<sub>2</sub>O %

P<sub>2</sub>O<sub>5</sub> %

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SO<sub>3</sub> %

UNDT %

CO<sub>2</sub> %

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CrO<sub>3</sub> %

MnO %

MoO<sub>3</sub> %

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NiO %

VO<sub>3</sub> %

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SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**ASH\_ANAL\_LO**

DATA ENTRY  
FORM

SAMNUM

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ANANUM

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FOULNUM

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SiO<sub>2</sub>\_L %

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Al<sub>2</sub>O<sub>3</sub>\_L %

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TiO<sub>2</sub>\_L %

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Fe<sub>2</sub>O<sub>3</sub>\_L %

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CaO\_L %

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MgO\_L %

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Na<sub>2</sub>O\_L %

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K<sub>2</sub>O\_L %

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P<sub>2</sub>O<sub>5</sub>\_L %

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SO<sub>3</sub>\_L %

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UNDT\_L %

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CO<sub>2</sub>\_L %

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CrO<sub>3</sub>\_L %

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MnO\_L %

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MoO<sub>3</sub>\_L %

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NiO\_L %

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VO<sub>3</sub>\_L %

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# ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database

PAGE \_\_\_ OF \_\_\_

SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**ASH\_FUSIB**

DATA ENTRY  
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ANANUM

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R\_SOFT

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O\_SOFT

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O\_HEMIS

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VISCOSITY

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ANANUM

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**ASH\_RESIS**

DATA ENTRY  
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ANANUM

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ELEC\_RES\_EXP

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**ATTERBERG**

DATA ENTRY  
FORM

SAMNUM

ANANUM

NAT\_WTR\_CNT(%)

LIQ\_LIM(%)

PLSTC\_LIM(%)

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**BLOCKS**

DATA ENTRY  
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ANANUM

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PETNUM

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NO\_MEAS

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MAX\_VIT\_REFL %

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MIN\_VIT\_REFL %

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INT\_VIT\_REFL %

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TREND\_MAX

--	--	--

PLUNGE\_MAX

--	--	--

TREND\_MIN

--	--	--

PLUNGE\_MIN

--	--	--

TREND\_INT

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PLUNGE\_INT

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SAMNUM

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ANANUM

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PETNUM

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NO\_MEAS

--	--	--	--

MAX\_VIT\_REFL %

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MIN\_VIT\_REFL %

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INT\_VIT\_REFL %

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TREND\_MAX

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PLUNGE\_MAX

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TREND\_MIN

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PLUNGE\_MIN

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TREND\_INT

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PLUNGE\_INT

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CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**COKE\_PRESS**

DATA ENTRY  
FORM

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CODING DATE (MM-DD-YY): \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**CONFID\_ANA**

DATA ENTRY  
FORM

ANANUM

CONFNUM

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CODING DATE (MM-DD-YY): \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**CONSOLIDATON**

DATA ENTRY  
FORM

SAMNUM

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ANANUM

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INCNUM

--	--	--

INIT\_WTR\_CON %

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INT\_BLK\_DENS (KG/M3)

--	--	--	--	--

INT\_DRY\_DENS (KG/M3)

--	--	--	--	--

INITIAL\_VOID\_R

--	--	--	--	--

PRECON\_PRESS (KPA)

--	--	--	--	--

COMPRES\_IND

--	--	--	--	--

CONSOL\_PRES (KPA)

--	--	--	--	--

COF\_VOL\_COMP (M2/(KN X 0.0001))

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COF\_CONSOL (M2/YR)

--	--	--	--	--

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CODING DATE (MM-DD-YY): \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**DILATOMETER**

DATA ENTRY  
FORM

SAMNUM

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ANANUM

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DILNUM

--	--	--

D\_SOFT (DEGREES C)

--	--	--	--	--

MAX\_CON\_TMP

MAX\_CONTRACT %

--	--	--	--	--

--	--	--

MAX\_DIL\_TMP (DEGREES C)

--	--	--	--	--

MAX\_DILAT %

--	--	--

FNL\_DILAT %

--	--	--

RESOL\_TMP ( DEGREES C )

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SAMNUM

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ANANUM

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DILNUM

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D\_SOFT (DEGREES C)

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MAX\_CON\_TMP

MAX\_CONTRACT %

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MAX\_DIL\_TMP (DEGREES C)

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MAX\_DILAT %

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FNL\_DILAT %

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RESOL\_TMP ( DEGREES C )

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# ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database

PAGE \_\_ OF \_\_

SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**DIRECT\_SHEAR**

DATA ENTRY  
FORM

SAMNUM

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ANANUM

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SPECNUM

--	--	--

INIT\_WTR\_CON %

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DRY\_DENS (kg/m3)

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BULK\_DENS (kg/m3)

--	--	--	--	--	--

NORM\_STRESS (kPa)

--	--	--	--	--	--

PK\_SHR\_STR (kPa)

--	--	--	--	--	--

PK\_DISPLACE (mm)

--	--	--	--	--	--

RES\_SHR\_STR (kPa)

--	--	--	--	--	--

RESID\_DSPL (mm)

--	--	--	--	--	--

XSEC\_AREA (cm2)

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SHAPE

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SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**EQUIL\_MOIST**

DATA ENTRY  
FORM

SAMNUM

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EQUIL\_MOIST %

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**FISCHER\_PYROL**

DATA ENTRY  
FORM

SAMNUM

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ANANUM

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FISA\_TAR %

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FISA\_GAS %

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FISA\_LIQUID %

--	--	--	--	--	--	--	--

FISA\_SOLID %

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SAMNUM

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ANANUM

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FISA\_TAR %

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FISA\_GAS %

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FISA\_LIQUID %

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FISA\_SOLID %

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SAMNUM

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ANANUM

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FISA\_TAR %

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FISA\_GAS %

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FISA\_LIQUID %

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FISA\_SOLID %

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**FLASH\_PYROL**

DATA ENTRY  
FORM

SAMNUM

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ANANUM

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FP\_TAR %

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FP\_GAS %

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FP\_LIQUID %

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FP\_SOLID %

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SAMNUM

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ANANUM

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FP\_TAR %

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FP\_GAS %

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FP\_LIQUID %

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FP\_SOLID %

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SAMNUM

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ANANUM

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FP\_TAR %

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FP\_GAS %

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FP\_LIQUID %

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FP\_SOLID %

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**FSI\_IND**

DATA ENTRY  
FORM

SAMNUM

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ANANUM

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FRE\_SWE\_IND

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**SAMNUM**

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ANANUM

GEIS\_SOFT

GEIS\_MX\_FLD

DDM (dial divisions/minute)

GEIS_SLD
----------

FLUID_RNG

ANALYST		GEIS_SOFT	GEIS_MAX_FLD	DDM (dial divisions/minute)	GEIS_SLD	FLUID_RNG
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# ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database

PAGE \_\_ OF \_\_

SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**GRAY\_KING**

DATA ENTRY  
FORM

SAMNUM

--	--	--	--	--	--	--

ANANUM

--	--	--	--	--	--	--

GRYNUM

--	--	--

GKA\_TAR %

--	--	--	--	--

GKA\_GAS %

--	--	--	--	--

GKA\_LIQUID %

--	--	--	--	--

GKA\_SOLID %

--	--	--	--	--

GK\_GAS\_HV (kJ/m3)

--	--	--	--	--

SAMNUM

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ANANUM

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GRYNUM

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GKA\_TAR %

--	--	--	--	--

GKA\_GAS %

--	--	--	--	--

GKA\_LIQUID %

--	--	--	--	--

GKA\_SOLID %

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GK\_GAS\_HV (kJ/m3)

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<b>HAMMER</b> DATA ENTRY FORM

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<b>HAMMER</b> DATA ENTRY FORM

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SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**HEATING\_VALUE**

DATA ENTRY  
FORM

SAMNUM

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ANANUM

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HV\_ARB (MJ/kg)

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HV\_ADB (MJ/kg)

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SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**HGI\_ABRAS**

DATA ENTRY  
FORM

SAMNUM

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ANANUM

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HARDGROVE\_INDEX

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ABRASIVENESS

--	--	--	--	--	--	--	--	--	--

MCROHARDNESS (kg/m2)

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DROP\_SHTR %

--	--	--	--	--	--	--	--

SAMNUM

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ANANUM

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HARDGROVE\_INDEX

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ABRASIVENESS

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MCROHARDNESS (kg/m2)

--	--	--	--	--	--

DROP\_SHTR %

--	--	--	--	--	--	--	--

SAMNUM

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ANANUM

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HARDGROVE\_INDEX

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ABRASIVENESS

--	--	--	--	--	--	--	--	--	--

MCROHARDNESS (kg/m2)

--	--	--	--	--	--

DROP\_SHTR %

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PAGE \_\_ OF \_\_

SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**LAB\_ANA**DATA ENTRY  
FORM

ANANUM

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LABNUM

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PAGE \_\_\_ OF \_\_\_

SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**MACERAL\_ANAL**

DATA ENTRY  
FORM

SAMNUM

--	--	--	--	--	--	--

ANANUM

--	--	--	--	--	--	--

PETNUM

--	--	--	--	--

VITR\_WT %

--	--	--	--	--

EXIN\_WT %

--	--	--	--	--

INERT\_WT %

--	--	--	--	--

REACT\_MCRL %

--	--	--	--	--

INERT\_MCRL %

--	--	--	--	--

SAMNUM

--	--	--	--	--	--	--

ANANUM

--	--	--	--	--	--	--

PETNUM

--	--	--	--	--

VITR\_WT %

--	--	--	--	--

EXIN\_WT %

--	--	--	--	--

INERT\_WT %

--	--	--	--	--

REACT\_MCRL %

--	--	--	--	--

INERT\_MCRL %

--	--	--	--	--

<b>ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database</b>			PAGE __ OF __
SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): __ - __ - __	<b>METHANE</b>	DATA ENTRY FORM

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): __ - __ - __	<b>METHANE</b>	DATA ENTRY FORM

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<b>ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database</b>			PAGE __ OF __
SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): __ - __ - __	<div style="display: flex; justify-content: space-between;"> <span style="font-size: 1.5em; font-weight: bold;">METHANE</span> <span>DATA ENTRY FORM</span> </div>	

<b>ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database</b>			PAGE __ OF __
SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): __ - __ - __	<div style="display: flex; justify-content: space-between;"> <span style="font-size: 1.5em; font-weight: bold;">METHANE</span> <span>DATA ENTRY FORM</span> </div>	

<b>ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database</b>			PAGE __ OF __
SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): __ - __ - __	<div style="display: flex; justify-content: space-between;"> <span style="font-size: 1.5em; font-weight: bold;">METHANE</span> <span>DATA ENTRY FORM</span> </div>	

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A diagram showing a horizontal bar divided into four equal rectangular sections. The second section from the left is filled with a cross-hatch pattern, while the other three sections are white. Vertical lines extend downwards from the center of each section.

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A diagram showing a horizontal bar divided into four equal segments by three vertical lines. The second segment from the left is shaded with a cross-hatch pattern. The other three segments are white.

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A diagram showing a horizontal row of four rectangular cells. The second cell from the left is shaded with a cross-hatch pattern. The other three cells are white.

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CODING DATE (MM-DD-YY): \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**MINERAL\_ANAL**

DATA ENTRY  
FORM

SAMNUM

--	--	--	--	--	--	--	--

ANANUM

--	--	--	--	--	--	--	--

ANKERITE %

--	--	--	--	--	--	--	--

CALCITE %

--	--	--	--	--	--	--	--

DOLOMITE %

--	--	--	--	--	--	--	--

GALENA %

--	--	--	--	--	--	--	--

KAOLINITE %

--	--	--	--	--	--	--	--

MONTM\_ILLITE %

--	--	--	--	--	--	--	--

PYR\_MARCAS %

--	--	--	--	--	--	--	--

SIDERITE %

--	--	--	--	--	--	--	--

SPHALERITE %

--	--	--	--	--	--	--	--

QUARTZ %

--	--	--	--	--	--	--	--

SULPHATES %

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CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**OK\_ANALYSIS**DATA ENTRY  
FORM

ANANUM

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OKNUM

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**PELLETS**

DATA ENTRY  
FORM

SAMNUM

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ANANUM

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PETNUM

--	--	--	--	--

REFLECT\_ANG

--	--	--	--

NO\_MEAS\_MAX

--	--	--	--	--	--

MN\_MX\_REFL %

--	--	--	--	--

STD\_DEV\_MAX %

--	--	--	--	--

NO\_MEAS\_MIN

--	--	--	--	--

MN\_MIN\_REFL %

--	--	--	--	--

STD\_DEV\_MIN %

--	--	--	--	--

NO\_MEAS\_RDM

--	--	--	--	--

MN\_RDM\_REFL %

--	--	--	--	--

STD\_DEV\_RDM %

--	--	--	--	--

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**PETROG\_INDICE**

DATA ENTRY  
FORM

SAMNUM

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ANANUM

--	--	--	--	--	--	--

PETNUM

--	--	--	--	--

COMP\_BAL\_IND

--	--	--	--	--

STRENGTH\_IND

--	--	--	--	--

STAB\_IND

--	--	--	--	--

SAMNUM

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ANANUM

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PETNUM

--	--	--	--	--

COMP\_BAL\_IND

--	--	--	--	--

STRENGTH\_IND

--	--	--	--	--

STAB\_IND

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SAMNUM

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ANANUM

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PETNUM

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COMP\_BAL\_IND

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STRENGTH\_IND

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STAB\_IND

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____-____-____	<b>POLLEN_SPORE</b> DATA ENTRY FORM

SAMNUM	ANANUM	PETNUM
<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

**! NOTE: THIS TABLE IS INCOMPLETE.....ADD FURTHER COLUMNS AS DATA BECOMES AVAILABLE.**

**DWF 880725**

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PCHNUM				

PITCH (DEGREES)

1 2 3 4 5

The diagram shows a horizontal line with five tick marks labeled 1, 2, 3, 4, and 5. The region between the 2 and 3 tick marks is shaded with a stippled pattern.

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A diagram showing a horizontal bar divided into three equal sections. The left and right sections are white, while the middle section is filled with a cross-hatch pattern. Each section has a vertical dashed line extending downwards from its center.

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A diagram showing a horizontal bar divided into four equal segments by three vertical lines. The second segment from the left is filled with a cross-hatch pattern, while the other three segments are empty.

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A diagram showing three rectangular boxes arranged horizontally. The central box is filled with a cross-hatch pattern, while the two flanking boxes are empty. Each box has two short vertical lines extending downwards from its top edge.

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A diagram showing a horizontal bar divided into three equal rectangular sections. The central section is filled with a cross-hatch pattern, while the two outer sections are white. Each section contains a vertical dashed line in its center.

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# ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database

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# ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database

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**ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database**

PAGE \_\_ OF \_\_

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**SAMPLE\_TYPE**DATA ENTRY  
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# ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): _ _ - _ _ - _ _	<b>SIEVE_ANAL</b>	DATA ENTRY FORM

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**ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database**

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# ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database

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**ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database**

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**SPL\_PREPTN**DATA ENTRY  
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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____-____-____	<b>SPL_INT_REMX</b>	
DATA ENTRY FORM			

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____-____-____	<b>SPL_INT_REMX</b> DATA ENTRY FORM	

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____-____-____	<b>SPL_INT_REMX</b> DATA ENTRY FORM	

<b>ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database</b>			PAGE __ OF __
SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____-____-____	<div style="display: flex; justify-content: space-between;"> <span><b>SPL_INT_REMX</b></span> <span>DATA ENTRY FORM</span> </div>	

<b>ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database</b>			PAGE __ OF __
SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____-____-____	<div style="display: inline-block; width: 45%;"> <b>SPL_INT_REMX</b> </div> <div style="display: inline-block; width: 45%; text-align: right;"> <b>DATA ENTRY FORM</b> </div>	

<b>ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database</b>			PAGE __ OF __
SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____-____-____	<b>SPL_INT_REMX</b>	
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A horizontal ruler with markings from 0 to 10 centimeters. The markings are labeled with numbers 0 through 10. The ruler is used to measure the length of the line segment.

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A horizontal number line with 20 tick marks, labeled from 0 to 19. The line is used for plotting data points.

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A horizontal number line with 20 tick marks, labeled from 0 to 19. The line is enclosed in a rectangular box.

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A horizontal number line with 20 tick marks, labeled from 0 to 19. The line is enclosed in a rectangular box.

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A horizontal number line with 20 tick marks, labeled from 0 to 19. The line is enclosed in a rectangular box.

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A horizontal number line with 20 tick marks, labeled from 0 to 19. The line is enclosed in a rectangular box.

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A horizontal number line with 20 tick marks, labeled from 0 to 19. The line is enclosed in a rectangular box.

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A horizontal number line with 20 tick marks, labeled from 0 to 19. The line is used for plotting data points.



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PAGE \_\_ OF \_\_

SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**SPL\_SEG**

DATA ENTRY  
FORM

SAMNUM

SEGNUM

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SITID REFERENCE NUMBER : _____	CODING DATE (MM-DD-YY): ____ - ____ - ____	<b>SPL_STATUS</b>	DATA ENTRY FORM

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A diagram of a three-cell embryo. It consists of three rectangular cells arranged horizontally. The central cell is shaded with a cross-hatch pattern. The two outer cells are white. Each cell has a small vertical line near its top center, representing a polar body or a similar structure.

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CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**STRENGTHS**

DATA ENTRY  
FORM

SAMNUM

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ANANUM

--	--	--	--	--	--	--

POCK\_PEN (kPa)

--	--	--	--	--	--	--

UNCONF\_COMP (kPa)

--	--	--	--	--	--	--

VANE\_SHR (kPa)

--	--	--	--	--	--	--

CONE\_PEN\_RES (kPa)

--	--	--	--	--	--	--

CONE\_PEN\_FRIC (kPa)

--	--	--	--	--	--	--

SAMNUM

--	--	--	--	--	--	--

ANANUM

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POCK\_PEN (kPa)

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UNCONF\_COMP (kPa)

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VANE\_SHR (kPa)

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CONE\_PEN\_RES (kPa)

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CONE\_PEN\_FRIC (kPa)

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SAMNUM

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ANANUM

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POCK\_PEN (kPa)

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UNCONF\_COMP (kPa)

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VANE\_SHR (kPa)

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CONE\_PEN\_RES (kPa)

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CONE\_PEN\_FRIC (kPa)

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SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**SULPHUR**

DATA ENTRY  
FORM

SAMNUM

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ANANUM

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SULPHUR\_ARB %

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SULPHUR\_ADB %

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SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**SVD\_SPL\_INFO**

DATA ENTRY  
FORM

SAMNUM

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WRHTAGNO

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MASS\_STORED (kg)

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ARCHIVE\_DATE (MMDDYY)

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AIRTITE\_CONT ?

☐

REFRIGRD ?

☐

SAMNUM

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WRHTAGNO

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MASS\_STORED (kg)

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ARCHIVE\_DATE (MMDDYY)

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AIRTITE\_CONT ?

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REFRIGRD ?

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SAMNUM

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WRHTAGNO

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MASS\_STORED (kg)

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ARCHIVE\_DATE (MMDDYY)

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AIRTITE\_CONT ?

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REFRIGRD ?

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PAGE \_\_ OF \_\_

SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**SZFRACT\_ANA**DATA ENTRY  
FORM

ANANUM

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SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**TRAV\_SPL**DATA ENTRY  
FORM

TRAVNUM

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CODING DATE (MM-DD-YY): \_\_\_\_\_

**TRIAxIAL**

DATA ENTRY  
FORM

SAMNUM

--	--	--	--	--	--	--

ANANUM

--	--	--	--	--	--	--

DRNUM

--	--	--

SPECNUM

--	--	--

INIT\_WTR\_CON %

--	--	--	--	--

DRY\_DENS (kg/m3)

--	--	--	--	--	--

BULK\_DENS (kg/m3)

--	--	--	--	--

ECP (kPa)

--	--	--	--	--	--

PORE\_PRES (kPa)

--	--	--	--	--

SIGMA1 (kPa)

--	--	--	--	--	--

SIGMA3 (kPa)

--	--	--	--	--

AX\_ST %

--	--	--	--	--

PP\_MAX (kPa)

--	--	--	--	--

SIGMA1\_MAX (kPa)

--	--	--	--	--	--

SIGMA3\_MAX (kPa)

--	--	--	--	--

AXI\_STR %

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CODING DATE (MM-DD-YY): \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**ULTIMATE**

DATA ENTRY  
FORM

SAMNUM

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ANANUM

--	--	--	--	--	--	--

INCLUS\_CODE

--

MOIST\_ADB %

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CARBON %

--	--	--	--	--

HYDROGEN %

--	--	--	--	--

NITROGEN %

--	--	--	--	--

ASH %

--	--	--	--	--

SULPHUR %

--	--	--	--	--

OXY\_BY\_DIFF %

--	--	--	--	--

SAMNUM

--	--	--	--	--	--	--

ANANUM

--	--	--	--	--	--	--

INCLUS\_CODE

--

MOIST\_ADB %

--	--	--	--	--

CARBON %

--	--	--	--	--

HYDROGEN %

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NITROGEN %

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ASH %

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SULPHUR %

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OXY\_BY\_DIFF %

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CODING DATE (MM-DD-YY): \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**AXIAL\_TRACE**

DATA ENTRY  
FORM

AXTNUM

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TREND (DEGREES)

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PLUNGE (DEGREES)

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**CLEAVAGE**

DATA ENTRY  
FORM

SITID

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DIPNUM

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OBOT (m)

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SITID REFERENCE NUMBER : \_\_\_\_\_

CODING DATE (MM-DD-YY): \_\_\_\_-\_\_\_\_-\_\_\_\_

**DIP\_DIP\_DIR**

DATA ENTRY  
FORM

DIPNUM

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DIP (DEGREES)

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DIP\_DIR (AZIMUTH DEGREES)

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SITID	DIPNUM	PCHNUM	SNSNUM	OBOT (m)
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**ALBERTA RESEARCH COUNCIL - Alberta Geological Survey : Coal Database**

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**SITID REFERENCE NUMBER :** \_\_\_\_\_

**CODING DATE (MM-DD-YY):**\_\_-\_\_-\_\_

## JOINT\_SET

DATA ENTRY  
FORM

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