Core Analysis File

Layout Document

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**Alberta Energy Regulator**Core Analysis File: Layout Document

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# Introduction

## Overview

This document describes the physical characteristics and data contents of the Core Analysis File. The Core Analysis File is composed of a complete set of basic non-interpretive data for non-confidential analyses.

Further information regarding regulations on Core Analysis can be found in section 11.030 of the Oil and Gas Conservation Act.

## New Subscribers

To become a subscriber of this product please email your request specifying product name to informationrequest@aer.ca you will be asked to provide a letter of intent at the time of order.

## Problem Resolution

If you encounter problems with this product, please email informationrequest@aer.ca. Please identify the problem as one or more of the following:

* problems relating to the subscription or distribution
* problems relating to data
* other problems

## Available Formats

This product is available as a TXT file.

Product is zipped prior to being uploaded to FTP site.

## Rights

The AER retains the proprietary rights on all data sold.

Subscribers of this product are permitted to use the data file to select and process data for internal or client use and to release to their clients copies of small portions of the file that result from specialized data retrievals. Copying an entire file or a large portion of a file for resale is not permitted.

## Confidentiality

All files and programs are processed to exclude confidential data. Data are made available once they have been released from confidential status.

## Disclaimer

The AER

* makes no representation, warranties, or guarantees, expressed or implied, for the fitness of the data files with respect to intended use;
* accepts no responsibility for any inaccuracies, errors, or omissions in the data files;
* accepts no responsibility for any costs incurred by a company to convert, install, or improve the data files; and
* makes no guarantee to the continuing availability of any data or the consistency of the format of transferred data.

# File Specification

|  |  |
| --- | --- |
| Availability | Monthly |
| Sort Sequence | Ascending Order by LOC-DESC/RECORD TYPE |
| File Key | LOC-DESC  • TOWNSHIP  • MERIDIAN  • RANGE  • SECTION  • LEGAL SUBDIVISION  • LOCATION EXCEPTION  • EVENT SEQUENCE  UPDATE FLAG  RECORD TYPE |

# Record Element Description

Note: Elements may be found within each of the Record Types or specific to one Record Type.

| Element Name | Element Description | |
| --- | --- | --- |
| CPA-ID | The name of the municipality in the province of Alberta. |
| Loc-Exception | Unique identifier for the well assigned by the AER to a licensed wellbore. This follows the format for Unique Well Identifiers in Alberta as defined by Appendix 2 of AER Guide 59. |
| Core Analysis Number | Number assigned by AER to the Core Analysis Report. The number is sequential and unique. |
| Record Code | The three character code that is unique to each system at the AER. |
| Field Code | Unique identifier for the field. |
| Pool Code | Unique identifier for the pool. |
| Oil Sands Deposit Code | Unique identifier for the oil sands deposit. |
| Core Analysis Interval Top | Top of interval striking analyzed for a core analysis / sieve analysis report. |
| Core Analysis Interval Base | Base of interval striking analyzed for a core analysis / sieve analysis report. |
| Core Lab Code | Lab code is an identifier we gave them similar to a BA id. |
| Lab File Number | Identification number assigned to the sample file by the laboratory.  WAN PAS Mnemonic: ~TEST DATA, LFNUM |
| Analysis Date | The Date that well core analysis was performed. |
| Analysis Year | The year that well core analysis was performed. |
| Analysis Month | The month that well core analysis was performed. |
| Analysis Day | The day that well core analysis was performed. |
| Analyst | The name of the analyst who perform the analysis on the well core sample. |
| Core Cut Diameter | Full diameter of the core sample. |
| Core Cut Type Fixed | Describes the type of core cut. |
| Core Cut Fluid Fixed | Fluid code indicating what fluid was present during the cutting operation for the core. |
| Core Handling Fixed | Handling received by the Core between the time it was cut and the time it was analyzed. |
| Gamma Core Fixed | Indicates the type of core gamma correlation that was applied to the core sample. |
| Sample Shape | Shape of the well core sample taken for analysis. |
| Data-Ind-Sample-Diameter | The full diameter measure of the core sample expressed in millimeters (mm). |
| Sample Diameter | The full diameter measure of the core sample expressed in millimeters (mm). |
| Data\_ind-Sample-Length | The length of core recovered over the sample interval expressed as a ratio.  Valid values are 0 to 120. |
| Sample Length | Describes the length of the plug samples taken |
| Solvent Fixed | Describes the solvent used on the core analysis sample. |
| Data-Ind-Extract-Time | The total time of the fluid extraction process performed on the sample. |
| Extract-Time | The total time of the fluid extraction process performed on the sample. |
| Data-Ind-Dry-Time | The amount of time used in drying the core. |
| Dry-Time | The amount of time used in drying the core. |
| KB-Elevation | The elevation of the kelly bushing measured as meters above mean sea level. |
| Extract Method | The method used for fluid extraction from the core. |
| Dry Method | Indicates the method used to dry the core sample. |
| Permeability Analysis Method | The testing methodology used to determine the permeability of the core sample. |
| Porosity Analysis Method | The testing methodology used to determine the porosity of the core sample. |
| Density Analysis Method | The testing methodology used to determine the density of the core sample. |
| Fluid Saturation Analysis Method | The test method used to determine the fluid saturation of the core sample. |
| Core Cut Type Free | Describes the type of core cut. |
| Core Cut Fluid Free | Fluid code indicating what fluid was present during the cutting operation for the core. |
| Core Handling Free | Handling received by the Core between the time it was cut and the time it was analyzed. |
| Gamma Correlation Free | Indicates the type of core gamma correlation that was applied to the core sample. |
| Solvent Free | Describes the solvent used on the core analysis sample. |
| Core Remarks | Comments relating to the well core analysis. |
| Other Services | Describes other advanced analysis or services performed on the sample. i.e. 'screen analysis', 'BPB dipmeter analysis' |
| Core Recovered | Length of core recovered for this interval. |
| Interval Depth | Measured depth to the base of the core analysis interval in metres. |
| Interval Length | Measured length of the cored interval undergoing analysis. |
| Data-Ind-Kmax | Indicates if the maximum horizontal permeability (K) was measured and is available for this core analysis. |
| Kmax | Maximum horizontal permeability measurement. This measurement is generally made parallel to the direction of principle fracture. |
| Data-Ind-K90 | Indicates if the horizontal permeability (K) at 90 degrees to the maximum was measured and is available for this core analysis. |
| K90 | Horizontal 90 degree permeability records the horizontal permeability measured 90 angular degrees from the maximum horizontal permeability. |
| Data-Ind-Kvert | Indicates if the vertical permeability (K) was measured and is available for this core analysis. |
| Kvert | Vertical permeability records the permeability measured with respect to the vertical orientation of the core |
| Data-Ind-Porosity | Indicates if the porosity was measured and is available for this core analysis. |
| Porosity | The value of the porosity for the isopach formation which is derived in one of the following ways:  1) Calculated from the pay weighted average of the resource intervals and their associated total assigned pay,  2) Via actual log measurement at the resource isopach formation level  3) Via actual log measurement at the resource play area formation level.  This value is expressed a fraction. |
| Data-Ind-Grain-Density | Indicates if the grain density was measured and is available for this core analysis. |
| Grain-Density | Measured Grain Density of the core sample. Grain density is the unit volume of minerals with zero porosity. |
| Data-Ind-Bulk-Density | Indicates if the bulk density was measured and is available for this core analysis. |
| Bulk Density | Measured bulk density of the core sample. Bulk density is the combined density of rock and fluids in the pore spaces. |
| Data-Ind-Bulk-Mass-Oil | Indicates if the bulk mass oil was measured and is available for this core analysis. |
| Bulk-Mass-Oil | Bulk mass of the oil for the core sample. |
| Data-Ind-Bulk-Mass-Water | Indicates if the bulk mass water was measured and is available for this core analysis. |
| Bulk-Mass-Water | Bulk mass of the water for the core sample. |
| Data-Ind-Bulk-Mass-Sand | Indicates if the bulk mass sand was measured and is available for this core analysis. |
| Bulk-Mass-Sand | Bulk mass of the sand for the core sample. |
| Data-Ind-Pore-Volume-Oil | Indicates if the pore volume oil was measured and is available for this core analysis. |
| Pore-Volume-Oil | Volume percentage of oil saturation in the pore spaces of the core sample (residual oil saturation). |
| Data-Ind-Pore-Volume-Water | Indicates if the pore volume water was measured and is available for this core analysis. |
| Pore-Volume-Water | Volume percentage of Water Saturation in the pore spaces of the core sample (residual water saturation). |
| Data-Ind-Bulk-Volume-Oil | Indicates if the bulk volume oil was measured and is available for this core analysis. |
| Bulk-Volume-Oil | Percentage of crude oil in a unit volume for the core sample. |
| Data-Ind-Bulk-Volume-Water | Indicates if the bulk volume water was measured and is available for this core analysis. |
| Bulk-Volume-Water | Percentage of water in a unit volume for the core sample. |
| Data-Ind-Grain-Mass-Oil | Indicates if the grain mass oil was measured and is available for this core analysis. |
| Grain-Mass-Oil | The grain mass of oil for the core sample. |
| Data-Ind-Grain-Mass-Water | Indicates if the grain mass water was measured and is available for this core analysis. |
| Grain-Mass-Water | The grain mass of water for the core sample. |
| Lithology | Textual description of the core plugs sample lithology. |
| Scheme Approval-Number | The scheme approval number of the experimental, primary, or commercial crude bitumen scheme that the proposed facility is part of. |
| Lab-File-Number | The laboratory file identification number assigned to the Oil sample.  OAN PAS Mnemonic: ~TEST DATA, LFNUM. |
| Analysis-Date | The date that well core analysis was performed. |
| Analysis-Year | The year that well core analysis was performed. |
| Analysis-Month | The month that well core analysis was performed. |
| Analysis-Day | The day that well core analysis was performed. |
| Report-Comment | Comments relating to the well core analysis. |

# Record Element by record type

## Record Type (100) Core Report

| No. | Element Name | Length | Format |
| --- | --- | --- | --- |
| 1 | KEY-CORE-DATA |  |  |
| CPA-ID |  |  |
| LOC-DESC |  |  |
| TOWNSHIP | 3 | 9(3) |
| TAB-FILLER | 1 | X |
| MERIDIAN | 1 | 9 |
| TAB-FILLER | 1 | X |
| RANGE | 2 | 9(2) |
| TAB-FILLER | 1 | X |
| SECTION | 2 | 9(2) |
| TAB-FILLER | 1 | X |
| LSD | 2 | 9(2) |
| TAB-FILLER | 1 | X |
| LOC-EXCEPTION | 2 | X(2) |
| TAB-FILLER | 1 | X |
| EVENT-SEQUENCE | 1 | 9 |
| TAB-FILLER | 1 | X |
| 2 | UPDATE-FLAG | 1 | X |
| TAB-FILLER | 1 | X |
| 3 | CA-NUMBER | 6 | 9(6) |
| TAB-FILLER | 1 | X |
| 4 | RECORD-CODE | 3 | 9(3) |
| TAB-FILLER | 1 | X |
| 5 | FIELD-CODE | 4 | 9(4) |
| TAB-FILLER | 1 | X |
| 6 | POOL-CODE | 7 | 9(7) |
| TAB-FILLER | 1 | X |
| 7 | OS-AREA-CODE | 4 | 9(4) |
| TAB-FILLER | 1 | X |
| 8 | OS-DEP-CODE | 7 | 9(7) |
| TAB-FILLER | 1 | X |
| 9 | CA-INTERVAL-TOP | 7 | 9(4).9(2) |
| TAB-FILLER | 1 | X |
| 10 | CA-INTERVAL-BASE | 7 | 9(4).9(2) |
| TAB-FILLER | 1 | X |
| 11 | CORE-LAB-CODE | 3 | X(3) |
| TAB-FILLER | 1 | X |
| 12 | LAB-FILE-NUMBER | 15 | X(15) |
| TAB-FILLER | 1 | X |
| ANALYSIS-DATE |  |  |
| 13 | ANALYSIS-YEAR | 4 | 9(4) |
| TAB-FILLER | 1 | X |
| 14 | ANALYSIS-MONTH | 2 | 9(2) |
| TAB-FILLER | 1 | X |
| 15 | ANALYSIS-DAY | 2 | 9(2) |
| TAB-FILLER | 1 | X |
| 16 | ANALYST | 15 | X(15) |
| TAB-FILLER | 1 | X |
| 17 | DATA-IND-CORE-CUT-DIAM | 1 | X |
| TAB-FILLER | 1 | X |
| 18 | CORE-CUT-DIAM | 3 | 9(3) |
| TAB-FILLER | 1 | X |
| 19 | CORE-CUT-TYPE-FIXED | 2 | 9(2) |
| TAB-FILLER | 1 | X |
| 20 | CORE-CUT-FLUID-FIXED | 2 | 9(2) |
| TAB-FILLER | 1 | X |
| 21 | CORE-HANDLING-FIXED | 2 | 9(2) |
| TAB-FILLER | 1 | X |
| 22 | GAMMA-CORR-FIXED | 1 | X |
| TAB-FILLER | 1 | X |
| 23 | SAMPLE-SHAPE | 2 | 9(2) |
| TAB-FILLER | 1 | X |
| 24 | DATA-IND-SAMPLE-DIAMETER | 1 | X |
| TAB-FILLER | 1 | X |
| 25 | SAMPLE-DIAMETER | 3 | 9(3) |
| TAB-FILLER | 1 | X |
| 26 | DATA-IND-SAMPLE-LENGTH | 1 | X |
| TAB-FILLER | 1 | X |
| 27 | SAMPLE-LENGTH | 3 | 9(3) |
| TAB-FILLER | 1 | X |
| 28 | SOLVENT-FIXED | 2 | 9(2) |
| TAB-FILLER | 1 | X |
| 29 | DATA-IND-EXTRACT-TIME | 1 | X |
| TAB-FILLER | 1 | X |
| 30 | EXTRACT-TIME | 3 | 9(3) |
| TAB-FILLER | 1 | X |
| 31 | DATA-IND-DRY-TIME | 1 | X |
| TAB-FILLER | 1 | X |
| 32 | DRY-TIME | 3 | 9(3) |
| TAB-FILLER | 1 | X |
| 33 | DATA-IND-DRY-TEMP | 1 | X |
| TAB-FILLER | 1 | X |
| 34 | DRY-TEMP | 3 | 9(3) |
| TAB-FILLER | 1 | X |
| 35 | KB-ELEVATION | 7 | 9(4).9(2) |
| TAB-FILLER | 1 | X |

|  |  |
| --- | --- |
| File Name: | Core Analysis File |
| Record Type: | (110) Core Methods |
| Record Length: | 0586 |

## Record Type (110) Core Method testing methodology used on the core sample.

| No. | Element Name | Length | Format | Comments |
| --- | --- | --- | --- | --- |
| 1 | KEY-CORE-DATA |  |  |  |
|  | CPA-ID |  |  |  |
|  | LOC-DESC |  |  |  |
|  | TOWNSHIP | 3 | 9(3) |  |
|  | TAB-FILLER | 1 | X |  |
|  | MERIDIAN | 1 | 9 |  |
|  | TAB-FILLER | 1 | X |  |
|  | RANGE | 2 | 9(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | SECTION | 2 | 9(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | LSD | 2 | 9(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | LOC-EXCEPTION | 2 | X(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | EVENT-SEQUENCE | 1 | 9 |  |
|  | TAB-FILLER | 1 | X |  |
| 2 | UPDATE-FLAG | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 3 | CA-NUMBER | 6 | 9(6) |  |
|  | TAB-FILLER | 1 | X |  |
| 4 | RECORD-CODE | 3 | 9(3) |  |
|  | TAB-FILLER | 1 | X |  |
| 5 | EXTRACT-METHOD | 50 | X(50) |  |
|  | TAB-FILLER | 1 | X |  |
| 6 | DRY-METHOD | 50 | X(50) |  |
|  | TAB-FILLER | 1 | X |  |
| 7 | PERMEABILITY ANALYSIS METHOD | 50 | X(50) |  |
|  | TAB-FILLER | 1 | X |  |
| 8 | POROSITY ANALYSIS METHOD | 50 | X(50) |  |
|  | TAB-FILLER | 1 | X |  |
| 9 | DENSITY ANALYSIS METHOD | 50 | X(50) |  |
|  | TAB-FILLER | 1 | X |  |
| 10 | FLUID SATURATION ANALYSIS METHOD | 50 | X(50) |  |
|  | TAB-FILLER | 1 | X |  |
| 11 | CORE-CUT-TYPE-FREE | 30 | X(30) |  |
|  | TAB-FILLER | 1 | X |  |
| 12 | CORE-CUT-FLUID-FREE | 30 | X(30) |  |
|  | TAB-FILLER | 1 | X |  |
| 13 | CORE-HANDLING-FREE | 30 | X(30) |  |
|  | TAB-FILLER | 1 | X |  |
| 14 | GAMMA-CORR-FREE | 20 | X(20) |  |
|  | TAB-FILLER | 1 | X |  |
| 15 | SOLVENT-FREE | 30 | X(30) |  |
|  | TAB-FILLER | 1 | X |  |
| 16 | CORE-REMARKS | 50 | X(50) |  |
|  | TAB-FILLER | 1 | X |  |
| 17 | OTHER-SERVICES | 50 | X(50) |  |
|  | TAB-FILLER | 1 | X |  |

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| --- | --- |
| File Name: | Core Analysis File |
| Record Type: | (120) Core Report |
| Record Length: | 0061 |

## Record Type (120) Core Report

| No. | Element Name | Length | Format | Comments |
| --- | --- | --- | --- | --- |
| 1 | KEY-CORE-DATA |  |  |  |
|  | CPA-ID |  |  |  |
|  | LOC-DESC |  |  |  |
|  | TOWNSHIP | 3 | 9(3) |  |
|  | TAB-FILLER | 1 | X |  |
|  | MERIDIAN | 1 | 9 |  |
|  | TAB-FILLER | 1 | X |  |
|  | RANGE | 2 | 9(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | SECTION | 2 | 9(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | LSD | 2 | 9(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | LOC-EXCEPTION | 2 | X(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | EVENT-SEQUENCE | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 2 | UPDATE-FLAG | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 3 | CA-NUMBER | 6 | 9(6) |  |
|  | TAB-FILLER | 1 | X |  |
| 4 | RECORD-CODE | 3 | 9(3) |  |
|  | TAB-FILLER | 1 | X |  |
| 5 | CA-CORE-NO | 3 | 9(3) |  |
|  | TAB-FILLER | 1 | X |  |
| 6 | CORE-INTERVAL-TOP | 7 | 9(4).9(2) |  |
|  | TAB-FILLER | 1 | X |  |
| 7 | CORE-INTERVAL-BASE | 7 | 9(4).9(2) |  |
|  | TAB-FILLER | 1 | X |  |
| 8 | CORE-RECOVERED | 7 | 9(4).9(2) |  |
|  | TAB-FILLER | 1 | X |  |

|  |  |
| --- | --- |
| File Name: | Core Analysis File |
| Record Type: | (130) Core Analysis Line Data |
| Record Length: | 0228 |

## Record Type (130) Core Analysis Line Data

| No. | Element | Length | Format | Comments |
| --- | --- | --- | --- | --- |
| 1 | KEY-LINE |  |  |  |
|  | CPA-ID |  |  |  |
|  | LOC-DESC |  |  |  |
|  | TOWNSHIP | 3 | 9(3) |  |
|  | TAB-FILLER | 1 | 9 |  |
|  | MERIDIAN | 1 | 9 |  |
|  | TAB-FILLER | 1 | X |  |
|  | RANGE | 2 | 9(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | SECTION | 2 | 9(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | LSD | 2 | 9(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | LOC-EXCEPTION | 2 | X(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | EVENT-SEQUENCE | 1 | 9 |  |
|  | TAB-FILLER | 1 | X |  |
| 2 | UPDATE-FLAG | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 3 | CA-NUMBER | 6 | 9(6) |  |
|  | TAB-FILLER | 1 | X |  |
| 4 | RECORD-CODE | 3 | 9(3) |  |
|  | TAB-FILLER | 1 | X |  |
| 5 | CA-CORE-NO | 3 | 9(3) |  |
|  | TAB-FILLER | 1 | X |  |
| 6 | CA-INTERVAL-TOP | 7 | 9(4).9(2) |  |
|  | TAB-FILLER | 1 | X |  |
| 7 | LINE-CODE | 2 | X(2) |  |
|  | TAB-FILLER | 1 | X |  |
| 8 | INTERVAL-DEPTH | 7 | 9(4).9(2) |  |
|  | TAB-FILLER | 1 | X |  |
| 9 | INTERVAL-LENGTH | 7 | 9(4).9(2) |  |
|  | TAB-FILLER | 1 | X |  |
| 10 | DATA-IND-KMAX | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 11 | KMAX | 9 | 9(5).9(3) |  |
|  | TAB-FILLER | 1 | X |  |
| 12 | DATA-IND-K90 | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 13 | K90 | 9 | 9(5).9(3) |  |
|  | TAB-FILLER | 1 | X |  |
| 14 | DATA-IND-KVERT | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 15 | KVERT | 9 | 9(5).9(3) |  |
|  | TAB-FILLER | 1 | X |  |
| 16 | DATA-IND-POROSITY | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 17 | POROSITY | 4 | .9(3) |  |
|  | TAB-FILLER | 1 | X |  |
| 18 | DATA-IND-GRAIN-DENSITY | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 19 | GRAIN-DENSITY | 4 | 9(4) |  |
|  | TAB-FILLER | 1 | X |  |
| 20 | DATA-IND-BULK-DENSITY | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 21 | BULK-DENSITY | 4 | 9(4) |  |
|  | TAB-FILLER | 1 | X |  |
| 22 | DATA-IND-BULK-MASS-OIL | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 23 | BULK-MASS-OIL | 5 | .9(4) |  |
|  | TAB-FILLER | 1 | X |  |
| 24 | DATA-IND-BULK-MASS-WATER | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 25 | BULK-MASS-WATER | 5 | .9(4) |  |
|  | TAB-FILLER | 1 | X |  |
| 26 | DATA-IND-BULK-MASS-SAND | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 27 | BULK-MASS-SAND | 5 | .9(4) |  |
|  | TAB-FILLER | 1 | X |  |
| 28 | DATA-IND-PORE-VOLUME-OIL | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 29 | PORE-VOLUME-OIL | 6 | 9.9(4) |  |
|  | TAB-FILLER | 1 | X |  |
| 30 | DATA-IND-PORE-VOLUME-WATER | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 31 | PORE-VOLUME-WATER | 6 | 9.9(4) |  |
|  | TAB-FILLER | 1 | X |  |
| 32 | DATA-IND-BULK-VOLUME-OIL | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 33 | BULK-VOLUME-OIL | 5 | .9(4) |  |
|  | TAB-FILLER | 1 | X |  |
| 34 | DATA-IND-BULK-VOLUME-WATER | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 35 | BULK-VOLUME-WATER | 5 | .9(4) |  |
|  | TAB-FILLER | 1 | X |  |
| 36 | DATA-IND-GRAIN-MASS-OIL | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 37 | GRAIN-MASS-OIL | 5 | .9(4) |  |
|  | TAB-FILLER | 1 | X |  |
| 38 | DATA-IND-GRAIN-MASS-WATER | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 40 | GRAIN-MASS-WATER | 5 | .9(4) |  |
|  | TAB-FILLER | 1 | X |  |
| 41 | LITHOLOGY | 32 | X(32) |  |
|  | TAB-FILLER | 1 | X |  |

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| --- | --- |
| File Name: | Core Analysis File |
| Record Type: | (140) Core Sieve Header Data |
| Record Length: | 01109 |

## Record Type (140) Core Sieve Header Data

| No. | Element Name | Length | Format | Comments |
| --- | --- | --- | --- | --- |
| 1 | KEY-SIEVE |  |  |  |
|  | CPA-ID |  |  |  |
|  | LOC-DESC |  |  |  |
|  | TOWNSHIP | 3 | 9(3) |  |
|  | TAB-FILLER | 1 | X |  |
|  | MERIDIAN | 1 | 9 |  |
|  | TAB-FILLER | 1 | X |  |
|  | RANGE | 2 | 9(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | SECTION | 2 | 9(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | LSD | 2 | 9(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | LOC-EXCEPTION | 2 | X(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | EVENT-SEQUENCE | 1 | 9 |  |
|  | TAB-FILLER | 1 | X |  |
| 2 | UPDATE-FLAG | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 3 | SA-NUMBER | 6 | 9(6) |  |
|  | TAB-FILLER | 1 | X |  |
| 4 | RECORD-CODE | 3 | 9(3) |  |
|  | TAB-FILLER | 1 | X |  |
| 5 | CA-INTERVAL-TOP | 7 | 9(4).9(2) |  |
|  | TAB-FILLER | 1 | X |  |
| 6 | CA-INTERVAL-BASE | 7 | 9(4).9(2) |  |
|  | TAB-FILLER | 1 | X |  |
| 7 | OCCURS-COUNT | 3 | 9(3) |  |
|  | TAB-FILLER | 1 | X |  |
| 8 | CORE-SIEVE-HEADER-DATA-GROUP |  |  | OCCURS 12 TIMES |
|  | DATA-IND-SA-SCREEN-SIZE | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
|  | SA-SCREEN-SIZE | 3 | 9(3) |  |
|  | TAB-FILLER | 1 | X |  |
| 9 | CORE-LAB-CODE | 3 | X(3) |  |
|  | TAB-FILLER | 1 | X |  |
| 10 | LAB-FILE-NUMBER | 15 | X(15) |  |
|  | TAB-FILLER | 1 | X |  |
| 11 | ANALYSIS DATE |  |  |  |
|  | ANALYSIS-YEAR | 4 | 9(4) |  |
|  | TAB-FILLER | 1 | X |  |
|  | ANALYSIS-MONTH | 2 | 9(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | ANALYSIS-DAY | 2 | 9(2) |  |
|  | TAB-FILLER | 1 | X |  |
| 12 | REPORT-COMMENT | 50 | X(50) |  |
|  | TAB-FILLER | 1 | X |  |

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| File Name: | Core Analysis File |
| Record Type: | (150) Core Sieve Line Data |
| Record Length: | 0145 |

## Record Type (150) Core Sieve Line Data

| No. | Element Name | Length | Format | Comments |
| --- | --- | --- | --- | --- |
| 1 | KEY-LINE-DATA |  |  |  |
|  | CPA-ID |  |  |  |
|  | LOC-DESC |  |  |  |
|  | TOWNSHIP | 3 | 9(3) |  |
|  | TAB-FILLER | 1 | 9 |  |
|  | MERIDIAN | 1 | 9 |  |
|  | TAB-FILLER | 1 | X |  |
|  | RANGE | 2 | 9(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | SECTION | 2 | 9(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | LSD | 2 | 9(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | LOC-EXCEPTION | 2 | X(2) |  |
|  | TAB-FILLER | 1 | X |  |
|  | EVENT-SEQUENCE | 1 | 9 |  |
|  | TAB-FILLER | 1 | X |  |
| 2 | UPDATE-FLAG | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
| 3 | SA-NUMBER | 6 | 9(6) |  |
|  | TAB-FILLER | 1 | X |  |
| 4 | RECORD-CODE | 3 | 9(3) |  |
|  | TAB-FILLER | 1 | X |  |
| 5 | CA-INTERVAL-TOP | 7 | 9(4).9(2) |  |
|  | TAB-FILLER | 1 | X |  |
| 6 | INTERVAL-DEPTH | 7 | 9(4).9(2) |  |
|  | TAB-FILLER | 1 | X |  |
| 7 | INTERVAL-LENGTH | 7 | 9(4).9(2) |  |
|  | TAB-FILLER | 1 | X |  |
| 8 | OCCURS-COUNT | 3 | 9(3) |  |
|  | TAB-FILLER | 1 | X |  |
| 9 | CORE-SIEVE-LINE-DATA-GROUP |  |  | OCCURS 12 TIMES |
|  | DATA-IND-SA-HELD | 1 | X |  |
|  | TAB-FILLER | 1 | X |  |
|  | SA-HELD | 4 | 9(3) |  |
|  | TAB-FILLER | 1 | X |  |