

**OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT  
SPECIAL INSTRUCTION SHEET**

1. QA: QA  
Page 1 of 1

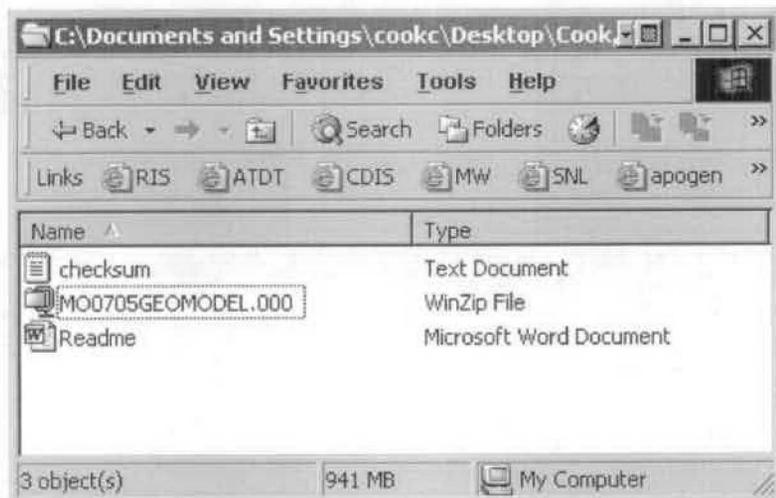
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**THIS IS AN ELECTRONIC DOCUMENT**      *CCC*

Submitter attests to the completeness and accuracy of the data contained on the enclosed CD/DVD.

SOFTWARE USED: 10068-2.11-00 BASELINED; 10251-2.0-00 BASELINED; 10487-1.0-00 BASELINED; 10813-8.1-00 BASELINED



14. RPC Electronic Media Verification

**XREF**      MOL.20070925.0214

SEP 26 2007      *V Church/BSC-OS*

**MD5 Validation**

Readme for DTN MO0705GEOMODEL.000

The title of this DTN is "INPUT FILES AND MODEL OUTPUT RUNS: GEOCHEMISTRY MODEL VALIDATION REPORT: MATERIAL DEGRADATION AND RELEASE MODEL"

Parameters and identification numbers: Corrosion Products (1550), Gadolinium Abundance (6144), Plutonium Abundance (6314), Uranium Abundance (1706), Radionuclides (6641), (1645) Iron Abundance, (5766) Neptunium Abundance

Limitations and assumptions: Described in ANL-EBS-GS-000001 REV 02 (Sections 1, 5, 6.1 and 6.2.

This DTN consists of one zip file. The file should be extracted to the users computer so that the folders are observed. The zip file consists of the following types of files:

**Excel files (extensions = xls).**

**EQ3/6 input files (extension = 3i or 6i).**

ASCII text file: provides input parameters for EQ3/6.

**EQ3/6 output files (extension = 3o or 6o).**

ASCII text file: provides detailed information about the system at each print point, which is specified by the user in the input file.

**EQ3/6 pickup files (extension = 3p or 6p):**

ASCII text file: provides a description of the system at the end of that run to be used as an input file for a continuation run.

**EQ6 Tab-delimited text files (extension = txt).**

\*.elem\_aqu: total aqueous moles of elements.

\*.elem\_min: total moles of elements in minerals.

\*.elem\_tot: total moles of elements (aqueous + mineral + unreacted special reactants).

\*.min\_info: moles of each mineral.

**EQ6 binary output file (extension = bin).**

Binary file: provides detailed information about the system at the full numerical precision for every time step.

**Mathcad 13 file (extension = xmcd).**

**Adobe Acrobat file (extension = pdf)**

Adobe Acrobat version of the Mathcad file in "Temperature" folder

The following table gives the names and description of the folders in the DTN

Folder	Description (Location within ANL-EBS-GS-00001 REV 02 is indicated in parentheses)
Adjusted Eh	Spreadsheet that calculates the Adjusted-Eh inputs (Section 6.3.14)
Augment LogK	Spreadsheets that calculate the Augment LogK sensitivity (Section 6.3.13)
CDSP (N-reactor)	Spreadsheets and the following subfolders: CDSP-Igneous—Contains sub-folders with EQ6 input and output files for the Igneous Scenario. The subfolder names represent conditions used in the EQ6 simulations CDSP-Seismic—Contains sub-folders with EQ6 input and output files for the Seismic Scenario. The subfolder names represent conditions used in the EQ6 simulations EQ3—Contains sub-folders with EQ3 input and output files. The sub-folder names indicate the conditions modeled. Figures—Contains excel files for plots in Appendix E
coll_frac	Colloid calculation (Section 6.7.4)
corrosion rates	Corrosion rate spreadsheet (Section 6.3.6)
CSNF	Spreadsheets and the following subfolders: CSNF-Igneous—Contains sub-folders with EQ6 input and output files for the Igneous Scenario. The subfolder names represent conditions used in the EQ6 simulations CSNF-Seismic—Contains sub-folders with EQ6 input and output files for the Seismic Scenario. The subfolder names represent conditions used in the EQ6 simulations
data0	EQ3/6 database files
drip-thru_vs_single-cell	Alternative Model files (Section 6.6.1). This folder has three sub-folders: CDSP, CSNF and CSNF0. Each folder has a Readme file that explains the files in each folder.
EQ3	Contains sub-folders with EQ3 input and output files. The sub-folder names indicate the conditions modeled.
FFTF	Spreadsheets and the following subfolders: Igneous—Contains sub-folders with EQ6 input and output files for the Igneous Scenario. The subfolder names represent conditions used in the EQ6 simulations Seismic—Contains sub-folders with EQ6 input and output files for the Seismic Scenario. The subfolder names represent conditions used in the EQ6 simulations
glass	HLWG related spreadsheets
Output Extraction	Spreadsheets describing data extraction (Section 6.5.2)
Saturation_study	Saturation Study files (Assumption 5.1, Section 6.3.8, Appendix C)
seepage	Spreadsheets that calculate water flux into the repository drift (Section 4.1.3)
seep-sens	Drift seepage sensitivity (Appendix F). A readme file gives details on this folder
Temperature	Temperature spreadsheets (Section 6.3.9) and mathcad file
TMI	Spreadsheets and the following subfolders: Igneous—Contains sub-folders with EQ6 input and output files for the Igneous Scenario. The subfolder names represent conditions used in the EQ6 simulations Seismic—Contains sub-folders with EQ6 input and output files for the Seismic Scenario. The subfolder names represent conditions used in the EQ6 simulations