

# CNWRA INFORMATION PROCESSING STANDARD SOFTWARE SUMMARY

01. Summary Date			02. Summary prepared by (Name and phone)			03. Summary action														
Yr.	Mo.	Day	David R. Turner, 522-2139			New	Replacement	Deletion												
9	1	08	03. Software title			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>												
04. Software Date			MINTEQA2/PRODEFA2: A geochemical assessment model for environmental systems:V.3.0			Previous Internal Software ID														
Yr.	Mo.	Day																		
9	0	08																		
06. Short title						07. Internal Software ID														
MINTEQA2/PRODEFA2																				
08. Software type		09. Processing Mode		10. APPLICATION AREA																
<input type="checkbox"/> Automated Data System <input checked="" type="checkbox"/> Computer Program <input type="checkbox"/> Subroutine/Module		<input type="checkbox"/> Interactive <input type="checkbox"/> Batch <input checked="" type="checkbox"/> Combination		<table border="1"> <thead> <tr> <th colspan="2">General</th> <th>Specific</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Computer Systems Support/Utility</td> <td><input type="checkbox"/> Management/Business</td> <td rowspan="3">Geochemical Equilibrium Modeling</td> </tr> <tr> <td><input checked="" type="checkbox"/> Scientific/Engineering</td> <td><input type="checkbox"/> Process Control</td> </tr> <tr> <td><input type="checkbox"/> Bibliographic/Textual</td> <td><input type="checkbox"/> Other</td> </tr> </tbody> </table>					General		Specific	<input type="checkbox"/> Computer Systems Support/Utility	<input type="checkbox"/> Management/Business	Geochemical Equilibrium Modeling	<input checked="" type="checkbox"/> Scientific/Engineering	<input type="checkbox"/> Process Control	<input type="checkbox"/> Bibliographic/Textual	<input type="checkbox"/> Other		
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<input type="checkbox"/> Bibliographic/Textual	<input type="checkbox"/> Other																			
11. Submitting organization and address				12. Technical contact(s) and phone																
Center for Nuclear Waste Regulatory Analyses 6220 Culebra Road San Antonio, TX 78228				David R. Turner 512/522-2139																
13. Narrative																				
MINTEQA2 is a geochemical equilibrium speciation model comparing the calculation strategies of MINEQL with the database of WATEQ. Equilibria among dissolved, adsorbed solid, and gas phases are calculated using well-defined thermodynamic principles and/or empirically-derived relationships. An extensive database is currently available, and can be modified to include additional components. Batch input files are constructed and formatted using the pre-processing code PRODEFA2 in an interactive session to define the problem.																				
14. Keywords																				
MINTEQA2, PRODEFA2, geochemical, equilibria, dissolved, adsorbed, solid/gas																				
15. Computer manufacturer and model		16. Computer operating system		17. Programming language(s)		18. Number of source program statements														
U.S. Environmental Protection Agency V3.0		IBM PC		FORTRAN 77																
19. Computer memory requirements		20. Tape drives		21. Disk/Drum units		22. Terminals														
3.6 mbytes storage																				
23. Other operational requirements																				
24. Software availability				25. Documentation availability																
<table border="1"> <tr> <td>Available</td> <td>Limited</td> <td>In-house only</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>				Available	Limited	In-house only	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<table border="1"> <tr> <td>Available</td> <td>Inadequate</td> <td>In-house only</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>					Available	Inadequate	In-house only	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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26. FOR SUBMITTING ORGANIZATION USE																				
Disk in file:8/30/91																				