

INSTRUCTIONS FOR TABLE 2

OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN

<p>PURPOSE OF THE TABLE:</p> <ul style="list-style-type: none"> • To provide information useful for data evaluation of chemicals detected • To provide adequate information so the user/reviewer gets a sense of the chemicals detected at the site and the potential magnitude of the potential problems at the site • To provide chemical screening data and rationale for selection of COPCs. 																										
<p>INFORMATION DOCUMENTED:</p> <ul style="list-style-type: none"> • Statistical information about chemicals detected in each medium • The detection limits of chemicals analyzed • The toxicity screening values for COPC selection • Which chemicals were selected or deleted as COPCs. 																										
<p>TABLE NUMBERING AND SUMMARY BOX INSTRUCTIONS:</p> <ul style="list-style-type: none"> • Complete one copy of Table 2 for each unique combination of the following four fields that will be quantitatively evaluated in the risk assessment (Scenario Timeframe, Medium, Exposure Medium, and Exposure Point). • Enter each combination of these four fields in the Summary Box in the upper left corner of the table. • Number each table uniquely, beginning with 2.1 and ending with 2.n, where “n” represents the total number of combinations of the four key fields. <p><i>For the example table provided, there should be four copies of Table 2, numbered 2.1, 2.2, 2.3, and 2.4.</i></p> <table style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;"><u>Table Number</u></th> <th style="text-align: left; border-bottom: 1px solid black;"><u>Scenario Timeframe</u></th> <th style="text-align: left; border-bottom: 1px solid black;"><u>Medium</u></th> <th style="text-align: left; border-bottom: 1px solid black;"><u>Exposure Medium</u></th> <th style="text-align: left; border-bottom: 1px solid black;"><u>Exposure Point</u></th> </tr> </thead> <tbody> <tr> <td>2.1</td> <td>Current</td> <td>Groundwater</td> <td>Groundwater</td> <td>Aquifer 1 - Tap Water</td> </tr> <tr> <td>2.2</td> <td>Current</td> <td>Groundwater</td> <td>Air</td> <td>Aquifer 1 - Water Vapors at Showerhead</td> </tr> <tr> <td>2.3</td> <td>Current</td> <td>Sediment</td> <td>Animal Tissue</td> <td>Trout from Dean's Creek</td> </tr> <tr> <td>2.4</td> <td>Future</td> <td>Sediment</td> <td>Animal Tissue</td> <td>Trout from Dean's Creek</td> </tr> </tbody> </table>	<u>Table Number</u>	<u>Scenario Timeframe</u>	<u>Medium</u>	<u>Exposure Medium</u>	<u>Exposure Point</u>	2.1	Current	Groundwater	Groundwater	Aquifer 1 - Tap Water	2.2	Current	Groundwater	Air	Aquifer 1 - Water Vapors at Showerhead	2.3	Current	Sediment	Animal Tissue	Trout from Dean's Creek	2.4	Future	Sediment	Animal Tissue	Trout from Dean's Creek	<p><i>It is possible that some Standard Tables may contain the same data associated with different descriptions in the Summary Box in the upper left corner.</i></p> <p><i>In the example Standard Tables, the sediment data in Tables 2.3 and 2.4 will be the same even though the Scenario Timeframes (current and future) are different.</i></p> <p><i>Separate tables are necessary to ensure transparency in data presentation and appropriate information transfer to CERCLIS 3 for each exposure pathway. Replication of information is readily accomplished using spreadsheet software.</i></p>
<u>Table Number</u>	<u>Scenario Timeframe</u>	<u>Medium</u>	<u>Exposure Medium</u>	<u>Exposure Point</u>																						
2.1	Current	Groundwater	Groundwater	Aquifer 1 - Tap Water																						
2.2	Current	Groundwater	Air	Aquifer 1 - Water Vapors at Showerhead																						
2.3	Current	Sediment	Animal Tissue	Trout from Dean's Creek																						
2.4	Future	Sediment	Animal Tissue	Trout from Dean's Creek																						

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HOW TO COMPLETE/INTERPRET THE TABLE	
SUMMARY BOX IN UPPER LEFT CORNER	
Row 1 - Scenario Timeframe	
Definition: <ul style="list-style-type: none"> • The time period (current and/or future) being considered for the exposure pathway. 	
Instructions: <ul style="list-style-type: none"> • Choose from the picklist to the right. 	<i>Current</i> <i>Future</i> <i>Current/Future</i> <i>Not Documented</i>
Row 2 - Medium	
Definition: <ul style="list-style-type: none"> • The environmental substance (e.g., air, water, soil) originally contaminated. 	
Instructions: <ul style="list-style-type: none"> • Choose from the picklist to the right. 	<i>Groundwater</i> <i>Leachate</i> <i>Sediment</i> <i>Sludge</i> <i>Soil</i> <i>Surface Water</i> <i>Debris</i> <i>Liquid Waste</i> <i>Solid Waste</i> <i>Air</i> <i>Surface Soil</i> <i>Subsurface Soil</i> <i>Other</i>
Row 3 - Exposure Medium	
Definition: <ul style="list-style-type: none"> • The contaminated environmental medium to which an individual is exposed. Includes the transfer of contaminants from one medium to another. <p style="margin-left: 20px;"><i>For example:</i></p> <ol style="list-style-type: none"> 1) <i>Contaminants in Groundwater (the Medium) remain in Groundwater (the Exposure Medium) and are available for exposure to receptors.</i> 2) <i>Contaminants in Groundwater (the Medium) may be transferred to Air (the Exposure Medium) and are available for exposure to receptors.</i> 3) <i>Contaminants in Sediment (the Medium) may be transferred to Animal Tissue (the Exposure Medium) and are available for exposure to receptors.</i> 	

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**OCCURRENCE, DISTRIBUTION AND SELECTION OF
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<p>Instructions:</p> <ul style="list-style-type: none"> Choose from the picklist to the right. 	<p><i>Groundwater Leachate Sediment Sludge Soil Surface Water Debris Liquid Waste Solid Waste Air Plant Tissue Animal Tissue Spring Water Surface Soil Subsurface Soil Particulates Vapors Other</i></p>
<p>Row 4 - Exposure Point</p>	
<p>Definition:</p> <ul style="list-style-type: none"> An exact location of potential contact between a person and a chemical within an exposure medium. <p><i>For example:</i></p> <ol style="list-style-type: none"> <i>Contaminants are in Groundwater (the Medium and the Exposure Medium) and exposure to Aquifer 1 - Tap Water (the Exposure Point) is evaluated.</i> <i>Contaminants in Groundwater (the Medium) may be transferred to Air (the Exposure Medium) and exposure to Aquifer 1 - Water Vapors at Showerhead (the Exposure Point) is evaluated.</i> <i>Contaminants in Sediment (the Medium) may be transferred to Animal Tissue (the Exposure Medium) and Trout from Dean's Creek (the Exposure Point) is evaluated.</i> 	
<p>Instructions:</p> <ul style="list-style-type: none"> Provide the information as text in the Table (not to exceed 80 characters). 	
<p>BODY OF THE TABLE</p>	
<p>Column 1 - CAS Number</p>	
<p>Definition:</p> <ul style="list-style-type: none"> The Chemical Abstract Registry Number, a unique standardized number which is assigned to chemicals. 	

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OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN (continued)

<p>Instructions:</p> <ul style="list-style-type: none"> • Provide the CAS Number for each chemical detected in the samples for the medium. 	<p><i>Include dashes in the CAS number. CAS numbers can be arranged in the order that the risk assessor prefers.</i></p>
Column 2 - Chemical	
<p>Definition:</p> <ul style="list-style-type: none"> • The name of the compound detected in samples for the medium. 	
<p>Instructions:</p> <ul style="list-style-type: none"> • Provide the names of the chemicals which were detected in the sample for the medium. 	<p><i>Chemicals can be grouped in the order that the risk assessor prefers.</i></p>
Column 3 - Minimum Concentration	
<p>Definition:</p> <ul style="list-style-type: none"> • The lowest detected concentration of the chemical in the medium. 	
<p>Instructions:</p> <ul style="list-style-type: none"> • Enter the minimum detected concentration for the medium. • Footnote the heading and provide an explanation of the method used to determine the minimum concentration. 	
Column 4 - Minimum Qualifier	
<p>Definition:</p> <ul style="list-style-type: none"> • The alpha-numeric code assigned to the concentration value by the analytical chemist during data validation for the minimum concentration value. 	
<p>Instructions:</p> <ul style="list-style-type: none"> • Enter the qualifier associated with the minimum concentration for each chemical. 	<p><i>Provide the definition of each qualifier in the table footnotes or in separate documentation.</i></p>

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Column 5 - Maximum Concentration	
<p>Definition:</p> <ul style="list-style-type: none"> The highest detected concentration of the chemical in the medium. 	
<p>Instructions:</p> <ul style="list-style-type: none"> Enter the maximum detected concentration for the medium. Footnote the heading and provide an explanation of the method used to determine the maximum concentration. 	
Column 6 - Maximum Qualifier	
<p>Definition:</p> <ul style="list-style-type: none"> The alpha-numeric code assigned to the concentration value by the analytical chemist during data validation for the maximum concentration value. 	
<p>Instructions:</p> <ul style="list-style-type: none"> Enter the qualifier associated with the maximum concentration for each chemical. 	<i>Provide the definition of each qualifier in the table footnotes or in separate documentation.</i>
Column 7 - Units	
<p>Definition:</p> <ul style="list-style-type: none"> The concentration units for each chemical detected. 	
<p>Instructions:</p> <ul style="list-style-type: none"> Enter the units for each chemical. Units may vary among matrices/media. 	<p><i>Refer to Regional guidance to determine if there is a preference regarding the units used for different matrices (e.g., mg/kg for soil, ug/L for groundwater).</i></p> <p><i>Refer to Glossary for Units picklist</i></p>
Column 8 - Location of Maximum Concentration	
<p>Definition:</p> <ul style="list-style-type: none"> The sample number which identifies the location where the sample was taken. 	

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**OCCURRENCE, DISTRIBUTION AND SELECTION OF
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<p>Instructions:</p> <ul style="list-style-type: none"> Enter the sample identifier which corresponds to the location where the sample was taken. 	
Column 9 - Detection Frequency	
<p>Definition:</p> <ul style="list-style-type: none"> The number of times the chemical was detected versus the number of times it was analyzed, expressed as the “fraction” X/Y. 	<p><i>Refer to Regional guidance for an explanation of how detection frequency should be interpreted and applied.</i></p>
<p>Instructions:</p> <ul style="list-style-type: none"> Indicate the number of times a chemical was detected versus the number of times it was analyzed as the “fraction” X/Y. 	<p><i>For example, 5/9 indicates that a chemical was detected in 5 out of 9 samples.</i></p>
Column 10 - Range of Detection Limits	
<p>Definition:</p> <ul style="list-style-type: none"> The lowest and highest detection limits. 	
<p>Instructions:</p> <ul style="list-style-type: none"> Enter the lowest and highest detection limit for the chemical in the medium. 	
Column 11 - Concentration Used for Screening	
<p>Definition:</p> <ul style="list-style-type: none"> The detected concentration which was used to compare to the screening value. 	<p><i>Refer to Regional guidance in determining this value. For example, maximum or average.</i></p>
<p>Instructions:</p> <ul style="list-style-type: none"> Enter a concentration for each chemical being evaluated for the medium. Footnote the heading and provide a reference/explanation of the concentration value. 	

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Column 12 - Background Value	
<p>Definition:</p> <ul style="list-style-type: none"> The background value for the chemical in that medium as defined by Regional guidance. <p><i>If Regional guidance requires a "t-test" or other test which requires backup information, this supporting information should be provided separately.</i></p>	<p><i>Refer to Regional guidance for how background values are determined and whether and how background values are considered for COPC screening.</i></p>
<p>Instructions:</p> <ul style="list-style-type: none"> Enter the numerical value in the column, consistent with Regional guidance. Footnote the heading and provide a reference/explanation for the derivation of the background value. 	<p><i>For example, literature value, data from a nearby site, statistical tool.</i></p>
Column 13- Screening Toxicity Value	
<p>Definition:</p> <ul style="list-style-type: none"> The screening level used to compare detected concentrations of chemicals. 	<p><i>Refer to Regional guidance for the source of the screening value and for guidance on comparing the screening value to detected concentrations.</i></p>
<p>Instructions:</p> <ul style="list-style-type: none"> Enter the screening toxicity value, in accordance with Regional guidance. If no toxicity value is available for the chemical, enter "N/A." Also indicate, with an "N" or "C" whether the value is based on non-cancer or cancer effects, respectively. Footnote the heading and provide a reference/explanation for the source of the screening values used. 	<p><i>N (non-cancer) C (cancer)</i></p>
Column 14 - Potential ARAR/TBC Value	
<p>Definition:</p> <ul style="list-style-type: none"> Applicable or relevant and appropriate requirements (ARAR) and to be considered (TBC) values. 	<p><i>Refer to Regional guidance regarding the requirements for this column. For example, MCL values, soil cleanup level values, or other values to be considered.</i></p>

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<p>Instructions:</p> <ul style="list-style-type: none"> • Enter appropriate values, consistent with Regional guidance. • If no value is available or appropriate, enter "N/A". 	
Column 15 - Potential ARAR/TBC Source	
<p>Definition:</p> <ul style="list-style-type: none"> • The type or source of the ARAR/TBC value entered into Column 14. 	<i>For example, MCL or SMCL.</i>
<p>Instructions:</p> <ul style="list-style-type: none"> • Enter the type or source of ARAR/TBC value which corresponds to the value in Column 14. 	
Column 16 - COPC Flag	
<p>Definition:</p> <ul style="list-style-type: none"> • A code which identifies whether the chemical has been selected as a COPC, based on Regional screening guidance. 	
<p>Instructions:</p> <ul style="list-style-type: none"> • Enter “Yes” or “No” to indicate whether the chemical has been retained as a COPC. 	<i>Yes No</i>
Column 17 - Rationale for Contaminant Deletion or Selection	
<p>Definition:</p> <ul style="list-style-type: none"> • The reason that the chemical was selected or not selected for quantitative or qualitative analysis. 	<i>Follow Regional guidance for the rationale codes.</i>
<p>Instructions:</p> <ul style="list-style-type: none"> • Enter the rationale codes in accordance with Regional guidance for selection/deletion of chemicals of potential concern. • Footnote the heading and define the rationale codes in the footnotes. 	<i>The example data table provides rationale codes for example purposes only. Regional guidance may suggest additional/different codes.</i>