

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
GROUNDWATER BRANCH**

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**ARBCA FOR USTs
TIER 2 REPORT FORMS
(Revision 1.0, November 2001)**

(These are in addition to ARBCA Report Forms 1-23)

SITE NAME:	
UST INCIDENT NO.:	
FACILITY ID:	
DATE FORM COMPLETED:	
FORM COMPLETED BY:	

ARBCA REPORT FORMS

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Additional attachments used in this ARBCA analysis. Additional attachments, besides those listed in Tier 1 Table of Contents are to be listed here.

UST Incident No(s):

Facility ID:

Date Form Completed:

Form Completed By:

TIER 2 FATE AND TRANSPORT PARAMETERS

Parameter	Symbol	Unit	Tier 1 Default Value	Tier 2 Value	Source
SOIL PARAMETERS:					
Length of Soil Source Area Parallel to Wind Direction	W_a	cm	1500		
Depth to Subsurface Soil Sources	L_s	cm	30.48		
Lower Depth of Surficial Soil Zone	d	cm	30.48		
Thickness of Capillary Fringe	h_{cap}	cm	5		
Thickness of Vadose Zone	h_v	cm	295		
Dry Soil Bulk Density in the Vadose Zone	ρ_s	g/cm^3	1.8		
Fractional Organic Carbon Content in the Vadose Zone	foc	$g-C/g-soil$	0.01		
Total Soil Porosity in the Vadose Zone	θ_T	cm^3/cm^3-soil	0.3		
Volumetric Water Content in Vadose Zone	θ_{ws}	cm^3/cm^3	0.1		
Volumetric Air Content in Vadose Zone	θ_{as}	cm^3/cm^3	0.2		
Volumetric Water Content in Capillary Fringe	θ_{wcap}	cm^3/cm^3	0.27		
Volumetric Air Content in Capillary Fringe	θ_{acap}	cm^3/cm^3	0.03		
Volumetric Water Content in Foundation or Wall Cracks	θ_{wcrack}	cm^3/cm^3	0.1		
Volumetric Air Content in Foundation/Wall Cracks	θ_{acrack}	cm^3/cm^3	0.2		
GROUNDWATER PARAMETERS:					
Depth to Groundwater	L_{gw}	cm	300		
Width of GW Source Area Perpendicular to GW Flow Direction	Y	cm	1500		
Length of GW Source Area Parallel to GW Flow Direction	W	cm	1500		
Total Soil Porosity in the Saturated Zone	θ_{TS}	cm^3/cm^3-soil	0.3		
Dry Soil Bulk Density in the Saturated Zone	ρ_{ss}	g/cm^3	1.8		
Fractional Organic Carbon Content in the Saturated Zone	foc_s	$g-C/g-soil$	0.01		
Groundwater Mixing Zone Thickness	δ_{gw}	cm	200		
Hydraulic Conductivity in the Saturated Zone	K	cm/year	31536		
Hydraulic Gradient in the Saturated Zone	i	--	0.005		
Groundwater Darcy Velocity	U_{gw}	cm/year	157.68		Calculated
Infiltration Rate	I	cm/year	14.8		
STREAM PARAMETERS:					
Stream Flow Rate (Calculated per Appendix C)	Q_{sw}	ft^3/day	Site-specific		
AMBIENT AIR PARAMETERS:					
Breathing Zone Height	δ_a	cm	200		
Wind Speed within the Breathing Zone	U_a	cm/s	225		

UST Incident No(s):

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Form Completed By:

TIER 2 FATE AND TRANSPORT PARAMETERS

Parameter	Symbol	Unit	Tier 1 Default Value	Tier 2 Value	Source
ENCLOSED SPACE PARAMETERS:					
Enclosed Space Air Exchange Rate:					
Residential	ER	1/sec	0.00014		
Commercial/Construction Worker	ER	1/sec	0.00023		
Enclosed Space Volume/Infiltration Area Ratio:					
Residential	L_B	cm	200		
Commercial/Construction Worker	L_B	cm	300		
Enclosed Space Foundation or Wall Thickness:					
Residential	L_{crack}	cm	15		
Commercial/Construction Worker	L_{crack}	cm	15		
Areal Fraction of Cracks in Foundation/Walls:					
Residential	η	cm ² /cm ²	0.01		
Commercial/Construction Worker	η	cm ² /cm ²	0.01		
PARTICULATE EMISSION RATE:					
Residential and Commercial	Pe	g/cm ² -sec	6.90E-14		
Construction Worker	Pe	g/cm ² -sec	6.90E-09		
AVERAGING TIME FOR VAPOR FLUX:					
Resident Child	τ	sec	1.89E+08		
Resident Adult	τ	sec	9.46E+08		
Commercial Worker	τ	sec	7.88E+08		
Construction Worker	τ	sec	3.15E+07		
GROUNDWATER RESOURCE PROTECTION PARAMETERS:					
Distance from the Downgradient Edge of the Groundwater Source to the Point of Exposure	Xpoe	ft	variable		
Distance from the Downgradient Edge of the Groundwater Source to the Point of Compliance	Xpoc	ft	variable		
STREAM PROTECTION PARAMETERS:					
Distance from the Downgradient Edge of the Groundwater Source to the Stream	Xs	ft	variable		
Distance from the Downgradient Edge of the Groundwater Source to the Point of Compliance	Xspoc	ft	variable		

UST Incident No(s):

Facility ID:

Date Form Completed:

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JUSTIFICATION FOR TIER 2 FATE AND TRANSPORT PARAMETERS

1.	Length of soil source area parallel to wind direction (W_s) [cm]
2.	Depth to subsurface soil sources (L_s) [cm]
3.	Lower depth of surficial soil zone (d) [cm]
4.	Thickness of capillary fringe (h_{cap}) [cm]
5.	Thickness of vadose zone (h_v) [cm]
6.	Dry soil bulk density in the vadose zone (ρ_s) [g/cm ³]
7.	Fractional organic carbon content in the vadose zone (foc) [g-C/g-soil]

UST Incident No(s):

Facility ID:

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Form Completed By:

JUSTIFICATION FOR TIER 2 FATE AND TRANSPORT PARAMETERS

8.	Total soil porosity in the vadose zone (θ_T) [cm^3/cm^3 -soil]
9.	Volumetric water content in the vadose zone (θ_{ws}) [cm^3/cm^3]
10.	Volumetric air content in the vadose zone (θ_{as}) [cm^3/cm^3]
11.	Volumetric water content in the capillary fringe (θ_{wcap}) [cm^3/cm^3]
12.	Volumetric air content in the capillary fringe (θ_{acap}) [cm^3/cm^3]
13.	Volumetric water content in foundation or wall cracks (θ_{wcrack}) [cm^3/cm^3]
14.	Volumetric air content in foundation or wall cracks (θ_{acrack}) [cm^3/cm^3]

UST Incident No(s):

Facility ID:

Date Form Completed:

Form Completed By:

JUSTIFICATION FOR TIER 2 FATE AND TRANSPORT PARAMETERS

15.	Depth to groundwater (L_{gw}) [cm]
16.	Width of GW source area perpendicular to GW flow direction (Y) [cm]
17.	Length of GW source area parallel to GW flow direction (W) [cm]
18.	Total soil porosity in the saturated zone (θ_{TS}) [$\text{cm}^3/\text{cm}^3\text{-soil}$]
19.	Dry soil bulk density in the saturated zone (ρ_{ss}) [g/cm^3]
20.	Fractional organic carbon content in the saturated zone (f_{oc}) [g-C/g-soil]
21.	Groundwater mixing zone thickness (δ_{gw}) [cm]

UST Incident No(s):

Facility ID:

Date Form Completed:

Form Completed By:

JUSTIFICATION FOR TIER 2 FATE AND TRANSPORT PARAMETERS

22.	Hydraulic conductivity in the saturated zone (K) [cm/year]
23.	Hydraulic gradient in the saturated zone (i) [--]
24.	Groundwater Darcy Velocity (U_{gw}) [cm/year]
25.	Infiltration rate (I) [cm/year]
26.	Stream flow rate (Q_{sw}) [ft ³ /day]. <i>If calculated using Bingham (1982, Appendix C), show calculations and justify input values used.</i>
27.	Breathing zone height (δ_a) [cm]
28.	Wind speed within the breathing zone (U_a) [cm/s]

UST Incident No(s):	Facility ID:
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JUSTIFICATION FOR TIER 2 FATE AND TRANSPORT PARAMETERS

29.	Enclosed space air exchange rate: residential (ER) [1/sec]
30.	Enclosed space air exchange rate: commercial/construction worker (ER) [1/sec]
31.	Enclosed space volume-infiltration area ratio: residential (L_B) [cm]
32.	Enclosed space volume-infiltration area ratio: commercial/construction worker (L_B) [cm]
33.	Enclosed space foundation or wall thickness: residential (L_{crack}) [cm]
34.	Enclosed space foundation or wall thickness: commercial/construction worker (L_{crack}) [cm]
35.	Areal fraction of cracks in foundation/walls: residential (η) [cm ² /cm ²]

UST Incident No(s):	Facility ID:
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Date Form Completed:	Form Completed By:
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JUSTIFICATION FOR TIER 2 FATE AND TRANSPORT PARAMETERS

36.	Areal fraction of cracks in foundation/walls: commercial/construction worker (η) [cm^2/cm^2]
37.	Particulate emission rate: residential and commercial (P_e) [$\text{g}/\text{cm}^2\text{-sec}$]
38.	Particulate emission rate: construction worker (P_e) [$\text{g}/\text{cm}^2\text{-sec}$]
39.	Averaging time for vapor flux: resident child (τ) [sec]
40.	Averaging time for vapor flux: resident adult (τ) [sec]
41.	Averaging time for vapor flux: commercial worker (τ) [sec]
42.	Averaging time for vapor flux: construction worker (τ) [sec]

UST Incident No(s):	Facility ID:
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JUSTIFICATION FOR TIER 2 FATE AND TRANSPORT PARAMETERS

43.	Distance from the downgradient edge of the groundwater source to the point of exposure (Xpoe) [ft]
44.	Distance from the downgradient edge of the groundwater source to the point of compliance for protection of POC (Xpoc) [ft]
45.	Distance from the downgradient edge of the groundwater source to the stream (Xs) [ft]
46.	Distance from the downgradient edge of the groundwater source to the point of compliance for stream protection (Xspoc) [ft]
47.	
48.	
49.	

ARBCA SUMMARY REPORT

FORM NO. 26 - ON-SITE RESIDENT CHILD

UST Incident No(s):

Facility ID:

Date Form Completed:

Form Completed By:

COMPARISON OF TIER 2 SSTLS WITH REPRESENTATIVE ON-SITE CONCENTRATIONS

CHEMICALS OF CONCERN	SURFICIAL SOIL			SUBSURFACE SOIL			GROUNDWATER			
	Outdoor Inhalation, Ingestion, & Dermal Contact	Indoor Inhalation	Outdoor Inhalation	Indoor Inhalation	Outdoor Inhalation	Indoor Inhalation	Outdoor Inhalation	Indoor Inhalation	Ingestion of Water	
Select the representative concentration (Rep. Conc.) for each medium.	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg]	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg]	<input type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input checked="" type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg]	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L]	<input type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input checked="" type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L]	<input type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input checked="" type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L]	<input type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input checked="" type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L]	<input type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input checked="" type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L]	Use the historic maximum concentration from the water use well as the Rep. Conc. Rep. Conc. [mg/L]	Target Levels [mg/L] E/ NE
ORGANICS										
Benzene										
Toluene										
Ethylbenzene										
Xylenes (Total)										
MTBE										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(g,h,i)perylene										
Benzo(k)fluoranthene										
Chrysene										
Fluoranthene										
Fluorene										
Naphthalene										
Phenanthrene										
Pyrene										
METALS										
Arsenic										
Barium										
Cadmium										
Chromium VI										
Lead										
Zinc										

NOTE: The Rep. Conc. and the target levels are user-inputs. Use the ARBCA Computational Software for calculating the Tier 2 SSTLS.

E: Representative concentration exceeds Tier 2 SSTLS

C: Complete Pathway

NA: Not available

NE: Representative concentration does not exceed Tier 2 SSTLS

NC: Not a Complete Pathway

UST Incident No(s): _____ Facility ID: _____

Date Form Completed: _____ Form Completed By: _____

COMPARISON OF TIER 2 SSTLS WITH REPRESENTATIVE ON-SITE CONCENTRATIONS

CHEMICALS OF CONCERN	SURFICIAL SOIL			SUBSURFACE SOIL			GROUNDWATER												
	Outdoor Inhalation, Ingestion, & Dermal Contact	Indoor Inhalation	Outdoor Inhalation	Indoor Inhalation	Outdoor Inhalation	Indoor Inhalation	Outdoor Inhalation	Ingestion of Water											
	<input type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input checked="" type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg]	<input type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input checked="" type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg]	<input type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input checked="" type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg]	<input type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input checked="" type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L]	<input type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input checked="" type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L]	<input type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input checked="" type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L]	Use the historic maximum concentration from the water use well as the Rep. Conc.	Target Levels [mg/L]	E/NE										
ORGANICS																			
Benzene																			
Toluene																			
Ethylbenzene																			
Xylenes (Total)																			
MTBE																			
Anthracene																			
Benzo(a)anthracene																			
Benzo(a)pyrene																			
Benzo(b)fluoranthene																			
Benzo(g,h,i)perylene																			
Benzo(k)fluoranthene																			
Chrysene																			
Fluoranthene																			
Fluorene																			
Naphthalene																			
Phenanthrene																			
Pyrene																			
METALS																			
Arsenic																			
Barium																			
Cadmium																			
Chromium VI																			
Lead																			
Zinc																			

NOTE: The Rep. Conc. and the target levels are user-inputs. Use the ARBCA Computational Software for calculating the Tier 2 SSTLS.
 E: Representative concentration exceeds Tier 2 SSTLS
 NE: Representative concentration does not exceed Tier 2 SSTLS
 C: Complete Pathway
 NC: Not a Complete Pathway
 NA: Not available

ARBCA SUMMARY REPORT

FORM NO. 26 - ON-SITE COMMERCIAL WORKER

UST Incident No(s):

Facility ID:

Date Form Completed:

Form Completed By:

COMPARISON OF TIER 2 SSTLS WITH REPRESENTATIVE ON-SITE CONCENTRATIONS

CHEMICALS OF CONCERN	SURFICIAL SOIL			SUBSURFACE SOIL			GROUNDWATER						
	Outdoor Inhalation, Ingestion, & Dermal Contact			Indoor Inhalation			Outdoor Inhalation			Ingestion of Water			
	Maximum	Arithmetic Average	Area-Weighted Average	Maximum	Arithmetic Average	Area-Weighted Average	Maximum	Arithmetic Average	Area-Weighted Average	Rep. Conc.	Target Levels	Use the historic maximum concentration from the water use well as the Rep. Conc.	
Select the representative concentration (Rep. Conc.) for each medium.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Rep. Conc. [mg/kg]	Target Levels [mg/kg]	E/NE	Rep. Conc. [mg/kg]	Target Levels [mg/kg]	E/NE	Rep. Conc. [mg/kg]	Target Levels [mg/kg]	E/NE	Rep. Conc. [mg/L]	Target Levels [mg/L]	Rep. Conc. [mg/L]	Target Levels [mg/L]
ORGANICS													
Benzene													
Toluene													
Ethylbenzene													
Xylenes (Total)													
MTBE													
Anthracene													
Benzo(a)anthracene													
Benzo(a)pyrene													
Benzo(b)fluoranthene													
Benzo(g,h,i)perylene													
Benzo(k)fluoranthene													
Chrysene													
Fluoranthene													
Fluorene													
Naphthalene													
Phenanthrene													
Pyrene													
METALS													
Arsenic													
Barium													
Cadmium													
Chromium VI													
Lead													
Zinc													

NOTE: The Rep. Conc. and the target levels are user-inputs. Use the ARBCA Computational Software for calculating the Tier 2 SSTLS.
 E: Representative concentration exceeds Tier 2 SSTLS
 NE: Representative concentration does not exceed Tier 2 SSTLS

NA: Not available

C: Complete Pathway

NC: Not a Complete Pathway

ARBCA SUMMARY REPORT

FORM NO. 26 - ON-SITE CONSTRUCTION WORKER

UST Incident No(s):

Facility ID:

Date Form Completed:

Form Completed By:

COMPARISON OF TIER 2 SSTLS WITH REPRESENTATIVE ON-SITE CONCENTRATIONS

CHEMICALS OF CONCERN	SURFICIAL SOIL			SUBSURFACE SOIL			GROUNDWATER		
	Outdoor Inhalation, Ingestion, & Dermal Contact	Indoor Inhalation	Outdoor Inhalation	Indoor Inhalation	Indoor Inhalation	Outdoor Inhalation	Indoor Inhalation	Outdoor Inhalation	
	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. * Target Levels [mg/kg]	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. Target Levels [mg/kg]	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. Target Levels [mg/kg]	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. Target Levels [mg/L]	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. Target Levels [mg/L]	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. Target Levels [mg/L]	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. Target Levels [mg/L]	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. Target Levels [mg/L]	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. Target Levels [mg/L]
ORGANICS									
Benzene									
Toluene									
Ethylbenzene									
Xylenes (Total)									
MTBE									
Anthracene									
Benzo(a)anthracene									
Benzo(a)pyrene									
Benzo(b)fluoranthene									
Benzo(g,h,i)perylene									
Benzo(k)fluoranthene									
Chrysene									
Fluoranthene									
Fluorene									
Naphthalene									
Phenanthrene									
Pyrene									
METALS									
Arsenic									
Barium									
Cadmium									
Chromium VI									
Lead									
Zinc									

NOTE: The Rep. Conc. and the target levels are user-inputs. Use the ARBCA Computational Software for calculating the Tier 2 SSTLS.
 E: Representative concentration exceeds Tier 2 SSTLS
 NE: Representative concentration does not exceed Tier 2 SSTLS

* The higher of the representative concentrations for surficial and subsurface soil should be entered in the representative concentration column. The target level is the target level for surficial soil.

UST Incident No(s): Facility ID:

Date Form Completed: Form Completed By:

COMPARISON OF TIER 2 SSTLS WITH REPRESENTATIVE OFF-SITE CONCENTRATIONS

CHEMICALS OF CONCERN	SURFICIAL SOIL			SUBSURFACE SOIL			GROUNDWATER		
	Outdoor Inhalation, Ingestion, & Dermal Contact	Indoor Inhalation	Outdoor Inhalation	Indoor Inhalation	Outdoor Inhalation	Indoor Inhalation	Outdoor Inhalation	Indoingestion of Water	
	<input type="checkbox"/> Maximum <input checked="" type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg]	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg]	<input type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg]	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L]	<input type="checkbox"/> Maximum <input checked="" type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L]	<input type="checkbox"/> Maximum <input checked="" type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L]	<input type="checkbox"/> Maximum <input checked="" type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L]	Use the historic maximum concentration from the water use well as the Rep. Conc.	Target Levels [mg/kg] E/ NE
Select the representative concentration (Rep. Conc.) for each medium.									
ORGANICS									
Benzene									
Toluene									
Ethylbenzene									
Xylenes (Total)									
MTBE									
Anthracene									
Benzo(a)anthracene									
Benzo(a)pyrene									
Benzo(b)fluoranthene									
Benzo(g,h,i)perylene									
Benzo(k)fluoranthene									
Chrysene									
Fluoranthene									
Fluorene									
Naphthalene									
Phenanthrene									
Pyrene									
METALS									
Arsenic									
Barium									
Cadmium									
Chromium VI									
Lead									
Zinc									

NOTE: The Rep. Conc. and the target levels are user-inputs. Use the ARBCA Computational Software for calculating the Tier 2 SSTLS.
 E: Representative concentration exceeds Tier 2 SSTLS
 NE: Representative concentration does not exceed Tier 2 SSTLS
 C: Complete Pathway
 NC: Not a Complete Pathway
 NA: Not available

ARBCA SUMMARY REPORT

FORM NO. 26 - OFF-SITE RESIDENT ADULT

UST Incident No(s):

Facility ID:

Date Form Completed:

Form Completed By:

COMPARISON OF TIER 2 SSTLS WITH REPRESENTATIVE OFF-SITE CONCENTRATIONS

CHEMICALS OF CONCERN	SURFICIAL SOIL			SUBSURFACE SOIL			GROUNDWATER		
	Outdoor Inhalation, Ingestion, & Dermal Contact	Indoor Inhalation	Outdoor Inhalation	Indoor Inhalation	Outdoor Inhalation	Indoor Inhalation	Outdoor Inhalation	Indgestion of Water	
	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg] E/NE	<input type="checkbox"/> Maximum <input checked="" type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg] E/NE	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg] E/NE	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L] E/NE	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L] E/NE	<input type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L] E/NE	<input type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L] E/NE	Use the historic maximum concentration from the water use well as the Rep. Conc. Rep. Conc. [mg/L] E/NE	
Select the representative concentration (Rep. Conc.) for each medium.									
ORGANICS									
Benzene									
Toluene									
Ethylbenzene									
Xylenes (Total)									
MTBE									
Anthracene									
Benzo(a)anthracene									
Benzo(a)pyrene									
Benzo(b)fluoranthene									
Benzo(g,h,i)perylene									
Benzo(k)fluoranthene									
Chrysene									
Fluoranthene									
Fluorene									
Naphthalene									
Phenanthrene									
Pyrene									
METALS									
Arsenic									
Barium									
Cadmium									
Chromium VI									
Lead									
Zinc									

NOTE: The Rep. Conc. and the target levels are user-inputs. Use the ARBCA Computational Software for calculating the Tier 2 SSTLS.

E: Representative concentration exceeds Tier 2 SSTLS

NE: Representative concentration does not exceed Tier 2 SSTLS

C: Complete Pathway

NC: Not a Complete Pathway

NA: Not available

ARBCA SUMMARY REPORT

FORM NO. 26 - OFF-SITE COMMERCIAL WORKER

UST Incident No(s):

Facility ID:

Date Form Completed:

Form Completed By:

COMPARISON OF TIER 2 SSTLS WITH REPRESENTATIVE OFF-SITE CONCENTRATIONS

CHEMICALS OF CONCERN	SURFICIAL SOIL			SUBSURFACE SOIL			GROUNDWATER			
	Outdoor Inhalation, Ingestion, & Dermal Contact	Indoor Inhalation	Outdoor Inhalation	Indoor Inhalation	Outdoor Inhalation	Indoor Inhalation	Outdoor Inhalation	Indoingestion of Water		
	<input type="checkbox"/> Maximum <input checked="" type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg]	<input type="checkbox"/> Maximum <input checked="" type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg]	<input type="checkbox"/> Maximum <input checked="" type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg]	<input type="checkbox"/> Maximum <input checked="" type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L]	<input type="checkbox"/> Maximum <input checked="" type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L]	<input type="checkbox"/> Maximum <input checked="" type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L]	<input type="checkbox"/> Maximum <input checked="" type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L]	Use the historic maximum concentration from the water use well as the Rep. Conc. Rep. Conc. [mg/L]	Target Levels [mg/kg] E/ NE	Target Levels [mg/L] E/ NE
ORGANICS										
Benzene										
Toluene										
Ethylbenzene										
Xylenes (Total)										
MTBE										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(g,h,i)perylene										
Benzo(k)fluoranthene										
Chrysene										
Fluoranthene										
Fluorene										
Naphthalene										
Phenanthrene										
Pyrene										
METALS										
Arsenic										
Barium										
Cadmium										
Chromium VI										
Lead										
Zinc										

NOTE: The Rep. Conc. and the target levels are user-inputs. Use the ARBCA Computational Software for calculating the Tier 2 SSTLs.
 E: Representative concentration exceeds Tier 2 SSTLs
 NE: Representative concentration does not exceed Tier 2 SSTLs
 C: Complete Pathway
 NC: Not a Complete Pathway

ARBCA SUMMARY REPORT

FORM NO. 26 - OFF-SITE CONSTRUCTION WORKER

UST Incident No(s):

Facility ID:

Date Form Completed:

Form Completed By:

COMPARISON OF TIER 2 SSTLs WITH REPRESENTATIVE OFF-SITE CONCENTRATIONS

CHEMICALS OF CONCERN	SURFICIAL SOIL			SUBSURFACE SOIL			GROUNDWATER		
	Outdoor Inhalation, Ingestion, & Dermal Contact	Indoor Inhalation	Outdoor Inhalation	Indoor Inhalation	Outdoor Inhalation	Indoor Inhalation	Outdoor Inhalation	Indoor Inhalation	Outdoor Inhalation
	<input type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input checked="" type="checkbox"/> Area-Weighted Average Rep. Conc. * [mg/kg] Target Levels [mg/kg] E/ NE	<input type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input checked="" type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg] Target Levels [mg/kg] E/ NE	<input checked="" type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg] Target Levels [mg/kg] E/ NE	<input type="checkbox"/> Maximum <input type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/kg] Target Levels [mg/kg] E/ NE	<input type="checkbox"/> Maximum <input checked="" type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L] Target Levels [mg/L] E/ NE	<input type="checkbox"/> Maximum <input checked="" type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L] Target Levels [mg/L] E/ NE	<input type="checkbox"/> Maximum <input checked="" type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L] Target Levels [mg/L] E/ NE	<input type="checkbox"/> Maximum <input checked="" type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L] Target Levels [mg/L] E/ NE	<input type="checkbox"/> Maximum <input checked="" type="checkbox"/> Arithmetic Average <input type="checkbox"/> Area-Weighted Average Rep. Conc. [mg/L] Target Levels [mg/L] E/ NE
ORGANICS									
Benzene									
Toluene									
Ethylbenzene									
Xylenes (Total)									
MTBE									
Anthracene									
Benzo(a)anthracene									
Benzo(a)pyrene									
Benzo(b)fluoranthene									
Benzo(g,h,i)perylene									
Benzo(k)fluoranthene									
Chrysene									
Fluoranthene									
Fluorene									
Naphthalene									
Phenanthrene									
Pyrene									
METALS									
Arsenic									
Barium									
Cadmium									
Chromium VI									
Lead									
Zinc									

NOTE: The Rep. Conc. and the target levels are user-inputs. Use the ARBCA Computational Software for calculating the Tier 2 SSTLs.

E: Representative concentration exceeds Tier 2 SSTLs

NE: Representative concentration does not exceed Tier 2 SSTLs

C: Complete Pathway

NC: Not a Complete Pathway

* The higher of the representative concentrations for surficial and subsurface soil should be entered in the representative concentration column. The target level is the target level for surficial soil.

ARBCA SUMMARY REPORT

FORM NO. 27

UST Incident No(s):

Facility ID:

Date Form Completed:

Form Completed By:

TIER 2 GROUNDWATER RESOURCE PROTECTION TARGET CONCENTRATIONS

Distance from source to the point of exposure (POE):

CHEMICALS OF CONCERN	COMPARISON FOR SOURCE SOIL			COMPARISON FOR SOURCE GROUNDWATER			COMPARISON FOR COMPLIANCE WELLS						
	Soil Source Rep. Conc. 1 [mg/kg]	Allowable Soil Conc. 2 [mg/kg]	E/ NE	GW Source Rep. Conc. 3 [mg/L]	Allowable GW Conc. at a POC 4 [mg/L]	E/ NE	CW Rep. Conc. 5 [mg/L]	Allowable GW Conc. at a POC 6 [mg/L]	E/ NE	CW Rep. Conc. 5 [mg/L]	Allowable GW Conc. at a POC 6 [mg/L]	E/ NE	
ORGANICS													
Benzene													
Toluene													
Ethylbenzene													
Xylenes (Total)													
MTBE													
Anthracene													
Benzo(a)anthracene													
Benzo(a)pyrene													
Benzo(b)fluoranthene													
Benzo(g,h,i)perylene													
Benzo(k)fluoranthene													
Chrysene													
Fluoranthene													
Fluorene													
Naphthalene													
Phenanthrene													
Pyrene													
METALS													
Arsenic													
Barium													
Cadmium													
Chromium VI													
Lead													
Zinc													

NOTE: Use the *ARBCA Computational Software* to calculate the allowable (i) soil source conc., (ii) GW source conc., and (iii) compliance well conc.
 1: The soil source representative concentrations have to be calculated and entered here.
 2: Allowable soil concentrations at the source protective of groundwater at the POE.
 3: The groundwater source representative concentrations have to be calculated and entered here.
 4: Allowable groundwater concentrations at the source protective of groundwater at the POE.
 5: Representative concentration exceeds allowable concentration.
 6: Allowable groundwater concentrations at a point of compliance (POC) protective of a POE.
 E: Representative concentration exceeds allowable concentration.
 NE: Representative concentration does not exceed allowable concentration.
Recommended Attachment: A map showing the location(s) of the soil source(s), location of POE, and location(s) of POC.

ARBCA SUMMARY REPORT

FORM NO. 27

UST Incident No(s):

Facility ID:

Date Form Completed:

Form Completed By:

TIER 2 GROUNDWATER RESOURCE PROTECTION TARGET CONCENTRATIONS

Distance from source to the point of exposure (POE):

COMPARISON FOR COMPLIANCE WELLS

CHEMICALS OF CONCERN	5] CW Rep. Conc. [mg/L]	Allowable GW Conc. at a POC 6 [mg/L]	E/ NE	5] CW Rep. Conc. [mg/L]	Allowable GW Conc. at a POC 6 [mg/L]	E/ NE	5] CW Rep. Conc. [mg/L]	Allowable GW Conc. at a POC 6 [mg/L]	E/ NE	5] CW Rep. Conc. [mg/L]	Allowable GW Conc. at a POC 6 [mg/L]	E/ NE	5] CW Rep. Conc. [mg/L]	Allowable GW Conc. at a POC 6 [mg/L]	E/ NE
COMPLIANCE WELL NO.															
DISTANCE FROM SOURCE															
RECENT TREND															
ORGANICS															
Benzene															
Toluene															
Ethylbenzene															
Xylenes (Total)															
MTBE															
Anthracene															
Benzo(a)anthracene															
Benzo(a)pyrene															
Benzo(b)fluoranthene															
Benzo(g,h,i)perylene															
Benzo(k)fluoranthene															
Chrysene															
Fluoranthene															
Fluorene															
Naphthalene															
Phenanthrene															
Pyrene															
METALS															
Arsenic															
Barium															
Cadmium															
Chromium VI															
Lead															
Zinc															

NOTE: Use the ARBCA Computational Software to calculate the allowable (i) soil source conc., (ii) GW source conc., and (iii) compliance well conc.

5: Representative concentrations in the compliance well.

6: Allowable groundwater concentrations at a point of compliance (POC) protective of a POE.

E: Representative concentration exceeds allowable concentration.

NE: Representative concentration does not exceed allowable concentration.

Recommended Attachment: A map showing the location(s) of the soil source(s), location of POE, and location(s) of POC.

ARBCA SUMMARY REPORT

FORM NO. 28

UST Incident No(s):

Facility ID:

Date Form Completed:

Form Completed By:

TIER 2 STREAM PROTECTION TARGET CONCENTRATIONS

Distance from source to the stream:

CHEMICALS OF CONCERN	COMPARISON FOR SOURCE SOIL		COMPARISON FOR SOURCE GROUNDWATER		COMPARISON FOR COMPLIANCE WELL AT THE STREAM BANK		COMPARISON FOR COMPLIANCE WELLS BETWEEN THE SOURCE AND THE STREAM BANK	
	Soil Source Rep. Conc. 1 [mg/kg]	Allowable Soil Conc. 2 [mg/kg]	CW Source Rep. Conc. 3 [mg/L]	Allowable GW Conc. at a POC 4 [mg/L]	CW Rep. Conc. 5 [mg/L]	Allowable GW Conc. at a POC 6 [mg/L]	CW Rep. Conc. 5 [mg/L]	Allowable GW Conc. at a POC 6 [mg/L]
COMPLIANCE WELL NO.								
DISTANCE FROM SOURCE								
RECENT TREND								
ORGANICS								
Benzene								
Toluene								
Ethylbenzene								
Xylenes (Total)								
MTBE								
Anthracene								
Benzo(a)anthracene								
Benzo(a)pyrene								
Benzo(b)fluoranthene								
Benzo(g,h,i)perylene								
Benzo(k)fluoranthene								
Chrysene								
Fluoranthene								
Fluorene								
Naphthalene								
Phenanthrene								
Pyrene								
METALS								
Arsenic								
Barium								
Cadmium								
Chromium VI								
Lead								
Zinc								

NOTE: Use the ARBCA Computational Software to calculate the allowable (i) soil source conc., (ii) GW source conc., and (iii) compliance well conc.

1: The soil source representative concentrations have to be calculated and entered here.

2: Allowable soil concentrations at the source protective of groundwater at the POE.

3: The groundwater source representative concentrations have to be calculated and entered here.

4: Allowable groundwater concentrations at the source protective of groundwater at the POE.

5: Representative concentrations in the compliance well.

6: Allowable groundwater concentrations at a point of compliance (POC) protective of a POE.

E: Representative concentration exceeds allowable concentration.

NE: Representative concentration does not exceed allowable concentration.

Recommended Attachment: A map showing the location(s) of the soil source(s), location of stream, and location(s) of POC.

ARBCA SUMMARY REPORT

FORM NO. 28

UST Incident No(s):

Facility ID:

Date Form Completed:

Form Completed By:

TIER 2 STREAM PROTECTION TARGET CONCENTRATIONS

COMPARISON FOR COMPLIANCE WELLS BETWEEN THE SOURCE AND THE STREAM BANK												
CHEMICALS OF CONCERN	5 CW Rep. Conc. [mg/L]		5 Allowable GW Conc. at a POC 6 [mg/L]		5 CW Rep. Conc. [mg/L]		5 Allowable GW Conc. at a POC 6 [mg/L]		5 CW Rep. Conc. [mg/L]		5 Allowable GW Conc. at a POC 6 [mg/L]	
	E/NE	E/NE	E/NE	E/NE	E/NE	E/NE	E/NE	E/NE	E/NE	E/NE	E/NE	E/NE
COMPLIANCE WELL NO.												
DISTANCE FROM SOURCE												
RECENT TREND												
ORGANICS												
Benzene												
Toluene												
Ethylbenzene												
Xylenes (Total)												
MTBE												
Anthracene												
Benzo(a)anthracene												
Benzo(a)pyrene												
Benzo(b)fluoranthene												
Benzo(g,h,i)perylene												
Benzo(k)fluoranthene												
Chrysene												
Fluoranthene												
Fluorene												
Naphthalene												
Phenanthrene												
Pyrene												
METALS												
Arsenic												
Barium												
Cadmium												
Chromium VI												
Lead												
Zinc												

NOTE: Use the ARBCA Computational Software to calculate the allowable (i) soil source conc., (ii) GW source conc., and (iii) compliance well conc.

5: Representative concentrations in the compliance well.

6: Allowable groundwater concentrations at a point of compliance (POC) protective of a POE.

E: Representative concentration exceeds allowable concentration.

NE: Representative concentration does not exceed allowable concentration.

Recommended Attachment: A map showing the location(s) of the stream(s).

ARBCA SUMMARY REPORT

FORM NO. 29a

UST Incident No(s):

Facility ID:

Date Form Completed:

Form Completed By:

TIER 2 ON-SITE TARGET LEVELS FOR INHALATION AND INGESTION

NOTE: The SSTLs listed for each route of exposure are the minimum SSTLs for all the receptors for that particular route of exposure. The Tier 2 on-site target levels are the minimum SSTLs of all routes of exposures within each medium.

CHEMICALS OF CONCERN	SURFICIAL SOIL		SUBSURFACE SOIL		GROUNDWATER			
	Outdoor Inhalation, Ingestion, & Dermal Contact [mg/kg]	On-Site Tier 2 Target Levels [mg/kg]	Indoor Inhalation [mg/kg]	Outdoor Inhalation [mg/kg]	Indoor Inhalation [mg/L]	Outdoor Inhalation [mg/L]	Ingestion of Water [mg/L]	On-Site Tier 2 Target Levels [mg/L]
ORGANICS								
Benzene	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (Total)	NA	NA	NA	NA	NA	NA	NA	NA
MIBE	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)pyrene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(f)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA
METALS								
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA
Chromium VI	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA

NOTE:
NA: Not Available

ARBCA SUMMARY REPORT

FORM NO. 29b

UST Incident No(s):

Facility ID:

Date Form Completed:

Form Completed By:

TIER 2 OFF-SITE TARGET LEVELS FOR INHALATION AND INGESTION

NOTE: The SSTLs listed for each route of exposure are the minimum SSTLs for all the receptors for that particular route of exposure. The Tier 2 off-site target levels are the minimum SSTLs of all routes of exposures within each medium.

CHEMICALS OF CONCERN	SURFICIAL SOIL		SUBSURFACE SOIL		GROUNDWATER				
	Outdoor Inhalation, Ingestion, & Dermal Contact [mg/kg]	Off-Site Tier 2 Target Levels [mg/kg]	Indoor Inhalation [mg/kg]	Outdoor Inhalation [mg/kg]	Off-Site Tier 2 Target Levels [mg/kg]	Indoor Inhalation [mg/L]	Outdoor Inhalation [mg/L]	Ingestion of Water [mg/L]	Off-Site Tier 2 Target Levels [mg/L]
ORGANICS									
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (Total)	NA	NA	NA	NA	NA	NA	NA	NA	NA
MtBE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS									
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium VI	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTE:

NA: Not Available

UST Incident No(s):	Facility ID:
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Date Form Completed:	Form Completed By:
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TIER 2 CONCLUSIONS AND RECOMMENDATIONS

1.	Are on-site soil and groundwater concentrations protective of current and reasonable future on-site receptors?
2.	Has free product been removed?
3.	Have threats to utilities been mitigated? (if applicable)
4.	Have nuisance conditions (i.e., odor, aesthetically displeasing conditions, visible staining of soils, etc.) been properly mitigated? (if applicable)
5.	Have threats to ecological receptors been addressed? (if applicable)
6.	Are off-site soil and groundwater concentrations protective of current and reasonable future off-site receptors?
7.	Are source soil concentrations protective of groundwater at a POE?
8.	Are source groundwater concentrations protective of groundwater at a POE?

UST Incident No(s):	Facility ID:
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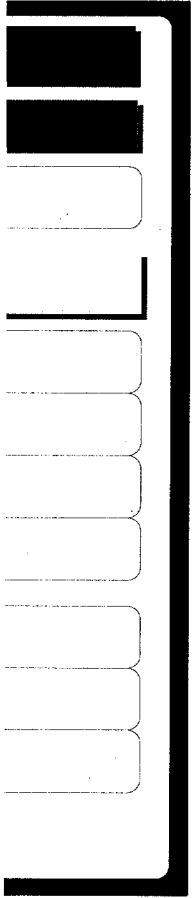
Date Form Completed:	Form Completed By:
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TIER 2 CONCLUSIONS AND RECOMMENDATIONS

9.	Are the source soil and groundwater concentrations protective of a stream?
10.	Is site recommended for NFA status?
11.	Is compliance monitoring of groundwater recommended?
12.	Are interim remediation and reevaluation recommended?
13.	Is remediation to applicable Tier 2 standards recommended?
14.	Is a Tier 3 evaluation recommended?
15.	Discussion:

- Select All
- Deselect All
- Print
- Main Menu

<input checked="" type="checkbox"/>	24 Tier 2 Fate and Transport Parameters	<input checked="" type="checkbox"/>	25 Justification for Tier 2 Fate and Transport Parameters
<input checked="" type="checkbox"/>	26 Comparison of Tier 2 SSTLs with Site Concentrations	<input checked="" type="checkbox"/>	26 Comparison of Tier 2 SSTLs with Site Concentrations
<input checked="" type="checkbox"/>	Resident Child	<input checked="" type="checkbox"/>	Resident Child
<input checked="" type="checkbox"/>	Resident Adult	<input checked="" type="checkbox"/>	Resident Adult
<input checked="" type="checkbox"/>	Commercial Worker	<input checked="" type="checkbox"/>	Commercial Worker
<input checked="" type="checkbox"/>	Construction Worker	<input checked="" type="checkbox"/>	Construction Worker
<input checked="" type="checkbox"/>	27 Tier 2 Groundwater Resource Target Concentrations	<input checked="" type="checkbox"/>	28 Tier 2 Stream Protection Target Concentrations
<input checked="" type="checkbox"/>	29a Tier 2 On-site Target Levels for Inhalation and Ingestion	<input checked="" type="checkbox"/>	29b Tier 2 Off-site Target Levels for Inhalation and Ingestion
<input checked="" type="checkbox"/>	30 Tier 2 Conclusions and Recommendations	<input checked="" type="checkbox"/>	Tier 2 Cover Page
<input checked="" type="checkbox"/>	Tier 2 Table of Contents		



Moderator