APPENDIX B

EVALUATION OF DATA QUALITY OBJECTIVES ATTAINMENT

Activity	Objectives	Action	Objective Attained?	Recommendations
Objective 1: Meet TCEQ Requirements for Site Closure				
Attainment of Risk Reduction Standard Number 1: Closure/Remediation to Background				
	Remove all hazardous and nonhazardous waste and waste residues and contaminated design and operating system components such as liners, leachate collection systems, and dikes from the unit or area of the unauthorized discharge. For remediation of media that have become contaminated by releases from a waste management unit or by other unauthorized discharge of hazardous or nonhazardous waste, the contaminated media must be removed or decontaminated to cleanup levels specified in this section (30 TAC 335.554(b) and (c)).	A geophysical survey was conducted to determine if there is evidence of buried waste at the site. The geophysical survey indicated no anomalies were present. The ampoules found on top of the trench were sampled to determine their contents. Surface sampling was performed to determine if any contamination had resulted from the ampoules found in the area. Samples exceeded RRS1 closure concentrations.	No. Since there are ampoules present on the surface of the trench and the surface soil exceeds RRS1 concentrations, this objective has not been attained.	Excavate surface of trench (including all ampoules). Remove and properly dispose of waste (ampoules) and waste residue (contaminated soils). Collect confirmation and verification samples, and backfill with clean soil.

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Activity	Objectives	Action	Objective Attained?	Recommendations
	Determine compliance with RRS1 closure requirements by comparing to background as represented by results of analyses of samples taken from media that are unaffected by waste management or industrial activities. If the practical quantitation limit (PQL) is greater than background, then the PQL rather than background shall be used as the cleanup level provided that the person satisfactorily demonstrates to the executive director that lower levels of quantitation of a contaminant are not possible (30 TAC 335.554(d)).	Contaminant concentrations were compared to revised background levels (Parsons, February 2002) or PQLs, which are equivalent to RLs.	No. Surface soil samples from SWMU B-23A exceeded background levels for copper.	See above.
	Attainment of cleanup levels shall be demonstrated by collection and analysis of samples from the media of concern (30 TAC 335.554(e)).	Surface soil samples were collected at the site and analyzed for contaminants of potential concern, including metals, VOCs, and SVOCs. Ampoules found at the site were analyzed for VOCs and SVOCs.	No. Ampoules remain at the trench and surface soil samples from SWMU B-23A exceeded background levels for copper.	See above.

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EVALUATION OF DATA QUALITY OBJECTIVES ATTAINMENT

Activity	Objectives	Action	Objective Attained?	Recommendations
Objective 2: Meet Requirements of 3008(h) Order for RFI				
RFI Workplan Requirements				
Field Sampling *(Detailed listing of methods and procedures are provided in project plans which are incorporated by reference).*	Conduct field sampling in accordance with procedures defined in the project work plan, SAP, QAPP, and HSP.	All sampling was conducted in accordance with the procedures described in the project plans.	Yes.	NA
Facility Investigation				
Characterization of Environmental Setting - Hydrogeology (B.3.A.1)	Evaluate hydrogeologic conditions at the site.	Not included in this phase of the RFI at SWMU I-1. Shallow groundwater was not encountered during drilling at the site. Groundwater of the Trinity Aquifer is being addressed through the Groundwater Investigation.	NA	NA
Characterization of Environmental Setting- Soils (B.3.A.2)	Characterize soils in accordance with USCS soil classification system (B.3.A.2(a)).	Soil types at the site are based on the SCS Bexar County Soil Survey (USDA, 1991) and are described in Section 1.2.1.	Yes	NA

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Activity	Objectives	Action	Objective Attained?	Recommendations
	Identify soil profile, including ASTM classification of soils; directional relative permeability; bulk density; particle size distribution; infiltration (field test); storage capacity; mineral content; and soil conductivity (B.3.A.2 (b), (c), (d), (f), (h), (i), (j), (k))	Soil types at SWMU I-1 are based on the SCS Bexar County Soil Survey (USDA, 1991) and are described in Section 1.2.1.	Yes	NA
	Determine soil pH (B.3.A.2 (e)).	The pH of each of the soil types evaluated, as part of the background metals concentration study was determined through laboratory analysis. According to those analyses, the pH of Tarrant Association (Undulating) soils is 8.08.	Yes.	NA
	Determine moisture content (B.3.A.2 (g)).	The moisture content of each sample was analyzed. Moisture content values are provided in the laboratory data packages.	Yes.	NA
Characterization of Environmental Setting – Surface Water and Sediment (B.3.A.3)	Characterize marshes, creeks, wetland areas, or ditches at the site.	No marshes, wetland areas, or ditches are present at the site. An intermittent creek is located approximately 750 feet south of SWMU B-23A. Direction of runoff flow has been evaluated in Section 1.2.1.	Yes	NA
Source Characterization (B.3.B)	Identify the source area (B.3.B.1).	A description of the source area is provided in Section 1.1.2.	No. Subsurface excavation is required to fully characterize the potential source area.	Excavate in area of trench. Remove and properly dispose of waste (ampoules) and waste residue (contaminated soils). Collect verification samples.

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EVALUATION OF DATA QUALITY OBJECTIVES ATTAINMENT

Activity	Objectives	Action	Objective Attained?	Recommendations
	Identify the location of the unit/disposal area (B.3.B.2 (a)).	In 1993 a field survey indicated a trench filled in with soil. In 1995 an electromagnetic (EM) geophysical survey was performed at SWMU B-23A. The geophysical grid was 80 feet in length, 20 feet in width, and oriented in a northwest-southeast fashion, based on the 1994 field survey.	Yes	NA
	Identify the type of unit/disposal area (B.3.B.2 (b)).	The site is an area where a trench was observed in a 1966 aerial photograph. The disposal area consists of a small, narrow in-filled trench with soil mounded at one end.	Yes	NA
	Identify design features (B.3.A.2(c)).	Information regarding design features was obtained through visual observation during the field investigation. All available information regarding the design of the disposal site is provided in Section 1.1.2.	Yes	NA
	Identification of past and present operating practices, period of operation, age of unit/disposal area, and method used to close the unit/disposal area (B.3.B.2 (d), (e), (f), and (h)).	The trench has been identified in a 1966 aerial photograph. The past use of the trench is unknown.	To the extent possible with the data available.	NA
	Determine general physical conditions of the site (B.3.B.2 (g))	The general physical condition of the site was determined during the field investigation. This information is presented in Section 1.1.2.1.	Yes.	NA

EVALUATION OF DATA QUALITY OBJECTIVES ATTAINMENT

Activity	Objectives	Action	Objective Attained?	Recommendations
	Identify waste characteristics, including type of waste placed in the unit, physical and chemical characteristics of the wastes, and migration and dispersal characteristics of the waste (B.3.B.3).	Records regarding historic waste disposal practices at CSSA are very limited. All known information, derived from the Environmental Assessment, records review, interviews, and visual observations at the site is provided in Section 1.1.2.	Yes	NA
Contamination Characterization – Groundwater (B.3.C.1)	Characterize the vertical and horizontal extent of groundwater contamination.	Not included in this phase of the RFI at SWMU I-1. Shallow groundwater was not encountered during drilling at the site. Groundwater of the Trinity Aquifer is being addressed through the Groundwater Investigation.	NA	NA
Contamination Characterization – Soil (B.3.C.2)	Determine vertical and horizontal extent of contamination (B.3.C.2 (a)).	Soil borings were not collected.	No, the horizontal and vertical extent of contamination has not been determined.	Excavate area of trench (including all ampoules). Remove and properly dispose of waste (ampoules) and waste residue (contaminated soils). Collect confirmation and verification samples, and backfill with clean soil.

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Activity	Objectives	Action	Objective Attained?	Recommendations
	Describe contaminant and soil properties with the contaminant source area, including contaminant solubility, speciation, adsorption, leachability, exchange capacity, biodegradability, hydrolysis, photolysis, oxidation, and other factors that might affect contaminant migration and transformation (B.3.C.2 (b)).	See Characterization of Environmental Setting- Soils (B.3.A.2), above.	Yes	NA
	Describe soil properties (B.3.C.2(c)).	See "Characterization of Environmental Setting – Soils" above.	Yes	NA
	Identify the direction of contaminant movement (B.3.C.2 (d)).	No actions taken.	NA	NA
	Extrapolate future contaminant movement (B.3.C.2 (e)).	No actions taken.	NA	NA

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Activity	Objectives	Action	Objective Attained?	Recommendations
	Implement a soil boring investigation to determine the extent of soil contamination. Soil gas monitoring will be performed during drilling of all borings. Laboratory analysis of borings for contaminants of potential concern will be performed on soils at depths where either visual contamination is evident, or soil gas concentrations indicate contamination. All boreholes shall be properly abandoned.	No soil borings have been collected.	No, the extent of soil contamination has not been determined.	Excavate area of trench (including all ampoules). Remove and properly dispose of waste (ampoules) and waste residue (contaminated soils). Collect confirmation and verification samples, and backfill with clean soil.
	Prepare a map of all areas included in the investigation (B.3.C.2 (i)).	Figures included in this report show all areas included in this investigation.	Yes	NA
	All reporting limits should be below regulatory criteria.	RLs were approved by TNRCC on October_5, 1999. SQLs based on these RLs are considered RRS1 standards for all analytes except metals.	Yes	NA

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Activity	Objectives	Action	Objective Attained?	Recommendations
	Perform all analyses in accordance with the AFCEE QAPP.	All analyses were performed in accordance with the AFCEE QAPP and approved variances. Tentatively Identified Compounds (TICs) are not addressed by AFCEE QAPP. Therefore, the lab followed the guideline in USEPA CLP National Functional Guidelines to report concentration under the assumption that the RF equals to 1.0.	Yes	NA
		All data flagged with "U," "F," and "M," are considered usable for site characterization purposes.	Yes. All data flagged "M" are considered usable as the matrix interference is minimal and does not significantly affect the sample results.	NA
		No data were flagged with "J".	Yes	
		Data flagged with "T" were reported and considered usable.	Yes	
		Data flagged with "R" were considered unusable.	Yes	NA
Contaminant Characterization – Sediment and Surface Water (B.3.C.3)	Characterize the extent of sediment and surface water contamination.	NA. There are no creeks or marshes located at SWMU I-1. Therefore, surface water and sediments were not sampled as part of the SWMU I-1 investigation.	NA	NA
Potential Receptors (B.3.D).	Collect the information necessary to describe the human populations and environmental systems that are susceptible to contamination exposure from the Facility.	Potential receptors are discussed in Section 1.2.5 of this report.	Yes	NA