APPENDIX C

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)).	Excavation and disposal of the waste and waste residue has been performed. Confirmation sampling has shown all waste residue was removed.	Yes. Waste has been removed from site.	Site closure under RRS1.

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	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 the second revision of background levels (Parsons, February 2002) or RLs, which are equivalent to PQLs.	Yes. Confirmation samples from the site excavation showed contaminant levels below background.	Site closure under RRS1.
	Attainment of cleanup levels shall be demonstrated by collection and analysis of samples from the media of concern (30 TAC 335.554(e)).	Collected confirmation samples after excavation activities.	Yes. Samples were below background.	Site closure under RRS1.

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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.	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). The only soil type present at SWMU B-11 is the Trinity and Frio soil type.	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 Trinity and Frio soils is 7.90.	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 packages.	Yes.	NA

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Characterization of Environmental Setting – Surface Water and Sediment (B.3.A.3)	Characterize marshes, creeks, wetland areas, or ditches at the site.	Salado Creek, an intermittent creek, runs along the north boundary of SWMU B-11. Although no samples were collected in the dry creek bed, no sampling is considered necessary based on the results of the soil boring samples.	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 1.1.2.2 of the SWMU B-11 RFI Report.	Yes. The wastes at the site have been identified and excavated.	NA
	Identify the location of the unit/disposal area (B.3.B.2(a)).	The boundaries marked on aerial photo by CSSA's environmental coordinator were digitized.	Yes. Although the accuracy of the boundary survey of the site is estimated to have an approximate error of 25 feet, this accuracy is sufficient for closure under RRS1.	NA
	Identify the type of unit/disposal area (B.3.B.2(b)).	The type of unit/disposal area was identified by visual observation of waste in the field and a records review.	Yes.	NA
	Identify design features (B.3.A.2(c)).	Information regarding design features was obtained during the Environmental Assessment (ES, 1992) and through visual observation during the field investigation.	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)).	All known information regarding these items is provided in Section 1.1 of the SWMU B-11 RFI Report. This information is from the Environmental Assessment, records review, interviews, and visual observations.	To the extent possible with data available.	NA

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	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 of the SWMU B-11 RFI Report.	Yes.	NA
	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).	Excavation activities at the site revealed the presence of buried roofing debris, concrete, wire, burnt wood, and parachutes.	Yes. The wastes were identified, delineated, and removed from the site.	NA
Contamination Characterization – Groundwater (B.3.C.1)	Characterize the vertical and horizontal extent of groundwater contamination.	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)).	Five soil borings were advanced within the SWMU and three samples were collected from each boring. VOCs and metals were detected in quantities above their respective RLs and background levels. Subsequent excavation activities removed all waste from the site and confirmation sampling and statistical evaluation indicated all contamination had been removed.	Yes.	NA
	Describe soil properties (B.3.C.2(c)).	See "Characterization of Environmental Setting – Soils" above.	Yes.	NA

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	Identify the direction of contaminant movement (B.3.C.2(d)).	No actions taken based on low contaminant levels detected.	NA	NA
	Extrapolate future contaminant movement (B.3.C.2(e)).	No actions taken based on low contaminant levels detected.	NA	NA
	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.	A phased approach was taken for the investigation of SWMU B-11. The first phase included a geophysical survey to determine if a trench may be located at the site. Surface and subsurface soil samples were collected to determine if there is surface and subsurface contamination. A PID was used to monitor soil gas concentrations during drilling. All boreholes were properly abandoned.	Yes.	NA
	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 the investigation.	Yes.	NA

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	All reporting limits should be below regulatory criteria.	RLs were approved by TNRCC on October 5, 1999. RLs are considered RRS1 standards for all analytes except metals. The background values from the **Second Revision to the Evaluation of Background Metals Concentrations in Soils and Bedrock** (Parsons, February 2002) were used as RRS1 comparison criteria for metals.	Yes.	NA
	Perform all analyses in accordance with the CSSA QAPP.	All analyses were performed in accordance with the CSSA QAPP and approved variances.	Yes.	NA
		All data flagged with "F", "J", and "M" were considered usable for site characterization purposes.	Yes.	NA
Contaminant Characterization – Sediment and Surface Water (B.3.C.3)	Conduct a surface water and sediment investigation to characterize contamination resulting from releases at the facility.	SWMU B-11 is located adjacent to Salado Creek. In the vicinity of CSSA, Salado Creek only contains water during and shortly after heavy precipitation. Therefore, surface water was not sampled as part of the SWMU B-11 investigation. Sampling of sediments in association with the SWMU B-11 investigation is not warranted due to the very limited amount of contamination detected at SWMU B-11.	Yes.	NA
Potential Receptors (B.3.D).	Collect the information necessary to describe the human populations and environmental systems that are susceptible to contaminant exposure from the Facility.	Information regarding receptors is provided in the Risk Assessment Technical Approach Document (Volume 1-6). In addition, the Well Research Report identifies private groundwater users within 0.25-mile and public water suppliers within 0.5-mile of CSSA.	Yes.	NA