Appendix A

Minor Deviations from the Work Plan

1.0 Minor Deviations from the Work Plan

Fieldwork was conducted in accordance with the Phase II Investigation Work Plan for SOCs 1-3 and 6-8 (Barr, 2009a) and/or the Sampling and Analysis Plan (Barr, 2009b), except for the minor deviations listed below:

Field Work Category	Description of Deviation	Rationale for Deviation	Result
Groundwater Sampling	Groundwater samples for dissolved metals were not filtered in the field due to high sediment content.	Samples clogged the filtering apparatus.	Groundwater samples for dissolved metals were collected unfiltered. In each sample container, acid preservative was rinsed out prior to sample collection. The samples for metals were filtered by the laboratory.
	Replacement temporary wells were installed at SOC1-GP3, SOC3-GP2, and SOC3-GP3 to allow re-collection of water samples.	Sediment break through occurred during sample filtration in the laboratory. See Appendix G for details.	Groundwater samples were re-collected and field filtered. "R" samples were collected and analyzed in accordance with the SAP and Work Plan.
	Groundwater samples were not collected from temporary wells at borings SOC6-GP1, SOC6-GP2, SOC6-GP3, or SOC6-GP4.	Refusal occurred in St. Peter sandstone above the groundwater level.	As an alternative, monitoring well MW-E2-012 was installed in the outwash aquifer and sampled. Existing wells MW-E2-009, MW-E2-305, and MW-D3-001 were sampled for SOC6 analytes.
	SVOCs, metals, pesticides, and nitrogen groundwater samples were not collected at boring SOC3-GP4.	The temporary well at boring SOC3-GP4 was pumped dry in less than one minute and did not recover.	A VOC sample was collected from available groundwater volume.

Field Work Category	Description of Deviation	Rationale for Deviation	Result
Soil Sampling	Minor sample location modifications (different test trenches than referenced in the Work Plan).	Sampling locations were modified based on observations made in the field.	The sample location modifications were consistent with the sampling rationale presented in the Work Plan. The number of samples collected was consistent with the Work Plan.
	VOC samples were collected at the soil sampling locations referenced in the Work Plan rather than only the locations that exhibited evidence of a release.	To document the relationship between field evidence (soil vapor headspace readings) and analytical results.	VOCs were not detected in areas where no soil vapor head space reading was detected.
	Samples for VOCs and nitrocellulose were collected at background location SS5.	Samples were inadvertently collected and analyzed as part of an effort to collect additional soil volume for laboratory QA/QC purposes.	Additional data were collected.
Test Trenching	Additional test trenching was conducted at SOCs 2, 3, 7 and 8.	Based on observations made in the field and historical documentation review, additional test trenches were excavated to further investigate areas of potential concern.	In addition to the proposed test trenches, the following were added: ▪ One trench was added to SOC 2 to investigate surficial debris, ▪ Four trenches were added to SOC 3 to investigate a former lagoon, ▪ Four trenches were added north of SOC 7 to investigate a possible area of fill, ▪ Twelve trenches were added to SOC 8 to investigate possible ACM source areas.

Field Work Category	Description of Deviation	Rationale for Deviation	Result
Sample Analysis	Based on initial sampling results, the concentration of chromium in five soil samples (SOC2-TT1, SOC2-TT3, SOC2-TT4, SOC2-TT5, SOC3-TT6) exceeded screening criteria for hexavalent chromium. Additional sample volume was collected at each location for hexavalent chromium analysis.	Hexavalent chromium analyses were added to the scope to evaluate the relationship between total chromium and hexavalent chromium concentrations in soil.	Hexavalent chromium analyzed by Braun Intertec via EPA method 7199. If future investigations include hexavalent chromium analysis a SAP addendum will be submitted.
	Nitrate+nitrite (as N) and TKN analytical method numbers were updated	Analyses were conducted with Standard Methods 4500.	Method number updates are consistent with EPA's 2007 Method Update Rule. See Appendix G for additional discussion.

2.0 Fieldwork Duration and Personnel

All fieldwork was conducted by Barr personnel or by Barr's subcontractor under Barr's supervision. Dates during which fieldwork was conducted and the subcontractors who conducted fieldwork are listed below:

Task	Dates Conducted	Team or Subcontractor
Direct Push Soil Borings and Temporary Well installation/sealing	6/3/2009 – 6/10/2009	Matrix Environmental LLC
HSA Well Installation	9/25/2009 – 9/30/2009	Stevens Drilling & Environmental
HSA Well Development	9/30/2009	Barr field staff
Test Trenching Excavation	6/3/2009 – 6/15/2009	Stevens Drilling & Environmental
Clearing & Grubbing	6/3/2009 – 6/4/2009	Rivertown Tree Service
Surface and Background Soil Sampling	6/11/2009 – 7/1/2009	Barr field staff
Groundwater Sampling	6/11/2009 and 10/2/2009	Barr field staff
Hexavalent Chromium sampling	9/18/09	Barr field staff