SAMPLING AND ANALYSIS PLAN FOR THE SOUTHERN RIBS SUB-AREA

BMI COMMON AREAS (EASTSIDE) CLARK COUNTY, NEVADA

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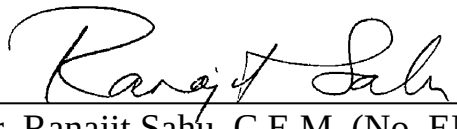
AUGUST 2008

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.



August 18, 2008

Dr. Ranajit Sahu, C.E.M. (No. EM-1699, Exp. 10/07/2009) Date
BRC Project Manager

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ACRONYMS AND ABBREVIATIONS

Aa	alluvial aquifer
AOC3	Settlement Agreement and Administrative Order on Consent: BMI Common Areas, Phase 3
APA	air pathway analysis
ATSDR	Agency for Toxic Substances and Disease Registry
bgs	below ground surface
BRC	Basic Remediation Company
CAMU	Corrective Action Management Unit
CAP	Corrective Action Plan
COPC	chemical of potential concern
CSM	conceptual site model
DAF	dilution attenuation factor
DQA	data quality assessment
DQOs	data quality objectives
DVSR	Data Validation Summary Report
ECI	Environmental Conditions Investigation
FSSOP	Field Sampling and Standard Operating Procedures
HSA	Hollow Stem Auger
IRMs	interim remedial measures
MCL	maximum contaminant level
MDLs	method detection limits
MSSLs	medium-specific screening levels
NDEP	Nevada Division of Environmental Protection
NFAD	no further action determination
PCBs	polychlorinated biphenyls
PIDs	photoionization detectors
PSQs	Principal Study Questions
QA/QC	Quality Assurance/Quality Control
Qal	Quaternary alluvium
QAPP	Quality Assurance Project Plan
RAP	Remedial Action Plan
RIBs	Rapid Infiltration Basins
SAP	Sampling and Analysis Plan
SOPs	Standard Operating Procedures
SRC	Site-related chemicals
SSL	Soil Screening Level
SVOCs	semi-volatile organic compounds
TDS	total dissolved solids
TEQ	toxic equivalency
TMCf	Muddy Creek formation
TPH	total petroleum hydrocarbons
UCL	upper confidence limit
USCS	Unified Soil Classification System
USEPA	U.S. Environmental Protection Agency
VOCs	volatile organic compounds

1.0 INTRODUCTION

Basic Remediation Company (BRC) has prepared this Sampling and Analysis Plan (SAP) for the Southern RIBs sub-area. The SAP describes tasks for performance of confirmation sampling in order to obtain a no further action determination (NFAD) for this area. The term NFAD is defined in the *Settlement Agreement and Administrative Order on Consent: BMI Common Areas, Phase 3* (AOC3; Nevada Division of Environmental Protection [NDEP] 2006) in Section XVII. This revision of the SAP, Revision 1, incorporates (1) draft comments received from the NDEP, dated August 7, 2008, on Revision 0 of the SAP, dated August 2008; (2) applicable comments received from the NDEP, dated August 5, 2008, on Revision 0 of the Western Hook-Development SAP; and (3) comments received as part of the approval letter from the NDEP, dated July 2, 2008, on the final SAP for the Mohawk sub-area. The NDEP comments and BRC's response to these comments are included in Appendix A. Also included in Appendix A is a redline/strikeout version of the text showing the revisions from the previous August 2008 version of the SAP. An electronic version of the entire report, as well as original format files (MS Word and MS Excel) of all text and tables are included in Appendix B.

The Southern RIBs sub-area (hereinafter "the Site") is one of several sub-areas of the BMI Common Areas (Eastside) located in Clark County, Nevada (Figure 1). The Site encompasses an area of approximately 100.9 acres (Figure 2). The Site is located outside of any known areas used for any waste disposal associated with the BMI Common Areas; however, the eastern half of the Site comprises an area formerly used by the City of Henderson as Rapid Infiltration Basins (RIBs) associated with municipal wastewater treatment. This SAP relies upon information provided in the *BRC Closure Plan* for the BMI Common Areas (BRC *et al*. 2007; hereinafter "Closure Plan"). The main text of the Closure Plan provides discussions of the following elements relative to the BMI Common Areas project as a whole:

- The project history, including cleanup goals and project objective (Closure Plan Sections 1 and 2);
- The list of site-related chemicals (Closure Plan Section 3);
- The conceptual site model (CSM) addressing potential contaminant sources, the nature and extent of chemical of potential concern (COPC) occurrence, and potential exposure pathways (Closure Plan Section 4; a CSM discussion specific to the Site is provided in Section 2 of this SAP);

- Data verification and validation procedures (Closure Plan Section 5);
- The procedures used to evaluate the usability and adequacy of data for use in the risk assessment (Closure Plan Sections 6 and 9);
- The data quality objectives (DQOs; Closure Plan Section 7; a DQO discussion specific to the Site is provided in Section 3 of this SAP);
- The remedial alternative study process for the Site (Closure Plan Section 8);
- Risk assessment procedures that will be used for Site closure (Closure Plan Section 9 for human health and Section 10 for ecological); and
- Data quality assessment (DQA; Closure Plan Section 5).

Baseline remediation (in addition to the remediation already conducted at the Site [see Section 2.5]) is planned for certain areas within the BMI Common Areas; however, none is planned for this Site other than clearing of obvious contamination (*e.g.*, burn pits, stained soil, abandoned vehicles, and other debris). These clearing activities will occur prior to implementing the procedures described in this SAP. The following data gaps associated with the existing Site characterization have been identified: many of the previous samples were collected at least seven years ago; none of the previous samples have been analyzed for all of the major chemicals or chemical families and several analyses used different analytical methods than established in the current analytical program for the BMI Common Areas; and spatial coverage of the Site is incomplete.

Therefore, because of these various factors, and because the post-remediation investigation results are considered representative of site conditions, risk assessments for the Site will be conducted using the data collected as part of this SAP. In general, historical data will not be included in the risk assessment; however, a data usability evaluation will be conducted to determine whether any of the historical data can be used in the risk assessment or it will be explained why the new data supplants the old data. These historical data are useful for CSM purposes and are discussed in Section 2.0.

Sampling performed as described in this SAP relies on the statistical methodologies presented in the *Statistical Methodology Report* (NewFields 2006). The *Statistical Methodology Report* describes the statistical methods that will be used to confirm the final soils closure at each of the Eastside sub-areas of the BMI Common Areas.

The SAP addresses sampling procedures such that remaining contaminants and their potential impacts to future Site uses (as discussed in the Closure Plan) can be determined. In this SAP, as recommended in the *Statistical Methodology Report*, samples will be collected throughout the Site on a systematic sampling basis, consisting of a regular grid overlay across the property with a randomly placed sample within each grid cell to provide enough samples for completion of a statistically robust assessment of contaminant distribution, and subsequently, to provide a robust data set upon which to perform a human health risk assessment. Additional biased sampling locations will be selected within or near small-scale contamination points of interests, including but not limited to debris locations, the former RIBs, and conveyance ditches used for transporting effluent from the companies operating at the BMI Complex to the Common Areas ponds.

1.1 PURPOSE OF THE SAP

The purpose of this SAP is to evaluate soil and soil vapor conditions (including any indirect impacts from underlying groundwater) that may have been impacted at the Site from former activities and adjoining lands. The scope of this investigation is limited to soil and soil vapor flux sampling in an effort to assess issues that might directly impact Site development potential consistent with the Closure Plan. However, the data will be used to determine any impacts to groundwater from future site uses. That is, data will be collected to evaluate the soil-to-groundwater leaching pathway. The objective of the field investigation is to identify and characterize the distribution of Site-related chemicals (SRC). Surface and subsurface samples that will be collected are depth-discrete soil matrix samples and surface vapor flux samples. Although this SAP does include data collection for evaluating groundwater as a potential source to the vapor intrusion pathway, it does not address potential groundwater issues, which are being investigated separately by BRC pursuant to AOC3 (NDEP 2006) as part of an overall evaluation of the BMI Common Areas. The investigation is designed to provide sufficient data to support risk-based decisions (including decisions to seek an NFAD) for the Site. The NFAD for the Site will contain a deed restriction precluding potable use of groundwater beneath the Site.

2.0 CONCEPTUAL SITE MODEL

The following sections provide information about the Site, previous investigations that have been conducted at the Site, interim remedial measures (IRMs) that have occurred, and the existing Site dataset. An overview of the CSM for the Site is provided in the Closure Plan. This section includes a summary of the investigations performed at the Site during the following primary project phases: prior to IRM performance (Section 2.4); during or immediately following the IRM (Section 2.6); and subsequent to IRM performance (Section 2.7).

2.1 SITE DESCRIPTION

The Site (Figure 2) comprises approximately 100.9 acres of land that is undeveloped with the exception of the previously mentioned RIBs (67.8 acres in the eastern half of the Site), which were in use from approximately 1992 to 2002 by the City of Henderson for municipal wastewater treatment. The only known historical use of the site is as a wastewater treatment plant and transfer station. The remaining undeveloped 33.1 acres in the western half of the property have no known history of use. The land surface gently slopes to the north-northwest, ignoring the former RIBs, which have been engineered to be topographically flat. As depicted in Figure 2, a portion of the Beta Ditch, which was once associated with historical conveyance of operations effluent and cooling water by companies operating at the BMI Complex, forms the northern boundary of the Site. The boundaries of the Site have been specifically designed to exclude this feature. .

Exposures to current receptors (*i.e.*, trespassers/visitors, occasional on-site workers, and off-site residents) are being managed through site access control. Under the prospective redevelopment plan, the Site may be used for a variety of potential purposes, including residential housing (low and medium density), parks and trails, and streets. The entire Site will be enhanced by restoration and redevelopment once remediation is complete. Therefore, exposures to ecological receptors will be mitigated or removed (see Section 10 of the Closure Plan). Future receptors identified as "on-site receptors" are defined as receptors located within the current Site boundaries (Figure 2), while future "off-site receptors" are those located outside the current Site boundaries. Many potential human receptors are possible at the Site in the period during and after redevelopment. The potentially exposed populations and their potential routes of exposure are discussed in Section 9 of the Closure Plan.

The current development plan for the Site is shown on Figure 3. To construct parks, residences, and commercial buildings and parking, the land will be cut and/or filled, paved with roads or

foundations, and nurtured with imported top soils[1] as needed. Figure 4 shows the current grading plan for the Site, indicating which areas will be filled and which areas will be cut.

Because the background general water quality (*i.e.*, high salt concentrations) of the groundwater beneath the Site and in the surrounding area is poor and because BRC will place institutional controls in the form of a deed restriction to prevent future users from utilizing groundwater beneath the Site, the use of private water wells by residents, businesses, or parks for drinking water, irrigation water, or other non-potable uses (*e.g.*, washing cars, filling swimming pools) will not occur in the post-redevelopment phase.

Although direct exposures to groundwater will not occur; indirect exposures are possible. The primary indirect exposure pathway from groundwater is the infiltration of volatile organic compounds (VOCs) and radon from soil and groundwater to indoor air. In addition, residual levels of chemicals in soil may leach and impact groundwater quality beneath the Site. Collection of data to evaluate both of these migration pathways at the Site is presented in this SAP.

The Site is bounded on the north by the Staging sub-area (109.9 acres), which includes land that was previously associated with historical conveyance and/or disposal of operations effluent and cooling water by companies operating at the BMI Complex. As noted above, the Beta Ditch forms much of the northern boundary of the Site. Chemicals detected in the Staging sub-area include those found at the Site; however, the number of compounds detected and the associated concentrations are appreciably higher than those associated with the Site, as a result of historical effluent conveyance and disposal activities within the Beta Ditch and Upper Ponds. Although this adjacent sub-area contains elevated chemicals in soil, and remediation of this sub-area is scheduled to occur after remediation of the Site, impacts from this area to the Site are considered negligible because dust suppression/mitigation measures and stormwater pollution prevention controls will be implemented during remediation activities. Analytical results for the Staging sub-area are presented further in Section 2.8 below.

The Site is bounded on the south and east by the Parcel 4A and 4B sub-areas. The NDEP concluded in 1997 that no further characterization of these two sub-areas was required and that development could proceed without environmental restriction. However, subsequent to this decision, additional sampling and analysis was conducted in 2007, supplemented by additional

[1] Note: Imported soil data will not be included in risk assessment calculations. However, the chemical data for fill material from the Site may be useful for evaluating sub-areas to receive this fill.

sampling in 2008. Following the first round of sampling in 2007, surface soil was scraped and removed from several areas within the Parcel 4A/4B sub-areas followed by additional sampling. A screening-level human health risk assessment was conducted for Parcel 4A and the NFAD was re-affirmation by NDEP in 2008. Currently a screening-level human health risk assessment is being conducted to determine whether re-affirmation of the NFAD for Parcel 4B is warranted. Boulder Highway is present immediately to the west of the Site.

2.2 SURFACE WATER

Surface water flow occurs for brief periods of time during periodic precipitation events. Because of the nature of the RIBs and their construction, it is unlikely that surface waters generated within these ponds drain overland to the Las Vegas Wash from the Site. In addition, because of the large distance to the Wash and the intervening topographically downgradient presence of various topographic features that would intercept surface water flow (*i.e.*, the Beta Ditch and the Upper Ponds), it is unlikely that surface water generated on the western half of the Site would migrate to the Las Vegas Wash.

2.3 GEOLOGY/HYDROGEOLOGY

As is common throughout the Las Vegas Valley, Site soils are primarily sand and gravel, with occasional cobbles. Soils at the Site are compacted, poorly-sorted, non-plastic, light brown to red silty sand with varying amounts of gravel. This is consistent with the depositional environment of an alluvial fan. The Site is located on alluvial fan sediments, with a surface that slopes to the north-northeast at a gradient of approximately 0.02 foot per foot (ft/ft) towards the Las Vegas Wash. Regional drainage is generally to the east.

The uppermost strata beneath the Site consist primarily of alluvial sands and gravels derived from the River Mountains and from the volcanic source rocks in the McCullough Range, located to the southeast and southwest of the Site, respectively. These uppermost alluvial sediments were deposited within the last two million years and are of Quaternary age, and are thus mapped and referred to as the Quaternary alluvium (Qal; Carlsen *et al*. 1991). The Qal is typically on the order of 50 feet thick at the Site with variations due, in part, to the non-uniform contact between the Qal and the underlying Tertiary Muddy Creek Formation (TMCf).

The TMCf underlies the Qal. The Muddy Creek formation, of which the TMCf is the uppermost part, is a lacustrine deposition from the Tertiary Age, and it underlies much of the Las Vegas Valley. It is more than 2,000 feet thick in places. The lithology of the TMCf underlying the Site

is typically fine-grained (sandy silt and clayey silt), although layers with increased sand content are sporadically encountered. These TMCf materials have typically low permeability, with hydraulic conductivities on the order of 10^{-6} to 10^{-8} centimeters per second (Weston 1993). The TMCf in the vicinity of the Site was encountered to the maximum explored depth of 430 feet below ground surface (bgs). Lithologic cross sections are shown on Figures 5 and 6.

Two distinct, laterally continuous water-bearing zones are present within the upper 400 feet of the Site subsurface: (1) an upper, unconfined water-bearing zone primarily within the Qal referred to herein as the alluvial aquifer (Aa) and (2) a deep, confined water-bearing zone that occurs in a sandier depth interval within the silts of the deeper TMCf. Both of these water-bearing zones contain high concentrations of total dissolved solids (TDS). Between these two distinct water-bearing zones, a series of saturated sand stringers were sporadically and unpredictably encountered during drilling.

Alluvial Aquifer. The Aa is an unconfined, shallower, water-bearing zone that occurs across the Site. For the most part, water in the Aa occurs in the Qal. The water surface in the Aa generally follows topography, with the water surface sloping towards the Las Vegas Wash. According to recent groundwater monitoring performed in January 2007, the depth from the surface to first groundwater at the Site ranges from approximately 36 to 67 feet bgs (MWH 2007). Wells completed in the Aa are not highly productive, with sustainable flows typically less than five gallons per minute. Chemical occurrence within this water-bearing zone, based on recent monitoring data associated with wells installed within and in the vicinity of the Site, is discussed in Section 2.9[2].

2.4 INVESTIGATIONS PRIOR TO IRM PERFORMANCE

No IRMs have been conducted at the Site. In January 2001, soils in and along a portion of the Beta Ditch were excavated as part of an IRM. With the exception of pre-excavation soil samples collected from that area (all outside the Site boundaries), all sampling locations depicted in Figure 2 reflect current conditions; the data associated with Site conditions are discussed in Section 2.7.

[2] Chemical occurrence in both the shallow and deep water-bearing zones beneath the Eastside and CAMU areas is currently being characterized under a process separate from the Closure Plan process under which this SAP has been prepared, which focuses on site soils. Therefore, this SAP summarizes chemical occurrence trends in the first water-bearing zone, which is the only water-bearing zone that can potentially affect potential receptors under current and future land uses. A more detailed presentation of chemical occurrence patterns within both zones will be provided upon completion of the on-going groundwater investigation, and the Conceptual Site Model for the Eastside and CAMU areas will be updated accordingly.

2.5 INTERIM REMEDIAL MEASURES (IRMs)

To expedite restoration of the Site, in January 2001, BRC elected to perform an IRM for a portion of the Beta Ditch running north and immediately adjacent to the Site. This IRM was not performed in accordance with an NDEP-approved workplan. IRM activities consisted of excavation of the impacted shallow soils within the base and sidewalls of the Beta Ditch, transportation to a secured location within the Upper Ponds, and treatment to prevent generation of wind-blown dusts and runoff. This IRM was conducted in response to the presence of elevated detections of arsenic, lead, vanadium, and hexachlorobenzene within the Beta Ditch. Results of the IRM for the Site have not been formally presented in a report to NDEP.

In addition, because of elevated levels of iron and vanadium at the surface from one sample location in the adjacent Parcel 4A, surface soil was scraped and removed from around this location. Surface soil was also scraped and removed along the eastern edge of the site, in Parcel 4B, due to the presence of elevated levels of arsenic and iron. All three areas of soil removal from the Beta Ditch, Parcel 4A, and Parcel 4B are shown on Figure 7.

2.6 IRM-RELATED CONFIRMATION SAMPLING

As noted above, an IRM was not conducted within the Site boundaries. Confirmation samples were collected as part of the IRM activities within the adjacent Beta Ditch and represent post-remediation conditions.

2.7 INVESTIGATIONS SUBSEQUENT TO IRM

Shallow soil samples were collected within the Site during the following three separate events (see Figure 2 for sample locations):

- An investigation conducted during December 2000 (dataset 14) to assess conditions in this area to support potential transfer of the property for educational uses. The soil investigation activities were not performed in accordance with an NDEP-workplan and the soil sampling results have not been formally presented to NDEP prior to this SAP. Data validation results are presented in the DVSR for dataset 14 (MWH, 2006a), which was approved by NDEP on November 8, 2006;

- A soil investigation conducted in May 2001 (dataset 21) in the Southern RIBs proper. These data were not collected under a formal NDEP-approved workplan and the soil sampling results have not been formally presented to NDEP prior to this SAP. Data validation results

are presented in the DVSR for dataset 21 (MWH, 2006b), which was approved by NDEP on October 25, 2006; and

- Deep soil characterization conducted in May 2004 during monitoring well installation at one location (SB-01-B [MCF-01A]) as part of the hydrologic investigation (dataset 27). The soil investigation activities were performed in accordance with a workplan submitted in December 2003 (MWH, 2003) and approved by NDEP in January 2004. Data validation results are presented in the DVSR for dataset 27 (MWH, 2006c), which was approved by NDEP on August 31, 2006.

During these investigations, soil samples at various depths were collected and analyzed for VOCs, semi-volatile organic compounds (SVOCs), organochlorine pesticides, organophosphorous pesticides, polychlorinated biphenyls (PCBs), chlorinated herbicides, glycols/alcohols, organic acids, dioxins/furans, metals, perchlorate, radionuclides, and/or asbestos. The data associated with these investigations are included in the database excerpt provided in Appendix B.

2.8 CURRENT CHEMICAL DISTRIBUTION WITHIN SOILS

A summary of historic post-IRM soil chemical data from surface to 10 feet bgs, excluding excavated sample results, is presented in Table 1. Compound-specific historical sampling results collected from the Site, including those sample locations from depth intervals deeper than 10 feet bgs, are shown in Appendix B, Tables B-1 through B-14, and included electronically in Appendix B. Sample locations are shown on Figure 2. Figures showing the distribution of several chemicals for soil samples historically collected at the Site are presented in Appendix C. These figures also include post-IRM samples within 1,000 feet of the Site from the adjacent sub-areas (Staging and TIMET Ponds) and from the NFA Areas (Parcels 4A and 4B) to provide information on the current upgradient, downgradient, and cross-gradient conditions. Chemical occurrence patterns for the chemicals detected at concentrations in excess of screening levels, in samples collected from surface to 10 feet bgs at the Site, are provided below.

Dioxins and Furans. Three soil samples representing current conditions within the uppermost 10 feet at the Site (two surface samples and one subsurface sample) were analyzed for dioxins and furans. Nineteen individual dioxins and furans congener detections were reported as detections, screening levels have not been established for individual congeners.

To assess the potential threat to human health, dioxin/furan toxic equivalency (TEQ) concentrations were compared to the Agency for Toxic Substances and Disease Registry (ATSDR) screening value of 50 parts per trillion (ppt). Of the samples analyzed, one surface sample (CPS-3, located in the western [unused] half of the Site) had a calculated TEQ value in excess of this screening level. The ranges of calculated TCDD TEQ values for soil samples collected in surface soil samples from the Site are shown on Figure C-1.

To assess the potential for impacts to groundwater quality, chemical detections at the Site were also compared to applicable USEPA soil screening levels (SSLs; dilution attenuation factor [DAF] = 1) for protection of groundwater (USEPA 2007) where established. This evaluation was not performed for the dioxin/furan results, as no SSLs have been established for these compounds.

Arsenic. Arsenic was detected in all of the 13 samples analyzed for arsenic that were collected from 0 to 10 feet bgs (ten surface and three subsurface samples). To assess the potential threat to human health, these arsenic detections were compared to the USEPA Region 6 residential soil MSSL; all of these detections were higher than the USEPA Region 6 residential soil MSSL. In addition, to assess the potential for impacts to groundwater quality, chemical detections at the Site were also compared to the SSL (DAF 1) established for arsenic. All of the arsenic detections were higher than the SSL.

However, it should be noted that the ranges of background concentrations for arsenic are appreciably higher than the MSSL; therefore, comparison to background arsenic concentrations is more appropriate than using the MSSL and SSL as points of comparison. Of the arsenic detections, only one sample (a surface soil sample, collected from CPS-3, a location in the western [unused] portion of the Site) had a reported arsenic concentrations in excess of the maximum shallow soil background level (7.2 mg/kg; from BRC/TIMET 2005). The distribution of arsenic for soil samples collected in the surface soils and the interval from 7 to 10 feet bgs at the Site are shown on Figures C-2 and C-3, respectively.

Other Inorganics. As seen in Table 1, several metals were routinely detected in soil samples from the uppermost 10 feet bgs. Excluding arsenic, which is discussed above, 47 of the detections were higher than the maximum background concentration; none of the detections exceeded the MSSLs.

In addition to arsenic, the following metals were detected at concentrations in excess of the SSLs for protection of groundwater:

- Antimony (SSL exceedances in three samples collected from CPS-3 and SB-01-B in the western [unused] portion of the Site, all of which were higher than background);
- Barium (SSL exceedances in all but one of the samples in which it was analyzed, none of which were higher than background);
- Chromium (SSL exceedances in all of the samples in which it was analyzed, only seven of which were higher than background, collected from both halves of the Site [unused and former RIBs]);
- Nickel (SSL exceedances in all of the samples in which it was analyzed, only one of which was higher than background, collected from SRB-1 within the former RIBs);
- Selenium (SSL exceedances in two samples collected from SB-01-B, neither of which were higher than background); and
- Thallium (SSL exceedances in two samples collected from SB-01-B and CPS-3, the former of which was higher than background).

The remaining metals were either detected at concentrations less than the SSLs for protection of groundwater, or did not have established SSLs.

Iron was detected in six samples (three surface and three subsurface samples collected from both halves of the Site) at concentrations in excess of the maximum background detection; the distribution of iron for soil samples collected in the surface soils and the interval from 7 to 10 feet bgs at the Site are shown on Figures C-4 and C-5, respectively. Vanadium was detected in six samples (three surface and three subsurface samples collected from both halves of the Site) at concentrations in excess of the maximum background detection; the distribution of vanadium for soil samples collected in the surface soils and the interval from 7 to 10 feet bgs at the Site are shown on Figures C-6 and C-7, respectively.

Organic Compounds. With the exception of dioxins/furans, no organic constituents were detected in samples collected from the uppermost 10 feet bgs at concentrations in excess of the MSSLs.

As noted in Table 1, USEPA SSLs for protection of groundwater quality have been established for various VOCs, SVOCs, polyaromatic hydrocarbons (PAHs), and organochlorine pesticides. Of these, PAHs were not detected in any of the samples collected from 0 to 10 feet bgs.

The following organic compound detections were higher than the USEPA SSLs for protection of groundwater (DAF 1):

- alpha-BHC (two SSL exceedances in soil samples collected from SB-01-B);
- beta-BHC (four SSL exceedances in soil samples collected from CPS-1, CPS-2, and SB-01-B, all of which are located at the far western edge of the Site);
- Lindane (two SSL exceedances in soil samples collected from SB-01-B); and
- Dichloromethane (ten SSL exceedances in soil samples collected from the western [unused] portion of the Site).

The distribution of representative organochlorine pesticides (4,4-DDE and beta-BHC) for soil samples collected in the surface soils and the interval from 7 to 10 feet bgs at the Site are shown on Figures C-8 through C-11.

The distribution of a representative SVOC (hexachlorobenzene) for soil samples collected in the surface soils and the interval from 7 to 10 feet bgs at the Site are shown on Figures C-12 and C-13, respectively.

Formaldehyde was reported as a low level detection (below the MSSL) in one sample collected from SB-01-B. There were no reported detections of any of the other organic chemical classes that are site-related chemicals (*i.e.*, glycols/alcohols, chlorinated herbicides, organic acids, organophosphate pesticides, or PCBs) in soil samples collected from the uppermost 10 feet bgs.

Radionuclides. Radionuclides were routinely detected in all nine of the soil samples analyzed (eight surface samples and one subsurface sample); these samples were collected from the western [unused] half of the Site. Few of these detections were higher than the maximum shallow soil background level. Of the radionuclides that are the standard focus during this investigation (radium-226, radium-228, thorium-228, thorium-230, thorium-232, uranium-233/234, uranium-235/236, and uranium-238) 36 detections were in excess of the MSSL; of these radionuclides, there were no reported activities in excess of the maximum shallow soil background level. These MSSL exceedances were associated with the following radionuclides:

- Radium-226;
- Radium-228;

- Thorium-228; and
- Uranium-238.

In addition, the following radionuclides were detected at concentrations in excess of the SSLs for protection of groundwater:

- Radium-226 (SSL exceedances in all samples analyzed);
- Radium-228 (seven SSL exceedances, associated with all samples except SB-01-B);
- Thorium-230 (SSL exceedances in all samples analyzed);
- Thorium-232 (SSL exceedances in all samples analyzed);
- Uranium-235/236 (three SSL exceedances, samples collected from CPS-1, CPS-3, and CPS-5); and
- Uranium-238 (SSL exceedances in all samples analyzed).

The distribution of radium-226, representative of radionuclides, for samples collected in the surface soils at the Site is shown on Figure C-14.

Summary of Soil Exceedances. Of the 505 chemical detections in soil samples collected from the Site, 65 were of organic chemicals (that is, excluding general chemistry, metals and radionuclides) and only the TCDD TEQ exceeded the human health protection screening level. Of the 417 detections of metals and radionuclides, 63 (approximately 15 percent) were reported at concentrations in excess of their respective maximum shallow soil background level; 49 metal and radionuclide detections were higher than the MSSLs.

2.9 CHEMICAL DISTRIBUTION WITHIN GROUNDWATER

For evaluating Alluvial Aquifer groundwater quality at the Site, the following wells in the immediate Site vicinity were used: AA-01, AA-13, AA-27, DM-1, and POU3. The data associated with these wells from the most recent groundwater monitoring event (January 2007) are presented in Table 2. Chemical occurrence patterns for the chemicals detected in groundwater from these wells are provided below.

Organic Compounds. As presented in Table 2, several VOCs were detected during the 4th quarterly groundwater monitoring event. Most of these VOC detections were relatively low

values well below (1) the maximum contaminant level (MCL) or (2) indoor air intrusion screening levels (*i.e.*, USEPA generic groundwater to indoor air screening level (VI SL). The following VOCs were detected at concentrations greater than one or more of these screening levels:

- Bromodichloromethane was detected in the POU3 sample at a concentration higher than the VI SL, but lower than the MCL; this constituent was not detected in the other four samples;
- Carbon tetrachloride was detected in the POU3 sample at a concentration higher than the VI SL and MCL; this constituent was not detected in the other four samples;
- Chloroform was detected in the POU3 sample at a concentration of 1,400 µg/L, which is appreciably higher than the VI SL and MCL; this constituent was also detected in the other four samples but at relatively low concentrations below the MCL and VI SL;
- Dichloromethane was detected in the POU3 sample at a concentration higher than the MCL, but lower than the VI SL; this constituent was not detected in the other three samples for which it was analyzed;
- Tetrachloroethene was detected in the AA-01 and POU3 samples at concentrations of 84 µg/L and 14 µg/L, respectively, which are higher than the MCL and VI SL; this constituent was not detected in the other three samples; and
- Tribromomethane was detected in the POU3 sample at a concentration of 11 µg/L, which is appreciably higher than the VI SL but lower than the MCL; this constituent was not detected in the other four samples.

Other than VOCs, the only organic chemical detections in groundwater samples were as follows:

- Acetaldehyde, which was detected at 11 ppb in the POU3 sample; an MCL has not been established for this compound, and this detection is appreciably lower than the VI SL; and
- Methane, which was detected at 0.82 µg/L in the POU3 sample; neither an MCL nor a VI SL have been established for this compound.

Inorganic Compounds. Several inorganic compounds, specifically, chloride, nitrate, perchlorate, sulfate, aluminum, arsenic, chromium, phosphorus, uranium, and gross alpha, were detected above their respective MCLs as summarized below:

- Chloride, nitrate and sulfate are higher than their respective MCLs in all samples analyzed; maximum detections were 2,910 mg/L (POU3), 111 mg/L (AA-13), and 3,700 mg/L (POU3), respectively;

- Perchlorate is higher than the MCL in all samples analyzed except AA-13; the maximum detection was 31,800 µg/L (POU3);

- Aluminum is higher than the MCL in the DM-1 sample; this constituent was not detected in any of the other samples (reporting limits for other samples elevated above MCL);

- Arsenic is higher than the MCL in samples collected from wells AA-01, AA-13, and POU3 (reporting limits for other samples elevated above MCL); the highest concentration is associated with POU3;

- Chromium is higher than the MCL in the POU3 sample; this constituent was not detected in any of the other samples;

- Uranium was reported at a concentration higher than the MCL in samples collected from AA-01, AA-13, and AA-27; and

- Gross alpha was reported at levels greater than the MCL in all samples except POU3; the highest reported level was associated with AA-01.

It should be noted that reporting limits for several analytes were higher than the MCLs, and these constituents may be present in Site groundwater at concentrations greater than the MCLs.

3.0 DATA QUALITY OBJECTIVES

A general overview of USEPA and NDEP's 7-step DQO process is provided in the Closure Plan. One of the key decision inputs to the DQO process, namely the Step 2 Principal Study Questions (PSQs) is also provided in the Closure Plan. The PSQs are the central Eastside Area-wide questions that provide a basis for the overall closure effort. Per discussions with the NDEP, the other steps of the DQO process are to be addressed, on an Eastside Area sub-area basis (for soils), in the respective sub-area SAPs. For the sake of continuity, BRC is providing a discussion of Steps 1 through 5 of the DQOs for this Site. BRC is not addressing DQO Steps 6 and 7 based on prior discussions with the NDEP.

The DQO process is a seven-step iterative planning approach used to prepare plans for environmental data collection activities. It provides a systematic approach for defining the criteria that a data collection design should satisfy, including when, where, and how to collect samples or measurements; determination of tolerable decision error rates; and the number of samples or measurements that should be collected. DQOs define the purpose of the data collection effort, clarify what the data should represent to satisfy this purpose, and specify the performance requirements for the quality of information to be obtained from the data. The DQO process, as defined by USEPA's *Guidance on Systematic Planning Using the Data Quality Objectives Process, EPA QA/G-4* (USEPA 2006), consists of 7 steps:

Step 1 - State the Problem;

Step 2 - Identify the Goal of the Study;

Step 3 - Identify Information Inputs;

Step 4 - Define the Boundaries of the Study;

Step 5 - Develop the Analytical Approach;

Step 6 - Specify Performance or Acceptance Criteria; and

Step 7 - Develop the Plan for Obtaining Data.

Steps 1 through 5, along with sub-activities that comprise each step, are outlined below.

3.1 STATE THE PROBLEM (STEP 1)

The first step in the DQO process is to define the problem that initiated the study in such a way that that the focus of the study is unambiguous. This section provides the following information: a summarization of the problem being addressed; identification of the assessment team; identification of the key decision-makers and stakeholders; and a presentation of the schedule.

3.1.1 Problem Statement

1. As presented in the Closure Plan, the Site is adjacent to open land modified to convey and accept waste water discharges from the BMI Complex through various trenches and evaporation ponds from 1942 through 1976. The western half of the Site (33.1 acres) has been unused historically; the eastern half of the Site (67.8 acres) comprises an area formerly used from 1992 through 2002 by the City of Henderson as RIBs associated with municipal wastewater treatment. The industrial activity on this site may have resulted in concentrations of chemicals that drive unacceptable human health risk. The goal of this work is to remediate the Site such that chemical concentrations in all relevant media do not pose an unacceptable risk to human health and the environment under current and future land use scenarios. The problem that needs to be addressed is one of returning the upper 10 feet of soils at the Site to conditions that pass a human health risk assessment, with restrictions on access to deeper soils and on the use of groundwater. Risk assessment at the Site includes exposure to soils, but also exposure from vapor intrusion from VOCs and radon, which might emanate from the vadose zone or from groundwater. A further consideration is the potential for leaching contaminants into groundwater.

The Site is currently vacant. The potential on-site and off-site receptors are currently trespassers/visitors, occasional on-site workers, and off-site residents. Risks to current receptors are being managed through site access control. Under the current, prospective redevelopment plan, the Site will be used for a variety of purposes, including residential housing, parks and trails, and streets, although only a residential exposure scenario is assumed for this problem. The current and future potential exposure pathways of concern are being addressed by this SAP and any subsequent remediation. The potentially exposed populations for the Site and their potential routes of exposure are presented in Figure 8 and are summarized in Section 9 of the Closure Plan.

2. As described in the Closure Plan, remediation for all media will be to risk-based levels protective of human health and the environment, under current and future land use scenarios.

Therefore, appropriate risk-based cleanup goals for the protection of human health, ground water protection, and surface water protection must be established. These criteria shall apply to all affected media (*i.e.*, soil, soil vapor). Where background levels exceed risk-based goals, metals and radionuclides in Site soils are targeted to have risks no greater than those associated with background conditions.

The problem will be addressed through iterative remediation until sufficient remediation (removal of soil) has been performed that acceptable human health risks have been attained. The final site conditions will include regrading of on-site soils (post-remediation), so that the future surface will not consist of the same soil as the current surface. Imported fill material is not expected to be needed. It should be noted that information regarding the specific locations that will be covered with fill may not be known at the time of risk assessment for closure purposes; however, the current grading plan (Figure 4) is being used in this SAP for the Site.

Although the primary focus is human health risk assessment for a residential scenario, secondary issues that will be addressed include contamination of deeper soils and of groundwater beneath the site. In addition, the impact to off-site receptors will be addressed; however, because remediation of the Site will be to on-site residential standards, risks to off-site receptors will be minimal. It should be noted that BRC will discuss the issue of off-Site transport of contaminants with the NDEP should the NDEP determine that this is necessary, maintaining consistency with AOC3.

3.1.2 Proposed Assessment Team

A multidisciplinary approach is being and will be followed with participation by qualified geologists, chemists, radiochemists, hydrogeologists, biologists, ecologists, engineers, remediation specialists, toxicologists, risk assessors (human health and ecological), statisticians, field sampling personnel, community relations personnel, risk communications specialists, project developers, and project managers. BRC maintains an active roster of key team members, which will be periodically updated as appropriate throughout the project term. Key team members are identified in Section 1.4 of the Closure Plan.

3.1.3 Key Decision Makers and Stakeholders

The NDEP is the primary and the ultimate decision-maker for the project. Stakeholders include BRC, the City of Henderson, Clark County, the State of Nevada, the United States Government, the local public, site developers, and other interested persons.

3.1.4 Schedule

BRC has established a phased schedule for the Eastside Area such that the various sub-areas are addressed sequentially. The timing of the phased closures is closely spaced to avoid potential complications associated with the presence of contaminated soils near areas that have been successfully remediated and closed and to mitigate potential impacts on adjacent residential housing development.

Surface soil data will be used to evaluate both current (post-remediation, pre-development) and future (post-development) exposures and risks. Once these data have been collected and preliminary risk calculations have been completed, BRC will determine whether the acceptable chemical concentrations and/or risk levels defined for the Site have been attained and will discuss this determination with the NDEP. If it is determined that acceptable risk levels have not been attained, BRC will perform additional remediation activities consistent with the *Corrective Action Plan* (CAP; BRC 2006) and will repeat the assessment process until risk-based goals are achieved. Each iterative remediation and data collection process is expected to take place over a one to two month period, but may extend into a slightly longer period.

3.2 IDENTIFY THE GOAL OF THE STUDY (STEP 2)

The purpose of this step is to define the Site-specific PSQs that need to be resolved in order to address the problem identified in Step 1, and to identify alternative actions that may be taken, depending on the answers to the PSQs. As noted above, the project PSQs are presented in the Closure Plan. The primary PSQ associated with this SAP for the Site is: Are the current (post-remediation, pre-development) and future (post-development) incremental risks to human health or the environment in the Site soil and soil vapor flux under investigation sufficiently low that they are acceptable? If the incremental risks are not sufficiently low, then reasonable further action will be taken; otherwise, no further action will be taken. A secondary PSQ deals with groundwater quality in the context of the overall site, and on the impact of site contamination on off-site human receptors. Ecological risk assessment issues will be discussed with the NDEP should NDEP determine that an ecological risk assessment is warranted.

The following fundamental assumptions apply:

1. The PSQs will be assessed only after BRC has remediated Site soils such that achievement of Site cleanup goals is expected. Cleanup goals for the project are defined in Sections 1.1 and 9.1.1 of the Closure Plan. The data pool employed in the risk assessment will comprise only

those data collected in accordance with this SAP[3], after any initial baseline remediation and/or clearing activities have been performed or after subsequent remediation phases performed iteratively during the closure process, as and if such occur(s). Therefore, although there are data gaps related to the nature and extent of existing impacts to Site soils (see Section 1), no further characterization of impacted soils will be performed to support Site closure, because the impacted soils will be removed from the Site.

2. The data used in PSQ assessment will undergo a rigorous Quality Assurance/Quality Control (QA/QC) review prior to that assessment, in accordance with the procedures described in the *BRC Quality Assurance Project Plan* (QAPP; BRC and ERM 2008). Only those data determined as a result to be suitable for use will be included in the closure data pool. Furthermore, the adequacy of the data pool will be evaluated following the procedures provided in Section 9.3 of the Closure Plan. If found to be inadequate, additional sampling and analysis may be performed.

Stated another way, the decision is to determine whether or not excavation of impacted soils and their disposal outside the Site results in acceptable human health risks and risks to the environment for future land uses. This will be determined through human health risk assessment for future on-site receptors. Potential alternative actions that may be taken include: (a) No Action (in this context No Action means no additional action beyond removal of contaminated soils presently located on Site), (b) institutional controls/limited action, (c) importation and use of clean fill, and (d) excavation of soils and on-site landfill disposal at the project Corrective Action Management Unit (CAMU). How the study decisions will be made for the Site, including how the risk assessment will be performed, are presented in the Closure Plan.

3.3 IDENTIFY INFORMATION INPUTS (STEP 3)

The purpose of this step is to identify the information needed to resolve the PSQs identified in Step 2. The data inputs for the primary PSQ are listed below. As previously discussed, risk assessment will be the primary means of answering the PSQs as discussed in the Closure Plan, and will incorporate the various data inputs listed, as discussed in the Closure Plan. These data inputs either 1) are already established (as presented in the Closure Plan), 2) will be obtained

[3] Data collected prior to SAP approval, including data collected after IRM implementation and expected to be representative of current Site conditions will not be included in the risk assessment; however, a data usability evaluation will be conducted to determine whether any of the historical data can be used in the risk assessment or it will be explained why the new data supplants the old data. These historical data may be used to help develop the CSM for both this Site and the overall Eastside.

during the soil and soil vapor flux sampling program – that is, this SAP (Section 5), or 3) currently exist as data gaps (see Section 1) that will be resolved prior to performing risk assessment. A comprehensive list of the necessary data inputs for addressing the primary PSQ is provided below.

- Input parameters for human health risk assessment and assessment of impacts to groundwater considering relevant exposure pathways associated with potential future land uses (see Closure Plan).
- Toxicity inputs parameters consistent with USEPA hierarchy guidance (see Closure Plan).
- Input parameters for all fate and transport models (see Closure Plan and data to be collected as determined by this SAP).
- Site soil and soil vapor flux characterization data (to be collected as determined by this SAP in accordance with the most recent NDEP-approved version of Standard Operating Procedure [SOP]-16) in case Site materials are used in other portions of the Site as fill materials.
- Identified locations/depth intervals where contaminant concentrations could affect future land users.
- Characterization data for imported fill if such fill is considered for use at the Site. At this point, it is not expected that imported fill materials will be used on Site.
- To address the secondary PSQs, soil data from depths greater than 10 feet bgs, and groundwater data will be used to address issues related to further understanding of vadose zone and groundwater contamination beneath the site.

3.4 DEFINE THE BOUNDARIES OF THE STUDY (STEP 4)

The purpose of this step is to define the aspects of the project that affect the decision making process, including:

- The populations to be sampled;
- The geographical area applicable for decision making;
- The temporal boundary for decision making;

- Any practical constraints that may interfere with data collection; and
- The scale for decision-making purposes.

Each of these portions of this step is presented below.

3.4.1 Sample Populations

Based on the primary PSQ and the necessary information listed in Step 3, there are several target populations to be sampled for this project, including surface soils (*i.e.*, less than 10 feet bgs), subsurface soils (*i.e.*, greater than 10 feet bgs), groundwater, and soil vapor flux. These populations were segregated based on their differences in media type and pathways for potential human residential exposure following redevelopment. For this project, samples will be collected to assess chemical concentrations and/or human health risks associated with each of these populations, and for cumulative risk across these media types and pathways. Ultimately, these chemical concentrations and risk-based levels will be compared to project cleanup goals that are consistent with regulatory-defined acceptable concentrations and/or risk levels appropriate for the planned redevelopment of the Site and will ensure protection of human health and the environment.

3.4.2 Spatial Boundaries

The spatial boundaries of interest for the risk assessment are the spatial extent of the Site boundary to a depth of 10 feet bgs or deeper if construction activities are below this level. However, impacts to receptors exposed to these soils can also occur from vapor intrusion from the deeper vadose zone and groundwater. Consequently, the vertical extent of the site that encompasses vadose zone and groundwater is of interest. Based on expected land use, construction activities are not expected to occur at depths greater than 10 feet bgs. It should be noted that there could be more than one set of surface spatial boundaries ultimately identified. For example, data may need to be grouped for areas within the Site in order to appropriately address the decision units (*e.g.*, exposure areas). Also, data may ultimately be grouped by soil depth to appropriately address different soil exposure points. These spatial boundaries might be important if residual contamination varies across the site either in the surface soils or by depth.

3.4.3 Temporal Boundaries

The temporal boundaries of interest for this project are defined by the timeframe associated with decision making for each spatially distinct region of interest. Specifically, for each different land-use scenario, within each decision or exposure unit, both current and potential future risk needs to be considered and quantified.

Surface Soil

Because sub-areas within the Eastside are adjacent to each other, to assess or avoid potential impacts from other sub-area sources, risk assessment could be performed across sub-area boundaries, and/or adjacent sub-areas will be remediated in the same general time frame. To some extent this will depend on the spatial homogeneity of concentrations once remediation has been performed. It is likely that some remediation may be warranted for portions of the adjacent Beta Ditch; future remediation at adjacent sub-areas will involve dust suppression activities. Therefore, risk assessment or additional remediation across sub-areas should not be necessary to assess or avoid potential impacts due to cross-contamination.

Subsurface Soil and Groundwater

As noted, BRC does not expect that subsurface soils (generally greater than 10 feet bgs) will be at issue from a human exposure standpoint. However, subsurface soils will be sampled in order to determine potential impacts to groundwater in accordance with the secondary PSQ relating to the deeper vadose zone and groundwater in the context of the entire Site. These subsurface soil data will be used to evaluate both current (post-remediation, pre-development) and future (post-development) impacts to groundwater. Data to support the evaluation of potential impacts to groundwater will be collected. These data will be collected to support the migration to groundwater calculations included in the Closure Plan, as well as more refined modeling tools (such as, VLEACH, SESOIL, and PESTAN). Any indirect impacts from underlying groundwater will be addressed via the proposed surface flux measurements.

Soil Vapor Flux

The soil vapor flux concentrations used in the risk assessment will be derived from existing soil and groundwater conditions (that is, this SAP). BRC assumes that these will reflect the maximum concentration ranges for the project lifetime, and those data will be relied upon throughout the redevelopment process and in assessing risks under current and future land use scenarios. Given the soil and groundwater data for the area (see Section 2 and Appendix B) this

assumption is considered appropriate. The timeframe for data collection, assessment, and decision-making will be from one to three months for surface soils. These soil vapor flux data will be used to evaluate both current (post-remediation, pre-development) and future (post-development) exposures and risks.

3.4.4 Practical Constraints for Data Collection

Since the Site is currently unoccupied, there are no access constraints for collecting soil or soil vapor flux samples from BRC's property. Due to the large area of the Site, the primary constraint will be the cost to collect a representative, statistically sufficient number of soil and soil vapor flux samples to assess chemical concentrations against the project-specific risk-based cleanup goals. This constraint is not expected to be such that data quantity and quality will be insufficient.

Following redevelopment, access constraints may be an issue pertaining to sample collection at the Site. No surface soil, subsurface soil, or soil vapor flux sampling is anticipated to be required following redevelopment; therefore, no constraints are anticipated. For ground water, additional and/or routine sampling activities (such as ground water sampling from monitoring wells) may be required following redevelopment. However, these constraints will be dealt with at a later time.

3.4.5 Scale of Decision-Making

The scale for decision-making varies based on the target sample population of interest, as described below.

Surface Soil

Redevelopment of the Site following remediation includes significant changes in land uses, including residential housing. However, the final redevelopment plans for the Site have not been completed and may change depending upon the results of post-remediation sampling. To facilitate the redevelopment of the Site with the fewest practical constraints due to residual contamination, the nominal scale for decision-making for the proposed residential exposure scenario will be consistent with a typical residential lot size, which is 1/8th acre. However, if, as expected, the concentration distribution across the site is statistically homogeneous representing a single population of concentrations for each chemical, then the decision unit will be the entire site. Smaller decision units will only be defined if the spatial distribution of concentrations

suggests the need to break the site into smaller areas for risk-based decision making. Post-remediation data will be used in a risk assessment to determine if further remediation is needed. This will allow for maximum flexibility in the redevelopment of the Site, without concern for residual concentrations to pose a threat to human health and the environment. This issue of correlated versus uncorrelated data for the Site and how it apples to the decision-making is discussed in the *Statistical Methodology Report* (NewFields 2006). The same approach will be used for soil vapor flux, subsurface soils and groundwater as they feed into the human health risk assessment.

3.5 DEVELOP THE ANALYTICAL APPROACH (STEP 5)

The purpose of this step is to define the population parameter (mean, median, etc.) of interest for each population (surface soil, etc.), identify the appropriate action level (target concentration or risk level) for each population, and select measurement and analysis methods that can be used to properly evaluate the parameters against the action levels (*i.e.*, ensure detection limits do not exceed action levels, etc.). Once these actions are completed, decision rules (if-then statements) are developed for each population that state the alternative actions that would be taken depending upon the true value of the parameter relative to the specified action levels.

The PSQ-specific decision rules for the Site are presented below.

- If, after baseline remediation per Alternative (d) in Section 3.2 (*i.e.*, removal of known or suspected contaminated sediments – already completed at the Site), confirmation sampling conducted per the Closure Plan and this SAP, and subsequent risk assessment following procedures per the Closure Plan, it is deemed that the risk goals for the project (as discussed in Section 1 of the Closure Plan) are not met, then additional remediation per Alternative (d) in Section 3.2 will be conducted to satisfy the risk goals. The risk assessment methodology for the project is presented in Section 9 of the Closure Plan.

- If, after implementation of the Decision Rule above it is determined that there are specific locations in the Site for which additional and continued remediation will not be practical or effective, then other alternatives such as (b) and (c) will be evaluated considering overall protection, effectiveness, permanence, implementability, cost, regulatory acceptance, and community acceptance.

- If, after implementation of the Decision rule above it is determined that no further action needs to be taken in the top 10 feet of soils, a proposal for NFAD will be made. This proposal will be made only after consultation with NDEP.

Data for the secondary PSQs (deeper soils and groundwater) will be evaluated for obvious issues that might require immediate action, and will be included in analysis of objectives related to the groundwater program for the entire site.

4.0 SCOPE OF WORK

Other than the removal of debris found on the Site, no additional remediation is proposed prior to sampling. Decisions for additional excavation will be based on the initial data to be collected based on this SAP as discussed in this section.

The risks posed to human health and the environment by chemicals remaining in Site soils will be assessed in accordance with the Risk Assessment Methodology provided in the Closure Plan. If this assessment indicates that risk-based cleanup goals established for the Site have not been met, additional phases of remediation, sampling/analysis and assessment will be performed as discussed in the CAP and the Closure Plan. Development may only proceed after attainment of acceptable risk levels under the future planned land uses – *i.e.*, after obtaining the NFAD from the NDEP.

The following is the proposed scope of work for investigating the Site and meeting the SAP objectives. Much of the discussion below regarding confirmation soil sampling is taken from the *Statistical Methodology Report* (NewFields 2006).

4.1 INITIAL CONFIRMATION SOIL SAMPLING

As per the *Statistical Methodology Report*, the initial confirmation sampling in the Site will be conducted on the basis of combined random and biased (judgmental) sampling, as follows:

- **Stratified Random Locations:** For this purpose, the Site is covered by a 3-acre cell grid network. Within each 3-acre cell, a sampling location is randomly selected. Sampling locations are randomly selected within both full and partial grid cells if they are greater than 50 percent of the total grid cell area (based on the project-wide grid cell network and the Site boundaries; those partial grid cells that contain less than 50 percent of their area within the Site will be included in the adjacent sub-area SAPs). The main objective of this stratified random sampling is to provide uniform coverage of the Site.

- **Biased Locations:** Additional sampling locations are selected within or near small-scale contamination points of interests, including but not limited to previous debris locations, and waste disposal features. For this purpose, the randomly selected location within a corresponding 3-acre cell may also be adjusted in order to cover a nearby point of interest.

A reconnaissance of the Site was performed in July 2008 to check the Site for environmentally significant features such as debris piles or stained soil. Results of this site reconnaissance are

shown in Table 3. Certain biased sampling locations for the Site were based on the outcome of this reconnaissance, and select random sampling locations were shifted slightly to address observed debris areas. In addition, two minor stained soil areas were observed. Three biased sampling locations were located based on observed debris piles/soil staining, and five random sampling locations were shifted slightly to be positioned within observed debris piles/soil staining. For this Site, 15 biased sampling locations were selected; these locations are 1) along the Beta Ditch, 2) within the eastern RIBs area in non-RIB locations that showed historical evidence of use in aerial photographs, within the footprint of the former transfer station and wastewater treatment plant, and 4) in areas of debris or stained soils. All debris and stained soil will be removed prior to sampling at the Site. In all, the proposed sampling locations address each of the current land uses as follows:

Land Use	**Number of Samples**
Former RIBs	14
RIB Berm	15
Structures (*e.g.*, former Transfer Station)	14
Ditches (adjacent)	5
Other/Unused Land	15

Figure 9 and accompanying Table 4 show the random and biased discrete sampling locations that are proposed to be collected within the Site.

At each selected location, multi-depth soil samples will be collected and analyzed for the SRC list as follows. Proposed sample depths are 0 (surface) and 10 ft bgs at each sampling location. In addition, sample locations with grading greater than two ft bgs will also be sampled at the anticipated post-grading soil surface. Additionally, at three sample locations, two within the former RIBs and one outside the RIBs at the western end of the Site, soil physical parameter data will be collected at 20 feet and every subsequent 10 feet within unsaturated soils above the capillary fringe until groundwater is reached or 50 feet deep, whichever is shallower.

Samples will be collected at:

1. Existing surface (0' bgs) and 10 ft bgs for sample locations in relatively flat (un-graded) locations;

2. Existing surface (0' bgs), post-grading surface, and post-grade 10' bgs for sample locations with substantial grading (that is, cut depths greater than two feet[4]) and the uppermost sampled soil is expected to be used as surface fill;

3. Existing surface (0' bgs) and 10' bgs for sample locations with minimal grading (that is, cut depths less than two feet) and the uppermost sampled soil is expected to be used as surface fill; and

4. Existing surface (0' bgs) and 10' bgs for sample locations in an area expected to be covered by fill material.

The analytical sample results will then be divided into surface (0-2' depth), subsurface (2'-10' depth), and deep (>10' depth) layers, according to the following rules:

- **Rule 1: IF** the sample is collected in a relatively flat (un-graded) part of the Site (*i.e.*, an area not targeted for substantial grading), **THEN** the depth of the collected soil sample will be used to designate its soil layer grouping.

- **Rule 2: IF** the sample is collected in a part of the Site targeted for substantial grading, **AND** the sampled soil is located in an area expected to be covered by fill material (*e.g.*, exposed excavated surfaces of ponds), **THEN** the current surface soil sample will be classified as a surface (0-2' depth) sample, and the soil layer grouping of the remaining deeper sampled soil will be determined based on the difference between its elevation and the final (post-graded) surface elevation in that part of the Site.

- **Rule 3: IF** the sample is collected in a part of the Site targeted for substantial grading, **AND** the sampled soil is expected to be used as surface fill (*e.g.*, soil within a berm) **AND** the cut depth is expected to be greater than two feet, **THEN** the current surface soil sample will be classified as a fill material sample, a final (post-graded) surface sample will be classified as a surface (0-2' depth) sample, and the soil layer grouping of the remaining deeper sampled soil will be determined based on the difference between its elevation and the final (post-graded) surface elevation in that part of the Site.

[4] Because sample collection will be over a two to three foot depth interval, sample locations with an anticipated cut depth less than three feet will only be sampled at the surface and one post-grade subsurface depth.

- **Rule 4: IF** the sample is collected in a part of the Site targeted for substantial grading, **AND** the sampled soil is expected to be used as surface fill (*e.g.*, soil within a berm) **AND** the cut depth is expected to be less than two feet, **THEN** the current surface soil sample will be classified as both a fill material sample and as a surface (0-2' depth) sample, and the soil layer grouping of the remaining deeper sampled soil will be determined based on the difference between its elevation and the final (post-graded) surface elevation in that part of the Site.

A schematic example of these rules is shown on Figure 10. The current site grading plan is shown on Figure 4. It should be noted that this is the most current plan available, but not necessarily the final grading plan. The sample-specific collection depths are presented in Table 4.

All soil samples will be tagged in the database with numeric designations of their corresponding assigned soil layer grouping based on these rules. Initially, 150 soil samples will be collected from 63 soil boring locations (not including deep samples to be collected for soil physical parameter data). This includes 48 random and 15 biased sample locations; with the following number of samples representing each post-grade type of soil:

Post-Grade Sample Type	Number of Samples[5]
Fill material	51
Surface soil	63
Subsurface soil	63

It should be noted that, as discussed with NDEP, once a particular sub-area receives an NFAD from the NDEP, the cut material that is slated to be used as fill material elsewhere would not require additional testing. However, the chemical data for this fill material may be useful for evaluating sub-areas to receive fill (for example, if there is deeper contamination).

[5] Note that in some cases a soil sample may be considered both a fill sample and a surface sample (as indicated in Table 4). Therefore, the sum of the number of samples indicated for each post-grade sample type does not necessarily equal the total number of samples collected.

4.2 INTERMEDIATE SAMPLING AND CLEANUP

Upon layer-designation of confirmation soil samples, a series of tests will be conducted to determine whether sampled locations within a given layer include "exceeding" samples. An exceeding sample is one that warrants further investigation, which may include additional localized soil removal. Exceeding samples will be defined consistent with the following rules:

- **Chemicals without background concentrations:** For chemicals without corresponding background distributions, the distribution of its reported concentrations in each layer will be constructed. The 95 percent UCL of these distributions will also be computed. **IF** the constructed distribution indicates the presence of anomalous concentrations (*e.g.*, high values at the end of an elongated tail of a uni-modal distribution, or values forming an elevated sub-population of a multi-modal distribution), **AND** the inclusion of these anomalous values causes the computed UCL to exceed 1/10 of the risk-based screening level of the chemical, **THEN** samples associated with anomalous values will be considered as potential exceeding samples. **IF** the constructed distribution indicates no presence of anomalous concentrations and the computed UCL exceeds 1/10 of the risk-based screening level of the chemical, **THEN** all samples associated with the layer will be considered as potential exceeding samples.

- **Chemicals with background concentrations:** For chemicals with corresponding background distributions, the distribution of its reported concentrations in each layer will be constructed. These concentration distributions will then be statistically compared to the background concentration distributions. Appropriate two-sample tests, including Quantile test, Slippage test, *t*-Test and the Wilcoxon rank sum test with Gehan modification, will be used to identify exceeding samples through comparison of Site and background distributions. **IF** inclusion of elevated measured values in a given layer causes the rejection of the appropriate two-sample test, **THEN** samples associated with such elevated values will be considered as potential exceeding samples.

Areas with potential exceeding samples may be subjected to re-sampling prior to the confirmation of the location as an exceeding sample. After any such re-sampling, the above process will be repeated to confirm the exceeding status of the targeted sample location. It should be noted that if the data indicate a more widespread or Site-wide contamination, then it might be important to look at the effect on a sub-area basis rather than a sample basis. That is, additional alternatives, such as, changing the future land use, further division into smaller sub-areas, or more extensive remediation, would need to be considered and evaluated.

Upon confirmation of an exceeding sample, additional neighboring delineation sampling will be conducted based on a "step-out" approach. Step sizes and directions will be dependent on the location of the exceeding sample and perhaps the magnitude of the exceedance. Additional biased step-out or step-in sampling may be conducted to further refine the extent of the required removal. Each removal will be followed by confirmatory sampling. More detail on this approach is provided in the *Statistical Methodology Report* (NewFields 2006).

After the above intermediate removals, results associated with removed exceeding samples will be marked as excluded from the dataset, while non-exceeding delineation and confirmation data will be included in the dataset. The revised dataset will then be subjected to the above exceeding sample determination process, which will be repeated until all exceeding samples are adequately addressed.

4.3 FINAL CONFIRMATION DATASET

At this stage, the final confirmation soil dataset for the Site, consisting of: 1) the original non-exceeding confirmation data collected in accordance with this SAP[6] for the Site; 2) the non-exceeding data generated after intermediate sampling and cleanup, and 3) additional biased and random samples collected for confirmation, will be subjected to a series of statistical analyses in order to determine representative exposure concentrations for that sub-area, as described in the *Statistical Methodology Report*.

4.4 SOIL VAPOR FLUX SAMPLING

Concurrent with the confirmation soil sampling, BRC will implement soil vapor flux sampling across the Site. This SAP refers to and relies on the most recent NDEP-approved version of SOP-16 for technical description of sampling and analytical methodology, QA/QC protocols, and project procedural description. The sampling procedure for the effort includes the USEPA surface emission isolation flux chamber (flux chamber) and static chamber sampling to perform an air pathway analysis (APA) for the Site. A description of the history, background, and operation of the USEPA-recommended flux chamber and radon flux approach is provided in SOP-16.

[6] As distinguished from the historical "confirmation" sampling data collected as part of or immediately after the IRM, which will not be included in the risk assessment dataset.

The flux chamber sample collection rationale is based on the project goal of obtaining a representative dataset of air emissions per sub-area. Flux chamber samples will be collected from each of the 3-acre grid cells, resulting in 48 random sampling locations, indicated in Figure 9, providing full spatial coverage of the Site. All of the flux chamber samples will be tested for both VOC flux and radon flux, and this density of sample collection should be adequate for sub-area characterization given: the random nature of the sample locations, the size of the sub-area, and the number of sample locations suggested by the USEPA (1986) in the flux chamber User's Guide for assessing zones of homogeneous site properties. A higher density of sample collection for VOCs is not warranted given the general lack of VOC detections in soils and groundwater.

4.5 CHEMICALS SELECTED FOR ANALYSIS

The proposed analyte list for soil samples is comprised of the BRC project SRC list, as presented in the Closure Plan[7] and Table 5, with the following exceptions for this Site:

- Asbestos and dioxins/furans will only be analyzed for in surface soil samples;
- USEPA Method 8141A for organophosphorous pesticides will not be conducted. There have been only 47 detections of these compounds in over 10,000 soil sample records (<0.5 percent) from throughout the Eastside, and no detections in 57 soil sample records within the Site. The few detections are well below USEPA Region 6 residential soil MSSLs;
- USEPA Method 8151A for chlorinated herbicides will not be conducted. There have been no detections of these compounds in over 1,400 soil sample records from throughout the Eastside, including 20 records associated with this Site. Detection limits are below USEPA Region 6 residential soil MSSLs;
- HPLC Method for organic acids will not be conducted. There have been only three detections of these compounds in 567 soil sample records (<0.5 percent) from throughout the Eastside, including 10 records associated with this Site (0 detections). Detection limits are below USEPA Region 6 residential soil MSSLs;
- USEPA Method 8015B for nonhalogenated organics will not be conducted. There have been only five detections of these compounds in 420 soil sample records (one percent) from throughout the Eastside including 8 records associated with this Site (0 detections). Detection limits and the few detections have been well below USEPA Region 6 residential soil MSSLs;

[7] Specific analytes and analyte-specific reporting limits for each analysis are listed in Table 4 of the QAPP.

- USEPA Method 8015 for total petroleum hydrocarbons (TPH) will not be conducted. There have been only three detections of these compounds in over 299 soil sample records (one percent) from throughout the Eastside. The few detections have been below 100 mg/kg, which is the typical low-end aesthetic threshold used for these compounds. TPH will be included in the analyte list for surface soil samples at three biased locations with stained soil. While TPH is not proposed for analysis at all other sample locations, its components are via other methods. In addition, TPH cannot be included in a risk assessment while its components can; and

- Consistent with the current project analyte list, the following radionuclides will be analyzed for: radium-226, radium-228, thorium-228, thorium-230, thorium-232, uranium-233/234, uranium-235/236, and uranium-238. Activities for other radionuclides on the SRC list will be back-quantitated.

The analyte list, as proposed in this SAP for the Site, consists of 319 of the 418 compounds (including water only parameters) on the project SRC list as well as physical parameters (Section 5.2.3) to support the evaluation of potential impacts to groundwater from migration of chemicals from soil. The analytical and preparatory methods used in accordance with this SAP adhere to the most recent version of the QAPP (BRC and ERM 2008), which has been revised to ensure appropriate comparisons to the background dataset. The proposed analyte list for soil vapor flux samples is comprised of the list provided in the most recent NDEP-approved version of SOP-16 (see the *BRC Field Sampling and Standard Operating Procedures* [FSSOP]; BRC, ERM and MWH 2007), including radon. This analyte list is provided in Table 6.

5.0 FIELD AND LABORATORY METHODS

5.1 FIELD METHODS

All Site work will be performed under the responsible control and direction of a Nevada State Certified Environmental Manager. All sampling and sample handling procedures will be consistent with the NDEP-approved BRC FSSOP BRC, ERM and MWH 2007). In accordance with applicable federal regulation (29 CFR 1910.120) all field activities will be performed in compliance with the *BRC Health and Safety Plan* (BRC and MWH 2005).

Pre-field and field activities will be conducted in accordance with the most recent NDEP-approved versions of applicable SOPs (BRC, ERM and MWH 2007). These SOPs include SOP-1 (Drilling Methods), SOP-6 (Sample Management and Shipping), SOP-7 (Soil Sampling), SOP-10 (Surveying), SOP-12 (Asbestos Soil Sampling), SOP-13 (Field Equipment Calibration Procedures), SOP-14 (Field Documentation), SOP-15 (Field Logbook), SOP-16 (Flux Chamber Source Testing), SOP-17, (Soil Logging), SOP-23 (Split Spoon Sampling), SOP-26 (Soil Grab Sampling), and SOP-39 (Photoionization Detector Screening).

The BRC QAPP (BRC and ERM 2008) and Health and Safety Plan (BRC and MWH 2005) prepared for the BMI Common Areas will be used for this proposed scope of work. The selected driller will notify the Underground Services Alert one-call notification system at least 48 hours before implementing any subsurface activities. BRC will also notify the NDEP at least one week prior to commencing field activities. Once the data are collected, BRC will subject the data to validation per procedures agreed to previously with the NDEP and consistent with the BRC QAPP (BRC and ERM 2008) and SOP-40.

Soil cuttings generated during soil sampling and Hollow Stem Auger (HSA) drilling activities will be collected and stored with the other remediation waste and sent to the CAMU.

5.2 LABORATORY METHODS

Samples submitted for laboratory analysis will be analyzed in accordance with approved methodologies by a State of Nevada-certified analytical laboratory. Samples not specified for analysis will be placed on hold pending the results of the initial analysis.

5.2.1 Soil Chemical Analyses

BRC's complete SRC list as approved by the NDEP is presented in Table 4 of the QAPP. Table 5 of this SAP identifies the complete list of analytes proposed for analysis of soil samples along with the appropriate analytical methods. An explanation for the exclusion of a chemical for analysis is provided in Table 5 of this SAP.

5.2.2 Soil Vapor Flux Analyses

As indicated in Table 6, all flux chamber samples will be analyzed by USEPA Method TO-15 full scan, and selective ion mode analyses on a sub-set of VOCs to achieve the lowest attainable method detection limits for the target list of study compounds (see most recent version of SOP-16). All samples will be analyzed for the target list with optimum method detection limits (MDLs) so that these data can be used to satisfy the sensitivity requirements of the human health risk assessment.

5.2.3 Soil Physical Parameters

In addition to chemical data, to support the evaluation the potential impacts to groundwater, soil physical properties will also be measured. These parameters will be collected to support the migration to groundwater calculations included in the Closure Plan, consistent with the USEPA Soil Screening Guidance (1996; 2000; 2002), as well as more refined modeling tools (such as, VLEACH, SESOIL, and PESTAN). Site-specific soil physical parameters to be measured include pH (USEPA Method 9045C), cation exchange capacity, dry bulk density, Soil permeability/saturated hydraulic conductivity, specific gravity, total porosity, volumetric water content, grain size analysis by sieve and hydrometer, and fractional organic carbon content (see Table 5). These soil physical parameters will be measured from each of the subsurface samples collected from the three deep sample locations at the Site (see Figure 9). This will ensure that soil physical parameters will be measured at various depths from across the Site so that all sample depths are represented. In addition, samples will be collected from two subsurface sample locations (see Figure 9 and Table 5) for conducting the synthetic precipitation leaching procedure (SPLP; USEPA Method 1312) with the extract analyzed for metals, organochlorine pesticides, SVOCs, radium-226, radium-228, and perchlorate. These analytes are considered those of greatest concern for potential migration and impacts to groundwater.

6.0 REPORTING AND SCHEDULING

After approval of the SAP by NDEP, BRC is prepared to promptly initiate field activities. BRC will be directly in charge of sampling with oversight conducted by NDEP. As discussed in Section 3.4.3 sampling activities are anticipated to be completed over a one to three month period, and laboratory analyses to be completed within a five to six-week period following field work completion. Once the data are collected, BRC will subject the data to validation per procedures agreed to previously with the NDEP and consistent with the BRC QAPP (BRC and ERM 2008) and SOP-40 (BRC, ERM and MWH 2007). Only those data determined by the QA/QC review to be suitable for use will be considered for the site data set. A separate Data Validation Summary Report will be prepared and submitted to NDEP.

Upon receipt of laboratory analytical results and following data validation, a risk assessment will be conducted by BRC (in consultation with NDEP) to evaluate the risks posed to human health and the environment by chemicals remaining in Site soils. The risk assessment will be conducted in accordance with the Risk Assessment Methodology provided in the Closure Plan. As stated in the Closure Plan:

> …risk assessment will not be initiated unless proper data sufficiency, representativeness, and adequacy analysis is first achieved. If necessary, additional data will be gathered or analyzed to meet the goals of data quality required for risk assessment. The risk assessment will, in turn, help to assure that these data characteristics are properly evaluated. Once risk assessment is completed, the assessment will be made as to whether the remediation conducted meets cleanup goals. If cleanup goals are not achieved, additional remediation, associated confirmation sampling, and assessment cycles will be conducted until a decision end point is reached – namely that the cleanup goals are either met (and the NFAD is issued or Site Closure is achieved, as the case may be) or proven infeasible because it is technically impractical or too costly, in which case changes in land use or institutional controls may be considered.

BRC will perform risk assessment calculations to justify additional remediation or sampling; however, these interim risk assessments will not be submitted to the NDEP. It is expected that the interim decisions (to support additional sampling or remediation) will be discussed with the NDEP on an informal but regular basis. Any additional sampling and remediation will be addressed as an addendum to this SAP.

The risk assessment report will be an inclusive report that will also contain the following items:

- A summary of the sampling procedures conducted;
- Sampling location map;
- Soil boring logs;
- An evaluation and summary of the collected data;
- Tables(s) summarizing soil results; and
- If appropriate, plan view maps indicating the locations of detected constituents in soil.

As noted above, completion of the risk assessment will be an iterative process. Once the risk assessment passes internal BRC review, with NDEP consultation, and meets the risk goals stated in the Closure Plan, the risk assessment report will be submitted to the NDEP, along with an NFAD request for the Site, in accordance with AOC3. That is, the risk assessment report will be prepared and submitted to the NDEP only when BRC is comfortable that acceptable human health risks have been attained.

7.0 REFERENCES

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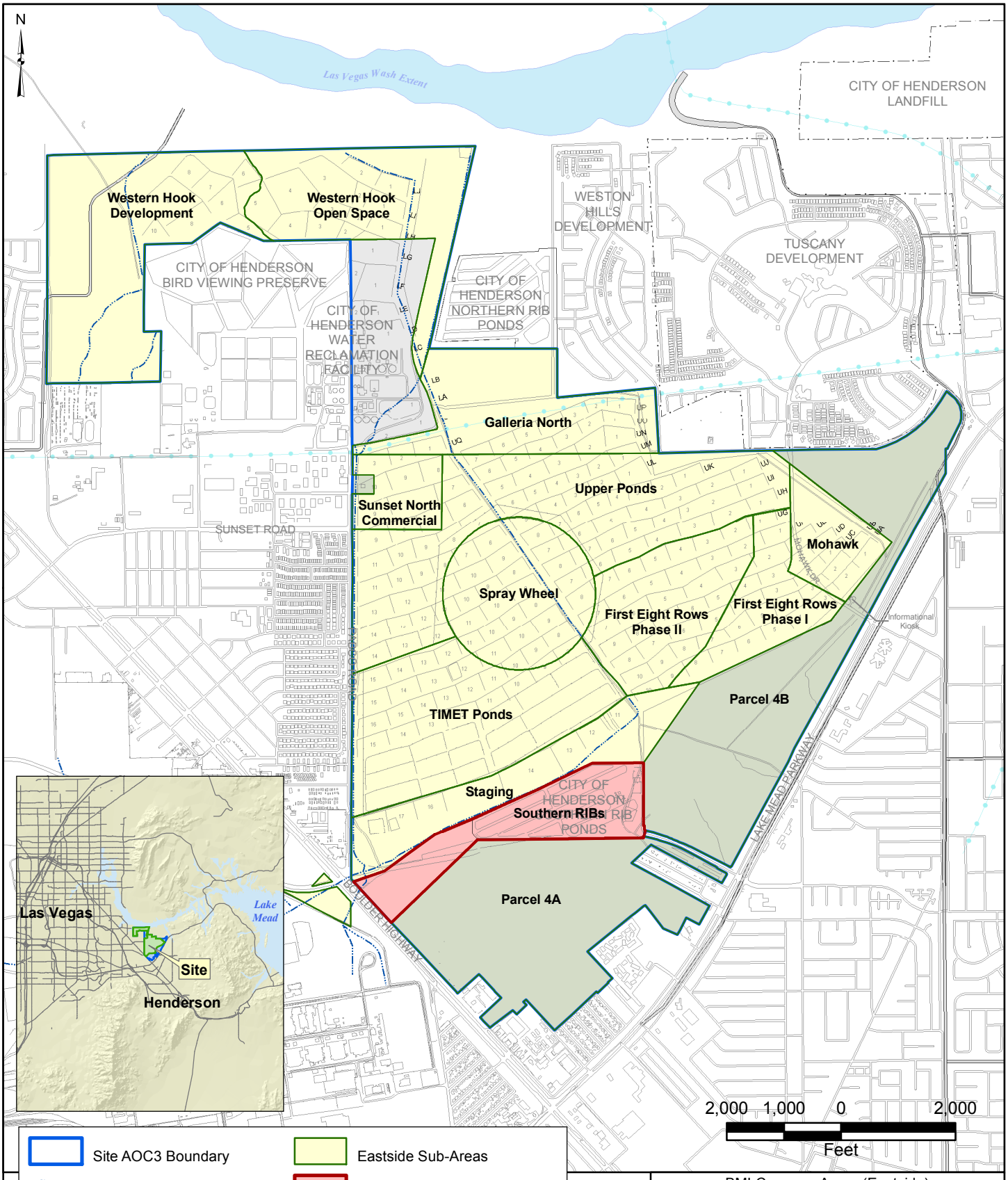
FIGURES



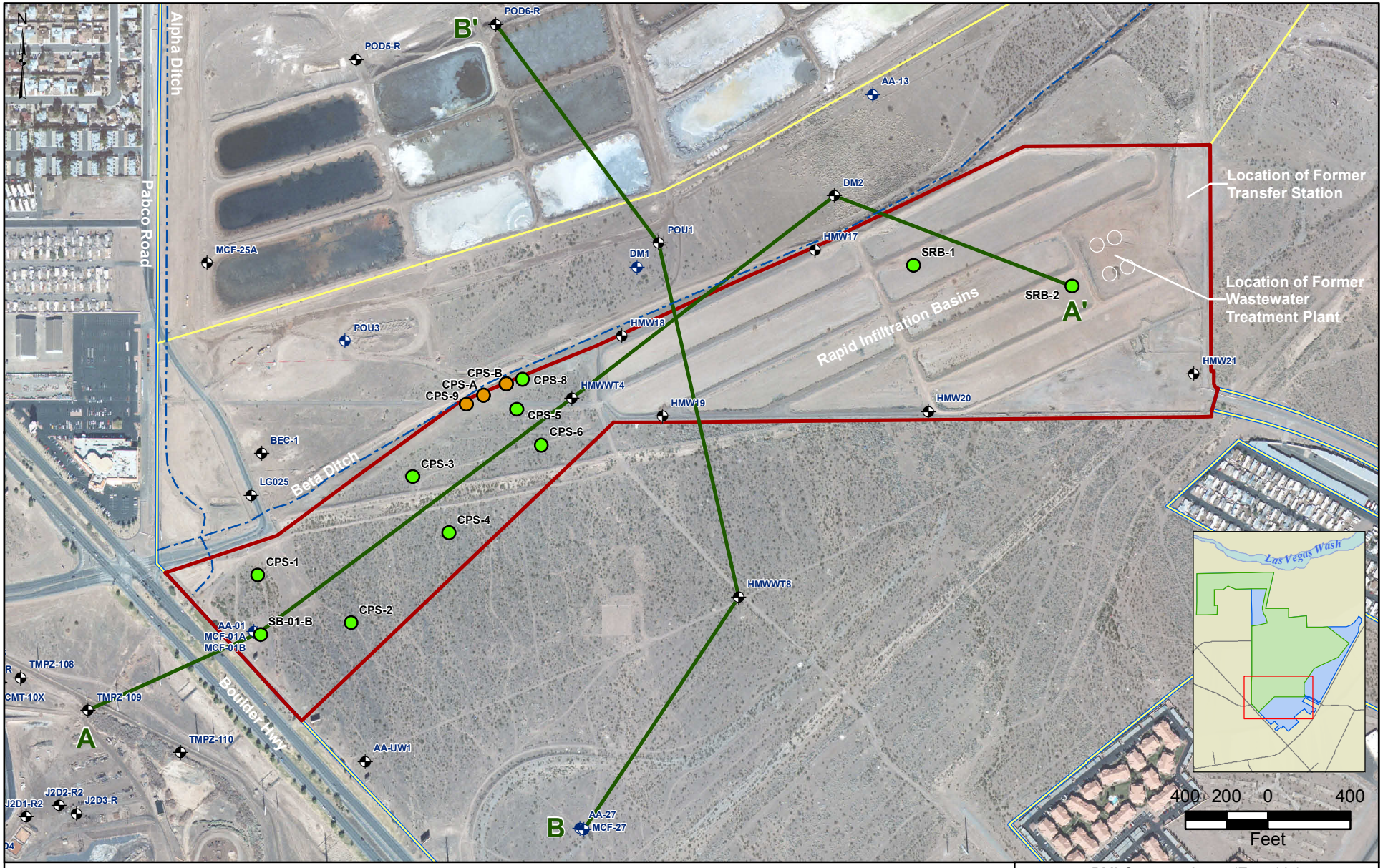
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 1

SOUTHERN RIBS SUB-AREA LOCATION

Basic Remediation COMPANY

Prepared by	Date	JOB No. 0064276
MKJ (ERM)	08/18/08	FILE: GIS/BRC/SO-RIBS_SAP/FIGURE_1.MXD



Southern RIBs Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas
Cross-Section Location

Historical Soil Sample Location
Sample Location
Removed Sample Location (Beta Ditch IRM)

Monitoring Wells
Alluvial Wells with Groundwater Data
Other Monitoring Wells

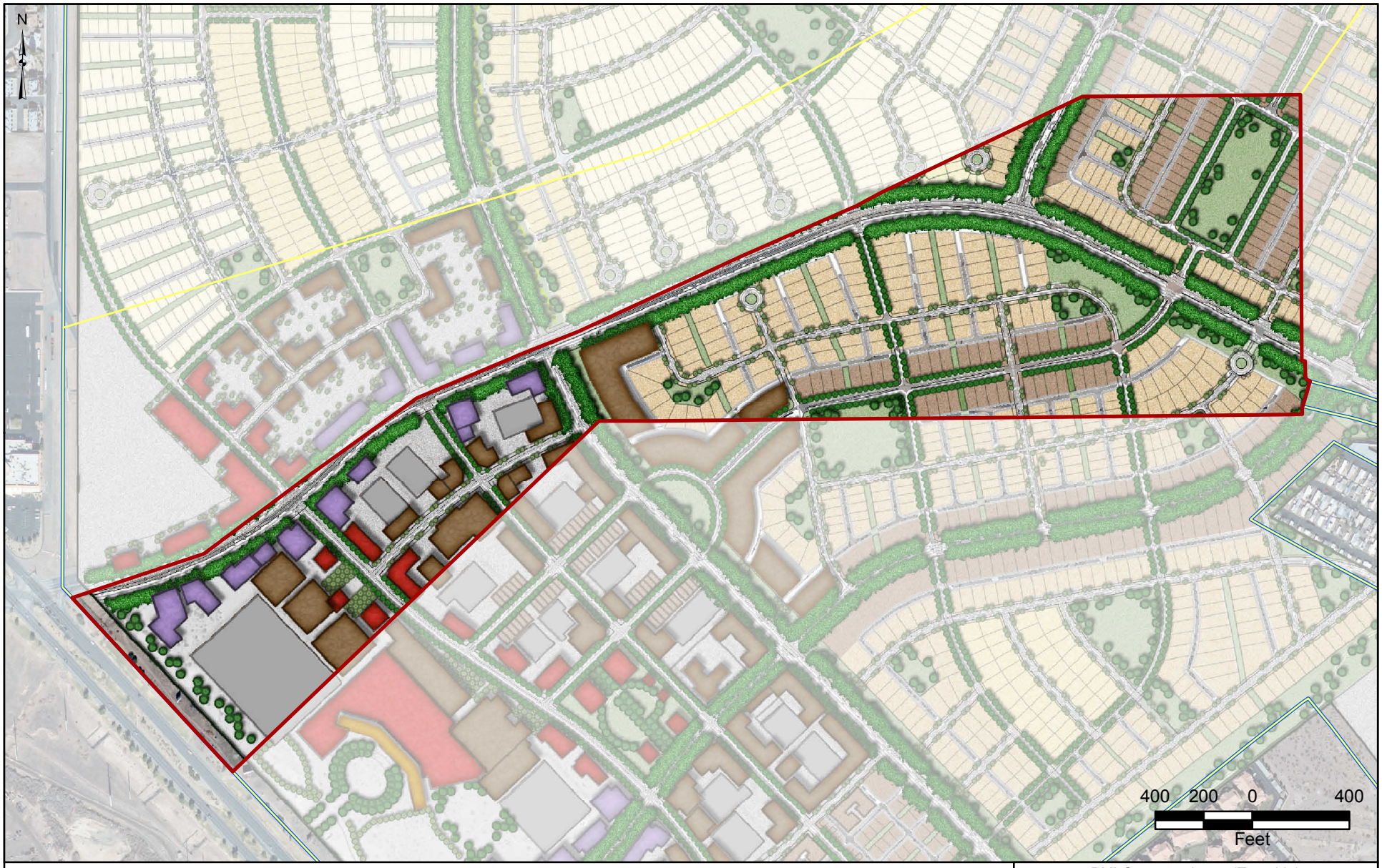
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 2

SITE PLAN WITH HISTORIC SOIL SAMPLE LOCATIONS AND MONITORING WELLS

Basic Remediation Company

Prepared by		Date	JOB No. 0064276
MKJ (ERM)	ERM	08/18/08	FILE: GIS/BRC/SO-RIBS_SAP/FIGURE_2.MXD



Southern RIBs Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas

Current Development Plan

- High Density Residential
- Medium Density Residential
- Low Density Residential
- Commercial
- Urban Core
- Retail/Commercial
- Parks & Trails
- Roads/Parking

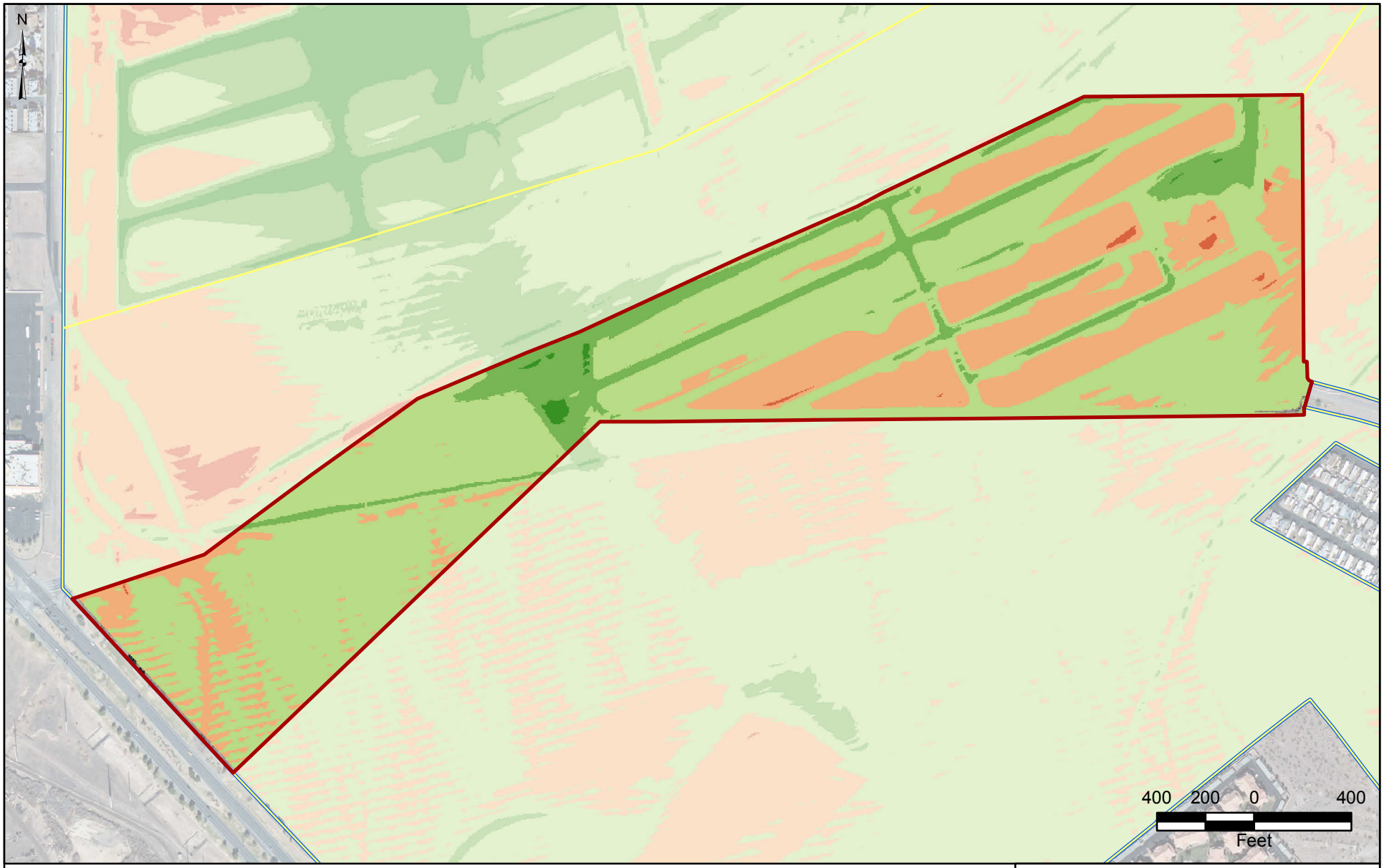
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 3

CURRENT DEVELOPMENT PLAN

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 08/18/08 | JOB No. 0064276 | FILE: GIS/BRC/SO-RIBS_SAP/FIGURES_3-4.MXD



Southern RIBs Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Development Cut/Fill Areas

- > 10 Ft Fill
- 5 to 10 Ft Fill
- 0 to 5 Ft Fill
- No Change
- 0 to 5 Ft Cut
- 5 to 10 Ft Cut
- > 10 Ft Cut

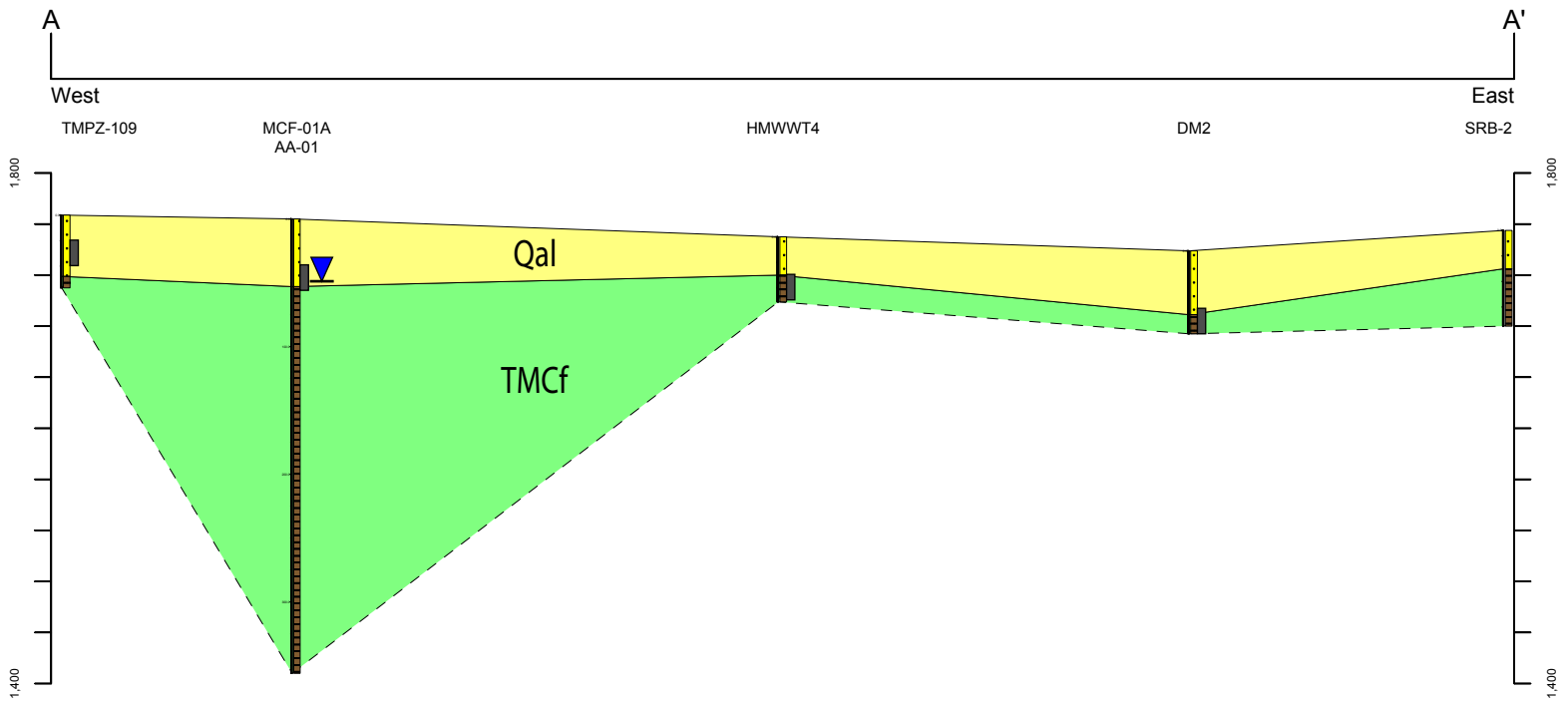
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 4

CURRENT GRADING PLAN

Basic Remediation Company

Prepared by MKJ (ERM) | Date 08/18/08 | JOB No. 0064276 | FILE: GIS/BRC/SO-RIBS_SAP/FIGURES_3-4.MXD



= Screen Interval
= Qal Water Level
= Qal = Quaternary alluvium
= TMCf = Tertiary Muddy Creek formation
Vertical Scale = 5x Horizonal Scale
For soil lithology details, please see the individual boring logs.
See Figure 2 for cross-section location.

BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 5

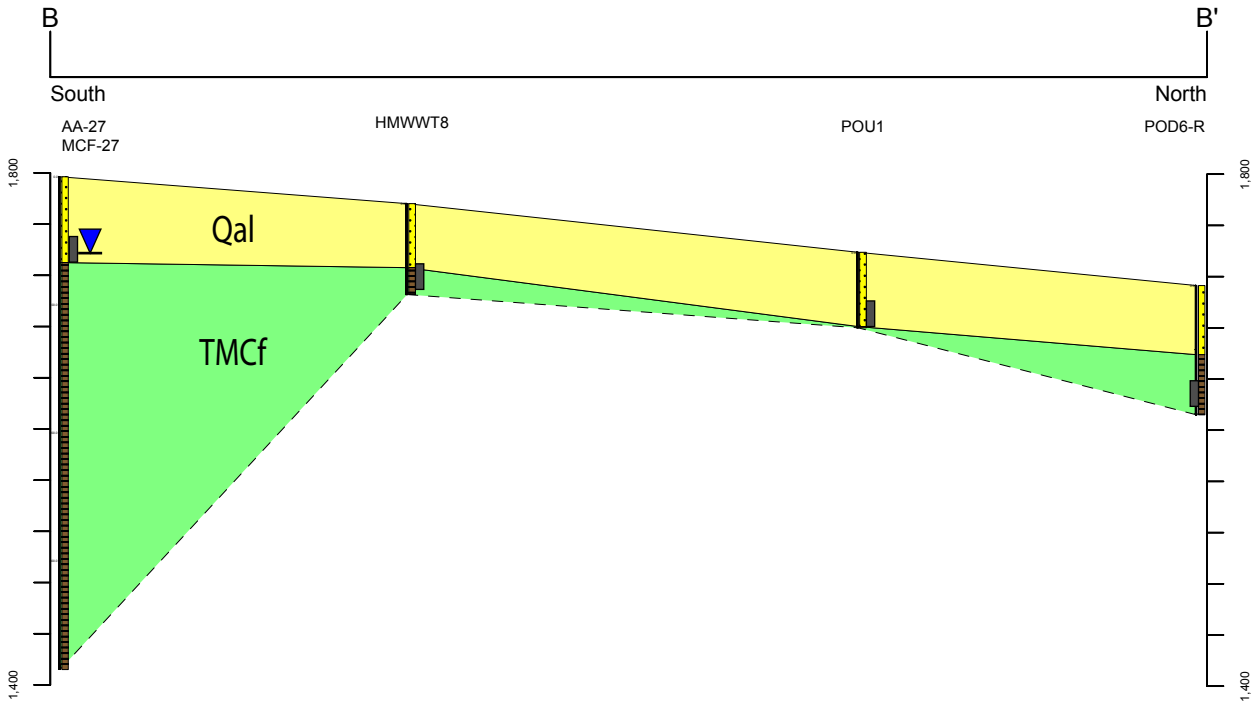
SOUTHERN RIBS
SUB-AREA
CROSS-SECTION A-A'

Basic Remediation COMPANY

Prepared by	Date	JOB No.
MKJ (ERM)	07/31/08	0064276

FILE: GIS/BRC/SO-RIBS_SAP/FIGURE_5.AI

Cross-Section B-B'



= Screen Interval
= Qal Water Level
= Qal = Quaternary alluvium
= TMCf = Tertiary Muddy Creek formation
Vertical Scale = 5x Horizonal Scale
For soil lithology details, please see the individual boring logs.
See Figure 2 for cross-section location.

BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 6

SOUTHERN RIBS
SUB-AREA
CROSS-SECTION B-B'

Basic Remediation COMPANY

Prepared by	Date	JOB No.
MKJ (ERM)	07/31/08	0064276

FILE: GIS/BRC/SO-RIBS_SAP/FIGURE_6.AI

Southern RIBs Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Interim Remedial Measure Areas

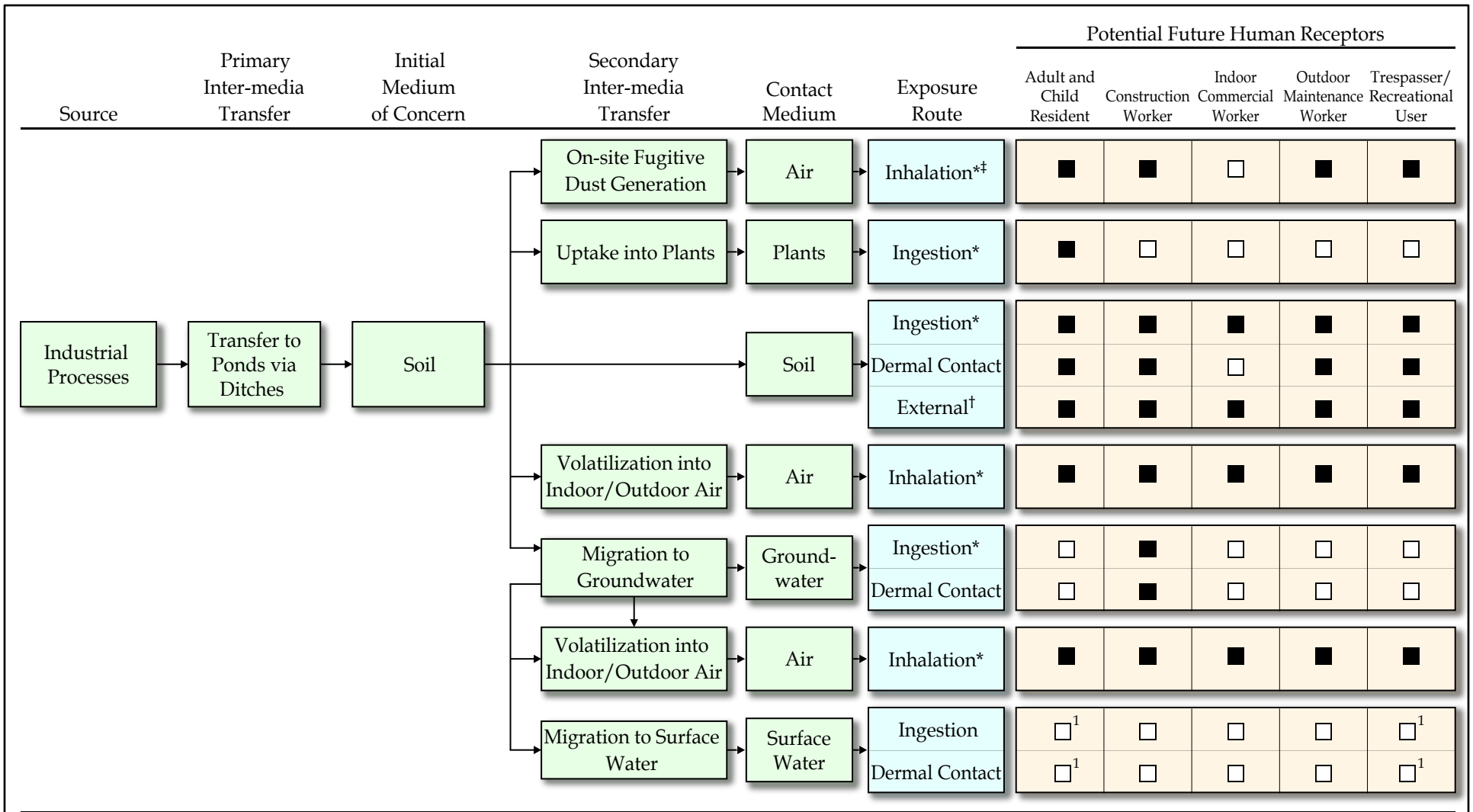
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 7

HISTORICAL SOIL REMOVAL AREAS

Basic Remediation COMPANY

Prepared by	Date	JOB No. 0064276
MKJ (ERM)	08/18/08	FILE: GIS/BRC/SO-RIBS_SAP/FIGURE_7.MXD



□ - Incomplete or insignificant exposure pathway.

■ - Complete or potentially complete exposure pathway.

[1]Potentially complete exposure pathway following discharge to Las Vegas Wash and Lake Mead.

*Includes radionuclide exposures.

†Only radionuclide exposures.

‡Includes asbestos exposures.

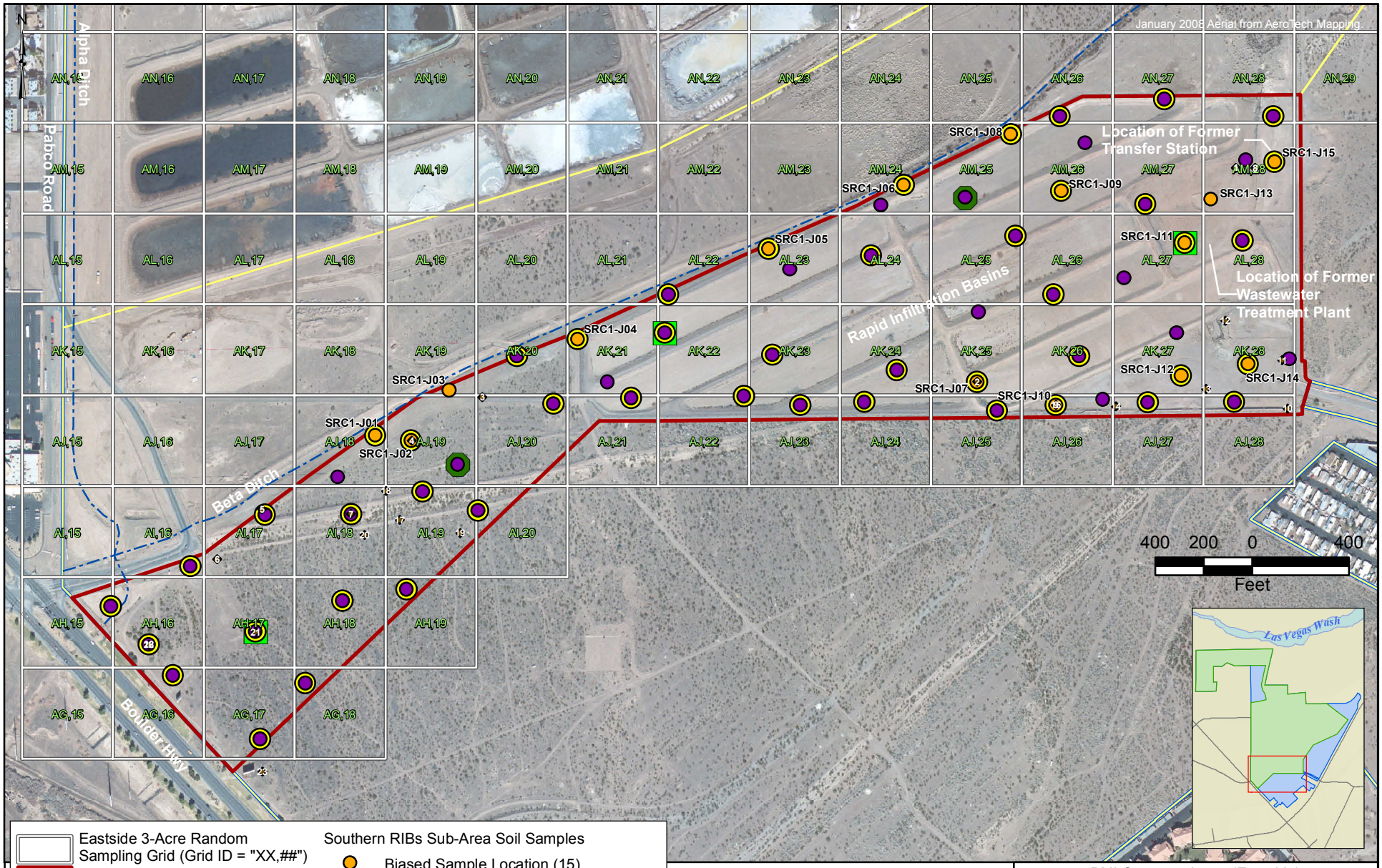
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 8

CONCEPTUAL SITE MODEL DIAGRAM FOR POTENTIAL HUMAN EXPOSURES

Basic Remediation COMPANY

Prepared by MKJ (ERM) | Date 07/31/08 | JOB No. 0064276 | FILE: GIS/BRC/SO-RIBS_SAP/FIGURE_8.AI



Note: Sample ID's are shown for debris sample locations. Sample ID's for random samples correspond to the grid cell ID.

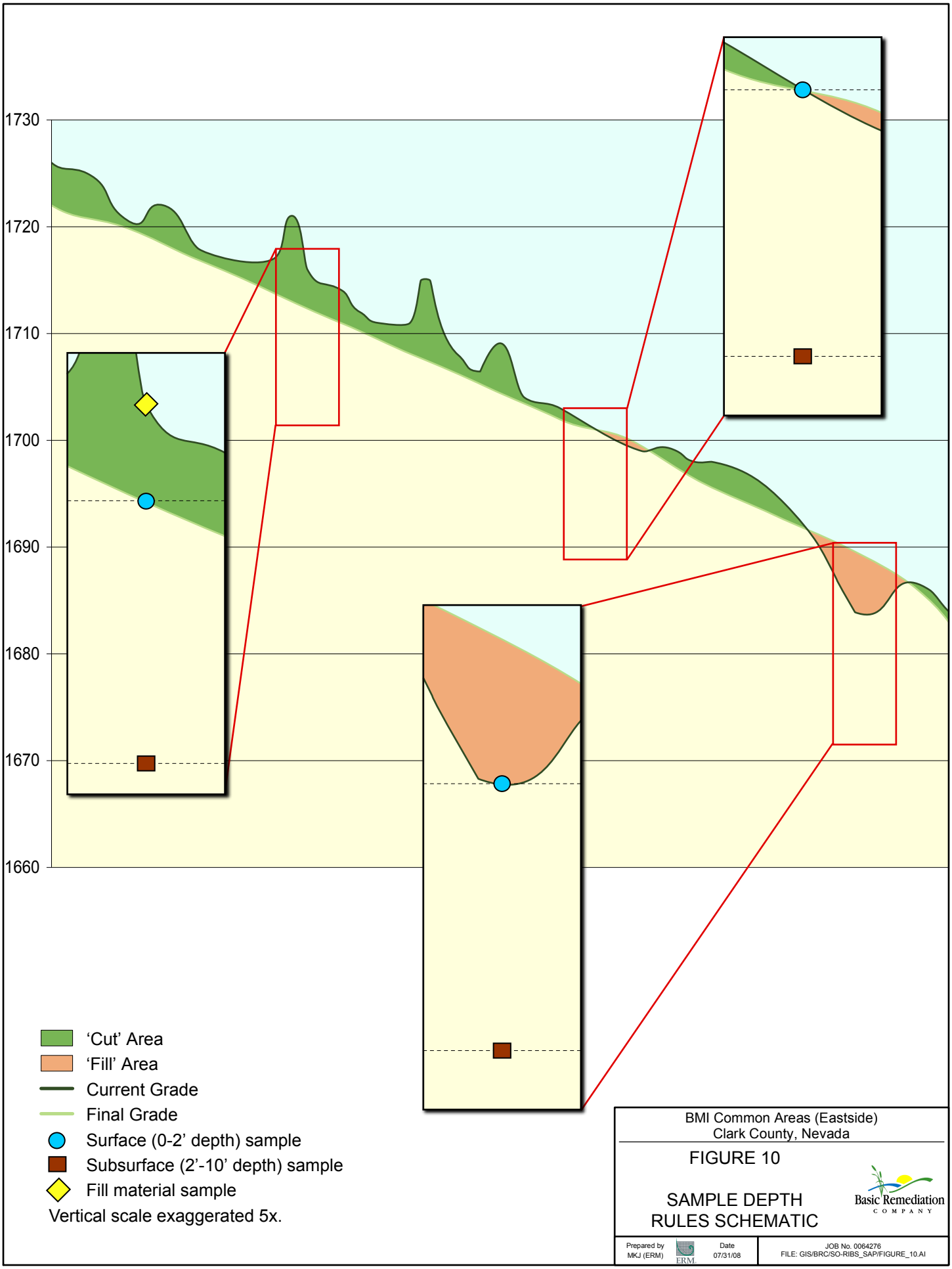
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 9

PROPOSED SOIL AND SOIL VAPOR FLUX SAMPLING LOCATIONS

Basic Remediation Company

Prepared by	Date	JOB No. 0064276
MKJ (ERM)	08/18/08	FILE: GIS/BRC/SO-RIBS_SAP/FIGURE_9.MXD



BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 10

SAMPLE DEPTH
RULES SCHEMATIC

Basic Remediation Company

Prepared by		Date	JOB No. 0064276
MKJ (ERM)	ERM	07/31/08	FILE: GIS/BRC/SO-RIBS_SAP/FIGURE_10.AI

TABLES

TABLE 1
SUMMARY OF POST-IRM SOIL CHEMICAL DATA
SOUTHERN RIBS SUB-AREA
(Page 1 of 6)

Parameter of Interest	Compound List	Units	Total Count	Detect Count	Detection Frequency	Min. Detect[a]	Max. Detect[a]	Mean[b]	Median[b]	Std. Dev.[b]	Min. Non-Detect Limit[c]	Max. Non-Detect Limit[c]	USEPA Region 6 Residential Soil MSSL[d]	Count of Detects > MSSL	USEPA SSL (DAF 1)[e]	Count of Detects > DAF 1	USEPA SSL (DAF 20)[e]	Count of Detects > DAF 20	Max. Bkgrnd[f]	Count of Detects > Bkgrnd
Aldehydes	Acetaldehyde	mg/kg	2	0	0%	--	--	0.121	0.115	0.0208	0.22	0.24	10.9	--	--	--	--	--	--	--
	Formaldehyde	mg/kg	2	1	50%	0.15	0.15	0.0893	0.083	0.0337	0.11	0.12	10.6	0	--	--	--	--	--	--
Dioxins/Furans	1,2,3,4,6,7,8-Heptachlorodibenzofuran	pg/g	3	2	67%	3.2	210	36.5	2	85	0.00001	1.6	--	--	--	--	--	--	--	--
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	pg/g	3	1	33%	17	17	3.13	0.38	6.8	0.68	1.4	--	--	--	--	--	--	--	--
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	pg/g	3	1	33%	76	76	13	0.38	30.9	0.57	0.95	--	--	--	--	--	--	--	--
	1,2,3,4,7,8-Hexachlorodibenzofuran	pg/g	3	1	33%	100	100	17.4	0.585	40.5	0.94	1.4	--	--	--	--	--	--	--	--
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	pg/g	3	0	0%	--	--	0.278	0.103	0.477	0.17	2.5	--	--	--	--	--	--	--	--
	1,2,3,6,7,8-Hexachlorodibenzofuran	pg/g	3	1	33%	64	64	10.9	0.335	26	0.64	0.7	--	--	--	--	--	--	--	--
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	pg/g	3	1	33%	6	6	1.08	0.095	2.41	0.18	0.2	--	--	--	--	--	--	--	--
	1,2,3,7,8,9-Hexachlorodibenzofuran	pg/g	3	1	33%	9.5	9.5	1.64	0.0825	3.85	0.2	0.21	--	--	--	--	--	--	--	--
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	pg/g	3	1	33%	5.6	5.6	1.02	0.0925	2.25	0.17	0.2	--	--	--	--	--	--	--	--
	1,2,3,7,8-Pentachlorodibenzofuran	pg/g	3	1	33%	59	59	10.1	0.343	24	0.58	0.79	--	--	--	--	--	--	--	--
	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	pg/g	3	1	33%	4.7	4.7	0.903	0.16	1.86	0.44	0.6	--	--	--	--	--	--	--	--
	2,3,4,6,7,8-Hexachlorodibenzofuran	pg/g	3	1	33%	17	17	2.92	0.138	6.9	0.25	0.3	--	--	--	--	--	--	--	--
	2,3,4,7,8-Pentachlorodibenzofuran	pg/g	3	1	33%	34	34	5.84	0.215	13.8	0.36	0.5	--	--	--	--	--	--	--	--
	2,3,7,8-Tetrachlorodibenzofuran	pg/g	3	1	33%	73	73	12.5	0.203	29.6	0.35	0.46	--	--	--	--	--	--	--	--
	2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/g	3	1	33%	1.5	1.5	0.293	0.0625	0.592	0.12	0.16	--	--	--	--	--	--	--	--
	Octachlorodibenzodioxin	pg/g	3	1	33%	21	21	4.1	0.468	8.34	0.00001	0.00001	--	--	--	--	--	--	--	--
	Octachlorodibenzofuran	pg/g	3	3	100%	5.3	1400	239	8.15	569	0.00001	0.00001	--	--	--	--	--	--	--	--
	TCDD TEQ	pg/g	3	--	--	0.54	57	9.96	0.67	23	--	--	50[f]	1	--	--	--	--	--	--
General Chemistry/ Ions	Ammonia	mg/kg	2	0	0%	--	--	0.286	0.26	0.0479	0.51	0.51	100000	--	--	--	--	--	--	--
	Bromide	mg/kg	2	0	0%	--	--	1.37	1.3	0.303	2.5	2.6	--	--	--	--	--	--	--	--
	Cation Exchange Capacity	meq/100g	2	2	100%	12.9	16.1	12.8	11.7	3.69	5.1	5.1	--	--	--	--	--	--	--	--
	Chlorate	mg/kg	2	0	0%	--	--	1.14	1.05	0.199	2	2	--	--	--	--	--	--	--	--
	Chloride	mg/kg	2	2	100%	2.4	24.7	84.3	50.2	95.7	2	2	--	--	--	--	--	--	1110	0
	Cyanide (Total)	mg/kg	13	3	23%	0.4	0.47	0.345	0.278	0.307	0.26	0.58	1220	0	2	0	40	0	--	--
	Fluoride	mg/kg	2	0	0%	--	--	1.11	1.1	0.69	1	1	3670	--	--	--	--	--	2.5	0
	Iodide	mg/kg	2	0	0%	--	--	5.7	5.25	0.938	10.1	10.2	--	--	--	--	--	--	--	--
	Nitrate (as N)	mg/kg	2	2	100%	3.2	3.6	1.7	1.5	1.28	0.2	0.2	--	--	--	--	--	--	102	0
	Nitrite (as N)	mg/kg	2	1	50%	0.25	0.25	0.198	0.11	0.168	0.2	0.2	--	--	--	--	--	--	0.21	1
	Orthophosphate as P	mg/kg	2	2	100%	0.89	1.5	2.3	2.6	1.06	5.1	5.1	--	--	--	--	--	--	--	--
	Perchlorate	mg/kg	13	10	77%	0.059	1.99	0.339	0.0482	0.622	0.0405	0.41	54.8	0	--	--	--	--	--	--
	Sulfate	mg/kg	2	2	100%	19.6	54.9	144	133	131	5.1	5.1	--	--	--	--	--	--	4130	0
	Sulfide	mg/kg	2	0	0%	--	--	5.7	5.25	0.938	10.1	10.2	--	--	--	--	--	--	--	--
	Total Kjeldahl Nitrogen (TKN)	mg/kg	2	0	0%	--	--	1.43	1.3	0.231	2.5	2.6	--	--	--	--	--	--	--	--
Glycols/ Alcohols	Ethanol	mg/kg	2	0	0%	--	--	28.6	26	4.79	51	51	--	--	--	--	--	--	--	--
	Ethylene glycol	mg/kg	2	0	0%	--	--	28.6	26	4.79	51	51	100000	--	--	--	--	--	--	--
	Methanol	mg/kg	2	0	0%	--	--	28.6	26	4.79	51	51	30600	--	--	--	--	--	--	--
	Propylene glycol	mg/kg	2	0	0%	--	--	28.6	26	4.79	51	51	30000	--	--	--	--	--	--	--
Chlorinated Herbicides	2,2-Dichloropropionic acid	mg/kg	2	0	0%	--	--	0.0228	0.021	0.00371	0.04	0.041	1830	--	--	--	--	--	--	--
	2,4,5-T	mg/kg	2	0	0%	--	--	0.0114	0.0105	0.00199	0.02	0.02	611	--	--	--	--	--	--	--
	2,4,5-TP	mg/kg	2	0	0%	--	--	0.0114	0.0105	0.00199	0.02	0.02	489	--	--	--	--	--	--	--
	2,4-D	mg/kg	2	0	0%	--	--	0.0456	0.042	0.00705	0.081	0.082	686	--	--	--	--	--	--	--
	4-(2,4-Dichlorophenoxy)butyric acid	mg/kg	2	0	0%	--	--	0.0456	0.042	0.00705	0.081	0.082	489	--	--	--	--	--	--	--
	Dicamba	mg/kg	2	0	0%	--	--	0.0228	0.021	0.00371	0.04	0.041	1830	--	--	--	--	--	--	--
	Dichlorprop	mg/kg	2	0	0%	--	--	0.0456	0.042	0.00705	0.081	0.082	--	--	--	--	--	--	--	--
	Dinitrobutyl phenol	mg/kg	2	0	0%	--	--	0.00686	0.0065	0.00107	0.012	0.012	61.1	--	--	--	--	--	--	--
	MCPA (2-Methyl-4-chlorophenoxyacetic acid)	mg/kg	2	0	0%	--	--	4.56	4.2	0.705	8.1	8.2	30.6	--	--	--	--	--	--	--
	Mecoprop	mg/kg	2	0	0%	--	--	4.56	4.2	0.705	8.1	8.2	--	--	--	--	--	--	--	--
Metals	Aluminum	mg/kg	13	13	100%	7600	18000	13400	12200	4170	5.14	30.7	77300	0	--	--	--	--	15300	3
	Antimony	mg/kg	13	3	23%	0.53	2.3	0.546	0.351	0.654	0.51	1	31.3	0	0.3	3	6	0	0.5	3
	Arsenic	mg/kg	13	13	100%	2.4	9.4	30.7	4.6	86.8	0.51	1	0.39	13	1	13	20	0	7.2	1
	Barium	mg/kg	13	13	100%	0.64	390	535	290	865	0.25	2.1	15600	0	82	12	1640	0	836	0
	Beryllium	mg/kg	12	12	100%	0.46	1	0.689	0.665	0.202	0.25	0.51	156	0	3	0	60	0	0.89	2
	Boron	mg/kg	2	2	100%	4.6	6.9	10.4	6.9	6.88	5.1	5.1	15600	0	--	--	--	--	11.6	0
	Cadmium	mg/kg	13	0	0%	--	--	0.542	0.349	0.427	0.51	2.6	39	--	0.4	--	8	0	0.16	0
	Calcium	mg/kg	2	2	100%	20000	32100	26100	26500	4460	50.6	51.2	--	--	--	--	--	--	82800	0
	Chromium (Total)	mg/kg	13	13	100%	9.8	35	59.4	22	126	0.51	1	211	0	2	13	40	0	16.7	7

TABLE 1
SUMMARY OF POST-IRM SOIL CHEMICAL DATA
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Parameter of Interest	Compound List	Units	Total Count	Detect Count	Detection Frequency	Min. Detect[a]	Max. Detect[a]	Mean[b]	Median[b]	Std. Dev.[b]	Min. Non-Detect Limit[c]	Max. Non-Detect Limit[c]	USEPA Region 6 Residential Soil MSSL[d]	Count of Detects > MSSL	USEPA SSL (DAF 1)[e]	Count of Detects > DAF 1	USEPA SSL (DAF 20)[e]	Count of Detects > DAF 20	Max. Bkgrnd[f]	Count of Detects > Bkgrnd
Metals	Chromium (VI)	mg/kg	13	0	0%	--	--	0.255	0.26	0.0511	0.4	0.58	30.1	--	2	--	40	0	0.251	0
	Cobalt	mg/kg	13	13	100%	9.4	34	12.3	11	5.31	0.51	1	903	0	--	--	--	--	16.3	3
	Copper	mg/kg	13	13	100%	18	49	26.6	23	9.94	0.25	1	2910	0	--	--	--	--	30.5	4
	Iron	mg/kg	13	13	100%	14000	37000	23000	21000	6860	5.14	10.3	54800	0	--	--	--	--	19700	6
	Lead	mg/kg	13	13	100%	8.5	49	161	14	575	0.3	3.615	400	0	--	--	--	--	35.1	1
	Lithium	mg/kg	2	2	100%	12	15.1	35.5	18.7	42.6	5.1	5.1	156	0	--	--	--	--	26.5	0
	Magnesium	mg/kg	13	13	100%	9300	20000	16000	11000	11900	25.7	51.2	--	--	--	--	--	--	17500	1
	Manganese	mg/kg	13	13	100%	409	1200	3800	580	14100	0.25	1	3470	0	--	--	--	--	1090	1
	Mercury	mg/kg	13	3	23%	0.02	0.23	0.062	0.055	0.0438	0.034	0.1446	23.5	0	--	--	--	--	0.11	2
	Molybdenum	mg/kg	13	3	23%	0.61	1.6	0.804	0.55	0.638	0.51	1	391	0	--	--	--	--	2	0
	Nickel	mg/kg	13	13	100%	15	58	20.5	18	8.5	2.05	2.892	1560	0	7	13	140	0	30	1
	Niobium	mg/kg	2	0	0%	--	--	2.86	2.65	0.475	5.1	5.1	--	--	--	--	--	--	2.8	0
	Palladium	mg/kg	2	2	100%	0.74	0.76	0.697	0.74	0.104	0.51	0.51	--	--	--	--	--	--	1.5	0
	Phosphorus (as P)	mg/kg	2	2	100%	1530	1790	1330	1530	408	50.6	51.2	--	--	--	--	--	--	--	--
	Platinum	mg/kg	2	0	0%	--	--	0.0564	0.055	0.009	0.1	0.1	--	--	--	--	--	--	0.099	0
	Potassium	mg/kg	2	2	100%	1990	2600	2500	2190	916	50.6	51.2	--	--	--	--	--	--	3890	0
	Selenium	mg/kg	13	2	15%	0.32	0.37	2.6	2.76	1.38	0.51	7.23	391	0	0.3	2	6	0	0.6	0
	Silicon	mg/kg	2	2	100%	550	954	828	775	232	50.6	51.2	--	--	--	--	--	--	4150	0
	Silver	mg/kg	13	2	15%	0.21	0.25	0.559	0.55	0.213	1	1.446	391	0	2	0	40	0	0.2609	0
	Sodium	mg/kg	2	2	100%	572	948	1150	986	697	50.6	51.2	--	--	--	--	--	--	1320	0
	Strontium	mg/kg	2	2	100%	314	345	345	314	120	1	1	46900	0	--	--	--	--	808	0
	Thallium	mg/kg	13	2	15%	0.83	1.8	0.829	0.351	0.941	0.51	5.1	5.48	0	0.4	2	8	0	1.8	0
	Tin	mg/kg	2	0	0%	--	--	0.564	0.55	0.09	1	1	46900	--	--	--	--	--	0.8	0
	Titanium	mg/kg	13	13	100%	220	1900	1040	1100	481	1	3.615	100000	0	--	--	--	--	1010	6
	Tungsten	mg/kg	2	0	0%	--	--	0.286	0.265	0.0475	0.51	0.51	--	--	--	--	--	--	2.5	0
	Uranium	mg/kg	2	2	100%	1.1	1.2	1.91	1.5	0.97	1	1	235	0	--	--	--	--	2.37	0
	Vanadium	mg/kg	13	13	100%	33	100	105	62.5	161	0.25	1	391	0	300	0	6000	0	59.1	6
	Zinc	mg/kg	13	13	100%	36	130	56.5	55	18.9	2	7.23	23500	0	620	0	12400	0	121	1
	Zirconium	mg/kg	2	2	100%	20.6	23	27	27.3	5.46	10.1	10.3	--	--	--	--	--	--	179	0
Organochlorine Pesticides	2,4-DDE	mg/kg	2	0	0%	--	--	0.00097	0.0009	0.00016	0.0017	0.0017	1.72	--	3	--	60	0	--	--
	4,4-DDD	mg/kg	13	3	23%	0.0023	0.009	0.00299	0.00263	0.00145	0.0017	0.00725	2.44	0	0.8	0	16	0	--	--
	4,4-DDE	mg/kg	13	4	31%	0.0021	0.12	0.0113	0.00263	0.0283	0.0017	0.00725	1.72	0	3	0	60	0	--	--
	4,4-DDT	mg/kg	13	4	31%	0.009	0.037	0.0123	0.00345	0.0305	0.0017	0.00725	1.72	0	2	0	40	0	--	--
	Aldrin	mg/kg	13	0	0%	--	--	0.00271	0.00263	0.00109	0.0017	0.00725	0.0286	--	0.02	--	0.4	0	--	--
	alpha-BHC	mg/kg	14	3	21%	0.013	0.022	0.00435	0.00335	0.00479	0.0017	0.017	0.0902	0	0.00003	3	0.0006	3	--	--
	alpha-Chlordane	mg/kg	13	0	0%	--	--	0.00271	0.00263	0.00109	0.0017	0.00725	--	--	--	--	--	--	--	--
	beta-BHC	mg/kg	14	5	36%	0.0058	0.034	0.0267	0.00346	0.0975	0.0017	0.017	0.316	0	0.0001	5	0.002	5	--	--
	Chlordane	mg/kg	13	0	0%	--	--	0.0121	0.0105	0.00274	0.017	0.029	1.62	--	0.5	--	10	0	--	--
	delta-BHC	mg/kg	13	0	0%	--	--	0.00476	0.00263	0.00853	0.0017	0.00725	--	--	--	--	--	--	--	--
	Dieldrin	mg/kg	13	0	0%	--	--	0.00271	0.00263	0.00109	0.0017	0.00725	0.0304	--	0.0002	--	0.004	0	--	--
	Endosulfan I	mg/kg	13	0	0%	--	--	0.00271	0.00263	0.00109	0.0017	0.00725	367	--	0.9	--	18	0	--	--
	Endosulfan II	mg/kg	13	0	0%	--	--	0.0144	0.00263	0.0486	0.0017	0.00725	367	--	0.9	--	18	0	--	--
	Endosulfan sulfate	mg/kg	13	0	0%	--	--	0.00271	0.00263	0.00109	0.0017	0.00725	--	--	--	--	--	--	--	--
	Endrin	mg/kg	13	0	0%	--	--	0.00694	0.00263	0.0182	0.0017	0.00725	18.3	--	0.05	--	1	0	--	--
	Endrin aldehyde	mg/kg	13	0	0%	--	--	0.00271	0.00263	0.00109	0.0017	0.00725	--	--	--	--	--	--	--	--
	Endrin ketone	mg/kg	13	0	0%	--	--	0.00271	0.00263	0.00109	0.0017	0.00725	--	--	--	--	--	--	--	--
	gamma-Chlordane	mg/kg	13	0	0%	--	--	0.00271	0.00263	0.00109	0.0017	0.00725	--	--	--	--	--	--	--	--
	Heptachlor	mg/kg	13	0	0%	--	--	0.0232	0.00263	0.0958	0.0017	0.00725	0.108	--	1	--	20	0	--	--
	Heptachlor epoxide	mg/kg	13	0	0%	--	--	0.00271	0.00263	0.00109	0.0017	0.00725	0.0534	--	0.03	--	0.6	0	--	--
	Lindane	mg/kg	13	2	15%	0.0057	0.0091	0.00319	0.00325	0.00151	0.0017	0.00725	0.437	0	0.0005	2	0.01	0	--	--
	Methoxychlor	mg/kg	15	4	27%	0.063	0.11	0.0156	0.0069	0.0265	0.0033	0.034	306	0	8	0	160	0	--	--
	Toxaphene	mg/kg	13	0	0%	--	--	0.0547	0.039	0.0688	0.028	0.087	0.442	--	2	--	40	0	--	--

TABLE 1
SUMMARY OF POST-IRM SOIL CHEMICAL DATA
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Parameter of Interest	Compound List	Units	Total Count	Detect Count	Detection Frequency	Min. Detect[a]	Max. Detect[a]	Mean[b]	Median[b]	Std. Dev.[b]	Min. Non-Detect Limit[c]	Max. Non-Detect Limit[c]	USEPA Region 6 Residential Soil MSSL[d]	Count of Detects > MSSL	USEPA SSL (DAF 1)[e]	Count of Detects > DAF 1	USEPA SSL (DAF 20)[e]	Count of Detects > DAF 20	Max. Bkgrnd[f]	Count of Detects > Bkgrnd
Organo-phosphorous Pesticides	Azinphos-methyl	mg/kg	7	0	0%	--	--	0.0256	0.0361	0.0147	0.0721	0.0749	--	--	--	--	--	--	--	--
	Demeton	mg/kg	7	0	0%	--	--	0.0683	0.0679	0.00159	0.1339	0.1391	--	--	--	--	--	--	--	--
	Diazinon	mg/kg	7	0	0%	--	--	0.0256	0.0361	0.0147	0.0721	0.0749	55	--	--	--	--	--	--	--
	Disulfoton	mg/kg	8	0	0%	--	--	0.0243	0.0361	0.015	0.013	0.0749	2.44	--	--	--	--	--	--	--
	Ethion	mg/kg	7	0	0%	--	--	0.0184	0.0183	0.00043	0.03605	0.03745	--	--	--	--	--	--	--	--
	Malathion	mg/kg	7	0	0%	--	--	0.0256	0.0361	0.0147	0.0721	0.0749	1220	--	--	--	--	--	--	--
	Methyl parathion	mg/kg	7	0	0%	--	--	0.0143	0.018	0.00542	0.03605	0.03745	15.3	--	--	--	--	--	--	--
	Parathion	mg/kg	7	0	0%	--	--	0.0143	0.018	0.00542	0.03605	0.03745	367	--	--	--	--	--	--	--
Organic Acid	4-Chlorobenzenesulfonic acid	mg/kg	2	0	0%	--	--	0.5	0.5	--	1	1	--	--	--	--	--	--	--	--
	Benzenesulfonic acid	mg/kg	2	0	0%	--	--	0.5	0.5	--	1	1	--	--	--	--	--	--	--	--
	Diethyl phosphorodithioic acid	mg/kg	2	0	0%	--	--	0.5	0.5	--	1	1	4890	--	--	--	--	--	--	--
	Dimethyl phosphorodithioic acid	mg/kg	2	0	0%	--	--	0.5	0.5	--	1	1	6110	--	--	--	--	--	--	--
	Phthalic acid	mg/kg	2	0	0%	--	--	0.5	0.5	--	1	1	100000	--	--	--	--	--	--	--
Polyaromatic Hydrocarbons (PAHs)	Acenaphthene	mg/kg	2	0	0%	--	--	0.0286	0.026	0.00479	0.051	0.051	3680	--	29	--	580	0	--	--
	Acenaphthylene	mg/kg	2	0	0%	--	--	0.0557	0.05	0.00932	0.1	0.1	--	--	--	--	--	--	--	--
	Anthracene	mg/kg	2	0	0%	--	--	0.0171	0.0155	0.00286	0.03	0.031	21900	--	590	--	11800	0	--	--
	Benzo(a)anthracene	mg/kg	2	0	0%	--	--	0.00857	0.008	0.0014	0.015	0.015	0.148	--	0.08	--	1.6	0	--	--
	Benzo(a)pyrene	mg/kg	2	0	0%	--	--	0.00857	0.008	0.0014	0.015	0.015	0.0148	--	0.4	--	8	0	--	--
	Benzo(b)fluoranthene	mg/kg	2	0	0%	--	--	0.00857	0.008	0.0014	0.015	0.015	0.148	--	0.2	--	4	0	--	--
	Benzo(g,h,i)perylene	mg/kg	2	0	0%	--	--	0.0171	0.0155	0.00286	0.03	0.031	--	--	--	--	--	--	--	--
	Benzo(k)fluoranthene	mg/kg	2	0	0%	--	--	0.00857	0.008	0.0014	0.015	0.015	1.48	--	2	--	40	0	--	--
	Chrysene	mg/kg	2	0	0%	--	--	0.00857	0.008	0.0014	0.015	0.015	14.8	--	8	--	160	0	--	--
	Dibenzo(a,h)anthracene	mg/kg	2	0	0%	--	--	0.0171	0.0155	0.00286	0.03	0.031	0.0148	--	0.08	--	1.6	0	--	--
	Indeno(1,2,3-cd)pyrene	mg/kg	2	0	0%	--	--	0.00857	0.008	0.0014	0.015	0.015	0.148	--	0.7	--	14	0	--	--
	Phenanthrene	mg/kg	2	0	0%	--	--	0.0171	0.0155	0.00286	0.03	0.031	--	--	--	--	--	--	--	--
	Pyrene	mg/kg	2	0	0%	--	--	0.0171	0.0155	0.00286	0.03	0.031	2310	--	210	--	4200	0	--	--
Polychlorinated Biphenyls	Aroclor 1016	mg/kg	9	0	0%	--	--	0.0144	0.011	0.00479	0.0206	0.034	3.93	--	--	--	--	--	--	--
	Aroclor 1221	mg/kg	9	0	0%	--	--	0.0144	0.011	0.00479	0.0206	0.034	0.222	--	--	--	--	--	--	--
	Aroclor 1232	mg/kg	9	0	0%	--	--	0.0144	0.011	0.00479	0.0206	0.034	0.222	--	--	--	--	--	--	--
	Aroclor 1242	mg/kg	9	0	0%	--	--	0.0144	0.011	0.00479	0.0206	0.034	0.222	--	--	--	--	--	--	--
	Aroclor 1248	mg/kg	9	0	0%	--	--	0.0144	0.011	0.00479	0.0206	0.034	0.222	--	--	--	--	--	--	--
	Aroclor 1254	mg/kg	9	0	0%	--	--	0.0144	0.011	0.00479	0.0206	0.034	0.222	--	--	--	--	--	--	--
	Aroclor 1260	mg/kg	9	0	0%	--	--	0.0144	0.011	0.00479	0.0206	0.034	0.222	--	--	--	--	--	--	--
Radionuclides	Actinium-228	mg/kg	9	9	100%	1.45	2.3	1.65	1.6	0.272	0.3	0.79	--	--	--	--	--	--	3.4	0
	Bismuth-210	mg/kg	2	2	100%	0.7	0.7	0.943	0.7	0.532	2.5	2.9	--	--	--	--	--	--	2.2	0
	Bismuth-212	mg/kg	9	9	100%	0.94	2.5	1.36	1.2	0.682	1.1	2.2	--	--	--	--	--	--	1.82	3
	Bismuth-214	mg/kg	9	9	100%	0.55	1.1	0.953	0.95	0.235	0.15	0.46	--	--	--	--	--	--	1.62	0
	Cobalt-57	mg/kg	2	2	100%	-0.001	0.007	--	-0.001	0.0154	0.051	0.062	--	--	--	--	--	--	0.04	0
	Cobalt-60	mg/kg	2	2	100%	-0.03	-0.021	-0.00986	-0.017	0.0221	0.069	0.093	--	--	--	--	--	--	0.082	0
	Gross alpha	mg/kg	2	2	100%	29.8	39.4	37.2	36.1	6.52	6	6.1	--	--	--	--	--	--	--	--
	Gross beta	mg/kg	2	2	100%	38.2	41.6	38.4	38.2	4.19	4.8	4.8	--	--	--	--	--	--	--	--
	Lead-210	mg/kg	9	9	100%	0.7	2.5	1.29	1.14	0.624	1.1	2.9	--	--	--	--	--	--	2.2	1
	Lead-212	mg/kg	9	9	100%	1.39	2.06	1.59	1.55	0.324	0.12	0.31	--	--	--	--	--	--	2.11	0
	Lead-214	mg/kg	9	9	100%	0.68	1.03	0.992	0.91	0.265	0.15	0.34	--	--	--	--	--	--	1.72	0
	Polonium-210	mg/kg	2	2	100%	0.7	0.7	0.943	0.7	0.532	2.5	2.9	--	--	--	--	--	--	2.2	0
	Polonium-212	mg/kg	2	2	100%	0.6	0.61	0.503	0.6	0.208	0.72	0.78	--	--	--	--	--	--	1.17	0
	Polonium-214	mg/kg	2	2	100%	0.75	0.97	1.02	0.97	0.286	0.17	0.23	--	--	--	--	--	--	1.62	0
	Polonium-216	mg/kg	2	2	100%	2	3.2	3.18	3.2	0.781	2.1	2.1	--	--	--	--	--	--	2.11	1
	Polonium-218	mg/kg	2	2	100%	1.27	1.29	1.53	1.28	0.555	0.18	0.19	--	--	--	--	--	--	2.36	0
	Potassium-40	mg/kg	9	9	100%	21.9	26.2	23.8	24.4	3.33	0.5	1.2	--	--	--	--	--	--	35	0
	Protactinium-234	mg/kg	2	2	100%	-0.15	-0.06	-0.153	-0.14	0.0894	0.26	0.28	--	--	--	--	--	--	0.13	0
	Radium-223	mg/kg	2	2	100%	-0.25	0.43	0.171	0.32	0.394	0.9	1	--	--	--	--	--	--	0.4	1
	Radium-224	mg/kg	9	9	100%	2	6.6	3.75	3.5	1.34	1.4	3.3	--	--	--	--	--	--	2.11	8
	Radium-226	mg/kg	16	16	100%	0.13	1.29	0.97	0.87	0.544	0.15	0.38	0.0124	16	0.0161	16	0.322	15	2.36	0
	Radium-228	pCi/g	18	18	100%	0.98	2.3	1.49	1.46	0.322	0.3	0.88	0.0677	18	0.0595	18	1.19	16	2.94	0
	Thallium-208	pCi/g	9	9	100%	0.37	0.63	0.503	0.51	0.0866	0.09	0.23	--	--	--	--	--	--	0.72	0
	Thorium-228	pCi/g	9	9	100%	1.11	1.8	1.46	1.46	0.232	0.08	0.23	0.154	9	3.3	0	66	0	2.28	0
	Thorium-230	pCi/g	9	9	100%	0.85	1.73	1.94	1.25	2.17	0.04	0.26	3.49	0	0.303	9	6.06	0	3.01	0

TABLE 1
SUMMARY OF POST-IRM SOIL CHEMICAL DATA
SOUTHERN RIBS SUB-AREA
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Parameter of Interest	Compound List	Units	Total Count	Detect Count	Detection Frequency	Min. Detect[a]	Max. Detect[a]	Mean[b]	Median[b]	Std. Dev.[b]	Min. Non-Detect Limit[c]	Max. Non-Detect Limit[c]	USEPA Region 6 Residential Soil MSSL[d]	Count of Detects > MSSL	USEPA SSL (DAF 1)[e]	Count of Detects > DAF 1	USEPA SSL (DAF 20)[e]	Count of Detects > DAF 20	Max. Bkgrnd[f]	Count of Detects > Bkgrnd
Radionuclides	Thorium-232	pCi/g	18	18	100%	1.03	1.85	1.99	1.42	3.07	0.06	0.98	3.1	0	0.303	18	6.06	0	2.23	0
	Thorium-234	pCi/g	9	9	100%	-0.01	1.73	1.16	1.28	0.609	0.12	1.3	--	--	--	--	--	--	2.5	0
	Uranium-233/234	pCi/g	9	9	100%	0.78	1.01	1.17	0.98	0.65	0.03	0.13	3.86	0	112	0	2240	0	2.84	0
	Uranium-235/236	pCi/g	16	16	100%	-0.23	0.15	0.0473	0.06	0.0917	0.08	1.2	0.195	0	0.03885	11	0.777	0	0.21	0
	Uranium-238	pCi/g	16	16	100%	-0.3	1.13	0.824	0.88	0.602	0.03	1.2	0.742	10	0.00605	15	0.121	15	2.37	0
Semivolatile Organic Compounds	1,2,4,5-Tetrachlorobenzene	pCi/g	2	0	0%	--	--	0.189	0.175	0.0321	0.33	0.34	18.3	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	pCi/g	11	0	0%	--	--	0.288	0.215	0.409	0.34	4.488	143	--	0.3	--	6	0	--	--
	1,2-Dichlorobenzene	pCi/g	11	0	0%	--	--	0.288	0.215	0.409	0.34	4.488	279	--	0.9	--	18	0	--	--
	1,3-Dichlorobenzene	pCi/g	11	0	0%	--	--	0.288	0.215	0.409	0.34	4.488	68.5	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	pCi/g	11	0	0%	--	--	0.296	0.228	0.409	0.34	4.488	3.2	--	0.1	--	2	0	--	--
	2,4,5-Trichlorophenol	pCi/g	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	6110	--	14	--	280	0	--	--
	2,4,6-Trichlorophenol	pCi/g	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	44.2	--	0.008	--	0.16	0	--	--
	2,4-Dichlorophenol	pCi/g	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	183	--	0.05	--	1	0	--	--
	2,4-Dimethylphenol	pCi/g	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	1220	--	0.4	--	8	0	--	--
	2,4-Dinitrophenol	pCi/g	13	0	0%	--	--	0.594	0.566	0.453	0.429	4.488	122	--	0.01	--	0.2	0	--	--
	2,4-Dinitrotoluene	pCi/g	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	122	--	0.00004	--	0.0008	0	--	--
	2,6-Dinitrotoluene	pCi/g	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	61.1	--	0.00003	--	0.0006	0	--	--
	2-Chloronaphthalene	pCi/g	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	3860	--	--	--	--	--	--	--
	2-Chlorophenol	pCi/g	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	63.5	--	0.2	--	4	0	--	--
	2-Methylnaphthalene	pCi/g	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	--	--	--	--	--	--	--	--
	2-Nitroaniline	pCi/g	13	0	0%	--	--	0.594	0.566	0.453	0.429	4.488	183	--	--	--	--	--	--	--
	2-Nitrophenol	pCi/g	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	pCi/g	13	0	0%	--	--	0.594	0.566	0.453	0.429	4.488	1.08	--	0.0003	--	0.006	0	--	--
	3-Methylphenol & 4-Methylphenol	pCi/g	2	0	0%	--	--	0.376	0.345	0.0595	0.67	0.68	306	--	--	--	--	--	--	--
	3-Nitroaniline	pCi/g	13	0	0%	--	--	0.594	0.566	0.453	0.429	4.488	--	--	--	--	--	--	--	--
	4,6-Dinitro-o-cresol	pCi/g	11	0	0%	--	--	0.502	0.236	0.468	0.429	4.488	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	--	--	--	--	--	--	--	--
	4-Chloro-3-methyl phenol	mg/kg	13	0	0%	--	--	0.342	0.229	0.492	0.33	4.488	--	--	--	--	--	--	--	--
	4-Chlorophenyl phenyl ether	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	--	--	--	--	--	--	--	--
	4-Nitrophenol	mg/kg	13	0	0%	--	--	0.594	0.566	0.453	0.429	4.488	489	--	--	--	--	--	--	--
	Acenaphthene	mg/kg	13	0	0%	--	--	0.261	0.18	0.365	0.33	4.488	3680	--	29	--	580	0	--	--
	Acenaphthylene	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	--	--	--	--	--	--	--	--
	Acetophenone	mg/kg	2	0	0%	--	--	0.189	0.175	0.0321	0.33	0.34	1740	--	--	--	--	--	--	--
	Aniline	mg/kg	6	0	0%	--	--	0.297	0.228	0.417	0.33	4.488	85.3	--	--	--	--	--	--	--
	Anthracene	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	21900	--	590	--	11800	0	--	--
	Azobenzene	mg/kg	6	0	0%	--	--	0.297	0.228	0.417	0.33	4.488	4.42	--	--	--	--	--	--	--
	Benzenethiol	mg/kg	2	0	0%	--	--	0.189	0.175	0.0321	0.33	0.34	--	--	--	--	--	--	--	--
	Benzo(a)anthracene	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	0.148	--	0.08	--	1.6	0	--	--
	Benzo(a)pyrene	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	0.0148	--	0.4	--	8	0	--	--
	Benzo(b)fluoranthene	mg/kg	13	0	0%	--	--	0.203	0.183	0.0375	0.33	0.4785	0.148	--	0.2	--	4	0	--	--
	Benzo(g,h,i)perylene	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	--	--	--	--	--	--	--	--
	Benzo(k)fluoranthene	mg/kg	13	0	0%	--	--	0.203	0.183	0.0375	0.33	0.4785	1.48	--	2	--	40	0	--	--
	Benzoic acid	mg/kg	6	0	0%	--	--	0.511	0.233	0.497	0.429	4.488	100000	--	20	--	400	0	--	--
	Benzyl alcohol	mg/kg	6	0	0%	--	--	0.297	0.228	0.417	0.33	4.488	18300	--	--	--	--	--	--	--
	Benzyl butyl phthalate	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	240	--	810	--	16200	0	--	--
	bis(2-Chloroethoxy) methane	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	--	--	--	--	--	--	--	--
	bis(2-Chloroethyl) ether	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	0.211	--	0.00002	--	0.0004	0	--	--
	bis(2-Chloroisopropyl) ether	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	2.89	--	--	--	--	--	--	--
	bis(2-Ethylhexyl) phthalate	mg/kg	16	2	13%	0.062	0.067	0.296	0.18	0.427	0.33	4.488	34.7	0	180	0	3600	0	--	--
	bis(p-Chlorophenyl) disulfide	mg/kg	2	0	0%	--	--	0.189	0.175	0.0321	0.33	0.34	--	--	--	--	--	--	--	--
	bis(p-Chlorophenyl) sulfone	mg/kg	2	0	0%	--	--	0.189	0.175	0.0321	0.33	0.34	--	--	--	--	--	--	--	--
	Carbazole	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	24.3	--	0.03	--	0.6	0	--	--
	Chrysene	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	14.8	--	8	--	160	0	--	--
	Dibenzo(a,h)anthracene	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	0.0148	--	0.08	--	1.6	0	--	--
	Dibenzofuran	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	145	--	--	--	--	--	--	--
	Dibutyl phthalate	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	6110	--	270	--	5400	0	--	--
	Diethyl phthalate	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	48900	--	--	--	--	--	--	--

TABLE 1
SUMMARY OF POST-IRM SOIL CHEMICAL DATA
SOUTHERN RIBS SUB-AREA
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Parameter of Interest	Compound List	Units	Total Count	Detect Count	Detection Frequency	Min. Detect[a]	Max. Detect[a]	Mean[b]	Median[b]	Std. Dev.[b]	Min. Non-Detect Limit[c]	Max. Non-Detect Limit[c]	USEPA Region 6 Residential Soil MSSL[d]	Count of Detects > MSSL	USEPA SSL (DAF 1)[e]	Count of Detects > DAF 1	USEPA SSL (DAF 20)[e]	Count of Detects > DAF 20	Max. Bkgrnd[f]	Count of Detects > Bkgrnd
Semivolatile Organic Compounds	Dimethyl phthalate	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	100000	--	--	--	--	--	--	--
	Di-n-octyl phthalate	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	--	--	--	--	--	--	--	--
	Diphenyl sulfone	mg/kg	2	0	0%	--	--	0.189	0.175	0.0321	0.33	0.34	183	--	--	--	--	--	--	--
	Fluoranthene	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	2290	--	210	--	4200	0	--	--
	Fluorene	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	2640	--	28	--	560	0	--	--
	Hexachloro-1,3-butadiene	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	6.24	--	0.1	--	2	0	--	--
	Hexachlorobenzene	mg/kg	16	0	0%	--	--	0.837	0.185	2.89	0.33	4.488	0.304	--	0.1	--	2	0	--	--
	Hexachlorocyclopentadiene	mg/kg	13	0	0%	--	--	0.594	0.566	0.453	0.429	4.488	366	--	20	--	400	0	--	--
	Hexachloroethane	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	34.7	--	0.02	--	0.4	0	--	--
	Hydroxymethyl phthalimide	mg/kg	2	0	0%	--	--	0.189	0.175	0.0321	0.33	0.34	--	--	--	--	--	--	--	--
	Indeno(1,2,3-cd)pyrene	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	0.148	--	0.7	--	14	0	--	--
	Isophorone	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	512	--	0.03	--	0.6	0	--	--
	m,p-Cresols	mg/kg	4	0	0%	--	--	0.342	0.229	0.492	0.429	4.488	--	--	--	--	--	--	--	--
	Naphthalene	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	125	--	4	--	80	0	--	--
	Nitrobenzene	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	19.7	--	0.007	--	0.14	0	--	--
	N-Nitrosodimethylamine	mg/kg	4	0	0%	--	--	0.223	0.229	0.0374	0.429	0.4785	0.0023	--	--	--	--	--	--	--
	N-nitrosodi-n-propylamine	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	0.0695	--	0.000002	--	0.00004	0	--	--
	N-nitrosodiphenylamine	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	99.3	--	0.06	--	1.2	0	--	--
	o-Cresol	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	3060	--	0.8	--	16	0	--	--
	p-Chloroaniline	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	244	--	0.03	--	0.6	0	--	--
	p-Chlorothiophenol	mg/kg	2	0	0%	--	--	0.189	0.175	0.0321	0.33	0.34	--	--	--	--	--	--	--	--
	p-Cresol	mg/kg	7	0	0%	--	--	0.174	0.173	0.00563	0.34	0.36	--	--	--	--	--	--	--	--
	Pentachlorobenzene	mg/kg	2	0	0%	--	--	0.189	0.175	0.0321	0.33	0.34	48.9	--	--	--	--	--	--	--
	Pentachlorophenol	mg/kg	13	0	0%	--	--	0.594	0.566	0.453	0.429	4.488	2.98	--	0.001	--	0.02	0	--	--
	Phenanthrene	mg/kg	13	0	0%	--	--	0.277	0.195	0.365	0.33	4.488	--	--	--	--	--	--	--	--
	Phenol	mg/kg	13	0	0%	--	--	0.266	0.183	0.363	0.33	4.488	18300	--	5	--	100	0	--	--
	Phenyl Disulfide	mg/kg	2	0	0%	--	--	0.189	0.175	0.0321	0.33	0.34	--	--	--	--	--	--	--	--
	Phenyl Sulfide	mg/kg	2	0	0%	--	--	0.189	0.175	0.0321	0.33	0.34	--	--	--	--	--	--	--	--
	Phthalic acid	mg/kg	2	0	0%	--	--	0.189	0.175	0.0321	0.33	0.34	100000	--	--	--	--	--	--	--
	p-Nitroaniline	mg/kg	13	0	0%	--	--	0.594	0.566	0.453	0.429	4.488	--	--	--	--	--	--	--	--
	Pyrene	mg/kg	13	0	0%	--	--	0.275	0.195	0.364	0.33	4.488	2310	--	210	--	4200	0	--	--
	Pyridine	mg/kg	6	0	0%	--	--	0.352	0.233	0.412	0.429	4.488	61.1	--	--	--	--	--	--	--
Volatile Organic Compounds	1,1,1,2-Tetrachloroethane	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	3.01	--	--	--	--	--	--	--
	1,1,1-Trichloroethane	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	1390	--	0.1	--	2	0	--	--
	1,1,2,2-Tetrachloroethane	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	0.384	--	0.0002	--	0.004	0	--	--
	1,1,2-Trichloroethane	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	0.844	--	0.0009	--	0.018	0	--	--
	1,1-Dichloroethane	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	846	--	1	--	20	0	--	--
	1,1-Dichloroethylene	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	285	--	0.003	--	0.06	0	--	--
	1,1-Dichloropropene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	--	--	--	--	--	--	--	--
	1,2,3-Trichloropropane	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	0.32	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	143	--	0.3	--	6	0	--	--
	1,2,4-Trimethylbenzene	mg/kg	6	1	17%	0.00072	0.00072	0.00331	0.00345	0.00084	0.0051	0.00725	5.73	0	--	--	--	--	--	--
	1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	6	0	0%	--	--	0.0043	0.0036	0.00113	0.0065	0.01	0.00263	--	--	--	--	--	--	--
	1,2-Dibromoethane	mg/kg	4	0	0%	--	--	0.00367	0.00349	0.0005	0.0065	0.00725	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	279	--	0.9	--	18	0	--	--
	1,2-Dichloroethane	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	0.347	--	0.001	--	0.02	0	--	--
	1,2-Dichloroethylene	mg/kg	15	0	0%	--	--	0.00269	0.0026	0.0003	0.0051	0.0055	--	--	--	--	--	--	--	--
	1,2-Dichloropropane	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	0.351	--	0.001	--	0.02	0	--	--
	1,3,5-Trichlorobenzene	mg/kg	2	0	0%	--	--	0.00286	0.0026	0.00048	0.0051	0.0051	--	--	--	--	--	--	--	--
	1,3,5-Trimethylbenzene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	21.3	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	68.5	--	--	--	--	--	--	--
	1,3-Dichloropropane	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	108	--	0.001	--	0.02	0	--	--
	1,4-Dichlorobenzene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	3.2	--	0.1	--	2	0	--	--
	2,2-Dichloropropane	mg/kg	6	0	0%	--	--	0.00585	0.0069	0.00233	0.0051	0.0145	--	--	--	--	--	--	--	--
	2-Chlorotoluene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	159	--	--	--	--	--	--	--
	2-Phenylbutane	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	112	--	--	--	--	--	--	--
	4-Chlorotoluene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	--	--	--	--	--	--	--	--

TABLE 1
SUMMARY OF POST-IRM SOIL CHEMICAL DATA
SOUTHERN RIBS SUB-AREA
(Page 6 of 6)

Parameter of Interest	Compound List	Units	Total Count	Detect Count	Detection Frequency	Min. Detect[a]	Max. Detect[a]	Mean[b]	Median[b]	Std. Dev.[b]	Min. Non-Detect Limit[c]	Max. Non-Detect Limit[c]	USEPA Region 6 Residential Soil MSSL[d]	Count of Detects > MSSL	USEPA SSL (DAF 1)[e]	Count of Detects > DAF 1	USEPA SSL (DAF 20)[e]	Count of Detects > DAF 20	Max. Bkgrnd[f]	Count of Detects > Bkgrnd
Volatile Organic Compounds	Acetone	mg/kg	19	3	16%	0.012	0.058	0.0161	0.014	0.00902	0.02	0.03625	14200	0	0.8	0	16	0	--	--
	Acetonitrile	mg/kg	2	0	0%	--	--	0.0286	0.026	0.00479	0.051	0.051	1470	--	--	--	--	--	--	--
	Benzene	mg/kg	19	2	11%	0.00078	0.0011	0.00284	0.0027	0.00102	0.0051	0.00725	0.656	0	0.002	0	0.04	0	--	--
	Bromobenzene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	72.6	--	--	--	--	--	--	--
	Bromodichloromethane	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	1.03	--	0.03	--	0.6	0	--	--
	Bromomethane	mg/kg	19	0	0%	--	--	0.00461	0.005	0.00097	0.0065	0.011	8.7	--	0.01	--	0.2	0	--	--
	Carbon disulfide	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	721	--	2	--	40	0	--	--
	Carbon tetrachloride	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	0.24	--	0.003	--	0.06	0	--	--
	Freon-11	mg/kg	6	0	0%	--	--	0.00585	0.0069	0.00233	0.0051	0.0145	387	--	--	--	--	--	--	--
	Freon-12	mg/kg	6	0	0%	--	--	0.0043	0.0036	0.00113	0.0065	0.01	94.1	--	--	--	--	--	--	--
	Freon-113	mg/kg	2	0	0%	--	--	0.00286	0.0026	0.00048	0.0051	0.0051	5550	--	--	--	--	--	--	--
	Chlorobenzene	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	273	--	0.07	--	1.4	0	--	--
	Chlorobromomethane	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	--	--	--	--	--	--	--	--
	Chlorodibromomethane	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	1.01	--	0.02	--	0.4	0	--	--
	Chloroethane	mg/kg	19	0	0%	--	--	0.00406	0.00361	0.00098	0.0051	0.011	3.03	--	--	--	--	--	--	--
	Chloroform	mg/kg	19	0	0%	--	--	0.00304	0.0027	0.0007	0.0051	0.00725	0.245	--	0.03	--	0.6	0	--	--
	Chloromethane	mg/kg	19	0	0%	--	--	0.00461	0.005	0.00097	0.0065	0.011	111	--	--	--	--	--	--	--
	cis-1,2-Dichloroethylene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	43	--	0.02	--	0.4	0	--	--
	cis-1,3-Dichloropropylene	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	0.697	--	0.0002	--	0.004	0	--	--
	Cymene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	--	--	--	--	--	--	--	--
	Dibromomethane	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	141	--	--	--	--	--	--	--
	Dichloromethane	mg/kg	20	10	50%	0.0056	0.013	0.00557	0.00354	0.00371	0.0051	0.00725	8.9	0	0.001	10	0.02	0	--	--
	Ethylbenzene	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	234	--	0.7	--	14	0	--	--
	Isopropylbenzene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	371	--	--	--	--	--	--	--
	m,p-Xylene	mg/kg	6	0	0%	--	--	0.00585	0.0069	0.00233	0.0051	0.0145	375	--	10	--	200	0	--	--
	Methyl disulfide	mg/kg	2	0	0%	--	--	0.00286	0.0026	0.00048	0.0051	0.0051	--	--	--	--	--	--	--	--
	Methyl ethyl ketone	mg/kg	22	2	9%	0.0059	0.0059	0.0134	0.0105	0.00442	0.0051	0.03625	32100	0	--	--	--	--	--	--
	Methyl iodide	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	--	--	--	--	--	--	--	--
	Methyl isobutyl ketone	mg/kg	19	1	5%	0.0028	0.0028	0.0137	0.011	0.00455	0.02	0.03625	5800	0	--	--	--	--	--	--
	Methyl n-butyl ketone	mg/kg	17	0	0%	--	--	0.0146	0.0163	0.00436	0.021	0.03625	--	--	--	--	--	--	--	--
	MTBE (Methyl tert-butyl ether)	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	31.7	--	--	--	--	--	--	--
	n-Butyl benzene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	145	--	--	--	--	--	--	--
	n-Propyl benzene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	145	--	--	--	--	--	--	--
	o-Xylene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	282	--	9	--	180	0	--	--
	Styrene (monomer)	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	1730	--	0.2	--	4	0	--	--
	tert-Butyl benzene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	132	--	--	--	--	--	--	--
	Tetrachloroethylene	mg/kg	19	2	11%	0.00027	0.00029	0.00287	0.00265	0.00143	0.0051	0.00725	0.554	0	0.003	0	0.06	0	--	--
	Toluene	mg/kg	19	1	5%	0.00073	0.00073	0.00298	0.00275	0.00085	0.0051	0.00725	521	0	0.6	0	12	0	--	--
	trans-1,2-Dichloroethylene	mg/kg	6	0	0%	--	--	0.0034	0.00345	0.00062	0.0051	0.00725	122	--	0.03	--	0.6	0	--	--
	trans-1,3-Dichloropropylene	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	0.697	--	0.0002	--	0.004	0	--	--
	Tribromomethane	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	61.6	--	0.04	--	0.8	0	--	--
	Trichloroethylene	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	0.0426	--	0.003	--	0.06	0	--	--
	Vinyl acetate	mg/kg	2	0	0%	--	--	0.00286	0.0026	0.00048	0.0051	0.0051	988	--	8	--	160	0	--	--
	Vinyl chloride	mg/kg	19	0	0%	--	--	0.0031	0.00275	0.00062	0.0051	0.00725	0.043	--	0.0007	--	0.014	0	--	--
	Xylenes (total)	mg/kg	15	0	0%	--	--	0.00364	0.00262	0.00154	0.0051	0.01	214	--	10	--	200	0	--	--

Note: The values used in this are simply a comparison to Region 6 MSSL values for historical data, for information purposes only. Use of 1/10 of the risk-based screening level in the text on page 4-4 is proposed for the identification exceeding samples for the confirmation dataset. Therefore, these are two different uses of these values and should not be considered the same.

a - Range of detections include estimated values of detect results between the detection limit and reporting limit. As such some minimum detected concentrations may be below the minimum reporting limit. In these cases the respective sample results are flagged in the data set.

b - Includes both detect values and non-detect values, with one-half the DL used for non-detect values.

c - The quantitation limits shown include samples which had detections.

d - From USEPA Region 6 medium-specific screening levels (MSSLs) table, March 2008 (and the 2007 USEPA radionuclide PRG webpage; http://epa-prgs.ornl.gov/radionuclides). Values used are residential soil MSSLs.

e - From USEPA Region 6 medium-specific screening levels (MSSLs) table, March 2008 (and the 2007 USEPA radionuclide PRG webpage; http://epa-prgs.ornl.gov/radionuclides). Value used is the soil screening level (SSL) with a dilution attenuation factor (DAF) of 1 or 20.

f - Values used are the maximum from the shallow soils background data set presented in the Background Shallow Soil Summary Report, BMI Complex and Common Area Vicinity (BRC/TIMET 2007).

g - Agency for Toxic Substances and Disease Registry (ATSDR) screening value of 50 parts per trillion (ppt).

-- = Not applicable or no value has been established.

TABLE 2
SUMMARY OF RECENT (4TH QUARTERLY EVENT) ALLUVIAL AQUIFER GROUNDWATER DATA FROM MONITORING WELLS AA-01, AA-13, AA-27, DM-1, AND POU3
SOUTHERN RIBS SUB-AREA

Class	Chemical	Units	USEPA 2002 VI SL[1]	MCL	AA-01 N 01/25/07	AA-13 N 01/26/07	AA-27 N 02/02/07	DM-1 N 01/25/07	POU3 N 01/25/07
Aldehydes	Acetaldehyde	ug/L	340	--	< 30 U	< 30 U	< 30 U	< 30 U	11 J
	Chloral	ug/L	--	--	< 150 UJ	< 150 UJ	< 150 U	< 150 UJ	< 150 UJ
	Chloroacetaldehyde	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Dichloroacetaldehyde	ug/L	--	--	< 350 UJ	< 350 UJ	< 350 UJ	< 350 UJ	< 350 UJ
	Formaldehyde	ug/L	--	--	< 60 U	< 60 U	< 60 U	< 60 U	< 60 U
Dissolved Gases	Ethane	ug/L	--	--	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
	Ethylene	ug/L	--	--	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
	Methane	ug/L	--	--	< 5 U	< 5 U	< 5 U	< 5 U	0.82 J
General Chemistry	Alkalinity	mg/L	--	--	103	262	130	167	70
	Ammonia	ug/L	--	--	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
	Bicarbonate alkalinity	mg/L	--	--	103	262	130	167	70
	Bromide	mg/L	--	--	19	0.9 J	< 125 U	< 125 U	< 125 U
	Bromine	mg/L	--	--	38	1.8 J	< 250 U	< 250 U	< 250 U
	Carbonate alkalinity	mg/L	--	--	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
	Chlorate	ug/L	--	--	5960 J-	< 2000 U	< 5 UJ	4910 J-	352000 J-
	Chloride	mg/L	--	250	**970**	**390**	**605 J-**	**448**	**2910**
	Chlorine	mg/L	--	--	1940	780	1210 J-	896	5820
	Chlorite	ug/L	--	1,000	< 400 U	< 400 U	< 400 U	< 400 U	< 1000 U
	Fluoride	mg/L	--	4.0	1.7	1.1 J	1.9 J+	1.9	< 1 U
	Hydroxide alkalinity	mg/L	--	--	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
	Iodide	mg/L	--	--	< 1 U	< 1 U	< 50 U	< 50 U	56.8
	Nitrate (as N)	mg/L	--	10	**20.7**	**111**	**12.6 J-**	**49.9**	**19.9**
	Nitrite (as N)	mg/L	--	1	< 10 UJ	< 10 U	--	--	--
	Orthophosphate as P	ug/L	--	--	5.6	< 250 U	< 5 UJ	< 250 U	722
	Perchlorate	ug/L	--	18/24.5[2]	**1290**	10.1	**249**	**56.4**	**31800**
	Sulfate	mg/L	--	250	2140 J-	1050	2800 J-	2470 J-	3700 J-
	Total Inorganic Carbon	mg/L	--	--	< 50 U	80.4	< 50 U	< 50 U	< 50 U
	Total Kjeldahl Nitrogen (TKN)	mg/L	--	--	0.42	< 0.1 U	0.51	< 0.1 U	< 0.1 U
	Total Organic Carbon	mg/L	--	--	1.8	2.1	1.5	2.2	11.8
Metals	Aluminum	ug/L	--	50	< 300 U	< 300 U	< 600 U	**1020**	< 1500 U
	Antimony	ug/L	--	6	< 50 U	< 50 U	< 100 U	< 50 U	< 250 U
	Arsenic	ug/L	--	10	**78.3 J**	**39.7 J**	< 200 U	< 100 U	**108 J**
	Barium	ug/L	--	2,000	18.9 J	23.2	21.5 J	24.6	29.1 J
	Beryllium	ug/L	--	4	< 5 U	< 5 U	< 10 U	< 5 U	< 25 U
	Boron	ug/L	--	--	1200	1140	2570	2870	4040
	Cadmium	ug/L	--	5	< 5 U	< 5 U	< 10 U	< 5 U	< 25 U
	Calcium	ug/L	--	--	544000	273000	477000	428000	696000
	Chromium (Total)	ug/L	--	100	< 100 U	< 100 U	< 200 U	< 100 U	**347 J+**
	Chromium (VI)	mg/L	--	--	< 0.01 U	< 0.01 U	0.069	< 0.01 U	0.31
	Cobalt	ug/L	--	--	< 20 U	4 J	< 40 U	< 20 U	< 100 U
	Copper	ug/L	--	1,300	5.1 J	9.1 J	8.4 J	7.9 J	24 J
	Iron	ug/L	--	300	--	--	--	--	--
	Lead	ug/L	--	15	< 30 U	< 30 U	< 60 U	< 30 U	< 150 U
	Lithium	ug/L	--	--	203	212	211	150	159
	Magnesium	ug/L	--	--	112000	106000	178000	150000	353000
	Manganese	ug/L	--	50	< 20 U	< 20 U	< 40 U	30.9	19 J
	Mercury	ug/L	--	2	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
	Molybdenum	ug/L	--	--	15.3 J	8.9 J	31.2 J	18.2 J	83.6 J
	Nickel	ug/L	--	--	11.7 J	9.9 J	14.3 J	14.5 J	41.5 J
	Niobium	ug/L	--	--	< 500 U	< 500 U	< 500 U	< 500 U	< 500 U
	Palladium	ug/L	--	--	22.7	8.8	22.6	13.4	31.6
	Phosphorus (as P)	ug/L	--	25[3]	< 200 U	< 200 U	< 400 U	173 J	< 1000 U

TABLE 2
SUMMARY OF RECENT (4TH QUARTERLY EVENT) ALLUVIAL AQUIFER GROUNDWATER DATA FROM MONITORING WELLS AA-01, AA-13, AA-27, DM-1, AND POU3
SOUTHERN RIBS SUB-AREA

Class	Chemical	Units	USEPA 2002 VI SL[1]	MCL	AA-01 N 01/25/07	AA-13 N 01/26/07	AA-27 N 02/02/07	DM-1 N 01/25/07	POU3 N 01/25/07
Metals	Platinum	ug/L	--	--	< 10 U	< 10 U	< 20 U	< 10 U	< 50 U
	Potassium	ug/L	--	--	6640	12100	7600	7960	25700
	Selenium	ug/L	--	50	< 50 U	14.2 J	< 100 U	< 50 U	< 250 U
	Silicon	ug/L	--	--	39600	30000	36200	29300	36200
	Silver	ug/L	--	100	< 20 U	< 20 U	< 40 U	< 20 U	< 100 U
	Sodium	ug/L	--	--	351000	351000	444000	385000	1550000
	Strontium	ug/L	--	--	13500	5760	9230	7180	15800
	Sulfur	ug/L	--	--	490000	280000	738000	559000	772000
	Thallium	ug/L	--	2	< 20 U	< 20 U	< 40 U	< 20 U	< 100 U
	Tin	ug/L	--	--	< 20 U	< 20 U	< 40 U	< 20 U	< 100 U
	Titanium	ug/L	--	--	5.1 J	6.5 J	< 40 U	27.3	< 100 U
	Tungsten	ug/L	--	--	< 100 U	< 100 U	< 100 U	< 100 U	18.1 J
	Uranium	ug/L	--	30	**68.5**	**39.8**	**73**	26.6	10.6 J
	Vanadium	ug/L	--	--	29.4 J	< 100 U	< 200 U	< 100 U	< 500 U
	Zinc	ug/L	--	500	< 100 U	< 100 U	< 200 U	10.6 J	< 500 U
	Zirconium	ug/L	--	--	< 50 U	< 50 U	< 100 U	2.1 J	< 250 U
Organic Acids	4-Chlorobenzenesulfonic acid	mg/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	Benzenesulfonic acid	mg/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	Diethyl phosphorodithioic acid	mg/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	Dimethyl phosphorodithioic acid	mg/L	--	--	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U
	Phthalic acid	mg/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Organochlorine Pesticides	2,4-DDD	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	2,4-DDE	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	4,4-DDD	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	4,4-DDE	ug/L	29	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	4,4-DDT	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	Aldrin	ug/L	0.071	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	alpha-BHC	ug/L	3.1	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	alpha-Chlordane	ug/L	--	2	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	beta-BHC	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	Chlordane	ug/L	12	2	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
	delta-BHC	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	Dieldrin	ug/L	0.86	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	Endosulfan I	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	Endosulfan II	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	Endosulfan sulfate	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	Endrin	ug/L	--	2	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	Endrin aldehyde	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	Endrin ketone	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	gamma-Chlordane	ug/L	--	2	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	Heptachlor	ug/L	0.4	0.4	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	Heptachlor epoxide	ug/L	--	0.2	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	Lindane	ug/L	11	0.2	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
	Methoxychlor	ug/L	--	40	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
	Toxaphene	ug/L	--	3	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
Organophosphorous Pesticides	Azinphos-ethyl	ug/L	--	--	< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U
	Azinphos-methyl	ug/L	--	--	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U
	Carbophenothion	ug/L	--	--	< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U
	Carbophenothion-methyl	ug/L	--	--	< 0.8 U	< 0.8 U	< 0.8 U	< 0.8 U	< 0.8 U
	Chlorpyrifos	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
	Coumaphos	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
	Demeton-O	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U

TABLE 2
SUMMARY OF RECENT (4TH QUARTERLY EVENT) ALLUVIAL AQUIFER GROUNDWATER DATA
FROM MONITORING WELLS AA-01, AA-13, AA-27, DM-1, AND POU3
SOUTHERN RIBS SUB-AREA

Class	Chemical	Units	USEPA 2002 VI SL[1]	MCL	AA-01 N 01/25/07	AA-13 N 01/26/07	AA-27 N 02/02/07	DM-1 N 01/25/07	POU3 N 01/25/07
Organophosphorous	Demeton-S	ug/L	--	--	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ
Pesticides	Diazinon	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
	Dichlorvos	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U
	Dimethoate	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
	Disulfoton	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
	Ethoprophos	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
	Ethyl p-nitrophenyl phenylphosphorothioate	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
	Famphur	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	Fenthion	ug/L	--	--	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U
	Malathion	ug/L	--	--	< 1.2 U	< 1.2 U	< 1.2 U	< 1.2 U	< 1.2 U
	Methyl parathion	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	Mevinphos	ug/L	--	--	< 6.2 U	< 6.2 U	< 6.2 UJ	< 6.2 U	< 6.2 U
	Naled	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	O,O,O-Triethyl phosphorothioate	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
	Parathion	ug/L	--	--	< 0.5 U	< 0.5 U	--	< 0.5 U	< 0.5 U
	Phorate	ug/L	--	--	< 1.2 U	< 1.2 U	< 1.2 U	< 1.2 U	< 1.2 U
	Phosmet	ug/L	--	--	< 1.2 U	< 1.2 U	< 1.2 UJ	< 1.2 U	< 1.2 U
	Ronnel	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Sulfotep	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
	Tetrachlorvinphos (Stirophos)	ug/L	--	--	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U
Radionuclides	Gross alpha	pCi/L	--	15[4]	52.7	33.4	47.8	19.3	< 4.5 U
	Gross beta	pCi/L	--	--[5]	< 15.6 U	18.9	22.9	18.9	46
	Radium-226	pCi/L	--	5[6]	--	--	<0.059 U	0.252	0.305
	Radium-228	pCi/L	--	5[6]	< 0.41 U	0.614 J	0.55 J	< 0.34 U	< 0.46 U
	Thorium-228	pCi/L	--	--	< 0.10 U	< 1 U	< -0.013 U	< 0.019 U	< 0.06 U
	Thorium-230	pCi/L	--	--	< 1 U	< -0.0037 U	< 0.053 U	< 1 U	< 0.059 U
	Thorium-232	pCi/L	--	--	< 1 U	< -0.0037 U	< 0.066 U	< 1 U	< 1 U
	Uranium-234	pCi/L	--	--	31.7	22.4	32.8	16.1	5.35
	Uranium-235	pCi/L	--	--	0.678	0.493	0.8	0.5	0.277
	Uranium-238	pCi/L	--	--	23	15.2	21.3	9.18	3.17
SVOCs	1,2,4,5-Tetrachlorobenzene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	1,2-Diphenylhydrazine	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	1,4-Dioxane	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	2,2'-/4,4'-Dichlorobenzil	ug/L	--	--	< 9.5 U	< 9.4 U	< 9.4 U	< 9.4 U	< 9.4 U
	2,4,5-Trichlorophenol	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	2,4,6-Trichlorophenol	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	2,4-Dichlorophenol	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	2,4-Dimethylphenol	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	2,4-Dinitrophenol	ug/L	--	--	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
	2,4-Dinitrotoluene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	2,6-Dinitrotoluene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	2-Chloronaphthalene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	2-Chlorophenol	ug/L	1,100	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	2-Methylnaphthalene	ug/L	3,300	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	2-Nitroaniline	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	2-Nitrophenol	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	3,3'-Dichlorobenzidine	ug/L	--	--	< 50 UJ	< 50 UJ	< 50 UJ	< 50 UJ	< 50 UJ
	3-Methylphenol & 4-Methylphenol	ug/L	--	--	< 20 U	< 20 U	< 10 U	< 20 U	< 20 U
	3-Nitroaniline	ug/L	--	--	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
	4-Bromophenyl phenyl ether	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	4-Chloro-3-Methylphenol	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	4-Chlorophenyl phenyl ether	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U

TABLE 2
SUMMARY OF RECENT (4TH QUARTERLY EVENT) ALLUVIAL AQUIFER GROUNDWATER DATA FROM MONITORING WELLS AA-01, AA-13, AA-27, DM-1, AND POU3
SOUTHERN RIBS SUB-AREA

Class	Chemical	Units	USEPA 2002 VI SL[1]	MCL	AA-01 N 01/25/07	AA-13 N 01/26/07	AA-27 N 02/02/07	DM-1 N 01/25/07	POU3 N 01/25/07
SVOCs	4-Chlorothioanisole	ug/L	--	--	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
	4-Nitrophenol	ug/L	--	--	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
	Acenaphthene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Acenaphthylene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Acetophenone	ug/L	800,000	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Aniline	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Anthracene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Azobenzene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Benzenethiol	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Benzo(a)anthracene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Benzo(a)pyrene	ug/L	--	0.2	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Benzo(b)fluoranthene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Benzo(g,h,i)perylene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Benzo(k)fluoranthene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Benzoic acid	ug/L	--	--	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
	Benzyl alcohol	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Benzyl butyl phthalate	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	bis(2-Chloroethoxy) methane	ug/L	0.0045	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	bis(2-Chloroethyl) ether	ug/L	10	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	bis(2-Chloroisopropyl) ether	ug/L	51	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	bis(2-Ethylhexyl) phthalate	ug/L	--	6	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	bis(p-Chlorophenyl) disulfide	ug/L	--	--	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
	bis(p-Chlorophenyl) sulfone	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Carbazole	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Chrysene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Dibenzo(a,h)anthracene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Dibenzofuran	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Dibutyl phthalate	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Diethyl phthalate	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Dimethyl phthalate	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Di-n-octyl phthalate	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Diphenyl sulfone	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Fluoranthene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Fluorene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Hexachloro-1,3-butadiene	ug/L	0.33	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Hexachlorobenzene	ug/L	1	1	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Hexachlorocyclopentadiene	ug/L	50	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Hexachloroethane	ug/L	3.8	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Hydroxymethyl phthalimide	ug/L	--	--	< 10 UJ	< 10 UJ	< 10 U	< 10 UJ	< 10 UJ
	Indeno(1,2,3-cd)pyrene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Isophorone	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Naphthalene	ug/L	150	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Nitrobenzene	ug/L	2,000	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	N-nitrosodi-n-propylamine	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	N-nitrosodiphenylamine	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	o-Cresol	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Octachlorostyrene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	p-Chloroaniline	ug/L	--	--	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
	p-Chlorothiophenol	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Pentachlorobenzene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Pentachlorophenol	ug/L	--	1	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
	Phenanthrene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U

TABLE 2
SUMMARY OF RECENT (4TH QUARTERLY EVENT) ALLUVIAL AQUIFER GROUNDWATER DATA FROM MONITORING WELLS AA-01, AA-13, AA-27, DM-1, AND POU3
SOUTHERN RIBS SUB-AREA

Class	Chemical	Units	USEPA 2002 VI SL[1]	MCL	AA-01 N 01/25/07	AA-13 N 01/26/07	AA-27 N 02/02/07	DM-1 N 01/25/07	POU3 N 01/25/07
SVOCs	Phenol	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Phenyl Disulfide	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Phenyl Sulfide	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	p-Nitroaniline	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Pyrene	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	Pyridine	ug/L	--	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
VOCs	1,1,1,2-Tetrachloroethane	ug/L	3.3	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	1,1,1-Trichloroethane	ug/L	3,100	200	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	1,1,2,2-Tetrachloroethane	ug/L	3	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	1,1,2-Trichloroethane	ug/L	5	5	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	1,1-Dichloroethane	ug/L	2,200	--	< 1 U	< 1 U	< 1 U	< 1 U	0.93 J
	1,1-Dichloroethene	ug/L	190	7	3.7	< 1 U	< 1 U	< 1 U	2.2
	1,1-Dichloropropene	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	0.34 J
	1,2,3-Trichlorobenzene	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	1,2,3-Trichloropropane	ug/L	290	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	1,2,4-Trichlorobenzene	ug/L	3,400	70	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	1,2,4-Trimethylbenzene	ug/L	24	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	1,2-Dibromo-3-chloropropane (DBCP)	ug/L	33	0.2	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	1,2-Dichlorobenzene	ug/L	2,600	600	< 1 U	< 1 U	< 1 U	< 1 U	12
	1,2-Dichloroethane	ug/L	5	5	< 1 U	< 1 U	< 1 U	< 1 U	1.5
	1,2-Dichloroethene	ug/L	--	--	< 2 U	< 2 U	< 2 U	< 2 U	0.84 J
	1,2-Dichloropropane	ug/L	35	5	< 1 U	< 1 U	< 1 U	< 1 U	1.2
	1,3,5- Trichlorobenzene	ug/L	--	--	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
	1,3,5-Trimethylbenzene	ug/L	25	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	1,3-Dichlorobenzene	ug/L	830	--	< 1 U	< 1 U	< 1 U	< 1 U	0.92 J
	1,3-Dichloropropane	ug/L	0.84	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	1,4-Dichlorobenzene	ug/L	8,200	75	< 1 U	< 1 U	< 1 U	< 1 U	1.9
	1-Nonanal	ug/L	--	--	< 5 U	< 5 UJ	< 5 UJ	< 5 U	< 5 U
	2,2,3-Trimethylbutane	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	2,2-Dichloropropane	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	2,2-Dimethylpentane	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	2,3-Dimethylpentane	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	2,4-Dimethylpentane	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	2-Chlorotoluene	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	2-Nitropropane	ug/L	0.18	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	2-Phenylbutane	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	3,3-dimethylpentane	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	3-ethylpentane	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	3-Methylhexane	ug/L	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
	4-Chlorotoluene	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	Acetone	ug/L	220,000	--	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
	Acetonitrile	ug/L	42,000	--	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
	Benzene	ug/L	5	5	< 1 U	< 1 U	< 1 U	< 1 U	0.27 J
	Bromobenzene	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	Bromodichloromethane	ug/L	2.1	80[7]	< 1 U	< 1 U	< 1 U	< 1 U	**27**
	Bromomethane	ug/L	--	--	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
	Carbon disulfide	ug/L	560	--	< 1 U	< 1 UJ	< 1 UJ	< 1 U	< 1 U
	Carbon tetrachloride	ug/L	5	5	< 1 U	< 1 U	< 1 U	< 1 U	**19**
	CFC-11	ug/L	180	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	CFC-12	ug/L	14	--	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
	Chlorinated fluorocarbon (Freon 113)	ug/L	1,500	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	Chlorobenzene	ug/L	390	100	< 1 U	< 1 U	< 1 U	< 1 U	1.1

TABLE 2
SUMMARY OF RECENT (4TH QUARTERLY EVENT) ALLUVIAL AQUIFER GROUNDWATER DATA FROM MONITORING WELLS AA-01, AA-13, AA-27, DM-1, AND POU3
SOUTHERN RIBS SUB-AREA

Class	Chemical	Units	USEPA 2002 VI SL[1]	MCL	AA-01 N 01/25/07	AA-13 N 01/26/07	AA-27 N 02/02/07	DM-1 N 01/25/07	POU3 N 01/25/07
VOCs	Chlorobromomethane	ug/L	3.2	--	< 1 UJ	< 1 UJ	--	< 1 UJ	< 1 UJ
	Chlorodibromomethane	ug/L	--	80[7]	< 1 U	< 1 U	< 1 U	< 1 U	15
	Chloroethane	ug/L	28,000	--	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
	Chloroform	ug/L	80	80[7]	5.5	0.5 J	1.7	0.74 J	**1400**
	Chloromethane	ug/L	--	--	< 2 U	0.72 J	< 2 U	< 2 U	< 2 U
	cis-1,2-Dichloroethene	ug/L	210	70	< 1 U	< 1 U	< 1 U	< 1 U	0.84 J
	cis-1,3-Dichloropropene	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	Cymene	ug/L	--	--	< 1 U	< 1 U	--	< 1 U	< 1 U
	Dibromomethane	ug/L	990	--	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ
	Dichloromethane	ug/L	58	5	< 1 U	< 1 U	--	< 1 U	**9.9**
	Ethanol	ug/L	--	--	< 250 UJ	< 250 UJ	< 250 UJ	< 250 UJ	< 250 UJ
	Ethylbenzene	ug/L	700	700	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	Hexane, 2-methyl-	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	Isopropylbenzene	ug/L	8.4	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	m,p-Xylene	ug/L	--	--	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
	Methyl disulfide	ug/L	--	--	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
	Methyl ethyl ketone	ug/L	440,000	--	< 5 UJ	< 5 UJ	--	< 5 UJ	< 5 UJ
	Methyl iodide	ug/L	--	--	< 2 U	< 2 UJ	--	< 2 U	< 2 U
	Methyl isobutyl ketone	ug/L	14,000	--	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
	Methyl n-butyl ketone	ug/L	--	--	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
	MTBE (Methyl tert-butyl ether)	ug/L	120,000	--	< 2 U	< 2 U	--	< 2 U	< 2 U
	n-Butyl benzene	ug/L	260	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	n-Heptane	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	n-Propyl benzene	ug/L	320	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	o-Xylene	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	Styrene	ug/L	8,900	100	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	tert-Butyl benzene	ug/L	290	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	Tetrachloroethene	ug/L	5	5	**84 J**	< 1 U	< 1 U	< 1 U	**14**
	Toluene	ug/L	1,500	1,000	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	trans-1,2-Dichloroethene	ug/L	180	100	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	trans-1,3-Dichloropropene	ug/L	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	Tribromomethane	ug/L	0.0083	80[7]	< 1 U	< 1 U	< 1 U	< 1 U	**11**
	Trichloroethene	ug/L	5	5	0.44 J	< 1 U	< 1 U	< 1 U	3.9
	Vinyl acetate	ug/L	9,600	--	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
	Vinyl chloride	ug/L	2	2	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
	Xylenes (total)	ug/L	22,000	10,000	< 3 U	< 3 U	< 3 U	< 3 U	< 3 U
Water Quality Parameters	Conductivity	umhos/cm	--	--	2250 J-	2270 J-	2360 J-	2240 J-	3010 J-
	Hardness, Total	mg/L	--	--	1810	1200	2010	1780	3640
	pH (Hydrogen Ion)	--	--	6.5-9[3]	7.3 J-	7.4 J-	7.2 J-	7.3 J-	7.3 J-
	Total Dissolved Solids	mg/L	--	500	**3730**	**2640**	**4340**	**3580**	**9690**
	Total Suspended Solids	mg/L	--	--	1.0	2.0	16	22	6.0

[1]Groundwater to indoor air vapor intrusion screening level; from USEPA. 2002. Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance). Table 2c (Generic Screening Levels and Summary Sheet; Risk = 1 x 10-6).

[2]A MCL for perchlorate has not been promulgated. The USEPA Drinking Water Equivalent Level of 24.5 ug/L was used.

[3]A NDEP water quality standard was used for Class A (municipal or domestic supply) waters for pH and total phosphorus based on Nevada Administrative Code (NAC) 445A.118 through 445A.225.

[4]The MCL for Alpha Particles was used as comparison to Gross Alpha results. The MCL excludes the contributions from radon and uranium. The Gross Alpha concentrations were not adjusted due to contributions from radon nor uranium prior to comparison to MCL.

[5]The MCL for Beta particles photon emitters is 4 millirems per year and was not used to compare to Gross Beta concentrations.

[6]The constituent is regulated under the MCL for the combined concentration of radium-226 and radium-228. For comparison to the MCL, concentrations of both constituents are summed.

[7]The constituent is regulated under the MCL for Total Trihalomethanes (TTHM). For comparison to the MCL for TTHM, concentrations of all TTHM constituents need to be considered. Chloroform was the only TTHM detected and the detection limits of all TTHM analyzed for do not sum to a concentration that would exceed the TTHM MCL.

TABLE 3
2008 DEBRIS SURVEY RESULTS
SOUTHERN RIBS SUB-AREA
(Page 1 of 1)

Station No.	Item Descriptions	Dimensions	Sample Location
1	scattered metal cable, wood, black plastic pipe material, copper wire	200' radius	SRC1-AM28
2	transformer parts, plastic debris, insulation	20' radius	SRC1-J07
3	wood, plastic, insulation	15' radius	None
4	scattered furniture, bed, oil stained carpet, oil stain & stained 5-gallon bucket, plant cuttings	300' radius	SRC1-J02
5	Anti-freeze containers (empty), paint cans, scrap wood, concrete rubble	100' radius	SRC1-AI17
6	concrete pipe fragments, metal parts, creosote poles, wood, plastic (HDPE), plastic pipe parts, trash	300' radius	None
7	scrap wood, stockpile with mixed trash	15' radius	SRC1-AI18
8	black, discolored soil, minor tar stains	20' radius	SRC1-AM28
9	scattered concrete rubble, soil stockpile, lumber, plant cuttings	200' radius	SRC1-J10
10	dry wall, tiles	10' radius	None
11	tires, trash, and plant cuttings in a pile	40' radius	SRC1-AK28
12	tires, carpet, fiberglass, insulation, particle board, plastic siding, metal parts, plant cuttings	100' radius	None
13	carpet, metal parts, plant cuttings	15' radius	None
14	scattered metal parts, pvc parts, concrete fence post bases	300' radius	None
15	scattered metal paint buckets, plastic trash, 5-gallon buckets with hydraulic oil, stained soil 2-feet in diameter	200' radius	SRC1-J10
16	clothing, plastic parts, cardboard, metal parts, glass, soil stockpiles, plant cuttings	50' radius	SRC1-AH16
17	plastic trash, vcr tapes, cassettes, paper trash, wood debris, particle board	150' radius	None
18	concrete & asphalt debris, metal pipe parts, masonry bricks, plant cuttings	100' radius	None
19	disturbed soil area (15' X 20') with black to variously colored electrical insulation, wires, clothing,paper trash, plant cuttings	200' radius	None
20	pit 20' × 15', plant cuttings	20' × 15'	None
21	electronic /computer parts, household trash	5' radius	SRC1-AH17
22	homeless camp, shopping carts	10' radius	SRC1-AH16
23	landscape gravel, lumber debris, concrete rubble, metal parts	50' radius	None (off-site)

Notes:
Results are based on a ground survey conducted July 2008.
See Table 5 for analyses at each sample location.
Those locations with 'None' in the sample location column indicate debris for which sampling was not considered necessary based on the nature of the debris observed.
All debris locations will be removed/scraped prior to initiation of sampling activities at the Site.

TABLE 4
SAMPLE-SPECIFIC COLLECTION DEPTHS
SOUTHERN RIBS SUB-AREA
(Page 1 of 2)

Sample Location	Sample Type	Grading Plan	Sample Depth 1	Sample Depth 2	Sample Depth 3
SRC1-AG16	Random	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-AG17	Random with Flux	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-AG18	Random	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-AH15	Random	Fill +1	0 (Surface)	10 (Subsurface)	--
SRC1-AH16	Random with Flux	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-AH17	Random with Flux	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-AH18	Random	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-AH19	Random with Flux	-- 0	0 (Surface)	10 (Subsurface)	--
SRC1-AI16	Random	Fill +1	0 (Surface)	10 (Subsurface)	--
SRC1-AI17	Random with Flux	Cut -3	0 (Fill)	3 (Surface)	13 (Subsurface)
SRC1-AI18	Random	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-AI19	Random with Flux	Cut -6	0 (Fill)	6 (Surface)	16 (Subsurface)
SRC1-AI20	Random	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-AJ18	Random	Cut -3	0 (Fill)	3 (Surface)	13 (Subsurface)
SRC1-AJ19	Random	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-AJ20	Random	Cut -11	0 (Fill)	11 (Surface)	21 (Subsurface)
SRC1-AJ21	Random	Cut -2	0 (Fill/Surface)	12 (Subsurface)	--
SRC1-AJ22	Random with Flux	Fill +3	0 (Surface)	10 (Subsurface)	--
SRC1-AJ23	Random	Cut -4	0 (Fill)	4 (Surface)	14 (Subsurface)
SRC1-AJ24	Random	Fill +3	0 (Surface)	10 (Subsurface)	--
SRC1-AJ25	Random	Cut -3	0 (Fill)	3 (Surface)	13 (Subsurface)
SRC1-AJ26	Random with Flux	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-AJ27	Random	-- 0	0 (Surface)	10 (Subsurface)	--
SRC1-AJ28	Random	Cut -2	0 (Fill/Surface)	12 (Subsurface)	--
SRC1-AK20	Random with Flux	Cut -9	0 (Fill)	9 (Surface)	19 (Subsurface)
SRC1-AK21	Random with Flux	Cut -8	0 (Fill)	8 (Surface)	18 (Subsurface)
SRC1-AK22	Random	Cut -2	0 (Fill/Surface)	12 (Subsurface)	--
SRC1-AK23	Random	Cut -4	0 (Fill)	4 (Surface)	14 (Subsurface)
SRC1-AK24	Random with Flux	-- 0	0 (Surface)	10 (Subsurface)	--
SRC1-AK25	Random with Flux	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-AK26	Random	Fill +1	0 (Surface)	10 (Subsurface)	--
SRC1-AK27	Random	Cut -3	0 (Fill)	3 (Surface)	13 (Subsurface)
SRC1-AK28	Random with Flux	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-AL22	Random	Cut -8	0 (Fill)	8 (Surface)	18 (Subsurface)
SRC1-AL23	Random with Flux	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-AL24	Random with Flux	Cut -8	0 (Fill)	8 (Surface)	18 (Subsurface)
SRC1-AL25	Random	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-AL26	Random	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-AL27	Random with Flux	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-AL28	Random	Cut -4	0 (Fill)	4 (Surface)	14 (Subsurface)
SRC1-AM24	Random	Cut -7	0 (Fill)	7 (Surface)	17 (Subsurface)
SRC1-AM25	Random with Flux	Fill +1	0 (Surface)	10 (Subsurface)	--
SRC1-AM26	Random with Flux	Fill +2	0 (Surface)	10 (Subsurface)	--
SRC1-AM27	Random	Cut -3	0 (Fill)	3 (Surface)	13 (Subsurface)
SRC1-AM28	Random with Flux	Cut -7	0 (Fill)	7 (Surface)	17 (Subsurface)
SRC1-AN26	Random	Cut -3	0 (Fill)	3 (Surface)	13 (Subsurface)
SRC1-AN27	Random with Flux	Cut -3	0 (Fill)	3 (Surface)	13 (Subsurface)
SRC1-AN28	Random	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--

TABLE 4
SAMPLE-SPECIFIC COLLECTION DEPTHS
SOUTHERN RIBS SUB-AREA
(Page 2 of 2)

Sample Location	Sample Type	Grading Plan		Sample Depth 1	Sample Depth 2	Sample Depth 3
SRC1-J01	Biased	Cut	-1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-J02	Biased	Cut	-3	0 (Fill)	3 (Surface)	13 (Subsurface)
SRC1-J03	Biased	Cut	-5	0 (Fill)	5 (Surface)	15 (Subsurface)
SRC1-J04	Biased	Cut	-9	0 (Fill)	3 (Surface)	19 (Subsurface)
SRC1-J05	Biased	Cut	-5	0 (Fill)	5 (Surface)	15 (Subsurface)
SRC1-J06	Biased	Cut	-2	0 (Fill/Surface)	12 (Subsurface)	--
SRC1-J07	Biased	--	0	0 (Surface)	10 (Subsurface)	--
SRC1-J08	Biased	Cut	-7	0 (Fill)	7 (Surface)	17 (Subsurface)
SRC1-J09	Biased	Cut	-1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-J10	Biased	Cut	-1	0 (Fill/Surface)	11 (Subsurface)	--
SRC1-J11	Biased	Fill	+1	0 (Surface)	10 (Subsurface)	--
SRC1-J12	Biased	Cut	-2	0 (Fill/Surface)	12 (Subsurface)	--
SRC1-J13	Biased	Cut	-3	0 (Fill)	3 (Surface)	13 (Subsurface)
SRC1-J14	Biased	Cut	-2	0 (Fill/Surface)	12 (Subsurface)	--
SRC1-J15	Biased	Cut	-2	0 (Fill/Surface)	12 (Subsurface)	--

Note: Because sample collection will be over a two to three foot depth interval, sample locations with an anticipated cut depth less than three feet will only be sampled at the surface and one post-grade subsurface depth.

Yellow shaded locations SRC1-AH17, SRC1-AK22, and SRC1-J11) indicates deep soil samples will be collected for physical parameter analyses.

Green shaded locations SRC1-AJ19 and SRC1-AM25) indicates subsurface soil samples will also include synthetic precipitation leaching procedure (SPLP) sampling and analysis.

Depths are in feet bgs (current grade).

TABLE 5
SITE-RELATED CHEMICALS LIST AND PROPOSED SAMPLE ANALYSES AND DEPTHS
SOUTHERN RIBS SUB-AREA

Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 4)			SPLP
				Depth 1	Depth 2/3	Deep	
Ions	**EPA 300.0**	Bromide	24959-67-9	✓	✓	(g)	(h)
		Bromine	7726-95-6	(a)	(a)	(a)	(h)
		Chlorate	14866-68-3	✓	✓	(g)	(h)
		Chloride	16887-00-6	✓	✓	(g)	(h)
		Chlorine (soluble)	7782-50-5	(a)	(a)	(a)	(h)
		Chlorite	14998-27-7	(a)	(a)	(a)	(h)
		Fluoride	16984-48-8	✓	✓	(g)	(h)
		Nitrate (as N)	14797-55-8	✓	✓	(g)	(h)
		Nitrite (as N)	14797-65-0	✓	✓	(g)	(h)
		Orthophosphate	14265-44-2	✓	✓	(g)	(h)
		Sulfate	14808-79-8	✓	✓	(g)	(h)
	EPA 377.1	Sulfite	14265-45-3	(a)	(a)	(a)	(h)
	EPA 314.0	Perchlorate	14797-73-0	✓	✓	(g)	✓
Dissolved Gases	**RSK 175**	Ethane	74-84-0	(a)	(a)	(a)	(h)
		Ethylene	74-85-1	(a)	(a)	(a)	(h)
		Methane	74-82-8	(a)	(a)	(a)	(h)
Chlorinated Compounds	**EPA 551.1**	Chloral	75-87-6	✓	✓	(g)	(h)
		Dichloroacetaldehyde	79-02-7	✓	✓	(g)	(h)
Polychlorinated Dibenzodioxins/ Dibenzofurans	**EPA 8290**	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	✓	(e)	(e)	(h)
		1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	✓	(e)	(e)	(h)
		1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	✓	(e)	(e)	(h)
		1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	✓	(e)	(e)	(h)
		1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	✓	(e)	(e)	(h)
		1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	✓	(e)	(e)	(h)
		1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	✓	(e)	(e)	(h)
		1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	✓	(e)	(e)	(h)
		1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	✓	(e)	(e)	(h)
		1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	✓	(e)	(e)	(h)
		1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	✓	(e)	(e)	(h)
		1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	✓	(e)	(e)	(h)
		1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4	✓	(e)	(e)	(h)
		2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	✓	(e)	(e)	(h)
		2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	✓	(e)	(e)	(h)
		2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	✓	(e)	(e)	(h)
		2,3,7,8-Tetrachlororodibenzo-p-dioxin	1746-01-6	✓	(e)	(e)	(h)
Asbestos	**Elutriator/TEM**	Asbestos	1332-21-4	✓	(f)	(f)	(h)

TABLE 5
SITE-RELATED CHEMICALS LIST AND PROPOSED SAMPLE ANALYSES AND DEPTHS
SOUTHERN RIBS SUB-AREA

Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 4)			SPLP
				Depth 1	Depth 2/3	Deep	
General Chemistry Parameters	**EPA 350.2**	Ammonia (as N)	7664-41-7	✓	✓	(g)	(h)
	EPA 9010/9014	Cyanide (Total)	57-12-5	✓	✓	(g)	(h)
	EPA 345.1	Iodine	7553-56-2	(a)	(a)	(a)	(h)
	EPA 9045C	pH in soil	pH	✓	✓	✓	(h)
	EPA 9040B	pH in water	pH	(a)	(a)	(a)	(h)
	EPA 376.1/376.2	Sulfide	18496-25-8	✓	✓	(g)	(h)
	Mod. EPA 415.1	Total inorganic carbon	7440-44-0	✓	✓	(g)	(h)
	EPA 351.2	Total Kjeldahl nitrogen (TKN)	TKN	✓	✓	(g)	(h)
	EPA 415.1	Total organic carbon (TOC)	7440-44-0	✓	✓	✓	(h)
Metals	**EPA 6020/6010B**	Aluminum	7429-90-5	✓	✓	(g)	✓
		Antimony	7440-36-0	✓	✓	(g)	✓
		Arsenic	7440-38-2	✓	✓	(g)	✓
		Barium	7440-39-3	✓	✓	(g)	✓
		Beryllium	7440-41-7	✓	✓	(g)	✓
		Boron	7440-42-8	✓	✓	(g)	✓
		Cadmium	7440-43-9	✓	✓	(g)	✓
		Calcium	7440-70-2	✓	✓	(g)	✓
		Chromium	7440-47-3	✓	✓	(g)	✓
		Cobalt	7440-48-4	✓	✓	(g)	✓
		Copper	7440-50-8	✓	✓	(g)	✓
		Iron	7439-89-6	✓	✓	(g)	✓
		Lead	7439-92-1	✓	✓	(g)	✓
		Lithium	1313-13-9	✓	✓	(g)	✓
		Magnesium	7439-95-4	✓	✓	(g)	✓
		Manganese	7439-96-5	✓	✓	(g)	✓
		Molybdenum	7439-98-7	✓	✓	(g)	✓
		Nickel	7440-02-0	✓	✓	(g)	✓
		Niobium	7440-03-1	✓	✓	(g)	✓
		Palladium	7440-05-3	✓	✓	(g)	✓
		Phosphorus	7723-14-0	✓	✓	(g)	✓
		Platinum	7440-06-4	✓	✓	(g)	✓
		Potassium	7440-09-7	✓	✓	(g)	✓
		Selenium	7782-49-2	✓	✓	(g)	✓
		Silicon	7440-21-3	✓	✓	(g)	✓
		Silver	7440-22-4	✓	✓	(g)	✓
		Sodium	7440-23-5	✓	✓	(g)	✓
		Strontium	7440-24-6	✓	✓	(g)	✓

TABLE 5
SITE-RELATED CHEMICALS LIST AND PROPOSED SAMPLE ANALYSES AND DEPTHS
SOUTHERN RIBS SUB-AREA

Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 4)			SPLP
				Depth 1	Depth 2/3	Deep	
Metals (continued)	**EPA 6020/6010B**	Sulfur	7704-34-9	✓	✓	(g)	✓
		Thallium	7440-28-0	✓	✓	(g)	✓
		Tin	7440-31-5	✓	✓	(g)	✓
		Titanium	7440-32-6	✓	✓	(g)	✓
		Tungsten	7440-33-7	✓	✓	(g)	✓
		Uranium	7440-61-1	✓	✓	(g)	✓
		Vanadium	7440-62-2	✓	✓	(g)	✓
		Zinc	7440-66-6	✓	✓	(g)	✓
		Zirconium	7440-67-7	✓	✓	(g)	✓
	EPA 7196A	Chromium (VI)	18540-29-9	✓	✓	(g)	✓
	EPA 7470/7471A	Mercury	7439-97-6	✓	✓	(g)	✓
Organophosphorous Pesticides	**EPA 8141A**	Azinphos-ethyl	264-27-19	(b)	(b)	(b)	(h)
		Azinphos-methyl	86-50-0	(b)	(b)	(b)	(h)
		Carbophenothion	786-19-6	(b)	(b)	(b)	(h)
		Chlorpyrifos	2921-88-2	(b)	(b)	(b)	(h)
		Coumaphos	56-72-4	(b)	(b)	(b)	(h)
		Demeton-O	298-03-3	(b)	(b)	(b)	(h)
		Demeton-S	126-75-0	(b)	(b)	(b)	(h)
		Diazinon	333-41-5	(b)	(b)	(b)	(h)
		Dichlorvos	62-73-7	(b)	(b)	(b)	(h)
		Dimethoate	60-51-5	(b)	(b)	(b)	(h)
		Disulfoton	298-04-4	(b)	(b)	(b)	(h)
		EPN	2104-64-5	(b)	(b)	(b)	(h)
		Ethoprop	13194-48-4	(b)	(b)	(b)	(h)
		Ethyl parathion	56-38-2	(b)	(b)	(b)	(h)
		Fampphur	52-85-7	(b)	(b)	(b)	(h)
		Fenthion	55-38-9	(b)	(b)	(b)	(h)
		Malathion	121-75-5	(b)	(b)	(b)	(h)
		Methyl carbophenothion	953-17-3	(b)	(b)	(b)	(h)
		Methyl parathion	298-00-0	(b)	(b)	(b)	(h)
		Mevinphos	7786-34-7	(b)	(b)	(b)	(h)
		Naled	300-76-5	(b)	(b)	(b)	(h)
		O,O,O-Triethyl phosphorothioate (TEPP)	297-97-2	(b)	(b)	(b)	(h)
		Phorate	298-02-2	(b)	(b)	(b)	(h)

TABLE 5
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Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 4)			SPLP
				Depth 1	Depth 2/3	Deep	
Organophosphorous Pesticides (continued)	**EPA 8141A**	Phosmet	732-11-6	(b)	(b)	(b)	(h)
		Ronnel	299-84-3	(b)	(b)	(b)	(h)
		Stirophos (Tetrachlorovinphos)	22248-79-9	(b)	(b)	(b)	(h)
		Sulfotep	3689-24-5	(b)	(b)	(b)	(h)
Chlorinated Herbicides	**EPA 8151A**	2,4,5-T	93-76-5	(b)	(b)	(b)	(h)
		2,4,5-TP (Silvex)	93-72-1	(b)	(b)	(b)	(h)
		2,4-D	94-75-7	(b)	(b)	(b)	(h)
		2,4-DB	94-82-6	(b)	(b)	(b)	(h)
		Dalapon	75-99-0	(b)	(b)	(b)	(h)
		Dicamba	1918-00-9	(b)	(b)	(b)	(h)
		Dichloroprop	120-36-5	(b)	(b)	(b)	(h)
		Dinoseb	88-85-7	(b)	(b)	(b)	(h)
		MCPA	94-74-6	(b)	(b)	(b)	(h)
		MCPP	93-65-2	(b)	(b)	(b)	(h)
Organic Acids	**HPLC**	4-Chlorobenzene sulfonic acid	98-66-8	(b)	(b)	(b)	(h)
		Benzenesulfonic acid	98-11-3	(b)	(b)	(b)	(h)
		O,O-Diethylphosphorodithioic acid	298-06-6	(b)	(b)	(b)	(h)
		O,O-Dimethylphosphorodithioic acid	756-80-9	(b)	(b)	(b)	(h)
Nonhalogenated Organics	**EPA 8015B**	Ethylene glycol	107-21-1	(b)	(b)	(b)	(h)
		Ethylene glycol monobutyl ether	111-76-2	(b)	(b)	(b)	(h)
		Methanol	67-56-1	(b)	(b)	(b)	(h)
		Propylene glycol	57-55-6	(b)	(b)	(b)	(h)
Organochlorine Pesticides	**EPA 8081A**	2,4-DDD	53-19-0	✓	✓	(g)	✓
		2,4-DDE	3424-82-6	✓	✓	(g)	✓
		4,4-DDD	72-54-8	✓	✓	(g)	✓
		4,4-DDE	72-55-9	✓	✓	(g)	✓
		4,4-DDT	50-29-3	✓	✓	(g)	✓
		Aldrin	309-00-2	✓	✓	(g)	✓
		alpha-BHC	319-84-6	✓	✓	(g)	✓
		alpha-Chlordane	5103-71-9	✓	✓	(g)	✓
		beta-BHC	319-85-7	✓	✓	(g)	✓
		Chlordane	57-74-9	✓	✓	(g)	✓
		delta-BHC	319-86-8	✓	✓	(g)	✓
		Dieldrin	60-57-1	✓	✓	(g)	✓
		Endosulfan I	959-98-8	✓	✓	(g)	✓
		Endosulfan II	33213-65-9	✓	✓	(g)	✓
		Endosulfan sulfate	1031-07-8	✓	✓	(g)	✓

TABLE 5
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Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 4)			SPLP
				Depth 1	Depth 2/3	Deep	
Organochlorine Pesticides (continued)	**EPA 8081A**	Endrin	72-20-8	✓	✓	(g)	✓
		Endrin aldehyde	7421-93-4	✓	✓	(g)	✓
		Endrin ketone	53494-70-5	✓	✓	(g)	✓
		gamma-BHC (Lindane)	58-89-9	✓	✓	(g)	✓
		gamma-Chlordane	5103-74-2	✓	✓	(g)	✓
		Heptachlor	76-44-8	✓	✓	(g)	✓
		Heptachlor epoxide	1024-57-3	✓	✓	(g)	✓
		Methoxychlor	72-43-5	✓	✓	(g)	✓
		Toxaphene	8001-35-2	✓	✓	(g)	✓
Polychlorinated Biphenyls	**EPA 8082**	Aroclor 1016	12674-11-2	✓	(e)	(e)	(h)
		Aroclor 1221	11104-28-2	✓	(e)	(e)	(h)
		Aroclor 1232	11141-16-5	✓	(e)	(e)	(h)
		Aroclor 1242	53469-21-9	✓	(e)	(e)	(h)
		Aroclor 1248	12672-29-6	✓	(e)	(e)	(h)
		Aroclor 1254	11097-69-1	✓	(e)	(e)	(h)
		Aroclor 1260	11096-82-5	✓	(e)	(e)	(h)
		PCB-77	32598-13-3	✓	(e)	(e)	(h)
		PCB-81	70362-50-4	✓	(e)	(e)	(h)
		PCB-105	32598-14-4	✓	(e)	(e)	(h)
		PCB-114	74472-37-0	✓	(e)	(e)	(h)
		PCB-118	31508-00-6	✓	(e)	(e)	(h)
		PCB-123	65510-44-3	✓	(e)	(e)	(h)
		PCB-126	57465-28-8	✓	(e)	(e)	(h)
		PCB-156	38380-08-4	✓	(e)	(e)	(h)
		PCB-157	69782-90-7	✓	(e)	(e)	(h)
		PCB-167	52663-72-6	✓	(e)	(e)	(h)
		PCB-169	32774-16-6	✓	(e)	(e)	(h)
		PCB-189	39635-31-9	✓	(e)	(e)	(h)
		PCB-209	2051-24-3	✓	(e)	(e)	(h)
Polynuclear Aromatic Hydrocarbons	**EPA 8310** [1]	Acenaphthene	83-32-9	✓	✓	(g)	(h)
		Acenaphthylene	208-96-8	✓	✓	(g)	(h)
		Anthracene	120-12-7	✓	✓	(g)	(h)
		Benzo(a)anthracene	56-55-3	✓	✓	(g)	(h)
		Benzo(a)pyrene	50-32-8	✓	✓	(g)	(h)
		Benzo(b)fluoranthene	205-99-2	✓	✓	(g)	(h)
		Benzo(g,h,i)perylene	191-24-2	✓	✓	(g)	(h)
		Benzo(k)fluoranthene	207-08-9	✓	✓	(g)	(h)

TABLE 5
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Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 4)			SPLP
				Depth 1	Depth 2/3	Deep	
Polynuclear Aromatic Hydrocarbons (continued)	**EPA 8310** [1]	Chrysene	218-01-9	✓	✓	(g)	(h)
		Dibenzo(a,h)anthracene	53-70-3	✓	✓	(g)	(h)
		Indeno(1,2,3-cd)pyrene	193-39-5	✓	✓	(g)	(h)
		Phenanthrene	85-01-8	✓	✓	(g)	(h)
		Pyrene	129-00-0	✓	✓	(g)	(h)
Radionuclides	**EPA 900.0 or EPA 9310**	Gross alpha	G_Alpha	(c)	(c)	(c)	(h)
		Gross beta	G_Beta	(c)	(c)	(c)	(h)
	EPA 901.1/ HASL GA-01-R	Actinium-228	14331-83-0	(c)	(c)	(c)	(h)
		Bismuth-212	14913-49-6	(c)	(c)	(c)	(h)
		Bismuth-214	14733-03-0	(c)	(c)	(c)	(h)
		Cobalt-57	13981-50-5	(c)	(c)	(c)	(h)
		Cobalt-60	10198-40-0	(c)	(c)	(c)	(h)
		Lead-210	14255-04-0	(c)	(c)	(c)	(h)
		Lead-211	015816-77-0	(c)	(c)	(c)	(h)
		Lead-212	15092-94-1	(c)	(c)	(c)	(h)
		Lead-214	15067-28-4	(c)	(c)	(c)	(h)
		Potassium-40	13966-00-2	(c)	(c)	(c)	(h)
		Thallium-208	14913-50-9	(c)	(c)	(c)	(h)
		Thorium-227	15623-47-9	(c)	(c)	(c)	(h)
		Thorium-234	15065-10-8	(c)	(c)	(c)	(h)
	HASL A-01-R	Thorium-232	7440-29-1	✓	✓	(g)	(h)
		Thorium-228	14274-82-9	✓	✓	(g)	(h)
		Thorium-230	14269-63-7	✓	✓	(g)	(h)
		Uranium-233/234	13966-29-5	✓	✓	(g)	(h)
		Uranium 235/236	15117-96-1	✓	✓	(g)	(h)
		Uranium-238	7440-61-1	✓	✓	(g)	(h)
	EPA 903.0 / 903.1	Radium-226	13982-63-3	✓	✓	(g)	✓
	EPA 904.0	Radium-228	15262-20-1	✓	✓	(g)	✓
	Quantitate from Parent or Daughter Radionuclide	Actinium-227 (from Th-227)	14952-40-0	(c)	(c)	(c)	(h)
		Bismuth-210 (from Pb-210)	14331-79-4	(c)	(c)	(c)	(h)
		Bismuth-211 (from Pb-211)	15229-37-5	(c)	(c)	(c)	(h)
		Polonium-210 (from Pb-210)	13981-52-7	(c)	(c)	(c)	(h)
		Polonium-212 (from Bi-212)	13981-52-7	(c)	(c)	(c)	(h)
		Polonium-214 (from Bi-214)	15735-67-8	(c)	(c)	(c)	(h)
		Polonium-216 (from Pb-212)	15756-58-8	(c)	(c)	(c)	(h)
		Polonium-218 (from Pb-214)	15422-74-9	(c)	(c)	(c)	(h)
		Protactinium-231 (from U-235)	14331-85-2	(c)	(c)	(c)	(h)

TABLE 5
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Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 4)			SPLP
				Depth 1	Depth 2/3	Deep	
Radionuclides (continued)	**Quantitate from Parent or Daughter Radionuclide**	Protactinium-234 (from Th-234)	15100-28-4	(c)	(c)	(c)	(h)
		Radium-223 (from Th-227)	15623-45-7	(c)	(c)	(c)	(h)
		Radium-224 (from Pb-212)	13233-32-4	(c)	(c)	(c)	(h)
		Thallium-207 (from Pb-211)	14133-67-6	(c)	(c)	(c)	(h)
		Thorium-231 (from U-235)	14932-40-2	(c)	(c)	(c)	(h)
Radon	**FLUX**	Radon-220	22481-48-7	(d)	(d)	(d)	(h)
		Radon-222	14859-67-7	(d)	(d)	(d)	(h)
Aldehydes	**EPA 8315A**	Acetaldehyde	75-07-0	✓	✓	(g)	(h)
		Chloroacetaldehyde	107-20-0	✓	✓	(g)	(h)
		Dichloroacetaldehyde	79-02-7	✓	✓	(g)	(h)
		Formaldehyde	50-00-0	✓	✓	(g)	(h)
		Trichloroacetaldehyde	75-87-6	✓	✓	(g)	(h)
Semivolatile Organic Compounds	**EPA 8270C [2]**	1,2,4,5-Tetrachlorobenzene	95-94-3	✓	✓	(g)	✓
		1,2-Diphenylhydrazine	122-66-7	✓	✓	(g)	✓
		1,4-Dioxane	123-91-1	✓	✓	(g)	✓
		2,2'/4,4'-Dichlorobenzil	3457-46-3	✓	✓	(g)	✓
		2,4,5-Trichlorophenol	95-95-4	✓	✓	(g)	✓
		2,4,6-Trichlorophenol	88-06-2	✓	✓	(g)	✓
		2,4-Dichlorophenol	120-83-2	✓	✓	(g)	✓
		2,4-Dimethylphenol	105-67-9	✓	✓	(g)	✓
		2,4-Dinitrophenol	51-28-5	✓	✓	(g)	✓
		2,4-Dinitrotoluene	121-14-2	✓	✓	(g)	✓
		2,6-Dinitrotoluene	606-20-2	✓	✓	(g)	✓
		2-Chloronaphthalene	91-58-7	✓	✓	(g)	✓
		2-Chlorophenol	95-57-8	✓	✓	(g)	✓
		2-Methylnaphthalene	91-57-6	✓	✓	(g)	✓
		2-Nitroaniline	88-74-4	✓	✓	(g)	✓
		2-Nitrophenol	88-75-5	✓	✓	(g)	✓
		3,3-Dichlorobenzidine	91-94-1	✓	✓	(g)	✓
		3-Nitroaniline	99-09-2	✓	✓	(g)	✓
		4,4'-Dichlorobenzil	3457-46-3	✓	✓	(g)	✓
		4-Bromophenyl phenyl ether	101-55-3	✓	✓	(g)	✓
		4-Chloro-3-methylphenol	59-50-7	✓	✓	(g)	✓
		4-Chlorophenyl phenyl ether	7005-72-3	✓	✓	(g)	✓
		4-Chlorothioanisole	123-09-1	✓	✓	(g)	✓
		4-Chlorothiophenol	106-54-7	✓	✓	(g)	✓
		4-Nitroaniline	100-01-6	✓	✓	(g)	✓

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Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 4)			SPLP
				Depth 1	Depth 2/3	Deep	
Semivolatile Organic Compounds (continued)	**EPA 8270C [2]**	4-Nitrophenol	100-02-7	✓	✓	(g)	✓
		Acenaphthene	83-32-9	✓	✓	(g)	✓
		Acenaphthylene	208-96-8	✓	✓	(g)	✓
		Acetophenone	98-86-2	✓	✓	(g)	✓
		Aniline	62-53-3	✓	✓	(g)	✓
		Anthracene	120-12-7	✓	✓	(g)	✓
		Azobenzene	103-33-3	✓	✓	(g)	✓
		Benzo(a)anthracene	56-55-3	✓	✓	(g)	✓
		Benzo(a)pyrene	50-32-8	✓	✓	(g)	✓
		Benzo(b)fluoranthene	205-99-2	✓	✓	(g)	✓
		Benzo(g,h,i)perylene	191-24-2	✓	✓	(g)	✓
		Benzo(k)fluoranthene	207-08-9	✓	✓	(g)	✓
		Benzoic acid	65-85-0	✓	✓	(g)	✓
		Benzyl alcohol	100-51-6	✓	✓	(g)	✓
		bis(2-Chloroethoxy)methane	111-91-1	✓	✓	(g)	✓
		bis(2-Chloroethyl) ether	111-44-4	✓	✓	(g)	✓
		bis(2-Chloroisopropyl) ether	108-60-1	✓	✓	(g)	✓
		bis(2-Ethylhexyl) phthalate	117-81-7	✓	✓	(g)	✓
		bis(Chloromethyl) ether	542-88-1	✓	✓	(g)	✓
		bis(p-Chlorophenyl) sulfone	80-07-9	✓	✓	(g)	✓
		bis(p-Chlorophenyl)disulfide	1142-19-4	✓	✓	(g)	✓
		Butylbenzyl phthalate	85-68-7	✓	✓	(g)	✓
		Carbazole	86-74-8	✓	✓	(g)	✓
		Chrysene	218-01-9	✓	✓	(g)	✓
		Dibenzo(a,h)anthracene	53-70-3	✓	✓	(g)	✓
		Dibenzofuran	132-64-9	✓	✓	(g)	✓
		Dichloromethyl ether	542-88-1	✓	✓	(g)	✓
		Diethyl phthalate	84-66-2	✓	✓	(g)	✓
		Dimethyl phthalate	131-11-3	✓	✓	(g)	✓
		Di-n-butyl phthalate	84-74-2	✓	✓	(g)	✓
		Di-n-octyl phthalate	117-84-0	✓	✓	(g)	✓
		Diphenyl disulfide	882-33-7	✓	✓	(g)	✓
		Diphenyl sulfide	139-66-2	✓	✓	(g)	✓
		Diphenyl sulfone	127-63-9	✓	✓	(g)	✓
		Fluoranthene	206-44-0	✓	✓	(g)	✓
		Fluorene	86-73-7	✓	✓	(g)	✓
		Hexachlorobenzene	118-74-1	✓	✓	(g)	✓

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Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 4)			SPLP
				Depth 1	Depth 2/3	Deep	
Semivolatile Organic Compounds (continued)	**EPA 8270C [2]**	Hexachlorobutadiene	87-68-3	✓	✓	(g)	✓
		Hexachlorocyclopentadiene	77-47-4	✓	✓	(g)	✓
		Hexachloroethane	67-72-1	✓	✓	(g)	✓
		Hydroxymethyl phthalimide	118-29-6	✓	✓	(g)	✓
		Indeno(1,2,3-cd)pyrene	193-39-5	✓	✓	(g)	✓
		Isophorone	78-59-1	✓	✓	(g)	✓
		m,p-Cresol	106-44-5	✓	✓	(g)	✓
		Naphthalene	91-20-3	✓	✓	(g)	✓
		Nitrobenzene	98-95-3	✓	✓	(g)	✓
		N-nitrosodi-n-propylamine	621-64-7	✓	✓	(g)	✓
		N-nitrosodiphenylamine	86-30-6	✓	✓	(g)	✓
		o-Cresol	95-48-7	✓	✓	(g)	✓
		Octachlorostyrene	29082-74-4	✓	✓	(g)	✓
		p-Chloroaniline (4-Chloroaniline)	106-47-8	✓	✓	(g)	✓
		p-Chlorobenzenethiol	106-54-7	✓	✓	(g)	✓
		Pentachlorobenzene	608-93-5	✓	✓	(g)	✓
		Pentachlorophenol	87-86-5	✓	✓	(g)	✓
		Phenanthrene	85-01-8	✓	✓	(g)	✓
		Phenol	108-95-2	✓	✓	(g)	✓
		Phthalic acid	88-99-3	✓	✓	(g)	✓
		Pyrene	129-00-0	✓	✓	(g)	✓
		Pyridine	110-86-1	✓	✓	(g)	✓
		Thiophenol	108-98-5	✓	✓	(g)	✓
		Tentatively Identified Compounds (TICs)		✓	✓	(g)	✓
Volatile Organic Compounds	**EPA 8260B**	1,1,1,2-Tetrachloroethane	630-20-6	✓	✓	(g)	(h)
		1,1,1-Trichloroethane	71-55-6	✓	✓	(g)	(h)
		1,1,2,2-Tetrachloroethane	79-34-5	✓	✓	(g)	(h)
		1,1,2-Trichloroethane	79-00-5	✓	✓	(g)	(h)
		1,1-Dichloroethane	75-34-3	✓	✓	(g)	(h)
		1,1-Dichloroethene	75-35-4	✓	✓	(g)	(h)
		1,1-Dichloropropene	563-58-6	✓	✓	(g)	(h)
		1,2,3-Trichlorobenzene	87-61-6	✓	✓	(g)	(h)
		1,2,3-Trichloropropane	96-18-4	✓	✓	(g)	(h)
		1,2,4-Trichlorobenzene	120-82-1	✓	✓	(g)	(h)
		1,2,4-Trimethylbenzene	95-63-6	✓	✓	(g)	(h)
		1,2-Dichlorobenzene	95-50-1	✓	✓	(g)	(h)
		1,2-Dichloroethane	107-06-2	✓	✓	(g)	(h)

TABLE 5
SITE-RELATED CHEMICALS LIST AND PROPOSED SAMPLE ANALYSES AND DEPTHS
SOUTHERN RIBS SUB-AREA

Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 4)			SPLP
				Depth 1	Depth 2/3	Deep	
Volatile Organic Compounds (continued)	**EPA 8260B**	1,2-Dichloroethene	540-59-0	✓	✓	(g)	(h)
		1,2-Dichloropropane	78-87-5	✓	✓	(g)	(h)
		1,3,5-Trichlorobenzene	108-70-3	✓	✓	(g)	(h)
		1,3,5-Trimethylbenzene	108-67-8	✓	✓	(g)	(h)
		1,3-Dichlorobenzene	541-73-1	✓	✓	(g)	(h)
		1,3-Dichloropropene	542-75-6	✓	✓	(g)	(h)
		1,3-Dichloropropane	142-28-9	✓	✓	(g)	(h)
		1,4-Dichlorobenzene	106-46-7	✓	✓	(g)	(h)
		2,2-Dichloropropane	594-20-7	✓	✓	(g)	(h)
		2,2-Dimethylpentane	590-35-2	✓	✓	(g)	(h)
		2,2,3-Trimethylbutane	464-06-2	✓	✓	(g)	(h)
		2,3-Dimethylpentane	565-59-3	✓	✓	(g)	(h)
		2,4-Dimethylpentane	108-08-7	✓	✓	(g)	(h)
		2-Chlorotoluene	95-49-8	✓	✓	(g)	(h)
		2-Hexanone	591-78-6	✓	✓	(g)	(h)
		2-Methylhexane	591-76-4	✓	✓	(g)	(h)
		2-Nitropropane	79-46-9	✓	✓	(g)	(h)
		3,3-Dimethylpentane	562-49-2	✓	✓	(g)	(h)
		3-Ethylpentane	617-78-7	✓	✓	(g)	(h)
		3-Methylhexane	589-34-4	✓	✓	(g)	(h)
		4-Chlorobenzene	108-90-7	✓	✓	(g)	(h)
		4-Chlorotoluene	106-43-4	✓	✓	(g)	(h)
		4-Methyl-2-pentanone (MIBK)	108-10-1	✓	✓	(g)	(h)
		Acetone	67-64-1	✓	✓	(g)	(h)
		Acetonitrile	75-05-8	✓	✓	(g)	(h)
		Benzene	71-43-2	✓	✓	(g)	(h)
		Bromobenzene	108-86-1	✓	✓	(g)	(h)
		Bromodichloromethane	75-27-4	✓	✓	(g)	(h)
		Bromoform	75-25-2	✓	✓	(g)	(h)
		Bromomethane	74-83-9	✓	✓	(g)	(h)
		Carbon disulfide	75-15-0	✓	✓	(g)	(h)
		Carbon tetrachloride	56-23-5	✓	✓	(g)	(h)
		Chlorobenzene	108-90-7	✓	✓	(g)	(h)
		Chlorobromomethane	74-97-5	✓	✓	(g)	(h)
		Chlorodibromomethane	124-48-1	✓	✓	(g)	(h)
		Chloroethane	75-00-3	✓	✓	(g)	(h)
		Chloroform	67-66-3	✓	✓	(g)	(h)

TABLE 5
SITE-RELATED CHEMICALS LIST AND PROPOSED SAMPLE ANALYSES AND DEPTHS
SOUTHERN RIBS SUB-AREA

Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 4)			SPLP
				Depth 1	Depth 2/3	Deep	
Volatile Organic Compounds (continued)	**EPA 8260B**	Chloromethane	74-87-3	✓	✓	(g)	(h)
		cis-1,2-Dichloroethene	156-59-2	✓	✓	(g)	(h)
		cis-1,3-Dichloropropene	10061-01-5	✓	✓	(g)	(h)
		Cymene (Isopropyltoluene)	99-87-6	✓	✓	(g)	(h)
		Dibromochloroethane	73506-94-2	✓	✓	(g)	(h)
		Dibromochloromethane	124-48-1	✓	✓	(g)	(h)
		Dibromochloropropane	96-12-8	✓	✓	(g)	(h)
		Dibromomethane	74-95-3	✓	✓	(g)	(h)
		Dichloromethane (Methylene chloride)	75-09-2	✓	✓	(g)	(h)
		Dimethyldisulfide	624-92-0	✓	✓	(g)	(h)
		Ethanol	64-17-5	✓	✓	(g)	(h)
		Ethylbenzene	100-41-4	✓	✓	(g)	(h)
		Freon-11	75-69-4	✓	✓	(g)	(h)
		Freon-113	76-13-1	✓	✓	(g)	(h)
		Freon-12	75-71-8	✓	✓	(g)	(h)
		Heptane	142-82-5	✓	✓	(g)	(h)
		Isoheptane	31394-54-4	✓	✓	(g)	(h)
		Isopropylbenzene	98-82-8	✓	✓	(g)	(h)
		m,p-Xylene	mp-XYL	✓	✓	(g)	(h)
		Methyl ethyl ketone (2-Butanone)	78-93-3	✓	✓	(g)	(h)
		Methyl iodide	74-88-4	✓	✓	(g)	(h)
		MTBE (Methyl tert-butyl ether)	1634-04-4	✓	✓	(g)	(h)
		n-Butyl benzene	104-51-8	✓	✓	(g)	(h)
		n-Propylbenzene	103-65-1	✓	✓	(g)	(h)
		Nonanal	124-19-6	✓	✓	(g)	(h)
		o-Xylene	95-47-6	✓	✓	(g)	(h)
		sec-Butylbenzene	135-98-8	✓	✓	(g)	(h)
		Styrene	100-42-5	✓	✓	(g)	(h)
		tert-Butyl benzene	98-06-6	✓	✓	(g)	(h)
		Tetrachloroethene	127-18-4	✓	✓	(g)	(h)
		Toluene	108-88-3	✓	✓	(g)	(h)
		trans-1,2-Dichloroethene	156-60-5	✓	✓	(g)	(h)
		trans-1,3-Dichloropropene	10061-02-6	✓	✓	(g)	(h)
		Trichloroethene	79-01-6	✓	✓	(g)	(h)
		Vinyl acetate	108-05-4	✓	✓	(g)	(h)
		Vinyl chloride	75-01-4	✓	✓	(g)	(h)
		Xylenes (total)	1330-20-7	✓	✓	(g)	(h)
		Tentatively Identified Compounds (TICs)		✓	✓	(g)	(h)

TABLE 5
SITE-RELATED CHEMICALS LIST AND PROPOSED SAMPLE ANALYSES AND DEPTHS
SOUTHERN RIBS SUB-AREA

Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 4)			SPLP
				Depth 1	Depth 2/3	Deep	
Water Quality Parameters	**EPA 120.1**	Conductivity	COND	(a)	(a)	(a)	(h)
	EPA 130.2	Hardness, total	Hardness	(a)	(a)	(a)	(h)
	EPA 160.1	Total dissolved solids	TDS	(a)	(a)	(a)	(h)
	EPA 160.2	Total suspended solids	TSS	(a)	(a)	(a)	(h)
	EPA 310.1	Alkalinity, Total (as $CACO_3$)	ALK	(a)	(a)	(a)	(h)
		Bicarbonate alkalinity	71-52-3	(a)	(a)	(a)	(h)
		Carbonate alkalinity	3812-32-6	(a)	(a)	(a)	(h)
		Hydroxide alkalinity	OH-ALK	(a)	(a)	(a)	(h)
Flashpoint	**EPA 1010**	Flammables	NA	(b)	(b)	(b)	(h)
Total Petroleum Hydrocarbons	**EPA 8015**	Diesel	64742-46-7	(b) / ✓[3]	(b)	(b)	(h)
		Gasoline	8006-61-9	(b) / ✓[3]	(b)	(b)	(h)
		Grease	68153-81-1	(b) / ✓[3]	(b)	(b)	(h)
		Mineral Spirits	NA	(b) / ✓[3]	(b)	(b)	(h)
White Phosphorus	**EPA 7580M**	White phosphorus	12185-10-3	(b)	(b)	(b)	(h)
Methyl Mercury	**EPA 1630**	Methyl mercury	22967-92-6	(b)	(b)	(b)	(h)
Soil Physical Parameters	**ASTM D2937/ MOSA1Ch .13**	Dry bulk density	NA	(g)	✓	✓	(h)
	ASTM D2435/ MOSA1Ch .18	Total porosity	NA	(g)	✓	✓	(h)
	ASTM D5084	Soil permeability/saturated hydraulic cond.	NA	(g)	✓	✓	(h)
	ASTM D854	Specific gravity of soils	NA	(g)	✓	✓	(h)
	SW846 Method 9081	Cation exchange capacity	NA	(g)	✓	✓	(h)
	ASTM D2216/D4643/D2974	Volumetric water content	NA	(g)	✓	✓	(h)
	ASTM D422	Grain size analysis by sieve and hydrometer	NA	(g)	✓	✓	(h)
	EPA 415.1/ASTM 2947	Fractional organic carbon content	NA	(g)	✓	✓	(h)

Notes:
Laboratory limits are subject to matrix interferences and may not always be achieved in all samples.
The laboratory will be instructed to report the top 25 Tentatively Identified Compounds (TICs) under method 8260B and 8270C.
NA = Not applicable.
a - Groundwater only analyte.
b - Removed based on rationale provided in the text.
c - Removed consistent with approved list of radionuclides for project analysis.
d - Radon will be sampled and analyzed via surface flux sampling and analysis protocols.
e - Dioxins/furans and PCBs will only be analyzed for in fill and surface soil samples only.
f - Asbestos will only be analyzed for in current grade surface soil samples only.
g - Soil physical parameters will be collected from at-depth samples only; from two sample locations (see Table 3).
h - Rationale provided in text for analyte list for synthetic precipitation leaching procedure (SPLP); from two subsurface sample locations (see Table 3).
[1]For polynuclear aromatic hydrocarbons, Method 8310 is the primary analytical method.
[2]Method 3540 for extraction and Method 3640 for cleanup are to be used as appropriate.
[3]Only surface samples with visible soil staining will be analyzed for total petroleum hydrocarbons (sample locations SRC1-J02, SRC1-AM28 and SRC1-J10).

TABLE 6
PROPOSED SOIL VAPOR FLUX SAMPLE ANALYSES
SOUTHERN RIBS SUB-AREA
(Page 1 of 3)

Compound	CAS Number	MDL ppbv	RL ppbv	MDL µg/m^3	RL µg/m^3
List of Compounds for USEPA Method TO-15 Full Scan Mode Operation and MDLs					
1,1,1,2-Tetrachloroethane	630-20-6	0.1	0.51	0.72	3.62
1,1,1-Trichloroethane	71-55-6	0.1	0.52	0.58	2.89
1,1,2,2-Tetrachloroethane	79-34-5	0.1	0.52	0.73	3.65
1,1,2-Trichloroethane	79-00-5	0.1	0.51	0.57	2.86
1,1-Dichloroethane	75-34-3	0.1	0.52	0.43	2.15
1,1-Dichloroethene	75-35-4	0.1	0.52	0.42	2.13
1,1-Dichloropropene	563-58-6	0.1	0.49	0.46	2.3
1,2,3-Trichloropropane	96-18-4	0.11	0.55	0.68	3.39
1,2,4-Trichlorobenzene	120-82-1	0.1	0.52	0.79	3.94
1,2,4-Trimethylbenzene	95-63-6	0.1	0.52	0.52	2.61
1,2-Dibromo-3-chloropropane	96-12-8	0.22	1.1	2.2	10.98
1,2-Dibromoethane	106-93-4	0.1	0.52	0.82	4.09
1,2-Dichlorobenzene	95-50-1	0.1	0.52	0.64	3.2
1,2-Dichloroethane	107-06-2	0.1	0.52	0.43	2.15
1,2-Dichloropropane	78-87-5	0.1	0.52	0.49	2.46
1,3,5-Trimethylbenzene	108-67-8	0.1	0.52	0.53	2.64
1,3-Dichlorobenzene	541-73-1	0.1	0.52	0.64	3.2
1,3-Dichloropropane	142-28-9	0.11	0.54	0.52	2.58
1,4-Dichlorobenzene	106-46-7	0.1	0.52	0.64	3.2
1,4-Dioxane	123-91-1	0.09	0.44	0.33	1.64
2,2-Dichloropropane	594-20-7	0.11	0.53	0.5	2.53
2-Butanone	78-93-3	0.09	0.43	0.26	1.31
2-Hexanone	591-78-6	0.09	0.44	0.37	1.86
Acetone	67-64-1	0.09	0.45	0.22	1.1
Acetonitrile	75-05-8	0.22	1.12	0.48	2.39
Benzene	71-43-2	0.1	0.52	0.34	1.7
Benzyl chloride	100-44-7	0.09	0.45	0.48	2.41
Bromochloromethane	74-97-5	0.1	0.51	0.55	2.76
Bromodichloromethane	75-27-4	0.08	0.4	0.55	2.77
Bromoform	75-25-2	0.09	0.47	0.99	4.96
Bromomethane	74-83-9	0.1	0.51	0.41	2.04
Carbon disulfide	75-15-0	0.09	0.45	0.29	1.45
Carbon tetrachloride	56-23-5	0.1	0.52	0.67	3.38
Chlorobenzene	108-90-7	0.1	0.52	0.5	2.48
Chloroethane	75-00-3	0.1	0.51	0.28	1.39
Chloroform	67-66-3	0.1	0.52	0.52	2.59
Chloromethane	74-87-3	0.1	0.51	0.22	1.09
cis-1,2-Dichloroethene	156-59-2	0.1	0.52	0.42	2.11
cis-1,3-Dichloropropene	10061-01-5	0.1	0.52	0.48	2.41
Dibromochloromethane	124-48-1	0.09	0.44	0.77	3.87
Dibromomethane	74-95-3	0.11	0.55	0.97	4.84

TABLE 6
PROPOSED SOIL VAPOR FLUX SAMPLE ANALYSES
SOUTHERN RIBS SUB-AREA

Compound	CAS Number	MDL ppbv	RL ppbv	MDL µg/m^3	RL µg/m^3
Dichlorodifluoromethane	75-71-8	0.1	0.51	0.52	2.61
Dichloromethane	75-09-2	0.1	0.52	0.37	1.86
Ethanol	64-17-5	0.22	1.12	0.44	2.18
Ethylbenzene	100-41-4	0.1	0.52	0.46	2.33
Freon 113	76-13-1	0.1	0.52	0.81	4.07
Hexachlorobutadiene	87-68-3	0.1	0.52	1.14	5.68
Isobutyl alcohol	78-83-1	0.23	1.13	0.84	4.21
Isopropylbenzene	98-82-8	0.11	0.57	0.58	2.89
Isopropyltoluene	99-87-6	0.11	0.55	0.62	3.12
m & p-Xylene	108-38-3	0.21	1.03	0.92	4.61
Methyl iodide	4227-95-6	0.19	0.94	1.13	5.67
Methyl Isobutyl Ketone	108-10-1	0.09	0.46	0.38	1.95
Methyl tert butyl ether	1634-04-4	0.08	0.39	0.29	1.45
Naphthalene	91-20-3	0.22	1.09	1.19	5.9
n-Butylbenzene	104-51-8	0.1	0.52	0.59	2.95
n-Heptane	142-82-5	0.08	0.42	0.35	1.78
n-Propylbenzene	103-65-1	0.11	0.54	0.55	2.74
o-Xylene	95-47-6	0.1	0.52	0.46	2.31
sec-Butylbenzene	135-98-8	0.11	0.52	0.59	2.95
Styrene	100-42-5	0.1	0.52	0.45	2.26
tert-Butylbenzene	98-06-6	0.11	0.52	0.59	2.85
Tetrachloroethene	127-18-4	0.1	0.52	0.72	3.61
Toluene	108-88-3	0.1	0.52	0.4	2
trans-1,2-Dichloroethene	156-60-5	0.09	0.44	0.36	1.8
trans-1,3-Dichloropropene	10061-02-6	0.1	0.52	0.48	2.41
Trichloroethene	79-01-6	0.1	0.52	0.57	2.85
Trichlorofluoromethane	75-69-4	0.1	0.51	0.59	2.95
Vinyl acetate	108-05-4	0.09	0.43	0.31	1.56
Vinyl chloride	75-01-4	0.1	0.51	0.27	1.35

TABLE 6
PROPOSED SOIL VAPOR FLUX SAMPLE ANALYSES
SOUTHERN RIBS SUB-AREA
(Page 3 of 3)

Compound	CAS Number	MDL ppbv	RL ppbv	MDL µg/m^3	RL µg/m^3
List of Compounds for USEPA Method TO-15 Selective Ion Mode (SIM) Operation and MDLs					
1,1,1,2-Tetrachloroethane	630-20-6	0.005	0.026	0.035	0.18
1,1,2,2-Tetrachloroethane	79-34-5	0.005	0.026	0.035	0.18
1,1,2-Trichloroethane	79-00-5	0.005	0.026	0.028	0.14
1,2,3-Trichloropropane	96-18-4	0.005	0.026	0.031	0.16
1,2-Dibromo-3-chloropropane	96-12-8	0.01	0.026	0.098	0.26
1,2-Dibromoethane	106-93-4	0.005	0.026	0.039	0.2
1,2-Dichloroethane	107-06-2	0.005	0.026	0.021	0.11
1,2-Dichloropropane	78-87-5	0.005	0.026	0.024	0.12
1,4-Dichlorobenzene	106-46-7	0.005	0.026	0.031	0.16
Benzene	71-43-2	0.005	0.026	0.016	0.085
Benzyl chloride	100-44-7	0.005	0.026	0.026	0.14
Bromodichloromethane	75-27-4	0.005	0.026	0.034	0.18
Carbon tetrachloride	56-23-5	0.005	0.026	0.032	0.17
Chloroform	67-66-3	0.005	0.026	0.025	0.13
Dibromochloromethane	124-48-1	0.005	0.026	0.043	0.23
Hexachlorobutadiene	87-68-3	0.01	0.026	0.108	0.28
Naphthalene	91-20-3	0.01	0.026	0.534	0.14
Tetrachloroethene	127-18-4	0.005	0.026	0.035	0.18
Trichloroethene	79-01-6	0.005	0.026	0.027	0.14
Vinyl chloride	75-01-4	0.005	0.026	0.013	0.068

Note:
The actual reported MDL may vary based on Canister dilution or matrix interferences.
CAS - Chemical abstract system
MDL - Method detection limit
RL - Reporting limit
ppbv - Parts per billion by volume
µg/m^3 - microgram per cubic meter

APPENDIX A

NDEP COMMENTS AND BRC'S RESPONSE TO COMMENTS

Response to Draft NDEP Comments Received August 7, 2008 on the Sampling and Analysis Plan for the Southern RIBs Sub-Area dated August 2008

1. General comment, please conform to the middle endian format for dates in future reports. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs**.

Response: *Text of this SAP, and subsequent SAPs, has been revised to incorporate the use of the middle endian format for all dates.*

2. Section 1.0, page 1-2, BRC indicates that "Baseline remediation will occur prior to implementing the procedures described in this SAP.", however, none is proposed in the SAP. As discussed with BRC on August 5, 2008 it is understood that clearing of gross contamination (e.g.: burn pits, abandoned vehicles, etc.) will occur, however, no remediation will occur. This removal of gross contamination will occur per Table 3 of the SAP. **No response is necessary for this comment**.

Response: *The text has been rewritten in this section to reflect this distinction, and references to "baseline remediation" have been removed from or revised in this and other sections of the document.*

3. Section 1.1, page 1-3, BRC states that "if needed, the NFAD for the Site will contain a deed restriction precluding potable use of groundwater beneath the Site." This statement is not consistent with the description on page 2-2 which states (emphasis added) "BRC *will* place institutional controls in the form of a deed restriction to prevent future users from utilizing groundwater beneath the Site, the use of private wells…will *not* occur in the post-development phase." **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs**.

Response: *The text has been rewritten in this section to reflect BRC's plan to apply institutional controls to preclude use of groundwater (i.e., the clause "if needed" has been removed from the referenced text in Section 1.1).*

4. Section 2.1, pages 2-1 through 2-3, the NDEP has the following comments:
   a. General comment, this Section does not discuss the historic use of the Site as a wastewater treatment plant or a transfer station. All of the uses of the Site must be discussed in the Conceptual Site Model. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs**.

Response: *The text in Section 2.1, page 2-1, has been rewritten to include the historic use of the Site as a wastewater treatment plant and a transfer station.*

b. Page 2-1, BRC states that the land is "undeveloped". NDEP does not agree as the existence of the Rapid Infiltration Basins and related facilities is contrary to this statement. **No response is necessary for this comment**.

Response: *The text in Section 2.1, page 2-1, has been rewritten to include reference to the RIBs, as well as the former wastewater treatment plant and transfer station.*

c. Pages 2-2 and 2-3, it is also the expectation of the NDEP that stormwater pollution prevention controls will be employed between the Staging Sub-Area and the Southern RIBs Sub-Area. **Please clarify this matter with the NDEP**.

Response: *The subject sentence has been reworded on page 2-2 to include stormwater pollution prevention controls in addition to dust suppression/mitigation measures.*

5. Section 2.3, pages 2-3 and 2-4, BRC discusses that the groundwater beneath the Site in the Upper Muddy Creek formation (UMCf) contains elevated concentrations of TDS, however, none of the other contaminants are discussed. In addition, the contamination in the Alluvial aquifer (Aa) is not discussed at all. All elevated contaminants in all water bearing zones should be discussed for completeness. Alternately, all of this discussion could be relegated to Section 2.9. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs**.

Response: *Chemical occurrence in both the shallow and deep water-bearing zones beneath the Eastside and CAMU areas is currently being characterized under a process separate from the Closure Plan process under which the SAP has been prepared, which focuses on site soils. As in the other SAPs, this SAP summarizes chemical occurrence trends in the first water-bearing zone, which is the only water-bearing zone that can potentially affect potential receptors under current and future land uses. A more detailed presentation of chemical occurrence patterns within both zones will be provided upon completion of the on-going groundwater investigation, and the Conceptual Site Model for the Eastside and CAMU areas will be updated accordingly. The text in this section has been expanded in Revision 1 to the SAP to note that deep zone characterization is not included in the SAP for these reasons, and that a summary of chemical occurrence in the Alluvial Aquifer is provided in Section 2.9.*

6. Section 2.8, pages 2-6 through 2-8, the NDEP has the following comments:
   a. Discussion of the soil-to-groundwater leaching pathway is inconsistent throughout this section. Discussion should be included for each compound which is presented regarding the soil-to-groundwater leaching pathway or as discussed above a separate Section could be added to the SAP. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs**.

Response: *The text in section 2.8 has been expanded to include listing of detections greater than the SSLs for protection of groundwater, in a manner consistent with the MSSL exceedance listings.*

b. The chemical data that spurred the remediation of Parcel 4A and the Beta Ditch should be discussed in this Section. In addition, it should be made clear that the data presented in Appendix C are post-remediation. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs**.

Response: *The text in Section 2.5, page 2-5, has been expanded to discuss the chemical data that spurred the remediation of Parcel 4A, Parcel 4B, and the Beta Ditch, and the text in Section 2.8 has been revised to clarify that the chemical summaries in the Appendix C figures represent post-IRM conditions.*

7. Section 4.1, pages 4-1 through 4-4, the NDEP has the following comments:
   a. Page 4-2, please note that physical parameter samples should not be collected in the capillary fringe, per previous NDEP comments. **If BRC concurs, no response is necessary, however, this issue should be addressed in the implementation of the SAP**.

Response: *BRC agrees. The text has been revised on page 4-2 to specify that the physical parameter samples will be collected from within unsaturated soils in intervals above the capillary fringe.*

8. Figure 3, the purple shading is not defined on this Figure. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs**.

Response: *Figure 3 has been revised to include a definition of the purple shaded land use (i.e., retail/commercial) in the legend.*

9. Figure 7, the remediation associated with Parcel 4A should also be shown on this Figure. **A revised Figure 7 should be provided to the NDEP as an errata.**

Response: *Figure 7 has been revised to include the areas within both Parcel 4A and Parcel 4B that have been subject to prior IRMs, and the text on page 2-5 has been expanded to discuss these IRMs.*

10. Figure 9, the NDEP has the following comments:
    a. Flux samples should be completed within each 3 acre grid, per NDEP's comments provided previously (on the Mohawk Sub-Area SAP). In addition, BRC should consider including flux at some of the judgmental sampling locations (in lieu of the random samples). **If BRC concurs, no response is necessary, however, a revised Figure 9 should be provided to the NDEP as an errata**.

Response: *The text on page 4-7 and associated tables and figures have been modified to include flux sampling within each grid cell.*

b. It is not clear if the biased samples on this Figure address the historic wastewater treatment plant and transfer station. **Please clarify this matter with the NDEP. Also, please submit a revised Figure 2 which indicates all applicable Site Features (e.g.: the Beta Ditch; the former wastewater treatment plant; the former transfer station; the RIBs, etc.)**.

Response: *The text and associated tables and figures have been modified to discuss the biased sampling incorporated in the sampling program to address the historical wastewater treatment plant and transfer station. Biased samples have been placed in the footprint of both of these historical structures (Figure 9). Figure 2 has been modified to depict all of the site features listed in NDEP's comment.*

c. In future SAPs, BRC should clearly identify (perhaps in a Table) the number of samples which are taken from each land use (e.g.: berms, former ponds, and unused land). **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs**.

Response: *The text on page 4-2 has been revised to include a table summarizing the land use-specific sample breakdown.*

Response to NDEP Comments Dated August 5, 2008 on the Sampling and Analysis Plan for the Western Hook-Development Sub-Area dated July 2008

1. General comment, it is noted that there are a number of grammatical errors in the document. NDEP will not list these herein. Examples are provided below. **No response is necessary for these comments, however, these comments should be considered in the development of future SAPs.**

Response: *BRC will review this and all future deliverables associated with the project in accordance with SOP-0.*

   a. Page 1-2, first full paragraph. The second sentence needs to be reworded.

Response: *The subject sentence has been reworded for clarity in text, on page 1-2.*

   b. Page 1-2, first sentence, second full paragraph states, "Sampling performed for this purpose as described in this SAP relies on the statistical methodologies presented in the Statistical Methodology Report (NewFields 2006)." It is not clear what is meant by the use of the word "purpose". It is clearly not in reference to the "purpose" discussed in the previous sentence, and therefore needs to be elucidated so that the intent of the sentence is clear.

Response: *The reference to a specific purpose for the sampling was considered unnecessary in this specific section of the text, and has been deleted from the subject sentence, on page 1-2.*

   c. Page 2-10, last sentence states, "Of the radionuclides that are the standard focus during this investigation (radium-226, radium-228, thorium-228, thorium-230, thorium-232, uranium-233/234, uranium-235/236, and uranium-238) sixty were in excess of the MSSL; of these, only uranium-234 and uranium-238 were detected at reported activity in excess of the maximum shallow soil background level (same sample)." The word "samples" should be added after the word "sixty" to make the sentence clear.

Response: *The subject sentence has been reworded for clarity in the text, on page 2-13. As a point of clarification, it was not a number of sixty "samples", but rather sixty "detections."*

2. General comment, the document is still incompletely referenced. For example, the citations for all of the data validation summary reports appear to be missing. These are listed in the reference section, however, the text does not contain the citation. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *Citations to the DVSRs have been added within the body of the report.*

3. General comment, the document appears to suffer from a general lack of quality assurance/ quality control. Numerous examples are provided below. BRC must check future Deliverables in a manner consistent with SOP-0. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *As noted above, BRC will review this and all future deliverables associated with the project in accordance with SOP-0.*

4. Section 1.0, page 1-2, BRC indicates that "Baseline remediation will occur prior to implementing the procedures described in this SAP.", however, none is proposed in the SAP. As discussed with BRC on July 23, 2008 it is understood that clearing of gross contamination (e.g.: burn pits, abandoned vehicles, etc.) will occur, however, no remediation will occur. This statement is inconsistently repeated throughout the document and must be addressed in future Deliverables. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *The text has been rewritten in this section to reflect this distinction, and references to "baseline remediation" have been removed from or revised in this and other sections of the document.*

5. Section 1.1, page 1-3, BRC states that "if needed, the NFAD for the Site will contain a deed restriction precluding potable use of groundwater beneath the Site." This statement is not consistent with the description on page 2-2 which states (emphasis added) "BRC will place institutional controls in the form of a deed restriction to prevent future users from utilizing groundwater beneath the Site, the use of private wells…will not occur in the post-development phase." **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *The text has been rewritten in this section to reflect BRC's plan to apply institutional controls to preclude use of groundwater (i.e., the clause "if needed" has been removed from the referenced text in Section 1.1).*

6. Section 2.1, page 2-1, third paragraph. Please provide more detail regarding the current receptors as well as future off-site receptors. Please include a reference to the specific section in the Closure Plan, or discuss in this SAP. Also, the issue of off-site ecological receptors should be addressed via reference to the Closure Plan. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *The text on page 2-1 has been rewritten to include a parenthetical listing of the current receptors (i.e., trespassers/visitors, occasional on-site workers, and off-site residents) and a reference to Sections 9 and 10 of the Closure Plan for a more complete discussion of current and future receptors.*

7. Section 2.1, page 2-2, 2nd paragraph, 2nd last sentence, the "other party" referred to should be identified and a reference should be provided. It is the NDEP's understanding that the party being referred to herein is actually Tronox and Ampac. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *The text has been rewritten to identify the actual party in question (i.e., American Pacific Corporation [AMPAC]).*

8. Section 2.4, pages 2-4 and 2-5, the NDEP has the following comments:
   a. Regarding the bulleted items on these pages, it is necessary to indicate the status of each item (e.g.: was it approved by the NDEP?) as well as the date of the NDEP response.

Response: *The text has been rewritten to indicate the status of each item in accordance with this comment.*

   b. Regarding the Table on page 2-5 (and similar tables throughout the document), it would be helpful to also include the USEPA Soil Screening Level (SSL) (DAF 1) on this table as well. Alternately, a section could be added to the Sampling and Analysis Plan (SAP) to discuss the soil-to-groundwater leaching pathway.

Response: *The discussions on current chemical distributions in soil in Section 2.8 have been expanded to discuss exceedances of of soil screening levels (DAF 1).*

   c. Page 2-5, table. A figure detailing the location of these ponds would be helpful in understanding the implications of the historical samples in the context of the CSM.

Response: *Figure 2 and figures in Appendix C have been revised to include labels identifying each of the ponds.*

   d. **No response is necessary for these comments, however, these comments should be considered in the development of future SAPs.**

9. Section 2.5, page 2-6, second bullet. If the soils in PLE-09 and PLD-10 contain asbestos fibers, why weren't they listed as such in the summary table on pages 2-5/2-6? Also, the paragraph under the second bullet needs to identify what "additional ponds" refers to with respect to the soil excavation. Identification and reference to a figure are needed. Also, some context is needed for "asbestos at levels greater than 1%" – certainly the soil is not 1% asbestos. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *The summary table referenced above has been expanded to include asbestos for the two ponds in question, the specific "additional ponds" have been identified in Section 2.5, and a reference to Figure 2 depicting the specific pond locations has been added.*

Many samples collected in the early phases of the site characterization were subjected to Phase Contrast Microscopy (PCM) analysis for which asbestos results were reported as a percentage of the total sample. The current analytical program for the Site has replaced this analysis with an elutriator/Transmission Electron Microscopy (TEM) method, the results of which are reported as protocol structures and structures per gram PM10, which are more accurately incorporated into risk assessment for the site. Therefore, concentrations for asbestos are not presented in the summary tables.

10. Section 2.6, page 2-7, Footnote under table. It is the understanding of the NDEP that confirmation samples were not collected after the stated "overexcavation". **Please advise if this is incorrect, otherwise no response is necessary for this comment.**

Response: *NDEP's understanding as stated in this comment is generally correct. This footnote has been rewritten for clarity.*

11. Section 2.8, pages 2-9 through 2-12, the NDEP has the following comments:
    a. General comment, there are several areas where analytes exceeded their MSSLs and these locations are identified in Figures C1-C12 in Appendix C. It would be useful to summarize where these locations are in the text (e.g., northeastern portion of the site, southwestern portion of the site, etc). In addition, the figures in Appendix C would be more useful if the MSSL and SSL were placed on the figure. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *The text in section 2.8 has been expanded to include brief descriptions of the general areas of the site from which the samples with these exceedances were collected.*

    b. Discussion of the soil-to-groundwater leaching pathway is inconsistent throughout this section. Discussion should be included for each compound which is presented regarding the soil-to-groundwater leaching pathway or as discussed above a separate Section could be added to the SAP. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *As noted above in response to comment #8b, the text in section 2.8 has been expanded to include listing of detections greater than the SSLs for protection of groundwater, in a manner consistent with the MSSL exceedance listings.*

    c. Page 2-9, third sentence states, "Individual chemicals analyzed for and the analytical method used in each of the investigations are included in Appendix B." Analytical methods are not included in Appendix B. Please revise this sentence. **No response is**

necessary for this comment, however, this comment should be considered in the development of future SAPs.

Response: *Although the analytical methods are not included in the hardcopy tables in Appendix B, they are included in the electronic database included on the CD in Appendix B.*

d. Page 2-9 and Appendix C, it is the understanding of the NDEP that the figures in Appendix C are from post-IRM soil samples. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *As stated in the first paragraph of Section 2.8 "Figures showing the distribution of several chemicals for post-IRM soil samples collected at the Site are presented in Appendix C." These figures also include samples collected prior to IRM implementation in areas outside the IRM excavation areas; a more accurate way to present the figures would be to state that they present sample results associated with assumed current Site conditions (i.e., excluding samples collected from IRM areas prior to IRM completion). The text on page 2-9 has been revised accordingly. In addition, a note has been added to the figures in Appendix C indicating the the results shown are post-IRM.*

e. Page 2-9, fourth paragraph. In the first sentence, it should be specified how many samples were surface samples and how many were subsurface samples. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *The text in Section 2.8 has been revised to include tallies of surface and subsurface samples, in accordance with this comment.*

f. Page 2-9, Dioxins/Furans section, first sentence states, "Ten soil samples reflecting current conditions were analyzed for dioxins and furans, with 158 individual congener analyses reported." There are only nine soil samples represented on Figure C-1. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *As reported in the text and seen in Tables 1 and B-5, ten samples were collected in the 0 to 10 foot bgs interval. Only nine are shown in Figure C-1 because that figure presents only the results associated with the 0 to 1 foot bgs interval, as noted in the text in Section 2.8 and in the figure title block. The tenth sample was collected from seven feet bgs.*

g. Page 2-9 and 2-10, consistent with the write-up for arsenic, the number of surface and subsurface samples for each analyte (or analyte class) should be specified. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *As noted above in response to comment #11e, the text in Section 2.8 has been revised to include tallies of surface and subsurface samples for each analyte/analyte class, in accordance with this comment.*

h. Page 2-10, third and fourth paragraph. The number of individual analyses reported is not of particular interest – we have requested removal of this type of summary before. The number of samples is all that is important in this regard. Also, it is not clear what the number of individual analyses refers to – is this results or just analyses? Also, some further detail is needed with respect to the organochloride pesticide detections and comparison to DAF1 in Table 1. Also, please change "organochloride" to "organochlorine" in the first sentence of the paragraph. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *In response to NDEP's comment, the following changes have been made to the text: (1) to alleviate confusion regarding the meaning of the numbers listed (a tally of all analytes run for the specific compound class in question), these tallies have been removed; (2) the discussion of organochlorine pesticides was also expanded to include a listing of analytes reported at concentrations in excess of the SSLs; and (3) the word "organochloride" has been changed to "organochlorine."*

12. Section 2.9, page 2-12, last paragraph. For inorganic compounds, very little information is given with respect to the particular wells/samples. It would help to elaborate a bit more on this section (e.g., what wells had the highest concentrations of arsenic? Did all wells have analyte concentrations that were above their respective MCLs?). **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *Section 2.9 has been expanded to include more description of the inorganic compound detections, in accordance with this comment.*

13. Section 3.1.1, page 3-2, the second sentence is redundant. Third sentence is confusing (…"previous former…"), and it's not clear what this means in terms of "Current land use". A reference back to the definition of "current" and "future" would be helpful. There is a stormwater ditch on the site that should be described as part of the Problem Statement. The ditch through which the wastes were discharged should also be described here. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *The text on page 3-2 that is the subject of this comment has been revised for clarification and in accordance with this comment, including a reference to the effluent conveyance ditches and stormwater channel.*

14. Section 3.3, page 3-5, general comment, it is not clear where data gaps are identified. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *The content of Section 3 in the SAP is the result of numerous rounds of revisions including substantial interaction with NDEP and NDEP consultants. The version of Section 3 in this SAP was provided by NDEP on June 10, 2008 to BRC for inclusion in the Mohawk and subsequent SAPs. Based on this, BRC is reluctant to incorporate revisions that might not meet with the NDEP project team approval. However, reference to Section 1, which identifies general data gaps for the site, has been provided on page 3-6.*

15. Section 3.4.3, page 3-8, sectioning. The Temporal Boundaries section is followed by sections that have underline headings that have nothing to do with Temporal Boundaries. The organization should be improved to better separate these different sections. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *As noted in response to comment #14 above, the version of Section 3 in this SAP was provided by NDEP on June 10, 2008 to BRC for inclusion in the Mohawk and subsequent SAPs. Based on this, BRC is reluctant to incorporate revisions that might not meet with the NDEP project team approval. Therefore, no revisions have been made to the text in response to this comment. That said, BRC does not necessarily agree that the headings in this section are unrelated to Temporal Boundaries, as they include discussions related to the project timeline and/or various periods of site usage.*

16. Section 3.4.3, page 3-8, Subsurface soil and groundwater section. Page 1-3 specifically states that this SAP will not address groundwater issues other than assessing indirect effects via soil vapor flux measurements. However, on page 3-8 (subsurface soil and groundwater section) it states that groundwater data will be collected and used to support migration to groundwater calculations and other modeling tools. Please clarify on page 1-3 or 3-8 (or both). **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *A careful rereading of the Section 3.4.3 text reveals no proposed groundwater sampling, only the collection of subsurface soil data "to support the evaluation of potential impacts to groundwater." and "Any indirect impacts from underlying groundwater will be addressed via the proposed surface flux measurements." Therefore, no changes to this section were made in response to this comment.*

17. Section 3.4.5, page 3-9, the scale of decision making for surface and soil vapor flux appears to be missing and should be discussed in future Deliverables. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *As noted in response to comment #14 above, the version of Section 3 in this SAP was provided by NDEP on June 10, 2008 to BRC for inclusion in the Mohawk and subsequent SAPs. Based on this, BRC is reluctant to incorporate revisions that might not meet with the NDEP project team approval. Therefore, no revisions have been made to the text in response to this comment.*

18. Section 4.1, pages 4-1through 4-4, the NDEP has the following comments:
    a. Page 4-2, please note that physical parameter samples should not be collected in the capillary fringe, per previous NDEP comments. If BRC concurs, **no response is necessary, however, this issue should be addressed in the implementation of the SAP.**

Response: *BRC agrees. The text has been revised on page 4-3 to specify that the physical parameter samples will be collected from within unsaturated soils in intervals above the capillary fringe.*

    b. Section 4.1, page 4-4, second paragraph. The total number of soil samples does not add up to 260. If there are duplicate samples, this should be specified. Otherwise, the total number of samples should be 297 samples. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *Clarification has been added in a footnote on page 4-4 that explains that in some cases a soil sample may be considered both a fill sample and a surface sample (as indicated in Table 4). Therefore, the sum of the number of samples indicated for each does not necessarily equal the total number of samples collected.*

19. Section 4.4, page 4-6, last paragraph, this sentence needs to be reworded. Reference is to future SAPs with fewer than 6 sampling locations, but it is not clear why this cut-off is used. The next part of the sentence is missing the proposed number of biased samples. The next sentence also needs to be reworded. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *Based on recent discussions with NDEP there will be at least one flux chamber sample collected from each 3-acre grid within a sub-area. None of the sub-areas have less than 20 3-acre grids; therefore, this paragraph has been removed from the text. Reference to the collection of flux chamber samples from each 3-acre grid cell has been added to page 4-7.*

20. Section 6.0, page 6, data validation is mentioned, but is not described in a separate section of this SAP. BRC should add language to describe the data validation process or reference the appropriate document. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *In the first paragraph of Section 6, the text of the SAP states that "BRC will subject the data to validation per procedures agreed to previously with the NDEP and consistent with the BRC QAPP (BRC and ERM 2008) and SOP-40." It is BRC's opinion that this sentence clearly identifies the appropriate documents for the procedures to be followed for data review. The text has been revised to include a citation for SOP-40.*

21. Figure 9, the NDEP has the following comments:
    a. Flux samples should be completed within each 3 acre grid, per NDEP's comments provided previously (on the Mohawk Sub-Area SAP). In addition, BRC should consider including flux at some of the judgmental sampling locations (in lieu of the random samples). **If BRC concurs, no response is necessary, however, a revised Figure 9 should be provided to the NDEP as an errata.**

Response: *The text on page 4-7 and associated tables and figures have been modified to include flux sampling within each grid cell.*

    b. A stormwater channel on the eastern portion of the Site originating in cell BJ1 continuing east to cell BJ3; north to cell BN3; discharges to the ground surface in the vicinity of cell BN3. Historically, and to a lesser extent currently, this stormwater channel has discharged contaminated groundwater to the ground surface. **No response is necessary for this comment.**

Response: *See comment responses below for identification of revisions made to the SAP to more fully address this feature.*

    c. The SAP does not address this source area sufficiently. All source areas must be thoroughly discussed in future SAPs. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *The text in Sections 2.1 and 3.1.1 have been revised to include a more complete discussion of this potential source area, consistent in level of detail with other relevant site features.*

    d. Biased samples should be located in the cells in which the stormwater channel discharges to the ground surface. **If BRC concurs, no response is necessary, however, a revised Figure 9 should be provided to the NDEP as an errata.**

Response: *The text (Section 4.1), tables and figures have been revised to include the addition of biased samples in the immediate vicinity of the stormwater channel discharge. Specifically, biased samples WHC1-P14 and WHC1-P15 have been added to the western unlined portion of this stormwater channel, and ditch samples WHC1-D27, WHC1-D28, and WHC1-D29 address the eastern unlined portion (see Figure 9).*

e. In future SAPs, BRC should clearly identify (perhaps in a Table) the number of samples which are taken from each land use (e.g.: berms, former ponds, and unused land). **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *The text on page 4-2 has been revised to include a table summarizing the land use-specific sample breakdown.*

22. Table 1, it is requested that BRC include the mean, median and standard deviation on future versions of this table. **No response is necessary for this comment, however, this comment should be considered in the development of future SAPs.**

Response: *Table 1 has been revised to include these additional statistical parameters, in accordance with this comment.*

Response to NDEP Comments Dated July 2, 2008 on the Sampling and Analysis Plan for the Mohawk Sub-Area dated June 2008

1. Section 1.0, pages 1-1 and 1-2, please note that Data Quality Assessment (DQA) should be the last bullet in the bulleted portion of Section 1.0. BRC should discuss this matter with the NDEP to understand the reasoning for this.

Response: *Agreed. This bullet has been moved to the final bullet in this portion of Section 1.0 in all subsequent sub-area sampling and analysis plans.*

2. Section 3.1.1, last paragraph, BRC stated that the final sentence now reads: "In addition, the impact to off-site receptors will be addressed; however, because remediation of the Site will be to on-site residential standards, risks to off-site receptors will be minimal." NDEP notes that this does not address the issue of the historical transport of contaminants off-Site. It is suggested that future SAPs note that BRC will discuss the issue of off-Site transport of contaminants with the NDEP should the NDEP determine that this is necessary.

Response: *Agreed. The following sentence has been added to the end of the last paragraph of Section 3.1.1: "It should be noted that BRC will discuss the issue of off-Site transport of contaminants with the NDEP should the NDEP determine that this is necessary, maintaining consistency with AOC3."*

3. Section 3.2, first paragraph, last sentence, BRC stated that the reference to off-site ecological receptors has been removed. It is suggested that future SAPs simply note that ecological risk assessment issues will be discussed with the NDEP should NDEP determine that an ecological risk assessment is warranted.

Response: *Agreed. The following sentence has been added to the first paragraph of Section 3.2: "Ecological risk assessment issues will be discussed with the NDEP should NDEP determine that an ecological risk assessment is warranted."*

4. Section 5.1, page 5-1, it should be noted that the soil cuttings generated during drilling activities do not need to be characterized. These materials can be sent to the CAMU with the remainder of the remediation waste.

Response: *Agreed. The first sentence of the last paragraph of Section 5.1 has been changed to: "Soil cuttings generated during soil sampling and Hollow Stem Auger (HSA) drilling activities will be collected and stored with the other remediation waste and sent to the CAMU."*

REDLINE/STRIKEOUT TEXT

1.0 INTRODUCTION

Basic Remediation Company (BRC) has prepared this Sampling and Analysis Plan (SAP) for the Southern RIBs sub-area. The SAP describes tasks for performance of confirmation sampling in order to obtain a no further action determination (NFAD) for this area. The term NFAD is defined in the *Settlement Agreement and Administrative Order on Consent: BMI Common Areas, Phase 3* (AOC3; Nevada Division of Environmental Protection [NDEP] 2006) in Section XVII. This ~~initial~~ revision of the SAP, Revision 1, incorporates (1) draft comments received from the NDEP, dated August 7, 2008, on Revision 0 of the SAP, dated August 2008; (2) applicable comments received from the NDEP, dated August 5, 2008, on Revision 0 of the Western Hook-Development SAP; and (3) comments received as part of the approval letter from the NDEP, dated ~~2~~ July 2, 2008, on the final SAP for the Mohawk sub-area. The NDEP comments and BRC's response to these comments are included in Appendix A. Also included in Appendix A is a redline/strikeout version of the text showing the revisions from the previous August 2008 version of the SAP. An electronic version of the entire report, as well as original format files (MS Word and MS Excel) of all text and tables are included in Appendix B.

The Southern RIBs sub-area (hereinafter "the Site") is one of several sub-areas of the BMI Common Areas (Eastside) located in Clark County, Nevada (Figure 1). The Site encompasses an area of approximately 100.9 acres (Figure 2). The Site is located outside of any known areas used for any waste disposal associated with the BMI Common Areas; however, the eastern half of the Site comprises an area formerly used by the City of Henderson as Rapid Infiltration Basins (RIBs) associated with municipal wastewater treatment. This SAP relies upon information provided in the *BRC Closure Plan* for the BMI Common Areas (BRC *et al*. 2007; hereinafter "Closure Plan"). The main text of the Closure Plan provides discussions of the following elements relative to the BMI Common Areas project as a whole:

- The project history, including cleanup goals and project objective (Closure Plan Sections 1 and 2);
- The list of site-related chemicals (Closure Plan Section 3);
- The conceptual site model (CSM) addressing potential contaminant sources, the nature and extent of chemical of potential concern (COPC) occurrence, and potential exposure pathways (Closure Plan Section 4; a CSM discussion specific to the Site is provided in Section 2 of this SAP);

- Data verification and validation procedures (Closure Plan Section 5);
- The procedures used to evaluate the usability and adequacy of data for use in the risk assessment (Closure Plan Sections 6 and 9);
- The data quality objectives (DQOs; Closure Plan Section 7; a DQO discussion specific to the Site is provided in Section 3 of this SAP);
- The remedial alternative study process for the Site (Closure Plan Section 8);
- Risk assessment procedures that will be used for Site closure (Closure Plan Section 9 for human health and Section 10 for ecological); and
- Data quality assessment (DQA; Closure Plan Section 5).

Baseline remediation (in addition to the remediation already conducted at the Site [see Section 2.5]) is planned for certain areas within the BMI Common Areas; however, none is planned for this Site other than clearing of obvious contamination (*e.g.*, burn pits, stained soil, abandoned vehicles, and other debris). These clearing activities will occur prior to implementing the procedures described in this SAP. The following data gaps associated with the existing Site characterization have been identified: many~~Many~~ of the previous ~~soil~~ samples were collected at least seven years ago; none of the previous samples ~~and~~ have ~~not~~ been analyzed for all of the major chemicals or chemical families and several analyses used different analytical methods than established in the current analytical program for the BMI Common Areas; and spatial coverage of the Site is incomplete.

~~.~~ Therefore, because of these various factors, and because the post-remediation investigation results are considered representative of site conditions, risk assessments for the Site will be conducted using the data collected as part of this SAP. In general, historical data will not be included in the risk assessment; however, a data usability evaluation will be conducted to determine whether any of the historical data can be used in the risk assessment or it will be explained why the new data supplants the old data. These historical data are useful for CSM purposes and are discussed in Section 2.0.

Sampling performed ~~for this purpose~~ as described in this SAP relies on the statistical methodologies presented in the *Statistical Methodology Report* (NewFields 2006). The *Statistical Methodology Report* describes the statistical methods that will be used to confirm the final soils closure at each of the Eastside sub-areas of the BMI Common Areas.

The SAP addresses sampling procedures such that remaining contaminants and their potential impacts to future Site uses (as discussed in the Closure Plan) can be determined. In this SAP, as recommended in the *Statistical Methodology Report*, samples will be collected throughout the Site on a systematic sampling basis, consisting of a regular grid overlay across the property with a randomly placed sample within each grid cell to provide enough samples for completion of a statistically robust assessment of contaminant distribution, and subsequently, to provide a robust data set upon which to perform a human health risk assessment. Additional biased sampling locations will be selected within or near small-scale contamination points of interests, including but not limited to debris locations, the former RIBs, and conveyance ditches used for transporting effluent from the companies operating at the BMI Complex to the Common Areas ponds.

1.1 PURPOSE OF THE SAP

The purpose of this SAP is to evaluate soil and soil vapor conditions (including any indirect impacts from underlying groundwater) that may have been impacted at the Site from former activities and adjoining lands. The scope of this investigation is limited to soil and soil vapor flux sampling in an effort to assess issues that might directly impact Site development potential consistent with the Closure Plan. However, the data will be used to determine any impacts to groundwater from future site uses. That is, data will be collected to evaluate the soil-to-groundwater leaching pathway. The objective of the field investigation is to identify and characterize the distribution of Site-related chemicals (SRC). Surface and subsurface samples that will be collected are depth-discrete soil matrix samples and surface vapor flux samples. Although this SAP does include data collection for evaluating groundwater as a potential source to the vapor intrusion pathway, it does not address potential groundwater issues, which are being investigated separately by BRC pursuant to AOC3 (NDEP 2006) as part of an overall evaluation of the BMI Common Areas. The investigation is designed to provide sufficient data to support risk-based decisions (including decisions to seek an NFAD) for the Site. The ~~BRC anticipates that, if needed, the~~ NFAD for the Site will contain a deed restriction precluding potable use of groundwater beneath the Site.

2.0 CONCEPTUAL SITE MODEL

The following sections provide information about the Site, previous investigations that have been conducted at the Site, interim remedial measures (IRMs) that have occurred, and the existing Site dataset. An overview of the CSM for the Site is provided in the Closure Plan. This section includes a summary of the investigations performed at the Site during the following primary project phases: prior to IRM performance (Section 2.4); during or immediately following the IRM (Section 2.6); and subsequent to IRM performance (Section 2.7).

2.1 SITE DESCRIPTION

The Site (Figure 2) comprises approximately 100.9 acres of ~~undeveloped~~ land that is undeveloped with the exception of the previously mentioned RIBs (67.8 acres in the eastern half of the Site), which were in use from approximately 1992 to 2002 by the City of Henderson for municipal wastewater treatment. The only known historical use of the site is as a wastewater treatment plant and transfer station. The remaining undeveloped 33.1 acres in the western half of the property have no known history of use. The land surface gently slopes~~sloping~~ to the north-northwest, ignoring the former RIBs, which have been engineered to be topographically flat. ~~The Site is currently undeveloped.~~ As depicted in Figure 2, a portion of the Beta Ditch, which was once associated with historical conveyance of operations effluent and cooling water by companies operating at the BMI Complex, forms the northern boundary of the Site. The boundaries of the Site have been specifically designed to exclude this feature. ~~The eastern 67.8 acres of the Site contains RIBs, which were in use from approximately 1992 to 2002 by the City of Henderson for municipal wastewater treatment. The remaining 33.1 acres in the western half of the property have no known history of use~~.

Exposures to current receptors (*i.e.*, trespassers/visitors, occasional on-site workers, and off-site residents) are being managed through site access control. Under the prospective redevelopment plan, the Site may be used for a variety of potential purposes, including residential housing (low and~~,~~ medium ~~and high~~ density), ~~commercial buildings, urban core,~~ parks and trails, and streets ~~and parking~~. The entire Site will be enhanced by restoration and redevelopment once remediation is complete. Therefore, exposures to ecological receptors will be mitigated or removed (see Section 10 of the Closure Plan). Future receptors identified as “on-site receptors” are defined as receptors located within the current Site boundaries (Figure 2), while future “off-site receptors” are those located outside the current Site boundaries. Many potential human receptors are

possible at the Site in the period during and after redevelopment. The potentially exposed populations and their potential routes of exposure are discussed in Section 9 of the Closure Plan.

The current development plan for the Site is shown on Figure 3. To construct parks, residences, and commercial buildings and parking, the land will be cut and/or filled, paved with roads or foundations, and nurtured with imported top soils[1] as needed. Figure 4 shows the current grading plan for the Site, indicating which areas will be filled and which areas will be cut.

Because the background general water quality (*i.e.*, high salt concentrations) of the groundwater beneath the Site and in the surrounding area is poor and because BRC will place institutional controls in the form of a deed restriction to prevent future users from utilizing groundwater beneath the Site, the use of private water wells by residents, businesses, or parks for drinking water, irrigation water, or other non-potable uses (*e.g.*, washing cars, filling swimming pools) will not occur in the post-redevelopment phase.

Although direct exposures to groundwater will not occur; indirect exposures are possible. The primary indirect exposure pathway from groundwater is the infiltration of volatile organic compounds (VOCs) and radon from soil and groundwater to indoor air. In addition, residual levels of chemicals in soil may leach and impact groundwater quality beneath the Site. Collection of data to evaluate both of these migration pathways at the Site is presented in this SAP.

The Site is bounded on the north by the Staging sub-area (109.9 acres), which includes ~~As noted above, the Beta Ditch forms the northern boundary of the Site, followed by~~ land that was previously associated with historical conveyance and/or disposal of operations effluent and cooling water by companies operating at the BMI Complex. As noted above, the Beta Ditch forms much of the northern boundary of the Site. Chemicals detected in the Staging sub-area include those found at the Site; however, the number of compounds detected and the associated concentrations are appreciably higher than those associated with the Site, as a result of historical effluent conveyance and disposal activities within the Beta Ditch and Upper Ponds. Although this adjacent sub-area contains elevated chemicals in soil, and remediation of this sub-area is scheduled to occur after remediation of the Site, impacts from this area to the Site are considered negligible because dust suppression/mitigation measures and stormwater pollution prevention

[1] Note: Imported soil data will not be included in risk assessment calculations. However, the chemical data for fill material from the Site may be useful for evaluating sub-areas to receive this fill.

controls will be implemented during remediation activities. Analytical results for the Staging sub-area are presented further in Section 2.8 below.

The Site is bounded on the south and east by the Parcel 4A and 4B sub-areas. The NDEP concluded in 1997 that no further characterization of these two sub-areas was required and that development could proceed without environmental restriction. However, subsequent to this decision, additional sampling and analysis was conducted in 2007, supplemented by additional sampling in 2008. Following the first round of sampling in 2007, surface soil was scraped and removed from several areas within the Parcel 4A/4B sub-areas followed by additional sampling. A screening-level human health risk assessment was conducted for Parcel 4A and the NFAD was re-affirmation by NDEP in 2008. Currently a screening-level human health risk assessment is being conducted to determine whether re-affirmation of the NFAD for Parcel 4B is warranted. Boulder Highway is present immediately to the west of the Site.

~~The Staging sub-area, which encompasses an area of approximately 109.9 acres, is immediately to the north of the Site. Chemicals detected in this sub-area include those found at the Site; however, the number of compounds detected and the associated concentrations are appreciably higher than those associated with the Site, as a result of historical effluent conveyance and disposal activities within the Beta Ditch and Upper Ponds. Although this adjacent sub-area contains elevated chemicals in soil, and remediation of this sub-area is scheduled to occur after remediation of the Site, impacts from this area to the Site is considered negligible because dust suppression/mitigation measures will be implemented during remediation activities. Analytical results for the Staging sub-area are presented further in Section 2.8 below.~~

2.2 SURFACE WATER

Surface water flow occurs for brief periods of time during periodic precipitation events. Because of the nature of the RIBs and their construction, it is unlikely that surface waters generated within these ponds drain overland to the Las Vegas Wash from the Site. In addition, because of the large distance to the Wash and the intervening topographically downgradient presence of various topographic features that would intercept surface water flow (i.e., the Beta Ditch and the Upper Ponds), it is unlikely that surface water generated on the western half of the Site would migrate to the Las Vegas Wash.

2.3 GEOLOGY/HYDROGEOLOGY

As is common throughout the Las Vegas Valley, Site soils are primarily sand and gravel, with occasional cobbles. Soils at the Site are compacted, poorly-sorted, non-plastic, light brown to red silty sand with varying amounts of gravel. This is consistent with the depositional environment of an alluvial fan. The Site is located on alluvial fan sediments, with a surface that slopes to the north-northeast at a gradient of approximately 0.02 foot per foot (ft/ft) towards the Las Vegas Wash. Regional drainage is generally to the east.

The uppermost strata beneath the Site consist primarily of alluvial sands and gravels derived from the River Mountains and from the volcanic source rocks in the McCullough Range, located to the southeast and southwest of the Site, respectively. These uppermost alluvial sediments were deposited within the last two million years and are of Quaternary age, and are thus mapped and referred to as the Quaternary alluvium (Qal; Carlsen *et al*. 1991). The Qal is typically on the order of 50 feet thick at the Site with variations due, in part, to the non-uniform contact between the Qal and the underlying Tertiary Muddy Creek Formation (TMCf).

The TMCf underlies the Qal. The Muddy Creek formation, of which the TMCf is the uppermost part, is a lacustrine deposition from the Tertiary Age, and it underlies much of the Las Vegas Valley. It is more than 2,000 feet thick in places. The lithology of the TMCf underlying the Site is typically fine-grained (sandy silt and clayey silt), although layers with increased sand content are sporadically encountered. These TMCf materials have typically low permeability, with hydraulic conductivities on the order of 10^{-6} to 10^{-8} centimeters per second (Weston 1993). The TMCf in the vicinity of the Site was encountered to the maximum explored depth of 430 feet below ground surface (bgs). Lithologic cross sections are shown on Figures 5 and 6.

Two distinct, laterally continuous water-bearing zones are present within the upper 400 feet of the Site subsurface: (1) an upper, unconfined water-bearing zone primarily within the Qal referred to herein as the alluvial aquifer (Aa) and (2) a deep, confined water-bearing zone that occurs in a sandier depth interval within the silts of the deeper TMCf. Both of these water-bearing zones contain high concentrations of total dissolved solids (TDS). Between these two distinct water-bearing zones, a series of saturated sand stringers were sporadically and unpredictably encountered during drilling.

Alluvial Aquifer. The Aa is an unconfined, shallower, water-bearing zone that occurs across the Site. For the most part, water in the Aa occurs in the Qal. The water surface in the Aa generally follows topography, with the water surface sloping towards the Las Vegas Wash. According to

recent groundwater monitoring performed in January 2007, the depth from the surface to first groundwater at the Site ranges from approximately 36 to 67 feet bgs (MWH 2007). Wells completed in the Aa are not highly productive, with sustainable flows typically less than five gallons per minute. Chemical occurrence within this water-bearing zone, based on recent monitoring data associated with wells installed within and in the vicinity of the Site, is discussed in Section 2.9[2].

2.4 INVESTIGATIONS PRIOR TO IRM PERFORMANCE

No IRMs have been conducted at the Site. In January 2001, soils in and along a portion of the Beta Ditch were excavated as part of an IRM. With the exception of pre-excavation soil samples collected from that area (all outside the Site boundaries), all sampling locations depicted in Figure 2 reflect current conditions; the data associated with Site conditions are discussed in Section 2.7.

2.5 INTERIM REMEDIAL MEASURES (IRMs)

To expedite restoration of the Site, in January 2001, BRC elected to perform an IRM for a portion of the Beta Ditch running north and immediately adjacent to the Site. This IRM was not performed in accordance with an NDEP-approved workplan. IRM activities consisted of excavation of the impacted shallow soils within the base and sidewalls of the Beta Ditch, transportation to a secured location within the Upper Ponds, and treatment to prevent generation of wind-blown dusts and runoff. This IRM was conducted in response to the presence of elevated detections of arsenic, lead, vanadium, and hexachlorobenzene within the Beta Ditch. Results of the IRM for the Site have not been formally presented in a report to NDEP.

In addition, because of elevated levels of iron and vanadium at the surface from one sample location in the adjacent Parcel 4A, surface soil was scraped and removed from around this location. Surface soil was also scraped and removed along the eastern edge of the site, in Parcel 4B, due to the presence of elevated levels of arsenic and iron. All three areas of soil removal from the Beta Ditch, Parcel 4A, and Parcel 4B are shown on Figure 7.

[2] Chemical occurrence in both the shallow and deep water-bearing zones beneath the Eastside and CAMU areas is currently being characterized under a process separate from the Closure Plan process under which this SAP has been prepared, which focuses on site soils. Therefore, this SAP summarizes chemical occurrence trends in the first water-bearing zone, which is the only water-bearing zone that can potentially affect potential receptors under current and future land uses. A more detailed presentation of chemical occurrence patterns within both zones will be provided upon completion of the on-going groundwater investigation, and the Conceptual Site Model for the Eastside and CAMU areas will be updated accordingly.

2.6 IRM-RELATED CONFIRMATION SAMPLING

As noted above, an IRM was not conducted within the Site boundaries. Confirmation samples were collected as part of the IRM activities within the adjacent Beta Ditch and represent post-remediation conditions.

2.7 INVESTIGATIONS SUBSEQUENT TO IRM

Shallow soil samples were collected within the Site during the following three~~3~~ separate events (see Figure 2 for sample locations):

- An investigation conducted during December 2000 (dataset 14) to assess conditions in this area to support potential transfer of the property for educational uses. The soil investigation activities were not performed in accordance with an NDEP-workplan and the soil sampling results have not been formally presented to NDEP prior to this SAP. Data validation results are presented in the DVSR for dataset 14 (MWH, 2006a), which was approved by NDEP on ~~8~~ November 8, 2006;

- A soil investigation conducted in May 2001 (dataset 21) in the Southern RIBs proper. These data were not collected under a formal NDEP-approved workplan and the soil sampling results have not been formally presented to NDEP prior to this SAP. Data validation results are presented in the DVSR for dataset 21 (MWH, 2006b), which was approved by NDEP on ~~25~~ October 25, 2006; and

- Deep soil characterization conducted in May 2004 during monitoring well installation at one location (SB-01-B [MCF-01A]) as part of the hydrologic investigation (dataset 27). The soil investigation activities were performed in accordance with a~~MWH's~~ workplan submitted in December 2003 (MWH, 2003) and approved by NDEP in January 2004. Data validation results are presented in the DVSR for dataset 27 (MWH, 2006c), which was approved by NDEP on ~~31~~ August 31, 2006.

During these investigations, soil samples at various depths were collected and analyzed for VOCs, semi-volatile organic compounds (SVOCs), organochlorine pesticides, organophosphorous pesticides, polychlorinated biphenyls (PCBs), chlorinated herbicides, glycols/alcohols, organic acids, dioxins/furans, metals, perchlorate, radionuclides, and/or asbestos. The data associated with these investigations are included in the database excerpt provided in Appendix B.

2.8 CURRENT CHEMICAL DISTRIBUTION WITHIN SOILS

A summary of historic post-IRM soil chemical data from surface to 10 feet bgs, excluding excavated sample results, is presented in Table 1. Compound-specific ~~All~~ historical sampling results collected from the Site, including those sample locations from depth intervals deeper than 10 feet bgs, are shown in Appendix B, Tables B-1 through B-14~~10~~, and included electronically in Appendix B. ~~Individual chemicals analyzed for and the analytical method used in each of the investigations are included in Appendix B.~~ Sample locations are shown on Figure 2. Figures showing the distribution of several chemicals for soil samples historically collected at the Site are presented in Appendix C. These figures also include post-IRM samples within 1,000 feet of the Site from the adjacent sub-areas (Staging and TIMET Ponds) and from the NFA Areas (Parcels 4A and 4B) to provide information on the current upgradient, downgradient, and cross-gradient conditions. Chemical occurrence patterns for the chemicals detected at concentrations in excess of screening levels, in samples collected from surface to 10 feet bgs at the Site, are provided below.

Dioxins and Furans. Three soil samples representing current conditions within the uppermost 10 feet at the Site (two surface samples and one subsurface sample) were analyzed for dioxins and furans.~~Three soil samples were analyzed for dioxins and furans, with 51 individual congener analyses reported for samples collected from 0 to 10 feet bgs.~~ Nineteen individual dioxins and furans congener detections were reported as detections, screening levels have not been established for individual congeners.

To assess the potential threat to human health, dioxin/furan ~~Dioxin/furan analysis was performed on one sample collected from subsurface (1 to 10 feet bgs) soils in the Site. Dioxins/furans~~ toxic equivalency (TEQ) concentrations were compared to the Agency for Toxic Substances and Disease Registry (ATSDR) screening value of 50 parts per trillion (ppt). Of the samples analyzed, one surface sample (CPS-3, located in the western [unused] half of the Site) had a calculated TEQ value in excess of this screening level. The ranges of calculated TCDD TEQ values for soil samples collected in surface soil samples from the Site are shown on Figure C-1.

To assess the potential for impacts to groundwater quality, chemical detections at the Site were also compared to applicable USEPA soil screening levels (SSLs; dilution attenuation factor [DAF] = 1) for protection of groundwater (USEPA 2007) where established. This evaluation was not performed for the dioxin/furan results, as no SSLs have been established for these compounds.

Arsenic. Arsenic was detected in all of the 13 samples analyzed for arsenic that were collected from 0 to 10 feet bgs (ten surface and three subsurface samples). To assess the potential threat to human health, these arsenic detections were compared to the USEPA Region 6 residential soil MSSL; all~~. All~~ of these detections were higher than the USEPA Region 6 residential soil MSSL. In addition, to assess the potential for impacts to groundwater quality, chemical detections at the Site were also compared to the SSL (DAF 1) established for arsenic. All of the arsenic detections were higher than the SSL.

However, it should be noted that the ranges of background concentrations for arsenic are appreciably higher than the MSSL; therefore, comparison to background arsenic concentrations is more appropriate than using the MSSL and SSL as points of comparison. Of the~~these~~ arsenic detections, only one sample (a surface soil sample, collected from CPS-3, a location in the western [unused] portion of the Site) had a reported arsenic concentrations in excess of the maximum shallow soil background level (7.2 mg/kg; from BRC/TIMET 2005~~2007~~). The distribution of arsenic for soil samples collected in the surface soils and the interval from 7 to 10 feet bgs at the Site are shown on Figures C-2 and C-3, respectively.

Other Inorganics. As seen in Table 1, several metals were routinely detected in soil samples from the uppermost 10 feet bgs. Excluding arsenic, which is discussed above, 47 of the detections were higher than the maximum background concentration; none of the detections exceeded the MSSLs.

In addition to arsenic, the following metals were detected at concentrations in excess of the SSLs for protection of groundwater:

- Antimony (SSL exceedances in three samples collected from CPS-3 and SB-01-B in the western [unused] portion of the Site, all of which were higher than background);
- Barium (SSL exceedances in all but one of the samples in which it was analyzed, none of which were higher than background);
- Chromium (SSL exceedances in all of the samples in which it was analyzed, only seven of which were higher than background, collected from both halves of the Site [unused and former RIBs]);
- Nickel (SSL exceedances in all of the samples in which it was analyzed, only one of which was higher than background, collected from SRB-1 within the former RIBs);

- Selenium (SSL exceedances in two samples collected from SB-01-B, neither of which were higher than background); and

- Thallium (SSL exceedances in two samples collected from SB-01-B and CPS-3, the former of which was higher than background).

The remaining metals were either detected at concentrations less than the SSLs for protection of groundwater, or did not have established SSLs.

Iron was detected in six samples (three surface and three subsurface samples collected from both halves of the Site) at concentrations in excess of the maximum background detection; the distribution of iron for soil samples collected in the surface soils and the interval from 7 to 10 feet bgs at the Site are shown on Figures C-4 and C-5, respectively. Vanadium was detected in six samples (three surface and three subsurface samples collected from both halves of the Site) at concentrations in excess of the maximum background detection; the distribution of vanadium for soil samples collected in the surface soils and the interval from 7 to 10 feet bgs at the Site are shown on Figures C-6 and C-7, respectively.

Organic Compounds. With the exception of dioxins/furans, no organic constituents were detected in samples collected from the uppermost 10 feet bgs at concentrations in excess of the MSSLs.

As noted in Table 1, USEPA ~~US EPA Soil Screening Levels (~~SSLs~~)~~ for protection of groundwater quality~~quality based on dilution attenuation factor (DAFs) of 1 and 20~~ have been established for various VOCs, SVOCs, polyaromatic hydrocarbons (PAHs), and organochlorine pesticides. Of these, PAHs were not detected in any of the samples collected from 0 to 10 feet bgs. ~~The table below summarizes the number of samples analyzed and individual analytes reported and detected within these classes, and identifies the number of exceedances of these groundwater protection screening levels.~~

The following organic compound detections were higher than the USEPA SSLs for protection of groundwater (DAF 1):

- alpha-BHC (two SSL exceedances in soil samples collected from SB-01-B);

- beta-BHC (four SSL exceedances in soil samples collected from CPS-1, CPS-2, and SB-01-B, all of which are located at the far western edge of the Site);

- Lindane (two SSL exceedances in soil samples collected from SB-01-B); and
- Dichloromethane (ten SSL exceedances in soil samples collected from the western [unused] portion of the Site).

Organic Compound Class	No. of Samples Analyzed	No. of Individual Analyses Reported	No. of Individual Detections	No. of Detections Greater than GW Protection SSL (DAF 1)	No. of Detections Greater than GW Protection SSL (DAF 20)
VOCs	22	855	22	10	0
SVOCs	16	678	2	0	0
PAHs	13	169	0	0	0
Organochlorine Pesticides	13	288	21	8	6

The distribution of representative organochlorine pesticides (4,4-DDE and beta-BHC) for soil samples collected in the surface soils and the interval from 7 to 10 feet bgs at the Site are shown on Figures C-8 through C-11.

The distribution of a representative SVOC (hexachlorobenzene) for soil samples collected in the surface soils and the interval from 7 to 10 feet bgs at the Site are shown on Figures C-12 and C-13, respectively.

Formaldehyde was reported as a low level detection in one sample (below the MSSL) in one sample collected from SB-01-B.). There were no reported detections of any of the other organic chemical classes that are site-related chemicals (i.e., glycols/alcohols, chlorinated herbicides, organic acids, organophosphate pesticides, or polychlorinated biphenyls [PCBs]) in soil samples collected from the uppermost 10 feet bgs. The number of samples analyzed and individual analyses reported within these classes are as follows:

Compound Class	# of Samples Analyzed	# of Individual Analyses Reported
Glycols/Alcohols	2	8
Chlorinated Herbicides	2	20
Organic Acids	2	10
Organophosphate Pesticides	8	57
PCBs	9	63

Radionuclides. Radionuclides were routinely detected in all nine of the soil samples analyzed (eight surface samples and one subsurface sample); these samples were collected from the western [unused] half of the Site. Few of these detections were higher than the maximum shallow soil background level. Of the radionuclides that are the standard focus during this investigation (radium-226, radium-228, thorium-228, thorium-230, thorium-232, uranium-233/234, uranium-235/236, and uranium-238) 36 detections were in excess of the MSSL; of these radionuclides~~isomers~~, there were no reported activities in excess of the maximum shallow soil background level. These MSSL exceedances were associated with the following radionuclides:

- Radium-226;
- Radium-228;
- Thorium-228; and
- Uranium-238.

In addition, the following radionuclides were detected at concentrations in excess of the SSLs for protection of groundwater:

- Radium-226 (SSL exceedances in all samples analyzed);
- Radium-228 (seven SSL exceedances, associated with all samples except SB-01-B);
- Thorium-230 (SSL exceedances in all samples analyzed);
- Thorium-232 (SSL exceedances in all samples analyzed);
- Uranium-235/236 (three SSL exceedances, samples collected from CPS-1, CPS-3, and CPS-5); and
- Uranium-238 (SSL exceedances in all samples analyzed).

The distribution of radium-226, representative of radionuclides, for samples collected in the surface soils at the Site is shown on Figure C-14.

Summary of Soil Exceedances. ~~For samples collected from the Site, approximately than 2,770 individual analyses were reported and reviewed.~~ Of the 505 chemical detections in soil samples

collected from the Site, 65 were of organic chemicals (that is, excluding general chemistry, metals and radionuclides) and only the TCDD TEQ exceeded the human health protection screening level. Of the 417 detections of metals and radionuclides, 63 (approximately 15 percent) were reported at concentrations in excess of their respective maximum shallow soil background level; 49 metal and radionuclide detections were higher than the MSSLs.

2.9 CHEMICAL DISTRIBUTION WITHIN GROUNDWATER

For evaluating Alluvial Aquifer groundwater quality at the Site, the following wells in the immediate Site vicinity were used: AA-01, AA-13, AA-27, DM-1, and POU3. The data associated with these wells from the most recent groundwater monitoring event (January 2007) are presented in Table 2. Chemical occurrence patterns for the chemicals detected in groundwater from these wells are provided below.

Organic Compounds. As presented in Table 2, several VOCs were detected during the 4th quarterly groundwater monitoring event. Most of these VOC detections were relatively low values well below (1) the maximum contaminant level (MCL) or (2) indoor air intrusion screening levels (*i.e.*, USEPA generic groundwater to indoor air screening level (VI SL). The following ~~MCLs; however, several~~ VOCs were detected at concentrations greater than one or more of these screening levels:

- Bromodichloromethane was detected in the POU3 sample at a concentration higher than the VI SL, but lower than the MCL; this constituent was not detected in the other four samples;
- Carbon tetrachloride was detected in the POU3 sample at a concentration higher than the VI SL and MCL; this constituent was not detected in the other four samples;
- Chloroform was detected in the POU3 sample at a concentration of 1,400 µg/L, which is appreciably higher than the VI SL and MCL; this constituent was also detected in the other four samples but at relatively low concentrations below the MCL and VI SL;
- Dichloromethane was detected in the POU3 sample at a concentration higher than the MCL, but lower than the VI SL; this constituent was not detected in the other three samples for which it was analyzed;
- Tetrachloroethene was detected in the AA-01 and POU3 samples at concentrations of 84 µg/L and 14 µg/L, respectively, which are higher than the MCL and VI SL; this constituent was not detected in the other three samples; and

- Tribromomethane was detected in the POU3 sample at a concentration of 11 µg/L, which is appreciably higher than the VI SL but lower than the MCL; this constituent was not detected in the other four samples.

Other than VOCs, the only organic chemical detections in groundwater samples were as follows:

- ~~the MCLs in sample POU3 sample (i.e., carbon tetrachloride, chloroform, dichloromethane, and tetrachloroethene). The highest detection was 1,400 µg/L of chloroform (POU3); chloroform was detected in the other four samples as well, but at concentrations several orders of magnitude lower. The only other MCL exceedance of a VOC was a detection of tetrachloroethene in the sample from AA-01. With the exception of the POU3 chloroform, carbon tetrachloride and bromodichloromethane (less than MCL) detections and the two tetrachloroethene detections, the VOC detections were lower than indoor air intrusion screening levels (*i.e.*, USEPA generic groundwater to indoor air screening level), where established.~~ Acetaldehyde, which was detected at 11 ppb in the POU3 sample; an MCL has not been established for this compound, and this detection is appreciably lower than the VI SL; and

Methane, which was detected at 0.82 µg/L in the POU3 sample; neither an MCL nor a VI SL have been established for this compound.~~ No other organic chemicals were detected in these monitoring wells.~~

Inorganic Compounds. Several inorganic compounds, specifically, chloride, nitrate, perchlorate, sulfate, aluminum, arsenic, chromium, phosphorus, uranium, and gross alpha, were detected above their respective MCLs as summarized below:~~.~~

- Chloride, nitrate and sulfate are higher than their respective MCLs in all samples analyzed; maximum detections were 2,910 mg/L (POU3), 111 mg/L (AA-13), and 3,700 mg/L (POU3), respectively;

- Perchlorate is higher than the MCL in all samples analyzed except AA-13; the maximum detection was 31,800 µg/L (POU3);

- Aluminum is higher than the MCL in the DM-1 sample; this constituent was not detected in any of the other samples (reporting limits for other samples elevated above MCL);

- Arsenic is higher than the MCL in samples collected from wells AA-01, AA-13, and POU3 (reporting limits for other samples elevated above MCL); the highest concentration is associated with POU3;
- Chromium is higher than the MCL in the POU3 sample; this constituent was not detected in any of the other samples;
- Uranium was reported at a concentration higher than the MCL in samples collected from AA-01, AA-13, and AA-27; and
- Gross alpha was reported at levels greater than the MCL in all samples except POU3; the highest reported level was associated with AA-01.

It should be noted that reporting limits for several analytes were higher than the MCLs, and these constituents may be present in Site groundwater at concentrations greater than the MCLs.

3.0 DATA QUALITY OBJECTIVES

A general overview of USEPA and NDEP's 7-step DQO process is provided in the Closure Plan. One of the key decision inputs to the DQO process, namely the Step 2 Principal Study Questions (PSQs) is also provided in the Closure Plan. The PSQs are the central Eastside Area-wide questions that provide a basis for the overall closure effort. Per discussions with the NDEP, the other steps of the DQO process are to be addressed, on an Eastside Area sub-area basis (for soils), in the respective sub-area SAPs. For the sake of continuity, BRC is providing a discussion of Steps 1 through 5 of the DQOs for this Site. BRC is not addressing DQO Steps 6 and 7 based on prior discussions with the NDEP.

The DQO process is a seven-step iterative planning approach used to prepare plans for environmental data collection activities. It provides a systematic approach for defining the criteria that a data collection design should satisfy, including when, where, and how to collect samples or measurements; determination of tolerable decision error rates; and the number of samples or measurements that should be collected. DQOs define the purpose of the data collection effort, clarify what the data should represent to satisfy this purpose, and specify the performance requirements for the quality of information to be obtained from the data. The DQO process, as defined by USEPA's *Guidance on Systematic Planning Using the Data Quality Objectives Process, EPA QA/G-4* (USEPA 2006), consists of 7 steps:

Step 1 - State the Problem;

Step 2 - Identify the Goal of the Study;

Step 3 - Identify Information Inputs;

Step 4 - Define the Boundaries of the Study;

Step 5 - Develop the Analytical Approach;

Step 6 - Specify Performance or Acceptance Criteria; and

Step 7 - Develop the Plan for Obtaining Data.

Steps 1 through 5, along with sub-activities that comprise each step, are outlined below.

3.1 STATE THE PROBLEM (STEP 1)

The first step in the DQO process is to define the problem that initiated the study in such a way that that the focus of the study is unambiguous. This section provides the following information: a summarization of the problem being addressed; identification of the assessment team; identification of the key decision-makers and stakeholders; and a presentation of the schedule.

3.1.1 Problem Statement

1. As presented in the Closure Plan, the Site is adjacent to open land modified to convey and accept waste water discharges from the BMI Complex through various trenches and evaporation ponds from 1942 through 1976. The western half of the Site (33.1 acres) has been unused historically; the eastern half of the Site (67.8 acres) comprises an area formerly used from 1992 through 2002 by the City of Henderson as RIBs associated with municipal wastewater treatment. The industrial activity on this site may have resulted in concentrations of chemicals that drive unacceptable human health risk. The goal of this work is to remediate the Site such that chemical concentrations in all relevant media do not pose an unacceptable risk to human health and the environment under current and future land use scenarios. The problem that needs to be addressed is one of returning the upper 10 feet of soils at the Site to conditions that pass a human health risk assessment, with restrictions on access to deeper soils and on the use of groundwater. Risk assessment at the Site includes exposure to soils, but also exposure from vapor intrusion from VOCs~~volatile organic chemicals~~ and radon, which might emanate from the vadose zone or from groundwater. A further consideration is the potential for leaching contaminants into groundwater.

The Site is currently vacant. The potential on-site and off-site receptors are currently trespassers/visitors, occasional on-site workers, and off-site residents. Risks to current receptors are being managed through site access control. Under the current, prospective redevelopment plan, the Site will be used for a variety of purposes, including residential housing, parks and trails, and streets, although only a residential exposure scenario is assumed for this problem. The current and future potential exposure pathways of concern are being addressed by this SAP and any subsequent remediation. The potentially exposed populations for the Site and their potential routes of exposure are presented in Figure 8 and are summarized in Section 9 of the Closure Plan.

2. As described in the Closure Plan, remediation for all media will be to risk-based levels protective of human health and the environment, under current and future land use scenarios.

Therefore, appropriate risk-based cleanup goals for the protection of human health, ground water protection, and surface water protection must be established. These criteria shall apply to all affected media (*i.e.*, soil, soil vapor). Where background levels exceed risk-based goals, metals and radionuclides in Site soils are targeted to have risks no greater than those associated with background conditions.

The problem will be addressed through iterative remediation until sufficient remediation (removal of soil) has been performed that acceptable human health risks have been attained. The final site conditions will include regrading of on-site soils (post-remediation), so that the future surface will not consist of the same soil as the current surface. Imported fill material is not expected to be needed. It should be noted that information regarding the specific locations that will be covered with fill may not be known at the time of risk assessment for closure purposes; however, the current grading plan (Figure 4) is being used in this SAP for the Site.

Although the primary focus is human health risk assessment for a residential scenario, secondary issues that will be addressed include contamination of deeper soils and of groundwater beneath the site. In addition, the impact to off-site receptors will be addressed; however, because remediation of the Site will be to on-site residential standards, risks to off-site receptors will be minimal. It should be noted that BRC will discuss the issue of off-Site transport of contaminants with the NDEP should the NDEP determine that this is necessary, maintaining consistency with AOC3.

3.1.2 Proposed Assessment Team

A multidisciplinary approach is being and will be followed with participation by qualified geologists, chemists, radiochemists, hydrogeologists, biologists, ecologists, engineers, remediation specialists, toxicologists, risk assessors (human health and ecological), statisticians, field sampling personnel, community relations personnel, risk communications specialists, project developers, and project managers. BRC maintains an active roster of key team members, which will be periodically updated as appropriate throughout the project term. Key team members are identified in Section 1.4 of the Closure Plan.

3.1.3 Key Decision Makers and Stakeholders

The NDEP is the primary and the ultimate decision-maker for the project. Stakeholders include BRC, the City of Henderson, Clark County, the State of Nevada, the United States Government, the local public, site developers, and other interested persons.

3.1.4 Schedule

BRC has established a phased schedule for the Eastside Area such that the various sub-areas are addressed sequentially. The timing of the phased closures is closely spaced to avoid potential complications associated with the presence of contaminated soils near areas that have been successfully remediated and closed and to mitigate potential impacts on adjacent residential housing development.

Surface soil data will be used to evaluate both current (post-remediation, pre-development) and future (post-development) exposures and risks. Once these data have been collected and preliminary risk calculations have been completed, BRC will determine whether the acceptable chemical concentrations and/or risk levels defined for the Site have been attained and will discuss this determination with the NDEP. If it is determined that acceptable risk levels have not been attained, BRC will perform additional remediation activities consistent with the *Corrective Action Plan* (CAP; BRC 2006) and will repeat the assessment process until risk-based goals are achieved. Each iterative remediation and data collection process is expected to take place over a one to two month period, but may extend into a slightly longer period.

3.2 IDENTIFY THE GOAL OF THE STUDY (STEP 2)

The purpose of this step is to define the Site-specific PSQs that need to be resolved in order to address the problem identified in Step 1, and to identify alternative actions that may be taken, depending on the answers to the PSQs. As noted above, the project PSQs are presented in the Closure Plan. The primary PSQ associated with this SAP for the Site is: Are the current (post-remediation, pre-development) and future (post-development) incremental risks to human health or the environment in the Site soil and soil vapor flux under investigation sufficiently low that they are acceptable? If the incremental risks are not sufficiently low, then reasonable further action will be taken; otherwise, no further action will be taken. A secondary PSQ deals with groundwater quality in the context of the overall site, and on the impact of site contamination on off-site human receptors. Ecological risk assessment issues will be discussed with the NDEP should NDEP determine that an ecological risk assessment is warranted.

The following fundamental assumptions apply:

1. The PSQs will be assessed only after BRC has remediated Site soils such that achievement of Site cleanup goals is expected. Cleanup goals for the project are defined in Sections 1.1 and 9.1.1 of the Closure Plan. The data pool employed in the risk assessment will comprise only

those data collected in accordance with this SAP[3], after any initial baseline remediation and/or clearing activities have~~has~~ been performed or after subsequent remediation phases performed iteratively during the closure process, as and if such occur(s). Therefore, although there are data gaps related to the nature and extent of existing impacts to Site soils (see Section 1), no further characterization of impacted soils will be performed to support Site closure, because the impacted soils will be removed from the Site.

2. The data used in PSQ assessment will undergo a rigorous Quality Assurance/Quality Control (QA/QC) review prior to that assessment, in accordance with the procedures described in the *BRC Quality Assurance Project Plan* (QAPP; BRC and ERM 2008). Only those data determined as a result to be suitable for use will be included in the closure data pool. Furthermore, the adequacy of the data pool will be evaluated following the procedures provided in Section 9.3 of the Closure Plan. If found to be inadequate, additional sampling and analysis may be performed.

Stated another way, the decision is to determine whether or not excavation of impacted soils and their disposal outside the Site results in acceptable human health risks and risks to the environment for future land uses. This will be determined through human health risk assessment for future on-site receptors. Potential alternative actions that may be taken include: (a) No Action (in this context No Action means no additional action beyond removal of contaminated soils presently located on Site), (b) institutional controls/limited action, (c) importation and use of clean fill, and (d) excavation of soils and on-site landfill disposal at the project Corrective Action Management Unit (CAMU). How the study decisions will be made for the Site, including how the risk assessment will be performed, are presented in the Closure Plan.

3.3 IDENTIFY INFORMATION INPUTS (STEP 3)

The purpose of this step is to identify the information needed to resolve the PSQs identified in Step 2. The data inputs for the primary PSQ are listed below. As previously discussed, risk assessment will be the primary means of answering the PSQs as discussed in the Closure Plan, and will incorporate the various data inputs listed, as discussed in the Closure Plan. These data inputs either 1) are already established (as presented in the Closure Plan), 2) will be obtained

[3] Data collected prior to SAP approval, including data collected after IRM implementation and expected to be representative of current Site conditions will not be included in the risk assessment; however, a data usability evaluation will be conducted to determine whether any of the historical data can be used in the risk assessment or it will be explained why the new data supplants the old data. These historical data may be used to help develop the CSM for both this Site and the overall Eastside.

during the ~~post-baseline remediation~~ soil and soil vapor flux sampling program – that is, this SAP (Section 5), or 3) currently exist as data gaps (see Section 1) that will be resolved prior to performing risk assessment. A comprehensive list of the necessary data inputs for addressing the primary PSQ is provided below.

- Input parameters for human health risk assessment and assessment of impacts to groundwater considering relevant exposure pathways associated with potential future land uses (see Closure Plan).
- Toxicity inputs parameters consistent with USEPA hierarchy guidance (see Closure Plan).
- Input parameters for all fate and transport models (see Closure Plan and data to be collected as determined by this SAP).
- Site soil and soil vapor flux characterization data (to be collected as determined by this SAP in accordance with the most recent NDEP-approved version of Standard Operating Procedure [SOP]-16) in case Site materials are used in other portions of the Site as fill materials.
- Identified locations/depth intervals where contaminant concentrations could affect future land users.
- Characterization data for imported fill if such fill is considered for use at the Site. At this point, it is not expected that imported fill materials will be used on Site.
- To address the secondary PSQs, soil data from depths greater than 10 feet bgs, and groundwater data will be used to address issues related to further understanding of vadose zone and groundwater contamination beneath the site.

3.4 DEFINE THE BOUNDARIES OF THE STUDY (STEP 4)

The purpose of this step is to define the aspects of the project that affect the decision making process, including:

- The populations to be sampled;
- The geographical area applicable for decision making;
- The temporal boundary for decision making;

- Any practical constraints that may interfere with data collection; and
- The scale for decision-making purposes.

Each of these portions of this step is presented below.

3.4.1 Sample Populations

Based on the primary PSQ and the necessary information listed in Step 3, there are several target populations to be sampled for this project, including surface soils (*i.e.*, less than 10 feet bgs), subsurface soils (*i.e.*, greater than 10 feet bgs), groundwater, and soil vapor flux. These populations were segregated based on their differences in media type and pathways for potential human residential exposure following redevelopment. For this project, samples will be collected to assess chemical concentrations and/or human health risks associated with each of these populations, and for cumulative risk across these media types and pathways. Ultimately, these chemical concentrations and risk-based levels will be compared to project cleanup goals that are consistent with regulatory-defined acceptable concentrations and/or risk levels appropriate for the planned redevelopment of the Site and will ensure protection of human health and the environment.

3.4.2 Spatial Boundaries

The spatial boundaries of interest for the risk assessment are the spatial extent of the Site boundary to a depth of 10 feet bgs or deeper if construction activities are below this level. However, impacts to receptors exposed to these soils can also occur from vapor intrusion from the deeper vadose zone and groundwater. Consequently, the vertical extent of the site that encompasses vadose zone and groundwater is of interest. Based on expected land use, construction activities are not expected to occur at depths greater than 10 feet bgs. It should be noted that there could be more than one set of surface spatial boundaries ultimately identified. For example, data may need to be grouped for areas within the Site in order to appropriately address the decision units (*e.g.*, exposure areas). Also, data may ultimately be grouped by soil depth to appropriately address different soil exposure points. These spatial boundaries might be important if residual contamination varies across the site either in the surface soils or by depth.

3.4.3 Temporal Boundaries

The temporal boundaries of interest for this project are defined by the timeframe associated with decision making for each spatially distinct region of interest. Specifically, for each different land-use scenario, within each decision or exposure unit, both current and potential future risk needs to be considered and quantified.

Surface Soil

Because sub-areas within the Eastside are adjacent to each other, to assess or avoid potential impacts from other sub-area sources, risk assessment could be performed across sub-area boundaries, and/or adjacent sub-areas will be remediated in the same general time frame. To some extent this will depend on the spatial homogeneity of concentrations once remediation has been performed. It is likely that some remediation may be warranted for portions of the adjacent Beta Ditch; future remediation at adjacent sub-areas will involve dust suppression activities. Therefore, risk assessment or additional remediation across sub-areas should not be necessary to assess or avoid potential impacts due to cross-contamination.

Subsurface Soil and Groundwater

As noted, BRC does not expect that subsurface soils (generally greater than 10 feet bgs) will be at issue from a human exposure standpoint. However, subsurface soils will be sampled in order to determine potential impacts to groundwater in accordance with the secondary PSQ relating to the deeper vadose zone and groundwater in the context of the entire Site. These subsurface soil data will be used to evaluate both current (post-remediation, pre-development) and future (post-development) impacts to groundwater. Data to support the evaluation of potential impacts to groundwater will be collected. These data will be collected to support the migration to groundwater calculations included in the Closure Plan, as well as more refined modeling tools (such as, VLEACH, SESOIL, and PESTAN). Any indirect impacts from underlying groundwater will be addressed via the proposed surface flux measurements.

Soil Vapor Flux

The soil vapor flux concentrations used in the risk assessment will be derived from ~~post-baseline remediation (*i.e.*, current) soil conditions and~~ existing soil and groundwater conditions (that is, this SAP). BRC assumes that these will reflect the maximum concentration ranges for the project lifetime, and those data will be relied upon throughout the redevelopment process and in assessing risks under current and future land use scenarios. Given the soil and groundwater data

for the area (see Section 2 and Appendix B) this assumption is considered appropriate. The timeframe for data collection, assessment, and decision-making will be from one to three months for surface soils. These soil vapor flux data will be used to evaluate both current (post-remediation, pre-development) and future (post-development) exposures and risks.

3.4.4 Practical Constraints for Data Collection

Since the Site is currently unoccupied, there are no access constraints for collecting soil or soil vapor flux samples from BRC's property. Due to the large area of the Site, the primary constraint will be the cost to collect a representative, statistically sufficient number of soil and soil vapor flux samples to assess chemical concentrations against the project-specific risk-based cleanup goals. This constraint is not expected to be such that data quantity and quality will be insufficient.

Following redevelopment, access constraints may be an issue pertaining to sample collection at the Site. No surface soil, subsurface soil, or soil vapor flux sampling is anticipated to be required following redevelopment; therefore, no constraints are anticipated. For ground water, additional and/or routine sampling activities (such as ground water sampling from monitoring wells) may be required following redevelopment. However, these constraints will be dealt with at a later time.

3.4.5 Scale of Decision-Making

The scale for decision-making varies based on the target sample population of interest, as described below.

Surface Soil

Redevelopment of the Site following remediation includes significant changes in land uses, including residential housing. However, the final redevelopment plans for the Site have not been completed and may change depending upon the results of post-remediation sampling. To facilitate the redevelopment of the Site with the fewest practical constraints due to residual contamination, the nominal scale for decision-making for the proposed residential exposure scenario will be consistent with a typical residential lot size, which is 1/8th acre. However, if, as expected, the concentration distribution across the site is statistically homogeneous representing a single population of concentrations for each chemical, then the decision unit will be the entire site. Smaller decision units will only be defined if the spatial distribution of concentrations

suggests the need to break the site into smaller areas for risk-based decision making. Post-remediation data will be used in a risk assessment to determine if further remediation is needed. This will allow for maximum flexibility in the redevelopment of the Site, without concern for residual concentrations to pose a threat to human health and the environment. This issue of correlated versus uncorrelated data for the Site and how it apples to the decision-making is discussed in the *Statistical Methodology Report* (NewFields 2006). The same approach will be used for soil vapor flux, subsurface soils and groundwater as they feed into the human health risk assessment.

3.5 DEVELOP THE ANALYTICAL APPROACH (STEP 5)

The purpose of this step is to define the population parameter (mean, median, etc.) of interest for each population (surface soil, etc.), identify the appropriate action level (target concentration or risk level) for each population, and select measurement and analysis methods that can be used to properly evaluate the parameters against the action levels (*i.e.*, ensure detection limits do not exceed action levels, etc.). Once these actions are completed, decision rules (if-then statements) are developed for each population that state the alternative actions that would be taken depending upon the true value of the parameter relative to the specified action levels.

The PSQ-specific decision rules for the Site are presented below.

- If, after baseline remediation per Alternative (d) in Section 3.2 (*i.e.*, removal of known or suspected contaminated sediments – already completed at the Site), confirmation sampling conducted per the Closure Plan and this SAP, and subsequent risk assessment following procedures per the Closure Plan, it is deemed that the risk goals for the project (as discussed in Section 1 of the Closure Plan) are not met, then additional remediation per Alternative (d) in Section 3.2 will be conducted to satisfy the risk goals. The risk assessment methodology for the project is presented in Section 9 of the Closure Plan.

- If, after implementation of the Decision Rule above it is determined that there are specific locations in the Site for which additional and continued remediation will not be practical or effective, then other alternatives such as (b) and (c) will be evaluated considering overall protection, effectiveness, permanence, implementability, cost, regulatory acceptance, and community acceptance.

- If, after implementation of the Decision rule above it is determined that no further action needs to be taken in the top 10 feet of soils, a proposal for NFAD will be made. This proposal will be made only after consultation with NDEP.

Data for the secondary PSQs (deeper soils and groundwater) will be evaluated for obvious issues that might require immediate action, and will be included in analysis of objectives related to the groundwater program for the entire site.

4.0 SCOPE OF WORK

Other than the removal of debris found on the Site, no additional remediation is proposed prior to sampling. Decisions for additional excavation will be based on the initial data to be collected based on this SAP as discussed in this section.

The risks posed to human health and the environment by chemicals remaining in Site soils will be assessed in accordance with the Risk Assessment Methodology provided in the Closure Plan. If this assessment indicates that risk-based cleanup goals established for the Site have not been met~~achieved by the IRM or baseline remediation~~, additional phases of remediation, sampling/analysis and assessment will be performed as discussed in the CAP and the Closure Plan. Development may only proceed after attainment of acceptable risk levels under the future planned land uses – *i.e.*, after obtaining the NFAD from the NDEP.

The following is the proposed scope of work for investigating the Site and meeting the SAP objectives. Much of the discussion below regarding confirmation soil sampling is taken from the *Statistical Methodology Report* (NewFields 2006).

4.1 INITIAL CONFIRMATION SOIL SAMPLING

As per the *Statistical Methodology Report*, the initial confirmation sampling in the Site will be conducted on the basis of combined random and biased (judgmental) sampling, as follows:

- **Stratified Random Locations:** For this purpose, the Site is covered by a 3-acre cell grid network. Within each 3-acre cell, a sampling location is randomly selected. Sampling locations are randomly selected within both full and partial grid cells if they are greater than 50 percent of the total grid cell area (based on the project-wide grid cell network and the Site boundaries; those partial grid cells that contain less than 50 percent of their area within the Site will be included in the adjacent sub-area SAPs). The main objective of this stratified random sampling is to provide uniform coverage of the Site.

- **Biased Locations:** Additional sampling locations are selected within or near small-scale contamination points of interests, including but not limited to previous debris locations, and waste disposal features. For this purpose, the randomly selected location within a corresponding 3-acre cell may also be adjusted in order to cover a nearby point of interest.

A reconnaissance of the Site was performed in July 2008 to check the Site for environmentally significant features such as debris piles or stained soil. Results of this site reconnaissance are

shown in Table 3. Certain biased sampling locations for the Site were based on the outcome of this reconnaissance, and select random sampling locations were shifted slightly to address observed debris areas. In addition, two minor stained soil areas were observed. Three biased sampling locations were located based on observed debris piles/soil staining, and five random sampling locations were shifted slightly to be positioned within observed debris piles/soil staining. For this Site, 15~~14~~ biased sampling locations were selected; these locations are 1) along the Beta Ditch, 2) within the eastern RIBs area in non-RIB locations that showed historical evidence of use in aerial photographs, within the footprint of the former transfer station and wastewater treatment plant, and 4~~3~~) in areas of debris or stained soils. All debris and stained soil will be removed prior to sampling at the Site. In all, the proposed sampling locations address each of the current land uses as follows:

Land Use	Number of Samples
Former RIBs	14
RIB Berm	15
Structures (*e.g.*, former Transfer Station)	14
Ditches (adjacent)	5
Other/Unused Land	15

Figure 9 and accompanying Table 4 show the random and biased discrete sampling locations that are proposed to be collected within the Site.

At each selected location, multi-depth soil samples will be collected and analyzed for the SRC list as follows. Proposed sample depths are 0 (surface) and 10 ft bgs at each sampling location. In addition, sample locations with grading greater than two ft bgs will also be sampled at the anticipated post-grading soil surface. Additionally, at three sample locations, two within the former RIBs and one outside the RIBs at the western end of the Site, soil physical parameter data will be collected at 20 feet and every subsequent 10 feet within unsaturated soils above the capillary fringe until groundwater is reached or 50 feet deep, whichever is shallower.

Samples will be collected at:

1. Existing surface (0' bgs) and 10 ft bgs for sample locations in relatively flat (un-graded) locations;

2. Existing surface (0' bgs), post-grading surface, and post-grade 10' bgs for sample locations with substantial grading (that is, cut depths greater than two feet[4]) and the uppermost sampled soil is expected to be used as surface fill;

3. Existing surface (0' bgs) and 10' bgs for sample locations with minimal grading (that is, cut depths less than two feet) and the uppermost sampled soil is expected to be used as surface fill; and

4. Existing surface (0' bgs) and 10' bgs for sample locations in an area expected to be covered by fill material.

The analytical sample results will then be divided into surface (0-2' depth), subsurface (2'-10' depth), and deep (>10' depth) layers, according to the following rules:

- **Rule 1: IF** the sample is collected in a relatively flat (un-graded) part of the Site (*i.e.*, an area not targeted for substantial grading), **THEN** the depth of the collected soil sample will be used to designate its soil layer grouping.

- **Rule 2: IF** the sample is collected in a part of the Site targeted for substantial grading, **AND** the sampled soil is located in an area expected to be covered by fill material (*e.g.*, exposed excavated surfaces of ponds), **THEN** the current surface soil sample will be classified as a surface (0-2' depth) sample, and the soil layer grouping of the remaining deeper sampled soil will be determined based on the difference between its elevation and the final (post-graded) surface elevation in that part of the Site.

- **Rule 3: IF** the sample is collected in a part of the Site targeted for substantial grading, **AND** the sampled soil is expected to be used as surface fill (*e.g.*, soil within a berm) **AND** the cut depth is expected to be greater than two feet, **THEN** the current surface soil sample will be classified as a fill material sample, a final (post-graded) surface sample will be classified as a surface (0-2' depth) sample, and the soil layer grouping of the remaining deeper sampled soil will be determined based on the difference between its elevation and the final (post-graded) surface elevation in that part of the Site.

[4] Because sample collection will be over a two to three foot depth interval, sample locations with an anticipated cut depth less than three feet will only be sampled at the surface and one post-grade subsurface depth.

- **Rule 4: IF** the sample is collected in a part of the Site targeted for substantial grading, **AND** the sampled soil is expected to be used as surface fill (*e.g.*, soil within a berm) **AND** the cut depth is expected to be less than two feet, **THEN** the current surface soil sample will be classified as both a fill material sample and as a surface (0-2' depth) sample, and the soil layer grouping of the remaining deeper sampled soil will be determined based on the difference between its elevation and the final (post-graded) surface elevation in that part of the Site.

A schematic example of these rules is shown on Figure 10. The current site grading plan is shown on Figure 4. It should be noted that this is the most current plan available, but not necessarily the final grading plan. The sample-specific collection depths are presented in Table 4.

All soil samples will be tagged in the database with numeric designations of their corresponding assigned soil layer grouping based on these rules. Initially, 150~~148~~ soil samples will be collected from 63~~62~~ soil boring locations (not including deep samples to be collected for soil physical parameter data). This includes 48 random and 15~~14~~ biased sample locations; with the following number of~~50 fill material, 86 surface, and 62 subsurface soil~~ samples representing~~. BRC will ensure that enough samples are collected from~~ each post-grade type of soil: ~~to be representative (*e.g.*, fill material, surface soil, and subsurface soil) of that material for data adequacy.~~

Post-Grade Sample Type	Number of Samples[5]
Fill material	51
Surface soil	63
Subsurface soil	63

It should be noted that, as discussed with NDEP, once a particular sub-area receives an NFAD from the NDEP, the cut material that is slated to be used as fill material elsewhere would not require additional testing. However, the chemical data for this fill material may be useful for evaluating sub-areas to receive fill (for example, if there is deeper contamination).

[5] Note that in some cases a soil sample may be considered both a fill sample and a surface sample (as indicated in Table 4). Therefore, the sum of the number of samples indicated for each post-grade sample type does not necessarily equal the total number of samples collected.

4.2 INTERMEDIATE SAMPLING AND CLEANUP

Upon layer-designation of confirmation soil samples, a series of tests will be conducted to determine whether sampled locations within a given layer include "exceeding" samples. An exceeding sample is one that warrants further investigation, which may include additional localized soil removal. Exceeding samples will be defined consistent with the following rules:

- **Chemicals without background concentrations:** For chemicals without corresponding background distributions, the distribution of its reported concentrations in each layer will be constructed. The 95 percent UCL of these distributions will also be computed. **IF** the constructed distribution indicates the presence of anomalous concentrations (*e.g.*, high values at the end of an elongated tail of a uni-modal distribution, or values forming an elevated sub-population of a multi-modal distribution), **AND** the inclusion of these anomalous values causes the computed UCL to exceed 1/10 of the risk-based screening level of the chemical, **THEN** samples associated with anomalous values will be considered as potential exceeding samples. **IF** the constructed distribution indicates no presence of anomalous concentrations and the computed UCL exceeds 1/10 of the risk-based screening level of the chemical, **THEN** all samples associated with the layer will be considered as potential exceeding samples.

- **Chemicals with background concentrations:** For chemicals with corresponding background distributions, the distribution of its reported concentrations in each layer will be constructed. These concentration distributions will then be statistically compared to the background concentration distributions. Appropriate two-sample tests, including Quantile test, Slippage test, *t*-Test and the Wilcoxon rank sum test with Gehan modification, will be used to identify exceeding samples through comparison of Site and background distributions. **IF** inclusion of elevated measured values in a given layer causes the rejection of the appropriate two-sample test, **THEN** samples associated with such elevated values will be considered as potential exceeding samples.

Areas with potential exceeding samples may be subjected to re-sampling prior to the confirmation of the location as an exceeding sample. After any such re-sampling, the above process will be repeated to confirm the exceeding status of the targeted sample location. It should be noted that if the data indicate a more widespread or Site-wide contamination, then it might be important to look at the effect on a sub-area basis rather than a sample basis. That is, additional alternatives, such as, changing the future land use, further division into smaller sub-areas, or more extensive remediation, would need to be considered and evaluated.

Upon confirmation of an exceeding sample, additional neighboring delineation sampling will be conducted based on a "step-out" approach. Step sizes and directions will be dependent on the location of the exceeding sample and perhaps the magnitude of the exceedance. Additional biased step-out or step-in sampling may be conducted to further refine the extent of the required removal. Each removal will be followed by confirmatory sampling. More detail on this approach is provided in the *Statistical Methodology Report* (NewFields 2006).

After the above intermediate removals, results associated with removed exceeding samples will be marked as excluded from the dataset, while non-exceeding delineation and confirmation data will be included in the dataset. The revised dataset will then be subjected to the above exceeding sample determination process, which will be repeated until all exceeding samples are adequately addressed.

4.3 FINAL CONFIRMATION DATASET

At this stage, the final confirmation soil dataset for the Site, consisting of: 1) the original non-exceeding confirmation data collected in accordance with this SAP[6] for the Site; 2) the non-exceeding data generated after intermediate sampling and cleanup, and 3) additional biased and random samples collected for confirmation, will be subjected to a series of statistical analyses in order to determine representative exposure concentrations for that sub-area, as described in the *Statistical Methodology Report*.

4.4 SOIL VAPOR FLUX SAMPLING

Concurrent with the confirmation soil sampling, BRC will implement soil vapor flux sampling across the Site. This SAP refers to and relies on the most recent NDEP-approved version of SOP-16 for technical description of sampling and analytical methodology, QA/QC protocols, and project procedural description. The sampling procedure for the effort includes the USEPA surface emission isolation flux chamber (flux chamber) and static chamber sampling to perform an air pathway analysis (APA) for the Site. A description of the history, background, and operation of the USEPA-recommended flux chamber and radon flux approach is provided in SOP-16.

[6] As distinguished from the historical "confirmation" sampling data collected as part of or immediately after the IRM, which will not be included in the risk assessment dataset.

The flux chamber sample collection rationale is based on the project goal of obtaining a representative dataset of air emissions per sub-area. Flux chamber samples will be collected from each of the 3-acre grid cells, resulting in 48~~20~~ random sampling locations, indicated in Figure 9, providing ~~to provide~~ full spatial coverage of the Site. All of the flux chamber samples will be tested for both VOC flux and radon flux, and this density of sample collection should be adequate for sub-area characterization given: the random nature of the sample locations, the size of the sub-area, and the number of sample locations suggested by the USEPA (1986) in the flux chamber User's Guide for assessing zones of homogeneous site properties. A higher density of sample collection for VOCs is not warranted given the general lack of VOC detections in soils and groundwater.

~~In subsequent SAPs, where sub-areas generate fewer that six sample locations, a minimum of six biased and/or random sample locations will be tested per sub-area. Note that if the data suggest additional data needs, follow-up testing will be conducted as agreed upon by all parties.~~

4.5 CHEMICALS SELECTED FOR ANALYSIS

The proposed analyte list for soil samples is comprised of the BRC project SRC list, as presented in the Closure Plan[7] and Table 5, with the following exceptions for this Site:

- Asbestos and dioxins/furans will only be analyzed for in surface soil samples;
- USEPA Method 8141A for organophosphorous pesticides will not be conducted. There have been only 47 detections of these compounds in over 10,000 soil sample records (<0.5 percent) from throughout the Eastside, and no detections in 57 soil sample records within the Site. The few detections are well below USEPA Region 6 residential soil MSSLs;
- USEPA Method 8151A for chlorinated herbicides will not be conducted. There have been no detections of these compounds in over 1,400 soil sample records from throughout the Eastside, including 20 records associated with this Site. Detection limits are below USEPA Region 6 residential soil MSSLs;
- HPLC Method for organic acids will not be conducted. There have been only three detections of these compounds in 567 soil sample records (<0.5 percent) from throughout the Eastside, including 10 records associated with this Site (0 detections). Detection limits are below USEPA Region 6 residential soil MSSLs;

[7] Specific analytes and analyte-specific reporting limits for each analysis are listed in Table 4 of the QAPP.

- USEPA Method 8015B for nonhalogenated organics will not be conducted. There have been only five detections of these compounds in 420 soil sample records (one percent) from throughout the Eastside including 8 records associated with this Site (0 detections). Detection limits and the few detections have been well below USEPA Region 6 residential soil MSSLs;

- USEPA Method 8015 for total petroleum hydrocarbons (TPH) will not be conducted. There have been only three detections of these compounds in over 299 soil sample records (one percent) from throughout the Eastside. The few detections have been below 100 mg/kg, which is the typical low-end aesthetic threshold used for these compounds. TPH will be included in the analyte list for surface soil samples at three biased locations with stained soil. While TPH is not proposed for analysis at all other sample locations, its components are via other methods. In addition, TPH cannot be included in a risk assessment while its components can; and

- Consistent with the current project analyte list, the following radionuclides will be analyzed for: radium-226, radium-228, thorium-228, thorium-230, thorium-232, uranium-233/234, uranium-235/236, and uranium-238. Activities for other radionuclides on the SRC list will be back-quantitated.

The analyte list, as proposed in this SAP for the Site, consists of 319 of the 418 compounds (including water only parameters) on the project SRC list as well as physical parameters (Section 5.2.3) to support the evaluation of potential impacts to groundwater from migration of chemicals from soil. The analytical and preparatory methods used in accordance with this SAP adhere to the most recent version of the QAPP (BRC and ERM 2008), which has been revised to ensure appropriate comparisons to the background dataset. The proposed analyte list for soil vapor flux samples is comprised of the list provided in the most recent NDEP-approved version of SOP-16 (see the *BRC Field Sampling and Standard Operating Procedures* [FSSOP]; BRC, ERM and MWH 2007), including radon. This analyte list is provided in Table 6.

5.0 FIELD AND LABORATORY METHODS

5.1 FIELD METHODS

All Site work will be performed under the responsible control and direction of a Nevada State Certified Environmental Manager. All sampling and sample handling procedures will be consistent with the NDEP-approved BRC FSSOP BRC, ERM and MWH 2007). In accordance with applicable federal regulation (29 CFR 1910.120) all field activities will be performed in compliance with the *BRC Health and Safety Plan* (BRC and MWH 2005).

Pre-field and field activities will be conducted in accordance with the most recent NDEP-approved versions of applicable SOPs (BRC, ERM and MWH 2007). These SOPs include SOP-1 (Drilling Methods), SOP-6 (Sample Management and Shipping), SOP-7 (Soil Sampling), SOP-10 (Surveying), SOP-12 (Asbestos Soil Sampling), SOP-13 (Field Equipment Calibration Procedures), SOP-14 (Field Documentation), SOP-15 (Field Logbook), SOP-16 (Flux Chamber Source Testing), SOP-17, (Soil Logging), SOP-23 (Split Spoon Sampling), SOP-26 (Soil Grab Sampling), and SOP-39 (Photoionization Detector Screening).

The BRC QAPP (BRC and ERM 2008) and Health and Safety Plan (BRC and MWH 2005) prepared for the BMI Common Areas will be used for this proposed scope of work. The selected driller will notify the Underground Services Alert one-call notification system at least 48 hours before implementing any subsurface activities. BRC will also notify the NDEP at least one week prior to commencing field activities. Once the data are collected, BRC will subject the data to validation per procedures agreed to previously with the NDEP and consistent with the BRC QAPP (BRC and ERM 2008) and SOP-40.

Soil cuttings generated during soil sampling and Hollow Stem Auger (HSA) drilling activities will be collected and stored with the other remediation waste and sent to the CAMU.

5.2 LABORATORY METHODS

Samples submitted for laboratory analysis will be analyzed in accordance with approved methodologies by a State of Nevada-certified analytical laboratory. Samples not specified for analysis will be placed on hold pending the results of the initial analysis.

5.2.1 Soil Chemical Analyses

BRC's complete SRC list as approved by the NDEP is presented in Table 4 of the QAPP. Table 5 of this SAP identifies the complete list of analytes proposed for analysis of soil samples along with the appropriate analytical methods. An explanation for the exclusion of a chemical for analysis is provided in Table 5 of this SAP.

5.2.2 Soil Vapor Flux Analyses

As indicated in Table 6, all flux chamber samples will be analyzed by USEPA Method TO-15 full scan, and selective ion mode analyses on a sub-set of VOCs to achieve the lowest attainable method detection limits for the target list of study compounds (see most recent version of SOP-16). All samples will be analyzed for the target list with optimum method detection limits (MDLs) so that these data can be used to satisfy the sensitivity requirements of the human health risk assessment.

5.2.3 Soil Physical Parameters

In addition to chemical data, to support the evaluation the potential impacts to groundwater, soil physical properties will also be measured. These parameters will be collected to support the migration to groundwater calculations included in the Closure Plan, consistent with the USEPA Soil Screening Guidance (1996; 2000; 2002), as well as more refined modeling tools (such as, VLEACH, SESOIL, and PESTAN). Site-specific soil physical parameters to be measured include pH (USEPA Method 9045C), cation exchange capacity, dry bulk density, Soil permeability/saturated hydraulic conductivity, specific gravity, total porosity, volumetric water content, grain size analysis by sieve and hydrometer, and fractional organic carbon content (see Table 5). These soil physical parameters will be measured from each of the subsurface samples collected from the three deep sample locations at the Site (see Figure 9). This will ensure that soil physical parameters will be measured at various depths from across the Site so that all sample depths are represented. In addition, samples will be collected from two subsurface sample locations (see Figure 9 and Table 5) for conducting the synthetic precipitation leaching procedure (SPLP; USEPA Method 1312) with the extract analyzed for metals, organochlorine pesticides, SVOCs~~semi-volatile organic compounds~~, radium-226, radium-228, and perchlorate. These analytes are considered those of greatest concern for potential migration and impacts to groundwater.

6.0 REPORTING AND SCHEDULING

After approval of the SAP by NDEP, BRC is prepared to promptly initiate field activities. BRC will be directly in charge of sampling with oversight conducted by NDEP. As discussed in Section 3.4.3 sampling activities are anticipated to be completed over a one to three month period, and laboratory analyses to be completed within a five to six-week period following field work completion. Once the data are collected, BRC will subject the data to validation per procedures agreed to previously with the NDEP and consistent with the BRC QAPP (BRC and ERM 2008) and SOP-40 (BRC, ERM and MWH 2007). Only those data determined by the QA/QC review to be suitable for use will be considered for the site data set. A separate Data Validation Summary Report will be prepared and submitted to NDEP.

Upon receipt of laboratory analytical results and following data validation, a risk assessment will be conducted by BRC (in consultation with NDEP) to evaluate the risks posed to human health and the environment by chemicals remaining in Site soils ~~following baseline remediation~~. The risk assessment will be conducted in accordance with the Risk Assessment Methodology provided in the Closure Plan. As stated in the Closure Plan:

> …risk assessment will not be initiated unless proper data sufficiency, representativeness, and adequacy analysis is first achieved. If necessary, additional data will be gathered or analyzed to meet the goals of data quality required for risk assessment. The risk assessment will, in turn, help to assure that these data characteristics are properly evaluated. Once risk assessment is completed, the assessment will be made as to whether the remediation conducted meets cleanup goals. If cleanup goals are not achieved, additional remediation, associated confirmation sampling, and assessment cycles will be conducted until a decision end point is reached – namely that the cleanup goals are either met (and the NFAD is issued or Site Closure is achieved, as the case may be) or proven infeasible because it is technically impractical or too costly, in which case changes in land use or institutional controls may be considered.

BRC will perform risk assessment calculations to justify additional remediation or sampling; however, these interim risk assessments will not be submitted to the NDEP. It is expected that the interim decisions (to support additional sampling or remediation) will be discussed with the NDEP on an informal but regular basis. Any additional sampling and remediation will be addressed as an addendum to this SAP.

The risk assessment report will be an inclusive report that will also contain the following items:

- A summary of the sampling procedures conducted;
- Sampling location map;
- Soil boring logs;
- An evaluation and summary of the collected data;
- Tables(s) summarizing soil results; and
- If appropriate, plan view maps indicating the locations of detected constituents in soil.

As noted above, completion of the risk assessment will be an iterative process. Once the risk assessment passes internal BRC review, with NDEP consultation, and meets the risk goals stated in the Closure Plan, the risk assessment report will be submitted to the NDEP, along with an NFAD request for the Site, in accordance with AOC3. That is, the risk assessment report will be prepared and submitted to the NDEP only when BRC is comfortable that acceptable human health risks have been attained.

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APPENDIX B

ALL HISTORICAL SAMPLING RESULTS COLLECTED FROM THE SOUTHERN RIBS SUB-AREA

TABLE B-1
SOIL METALS DATA
SOUTHERN RIBS SUB-AREA
(Page 1 of 4)

Sample ID	Depth (ft bgs)	Sample Date	Metals									
			Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium (Total)	Chromium (VI)
CPS-1	0	12/21/2000	7600	< 0.51 U	2.5	190	0.46	--	< 0.51 U	--	9.8	< 0.41 U
CPS-2	0	12/21/2000	8500	< 0.51 U	3.2	200	0.48	--	< 0.51 U	--	12	< 0.41 UJ-
CPS-3	0	12/21/2000	8400	2.3	9.4	380	0.57	--	< 0.52 U	--	22	< 0.42 UJ-
CPS-4	0	12/21/2000	9000	< 0.52 U	3.2	220	0.49	--	< 0.52 U	--	13	< 0.42 UJ-
CPS-5	0	1/5/2001	9900	< 0.51 U	3.4	210	0.51	--	< 0.51 U	--	13	< 0.41 U
CPS-6	0	12/21/2000	9000	< 0.52 U	3.6	240	0.48	--	< 0.52 U	--	13	< 0.42 UJ-
CPS-8	0	1/5/2001	10000	< 0.53 U	2.5	230	0.51	--	< 0.53 U	--	11	< 0.42 U
CPS-9	0	1/5/2001	10000	< 0.55 U	2.5	210	0.52	--	< 0.55 U	--	13	< 0.43 U
CPS-A1	0	12/12/2000	--	--	32	850	--	--	--	--	100	--
CPS-A3	0	12/12/2000	--	--	94	2200	--	--	--	--	310	--
CPS-B1	0	12/12/2000	--	--	460	2800	--	--	--	--	650	--
CPS-B3	0	12/12/2000	--	--	220	4200	--	--	--	--	280	--
SB-01-B	0	5/10/2004	12400	0.53 J	3.3	263	0.87	4.6 J	< 2.6 U	20000	17.7	< 0.41 U
SB-01-B	7	5/10/2004	11100	0.53 J	3.7	186	0.82	6.9	< 2.5 U	32100	17.8	< 0.4 U
SB-01-B	17	5/10/2004	11400	0.48 J	4.6	226	0.89	13.2	< 2.6 U	30600	18.9	< 0.42 U
SB-01-B	27	5/10/2004	12200	0.5 J	4.5	204	0.86	6.2	< 2.6 U	22600	23.2	< 0.42 U
SB-01-B	47	5/10/2004	8730	0.37 J	5.3	149	0.71	6.3	< 2.8 U	22900	14.4	< 0.44 U
SB-01-B	77	5/11/2004	11800	< 1.2 U	9.9	165	0.82	10.9	< 3.1 U	27900	19.2	< 0.49 U
SB-01-B	93	5/11/2004	16900	0.55 J	27.4	71.8	1.1	24.4	< 0.77 U	26500	26.8	< 0.61 U
SRB-1	0	5/25/2001	17000 J	< 0.682 U	4.1	360 J	1 J	--	< 0.682 U	--	35 J	< 0.56 U
SRB-1	10	5/25/2001	15000 J	< 0.723 U	4.1	390 J	0.98 J	--	< 0.723 U	--	23 J	< 0.58 U
SRB-1	20	5/25/2001	17000 J	< 0.722 U	4.5	450 J	1.1 J	--	< 0.722 U	--	37 J	< 0.576 U
SRB-1	30	5/25/2001	18000 J	< 0.697 U	4.4	320	0.65 J	--	< 0.697 U	--	20	< 0.556 U
SRB-1	40	5/25/2001	13000 J	< 0.717 U	8.5	340	0.52 J	--	< 0.717 U	--	18	< 0.572 U
SRB-1	50	5/25/2001	18000 J	< 1.01 U	14	480	0.68 J	--	< 1.01 U	--	24	< 0.804 U
SRB-1	60	5/25/2001	22000 J	< 0.693 U	18	140	0.74 J	--	< 0.693 U	--	50	< 0.552 U
SRB-2	0	5/25/2001	18000 J	< 0.652 U	2.4	320	0.64 J	--	< 0.652 U	--	27	< 0.52 U
SRB-2	10	5/25/2001	17000 J	< 0.701 U	4.6	0.64	--	--	< 0.701 U	--	24	< 0.56 U
SRB-2	20	5/25/2001	12000 J	< 0.691 U	4.8	290	0.48 J	--	< 0.691 U	--	17	< 0.552 U
SRB-2	30	5/25/2001	18000 J	< 0.699 U	7.3	310	0.68 J	--	< 0.699 U	--	24	< 0.56 U
SRB-2	40	5/25/2001	14000 J	< 6.696 U	9.8	340	0.53 J	--	< 0.696 U	--	23	< 0.556 U
SRB-2	50	5/25/2001	11000 J	< 0.69 U	9.7	400	0.45 J	--	< 0.69 U	--	20	< 0.552 U
SRB-2	60	5/25/2001	22000 J	< 0.925 U	23	320	0.74 J	--	< 0.925 U	--	32	< 0.74 U

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-1
SOIL METALS DATA
SOUTHERN RIBS SUB-AREA
(Page 2 of 4)

Sample ID	Depth (ft bgs)	Sample Date	Metals									
			Cobalt	Copper	Iron	Lead	Lithium	Magnesium	Manganese	Mercury	Molybdenum	Nickel
CPS-1	0	12/21/2000	10	19	14000	10	--	9300	540	< 0.1 U	< 0.51 U	16
CPS-2	0	12/21/2000	10	18	16000	11	--	10000	620	< 0.1 U	< 0.51 U	16
CPS-3	0	12/21/2000	9.5	19	14000	32	--	10000	1200	< 0.1 U	< 0.52 U	15
CPS-4	0	12/21/2000	11	18	16000	14	--	10000	720	< 0.1 U	< 0.52 U	16
CPS-5	0	1/5/2001	11	18	17000	12	--	9800	630	< 0.1 U	< 0.51 U	15
CPS-6	0	12/21/2000	11	18	16000	13	--	9900	710	< 0.1 U	< 0.52 U	16
CPS-8	0	1/5/2001	11	18	17000	8.5	--	10000	500	< 0.1 U	< 0.53 U	16
CPS-9	0	1/5/2001	11	17	17000	11	--	9000	500	< 0.11 U	< 0.55 U	16
CPS-A1	0	12/12/2000	--	--	--	91	--	--	1600	--	--	--
CPS-A3	0	12/12/2000	--	--	--	340	--	--	2200	--	--	--
CPS-B1	0	12/12/2000	--	--	--	3100	--	--	78000	--	--	--
CPS-B3	0	12/12/2000	--	--	--	1300	--	--	27000	--	--	--
SB-01-B	0	5/10/2004	10	40.9	25100	9.1	12	10400	503	< 0.034 U	0.66 J	18
SB-01-B	7	5/10/2004	9.4	44.1	24700	9.3	15.1	10300	409	0.02 J	0.61 J	18.9
SB-01-B	17	5/10/2004	9.5	53.8	23500	9.5	24.3	12700	468	< 0.035 U	1.7	19.3
SB-01-B	27	5/10/2004	10.3	37.7	26600	9.4	16.1	10400	458	< 0.035 U	1.5	20
SB-01-B	47	5/10/2004	7.4	20	19000	8	18.7	8710	355	< 0.037 U	0.81 J	12.9
SB-01-B	77	5/11/2004	7.5	21.8	20600	8.3	31.6	15200	318	< 0.041 U	0.55 J	15.5
SB-01-B	93	5/11/2004	7.3	27.2	16700	10.1	131	52500	379	< 0.051 U	1.2 J	23
SRB-1	0	5/25/2001	34 J	49	37000 J	49 J	--	20000 J	860 J	0.23	1.6 J	58 J
SRB-1	10	5/25/2001	19 J	28	34000 J	34 J	--	17000 J	680 J	< 0.1446 U	< 0.723 UJ	28 J
SRB-1	20	5/25/2001	21 J	27	39000 J	44 J	--	20000 J	710 J	< 0.1444 U	2 J	34 J
SRB-1	30	5/25/2001	14	26	27000	14 J	--	14000	780	< 0.1394 U	0.72	20 J
SRB-1	40	5/25/2001	10	19	19000	12 J	--	11000	530	< 0.1434 U	1.1	15 J
SRB-1	50	5/25/2001	12	27	27000 J+	26 J	--	14000	490	< 0.2012 U	1.5	22 J
SRB-1	60	5/25/2001	8.8	21	20000	12 J	--	49000	430	< 0.1386 U	2.6	19 J
SRB-2	0	5/25/2001	18	35	32000	19 J	--	14000	790	0.16	< 0.652 U	25 J
SRB-2	10	5/25/2001	14	28	29000	17 J	--	13000	590	< 0.1402 U	< 0.701 U	21 J
SRB-2	20	5/25/2001	11	23	22000	14 J	--	11000	580	< 0.1382 U	1.1	18 J
SRB-2	30	5/25/2001	15	29	30000	17 J	--	15000	640	< 0.1398 U	< 0.699 U	22 J
SRB-2	40	5/25/2001	10	21	21000	15 J	--	12000	360	< 0.1392 U	1.4	17 J
SRB-2	50	5/25/2001	11	21	20000	18 J	--	9300	540	< 0.138 U	< 0.69 U	18 J
SRB-2	60	5/25/2001	13	28	26000 J+	16 J	--	46000	450	< 0.125 U	< 0.925 U	24 J

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.
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TABLE B-1
SOIL METALS DATA
SOUTHERN RIBS SUB-AREA
(Page 3 of 4)

Sample ID	Depth (ft bgs)	Sample Date	Metals									
			Niobium	Palladium	Phosphorus (as P)	Platinum	Potassium	Selenium	Silicon	Silver	Sodium	Strontium
CPS-1	0	12/21/2000	--	--	--	--	--	< 5.15 U	--	< 1.03 U	--	--
CPS-2	0	12/21/2000	--	--	--	--	--	< 5.14 U	--	< 1.02 U	--	--
CPS-3	0	12/21/2000	--	--	--	--	--	< 5.25 U	--	< 1.05 U	--	--
CPS-4	0	12/21/2000	--	--	--	--	--	< 5.25 U	--	< 1.05 U	--	--
CPS-5	0	1/5/2001	--	--	--	--	--	< 5.18 U	--	< 1.03 U	--	--
CPS-6	0	12/21/2000	--	--	--	--	--	< 5.27 U	--	< 1.05 U	--	--
CPS-8	0	1/5/2001	--	--	--	--	--	< 5.33 U	--	< 1.06 U	--	--
CPS-9	0	1/5/2001	--	--	--	--	--	< 5.52 U	--	< 1.1 U	--	--
CPS-A1	0	12/12/2000	--	--	--	--	--	--	--	--	--	--
CPS-A3	0	12/12/2000	--	--	--	--	--	--	--	--	--	--
CPS-B1	0	12/12/2000	--	--	--	--	--	--	--	--	--	--
CPS-B3	0	12/12/2000	--	--	--	--	--	--	--	--	--	--
SB-01-B	0	5/10/2004	< 5.1 U	0.76	1790	< 0.1 U	2600	0.32 J	954 J+	0.25	572	345
SB-01-B	7	5/10/2004	< 5.1 U	0.74	1530	< 0.1 U	1990	0.37 J	550 J+	0.21	948	314
SB-01-B	17	5/10/2004	< 5.2 U	0.75	1640	< 0.1 U	2920	0.58	775 J+	0.27	2650	417
SB-01-B	27	5/10/2004	< 5.3 U	0.79	1580	< 0.11 U	1960	0.29	675 J+	0.23	986	314
SB-01-B	47	5/10/2004	< 5.5 U	0.61	1060	< 0.11 U	1540	0.4 J	709 J+	0.2	659	307
SB-01-B	77	5/11/2004	< 6.2 U	0.73	1000	< 0.12 U	2190	0.3	874 J+	0.28	1200	555
SB-01-B	93	5/11/2004	< 7.7 U	0.5 J	691	< 0.15 U	4310	0.52 J	1260 J+	0.29	1010	162
SRB-1	0	5/25/2001	--	--	--	--	--	< 6.82 UJ-	--	< 1.364 UJ-	--	--
SRB-1	10	5/25/2001	--	--	--	--	--	< 7.23 UJ-	--	< 1.446 UJ-	--	--
SRB-1	20	5/25/2001	--	--	--	--	--	< 7.22 UJ-	--	< 1.444 UJ-	--	--
SRB-1	30	5/25/2001	--	--	--	--	--	< 6.97 UJ-	--	< 1.394 UJ-	--	--
SRB-1	40	5/25/2001	--	--	--	--	--	< 7.17 UJ-	--	< 1.434 UJ-	--	--
SRB-1	50	5/25/2001	--	--	--	--	--	< 10.1 UJ-	--	< 2.02 UJ-	--	--
SRB-1	60	5/25/2001	--	--	--	--	--	< 6.93 UJ-	--	< 1.386 UJ-	--	--
SRB-2	0	5/25/2001	--	--	--	--	--	< 6.52 UJ-	--	< 1.304 UJ-	--	--
SRB-2	10	5/25/2001	--	--	--	--	--	< 7.01 UJ-	--	< 1.402 UJ-	--	--
SRB-2	20	5/25/2001	--	--	--	--	--	< 6.91 UJ-	--	< 1.382 UJ-	--	--
SRB-2	30	5/25/2001	--	--	--	--	--	< 6.99 UJ-	--	< 1.398 UJ-	--	--
SRB-2	40	5/25/2001	--	--	--	--	--	< 6.96 UJ-	--	< 1.392 UJ-	--	--
SRB-2	50	5/25/2001	--	--	--	--	--	< 6.9 UJ-	--	< 1.38 UJ-	--	--
SRB-2	60	5/25/2001	--	--	--	--	--	< 9.25 UJ-	--	< 1.85 UJ-	--	--

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
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TABLE B-1
SOIL METALS DATA
SOUTHERN RIBS SUB-AREA
(Page 4 of 4)

Sample ID	Depth (ft bgs)	Sample Date	Metals							
			Thallium	Tin	Titanium	Tungsten	Uranium	Vanadium	Zinc	Zirconium
CPS-1	0	12/21/2000	< 0.51 U	--	220	--	--	33	36	--
CPS-2	0	12/21/2000	< 0.51 U	--	270	--	--	40	40	--
CPS-3	0	12/21/2000	0.83	--	290	--	--	44	51	--
CPS-4	0	12/21/2000	< 0.52 U	--	240	--	--	41	42	--
CPS-5	0	1/5/2001	< 0.51 U	--	840	--	--	45	41	--
CPS-6	0	12/21/2000	< 0.52 U	--	240	--	--	41	41	--
CPS-8	0	1/5/2001	< 0.53 U	--	870	--	--	42	41	--
CPS-9	0	1/5/2001	< 0.55 U	--	860	--	--	37	40	--
CPS-A1	0	12/12/2000	--	--	--	--	--	100	--	--
CPS-A3	0	12/12/2000	--	--	--	--	--	270	--	--
CPS-B1	0	12/12/2000	--	--	--	--	--	940	--	--
CPS-B3	0	12/12/2000	--	--	--	--	--	310	--	--
SB-01-B	0	5/10/2004	< 5.1 U	< 1 U	1360	< 0.51 U	1.1	67.5	65.1	20.6
SB-01-B	7	5/10/2004	1.8 J	< 1 U	1280	< 0.51 U	1.2	66.9	71.6	23
SB-01-B	17	5/10/2004	< 5.2 U	< 1 U	1170	< 0.52 U	1.5	62.5	76.3	27.3
SB-01-B	27	5/10/2004	1.9 J	< 1.1 U	1310	< 0.53 U	1.4	69	70.2	31.3
SB-01-B	47	5/10/2004	< 1.1 U	< 1.1 U	934	< 0.55 U	1.8	51.1	46.1	21.2
SB-01-B	77	5/11/2004	< 6.2 U	< 1.2 U	1190	< 0.62 U	2.6	60.5	47.2	33.1
SB-01-B	93	5/11/2004	< 1.5 U	< 1.5 U	816	< 0.77 U	3.8	37.3	61.3	32.7
SRB-1	0	5/25/2001	< 0.682 U	--	1900	--	--	100 J	130 J	--
SRB-1	10	5/25/2001	< 0.723 U	--	1600	--	--	96 J	66 J	--
SRB-1	20	5/25/2001	< 0.722 U	--	1700	--	--	120 J	72 J	--
SRB-1	30	5/25/2001	< 0.697 U	--	1300	--	--	76	55 J	--
SRB-1	40	5/25/2001	< 0.717 U	--	950	--	--	54	41 J	--
SRB-1	50	5/25/2001	< 1.01 U	--	1100	--	--	71	57 J	--
SRB-1	60	5/25/2001	< 0.693 U	--	750	--	--	45	58 J	--
SRB-2	0	5/25/2001	< 0.652 U	--	1900	--	--	100	80 J	--
SRB-2	10	5/25/2001	< 0.701 U	--	1500	--	--	85	58 J	--
SRB-2	20	5/25/2001	< 0.691 U	--	940	--	--	61	48 J	--
SRB-2	30	5/25/2001	< 0.699 U	--	1500	--	--	94	59 J	--
SRB-2	40	5/25/2001	< 6.696 U	--	1100	--	--	62	43 J	--
SRB-2	50	5/25/2001	< 0.69 U	--	840	--	--	57	43 J	--
SRB-2	60	5/25/2001	< 0.925 U	--	1300	--	--	70	58 J	--

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TABLE B-2
SOIL ORGANOCHLORINE PESTICIDES DATA
SOUTHERN RIBS SUB-AREA
(Page 1 of 2)

Sample ID	Depth (ft bgs)	Sample Date	Organochlorine Pesticides											
			2,4-DDD	2,4-DDE	4,4-DDD	4,4-DDE	4,4-DDT	Aldrin	alpha-BHC	alpha-Chlordane	beta-BHC	Chlordane	delta-BHC	Dieldrin
CPS-1	0	12/21/2000	--	--	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	0.016	< 0.0206 U	< 0.00515 U	< 0.00515 U
CPS-2	0	12/21/2000	--	--	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	0.0058	< 0.0206 U	< 0.00515 U	< 0.00515 U
CPS-3	0	12/21/2000	--	--	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.021 U	< 0.00525 U	< 0.00525 U
CPS-4	0	12/21/2000	--	--	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.021 U	< 0.00525 U	< 0.00525 U
CPS-5	0	1/5/2001	--	--	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.02 UJ-	< 0.005 UJ-	< 0.005 UJ-
CPS-6	0	12/21/2000	--	--	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.021 U	< 0.00525 U	< 0.00525 U
CPS-8	0	1/5/2001	--	--	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.02 UJ-	< 0.005 UJ-	< 0.005 UJ-
CPS-9	0	1/5/2001	--	--	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.02 UJ-	< 0.005 UJ-	< 0.005 UJ-
CPS-A1	0	12/12/2000	--	--	< 0.00525 UJ-	< 0.00525 UJ-	0.0055 J-	< 0.00525 UJ-	< 0.00525 UJ-	< 0.00525 UJ-	< 0.00525 UJ-	< 0.021 UJ-	< 0.00525 UJ-	< 0.00525 UJ-
CPS-A3	0	12/12/2000	--	--	< 0.00525 U	< 0.00525 U	0.0052 J	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.021 U	< 0.00525 U	< 0.00525 U
CPS-B1	0	12/12/2000	--	--	< 0.0054 U	0.11 J+	0.16 J+	< 0.0054 U	< 0.0054 U	< 0.0054 U	0.55 J+	< 0.0216 U	0.045 J+	< 0.0054 U
CPS-B3	0	12/12/2000	--	--	< 0.00525 U	0.055 J+	0.083 J+	< 0.00525 U	< 0.00525 U	< 0.00525 U	0.18 J+	< 0.021 U	0.028 J+	< 0.00525 U
SB-01-B	0	5/10/2004	--	< 0.0017 U	0.0032	0.0021	0.009	< 0.0017 U	0.022	< 0.0017 U	0.03	< 0.017 U	< 0.0017 U	< 0.0017 U
SB-01-B	7	5/10/2004	--	< 0.0017 U	0.0023	0.0024	0.0092	< 0.0017 U	0.013	< 0.0017 U	0.012	< 0.017 U	< 0.0017 U	< 0.0017 U
SB-01-B	17	5/10/2004	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	0.0025	< 0.018 U	< 0.0018 U	< 0.0018 U
SB-01-B	27	5/10/2004	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.018 U	< 0.0018 U	< 0.0018 U
SB-01-B	47	5/10/2004	--	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.019 U	< 0.0019 U	< 0.0019 U
SB-01-B	77	5/11/2004	--	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.021 U	< 0.0021 U	< 0.0021 U
SB-01-B	93	5/11/2004	--	< 0.0026 U	< 0.0026 U	< 0.0026 U	< 0.0026 U	< 0.0026 U	0.0054	< 0.0026 U	< 0.0026 U	< 0.026 U	< 0.0026 U	< 0.0026 U
SRB-1	0	5/25/2001	--	--	0.009	0.12	0.037	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.028 U	< 0.007 U	< 0.007 U
SRB-1	10	5/25/2001	--	--	< 0.00725 U	0.0082	0.018	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.029 U	< 0.00725 U	< 0.00725 U
SRB-1	20	5/25/2001	--	--	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0288 U	< 0.0072 U	< 0.0072 U
SRB-1	30	5/25/2001	--	--	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.0278 U	< 0.00695 U	< 0.00695 U
SRB-1	40	5/25/2001	--	--	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.0286 U	< 0.00715 U	< 0.00715 U
SRB-1	50	5/25/2001	--	--	< 0.01005 U	< 0.01005 U	0.013	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.0402 U	< 0.01005 U	< 0.01005 U
SRB-1	60	5/25/2001	--	--	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0276 U	< 0.0069 U	< 0.0069 U
SRB-2	0	5/25/2001	--	--	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.026 U	< 0.0065 U	< 0.0065 U
SRB-2	10	5/25/2001	--	--	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.028 U	< 0.007 U	< 0.007 U
SRB-2	20	5/25/2001	--	--	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0276 U	< 0.0069 U	< 0.0069 U
SRB-2	30	5/25/2001	--	--	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.028 U	< 0.007 U	< 0.007 U
SRB-2	40	5/25/2001	--	--	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.0278 U	< 0.00695 U	< 0.00695 U
SRB-2	50	5/25/2001	--	--	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0276 U	< 0.0069 U	< 0.0069 U
SRB-2	60	5/25/2001	--	--	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.037 U	< 0.00925 U	< 0.00925 U

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TABLE B-2
SOIL ORGANOCHLORINE PESTICIDES DATA
SOUTHERN RIBS SUB-AREA
(Page 2 of 2)

Sample ID	Depth (ft bgs)	Sample Date	Organochlorine Pesticides											
			Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	gamma-Chlordane	Heptachlor	Heptachlor epoxide	Lindane	Methoxychlor	Toxaphene
CPS-1	0	12/21/2000	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.0103 U	< 0.0618 U
CPS-2	0	12/21/2000	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.00515 U	< 0.0103 U	< 0.0618 U
CPS-3	0	12/21/2000	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.0105 U	< 0.063 U
CPS-4	0	12/21/2000	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.0105 U	< 0.063 U
CPS-5	0	1/5/2001	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.01 UJ-	< 0.06 UJ-
CPS-6	0	12/21/2000	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.0105 U	< 0.063 U
CPS-8	0	1/5/2001	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.01 UJ-	< 0.06 UJ-
CPS-9	0	1/5/2001	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.005 UJ-	< 0.01 UJ-	< 0.06 UJ-
CPS-A1	0	12/12/2000	< 0.00525 UJ-	< 0.00525 UJ-	< 0.00525 UJ-	< 0.00525 UJ-	< 0.00525 UJ-	< 0.00525 UJ-	< 0.00525 UJ-	< 0.00525 UJ-	< 0.00525 UJ-	< 0.00525 UJ-	< 0.0105 UJ-	< 0.063 UJ-
CPS-A3	0	12/12/2000	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.00525 U	< 0.0105 U	< 0.063 U
CPS-B1	0	12/12/2000	< 0.0054 U	0.25 J+	< 0.0054 U	0.099 J+	< 0.0054 U	< 0.0054 U	< 0.0054 U	0.54 J+	< 0.0054 U	< 0.0054 U	< 0.0108 U	< 0.648 U
CPS-B3	0	12/12/2000	< 0.00525 U	0.14 J+	< 0.00525 U	0.046 J+	< 0.00525 U	< 0.00525 U	< 0.00525 U	0.14 J+	< 0.00525 U	< 0.00525 U	< 0.0105 U	< 0.63 U
SB-01-B	0	5/10/2004	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	0.0091	0.11 J-	< 0.069 U
SB-01-B	7	5/10/2004	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	0.0057	0.074 J-	< 0.068 U
SB-01-B	17	5/10/2004	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0034 U	< 0.07 U
SB-01-B	27	5/10/2004	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0035 U	< 0.07 U
SB-01-B	47	5/10/2004	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0036 U	< 0.074 U
SB-01-B	77	5/11/2004	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0041 U	< 0.083 U
SB-01-B	93	5/11/2004	< 0.0026 U	< 0.0026 U	< 0.0026 U	< 0.0026 U	< 0.0026 U	< 0.0026 U	< 0.0026 U	< 0.0026 U	< 0.0026 U	0.004	0.036	< 0.1 U
SRB-1	0	5/25/2001	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.014 U	< 0.028 U
SRB-1	10	5/25/2001	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.0145 U	< 0.087 U
SRB-1	20	5/25/2001	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0144 U	< 0.0864 U
SRB-1	30	5/25/2001	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.0139 U	< 0.0834 U
SRB-1	40	5/25/2001	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.0143 U	< 0.0858 U
SRB-1	50	5/25/2001	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.0201 U	< 0.1206 U
SRB-1	60	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0138 U	< 0.0828 U
SRB-2	0	5/25/2001	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.013 U	< 0.078 U
SRB-2	10	5/25/2001	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.014 U	< 0.084 U
SRB-2	20	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0138 U	< 0.0828 U
SRB-2	30	5/25/2001	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.014 U	< 0.084 U
SRB-2	40	5/25/2001	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.0139 U	< 0.0834 U
SRB-2	50	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0138 U	< 0.0828 U
SRB-2	60	5/25/2001	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.0185 U	< 0.111 U

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-3
SOIL VOLATILE ORGANIC COMPOUNDS (VOCs) DATA
SOUTHERN RIBS SUB-AREA
(Page 1 of 6)

Sample ID	Depth (ft bgs)	Sample Date	VOCs											
			1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloro-propane (DBCP)
CPS-1	0	12/21/2000	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	--	--	--	--	--
CPS-1R	0	1/10/2001	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	--	--	--	--	--
CPS-2	0	12/21/2000	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	--	--	--	--	--
CPS-2R	0	1/10/2001	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	--	--	--	--	--
CPS-3	0	12/21/2000	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	--	--	--	--	--
CPS-3R	0	1/10/2001	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	--	--	--	--	--
CPS-4	0	12/21/2000	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	--	--	--	--	--
CPS-4R	0	1/10/2001	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	--	--	--	--	--
CPS-5R	0	1/10/2001	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	--	--	--	--	--
CPS-6	0	12/21/2000	--	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	--	--	--	--	--	--
CPS-6R	0	1/10/2001	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	--	--	--	--	--
CPS-8R	0	1/10/2001	--	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	--	--	--	--	--	--
CPS-9R	0	1/10/2001	--	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	--	--	--	--	--	--
SB-01-B	0	5/10/2004	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.01 U
SB-01-B	7	5/10/2004	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	0.00072 J+	< 0.01 U
SB-01-B	17	5/10/2004	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.01 U
SB-01-B	27	5/10/2004	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.01 U
SB-01-B	47	5/10/2004	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.011 U
SB-01-B	77	5/11/2004	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.012 U
SB-01-B	93	5/11/2004	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.015 U
SRB-1	0	5/25/2001	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U
SRB-1	10	5/25/2001	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U
SRB-1	20	5/25/2001	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U
SRB-1	30	5/25/2001	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U
SRB-1	40	5/25/2001	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U
SRB-1	50	5/25/2001	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U
SRB-1	60	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U
SRB-2	0	5/25/2001	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U
SRB-2	10	5/25/2001	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U
SRB-2	20	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U
SRB-2	30	5/25/2001	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U
SRB-2	40	5/25/2001	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U
SRB-2	50	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U
SRB-2	60	5/25/2001	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-3
SOIL VOLATILE ORGANIC COMPOUNDS (VOCs) DATA
SOUTHERN RIBS SUB-AREA
(Page 2 of 6)

Sample ID	Depth (ft bgs)	Sample Date	VOCs											
			1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloroethylene	1,2-Dichloropropane	1,3,5-Trichlorobenzene	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Chlorotoluene
CPS-1	0	12/21/2000	--	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	--	--	--	--	--	--
CPS-1R	0	1/10/2001	--	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	--	--	--	--	--	--
CPS-2	0	12/21/2000	--	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	--	--	--	--	--	--
CPS-2R	0	1/10/2001	--	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	--	--	--	--	--	--
CPS-3	0	12/21/2000	--	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	--	--	--	--	--	--
CPS-3R	0	1/10/2001	--	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	--	--	--	--	--	--
CPS-4	0	12/21/2000	--	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	--	--	--	--	--	--
CPS-4R	0	1/10/2001	--	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	--	--	--	--	--	--
CPS-5R	0	1/10/2001	--	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	--	--	--	--	--	--
CPS-6	0	12/21/2000	--	--	< 0.0053 U	< 0.0053 U	< 0.0053 U	--	--	--	--	--	--	--
CPS-6R	0	1/10/2001	--	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	--	--	--	--	--	--
CPS-8R	0	1/10/2001	--	--	< 0.0053 U	< 0.0053 U	< 0.0053 U	--	--	--	--	--	--	--
CPS-9R	0	1/10/2001	--	--	< 0.0055 U	< 0.0055 U	< 0.0055 U	--	--	--	--	--	--	--
SB-01-B	0	5/10/2004	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U
SB-01-B	7	5/10/2004	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U
SB-01-B	17	5/10/2004	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U
SB-01-B	27	5/10/2004	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U
SB-01-B	47	5/10/2004	--	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U
SB-01-B	77	5/11/2004	--	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U
SB-01-B	93	5/11/2004	--	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U
SRB-1	0	5/25/2001	< 0.0068 U	< 0.0068 U	< 0.0068 U	--	< 0.0068 U	--	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0136 U	< 0.0068 U
SRB-1	10	5/25/2001	< 0.00725 U	< 0.00725 U	< 0.00725 U	--	< 0.00725 U	--	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.0145 U	< 0.00725 U
SRB-1	20	5/25/2001	< 0.0072 U	< 0.0072 U	< 0.0072 U	--	< 0.0072 U	--	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0144 U	< 0.0072 U
SRB-1	30	5/25/2001	< 0.00695 U	< 0.00695 U	< 0.00695 U	--	< 0.00695 U	--	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.0139 U	< 0.00695 U
SRB-1	40	5/25/2001	< 0.00715 U	< 0.00715 U	< 0.00715 U	--	< 0.00715 U	--	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.0143 U	< 0.00715 U
SRB-1	50	5/25/2001	< 0.01005 U	< 0.01005 U	< 0.01005 U	--	< 0.01005 U	--	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.0201 U	< 0.01005 U
SRB-1	60	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0069 U	--	< 0.0069 U	--	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0138 U	< 0.0069 U
SRB-2	0	5/25/2001	< 0.0065 U	< 0.0065 U	< 0.0065 U	--	< 0.0065 U	--	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.013 U	< 0.0065 U
SRB-2	10	5/25/2001	< 0.007 U	< 0.007 U	< 0.007 U	--	< 0.007 U	--	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.014 U	< 0.007 U
SRB-2	20	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0069 U	--	< 0.0069 U	--	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0138 U	< 0.0069 U
SRB-2	30	5/25/2001	< 0.007 U	< 0.007 U	< 0.007 U	--	< 0.007 U	--	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.014 U	< 0.007 U
SRB-2	40	5/25/2001	< 0.00695 U	< 0.00695 U	< 0.00695 U	--	< 0.00695 U	--	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.0139 U	< 0.00695 U
SRB-2	50	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0069 U	--	< 0.0069 U	--	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0138 U	< 0.0069 U
SRB-2	60	5/25/2001	< 0.00925 U	< 0.00925 U	< 0.00925 U	--	< 0.00925 U	--	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.0185 U	< 0.00925 U

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-3
SOIL VOLATILE ORGANIC COMPOUNDS (VOCs) DATA
SOUTHERN RIBS SUB-AREA
(Page 3 of 6)

Sample ID	Depth (ft bgs)	Sample Date	VOCs											
			2-Phenylbutane	4-Chlorotoluene	Acetone	Acetonitrile	Benzene	Bromobenzene	Bromodichloromethane	Bromomethane	Carbon disulfide	Carbon tetrachloride	Freon-11	Freon-12
CPS-1	0	12/21/2000	--	--	< 0.021 U	--	< 0.0051 U	--	< 0.0051 U	< 0.01 U	< 0.0051 U	< 0.0051 U	--	--
CPS-1R	0	1/10/2001	--	--	< 0.021 U	--	< 0.0051 U	--	< 0.0051 U	< 0.01 U	< 0.0051 U	< 0.0051 U	--	--
CPS-2	0	12/21/2000	--	--	< 0.021 U	--	< 0.0051 U	--	< 0.0051 U	< 0.01 U	< 0.0051 U	< 0.0051 U	--	--
CPS-2R	0	1/10/2001	--	--	< 0.021 U	--	< 0.0051 U	--	< 0.0051 U	< 0.01 U	< 0.0051 U	< 0.0051 U	--	--
CPS-3	0	12/21/2000	--	--	0.012 J	--	< 0.0052 U	--	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.0052 U	--	--
CPS-3R	0	1/10/2001	--	--	< 0.021 U	--	< 0.0052 U	--	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.0052 U	--	--
CPS-4	0	12/21/2000	--	--	< 0.021 U	--	< 0.0052 U	--	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.0052 U	--	--
CPS-4R	0	1/10/2001	--	--	< 0.021 U	--	< 0.0052 U	--	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.0052 U	--	--
CPS-5R	0	1/10/2001	--	--	< 0.021 U	--	< 0.0052 U	--	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.0052 U	--	--
CPS-6	0	12/21/2000	--	--	< 0.021 U	--	< 0.0053 U	--	< 0.0053 U	< 0.011 U	< 0.0053 U	< 0.0053 U	--	--
CPS-6R	0	1/10/2001	--	--	< 0.021 U	--	< 0.0052 U	--	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.0052 U	--	--
CPS-8R	0	1/10/2001	--	--	< 0.021 U	--	< 0.0053 U	--	< 0.0053 U	< 0.011 U	< 0.0053 U	< 0.0053 U	--	--
CPS-9R	0	1/10/2001	--	--	< 0.022 U	--	< 0.0055 U	--	< 0.0055 U	< 0.011 U	< 0.0055 U	< 0.0055 U	--	--
SB-01-B	0	5/10/2004	< 0.0051 U	< 0.0051 U	0.033	< 0.051 U	0.00078 J	< 0.0051 U	< 0.0051 U	< 0.01 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.01 U
SB-01-B	7	5/10/2004	< 0.0051 U	< 0.0051 U	0.058 J+	< 0.051 U	0.0011 J+	< 0.0051 U	< 0.0051 U	< 0.01 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.01 U
SB-01-B	17	5/10/2004	< 0.0052 U	< 0.0052 U	< 0.021 U	< 0.052 U	0.0006 J	< 0.0052 U	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.01 U
SB-01-B	27	5/10/2004	< 0.0052 U	< 0.0052 U	< 0.021 U	< 0.052 U	0.00089 J	< 0.0052 U	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.01 U
SB-01-B	47	5/10/2004	< 0.0055 U	< 0.0055 U	< 0.022 U	< 0.055 U	0.00097 J	< 0.0055 U	< 0.0055 U	< 0.011 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.011 U
SB-01-B	77	5/11/2004	< 0.0062 U	< 0.0062 U	< 0.025 U	< 0.062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.012 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.012 U
SB-01-B	93	5/11/2004	< 0.0077 U	< 0.0077 U	< 0.031 U	< 0.077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.015 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.015 U
SRB-1	0	5/25/2001	< 0.0068 U	< 0.0068 U	< 0.034 U	--	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0136 U	< 0.0068 U
SRB-1	10	5/25/2001	< 0.00725 U	< 0.00725 U	< 0.03625 U	--	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.0145 U	< 0.00725 U
SRB-1	20	5/25/2001	< 0.0072 U	< 0.0072 U	< 0.036 U	--	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0144 U	< 0.0072 U
SRB-1	30	5/25/2001	< 0.00695 U	< 0.00695 U	< 0.03475 U	--	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.0139 U	< 0.00695 U
SRB-1	40	5/25/2001	< 0.00715 U	< 0.00715 U	< 0.03575 U	--	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.0143 U	< 0.00715 U
SRB-1	50	5/25/2001	< 0.01005 U	< 0.01005 U	< 0.05025 U	--	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.0201 U	< 0.01005 U
SRB-1	60	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0345 U	--	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0138 U	< 0.0069 U
SRB-2	0	5/25/2001	< 0.0065 U	< 0.0065 U	< 0.0325 U	--	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.013 U	< 0.0065 U
SRB-2	10	5/25/2001	< 0.007 U	< 0.007 U	< 0.035 U	--	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.014 U	< 0.007 U
SRB-2	20	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0345 U	--	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0138 U	< 0.0069 U
SRB-2	30	5/25/2001	< 0.007 U	< 0.007 U	< 0.035 U	--	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.014 U	< 0.007 U
SRB-2	40	5/25/2001	< 0.00695 U	< 0.00695 U	< 0.03475 U	--	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.0139 U	< 0.00695 U
SRB-2	50	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0345 U	--	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0138 U	< 0.0069 U
SRB-2	60	5/25/2001	< 0.00925 U	< 0.00925 U	< 0.04625 U	--	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.0185 U	< 0.00925 U

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-3
SOIL VOLATILE ORGANIC COMPOUNDS (VOCs) DATA
SOUTHERN RIBS SUB-AREA
(Page 4 of 6)

Sample ID	Depth (ft bgs)	Sample Date	VOCs											
			Freon-113	Chlorobenzene	Chlorobromomethane	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethylene	cis-1,3-Dichloropropylene	Cymene	Dibromomethane	Dichloromethane
CPS-1	0	12/21/2000	--	< 0.0051 U	--	< 0.0051 U	< 0.01 U	< 0.0051 U	< 0.01 U	--	< 0.0051 U	--	--	< 0.0051 U
CPS-1R	0	1/10/2001	--	< 0.0051 U	--	< 0.0051 U	< 0.01 U	< 0.0051 U	< 0.01 U	--	< 0.0051 U	--	--	< 0.0051 U
CPS-2	0	12/21/2000	--	< 0.0051 U	--	< 0.0051 U	< 0.01 U	< 0.0051 U	< 0.01 U	--	< 0.0051 U	--	--	< 0.0051 U
CPS-2R	0	1/10/2001	--	< 0.0051 U	--	< 0.0051 U	< 0.01 U	< 0.0051 U	< 0.01 U	--	< 0.0051 U	--	--	0.013
CPS-3	0	12/21/2000	--	< 0.0052 U	--	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.01 U	--	< 0.0052 U	--	--	0.011
CPS-3R	0	1/10/2001	--	< 0.0052 U	--	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.01 U	--	< 0.0052 U	--	--	0.011
CPS-4	0	12/21/2000	--	< 0.0052 U	--	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.01 U	--	< 0.0052 U	--	--	0.0058
CPS-4R	0	1/10/2001	--	< 0.0052 U	--	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.01 U	--	< 0.0052 U	--	--	0.01
CPS-5R	0	1/10/2001	--	< 0.0052 U	--	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.01 U	--	< 0.0052 U	--	--	0.0081
CPS-6	0	12/21/2000	--	< 0.0053 U	--	< 0.0053 U	< 0.011 U	< 0.0053 U	< 0.011 U	--	< 0.0053 U	--	--	< 0.0053 U
CPS-6R	0	1/10/2001	--	< 0.0052 U	--	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.01 U	--	< 0.0052 U	--	--	0.0072
CPS-8R	0	1/10/2001	--	< 0.0053 U	--	< 0.0053 U	< 0.011 U	< 0.0053 U	< 0.011 U	--	< 0.0053 U	--	--	0.006
CPS-9R	0	1/10/2001	--	< 0.0055 U	--	< 0.0055 U	< 0.011 U	< 0.0055 U	< 0.011 U	--	< 0.0055 U	--	--	0.0056
SB-01-B	0	5/10/2004	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.01 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	--
SB-01-B	7	5/10/2004	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.01 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	--
SB-01-B	17	5/10/2004	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U
SB-01-B	27	5/10/2004	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	--
SB-01-B	47	5/10/2004	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.011 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U
SB-01-B	77	5/11/2004	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	0.0013 J	< 0.012 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	--
SB-01-B	93	5/11/2004	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.015 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	--
SRB-1	0	5/25/2001	--	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U
SRB-1	10	5/25/2001	--	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U
SRB-1	20	5/25/2001	--	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U
SRB-1	30	5/25/2001	--	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U
SRB-1	40	5/25/2001	--	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U
SRB-1	50	5/25/2001	--	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U
SRB-1	60	5/25/2001	--	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U
SRB-2	0	5/25/2001	--	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U
SRB-2	10	5/25/2001	--	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U
SRB-2	20	5/25/2001	--	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U
SRB-2	30	5/25/2001	--	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U
SRB-2	40	5/25/2001	--	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U
SRB-2	50	5/25/2001	--	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	0.0094
SRB-2	60	5/25/2001	--	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	0.017

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
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-- = no sample data.
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TABLE B-3
SOIL VOLATILE ORGANIC COMPOUNDS (VOCs) DATA
SOUTHERN RIBS SUB-AREA
(Page 5 of 6)

Sample ID	Depth (ft bgs)	Sample Date	VOCs											
			Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methyl disulfide	Methyl ethyl ketone	Methyl iodide	Methyl isobutyl ketone	Methyl n-butyl ketone	MTBE (Methyl tert-butyl ether)	n-Butyl benzene	n-Propyl benzene	o-Xylene
CPS-1	0	12/21/2000	< 0.0051 U	--	--	--	< 0.021 U	--	< 0.021 U	< 0.021 U	--	--	--	--
CPS-1R	0	1/10/2001	< 0.0051 U	--	--	--	< 0.021 U	--	< 0.021 U	< 0.021 U	--	--	--	--
CPS-2	0	12/21/2000	< 0.0051 U	--	--	--	< 0.021 U	--	< 0.021 U	< 0.021 U	--	--	--	--
CPS-2R	0	1/10/2001	< 0.0051 U	--	--	--	< 0.021 U	--	< 0.021 U	< 0.021 U	--	--	--	--
CPS-3	0	12/21/2000	< 0.0052 U	--	--	--	< 0.021 U	--	< 0.021 U	< 0.021 U	--	--	--	--
CPS-3R	0	1/10/2001	< 0.0052 U	--	--	--	< 0.021 U	--	< 0.021 U	< 0.021 U	--	--	--	--
CPS-4	0	12/21/2000	< 0.0052 U	--	--	--	0.0059 J	--	< 0.021 U	< 0.021 U	--	--	--	--
CPS-4R	0	1/10/2001	< 0.0052 U	--	--	--	0.0059 J	--	< 0.021 U	< 0.021 U	--	--	--	--
CPS-5R	0	1/10/2001	< 0.0052 U	--	--	--	< 0.021 U	--	< 0.021 U	< 0.021 U	--	--	--	--
CPS-6	0	12/21/2000	< 0.0053 U	--	--	--	< 0.021 U	--	0.0028 J	< 0.021 U	--	--	--	--
CPS-6R	0	1/10/2001	< 0.0052 U	--	--	--	< 0.021 U	--	< 0.021 U	< 0.021 U	--	--	--	--
CPS-8R	0	1/10/2001	< 0.0053 U	--	--	--	< 0.021 U	--	< 0.021 U	< 0.021 U	--	--	--	--
CPS-9R	0	1/10/2001	< 0.0055 U	--	--	--	< 0.022 U	--	< 0.022 U	< 0.022 U	--	--	--	--
SB-01-B	0	5/10/2004	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.02 U	< 0.0051 U	< 0.02 U	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U
SB-01-B	7	5/10/2004	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.02 U	< 0.0051 U	< 0.02 U	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U
SB-01-B	17	5/10/2004	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.021 U	< 0.0052 U	< 0.021 U	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U
SB-01-B	27	5/10/2004	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.021 U	< 0.0052 U	< 0.021 U	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U
SB-01-B	47	5/10/2004	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.022 U	< 0.0055 U	< 0.022 U	--	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U
SB-01-B	77	5/11/2004	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.025 U	< 0.0062 U	< 0.025 U	--	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U
SB-01-B	93	5/11/2004	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.031 U	< 0.0077 U	< 0.031 U	--	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U
SRB-1	0	5/25/2001	< 0.0068 U	< 0.0068 U	< 0.0136 U	--	< 0.034 U	< 0.0068 U	< 0.034 U	< 0.034 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U
SRB-1	10	5/25/2001	< 0.00725 U	< 0.00725 U	< 0.0145 U	--	< 0.03625 U	< 0.00725 U	< 0.03625 U	< 0.03625 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U
SRB-1	20	5/25/2001	< 0.0072 U	< 0.0072 U	< 0.0144 U	--	< 0.036 U	< 0.0072 U	< 0.036 U	< 0.036 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U
SRB-1	30	5/25/2001	< 0.00695 U	< 0.00695 U	< 0.0139 U	--	< 0.03475 U	< 0.00695 U	< 0.03475 U	< 0.03475 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U
SRB-1	40	5/25/2001	< 0.00715 U	< 0.00715 U	< 0.0143 U	--	< 0.03575 U	< 0.00715 U	< 0.03575 U	< 0.03575 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U
SRB-1	50	5/25/2001	< 0.01005 U	< 0.01005 U	< 0.0201 U	--	< 0.05025 U	< 0.01005 U	< 0.05025 U	< 0.05025 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U
SRB-1	60	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0138 U	--	< 0.0345 U	< 0.0069 U	< 0.0345 U	< 0.0345 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U
SRB-2	0	5/25/2001	< 0.0065 U	< 0.0065 U	< 0.013 U	--	< 0.0325 U	< 0.0065 U	< 0.0325 U	< 0.0325 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U
SRB-2	10	5/25/2001	< 0.007 U	< 0.007 U	< 0.014 U	--	< 0.035 U	< 0.007 U	< 0.035 U	< 0.035 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U
SRB-2	20	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0138 U	--	< 0.0345 U	< 0.0069 U	< 0.0345 U	< 0.0345 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U
SRB-2	30	5/25/2001	< 0.007 U	< 0.007 U	< 0.014 U	--	< 0.035 U	< 0.007 U	< 0.035 U	< 0.035 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U
SRB-2	40	5/25/2001	< 0.00695 U	< 0.00695 U	< 0.0139 U	--	< 0.03475 U	< 0.00695 U	< 0.03475 U	< 0.03475 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U
SRB-2	50	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0138 U	--	< 0.0345 U	< 0.0069 U	< 0.0345 U	< 0.0345 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U
SRB-2	60	5/25/2001	< 0.00925 U	< 0.00925 U	< 0.0185 U	--	< 0.04625 U	< 0.00925 U	< 0.04625 U	< 0.04625 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-3
SOIL VOLATILE ORGANIC COMPOUNDS (VOCs) DATA
SOUTHERN RIBS SUB-AREA
(Page 6 of 6)

Sample ID	Depth (ft bgs)	Sample Date	VOCs										
			Styrene (monomer)	tert-Butyl benzene	Tetrachloroethylene	Toluene	trans-1,2-Dichloro-ethylene	trans-1,3-Dichloro-propylene	Tribromomethane	Trichloroethylene	Vinyl acetate	Vinyl chloride	Xylenes (total)
CPS-1	0	12/21/2000	< 0.0051 U	--	< 0.0051 U	< 0.0051 U	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	< 0.0051 U	< 0.0051 U
CPS-1R	0	1/10/2001	< 0.0051 U	--	< 0.0051 U	< 0.0051 U	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	< 0.0051 U	< 0.0051 U
CPS-2	0	12/21/2000	< 0.0051 U	--	< 0.0051 U	< 0.0051 U	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	< 0.0051 U	< 0.0051 U
CPS-2R	0	1/10/2001	< 0.0051 U	--	< 0.0051 U	< 0.0051 U	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	< 0.0051 U	< 0.0051 U
CPS-3	0	12/21/2000	< 0.0052 U	--	< 0.0052 U	< 0.0052 U	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	< 0.0052 U	< 0.0052 U
CPS-3R	0	1/10/2001	< 0.0052 U	--	< 0.0052 U	< 0.0052 U	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	< 0.0052 U	< 0.0052 U
CPS-4	0	12/21/2000	< 0.0052 U	--	< 0.0052 U	< 0.0052 U	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	< 0.0052 U	< 0.0052 U
CPS-4R	0	1/10/2001	< 0.0052 U	--	< 0.0052 U	< 0.0052 U	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	< 0.0052 U	< 0.0052 U
CPS-5R	0	1/10/2001	< 0.0052 U	--	< 0.0052 U	< 0.0052 U	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	< 0.0052 U	< 0.0052 U
CPS-6	0	12/21/2000	< 0.0053 U	--	< 0.0053 U	< 0.0053 U	--	< 0.0053 U	< 0.0053 U	< 0.0053 U	--	< 0.0053 U	< 0.0053 U
CPS-6R	0	1/10/2001	< 0.0052 U	--	< 0.0052 U	< 0.0052 U	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	< 0.0052 U	< 0.0052 U
CPS-8R	0	1/10/2001	< 0.0053 U	--	< 0.0053 U	< 0.0053 U	--	< 0.0053 U	< 0.0053 U	< 0.0053 U	--	< 0.0053 U	< 0.0053 U
CPS-9R	0	1/10/2001	< 0.0055 U	--	< 0.0055 U	< 0.0055 U	--	< 0.0055 U	< 0.0055 U	< 0.0055 U	--	< 0.0055 U	< 0.0055 U
SB-01-B	0	5/10/2004	< 0.0051 U	< 0.0051 U	0.00029 J	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.01 U
SB-01-B	7	5/10/2004	< 0.0051 U	< 0.0051 U	0.00027 J+	0.00073 J+	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.01 U
SB-01-B	17	5/10/2004	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.01 U
SB-01-B	27	5/10/2004	< 0.0052 U	< 0.0052 U	0.00023 J	0.00063 J	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.01 U
SB-01-B	47	5/10/2004	< 0.0055 U	< 0.0055 U	0.00068 J	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.011 U
SB-01-B	77	5/11/2004	< 0.0062 U	< 0.0062 U	0.0077	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.012 U
SB-01-B	93	5/11/2004	< 0.0077 U	< 0.0077 U	0.00043 J	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.0077 U	< 0.015 U
SRB-1	0	5/25/2001	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	< 0.0068 U	--	< 0.0068 U	--
SRB-1	10	5/25/2001	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	< 0.00725 U	--	< 0.00725 U	--
SRB-1	20	5/25/2001	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	--	< 0.0072 U	--
SRB-1	30	5/25/2001	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	--	< 0.00695 U	--
SRB-1	40	5/25/2001	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	< 0.00715 U	--	< 0.00715 U	--
SRB-1	50	5/25/2001	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	< 0.01005 U	--	< 0.01005 U	--
SRB-1	60	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	--	< 0.0069 U	--
SRB-2	0	5/25/2001	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	< 0.0065 U	--	< 0.0065 U	--
SRB-2	10	5/25/2001	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	--	< 0.007 U	--
SRB-2	20	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	--	< 0.0069 U	--
SRB-2	30	5/25/2001	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	--	< 0.007 U	--
SRB-2	40	5/25/2001	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	< 0.00695 U	--	< 0.00695 U	--
SRB-2	50	5/25/2001	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	< 0.0069 U	--	< 0.0069 U	--
SRB-2	60	5/25/2001	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	< 0.00925 U	--	< 0.00925 U	--

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-4
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
SOUTHERN RIBS SUB-AREA
(Page 1 of 7)

Sample ID	Depth (ft bgs)	Sample Date	SVOCs											
			1,2,4,5-Tetrachloro-benzene	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene
CPS-1	0	12/21/2000	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 0.34 U
CPS-2	0	12/21/2000	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 0.34 U
CPS-3	0	12/21/2000	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U
CPS-4	0	12/21/2000	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 0.34 U
CPS-5	0	1/5/2001	--	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 1.7 UJ-	< 0.34 UJ-	< 0.34 UJ-
CPS-6	0	12/21/2000	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U
CPS-8	0	1/5/2001	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U	< 0.36 U	< 0.36 U
CPS-9	0	1/5/2001	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 1.8 U	< 0.37 U	< 0.37 U
CPS-A1	0	12/12/2000	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U
CPS-A3	0	12/12/2000	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U
CPS-B1	0	12/12/2000	--	< 0.3564 U	< 0.3564 U	< 0.3564 U	0.37	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U
CPS-B3	0	12/12/2000	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U
SB-01-B	0	5/10/2004	< 0.34 U	--	--	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 0.34 U
SB-01-B	7	5/10/2004	< 0.33 U	--	--	--	--	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 1.6 U	< 0.33 U	< 0.33 U
SB-01-B	17	5/10/2004	< 0.34 U	--	--	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 0.34 U
SB-01-B	27	5/10/2004	< 0.35 U	--	--	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U
SB-01-B	47	5/10/2004	< 0.36 U	--	--	--	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.8 U	< 0.36 U	< 0.36 U
SB-01-B	77	5/11/2004	< 0.41 U	--	--	--	--	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 2 U	< 0.41 U	< 0.41 U
SB-01-B	93	5/11/2004	< 0.51 U	--	--	--	--	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 2.5 U	< 0.51 U	< 0.51 U
SRB-1	0	5/25/2001	--	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 UJ-	< 4.488 U
SRB-1	10	5/25/2001	--	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 UJ-	< 0.4785 U
SRB-1	20	5/25/2001	--	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 UJ-	< 0.4785 U
SRB-1	30	5/25/2001	--	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 UJ-	< 0.4587 U
SRB-1	40	5/25/2001	--	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 UJ-	< 0.4719 U
SRB-1	50	5/25/2001	--	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 UJ-	< 0.6633 U
SRB-1	60	5/25/2001	--	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 UJ-	< 0.4587 U
SRB-2	0	5/25/2001	--	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-
SRB-2	10	5/25/2001	--	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 U	< 0.462 U	< 0.462 U	< 0.462 U	< 0.462 U	< 0.462 UJ-	< 0.462 UJ-
SRB-2	20	5/25/2001	--	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 UJ-	< 0.4554 UJ-
SRB-2	30	5/25/2001	--	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 U	< 0.462 U	< 0.462 U	< 0.462 U	< 0.462 U	< 0.462 UJ-	< 0.462 UJ-
SRB-2	40	5/25/2001	--	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 UJ-	< 0.4587 U
SRB-2	50	5/25/2001	--	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 UJ-	< 0.4554 U

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-4
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
SOUTHERN RIBS SUB-AREA
(Page 2 of 7)

Sample ID	Depth (ft bgs)	Sample Date	SVOCs											
			2-Chloronaphthalene	2-Chlorophenol	2-Methylnaphthalene	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Methylphenol/ 4-Methylphenol	3-Nitroaniline	4,6-Dinitro-o-cresol	4-Bromophenyl phenyl ether	4-Chloro-3-Methylphenol	4-Chlorophenyl phenyl ether
CPS-1	0	12/21/2000	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 1.6 U	--	< 1.6 U	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U
CPS-2	0	12/21/2000	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 1.6 U	--	< 1.6 U	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U
CPS-3	0	12/21/2000	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
CPS-4	0	12/21/2000	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 1.7 U	--	< 1.7 U	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U
CPS-5	0	1/5/2001	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 1.7 UJ-	< 0.34 UJ-	< 1.7 UJ-	--	< 1.7 UJ-	< 1.7 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-
CPS-6	0	12/21/2000	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
CPS-8	0	1/5/2001	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U	< 0.36 U	< 1.7 U	--	< 1.7 U	< 1.7 U	< 0.36 U	< 0.36 U	< 0.36 U
CPS-9	0	1/5/2001	< 0.37 U	< 0.37 U	< 0.37 U	< 1.8 U	< 0.37 U	< 1.8 U	--	< 1.8 U	< 1.8 U	< 0.37 U	< 0.37 U	< 0.37 U
CPS-A1	0	12/12/2000	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U
CPS-A3	0	12/12/2000	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U
CPS-B1	0	12/12/2000	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U
CPS-B3	0	12/12/2000	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U
SB-01-B	0	5/10/2004	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 1.6 U	< 0.68 UJ-	< 1.6 U	--	< 0.34 U	< 0.34 U	< 0.34 U
SB-01-B	7	5/10/2004	< 0.33 U	< 0.33 U	< 0.33 U	< 1.6 U	< 0.33 U	< 1.6 U	< 0.67 UJ-	< 1.6 U	--	< 0.33 U	< 0.33 U	< 0.33 U
SB-01-B	17	5/10/2004	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 1.7 U	< 0.69 UJ-	< 1.7 U	--	< 0.34 U	< 0.34 U	< 0.34 U
SB-01-B	27	5/10/2004	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	< 0.69 UJ-	< 1.7 U	--	< 0.35 U	< 0.35 U	< 0.35 U
SB-01-B	47	5/10/2004	< 0.36 U	< 0.36 U	< 0.36 U	< 1.8 U	< 0.36 U	< 1.8 U	< 0.73 UJ-	< 1.8 U	--	< 0.36 U	< 0.36 U	< 0.36 U
SB-01-B	77	5/11/2004	< 0.41 U	< 0.41 U	< 0.41 U	< 2 U	< 0.41 U	< 2 U	< 0.81 UJ-	< 2 U	--	< 0.41 U	< 0.41 U	< 0.41 U
SB-01-B	93	5/11/2004	< 0.51 U	< 0.51 U	< 0.51 U	< 2.5 U	< 0.51 U	< 2.5 U	< 1 UJ-	< 2.5 U	--	< 0.51 U	< 0.51 U	< 0.51 U
SRB-1	0	5/25/2001	< 4.488 U	< 4.488 UJ-	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 UJ-	< 4.488 U
SRB-1	10	5/25/2001	< 0.4785 U	< 0.4785 UJ-	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 UJ-	< 0.4785 U
SRB-1	20	5/25/2001	< 0.4785 U	< 0.4785 UJ-	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 UJ-	< 0.4785 U
SRB-1	30	5/25/2001	< 0.4587 U	< 0.4587 UJ-	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 UJ-	< 0.4587 U
SRB-1	40	5/25/2001	< 0.4719 U	< 0.4719 UJ-	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 UJ-	< 0.4719 U
SRB-1	50	5/25/2001	< 0.6633 U	< 0.6633 UJ-	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 UJ-	< 0.6633 U
SRB-1	60	5/25/2001	< 0.4587 U	< 0.4587 UJ-	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 UJ-	< 0.4587 U
SRB-2	0	5/25/2001	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-
SRB-2	10	5/25/2001	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 U	< 0.462 UJ-	< 0.462 U	< 0.462 UJ-	< 0.462 U	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-
SRB-2	20	5/25/2001	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 U	< 0.4554 UJ-	< 0.4554 U	< 0.4554 UJ-	< 0.4554 U	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-
SRB-2	30	5/25/2001	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 U	< 0.462 UJ-	< 0.462 U	< 0.462 UJ-	< 0.462 U	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-
SRB-2	40	5/25/2001	< 0.4587 U	< 0.4587 UJ-	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 UJ-	< 0.4587 U
SRB-2	50	5/25/2001	< 0.4554 U	< 0.4554 UJ-	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 UJ-	< 0.4554 U

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-4
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
SOUTHERN RIBS SUB-AREA
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Sample ID	Depth (ft bgs)	Sample Date	SVOCs											
			4-Nitrophenol	Acenaphthene	Acenaphthylene	Acetophenone	Aniline	Anthracene	Azobenzene	Benzenethiol	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene
CPS-1	0	12/21/2000	< 1.6 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
CPS-2	0	12/21/2000	< 1.6 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
CPS-3	0	12/21/2000	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
CPS-4	0	12/21/2000	< 1.7 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
CPS-5	0	1/5/2001	< 1.7 UJ-	< 0.34 UJ-	< 0.34 UJ-	--	--	< 0.34 UJ-	--	--	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-
CPS-6	0	12/21/2000	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
CPS-8	0	1/5/2001	< 1.7 U	< 0.36 U	< 0.36 U	--	--	< 0.36 U	--	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U
CPS-9	0	1/5/2001	< 1.8 U	< 0.37 U	< 0.37 U	--	--	< 0.37 U	--	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U
CPS-A1	0	12/12/2000	< 0.3465 U	< 0.3465 U	< 0.3465 U	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U
CPS-A3	0	12/12/2000	< 0.3465 U	< 0.3465 U	< 0.3465 U	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U
CPS-B1	0	12/12/2000	< 0.3564 U	< 0.3564 U	< 0.3564 U	--	< 0.3564 U	< 0.3564 U	< 0.3564 U	--	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U
CPS-B3	0	12/12/2000	< 0.3465 U	< 0.3465 U	< 0.3465 U	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U
SB-01-B	0	5/10/2004	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
SB-01-B	7	5/10/2004	< 1.6 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U
SB-01-B	17	5/10/2004	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
SB-01-B	27	5/10/2004	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
SB-01-B	47	5/10/2004	< 1.8 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U
SB-01-B	77	5/11/2004	< 2 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U
SB-01-B	93	5/11/2004	< 2.5 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U
SRB-1	0	5/25/2001	< 4.488 U	< 4.488 U	< 4.488 U	--	< 4.488 U	< 4.488 U	< 4.488 U	--	< 4.488 U	< 4.488 U	< 0.462 U	< 4.488 U
SRB-1	10	5/25/2001	< 0.4785 U	< 0.4785 U	< 0.4785 U	--	< 0.4785 U	< 0.4785 U	< 0.4785 U	--	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U
SRB-1	20	5/25/2001	< 0.4785 U	< 0.4785 U	< 0.4785 U	--	< 0.4785 U	< 0.4785 U	< 0.4785 U	--	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U
SRB-1	30	5/25/2001	< 0.4587 U	< 0.4587 U	< 0.4587 U	--	< 0.4587 U	< 0.4587 U	< 0.4587 U	--	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U
SRB-1	40	5/25/2001	< 0.4719 U	< 0.4719 U	< 0.4719 U	--	< 0.4719 U	< 0.4719 U	< 0.4719 U	--	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U
SRB-1	50	5/25/2001	< 0.6633 U	< 0.6633 U	< 0.6633 U	--	< 0.6633 U	< 0.6633 U	< 0.6633 U	--	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U
SRB-1	60	5/25/2001	< 0.4587 U	< 0.4587 U	< 0.4587 U	--	< 0.4587 U	< 0.4587 U	< 0.4587 U	--	< 0.4587 U	< 0.4587 U	< 0.4554 U	< 0.4587 U
SRB-2	0	5/25/2001	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	--	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	--	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-
SRB-2	10	5/25/2001	< 0.462 U	< 0.462 UJ-	< 0.462 UJ-	--	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	--	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-
SRB-2	20	5/25/2001	< 0.4554 U	< 0.4554 UJ-	< 0.4554 UJ-	--	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	--	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-
SRB-2	30	5/25/2001	< 0.462 U	< 0.462 UJ-	< 0.462 UJ-	--	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	--	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-
SRB-2	40	5/25/2001	< 0.4587 U	< 0.4587 U	< 0.4587 U	--	< 0.4587 U	< 0.4587 U	< 0.4587 U	--	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U
SRB-2	50	5/25/2001	< 0.4554 U	< 0.1254 U	< 0.4554 U	--	< 0.4554 U	< 0.4554 U	< 0.4554 U	--	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.
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TABLE B-4
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
SOUTHERN RIBS SUB-AREA
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Sample ID	Depth (ft bgs)	Sample Date	SVOCs											
			Benzo(k)fluoranthene	Benzoic acid	Benzyl alcohol	Benzyl butyl phthalate	bis(2-Chloroethoxy) methane	bis(2-Chloroethyl) ether	bis(2-Chloroisopropyl) ether	bis(2-Ethylhexyl) phthalate	bis(p-Chlorophenyl) disulfide	bis(p-Chlorophenyl) sulfone	Carbazole	Chrysene
CPS-1	0	12/21/2000	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U
CPS-2	0	12/21/2000	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	0.062 J	--	--	< 0.34 U	< 0.34 U
CPS-3	0	12/21/2000	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U
CPS-4	0	12/21/2000	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U
CPS-5	0	1/5/2001	< 0.34 UJ-	--	--	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	--	--	< 0.34 UJ-	< 0.34 UJ-
CPS-6	0	12/21/2000	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	0.067 J	--	--	< 0.35 U	< 0.35 U
CPS-8	0	1/5/2001	< 0.36 U	--	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	--	--	< 0.36 U	< 0.36 U
CPS-9	0	1/5/2001	< 0.37 U	--	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	--	--	< 0.37 U	< 0.37 U
CPS-A1	0	12/12/2000	< 0.3465 U	< 0.3465 UJ-	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	--	--	< 0.3465 U	< 0.3465 U
CPS-A3	0	12/12/2000	< 0.3465 U	< 0.3465 UJ-	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	--	--	< 0.3465 U	< 0.3465 U
CPS-B1	0	12/12/2000	< 0.3564 U	< 0.3564 UJ-	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	--	--	< 0.3564 U	< 0.3564 U
CPS-B3	0	12/12/2000	< 0.3465 U	< 0.3465 UJ-	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	--	--	< 0.3465 U	< 0.3465 U
SB-01-B	0	5/10/2004	< 0.34 U	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
SB-01-B	7	5/10/2004	< 0.33 U	< 1.6 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U
SB-01-B	17	5/10/2004	< 0.34 U	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	1.7	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
SB-01-B	27	5/10/2004	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
SB-01-B	47	5/10/2004	< 0.36 U	< 1.8 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U
SB-01-B	77	5/11/2004	< 0.41 U	< 2 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U
SB-01-B	93	5/11/2004	< 0.51 U	< 2.5 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U
SRB-1	0	5/25/2001	< 0.462 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	--	--	< 4.488 U	< 4.488 U
SRB-1	10	5/25/2001	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	--	--	< 0.4785 U	< 0.4785 U
SRB-1	20	5/25/2001	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	--	--	< 0.4785 U	< 0.4785 U
SRB-1	30	5/25/2001	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	--	--	< 0.4587 U	< 0.4587 U
SRB-1	40	5/25/2001	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	--	--	< 0.4719 U	< 0.4719 U
SRB-1	50	5/25/2001	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	--	--	< 0.6633 U	< 0.6633 U
SRB-1	60	5/25/2001	< 0.4554 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	--	--	< 0.4587 U	< 0.4587 U
SRB-2	0	5/25/2001	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	--	--	< 0.429 UJ-	< 0.429 UJ-
SRB-2	10	5/25/2001	< 0.462 UJ-	< 0.462 U	< 0.462 U	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	--	--	< 0.462 UJ-	< 0.462 UJ-
SRB-2	20	5/25/2001	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 U	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	--	--	< 0.4554 UJ-	< 0.4554 UJ-
SRB-2	30	5/25/2001	< 0.462 UJ-	< 0.462 U	< 0.462 U	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	--	--	< 0.462 UJ-	< 0.462 UJ-
SRB-2	40	5/25/2001	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	--	--	< 0.4587 U	< 0.4587 U
SRB-2	50	5/25/2001	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	--	--	< 0.4554 U	< 0.4554 U

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.
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TABLE B-4
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
SOUTHERN RIBS SUB-AREA
(Page 5 of 7)

Sample ID	Depth (ft bgs)	Sample Date	SVOCs											
			Dibenzo(a,h)anthracene	Dibenzofuran	Dibutyl phthalate	Diethyl phthalate	Dimethyl phthalate	Di-n-octyl phthalate	Diphenyl sulfone	Fluoranthene	Fluorene	Hexachloro-1,3-butadiene	Hexachlorobenzene	Hexachlorocyclo-pentadiene
CPS-1	0	12/21/2000	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U
CPS-2	0	12/21/2000	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U
CPS-3	0	12/21/2000	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U
CPS-4	0	12/21/2000	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U
CPS-5	0	1/5/2001	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	--	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 1.7 UJ-
CPS-6	0	12/21/2000	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U
CPS-8	0	1/5/2001	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U
CPS-9	0	1/5/2001	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 1.8 U
CPS-A1	0	12/12/2000	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U
CPS-A3	0	12/12/2000	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U
CPS-B1	0	12/12/2000	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	--	< 0.3564 U	< 0.3564 U	< 0.3564 U	17	< 0.3564 U
CPS-B3	0	12/12/2000	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	3.6	< 0.3465 U
SB-01-B	0	5/10/2004	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U
SB-01-B	7	5/10/2004	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 1.6 U
SB-01-B	17	5/10/2004	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U
SB-01-B	27	5/10/2004	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U
SB-01-B	47	5/10/2004	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.8 U
SB-01-B	77	5/11/2004	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 2 U
SB-01-B	93	5/11/2004	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 2.5 U
SRB-1	0	5/25/2001	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	--	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U
SRB-1	10	5/25/2001	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	--	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U
SRB-1	20	5/25/2001	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	--	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U
SRB-1	30	5/25/2001	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	--	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U
SRB-1	40	5/25/2001	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	--	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U
SRB-1	50	5/25/2001	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	--	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U
SRB-1	60	5/25/2001	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	--	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U
SRB-2	0	5/25/2001	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	--	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-
SRB-2	10	5/25/2001	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	--	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-
SRB-2	20	5/25/2001	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	--	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-
SRB-2	30	5/25/2001	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	--	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-
SRB-2	40	5/25/2001	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	--	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U
SRB-2	50	5/25/2001	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	--	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-4
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
SOUTHERN RIBS SUB-AREA
(Page 6 of 7)

Sample ID	Depth (ft bgs)	Sample Date	SVOCs											
			Hexachloroethane	Hydroxymethyl phthalimide	Indeno(1,2,3-cd)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-Nitrosodimethylamine	N-nitrosodi-n-propyl-amine	N-nitrosodiphenylamine	o-Cresol	p-Chloroaniline	p-Chlorothiophenol
CPS-1	0	12/21/2000	< 0.34 U	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--
CPS-2	0	12/21/2000	< 0.34 U	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--
CPS-3	0	12/21/2000	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--
CPS-4	0	12/21/2000	< 0.34 U	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--
CPS-5	0	1/5/2001	< 0.34 UJ-	--	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	--	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	< 0.34 UJ-	--
CPS-6	0	12/21/2000	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--
CPS-8	0	1/5/2001	< 0.36 U	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	--
CPS-9	0	1/5/2001	< 0.37 U	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	--
CPS-A1	0	12/12/2000	< 0.3465 U	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	--
CPS-A3	0	12/12/2000	< 0.3465 U	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	--
CPS-B1	0	12/12/2000	< 0.3564 U	--	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	< 0.3564 U	--
CPS-B3	0	12/12/2000	< 0.3465 U	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	< 0.3465 U	--
SB-01-B	0	5/10/2004	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
SB-01-B	7	5/10/2004	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	--	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U
SB-01-B	17	5/10/2004	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
SB-01-B	27	5/10/2004	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
SB-01-B	47	5/10/2004	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U
SB-01-B	77	5/11/2004	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	--	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U
SB-01-B	93	5/11/2004	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	--	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U
SRB-1	0	5/25/2001	< 4.488 U	--	< 4.488 U	< 4.488 U	< 4.488 U	< 4.488 U	< 0.462 U	< 4.488 UJ-	< 4.488 U	< 4.488 U	< 4.488 U	--
SRB-1	10	5/25/2001	< 0.4785 U	--	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 UJ-	< 0.4785 U	< 0.4785 U	< 0.4785 U	--
SRB-1	20	5/25/2001	< 0.4785 U	--	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 U	< 0.4785 UJ-	< 0.4785 U	< 0.4785 U	< 0.4785 U	--
SRB-1	30	5/25/2001	< 0.4587 U	--	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 UJ-	< 0.4587 U	< 0.4587 U	< 0.4587 U	--
SRB-1	40	5/25/2001	< 0.4719 U	--	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 U	< 0.4719 UJ-	< 0.4719 U	< 0.4719 U	< 0.4719 U	--
SRB-1	50	5/25/2001	< 0.6633 U	--	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 U	< 0.6633 UJ-	< 0.6633 U	< 0.6633 U	< 0.6633 U	--
SRB-1	60	5/25/2001	< 0.4587 U	--	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4554 U	< 0.4587 UJ-	< 0.4587 U	< 0.4587 U	< 0.4587 U	--
SRB-2	0	5/25/2001	< 0.429 UJ-	--	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	--
SRB-2	10	5/25/2001	< 0.462 UJ-	--	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 U	< 0.462 UJ-	--
SRB-2	20	5/25/2001	< 0.4554 UJ-	--	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 U	< 0.4554 UJ-	--
SRB-2	30	5/25/2001	< 0.462 UJ-	--	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-	< 0.462 U	< 0.462 UJ-	--
SRB-2	40	5/25/2001	< 0.4587 U	--	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 U	< 0.4587 UJ-	< 0.4587 U	< 0.4587 U	< 0.4587 U	--
SRB-2	50	5/25/2001	< 0.4554 U	--	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 U	< 0.4554 UJ-	< 0.4554 U	< 0.4554 U	< 0.4554 U	--

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-4
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
SOUTHERN RIBS SUB-AREA

Sample ID	Depth (ft bgs)	Sample Date	SVOCs										
			p-Cresol	Pentachlorobenzene	Pentachlorophenol	Phenanthrene	Phenol	Phenyl Disulfide	Phenyl Sulfide	Phthalic acid	p-Nitroaniline	Pyrene	Pyridine
CPS-1	0	12/21/2000	< 0.34 U	--	< 1.6 U	< 0.34 U	< 0.34 U	--	--	--	< 1.6 U	< 0.34 U	--
CPS-2	0	12/21/2000	< 0.34 U	--	< 1.6 U	< 0.34 U	< 0.34 U	--	--	--	< 1.6 U	< 0.34 U	--
CPS-3	0	12/21/2000	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	--	--	< 1.7 U	< 0.35 U	--
CPS-4	0	12/21/2000	< 0.34 U	--	< 1.7 U	< 0.34 U	< 0.34 U	--	--	--	< 1.7 U	< 0.34 U	--
CPS-5	0	1/5/2001	< 0.34 UJ-	--	< 1.7 UJ-	< 0.34 UJ-	< 0.34 UJ-	--	--	--	< 1.7 UJ-	< 0.34 UJ-	--
CPS-6	0	12/21/2000	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	--	--	< 1.7 U	< 0.35 U	--
CPS-8	0	1/5/2001	< 0.36 U	--	< 1.7 U	< 0.36 U	< 0.36 U	--	--	--	< 1.7 U	< 0.36 U	--
CPS-9	0	1/5/2001	< 0.37 U	--	< 1.8 U	< 0.37 U	< 0.37 U	--	--	--	< 1.8 U	< 0.37 U	--
CPS-A1	0	12/12/2000	--	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	--	--	--	< 0.3465 U	< 0.3465 U	< 0.3465 U
CPS-A3	0	12/12/2000	--	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	--	--	--	< 0.3465 U	< 0.3465 U	< 0.3465 U
CPS-B1	0	12/12/2000	--	--	< 0.3564 U	0.53	< 0.3564 U	--	--	--	< 0.3564 U	0.45	< 0.3564 U
CPS-B3	0	12/12/2000	--	--	< 0.3465 U	< 0.3465 U	< 0.3465 U	--	--	--	< 0.3465 U	< 0.3465 U	< 0.3465 U
SB-01-B	0	5/10/2004	--	< 0.34 U	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 0.68 U
SB-01-B	7	5/10/2004	--	< 0.33 U	< 1.6 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 1.6 U	< 0.33 U	< 0.67 U
SB-01-B	17	5/10/2004	--	< 0.34 U	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 0.69 U
SB-01-B	27	5/10/2004	--	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.69 U
SB-01-B	47	5/10/2004	--	< 0.36 U	< 1.8 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.8 U	< 0.36 U	< 0.73 U
SB-01-B	77	5/11/2004	--	< 0.41 U	< 2 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 2 U	< 0.41 U	< 0.81 U
SB-01-B	93	5/11/2004	--	< 0.51 U	< 2.5 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 0.51 U	< 2.5 U	< 0.51 U	< 1 U
SRB-1	0	5/25/2001	--	--	< 4.488 U	< 4.488 U	< 4.488 UJ-	--	--	--	< 4.488 U	< 4.488 UJ-	< 4.488 U
SRB-1	10	5/25/2001	--	--	< 0.4785 U	< 0.4785 U	< 0.4785 UJ-	--	--	--	< 0.4785 U	< 0.4785 UJ-	< 0.4785 U
SRB-1	20	5/25/2001	--	--	< 0.4785 U	< 0.4785 U	< 0.4785 UJ-	--	--	--	< 0.4785 U	< 0.4785 UJ-	< 0.4785 U
SRB-1	30	5/25/2001	--	--	< 0.4587 U	< 0.4587 U	< 0.4587 UJ-	--	--	--	< 0.4587 U	< 0.4587 UJ-	< 0.4587 U
SRB-1	40	5/25/2001	--	--	< 0.4719 U	< 0.4719 U	< 0.4719 UJ-	--	--	--	< 0.4719 U	< 0.4719 UJ-	< 0.4719 U
SRB-1	50	5/25/2001	--	--	< 0.6633 U	< 0.6633 U	< 0.6633 UJ-	--	--	--	< 0.6633 U	< 0.6633 UJ-	< 0.6633 U
SRB-1	60	5/25/2001	--	--	< 0.4587 U	< 0.4587 U	< 0.4587 UJ-	--	--	--	< 0.4587 U	< 0.4587 UJ-	< 0.4587 U
SRB-2	0	5/25/2001	--	--	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-	--	--	--	< 0.429 UJ-	< 0.429 UJ-	< 0.429 UJ-
SRB-2	10	5/25/2001	--	--	< 0.462 U	< 0.462 UJ-	< 0.462 UJ-	--	--	--	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-
SRB-2	20	5/25/2001	--	--	< 0.4554 U	< 0.4554 UJ-	< 0.4554 UJ-	--	--	--	< 0.4554 UJ-	< 0.4554 UJ-	< 0.4554 UJ-
SRB-2	30	5/25/2001	--	--	< 0.462 U	< 0.462 UJ-	< 0.462 UJ-	--	--	--	< 0.462 UJ-	< 0.462 UJ-	< 0.462 UJ-
SRB-2	40	5/25/2001	--	--	< 0.4587 U	< 0.4587 U	< 0.4587 UJ-	--	--	--	< 0.4587 U	< 0.4587 UJ-	< 0.4587 U
SRB-2	50	5/25/2001	--	--	< 0.4554 U	< 0.4554 U	< 0.4554 UJ-	--	--	--	< 0.4554 U	< 0.4554 UJ-	< 0.4554 U

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-5
SOIL DIOXINS/FURANS DATA
SOUTHERN RIBS SUB-AREA
(Page 1 of 1)

Sample ID	Depth (ft bgs)	Sample Date	Dioxins/Furans																
			1,2,3,4,6,7,8-HpCDF	1,2,3,4,6,7,8-HpCDD	1,2,3,4,7,8,9-HpCDF	1,2,3,4,7,8-HxCDF	1,2,3,4,7,8-HxCDD	1,2,3,6,7,8-HxCDF	1,2,3,6,7,8-HxCDD	1,2,3,7,8,9-HxCDF	1,2,3,7,8,9-HxCDD	1,2,3,7,8-PeCDF	1,2,3,7,8-PeCDD	2,3,4,6,7,8-HxCDF	2,3,4,7,8-PeCDF	2,3,7,8-TCDF	2,3,7,8-TCDD	OCDD	OCDF	TCDD TEQ
CPS-3	0	12/21/2000	210	17	76	100	< 2.5 U	64	6	9.5	5.6	59	4.7	17	34	73	1.5	21	1400	57
SB-01-B	0	5/10/2004	3.2	< 1.4 U	< 0.95 U	< 1.4 U	< 0.24 U	< 0.7 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.79 U	< 0.6 U	< 0.3 U	< 0.5 U	< 0.46 U	< 0.16 U	0.00001	11	0.8
SB-01-B	7	5/10/2004	< 1.6 U	< 0.68 U	< 0.57 U	< 0.94 U	< 0.17 U	< 0.64 U	< 0.18 U	< 0.21 U	< 0.17 U	< 0.58 U	< 0.44 U	< 0.25 U	< 0.36 U	< 0.35 U	< 0.12 U	0.00001	5.3	0.54
SB-01-B	17	5/10/2004	4.3	< 0.84 U	< 1.9 U	2.7	< 0.24 U	< 1.9 U	< 0.32 U	< 0.13 U	< 0.41 U	< 1.9 U	< 0.2 U	< 0.34 U	< 1.1 U	1.5	< 0.13 U	< 1.6 U	18	1.1
SB-01-B	27	5/10/2004	< 0.29 U	< 0.13 U	< 0.15 U	< 0.5 U	< 0.12 U	< 0.064 U	< 0.097 U	< 0.058 U	< 0.1 U	< 0.075 U	< 0.09 U	< 0.051 U	< 0.075 U	< 0.067 U	< 0.054 U	< 0.27 U	< 0.93 U	0.2
SB-01-B	47	5/10/2004	< 0.59 U	< 0.49 U	< 0.2 U	< 0.32 U	< 0.066 U	< 0.083 U	< 0.16 U	< 0.075 U	< 0.14 U	< 0.04 U	< 0.1 U	< 0.073 U	< 0.04 U	< 0.061 U	< 0.05 U	< 5.3 U	< 2.3 U	0.15

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in pg/g.
-- = no sample data.

TABLE B-6
SOIL GENERAL CHEMISTRY AND IONS DATA
SOUTHERN RIBS SUB-AREA
(Page 1 of 1)

Sample ID	Depth (ft bgs)	Sample Date	General Chemistry / Ions													
			Ammonia	Bromide	Chlorate	Chloride	Cyanide (Total)	Fluoride	Iodide	Nitrate (as N)	Nitrite (as N)	Orthophosphate as P	Perchlorate	Sulfate	Sulfide	Total Kjeldahl Nitrogen (TKN)
CPS-1	0	12/21/2000	--	--	--	--	< 0.26 U	--	--	--	--	--	0.65	--	--	--
CPS-2	0	12/21/2000	--	--	--	--	0.4	--	--	--	--	--	0.65	--	--	--
CPS-3	0	12/21/2000	--	--	--	--	0.42	--	--	--	--	--	0.27	--	--	--
CPS-4	0	12/21/2000	--	--	--	--	0.47	--	--	--	--	--	0.33	--	--	--
CPS-5	0	1/5/2001	--	--	--	--	< 0.52 U	--	--	--	--	--	1.1	--	--	--
CPS-6	0	12/21/2000	--	--	--	--	< 0.26 U	--	--	--	--	--	0.18	--	--	--
CPS-8	0	1/5/2001	--	--	--	--	< 0.54 U	--	--	--	--	--	1.7	--	--	--
CPS-9	0	1/5/2001	--	--	--	--	< 0.56 U	--	--	--	--	--	1.3	--	--	--
SB-01-B	0	5/10/2004	< 0.51 U	< 2.6 U	< 2 U	2.4	< 0.51 U	< 1 U	< 10.2 U	3.2	< 0.2 U	0.89 J	1.99	19.6	< 10.2 U	< 2.6 U
SB-01-B	7	5/10/2004	< 0.51 U	< 2.5 U	< 2 U	24.7	< 0.51 U	< 1 U	< 10.1 U	3.6	0.25	1.5 J	0.19	54.9	< 10.1 U	< 2.5 U
SB-01-B	17	5/10/2004	< 0.52 U	0.91 J	< 2.1 U	281	< 0.52 U	0.46 J	< 10.4 U	1.9	< 0.21 U	1.4 J	< 0.0418 U	191	< 10.4 U	< 2.6 U
SB-01-B	27	5/10/2004	< 0.52 U	< 2.6 U	< 2.1 U	23.8	< 0.52 U	1.1	< 10.5 U	0.54	< 0.21 U	< 5.2 U	0.0052 J	59	< 10.5 U	< 2.6 U
SB-01-B	47	5/10/2004	< 0.55 U	< 2.8 U	< 2.2 U	50.2	< 0.55 U	1.6	< 11 U	0.52	< 0.22 U	< 5.5 U	0.0088 J	142	< 11 U	< 2.8 U
SB-01-B	60	5/12/2004	--	--	--	--	--	--	--	--	--	--	2.5 J-	--	--	--
SB-01-B	77	5/11/2004	< 0.62 U	< 3.1 U	< 2.5 U	118	< 0.62 U	2.3	< 12.3 U	0.64	0.56	< 6.2 U	0.0482 J	408	< 12.3 U	< 3.1 U
SB-01-B	80	5/11/2004	--	--	--	--	--	--	--	--	--	--	0.17	--	--	--
SB-01-B	93	5/11/2004	< 0.77 U	< 3.8 U	< 3.1 U	89.7	1.9	1.3 J	< 15.3 U	1.5	< 0.31 U	< 7.7 U	0.0249 J	133	< 15.3 U	< 3.8 U
SB-01-B	120	5/11/2004	--	--	--	--	--	--	--	--	--	--	0.1	--	--	--
SB-01-B	180	5/12/2004	--	--	--	--	--	--	--	--	--	--	0.095	--	--	--
SB-01-B	214	5/12/2004	--	--	--	--	--	--	--	--	--	--	0.017	--	--	--
SB-01-B	345	5/18/2004	--	--	--	--	--	--	--	--	--	--	< 0.04 U	--	--	--
SRB-1	0	5/25/2001	--	--	--	--	< 0.56 U	--	--	--	--	--	0.059	--	--	--
SRB-1	10	5/25/2001	--	--	--	--	< 0.58 U	--	--	--	--	--	< 0.058 U	--	--	--
SRB-1	20	5/25/2001	--	--	--	--	< 0.576 U	--	--	--	--	--	< 0.058 U	--	--	--
SRB-1	30	5/25/2001	--	--	--	--	< 0.556 U	--	--	--	--	--	0.057	--	--	--
SRB-1	40	5/25/2001	--	--	--	--	< 0.572 U	--	--	--	--	--	< 0.0572 U	--	--	--
SRB-1	50	5/25/2001	--	--	--	--	< 0.804 U	--	--	--	--	--	< 0.0804 U	--	--	--
SRB-1	60	5/25/2001	--	--	--	--	< 0.552 U	--	--	--	--	--	< 0.0556 U	--	--	--
SRB-2	0	5/25/2001	--	--	--	--	< 0.52 U	--	--	--	--	--	< 0.052 U	--	--	--
SRB-2	10	5/25/2001	--	--	--	--	< 0.56 U	--	--	--	--	--	< 0.056 U	--	--	--
SRB-2	20	5/25/2001	--	--	--	--	< 0.552 U	--	--	--	--	--	< 0.0552 U	--	--	--
SRB-2	30	5/25/2001	--	--	--	--	< 0.56 U	--	--	--	--	--	< 0.056 U	--	--	--
SRB-2	40	5/25/2001	--	--	--	--	< 0.556 U	--	--	--	--	--	< 0.0556 U	--	--	--
SRB-2	50	5/25/2001	--	--	--	--	< 0.552 U	--	--	--	--	--	< 0.0552 U	--	--	--
SRB-2	60	5/25/2001	--	--	--	--	< 0.74 U	--	--	--	--	--	0.076	--	--	--

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-7
SOIL ORGANOPHOSPHOROUS PESTICIDES DATA
SOUTHERN RIBS SUB-AREA
(Page 1 of 2)

Sample ID	Depth (ft bgs)	Sample Date	Organophosphorous Pesticides													
			Azinphos-ethyl	Azinphos-methyl	Carbophenothion	Carbophenothion-methyl	Chlorpyrifos	Coumaphos	Demeton	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethion	Ethoprophos
CPS-1	0	12/21/2000	--	< 0.0721 U	--	--	--	--	< 0.1339 U	--	--	< 0.0721 U	--	--	< 0.0721 U	< 0.036 U	--
CPS-2	0	12/21/2000	--	< 0.0721 U	--	--	--	--	< 0.1339 U	--	--	< 0.0721 U	--	--	< 0.0721 U	< 0.036 U	--
CPS-3	0	12/21/2000	--	< 0.0735 U	--	--	--	--	< 0.1365 U	--	--	< 0.0735 U	--	--	< 0.0735 U	< 0.037 U	--
CPS-4	0	12/21/2000	--	< 0.0721 U	--	--	--	--	< 0.1339 U	--	--	< 0.0721 U	--	--	< 0.0721 U	< 0.036 U	--
CPS-5	0	1/5/2001	--	< 0.0728 U	--	--	--	--	< 0.1352 U	--	--	< 0.0728 U	--	--	< 0.0728 U	< 0.036 U	--
CPS-6	0	12/21/2000	--	< 0.0735 U	--	--	--	--	< 0.1365 U	--	--	< 0.0735 U	--	--	< 0.0735 U	< 0.037 U	--
CPS-8	0	1/5/2001	--	< 0.0749 U	--	--	--	--	< 0.1391 U	--	--	< 0.0749 U	--	--	< 0.0749 U	< 0.037 U	--
CPS-9	0	1/5/2001	--	< 0.077 U	--	--	--	--	< 0.143 U	--	--	< 0.077 U	--	--	< 0.077 U	< 0.0385 U	--
SB-01-B	0	5/10/2004	--	--	--	--	--	--	--	--	--	--	--	--	< 0.013 U	--	--
SB-01-B	17	5/10/2004	< 0.034 U	< 0.014 U	< 0.034 U	< 0.034 U	< 0.014 U	< 0.014 U	--	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	--	< 0.014 U
SB-01-B	27	5/10/2004	< 0.035 U	< 0.014 U	< 0.035 U	< 0.035 U	< 0.014 U	< 0.014 U	--	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	--	< 0.014 U
SB-01-B	47	5/10/2004	< 0.036 U	< 0.014 U	< 0.036 U	< 0.036 U	< 0.014 U	< 0.014 U	--	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	--	< 0.014 U
SB-01-B	77	5/11/2004	< 0.041 U	< 0.016 U	< 0.041 U	< 0.041 U	< 0.016 U	< 0.016 U	--	< 0.016 U	< 0.016 U	< 0.016 U	< 0.016 U	< 0.016 U	< 0.016 U	--	< 0.016 U
SB-01-B	93	5/11/2004	< 0.051 U	< 0.02 U	< 0.051 U	< 0.051 U	< 0.02 U	< 0.02 U	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	< 0.02 U

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.

TABLE B-7
SOIL ORGANOPHOSPHOROUS PESTICIDES DATA
SOUTHERN RIBS SUB-AREA
(Page 2 of 2)

Sample ID	Depth (ft bgs)	Sample Date	Organophosphorous Pesticides														
			Ethyl p-nitrophenyl phenylphosphorothioate	Famphur	Fenthion	Malathion	Methyl parathion	Mevinphos	Naled	O,O,O-Triethyl phos-phorothioate	Parathion	Phorate	Phosmet	Ronnel	Sulfotep	Tetrachlorvinphos (Stirophos)
CPS-1	0	12/21/2000	--	--	--	< 0.0721 U	< 0.036 U	--	--	--	< 0.036 U	--	--	--	--	--
CPS-2	0	12/21/2000	--	--	--	< 0.0721 U	< 0.036 U	--	--	--	< 0.036 U	--	--	--	--	--
CPS-3	0	12/21/2000	--	--	--	< 0.0735 U	< 0.037 U	--	--	--	< 0.037 U	--	--	--	--	--
CPS-4	0	12/21/2000	--	--	--	< 0.0721 U	< 0.036 U	--	--	--	< 0.036 U	--	--	--	--	--
CPS-5	0	1/5/2001	--	--	--	< 0.0728 U	< 0.036 U	--	--	--	< 0.036 U	--	--	--	--	--
CPS-6	0	12/21/2000	--	--	--	< 0.0735 U	< 0.037 U	--	--	--	< 0.037 U	--	--	--	--	--
CPS-8	0	1/5/2001	--	--	--	< 0.0749 U	< 0.037 U	--	--	--	< 0.037 U	--	--	--	--	--
CPS-9	0	1/5/2001	--	--	--	< 0.077 U	< 0.0385 U	--	--	--	< 0.0385 U	--	--	--	--	--
SB-01-B	0	5/10/2004	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-01-B	17	5/10/2004	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.034 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.07 U	< 0.07 U	< 0.014 U	< 0.014 U
SB-01-B	27	5/10/2004	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.035 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.07 U	< 0.07 U	< 0.014 U	< 0.014 U
SB-01-B	47	5/10/2004	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.036 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.074 U	< 0.074 U	< 0.014 U	< 0.014 U
SB-01-B	77	5/11/2004	< 0.016 U	< 0.016 U	< 0.016 U	< 0.016 U	< 0.016 U	< 0.016 U	< 0.041 U	< 0.016 U	< 0.016 U	< 0.016 U	< 0.083 U	< 0.083 U	< 0.016 U	< 0.016 U
SB-01-B	93	5/11/2004	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.051 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.1 U	< 0.1 U	< 0.02 U	< 0.02 U

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.

TABLE B-8
SOIL POLYCHLORINATED BIPHENYLS (PCBs) DATA
SOUTHERN RIBS SUB-AREA
(Page 1 of 1)

Sample ID	Depth (ft bgs)	Sample Date	PCBs						
			Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
CPS-1	0	12/21/2000	< 0.0206 U	< 0.0206 U	< 0.0206 U	< 0.0206 U	< 0.0206 U	< 0.0206 U	< 0.0206 U
CPS-2	0	12/21/2000	< 0.0206 U	< 0.0206 U	< 0.0206 U	< 0.0206 U	< 0.0206 U	< 0.0206 U	< 0.0206 U
CPS-3	0	12/21/2000	< 0.021 U	< 0.021 U	< 0.021 U	< 0.021 U	< 0.021 U	< 0.021 U	< 0.021 U
CPS-4	0	12/21/2000	< 0.021 U	< 0.021 U	< 0.021 U	< 0.021 U	< 0.021 U	< 0.021 U	< 0.021 U
CPS-5	0	1/5/2001	< 0.0208 U	< 0.0208 U	< 0.0208 U	< 0.0208 U	< 0.0208 U	< 0.0208 U	< 0.0208 U
CPS-6	0	12/21/2000	< 0.021 U	< 0.021 U	< 0.021 U	< 0.021 U	< 0.021 U	< 0.021 U	< 0.021 U
CPS-8	0	1/5/2001	< 0.0214 U	< 0.0214 U	< 0.0214 U	< 0.0214 U	< 0.0214 U	< 0.0214 U	< 0.0214 U
CPS-9	0	1/5/2001	< 0.022 U	< 0.022 U	< 0.022 U	< 0.022 U	< 0.022 U	< 0.022 U	< 0.022 U
SB-01-B	0	5/10/2004	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
SB-01-B	7	5/10/2004	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U
SB-01-B	17	5/10/2004	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
SB-01-B	27	5/10/2004	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
SB-01-B	47	5/10/2004	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U
SB-01-B	77	5/11/2004	< 0.041 U	< 0.041 U	< 0.041 U	< 0.041 U	< 0.041 U	< 0.041 U	< 0.041 U
SB-01-B	93	5/11/2004	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
Shaded results indicate soil has been excavated and removed.

TABLE B-9
SOIL RADIONUCLIDES DATA
SOUTHERN RIBS SUB-AREA
(Page 1 of 3)

Sample ID	Depth (ft bgs)	Sample Date	Radionuclides									
			Actinium-228	Bismuth-210	Bismuth-212	Bismuth-214	Cobalt-57	Cobalt-60	Gross alpha	Gross beta	Lead-210	Lead-212
CPS-1	0	12/21/2000	2	--	< 1.8 U	0.9	--	--	--	--	2.5	1.8
CPS-2	0	12/21/2000	1.45	--	2.45	1.01	--	--	--	--	1.96	1.9
CPS-3	0	12/21/2000	1.73	--	< 1 U	1.1 J	--	--	--	--	1.5	2.06
CPS-4	0	12/21/2000	2.3	--	< 1.6 U	0.95	--	--	--	--	< 1.1 U	1.45
CPS-5	0	1/5/2001	1.57	--	2.5	0.72	--	--	--	--	< 1.14 U	1.39
CPS-6	0	12/21/2000	1.58	--	< 2 U	0.91	--	--	--	--	< 0.78 U	2
CPS-8	0	1/5/2001	1.6	--	< 1.8 U	0.55	--	--	--	--	1.9	1.55
CPS-9	0	1/5/2001	1.58	--	< 1.7 U	0.99	--	--	--	--	1.8	1.9
SB-01-B	0	5/10/2004	1.6	< 0.7 U	< 0.95 U	0.97	< -0.001 U	< -0.021 U	39.4	41.6	< 0.7 U	1.42
SB-01-B	7	5/10/2004	1.59	< 0.7 U	< 0.94 U	0.75	< 0.007 U	< -0.03 U	29.8	38.2	< 0.7 U	1.49
SB-01-B	17	5/10/2004	1.66	< 2 U	< 1.2 U	0.86	< 0.015 U	< 0.002 U	32.7	36.6	< 2 U	1.68
SB-01-B	27	5/10/2004	1.84	< 0.5 U	< 0.75 U	0.89	< -0.005 U	< -0.029 U	32.5	40.1	< 0.5 U	1.53
SB-01-B	47	5/10/2004	1.68	< 1.2 U	0.95	1.06	< -0.026 U	< 0.033 U	40.8	34.5	< 1.2 U	1.69
SB-01-B	77	5/11/2004	1.46	< 1 U	< 0.35 U	1.63	< -0.009 U	< -0.007 U	49	44.9	< 1 U	1.01
SB-01-B	93	5/11/2004	1.06	< 0.5 U	< 0.36 U	1	< 0.019 U	< -0.017 U	36.1	< 32.8 U	< 0.5 U	0.97

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in pCi/g.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-9
SOIL RADIONUCLIDES DATA
SOUTHERN RIBS SUB-AREA
(Page 2 of 3)

Sample ID	Depth (ft bgs)	Sample Date	Radionuclides									
			Lead-214	Polonium-210	Polonium-212	Polonium-214	Polonium-216	Polonium-218	Potassium-40	Protactinium-234	Radium-223	Radium-224
CPS-1	0	12/21/2000	0.88	--	--	--	--	--	24.4	--	--	2.9
CPS-2	0	12/21/2000	0.89	--	--	--	--	--	23.6	--	--	5.2
CPS-3	0	12/21/2000	1.03	--	--	--	--	--	26.1	--	--	6.6
CPS-4	0	12/21/2000	0.9	--	--	--	--	--	24.8	--	--	< 2.2 U
CPS-5	0	1/5/2001	0.82	--	--	--	--	--	25.2	--	--	3.5
CPS-6	0	12/21/2000	0.68	--	--	--	--	--	24	--	--	5.4
CPS-8	0	1/5/2001	0.88	--	--	--	--	--	26.2	--	--	2.8
CPS-9	0	1/5/2001	0.78	--	--	--	--	--	29.3	--	--	5.3
SB-01-B	0	5/10/2004	0.91	< 0.7 U	< 0.61 U	0.97	3.2	1.27	21.9	< -0.15 U	< -0.25 U	3.2
SB-01-B	7	5/10/2004	0.95	< 0.7 U	< 0.6 U	0.75	< 2 U	1.29	25.6	< -0.06 U	< 0.43 U	< 2 U
SB-01-B	17	5/10/2004	1.02	< 2 U	< 0.77 U	0.86	3.7	1.28	23.6	< -0.08 U	< -0.4 U	3.7
SB-01-B	27	5/10/2004	1.06	< 0.5 U	< 0.48 U	0.89	2.85	1.18	23.6	< -0.12 U	< 0.32 U	2.9
SB-01-B	47	5/10/2004	1.09	< 1.2 U	0.61	1.06	3.8	1.8	24.9	< -0.14 U	< 0.57 U	3.8
SB-01-B	77	5/11/2004	1.84	< 1 U	< 0.22 U	1.63	4.2	2.7	18	< -0.33 U	< -0.02 U	4.2
SB-01-B	93	5/11/2004	1.15	< 0.5 U	< 0.23 U	1	2.5	1.22	15.5	< -0.19 U	< 0.55 U	2.5

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in pCi/g.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-9
SOIL RADIONUCLIDES DATA
SOUTHERN RIBS SUB-AREA
(Page 3 of 3)

Sample ID	Depth (ft bgs)	Sample Date	Radionuclides									
			Radium-226	Radium-228	Thallium-208	Thorium-228	Thorium-230	Thorium-232	Thorium-234	Uranium-233/234	Uranium-235/236	Uranium-238
CPS-1	0	12/21/2000	0.85	2	0.53	1.62	1.18	1.45	< 0.25 U	1.01	0.14	0.8
CPS-2	0	12/21/2000	0.97	1.51	0.49	1.11	0.93	1.41	1.28	0.95	< 0.02 U	1.06
CPS-3	0	12/21/2000	1.21	1.73	0.63	1.32	1.25	1.55	1.49	1.01	0.15	1.09
CPS-4	0	12/21/2000	0.87	2.3	0.52	1.14	1.25	1.45	< -0.01 U	0.91	< 0.06 U	0.95
CPS-5	0	1/5/2001	0.78	1.57	0.49	1.8	1.02	1.85	1.73	0.8	0.15	0.93
CPS-6	0	12/21/2000	0.75	1.58	0.49	1.54	1.73	1.8	1.52	0.99	< 0.01 U	0.9
CPS-8	0	1/5/2001	0.54	1.6	0.37	1.4	0.85	1.38	< 0.25 U	0.84	< 0.06 U	1.13
CPS-9	0	1/5/2001	0.86	1.77	0.55	1.46	1.12	1.64	< 1.1 U	0.98	< 0.06 U	0.96
SB-01-B	0	5/10/2004	1.27	1.61	0.59	1.68	1.44	1.46	< 1.01 U	0.8	< 0.009 U	0.78
SB-01-B	7	5/10/2004	1.29	1.4	0.51	1.37	1.18	1.64	< 0.78 U	0.78	< 0.006 U	0.79
SB-01-B	17	5/10/2004	1.28	1.97	0.6	1.76	1.23	1.78	1.64	0.84	< 0.036 U	0.88
SB-01-B	27	5/10/2004	1.18	1.95	0.47	1.32	1.79	1.82	1.82	3.15	0.079	1.74
SB-01-B	47	5/10/2004	1.8	1.86	0.59	1.71	1.87	1.76	1.6	1.07	0.127	0.77
SB-01-B	77	5/11/2004	2.7	1.21	0.34	1.1	2.61	1.09	1.9	2.22	0.119	2.7
SB-01-B	93	5/11/2004	1.22	1.36	0.38	1.5	9.6	1.24	< 1.05 U	1.16	< 0.041 U	1.24

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in pCi/g.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-10
SOIL ALDEHYDES, ORGANIC ACIDS, GLYCOL/ALCOHOLS, PAHs AND CHLORINATED HERBICIDES DATA
SOUTHERN RIBS SUB-AREA
(Page 1 of 3)

			Aldehydes		Organic Acids					Glycol/Alcohols			
Sample ID	Depth (ft bgs)	Sample Date	Acetaldehyde	Formaldehyde	4-Chlorobenzene-sulfonic acid	Benzenesulfonic acid	Diethyl phosphoro-dithioic acid	Dimethyl phosphoro-dithioic acid	Phthalic acid	Ethanol	Ethylene glycol	Methanol	Propylene glycol
SB-01-B	0	5/10/2004	< 0.24 U	0.15	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 51 U	< 51 U	< 51 U	< 51 UJ-
SB-01-B	7	5/10/2004	< 0.22 U	< 0.11 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 51 U	< 51 U	< 51 U	< 51 UJ-
SB-01-B	17	5/10/2004	< 0.21 U	0.1	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 52 U	< 52 U	< 52 U	< 52 UJ-
SB-01-B	27	5/10/2004	< 0.21 U	0.086	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 52 U	< 52 U	< 52 U	< 52 UJ-
SB-01-B	47	5/10/2004	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 55 U	< 55 U	< 55 U	< 55 UJ-
SB-01-B	63	5/11/2004	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--
SB-01-B	77	5/11/2004	< 0.25 U	< 0.13 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 62 U	< 62 U	< 62 U	< 62 UJ-
SB-01-B	93	5/11/2004	< 0.32 UJ	< 0.16 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 77 U	< 77 U	< 77 U	< 77 UJ-

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.

TABLE B-10
SOIL ALDEHYDES, ORGANIC ACIDS, GLYCOL/ALCOHOLS, PAHs AND CHLORINATED HERBICIDES DATA
SOUTHERN RIBS SUB-AREA
(Page 2 of 3)

Sample ID	Depth (ft bgs)	Sample Date	PAHs												
			Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Pyrene
SB-01-B	0	5/10/2004	< 0.051 U	< 0.1 U	< 0.031 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.031 U	< 0.015 U	< 0.015 U	< 0.031 U	< 0.015 U	< 0.031 U	< 0.031 U
SB-01-B	7	5/10/2004	< 0.051 U	< 0.1 U	< 0.03 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.03 U	< 0.015 U	< 0.015 U	< 0.03 U	< 0.015 U	< 0.03 U	< 0.03 U
SB-01-B	17	5/10/2004	< 0.052 U	< 0.1 U	< 0.031 U	< 0.016 U	< 0.016 U	< 0.016 U	< 0.031 U	< 0.016 U	< 0.016 U	< 0.031 U	< 0.016 U	< 0.031 U	< 0.031 U
SB-01-B	27	5/10/2004	< 0.052 U	< 0.1 U	< 0.031 U	< 0.016 U	< 0.016 U	< 0.016 U	< 0.031 U	< 0.016 U	< 0.016 U	< 0.031 U	< 0.016 U	< 0.031 U	< 0.031 U
SB-01-B	47	5/10/2004	< 0.055 U	< 0.11 U	< 0.033 U	< 0.017 U	< 0.017 U	< 0.017 U	< 0.033 U	< 0.017 U	< 0.017 U	< 0.033 U	< 0.017 U	< 0.033 U	< 0.033 U
SB-01-B	63	5/11/2004	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-01-B	77	5/11/2004	< 0.062 U	< 0.12 U	< 0.037 U	< 0.018 U	< 0.018 U	< 0.018 U	< 0.037 U	< 0.018 U	< 0.018 U	< 0.037 U	< 0.018 U	< 0.037 U	< 0.037 U
SB-01-B	93	5/11/2004	< 0.077 U	< 0.15 U	< 0.046 U	< 0.023 U	< 0.023 U	< 0.023 U	< 0.046 U	< 0.023 U	< 0.023 U	< 0.046 U	< 0.023 U	< 0.046 U	< 0.046 U

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.

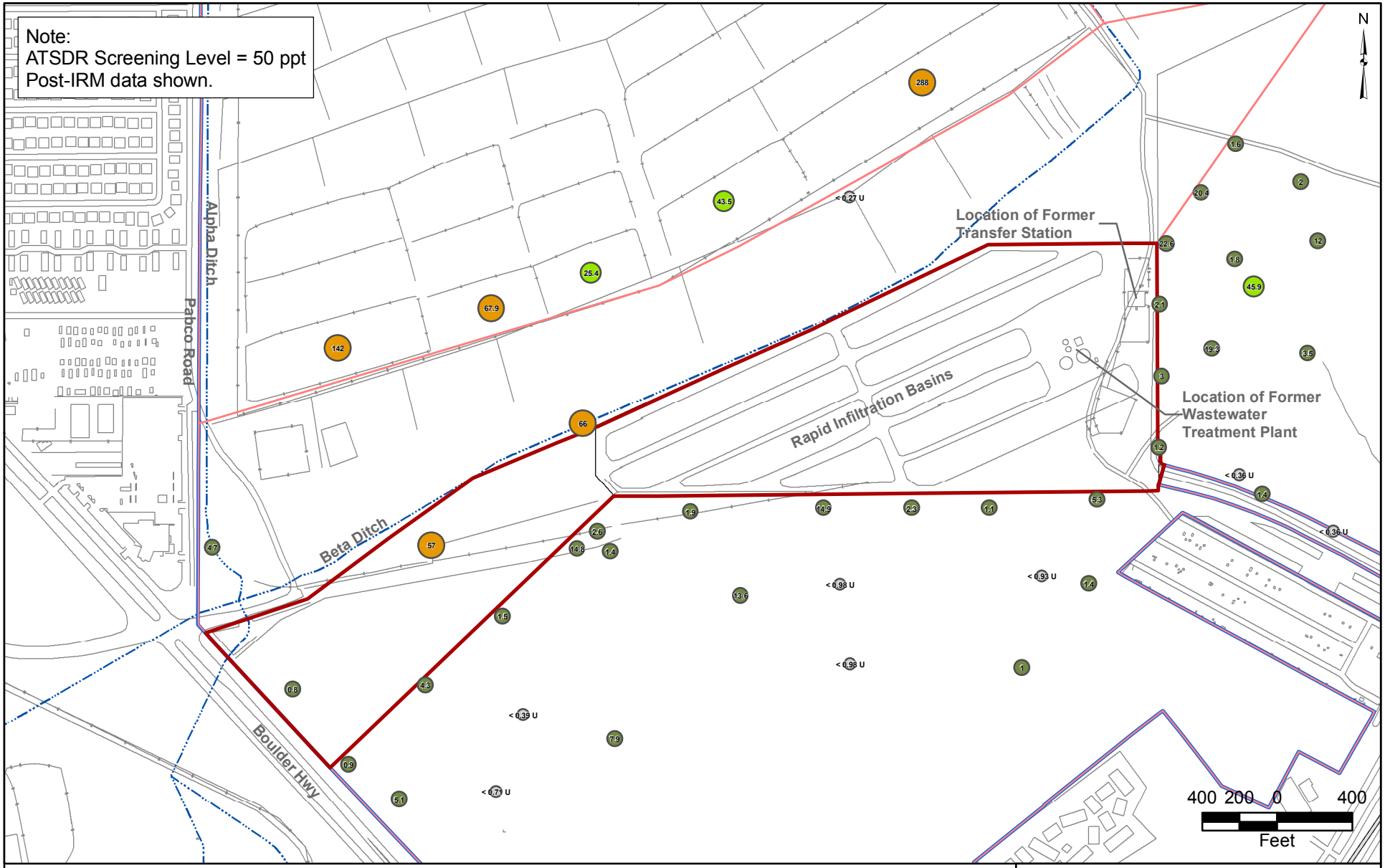
TABLE B-10
SOIL ALDEHYDES, ORGANIC ACIDS, GLYCOL/ALCOHOLS, PAHs AND CHLORINATED HERBICIDES DATA
SOUTHERN RIBS SUB-AREA
(Page 3 of 3)

Sample ID	Depth (ft bgs)	Sample Date	Chlorinated Herbicides									
			2,2-Dichloropropionic aci	2,4,5-T	2,4,5-TP	2,4-D	4-(2,4-Dichlorophenoxy) butyric acid	Dicamba	Dichlorprop	Dinitrobutyl phenol	MCPA (2-Methyl-4-chloro-phenoxyacetic a	Mecoprop
SB-01-B	0	5/10/2004	< 0.041 UJ-	< 0.02 UJ-	< 0.02 UJ-	< 0.082 UJ-	< 0.082 UJ-	< 0.041 UJ-	< 0.082 UJ-	< 0.012 UJ-	< 8.2 UJ-	< 8.2 UJ-
SB-01-B	7	5/10/2004	< 0.04 UJ-	< 0.02 UJ-	< 0.02 UJ-	< 0.081 UJ-	< 0.081 UJ-	< 0.04 UJ-	< 0.081 UJ-	< 0.012 UJ-	< 8.1 UJ-	< 8.1 UJ-
SB-01-B	17	5/10/2004	< 0.042 UJ-	< 0.021 UJ-	< 0.021 UJ-	< 0.084 UJ-	< 0.084 UJ-	< 0.042 UJ-	< 0.084 UJ-	< 0.013 UJ-	< 8.4 UJ-	< 8.4 UJ-
SB-01-B	27	5/10/2004	< 0.042 UJ-	< 0.021 UJ-	< 0.021 UJ-	< 0.084 UJ-	< 0.084 UJ-	< 0.042 UJ-	< 0.084 UJ-	< 0.013 UJ-	< 8.4 UJ-	< 8.4 UJ-
SB-01-B	47	5/10/2004	< 0.044 UJ-	< 0.022 UJ-	< 0.022 UJ-	< 0.088 UJ-	< 0.088 UJ-	< 0.044 UJ-	< 0.088 UJ-	< 0.013 UJ-	< 8.8 UJ-	< 8.8 UJ-
SB-01-B	63	5/11/2004	--	--	--	--	--	--	--	--	--	--
SB-01-B	77	5/11/2004	< 0.049 UJ-	< 0.025 UJ-	< 0.025 UJ-	< 0.099 UJ-	< 0.099 UJ-	< 0.049 UJ-	< 0.099 UJ-	< 0.015 UJ-	< 9.9 UJ-	< 9.9 UJ-
SB-01-B	93	5/11/2004	< 0.061 UJ-	< 0.031 UJ-	< 0.031 UJ-	< 0.12 UJ-	< 0.12 UJ-	< 0.061 UJ-	< 0.12 UJ-	< 0.018 UJ-	< 12 UJ-	< 12 UJ-

Note: In cases of duplicate results for a given sample/analyte, the data presented in this table include the maximum value reported. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in Table 1 (which includes duplicate analyses).
All units in mg/kg.
-- = no sample data.

APPENDIX C

SOIL CONCENTRATION DISTRIBUTION FIGURES



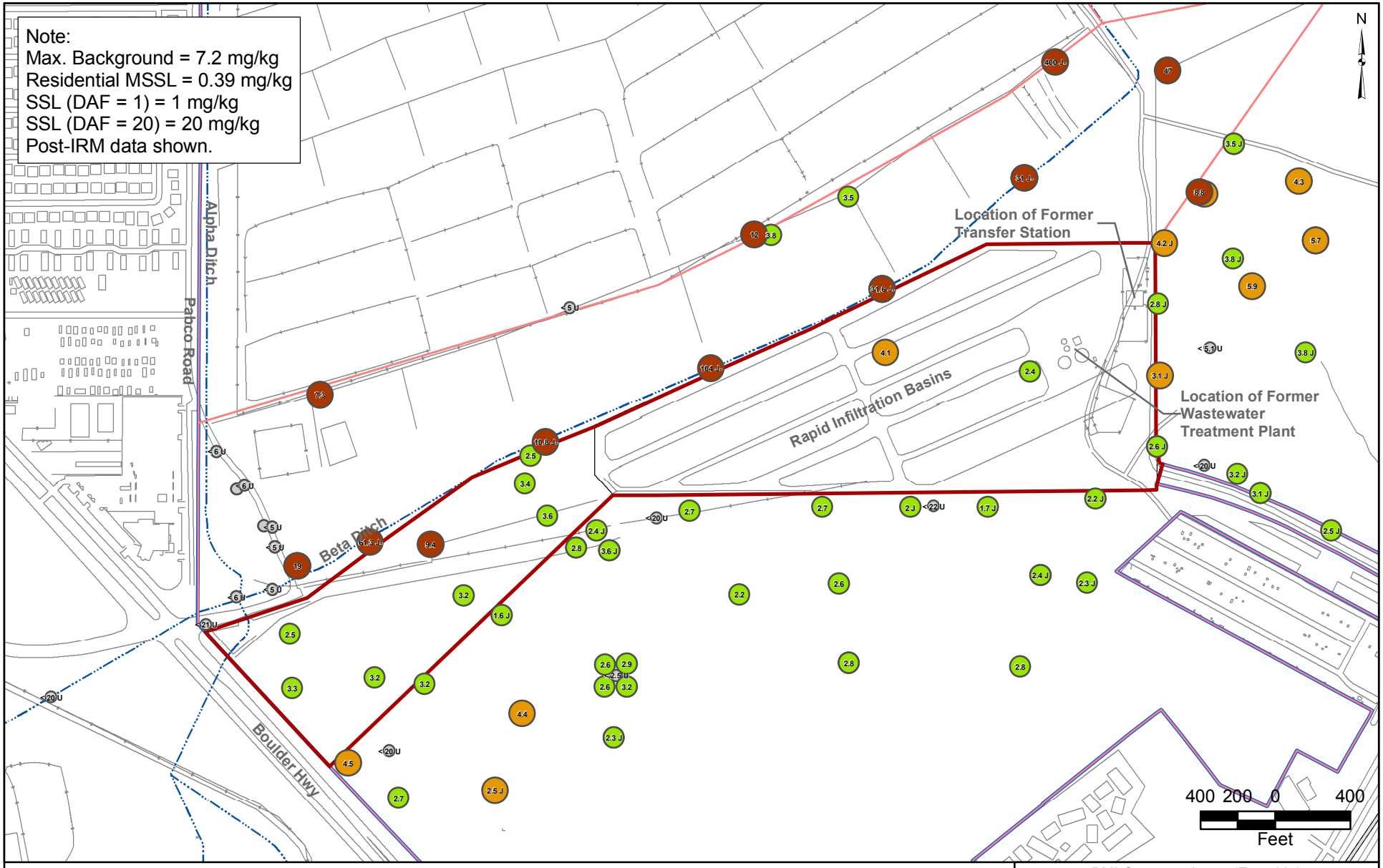
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-1

TCDD TEQ RESULTS IN SOUTHERN RIBS SUB-AREA AND ADJACENT 1,000 FT 0 to 1 FT BGS

Basic Remediation Company

Prepared by	Date	JOB No. 0064276
MKJ (ERM)	08/18/08	FILE: GIS/BRC/SO-RIBS_SAP/APP-C FIGURES.MXD



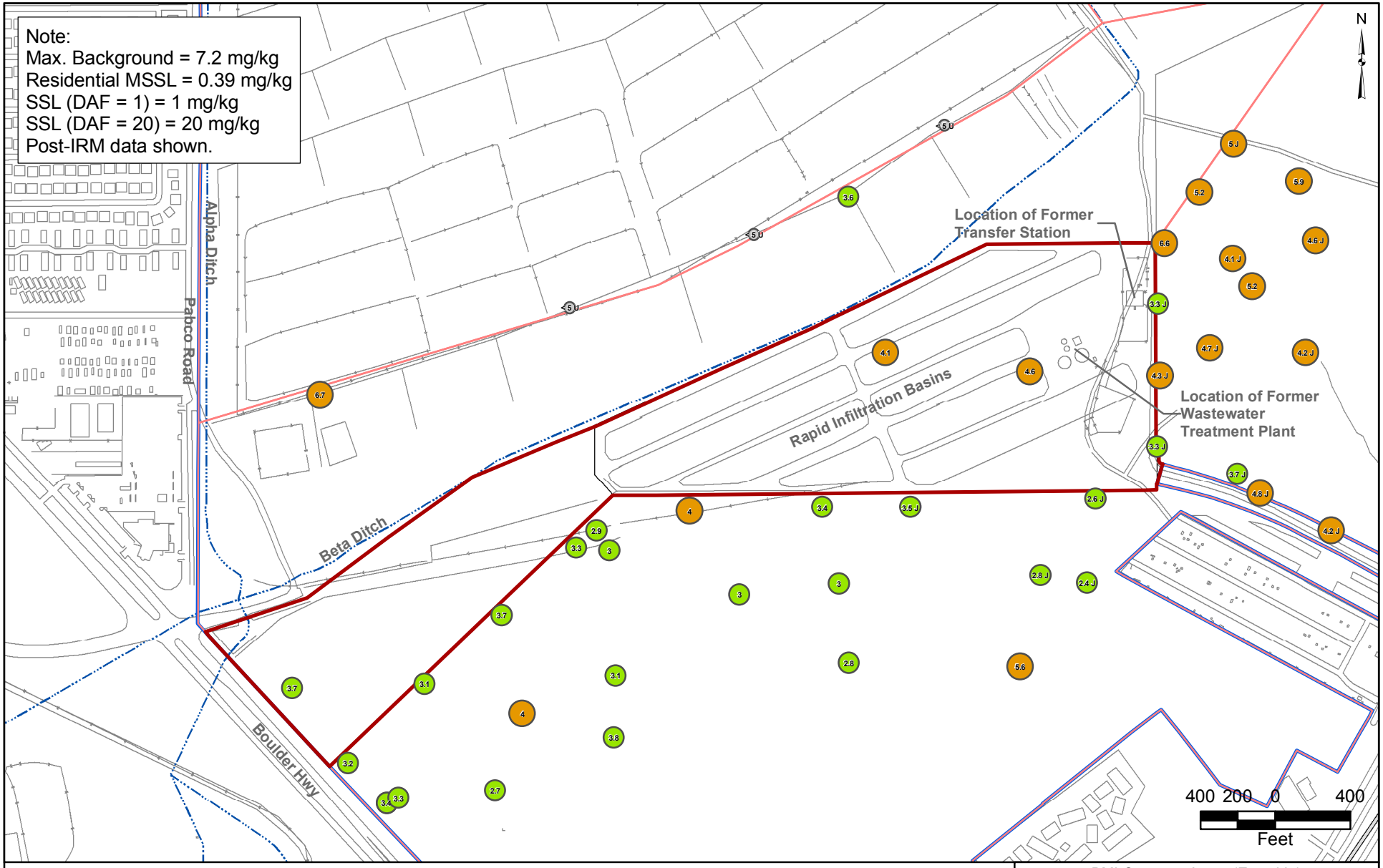
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-2

ARSENIC RESULTS IN SOUTHERN RIBS SUB-AREA AND ADJACENT 1,000 FT 0 to 1 FT BGS

Basic Remediation Company

Prepared by MKJ (ERM) | Date 08/18/08 | JOB No. 0064276 | FILE: GIS/BRC/SO-RIBS_SAP/APP-C FIGURES.MXD



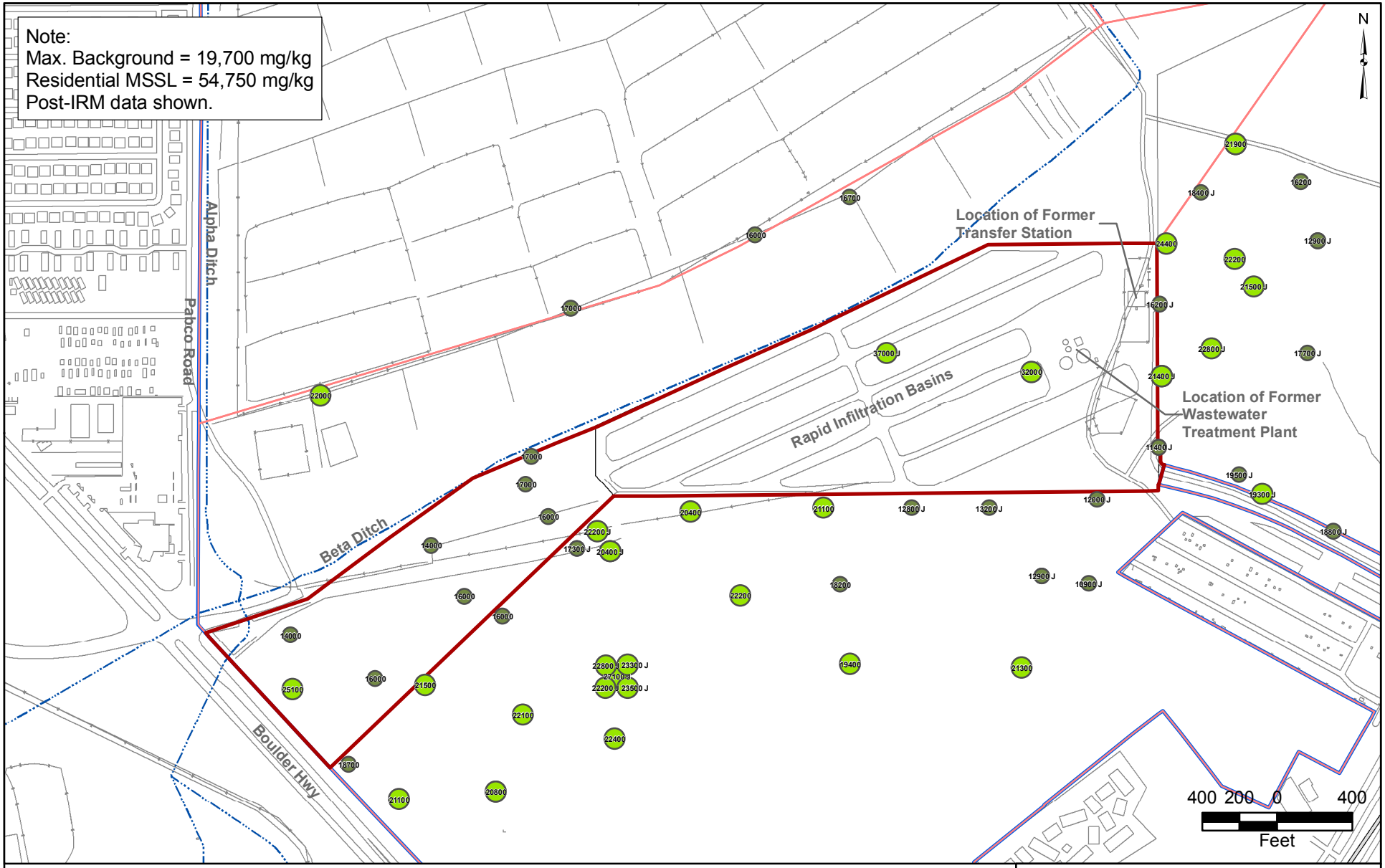
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-3

ARSENIC RESULTS IN SOUTHERN RIBS SUB-AREA AND ADJACENT 1,000 FT 7 to 10 FT BGS

Basic Remediation Company

Prepared by MKJ (ERM) | Date 08/18/08 | JOB No. 0064276 | FILE: GIS/BRC/SO-RIBS_SAP/APP-C FIGURES.MXD



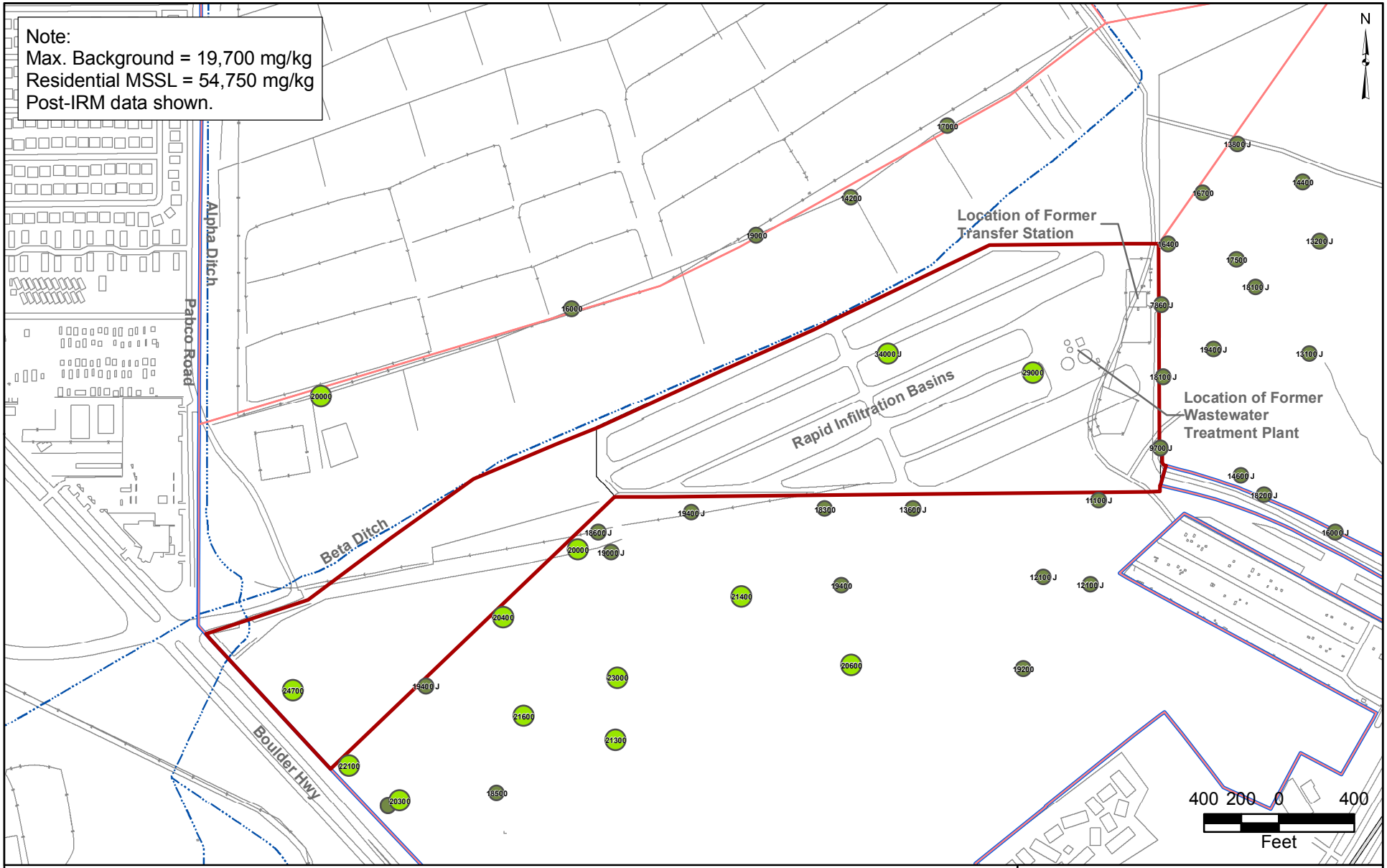
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-4

IRON RESULTS IN SOUTHERN RIBS SUB-AREA AND ADJACENT 1,000 FT 0 to 1 FT BGS

Basic Remediation Company

Prepared by MKJ (ERM) | Date 08/18/08 | JOB No. 0064276 | FILE: GIS/BRC/SO-RIBS_SAP/APP-C FIGURES.MXD



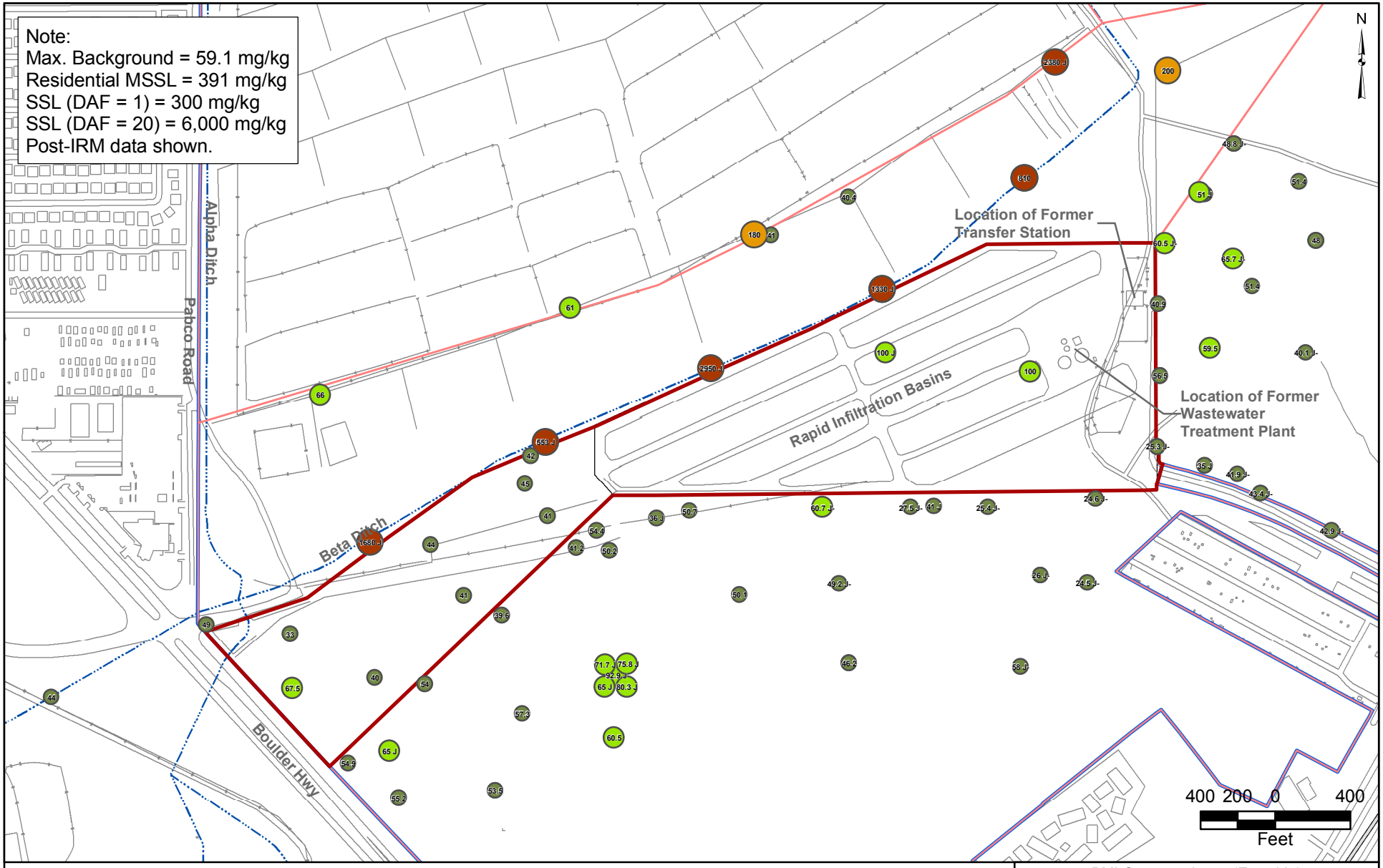
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-5

IRON RESULTS IN SOUTHERN RIBS SUB-AREA AND ADJACENT 1,000 FT 7 to 10 FT BGS

Basic Remediation Company

Prepared by		Date	JOB No. 0064276
MKJ (ERM)	ERM	08/18/08	FILE: GIS/BRC/SO-RIBS_SAP/APP-C FIGURES.MXD



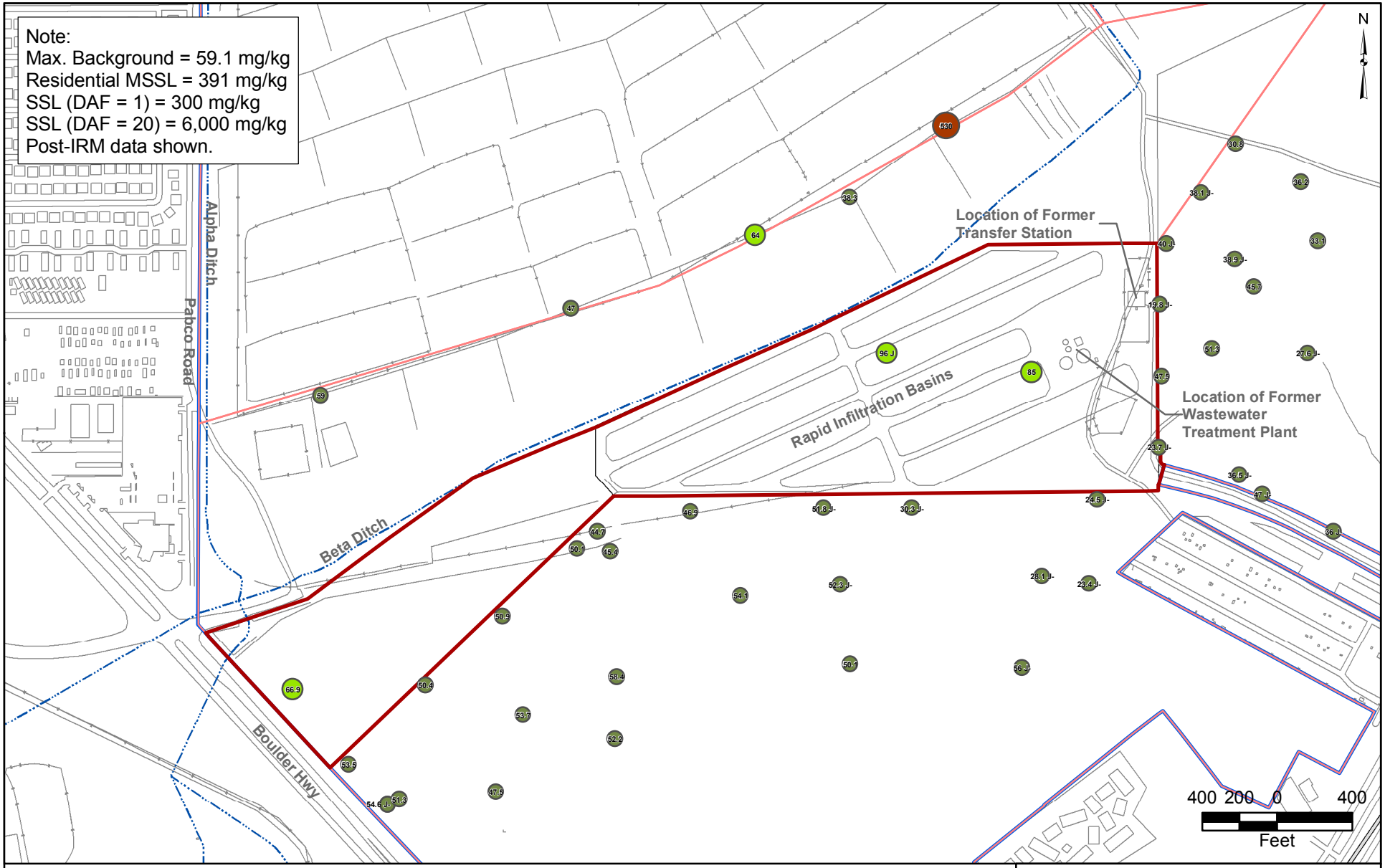
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-6

VANADIUM RESULTS IN SOUTHERN RIBS SUB-AREA AND ADJACENT 1,000 FT 0 to 1 FT BGS

Basic Remediation Company

Prepared by		Date	JOB No. 0064276
MKJ (ERM)	ERM	08/18/08	FILE: GIS/BRC/SO-RIBS_SAP/APP-C FIGURES.MXD



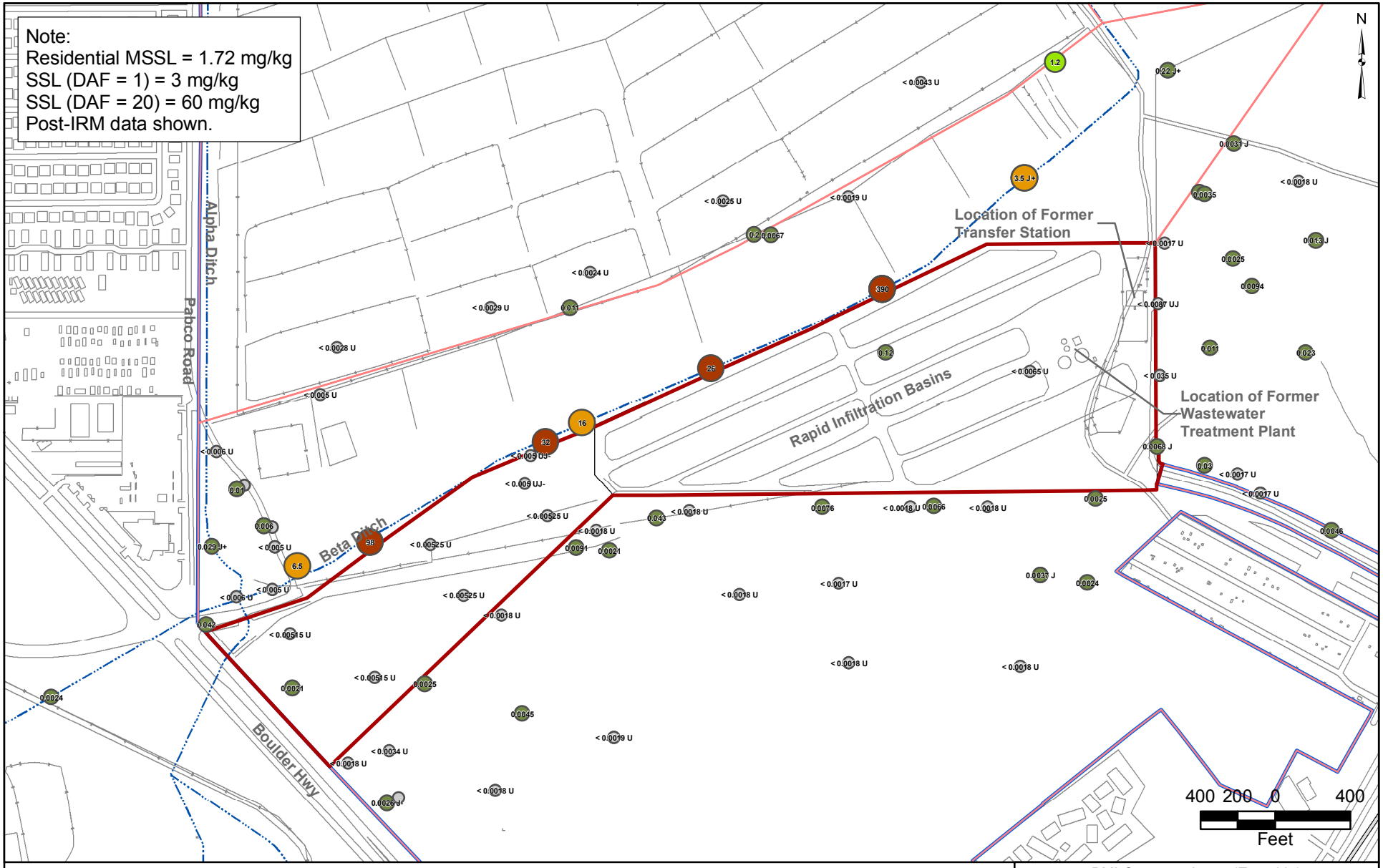
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-7

VANADIUM RESULTS IN SOUTHERN RIBS SUB-AREA AND ADJACENT 1,000 FT 7 to 10 FT BGS

Basic Remediation Company

Prepared by MKJ (ERM) | Date 08/18/08 | JOB No. 0064276 | FILE: GIS/BRC/SO-RIBS_SAP/APP-C FIGURES.MXD



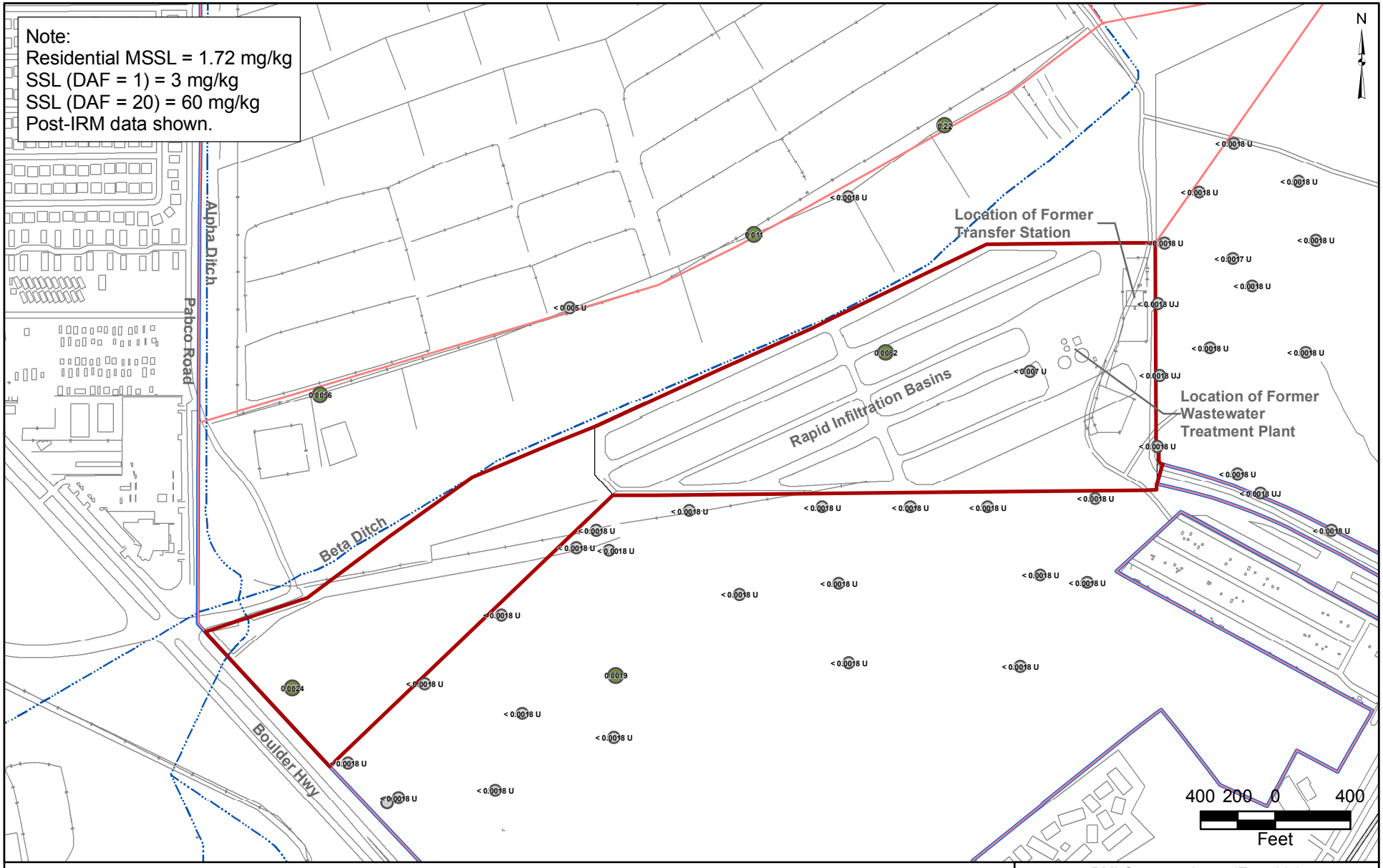
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-8

4,4'-DDE RESULTS IN SOUTHERN RIBS SUB-AREA AND ADJACENT 1,000 FT 0 to 1 FT BGS

Basic Remediation COMPANY

Prepared by		Date	JOB No. 0064276
MKJ (ERM)	ERM	08/18/08	FILE: GIS/BRC/SO-RIBS_SAP/APP-C FIGURES.MXD



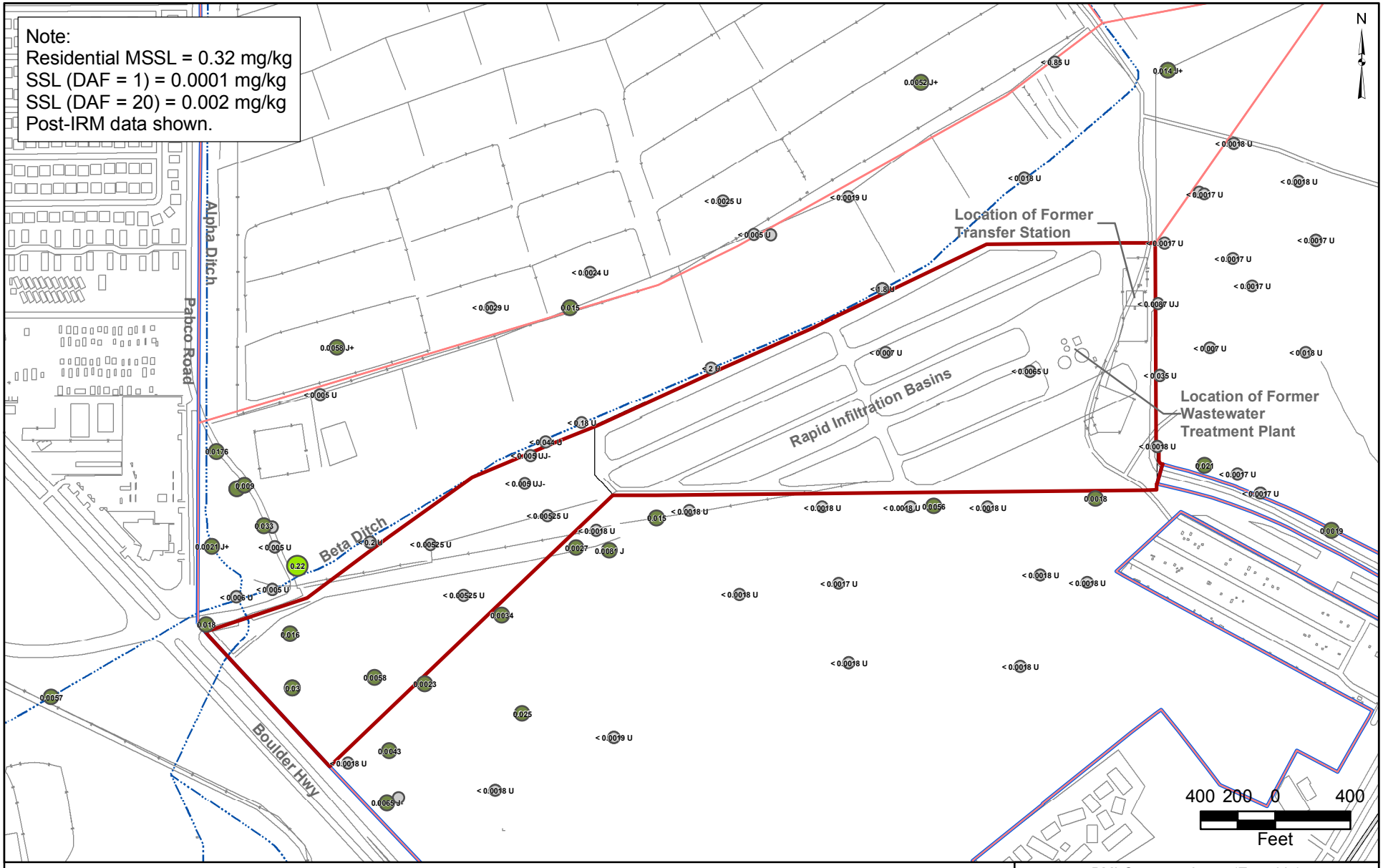
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-9

4,4'-DDE RESULTS IN SOUTHERN RIBS SUB-AREA AND ADJACENT 1,000 FT 7 to 10 FT BGS

Basic Remediation COMPANY

Prepared by	Date	JOB No. 0064276
MKJ (ERM)	08/18/08	FILE: GIS/BRC/SO-RIBS_SAP/APP-C FIGURES.MXD



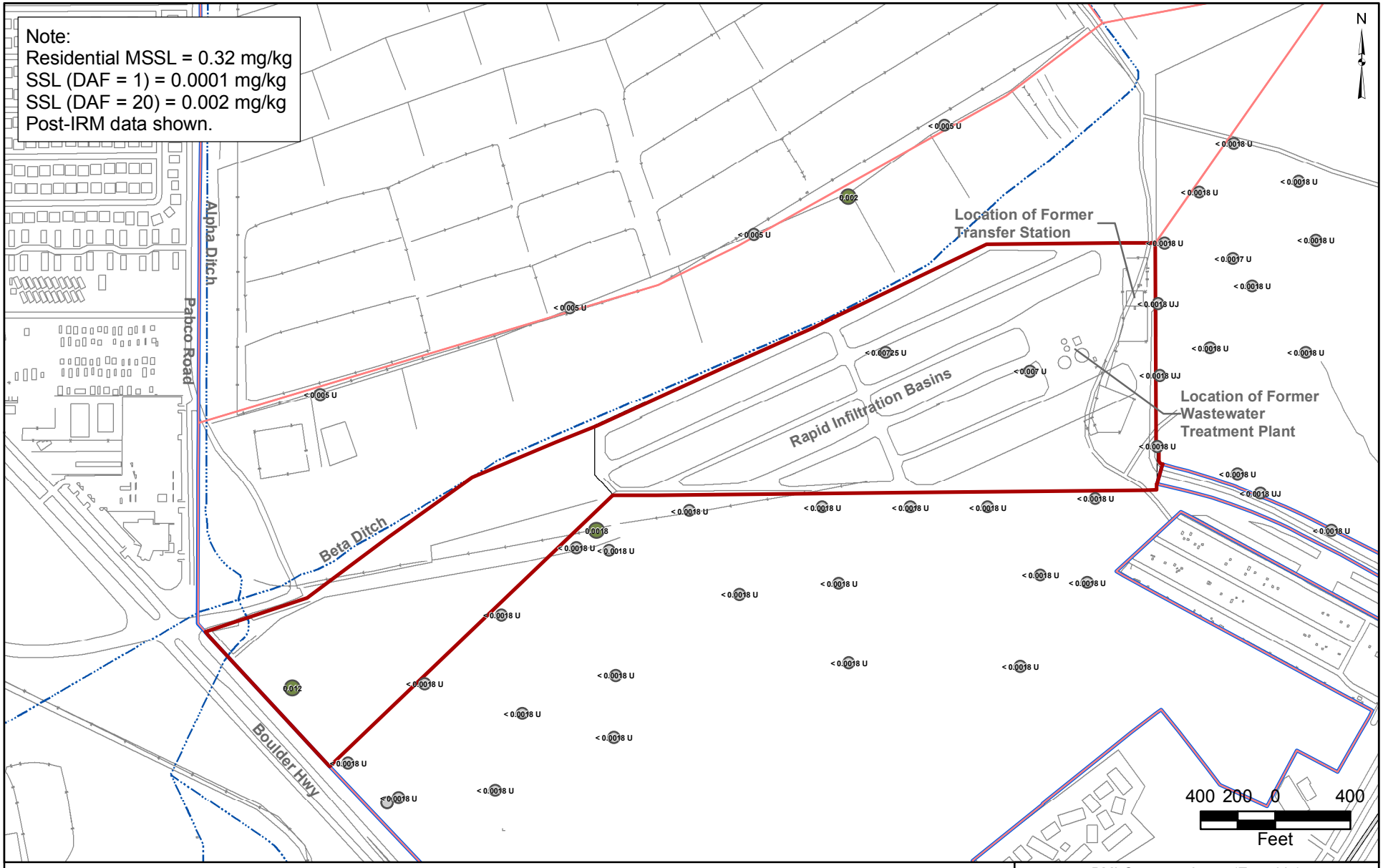
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-10

beta-BHC RESULTS IN SOUTHERN RIBS SUB-AREA AND ADJACENT 1,000 FT 0 to 1 FT BGS

Basic Remediation COMPANY

Prepared by	Date	JOB No. 0064276
MKJ (ERM)	08/18/08	FILE: GIS/BRC/SO-RIBS_SAP/APP-C FIGURES.MXD



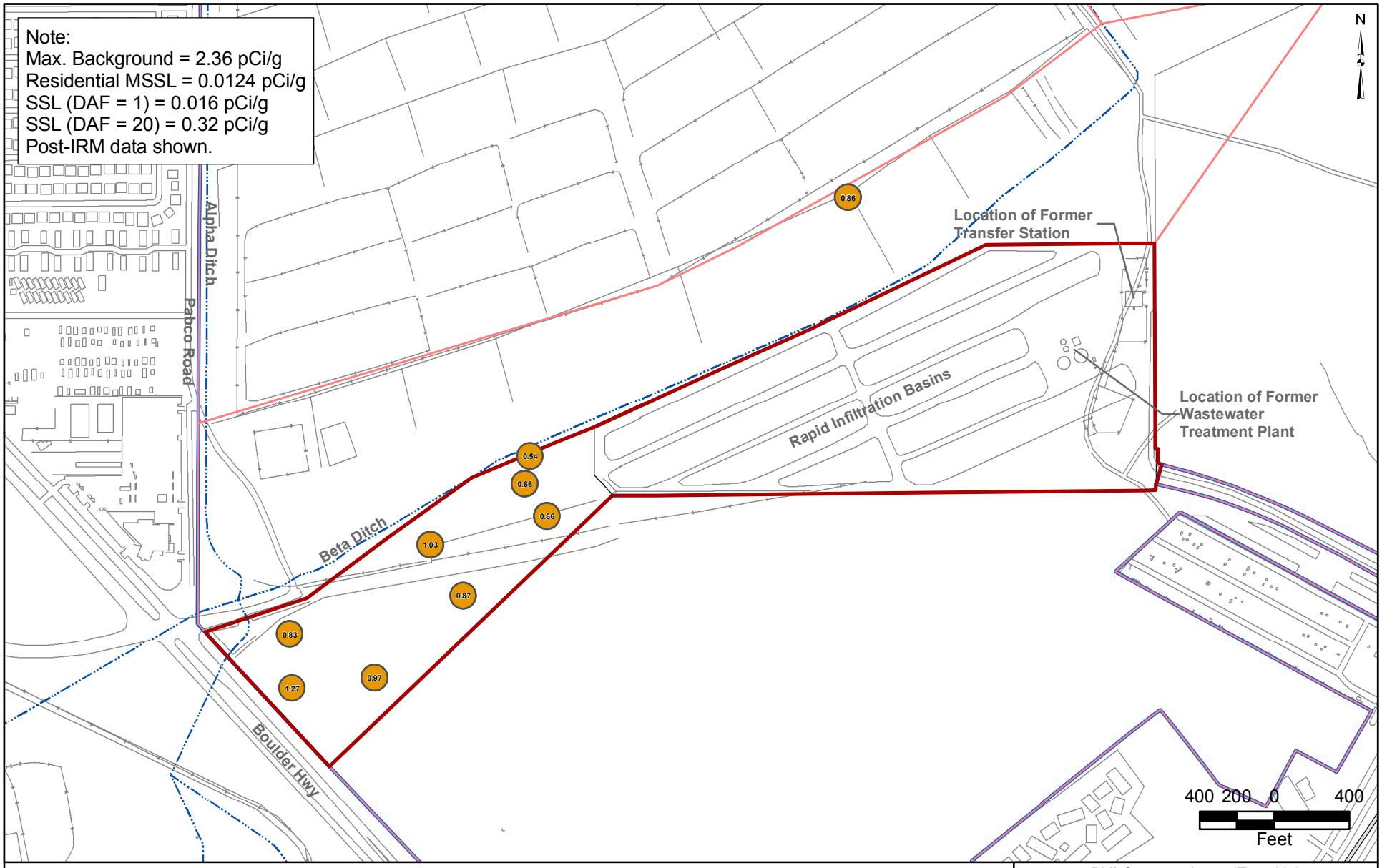
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-11

beta-BHC RESULTS IN SOUTHERN RIBS SUB-AREA AND ADJACENT 1,000 FT 7 to 10 FT BGS

Basic Remediation COMPANY

Prepared by	Date	JOB No. 0064276
MKJ (ERM)	08/18/08	FILE: GIS/BRC/SO-RIBS_SAP/APP-C FIGURES.MXD



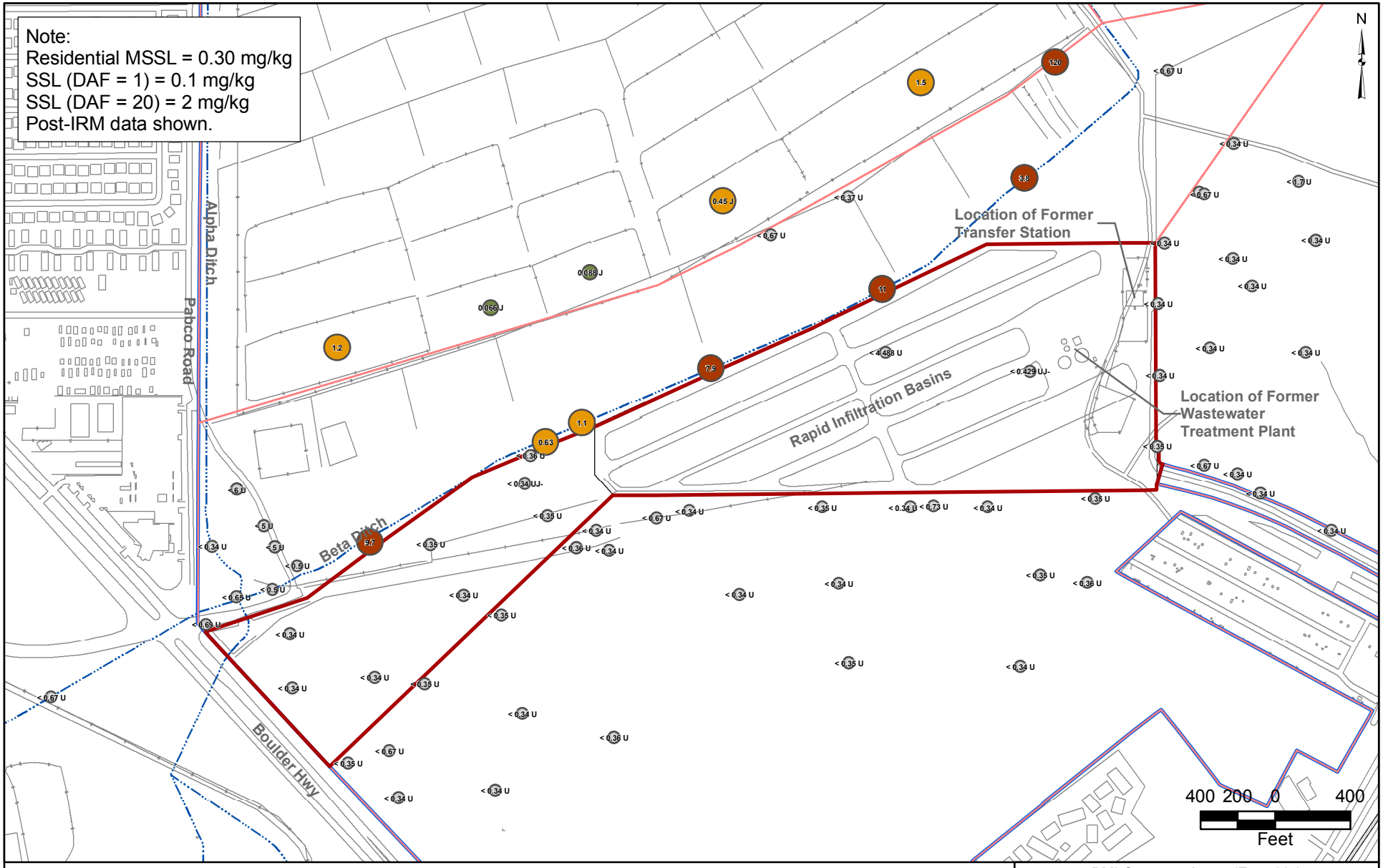
BMI Common Areas (Eastside)
Clark County, Nevada

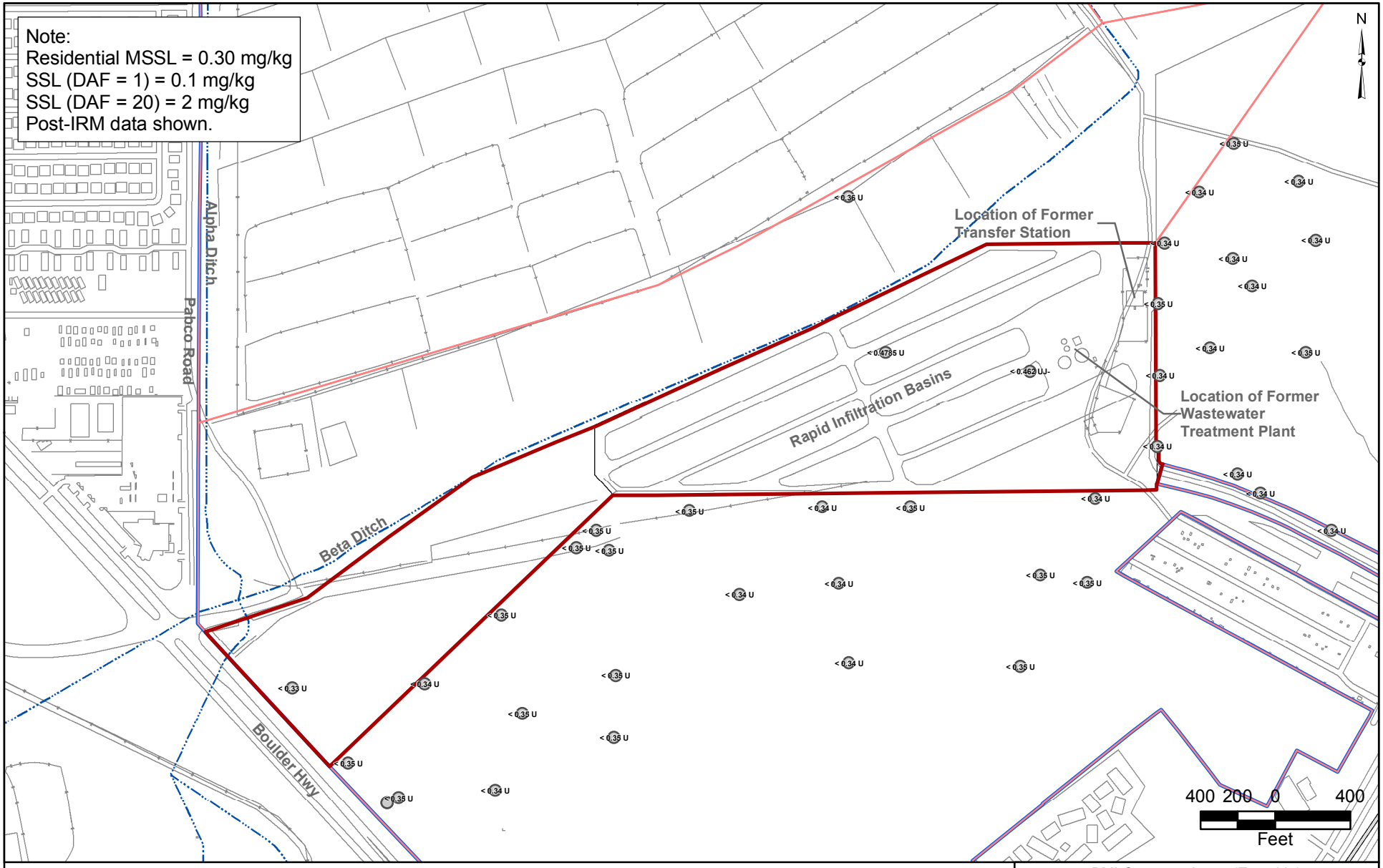
FIGURE C-12

RADIUM-226 RESULTS IN SOUTHERN RIBS SUB-AREA AND ADJACENT 1,000 FT 0 to 1 FT BGS

Basic Remediation Company

Prepared by MKJ (ERM) | Date 08/18/08 | JOB No. 0064276 | FILE: GIS/BRC/SO-RIBS_SAP/APP-C FIGURES.MXD


Note:
Residential MSSL = 0.30 mg/kg
SSL (DAF = 1) = 0.1 mg/kg
SSL (DAF = 20) = 2 mg/kg
Post-IRM data shown.
N
Alpha Ditch
Pabco Road
Beta Ditch
Boulder Hwy
Rapid Infiltration Basins
Location of Former Transfer Station
Location of Former Wastewater Treatment Plant
400 200 0 400
Feet
Southern RIBs Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas
Non-Detect
Detect < 1/2-MSSL
>= 1/2-MSSL and < MSSL
>= MSSL and < 10x MSSL
>= 10x MSSL
BMI Common Areas (Eastside)
Clark County, Nevada
FIGURE C-13
HEXACHLOROBENZENE RESULTS IN SOUTHERN RIBS SUB-AREA AND ADJACENT 1,000 FT - 0 to 1 FT BGS
Basic Remediation COMPANY
Prepared by MKJ (ERM)
ERM
Date 08/18/08
JOB No. 0064276
FILE: GIS/BRC/SO-RIBS_SAP/APP-C FIGURES.MXD



BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-14

HEXACHLOROBENZENE RESULTS IN SOUTHERN RIBS SUB-AREA AND ADJACENT 1,000 FT - 7 to 10 FT BGS

Basic Remediation COMPANY

Prepared by	Date	JOB No. 0064276
MKJ (ERM)	08/18/08	FILE: GIS/BRC/SO-RIBS_SAP/APP-C FIGURES.MXD